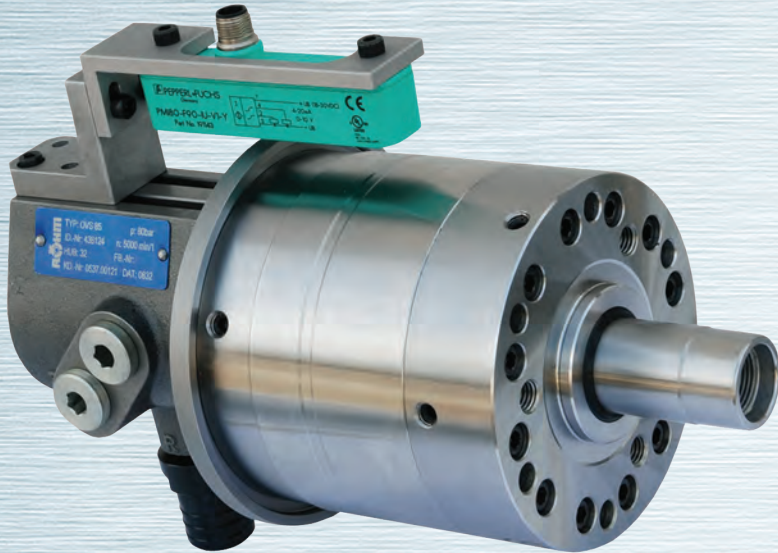
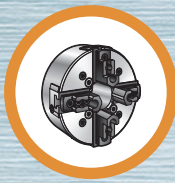
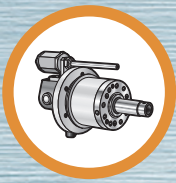




biting.

Power Chucks Cylinders

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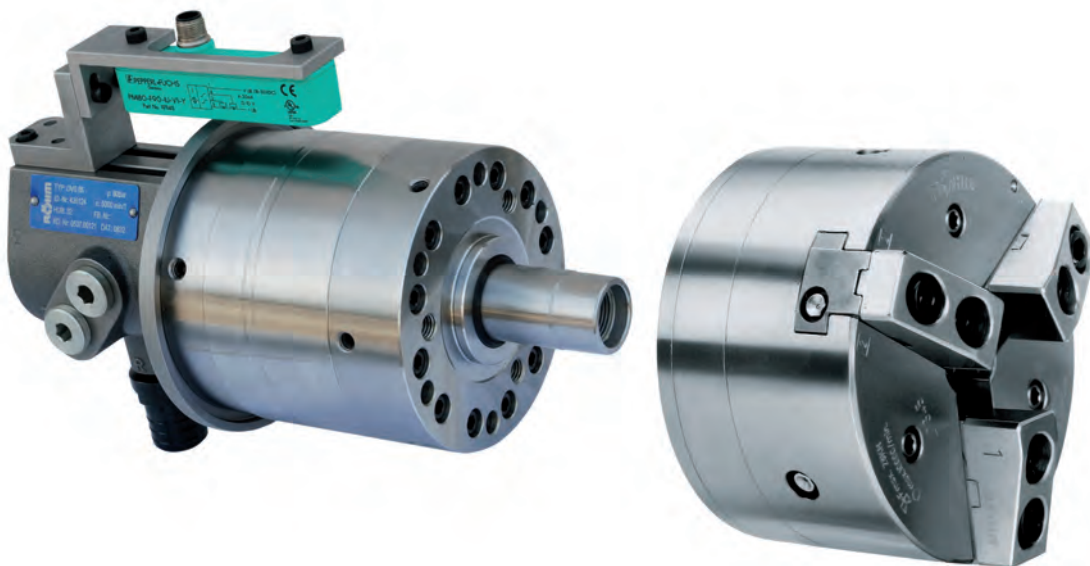


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POWER CHUCKS - CYLINDERS

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Operation guide

	Power chucks without through-hole					
	KFD	KFD Large	KFL	KFD-EC	KFD-F-EC	KFD-G
Power transmission	wedge	wedge	wedge	wedge	wedge	wedge
Feature		module toothing	light-weight chuck	low-maintenance, quick jaw changing	low-maintenance, quick jaw changing, centrifugal force compensation	large jaw stroke
Size	85 - 800	1000 - 1600	250 - 600	200 - 400	200 - 400	125 - 400
Chucking capacities	4 - 890	100 - 1630	40 - 690	16 - 490	16 - 490	
Mount	DIN 6353 similar DIN 6353	Adaptor recess	Adaptor recess	DIN 6353	DIN 6353	Adaptor recess
Number of jaws						
Types of jaws	 				 	
Workpiece	 	 	 	 	 	
Machining						
Rotating / Stationary						
Clamping force						
Speeds						
Page	6015	6026	6033	6036	6042	6049



2-jaw chuck



serration 60°



module toothing



pipe



flange



3-jaw chuck



serration 90°



positive taper lock



bar



asymmetrical workpiece



4-jaw chuck



tongue and groove



collet



disc



length machining

Operation guide

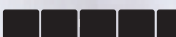
	without through-hole	Diaphragm clamping chucks	Draw-down power chucks		Compensating chucks	Combination chucks
	KFD-HS oil	MSF	KFD-N	KBF-N	KFD-AF	KKHFR
Power transmission	wedge	diaphragm	wedge	wedge	wedge	combination chuck
Feature	hermetically sealed with oil bath lubrication	quick-acting jaw change system HSK, centric clamping	Active pull down for external chucking	Active pull down, hermetically sealed with oil bath lubrication	compensating jaw with interchangeable centering inserts	retractable jaws, piston with additional guidance
Size	210 - 333	210 - 400	220 - 800	170 - 400	160 - 315	160 - 450
Chucking capacities		20 - 345			5- 393	18 - 300
Mount	DIN 6353 ISO 702-1 (DIN 55026) DIN 55021	Adaptor recess, ISO 702-1 (DIN 55026)	ISO 702-1 (DIN 55026) DIN 55021	DIN 6353 ISO 702-1 (DIN 55026) DIN 55021	Adaptor recess, short taper mount, with option for radial fine adjustment	ISO 702-1 (DIN 55026)
Number of jaws						
Types of jaws		HSK			90° 	Retractable jaws
Workpiece						
Machining						
Rotating / Stationary						
Clamping force						
Speeds						
Page	6051	6122	6144	6147	6151	6162

side machining

rotating

stationary

Operation guide

	Power chucks with through-hole		Power chucks with quick-acting jaw change system		
	KFD-HS	KFD-HE	DURO-NC	DURO-NCSE-B	DURO-NCSE
Power transmission	wedge	wedge	wedge	wedge	wedge
Feature			central jaw unlocking	central jaw unlocking, widened jaws	individual
Size	110 - 500	110 - 400	140 - 630	200 - 630	170 - 630
Chucking capacities	6 - 580	5 - 484	5- 780	5- 780	8 - 667
Mount	DIN 6353 ISO 702-1 (DIN 55026) DIN 55021	DIN 6353 ISO 702-1 (DIN 55026) DIN 55021	DIN 6353 ISO 702-1 (DIN 55026) DIN 55021	DIN 6353 ISO 702-1 (DIN 55026) DIN 55021	DIN 6353 ISO 702-1 (DIN 55026) DIN 55021
Number of jaws	  				
Types of jaws	 	 			
Workpiece	   	   	   	   	   
Machining	 	 	 	 	 
Rotating / Stationary					
Clamping force					
Speeds					
Page	6057	6076	6088	6102	6107



2-jaw chuck



serration 60°



module toothing



pipe



flange



3-jaw chuck



serration 90°



positive taper lock



bar



asymmetrical workpiece



4-jaw chuck



tongue and groove



collet



disc



length machining

Operation guide

	Power operated angle lever chucks			Air-operated self-contained chucks	
	KFE	KFM	KFG	LVE	LVE large through-hole
Power transmission	angle lever	angle lever	angle lever	wedge	wedge
Feature	compensating jaws	large through-hole, medium jaw movement	large through-hole, long jaw movement	incorporated actuating cylinder	incorporated actuating cylinder, large through-hole
Size	170 - 350	130 - 350	160 - 350	125 - 315	400 - 1000
Chucking capacities	24 - 473	5 - 462	5 - 472	12 - 400	85 - 1135
Mount	Adaptor recess	Adaptor recess	Adaptor recess	Adaptor recess ISO 702-1 (DIN 55026) ISO 702-2 (DIN 55029) ISO 702-3 (DIN 55027)	Adaptor recess
Number of jaws	 	 	 		
Types of jaws					
Workpiece	 	 	 	 	 
Machining	 	 	 	 	 
Rotating / Stationary					
Clamping force					
Drehzahl					
Page	6156	6164	6169	6198	6206

 side machining

 rotating

 stationary

Operation guide

	Collet chucks					
	KZF	KZF-S	KZZF	KZZT	KZZT-A	KZZT-AF
Power transmission	draw tube	draw tube	draw tube	draw tube	draw tube	draw tube
Feature	quick-acting bayonet catch	quick-acting bayonet catch, pull down, operation of the mandrel	quick-acting bayonet catch, pull down	solid through-hole, with cylindrical centre	solid through-hole, rigid axial stop	solid through-hole, rigid axial stop, fixed clamping jaws Top Grip
Size	40 - 80	80 - 180	40 - 80	32 - 120	32 - 120	32 - 120
Chuck capacities	2 - 80	30 - 180	2 - 80	4 - 120	4 - 120	4 - 120
Mount	Adaptor recess, short taper mount	Adapter plate	Adaptor recess	short taper mount	short taper mount	short taper mount
Types of jaws						
Workpiece						
Machining						
Rotating / Stationary						
Clamping force						
Speeds						
Page	6126	6130	6133	6137	6139	6140



2-jaw chuck



serration 60°



module toothing



pipe



flange



3-jaw chuck



serration 90°



HSK positive taper lock



bar



asymmetrical workpiece



4-jaw chuck



tongue and groove



collet



disc



length machining

Operation guide

	Stationary power chucks				
	SSP	SSH	KZS-P	KZS-PG	
Power transmission	wedge	wedge	wedge	wedge	
Feature	pneumatically, without through-hole	hydraulically, without through-hole	pneumatically, centering vices	pneumatically, centering vices, long jaw movement	
Size	160 - 315	160 - 315	64 - 315	100 - 250	
Chuck capacities	28 - 400	28 - 240			
Mount	Adapter plate	Adapter plate	Clamping sleeve DIN 7346	Clamping sleeve DIN 7346	
Number of jaws	 	 			
Types of jaws			 	 	
Workpiece	  	  	  	  	
Machining	 	 	 	 	
Rotating / Stationary					
Clamping force					
Specialty	Serration 60°, tongue and groove and/ or through-hole on request	Serration 60°, tongue and groove and/ or through-hole on request			
Page	6186	6187	6193	6196	

 side machining

 rotating

 stationary

Clamping combinations

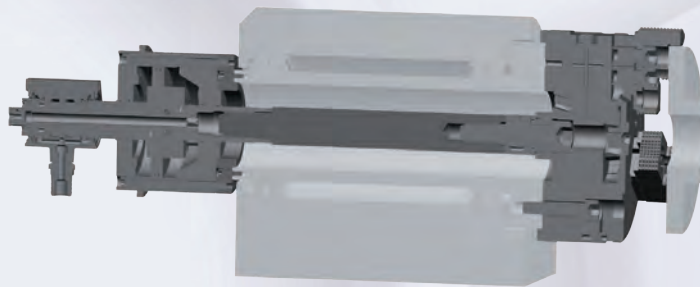
Power chucking package without through-hole (closed center chucking)

Clamping cylinder **without** through-hole

Power chuck **without** through-hole

OVS
OVUSHH
LVS

Applicable for parts similar to flanges



KFD
KFL
KFD-EC
KFD-F-EC
KFD-HS oil
KFD-G
KFD-N
KBF-N
KFD-AF
KKHFR *
* nur mit OVUSHH

Power chucking package with through-hole (hollow-center chucking)

Clamping cylinder **with** through-hole

Power chuck **with** through-hole

SZS
LHS-L

Applicable for shafts and bar work



KFD-HS
KFD-HE
DURO-NC
DURO-NCSE /-B
KZF
KZZT/KZZT-A/
KZZT-AF
KFE, KFM, KFG
ZFM
LVE

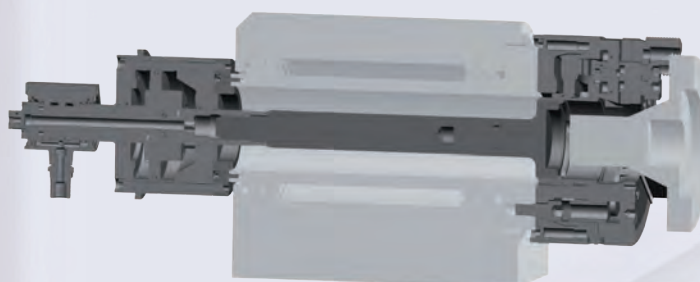
Power chucking package with partial through-hole (partial hollow-center chucking)

Clamping cylinder **without** through-hole

Power chuck **with** through-hole

OVS
LVS

Applicable for parts with flange-Type shoulders



KFD-HS
KFD-HE
DURO-NC
DURO-NCSE /-B
KZF
KZZT/KZZT-A/
KZZT-AF
KFE, KFM, KFG
ZFM

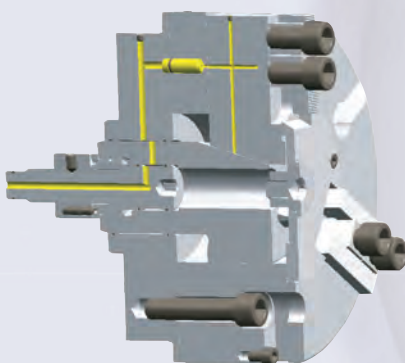
Flexibility of media supply

For power chucks with or without through hole

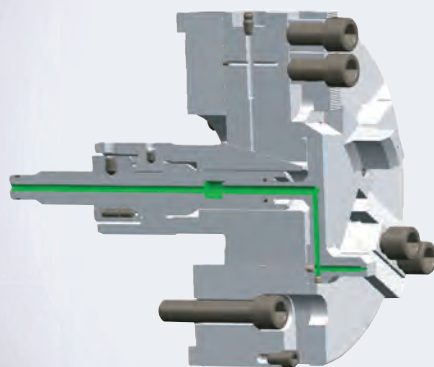
Available on request:

- with air passage for air sensing, air blocking or blast air
- central lubrication
- with guided and sealed piston neck
- with drainage groove or drainage bore as well as covers resp. inserts for the center bore

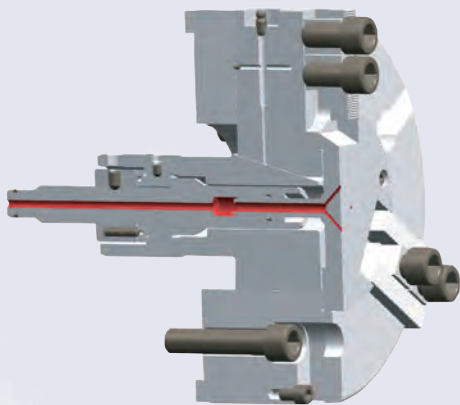
Examples of modified power chucks with connections for:



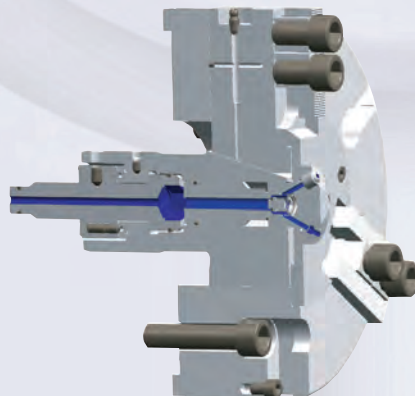
Central lubrication via distributor flange
with dosage valves



Air sensing



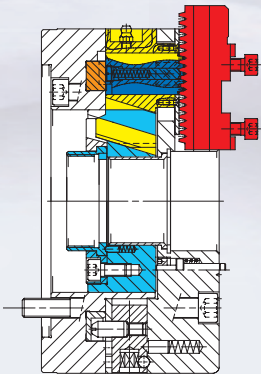
Blast air



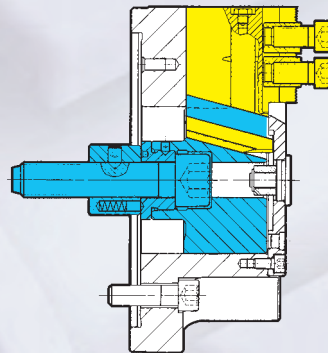
Coolant

Double connections, i. e. for central lubrication and air sensing are possible.

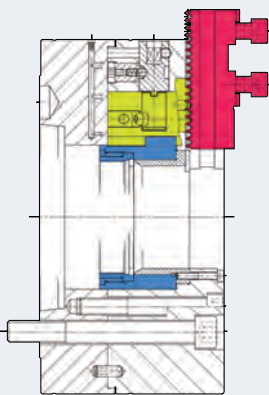
Overview clamping systems



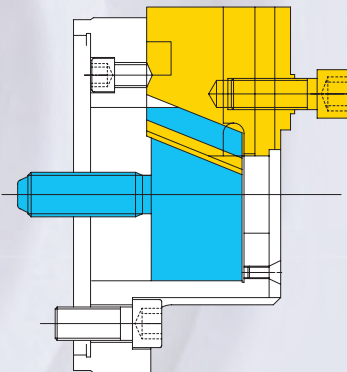
DURO-NC
Jaw quick change system
with central jaw unlocking



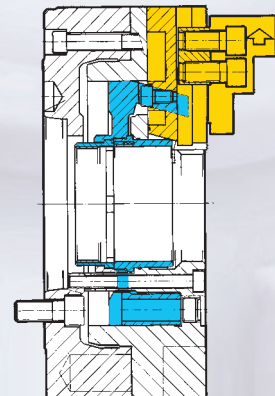
KFD
Wedge system
without through-hole



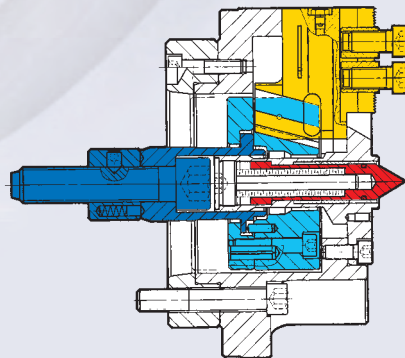
DURO-NCSE
Quick-acting jaw change
system with individual
jaw unlocking.



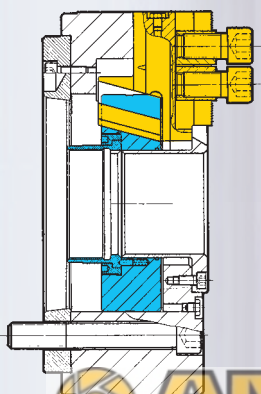
KFD-G
Wedge system
with large total jaw
movement,
without through-hole



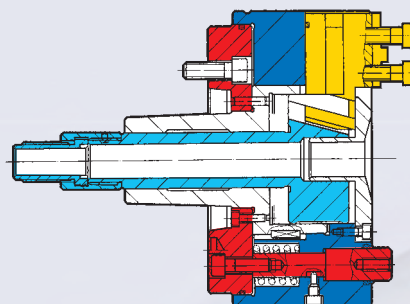
KFD-HS
Wedge system
with large through-hole,
for very high speeds,
with minimal loss of
gripping force



KFD-AF
Wedge system
base jaw compensating,
with interchangeable
centering inserts,
without through-hole

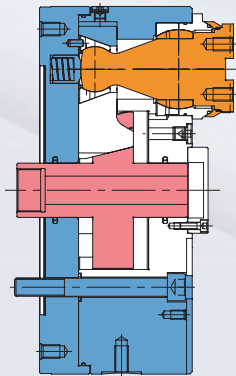


KFD-HE
Wedge system
with large through-hole



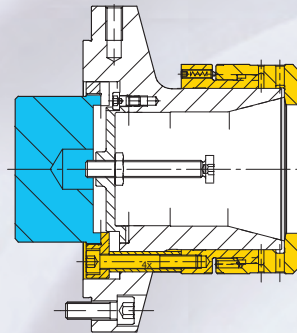
KFD-N
Wedge system
with draw-down effect,
with through-hole

Overview clamping systems



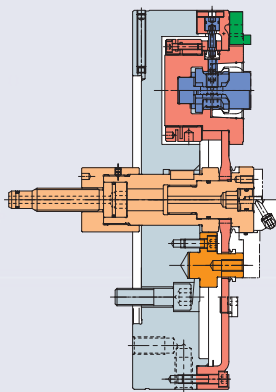
KBF-N

Power operated Ball Lock Drawdown Chuck with active drawdown action, hermetically sealed, oilfilled



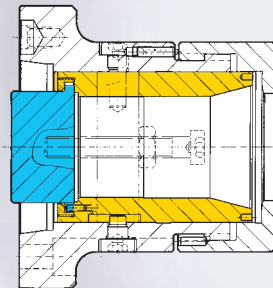
KZZF

Power-operated collet chuck (pull) with through-hole, with rapid action bayonet catch, for steel collets to DIN 6343



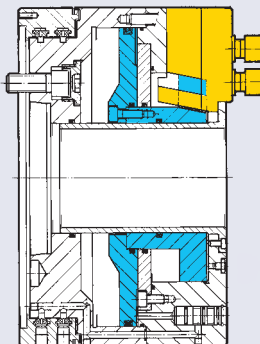
Diaphragm clamping chucks

Centric clamping, ideally suited for grinding and hard turning with high precision, with HSK mounting for swift and simple chuck



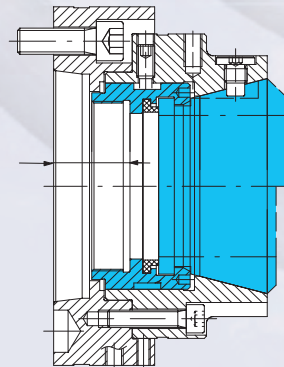
KZF

Power-operated collet chuck (push) with through-hole, with rapid action bayonet catch, for steel collets to DIN 6343



LVE

Wedge system actuating cylinder is incorporated in the chuck body, with through-hole



KZZT

Pulling collets with full through hole

KZZT-A

Pulling collets with full through hole and a rigid axial stop

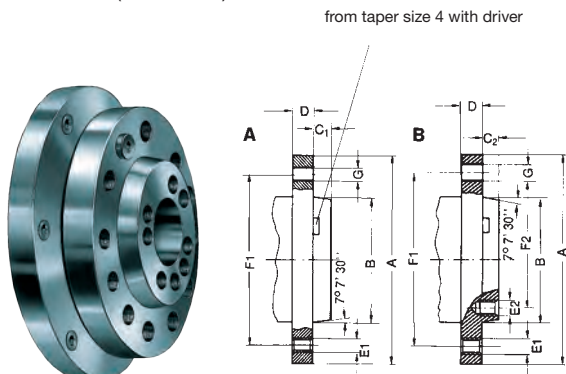
KZZT-AF

Power-operated collet chucks with fixed clamping jaws

Technical information

Machine spindle heads are not part of the RÖHM-product range. For technical information only!

ISO 702-1 (DIN 55026)



Spindle nose size	A	B	C ₁	C ₂	D	Holes on outer bolt circle (F1) E1	F1 (outer bolt circle)	Holes on inner bolt circle (F2) E2	F2 (inner bolt circle)
3	92	53,983	11	-	16	3 x M 10	70,6	-	-
4	108	63,521	11	-	20	11 x M 10	82,6	-	-
5	133	82,573	13	14,288	22	11 x M 10	104,8	8 x M 10	61,9
6	165	106,385	14	15,875	25	11 x M 12	133,4	8 x M 12	82,6
8	210	139,731	16	17,462	28	11 x M 16	171,4	8 x M 16	111,1
11	280	196,883	18	19,05	35	11 x M 20	235	8 x M 20	165,1
15	380	285,791	19	20,638	42	12 x M 24	330,2	11 x M 24	247,6
20	520	412,795	21	22,225	48	12 x M 24	463,6	11 x M 24	368,3

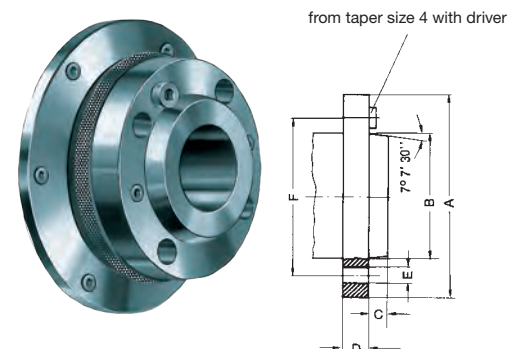
ISO 702-1 A2:

Tapped holes in flange (outer bolt circle) **without** inner bolt circle

ISO 702-1 A1:

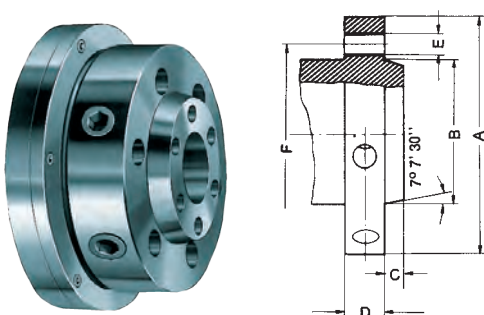
Tapped holes in flange (outer bolt circle) **and** inner bolt circle

ISO 702-3 (DIN 55027), DIN 55022 with bayonet ring fixing



Spindle nose size	A	B	C	D	Number of holes x E	F
3	102	53,985	11	16	3 x 21	75
4	112	63,525	11	20	3 x 21	85
5	135	82,575	13	22	4 x 21	104,8
6	170	106,390	14	25	4 x 23	133,4
8	220	139,735	16	28	4 x 29	171,4
11	290	196,885	18	35	6 x 36	235
15	400	285,800	19	42	6 x 43	330,2
20	540	412,800	21	48	6 x 43	463,6

ISO 702-2 (DIN 55029), ASA B 5.9 D1 Camlock fixing



Spindle nose size	A	B	C	D	E	F
3	92,1	53,985	11,1	31,8	3 x 15,1	70,66
4	117,5	63,525	11,1	33,3	3 x 16,7	82,55
5	146	82,575	12,7	38,1	6 x 19,8	104,8
6	181	106,390	14,3	44,5	6 x 23	133,4
8	225,4	139,735	15,9	50,8	6 x 26,2	171,4
11	298,5	196,885	17,5	60,3	6 x 31	235
15	403	285,800	19	69,9	6 x 35,7	330,2
20	546	412,800	21	82,5	6 x 42,1	463,6

Technical information

Machine spindle heads are not part of the RÖHM-product range. For technical information only!

Type A1-A2, Type B1-B2

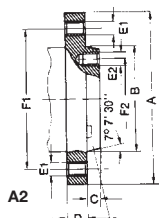


A1

Spindle nose size	A	B	C -0,025	D	Holes on outer bolt circle (F1) E1	F1 (outer bolt circle)	Holes on inner bolt circle (F2) E2	F2 (inner bolt circle)
5	133,4	82,575	14,288	22,2	11 x $\frac{7}{16}$ -14 UNC	104,8	8 x $\frac{7}{16}$ -14 UNC	61,9
6	165,1	106,390	15,875	25,4	11 x $\frac{1}{2}$ -13 UNC	133,4	8 x $\frac{1}{2}$ -13 UNC	82,6
8	209,5	139,735	17,462	28,6	11 x $\frac{5}{8}$ -11 UNC	171,4	8 x $\frac{5}{8}$ -11 UNC	111,1
11	279,4	196,885	19,5	34,9	11 x $\frac{3}{4}$ -10 UNC	235	8 x $\frac{3}{4}$ -10 UNC	165,1
15	381	285,800	20,638	41,3	12 x $\frac{7}{8}$ -9 UNC	330,2	11 x $\frac{7}{8}$ -9 UNC	247,6
20	520	412,800	22,225	47,6	12 x 1-8 UNC	463,6	11 x 1-8 UNC	368,3

A1 Tapped holes in flange (outer bolt circle) and inner bolt circle

A1



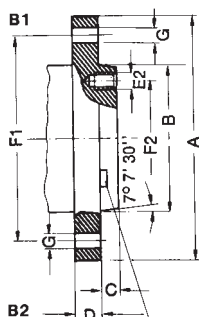
A2

Spindle nose size	A	B	C	D	Holes on outer bolt circle (F1) E1	F1 (outer bolt circle)
3	92,1	53,985	11,1	15,9	3 x $\frac{7}{16}$ -14 UNC	70,66
4	108	63,525	11,1	19	11 x $\frac{7}{16}$ -14 UNC	82,55
5	133,4	82,575	12,7	22,2	11 x $\frac{7}{16}$ -14 UNC	104,8
6	165,1	106,390	14,3	25,4	11 x $\frac{1}{2}$ -13 UNC	133,4
8	209,5	139,735	15,9	28,6	11 x $\frac{5}{8}$ -11 UNC	171,4
11	279,4	196,885	17,5	34,9	11 x $\frac{3}{4}$ -10 UNC	235
15	381	285,800	19	41,3	12 x $\frac{7}{8}$ -9 UNC	330,2
20	520	412,800	20,6	47,6	12 x 1-8 UNC	463,6

A2 Tapped holes in flange (outer bolt circle) without inner bolt circle

Type A1-A2 correspond to ISO 702-1

B1 Through-holes in flange (outer bolt circle), tapped holes in inner bolt circle



B1

Spindle nose size	A	B	C -0,025	D	Holes on outer bolt circle (F1) G	F1 (outer bolt circle)	Holes on inner bolt circle (F2) E2	F2 (inner bolt circle)
5	133,4	82,575	14,288	22,2	11 x 11,9	104,8	8 x $\frac{7}{16}$ -14 UNC	61,9
6	165,1	106,390	15,875	25,4	11 x 13,5	133,4	8 x $\frac{1}{2}$ -13 UNC	82,6
8	209,5	139,735	17,462	28,6	11 x 16,7	171,4	8 x $\frac{5}{8}$ -11 UNC	111,1
11	279,4	196,885	19,05	34,9	11 x 20,2	235	8 x $\frac{3}{4}$ -10 UNC	165,1
15	381	285,800	20,638	41,3	12 x 23,4	330,2	11 x $\frac{7}{8}$ -9 UNC	247,6
20	520	412,800	22,225	47,6	12 x 26,6	463,6	11 x 1-8 UNC	368,3

B2 Through-holes in flange (outer bolt circle), without inner bolt circle

B2

Spindle nose size	A	B	C	D	Holes on outer bolt circle (F1) G	F1 (outer bolt circle)
3	92,1	53,985	11,1	15,9	3 x 11,9	70,66
4	108	63,525	11,1	19	11 x 11,9	82,55
5	133,4	82,575	12,7	22,2	11 x 11,9	104,8
6	165,1	106,390	14,3	25,4	11 x 13,5	133,4
8	209,5	139,735	15,9	28,6	11 x 16,7	171,4
11	279,4	196,885	17,5	34,9	11 x 20,2	235
15	381	285,800	19	41,3	11 x 23,4	330,2
20	520	412,800	20,6	47,6	11 x 26,6	463,6

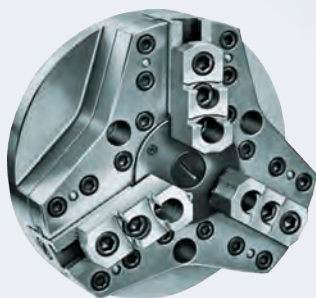
Overview



► KFD

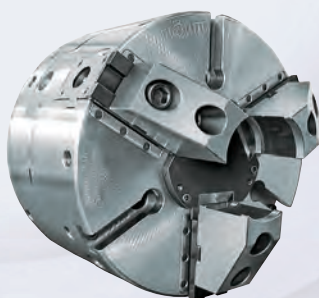
high load carrying capacity, long life, high workholding, proved for many decades, operating power is transmitted by means of a sturdily dimensioned wedge system

Available: Two-, three- and four-jaw chucks.
Alternative: with guided piston, weight reduced and with module toothing



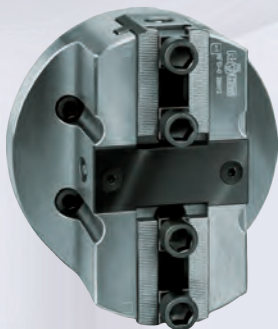
► KFL

light-weight chuck, body made of aluminium



► Low-maintenance power chucks KFD-EC / KFD-F-EC

with and without force compensation,
Improved dirt protection by integrated jaw guiding seals



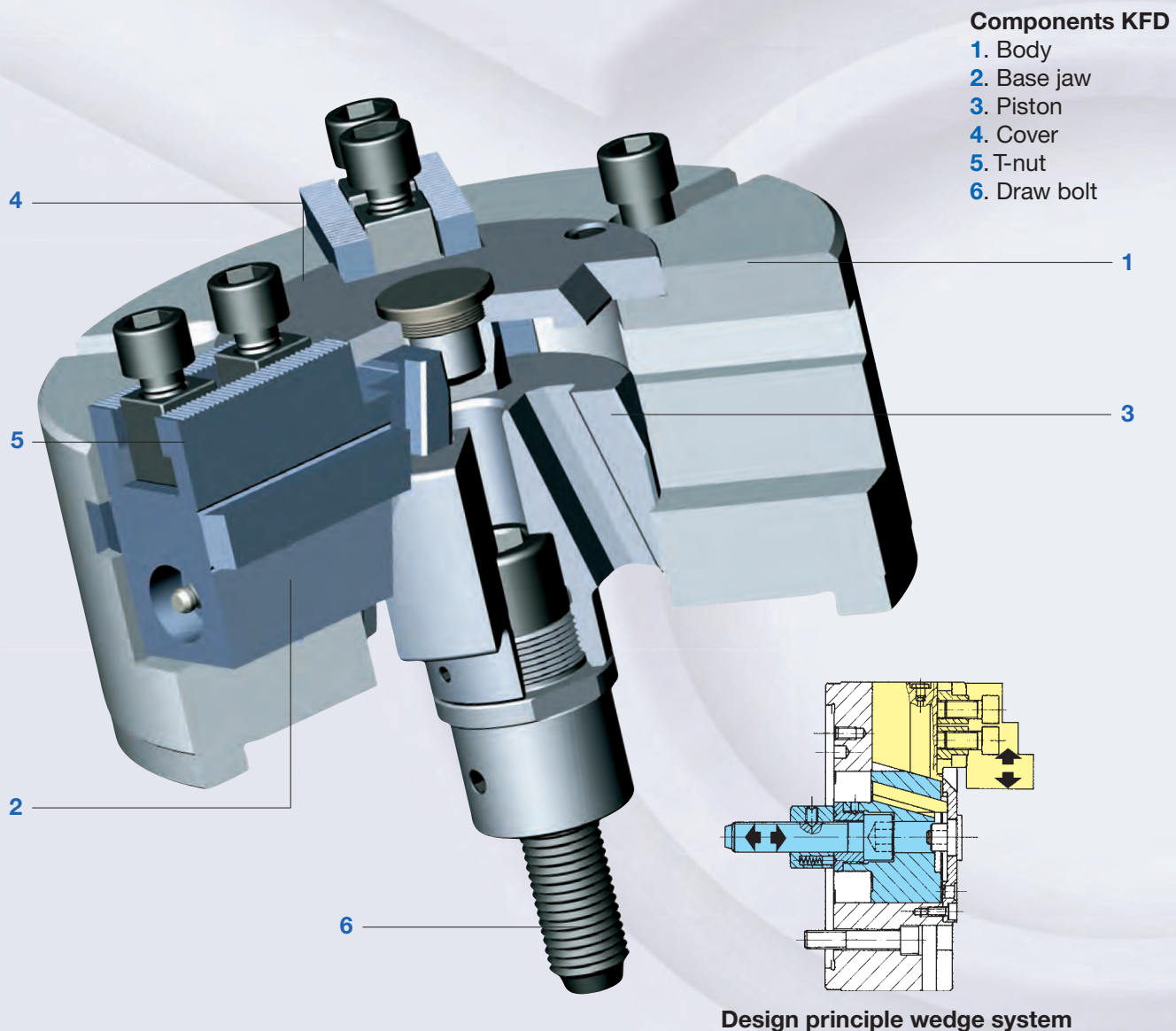
► KFD-G

with large jaw movement, two-jaw-design,
Without disclaiming high clamping forces it is possible to clamp workpieces with collars or shoulders



► KFD-HS oil

for very high speeds, hermetically sealed,
with oil bath lubrication, minimal loss of gripping force,
no separate elements required for centrifugal force compensation



Our standard KFD power chucks have proved their merits in gruelling day-to-day service for many decades now. High load carrying capacity, long life and high workholding accuracy are characteristic features of this Type of chuck. The operating power is transmitted by means of a sturdily dimensioned wedge system.

Available in a number of different versions:

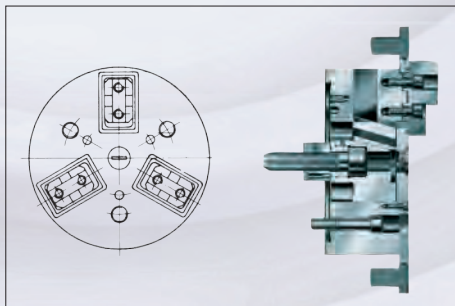
- Weight-reduced body or solid body with mounting slots
- Base jaws serrated or tongue and groove Typee
- Standard piston or piston with additional guidance
- 2-, 3- or 4-jaw chucks
- Shallow design

Technical features:

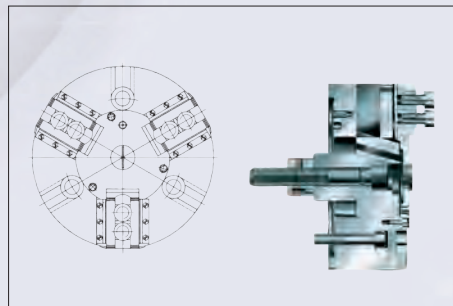
- Straight recess mounting, dimensions to DIN 6353 or specially adapted to specific spindles
- Sizes up to 315 in all-steel construction. Larger sized 3-jaw chucks are of nodular iron and weight-reduced
- All moving parts hardened and ground
- Size 200 and larger with roller for limiting the jaw movement
- Direct lubrication of base jaws
- Base jaws secured against throw-off
- Used in conjunction with Röhm OVS, LVS or LTS actuating cylinders, these power chucks meet the requirements of the German Employers' Insurance Association
- Piston travel limited by a stop in the cylinder in the forward direction, by a stop on the spindle or spindle flange in the rearward direction
- Unbalance of all Types within the limits permitted by DIN 6386

On request:

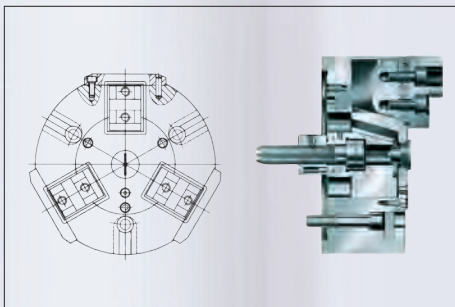
KFD in Special design (with additional sealing)



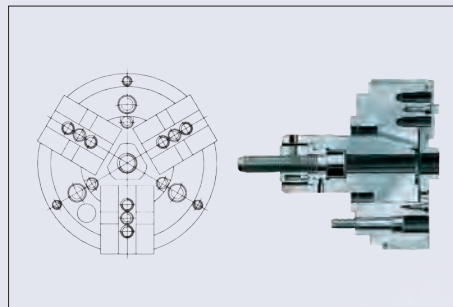
Type 538-40
For stationary mounting, hermetically sealed. Used on transfer lines and rotary indexing table machines.



Type 538-42
Efficient sealing by means of wipers. Used on lathes.

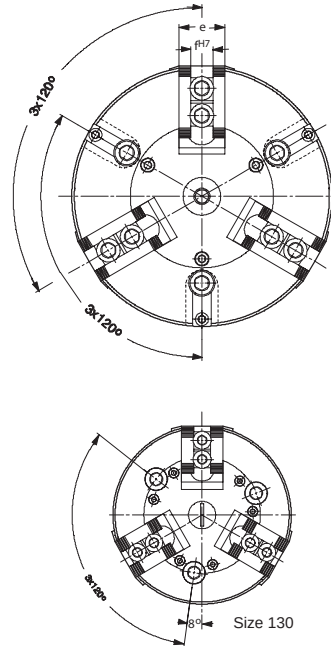
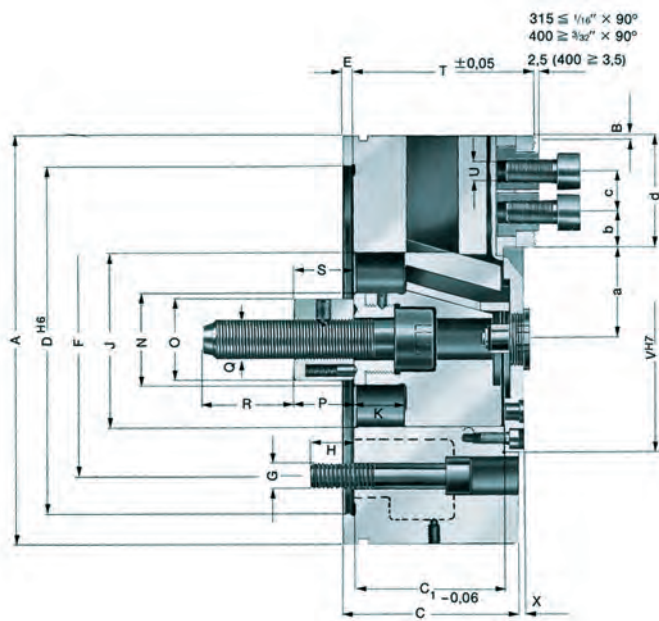


Type 538-41
For stationary or rotary mounting, hermetically sealed. Used on transfer lines and rotary indexing table machines, requiring very little space.

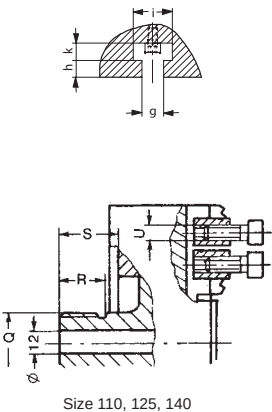


Type 538-43
Hermetically sealed, for applications involving particularly high chip and coolant flows, such as automatics and production machines, rotating or stationary.

KFD 3 jaw, standard design, serration 90°



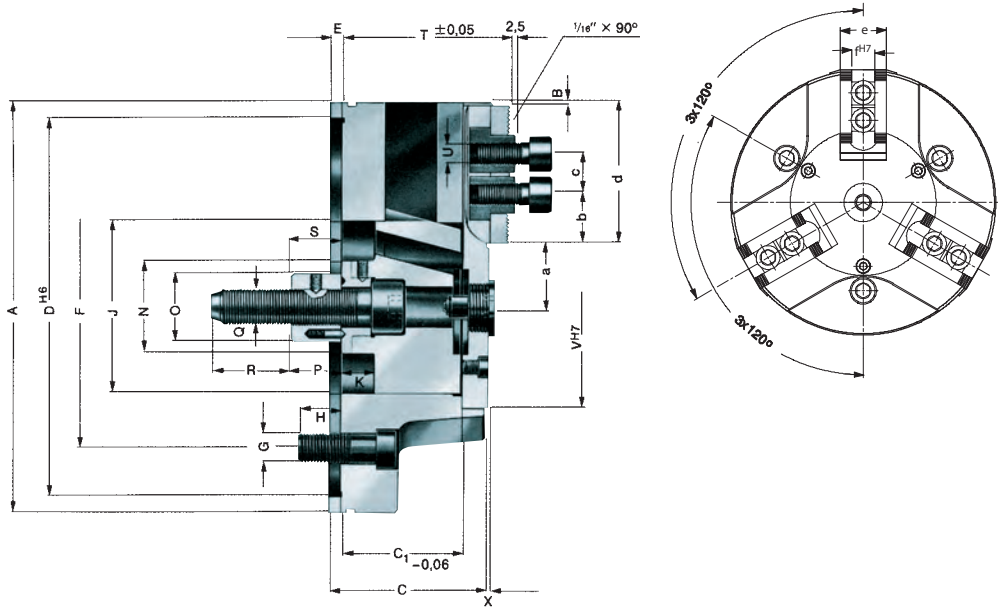
Tool group C15
 Type 538-05 /
 -55 (shallow design)
3 jaw power chuck,
standard design,
serration 90°
 Adaptor recess,
 mounting dimensions
 to **DIN 6353**



Item no.	004250	128405 ¹⁾	041240	128406 ¹⁾	023520	040630	144598	144599 ¹⁾	040653	040660	040669	040676	061163
Size	110	125	130	140	160	200	250	315	315	400	500	630	800
A	110	125	130	140	160	200	250	315	315	400	500	630	800
Jaw travel B	2,1	3,7	5,3	3,7	5,3	6,7	6,7	6,7	8	9,3	9,3	10,5	10,5
C	31,5	40	69	40	79	87	102	102	117	127	127	140	160
C1-0,06	28,55	37,05	58,05	37,05	66,05	74,05	89,05	89,05	104,05	111,05	111,05	125,05	142,05
Mount D ^{H6}	92	105	115	105	140	170	220	220	300	300	380	380	460
E	3	3	6	3	6	6	6	6	6	6	6	8	8
F	80	80	85	80	104,8	133,4	171,4	171,4	235	235	330,2	330,2	380
G	3 x M 8	3 x M 8	3 x M 10	3 x M 8	3 x M 10	3 x M 12	3 x M 16	3 x M 16	3 x M 20	3 x M 20	6 x M 24	6 x M 24	6 x M 24
H	12	14	15	12	17	20	26	26	30	35	35	35	35
J	45	50	58	50	65	85	105	105	120	155	155	180	180
Wedge stroke K	8	14	20	14	20	25	25	25	30	35	35	40	40
N	-	-	35	-	35	45	55	55	60	60	60	80	80
O	-	-	34	-	34	40	46	46	46	55	55	55	55
P	-	-	25	-	25	30	30	30	30	30	30	30	30
Q	M20x1,5	M20x1,5	M 16	M20x1,5	M 16	M 20	M 24	M 24	M 24	M 24	M 30	M 30	M 30
R	20	20	40	20	40	45	55	55	55	55	55	63	85
S min.	25	25	36	25	25	30	30	30	30	30	30	28	30
S max.	33	39	56	39	45	55	55	55	60	65	65	68	70
T ^{+0,05}	34	44	73	44	80	90	105	105	120	130	130	148	161
U	M 6 x 18	M 6 x 18	M 8 x 20	M 6 x 18	M 12 x 25	M 12 x 25	M 16 x 30	M 16 x 30	M 16 x 30	M 20 x 40	M 20 x 40	M 20 x 40	M 20 x 40
V ^{H7}	-	-	85	-	85	110	130	130	160	190	190	220	220
X	4	6	5	6	3	3	3	3	3	3	3	6	3
a min.	23,9	24,3	25	24,3	26,7	38,3	48,3	48,3	54	72,7	72,7	85,2	84,5
a max.	26	28	30,3	28	32	45	55	55	62	82	82	95,7	95
b min.	8,2	7	6	7	9	8	10	10	10	14	14	18	18
c min.	10	10	14	10	19	19	25	25	25	31	31	31	31
c max.	14,8	25	26	25	36,5	44,5	58,5	89,5	81,5	98	148	197	282
d	28	34,5	34,5	42	48	55	70	102,5	95	118	164	219,3	305
e	25	25	30	25	35	35	50	50	55	60	60	70	70
f ^{H7}	10	10	12	10	17	17	21	21	21	25,5	25,5	25,5	25,5
g	-	-	-	-	14	14	18	18	18	22	22	22	22
h	-	-	-	-	11	11	13	13	13	22	22	22	22
i	-	-	-	-	25	25	32	32	32	40	40	40	40
k	-	-	-	-	11	11	14	14	14	18	18	18	18
Max. swing top jaws mm	172	192	184	207	215	290	345	410	410	560	660	790	960
Maximum draw bar pull kN	7	9	18	9	35	45	65	75	80	95	110	130	130
Clamping force/jaw kN	12	15	35	15	70	90	140	180	190	250	300	360	360
Max. admissible speed min ⁻¹	4000	5000	5000	4500	4500	4000	3200	2800	2800	2000	1600	1200	800
Moment of inertia J kgm ²	0,003	0,007	0,014	0,011	0,035	0,095	0,28	0,72	0,87	1,96	4,31	13,4	31,2
Weight without jaws approx. kg	2,1	3,6	6,8	4,6	10,9	19	35,5	58,5	70	98	138	270	390

¹⁾ Shallow design

KFD 3 jaw, weight reduced, serration 90°

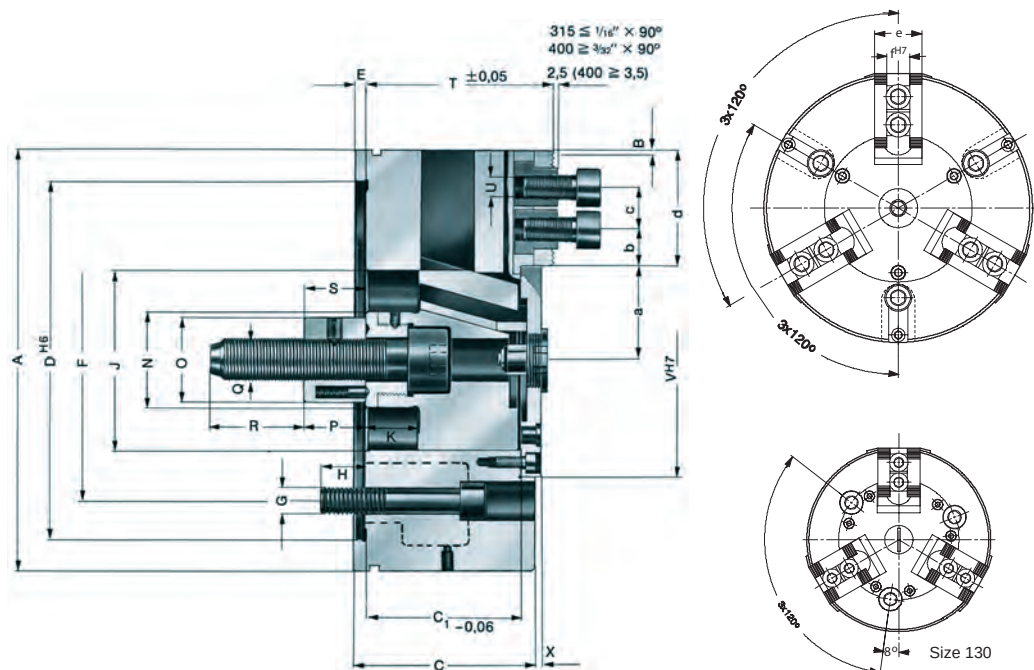


Tool group C15
Type 538-03
3 jaw power chuck,
weight reduced,
serration 90°
Adaptor recess,
mounting dimensions
to **DIN 6353**

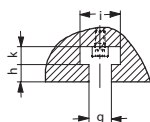
Item no.	046730	046731 ¹⁾	046744	046745 ¹⁾	144594	144595 ¹⁾	144596	144597 ¹⁾
Size	160	160	200	200	250	250	315	315
A	160	160	200	200	250	250	315	315
Jaw travel B	5,3	5,3	6,7	6,7	6,7	6,7	6,7	6,7
C	79	79	87	87	102	102	102	102
C1-0,06	66,05	66,05	74,05	74,05	89,05	89,05	89,05	89,05
Mount D ^{H6}	140	150	170	185	220	220	220	220
E	6	6	6	6	6	6	6	6
F	104,8	100	133,4	133,4	171,4	171,4	171,4	171,4
G	3 x M 10	3 x M 12	3 x M 12	3 x M 12	3 x M 16	3 x M 16	3 x M 16	3 x M 16
H	17	20	20	20	26	26	26	26
J	65	65	85	85	105	105	105	105
Wedge stroke K	20	20	25	25	25	25	25	25
N	35	35	45	45	55	55	55	55
O	34	34	40	40	46	46	46	46
P	25	25	30	30	30	30	30	30
Q	M16	M 16	M20	M 22	M24	M 22	M24	M 22
R	40	40	45	50	55	50	55	50
S min.	25	25	30	30	30	30	30	30
S max.	45	45	55	55	55	55	55	55
T ^{±0,05}	80	80	90	90	105	105	105	105
U	M 12 x 25	M 12 x 25	M 12 x 25	M 12 x 25	M 16 x 30	M 16 x 30	M 16 x 30	M 16 x 30
V ^{H7}	85	85	110	110	130	130	130	130
X	3	3	3	3	3	3	3	3
a min.	26,7	26,7	38,3	38,3	48,3	48,3	48,3	48,3
a max.	32	32	45	45	55	55	55	55
b min.	9	9	8	8	10	10	10	10
c min.	19	19	19	19	25	25	25	25
c max.	36,5	36,5	44,5	44,5	58,5	58,5	89,5	89,5
d	48	48	55	55	70	70	102,5	102,5
e	35	35	35	35	50	50	50	50
f ^{H7}	17	17	17	17	21	21	21	21
Max. swing top jaws mm	215	215	290	290	345	345	410	410
Maximum draw bar pull kN	35	35	45	45	65	65	75	75
Clamping force/jaw kN	70	70	90	90	140	140	180	180
Max. admissible speed min ⁻¹	4500	4500	4000	4000	3200	3200	2800	2800
Moment of inertia J kgm ²	0,027	0,027	0,076	0,076	0,226	0,226	0,496	0,496
Weight without jaws approx. kg	8,5	8,5	15,2	15,2	29	29	40	40

¹⁾ Mounting dimensions different to DIN 6353

KFD 3 jaw, serration 90°



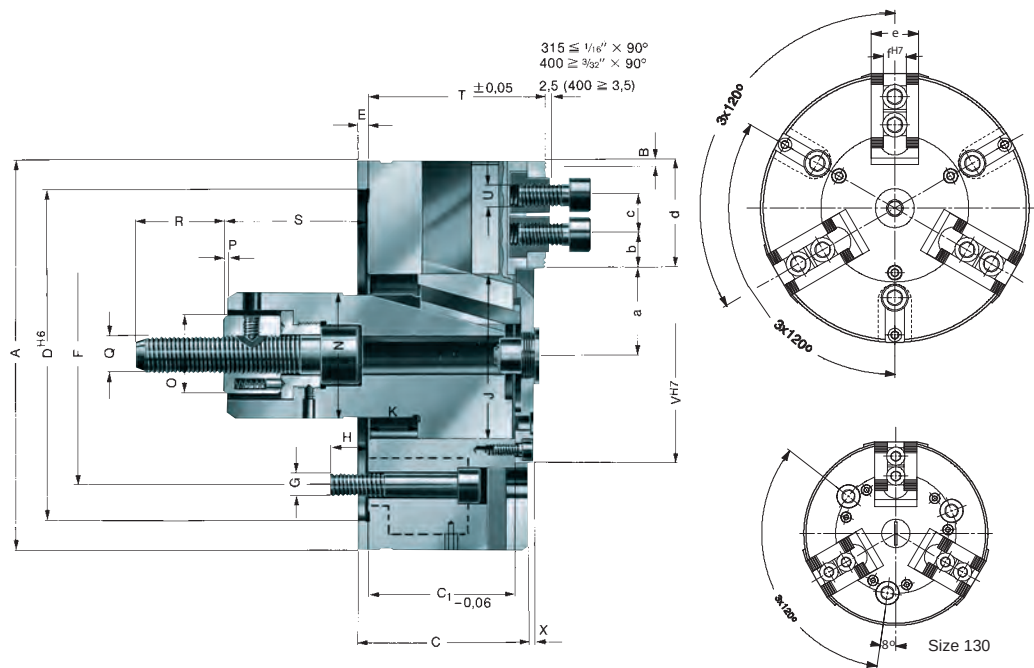
Tool group C15
Type 538-01 /
-11 (shallow design)
3 jaw power chuck,
serration 90°
adaptor recess,
mounting dimensions
different to DIN 6353



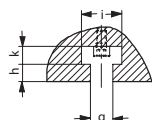
Item no.	046720	046728	046742	144600	128407 ¹⁾	144601 ¹⁾	045558	045572	045580	045588
Size	130	160	200	250	250	315	315	400	500	630
A	130	160	200	250	250	315	315	400	500	630
Jaw travel B	5,3	5,3	6,7	6,7	6,7	6,7	8	9,3	8	10,5
C	69	79	87	102	87	102	117	127	127	140
C1-0,06	58,05	66,05	74,05	89,05	74,05	89,05	104,05	111,05	111,05	125,05
Mount D ¹⁶	115	150	185	220	185	220	220	300	460	460
E	6	6	6	6	6	6	6	6	6	8
F	92	100	133,4	171,4	140	171,4	171,4	235	300	300
G	3xM12	3xM12	3xM12	3xM16	3xM16	3xM16	3xM16	3xM20	6xM24	6xM24
H	20	20	20	26	26	26	27	35	35	35
J	58	65	85	105	85	105	120	155	155	180
Wedge stroke K	20	20	25	25	25	25	30	35	30	40
N	35	35	45	55	45	55	60	60	60	80
O	34	34	40	46	40	46	46	55	55	55
P	25	25	30	30	30	30	30	30	30	30
Q	M 16	M 16	M 22	M 22	M 20	M 22	M 22	M 22	M 24	M 30
R	40	40	50	50	45	50	50	50	54	63
S min.	36	25	30	30	30	30	30	30	18	28
S max.	56	45	55	55	55	55	60	65	48	68
T ^{+0,05}	73	80	90	105	90	105	120	130	130	148
U	M8x20	M12x25	M12x25	M16x30	M12x25	M16x30	M16x30	M20x40	M20x40	M20x40
V ¹⁷	85	85	110	130	110	130	160	190	190	220
X	5	3	3	3	3	3	3	3	3	6
a min.	25	26,7	38,3	48,3	38,3	48,3	54	72,7	78	85,2
a max.	30,3	32	45	55	45	55	62	82	86	95,7
b min.	6	9	8	10	8	10	10	14	16	18
c min.	14	19	19	25	19	25	25	31	31	31
c max.	26	36,5	44,5	58,5	44,5	89,5	81,5	98	144	197
d	34,5	48	55	70	80	102,5	95	118	164	219,3
e	30	35	35	50	35	50	55	60	60	70
f ¹⁷	12	17	17	21	17	21	21	25,5	25,5	25,5
g	-	14	14	18	14	18	18	22	22	22
h	-	11	11	13	11	13	13	22	22	22
i	-	25	25	32	25	32	32	40	40	40
k	-	11	11	14	11	14	14	18	18	18
Max. swing top jaws mm	184	215	290	345	345	470	410	560	660	790
Maximum draw bar pull kN	18	35	45	65	45	75	80	95	110	130
Clamping force/jaw kN	35	70	90	140	90	180	190	250	300	360
Max. admissible speed min ⁻¹	5000	4500	4000	3200	3200	2800	2800	2000	1600	1200
Moment of inertia J kgm ²	0,014	0,035	0,095	0,28	0,238	0,72	0,87	1,96	4,31	13,4
Weight without jaws approx. kg	6,8	10,9	19	35	30,5	58,5	70	98	138	270

¹⁾ Shallow design

KFD 3 jaw, guided piston, serration 90°



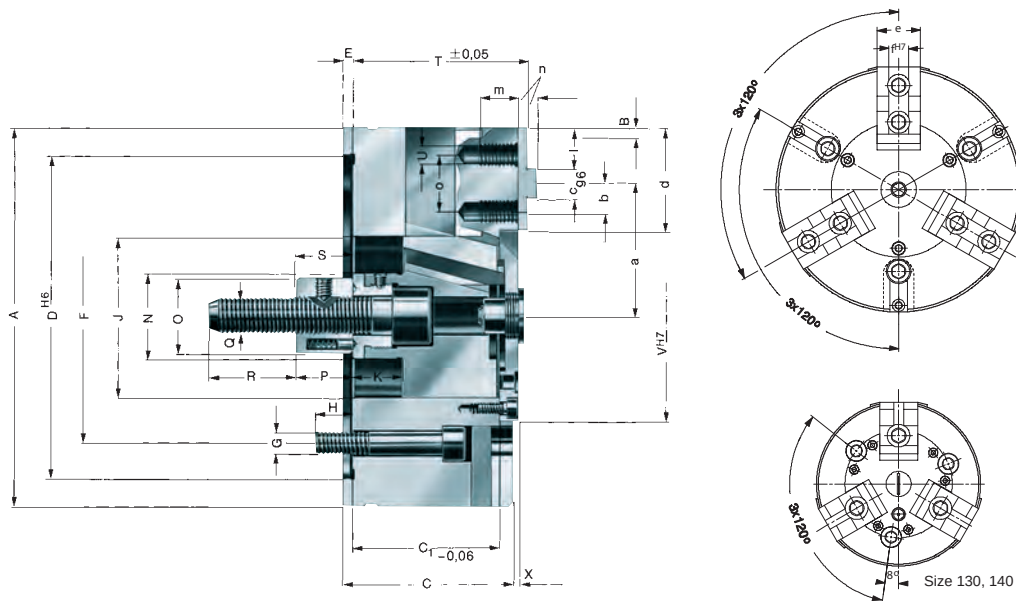
Tool group C15
Type 538-20 /
-70 (shallow design)
**3 jaw power chuck,
guided piston,
serration 90°**
Adaptor recess,
mounting dimensions
to **DIN 6353**



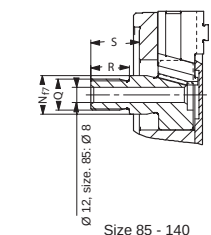
Item no.	045743	045745	045749	144602	144603 ¹⁾	045753	140688	140689	140690
Size	130	160	200	250	315	315	400	500	630
A	130	160	200	250	315	315	400	500	630
Jaw travel B	5,3	5,3	6,7	6,7	6,7	8	9,3	9,3	10,5
C	69	79	87	102	102	117	127	127	140
C1-0,06	58,05	66,05	74,05	89,05	89,05	104,05	111,05	111,05	125,05
Mount D ^{HS}	115	140	170	220	220	300	300	380	380
E	6	6	6	6	6	6	6	6	8
F	85	104,8	133,4	171,4	171,4	235	235	330,2	330,2
G	3 x M10	3 x M10	3 x M12	3 x M16	3 x M16	3 x M20	3 x M20	6 x M24	6 x M24
H	15	17	20	24	26	30	35	35	35
J	58	65	85	105	105	120	155	155	180
Wedge stroke K	20	20	25	25	25	30	35	35	40
N	45	50	65	65	65	65	85	85	85
O	34	34	40	46	46	46	55	55	55
P	25	2	2	2	2	2	2	2	2
Q	M16	M16	M20	M24	M24	M24	M24	M30	M30
R	40	40	45	55	55	55	55	55	65
S min.	70	70	75	75	75	75	100	100	100
S max.	90	90	100	100	100	105	135	135	140
T=0,05	73	80	90	105	105	120	130	130	148
U	M8 x 20	M12 x 25	M12 x 25	M16 x 30	M16 x 30	M16 x 30	M20 x 40	M20 x 40	M20 x 40
V ^{H7}	85	85	110	130	130	160	190	190	220
X	5	3	3	3	3	3	3	3	6
a min.	25	26,7	38,3	48,3	48,3	54,5	72,7	76,7	85,2
a max.	30,3	32	45	55	55	62,5	82	86	95,7
b min.	6	9	8	10	10	10	14	16	18
c min.	14	19	19	25	25	25	31	31	31
c max.	26	36,5	44,5	58,5	89,5	81,5	98	144	197
d	34,5	48	55	70	102,5	95	118	164	219,3
e	30	35	35	50	50	55	60	60	70
f ^{H7}	12	17	17	21	21	21	25,5	25,5	25,5
g	-	14	14	18	18	18	22	22	22
h	-	11	11	13	13	13	22	22	22
i	-	25	25	32	32	32	40	40	40
k	-	11	11	14	14	14	18	18	18
Max. swing top jaws mm	184	215	290	345	410	410	560	660	790
Maximum draw bar pull kN	18	35	45	65	75	80	95	110	130
Clamping force/jaw kN	35	70	90	140	180	190	250	300	360
Max. admissible speed min ⁻¹	5000	4500	4000	3200	2800	2800	2000	1600	1200
Moment of inertia J kgm ²	0,015	0,038	0,1	0,29	0,74	0,89	2,02	4,40	13,54
Weight without jaws approx. kg	6,8	11,8	20	37	59,7	72	101	141	273

¹⁾ Shallow design

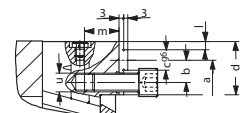
KFD 3 jaw, tongue and groove



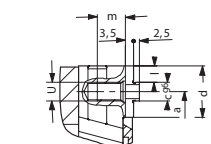
Tool group C15
Type 538-10 /
-60 (shallow design)
**3 jaw power chuck,
with tongue and groove**
Adaptor recess,
mounting dimensions
to **DIN 6353**



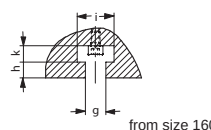
Size 85 - 140



Size 130 - 140



Size 85

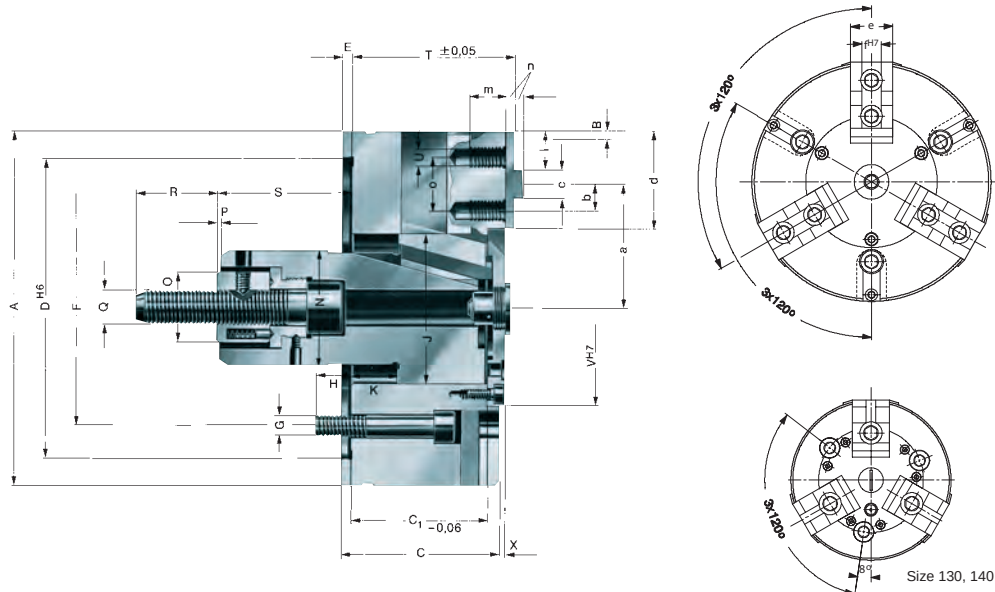


from size 160

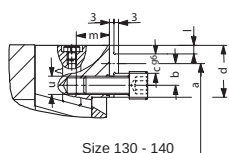
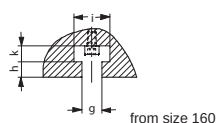
Item no.	123110	004266	128427 ¹⁾	041246	128428 ¹⁾	023529	040639	144604	144605
Size	85	110	125	130	140	160	200	250	315
A	85	110	125	130	140	160	200	250	315
Jaw travel B	2,6	2,1	3,7	5,3	3,7	5,3	6,7	6,7	6,7
C	31,5	31,5	40	69	40	79	87	102	102
C1-0,06	28,55	28,55	37,05	58,05	37,05	66,05	74,05	89,05	89,05
Mount D ^{H6}	70	92	105	115	105	140	170	220	220
E	3	3	3	6	3	6	6	6	6
F	54	80	80	85	80	104,8	133,4	171,4	171,4
G	3 x M8	3 x M8	3 x M8	3 x M10	3 x M8	3 x M10	3 x M12	3 x M16	3 x M16
H	12	12	14	15	14	17	20	26	26
J	36	45	50	58	50	65	85	105	105
Wedge stroke K	10	8	14	20	14	20	25	25	25
N	20	-	-	35	-	35	45	55	55
O	-	-	-	34	-	34	40	46	46
P	-	-	-	25	-	25	30	30	30
Q	M16 x 1,5	M20 x 1,5	M20 x 1,5	M16	M20 x 1,5	M16	M20	M24	M24
R	20	20	20	40	20	40	45	55	55
S min.	25	25	25	36	25	25	30	30	30
S max.	35	33	39	56	39	45	55	55	55
T ^{+0,05}	33	33	44	73	44	80	90	105	105
U	M8	M6	M6	M12	M12	M12	M12	M16	M16
V ^{H7}	-	-	-	85	-	85	110	130	130
X	4	4	6	5	6	3	3	3	3
a min.	29,4	37,9	40,3	47,5	53,8	46,7	63,3	81,3	93,3
a max.	32	40	44	52,8	57,5	52	70	88	100
b	-	7,5	7,5	14,5	14,5	12,5	15	20	25
cg6	8	8	8	13	13	10	12	16	16
d	22	28	34,5	34	42	48	55	70	102
e	20	25	25	30	25	35	35	50	50
f ^{H7}	8	8	8	8	8	25	25	32	32
g	-	-	-	-	-	14	14	18	18
h	-	-	-	-	-	11	11	13	13
i	-	-	-	-	-	25	25	32	32
k	-	-	-	-	-	11	11	14	14
l	7	10	12,75	5,5	6	23	24	29	49
m	14	12	12	20	20	20	20	25	25
n	2,5	2,5	3	3	3	5	5	5	5
o	-	15	15	-	-	25	30	40	50
Maximum draw bar pull kN	7	7	9	18	9	35	45	65	75
Clamping force/jaw kN	12	12	15	35	15	70	90	140	180
Max. admissible speed min ⁻¹	5000	4000	5000	5000	4500	4500	4000	3200	2800
Moment of inertia J kgm ²	0,001	0,003	0,007	0,0145	0,012	0,035	0,096	0,28	0,73
Weight without jaws approx. kg	1,3	2,1	3,7	6,9	4,7	11	19,2	36	59

¹⁾ Shallow design

KFD 3 jaw, guided piston, tongue and groove



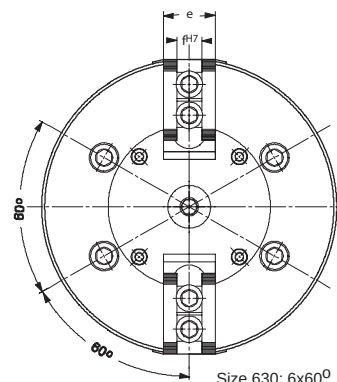
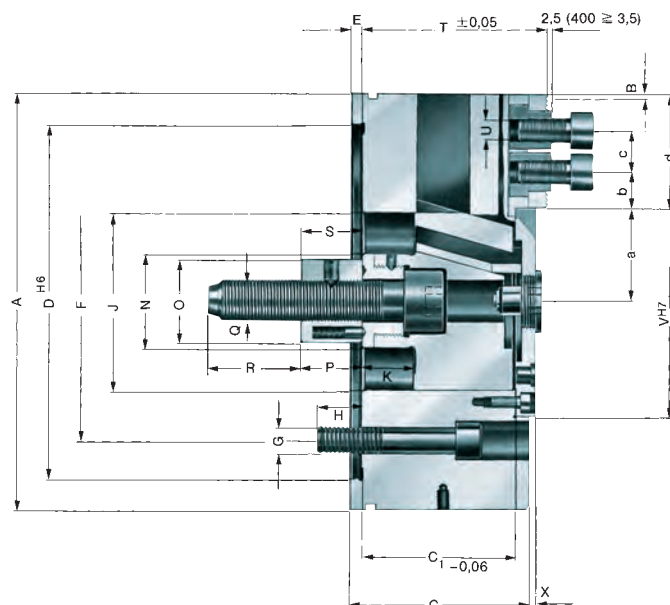
Tool group C15
Type 538-30 /
-80 (shallow design)
**3 jaw power chuck,
guided piston,
with tongue and groove**
Adaptor recess,
mounting dimensions
to **DIN 6353**



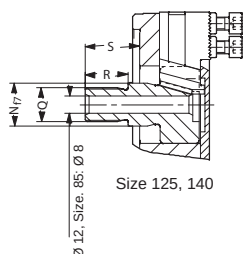
Item no.	045744	045746	045750	144606	144607 ¹⁾
Size	130	160	200	250	315
A	130	160	200	250	315
Jaw travel B	5,3	5,3	6,7	6,7	6,7
C	69	79	87	102	102
C1-0,06	58,05	66,05	74,05	89,05	89,05
Mount D ^{H6}	115	140	170	220	220
E	6	6	6	6	6
F	85	104,8	133,4	171,4	171,4
G	3 x M10	3 x M10	3 x M12	3 x M16	3 x M16
H	15	17	20	26	26
J	58	65	85	105	105
Wedge stroke K	20	20	25	25	25
N	45	50	65	65	65
O	34	34	40	46	46
P	25	2	2	2	2
Q	M16	M16	M20	M24	M24
R	40	40	45	55	55
S min.	70	70	75	75	75
S max.	90	90	100	100	100
T ^{±0,05}	73	80	90	105	105
U	M12	M12	M12	M16	M16
V ^{H7}	85	85	110	130	130
X	5	3	3	3	3
a min.	47,5	46,7	63,3	81,3	93
a max.	52,8	52	70	88	100
b	14,5	12,5	15	20	25
cg6	13	10	12	16	16
d	34,5	48	55	70	102,5
e	30	35	35	50	50
f ^{H7}	8	16	16	20	20
g	-	14	14	18	18
h	3	5	5	5	5
i	-	25	25	32	32
k	-	11	11	14	14
l	5,5	23	24	29	49
m	20	20	20	25	25
o	-	25	30	40	50
Maximum draw bar pull kN	18	35	45	65	75
Clamping force/jaw kN	35	70	90	140	180
Max. admissible speed min ⁻¹	5000	4500	4000	3200	2800
Moment of inertia J kgm ²	0,015	0,038	0,1	0,293	0,75
Weight without jaws approx. kg	7,4	11,9	20,2	37,5	60,2

¹⁾ Shallow design

KFD 2 jaw, standard design, serration 90°



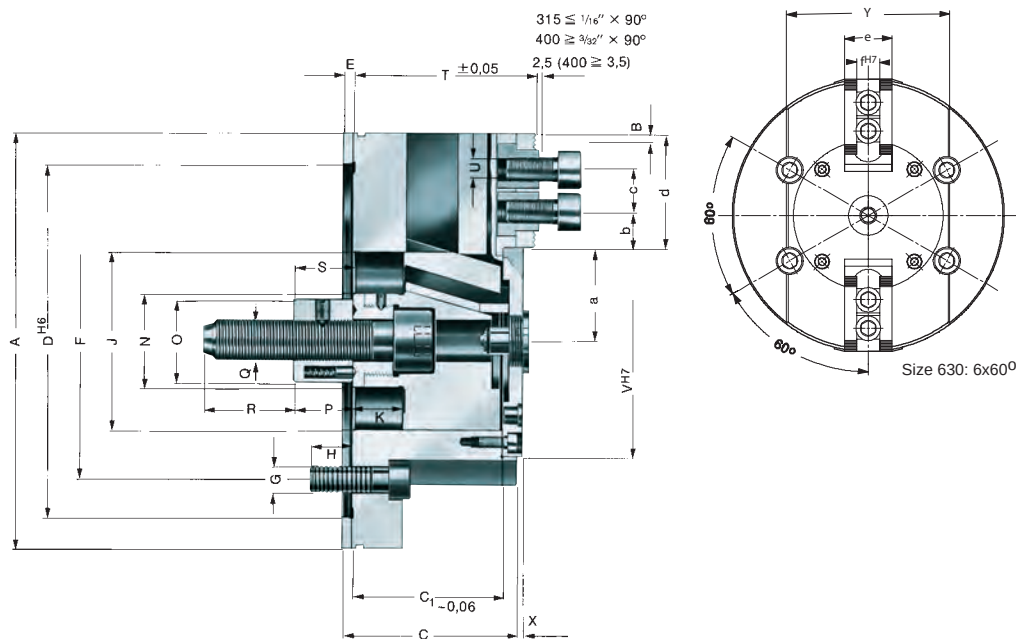
Tool group C15
Type 528-05 /
-15 (shallow design)
2 jaw power chuck,
standard design,
serration 90°
Adaptor recess,
mounting dimensions
to **DIN 6353**



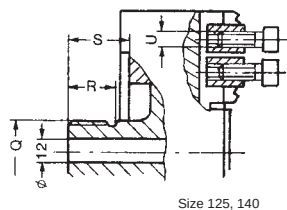
Item no.	128409 ¹⁾	046722	128412 ¹⁾	046733	046747	144610	144611 ¹⁾	045563	045574	045582	045590
Size	125	130	140	160	200	250	315	315	400	500	630
A	125	130	140	160	200	250	315	315	400	500	630
Jaw travel B	3,7	5,3	3,7	5,3	6,7	6,7	6,7	8	9,3	9,3	10,5
C	40	69	40	79	87	102	102	117	127	127	140
C1-0,06	37+0,07	58,05	37+0,07	66,05	74,05	89,05	89,05	104,05	111,05	111,05	125,05
Mount D ^{H6}	105	115	105	140	170	220	220	300	300	380	380
E	3	6	3	6	6	6	6	6	6	6	8
F	80	85	80	104,8	133,4	171,4	171,4	235	235	330,2	330,2
G	4xM8	4xM10	4xM8	4xM10	4xM12	4xM16	4xM16	4xM20	4xM20	4xM24	6xM24
H	14	15	14	17	20	26	26	26	35	35	35
J	50	58	50	65	85	105	105	120	155	155	180
Wedge stroke K	14	20	14	20	25	25	25	30	35	35	40
N	-	35	-	35	45	55	55	60	60	60	80
O	-	34	-	34	40	46	46	46	55	55	55
P	-	25	-	25	30	30	30	30	30	30	30
Q	M20x1,5	M16	M20x1,5	M16	M20	M24	M24	M24	M24	M30	M30
R	20	40	20	40	45	55	55	55	55	55	61
S min.	25	36	5	25	30	30	30	30	30	30	30
S max.	39	56	19	45	55	55	55	60	65	65	70
T ^{+0,05}	44	73	44	80	90	105	105	120	130	130	148
U	M6x8	M8x20	M6x18	M12x25	M12x25	M16x30	M16x30	M16x30	M20x40	M20x40	M20x40
V ^{H7}	-	85	-	85	110	130	130	160	190	190	220
X	6	5	6	3	3	3	3	3	3	3	8
a min.	24,3	25	24,3	26,7	38,3	48,3	48,3	54	72,7	76,7	85,2
a max.	28	30,3	28	32	45	55	55	62	82	86	95,7
b min.	7	6	7	9	8	10	10	10	14	16	18
c min.	10	14	10	19	19	25	25	25	31	31	31
c max.	25	26	32,5	36,5	44,5	58,5	89,5	81,5	98	144	197
d	34,5	34,5	42	48	55	70	102,5	95	118	164	219,3
e	25	30	25	35	35	50	50	55	60	60	70
f ^{H7}	10	12	10	17	17	21	21	21	25,5	25,5	25,5
Max. swing top jaws mm	192	184	207	215	290	345	410	410	560	660	770
Maximum draw bar pull kN	6	12	6	23	30	43	50	55	65	75	90
Clamping force/jaw kN	6,5	13	6,5	25	33	48	56	62	75	85	120
Max. admissible speed min ⁻¹	5000	4500	4500	4500	4000	3200	2800	2800	2000	1600	1200
Moment of inertia J kgm ²	0,007	0,014	0,011	0,035	0,095	0,28	0,72	0,87	2,34	6,10	16,6
Weight without jaws approx. kg	3,6	6,8	4,6	10,9	19	35,5	58,5	70	117	195	335

¹⁾ Shallow design

KFD 2 jaw, weight reduced, serration 90°



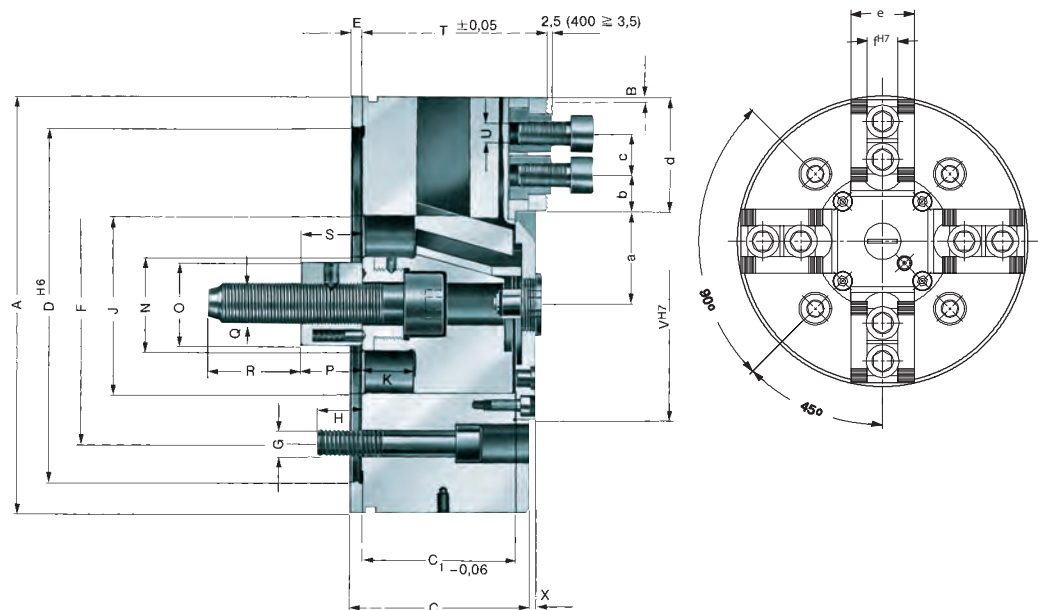
Tool group C15
Type 528-03 /
-13 (shallow design)
2 jaw power chuck,
weight reduced,
serration 90°
Adaptor recess,
mounting dimensions
to **DIN 6353**



Item no.	046736	046750	144608	144609 ¹⁾	045566	128421	128422	128423
Size	160	200	250	315	315	400	500	630
A	160	200	250	315	315	400	500	630
Jaw travel B	5,3	6,7	6,7	6,7	8	9,3	9,3	10,5
C	79	87	102	102	117	127	127	140
C1-0,06	66,05	74,05	89,05	89,05	104,05	111,05	111,05	125,05
Mount D ^{H6}	140	170	220	220	300	300	380	380
E	6	6	6	6	6	6	6	8
F	104,8	133,4	171,4	171,4	235	235	330,2	330,2
G	4 x M10	4 x M12	4 x M16	4 x M16	4 x M20	4 x M20	4 x M24	6 x M24
H	17	20	26	26	26	35	35	35
J	65	85	105	105	120	155	155	180
Wedge stroke K	20	25	25	25	30	35	35	40
N	35	45	55	55	60	60	60	80
O	34	40	46	46	46	55	55	55
P	25	30	30	30	30	30	30	30
Q	M16	M20	M24	M24	M24	M24	M30	M30
R	40	45	55	55	55	55	55	63
S min.	25	30	30	30	30	30	30	28
S max.	45	55	55	55	60	65	65	68
T ^{+0,05}	80	90	105	105	120	130	130	148
U	M12 x 25	M12 x 25	M16 x 30	M16 x 30	M16 x 30	M20 x 40	M20 x 40	M20 x 40
V ^{H7}	85	110	130	130	160	190	190	220
X	3	3	3	3	3	3	3	6
a min.	26,7	38,3	48,3	48,3	54	72,7	76,7	85,2
a max.	32	45	55	55	62	82	86	95,7
b min.	9	8	10	10	10	14	16	18
c min.	19	19	25	25	25	31	31	31
c max.	36,5	44,5	58,5	89,5	81,5	98	144	197
d	48	55	70	102,5	95	118	164	219,3
e	35	35	50	50	55	60	60	70
f ^{H7}	17	17	21	21	21	25,5	25,5	25,5
g	95	120	140	140	170	220	240	265
Max. swing top jaws mm	215	290	345	410	410	560	660	790
Maximum draw bar pull kN	23	30	43	50	55	65	75	90
Clamping force/jaw kN	25	33	48	56	62	75	85	120
Max. admissible speed min ⁻¹	4500	4000	3200	2800	2800	2000	1600	1200
Moment of inertia J kgm ²	0,027	0,075	0,222	0,564	0,62	1,92	5,31	12,9
Weight without jaws approx. kg	8,5	15	28,5	45,5	53	96	170	200

¹⁾ Shallow design

KFD 4 jaw, serration 90°



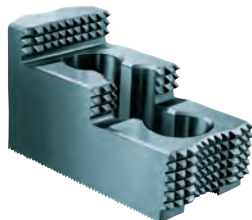
Tool group C15
Type 548-05 /
-15 (shallow design)
4 jaw power chuck,
serration 90°
Adaptor recess,
mounting dimensions
to **DIN 6353**

Item no.	252920	046753	144612	144613 ¹⁾	045569	045577	045585	045593	117976
Size	160	200	250	315	315	400	500	630	800
A	160	200	250	315	315	400	500	630	800
Jaw travel B	4	6,7	6,7	6,7	8	9,3	9,3	10,5	10,5
C	74	87	102	102	117	127	127	140	160
C1-0,06	63,55	74,05	89,05	89,05	104,05	111,05	111,05	125,05	142,05
Mount D ^{H6}	140	170	220	220	300	300	380	380	460
E	6	6	6	6	6	6	6	8	8
F	104,8	133,4	171,4	171,4	235	235	330,2	330,2	380
G	4xM10	4xM12	4xM16	4xM16	4xM20	4xM20	4xM24	4xM24	4xM24
H	20	20	26	26	26	35	35	35	35
J	75	85	105	105	120	155	155	180	180
Wedge stroke K	15	25	25	25	30	35	35	40	40
N	35	45	55	55	60	60	60	80	80
O	34	40	46	46	46	55	55	55	55
P	30	30	30	30	30	30	30	30	30
Q	M16	M20	M24	M24	M24	M24	M30	M30	M30
R	34	45	55	55	55	55	55	63	85
S min.	30	30	30	30	30	30	30	28	30
S max.	45	55	55	55	60	65	65	68	70
T _{±0,05}	73,5	90	105	105	120	130	130	148	161
U	M12x25	M12x25	M16x30	M16x30	M16x30	M20x40	M20x40	M20x40	M20x40
V ^{H7}	75	110	130	130	160	190	190	220	220
X	2	3	3	3	3	3	3	6	3
a min.	29	38,3	48,3	48,3	54	72,7	76,7	85,2	84,5
a max.	33	45	55	55	62	82	86	95,7	95
b min.	12,5	8	10	10	10	14	16	18	18
c min.	19	19	25	25	25	31	31	31	31
c max.	31	44,5	58,5	89,5	81,5	98	144	197	282
d	45	55	70	102,5	95	118	164	219,3	305
e	35	35	50	50	55	60	60	70	70
f ^{H7}	17	17	21	21	21	25,5	25,5	25,5	25,5
Max. swing top jaws mm	215	290	345	410	410	560	660	790	960
Maximum draw bar pull kN	35	45	65	75	80	95	110	130	130
Clamping force/jaw kN	70	90	140	180	190	250	300	360	360
Max. admissible speed min ⁻¹	3500	3000	2500	2200	2200	1800	1500	1000	800
Moment of inertia J kgm ²	0,035	0,095	0,280	0,72	0,87	2,34	6,10	16,6	45,2
Weight without jaws approx. kg	11	19	35,5	58,5	65,4	117	195	335	565

¹⁾ Shallow design

Jaws KFD

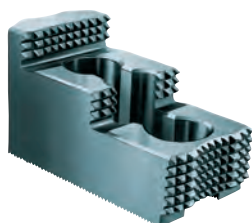
Tool group C 21
Type 543/538
**Reversible top jaws,
2-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046545	125/140	2	set	56	37,5	26	1/16"x 90°
045796	130	2	set	56	37,5	26	1/16"x 90°
046429	160	2	set	68	45	34,7	1/16"x 90°
118521	200/250	2	set	75	49	36	1/16"x 90°
046435	250/315	2	set	103,5	58	50	1/16"x 90°
046447	400/500/630	2	set	135	65	68	3/32"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

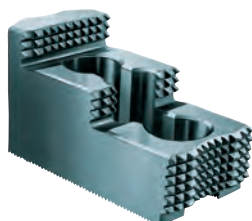
Tool group C 21
Type 543/538
**Reversible top jaws,
3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046544	110/125/140	3	set	56	37,5	26	1/16"x 90°
046404	130	3	set	56	37,5	26	1/16"x 90°
046408	160	3	set	68	45	34,7	1/16"x 90°
118522	200/250	3	set	75	49	36	1/16"x 90°
046414	250/315	3	set	103,5	58	50	1/16"x 90°
037531	400/500/630/800	3	set	135	65	68	3/32"x 90°
152789	1000/1250/1400/1600	3	set	200	85	80	m=2

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

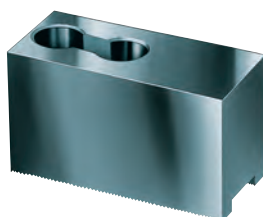
Tool group C 21
Type 543/538
**Reversible top jaws,
4-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046456	160	4	set	68	45	34,7	1/16"x 90°
118523	200	4	set	75	49	36	1/16"x 90°
046462	250/315	4	set	103,5	58	50	1/16"x 90°
046474	400/500/630/800	4	set	135	65	68	3/32"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Tool group C 21
Type 543/538
**Soft top jaws,
2-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5**

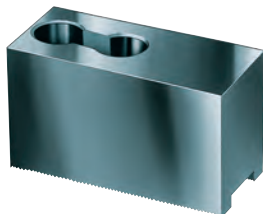


Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
045794	125/140	2	set	53	30	22,5	1/16"x 90°
045795	130	2	set	55	38	26,5	1/16"x 90°
133147	160	2	set	66,7	53	36,5	1/16"x 90°
133148	200/250	2	set	75	53	36,5	1/16"x 90°
133149	250	2	set	95	54,5	45	1/16"x 90°
133150	315	2	set	103	80	50	1/16"x 90°
133151	400/500/630	2	set	130	80	50	3/32"x 90°
046446 ¹⁾	400/500/630	2	set	130	89	68	3/32"x90°

¹⁾ heavy design

Jaws KFD

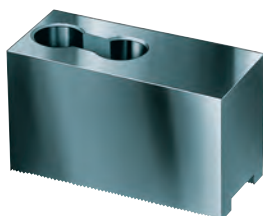
Tool group C 21
Type 543/538
**Soft top jaws,
3-jaw set, can be hardened**
Serration 90° -
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046402	110/125/140	3	set	53	30	22,5	1/16"x 90°
046403	130	3	set	55	38	26,5	1/16"x 90°
133152	160	3	set	66,7	53	36,5	1/16"x 90°
133153	200/250	3	set	75	53	36,5	1/16"x 90°
133154	250	3	set	95	54,5	45	1/16"x 90°
133155	315	3	set	103	80	50	1/16"x 90°
133156	400/500/630/800	3	set	130	80	50	3/32"x 90°
046423 ¹⁾	400/500/630/800	3	set	130	89	68	3/32"x 90°
152790	1000/1250/1400/1600	3	set	200	89	80	m=2

¹⁾ heavy design

Tool group C 21
Type 543/538
**Soft top jaws,
4-jaw set, can be hardened**
Serration 90° -
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
133157	160	4	set	66,7	53	36,5	1/16"x 90°
133158	200	4	set	75	53	36,5	1/16"x 90°
133159	250	4	set	95	54,5	45	1/16"x 90°
133160	315	4	set	103	80	50	1/16"x 90°
133161	400/500/630/800	4	set	130	80	50	3/32"x 90°
046473 ¹⁾	400/500/630/800	4	set	130	89	68	3/32"x 90°

¹⁾ heavy design

Tool group C 21
Type 549/538
**Soft top jaws,
2-jaw set, can be hardened**
tongue and groove 120° bevelled,
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
046860	125	2	set	51	30	22,5
123356	130/140	2	set	58	38	26,5
123359	160	2	set	72,7	53	36,5
123431	200	2	set	90,3	53	36,5
123434	250	2	set	115,3	54,5	45
129847	315	2	set	146	80	50

Tool group C 21
Type 549/538
**Soft top jaws,
3-jaw set, can be hardened**
tongue and groove 120° bevelled,
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
119459	85	3	set	40	30	22,5
046859	110/125	3	set	51	30	22,5
123355	130/140	3	set	58	38	26,5
123358	160	3	set	72,7	53	36,5
123430	200	3	set	90,3	53	36,5
123433	250	3	set	115,3	54,5	45
129849	315	3	set	146	80	50

Jaws KFD

Tool group C 21
Type 544-50
Claw-type jaws,
1 piece, **hardened**
Serration 90° -
width of the groove **12**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
144320	130	piece	66	38	52
144321	130	piece	56	38	34
144322	130	piece	66	38	25

Tool group C 21
Type 544-50
Claw-type jaws,
1 piece, **hardened**
Serration 90° -
width of the groove **17**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137031	160/200	piece	67	45	53
137032	160/200	piece	65	45	46
137039	160/200	piece	55	45	40
137034	160/200	piece	50	45	31
137035	160/200	piece	55	45	27
137036	160/200	piece	65	45	19
137037	160/200	piece	65	45	26
137038	160/200	piece	55	45	24
137033	160/200	piece	55	45	39

Tool group C 21
Type 544-50
Claw-type jaws,
1 piece, **hardened**
Serration 90° -
width of the groove **21**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137041	250/315	piece	95	50	80
137042	250/315	piece	75	50	60
137043	250/315	piece	60	50	43
137044	250/315	piece	70	50	37
137045	250/315	piece	95	50	25
137046	250/315	piece	80	50	30

Tool group C 21
Type 544-50
Claw-type jaws,
1 piece, **hardened**
Serration 90° -
width of the groove **25,5**

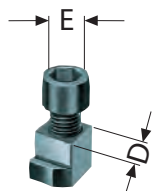


Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137051	400/500/630/800	piece	130	65	113
137052	400/500/630/800	piece	90	65	67
137053	400/500/630/800	piece	100	65	45
137054	400/500/630/800	piece	130	65	33

Accessories KFD

Tool group C 15

Type 538-00 T-nuts without screw



Item no.	Chuck Size	Contents of delivery	D	E
004254	110/125/140	piece	10	M6
241673	130	piece	12	M8
241674	160/200/250	piece	17	M12
241675	250/315	piece	21	M16
241676 ¹⁾	400/500/630/800	piece	25,5	M20
146801	1000/1250/1400/1600	piece	30	M24

Single T-nut

¹⁾ metric dimensions

Tool group C 15

Type 0040-Y Mounting screws



Item no.	Size	Contents of delivery	Thread	Length
343003	110/125/140	piece	M6	18
233058	130	piece	M8	20
227692	160/200	piece	M12	25
229157	250/315	piece	M16	30
233047	400/500/630/800	piece	M20	40
249255	1000/1250/1400/1600	piece	M24	70

Socket head cap screw to DIN 912, 12.9

Tool group C15

Type 1028 Special grease F80 for lathe chucks for lubrication and conservation of chucking power



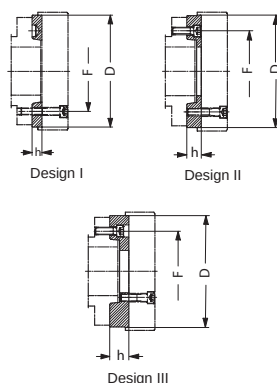
Item no.	Design	Contents
308555	Cartridge	0,5 kg
028975	Tin	1 kg

Tool group C 15

Type 594-32 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**

Mounting from front to ISO 702-1 (**DIN 55026/55021**) and **ASA B 5.9 A1/A2** with **metric mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145125 ¹⁾	4	160	II	18	82,6	140
145153	5	175	I	15	104,8	140
145127	5	200	II	21	104,8	170
145129	6	160	III	35	133,4	140
145155	6	200	I	16	133,4	170
145131	6	250	II	27	133,4	220
145133	6	315	II	27	133,4	300
145135	8	200	III	39	171,4	170
145157	8	250	I	18	171,4	220
145137	8	315/400	II	38	171,4	300
145141	8	500/630	II	38	171,4	380
145143	11	250	III	48	235	220
145159	11	315	I	19	235	300
145145	11	500/630	II	40	235	380
151300	11	800	II	40	235	460
145149	15	400	III	58	330,2	300
145161	15	400/500/630	I	21	330,2	380
145151	15	800	II	42	330,2	460

All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

¹⁾ DIN 55021 on request

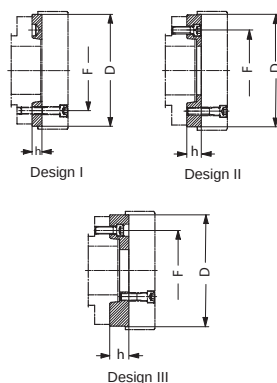
Tool group C 15

Type 594-35 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**

Mounting from front to **ASA B 5.9 A1/A2**

with **inch threaded mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145191	4	160	II	18	82,6	140
145153	5	175	I	15	104,8	140
145192	5	200	II	21	104,8	170
145193	6	160	II	35	133,4	140
145155	6	200	I	16	133,4	170
145194	6	250	II	27	133,4	220
145195	6	315	II	27	133,4	300
145196	8	315	II	39	171,4	300
145157	8	250	I	18	171,4	220
145197	8	315/400	II	38	171,4	300
145199	8	500/630	II	38	171,4	380
145200	11	250	III	48	235	220
145159	11	315	I	19	235	300
145201	11	500/630	II	40	235	380
151304	11	800	II	40	235	460
145203	15	400	III	58	330,2	300
145161	15	400/500/630	I	21	330,2	380
145204	15	800	II	42	330,2	460

All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request



AMTE

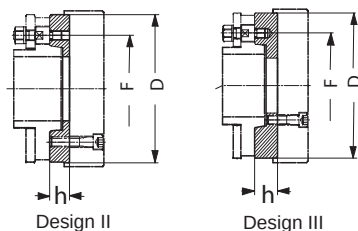


Accessories KFD

Tool group C 15

Type 594-33 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Bayonet fixing to **ISO 702-3 (DIN 55027/ DIN 55022)**



Item no.	Spindle nose size	Size	Design	h	F	D
145208	4	160	II	18	82,6	140
145236	5	160	II	21	104,8	140
145210	5	200	II	21	104,8	170
145212	6	160	III	35	133,4	140
145240	6	200	II	22	133,4	170
145214	6	250/315	II	27	133,4	220
145216	6	315	II	27	133,4	300
145218	8	200	III	39	171,4	170
145242	8	250	II	30	171,4	220
145220	8	315/400	II	38	171,4	300
145224	8	500/630	II	38	171,4	380
145226	11	250	III	48	235	220
145244	11	315/400	II	36	235	300
145228	11	500/630	II	40	235	380
151305	11	800	II	40	235	460
145232	15	400	III	58	330,2	300
145248	15	400/500	II	40	330,2	380
145234	15	800	II	42	330,2	460

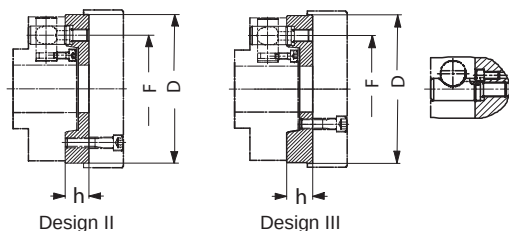
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-36 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Camlock fixing to **DIN 55029/ASA B 5.9 D1**



Item no.	Spindle nose size	Size	Design	h	F	D
145252	4	160	II	28	82,6	140
145280	5	160	II	30	104,8	140
145254	5	200	II	30	104,8	170
145256	6	160	III	43	133,4	140
145284	6	200	II	35	133,4	170
145258	6	250	II	35	133,4	220
145260	6	315	II	35	133,4	300
145262	8	200	II	46	171,4	170
145286	8	250	II	38	171,4	220
145264	8	315/400	II	38	171,4	300
145268	8	500/630	II	38	171,4	380
145270	11	250	III	53	235	220
145288	11	315/400	II	45	235	300
145272	11	500/630	II	45	235	380
151307	11	800	II	45	235	460
145276	15	400	III	58	330,2	300
145292	15	400/500	II	50	330,2	380
145278	15	800	II	50	330,2	460

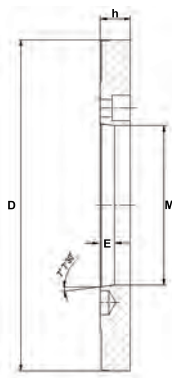
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group A09

Type 619-30 **Short-taper adapter plate**

ISO 702-1 (DIN 55026/55021) - ASA B 5.9 (without mounting bolts)
finished on machine side, faced on chuck side, especially



Id.-Nr.	Spindle nose size	h	E	M	D
144933	3	18	13	40	125
145296	4	18	13	40	125
145328	3	18	13	40	160
145342	4	18	13	40	160
145343	5	21	16	50	160
145344	4	21	13	50	200
145345	5	21	16	50	200
145346	6	27	17	50	200
145347	4	27	13	63	250
145348	5	27	16	63	250
145349	6	27	17	63	250
145350	8	27	19	63	250
145351	5	36	16	63	315
145352	6	36	17	63	315
145353	8	36	19	63	315
145354	11	36	21	63	315
145355	6	40	17	63	400
145356	8	40	19	63	400
145357	11	40	21	63	400
145358	15	40	23	63	400
145359	8	42	19	80	500
145360	11	42	21	80	500
145364	15	42	23	80	500

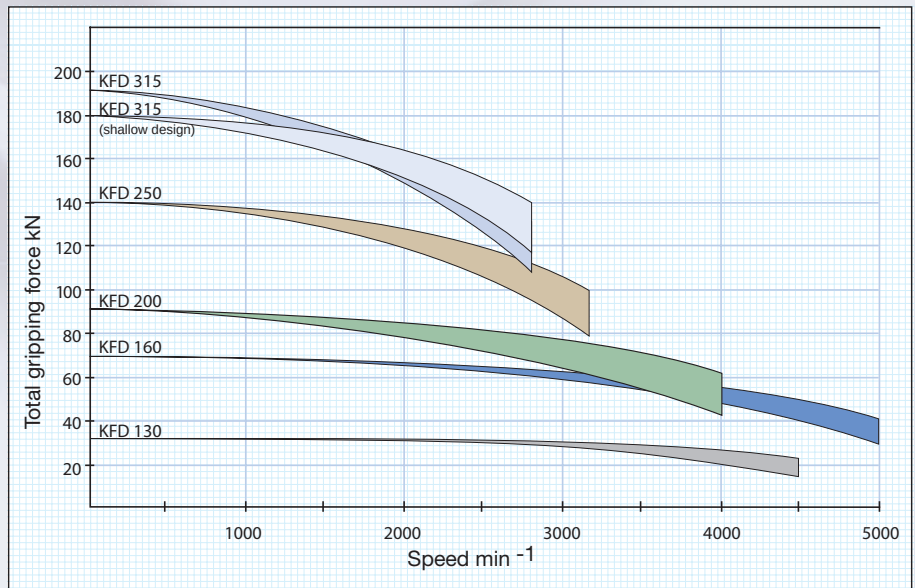
Gripping force/speed diagrams

The loss of gripping force was determined experimentally on a chuck with matched UB top jaws. It is largely independent of the initial gripping force at zero speed.

Upper curve:
min. centrifugal
force of top jaw



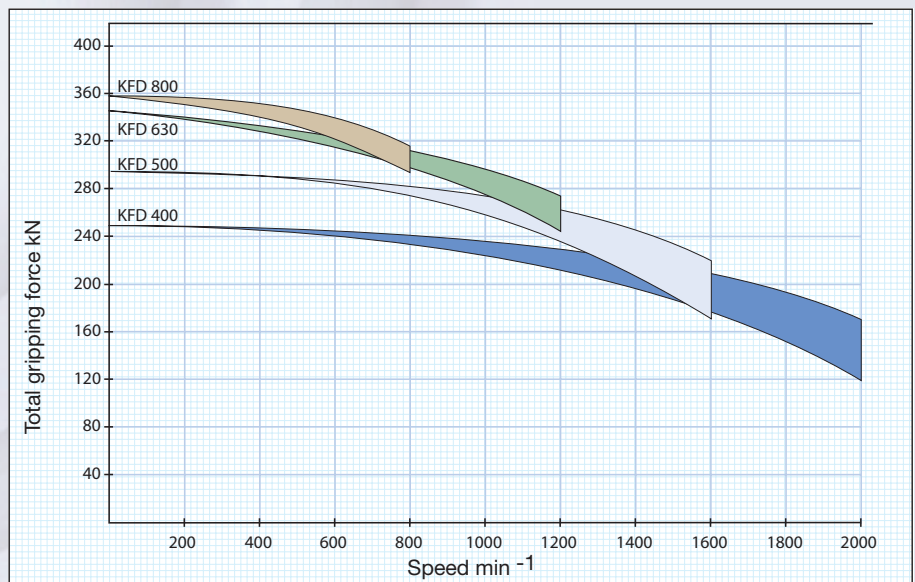
Lower curve:
max. centrifugal
force of top jaw



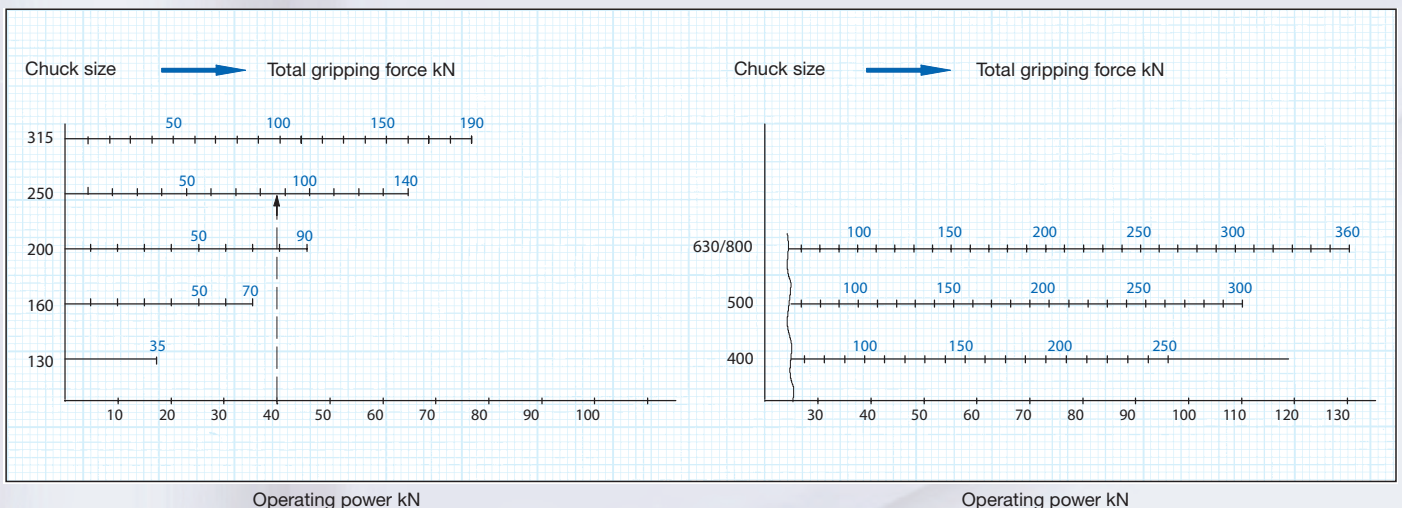
To obtain the specified gripping forces, the chuck must be in a perfect condition and lubricated with F 80 lubricant recommended by RöhM. Measuring point near chuck face.

Example:

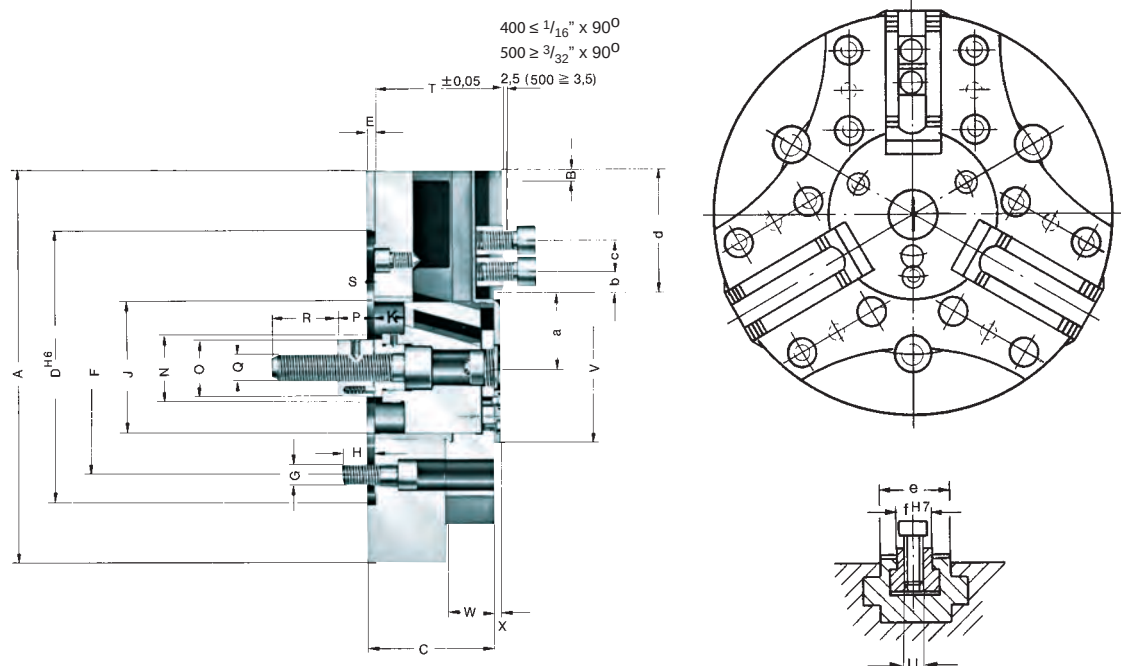
For a KFD chuck size 250 and an applied operating power of 40 kN, the total gripping force is approx. 86 kN.



Gripping force/operating power diagram for three-jaw chucks



KFL light weight, serration 90°

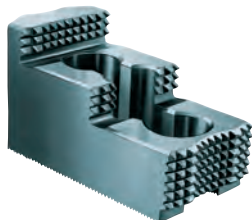


Tool group C15
Type 536-20
**3 jaw power chuck,
light weight, serration 90°
Adaptor recess**

Item no.	119137	119138	119139	119140	119141
Size	250	315	400	500	600
A	250	315	400	500	600
Jaw travel B	6,7	6,7	6,7	9,3	9,3
C	87	99	99	117	117
Mount D ^{H6}	220	220	300	460	460
E	6	6	6	6	6
F	171,4	171,4	235	300	300
G	3 x M16	3 x M16	3 x M20	3 x M24	3 x M24
H	26	26	35	35	35
J	85	105	105	155	155
Wedge stroke K	25	25	25	35	35
N	45	55	55	60	60
O	40	46	46	55	55
P	30	30	30	30	30
Q	M22	M22	M22	M24	M24
R	50	50	50	55	55
S min.	30	30	30	30	30
S max.	55	55	55	65	65
T ^{±0,05}	90	102	102	120	120
U	M12 x 25	M16 x 30	M16 x 30	M20 x 40	M20 x 40
V ^{H7}	105	118	118	176	176
W	35	40	40	60	60
X	6	6	6	7	7
a min.	47,3	54,3	54,3	76,7	76,7
a max.	54	61	61	86	86
b min.	10	11	11	14	14
c min.	19	25	25	35	35
c max.	59	84	126	148	198
d	71	96,5	139	164	214
e	35	45	45	60	60
f ^{H7}	17	21	21	25,5	25,5
Max. swing top jaws mm	340	410	515	660	760
Maximum draw bar pull kN	35	50	50	75	75
Clamping force/jaw kN	70	110	110	170	170
Max. admissible speed min ⁻¹	3500	3000	2100	1800	1500
Moment of inertia J kgm ²	0,133	0,353	0,8	2,187	5,175
Weight without jaws approx. kg	17	28,5	40	70	115

Jaws KFL

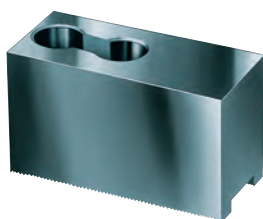
Tool group C 21
Type 543/538
**Reversible top jaws,
3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
118522	250	3	set	75	49	36	1/16"x 90°
046414	315/400	3	set	103,5	58	50	1/16"x 90°
037531	500/600	3	set	135	65	68	3/32"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Tool group C 21
Type 543/538
**Soft top jaws, 3-jaw set,
can be hardened, serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
133153	250	3	set	75	53	36,5	1/16"x 90°
133154	315	3	set	95	54,5	45	1/16"x 90°
133155	400	3	set	103	80	50	1/16"x 90°
133156	500/600	3	set	130	80	50	3/32"x 90°

Tool group C 21
Type 544-50
**Claw-type jaws, 1 piece,
hardened, serration 90° -
width of the groove 17**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137031	250	piece	67	45	53
137032	250	piece	65	45	46
137039	250	piece	55	45	40
137034	250	piece	50	45	31
137035	250	piece	55	45	27
137036	250	piece	65	45	19
137037	250	piece	65	45	26
137038	250	piece	55	45	24
137033	250	piece	55	45	39

Tool group C 21
Type 544-50
**Claw-type jaws, 1 piece,
hardened, serration 90° -
width of the groove 21**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137041	315/400	piece	95	50	80
137042	315/400	piece	75	50	60
137043	315/400	piece	60	50	43
137044	315/400	piece	70	50	37
137045	315/400	piece	95	50	25
137046	315/400	piece	80	50	30

Tool group C 21
Type 544-50
**Claw-type jaws, 1 piece,
hardened, serration 90° -
width of the groove 25,5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137051	500/600	piece	130	65	113
137052	500/600	piece	90	65	67
137053	500/600	piece	100	65	45
137054	500/600	piece	130	65	33

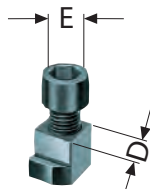
Please note: For further details see jaw dimensions and chucking capacities.



Accessories KFL

Tool group C 15

Type 538-00 **T-nuts** without screw



Item no.	Chuck Size	Contents of delivery	D	E
241674	250	piece	17	M12
241675	315/400	piece	21	M16
241676¹⁾	500/600	piece	25,5	M20

Single T-nut
¹⁾ metric dimensions

Tool group C 15

Type 0040-Y **Mounting screws**



Item no.	Size	Thread
227692	250	M12x25
229157	315/400	M16
233047	500/600	M20x40

Socket head cap screw to DIN 912, 12.9

Tool group C15

Type 1028 **Special grease F80** for **lathe chucks** for lubrication and conservation of chucking power



Item no.	Design	Contents
308555	Cartridge	0,5 kg
028975	Tin	1 kg

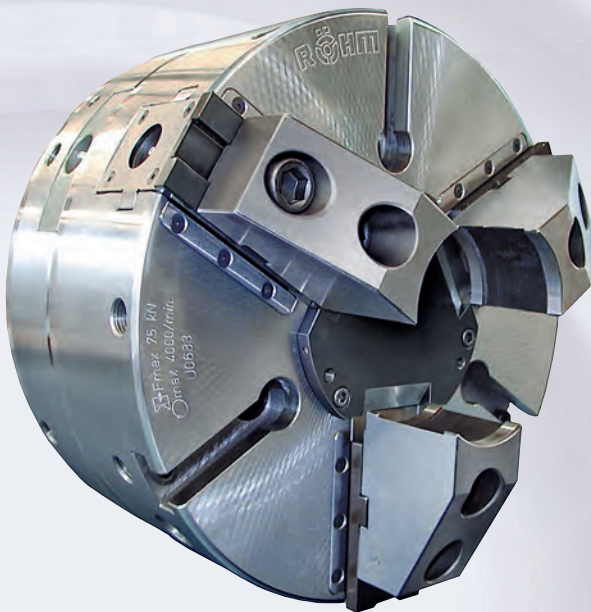


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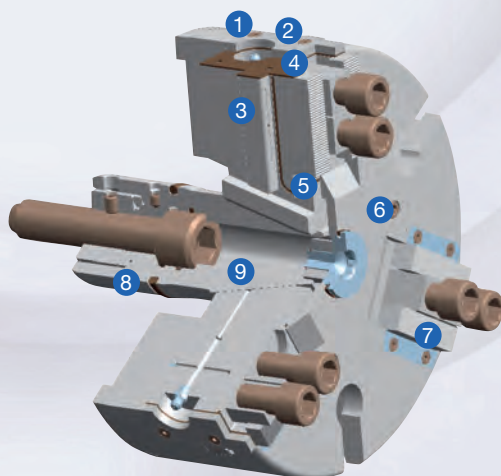
KFD-EC / KFD-F-EC



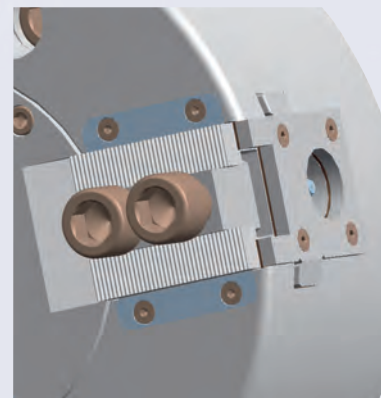
Technical features

- Abrasionproof coating of the base jaw guidings
- especially for extreme operation conditions like dry or raw part machining and/or high coolant pressure
- Maintenance intervals up to every 600 operation hours, depending on the operation conditions
- quick changing jaws, serration or tongue and groove available
- with or without mechanical centrifugal force compensation
- high efficiency
- wear resistant
- low-maintenance
- chose your own maintenance intervalls
- Improofed dirt protection by integrated jaw guiding seals

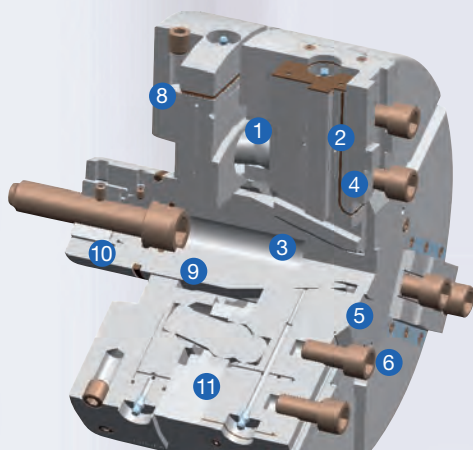
KFD-EC without centrifugal force compensation



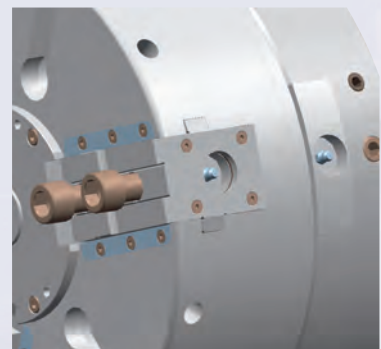
- 1 Body
- 2 End cover
- 3 Base jaw
- 4 Flat seal
- 5 Square ring
- 6 Cover
- 7 Wiper plates
- 8 O-Ring
- 9 Piston

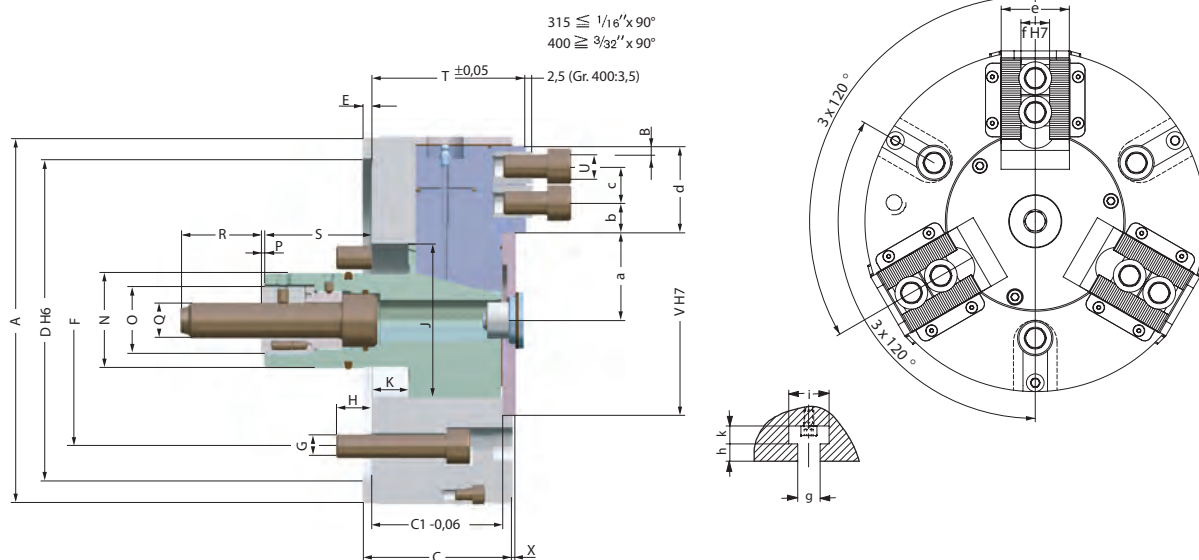


KFD-F-EC with centrifugal force compensation



- 1 Body
- 2 End cover
- 3 Base jaw
- 4 Flat seal
- 5 Square ring
- 6 Cover
- 7 Wiper plates
- 8 Square ring
- 9 Centrifugal force compensation mass
- 10 O-Ring
- 11 Piston



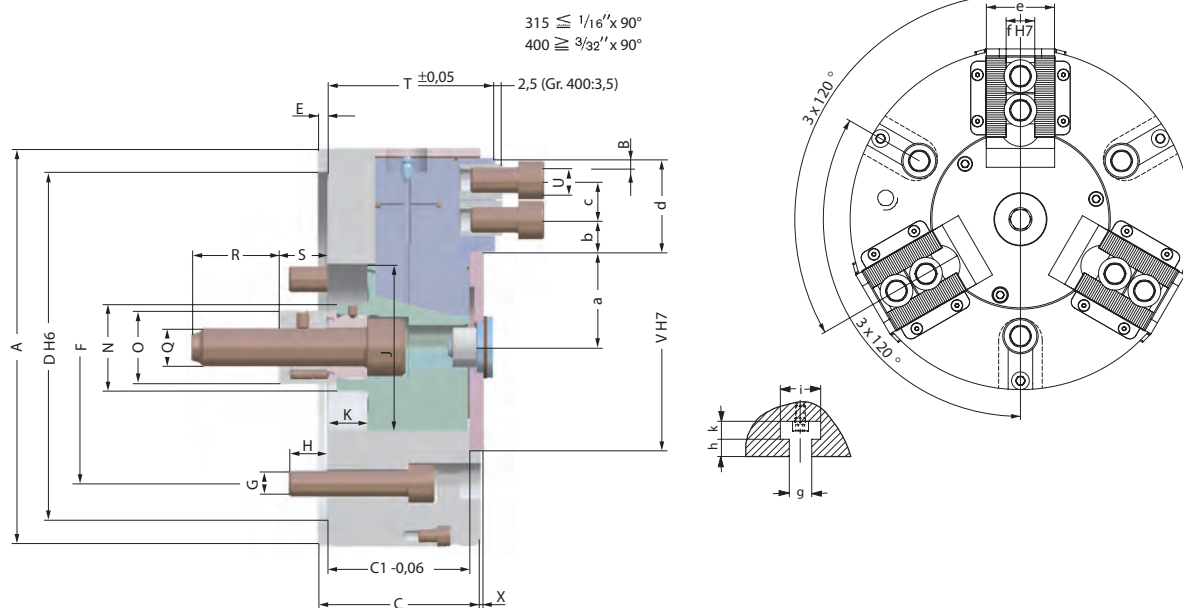


Tool group C15
Type 538-50
Low-Maintenance **3 jaw**
power chuck **KFD-EC**,
guided piston,
without force compensation,
centric clamping
Adaptor recess,
mounting dimensions to **DIN 6353**

Item no.	165837	165838	165839	165840
Size	200	250	315	400
A	200	250	315	400
Jaw travel B	6,7	6,7	8	9,3
C	86	98	113	121
C1-0,06	80	92	107	115
Mount D ^{H6}	170	220	300	300
E	6	6	6	6
F	133,4	171,4	235	235
G	3xM12	3xM16	3xM20	3xM20
H	18	23	31	30
J	85	105	120	155
Wedge stroke K	25	25	30	35
N	65	65	65	85
O	40	46	46	55
P	2	2	2	2
Q	M20	M24	M24	M24
R	45	55	55	55
S min.	100	100	105	135
S max.	75	75	75	100
T ^{±0,05}	90	105	120	130
U	M12x25	M16x30	M16x30	M20x40
V ^{H7}	110	130	160	190
X	7	7	9	9
a min.	43,3	53,3	59,5	77,7
a max.	50	60	67,5	87
b min.	8	10	10	14
c min.	19	25	25	31
c max.	34,5	47,5	70,5	87
d	45	59	84	107
e	35	50	55	60
f ^{H7}	17	21	21	25,5
g	14	18	18	22
h	11	13	13	22
i	25	32	32	40
k	11	14	14	18
Maximum draw bar pull kN	45	65	80	95
Clamping force/jaw kN	90	140	190	250
Max. admissible speed min ⁻¹	4000	3200	2800	2000
Moment of inertia J kgm ²	0,1	0,29	0,89	2,02
Weight without jaws approx. kg	20,9	36,2	64,7	92,1

Intermediate flanges for short taper adaption on request

KFD-EC short piston, without force compensation



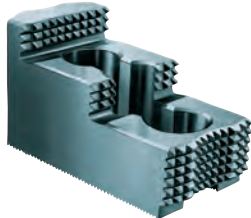
Tool group
Type 538-00
Low-Maintenance **3 jaw**
power chuck **KFD-EC**,
with short piston,
without force compensation,
centric clamping
Adaptor recess,
mounting dimensions to **DIN 6353**

Item no.	166183	166184	166185	166186
Size	200	250	315	400
A	200	250	315	400
Jaw travel B	6,7	6,7	8	9,3
C	86	98	113	121
C1-0,06	80	92	107	115
Mount D ^{H6}	170	220	300	300
E	6	6	6	6
F	133,4	171,4	235	235
G	3xM12	3xM16	3xM20	3xM20
H	18	23	31	30
J	85	105	120	155
Wedge stroke K	25	25	30	35
N	45	55	60	60
O	40	46	46	55
Q	M20	M24	M24	M24
R	45	55	55	55
S min.	30	30	30	30
S max.	55	55	60	65
T±0,05	90	105	120	130
U	M12x25	M16x30	M16x30	M20x40
V ^{H7}	110	130	160	190
X	7	7	9	9
a min.	43,3	53,3	59,5	77,7
a max.	50	60	67,5	87
b min.	8	10	10	14
c min.	19	25	25	31
c max.	34,5	47,5	70,5	87
d	45	59	84	107
e	35	50	55	60
f ^{H7}	17	21	21	25,5
g	14	18	18	22
h	11	13	13	22
i	11	14	14	18
k	25	32	32	40
Maximum draw bar pull kN	45	65	80	95
Clamping force/jaw kN	90	140	190	250
Max. admissible speed min ⁻¹	4000	3200	2800	2000
Moment of inertia J kgm ²	0,1	0,28	0,89	2,02
Weight without jaws approx. kg	19,3	34,8	63,6	88,4

Intermediate flanges for short taper adaption on request

Jaws KFD-EC

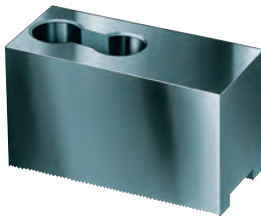
Tool group C 21
Type 543/538
**Reversible top jaws,
3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
118522	200	3	set	75	49	36	1/16"x 90°
046414	250/315	3	set	103,5	58	50	1/16"x 90°
037531	400	3	set	135	65	68	3/32"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Tool group C 21
Type 543/538
**Soft top jaws,
3-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
133153	200	3	set	75	53	36,5	1/16"x 90°
133154	250	3	set	95	54,5	45	1/16"x 90°
133155	315	3	set	103	80	50	1/16"x 90°
133156	400	3	set	130	80	50	3/32"x 90°

Tool group C 21
Type 544-50
**Claw-type jaws, 1 piece,
hardened, serration 90° -
width of the groove 17**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137031	200	piece	67	45	53
137032	200	piece	65	45	46
137033	200	piece	55	45	39
137034	200	piece	50	45	31
137035	200	piece	55	45	27
137036	200	piece	65	45	19
137037	200	piece	65	45	26
137038	200	piece	55	45	24
137039	200	piece	55	45	40

Tool group C 21
Type 544-50
**Claw-type jaws, 1 piece,
hardened, serration 90° -
width of the groove 21**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137041	250/315	piece	95	50	80
137042	250/315	piece	75	50	60
137043	250/315	piece	60	50	43
137044	250/315	piece	70	50	37
137045	250/315	piece	95	50	25
137046	250/315	piece	80	50	30

Tool group C 21
Type 544-50
**Claw-type jaws, 1 piece,
hardened, serration 90° -
width of the groove 25,5**



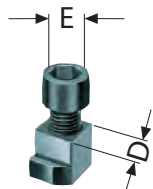
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137051	400	piece	130	65	113
137052	400	piece	90	65	67
137053	400	piece	100	65	45
137054	400	piece	130	65	33

Please note: For further details see jaw dimensions and chucking capacities.

Accessories KFD-EC

Tool group C 15

Type 538-00 T-nuts without screw



Item no.	Chuck Size	Contents of delivery	D	E
241674	200	piece	17	M12
241675	250/315	piece	21	M16
241676 ¹⁾	400	piece	25,5	M20

Single T-nut

¹⁾ metric dimensions

Tool group C 15

Type 0040-Y Mounting screws



Item no.	Size	Thread
227692	200	M12x25
229157	250/315	M16
233047	400	M20x40

Socket head cap screw to DIN 912, 12.9

Tool group C15

Type 1028 Special grease F80 for lathe chucks for lubrication and conservation of chucking power



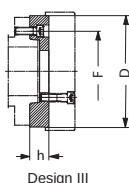
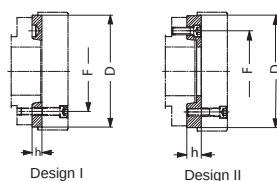
Item no.	Design	Contents
028975	Tin	1 kg
308555	Cartridge	0,5 kg

Tool group C 15

Type 594-32 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**

Mounting from front to ISO 702-1 (**DIN 55026/55021**) and **ASA B 5.9 A1/A2** with **metric mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145127	5	200	II	21	104,8	170
145155	6	200	I	16	133,4	170
145131	6	250	II	27	133,4	220
145133	6	315	II	27	133,4	300
145135	8	200	III	39	171,4	170
145157	8	250	I	18	171,4	220
145137	8	315/400	II	38	171,4	300
145143	11	250	III	48	235	220
145159	11	315	I	19	235	300
145149	15	400	III	58	330,2	300

All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

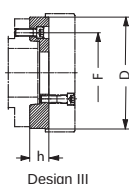
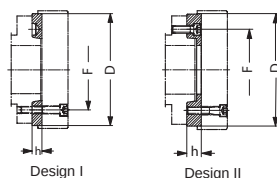
¹⁾ DIN 55021 on request

Tool group C 15

Type 594-35 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**

Mounting from front to **ASA B 5.9 A1/A2** with **inch threaded mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145192	5	200	II	21	104,8	170
145155	6	200	I	16	133,4	170
145194	6	250	II	27	133,4	220
145195	6	315	II	27	133,4	300
145196	8	315	II	39	171,4	300
145157	8	250	I	18	171,4	220
145197	8	315/400	II	38	171,4	300
145200	11	250	III	48	235	220
145159	11	315	I	19	235	300
145203	15	400	III	58	330,2	300

All fastening parts are included

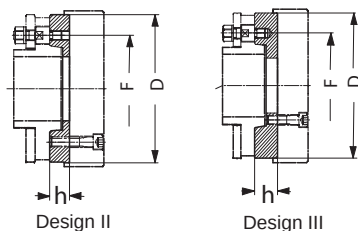
Intermediate adaptors for two- and four-jaw-design on request

Accessories KFD-EC

Tool group C 15

Type 594-33 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Bayonet fixing to **ISO 702-3 (DIN 55027)/ DIN 55022**



Item no.	Spindle nose size	Size	Design	h	F	D
145210	5	200	II	21	104,8	170
145240	6	200	II	22	133,4	170
145214	6	250/315	II	27	133,4	220
145216	6	315	II	27	133,4	300
145218	8	200	III	39	171,4	170
145242	8	250	II	30	171,4	220
145220	8	315/400	II	38	171,4	300
145226	11	250	III	48	235	220
145244	11	315/400	II	36	235	300
145232	15	400	III	58	330,2	300

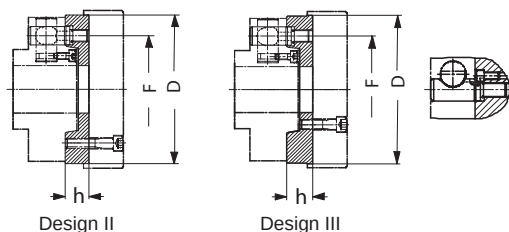
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-36 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Camlock fixing to **DIN 55029/ASA B 5.9 D1**



Item no.	Spindle nose size	Size	Design	h	F	D
145254	5	200	II	30	104,8	170
145284	6	200	II	35	133,4	170
145258	6	250	II	35	133,4	220
145260	6	315	II	35	133,4	300
145262	8	200	II	46	171,4	170
145286	8	250	II	38	171,4	220
145264	8	315/400	II	38	171,4	300
145270	11	250	III	53	235	220
145288	11	315/400	II	45	235	300
145276	15	400	III	58	330,2	300

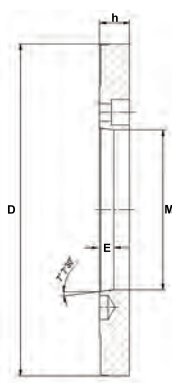
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group A09

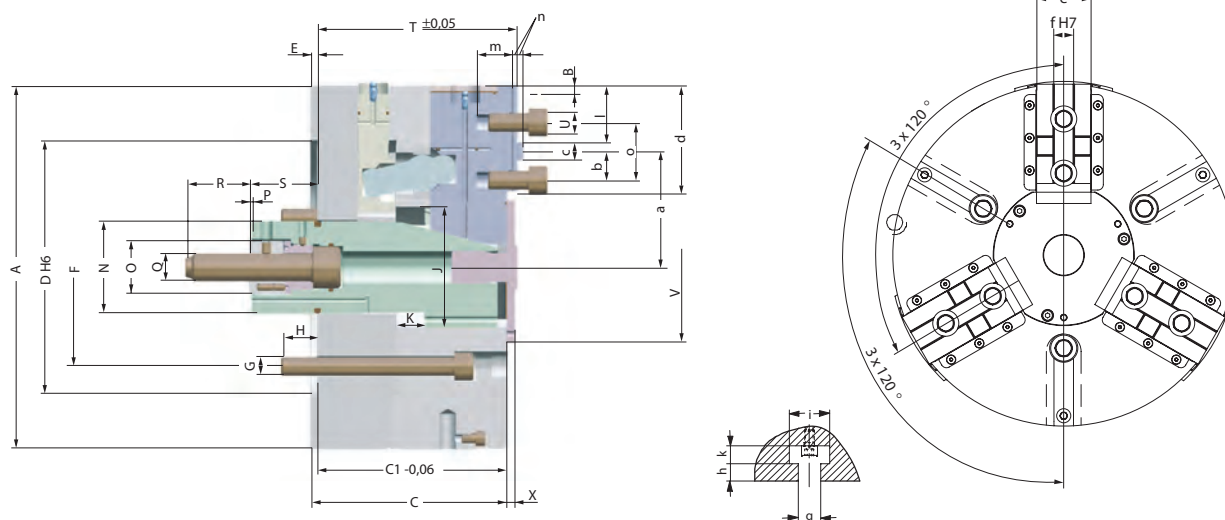
Type 619-30 **Short-taper adapter plate ISO 702-1 (DIN 55026/55021) - ASA B 5.9 (without mounting bolts)**

finished on machine side, faced on chuck side, especially



Id.-Nr.	Spindle nose size	h	E	M	D
144933	3	18	13	40	125
145296	4	18	13	40	125
145328	3	18	13	40	160
145342	4	18	13	40	160
145343	5	21	16	50	160
145344	4	21	13	50	200
145345	5	21	16	50	200
145346	6	27	17	50	200
145347	4	27	13	63	250
145348	5	27	16	63	250
145349	6	27	17	63	250
145350	8	27	19	63	250
145351	5	36	16	63	315
145352	6	36	17	63	315
145353	8	36	19	63	315
145354	11	36	21	63	315
145355	6	40	17	63	400
145356	8	40	19	63	400
145357	11	40	21	63	400
145358	15	40	23	63	400
145359	8	42	19	80	500
145360	11	42	21	80	500
145364	15	42	23	80	500

KFD-F-EC guided piston, with force compensation

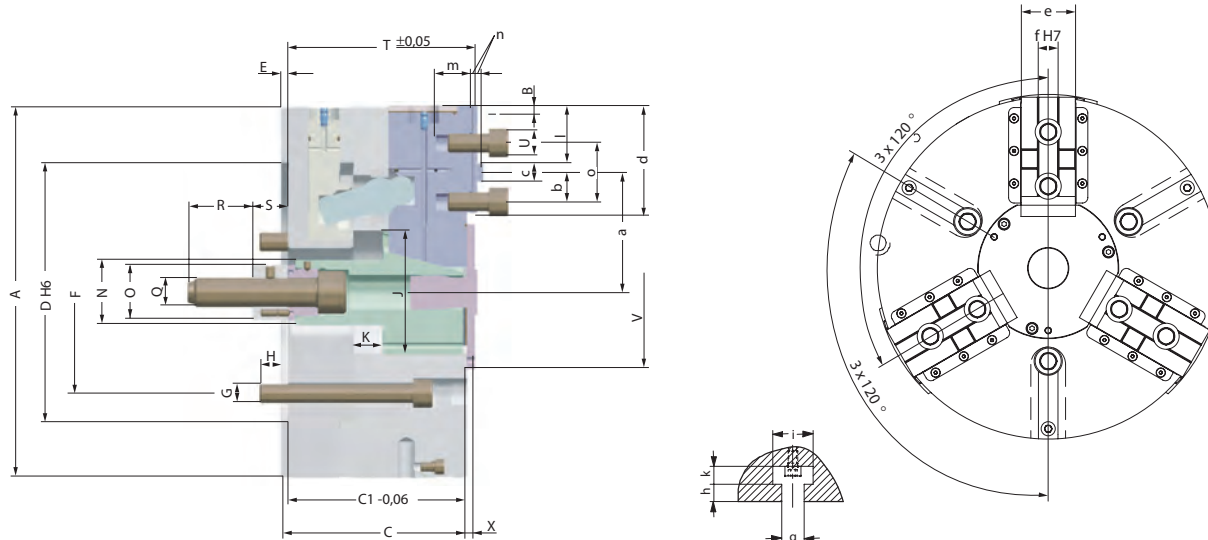


Tool group C15
Type 541-60
Low-Maintenance 3 jaw
power chuck **KFD-F-EC**,
guided piston,
with force compensation,
centric clamping
Adaptor recess,
mounting dimensions to **DIN 6353**

Item no.	165841	165842	165843	165965
Size	200	250	315	400
A	200	250	315	400
Jaw travel B	5,3	6,7	6,7	8
C	115	141	155	167
C1-0,06	109	135	149	161
Mount D ^{H6}	ZA 170	ZA 220	ZA 220	ZA 300
E	6	6	6	6
F	133,4	171,4	171,4	235
G	3xM12	3xM16	3xM16	3xM20
H	18	25	26	30
J	85	105	105	155
Wedge stroke K	20	25	25	30
N	65	80	80	80
O	40	46	46	46
P	2	2	2	2
Q	M20	M24	M24	M24
R	45	55	55	55
S min.	70	75	75	75
S max.	90	100	100	105
T ^{±0,05}	118	144	158	170
U	M12	M16	M16	M20
V ^{H7}	110	130	130	190
X	7	7	7	9
a min.	64,7	81,3	93,8	133,5
a max.	70	88	100,5	141,5
b	15	20	25	40
cg6	12	16	16	25
d	55	70	91,5	115
e	35	50	50	60
f ^{H7}	16	20	20	25
g	14	18	18	22
h	11	13	13	22
i	25	32	32	40
k	11	14	14	18
l	24	29	39	46
m	18	22	26	30
n	5	5	5	6
o	30	40	50	80
Max. interferences diameter top jaws mm	216,1	269,1	334,8	423,9
Maximum draw bar pull kN	45	65	75	110
Clamping force/jaw kN	95	140	180	250
Max. admissible speed min ⁻¹	5000	4000	4000	3000
Moment of inertia J kgm ²	0,13	0,4	1,1	2,7
Weight without jaws approx. kg	27,5	52,7	91,9	155,8

Intermediate flanges for short taper adaption on request

KFD-F-EC short piston, with force compensation

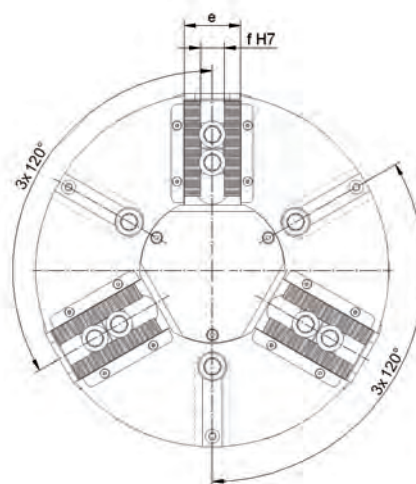
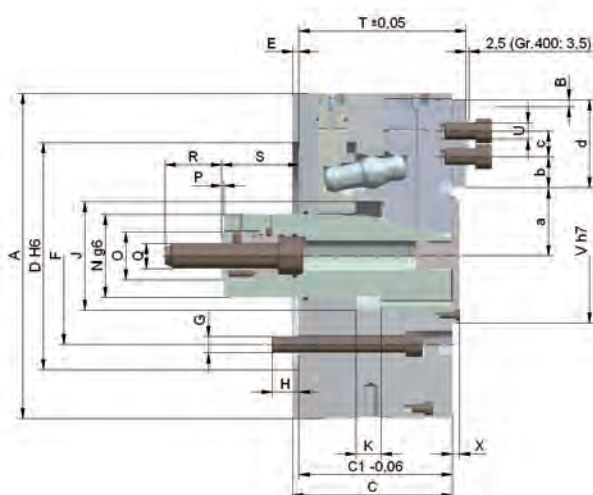


Tool group C15
Type 541-10
Low-Maintenance 3 jaw
power chuck **KFD-F-EC**,
with short piston,
with force compensation,
centric clamping
Adaptor recess,
mounting dimensions to **DIN 6353**

Item no.	166187	166188	166189	166190
Size	200	250	315	400
A	200	250	315	400
Jaw travel B	5,3	6,7	6,7	8
C	115	141	155	167
C1-0,06	109	135	149	161
Mount D ^{H6}	ZA 170	ZA 220	ZA 220	ZA 300
E	6	6	6	6
F	133,4	171,4	171,4	235
G	3xM12	3xM16	3xM16	3xM20
H	18	25	26	30
J	85	105	105	155
Wedge stroke K	20	25	25	30
N	45	55	55	55
O	40	46	46	46
Q	M20	M24	M24	M24
R	45	55	55	55
S min.	30	30	30	30
S max.	50	55	55	60
T ^{±0,05}	118	144	158	170
U	M12	M16	M16	M20
V ^{H7}	110	130	130	190
X	7	7	7	9
a min.	64,7	81,3	93,8	133,5
a max.	70	88	100,5	141,5
b	15	20	25	40
cg6	12	16	16	25
d	55	70	91,5	115
e	35	50	50	60
f ^{H7}	16	20	20	25
g	14	18	18	22
h	11	13	13	22
i	25	32	32	40
k	11	14	14	18
l	24	29	39	46
m	18	22	26	30
n	5	5	5	6
o	30	40	50	80
Max. interferences diameter top jaws mm	216,1	269,1	334,8	423,9
Maximum draw bar pull kN	45	65	75	110
Clamping force/jaw kN	95	140	180	250
Max. admissible speed min ⁻¹	5000	4000	4000	3000
Moment of inertia J kgm ²	0,13	0,4	1,1	2,7
Weight without jaws approx. kg	25,7	49,4	88,4	152,1

Intermediate flanges for short taper adaption on request

KFD-F-EC guided piston, with force compensation

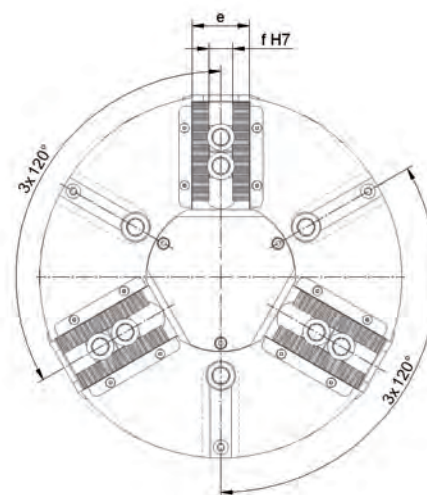
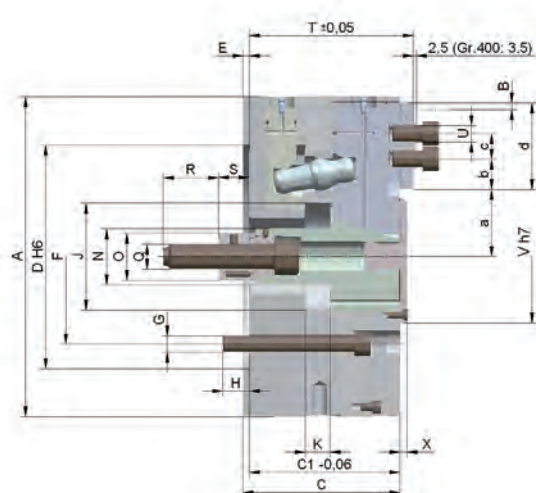


Tool group C15
Type 541-50

Low-Maintenance 3 jaw
power chuck **KFD-F-EC**,
guided piston,
with force compensation,
with serration,
centric clamping
Adaptor recess,
mounting dimensions to **DIN 6353**

Item no.	167325	167326	167327	167328
Size	200	250	315	400
A	200	250	315	400
Jaw travel B	5,3	6,7	6,7	8
C	115	141	155	167
C1-0,06	109	135	149	161
Mount D ^{H6}	170	220	300	300
E	6	6	6	6
F	133,4	171,4	235	235
G	3 x M12	3 x M16	3 x M20	3 x M20
H	18	25	31	30
J	85	105	120	155
Wedge stroke K	20	25	25	30
N	65	80	80	80
O	40	46	46	46
P	2	2	2	2
Q	M20	M24	M24	M24
R	45	55	55	55
S min.	70	75	75	75
S max.	90	100	100	105
T ^{+0,05}	122	148	162	180
U	M12 x 25	M16 x 30	M16 x 30	M20 x 40
V ^{H7}	110	130	160	190
X	7	7	9	9
a min.	40,7	48,3	59,3	79
a max.	46	55	66	87
b	8	10	10	14
d	49	64	85,5	107
e	35	50	55	60
f ^{H7}	17	21	21	25,5
g	14	18	18	22
h	11	13	13	22
i	25	32	32	40
k	11	14	14	18
Maximum draw bar pull kN	45	65	75	110
Clamping force/jaw kN	95	140	180	250
Max. admissible speed min ⁻¹	5000	4000	4000	3000
Moment of inertia J kgm ²	0,13	0,4	1,1	2,7
Weight without jaws approx. kg	27,5	52,6	91,7	156,5

KFD-F-EC short piston, with force compensation

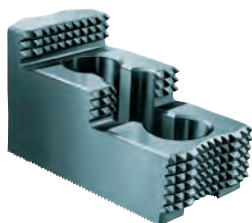


Tool group C15
Type 541-00
Low-Maintenance 3 jaw
power chuck **KFD-F-EC**,
with short piston,
with force compensation,
with serration,
centric clamping
Adaptor recess,
mounting dimensions to **DIN 6353**

Item no.	167329	167330	167331	167332
Size	200	250	315	400
A	200	250	315	400
Jaw travel B	5,3	6,7	6,7	8
C	115	141	155	161
C1-0,06	109	135	149	161
Mount D ^{H6}	170	220	300	300
E	6	6	6	6
F	133,4	171,4	235	235
G	3 x M12	3 x M16	3 x M20	3 x M20
H	18	25	31	30
J	85	105	120	155
Wedge stroke K	20	25	25	30
N	45	55	55	55
O	40	46	46	46
Q	M20	M24	M24	M24
R	45	55	55	55
S min.	30	30	30	30
S max.	50	55	55	60
T ^{+0,05}	122	148	162	180
U	M12 x 25	M16 x 30	M16 x 30	M20 x 40
V ^{H7}	110	130	160	190
X	7	7	9	9
a min.	40,7	48,3	59,3	79
a max.	46	55	66	87
b	8	10	10	14
d	49	64	85,5	107
e	35	50	55	60
f ^{H7}	17	21	21	25,5
g	14	18	18	22
h	11	13	13	22
i	25	32	32	40
k	11	14	14	18
Maximum draw bar pull kN	45	65	75	110
Clamping force/jaw kN	95	140	180	250
Max. admissible speed min ⁻¹	5000	4000	4000	3000
Moment of inertia J kgm ²	0,13	0,4	1,1	2,7
Weight without jaws approx. kg	25,7	49,3	88,2	152,8

Jaws KFD-F-EC

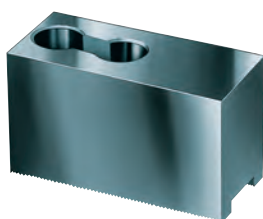
Tool group C 21
Type 543/538
**Reversible top jaws,
3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
118522	200	3	set	75	49	36	1/16"x 90°
046414	250/315	3	set	103,5	58	50	1/16"x 90°
037531	400	3	set	135	65	68	3/32"x 90°

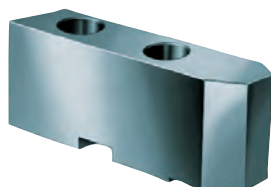
Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Tool group C 21
Type 543/538
**Soft top jaws,
3-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
133153	200	3	set	75	53	36,5	1/16"x 90°
133154	250	3	set	95	54,5	45	1/16"x 90°
133155	315	3	set	103	80	50	1/16"x 90°
133156	400	3	set	130	80	50	3/32"x 90°

Tool group C 21
Type 549/538
**Soft top jaws,
3-jaw set, can be hardened
tongue and groove 120° bevelled,
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
123430	200	3	set	90,3	53	36,5
123433	250/315	3	set	115,3	54,5	45
129849	400	3	set	146	80	50

Tool group C 21
Type 544-50
**Claw-type jaws,
1 piece, hardened
Serration 90° -
width of the groove 17**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137031	200	piece	67	45	53
137032	200	piece	65	45	46
137033	200	piece	55	45	39
137034	200	piece	50	45	31
137035	200	piece	55	45	27
137036	200	piece	65	45	19
137037	200	piece	65	45	26
137038	200	piece	55	45	24
137039	200	piece	55	45	40

Tool group C 21
Type 544-50
**Claw-type jaws, 1 piece,
hardened
Serration 90° -
width of the groove 21**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137041	250/315	piece	95	50	80
137042	250/315	piece	75	50	60
137043	250/315	piece	60	50	43
137044	250/315	piece	70	50	37
137045	250/315	piece	95	50	25
137046	250/315	piece	80	50	30

Jaws KFD-F-EC

Tool group C 21
Type 544-50
Claw-type jaws, 1 piece,
hardened
Serration 90° -
width of the groove **25,5**



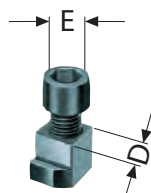
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137051	400	piece	130	65	113
137052	400	piece	90	65	67
137053	400	piece	100	65	45
137054	400	piece	130	65	33

Please note: For further details see jaw dimensions and chucking capacities.

Accessories KFD-F-EC

Tool group C 15

Type 538-00 **T-nuts**
without screw



Item no.	Chuck Size	Contents of delivery	D	E
241674	200	piece	17	M12
241675	250/315	piece	21	M16
241676 ¹⁾	400	piece	25,5	M20

Single T-nut
¹⁾ metric dimensions

Tool group C 15

Type 0040-Y **Mounting screws**



Item no.	Size	Thread
227692	200	M12x25
229157	250/315	M16
233047	400	M20x40

Socket head cap screw to DIN 912, 12.9

Tool group C15

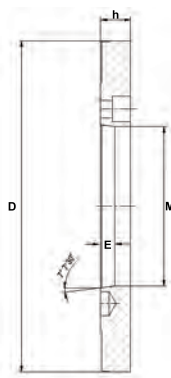
Type 1028 **Special grease F80** for **lathe chucks**
for lubrication and conservation of chucking power



Item no.	Design	Contents
028975	Tin	1 kg
308555	Cartridge	0,5 kg

Tool group A09

Type 619-30 **Short-taper adapter plate**
ISO 702-1 (DIN 55026/55021) - ASA B 5.9 (without mounting bolts)
finished on machine side, faced on chuck side, especially



Id.-Nr.	Spindle nose size	h	E	M	D
144933	3	18	13	40	125
145296	4	18	13	40	125
145328	3	18	13	40	160
145342	4	18	13	40	160
145343	5	21	16	50	160
145344	4	21	13	50	200
145345	5	21	16	50	200
145346	6	27	17	50	200
145347	4	27	13	63	250
145348	5	27	16	63	250
145349	6	27	17	63	250
145350	8	27	19	63	250
145351	5	36	16	63	315
145352	6	36	17	63	315
145353	8	36	19	63	315
145354	11	36	21	63	315
145355	6	40	17	63	400
145356	8	40	19	63	400
145357	11	40	21	63	400
145358	15	40	23	63	400
145359	8	42	19	80	500
145360	11	42	21	80	500
145364	15	42	23	80	500

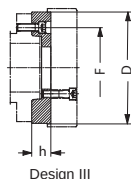
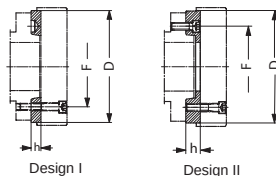
Accessories KFD-F-EC

Tool group C 15

Type 594-32 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**

Mounting from front to **ISO 702-1 (DIN 55026/55021)** and **ASA B 5.9 A1/A2** with **metric mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145127	5	200	II	21	104,8	170
145155	6	200	I	16	133,4	170
145131	6	250	II	27	133,4	220
145133	6	315	II	27	133,4	300
145135	8	200	III	39	171,4	170
145157	8	250	I	18	171,4	220
145137	8	315/400	II	38	171,4	300
145143	11	250	III	48	235	220
145159	11	315	I	19	235	300
145149	15	400	III	58	330,2	300

All fastening parts are included

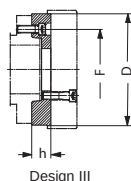
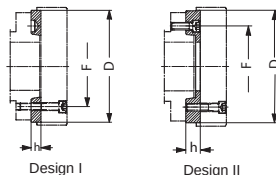
Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-35 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**

Mounting from front to **ASA B 5.9 A1/A2** with **inch threaded mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145192	5	200	II	21	104,8	170
145155	6	200	I	16	133,4	170
145194	6	250	II	27	133,4	220
145195	6	315	II	27	133,4	300
145196	8	315	II	39	171,4	300
145157	8	250	I	18	171,4	220
145197	8	315/400	II	38	171,4	300
145200	11	250	III	48	235	220
145159	11	315	I	19	235	300
145203	15	400	III	58	330,2	300

All fastening parts are included

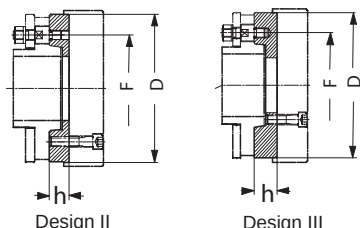
Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-33 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**

Bayonet fixing to **ISO 702-3 (DIN 55027)/ DIN 55022**



Item no.	Spindle nose size	Size	Design	h	F	D
145210	5	200	II	21	104,8	170
145240	6	200	II	22	133,4	170
145214	6	250/315	II	27	133,4	220
145216	6	315	II	27	133,4	300
145218	8	200	III	39	171,4	170
145242	8	250	II	30	171,4	220
145220	8	315/400	II	38	171,4	300
145226	11	250	III	48	235	220
145244	11	315/400	II	36	235	300
145232	15	400	III	58	330,2	300
145248	15	400/500	II	40	330,2	380

All fastening parts are included

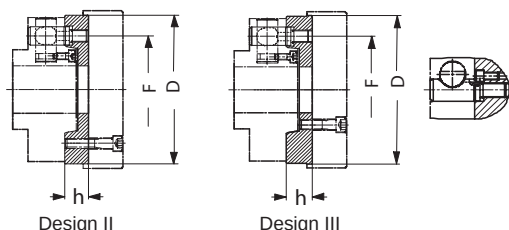
Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-36 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**

Camlock fixing to **DIN 55029/ASA B 5.9 D1**

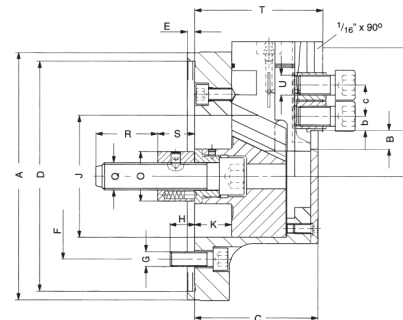
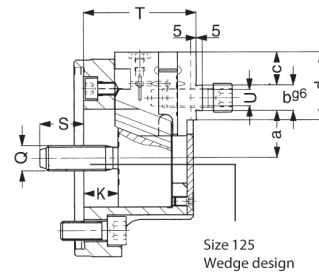
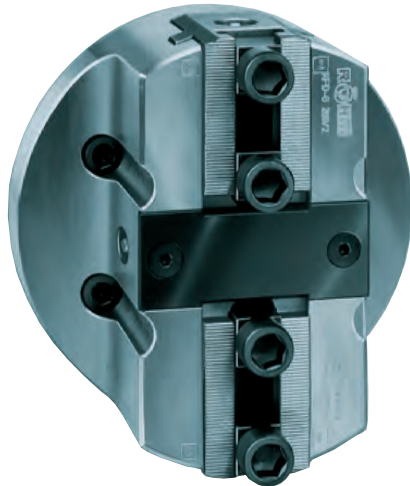


Item no.	Spindle nose size	Size	Design	h	F	D
145254	5	200	II	30	104,8	170
145284	6	200	II	35	133,4	170
145258	6	250	II	35	133,4	220
145260	6	315	II	35	133,4	300
145262	8	200	II	46	171,4	170
145286	8	250	II	38	171,4	220
145264	8	315/400	II	38	171,4	300
145270	11	250	III	53	235	220
145288	11	315/400	II	45	235	300
145276	15	400	III	58	330,2	300
145292	15	400/500	II	50	330,2	380

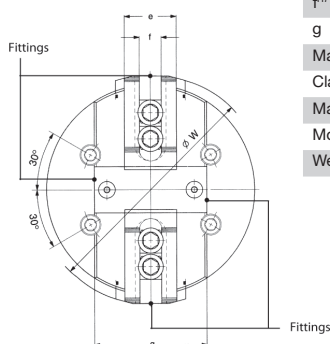
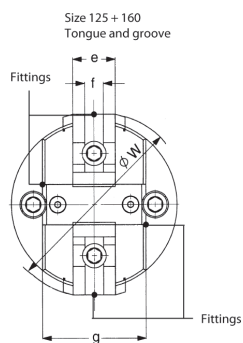
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

KFD-G large jaw movement



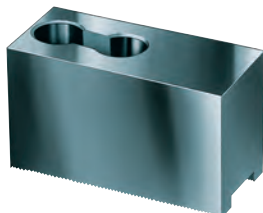
Tool group C15
Type 581 2-jaw
power chuck **KFD-G**,
with large jaw movement,
Adaptor recess
Without disclaiming high clamping
forces it is possible to clamp
workpieces with collars or
shoulders (i.e. fittings).
- Full steel design
- weight reduction
- direct lubricated
- special sealing against dirt and
water



Item no.	154025	154026	154027	154028	154029	154030
Size	125	160	200	250	315	400
A	125	160	200	250	315	400
Jaw travel B	8,5	11	14	14,4	14,4	14,4
C	70	81	100	102	102	108
Mount D ^{H6}	115	140	185	220	220	300
E	6	6	6	6	6	6
F	92	104,8	133,4	171,4	171,4	250
G	2 x M 12	4 x M 10	4 x M 12	4 x M 16	4 x M 16	4 x M 24
H	15	16	20	25	25	35
J	62	75	98	98	98	120
Wedge stroke K	22	27	30	31	31	31
O	-	35	44	44	44	52
Q	M 16	M 16	M 22	M 22	M 22	M 24
R	-	40	50	50	50	50
S min.	28	33	30	29	29	25
S max.	50	60	60	60	60	55
T=0,05	72	84	103,7	105,7	105,7	111,7
U	M 12	M 16	M 16	M 20	M 20	M 20
W _{Max.}	140	180	220	270	334	420
a min.	21,5	32,5	23	22,6	22,6	28,6
a max.	30	43,5	37	37	37	43
b min.	16g6	18g6	14	14	14	14
c min.	21	26	25	31	31	31
c max.	21	26	55,5	77	103	136
d	43	57,5	71,5	96	128,5	165
e	32	35	50	55	55	60
f ^{H7}	14	18	21	25,5	25,5	25,5
g	78	91	108	120	120	135
Maximum draw bar pull kN	13	16	35	45	45	57
Clamping force/jaw kN	10	12	25	29	29	37
Max. admissible speed min ⁻¹	3500	3000	3000	2500	2200	2000
Moment of inertia J kgm ²	0,01	0,04	0,09	0,2	0,4	1,1
Weight without jaws approx. kg	5	9	17	25	36,5	60

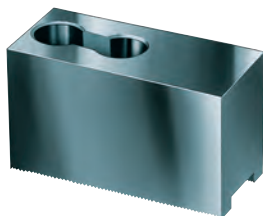
KFD-G

Tool group C 21
Type 581
**Soft top jaws, stationary,
2-jaw set, can be hardened
tongue and groove for 2-jaw
chucks,**
material: 16 MnCr 5



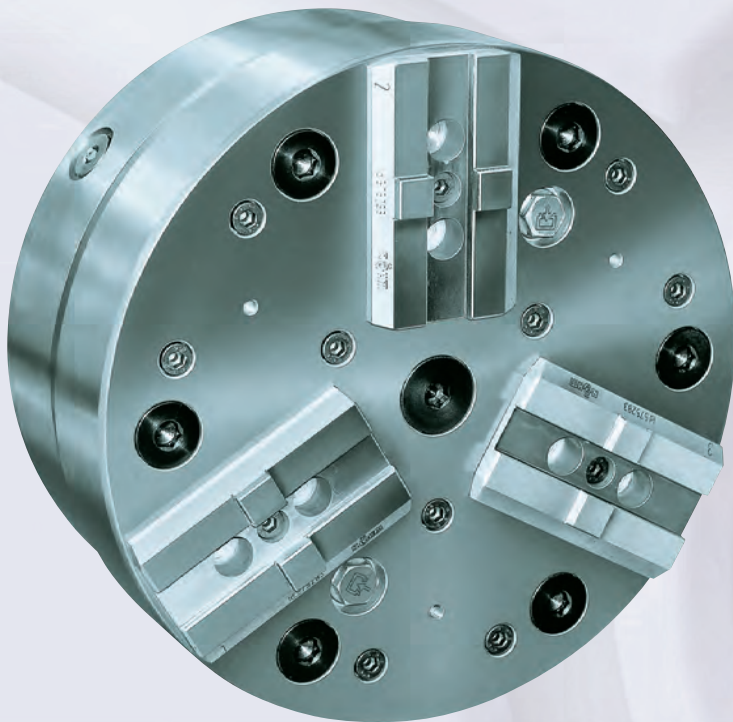
Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
120321	125	2	set	56,5	53	36,5
120320	160	2	set	74,5	53	36,5
120318	200	2	set	94	89	68
120316	250	2	set	110	89	68
120073	315/400	2	set	130	89	68

Tool group C 21
Type 543/538
**Soft top jaws,
2-jaw set, can be hardened
Serration 90° -**
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
133149	200	2	set	95	54,5	45	1/16"x 90°

KFD-HS oil



- Oil bath lubricated
- Power chucks for very high speeds
- Minimal loss of gripping force
- No separate elements required for centrifugal force compensation

Design principle

The power operated chuck **KFD-HS oil** is based upon the approved power operated chuck KFD-HS. In contrast with other chucks this design has its advantages in having all moving parts permanently lubricated in an oil bath. That is the reason for the **KFD-HS oil being almost maintenance free.**

An integrated control unit is monitoring the oil level inside the chuck. Specially sealed from coolant and filth.

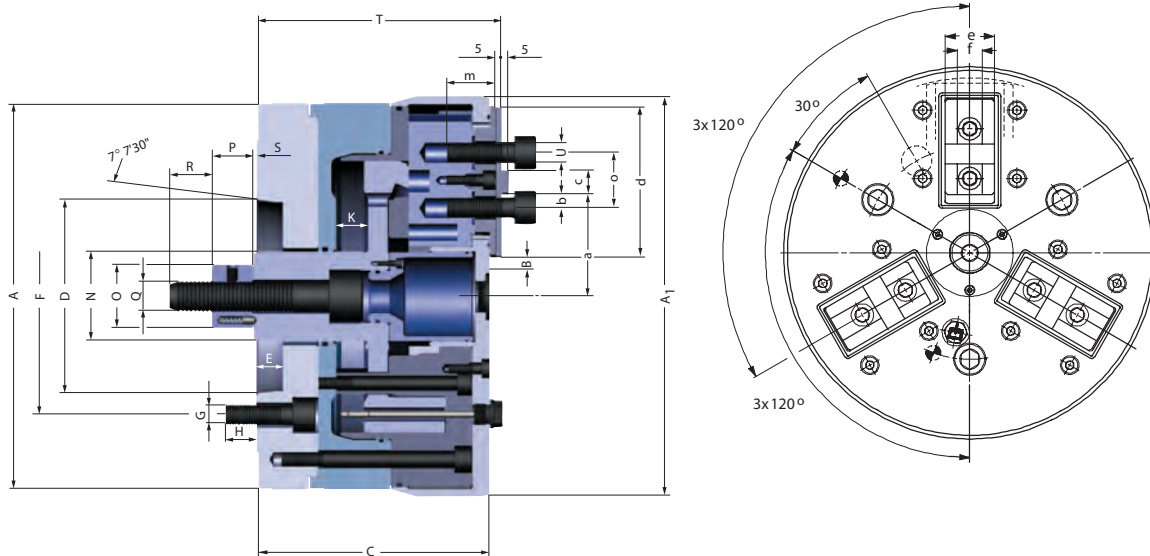
Technical features:

- Direct transmission of the piston force to the jaws in the area of the jaw guides. The axial actuating force is thus transmitted to the jaws without major friction losses (resulting in above-average mechanical efficiency).
- Specially sealed from coolant and filth.
- All moving parts are oil bathed
- Control unit monitoring oil level
- Almost maintenance-free
- High radial and axial true-running accuracy
- High clamping forces
- Long jaw ways
- High speed
- All parts subject to wear are hardened and ground.
- Steel design
- Base jaw secured against throw-off
- Used in conjunction with Röhm safety cylinders SZS, OVS and LVS, these power chucks meet the requirements of the German Employers' Liability Insurance Association.

Accessories

Chuck and jaw mounting screws, assembly wrench (without top jaws).

KFD-HS oil oil bath lubricated, tongue and groove



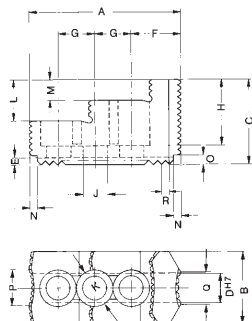
Tool group C15
Type 549
**3 jaw power chuck,
tongue and groove,
oil bath lubricated
short taper mount**

Item no.	426225	421626	421627	421244
Size	210	270	300	333
A1	210	270	300	333
A	200	250	280	315
Jaw travel B	4,9	6,2	6,2	6,2
C	110	152	152	165
Mount D	Ø 170	8	8	11
E	6	19	19	21
F	133,4	171,4	171,4	235
G	M 12	M 16	M 16	M 20
H	18	23	23	33
Wedge stroke K	16	23	23	23
N	40	68	68	118
O	40	46	46	-
P	30	30	30	-
Q	M 20	M 24	M 24	M 80 x 2
R	45	55	55	36
S min.	30	15	15	-9
S max.	46	38	38	14
T	110	147	152	165
U	M12	M12	M12	M16
a min.	56,6	78,8	73,8	93,8
a max.	61,5	85	80	100
b	15	16	20	23
c	12	16	20	20
d	54	62	76	78
e	32	40	40	42
fH7-0,025	16	20	20	20
m	22	18	18	27
o	30	32	40	46
Maximum draw bar pull kN	45	65	65	80
Max. total clamping force kN	88	150	150	180
Max. admissible speed min ⁻¹	3700	3700	3400	3150
Moment of inertia J kgm ²	0,14	0,5	0,7	1,2
Weight without jaws approx. kg	27	65	75	95

Top jaws hardened or soft, with serration or draw down body on request

Jaw dimensions KFD / KFL / KFD-EC / KFD-F-EC

Reversible top jaws UB,
hardened, serration 90°, modul
toothing (size 1000-1600)



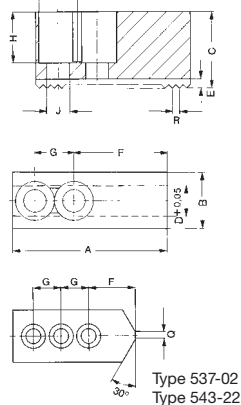
Chuck size	110/125/140	130	160	200/250 1)	250/315	400-800	1000-1600
Type	537-02	538-02	538-03	538-04	538-05	538-07 2)	543-61 2)
Item no. 2-jaw	046545	045796	046429	118521	046435	046447	-
Item no. 3-jaw	046544	046404	046408	118522	046414	037531	152789
Item no. 4-jaw	046546	046452	046456	118523	046462	046474	-
A	56	56	68	75	103,5	135	200
B	26	26	34,7	36	50	68	80
C	37,5	37,5	45	49	58	65	85
D ^{H7}	10	12	17	17	21	25,5	30
E	3,5	3,5	5	5	5	5	8
F	10	14	17	21,5	33,5	48	78
G	12 3)	15	19	19	25	31	42
H	29	29	33,5	37,5	45	48	62
J	6,4	8,4	13	13	17	21	26
K	10,4	13,5	19	19	25	31	40
L	20	20	20	24	28	-	-
M	10	10	10	12	14	26	35
N	4	4	5	6	6	6,5	6,5
O	4	4	7	7,5	6,5	5,5	9
P	5	5	10	18	24,5	34	40
Q	5	5	5	7	22,5	40	40
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°	m 2
Weight/jaw kg	0,130	0,170	0,350	0,460	1,130	2,000	6,000

1) Size 250: Chuck in flat design

2) one step only

3) 4 mounting holes

Soft top jaws AB,
serration 90°,
modul toothing (size 1000-1600)



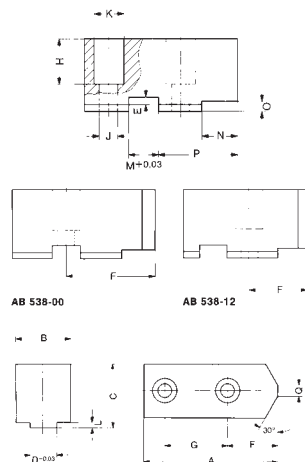
Chuck size	110/125/140	130	160	200/250 1)	250	315	400-800	400-800	1000-1600
Type	537-02	538-02	538-03	538-04	538-05	538-06	538-07	538-07 2)	543-62
Item no. 2-jaw	045794	045795	133147	133148	133149	133150	133151	046446	-
Item no. 3-jaw	046402	046403	133152	133153	133154	133155	133156	046423	152790
Item no. 4-jaw	-	046451	133157	133158	133159	133160	133161	046473	461716
A	53	55	66,7	75	95	103	130	130	200
B	22,5	26,5	36,5	36,5	45	50	50	68	80
C	30	38	53	53	54,5	80	80	89	89
D	10	12	17	17	21	21	25,5	25,5	30
E	3,5	3,5	5	5	5	5	5	5	8
F	20	31	36	44	55	62	79	75	94
G	12 3)	15	19	19	25	25	31	35	42 1)
H	20	28	43	43	42,5	67	60	69	69
J	6,4	8,4	13	13	17	17	21	21	26
K	10,4	13,5	19	19	25	25	31	31	40
Q	3	-	-	-	-	-	-	-	-
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°	3/32"x90°	m 2
Weight/jaw kg	0,223	0,320	0,700	0,880	1,400	2,580	3,1	5,120	8,5

1) Size 250: Chuck in flat design

2) heavy design

3) 3 mounting holes

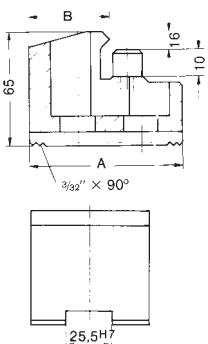
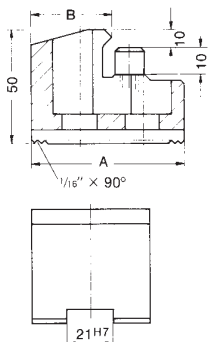
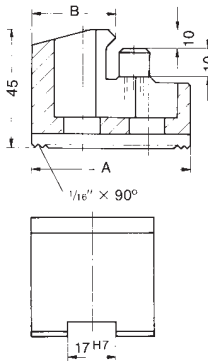
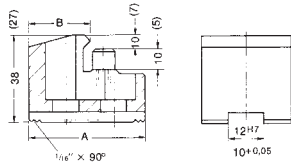
Soft top jaws AB,
tongue and groove



Chuck size	85	110/125 1)	130/140 1)	160	200	250	315
Type	538-00	537-03	538-12	538-13	538-14	538-15	538-66
Item no. 2-jaw	119458	046860	123356	123359	123431	123434	129847
Item no. 3-jaw	119459	046859	123355	123358	123430	123433	129849
A	40	51	58	72,7	90,3	115,3	146
B	22,5	22,5	26,5	36,5	36,5	45	50
C	30	30	38	53	53	54,5	80
D _{0,03}	8	8	8	16	16	20	20
E	3	3,5	3,5	5,5	5,5	5,5	5,5
F	29	29,5	31,5	32,5	45,3	58,3	63,5
G	-	15	-	25	30	40	50
H	20	20	25	38	38	38	60
J	9	6,4	13	13	13	17	17
K	15	10,4	19	19	19	25	25
L	2,5	2,5	2,5	4,5	4,5	4,5	4,5
M _{0,03}	8	8	13	10	12	16	16
N	18	23	23	24,7	35,3	45,3	43
O	4	4	3	5	5	5	5
P	25	33	39,5	39,7	54,3	70,3	80,5
Q	3	3	3	3	6	6	6
Weight/jaw kg	0,146	0,200	0,310	0,720	1,000	1,550	3,600

Jaw dimensions KFD

Claw type jaws KB, serration 90°



Chuck size	A	B	130
Item no. Piece			Capacities external
144320	66	52	38-82
144321	56	34	78-122
144322	66	25	120-144
			Capacities internal
144322	66	25	70-98
144321	56	34	92-138
144320	66	52	122-178

Chuck size	A	B	160	200
Item no. Piece			Capacities external	
137031	67	53	38-56	60-96
137032	65	46	51-71	73-111
137039	55	40	66-87	88-127
137034	50	31	83-102	105-142
137035	55	27	97-117	119-157
			Capacities internal	
137036	65	19	50-70	72-110
137037	65	26	68-85	90-125
137038	55	24	82-104	104-144
137035	55	27	102-116	124-156
137034	50	31	114-123	136-163
137039	55	40	120-135	144-175
137033	55	39	132-165	154-205
137032	65	46	146-178	168-218

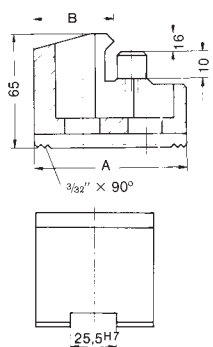
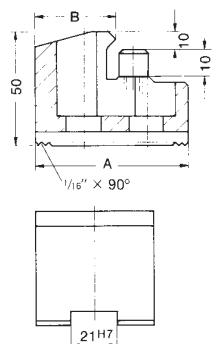
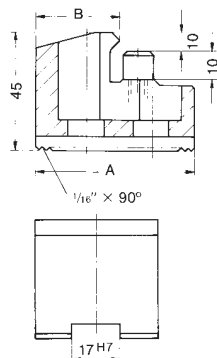
Chuck size	A	B	250	315 1)	315
Item no. Piece			Capacities external		
137041	95	80	53-95	53-160	66-160
137042	75	60	92-133	92-198	105-198
137043	60	43	125-167	125-232	138-232
137044	70	37	156-198	156-263	169-263
			Capacities internal		
137045	95	25	68-112	68-117	81-177
137046	80	30	108-154	108-219	121-219
137044	70	37	146-186	146-240	159-240
137043	60	43	178-240	178-305	191-305
137042	75	60	212-265	212-330	225-330

1) Shallow design chuck

Chuck size	A	B	400	500	630	800
Item no. Piece			Capacities external			
137051	130	113	80-180	80-280	114-410	114-580
137052	90	67	170-270	170-370	204-500	204-670
137053	100	45	256-390	270-495	290-625	290-790
			Capacities internal			
137054	130	33	100-215	100-315	134-445	134-615
137053	100	45	260-395	275-500	295-625	295-795
137051	130	113	300-460	300-560	334-690	334-860

Jaw dimensions KFL

Claw type jaws KB,
serration 90°



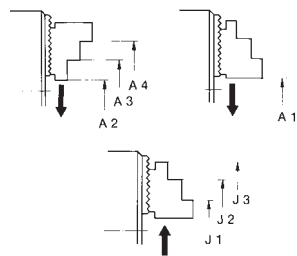
Size	A	B	250
Item no. Piece			Capacities external
137031	67	53	82-146
137032	65	46	95-161
137039	55	40	110-177
137034	50	31	127-192
137035	55	27	141-207
			Capacities internal
137036	65	19	94-160
137037	65	26	112-175
137038	55	24	126-194
137035	55	27	146-206
137034	50	31	158-213
137039	55	40	166-255
137033	55	39	176-255
137032	65	46	190-268

Size	A	B	315	400
Item no. Piece			Capacities external	
137041	95	80	67-160	67-245
137042	75	60	106-198	106-283
137043	60	43	139-232	139-317
137044	70	37	170-263	170-348
			Capacities internal	
137045	95	25	82-177	82-262
137046	80	30	122-219	122-304
137044	70	37	160-240	160-336
137043	60	43	192-305	192-390
137042	75	60	226-330	226-415

Size	A	B	500	600
Item no. Piece			Capacities external	
137051	130	113	88-280	88-380
137052	90	67	178-370	178-470
137053	100	45	265-195	265-595
			Capacities internal	
137054	130	33	108-315	108-415
137053	100	45	270-502	270-602
137051	130	113	308-560	308-660

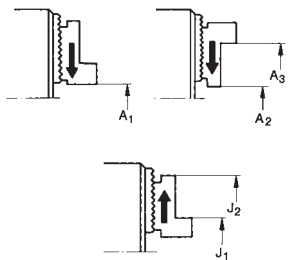
Chucking capacities KFD

Chucking capacities with reversible top jaws UB/AB for 2- and 3-jaw chucks



Chuck size		110	125	130	140	160	200	250 1)	250	315 1)	315	400	500	630	800
with reversible jaws	Type	537-02	537-02	538-02	537-02	538-03	538-04	538-04	538-05	538-05	538-05	538-07	538-07	538-07	538-07
	Jaw position														
External chucking	A1	4-62	4-78	6-66	4-93	5-73	16-108	16-159	20-124	20-189	34-189	40-225	40-325	60-450	60-620
	A2	-	-	-	-	-	28-118	28-169	38-152	38-217	52-217	70-280	70-380	108-510	106-680
	A3	47-105	75-126	60-119	75-140	70-140	86-173	86-223	120-232	120-297	134-297	-	-	-	-
	A4	82-140	110-161	94-151	110-176	110-182	137-224	137-274	200-314	200-379	214-379	275-480	275-580	310-700	310-870
Internal chucking	J1	40-95	40-110	42-96	40-125	53-120	70-156	70-208	70-170	70-233	84-233	102-305	102-405	136-530	136-700
	J2	74-130	72-145	74-130	72-160	92-163	120-208	120-258	146-251	146-313	160-313	-	-	-	-
	J3	112-168	116-190	118-175	116-205	144-200	173-261	173-311	236-328	236-393	250-393	295-490	295-590	328-720	328-890

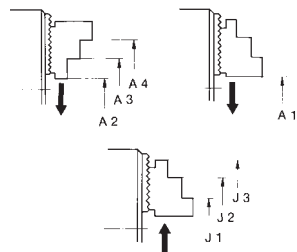
1) Shallow design chuck



Chuck size		1000	1250	1400	1600
with reversible jaws	Type	538-09	538-09	538-09	538-09
	Jaw position				
External chucking	A1	100-640	100-890	100-1040	100-1240
	A2	180-720	180-970	180-1120	180-1320
	A3	450-1000	450-1250	450-1400	450-1600
Internal chucking	J1	200-750	200-1000	200-1150	200-1350
	J2	480-1030	480-1280	480-1430	480-1630

Chucking capacities KFL

Chucking capacities with reversible top jaws UB



Chuck size		250	315	400	500	600
with reversible jaws	Type	538-04	538-05	538-07	538-07	538-07
	Jaw position					
External chucking	A1	40-160	22-189	22-270	37-325	37-425
	A2	55-173	51-217	51-302	81-380	81-480
	A3	110-225	134-297	134-382	-	-
	A4	160-276	214-379	214-482	287-580	287-680
Internal chucking	J1	88-204	73-233	73-318	108-405	108-505
	J2	138-256	150-313	150-398	-	-
	J3	192-310	228-393	228-478	305-590	305-690

Overview

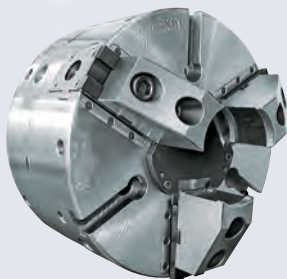


- **KFD-HS two-, three- and four-jaw chucks**
for very high speeds, with large through-hole,
minimal loss of gripping force, no separate elements
required for centrifugal force compensation

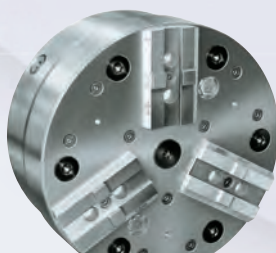


- **KFD-HE three-jaw chucks**
with large through-hole,
chucking power is transmitted by means of the
proven wedge system

These power chucks are also available with through-hole:

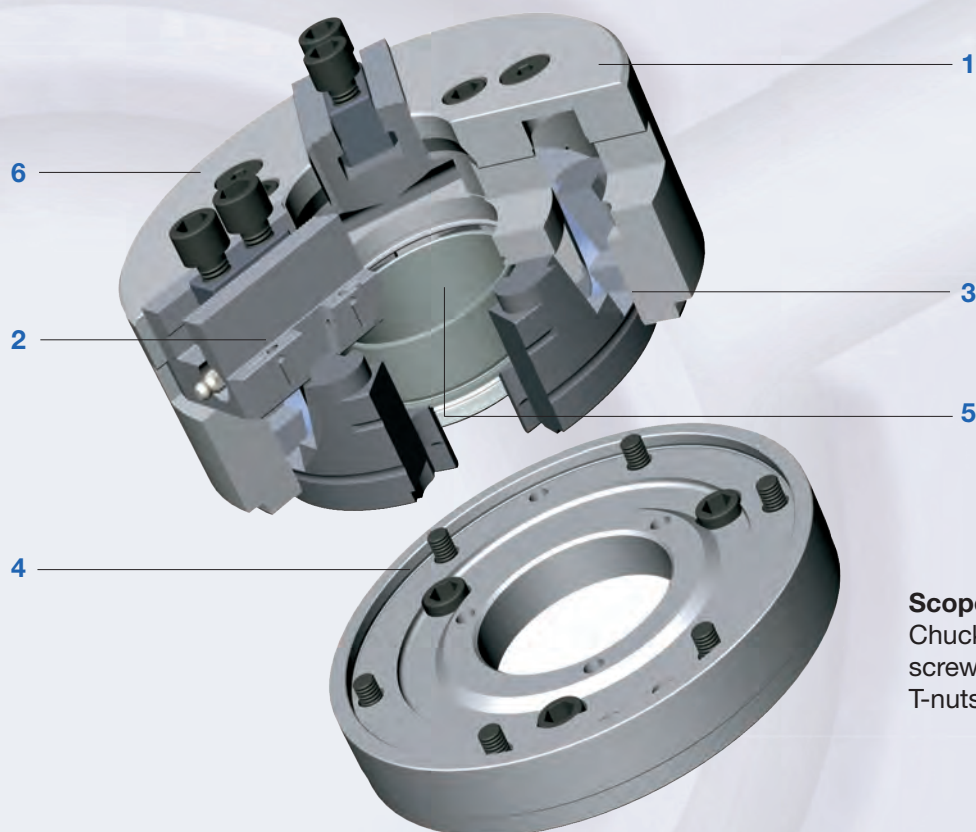


- **Low-maintenance power chucks KFD-EC / KFD-F-EC**
improved dirt protection by integrated jaw guiding seals,
with and without mechanical centrifugal force compensation



- **KFD-HS oil three-jaw chucks**
for very high speeds, with oil bath lubrication,
minimal loss of gripping force, no separate elements
required for centrifugal force compensation

KFD-HS



Components KFD-HS

1. Body
2. Base jaw
3. Piston
4. Adaptor plate
5. Protective bushing
6. T-nut

Scope of delivery:

Chuck and jaw mounting screws, assembly wrench, T-nuts (without top-jaws)

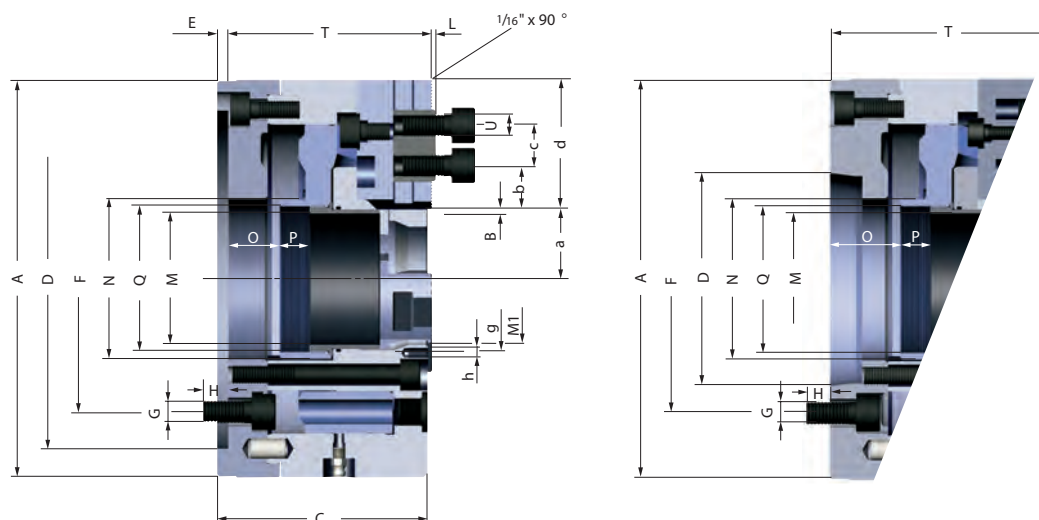
Two,- three- and four-jaw chucks, with large through-hole, for very high speeds

The design principle of the power chuck KFD-HS is to absorb most the centrifugal forces occurring during the machining process in order to minimize their influence on the clamping forces. This will be done by a special wedge-connection, resulting only in a small loss of clamping forces even at high speeds. The screwed connection between chuck body and chuck flange provides a high chuck rigidity. So this chuck Typee offers an optimum of conditions for precise machining of both shaft and flange Typeed workpieces.

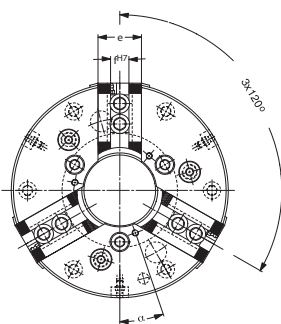
Technical features:

- Direct transmission of the piston force to the jaws in the area of the jaw guides. The axial actuating force is thus transmitted to the jaws without major friction losses (resulting in above-average mechanical efficiency).
- High radial and axial true-running accuracy
- Very few components
- Long jaw ways, very large bore
- Universal design of wedge connection (even in the fully retracted position the wedge neck does not project into the area of the spindle bore).
- If necessary, quick conversion to a different spindle nose, by simply exchanging the centering adapter.
- Use of clamping inserts for bar work (special design).
- Short taper mounting to ISO 702-1 (DIN 55026)/ DIN 55021 or cylindrical centre mounting to DIN 6353
- Base jaw secured against throw-off
- Used in conjunction with Röhm safety cylinders SZS, OVS, LVS and LTS, these power chucks meet the requirements of the German Employers' Liability Insurance Association.

KFD-HS 3 jaw, with tightening thread, serration 90°



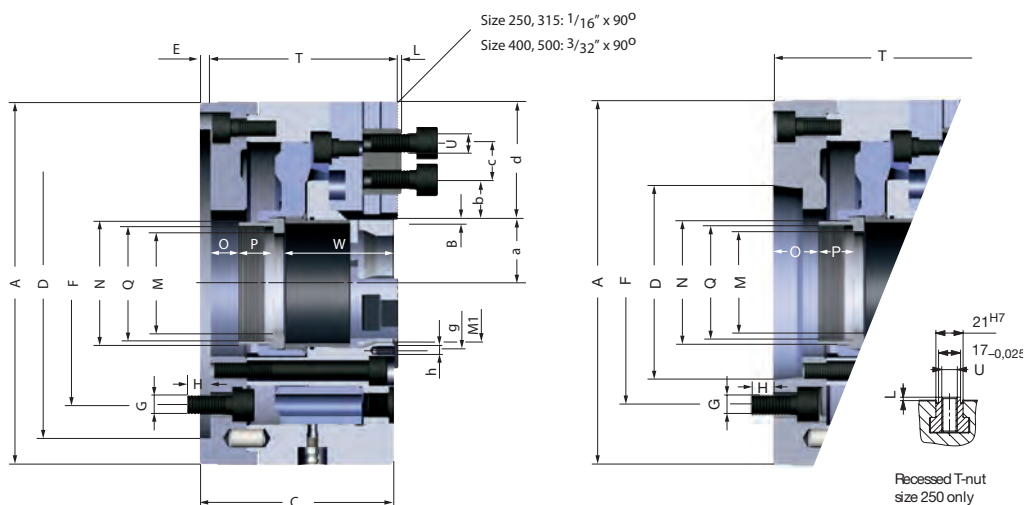
Tool group C 15
Type 549-00/ 549-22
3 jaw power chuck
KFD-HS,
with tightening thread,
serration 90°
Adaptor recess,
mounting dimensions
to **DIN 6353/**
short taper mount (KK)
ISO 702-1 (DIN 55026/55021)



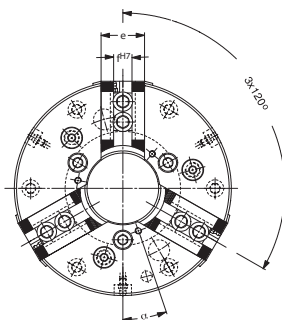
Item no.	149406	149405	144257	142477	144258	142690	143692	142478	144259	143893	143888	142479
Size	110	110	130	130	140	140	160	160	175	175	200	200
A	110	110	130	130	140	140	160	160	175	175	200	200
Jaw travel B	3,2	3,2	3,2	3,2	3,2	3,2	4	4	4	4	5	5
C	78	86	88	90	88	92	102	108	102	108	107	112
Mount D	ZA 60	KK 4*	ZA 100	KK 4*	ZA 120	KK 5	ZA 140	KK 5	ZA 140	KK 5	ZA 170	KK 6
E	6	13	6	13	6	15	6	16	6	16	6	16
F	82,6	82,6	82,6	82,6	104,8	104,8	104,8	104,8	104,8	104,8	133,4	133,4
G	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM12	3xM12
H	15	14	15	14	15	17	15	14	15	14	18	17
Wedge stroke K	12	12	12	12	12	12	15	15	15	15	18,5	18,5
L	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
M max.	26	26	32	32	37	37	46	46	56	56	66	66
M ₁ ^{H7}	32	32	32	32	37	37	46	46	56	56	66	66
N	38	38	42	42	48	48	58	58	68	68	80	80
O min.	-1	11	6	12	5	13	6	16	6	16	7,5	16,5
O max.	11	23	18	24	17	25	21	31	21	31	26	35
P	12	12	14	14	14	14	16	16	16	16	15	15
Q	M34x1,5	M34x1,5	M38x1,5	M38x1,5	M44x1,5	M44x1,5	M54x1,5	M54x1,5	M65x1,5	M65x1,5	M74x1,5	M74x1,5
T	80	84	84	88	84	90	98	106	98	106	103	110
U	M8	M8	M6	M6	M6	M6	M8	M8	M8	M8	M12	M12
a min.	10,8	10,8	14,3	14,3	16,8	16,8	24	24	29	29	35	35
a max.	14	14	17,5	17,5	20	20	28	28	33	33	40	40
b min.	3	3	0	0	0	0	0	0	0	0	8,5	8,5
b max.	23	23	23,5	23,5	26	26	22	22	24,5	24,5	32,5	32,5
c	15	15	2x12	2x12	2x12	2x12	2x15	2x15	2x15	2x15	19	19
d	41	41	47,5	47,5	50	50	52	52	54,5	54,5	60	60
e	24	24	25	25	25	25	32	32	32	32	40	40
fH7-0,025	10	10	10	10	10	10	12	12	12	12	17	17
g	50	50	75	75	68	68	76	76	76	76	84	84
h	M5x8	M5x8	M5x8	M5x8	M5x8	M5x8	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10
α	0°	0°	15°	15°	22° 30'	22° 30'	20°	20°	20°	20°	20°	20°
Max. swing top jaws mm	113	113	170	170	180	180	195	195	210	210	250	250
Maximum draw bar pull kN	18	18	25	25	25	25	35	35	40	40	48	48
Max. total clamping force kN	48	48	70	70	70	70	86	86	95	95	110	110
Max. admissible speed min ⁻¹	8500	8500	8000	8000	8000	8000	8000	8000	7000	7000	6500	6500
Moment of inertia J kgm ²	0,007	0,007	0,015	0,015	0,022	0,022	0,0415	0,0415	0,057	0,057	0,1	0,1
Weight without jaws approx. kg	5	5	7	7	9	9	12	12	15	15	20	20

* ISO 702-1 (DIN 55026) only (DIN 55021 on request)

KFD-HS 3 jaw, with tightening thread, serration 90°



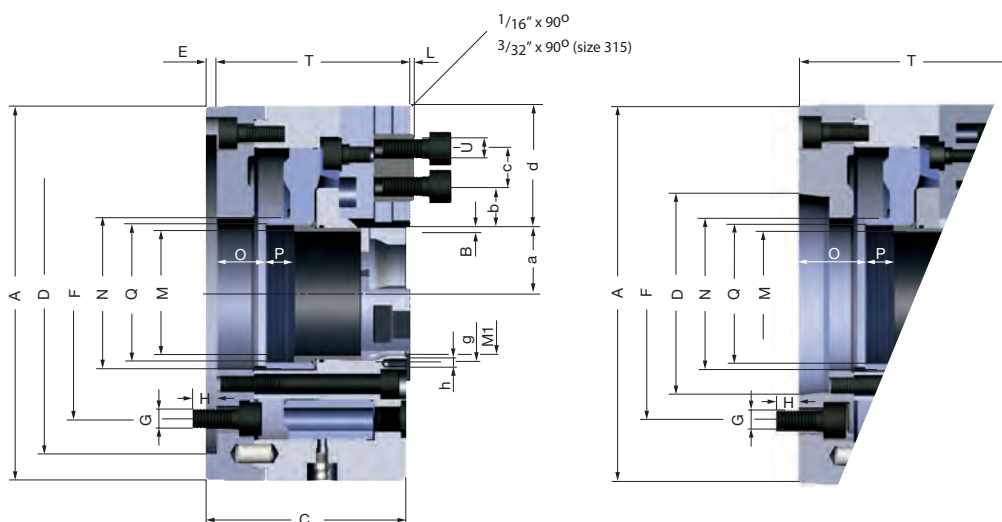
Tool group C 15
Type 549-00/ 549-22
3 jaw power chuck
KFD-HS,
with tightening thread,
serration 90°
Adaptor recess,
mounting dimensions
to **DIN 6353/short taper mount (KK)**
ISO 702-1 (DIN 55026/55021)



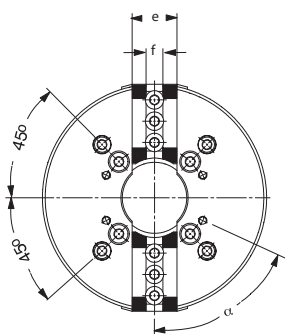
Item no.	161725	144260	143726	142691	144261	143748	144262	143749	161843	144263	143750	143751	144264	146228	143752
Size	250	250	250	250	315	315	315	315	400	400	400	400	500	500	500
A	250	250	250	250	315	315	315	315	400	400	400	400	500	500	500
Jaw travel B	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	7,5	7,5	7,5	7,5	7,5	7,5	7,5
C	128	128	130	130	128	130	139	143	156	156	156	156	156	156	156
Mount D	ZA 170	ZA 220	KK 6	KK 8	ZA 220	KK 8	ZA 300	KK 11	ZA 300	ZA 380	KK 11	KK 15	ZA 380	KK 11	KK 15
E	6	6	15	19	6	19	6	21	6	6	18	21	6	18	21
F	133,4	171,4	133,4	171,4	171,4	171,4	235	235	235	330,2	235	330,2	330,2	235	330,2
G	3xM12	3xM16	3xM12	3xM16	3xM16	3xM16	3xM20	3xM20	3xM20	3xM24	3xM20	3xM24	3xM24	3xM20	3xM24
H	16	24	18	24	24	24	30	30	36	30	30	30	30	30	30
Wedge stroke K	23	23	23	23	23	23	23	23	28	28	28	28	28	28	28
L	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5
M max.	66	86	66	86	86	86	108	108	126	165	126	165	165	165	165
M _{H7}	94	94	94	94	94	94	115	115	172	172	172	172	172	172	172
N	110	99	80	99	99	99	126	126	142	180	142	180	180	142	180
O min.	0	-6	2	2	-6	2	-9	1	-6	-12	0	-6	-12	0	-6
O max.	23	17	25	25	17	25	14	24	22	16	28	22	16	28	22
P	19	25	25	25	25	25	25	25	35	35	35	35	35	35	35
Q	M74 x1,5	M94 x1,5	M74 x1,5	M94 x1,5	M94 x1,5	M94 x1,5	M120 x1,5	M120 x1,5	M132 x1,5	M172 x3	M132 x1,5	M172 x3	M172 x1,5	M132 x1,5	M172 x3
T	124	124	132	132	124	132	135	145	153	153	159	159	153	159	159
U	M12	M12	M12	M12	M16	M16	M16	M16	M20	M20	M20	M20	M20	M20	M20
W	74	74	74	74	74	74	85	85	88	88	88	88	88	88	88
a min.	43,8	43,8	43,8	43,8	43,8	43,8	54,8	54,8	80,5	80,5	80,5	80,5	80,5	80,5	80,5
a max.	50	50	50	50	50	50	61	61	88	88	88	88	88	88	88
b min.	6	6	6	6	10,5	10,5	10,5	10,5	14,5	14,5	14,5	14,5	14,5	14,5	14,5
b max.	47,5	47,5	47,5	47,5	72	72	61	61	66,5	66,5	66,5	66,5	116,5	116,5	116,5
c	19	19	19	19	25	25	25	25	31	31	31	31	31	31	31
d	75	75	75	75	107,5	107,5	96,5	96,5	112	112	112	112	162	162	162
e	50	50	50	50	50	50	50	50	60	60	60	60	60	60	60
fH7-0,025	17	17	17	17	21	21	21	21	25,5	25,5	25,5	25,5	25,5	25,5	25,5
g	108	108	108	108	108	108	136	136	190	190	190	190	190	190	190
h	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10	M8x12	M8x12	M8x12	M8x12	M8x12	M8x12	M8x12	M8x12	M8x12
α	15°	0°	15°	0°	0°	0°	0°	0°	15°	15°	15°	15°	15°	15°	15°
Max. swing top jaws mm	305	305	305	305	380	380	380	380	520	520	520	520	620	620	620
Maximum draw bar pull kN	65	65	65	65	80	80	80	80	110	110	110	110	110	110	110
Max. total clamping force kN	150	150	150	150	180	180	180	180	250	250	250	250	250	250	250
Max. admissible speed min ⁻¹	5000	5000	5000	5000	4200	4200	4200	4200	3150	3150	3150	3150	2800	2800	2800
Moment of inertia J kgm ²	0,35	0,35	0,35	0,35	0,74	0,74	0,74	0,74	2,4	2,4	2,4	2,4	6	6	6
Weight without jaws approx. kg	40	40	40	40	56	56	56	56	120	120	120	120	190	190	190

* ISO 702-1 (DIN 55026) only (DIN 55021 on request)

KFD-HS 2 jaw, with tightening thread, serration 90°



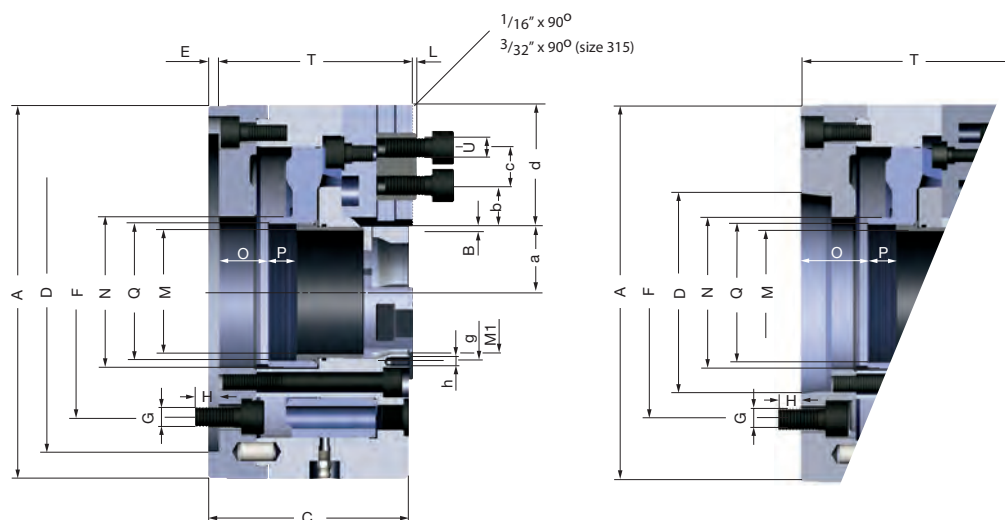
Tool group C15
Type 549-00/549-02
2 jaw power chuck
KFD-HS,
with tightening thread,
serration 90°
Adaptor recess,
mounting dimensions
to **DIN 6353/**
short taper mount (KK)
ISO 702-1 (DIN 55026/55021)



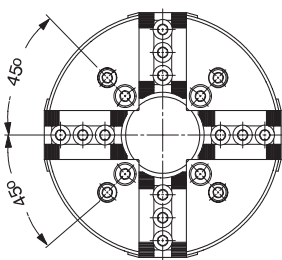
Item no.	147281	147282	147285	147286	148036	148023	148031	162995
Size	160	160	200	200	250	250	250	315
number of jaws	2	2	2	2	2	2	2	2
A	160	160	200	200	250	250	250	315
Jaw travel B	4	4	5	5	6,2	6,2	6,2	6,25
C	102	108	107	112	128	132	132	130
Mount D	ZA 140	KK 5	ZA 170	KK 6	ZA 220	KK 6	KK 8	ZA 300
E	6	15	6	16	6	15	19	6
F	104,8	104,8	133,4	133,4	171,4	133,4	171,4	235
G	4xM10	4xM10	4xM12	4xM12	4xM16	4xM12	4xM16	4xM20
H	15	14	18	17	24	18	24	30
Wedge stroke K	15	15	18,5	18,5	23	23	23	23
L	2,5	2,5	2,5	2,5	2,5	2,5	2,5	3,5
M max.	46	46	66	66	86	66	86	108
M _I ^{H7}	46	46	66	66	94	94	94	115
N	58	58	80	80	99	80	99	126
O min.	6	16	7,5	16,5	-6	2	2	-9
O max.	21	31	26	35	17	25	25	14
P	16	16	15	15	25	25	25	25
Q	M54x1,5	M54x1,5	M74x1,5	M74x1,5	M94x1,5	M74x1,5	M94x1,5	M120x1,5
T	98	106	103	110	124	130	130	135
U	M8	M8	M 12	M12	M12	M12	M12	M16
W	-	-	-	-	-	74	74	85
a min.	24	24	35	35	43,8	43,8	43,8	54,8
a max.	28	28	40	40	50	50	50	61
b min.	0	0	8,5	8,5	6	6	6	10,5
b max.	22	22	32,5	32,5	47,5	47,5	47,5	61
c	2x15	2x15	19	19	19	19	19	25
d	52	52	60	60	75	75	75	96,5
e	32	32	40	40	50	50	50	50
fH7-0,025	12	12	17	17	17	17	17	21
g	76	76	84	84	108	108	108	136
h	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10	M8x12
α	40°	40°	60°	60°	60°	60°	60°	60°
Max. swing top jaws mm	170	170	250	250	305	305	305	380
Maximum draw bar pull kN	20	20	30	30	42	42	42	55
Max. total clamping force kN	45	45	66	66	94	94	94	120
Max. admissible speed min ⁻¹	8000	8000	6500	6500	5000	5000	5000	4200
Moment of inertia J kgm ²	0,0415	0,0415	0,1	0,1	0,35	0,35	0,35	0,62
Weight without jaws approx. kg	12	12	20	20	40	40	40	60

Further dimensions on request

KFD-HS 4 jaw, with tightening thread, serration 90°



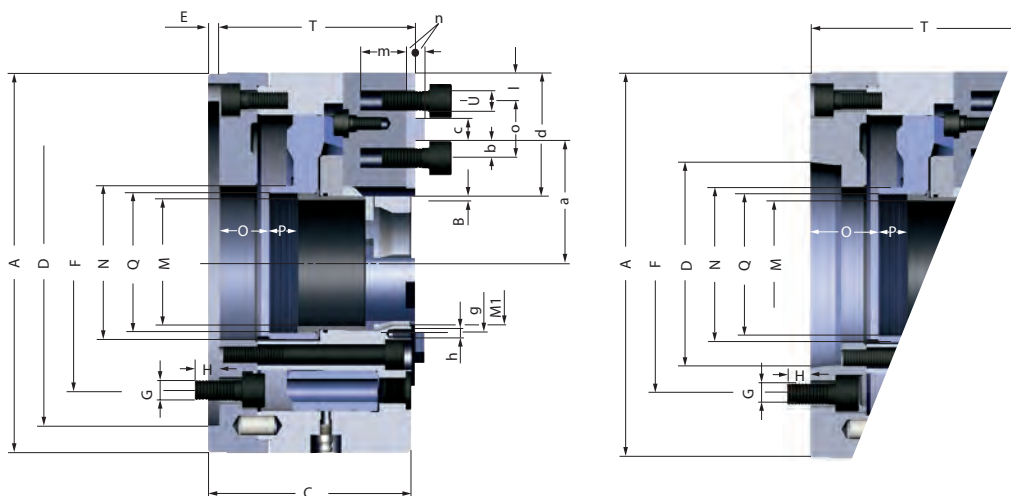
Tool group C15
Type 549-00/549-02
4 jaw power chuck
KFD-HS,
with tightening thread,
serration 90°
Adaptor recess,
mounting dimensions
to **DIN 6353/**
short taper mount (KK)
ISO 702-1 (DIN 55026/55021)



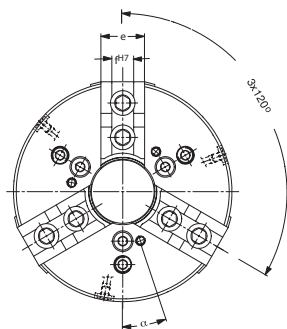
Item no.	147283	147284	147287	147288	148034	147533	148026
Size	160	160	200	200	250	250	250
number of jaws	4	4	4	4	4	4	4
A	160	160	200	200	250	250	250
Jaw travel B	4	4	5	5	6,2	6,2	6,2
C	102	108	103	112	128	132	132
Mount D	ZA 140	KK 5	ZA 170	KK 6	ZA 220	KK 6	KK 8
E	6	15	6	16	6	15	19
F	104,8	104,8	133,4	133,4	171,4	133,4	171,4
G	4xM10	4xM10	4xM12	4xM12	4xM16	4xM12	4xM16
H	15	14	18	17	24	18	24
Wedge stroke K	15	15	18,5	18,5	23	23	23
L	2,5	2,5	2,5	2,5	2,5	2,5	2,5
M max.	46	46	66	66	86	66	86
M ₁ ^{H7}	46	46	66	66	94	94	94
N	58	58	80	80	99	80	99
O min.	6	16	7,5	16,5	-6	2	2
O max.	21	31	26	35	17	25	25
P	16	16	15	15	25	25	25
Q	M54x1,5	M54x1,5	M74x1,5	M74x1,5	M94x1,5	M74x1,5	M94x1,5
T	98	106	107	110	124	130	130
U	M8	M8	M12	M12	M12	M12	M12
W	-	-	-	-	74	74	74
a min.	24	24	35	35	43,8	43,8	43,8
a max.	28	28	40	40	50	50	50
b min.	0	0	8,5	8,5	6	6	6
b max.	22	22	32,5	32,5	47,5	47,5	47,5
c	2x15	2x15	19	19	19	19	19
d	52	52	60	60	75	75	75
e	32	32	40	40	50	50	50
fH7-0,025	12	12	17	17	17	17	17
g	76	76	-	-	-	-	-
h	M6x10	M6x10	-	-	-	-	-
α	45°	45°	-	-	-	-	-
Max. swing top jaws mm	170	170	250	250	305	305	305
Maximum draw bar pull kN	30	30	45	45	65	65	65
Max. total clamping force kN	67,5	67,5	100	100	150	150	150
Max. admissible speed min ⁻¹	6400	6400	5200	5200	3600	3600	3600
Moment of inertia J kgm ²	0,0415	0,0415	0,1	0,1	0,35	0,35	0,35
Weight without jaws approx. kg	12	12	20	20	40	40	40

Further dimensions on request

KFD-HS 3 jaw, with tightening thread, tongue and groove



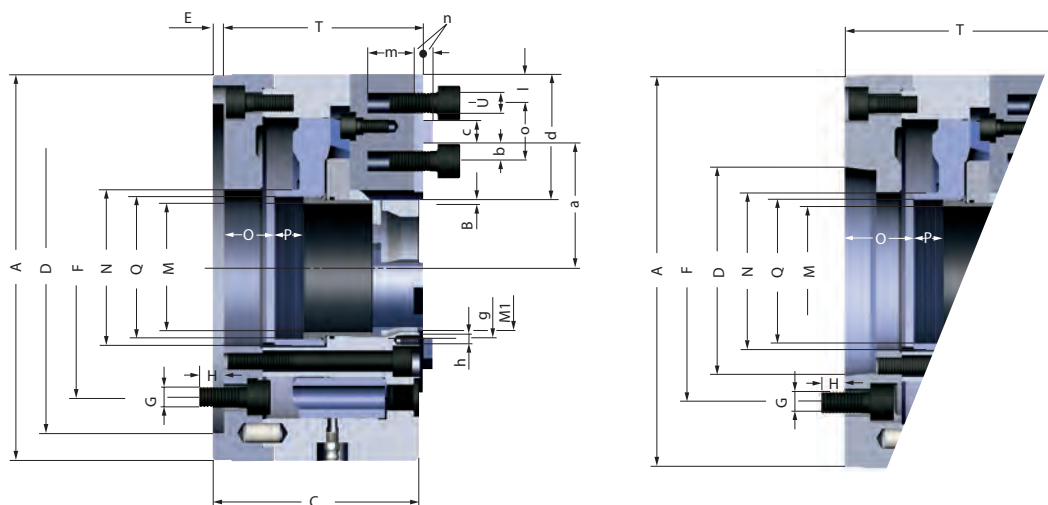
Tool group C15
Type 549-10/549-12
3 jaw power chuck
KFD-HS,
with tightening thread,
with tongue and groove
Adaptor recess,
mounting dimensions
to **DIN 6353/**
short taper mount (KK)
ISO 702-1 (DIN 55026/55021)



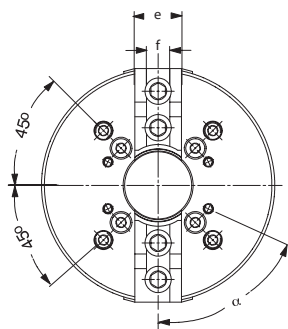
Item no.	149846	149543	151532	156580	153182	157768	154239	155099	153302	157624	160898
Size	110	110	140	140	160	160	200	200	250	250	250
A	110	110	140	140	160	160	200	200	250	250	250
Jaw travel B	3,2	3,2	3,2	3,2	4	4	5	5	6,2	6,2	6,2
C	80	86	88	92	102	108	107	112	128	132	132
Mount D	ZA 60	KK 4*	ZA 120	KK 5	ZA 140	KK 5	ZA 170	KK 6	ZA 220	KK 6	KK 8
E	6	13	6	16	6	15	6	16	6	15	19
F	82,6	82,6	104,8	104,8	104,8	104,8	133,4	133,4	171,4	133,4	171,4
G	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM12	3xM12	3xM16	3xM12	3xM16
H	15	14	15	17	15	14	18	17	24	18	24
Wedge stroke K	12	12	12	12	15	15	18,5	18,5	23	23	23
M max.	26	26	37	37	46	46	66	66	86	66	86
M _i ^{H7}	32	32	37	37	46	46	66	66	94	94	94
N	38	38	48	48	58	58	80	80	99	80	99
O min.	-1	11	5	13	6	16	7,5	16,5	-6	2	2
O max.	11	23	17	25	21	31	26	35	17	25	25
P	12	12	14	14	16	16	15	15	25	25	25
Q	M34x1,5	M34x1,5	M44x1,5	M44x1,5	M54x1,5	M54x1,5	M74x1,5	M74x1,5	M94x1,5	M74x1,5	M94x1,5
T	78	80	84	90	98	106	103	110	124	130	130
U	M8	M8	M12	M12	M12	M12	M12	M12	M16	M16	M16
W	-	-	-	-	-	-	-	-	74	74	74
a min.	31,8	31,8	45,3	45,3	43	43	59	59	73,8	73,8	73,8
a max.	35	35	48,5	48,5	47	47	64	64	80	80	80
c	10	10	13	13	10	10	12	12	16	16	16
d	30	30	50	50	56	56	65	65	81	81	81
e	24	24	25	25	32	32	40	40	50	50	50
fH7-0,025	10	10	8	8	16	16	16	16	20	20	20
g	50	50	68	68	76	76	84	84	108	108	108
h	M5x8	M5x8	M5x8	M5x8	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10
l	6,5	6,5	29	29	15,5	15,5	15	15	23	23	23
m	11	11	19	19	18	18	20	20	28	28	28
n	3	3	3	3	5	5	5	5	5	5	5
α	0°	0°	22° 30'	22° 30'	20°	20°	20°	20°	0°	15°	0°
Max. swing top jaws mm	113	113	180	180	170	170	210	210	305	305	305
Maximum draw bar pull kN	18	18	25	25	35	35	48	48	65	65	65
Max. total clamping force kN	48	48	70	70	86	86	110	110	150	150	150
Max. admissible speed min ⁻¹	8500	8500	8000	8000	8000	8000	6500	6500	5000	5000	5000
Moment of inertia J kgm ²	0,007	0,007	0,022	0,022	0,0415	0,0415	0,1	0,1	0,35	0,35	0,35
Weight without jaws approx. kg	5	5	9	9	12	12	20	20	40	40	40

* ISO 702-1 (DIN 55026) only (DIN 55021 on request)

KFD-HS 2 jaw, with tightening thread, tongue and groove

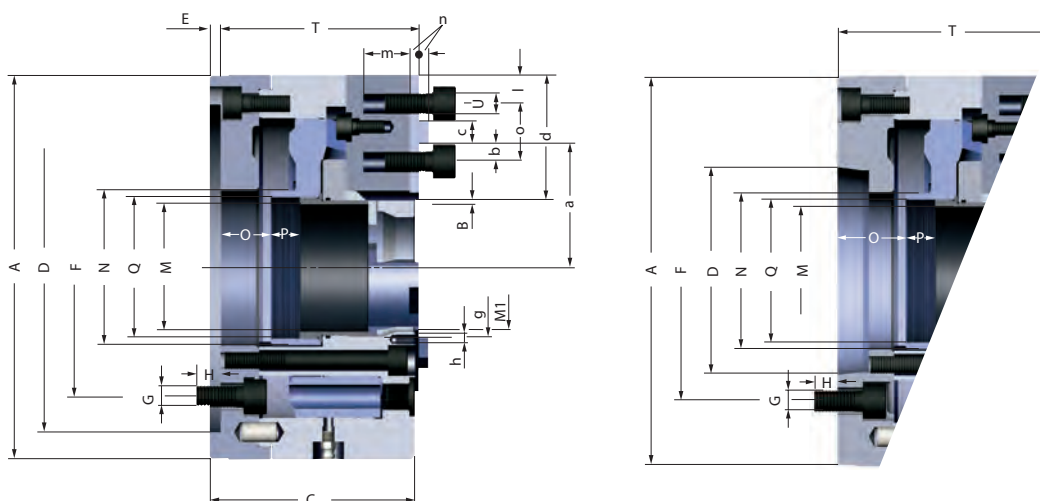


Tool group C15
Type 549-10/549-12
2 jaw power chuck
KFD-HS,
with tightening thread,
with tongue and groove
Adaptor recess,
mounting dimensions
to **DIN 6353/**
short taper mount (KK)
ISO 702-1 (DIN 55026/55021)

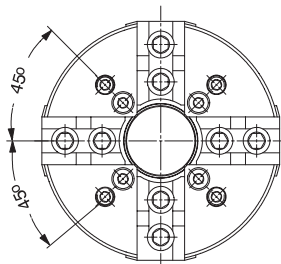


Item no.	160899	160900	160901	160902	160903	160904	160905
Size	160	160	200	200	250	250	250
number of jaws	2	2	2	2	2	2	2
A	160	160	200	200	250	250	250
Jaw travel B	4	4	5	5	6,2	6,2	6,2
C	102	108	107	112	128	124	132
Mount D	ZA 140	KK 5	ZA 170	KK 6	ZA 220	KK 6	KK 8
E	6	15	6	16	6	15	19
F	104,8	104,8	133,4	133,4	171,4	133,4	171,4
G	4xM10	4xM10	4xM12	4xM12	4xM16	4xM12	4xM16
H	15	14	18	17	24	18	24
Wedge stroke K	15	15	18,5	18,5	23	23	23
M max.	46	46	66	66	86	66	86
M _i H7	46	46	66	66		94	94
N	58	58	80	80	99	80	99
O min.	6	16	7,5	16,5	-6	2	2
O max.	21	31	26	35	17	25	25
P	16	16	15	15	25	25	25
Q	M54x1,5	M54x1,5	M74x1,5	M74x1,5	M94x1,5	M74x1,5	M94x1,5
T	98	106	103	110	103	130	130
U	M12	M12	M12	M12	M12	M12	M12
W	-	-	-	-	-	74	74
a min.	43	43	59	59	73,8	73,8	73,8
a max.	47	47	64	64	80	80	80
c	10	10	12	12	16	16	16
d	56	56	65	65	81	81	81
e	32	32	40	40	50	50	50
fH7-0,025	16	16	16	16	20	20	20
g	76	76	84	84	108	108	108
h	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10
l	15,5	15,5	15	15	23	23	23
m	18	18	20	20	28	28	28
n	5	5	5	5	5	5	5
α	40°	40°	60°	60°	60°	60°	60°
Max. swing top jaws mm	170	170	210	210	305	305	305
Maximum draw bar pull kN	20	20	30	30	42	42	42
Max. total clamping force kN	45	45	66	66	94	94	94
Max. admissible speed min ⁻¹	8000	8000	6500	6500	5000	5000	5000
Moment of inertia J kgm ²	0,0415	0,0415	0,1	0,1	0,35	0,35	0,35
Weight without jaws approx. kg	12	12	20	20	40	40	40

KFD-HS 4 jaw, with tightening thread, tongue and groove



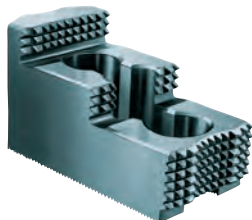
Tool group C15
Type 549-10/549-12
4 jaw power chuck
KFD-HS,
with tightening thread,
with tongue and groove
Adaptor recess,
mounting dimensions
to **DIN 6353/**
short taper mount (KK)
ISO 702-1 (DIN 55026/55021)



Item no.	160906	160907	160908	160909	160910	160911	160912
Size	160	160	200	200	250	250	250
number of jaws	4	4	4	4	4	4	4
A	160	160	200	200	250	250	250
Jaw travel B	4	4	5	5	6,2	6,2	6,2
C	102	108	107	112	103	124	132
Mount D	ZA 140	KK 5	ZA 170	KK 6	ZA 220	KK 6	KK 8
E	6	15	6	16	6	15	19
F	133,4	104,8	133,4	133,4	171,4	133,4	171,4
G	4xM10	4xM10	4xM12	4xM12	4xM16	4xM12	4xM16
H	15	14	18	17	24	18	24
Wedge stroke K	15	15	18,5	18,5	23	23	23
M max.	46	46	66	66	86	66	86
M ₁ ^{H7}	46	46	66	66	94	94	94
N	58	58	80	80	99	80	99
O min.	6	16	7,5	16,5	-6	2	2
O max.	21	31	26	35	17	25	25
P	16	16	15	15	25	25	25
Q	M54x1,5	M54x1,5	M74x1,5	M74x1,5	M94x1,5	M74x1,5	M94x1,5
T	98	106	103	110	128	130	130
U	M12	M12	M12	M12	M12	M12	M12
W	-	-	-	-	-	74	74
a min.	43	43	59	59	73,8	73,8	73,8
a max.	47	47	64	64	80	80	80
c	10	10	12	12	16	16	16
d	56	56	65	65	81	81	81
e	32	32	40	40	50	50	50
fH7-0,025	16	16	16	16	20	20	20
g	76	76	-	-	-	-	-
h	M6x10	M6x10	-	-	-	-	-
l	15,5	15,5	15	15	23	23	23
m	18	18	20	20	28	28	28
n	5	5	5	5	5	5	5
α	45°	45°	-	-	-	-	-
Max. swing top jaws mm	170	170	210	210	305	305	305
Maximum draw bar pull kN	30	30	45	45	65	65	65
Max. total clamping force kN	67,5	67,5	100	100	150	150	150
Max. admissible speed min ⁻¹	6400	6400	5200	5200	3600	3600	3600
Moment of inertia J kgm ²	0,0415	0,1	0,1	0,35	0,35	0,35	0,35
Weight without jaws approx. kg	12	12	20	20	40	40	40

Jaws KFD-HS

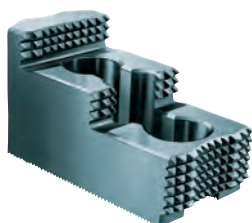
Tool group C 21
Type 543/538
**Reversible top jaws,
2-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
045796	160	2	set	56	37,5	26	1/16"x 90°
118521	200/250	2	set	75	49	36	1/16"x 90°
046435	315	2	set	103,5	58	50	1/16"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

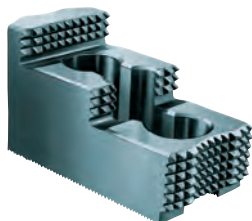
Tool group C 21
Type 543/538
**Reversible top jaws,
3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
149352	110	3	set	45	32	26	1/16"x 90°
046544	130/140	3	set	56	37,5	26	1/16"x 90°
046404	160/175	3	set	56	37,5	26	1/16"x 90°
351320	160	3	set	51,5	26	26	1/16"x 90°
118522	200/250	3	set	75	49	36	1/16"x 90°
609592	200	3	set	80	37	36	1/16"x 90°
046414	315	3	set	103,5	58	50	1/16"x 90°
037531	400/500	3	set	135	65	68	3/32"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

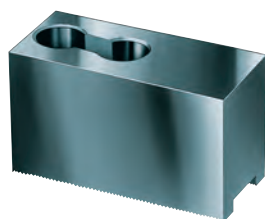
Tool group C 21
Type 543/538
**Reversible top jaws,
4-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046452	160	4	set	56	37,5	26	1/16"x 90°
118523	200/250	4	set	75	49	36	1/16"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

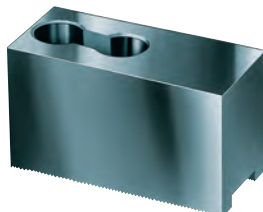
Tool group C 21
Type 543/538
**Soft top jaws,
2-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
045795	160	2	set	55	38	26,5	1/16"x 90°
133147	200	2	set	66,7	53	36,5	1/16"x 90°
133148	250	2	set	75	53	36,5	1/16"x 90°
133149	315	2	set	95	54,5	45	1/16"x 90°

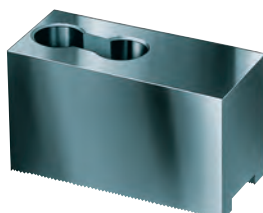
Jaws KFD-HS

Tool group C 21
Type 543/538
**Soft top jaws,
3-jaw set, can be hardened**
Serration 90° -
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
149353	110	3	set	45	38	26,5	1/16"x 90°
046402	130/140	3	set	53	30	22,5	1/16"x 90°
046403	160/175	3	set	55	38	26,5	1/16"x 90°
133152	200	3	set	66,7	53	36,5	1/16"x 90°
133153	250	3	set	75	53	36,5	1/16"x 90°
133154	315	3	set	95	54,5	45	1/16"x 90°
133156	315/400/500	3	set	130	80	50	3/32"x 90°

Tool group C 21
Type 543/538
**Soft top jaws,
4-jaw set, can be hardened**
Serration 90° -
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046451	160	4	set	55	38	26,5	1/16"x 90°
133157	200	4	set	66,7	53	36,5	1/16"x 90°
133158	250	4	set	75	53	36,5	1/16"x 90°

Tool group C 21
Type 549/538
**Soft top jaws,
2-jaw set, can be hardened**
tongue and groove 120° bevelled,
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
123359	160	2	set	72,7	53	36,5
123431	200	2	set	90,3	53	36,5
123434	250	2	set	115,3	54,5	45

Tool group C 21
Type 549/538
**Soft top jaws,
3-jaw set, can be hardened**
tongue and groove 120° bevelled,
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
144082	110	3	set	53	30	22,5
123355	140	3	set	58	38	26,5
123358	160	3	set	72,7	53	36,5
123430	200	3	set	90,3	53	36,5
123433	250	3	set	115,3	54,5	45

Tool group C 21
Type 549/538
**Soft top jaws,
4-jaw set, can be hardened**
tongue and groove 120° bevelled,
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
123359	160	2	set	72,7	53	36,5
123431	200	2	set	90,3	53	36,5
123434	250	2	set	115,3	54,5	45

Please order 2 sets

Jaws KFD-HS

Tool group C 21
Type 544-50 **Claw-type jaws**,
1 piece, **hardened**
Serration 90° -
width of the groove 10



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
149920	110	piece	42	27	37,1
149921	110	piece	42	27	23,4
149922	110	piece	47	27	17,7

Tool group C 21
Type 544-50 **Claw-type jaws**,
1 piece, **hardened**
Serration 90° -
width of the groove 12



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
144320	160/175	piece	66	38	52
144321	160/175	piece	56	38	34
144322	160/175	piece	66	38	25

Tool group C 21
Type 544-50 **Claw-type jaws**,
1 piece, **hardened**
Serration 90° -
width of the groove 17



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137031	200/250	piece	67	45	53
137032	200/250	piece	65	45	46
137033	200/250	piece	55	45	39
137034	200/250	piece	50	45	31
137035	200/250	piece	55	45	27
137036	200/250	piece	65	45	19
137037	200/250	piece	65	45	26
137038	200/250	piece	55	45	24
137039	200/250	piece	55	45	40

Tool group C 21
Type 544-50 **Claw-type jaws**,
1 piece, **hardened**
Serration 90° -
width of the groove 21



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137041	250/315	piece	95	50	80
137042	250/315	piece	75	50	60
137043	250/315	piece	60	50	43
137044	250/315	piece	70	50	37
137045	250/315	piece	95	50	25
137046	250/315	piece	80	50	30

Tool group C 21
Type 544-50 **Claw-type jaws**,
1 piece, **hardened**
Serration 90° -
width of the groove 25,5

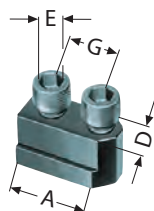


Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137051	400/500	piece	130	65	113
137052	400/500	piece	90	65	67
137053	400/500	piece	100	65	45
137054	400/500	piece	130	65	33

Accessories KFD-HS

Tool group C 15

Type 549-00 **Extended T-nuts** without screw



Item no.	Chuck Size	Contents of delivery	A	D	E	G
149471	110	piece	30	10	M8	15
298082	130/140	piece	34	10	M6	2x12
343234	160/175	piece	42	12	M8	2x15
135765	200	piece	36	17	M 12	19
143595	250	piece	36	17	M12	19
135767 ¹⁾	315	piece	46	21	M16	-
135769	400/500	piece	59	25,5	M 20	31

Tool group C 15

Type 0040-Y **Mounting screws**



Item no.	Size	Thread
233058	110/160/175	M8x20
343003	130/140	M6
227692	200/250	M12x25
229157	315	M16
233047	400/500	M20x40

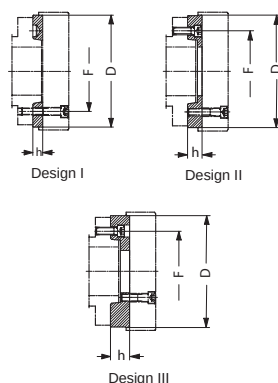
Socket head cap screw to DIN 912, 12.9

²⁾ two pieces necessary

¹⁾ three pieces necessary

Tool group C 15

Type 594-32 **Intermediate adaptor plates** with cylindrical centre mount **DIN 6353 for three-jaw chucks** Mounting from front to **ISO 702-1 (DIN 55026/55021)** and **ASA B 5.9 A1/A2** with **metric mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145125 ¹⁾	4	160	II	18	82,6	140
145153	5	175	I	15	104,8	140
145127	5	200	II	21	104,8	170
145129	6	160	III	35	133,4	140
145297	6	175	III	35	133,4	140
145155	6	200	I	16	133,4	170
145131	6	250	II	27	133,4	220
145135	8	200	III	39	171,4	170
145157	8	250	I	18	171,4	220
145139	8	315	II	38	171,4	300
145143	11	250	III	48	235	220
145159	11	315	I	19	235	300
145147	11	400	II	40	235	380
145161	15	400/500/630	I	21	330,2	380

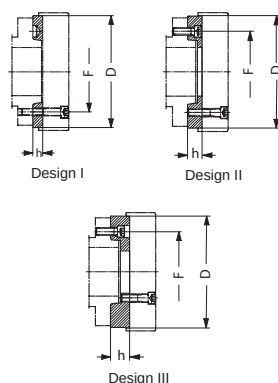
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

¹⁾ DIN 55021 on request

Tool group C 15

Type 594-35 **Intermediate adaptor plates** with cylindrical centre mount **DIN 6353 for three-jaw chucks** Mounting from front to **ASA B 5.9 A1/A2** with **inch threaded mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145191	4	160	II	18	82,6	140
145153	5	175	I	15	104,8	140
145192	5	200	II	21	104,8	170
145193	6	160	II	35	133,4	140
145301	6	175	III	35	133,4	140
145155	6	200	I	16	133,4	170
145194	6	250	II	27	133,4	220
145196	8	315	II	39	171,4	300
145157	8	250	I	18	171,4	220
145198	8	315	II	38	171,4	300
145200	11	250	III	48	235	220
145129	6	160	III	35	133,4	140
145202	11	400/500	II	40	235	380
145161	15	400/500/630	I	21	330,2	380

All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

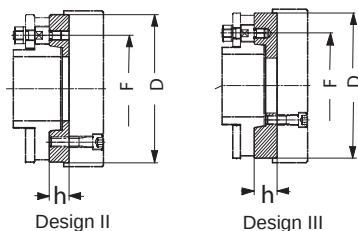
Accessories KFD-HS

Tool group C 15

Type 594-33 **Intermediate adaptor plates** with cylindrical centre mount

DIN 6353 for three-jaw chucks

Bayonet fixing to **ISO 702-3** (DIN 55027)/ **DIN 55022**



Item no.	Spindle nose size	Size	Design	h	F	D
145208	4	160	II	18	82,6	140
145236	5	160	II	21	104,8	140
145238	5	175	II	21	104,8	140
145210	5	200	II	21	104,8	170
145212	6	160	III	35	133,4	140
145303	6	175	III	35	133,4	140
145240	6	200	II	22	133,4	170
145214	6	250/315	II	27	133,4	220
145218	8	200	III	39	171,4	170
145242	8	250	II	30	171,4	220
145222	8	315	II	38	171,4	300
145226	11	250	III	48	235	220
145246	11	315	II	36	235	300
145230	11	400/500	II	40	235	380
145250	15	630	I	40	330,2	380

All fastening parts are included

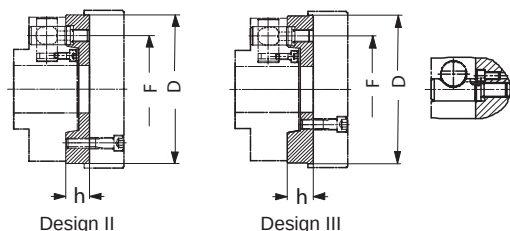
Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-36 **Intermediate adaptor plates** with cylindrical centre mount

DIN 6353 for three-jaw chucks

Camlock fixing to **DIN 55029/ASA B 5.9 D1**



Item no.	Spindle nose size	Size	Design	h	F	D
145252	4	160	II	28	82,6	140
145280	5	160	II	30	104,8	140
145282	5	175	II	30	104,8	140
145254	5	200	II	30	104,8	170
145256	6	160	III	43	133,4	140
145594	6	175	III	43	133,4	140
145284	6	200	II	35	133,4	170
145258	6	250	II	35	133,4	220
145262	8	200	II	46	171,4	170
145286	8	250	II	38	171,4	220
145266	8	315	II	38	171,4	300
145270	11	250	III	53	235	220
145290	11	315	II	45	235	300
145274	11	400/500	II	45	235	380
145294	15	630	I	50	330,2	380

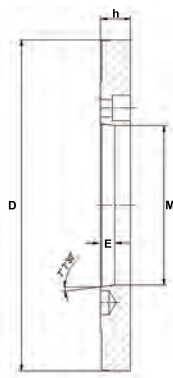
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group A09

Type 619-30 **Short-taper adapter plate**

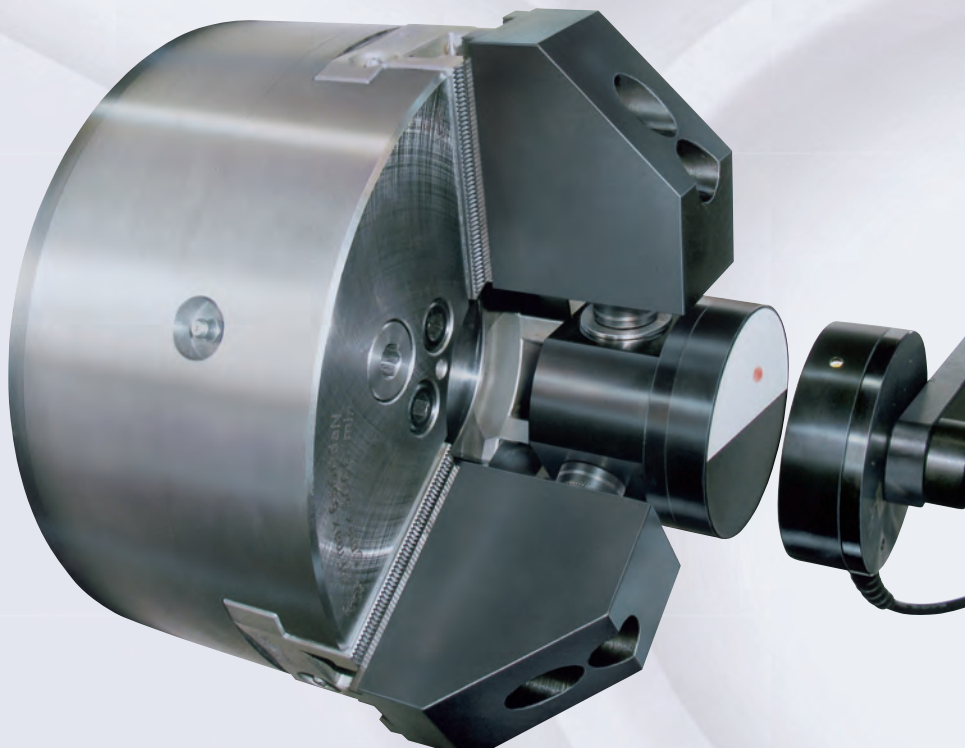
ISO 702-1 (DIN 55026/55021) - ASA B 5.9 (without mounting bolts)
finished on machine side, faced on chuck side, especially



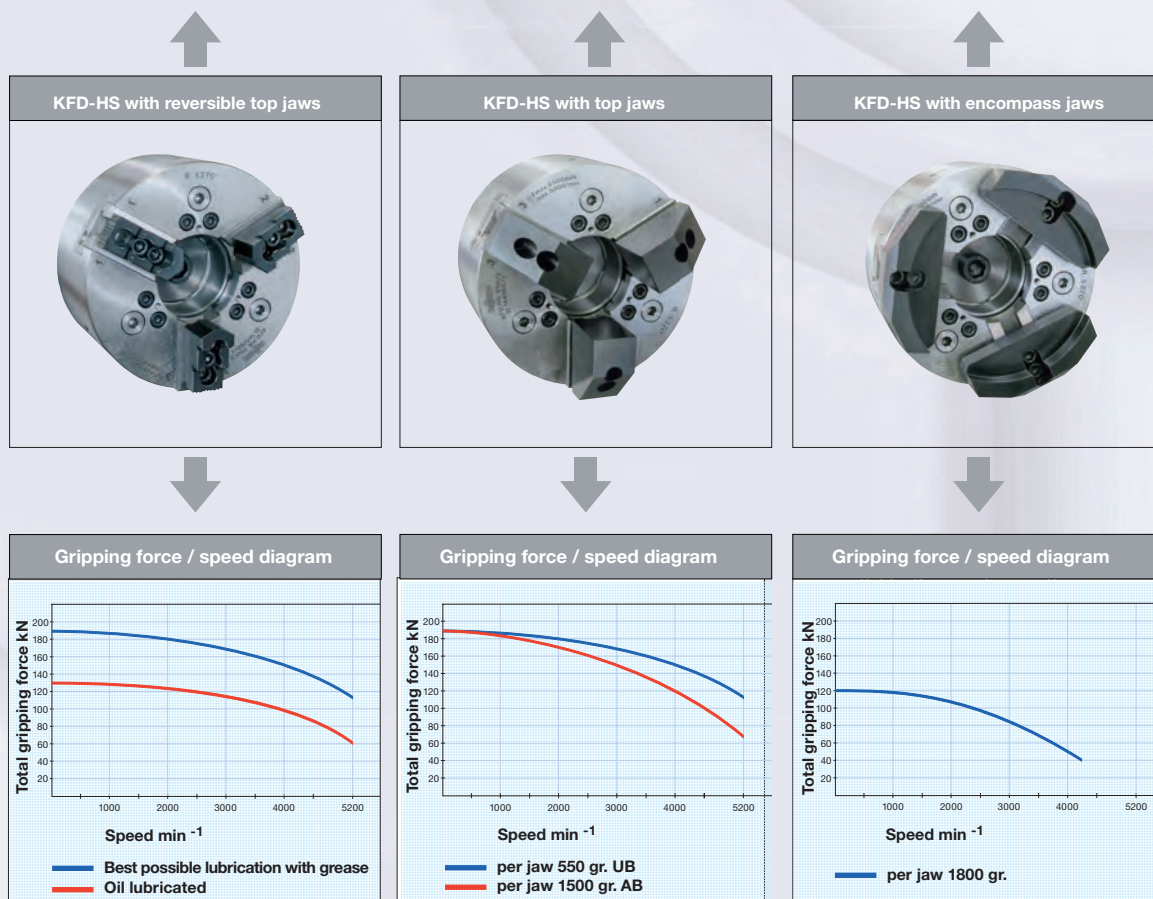
Id.-Nr.	Spindle nose size	h	E	M	D
144933	3	18	13	40	125
145296	4	18	13	40	125
145328	3	18	13	40	160
145342	4	18	13	40	160
145343	5	21	16	50	160
145344	4	21	13	50	200
145345	5	21	16	50	200
145346	6	27	17	50	200
145347	4	27	13	63	250
145348	5	27	16	63	250
145349	6	27	17	63	250
145350	8	27	19	63	250
145351	5	36	16	63	315
145352	6	36	17	63	315
145353	8	36	19	63	315
145354	11	36	21	63	315
145355	6	40	17	63	400
145356	8	40	19	63	400
145357	11	40	21	63	400
145358	15	40	23	63	400
145359	8	42	19	80	500
145360	11	42	21	80	500
145364	15	42	23	80	500

KFD-HS - Measuring of the gripping forces

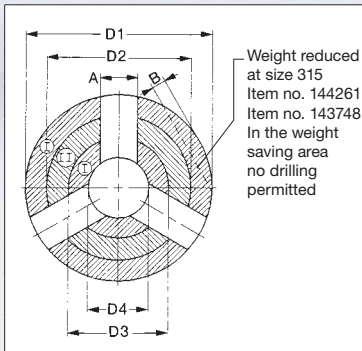
Measuring of the gripping forces
at the KFD-HS with different jaws (with gripping force measuring equipment EDS)



KFD-HS 250/3



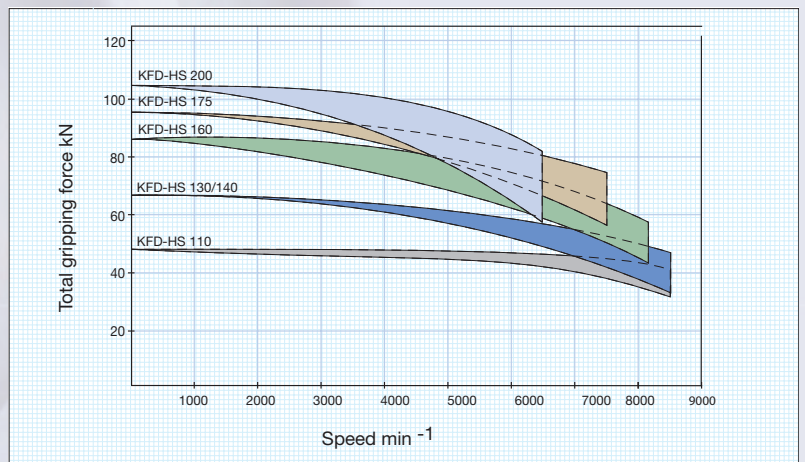
Drilling areas on frontside of KFD-HS power chucks



	110	130	140	160	175	200	250	315	400	500
A	36	38	38	50	50	58	73	73	84	84
B	-	-	-	-	-	-	-	43	-	62
D1	110	130	140	160	175	200	250	315	400	500
D2	85	98	112	125	134	158	196	196	340	340
D3	56	65	72	86	95	110	140	140	262	262
D4	42	38	46	55	65	74	102	102	185	185
Max. drill depth - Zone I	25	25	25	30	30	40	40	40	40	40
Max. drill depth - Zone II	8	6	6	9	9	9	12	12	10	10

Gripping force/speed diagram (three jaw chucks only)

The loss of gripping force was determined experimentally on a chuck with matched UB top jaws. It is largely independent of the initial gripping force at zero speed.



Upper curve:
min. centrifugal
force of top jaw

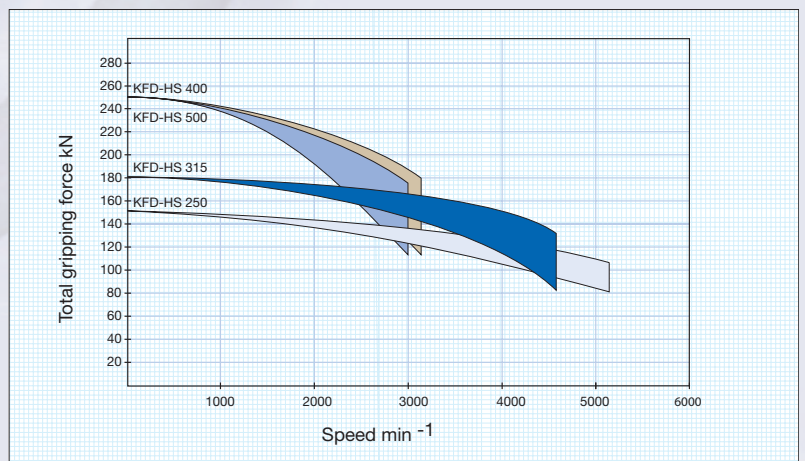


Lower curve:
max. centrifugal
force of top jaw

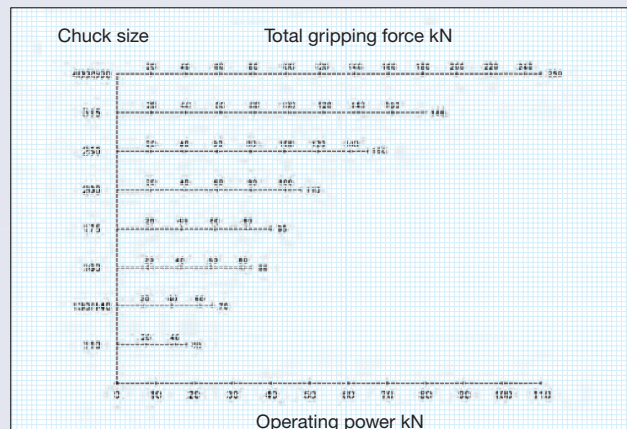


To obtain the specified gripping forces, the chuck must be in a perfect condition and lubricated with F 80 lubricant recommended by Röhm. Measuring point near chuck face.

Example: For a chuck size 250 and an applied operating power of 40 kN, the total gripping force is approx. 92 kN.

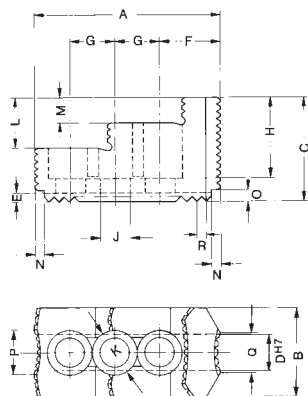


Gripping force/operating power diagram



Jaw dimensions KFD-HS

Reversible top jaws UB,
hardened, serration 90°,
material 16MnCr5



Chuck size	110	130/140	160/175	160	200	200/250	315	400/500
Type	543-21	537-02	538-02	543 1)	543-09 2)	538-04	538-05	538-07
Item no. 2-jaw	149490	046545	045796	-	-	118521	046435	046447
Item no. 3-jaw	149352	046544	046404	351320	609592	118522	046414	037531
Item no. 4-jaw	155395	046546	046452	-	-	118523	046462	046474
A	45	56	56	51,5	80	75	103,5	135
B	26	26	26	26	36	36	50	68
C	32	37,5	37,5	26	37	49	58	65
DH7	10	10	12	12	17	17	21	25,5
E	3,5	3,5	3,5	3,5	5	5	5	5
F	15	10	14	23	41	21,5	33,5	48
G	15	12 3)	15	15 4)	19 4)	19	25	31
H	23	29	29	17	25,5	37,5	45	48
J	8,4	6,4	8,4	9	13	13	17	21
K	13,5	10,4	13,5	14	19	19	25	31
L	14	20	20	-	-	24	28	-
M	7	10	10	8	12	12	14	26
N	4	4	4	3	6	6	6	6,5
O	4	4	4	4	7,5	7,5	6,5	5,5
P	8	5	5	20	-	18	24,5	34
Q	5	5	5	3	7	7	22,5	40
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°
Weight/jaw kg	0,155	0,130	0,170	0,150	0,235	0,460	1,130	2,000

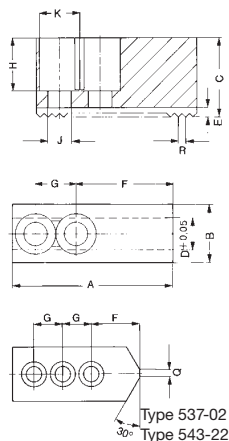
1) one step only, for 8000 min⁻¹

2) one step only, extended

3) 4 mounting holes

4) 2 mounting holes

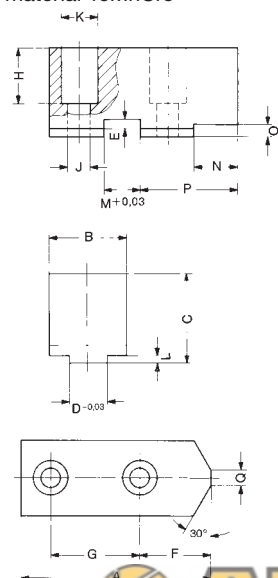
Soft top jaws AB,
serration 90°,
material 16MnCr5



Chuck size	110	130/140	160/175	200	250	315	400/500
Type	543-22	537-02	538-02	538-03	538-04	538-05	538-07
Item no. 2-jaw	149690	045794	045795	133147	133148	133149	133151
Item no. 3-jaw	149353	046402	046403	133152	133153	133154	133156
Item no. 4-jaw	-	046450	046451	133157	133158	133159	133161
A	45	53	55	66,7	75	95	130
B	26,5	22,5	26,5	36,5	36,5	45	50
C	38	30	38	53	53	54,5	80
D	10	10	12	17	17	21	25,5
E	3,5	3,5	3,5	5	5	5	5
F	15	20	31	36	44	55	79
G	15	12 1)	15	19	19	25	31
H	23	20	28	43	43	42,5	60
J	8,4	6,4	8,4	13	13	17	21
K	13,5	10,4	13,5	19	19	25	31
Q	5	3	-	-	-	-	-
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°
Weight/jaw kg	0,210	0,223	0,320	0,700	0,880	1,400	3,100

1) 3 mounting holes

Soft top jaws AB,
with tongue and groove,
material 16MnCr5



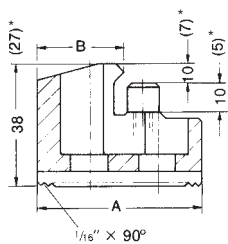
Chuck size	110	130/140	160	200	250
Type	549-10	538-22	538-13	538-14	538-15
Item no. 2-jaw	144115	123356	123359	123431	123434
Item no. 3-jaw	144082	123355	123358	123430	123433
Item no. 4-jaw	144115	123356	123359	123431	123434
A	53	58	72,7	90,3	115,3
B	22,5	26,5	36,5	36,5	45
C	30	38	53	53	54,5
D-0,03	10	8	16	16	20
E	3,5	3,5	5,5	5,5	5,5
F	26,5	31,5	32,2	45,3	58,3
G	17	-	25	30	40
H	20	25	38	38	38
J	9	13	13	13	17
K	15	19	19	19	25
L	2,5	2,5	4,5	4,5	4,5
M+0,03	10	13	10	12	16
N	20	23	24,7	35,3	45,3
O	4	3	5	5	5
P	30	39,5	39,7	54,3	70,3
Q	3	3	3	6	6
Weight/jaw kg	0,21	0,46	0,720	1,0	1,55

Soft blank top jaws are ideal for high-accuracy chucking. When turning these top jaws for a specific chucking diameter, be sure to have the jaws under pressure. Top jaws which are to be hardened must be ground on the chuck after hardening.

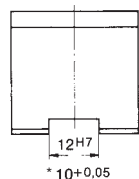
Note: At high speeds, heavy jaw weights must be avoided because of their own centrifugal force, resulting in a reduction of gripping force.

Jaw dimensions KFD-HS

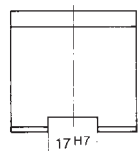
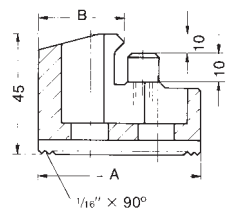
Claw type jaws KB
serration 90°,
Type 544-50



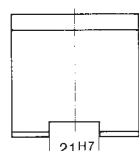
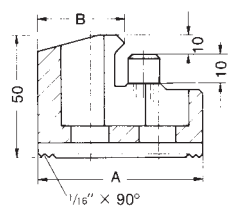
* KFD-HS 110+130+140



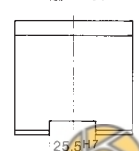
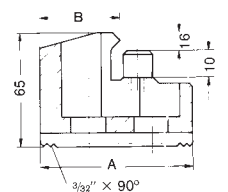
* 10+0,05



* 17H7



* 21H7



* 25,5H7

Piece	A	B	H	KFD-HS 110 External chucking	Piece	A	B	KFD-HS 130/140 External chucking
Item no.					Item no.			
149920	42	37,1	27	20-49	147259	50	41	27-67/35-72
149921	42	23,4	27	47-70	147261	44	22	58-108/61-114
149922	47	17,7	27	68-100				
Piece	A	B	H	KFD-HS 110 Internal chucking	Piece	A	B	KFD-HS 130/140 Internal chucking
Item no.					Item no.			
149922	47	17,7	27	45-75	147261	44	22	58-108/61-114
149921	42	23,4	27	56-102	147259	50	41	100-130/106-140
149920	42	37,1	27	84-130				

Piece	A	B	KFD-HS 160 External chucking	KFD-HS 175 External chucking
Item no.				
144320	66	52	38-84	48-100
144321	56	34	78-122	88-140
144322	66	25	120-146	130-160
Piece	A	B	KFD-HS 160 Internal chucking	KFD-HS 175 Internal chucking
Item no.				
144322	66	25	70-100	70-115
144321	56	34	92-140	102-155
144320	66	52	122-180	132-195

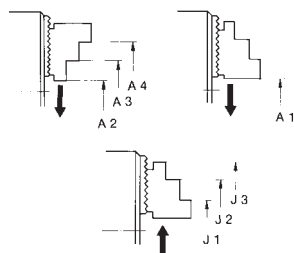
Piece	A	B	KFD-HS 200 External chucking	KFD-HS 250 External chucking
Item no.				
137031	67	53	55-110	68-162
137032	65	46	68-124	80-173
137039	55	40	95-150	108-200
137034	50	31	102-158	115-206
137035	55	27	110-168	125-220
Piece	A	B	KFD-HS 200 Internal chucking	KFD-HS 250 Internal chucking
Item no.				
137036	65	19	65-125	80-172
137037	65	26	86-142	100-192
137038	55	24	100-156	112-206
137035	55	27	120-178	135-228
137034	50	31	132-188	145-236
137039	55	40	136-195	150-245
137033	55	39	150-207	165-257
137032	65	46	164-222	179-270

Piece	A	B	KFD-HS 315 (86) ¹⁾ External chucking	KFD-HS 315 (108) ¹⁾ External chucking
Item no.				
137041	95	80	46-175	65-175
137042	75	60	92-220	104-220
137043	60	43	114-250	135-250
137044	70	37	142-275	166-275
Piece	A	B	KFD-HS 315 (86) ¹⁾ Internal chucking	KFD-HS 315 (108) ¹⁾ Internal chucking
Item no.				
137045	95	25	65-200	82-200
137046	80	30	108-242	130-242
137044	70	37	142-275	164-275
137043	60	43	170-305	195-305
137042	75	60	202-340	224-340

Piece	A	B	KFD-HS 400 External chucking	KFD-HS 400 (165) ¹⁾ External chucking	KFD-HS 500 External chucking
Item no.					
137051	130	113	70-270	94-270	94-370
137052	90	67	150-304	183-304	183-404
137053	100	45	175-390	210-390	210-490
Piece	A	B	KFD-HS 400 Internal chucking	KFD-HS 400 (165) ¹⁾ Internal chucking	KFD-HS 500 Internal chucking
Item no.					
137054	130	33	96-290	110-290	110-390
137053	100	45	160-305	195-305	195-405
137051	130	113	280-490	302-490	302-590

Chucking capacities KFD-HS

Chucking capacities with reversible top jaws UB, for 3-jaw chucks



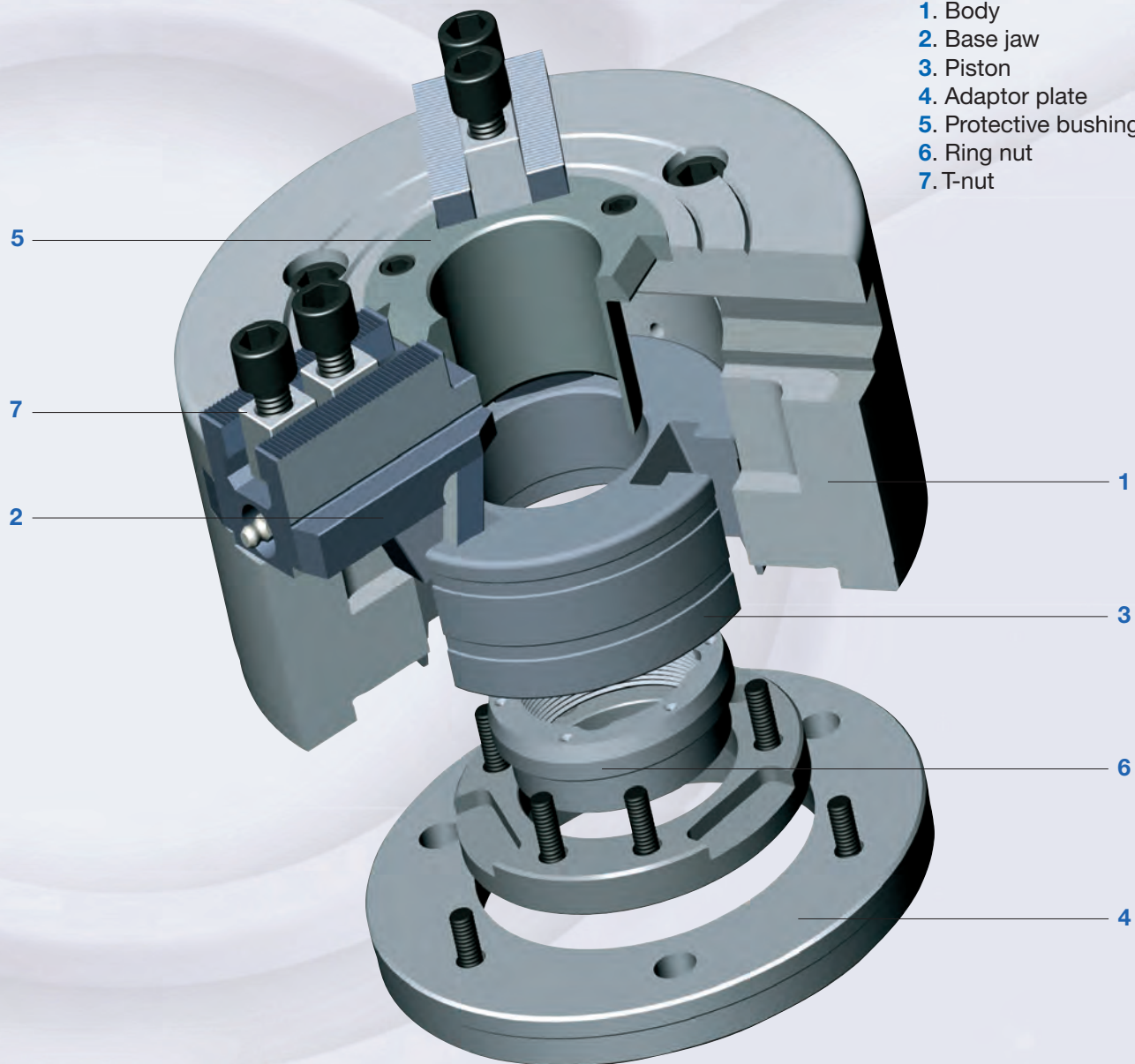
Chuck size		110	130	140	160	160*	175	200	200**	250	315	400	500
with reversible jaws	Type	543-21	537-02	527-02	538-02	543	538-02	538-04	543-09	538-04	538-05	538-07	538-07
	Jaw position												
External chucking	A1	6-46	5-58	5-68	6-67	4-52	6-82	12-98	4-70	22-144	25-169	30-203	30-303
	A2	-	-	-	-	21-73	-	26-112	-	40-156	45-196	47-250	47-350
	A3	41-76	52-105	52-115	53-118	-	54-133	82-165	-	94-210	127-280	-	-
	A4	68-106	87-140	87-150	88-165	94-146	90-180	132-218	112-170	146-262	209-360	245-453	245-553
Internal chucking	J1	42-80	35-90	35-100	36-99	32-84	36-114	61-144	60-126	76-192	76-216	96-280	96-380
	J2	70-108	70-125	70-135	71-134	-	71-149	110-198	-	128-244	150-348	-	-
	J3	96-135	117-192	117-182	118-181	102-157	118-196	162-248	-	182-298	230-380	277-478	277-580

* one step only

** one step only, extended

Components KFD-HE

1. Body
2. Base jaw
3. Piston
4. Adaptor plate
5. Protective bushing
6. Ring nut
7. T-nut



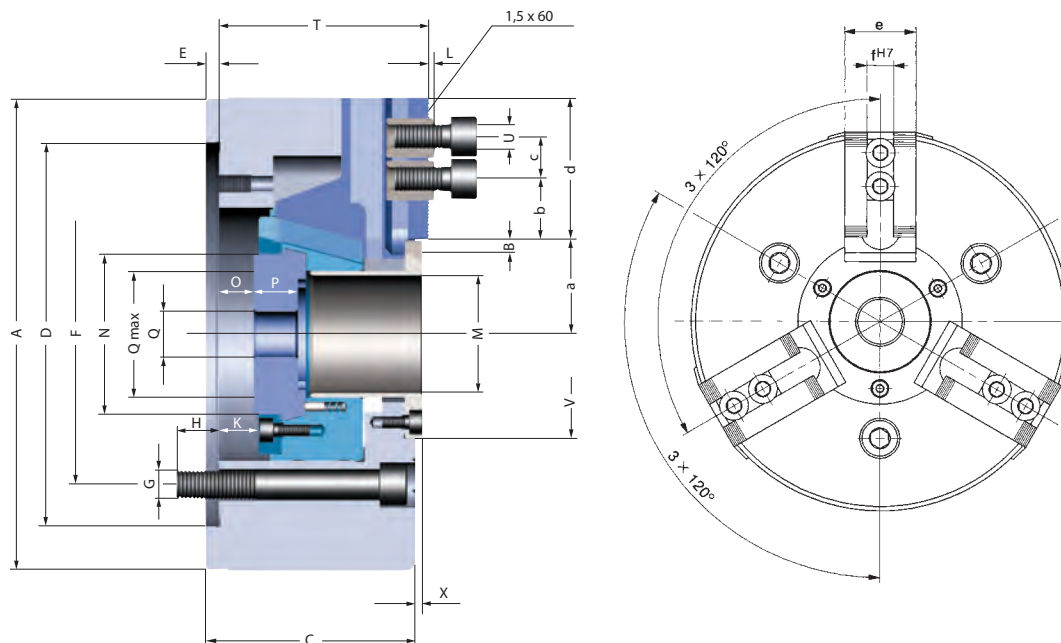
For use on modern lathes. With large through-hole, suitable for both bar work and chucking of flange Type parts.

The chucking power is transmitted by means of the proven wedge system.

Technical features

- Rugged construction
- Large through-hole
- High radial and axial true-running accuracy
- Direct lubrication of all wearing surfaces
- With cylindrical centre mount to DIN 6353 or short taper mount for spindle nose to ISO 702-1 (DIN 55026)
- Used in conjunction with RÖHM SZS-E, SZS, OVS safety cylinders, KFD-HE power chucks meet the requirements of the German Employers' Liability Insurance Association.

KFD-HE pre-machined draw tube-connector, serration 60°

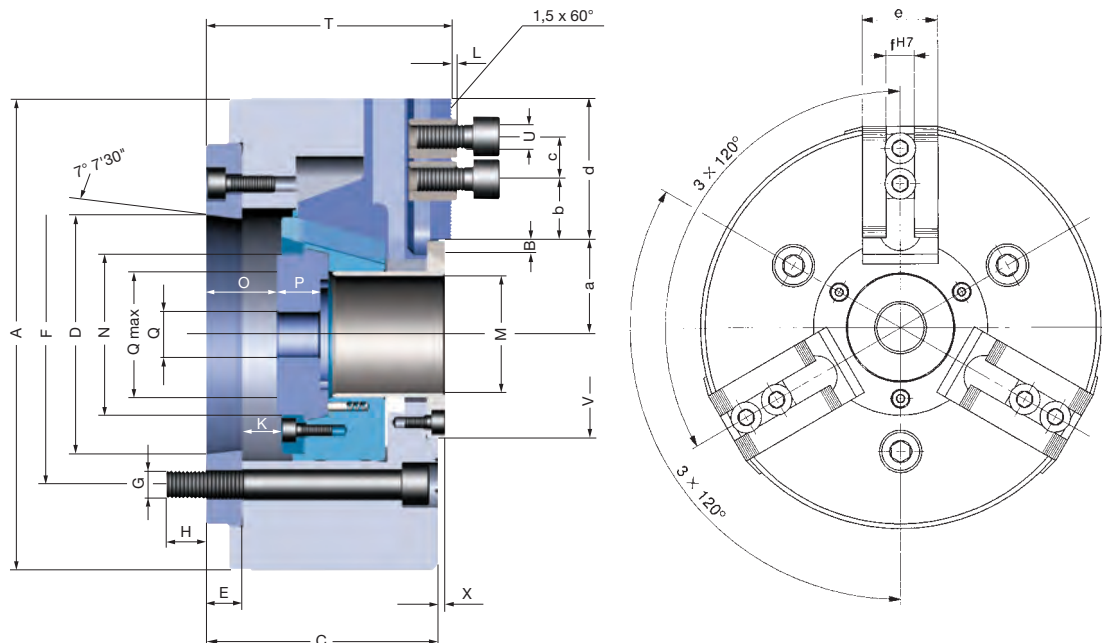


Tool group C 15
Type 440-90
3 jaw power chuck
KFD-HE,
serration 60°,
with pre-machined draw
tube-connector
Adaptor recess,
mounting dimensions to **DIN 6353**

Item no.	156844	154808	154390	154391	154392	154812	154830
Size	110	130	170	210	254	315	315
A	110	130	170	210	254	315	315
Jaw travel B	2,7	2,7	3,4	4,3	5,1	5,3	5,3
C	58,5	60	82	93	101	104	114
DH6	85	110	140	170	220	220	300
E	4	4	6	6	6	6	6
F	70,6	82,6	104,8	133,4	171,4	171,4	235
G	3 x M 10	3 x M 10	3 x M 10	3 x M 12	3 x M 16	3 x M 16	3 x M 20
H	16	15	15	19	23	24	28
Wedge stroke K	10	10	14	16	19	23	23
L	2,9	2,9	3,2	3,2	3,2	3,2	3,2
Through-hole M	26	33	43	52	75	91	121
N	38	45	57	66	94	108	143
O min.	-6,5	-9	-2,6	-0,7	-10,3	-14,8	-9,4
O max.	3,5	1	11,4	15,3	8,7	8,2	13,6
P	10	20	19	20,5	28	32	26
Q	Ø 10	Ø 12	Ø 20	Ø 30	Ø 45	Ø 50	Ø 60
Q max.	M 34 x 1,5	M 40 x 1,5	M 53 x 1,5	M 60 x 2	M 85 x 2	M 100 x 2	M 130 x 2
T	59,5	61	82	93	101	110	114
U	M 8	M 8	M 10	M 12	M 12	M 16	M 16
V ^{H7} _{-0,05}	56	60	74	92	125	135	170
X	3	3	3	3	3	3	3
a min.	20,3	23,8	34,8	37,7	50,9	56	72,7
a max.	23	26,5	38	42	56	61,3	77,5
b min.	7	7	4,5	9	8	12	12
c min.	14	14	20	25	30	30	30
d	32	38,5	47	63	71	96	80
e	25	25	32	40	50	50	50
fH7-0,025	10	10	12	14	16	21	21
Max. swing top jaws mm	170	170	230	290	345	410	410
Maximum draw bar pull kN	11	16	25	40	60	60	60
Max. total clamping force approx. kN	25	36	75	110	135	160	160
Max. admissible speed min ⁻¹	8000	7000	6300	5000	4500	3500	3500
Moment of inertia J kgm ²	0,005	0,011	0,038	0,9	0,22	0,8	0,8
Weight without jaws approx. kg	3,4	5,5	12	18	29	53	50

Interchangeable with Kitagawa B-200A

KFD-HE pre-machined draw tube-connector, serration 60°

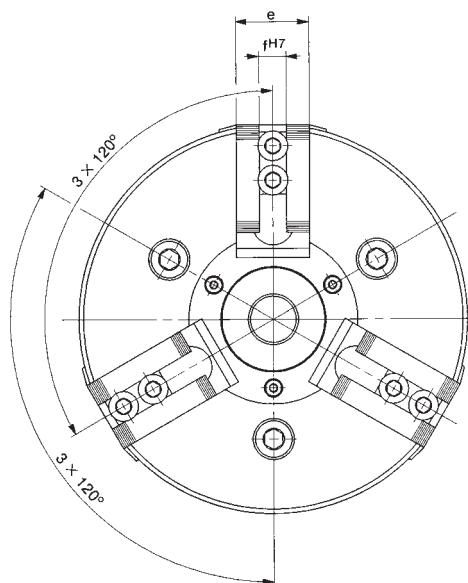
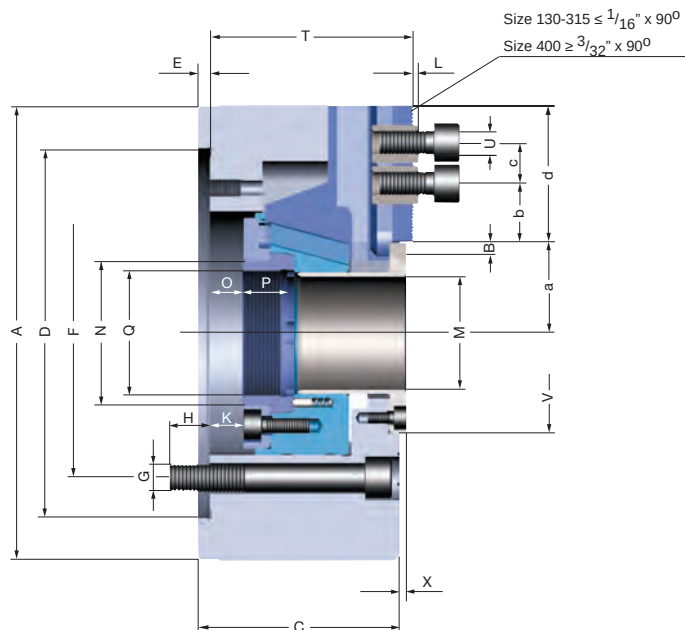


Tool group C15
Type 440-92
3 jaw power chuck
KFD-HE,
serration 60°,
with pre-machined draw
tube-connector
Short taper mount for
ISO 702-1 (DIN 55026/55021)

Item no.	154809	154393	154394	154395	154813	154832
Size	130	170	210	254	315	315
A	130	170	210	254	315	315
Jaw travel B	2,7	3,4	4,3	5,1	5,3	5,3
C	67,5	90,6	103,2	112,8	121,8	127,4
Short taper D	4 (DIN 55026)	5	6	8	8	11
E	11,5	15	16	17,8	17,8	19,4
F	82,6	104,8	133,4	171,4	171,4	235
G	3 x M 10	3 x M 10	3 x M 12	3 x M 16	3 x M 16	3 x M 20
H	13	15	18	23	24	29
Wedge stroke K	10	14	16	19	23	23
L	2,9	3,2	3,2	3,2	3,2	3,2
Through-hole M	33	43	52	75	91	121
N	45	57	66	94	108	143
O min.	2,5	12	15,5	7,5	3	10
O max.	12,5	26	31,5	26,5	26	33
P	20	19	20,5	28	32	26
Q	Ø 12	Ø 20	Ø 30	Ø 45	Ø 50	Ø 60
Q max.	M 40 x 1,5	M 53 x 2	M 60 x 2	M 85 x 2	M 100 x 2	M 130 x 2
T	72,5	96,6	109,2	118,8	127,8	133,4
U	M 8	M 10	M 12	M 12	M 16	M 16
V ^{H7} _{-0,05}	60	74	92	125	135	170
X	3	3	3	3	3	3
a min.	23,8	34,8	37,7	50,9	56	72,2
a max.	26,5	38	42	56	61,3	77,5
b min.	7	4,5	25	30	12	12
c min.	14	20	9	8	30	30
d	38,5	47	63	71	96	80
e	25	32	40	50	50	50
fH7-0,025	10	12	14	16	21	21
Max. swing top jaws mm	170	230	290	345	410	410
Maximum draw bar pull kN	16	25	40	60	60	60
Max. total clamping force approx. kN	36	75	110	135	160	160
Max. admissible speed min ⁻¹	7000	6300	5000	4500	3500	3500
Moment of inertia J kgm ²	0,011	0,038	0,9	0,22	0,8	0,8
Weight without jaws approx. kg	5,5	12	18	29	53	50

Interchangeable with Kitagawa B-200A

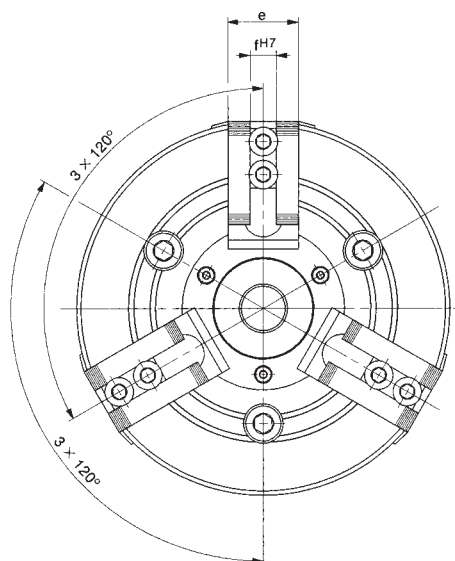
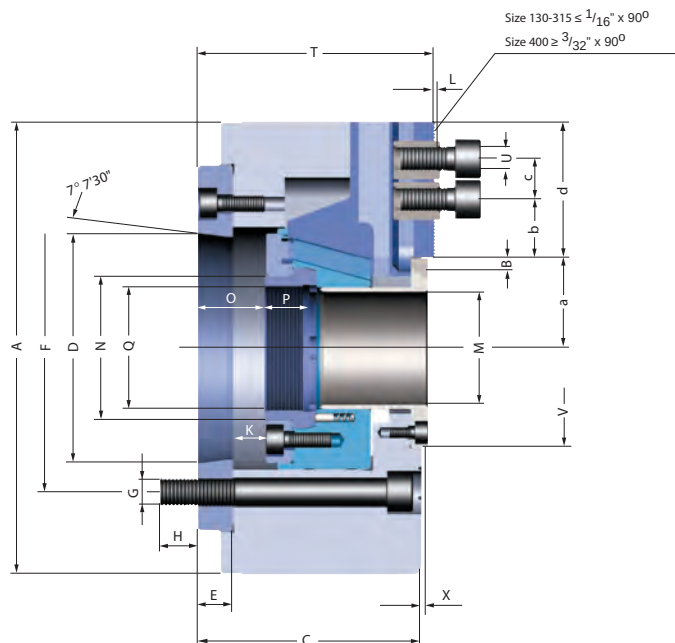
KFD-HE serration 90°



Tool group C 15
Type 440-50
3 jaw power chuck
KFD-HE,
serration 90°
Adaptor recess,
mounting dimensions to **DIN 6353**

Item no.	154806	154384	154031	154032	154810	154829	151554
Size	130	170	210	254	315	315	400
A	130	170	210	254	315	315	400
Jaw travel B	2,7	3,2	4,3	5,1	5,3	5,3	8
C	60	82	93	101	104	114	128
DH6	110	140	170	220	220	300	300
E	4	6	6	6	6	6	6
F	82,6	104,8	133,4	171,4	171,4	235	235
G	3 x M 10	3 x M 10	3 x M 12	3 x M 16	3 x M 16	3 x M 20	3 x M 20
H	15	15	19	23	24	28	29
Wedge stroke K	10	14	16	19	23	23	30
L	2,75	2,5	2,5	2,5	2,5	2,5	3,5
Through-hole M	33	43	52	75	91	121	121
N	45	57	66	94	108	143	136
O min.	-9	-2,6	-0,7	-10,3	-14,8	-9,4	-21
O max.	1	11,4	15,3	8,7	8,2	13,6	9
P	20	19	20,5	28	32	26	28
Q	M 40 x 1,5	M 52 x 1,5	M 58 x 1,5	M 82 x 1,5	M 98 x 1,5	M 126 x 1,5	M 126 x 1,5
T	61	82	93	101	110	114	129
U	M 8	M 8	M 12	M 16	M 16	M 16	M 20
V ^{H7} _{-0,05}	60	74	92	125	135	170	170
X	3	3	3	3	3	3	4
a min.	23,8	34,8	37,7	50,9	56	72,2	79
a max.	26,5	38	42	56	61,3	77,5	87
b min.	7	7,5	9	10	12	12	19
c min.	14	2 x 15	19	25	25	25	31
c max.	-	-	47	59	84	69	80
d	38,5	47	63	71	96	80	113
e	25	32	40	50	50	50	60
fH7-0,025	10	12	17	21	21	21	25,5
Max. swing top jaws mm	170	230	290	345	410	410	560
Maximum draw bar pull kN	16	25	40	60	60	60	95
Max. total clamping force approx. kN	36	75	110	135	160	160	220
Max. admissible speed min ⁻¹	7000	6300	5000	4500	3500	3500	2000
Moment of inertia J kgm ²	0,011	0,038	0,09	0,22	0,8	0,8	1,88
Weight without jaws approx. kg	5,5	12	18	29	53	50	100

KFD-HE serration 90°

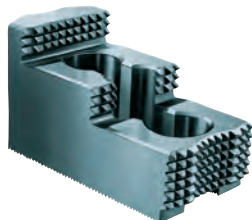


Tool group C 15
Type 440-52
3 jaw power chuck
KFD-HE,
serration 90°
Short taper mount for
ISO 702-1 (DIN 55026/55021)

Item no.	154807	154385	154034	154037	154811	154831	151553
Size	130	170	210	254	315	315	400
A	130	170	210	254	315	315	400
Jaw travel B	2,7	3,2	4,3	5,1	5,3	5,3	8
C	67,5	90,6	103,2	112,8	121,8	127,4	141,4
Short taper D	4 (nur 55026)	5	6	8	8	11	11
E	11,5	15	16	17,8	17,8	19,4	19,4
F	82,6	104,8	133,4	171,4	171,4	235	235
G	3 x M 10	3 x M 10	3 x M 12	3 x M 16	3 x M 16	3 x M 20	3 x M 20
H	13	15	18	23	24	29	30
Wedge stroke K	10	14	16	19	23	23	30
L	2,75	2,5	2,5	2,5	2,5	2,5	3,5
Through-hole M	33	43	52	75	91	121	121
N	45	57	66	94	108	143	136
O min.	2,5	12	15,5	7,5	3	10	-1,6
O max.	12,5	26	31,5	26,5	26	33	28,4
P	20	19	20,5	28	32	26	28
Q	M 40 x 1,5	M 52 x 1,5	M 58 x 1,5	M 82 x 1,5	M 98 x 1,5	M 126 x 1,5	M 126 x 1,5
T	72,5	96,6	109,2	118,8	127,8	133,4	128,4
U	M 8	M 8	M 12	M 16	M 16	M 16	M 20
V ^{H7} _{-0,05}	60	74	92	125	135	170	170
X	3	3	3	3	3	3	4
a min.	23,8	34,8	37,7	50,9	56	72,2	79
a max.	26,5	38	42	56	61,3	77,5	87
b min.	7	7,5	9	10	12	12	19
c min.	14	2 x 15	19	25	25	25	31
c max.	-	-	47	59	84	69	80
d	38,5	47	63	71	96	80	113
e	25	32	40	50	50	50	60
fH7-0,025	10	12	17	21	21	21	25,5
Max. swing top jaws mm	170	230	290	345	410	410	560
Maximum draw bar pull kN	16	25	40	60	60	60	95
Max. total clamping force approx. kN	36	75	110	135	160	160	220
Max. admissible speed min ⁻¹	7000	6300	5000	4500	3500	3500	2000
Moment of inertia J kgm ²	0,011	0,038	0,09	0,22	0,8	0,8	1,88
Weight without jaws approx. kg	5,5	12	18	29	53	50	100

Jaws KFD-HE

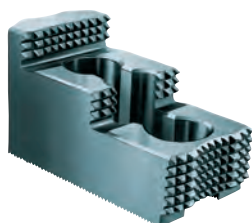
Tool group C 21
Type 543/538
**Reversible top jaws,
3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
156446	130	3	set	54	27,5	23	1/16"x 90°
046404	170	3	set	56	37,5	26	1/16"x 90°
118522	210	3	set	75	49	36	1/16"x 90°
046414	254/315	3	set	103,5	58	50	1/16"x 90°
037531	400	3	set	135	65	68	3/32"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Tool group C 21
Type 543-31
**Reversible top jaws,
3-jaw set, hardened
Serration 60° -
material: 16 MnCr 5**

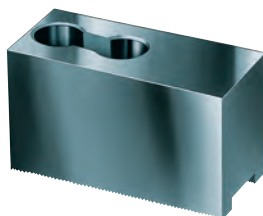


Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
154814 ¹⁾	130	3	set	54	27,5	23	1,5 x 60°
154674 ¹⁾	170	3	set	66	36	34,7	1,5 x 60°
154676	210	3	set	81	49	36	1,5 x 60°
154678	254	3	set	99,5	54	44,5	1,5 x 60°
154816 ¹⁾	315	3	set	103	55,5	50	1,5 x 60°

¹⁾ one step only

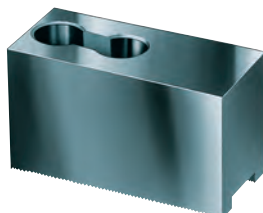
Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Tool group C 21
Type 543/538
**Soft top jaws,
3-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
156452	130	3	set	54	29	23	1/16"x 90°
046403	170	3	set	55	38	26,5	1/16"x 90°
133153	210	3	set	75	53	36,5	1/16"x 90°
133154	254/315	3	set	95	54,5	45	1/16"x 90°
133156	400	3	set	130	80	50	3/32"x 90°

Tool group C 21
Type 543-32
**Soft top jaws,
3-jaw set, can be hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
154863	130/170	3	set	54	29	23	1,5 x 60°
154865	170	3	set	72	40	30,5	1,5 x 60°
154867	210	3	set	95	45,5	35	1,5 x 60°
154869	254	3	set	110	45	50	1,5 x 60°
154871	315	3	set	130	55,5	50	1,5 x 60°

Jaws KFD-HE

Tool group C 21
Type 544-50 **Claw-type jaws**,
1 piece, **hardened**
Serration 90° -
width of the groove 10



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
156025	170	piece	67	45	53
156027	170	piece	65	45	46
156029	170	piece	55	45	40
161189	170	piece	55	45	24

Tool group C 21
Type 543-33 **Claw-type jaws**,
1 piece, **hardened**
Serration 60° -
width of the groove 12/16



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
156099	254	piece	95	50	80
156101	254	piece	75	50	60
156103	254	piece	60	50	43
156105	254	piece	70	50	37

Tool group C 21
Type 544-50 **Claw-type jaws**,
1 piece, **hardened**
Serration 90° -
width of the groove 17



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137031	254	piece	67	45	53
137032	254	piece	65	45	46
137039	254	piece	55	45	40
137034	254	piece	50	45	31
137035	254	piece	55	45	27
137036	254	piece	65	45	19
137037	254	piece	65	45	26
137038	254	piece	55	45	24
137033	254	piece	55	45	39

Tool group C 21
Type 544-50 **Claw-type jaws**,
1 piece, **hardened**
Serration 90° -
width of the groove 21



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137041	254/315	piece	95	50	80
137042	254/315	piece	75	50	60
137043	254/315	piece	60	50	43
137044	254/315	piece	70	50	37
137045	254/315	piece	95	50	25
137046	254/315	piece	80	50	30

Tool group C 21
Type 544-50 **Claw-type jaws**,
1 piece, **hardened**
Serration 90° -
width of the groove 25,5

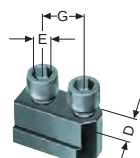


Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137051	400	piece	130	65	113
137052	400	piece	90	65	67
137053	400	piece	100	65	45
137054	400	piece	130	65	33

Accessories KFD-HE

Tool group C 15

Type 538-00 **T-nuts**
without screw, for SV 1/16" x 90°

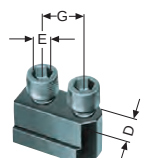


Item no.	Chuck Size	Contents of delivery	D	E	G
154033	130	piece	10	M8	14
343234	170	piece	12	M8	2x15
157569 ¹⁾	210	piece	17	M12	-
135767 ¹⁾	254/315	piece	21	M16	-
241676 ¹⁾	400	piece	25,5	M20	-

¹⁾ single T-nut

Tool group C 15

Type 440-90 **T-nuts**
without screw, for SV 1,5" x 60°



Item no.	Chuck Size	Contents of delivery	D	E	G
154033	130	piece	10	M8	14
154651	170	piece	12	M10	20
154659	210	piece	14	M12	25
154672	254	piece	16	M12	30
155219	315	piece	21	M16	30

Tool group C 15

Type 0040-Y **Mounting screws**



Item no.	Size	Contents of delivery	Thread	Length
248149 ²⁾	130	piece	M8	20
233058	170	piece	M8x20	20
227692	210	piece	M12x25	25
229157	254/315	piece	M16	30
233047	400	piece	M20x40	40

Socket head cap screw to DIN 912, 12.9

²⁾ two pieces necessary

Tool group C 15

Type 0040-Y **Mounting screws**



Item no.	Size	Contents of delivery	Thread	Length
248149 ²⁾	130	piece	M8	20
216588 ²⁾	170	piece	M10	25
233030	210/254/315	piece	M12x30	30
216569 ²⁾	400	piece	M16	40

Socket head cap screw to DIN 912, 12.9

²⁾ two pieces necessary

Tool group C15

Type 1028 **Special grease F80 for lathe chucks**
for lubrication and conservation of chucking power

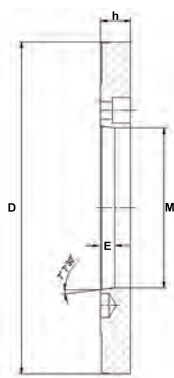


Item no.	Design	Contents
308555	Cartridge	0,5 kg
028975	Tin	1 kg

Tool group A09

Type 619-30 **Short-taper adapter plate**

ISO 702-1 (DIN 55026/55021) - ASA B 5.9 (without mounting bolts)
finished on machine side, faced on chuck side, especially



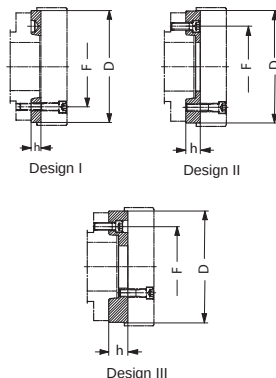
Id.-Nr.	Spindle nose size	h	E	M	D
144933	3	18	13	40	125
145296	4	18	13	40	125
145328	3	18	13	40	160
145342	4	18	13	40	160
145343	5	21	16	50	160
145344	4	21	13	50	200
145345	5	21	16	50	200
145346	6	27	17	50	200
145347	4	27	13	63	250
145348	5	27	16	63	250
145349	6	27	17	63	250
145350	8	27	19	63	250
145351	5	36	16	63	315
145352	6	36	17	63	315
145353	8	36	19	63	315
145354	11	36	21	63	315
145355	6	40	17	63	400
145356	8	40	19	63	400
145357	11	40	21	63	400
145358	15	40	23	63	400
145359	8	42	19	80	500
145360	11	42	21	80	500
145364	15	42	23	80	500

Accessories KFD-HE

Tool group C 15

Type 594-32 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Mounting from front to **ISO 702-1 (DIN 55026/55021)**
and **ASA B 5.9 A1/A2** with **metric mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145125 ¹⁾	4	160	II	18	82,6	140
145153	5	175	I	15	104,8	140
145127	5	200	II	21	104,8	170
145129	6	160	III	35	133,4	140
145155	6	200	I	16	133,4	170
145131	6	250	II	27	133,4	220
145135	8	200	III	39	171,4	170
145157	8	250	I	18	171,4	220
145139	8	315	II	38	171,4	300
145143	11	250	III	48	235	220
145159	11	315	I	19	235	300
145149	15	400	III	58	330,2	300

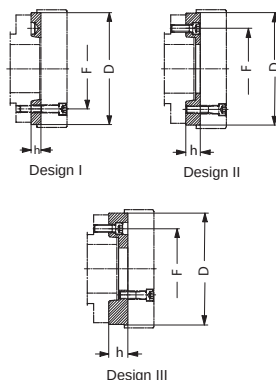
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-35 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Mounting from front to **ASA B 5.9 A1/A2**
with **inch threaded mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145191	4	160	II	18	82,6	140
145192	5	200	II	21	104,8	170
145193	6	160	II	35	133,4	140
145194	6	250	II	27	133,4	220
145196	8	315	II	39	171,4	300
145198	8	315	II	38	171,4	300
145200	11	250	III	48	235	220
145203	15	400	III	58	330,2	300

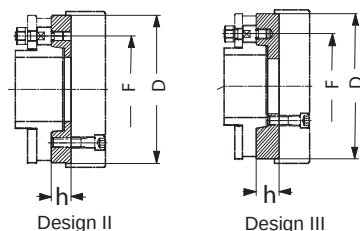
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-33 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Bayonet fixing to **ISO 702-3 (DIN 55027/ DIN 55022)**



Item no.	Spindle nose size	Size	Design	h	F	D
145208	4	160	II	18	82,6	140
145236	5	160	II	21	104,8	140
145210	5	200	II	21	104,8	170
145212	6	160	III	35	133,4	140
145240	6	200	II	22	133,4	170
145214	6	250/315	II	27	133,4	220
145218	8	200	III	39	171,4	170
145242	8	250	II	30	171,4	220
145222	8	315	II	38	171,4	300
145226	11	250	III	48	235	220
145246	11	315	II	36	235	300
145230	11	400/500	II	40	235	380
145232	15	400	III	58	330,2	300

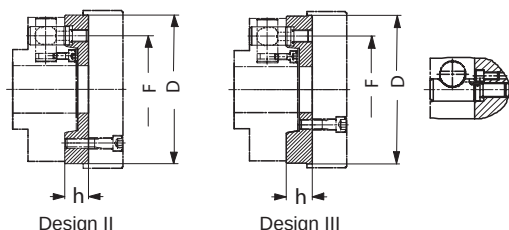
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-36 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Camlock fixing to **DIN 55029/ASA B 5.9 D1**



Item no.	Spindle nose size	Size	Design	h	F	D
145252	4	160	II	28	82,6	140
145280	5	160	II	30	104,8	140
145254	5	200	II	30	104,8	170
145256	6	160	III	43	133,4	140
145284	6	200	II	35	133,4	170
145258	6	250	II	35	133,4	220
145262	8	200	II	46	171,4	170
145286	8	250	II	38	171,4	220
145264	8	315/400	II	38	171,4	300
145270	11	250	III	53	235	220
145290	11	315	II	45	235	300
145276	15	400	III	58	330,2	300

All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

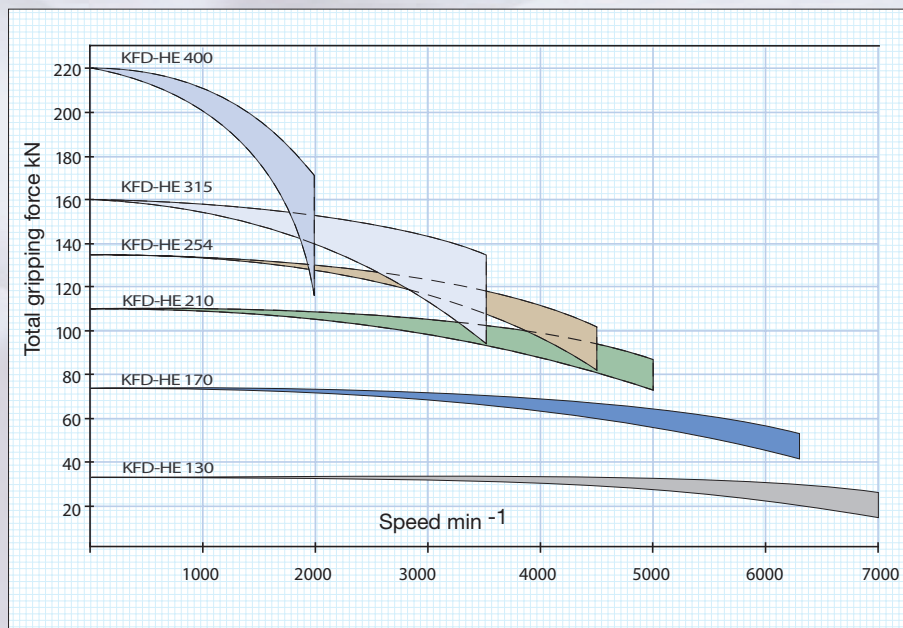
Gripping force/speed diagram

The loss of gripping force was determined experimentally on a chuck with matched UB top jaws. It is largely independent of the initial gripping force at zero speed.

Upper curve:
min. centrifugal
force of top jaw



Lower curve:
max. centrifugal
force of top jaw

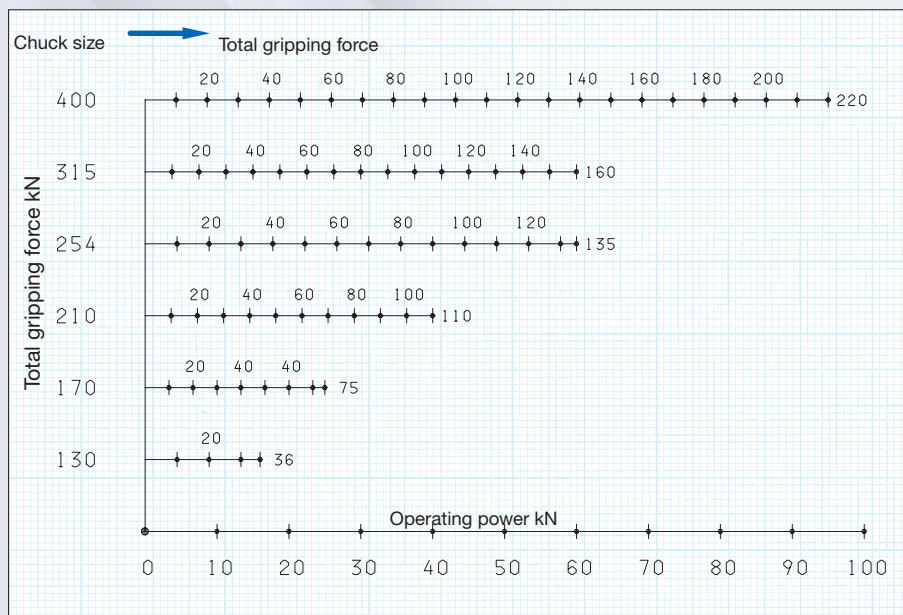


Gripping force/operating power diagram

To obtain the specified gripping forces, the chuck must be in a perfect condition and lubricated with F 80 lubricant recommended by Röhm. Measuring point near chuck face.

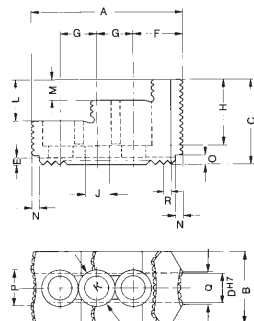
Example:

For a chuck size 254 and an applied operating power of 40 kN, the total gripping force is approx. 90 kN.



Jaw dimensions KFD-HE

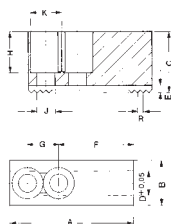
Reversible top jaws UB,
hardened, serration 90°,
material 16MnCr5



Chuck size	130	170	210	250	315	400
Type	543-21	537-02	538-03	538-04	538-05	538-07
Item no. 2-jaw	-	046545	046429	118521	046435	046447
Item no. 3-jaw	156446	046544	046408	118522	046414	037531
Item no. 4-jaw	-	046546	046456	118523	046462	046474
A	54	56	68	75	103,5	135
B	23	26	34,7	36	50	68
C	27,5	37,5	45	49	58	65
DH7	10	10	17	17	21	25,5
E	4	3,5	5	5	5	5
F	13	10	17	21,5	33,5	48
G	14	12 1)	19	19	25	31
H	19	29	33,5	37,5	45	48
J	8,4	6,4	13	13	17	21
K	13,5	10,4	19	19	25	31
L	-	20	20	24	28	-
M	10	10	10	12	14	26
N	3	4	5	6	6	6,5
O	3	4	7	7,5	6,5	5,5
P	-	5	10	18	24,5	34
Q	6	5	5	7	22,5	40
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°
Weight/jaw kg	0,110	0,130	0,350	0,460	1,130	2,000

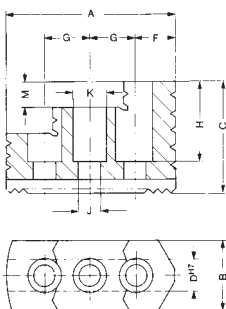
1) 4 mounting holes

Soft top jaws AB,
serration 90°,
material 16MnCr5



Chuck size	130	170	210	250/315	400
Type	537-02	538-02	538-04	538-05	538-07
Item no. 2-jaw	-	045795	133148	133149	133151
Item no. 3-jaw	156452	046403	133153	133154	133156
Item no. 4-jaw	-	046451	133158	133159	133161
A	54	55	75	95	130
B	23	26,5	36,5	45	50
C	29	38	53	54,5	80
D	10	12	17	21	25,5
E	4	3,5	5	5	5
F	28	31	44	55	79
G	14	15	19	25	31
H	20	28	43	42,5	60
J	8,4	8,4	13	17	21
K	13,5	13,5	19	25	31
Q	-	-	-	-	-
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°
Weight/jaw kg	0,220	0,320	0,880	1,400	3,100

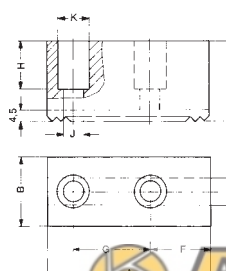
Reversible top jaws UB,
serration 60°, material 16MnCr5



Chuck size	130	170	210	254	315
Type	543-31	543-31	543-31	543-31	543-31
Item no. 3-jaw	154814 1)	154674 1)	154676	154678	154816 1)
A	54	66	81	99,5	103
B	23	34,7	36	44,5	50
C	27,5	36	49	54	55,5
D	10	12	14	16	21
F	13	12,5	17,5	25,5	22,5
G	14	20	25	30	30
H	19	23	36,5	38,5	34
J	8,4	11	13	13	17
K	13,5	17	19	19	25
Serration	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,16	0,3	0,6	1,2	1,5

1) one step only

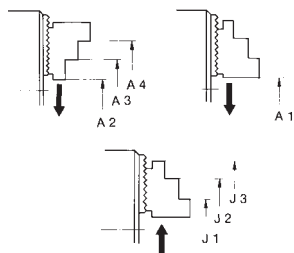
Soft top jaws AB,
serration 60°, material 16MnCr5



Chuck size	130	170	210	254	315
Type	543-32	543-32	543-32	543-32	543-32
Item no. 3-jaw	154863	154865	154867	154869	154871
A	54	72	95	110	130
B	23	32,5	35	50	50
C	29	40	45,5	45	55,5
D	10	12	14	16	21
F	28	37	46	50	52
G	14	20	25	30	30
H	20,5	27	33	29	34
J	8,4	11	13	13	17
K	13,5	17	19	19	25
Serration	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,25	0,5	0,9	1,7	1,9

Chucking capacities KFD-HE

Chucking capacities with reversible top jaws UB



Chuck size		130	170	210	254	315	400
with reversible jaws 1/16" x 90°	Type	543-21	538-02	538-04	538-05	538-05	538-07
	Jaw position						
External chucking	A1	5-73	13-83	19-108	25-134	57-189	40-214
	A2	-	-	36-128	48-162	50-217	86-260
	A3	71-130	80-150	94-182	130-226	134-297	-
	A4	-	120-192	145-234	210-272	212-332	290-464
Internal chucking	J1	54-119	63-130	78-156	80-190	70-233	106-280
	J2	-	102-173	128-209	156-261	146-313	-
	J3	-	154-210	181-263	246-338	236-393	310-484

Chuck size		130	170	210	254	315
with reversible jaws 1,5 x 60°	Type	543-31	543-31	543-31	543-31	543-31
	Jaw position					
External chucking	A1	5-73	17-100	19-111	25-130	28-190
	A2	-	-	-	-	-
	A3	71-130	97-174	82-170	124-219	-
	A4	-	-	133-224	170-265	170-317
Internal chucking	J1	54-119	74-154	63-160	84-197	116-271
	J2	-	-	112-213	129-244	-
	J3	-	-	170-273	211-328	-

Overview

Quick jaw-change, high accuracy and high chucking power

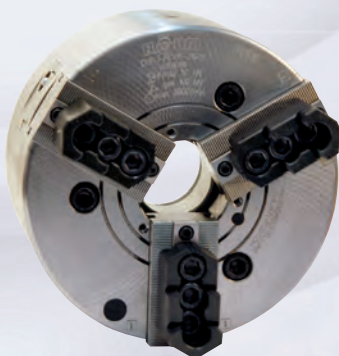
Design principle of the quick jaw change system

On DURO-NC chucks, all jaws are unlocked centrally and simultaneously by turning a pin. The jaws can then be readily relocated, reversed or changed without impairing the workholding accuracy of the chuck. The jaws are locked, also centrally, by turning the locking pin back to its initial position. The RÖHM quick jaw change system requires no additional piston stroke to disengage the chucking piston. The jaw actuating wedges remain fully engaged at all times.



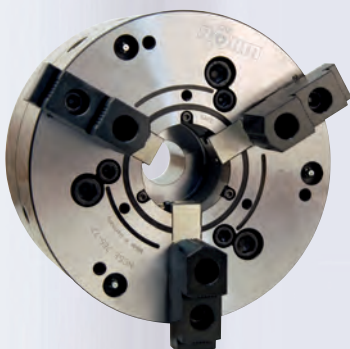
► DURO-NC

for angle-serrated jaws, large through-hole and quick-acting jaw change system, central jaw unlocking. Quick jaw-change, high accuracy and high chucking power



► DURO-NCSE-B

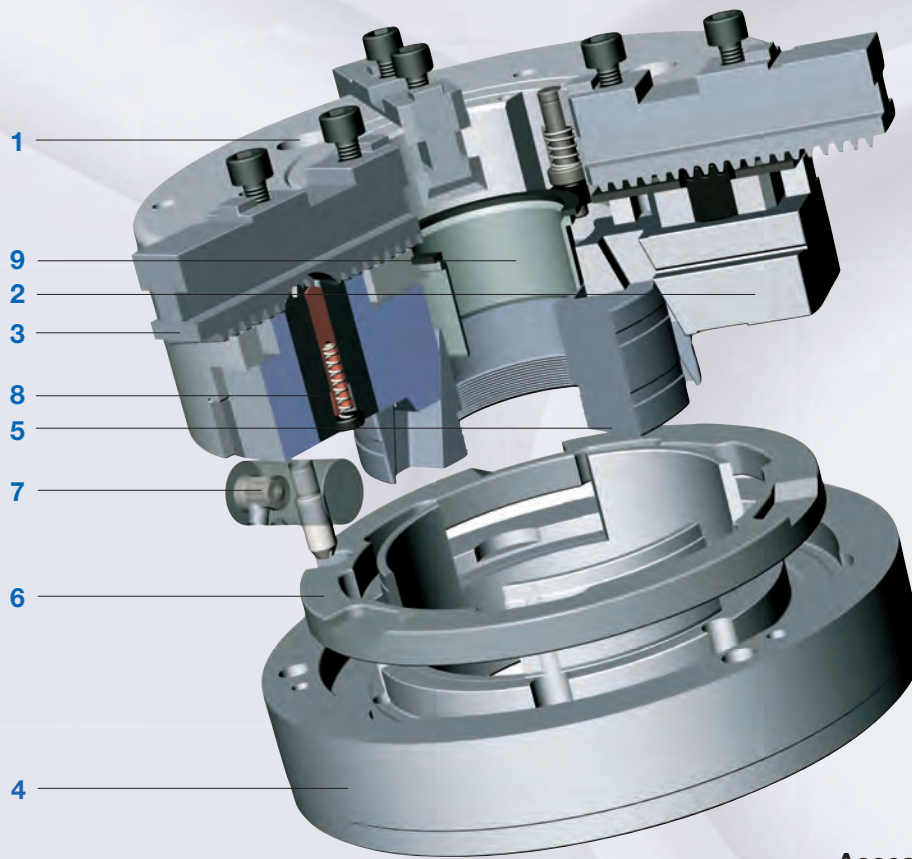
with widened base jaws, for the use of normal KFD jaws with serration



► DURO-NCSE

for jaws with straight teeth, quick-acting jaw change system with individual jaw unlocking, position securing of the base jaws

DURO-NC



Components

1. Body
2. Guide jaw
3. Base jaw
4. Adaptor plate
5. Piston
6. Adjusting ring
7. Turnable bolt
8. Rack
9. Protective bush

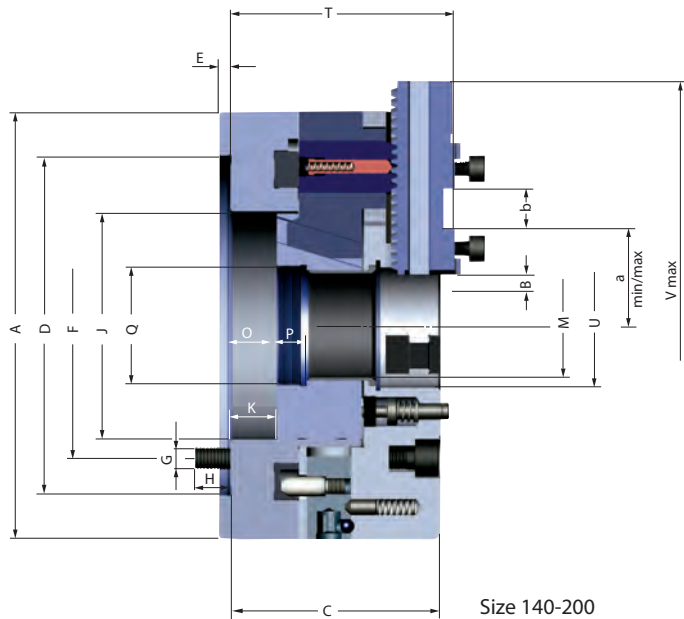
Technical features

- High workholding accuracy
- High gripping force
- Chucking power transmitted by means of the proven wedge system
- High speeds
- High true-running accuracy
- Light-weight jaws minimize the loss of gripping power at high speeds
- The jaws assemblies are identical with those of the manually operated DURO chucks
- Made of steel, all wearing parts hardened and ground
- Used in conjunction with RÖHM SZS, OVS or LTS safety cylinders, these power chucks meet the requirements of the German Employers' Liability Insurance Association.
- The safety key can only be removed when the jaws are locked. This safety key, in conjunction with the key switch integrated in the machine, additionally prevents an unintentional start of the machine spindle when the jaws are unlocked.

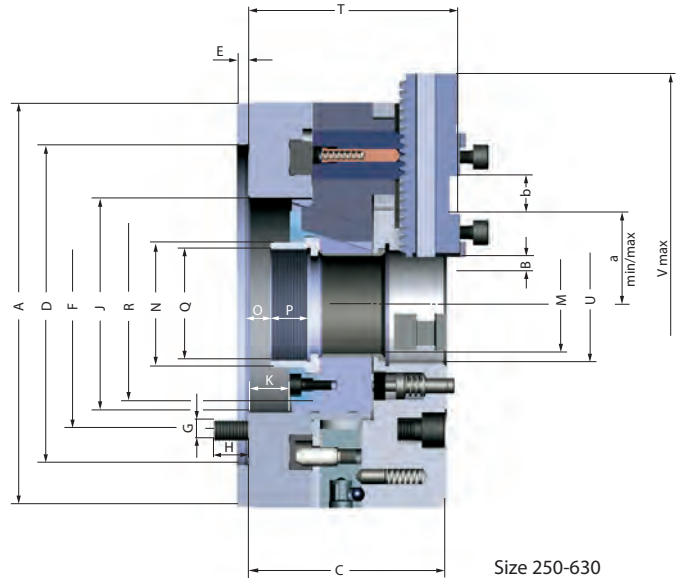
Accessories:

Chuck and jaw mounting screws, safety key, assembly wrench, base jaws.

DURO-NC central jaw unlocking, angle-serrated

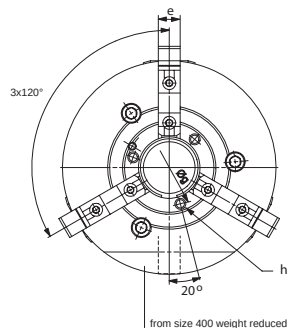


Size 140-200



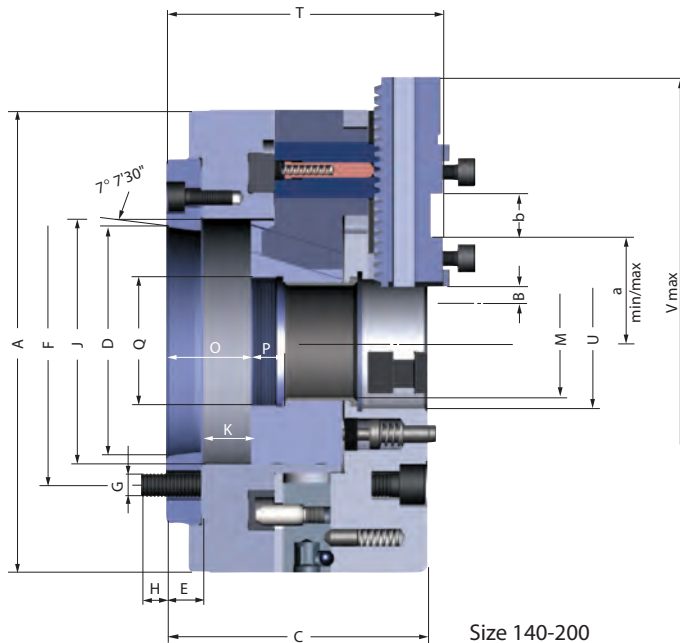
Size 250-630

Tool group C 15
Type 503-10
3 jaws power chuck
DURO-NC,
with **quick jaw change systems,**
central jaw unlocking,
angle-serrated
Adaptor recess,
mounting dimensions to **DIN 6353**

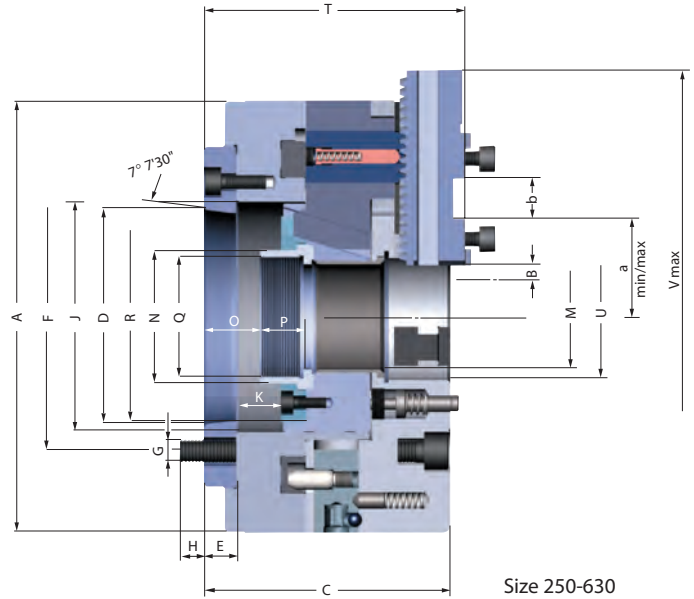


Item no.	159455	159456	159457	159458	159459	159460	159461	159462
Size	140	175	200	250	315	400	500	630
A	145	175	215	260	320	400	500	630
Jaw travel B	4,9	6,7	7	7	8,25	10,1	11,5	11,5
C	83	99	105	126	152	149	149	169
Mount D ^{H6}	120	140	170	220	300	380	380	380
E	6	6	6	6	6	6	6	6
F	104,8	104,8	133,4	171,4	235	330,2	330,2	330,2
G	3 x M 10	3 x M 10	3 x M 12	3 x M 16	3 x M 20	3 x M 24	3 x M 24	6 x M 24
H	18	15	18	21	29	35	35	36
J	80	88	114	147	173	210	210	286
Wedge stroke K	16	22	23	27	33	46	46	46
M	35	43	52	72	91	108	108	140
N	-	-	-	-	-	124	124	160
O min.	0,5	0	0	0	0	-61	-61	-41
O max.	16,5	22	23	27	33	-15	-15	5
P	9	10	15	15	19	35	35	25
Q	M 45 x 1,5	M 50 x 1,5	M 60 x 1,5	M 80 x 1,5	M 100 x 2	M 115 x 2	M 115 x 2	M 148 x 2
R	-	-	-	130	160	169	169	219
T	89	105	112	134	160,6	158,6	158,6	185
U	40	50	62	81	103	120	120	192
V max.	181	236	294	351	423	523	570	771
a min.	31,4	33,2	35,5	42,8	52,3	67,1	73,5	86,8
a max.	53,2	62,3	79,5	91,1	115,7	135,5	159	206,1
b	18	18	20	20	26	30	30	40
e	18	20	22	26	32	45	45	65
Ø g	54	64	76	93	120	140	140	210
h	M 5 x 8	M 6 x 10	M 6 x 10	M 6 x 10	M 6 x 10	M 8 x 12	M 8 x 12	M 8 x 12
Maximum draw bar pull kN	25	30	50	65	80	110	110	150
Max. total clamping force approx. kN	49	60	110	140	190	240	240	330
Max. admissible speed min ⁻¹	6300	5300	5000	4300	3200	2700	2000	1500
Moment of inertia J kgm ²	0,029	0,068	0,162	0,39	1,08	2,5	5	15,4
Weight without jaws approx. kg	11	18	28	46	85	126	185	310

DURO-NC central jaw unlocking

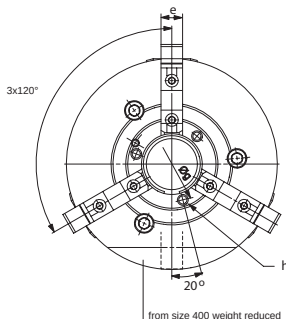


Size 140-200



Size 250-630

Tool group C 15
Type 503-12
3 jaw power chuck
DURO-NC,
with quick jaw change system,
central jaw unlocking,
angle-serrated
Short taper mount for
ISO 702-1 (DIN 55026/55021)

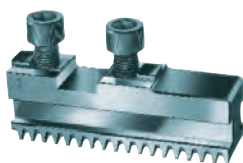


from size 400 weight reduced

Item no.	159463	159464	159465	159466	159467	159468	159469	159470
Size	140	175	200	250	315	400	500	630
A	145	175	215	260	320	400	500	630
Jaw travel B	4,9	6,6	7	7	8,25	10,1	11,5	11,5
C	97,6	113,6	121,2	143,8	171,4	189	189	209
Short taper D (KK)	5	5	6	8	11	11	11	15
E	14,6	14,6	16,2	17,8	19,4	40	40	40
F	104,8	104,8	133,4	171,4	235	235	235	330,2
G	3 x M 10	3 x M 10	3 x M 12	3 x M 16	3 x M 20	6 x M 20	6 x M 20	6 x M 24
H	18	15	17	23	30	31,5	31	34,5
J	80	88	114	147	173	210	210	286
Wedge stroke K	16	22	23	27	33	46	46	46
M	35	43	52	72	91	108	108	140
N	-	-	-	-	-	124	124	160
O min.	15,1	14,6	16,2	17,8	19,4	-21	-21	-1
O max.	31,1	36,6	39,2	44,8	52,4	25	25	45
P	9	10	15	15	19	35	35	25
Q	M 45 x 1,5	M 50 x 1,5	M 60 x 1,5	M 80 x 1,5	M 100 x 2	M 115 x 2	M 115 x 2	M 148 x 2
R	-	-	-	130	160	169	169	219
T	103,6	119,6	128,2	151,8	180	198,6	198,6	225
U	40	50	62	81	103	120	120	192
V max.	181	236	294	351	423	523	570	771
a min.	31,4	33,2	35,5	42,8	52,3	67,1	73,5	86,8
a max.	53,2	62,3	79,5	91,1	115,7	135,5	159	206,1
b	18	18	20	20	26	30	30	40
e	18	20	22	26	32	45	45	65
Ø g	54	64	76	93	120	140	140	210
h	M 5 x 8	M 6 x 10	M 6 x 10	M 6 x 10	M 6 x 10	M 8 x 12	M 8 x 12	M 8 x 12
Maximum draw bar pull kN	25	30	50	65	80	110	110	150
Max. total clamping force approx. kN	49	60	110	140	190	240	240	330
Max. admissible speed min ⁻¹	6300	5300	5000	4300	3200	2700	2000	1500
Moment of inertia J kgm ²	0,031	0,073	0,167	0,42	1,15	3	6,6	16,4
Weight without jaws approx. kg	12	19	29	50	90	150	210	330

Jaws DURO-NC

Tool group A28
Type 002 **Base jaw GB**, set
with mounting bolts



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw width
140636	140	3	set	62	18
094004	175	3	set	74	20
094005	200	3	set	90	22
094006	250	3	set	110	26
094007	315	3	set	125	32
094044	400/500	3	set	160	45
140194	630	3	set	230	65

Tool group A28
Type 002
Unstepped top jaw AB, set
standard design, soft,
material 16MnCr5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
094008	140/175	3	set	85	36,5	20,3
094009	200	3	set	105	40	22
094010	250	3	set	125	50	30,4
094011	315	3	set	145	50	34,3
094046	400/500	3	set	180	73	50,5
140716	630	3	set	260	102	68

Tool group A28
Type 003
Reversible top jaw UB, set
hardened



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
094012	140/175	3	set	61,5	32,5	20,4
094013	200	3	set	70,5	38	24,4
094014	250	3	set	92	50	34,4
094015	315	3	set	107	56	35,7
094045	400/500	3	set	130	72	50,4
140715	630	3	Satz	185	102	68

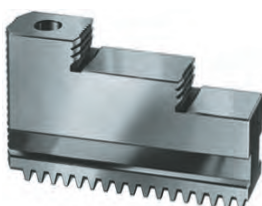
Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.
In case of a subsequent jaw delivery please return the chuck.

Tool group A28
Type 000
Unstepped Jaw BL, set
unstepped, soft,
material 16MnCr5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
626158	140	3	set	70,5	41,5	18
241699	175	3	set	84,4	45	20
249678	200	3	set	98,4	60	22
249679	250	3	set	118,7	70	26
249680	315	3	set	136,6	79	32
249681	400/500	3	set	173,6	93	45

Tool group A28
Type 000
One-piece jaw EB, set
hardened

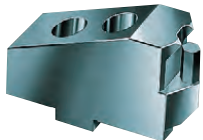


Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
140764	140	3	set	62	49,5	18
094000	175	3	set	77,7	45	20
094001	200	3	set	94,7	60	22
094002	250	3	set	114	70	26
094003	315	3	set	130	79	32
094043	400/500	3	set	167	93	45

Stepped and hardened jaws, supplied as supplement or as spares, must be ground on the chuck.
In case of a subsequent jaw delivery please return the chuck.

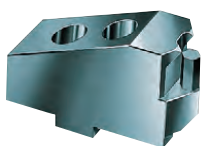
Jaws DURO-NC

Tool group C 21
Type 544-00 **reversible claw-type top jaws, standard design**
tongue and groove,
small clamping range,
1 piece hardened



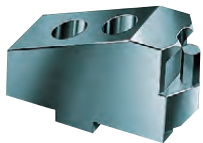
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137060	140/175	piece	66	37,5	24
137119	400/500	piece	124	62	50
151289	630	piece	144	78	70

Tool group C 21
Type 544-00 **reversible claw-type top jaws, standard design**
tongue and groove,
large clamping range,
1 piece, hardened



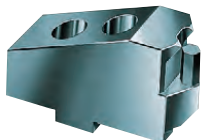
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137061	140/175	piece	66	37,5	20
137064	200	piece	81	43	24
137108	250	piece	90	55	34
137114	315	piece	100	62	34
137120	400/500	piece	124	62	50

Tool group C 21
Type 544-00 **reversible claw-type top jaws, standard design**
tongue and groove,
middle sized clamping range,
1 piece, hardened



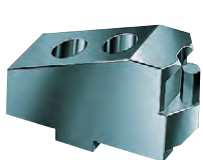
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137062	140/175	piece	56	37,5	20
137065	200	piece	66	43	24
137109	250	piece	72	55	34
137115	315	piece	86	62	34
137121	400/500	piece	100	62	50

Tool group C 21
Type 544-05 **reversible claw-type top jaws, large design**
tongue and groove,
small clamping range,
1 piece, hardened



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137066	200	piece	79	43	34
137110	250	piece	80	55	50
137116	315	piece	93	62	50

Tool group C 21
Type 544-05 **reversible claw-type top jaws, large design**
tongue and groove,
large clamping range,
1 piece, hardened



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137067	200	piece	81	43	34
137111	250	piece	90	55	50
137117	315	piece	106	62	50

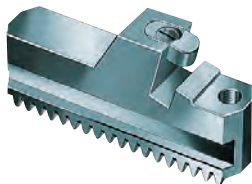
Tool group C 21
Type 544-05 **reversible claw-type top jaws, large design**
tongue and groove, **middle sized clamping range**, 1 piece, hardened



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137068	200	piece	66	43	34
137112	250	piece	72	55	50
137118	315	piece	86	62	50

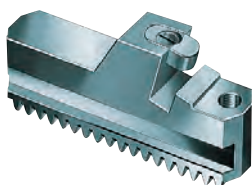
Jaws DURO-NC

Tool group C 21
Type 545-00 **Draw-down jaws**,
without clamping inserts
diagonally toothing,
1 piece, without clamping inserts



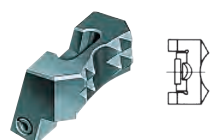
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
151030	140	piece	63	41,5	18
141037	175	piece	84,4	43,5	20
141039	200	piece	98,4	47,5	22
141041	250	piece	118,7	58,5	26
141043	315	piece	136,4	63,9	32
141045	400/500	piece	173,6	73,4	45

Tool group C 21
Type 545-00 **Draw-down jaws**,
additional clamping range,
for interchangeable clamping
inserts
diagonally toothing,
1 piece, without clamping inserts



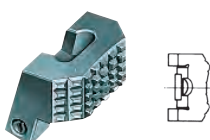
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
151031	140	piece	63	41,5	18
141038	175	piece	84,4	43,5	20
141040	200	piece	98,4	47,5	22
141042	250	piece	118,7	58,5	26
141044	315	piece	136,4	63,9	32
141046	400	piece	173,6	73,4	45
141048	500	piece	173,6	73,4	45

Tool group C 15
Type 545-60 **Interchangeable
clamping inserts**, 1 piece
with claws



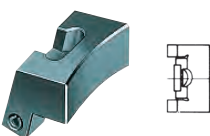
Item no.	Chuck Size	Contents of delivery
151029	140	piece
141049	175/200	piece
141052	250/315	piece
141055	400/500/630	piece

Tool group C 15
Type 545-70 **Interchangeable
clamping inserts**, 1 piece
with serrated toothing



Item no.	Chuck Size	Contents of delivery
151039	140	piece
141050	175/200	piece
141053	250/315	piece
141056	400/500	piece

Tool group C 15
Type 545-80 **Interchangeable
clamping inserts**, 1 piece
with heat treatable surface



Item no.	Chuck Size	Contents of delivery
151040	140	piece
141051	175/200	piece
141054	250/315	piece
141057	400/500	piece

Please note: For further details see jaw dimensions and chucking capacities.

Accessories DURO-NC

Tool group C 15

Type 0040-Y **Mounting screws**



Item no.	Size	Contents of delivery	Thread
200182	140/175/200	piece	M8x1x22
200183	250	piece	M12x1,5x30
202402	315	piece	M12x1,5x35
227618	400/500	piece	M16x1,5x40
249388	630	piece	M20x50

Socket head cap screw to DIN 912, 12.9

Tool group C15

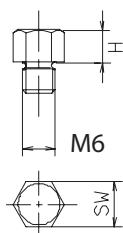
Type 1028 **Special grease F80 for lathe chucks** for lubrication and conservation of chucking power



Item no.	Design	Contents
308555	Cartridge	0,5 kg
028975	Tin	1 kg

Tool group C 15

Type 544-00 **Changeable workpiece rests** (in different lengths)

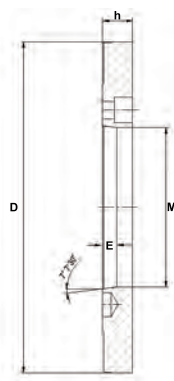


Item no.	H	M	Key-width SW
289188	5	M6	9
138950	10	M6	9
725581	15	M6	9

Tool group A09

Type 619-30 **Short-taper adapter plate**

ISO 702-1 (DIN 55026/55021) - ASA B 5.9 (without mounting bolts)
finished on machine side, faced on chuck side, especially



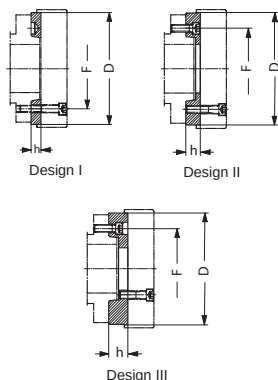
Id.-Nr.	Spindle nose size	h	E	M	D
144933	3	18	13	40	125
145296	4	18	13	40	125
145328	3	18	13	40	160
145342	4	18	13	40	160
145343	5	21	16	50	160
145344	4	21	13	50	200
145345	5	21	16	50	200
145346	6	27	17	50	200
145347	4	27	13	63	250
145348	5	27	16	63	250
145349	6	27	17	63	250
145350	8	27	19	63	250
145351	5	36	16	63	315
145352	6	36	17	63	315
145353	8	36	19	63	315
145354	11	36	21	63	315
145355	6	40	17	63	400
145356	8	40	19	63	400
145357	11	40	21	63	400
145358	15	40	23	63	400
145359	8	42	19	80	500
145360	11	42	21	80	500
145364	15	42	23	80	500

Accessories DURO-NC

Tool group C 15

Type 594-32 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Mounting from front to **ISO 702-1 (DIN 55026/55021)**
and **ASA B 5.9 A1/A2** with **metric mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
159878	5	140	I	15	104,8	120
145153	5	175	I	15	104,8	140
145297	6	175	III	35	133,4	140
145155	6	200	I	16	133,4	170
145131	6	250	II	27	133,4	220
145135	8	200	III	39	171,4	170
145157	8	250	I	18	171,4	220
145139	8	315	II	38	171,4	300
1049147	8	400	II	56	171,4	380
145143	11	250	III	48	235	220
145159	11	315	I	19	235	300
145147	11	400	II	40	235	380
145161	15	400/500/630	I	21	330,2	380

All fastening parts are included

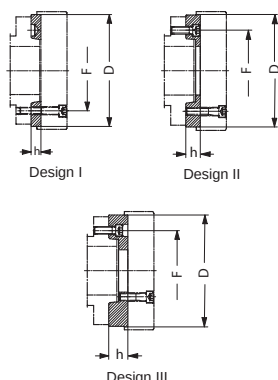
Intermediate adaptors for two- and four-jaw-design on request

¹⁾ DIN 55021 on request

Tool group C 15

Type 594-35 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Mounting from front to **ASA B 5.9 A1/A2**
with **inch threaded mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
159878	5	140	I	15	104,8	120
145153	5	175	I	15	104,8	140
145301	6	175	III	35	133,4	140
145155	6	200	I	16	133,4	170
145194	6	250	II	27	133,4	220
145196	8	315	II	39	171,4	300
145157	8	250	I	18	171,4	220
145198	8	315	II	38	171,4	300
145200	11	250	III	48	235	220
145159	11	315	I	19	235	300
145202	11	400/500	II	40	235	380
145161	15	400/500/630	I	21	330,2	380

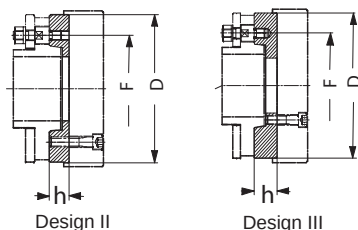
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-33 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Bayonet fixing to **ISO 702-3 (DIN 55027/ DIN 55022)**



Item no.	Spindle nose size	Size	Design	h	F	D
145238	5	175	II	21	104,8	140
145303	6	175	III	35	133,4	140
145240	6	200	II	22	133,4	170
145214	6	250/315	II	27	133,4	220
145218	8	200	III	39	171,4	170
145242	8	250	II	30	171,4	220
145222	8	315	II	38	171,4	300
145226	11	250	III	48	235	220
145246	11	315	II	36	235	300
145230	11	400/500	II	40	235	380
145248	15	400/500	II	40	330,2	380
145250	15	630	I	40	330,2	380

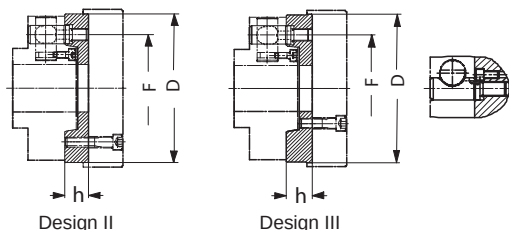
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-36 Intermediate adaptor plates

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Camlock fixing to **DIN 55029/ASA B 5.9 D1**



Item no.	Spindle nose size	Size	Design	h	F	D
145282	5	175	II	30	104,8	140
145594	6	175	III	43	133,4	140
145284	6	200	II	35	133,4	170
145258	6	250	II	35	133,4	220
145262	8	200	II	46	171,4	170
145286	8	250	II	38	171,4	220
145266	8	315	II	38	171,4	300
145270	11	250	III	53	235	220
145290	11	315	II	45	235	300
145274	11	400/500	II	45	235	380
145292	15	400/500	II	50	330,2	380
145294	15	630	I	50	330,2	380

All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

DURO-NC

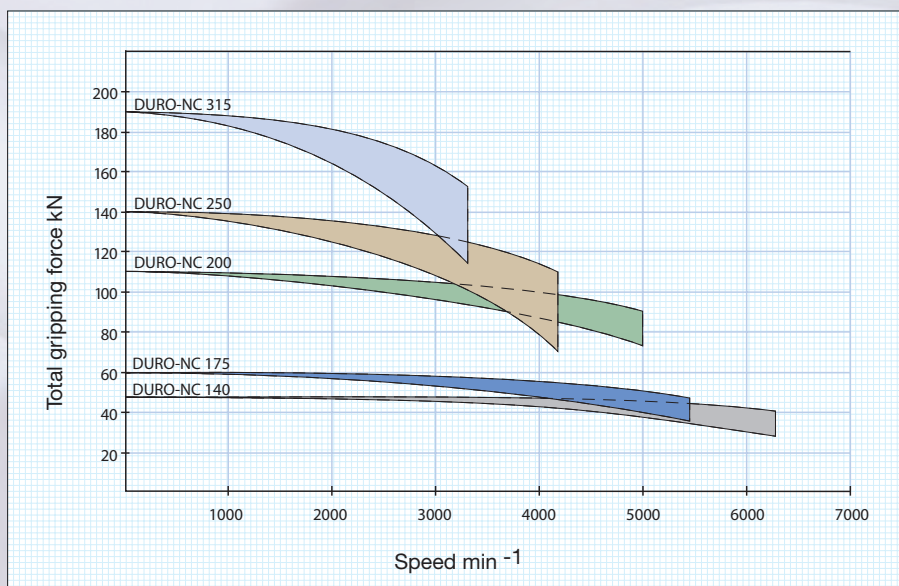
Gripping force/speed diagrams

The loss of gripping force was determined experimentally on a chuck with matched UB top jaws. It is largely independent of the initial gripping force at zero speed.

Upper curve:
min. centrifugal
force of top jaw

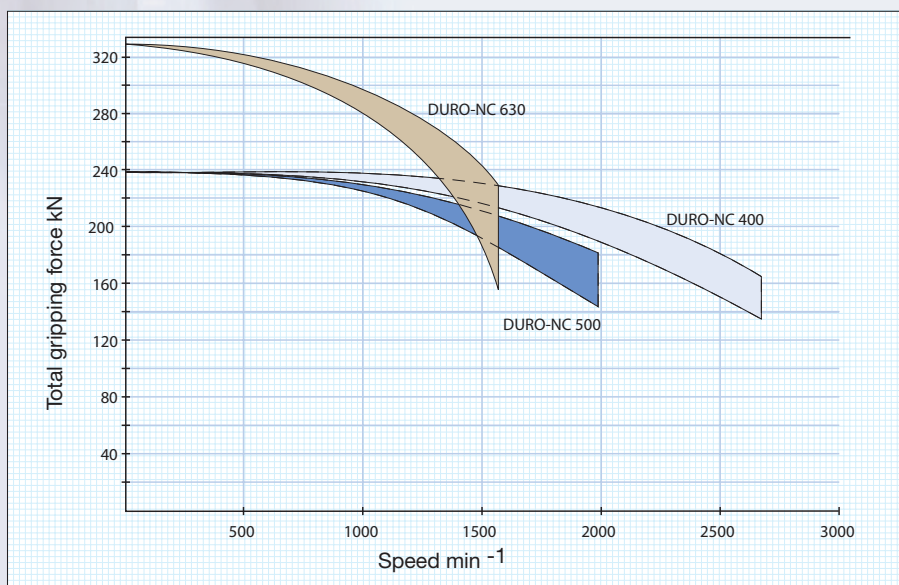


Lower curve:
max. centrifugal
force of top jaw

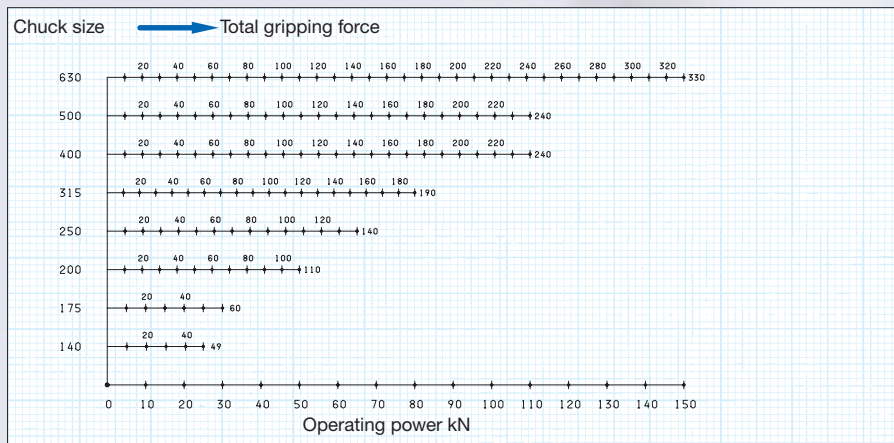


To obtain the specified gripping forces, the chuck must be in a perfect condition and lubricated with F 80 lubricant recommended by Röhm. Measuring point near chuck face.

Example: For a DURO-NC chuck size 250 and an applied operating power of 40 kN, the total gripping force is approx. 92 kN.

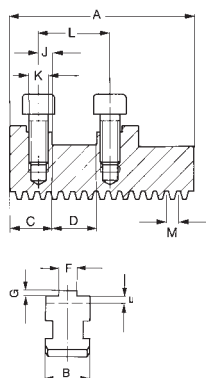


Gripping force/operating power diagram



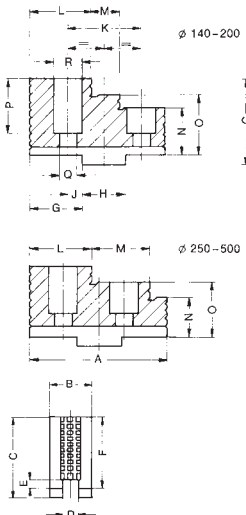
Jaw dimensions DURO-NC

Base jaw GB with screws



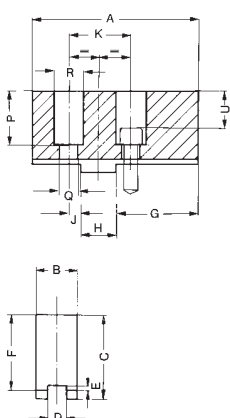
Chuck size	140	160/175	200	250	315	400/500	630
Type	503-80	002-20	002-25	002-30	002-35	002-40	002-50
Item no. 3-jaw	140636	094004	094005	094006	094007	094044	140194
A	56	74	90	110	125	160	230
B	18	20	22	26	32	45	65
C	19	19	23	26	30	35	52
DH6	18	18	20	20	26	30	40
E	5	5	5,5	5,5	6,5	7,5	9
F	8	8	10	12	12	18	24
G	2,5	2,5	3	3	3	4	4
J	7	7	10	10	14	15	21
K	M8x1	M8x1	M8x1	M12x1,5	M12x1,5	M16x1,5	M20
L	32	32	40	40	54	60	82
M	3,63	4,84	4,89	6,03	7,05	8,55	8,53
Weight/set kg	0,43	0,8	1,1	2,1	3,2	7	17

Reversible top jaws UB, hardened



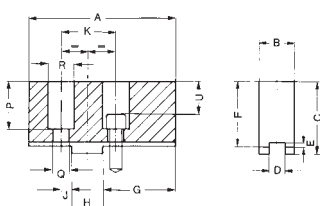
Chuck size	140/160/175	200	250	315	400/500	630
Type	003-20	003-25	003-30	003-35	003-40	003-50
Item no. 3-jaw	094012	094013	094014	094015	094045	140715
A	61,5	70,35	92	107	130	185
B	20,4	24,4	34,4	37,5	50,4	68
C	37	43	55	62	79	110
D	8	10	12	12	18	24
E	3	3,5	3,5	3,5	4,5	4,5
F	32,5	38	50	56	72	102
G	22,5	25,5	30	35,5	41,4	59
H	18	20	20	26	30	40
J	7	10	10	14	15	21
K	32	40	40	54	60	82
L	26,5	28,5	41	40	51	80
M	13	14	40,5	54	71	80
N	17,5	18	22	26	32	42
O	25	28	36	41	52	72
P	23,5	29	39	40	57	82
Q	9	9	14	14	18	22
R	15	15	20	20	26	33
Weight/set kg	0,6	1,0	2,4	3,4	7,6	19

Soft top jaws AB, material 16MnCr5



Chuck size	140/160/175	200	250	315	400/500	630
Type	002-20	002-25	002-30	002-35	002-40	002-50
Item no. 3-jaw	094008	094009	094010	094011	094046	140716
A	85	105	125	145	180	260
B	20,3	22	30,4	34,3	50,5	68
C	41	45	55	56	80	110
D	8	10	12	12	18	24
E	3	3,5	3,5	3,5	4,5	4,5
F	36,5	40	50	50	73	102
G	42	50	70	74	100	150
H	18	20	20	26	30	40
J	7	10	10	14	15	21
K	32	40	40	54	60	82
P	27,5	31	39	34	58	83
Q	9	9	14	14	18	22
R	15	15	20	20	26	33
U	19,5	23	27	22	42	63
Weight/set kg	1,3	2,2	4,5	6,8	13,5	40

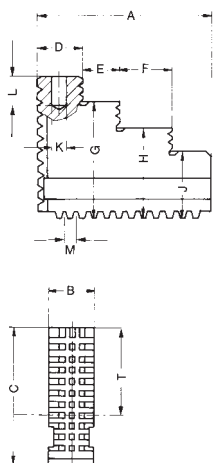
Soft top jaws AB, larger design, material 16MnCr5



Chuck size	140/160/175	200	250	315		
Type	000-20	002-25	002-30	002-35		
Item no. 3-jaw	137055	137056	137057	137058		
A	85	105	125	145		
B	24,4	34,4	50,4	50,4		
C	47	56	80	80		
Weight/set kg	1,8	4,2	10,05	11,5		

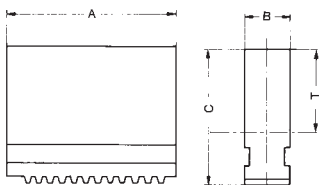
Jaw dimensions DURO-NC

One-piece reversible jaws EB



Chuck size	140	160/175	200	250	315	400/500	
Type	503-80	000-20	000-25	000-30	000-35	000-40	
Item no. 3-jaw	140764	094000	094001	094002	094003	0940043	
A	62	77,7	94,7	114	130	167	
B	18	20	22	26	32	45	
C	49,5	45	60	70	79	93	
D	16,6	20,6	23	41,5	40,2	50,6	
E	15,9	18,9	19,5	40,3	54	71	
F	18	22	28	-	-	-	
G	42	37,5	50	56	64	73	
H	34,5	30	40	-	-	-	
J	27	22,5	30	42	49	53	
K	7	8	10	13	13	20	
L	16	16	15	19,5	19,5	30	
M	3,63	4,84	4,89	6,03	7,05	8,55	
T	29	24	35	41	44,5	54	
Weight/set kg	1,2	1,5	1,9	3,4	5,5	11	

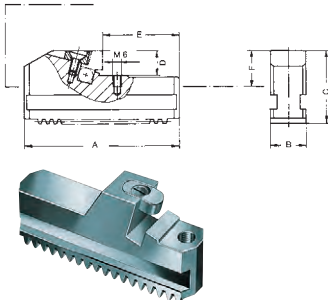
Soft one-piece jaws BL, material 16MnCr5



Chuck size	140	160/175	200	250	315	400/500	
Type	503-80	000-20	000-25	000-30	000-35	000-40	
Item no. 3-jaw	626158	241699	249678	249679	249680	249681	
A	70,5	84,5	98,4	118,7	136,6	173,6	
B	18	20	22	26	32	45	
C	41,5	45	60	70	79	93	
T	21	24	35	41	44,5	54	
Weight/set kg	1,3	1,5	2,7	4,4	7,2	15	

Draw-down jaws NB for interchangeable clamping inserts (jaw without insert)

Chuck front side



Chuck size	140	160/175	200	250	315	400	500
Type	545-00	545-00	545-00	545-00	545-00	545-00	545-00
Item no. Piece	151030	141037	141039	141041	141043	141045	141045
A	63	84,4	98,4	118,7	136,4	173,6	173,6
B	18	20	22	26	32	45	45
C	41,5	43,5	47,5	58,5	63,9	73,4	73,4
D	15	15	15	20	20	25	25
E	10,5	11	12	12	12	12	12
F	22,5	22,5	22,5	29,5	29,5	34,3	34,3
Capacities external	40-85	29-80	34-112	38-133	43-170	48-185	48-250
Capacities internal	124-168	162-205	190-263	235-325	275-398	360-490	354-556

Accessory: Changeable workpiece rests (in different lengths)

Draw-down jaws NB for interchangeable clamping inserts (jaw without insert)

Jaws for further clamping ranges

Accessories: Changeable workpiece rests (in different lengths)

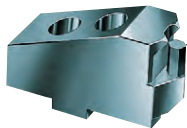
Item no.	289188	138950	725581
M	M6	M6	M6
H	5	10	15
SW		9	

Chuck size	140	160/175	200	250	315	400	500
Type	545-00	545-00	545-00	545-00	545-00	545-00	545-00
Item no. Piece	151031	141038	141040	141042	141044	141046	141048
E	31,5	32	48	58	72	77	110
Capacities external	80-125	70-120	104-185	128-225	160-290	175-316	240-450
Capacities internal	85-126	120-164	120-192	145-236	158-278	230-362	162-360

Jaw dimensions DURO-NC

Reversible claw-type top jaws KB, Standard design

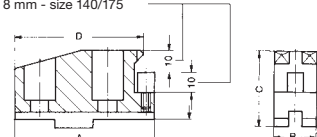
Workpiece stop, can be changed and adjusted



Chuck size	140	175	400	500	630
Jaw design	Type 544-00 Standard design				
Item no. Piece	137060		137119		151289
A	66		124		144
B	24		50		70
C	37,5		62		78
D	17		39		61
Capacities external	115-158	115-209	-	-	230-655
Capacities internal	50-84	50-136	100-350	100-410	185-610

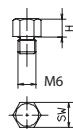
Jaws for further clamping ranges

8 mm - size 140/175



Chuck size	140	175	200	250	315	400	500
Jaw design	Type 544-00 Standard design						
Item no. Piece	137061		137064	137108	137114	137120	
A	66		81	90	100	124	
B	20		24	34	34	50	
C	37,5		43	55	62	62	
D	61		71	78	90	112	
Capacities external	24-60	24-110	40-130	50-185	50-222	50-270	50-335
Capacities internal	142-182	142-236	166-288	180-350	212-410	280-515	280-580

Accessories: Changeable workpiece rests (in different lengths)

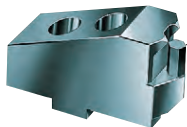


Id.-Nr.	289188	138950	725581
M	M6		
H	5	10	15
SW	9		

Chuck size	140	175	200	250	315	400	500
Jaw design	Type 544-00 Standard design						
Item no. Piece	137062		137065	137109	137115	137121	
A	56		66	72	86	100	
B	20		24	34	34	50	
C	37,5		43	55	62	62	
D	29		38,5	38	42	48	
Capacities external	74-118	47-170	76-200	94-260	120-320	165-400	165-465
Capacities internal	80-130	80-176	98-224	104-272	116-315	155-395	155-455

Reversible claw-type top jaws KB, large design

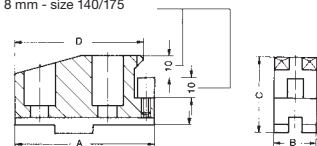
Workpiece stop, can be changed and adjusted



Chuck size	200	250	315
Jaw design	Type 544-00 Standard design		
Item no. Piece	137066	137110	137116
A	79	80	93
B	34	50	50
C	43	55	62
D	29,5	29	30
Capacities external	-	-	-
Capacities internal	72-185	70-235	80-275

Jaws for further clamping ranges

8 mm - size 140/175

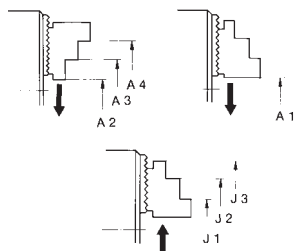


Chuck size	200	250	315
Jaw design	Type 544-05 Large design		
Item no. Piece	137067	137111	137117
A	81	90	100
B	34	50	50
C	43	55	62
D	71	78	90
Capacities external	40-130	50-185	50-222
Capacities internal	166-288	180-350	212-410

Chuck size	200	250	315
Jaw design	Type 544-05 Large design		
Item no. Piece	137068	137112	137118
A	66	72	86
B	34	50	50
C	43	55	62
D	38,5	38	42
Capacities external	76-200	94-260	120-320
Capacities internal	98-224	104-272	116-315

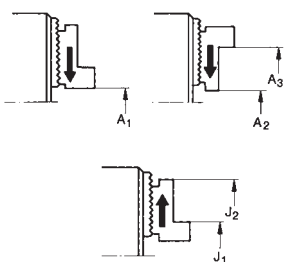
Chucking capacities DURO-NC

Chucking capacities with reversible top jaws UB



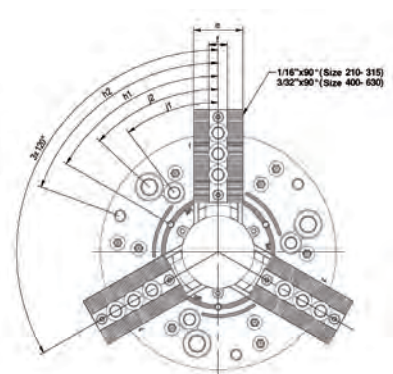
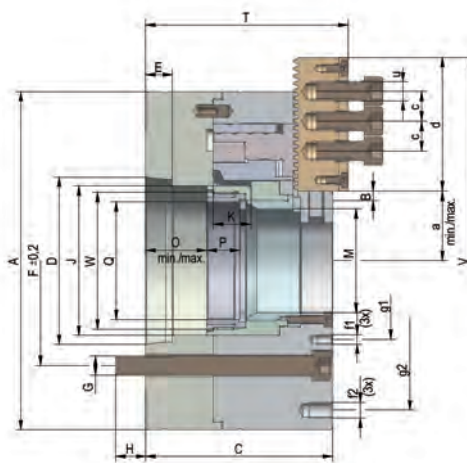
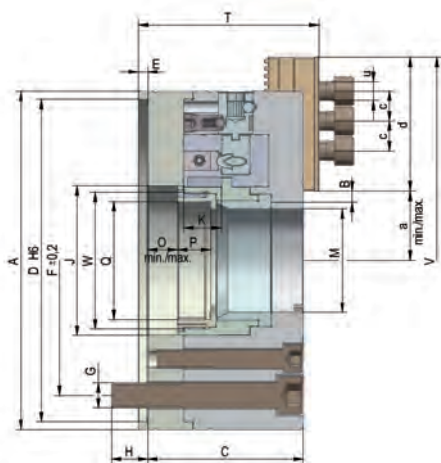
Chuck size		140	160	175	200	250	315	400	500	630
with reversible jaws	Type	003-20	003-20	003-20	003-25	003-30	003-35	003-40	003-40	003-50
	Jaw position									
External chucking	A1	10-58	5-51	5-60	5-65	8-93	30-125	55-156	45-230	42-468
	A2	14-62	45-94	45-103	58-118	-	-	-	-	-
	A3	57-105	89-138	89-147	114-174	82-168	93-210	119-260	122-326	112-487
	A4	89-131	115-164	115-173	142-202	163-249	201-317	260-401	264-470	275-650
Internal chucking	J1	65-112	67-108	67-117	71-126	99-178	120-207	155-260	155-460	195-615
	J2	91-138	93-135	93-144	99-154	178-257	207-313	260-400	265-600	355-780
	J3	133-182	135-177	135-186	154-209	-	-	-	-	-

1) Shallow design chuck



Chuck size		1000	1250	1400	1600
with reversible jaws	Type	538-09	538-09	538-09	538-09
	Jaw position				
External chucking	A1	100-640	100-890	100-1040	100-1240
	A2	180-720	180-970	180-1120	180-1320
	A3	450-1000	450-1250	450-1400	450-1600
Internal chucking	J1	200-750	200-1000	200-1150	200-1350
	J2	480-1030	480-1280	480-1430	480-1630

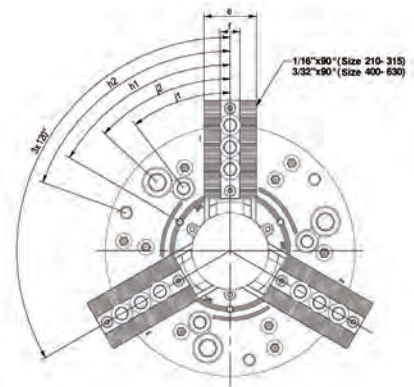
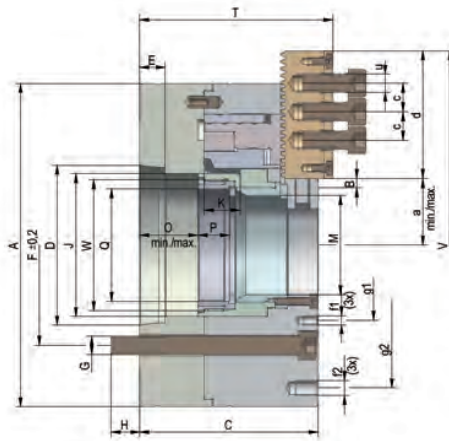
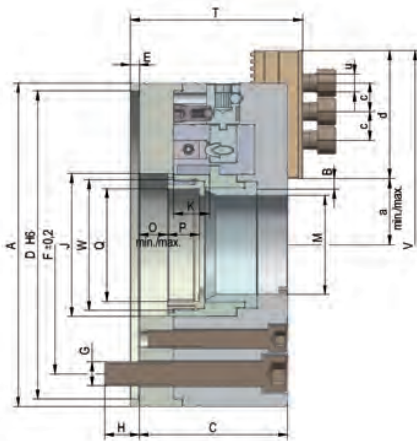
DURO-NCSE-B widened base jaws, serration 90°



Tool group C 15
Type 523-51 (ZA) / -61 (KK)
3 jaw power-chucks
DURO-NCSE-B,
with **wide base jaws,**
quick-acting jaw change system,
with **individual jaw unlocking,**
serration 90°
adaptor recess **DIN 6353 /**
short taper mount **ISO 702-1**
(DIN 55026/55021)

Item no.	439461	439462	439463	439464	439465	439466	439467	439448	439449	439450	439451
Size	210	210	210	265	265	265	265	315	315	315	315
Toothing	4,712	4,712	4,712	5,498	5,498	5,498	5,498	5,498	5,498	5,498	5,498
A	210	210	210	265	265	265	265	315	315	315	315
Jaw travel B	6,3	6,3	6,3	8,8	8,8	8,8	8,8	9,1	9,1	9,1	9,1
C	101,25	115,25	117,25	127,85	127,85	135,85	137,85	133,7	133,7	149,7	151,7
D	ZA 170	KK 6	KK 8	ZA 170	ZA 220	KK 6	KK 8	ZA 220	ZA 300	KK 8	KK 11
E	6	17	19	6	6	17	19	6	6	19	21
F	133,4	133,4	171,4	133,4	171,4	133,4	171,4	171,4	235	171,4	235
G	M12	M12	M16	M12	M16	M12	M16	M16	M20	M16	M20
H	17	18	24	21	25	17	24	27	27	26	24
J	85	85	85	108	108	108	108	140	140	140	140
Wedge stroke K	20	20	20	28	28	28	28	28	28	28	28
M	52	52	52	77	77	77	77	104	104	104	104
O min.	2	15	17	1	1	15	17	1,5	1,5	17,5	19,5
O max.	22	39	41	29	29	43	45	29,5	29,5	45,5	47,5
P	21	21	21	22	22	22	22	25	25	25	25
Q	M60x1,5	M60x1,5	M60x1,5	M87x1,5	M87x1,5	M87x1,5	M87x1,5	M110x2	M110x2	M110x2	M110x2
T	108,1	122,1	124,1	134,5	134,5	148,5	150,5	147,5	147,5	163,5	165,5
U	M12	M12	M12	M16	M16	M16	M16	M16	M16	M16	M16
V max.	250	250	250	313	313	313	313	373	373	373	373
W	M75x1,5	M75x1,5	M75x1,5	M98x1,5	M98x1,5	M98x1,5	M98x1,5	M130x1,5	M130x1,5	M130x1,5	M130x1,5
a min.	28,5	28,5	28,5	24,3	24,3	24,3	24,3	28	28	28	28
a max.	39,7	39,7	39,7	51,8	51,8	51,8	51,8	55,5	55,5	55,5	55,5
Index adjustment	4 (x4,712 =18,8)	4 (x4,712 =18,8)	4 (x4,712 =18,8)	4(x4,712 =18,8)	5 (x5,5 =27,5)	5 (x5,5 =27,5)	5 (x5,5 =27,5)	5 (x5,5 =27,5)	5 (x5,5 =27,5)	5 (x5,5 =27,5)	5 (x5,5 =27,5)
c	2x19	2x19	2x19	2x25	2x25	2x25	2x25	2x25	2x25	2x25	2x25
d	85	85	85	110	110	110	110	125	125	125	125
e	45	45	45	45	45	45	45	50	50	50	50
f	17	17	17	21	21	21	21	21	21	21	21
f1	M6 / 10	M6 / 10	M6 / 10	M8 / 15	M8 / 15	M8 / 15	M8 / 15	M8 / 15	M8 / 15	M8 / 15	M8 / 15
f2	M10 / 15	M10 / 15	M10 / 15	M10 / 15	M10 / 15	M10 / 15	M10 / 15	M12 / 20	M12 / 20	M12 / 20	M12 / 20
g1	94	94	94	124	124	124	124	140	140	140	140
g2	190	190	190	220	220	220	220	268	268	268	268
h1	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
h2	70°	70°	70°	77°	77°	77°	77°	77°	77°	77°	77°
j1	39°	39°	39°	30°	30°	30°	30°	40°	40°	40°	40°
j2	49°	49°	49°	40°	40°	40°	40°	45°	45°	45°	45°
Maximum draw bar pull kN	52	52	52	73	73	73	73	100	100	100	100
Max. total clamping force approx. kN	95	95	95	135	135	135	135	180	180	180	180
Max. admissible speed min ⁻¹	3500	3500	3500	3000	3000	3000	3000	2800	2800	2800	2800
Moment of inertia J kgm ²	0,155	0,155	0,155	0,46	0,46	0,46	0,46	0,96	0,96	0,96	0,96
Weight without jaws approx. kg	27	28	28	44	44	47	49	66	66	69	70

DURO-NCSE-B widened base jaws, serration 90°



Tool group C 15
Type 523-51 (ZA) / -61 (KK)
3 jaw power-chucks
DURO-NCSE-B,
with **wide base jaws**,
quick-acting jaw change system,
with **individual jaw unlocking**,
serration 90°
adaptor recess **DIN 6353** /
short taper mount **ISO 702-1**
(DIN 55026/55021)

Item no.	439452	439453	439454	439455	439456	439457	439458	439459	439460
Size	400	400	400	400	500	500	500	630	630
Toothing	5,498	5,498	5,498	5,498	7	7	7	7	7
A	400	400	400	400	500	500	500	630	630
Jaw travel B	9,8	9,8	9,8	9,8	11,4	11,4	11,4	12,6	12,6
C	141,7	141,7	159,7	160,7	166	184	185	182,5	201,5
D	ZA 300	ZA 380	KK 11	KK 15	ZA 380	KK 11	KK 15	ZA 520	KK 15
E	8	8	21	23	8	21	23	8	23
F	235	330,2	235	330,2	330,2	235	330,2	463,6	330,2
G	M20	M24	M20	M24	M24	M20	M24	M24	M24
H	26	36,5	28	37,5	36	30	37	36	37
J	175,5	175,5	175,5	175,5	207	207	207	235	235
Wedge stroke K	30	30	30	30	35	35	35	40	40
M	128	128	128	128	155	155	155	167	167
O min.	1,5	1,5	19,5	20,5	1,5	19,5	20,5	1,5	20,5
O max.	31,5	31,5	49,5	50,5	36,5	54,5	55,5	41,5	60,5
P	29	29	29	29	29	29	29	35	35
Q	138x2	138x2	138x2	M138x2	M165x2	M165x2	M165x2	M180x2	M180x2
T	157,8	157,8	175,8	176,8	172	190	191	189,5	208,5
U	M20	M20	M20	M20	M20	M20	M20	M20	M20
V max.	424	424	424	424	524	524	524	643	643
W	M160x2	M160x2	M160x2	M160x2	M188x2	M188x2	M188x2	M215x2	M215x2
a min.	27,3	27,3	27,3	27,3	30	30	30	35	35
a max.	76,8	76,8	76,8	76,8	100	100	100	119	119
Index adjustment	9 (x5,5 =49,5)	9 (x5,5 =49,5)	9 (x5,5 =49,5)	9 (x5,5 =49,5)	10 (x7 =70)	10 (x7 =70)	10 (x7 =70)	12 (x7 =84)	12 (x7 =84)
c	2x31	2x31	2x31	2x31	3x31	3x31	3x31	4x31	4x31
d	160	160	160	160	160	160	160	230	230
e	50	50	50	50	62	62	62	75	75
f	25,5	25,5	25,5	25,5	25,5	25,5	25,5	25,5	25,5
f1	M8/ 15	M8/ 15	M8/ 15	M8/ 15	M8/ 16	M8/ 16	M8/ 16	M8/ 16	M8/ 16
f2	M16/ 20	M16/ 20	M16/ 20	M16/ 20	M20/ 37	M20/ 37	M20/ 37	M16/ 30	M16/ 30
g1	170	170	170	170	200	200	200	245	245
g2	330,2	330,2	330,2	330,2	420	420	420	520	520
h1	60°	60°	60°	60°	60°	60°	60°	60°	60°
h ₂	70°	70°	70°	70°	77°	77°	77°	47°	47°
j1	42,5°	42,5°	42,5°	42,5°	30°	30°	30°	45°	45°
j2	45°	45°	45°	45°	45°	45°	45°	60°	60°
Maximum draw bar pull kN	133	133	133	133	173	173	173	173	173
Max. total clamping force approx. kN	240	240	240	240	305	305	305	312	312
Max. admissible speed min ⁻¹	2450	2450	2450	2450	1400	1400	1400	1000	1000
Moment of inertia J kgm ²	2,67	2,67	2,67	2,67	16,1	16,1	16,1	22,8	22,8
Weight without jaws approx. kg	110	110	118	121	216	233	235	393	430

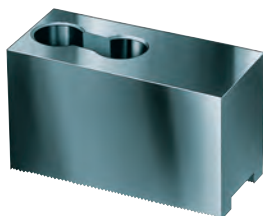
Jaws DURO-NCSE-B

Tool group C 21
Type 503-60 **Base jaws** with
screws and flat T-nuts
material: 16 MnCr 5



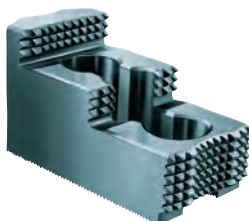
Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
163548	210	3	set	85	32	45	1/16"x90°
163549	265	3	set	110	41	45	1/16"x90°
163550	315	3	set	125	47	50	1/16"x90°
163551	400	3	set	160	50	50	3/32"x90°
163552	500	3	set	160	60	62	3/32"x90°
163553	630	3	set	230	70	75	3/32"x90°

Tool group C 21
Type 543/538 **Soft top jaws**,
3-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
133152	210	3	set	66,7	53	36,5	1/16"x 90°
133154	265/315	3	set	95	54,5	45	1/16"x 90°
133156	400/500/630	3	set	130	80	50	3/32"x 90°

Tool group C 21
Type 543/538 **Reversible top**
jaws, 3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046408	210	3	set	68	45	34,7	1/16"x 90°
046414	265/315	3	set	103,5	58	50	1/16"x 90°
037531	400/500/630	3	set	135	65	68	3/32"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Accessories DURO-NCSE-B

Tool group C15

Type 1028 **Special grease F80** for **lathe chucks**
for lubrication and conservation of chucking power



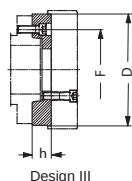
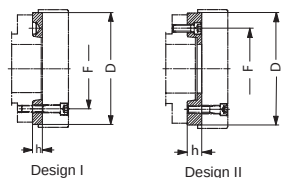
Item no.	Design	Contents
308555	Cartridge	0,5 kg
028975	Tin	1 kg

Accessories DURO-NCSE-B

Tool group C 15

Type 594-32 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Mounting from front to ISO 702-1 (**DIN 55026/55021**)
and **ASA B 5.9 A1/A2** with **metric mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
159878	5	140	I	15	104,8	120
145153	5	175	I	15	104,8	140
145297	6	175	III	35	133,4	140
145155	6	200	I	16	133,4	170
145131	6	250	II	27	133,4	220
145135	8	200	III	39	171,4	170
145157	8	250	I	18	171,4	220
145139	8	315	II	38	171,4	300
1049147	8	400	II	56	171,4	380
145143	11	250	III	48	235	220
145159	11	315	I	19	235	300
145147	11	400	II	40	235	380
145161	15	400/500/630	I	21	330,2	380

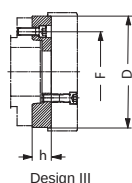
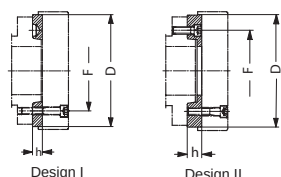
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-35 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Mounting from front to **ASA B 5.9 A1/A2**
with **inch threaded mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
159878	5	140	I	15	104,8	120
145153	5	175	I	15	104,8	140
145301	6	175	III	35	133,4	140
145155	6	200	I	16	133,4	170
145194	6	250	II	27	133,4	220
145196	8	315	II	39	171,4	300
145157	8	250	I	18	171,4	220
145198	8	315	II	38	171,4	300
145200	11	250	III	48	235	220
145159	11	315	I	19	235	300
145202	11	400/500	II	40	235	380
145161	15	400/500/630	I	21	330,2	380

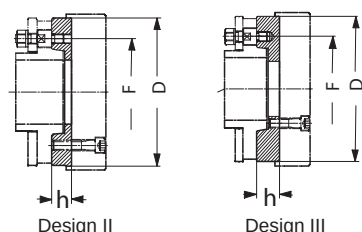
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-33 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Bayonet fixing to **ISO 702-3 (DIN 55027/ DIN 55022)**



Item no.	Spindle nose size	Size	Design	h	F	D
145238	5	175	II	21	104,8	140
145303	6	175	III	35	133,4	140
145240	6	200	II	22	133,4	170
145214	6	250/315	II	27	133,4	220
145218	8	200	III	39	171,4	170
145242	8	250	II	30	171,4	220
145222	8	315	II	38	171,4	300
145226	11	250	III	48	235	220
145246	11	315	II	36	235	300
145230	11	400/500	II	40	235	380
145248	15	400/500	II	40	330,2	380
145250	15	630	I	40	330,2	380

All fastening parts are included

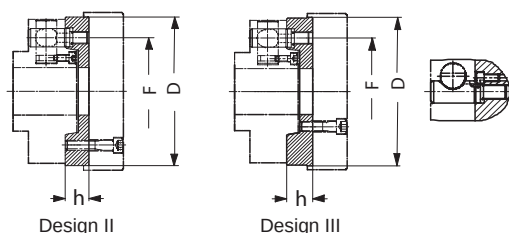
Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-36 **Intermediate adaptor plates** with cylindrical centre mount

DIN 6353 for three-jaw chucks

Camlock fixing to **DIN 55029/ASA B 5.9 D1**



Item no.	Spindle nose size	Size	Design	h	F	D
145282	5	175	II	30	104,8	140
145594	6	175	III	43	133,4	140
145284	6	200	II	35	133,4	170
145258	6	250	II	35	133,4	220
145262	8	200	II	46	171,4	170
145286	8	250	II	38	171,4	220
145266	8	315	II	38	171,4	300
145270	11	250	III	53	235	220
145290	11	315	II	45	235	300
145274	11	400/500	II	45	235	380
145292	15	400/500	II	50	330,2	380
145294	15	630	I	50	330,2	380

All fastening parts are included

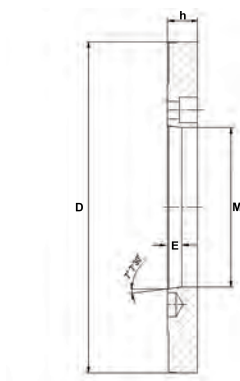
Intermediate adaptors for two- and four-jaw-design on request

Accessories DURO-NCSE-B

Tool group A09

Type 619-30 **Short-taper adapter plate**

ISO 702-1 (DIN 55026/55021) - ASA B 5.9 (without mounting bolts)
finished on machine side, faced on chuck side, especially



Id.-Nr.	Spindle nose size	h	E	M	D
144933	3	18	13	40	125
145296	4	18	13	40	125
145328	3	18	13	40	160
145342	4	18	13	40	160
145343	5	21	16	50	160
145344	4	21	13	50	200
145345	5	21	16	50	200
145346	6	27	17	50	200
145347	4	27	13	63	250
145348	5	27	16	63	250
145349	6	27	17	63	250
145350	8	27	19	63	250
145351	5	36	16	63	315
145352	6	36	17	63	315
145353	8	36	19	63	315
145354	11	36	21	63	315
145355	6	40	17	63	400
145356	8	40	19	63	400
145357	11	40	21	63	400
145358	15	40	23	63	400
145359	8	42	19	80	500
145360	11	42	21	80	500
145364	15	42	23	80	500

DURO-NCSE

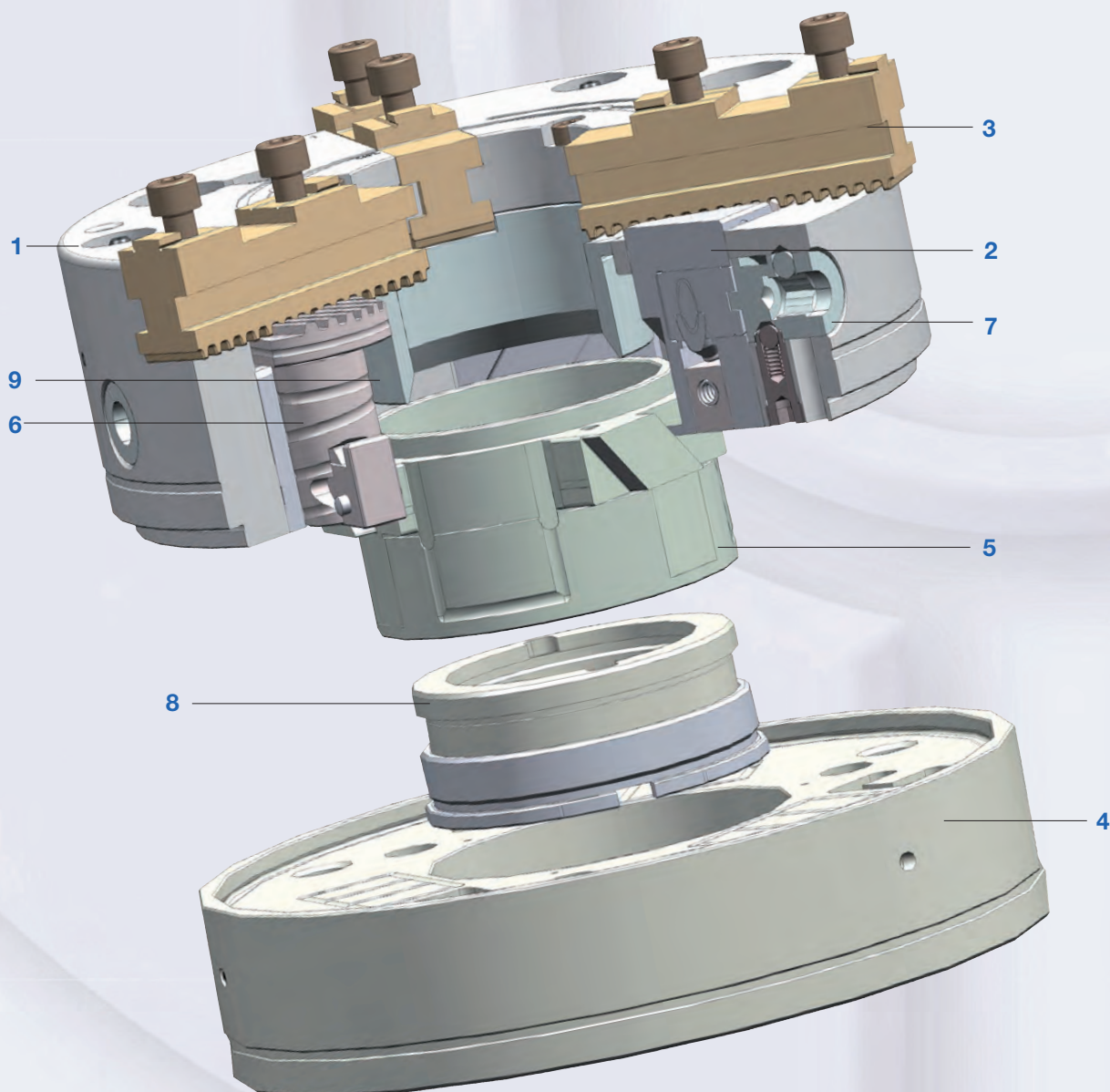
Quick-acting jaw change system with individual jaw unlocking



The individual locking arrangement means that handling is particularly easy with special large jaw pads when the workpiece requires them: Push key till stop, then turn in arrow direction

Components DURO-NCSE

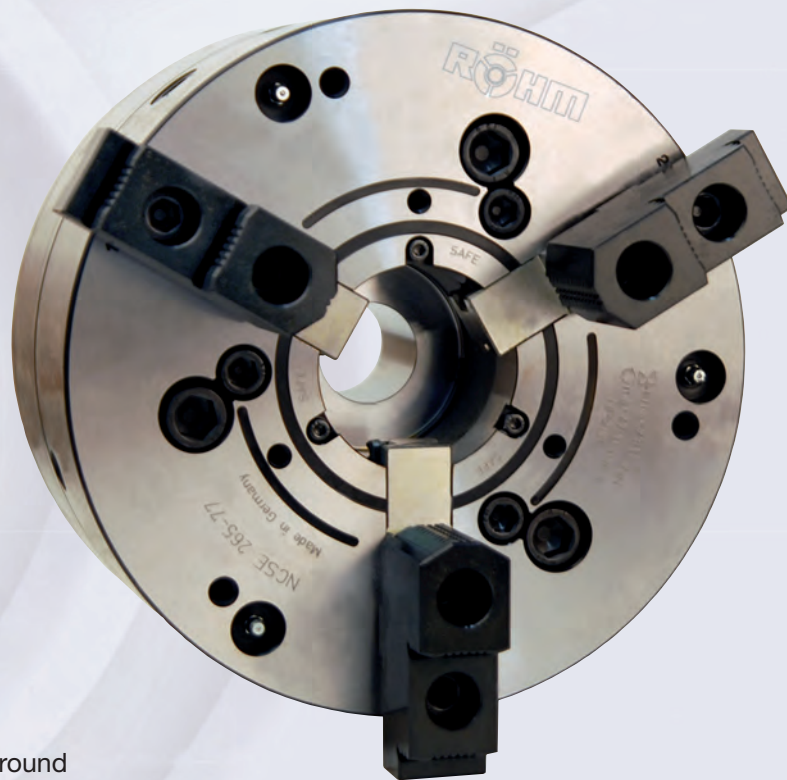
1. Body
2. Wedge bar
3. Base jaw
4. Adaptor plate
5. Piston
6. Locking pin
7. Turnable bolt
8. Turnable adaptor
9. Guiding sleeve



DURO-NCSE

Quick-acting jaw change system with individual jaw unlocking, position securing of the base jaws

The special design with the tangentially arranged taper bars has a positive effect on the centrifugal force behaviour of the chuck. This means lower centrifugal force losses and even higher revolution speeds (with high throughput).



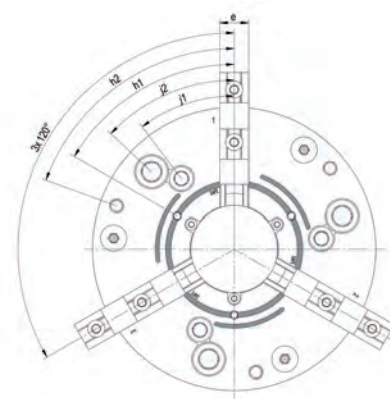
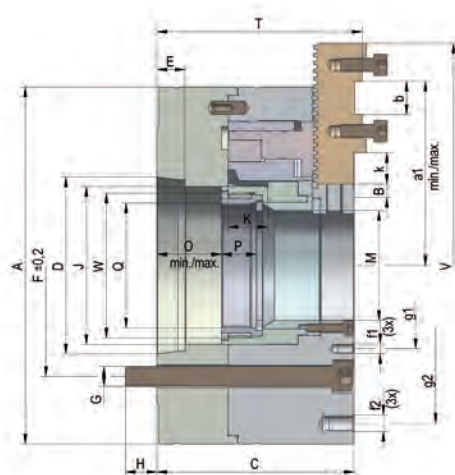
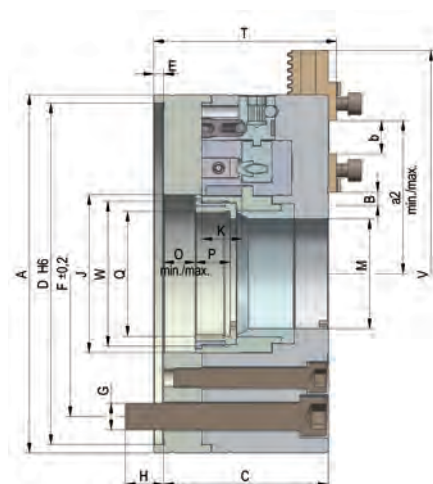
Technical features

- With through-hole
- High workholding accuracy
- High gripping force
- Power transmission via wedge system
- High true-running accuracy
- Low loss of clamping forces
- Made of steel, all wearing parts hardened and ground
- All parts completely case hardened
- Base jaw guide lubricated
- The toothing of the wedge bar always is in full contact with the jaw
- Used in conjunction with RÖHM SZS, OVS or LTS safety cylinders, these power chucks meet the requirements of the German Employers' Liability Insurance Association.
- The safety key can only be removed when the jaws are locked. This safety key, in conjunction with the key switch integrated in the machine, additionally prevents an unintentional start of the machine spindle when the jaws are unlocked.

Scope of delivery:

Chuck and jaw mounting screws, safety key, assembly wrench, base jaws.

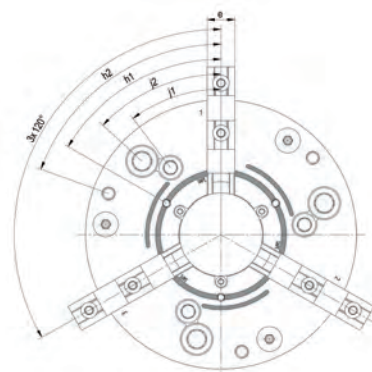
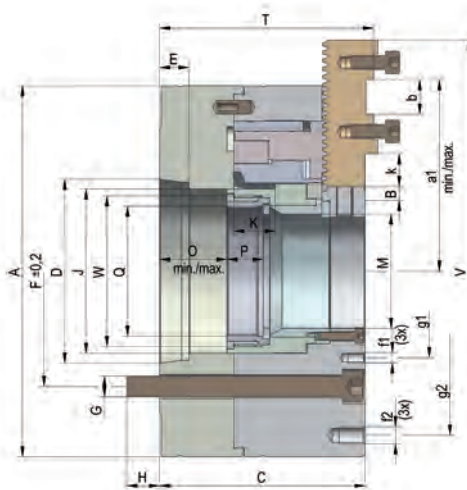
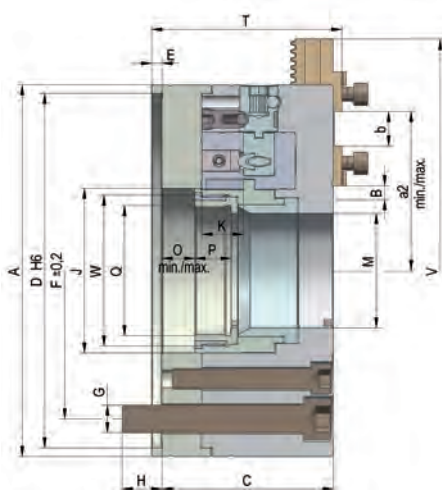
DURO-NCSE individual jaw unlocking, straight teeth



Tool group C 15
Type 523-50 (ZA) / -60 (KK)
3 jaw power-chucks
DURO-NCSE,
quick-acting jaw change system,
with base jaws (GB)
with individual jaw unlocking,
with straight teeth
adaptor recess **DIN 6353** /
short taper mount **ISO 702-1**
(DIN 55026/55021)

Item no.	438403	438404	438405	438406	438407	438408	438409	438410	438411	438412	438413	438414	438415
Size	170	170	170	210	210	210	225	225	225	265	265	265	265
Toothing	4,712	4,712	4,712	4,712	4,712	4,712	4,712	4,712	4,712	5,498	5,498	5,498	5,498
A	170	170	170	210	210	210	225	225	225	265	265	265	265
Jaw travel B	5,6	5,6	5,6	6,3	6,3	6,3	6,3	6,3	6,3	8,8	8,8	8,8	8,8
C	87	99	101	101	115	117	101	115	117	128	128	136	138
D	ZA 140	KK 5	KK 6	ZA 170	KK 6	KK 8	ZA 170	KK 6	KK 8	ZA 170	ZA 220	KK 6	KK 8
E	6	16	17	6	17	19	6	17	19	6	6	17	19
F	104,8	104,8	133,4	133,4	133,4	171,4	133,4	133,4	171,4	133,4	171,4	133,4	171,4
G	M10	M10	M12	M12	M12	M16	M12	M12	M16	M12	M16	M12	M16
H	19	17	21	17	18	24	17	18	24	21	25	17	24
J	70	70	70	85	85	85	100	100	100	108	108	108	108
Wedge stroke K	18	18	18	20	20	20	20	20	20	28	28	28	28
M	45	45	45	52	52	52	68	68	68	77	77	77	77
O min.	2	14	16	2	15	17	2	15	17	1	1	15	17
O max.	20	32	34	22	39	41	22	39	41	29	29	43	45
P	17	17	17	21	21	21	21	21	21	22	22	22	22
Q	M52x1,5	M52x1,5	M52x1,5	M60x1,5	M60x1,5	M60x1,5	M78x1,5	M78x1,5	M78x1,5	M85x1,5	M85x1,5	M85x1,5	M85x1,5
T	93,7	105,7	107,7	105,9	119,9	121,9	105,9	119,9	121,9	130,5	130,5	144,5	146,5
V max.	183,5	183,5	183,5	250	250	250	266	266	266	313	313	313	313
W	M64x1,5	M64x1,5	M64x1,5	M75x1,5	M75x1,5	M75x1,5	M92x2	M92x2	M92x2	M98x1,5	M98x1,5	M98x1,5	M98x1,5
a min.	58,1	58,1	58,1	78,1	78,1	78,1	76,8	76,8	76,8	95,9	95,9	95,9	95,9
a max.	72,2	72,2	72,2	101,7	101,7	101,7	109,8	109,8	109,8	128,9	128,9	128,9	128,9
2 min.	49,1	49,1	49,1	59,1	59,1	59,1	57,7	57,7	57,7	64,8	64,8	64,8	64,8
2 max.	63,2	63,2	63,2	82,7	82,7	82,7	90,7	90,7	90,7	97,8	97,8	97,8	97,8
Index adjustment	3 (x4,712 =14,1)	3 (x4,712 =14,1)	3 (x4,712 =14,1)	5 (x4,712 =23,6)	5 (x4,712 =23,6)	5 (x4,712 =23,6)	7 (x4,712 =33)	7 (x4,712 =33)	7 (x4,712 =33)	6 (x5,5 =33)	6 (x5,5 =33)	6 (x5,5 =33)	6 (x5,5 =33)
b	18	18	18	20	20	20	20	20	20	20	20	20	20
e	20	20	20	22	22	22	22	22	22	26	26	26	26
f1	M6 /10	M6 /10	M6 /10	M6 /10	M6 /10	M6 /10	M6 /10	M6 /10	M6 /10	M8 /15	M8 /15	M8 /15	M8 /15
f2	M8 /15	M8 /15	M8 /15	M10 /15	M10 /15	M10 /15	M10 /15	M10 /15	M10 /15	M10 /15	M10 /15	M10 /15	M10 /15
g1	75	75	75	94	94	94	100	100	100	124	124	124	124
g2	142	142	142	190	190	190	205	205	205	220	220	220	220
h1	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
h2	35°	35°	35°	70°	70°	70°	70°	70°	70°	77°	77°	77°	77°
j1	40°	40°	40°	39°	39°	39°	39°	39°	39°	30°	30°	30°	30°
j2	50,5°	50,5°	50,5°	49°	49°	49°	49°	49°	49°	40°	40°	40°	40°
k	9	9	9	19	19	19	19	19	19	32	32	32	32
Maximum draw bar pull kN	33	33	33	52	52	52	52	52	52	73	73	73	73
Max. total clamping force approx. kN	60	60	60	95	95	95	95	95	95	135	135	135	135
Max. admissible speed min ⁻¹	6300	6300	6300	6000	6000	6000	6000	6000	6000	4700	4700	4700	4700
Moment of inertia J kgm ²	0,07	0,07	0,07	0,155	0,155	0,155	0,235	0,235	0,235	0,46	0,46	0,46	0,46
Weight without jaws approx. kg	17	17	18	27	28	28	33	33	34	44	44	47	49

DURO-NCSE individual jaw unlocking, straight teeth

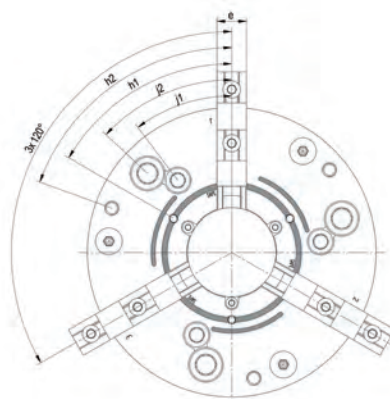
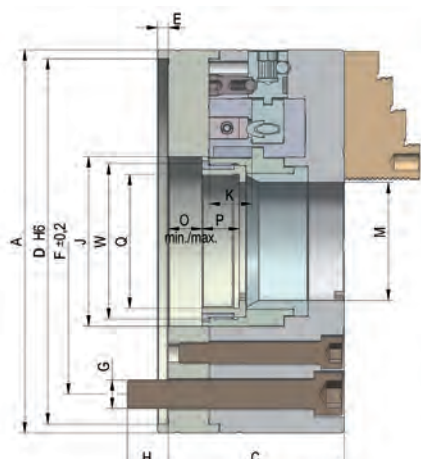
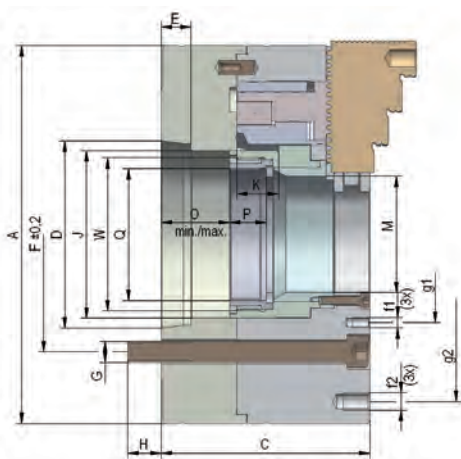


Tool group C 15
Type 523-50 (ZA) / -60 (KK)
3 jaw power-chucks
DURO-NCSE,
quick-acting jaw change system,
with base jaws (GB)
with individual jaw unlocking,
with straight teeth
adaptor recess **DIN 6353** /
short taper mount **ISO 702-1**
(DIN 55026/55021)

Item no.	438366	438367	438368	438369	438370	438371	438372	438373	438374	438375	438376	438377	438378
Size	315	315	315	315	400	400	400	400	500	500	500	630	630
Toothing	5,498	5,498	5,498	5,498	5,498	5,498	5,498	5,498	7	7	7	7	7
A	315	315	315	315	400	400	400	400	500	500	500	630	630
Jaw travel B	9,1	9,1	9,1	9,1	9,8	9,8	9,8	9,8	11,4	11,4	11,4	12,6	12,6
C	130	130	146	148	138	138	156	157	162	180	181	179,5	198,5
D	ZA 220	ZA 300	KK 8	KK 11	ZA 300	ZA 380	KK 11	KK 15	ZA 380	KK 11	KK 15	ZA 520	KK 15
E	6	6	19	21	8	8	21	23	8	21	23	8	23
F	171,4	235	171,4	235	235	330,2	235	330,2	330,2	235	330,2	463,6	330,2
G	M16	M20	M16	M20	M20	M24	M20	M24	M24	M20	M24	M24	M24
H	27	27	26	24	26	36,5	28	37,5	36	30	37	36	37
J	140	140	140	140	175,5	175,5	175,5	175,5	207	207	207	235	235
Wedge stroke K	28	28	28	28	30	30	30	35	35	35	35	40	40
M	104	104	104	104	128	128	128	128	155	155	155	167	167
O min.	1,5	1,5	17,5	19,5	1,5	1,5	19,5	20,5	1,5	19,5	20,5	1,5	20,5
O max.	29,5	29,5	45,5	47,5	31,5	31,5	49,5	50,5	36,5	54,5	55,5	41,5	60,5
P	25	25	25	25	29	29	29	29	29	29	29	35	35
Q	M110x2	M110x2	M110x2	M110x2	M138x2	M138,2	M138x2	M165x2	M165x2	M165x2	M165x2	M180x2	M180x2
T	139	139	155	157	147	147	165	166	172	190	191	189,5	208,5
V max.	351	351	351	351	424	424	424	424	524	524	524	643	643
W	M130x1,5	M130x1,5	M130x1,5	M130x1,5	M160x2	M160x2	M160x2	M160x2	M188x2	M188x2	M188x2	M215x2	M215x2
a min.	110,4	110,4	110,4	110,4	115,5	115,5	115,5	115,5	155,9	155,9	155,9	194,4	194,4
a max.	159,9	159,9	159,9	159,9	181,5	181,5	181,5	181,5	225,9	225,9	225,9	285,4	285,4
2 min.	66,4	66,4	66,4	66,4	76,5	76,5	76,5	76,5	94,9	94,9	94,9	94,4	94,4
2 max.	115,9	115,9	115,9	115,9	142,5	142,5	142,5	142,5	164,9	164,9	164,9	185,4	185,4
Index adjustment	9 (x5,5 =49,5)	9 (x5,5 =49,5)	9 (x5,5 =49,5)	9 (x5,5 =49,5)	12 (x5,5 =66)	12 (x5,5 =66)	12 (x5,5 =66)	12 (x5,5 =66)	10 (x7 =70)	10 (x7 =70)	10 (x7 =70)	13 (x7 =91)	13 (x7 =91)
b	20	20	20	20	26	26	26	26	30	30	30	30	30
e	32	32	32	32	32	32	32	32	45	45	45	45	45
f1	M8/15	M8/15	M8/15	M8/15	M8/15	M8/15	M8/15	M8/15	M8/16	M8/16	M8/16	M8/16	M8/16
f2	M12/20	M12/20	M12/20	M12/20	M16/20	M16/20	M16/20	M16/20	M20/37	M20/37	M20/37	M16/30	M16/30
g1	140	140	140	140	170	170	170	170	200	200	200	245	245
g2	268	238	268	268	330,2	330,2	330,2	330,2	420	420	420	520	520
h1	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
h2	77°	77°	77°	77°	70°	70°	70°	70°	77°	77°	77°	47°	47°
j1	40°	40°	40°	40°	42,5°	42,5°	42,5°	42,5°	30°	30°	30°	45°	45°
j2	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	60°	60°
k	43	43	43	43	39	39	39	39	57	57	57	97	97
Maximum draw bar pull kN	100	100	100	100	133	133	133	133	173	173	173	173	173
Max. total clamping force approx. kN	180	180	180	180	240	240	240	240	305	305	305	312	312
Max. admissible speed min ⁻¹	4000	4000	4000	4000	3500	3500	3500	3500	2200	2200	2200	1700	1700
Moment of inertia J kgm ²	0,96	0,96	0,96	0,96	2,67	2,67	2,67	2,67	16,1	16,1	16,1	22,8	22,8
Weight without jaws approx. kg	66	66	69	70	110	110	118	121	216	233	235	393	430

Balancing quality G 6,3 according to DIN 1940

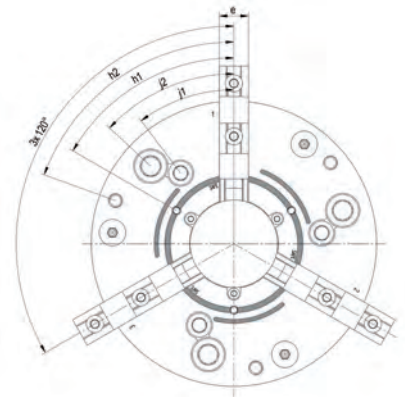
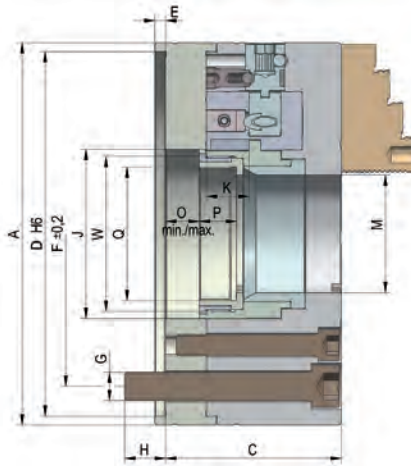
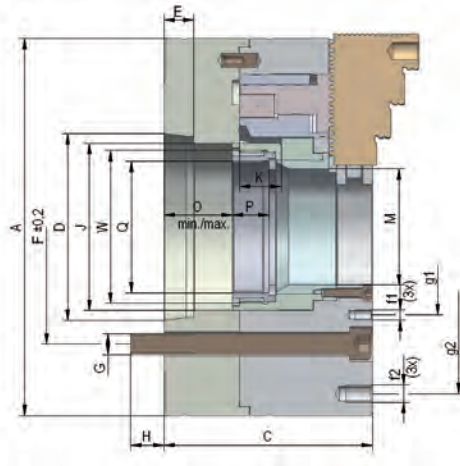
DURO-NCSE individual jaw unlocking, straight teeth



Tool group C 15
Type 523-50 (ZA) / -60 (KK)
3 jaw power-chucks
DURO-NCSE,
quick-acting jaw change system,
with one-piece reversible jaws
(EB)
with **individual jaw unlocking,**
with **straight teeth**
adaptor recess **DIN 6353** /
short taper mount **ISO 702-1**
(DIN 55026/55021)

Item no.	438434	438435	438436	438437	438438	438439	438440	438441	438442	438443	438444	438445	438446
Size	170	170	170	210	210	210	225	225	225	265	265	265	265
Toothing	4,712	4,712	4,712	4,712	4,712	4,712	4,712	4,712	4,712	5,498	5,498	5,498	5,498
A	170	170	170	210	210	210	225	225	225	265	265	265	265
Jaw travel B	5,6	5,6	5,6	6,3	6,3	6,3	6,3	6,3	6,3	8,8	8,8	8,8	8,8
C	87	99	101	101	115	117	101	115	117	128	128	136	138
D	ZA 140	KK5	KK6	ZA 170	KK6	KK8	ZA 170	KK6	KK8	ZA 170	ZA 220	KK6	KK8
E	6	16	17	6	17	19	6	17	19	6	6	17	19
F	104,8	104,8	133,4	133,4	133,4	171,4	133,4	133,4	171,4	133,4	171,4	133,4	171,4
G	M10	M10	M12	M12	M12	M16	M12	M12	M16	M12	M16	M12	M16
H	19	17	21	17	18	24	17	18	24	21	25	17	24
J	70	70	70	85	85	85	100	100	100	108	108	108	108
Wedge stroke K	18	18	18	20	20	20	20	20	20	28	28	28	28
M	45	45	45	52	52	52	68	68	68	77	77	77	77
O min.	2	14	16	2	15	17	2	15	17	1	1	15	17
O max.	20	32	34	22	39	41	22	39	41	29	29	43	45
P	17	17	17	21	21	21	21	21	21	22	22	22	22
Q	M52x1,5	M52x1,5	M52x1,5	M60x1,5	M60x1,5	M60x1,5	M78x1,5	M78x1,5	M78x1,5	M87x1,5	M87x1,5	M87x1,5	M87x1,5
V max.	183,5	183,5	183,5	250	250	250	266	266	266	313	313	313	313
W	M64x1,5	M64x1,5	M64x1,5	M75x1,5	M75x1,5	M75x1,5	M92x2	M92x2	M92x2	M92x1,5	M98x1,5	M98x1,5	M98x1,5
Index adjustment	3 (x4,712 =14,1)	3 (x4,712 =14,1)	3 (x4,712 =14,1)	5 (x4,712 =23,6)	5 (x4,712 =23,6)	5 (x4,712 =23,6)	7 (x4,712 =33)	7 (x4,712 =33)	7 (x4,712 =33)	6 (x5,5 =33)	6 (x5,5 =33)	6 (x5,5 =33)	6 (x5,5 =33)
e	20	20	20	22	22	22	22	22	22	26	26	26	26
f1	M6/10	M6/10	M6/10	M6/M10	M6/10	M6/10	M6/10	M6/10	M6/10	M8/15	M8/15	M8/15	M8/15
f2	M8/15	M8/15	M8/15	M10/15	M10/15	M8/15	M10/15	M10/15	M10/15	M10/15	M10/15	M10/15	M10/15
g1	75	75	75	94	94	94	100	100	100	124	124	124	124
g2	142	142	142	190	190	190	205	205	205	220	220	220	220
h1	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
h2	35°	36°	35°	70°	70°	70°	70°	70°	70°	70°	77°	77°	77°
j1	40°	40°	40°	39°	39°	39°	39°	39°	39°	30°	30°	30°	30°
j2	50,5°	50,5°	50,5°	49°	49°	49°	49°	49°	49°	40°	40°	40°	40°
Maximum draw bar pull kN	33	33	33	52	52	52	52	52	52	73	73	73	73
Max. total clamping force approx. kN	60	60	60	95	95	95	95	95	95	135	135	135	135
Max. admissible speed min ⁻¹	6300	6300	6300	6000	6000	6000	6000	6000	6000	4700	4700	4700	4700
Moment of inertia J kgm ²	0,07	0,07	0,07	0,155	0,155	0,155	0,235	0,235	0,235	0,46	0,46	0,46	0,46
Weight without jaws approx. kg	17	17	18	27	28	28	33	33	34	44	44	44	49

DURO-NCSE individual jaw unlocking, straight teeth



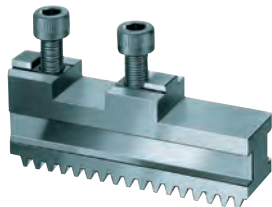
Tool group C 15
Type 523-50 (ZA) / -60 (KK)
3 jaw power-chucks
DURO-NCSE,
quick-acting jaw change system,
with one-piece reversible jaws
(EB)
with **individual jaw unlocking**,
with **straight teeth**
adaptor recess **DIN 6353** /
short taper mount **ISO 702-1**
(DIN 55026/55021)

Item no.	6003	6003	6185	6185	7612	7612	7905	7905	9507	10032	10032	13958	14478
Size	315	315	315	315	400	400	400	400	500	500	500	630	630
Toothing	5,498	5,498	5,498	5,498	5,498	5,498	5,498	5,498	7	7	7	7	7
A	315	315	315	315	400	400	400	400	500	500	500	630	630
Jaw travel B	9,1	9,1	9,1	9,1	9,8	9,8	9,8	9,8	11,4	11,4	11,4	12,6	12,6
C	130	130	146	148	138	138	156	157	162	180	181	179,5	198,5
D	ZA 220	ZA 300	KK8	KK11	ZA 300	ZA 380	KK11	KK15	ZA 380	KK11	KK15	ZA 520	KK15
E	6	6	19	21	8	8	21	23	8	21	23	8	23
F	171,4	235	171,4	235	235	330,2	235	330,2	330,2	235	330,2	463,6	330,2
G	M16	M20	M16	M20	M20	M24	M20	M24	M24	M20	M24	M24	M24
H	27	27	26	24	26	36,5	28	37,5	36	30	37	36	37
J	140	140	140	140	175,5	175,5	175,5	175,5	207	207	207	235	235
Wedge stroke K	28	28	28	28	30	30	30	30	35	35	35	40	40
M	104	104	104	104	128	128	128	128	155	155	155	167	167
O min.	1,5	1,5	17,5	19,5	1,5	31,5	19,5	20,5	1,5	19,5	20,5	1,5	20,5
O max.	29,5	29,5	45,5	47,5	31,5	1,5	49,5	50,5	36,5	54,5	55,5	41,5	60,5
P	25	25	25	25	29	29	29	29	292	29	29	35	35
Q	M110x2	M110x2	M110x2	M110x2	M138x2	M138,2	M138x2	M138x2	M165x2	M165x2	M165x2	M180x2	M180x2
V max.	351	351	351	351	424	424	424	424	524	524	524	643	643
W	M130x1,5	M130x1,5	M130x1,5	M130x1,5	M160x2	M160x2	M160x2	M160x2	M188x2	M188x2	M188x2	M215x2	M215x2
Index adjustment	9(x5,5 =49,5)	9(x5,5 =49,5)	9(x5,5 =49,5)	9(x5,5 =49,5)	12(x5,5 =66)	12(x5,5 =66)	12(=5,5 =66)	12(x5,5 =66)	10(x7 =70)	10(x7 =70)	10(x7 =70)	13(x7 =91)	13(x7 =91)
e	32	32	32	32	32	32	32	32	45	45	45	45	45
f1	M8/15	M8/15	M8/15	M8/15	M8/15	M8/15	M8/15	M8/15	M8/16	M8/16	M8/16	M8/16	M8/16
f2	M12/20	M12/20	M12/20	M12/20	M16/20	M16/20	M16/20	M16/20	M20/37	M20/37	M16/30	M16/30	M16/30
g1	140	140	140	140	170	170	170	170	200	200	200	245	245
g2	268	238	268	268	330,2	330,2	330,2	330,2	420	420	420	520	520
h1	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
h2	77°	77°	77°	77°	70°	70°	70°	70°	77°	77°	77°	47°	47°
j1	40°	40°	40°	40°	42,5°	42,5°	42,5°	42,5°	30°	30°	30°	45°	45°
j2	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	45°	60°	60°
Maximum draw bar pull kN	100	100	100	100	133	133	133	133	173	173	173	173	173
Max. total clamping force approx. kN	180	180	180	180	240	240	240	240	305	305	305	312	312
Max. admissible speed min ⁻¹	4000	4000	4000	4000	3500	3500	3500	3500	2200	2200	2200	1700	1700
Moment of inertia J kgm ²	0,96	0,96	0,96	0,96	2,67	2,67	2,67	2,67	16,1	16,1	16,1	22,8	22,8
Weight without jaws approx. kg	66	66	69	70	110	118	118	121	216	233	235	393	430

Balancing quality G 6,3 according to DIN 1940

Jaws DURO-NCSE

Tool group C 21
Type 574-11
Base jaws, 3-jaw-set, hardened straight toothing,
with cylindrical screws
DIN 912-12.9



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw width
463548	170	3	set	65	20
463549	210/225	3	set	85	22
463550	265	3	set	104	26
463551	315	3	set	115	32
463552	400	3	set	125	32
463553	500	3	set	160	45
463554	630	3	set	200	45

Tool group A 36
Type 530
Reversible top jaws, 3-jaw set, hardened tongue and groove,
for external and internal chucking -
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
094012	170	3	set	61,5	32,5	20,4
094013	210/225	3	set	70,5	38	24,4
094014	265/315	3	set	92	50	34,4
094015	400	3	set	107	56	35,7
094045	500/630	3	set	130	72	50,4

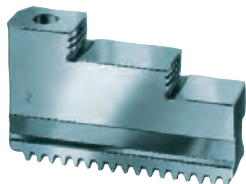
Stepped and hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Tool group A28
Type 002
Unstepped top jaw AB,
set, **standard design,**
soft, material 16MnCr5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
094008	170	3	set	85	36,5	20,3
094009	210/225	3	set	105	40	22
094010	265/315	3	set	125	50	30,4
094011	400	3	set	145	50	34,3
094046	500/630	3	set	180	73	50,5

Tool group C 21
Type 574-27
One-piece reversible jaws, 3-jaw set, hardened straight toothing -
material: 16 MnCr 5

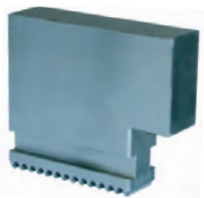


Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
463555	170	3	set	58	44	20
463556	210/225	3	set	75	51	22
463557	265	3	set	90	60	26
463558	315	3	set	117	66	32
463559	400	3	set	137	70	32
463560	500/630	3	set	176	93	45

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

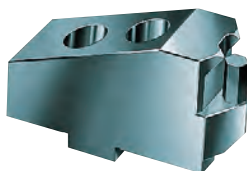
Jaws DURO-NCSE

Tool group C 21
Type 574-37
Soft one-piece jaws, 3-jaw set, can be hardened straight toothing, guidance hardened and ground - material: 16 MnCr 5



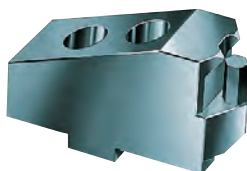
Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
463562	170	3	set	65	55	20
463563	210/225	3	set	84	65	22
463564	265	3	set	99	84	26
463565	315	3	set	121	90	32
463566	400	3	set	148	100	32
463567	500	3	set	175	124	45
463568	630	3	set	230	134	45

Tool group C 21
Type 544-00
reversible claw-type top jaws, standard design tongue and groove, small clamping range, 1 piece, hardened



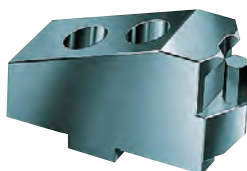
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137060	170	piece	66	37,5	24
137119	500/630	piece	124	62	50

Tool group C 21
Type 544-00
reversible claw-type top jaws, standard design tongue and groove, large clamping range, 1 piece, hardened



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137061	170	piece	66	37,5	20
137064	210/225	piece	81	43	24
137108	265/315	piece	90	55	34
137114	400	piece	100	62	34
137120	500/630	piece	124	62	50

Tool group C 21
Type 544-00
reversible claw-type top jaws, standard design tongue and groove, middle sized clamping range, 1 piece, hardened



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137062	170	piece	56	37,5	20
137065	210/225	piece	66	43	24
137109	265/315	piece	72	55	34
137115	400	piece	86	62	34
137121	500/630	piece	100	62	50

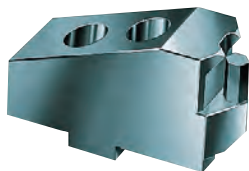
Tool group C 21
Type 544-05
reversible claw-type top jaws, large design tongue and groove, small clamping range, 1 piece, hardened



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137066	210/225	piece	79	43	34
137110	265/315	piece	80	55	50
137116	400	piece	93	62	50

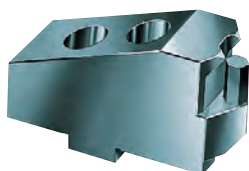
Jaws DURO-NCSE

Tool group C 21
Type 544-05
reversible claw-type top jaws,
large design
tongue and groove,
large clamping range,
1 piece, hardened



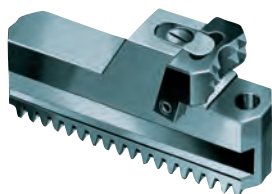
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137067	210/225	piece	81	43	34
137111	265/315	piece	90	55	50
137117	400	piece	106	62	50

Tool group C 21
Type 544-05
reversible claw-type top jaws,
large design
tongue and groove,
middle sized clamping range,
1 piece, hardened



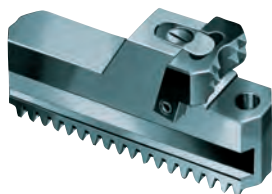
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137068	210/225	piece	66	43	34
137112	265/315	piece	72	55	50
137118	400	piece	86	62	50

Tool group C 21
Type 545-30
Draw-down jaws,
for interchangeable clamping
inserts,
straight toothing,
1 piece, without clamping inserts



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
485522	170	piece	65	43	20
485524	210/225	piece	85	47	22
485526	265	piece	104	58	26
485528	315	piece	115	63	32
485530	400	piece	125	63	32
485532	500	piece	160	81	45

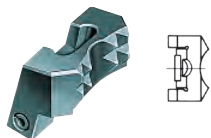
Tool group C 21
Type 545-30
Draw-down jaws,
additional clamping range,
for interchangeable clamping
inserts,
straight toothing,
1 piece, without clamping inserts



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
485523	170	piece	72	43	20
485525	210/225	piece	95	47	22
485527	265	piece	104	58	26
485529	315	piece	123	63	32
485531	400	piece	134	63	32
485533	500	piece	160	81	45

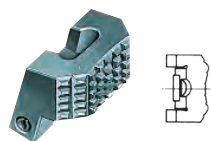
Jaws DURO-NCSE

Tool group C 15
Type 545-60
Interchangeable clamping inserts,
1 piece, **with claws**



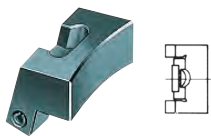
Item no.	Chuck Size	Contents of delivery
141049	170/210	piece
141052	225/265/315/400	piece
141055	500	piece

Tool group C 15
Type 545-70
Interchangeable clamping inserts,
1 piece, **with serrated toothing**



Item no.	Chuck Size	Contents of delivery
141050	170/210	piece
141053	225/265/315/400	piece
141056	500	piece

Tool group C 15
Type 545-80
Interchangeable clamping inserts,
1 piece, **with heat treatable surface**



Item no.	Chuck Size	Contents of delivery
141051	170/210	piece
141054	225/265/315/400	piece
141057	500	piece

Accessories DURO-NCSE

Tool group C 15

Type 0040-Y **Mounting screws**



Item no.	Size	Thread
233058	170/210/225	M8x20
233030	265/315/400	M12x30
216569 ²⁾	500/630	M16

Socket head cap screw to DIN 912, 12.9
²⁾ two pieces necessary

Tool group C15

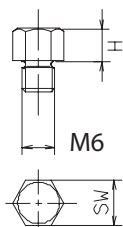
Type 1028 **Special grease F80 for lathe chucks**
for lubrication and conservation of chucking power



Item no.	Design	Contents
308555	Cartridge	0,5 kg
028975	Tin	1 kg

Tool group C 15

Type 544-00 **Changeable workpiece rests**
(in different lengths)



Item no.	H	M	Key-width SW
289188	5	M6	9
138950	10	M6	9
725581	15	M6	9



AMTE

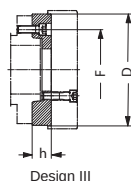
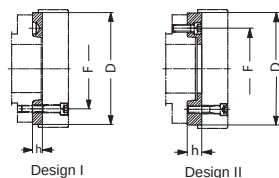


Accessories DURO-NCSE

Tool group C 15

Type 594-32 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Mounting from front to **ISO 702-1 (DIN 55026/55021)**
and **ASA B 5.9 A1/A2** with **metric mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145153	5	175	I	15	104,8	140
145297	6	175	III	35	133,4	140
145155	6	200	I	16	133,4	170
145131	6	250	II	27	133,4	220
145135	8	200	III	39	171,4	170
145157	8	250	I	18	171,4	220
145139	8	315	II	38	171,4	300
145143	11	250	III	48	235	220
145159	11	315	I	19	235	300
145147	11	400	II	40	235	380
145161	15	400/500/630	I	21	330,2	380

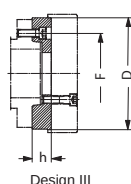
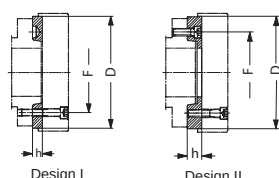
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-35 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Mounting from front to **ASA B 5.9 A1/A2**
with **inch threaded mounting bolts**



Item no.	Spindle nose size	Size	Design	h	F	D
145153	5	175	I	15	104,8	140
145301	6	175	III	35	133,4	140
145155	6	200	I	16	133,4	170
145194	6	250	II	27	133,4	220
145196	8	315	II	39	171,4	300
145157	8	250	I	18	171,4	220
145198	8	315	II	38	171,4	300
145200	11	250	III	48	235	220
145159	11	315	I	19	235	300
145202	11	400/500	II	40	235	380
145161	15	400/500/630	I	21	330,2	380

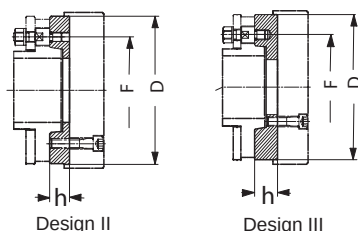
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-33 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Bayonet fixing to **ISO 702-3 (DIN 55027/ DIN 55022)**



Item no.	Spindle nose size	Size	Design	h	F	D
145238	5	175	II	21	104,8	140
145303	6	175	III	35	133,4	140
145240	6	200	II	22	133,4	170
145214	6	250/315	II	27	133,4	220
145218	8	200	III	39	171,4	170
145242	8	250	II	30	171,4	220
145222	8	315	II	38	171,4	300
145226	11	250	III	48	235	220
145246	11	315	II	36	235	300
145230	11	400/500	II	40	235	380
145248	15	400/500	II	40	330,2	380
145250	15	630	I	40	330,2	380

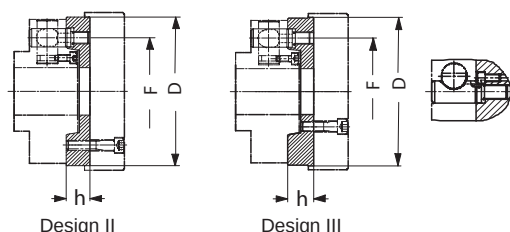
All fastening parts are included

Intermediate adaptors for two- and four-jaw-design on request

Tool group C 15

Type 594-36 **Intermediate adaptor plates**

with cylindrical centre mount **DIN 6353 for three-jaw chucks**
Camlock fixing to **DIN 55029/ASA B 5.9 D1**



Item no.	Spindle nose size	Size	Design	h	F	D
145282	5	175	II	30	104,8	140
145594	6	175	III	43	133,4	140
145284	6	200	II	35	133,4	170
145258	6	250	II	35	133,4	220
145262	8	200	II	46	171,4	170
145286	8	250	II	38	171,4	220
145266	8	315	II	38	171,4	300
145270	11	250	III	53	235	220
145290	11	315	II	45	235	300
145274	11	400/500	II	45	235	380
145292	15	400/500	II	50	330,2	380
145294	15	630	I	50	330,2	380

All fastening parts are included

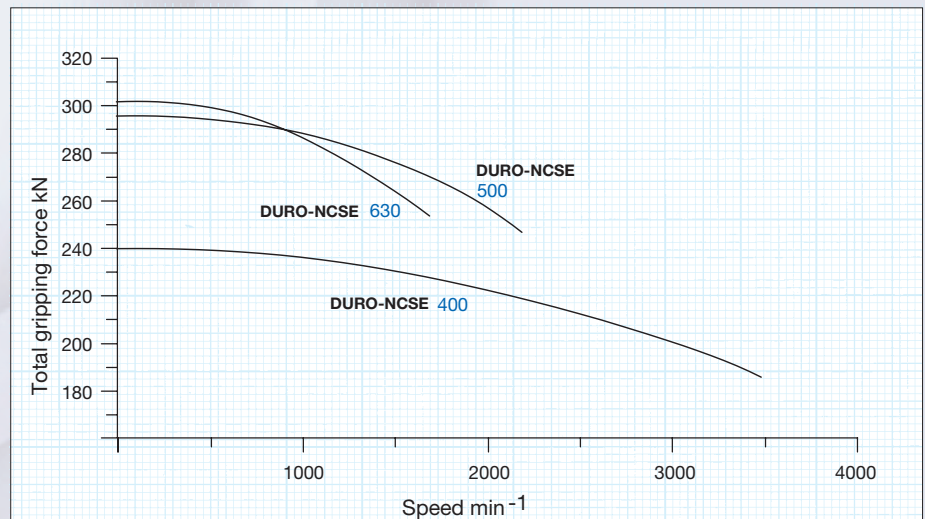
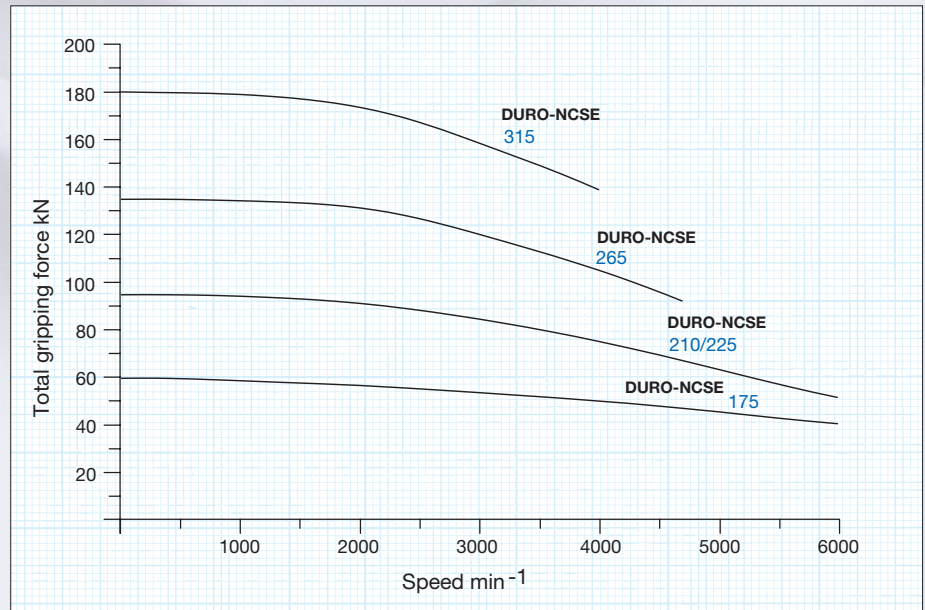
Intermediate adaptors for two- and four-jaw-design on request

DURO-NCSE

Gripping force/speed diagrams

The loss of gripping force was determined experimentally on a chuck with matched UB top jaws. It is largely independent of the initial gripping force at zero speed.

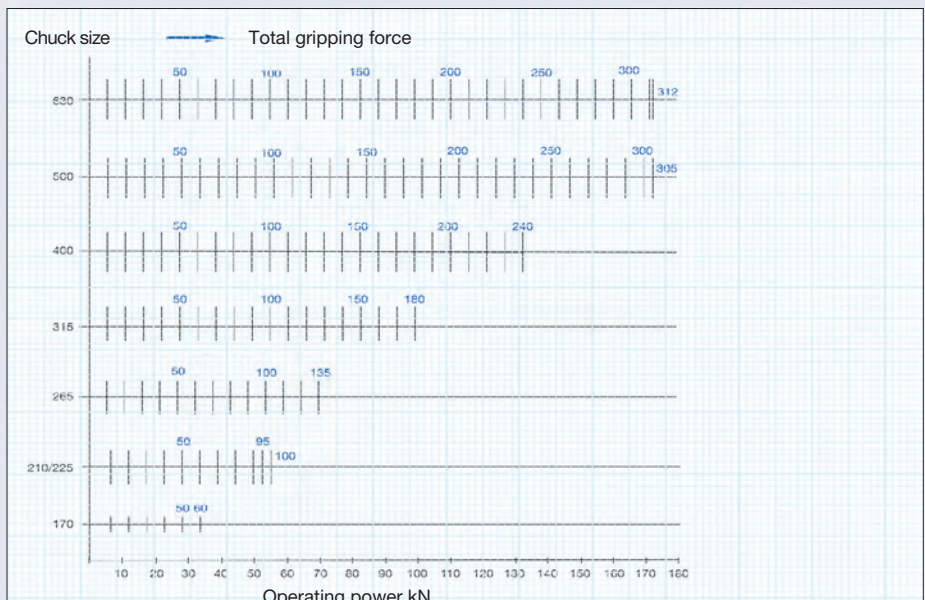
curve:
max. centrifugal
force of top jaw



Gripping force/operating power diagram

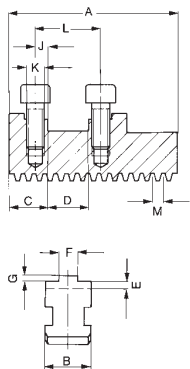
To obtain the specified gripping forces, the chuck must be in a perfect condition and lubricated with F 80 lubricant recommended by Röhm. Measuring point near chuck face.

Example: For a DURO-NC chuck size 250 and an applied operating power of 40 kN, the total gripping force is approx. 92 kN.



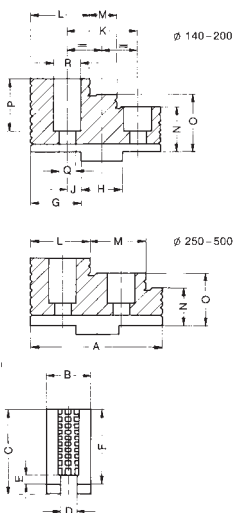
Jaw dimensions DURO-NCSE

Base jaw GB with screws



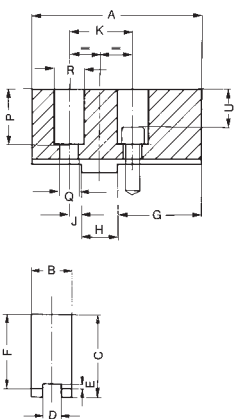
Chuck size	170	210/225	265	315	400	500	630
Type	574-11	574-11	574-11	574-11	574-11	574-11	574-11
Item no. 3-jaw	463548	463549	463550	463551	463552	463553	463554
A	65	85	104	115	125	160	200
B	20	22	26	32	32	45	45
C	19	23	26	26	30	35	35
DH7	18	20	20	20	26	30	30
E	5	4,5	5,5	6	6	9	9
F	8	10	12	12	12	16	19
G	2,5	2,5	3	3	3	4	4
J	7	10	10	10	14	15	15
K	M8	M8	M12	M12	M12	M16	M16
L	32	40	40	40	54	60	60
M	4,712	4,712	5,498	5,498	5,498	7	7
Weight/set kg	0,7	1,0	1,8	2,7	3,0	7,1	9

Reversible top jaws UB, hardened



Chuck size	170	210/225	265	315	400	500	630
Type	003-20	003-25	003-30	003-30	003-35	003-40	003-40
Item no. 3-jaw	094012	094013	094014	094014	094015	094045	094045
A	61,5	70,35	92	92	107	130	130
B	20,4	24,4	34,4	34,4	37,5	50,4	50,4
C	37	43	55	55	62	79	79
D	8	10	12	12	12	18	18
E	3	3,5	3,5	3,5	3,5	4,5	4,5
F	32,5	38	50	50	56	72	72
G	22,5	25,5	30	30	35,5	41,4	41,4
H	18	20	20	20	26	30	30
J	7	10	10	10	14	15	15
K	32	40	40	40	54	60	60
L	26,5	28,5	41	41	40	51	51
M	13	14	40,5	40,5	54	71	71
N	17,5	18	22	22	26	32	32
O	25	28	36	36	41	52	52
P	23,5	29	39	39	40	57	57
Q	9	9	14	14	14	18	18
R	15	15	20	20	20	26	26
Weight/set kg	0,6	1,0	2,4	2,4	3,4	7,6	7,6

Soft top jaws AB, material 16MnCr5



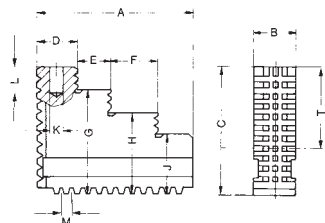
Chuck size	170	210/225	265	315	400	500	630
Type	002-20	002-25	002-30	002-30	002-35	002-40	002-40
Item no. 3-jaw	094008	094009	094010	094010	094011	094046	094046
A	85	105	125	125	145	180	180
B	20,3	22	30,4	30,4	34,3	50,5	50,5
C	41	45	55	55	56	80	80
D	8	10	12	12	12	18	18
E	3	3,5	3,5	3,5	3,5	4,5	4,5
F	36,5	40	50	50	50	73	73
G	42	50	70	70	74	100	100
H	18	20	20	20	26	30	30
J	7	10	10	10	14	15	15
K	32	40	40	40	54	60	60
P	27,5	31	39	39	34	58	58
Q	9	9	14	14	14	18	18
R	15	15	20	20	20	26	26
U	19,5	23	27	27	22	42	42
Weight/set kg	1,3	2,2	4,5	4,5	6,8	13,2	13,2

Soft top jaws AB, larger design, material 16MnCr5

Chuck size	170	210/225	215	315	400
Type	002-20	002-25	002-30	002-30	002-35
Item no. 3-jaw	137055	137056	137057	137057	137058
A	85	105	125	125	145
B	24,4	34,4	50,4	50,4	50,4
C	47	56	80	80	80
Weight/set kg	1,8	4,2	10,0	10,0	11,5

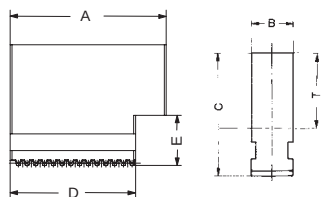
Jaw dimensions DURO-NCSE

Reversible one-piece jaws EB



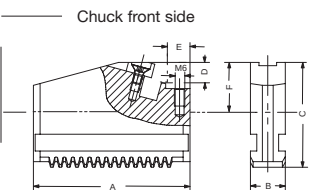
Chuck size	170	210/225	265	315	400	500/630
Type	574-27	574-27	574-27	574-27	574-27	574-27
Item no. 3-jaw	463555	463556	463557	463558	463559	463560
A	58	75	90	117	137	176
B	20	22	26	32	32	45
C	44	51	60	66	70	93
G	37	43	50	56	59	73
H	30	35	40	46	48	-
J	23	27	30	36	37	53
M	4,712	4,712	5,498	5,498	5,498	7
T	23	26	31	32	36	46
Weight/set kg	0,6	1,3	2,0	3,4	4,4	11,7

Soft one-piece jaws BL, material 16MnCr5



Chuck size	170	210/225	265	315	400	500	630
Type	574-37	574-37	574-37	574-37	574-37	574-37	574-37
Item no. 3-jaw	463562	463563	463564	463565	463566	463567	463568
A	65	84	99	121	148	175	230
B	20	22	26	32	32	45	45
C	55	65	84	90	100	124	134
D	56	67,5	77	93	120	154	200
E	25	27	36	41	41	54	54
T	33	38	53	54	64	77	87
Weight/set kg	1,3	2,2	4,3	6,7	9,2	20,5	29,2

Draw-down jaws NBG, Straight toothing, for interchangeable clamping inserts (jaw without insert)



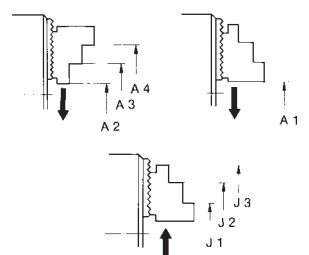
Chuck size	170	210	225	265	315	400	500
Jaw design	Type 545-30						
Item no. Piece	485522	485524	485524	485526	485528	485530	485532
A	65	85	85	104	115	125	160
B	20	22	22	26	32	32	45
C	43	47	47	58	63	63	81
D	15	15	15	20	20	20	20
E	11	12	12	12	12	12	12
F	22,5	22,5	22,5	29,5	29,5	29,5	34
Capacities external	38-71	38-102	36-118	45-124	42-164	50-190	67-217
Capacities internal	125-160	170-223	168-239	207-289	234-344	252-397	346-500
Max. swing	197	251	287	306	374	425	524

Draw-down jaws NBG, for interchangeable clamping inserts (jaw without insert) Jaws for further clamping ranges

Chuck size	170	210	225	265	315	400	500
Jaw design	Type 549-30						
Item no. Piece	485523	485525	485525	485527	485529	485531	485533
A	72	95	95	104	123	134	160
E	30	45	45	50,5	61,5	67	96
Capacities external	78-110	113-168	111-184	123-202	146-262	160-305	230-384
Capacities internal	98-122	114-166	112-182	131-214	136-245	140-285	180-332
Max. swing	197	271	287	306	390	443	524

Chucking capacities DURO-NCSE

Chucking capacities with reversible top jaws UB

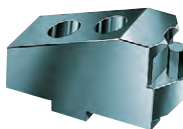


Chuck size		170	210	225	265	315	400	500	630
	Jaw position								
External chucking	A1	8-41	18-71	16-87	23-102	25-163	28-240	30-304	30-425
	A2	32-65	56-109	54-125	-	-	-	-	-
	A3	77-116	113-166	111-182	72-153	111-213	98-243	54-290	55-407
	A4	103-132	142-195	140-211	153-234	193-295	206-351	195-430	195-549
Internal chucking	J1	65-96	103-156	101-172	105-185	143-245	85-230	133-408	133-525
	J2	91-122	158-211	156-227	185-266	225-327	192-337	233-548	272-667
	J3	134-166	198-250	196-266	-	-	-	-	-

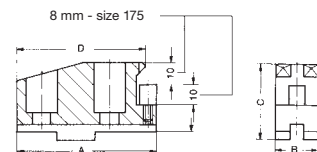
Jaw dimensions DURO-NCSE

Reversible claw-type top jaws KB, standard design

Workpiece stop, can be changed and adjusted



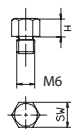
Jaws for further clamping ranges



Chuck size	170	500	630
Jaw design	Type 544-00 Standard design		
Item no. Piece	137060	137119	137119
A	66	124	124
B	24	50	50
C	37,5	62	62
D	17	39	39
Capacities external	130-159	314-477	390-584
Capacities internal	53-84	101-249	101-290

Chuck size	170	210	225	265	315	400	500	630
Jaw design	Type 544-00 Standard design							
Item no. Piece	137061	137064	137064	137108	137114	137114	137120	137120
A	66	81	81	90	90	100	124	124
B	20	24	24	34	34	34	50	50
C	37,5	43	43	55	55	62	62	62
D	61	71	71	78	78	90	112	112
Capacities external	25-56	41-103	39-119	77-230	127-292	53-237	143-294	216-411
Capacities internal	136-188	181-255	179-271	85-238	136-300	240-435	268-420	265-460

Accessories: Interchangeable workpiece stop (different lengths)

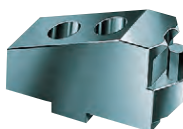


Id.-Nr.	289188	138950	725581
M	M6	M6	M6
H	5	10	15
SW		9	

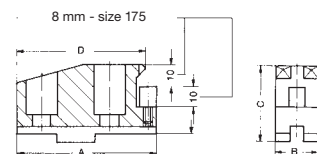
Chuck size	170	210	225	265	315	400	500	630
Jaw design	Type 544-00 Standard design							
Item no. Piece	137062	137065	137065	137109	137109	137115	137121	137121
A	56	66	66	72	72	86	100	100
B	20	24	24	34	34	34	50	50
C	37,5	43	43	55	55	62	62	62
D	29	38,5	38,5	38	38	42	48	48
Capacities external	68-120	94-168	92-184	77-230	127-292	172-333	270-422	345-540
Capacities internal	93-126	116-200	114-216	85-238	136-300	168-329	142-293	139-333

Reversible claw-type top jaws KB, large design

Workpiece stop, can be changed and adjusted



Jaws for further clamping ranges



Chuck size	210	225	265	315	400
Jaw design	Type 544-05 Large design				
Item no. Piece	137066	137066	137110	137110	137116
A	79	79	80	80	93
B	34	34	50	50	50
C	43	43	55	55	62
D	29,5	29,5	29	29	30
Capacities external	-	-	-	-	-
Capacities internal	90-151	88-167	73-203	80-264	130-291

Chuck size	210	225	265	315	400
Jaw design	Type 544-05 Large design				
Item no. Piece	137067	137067	137111	137111	137117
A	81	81	90	90	106
B	34	34	50	50	50
C	43	43	55	55	62
D	71	71	78	78	90
Capacities external	41-103	39-119	53-152	48-214	76-237
Capacities internal	181-255	179-271	163-322	222-384	168-425

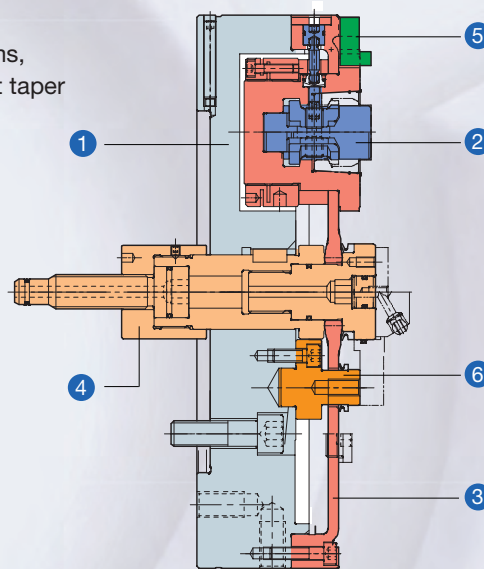
Chuck size	210	225	265	315	400
Jaw design	Type 544-05 Large design				
Item no. Piece	137068	137068	137112	137112	137118
A	66	66	72	72	86
B	34	34	50	50	50
C	43	43	55	55	62
D	38,5	38,5	38	38	42
Capacities external	94-168	92-184	77-230	127-292	172-333
Capacities internal	116-200	114-216	85-238	136-300	168-329

Diaphragm clamping chucks in flat design

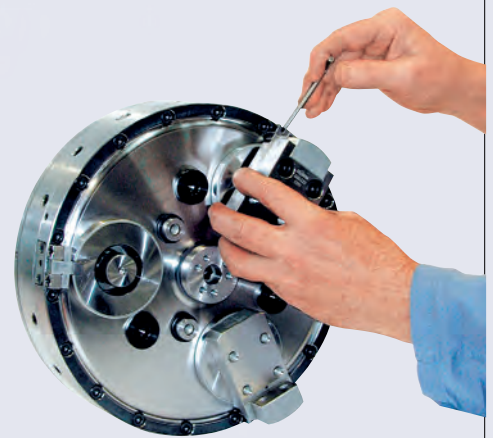
Ideally suited for grinding and hard turning with high precision, with HSK mounting for swift and simple chuck change, for high change and repetition precision

- Easier and faster exchange of clamping jaws
- Set-up times cut by up to half
- Optimum supplement for both systems, diaphragm chucking and hollow-shaft taper

- 1 Body
- 2 HSK holding clamp
- 3 Diaphragm with HSK mounting
- 4 Piston
- 5 Secured against rotation
- 6 Support element



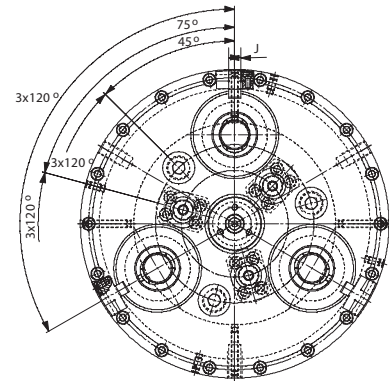
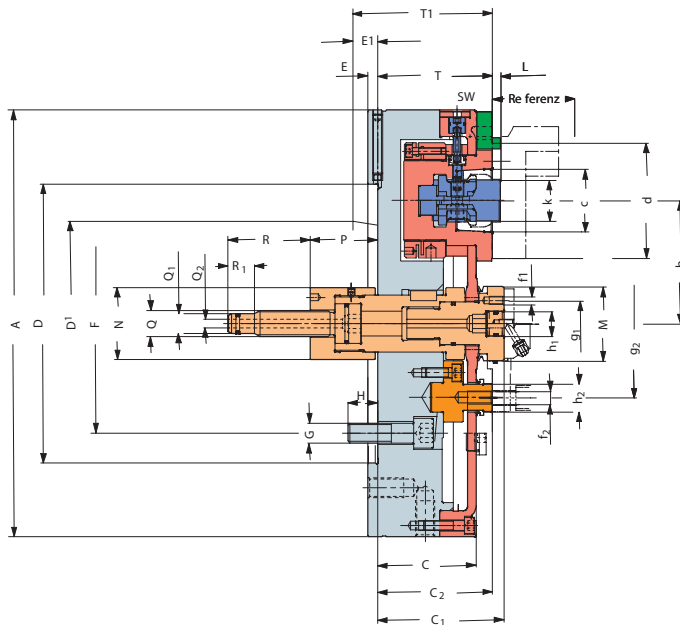
Fast and easy jaw change with outstandingly good levels of precision



Röhm diaphragm clamping chucks features extremely high change and repetition precision. Unaffected by dirt, with the HSK quick-action change mounts integrated in the diaphragm. For the jaw chucks, two systems are combined here with special features and outstandingly good levels of precision.

Technical features

- Diaphragms operate for long periods of time almost free of wear and in constantly uniform quality.
- HSK mounts have become the ideal interfaces for "modules" being changed into and out of the system.
- Jaw chucks reground in the system combination of diaphragm and HSK mount achieve change precision values of ≤ 0.005 mm when refitted after a change.
- The HSK interface design guarantees radial freedom from play and axial "shoulder contact", which means maximum possible module rigidity while still providing fast and simple changeover.
- A media feed system, provided as standard, provides the opportunity for coolants or blown air to be conducted through the diaphragm jaw chuck directly to the workpiece, or to accommodate the workpiece air-contact monitoring device in the workpiece mounts.



Tool group C 15
Type 587
Diaphragm jaw chuck **MSF**,
centric clamping,
with **quick-acting jaw change system HSK**,
chucking precision **0,005 mm**
cylindrical centre mount/
short taper mount

Item no.	432410	432411	432412	432413	432414	432415	432416	432417
Size	210	210	260	260	315	315	400	400
A	210	210	260	260	315	315	400	400
Mount D ^{H6} / D ¹	ZA 170	KK 6	ZA 170	KK 6	ZA 220	KK 8	ZA 300	KK 11
Jaw movement (refer to ref.) B	± 1,2	± 1,2	± 1,3	± 1,3	± 1,5	± 1,5	± 1,4	± 1,4
Aperture angle	± 1°9'	± 1°9'	± 1°10'	± 1°10'	± 1°13'	± 1°13'	± 1°	± 1°
C	60	60	60	60	80	80	80	80
C1	77 (min. 78,5 max. 75,5)	77 (min. 78,5 max. 75,5)	77 (min. 79 max. 75)	77 (min. 79 max. 75)	98 (min. 95,5 max. 100,5)	98 (min. 95,5 max. 100,5)	98 (min. 95 max. 101)	98 (min. 95 max. 101)
C2	70	70	70	70	90	90	90	90
E	6	6	6	6	6	6	6	6
E ₁	-	15	-	15	-	17	-	19
F	ø 133,4 ± 0,2	ø 133,4 ± 0,2	ø 133,4 ± 0,2	ø 133,4 ± 0,2	ø 171,4 ± 0,2	ø 171,4 ± 0,2	ø 235 ± 0,2	ø 235 ± 0,2
G	M 12	M 12	M 12	M 12	M 16	M 16	M 20	M 20
H	18	17	18	17	24	22	31	32
J-0,01/-0,02	10	10	10	10	12	12	12	12
Wedge stroke K	3	3	4	4	5	5	6	6
L	5	5	5	5	5	5	5	5
Mg6	ø 45	ø 45	ø 45	ø 45	ø 54	ø 54	ø 54	ø 54
N	ø 44	ø 44	ø 44	ø 44	ø 56	ø 56	ø 56	ø 56
P	41 (min. 39,5 max. 42,5)	41 (min. 39,5 max. 42,5)	41 (min. 39 max. 43)	41 (min. 39 max. 43)	42,5 (min. 40 max. 45)	42,5 (min. 40 max. 45)	42,5 (min. 39,5 max. 45,5)	42,5 (min. 39,5 max. 45,5)
Q	M 16	M 16	M 16	M 16	M 24	M 24	M 24	M 24
Q1f7	ø 12	ø 12	ø 12	ø 12	ø 20	ø 20	ø 20	ø 20
Q2	ø 5	ø 5	ø 5	ø 5	ø 5	ø 5	ø 5	ø 5
R	50	50	50	50	65	65	65	65
R ₁	16	16	16	16	20	20	20	20
T	70	70	70	70	90	90	90	90
T ₁	-	86,2	-	86,2	-	107	-	109,4
Referenz	50	50	50	50	60	60	60	60
b ± 0,01	57	57	75	75	90	90	132,5	132,5
c	HSK50	HSK50	HSK50	HSK50	HSK63	HSK63	HSK63	HSK63
d	ø 70	ø 70	ø 70	ø 70	ø 80	ø 80	ø 80	ø 80
f1	M 5/9	M 5/9	M 5/9	M 5/9	M 5/9	M 5/9	M 5/9	M 5/9
f2	M 8/15	M 8/15	M 8/15	M 8/15	M 8/15	M 8/15	M 8/15	M 8/15
g1 ± 0,2	ø 28	ø 28	ø 28	ø 28	ø 28	ø 28	ø 28	ø 28
g2 ± 0,2	ø 80	ø 80	ø 90	ø 90	ø 120	ø 120	ø 180	ø 180
h1 H7	ø 15/11	ø 15/11	ø 15/11	ø 15/11	ø 15/11	ø 15/11	ø 15/11	ø 15/11
h ₂	ø 17	ø 17	ø 17	ø 17	ø 20	ø 20	ø 20	ø 20
k-0,1	ø 25	ø 25	ø 25	ø 25	ø 33	ø 33	ø 33	ø 33
Key-width SW	4	4	4	4	5	5	5	5
Maximum draw bar pull kN	20	20	25	25	30	30	30	30
Min. operating force to open the diaphragm kN	10	10	15	15	20	20	15	15
Max. admissible speed min ⁻¹	5500	5500	4500	4500	4000	4000	3000	3000
Moment of inertia J kgm ²	0,09	0,09	0,2	0,2	0,56	0,60	1,4	1,5
Weight without base jaws approx. kg	16	17	24	25	45	48	69	74

Further mountings possible with adaptor plates

Jaws MSF

Tool group C 21
Type 587-04 **Base jaws** for
diaphragm jaw chucks



Item no.	Chuck Size	Clamping insert	Contents of delivery	Jaw length	Jaw height	Jaw width
499956	210	I	set	64	20	45
499957	210	II	set	70	20	45
499958	210	III	set	73	20	45
499961	260	I	set	89	20	45
499962	260	II	set	80	20	45
499963	260	III	set	90	20	45
499964	315/400	I	set	103	20	60
499965	315/400	II	set	90	20	60
499966	315/400	III	set	107,5	20	60

On request, it is also possible to supply special interchangeable jaws and special base jaws adapted to a specific workpiece.

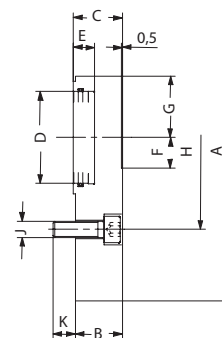
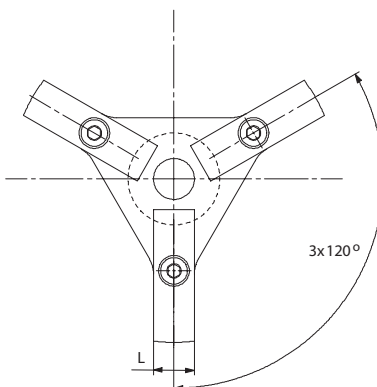
Tool group C 21
Type 587-04 **Clamping sets**
for Base jaws



Item no.	Chuck Size	Clamping insert	Contents of delivery	Length	Height	Width
499968	210/260	II	set	55	20	50
499969	210/260	III	set	42	20	50
499967	260	I	set	62	20	50
499970	315/400	I	set	70	20	60
499971	315/400	II	set	62	20	60
499972	315/400	III	set	42	20	60

Clamping insert I not suitable at size 210

Accessories MSF



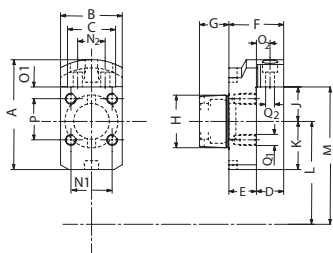
Tool group C 15
Type 587-04 **Contact stars**
Contact stars are used as a
longitudinal stop for the workpiece.
The standard contact stars enable
the entire clamping range of the
standard jaws to be covered.

Item no.	499874	499875	499876	499877
Size	210	260	315	400
A	150	150	250	335
B	23	23	23	23
C	24	24	24	24
DH7	ø 45	ø 45	ø 54	ø 54
E	10,5	10,5	13	13
F	7,5	15	20	60
G	26	30	36,5	36,5
H	80	90	120	180
J	M8	M8	M8	M8
K	11	11	11	11
L	20	20	35	35
Contact area	ø 15-150	ø 30-190	ø 40-250	ø 120-335

In addition, special versions are possible with an air contact check for the blast air, pre-centering or adapted to a certain workpiece geometry.

Jaw dimensions and clamping capacities MSF

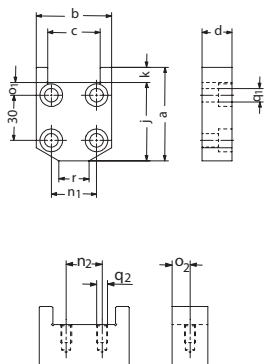
Base jaws for Diaphragm clamping chucks



Chucking capacities with base jaws HSK and clamping inserts

Chuck size	210			260			315			400		
	External chucking			External chucking			External chucking			External chucking		
Clamping insert	I	II	III	I	II	III	I	II	III	I	II	III
Item no.	499956	499957	499958	499961	499962	499963	499964	499965	499966	499964	499965	499966
A	64	70	73	89	80	90	103	90	107,5	103	90	107,5
B		45			45			60			60	
C		35			35			40			40	
D		20			20			20			20	
E		20			20			20			20	
F		40			40			40			40	
G		21,5			21,5			27			27	
H		HSK 50			HSK 50			HSK 63			HSK 63	
J	-5	25	35	-5	25	35	-6	30	47,5	-6	30	47,5
K	20	25	25	50	35	35	61	40	40	61	40	40
L		57			75			90			132,5	
M External chucking	52	82	88	70	100	100	84	120	137,5	126,5	162,5	180
N1		30			30			40			40	
N2		20			20			25			25	
O1		8,5			8,5			12			12	
O2		10			10			10			10	
P	-	30	-	30	30	-	36	36	-	36	36	-
Q1		M8/12			M8/12			M8/12			M8/12	
Q2		Ø 6,6/Ø 11			Ø 6,6/Ø 11			Ø 6,6/Ø 11			Ø 6,6/Ø 11	
Base jaw I	-	20-70	45-84	40-57 86-110	55-110	80-120	50-70 100-130	66-130	106-150	135-155 185-215	151-215	191-235
Base jaw II	-	80-130	105-144	100-117 145-170	115-170	140-180	122-142 166-202	138-202	188-222	207-227 250-287	223-287	273-307
Base jaw III	-	92-142	117-160	120-137 165-190	135-190	160-200	157-177 200-237	173-237	213-260	242-262 285-322	258-322	298-345

Clamping inserts for base jaws



Chucking capacities with base jaws HSK and clamping inserts

Chuck size	210			260			315			400		
	External chucking			External chucking			External chucking			External chucking		
Clamping insert	I	II	III	I	II	III	I	II	III	I	II	III
Item no.	1)	499968	499969	499967	499968	499969	499970	499971	499972	499970	499971	499972
a	-	55	42	62	55	42	70	62	42	70	62	42
b		50			50			60			60	
c		35			35			40			40	
d		20			20			20			20	
j	-	45	32	52	45	32	60	52	32	60	52	32
k		10			10			10			10	
n1		30			30			40			40	
n2		20			20			25			25	
o1		8,5			8,5			12			12	
o2		10			10			10			10	
p	-	-	-	30	-	-	36	-	-	36	-	-
q1	-	Ø 9/15	-	-	Ø 9/15	-	Ø 9/15	Ø 9/15	-	Ø 9/15	Ø 9/15	-
q2	-	-	M6/10	-	-	M6/10	-	-	M6/10	-	-	M6/10
r	-	20/30°	-	20/30°	20/30°	-	36/30°	-	-	36/30°	-	-
Base jaw I	-	20-70	45-84	40-57 86-110	55-110	80-120	50-70 100-130	66-130	106-150	135-155 185-215	151-215	191-235
Base jaw II	-	80-130	105-144	100-117 145-170	115-170	140-180	122-142 166-202	138-202	188-222	207-227 250-287	223-287	273-307
Base jaw III	-	92-142	117-160	120-137 165-190	135-190	160-200	157-177 200-237	173-237	213-260	242-262 285-322	258-322	298-345

1) not suitable at size 215

With quick-acting bayonet catch



The innovative aspect of the KZF power-operated collet chuck is the rapid action bayonet catch that helps save time when changing collets.

Automatic rapid collet changes make for decisive savings in series production runs.

Power-operated collet chucks with bayonet catch are mainly used for chucking bar work on NC/CNC lathes.

The bar stock can be fed in through the chuck. Profiles can also be chucked with the appropriate collets.

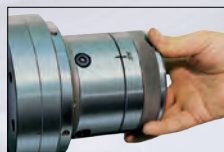
Collet chucks KZF may be equipped either with DIN 6343 dead length collets or with segment collets.

The innovative aspect of the KZF power-operated collet chuck is the rapid action bayonet catch that helps save time when changing collets.

ROEHM KZF collet chucks are available with straight recess or short taper mountings. All moving parts are made of high quality material, hardened and ground.



Press:
Press chuck cover with its entire surface 2 mm against machine spindle



Rotate:
Rotate chuck cover at 45° till the mark "Auf" (open) coincides with the mark on the chuck



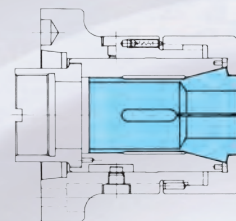
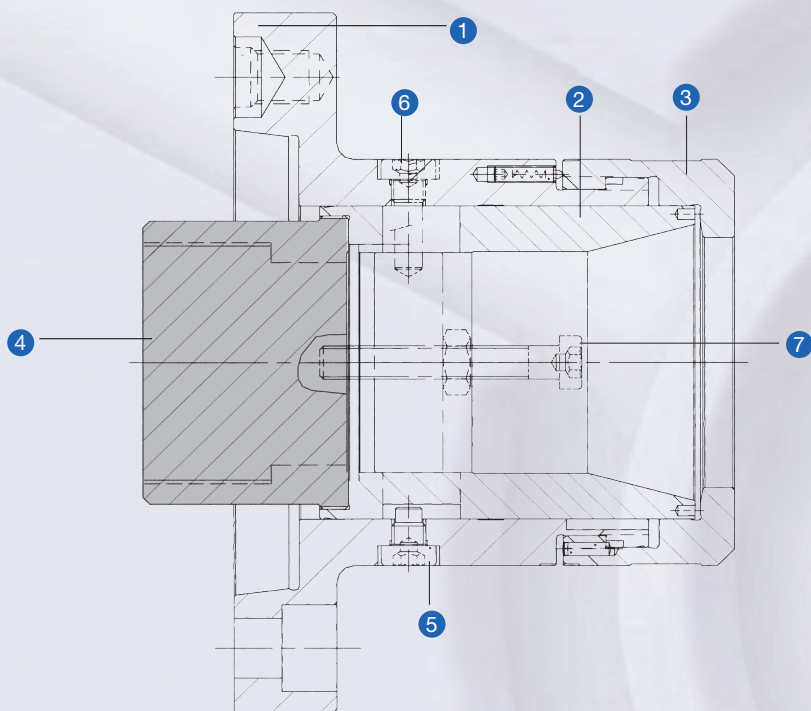
Remove:
Remove chuck cover
Remove collet



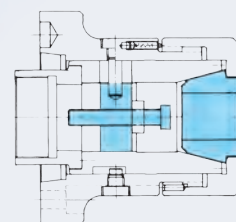
Change:
Insert new collet Lock cover analog to the description above



Bayonet-System
The chuck cover can be placed on the chuck at any 90 degree



Hollow-center clamping with steel collet to DIN 6343

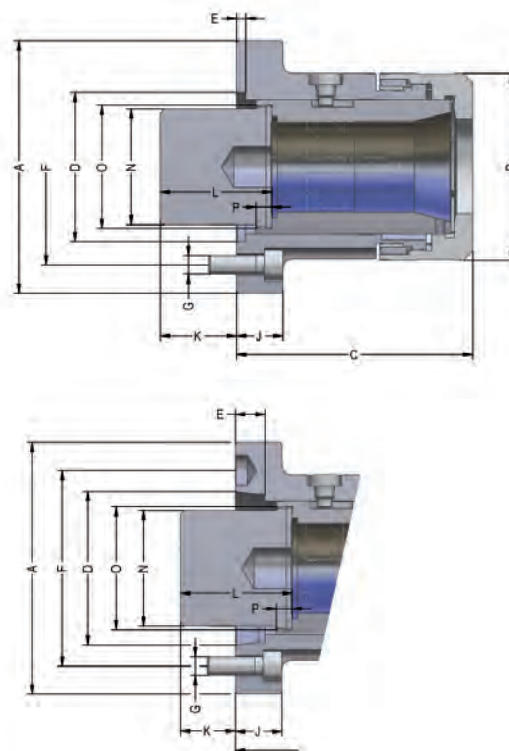


Clamping with collet and longitudinal workstop

Technical features:

- 1 Body
- 2 Clamping sleeve for steel and segment collets.
For twinclamping with segment collets a suitable clamping sleeve is available.
- 3 Bayonet catch
- 4 Adaptor machined by the customer to fit the draw tube and glued in the clamping sleeve.
- 5 Locking screw
- 6 Socket head cap screw
- 7 Special accessory, not included in the scope of delivery. Workpiece locator, can only be used in conjunction with segment collets.
Order separately:
Socket head cap screws or studs with locknut to DIN 55027.

KZF with quick-acting bayonet catch



Tool group C 15
Type 508-11/508-31
power-operated collet chuck KZF,
with **quick-acting bayonet catch,**
without collet
cylindrical centre mount/
short taper mount

Item no.	417250	417251	417254	417255	417258	417252	417253	417256	417257	417259
Size	40/Z 140	40/Z 88	60/Z 115	60/Z 170	80/Z 130	40/5	40/6	60/6	60/8	80/8
A	160	135	157	190	187	135	170	170	210	210
B	100	100	122	122	150	100	100	122	122	150
C	116	116	132	132	156	127	128	144	146	170
D	140	88	115	170	130	82,563	106,375	106,375	139,719	139,719
E	5	5	5	5	5	16	18	18	22	22
F	104,8	115	136	133,4	166	104,8	133,4	133,4	171,4	171,4
G	4 x ø 11,5	6 x ø 9	8 x ø 9	6 x ø 14	8 x ø 9	4 x ø 11,5	4 x ø 14	4 x ø 14	4 x ø 18	4 x ø 18
H	10	8	8	12	8	18	12	12	16	16
J	25	25	25	25	25	25	25	25	30	30
K max.	46,5	46,5	46,5	46,5	42,5	35,5	34,5	34,5	32,5	28,5
K min.	39	39	39	39	39,5	28	27	25	25	25,5
L	60	60	60	60	60	60	60	60	60	60
M	-	-	-	-	-	4 x M 10	4 x M 12	4 x M 12	4 x M 16	4 x M 16
N	62	62	85	85	100	62	62	85	85	100
O	M 66 x 1,5	M 68 x 1,5	M 88 x 1,5	M 88 x 1,5	M 114 x 1,5	M 66 x 1,5	M 66 x 1,5	M 88 x 1,5	M 88 x 1,5	M 114 x 1,5
P	8,5	8,5	8,5	8,5	12,5	8,5	8,5	8,5	8,5	12,5
Total stroke mm	7,5	7,5	7,5	7,5	3,5	7,5	7,5	7,5	7,5	3,5
Maximum draw bar pull kN	25	25	30	30	35	25	25	30	30	35
Max. admissible speed min ⁻¹	6000	8000	5000	5000	4000	8000	8000	5000	5000	4000
Moment of inertia J kgm ²	0,029	0,029	0,038	0,038	0,108	0,029	0,029	0,049	0,092	0,119
Weight without collet kg	7,1	5,3	9,2	9,2	17,5	7,5	7,5	10,2	14	18

Accessories KZF

Matching cylinders



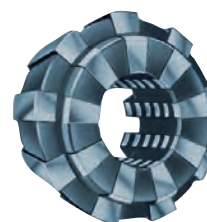
SZS



LHS-L

Size			KZF	40/Z 140	40/Z 88	60/Z 115	60/Z 170	80/Z 130	40/5	40/6	60/6	60/8	80/8
SZS	hydraulic	Type	559-10	46/103	46/103	67/150	67/150	86/200	46/103	46/103	67/150	67/150	86/200
LHS-L	pneumatic	Type	565-10	42/289	42/289	62/438	62/438	-	42/289	42/289	62/438	62/438	-

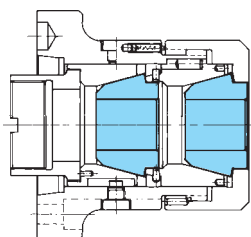
Matching collets



Chuck size	Collets DIN 6343					
	Type		Clamping capacity			Tolerance
KZF 40	8206-E	DIN 6343 173 E	2-42	6-36	6-29	+0,2 -0,3
KZF 60	8207-E	DIN 6343 185 E	4-60	8-52	7-42	+0,2 -0,3
KZF 80	7037-E	DIN 6343 193 E	20-80	18-69	15-56	+0,2 -0,3

Chuck size	Segment-collets DIN 6343		
	Type	Clamping capacity	Tolerance
KZF 40	Series R 36	8-42	2±0,3
KZF 60	Series R 52	19-61	2±0,3
KZF 80	-	-	-

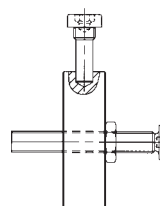
Clamping sleeves for double collets for KZF



The clamping sleeves for double collets apply to any of the normal Roehm KZF collet chucks.

Advantage: the twin clamping of bars results in a secure and vibrationfree gripping contact. Available for sizes 40 and 60 only.

Workstop for KZF



The use of a workstop in the KZF is possible, if a segment collet is inserted.

KZF-S

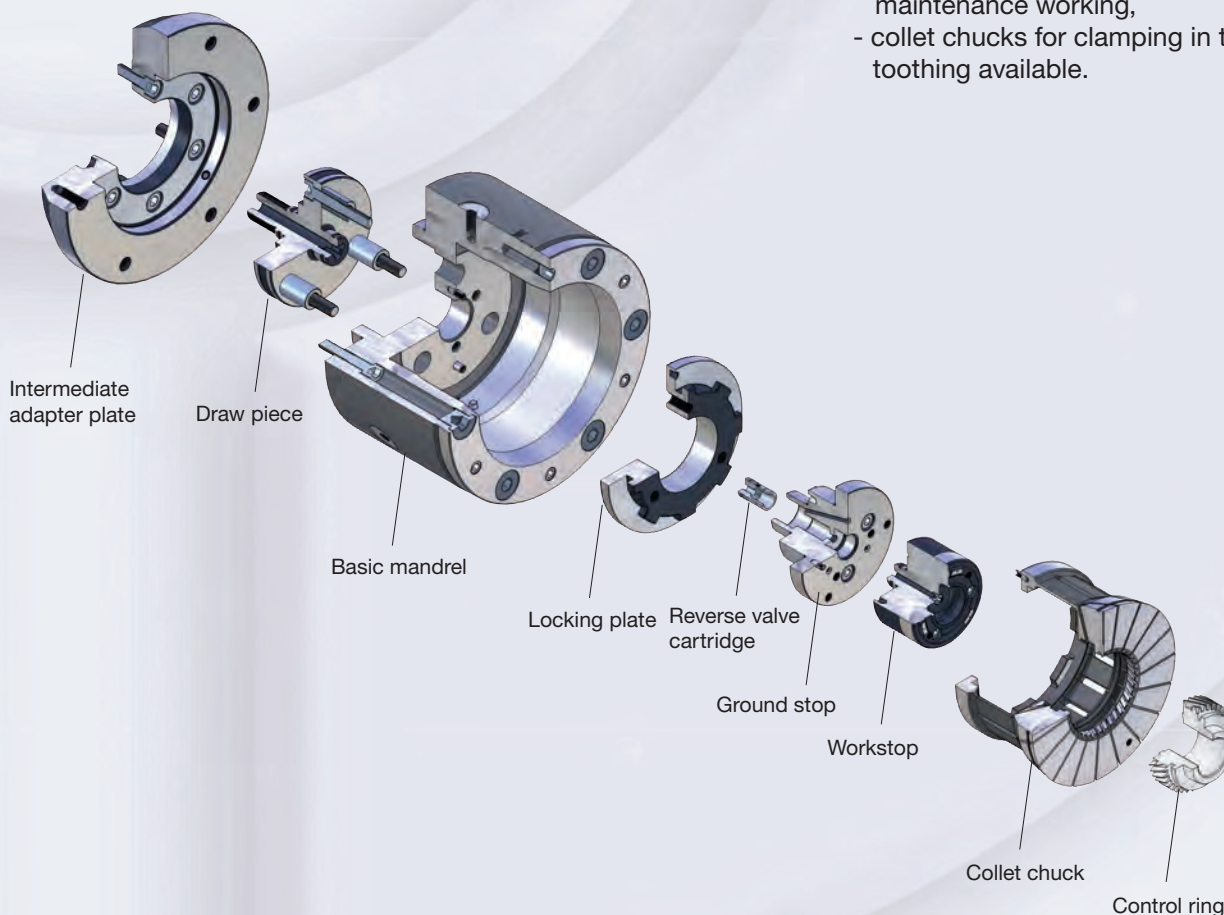
external chucking for turning, milling and grinding operations



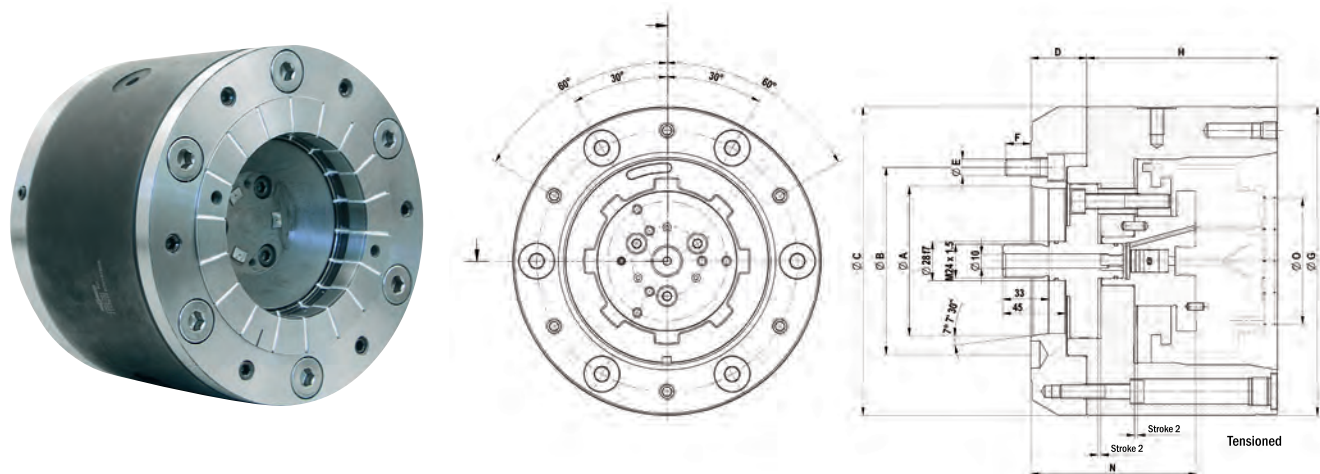
Compact design, steady clamping by axial draw-in, the draw-in of the workpiece against the rigid work-stop takes place independently via the operation of the mandrel.

Technical features:

- power operated,
- high axial- and radial accuracy,
- high repeating accuracy,
- hardened low-wear construction,
- few loss of centrifugal force,
- quick change of the clamping sleeves by the bayonet lock,
- for automatical charging,
- prepared for the grommet of mediums (e.g. air or coolant)
- integrated lubrication
- little weight and height by compact design,
- sealed clamping system for low-maintenance working,
- collet chucks for clamping in the toothing available.



KZF-S for external clamping

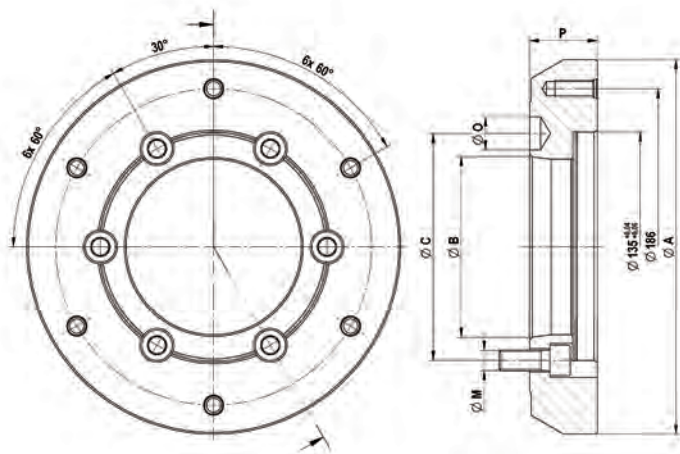


Tool group C 18

Type 267-10 Power operated collet chuck **KZF-S**
for external clamping

	KZF 80	KZF 120	KZF 180
Body collet	1117832	1117830	1125403
Base bolt	1117833	1072101	1125404
Draw piece	1117837	1117827	1125408
Fastening plate	1117835	1072105	1125406
Bolt spacer	1117836	1072103	1072103
Ground stop for reverse valve cartridge	1117839	1072113	1125410
Ground stop for ermeto pipe	1117841	1117824	1125412
Reverse valve cartridge 1 Bar	756641	863134	863134
Reverse valve cartridge 3 Bar	843866	889894	889894
F Max, in daN	30	40	40
Speed max, min ⁻¹	6000	5000	3500
Stroke	4	4	4
Clamping dia, min,	30	60	100
Clamping dia, max,	80	120	180
Expansion in Ø	1,4	1,4	1,4
Ø G	170	220	285
H	125	136	136

Accessories KZF-S



Tool group C 18

Type 267-20 **Intermediate flange** DIN 55028

	A 05	A 05	A 05	A 06	A 06	A 08	A 08	A 08
Intermediate flange	1117843	1072115	1117845	1072117	1125416	1117847	1072119	1125418
For	KZF-S 80	KZF-S 80	KZF-S 81	KZF-S 120	KZF-S 180	KZF-S 82	KZF-S 120	KZF-S 180
Short-taper-Ø B	82,563	82,563	106,375	106,375	106,375	139,719	139,719	139,719
Short-taper pitch circle Ø C	104,8	104,8	133,4	133,4	133,4	171,4	171,4	171,4
Flange outer-Ø A	170	220	170	220	285	210	220	285
Ø D	105	135	105	135	200	105	135	200
Ø F	143	186	143	186	250	143	186	250
Ø O	16,3	16,3	19,45	19,45	19,45	24,2	24,2	24,2
Thread-Ø M	M10	M10	M12	M12	M12	M16	M16	M16
Total length flange P	35	40	35	40	45	35	40	45

With quick-acting bayonet catch



The innovative aspect of the KZZF power-operated collet chuck is the rapid action bayonet catch that helps save time when changing collets.

Automatic rapid collet changes made for decisive savings in series production runs.

The power operated draw-in collet chuck KZZF offers a pull-down effect against workstop.

Power-operated collet chucks with bayonet catch are mainly used for chucking bar work on NC/CNC lathes.

The bar stock can be fed in through the chuck. Profiles can also be chucked with the appropriate collets.

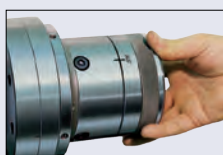
Collet chucks KZZF may be equipped either with DIN 6343 dead length collets or with segment collets.

The workstop is always possible to use with both types of collet.

Röhm KZZF collet chucks are available with straight recess or short taper mountings. All moving parts are made of high quality material, hardened and ground.



Press:
Press chuck cover with its entire surface 2 mm against machine spindle



Rotate:
Rotate chuck cover at 45° till the mark "Auf" (open) coincides with the mark on the chuck



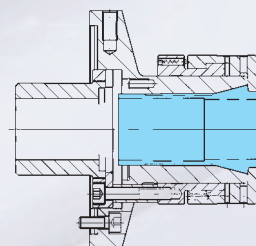
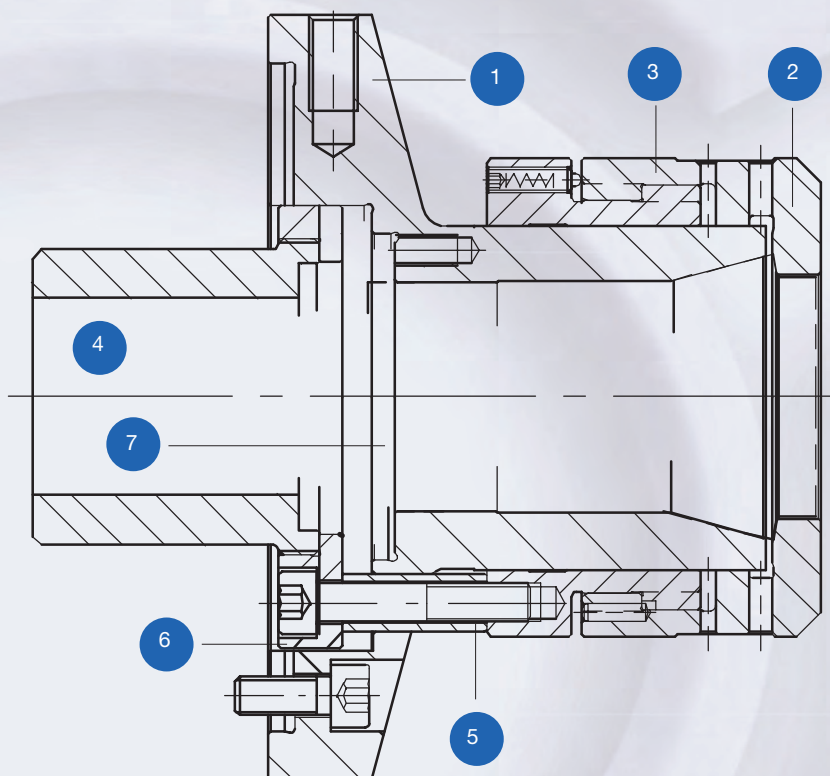
Remove:
Remove chuck cover
Remove collet



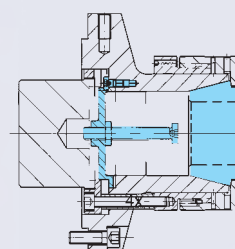
Change:
Insert new collet Lock cover analog to the description above



Bayonet-System
The chuck cover can be placed on the chuck at any 90 degree



Hollow-center clamping with steel collet to DIN 6343

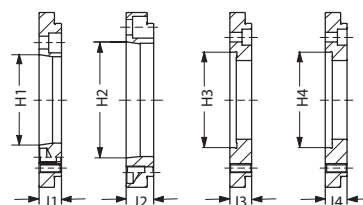
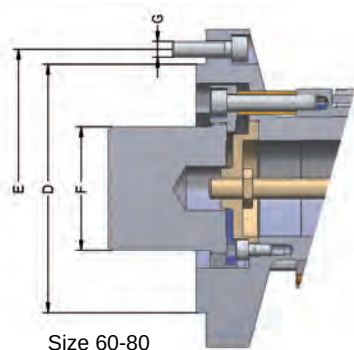
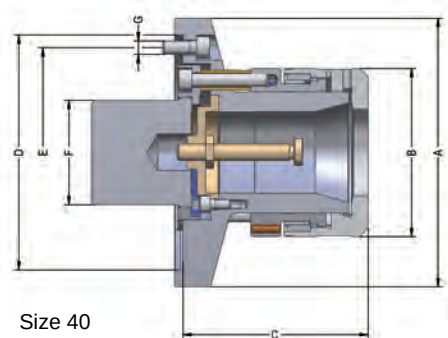


Clamping with collet and longitudinal workstop

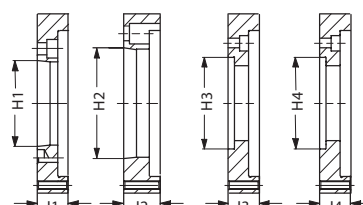
Technical features:

- ① Body
- ② Bayonet catch
- ③ Draw sleeve
- ④ Adaptor machined by the customer to fit the draw tube and glued to the clamping sleeve.
- ⑤ Spacer
- ⑥ Draw ring
- ⑦ Special accessory, not included in the scope of delivery. Workpiece locator Order separately: Socket head cap screws or studs with locknut to DIN 55027.

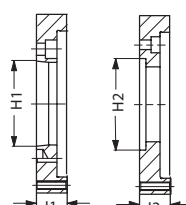
KZZF with pull-down effect and quick-acting bayonet catch



KZZF 40 Adapter flange



KZZF 60 Adapter flange



KZZF 80 Adapter flange

Tool group C 15
Type 508-00

Power-operated draw-in collet chuck **KZZF**, with **pull-down effect** against workstop, with **quick-acting bayonet catch**, without collet
cylindrical centre mount

Item no.	423876	424272	424581
Size	40	60	80
A	160	190	210
B	100	122	150
C	110,5	122,5	150
D	140	150	165
E	125	165	187
F	62	85	100
G	6 x M8	4 x M10	4 x M10
H1	KK5	KK6	KK8
H2	KK6	KK8	130
H3	88	115	-
H4	140	170	-
J1	20	23	32
J2	25	29	23
J3	20	23	-
J4	26	30	-
Total stroke mm	7,5	7,5	7,5
Maximum draw bar pull kN	25	30	35
Max. admissible speed min ⁻¹	8000	5000	4000
Moment of inertia J kgm ²	0,018	0,044	0,085
Weight without collet kg	7,1	11,8	16,9

Accessories KZZF

Matching cylinders



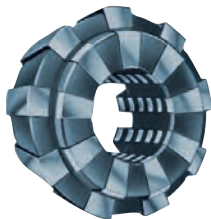
SZS



LHS-L

Size	KZZF		40	60	80	40	60	80
SZS	hydraulic	Type 559-10	46/103	67/150	86/200	46/103	67/150	86/200
LHS-L	pneumatic	Type 565-10	42/289	62/438	-	42/289	62/438	-

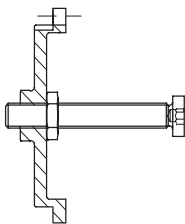
Matching collets



Chuck size	Collets DIN 6343					
	Type		Clamping capacity			Tolerance
KZZF 40	8206-E	DIN 6343 173 E	2-42	6-36	6-29	+0,2 -0,3
KZZF 60	8207-E	DIN 6343 185 E	4-60	8-52	7-42	+0,2 -0,3
KZZF 80	7037-E	DIN 6343 193 E	20-80	18-69	15-56	+0,2 -0,3

Chuck size	Segment-collets DIN 6343		
	Type	Clamping capacity	Tolerance
KZZF 40	Series R 36	8-42	2±0,3
KZZF 60	Series R 52	19-61	2±0,3
KZZF 80	-	-	-

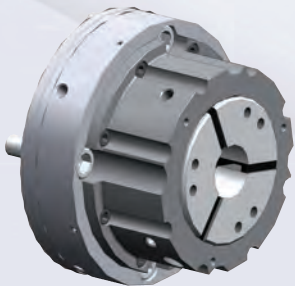
Workstop for KZZF



In the KZZF the use of a workstop is possible in any combination with both Types of collets: DIN 6343 and segment collets.

KZZT / KZZT-A / KZZT-AF

Compact design, highly suitable for bar work



KZZT

all sizes with cylindrical centre mount on request

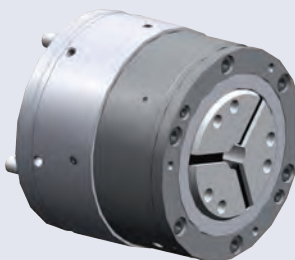


KZZT-A

With a full through hole for bar work plus a rigid axial stop for chuck parts. An additional workpiece support emerges by pulling the component tough against the axial stop while clamping.

Perfect with short clamped workpieces.

*The adaption for the axial Stopp can vary (changes possible)



KZZT-AF

Type with fixed clamping jaw for through as well as stop clamping.

Coupled clamping jaw, therefore no axial movement

Clamping principle: The thrust piece is pushed over the fixed Top Grip clamping jaw. The fixed jaw ensures a lesser stiffness than that achieved with the traction chucks KZZT/KZZT-A.

Top grip clamping jaw for KZZT/KZZT-A

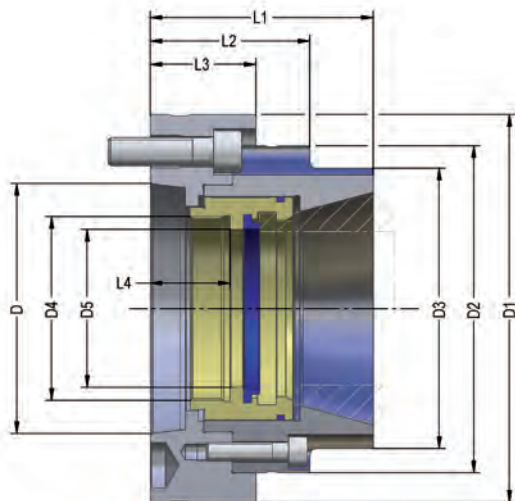
- Rubber-steel segment clamping head, vulcanized according to the proven rubber-flex-principle, quick-interchangeable.
- Highest clamping forces and rigidity.
- Clamping tolerances $\pm 0,5$ mm
- Application field:
 - turning, milling and grinding
 - for bar work and for chucking work.
- simple retooling with manual or pneumatic changing fixture (not included in the scope of delivery)
- An axial work Stopp will be attached to the KZZT-A
- Special designs on request
- KZZT-AF with fixed jaw



smooth design

design with transverse grooves

KZZT with full through hole



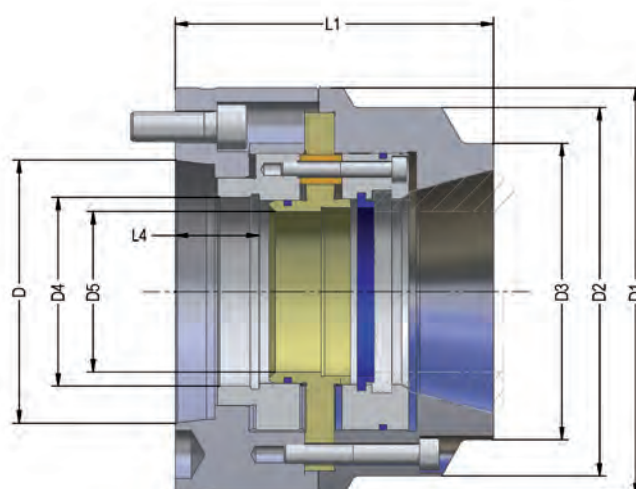
Tool group C 15
Type 508-71
Power operated pulling collet
KZZT,
with **full through hole**

Item no.	432360	429587	429588	432709	432710	429594	432361	432362	432363
Size	32	42	42	52	52	65	80	100	120
Mount D	KK5	KK5	KK6	KK5	KK6	KK6	KK8	KK8	KK8
D1	140	140	165	140	165	165	205	215	240
D2	111	125	125	125	125	140	180	201	230
D3	75	100	100	100	100	120	160	-	-
D4	M48x1,5	M68x1,5	M68x1,5	M68x1,5	M68x1,5	M78x1,5	M94x1,5	M114x1,5	M132x1,5
D5	35	44	44	54	53	67	82	102	123
L1	88	90	90	115	115	95	125	125	135
L2	68	68	68	68	68	68	64	-	65
L3	40	40	40	42	42	45	54	54	-
L4 min.	34	35,5	35,5	44	44	31	52	41	46
L4 max.	39,5	41,5	41,5	49,5	49,5	36	56,5	49	53,5
Total stroke mm	5,5	6	6	5,5	5,5	5	4,5	8	7,5
Max. pull force daN	2500	3500	3500	4000	4000	4500	5000	6500	7000
Adm. speed min ⁻¹	8000	7000	7000	6500	6500	6500	5500	5000	3200

All sizes with cylindrical center mount on request

Power-operated pulling collet chuck KZZT

KZZT-A with full through hole and rigid axial stop

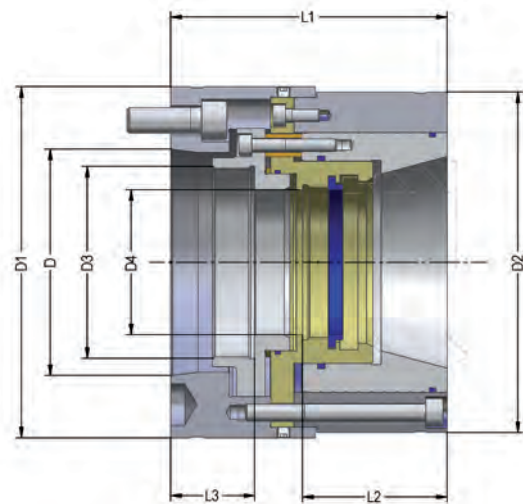


Tool group C 15
Type 508-73
Power operated pulling collet
KZZT-A,
with **full through hole**
and **rigid axial stop**

Item no.	432364	429590	429591	432711	432712	429598	432365	432366	432367
Size	32	42	42	52	52	65	80	100	120
Mount D	KK5	KK5	KK6	KK5	KK6	KK6	KK8	KK8	KK8
D1	140	140	165	140	165	165	210	225	270
D2	114	125	125	140	140	149	160	206	260
D3	-	100	100	100	100	120	140	195	210
D4	M48x1,5	M68x1,5	M68x1,5	M72x1,5	M72x1,5	M78x1,5	M94x1,5	M114x1,5	M132x1,5
D5	M34x1	M42x1	M42x1	M54x1,5	M54x1,5	M66x1	M82x1,5	105x1,5	125x1,5
L1	117	120	120	122	122	129	145	160	165
L2	-	106	106	111	111	115	130	142	152
L3	63	67,5	67,5	56	56	58	80	82	90
L4 min.	-	39,5	39,5	37	33,5	31,5	44	47	48
L4 max.	-	45,5	45,5	42,5	39	37	49	52,5	53,5
Total stroke mm	6	6	6	5,5	5,5	5,5	5	5,5	5,5
Max. pull force daN	2500	3500	3500	4000	4000	4500	5000	6500	7000
Adm. speed min ⁻¹	8000	7000	7000	6500	6500	6000	5500	5000	3200

The adaption for the axial-stop can be varied (changes possible).

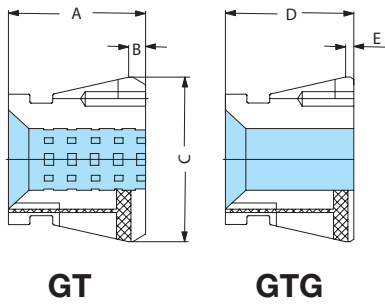
KZZT-AF with full through hole, rigid axial stop and fixed clamping jaw



Tool group C 15
Type 508-75
Power operated pulling collet
KZZT-AF,
with **full through hole**,
rigid axial stop and
a fixed Top Grip **clamping jaw**
For through and stop clamping.

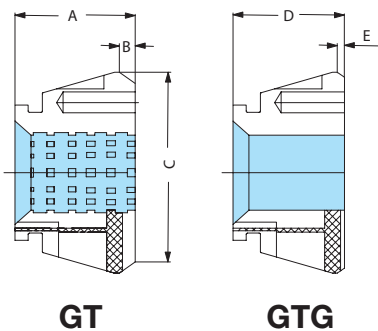
Item no.	432690	432691	432692	432693	432694	432696	432699	432701	432702
Size	32	42	42	52	52	65	80	100	120
Mount D	KK5	KK5	KK6	KK5	KK6	KK6	KK8	KK8	KK8
D1	135	135	165	140	165	165	210	215	240
D2	135	135	135	140	140	160	175	215	240
D3	M52x1,5	M62x1,5	M62x1,5	M78x1,5	M78x1,5	M90x1,5	M92x1,5	M125x1,5	M132x1,5
D4 min.	4	4	4	4	4	5	5	42	42
D4 max.	32	42	42	52	52	65	80	100	120
L1	118	120	120	120	120	130	145	170	180
L2	43,5	51	42	47	47	53	58	64	72
L3 min.	32,5	32,5	32,5	33	33	37	40	44,5	51
L3 max.	38,5	38,5	38,5	37,5	37,5	43	44,5	52,5	57
Total stroke mm	5,5	6	6	4,5	4,5	6	4,5	8	6
Max. pull force daN	2500	3500	3500	4000	4000	4500	5000	6500	7000
Adm. speed min ⁻¹	8000	7000	7000	6500	6500	6000	5500	5000	3200

Top grip clamping jaw for KZZT / KZZT-A / KZZT-AF



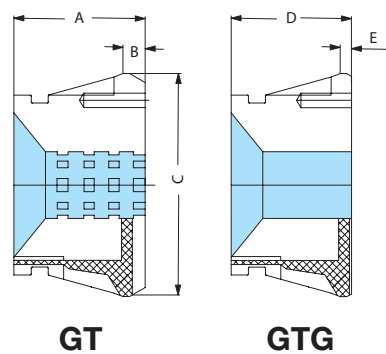
GT 32 GTG 32 GTW 32*	Bore	Design	A 47	B 6	C 57,7	D 44	E 3
	Round	Smooth Transverse grooves Axial, transv. grooves *self machining Ø	Clamping range			Clamping range	
			4-7			4-32	
			8-10			-	
			11-32			-	
	Square	Smooth Transverse grooves	7			-	
			8-30			-	
	Hexagon	Smooth Transverse grooves	7			-	
			8-27			-	

Fixture for machining of the Top Grip clamping jaw Item no. 497314



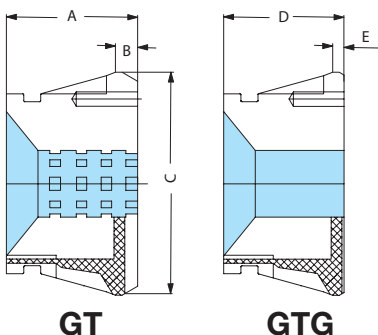
GT 42 GTG 42 GTW 42*	Bore	Design	A 47	B 9	C 79,3	D 42	E 4
	Round	Smooth Transverse grooves Axial, transv. grooves *self machining Ø	Clamping range			Clamping range	
			4-7			4-42	
			8-10			-	
			11-42			-	
	Square	Smooth Transverse grooves	7			-	
			8-30			-	
	Hexagon	Smooth Transverse grooves	7			-	
			8-32 33-36			-	

Fixture for machining of the Top Grip clamping jaw Item no. 497315



GT 52 GTG 52 GTW 52*	Bore	Design	A 46	B 3	C 79,2	D 46	E 3
	Round	Smooth Transverse grooves Axial, transv. grooves *self machining Ø	Clamping range			Clamping range	
			4-7			4-52	
			8-10			-	
			11-52			-	
	Square	Smooth Transverse grooves	8-9			-	
			10-36			-	
	Hexagon	Smooth Transverse grooves	7-9			-	
			10-42 42-45			-	

Fixture for machining of the Top Grip clamping jaw Item no. 1053342



GT 65 GTG 65 GTW 65*	Bore	Design	A 58	B 9	C 99,5	D 53	E 4
	Round	Smooth Transverse grooves Axial, transv. grooves *self machining Ø	Clamping range			Clamping range	
			5-7			5-65	
			8-10			-	
			11-65			-	
	Square	Smooth Transverse grooves	8-32			-	
			33-40 41-46			-	
	Hexagon	Smooth Transverse grooves	7-32			-	
			33-40 41-50 51-56			-	

Fixture for machining of the Top Grip clamping jaw Item no. 497316

GT, extension, grooved bore, at size 80 first groove closed
 GTG, reduced extension, smooth bore
 Bores in 1 mm steps

* face and bore soft

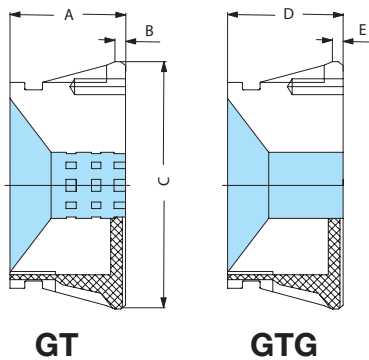


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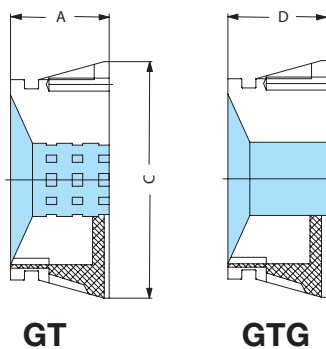


Top grip clamping jaw / Changing fixture for KZZT / KZZT-A / KZZT-AF



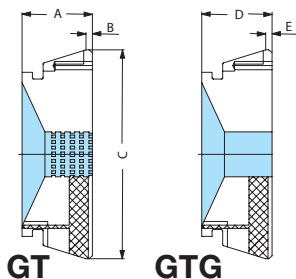
GT 80 GTW 80*	Bore	Design	A 53	B 4	C 114,5	D 53	E 4
	Round	Smooth Transverse grooves Axial, transv. grooves *self machining Ø	Clamping range		Clamping range		
			5-7			5-80	
			8-10			-	
			11-80			-	
	-			20/40/60			
	Square	Transverse grooves	8-32 33-40 41-46 47-56			-	
Hexagon	Transverse grooves	7-32 33-40 41-50 51-56 57-68			-		

Fixture for machining of the Top Grip clamping jaw Item no. 497317



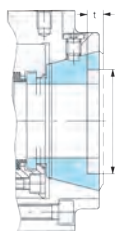
GT 100 GT 100 GTW 100*	Bore	Design	A 59	B -	C 144,5	D 59	E -
	Round	Axial, transv. grooves *self machining Ø	Clamping range			Clamping range	
			42-100			5-80 20/40/60	
	Square	Querrillen	50-60 61-70			-	
	Hexagon	Querrillen	50-60 61-70 71-86			-	

Fixture for machining of the Top Grip clamping jaw Item no. 497318



GT 120 GT 120 GTW 120*	Bore	Design	A 61	B 3	C 180	D 61	E 3
	Round	Axial, transv. grooves *self machining Ø	Clamping range			Clamping range	
			65-120			70/90/100	
	Square	Querrillen	On request			-	
	Hexagon	Querrillen	On request			-	

Fixture for machining of the Top Grip clamping jaw Item no. 497319



Top Grip clamping jaw, for short clamped workpieces

Size Through-hole	Clamping jaw Top Grip short design	max. clamp.-Ø depth t	Tensile force max. N	Speed max.* min ⁻¹
32	32	49x6,5	25000	8000
42	42	68x10	35000	7000
65	65	87x10	45000	6000
80	80	90x10	50000	5500
100	100	117,2x20	65000	5000
120	120	150x18	70000	3200

* Only valid for GTG-typed clamping heads

The manual changing fixture is the simplest method of clamping head changeover by changing the pins.



Pneumatic changing fixture with comfortable handle and integrated valve switch by changing the pins.

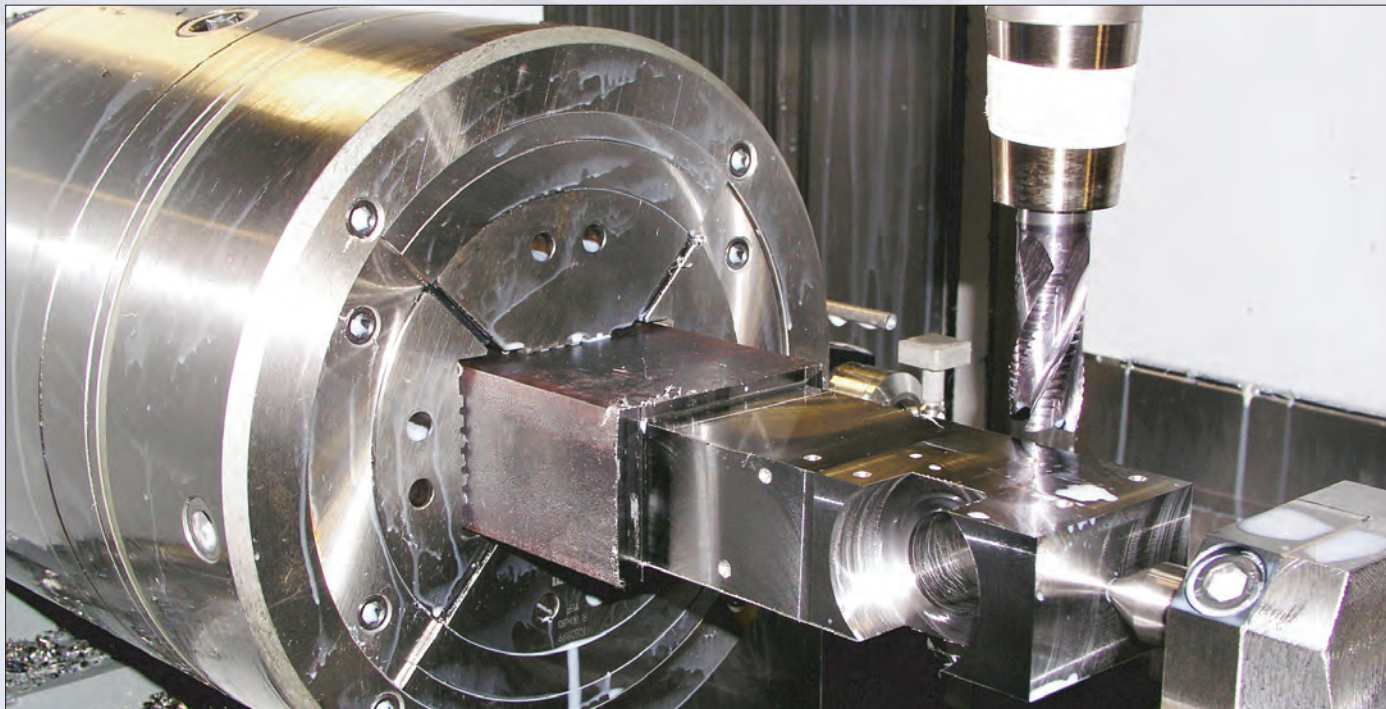


Changing fixture for pulling collets

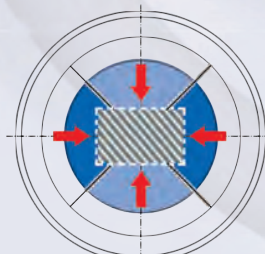
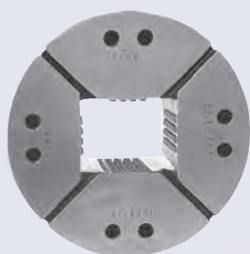
Size	Item	Type
32	435708	manually operated
32	431955	air operated
42/65	429677	manually operated
42/65	006898	air operated
52	1043300	manually operated
52	436285	air operated
80	437301	manually operated
80	001124	air operated
100	006352	air operated
120	006901	air operated

KZZT-F

With passageway for profile bars, with spherical joint - clamping level compensation
for a 2/2 central clamping mode



The KZZT-F, size 240 mm dia., has dynamical advantages when clamping non-circular or rightangular workpieces



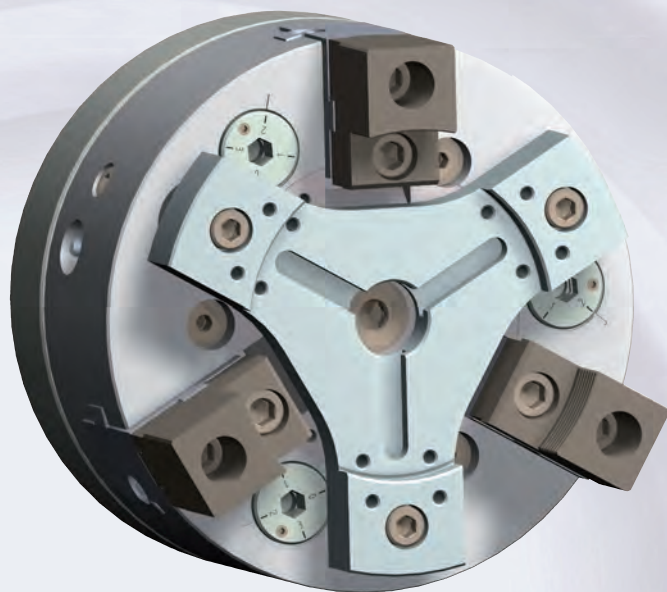
Waste loss reducing, practical and without additional efforts

Hydraulic operated collet chucks are mainly used for clamping circular parts. If the shapes of the parts may be oval, non-circular or even rightangular we have been right at our wit's end. - These times have gone by -

Rohm developed an additional modification of a power operated collet chuck for the practical clamping and modern machining of these shapes without any additional efforts.

The peculiar of this innovation is the fact that i. e. a right angled part with big tolerances up to ± 1 mm of its X- and Y-axis will be clamped absolutely central in each of its profile axes. And this is managed by a single central actuation.

Machining of complete workpiece



only for external chucking - with short taper mounting

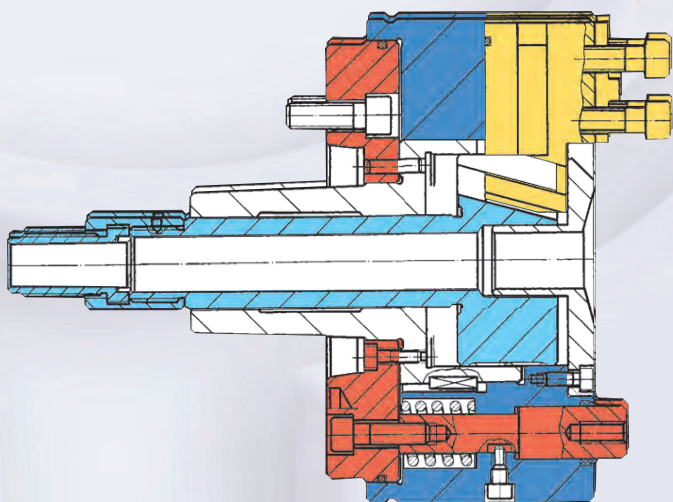
With this design, workpieces can be chucked in perfect alignment.

Running errors due to jaw displacement and chuck body deformation, are thus eliminated. The draw-bar pull exerted when the workpiece is clamped, draws it down onto the fixed milling bed.

On releasing, built-in compression springs return the workpiece to start position. Work seats can be precisely secured to the support posts firmly attached to the mounting adapter.

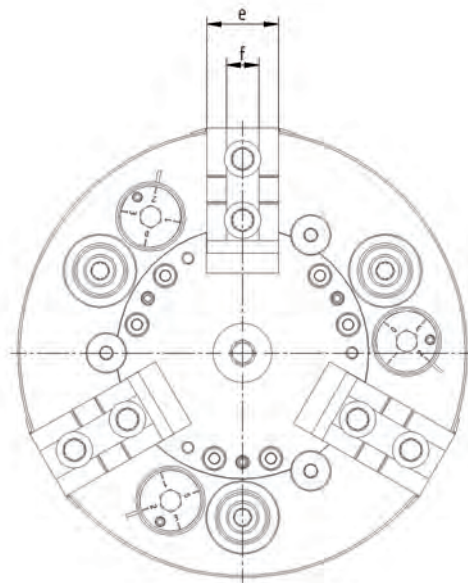
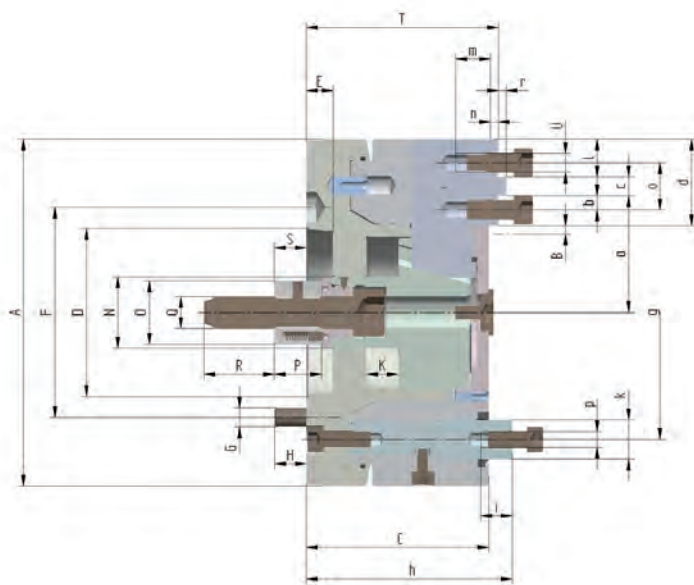
Technical features:

- high-accuracy chucking
- all-steel design; all working parts hardened and ground
- long actuating-piston guideway
- rugged, deep-seated support posts
- chucking power transmitted by proven wedge system
- precisely (± 0.01) centered tongue and groove of base jaw
- rugged universal adapter for work seats included as attachment
- broad-faced support posts provide high rigidity
- When used in conjunction with RÖHM SZS, OVS, LVS and LTS safety cylinders, the KFD-N power chucks meet the guidelines of the German Employer's Liability Insurance Association.



Wedge system with draw-down effect, with through-hole

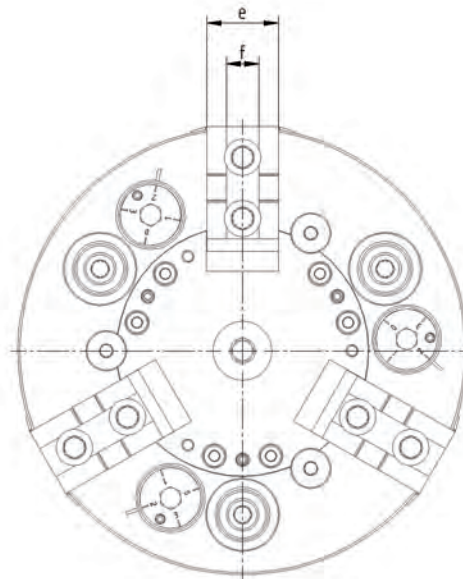
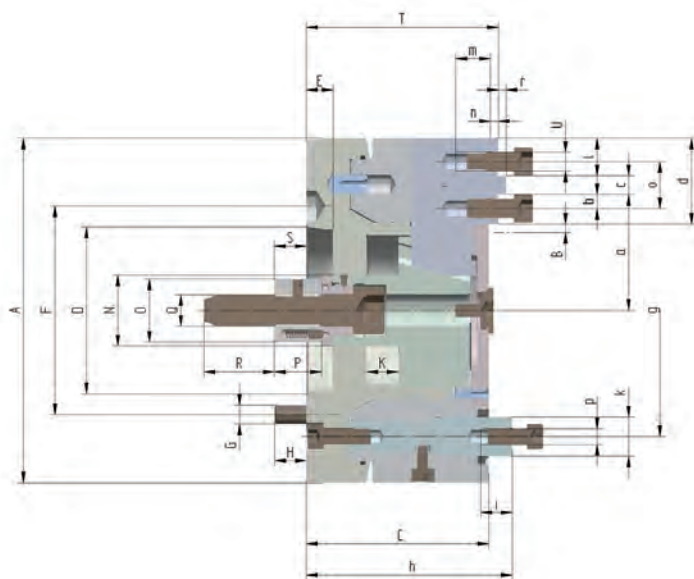
KFD-N size 220-400



Tool group C 15
Type 441-12
3 jaw draw-down power chucks
KFD-N,
only for external chucking
Short taper mount **ISO 702-1**
(DIN 55026)

Item no.	155024	155025	155026	150792
Size	220	280	350	400
A	220	280	350	400
Jaw travel B	5,3	6,7	8	9,3
C min.	115,5	124,5	144,5	155,5
C max.	116	125	145	156
Short taper D	6	8	11	11
E	17	19	21	21
F	133,4	171,4	235	235
G	3 x M 12	3 x M 16	3 x M 20	3 x M 20
H	20	24	27	27
Wedge stroke K	20	25	30	35
N	45	55	60	60
O	40	46	46	46
P	30	30	30	30
Q	M 20	M 24	M 24	M 24
R	45	55	55	55
S min.	20	18	10	10
S max.	40	43	40	45
T min.	121,5	130,5	150,5	163,5
T max.	122	131	151	164
U	M 12 x 30	M 16 x 35	M 16 x 35	M 20 x 45
a min.	68,7	88,3	102	119,7
a max.	74	95	110	129
b	9	12	17	27,5
cg6	12	16	16	25
d	55	75	105	118
e	35	50	55	60
f ^{H7}	16	20	20	25
g	161	200	230	260
h-0,1	131	140	158	171
i	20	19	22	26
k	25	32	32	45
l	36	45	65	71
m	22	27	26	34
n	5	5	5	6,8
o	30	40	50	80
p	M 10	M 12	M 12	M 16
Maximum draw bar pull kN	35	65	80	95
Max. total clamping force approx. kN	70	140	190	250
Max. admissible speed min ⁻¹	4000	3200	2400	2200
Moment of inertia J kgm ²	0,2	0,54	1,5	2,8
Weight without jaws approx. kg	33	55	100	140
Soft top jaws (set) Id.-Nr.	123430	123433	129849	772864

Adapter plate for work seats on request

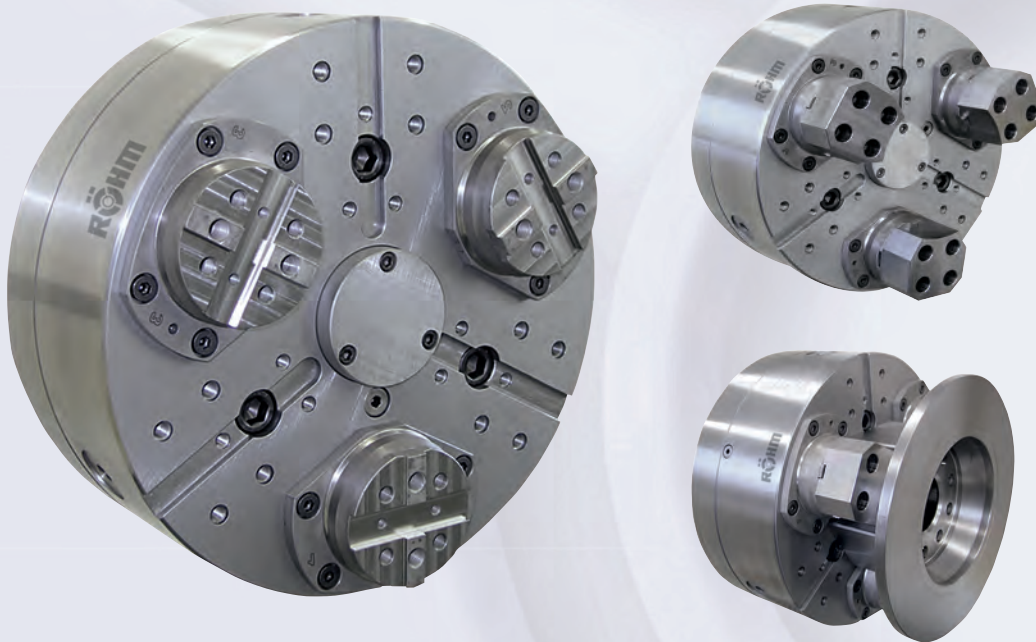


Tool group C 15
Type 441-60
3 jaw draw-down power chucks,
only for external chucking
Short taper mount **ISO 702-1**
(DIN 55026)

Item no.	150793	150794	150795	150796
Size	500	500	630	800
A	500	500	630	800
Jaw travel B	9,3	9,3	10,5	10,5
C min.	155,5	155,5	193,5	209,5
C max.	156	156	195	211
Short taper D	11	15	15	15
E	21	23	23	23
F	235	330,2	330,2	330,2
G	6 x M 20	6 x M 24	6 x M 24	6 x M 24
H	30	35	35	35
Wedge stroke K	35	35	40	40
N	60	60	80	80
O	46	46	55	55
P	30	30	30	30
Q	M 24	M 24	M 30	M 30
R	55	55	85	85
S min.	10	10	2	18
S max.	45	45	42	58
T min.	163,5	163,5	201,5	218,5
T max.	164	164	203	220
U	M 20	M 20	M 20	M 20
a min.	158,2	158,2	195	237
a max.	167,5	167,5	205,5	247,5
b	60	60	90	130
cg6	25	25	25	25
d	168	168	219	305
e	60	60	70	70
f ¹⁷	25	25	25	25
g	180	180	225	175
h-0,1	171	171	213	230
k	45	45	100	100
l	70	70	97	140
m	28	28	28	28
n	6	6	6	6
o	120	120	180	280
p	M 16	M 16	M 12	M 12
r	8	8	8	8
Maximum draw bar pull kN	110	110	130	130
Max. total clamping force approx. kN	280	280	320	320
Max. admissible speed min ⁻¹	1800	1800	1200	800
Moment of inertia J kgm ²	6,8	6,8	20	60
Weight without jaws approx. kg	220	220	410	750

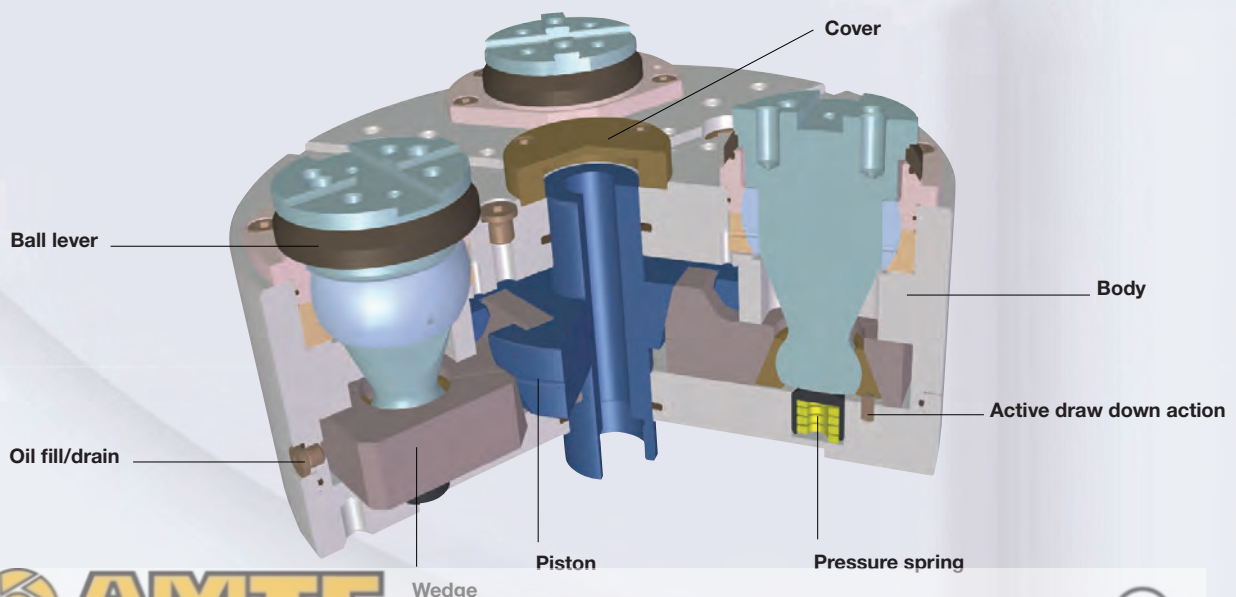
With active drawdown action, hermetically sealed, oil filled

For the machining of serial parts, with fixed jaws or with pendulum jaws, for internal and external clamping, with pull down effect, oil filled, central clamping. Wide application range, low maintenance

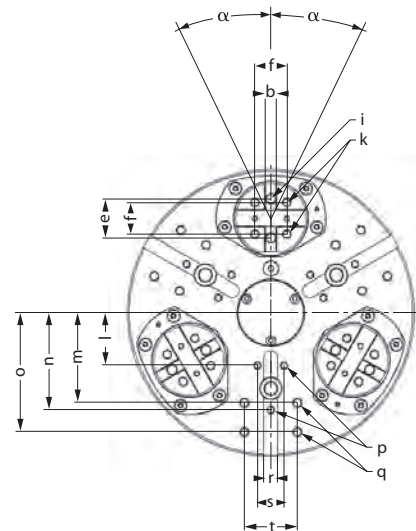
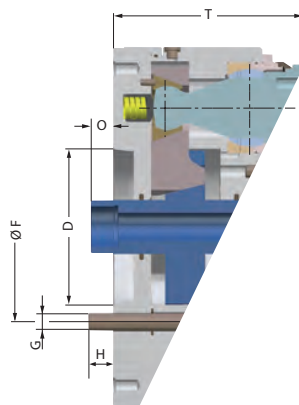
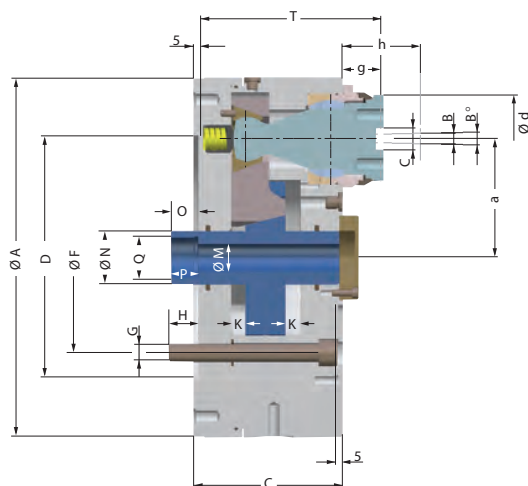


Technical features

- Active pull down which prevents workpiece from lifting off the axial stop
- Sturdy by using the proven wedge system
- Very good repeatability and run-out values resulting in a high process security
- Wear resistant due to large areas for power transmission
- Hermetically sealed against dirt and coolant
- The oil filling makes the chuck almost maintenance free at a constant performance
- Influences of the speed related centrifugal forces will be minimized by similar masses situated left and right of the ball levers which is leading to high speeds
- Alternative with floating ball levers for clamping rough and easy deformable workpieces at six clamping spots



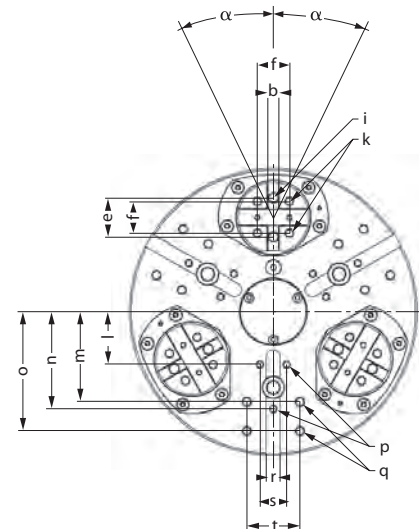
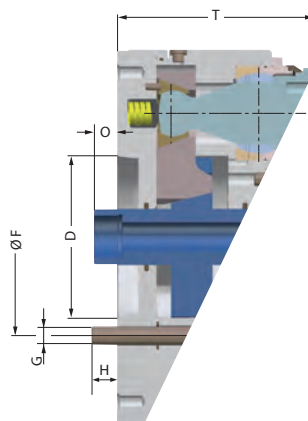
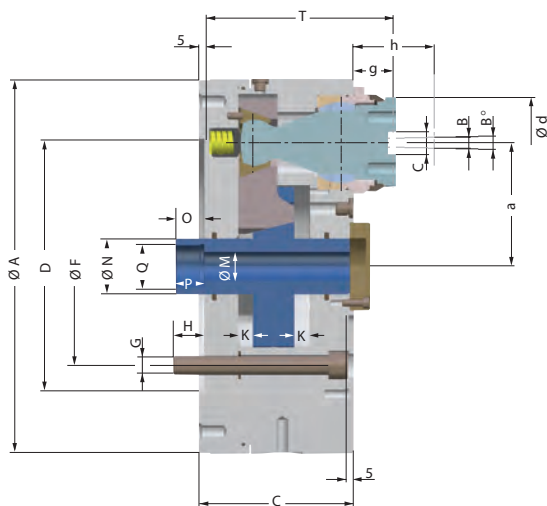
KBF-N with pull down effect, hermetically sealed, oil filled



Tool group C 15
Type 582-10/582-30
Power-operated ball lock draw-down chuck **KBF-N**
with **fixed jaws or pendulum jaws**
for **internal and external clamping**,
with **pull down effect**,
hermetically sealed, oil filled,
central clamping
Adaptor recess **DIN 6353**

Item no.	168355	168357	165635	165769	165637	165771	165639	165773	168056	168058
Size	170	170	200	200	250	250	315	315	400	400
Jaw design	Fixed jaws	Pendulum jaws	Fixed jaws	Pendulum jaws	Fixed jaws	Pendulum jaws	Fixed jaws	Pendulum jaws	Fixed jaws	Pendulum jaws
A	178	178	210	210	260	260	325	325	400	400
Jaw travel B	5,4	5,4	5,9	5,9	6,3	6,3	6,4	6,4	7,5	7,5
B°	5,2°	5,2°	4,9°	4,9°	4,4°	4,4°	4,5°	4,5°	4,7°	4,7°
C	94	94	111	111	135	135	135	135	148	148
D	ZA 140	ZA 140	ZA 170	ZA 170	ZA 220	ZA 220	ZA 220	ZA 220	ZA 300	ZA 300
F	104,8	104,8	133,4	133,4	171,4	171,4	171,4	171,4	235	235
G	3 x M10	3 x M10	3xM12	3xM12	3xM16	3xM16	3xM16	3xM16	3 x M20	3 x M20
H	15	15	17	17	22	22	22	22	30	30
Total wedge stroke K+K	21	21	25	25	25	25	25	25	30	30
M	14	14	14	14	18	18	25	25	52	52
Ng6	30	30	36	36	38	38	48	48	75	75
O min.	12,5	12,5	12,5	12,5	12,5	12,5	12,5	12,5	10	10
O max.	33,5	33,5	37,5	37,5	37,5	37,5	37,5	37,5	40	40
P	20	20	18	18	20	20	25	25	25	25
Q	M22 x 1,5	M22 x 1,5	M28x1,5	M28x1,5	M32x1,5	M32x1,5	M38x1,5	M38x1,5	M60 x 1,5	M60 x 1,5
T	116	116	139	139	163	163	163	163	180	180
a	55	55	64	64	82	82	107	107	130	130
bh8	7,94	7,94	7,94	7,94	12,7	12,7	12,7	12,7	12,7	12,7
ch7	12,68	12,68	12,68	12,68	19,03	19,03	19,03	19,03	19,03	19,03
d	60	60	65	65	75	75	80	80	105	105
e	32	32	38	38	44,4	44,4	44,4	44,4	63,5	63,5
f	24	24	32	32	36	36	36	36	48	48
g	27	27	33	33	33	33	33	33	37	37
Reference height h	50	50	60	60	70	70	70	70	80	80
i	M10	M10	M12	M12	M12	M12	M12	M12	M16	M16
k	M8	M8	M10	M10	M10	M10	M10	M10	M12	M12
l	-	-	30	30	50	50	60	60	80	80
m	65	65	80	80	102	102	102	102	140	140
n	68	68	50	50	65	65	110	110	144	144
o	-	-	-	-	-	-	135	135	170	170
p	M6	M6	M6	M6	M8	M8	M8	M8	M10	M10
q	M8	M8	M8	M8	M10	M10	M10	M10	M12	M12
r	16	16	16	16	16	16	16	16	20	20
s	-	-	25	25	30	30	30	30	36	36
t	36	36	45	45	60	60	60	60	80	80
Floating angle α	5°	5°	5°	5°	3°	3°	3°	3°	3°	3°
Pull-down travel mm	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3
Max. admissible speed min ⁻¹	5000	5000	4500	4500	3800	3800	3000	3000	2200	2200
Maximum draw bar pull kN	18	18	30	30	40	40	45	45	50	50
Max. total clamping force kN	44	44	73	73	93	93	105	105	120	120
Weight approx. kg	18	18	30	30	55	55	80	80	130	130

KBF-N with pull down effect, hermetically sealed, oil filled



Tool group C 15
Type 582-12/582-32
Power-operated ball lock draw-down chuck **KBF-N** with **fixed jaws or pendulum jaws** for **internal and external clamping, hermetically sealed, oil filled, central clamping**
Short taper mount for **ISO 702-1** (DIN 55026/55021)

Item no.	168356	168358	165636	165770	165638	165772	165640	165774	168057	168059
Size	170	170	200	200	250	250	315	315	400	400
Jaw design	Fixed jaws	Pendulum jaws	Fixed jaws	Pendulum jaws	Fixed jaws	Pendulum jaws	Fixed jaws	Pendulum jaws	Fixed jaws	Pendulum jaws
A	178	178	210	210	260	260	325	325	400	400
Jaw travel B	5,4	5,4	5,9	5,9	6,3	6,3	6,4	6,4	7,5	7,5
B°	5,2°	5,2°	4,9°	4,9°	4,4°	4,4°	4,5°	4,5°	4,7°	4,7°
C	94	94	111	111	135	135	135	135	148	148
D	KK 5	KK 5	KK 6	KK 6	KK 8	KK 8	KK 8	KK 8	KK 11	KK 11
F	104,8	104,8	133,4	133,4	171,4	171,4	171,4	171,4	235	235
G	3 x M10	3 x M10	3xM12	3xM12	3xM16	3xM16	3xM16	3xM16	3 x M20	3 x M20
H	15	15	17	17	22	22	22	22	30	30
Total wedge stroke K+K	21	21	25	25	25	25	25	25	30	30
M	14	14	14	14	18	18	25	25	52	52
Ng6	30	30	36	36	38	38	48	48	75	75
O min.	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	5	5
O max.	28,5	28,5	32,5	32,5	32,5	32,5	32,5	32,5	35	35
P	20	20	18	18	20	20	25	25	25	25
Q	M22 x 1,5	M22 x 1,5	M28x1,5	M28x1,5	M32x1,5	M32x1,5	M38x1,5	M38x1,5	M60 x 1,5	M60 x 1,5
T	121	121	144	144	168	168	168	168	185	185
a	55	55	64	64	82	82	107	107	130	130
bh8	7,94	7,94	7,94	7,94	12,7	12,7	12,7	12,7	12,7	12,7
cH7	12,68	12,68	12,68	12,68	19,03	19,03	19,03	19,03	19,03	19,03
d	60	60	65	65	75	75	80	80	105	105
e	32	32	38	38	44,4	44,4	44,4	44,4	63,5	63,5
f	24	24	32	32	36	36	36	36	48	48
g	27	27	33	33	33	33	33	33	37	37
Reference height h	50	50	60	60	70	70	70	70	80	80
i	M10	M10	M12	M12	M12	M12	M12	M12	M16	M16
k	M8	M8	M10	M10	M10	M10	M10	M10	M12	M12
l	-	-	30	30	50	50	60	60	80	80
m	65	65	80	80	102	102	102	102	140	140
n	68	68	50	50	65	65	110	110	144	144
o	-	-	-	-	-	-	135	135	170	170
p	M6	M6	M6	M6	M8	M8	M8	M8	M10	M10
q	M8	M8	M8	M8	M10	M10	M10	M10	M12	M12
r	16	16	16	16	16	16	16	16	20	20
s	-	-	25	25	30	30	30	30	36	36
t	36	36	45	45	60	60	60	60	80	80
Floating angle α	5°	5°	5°	5°	3°	3°	3°	3°	3°	3°
Pull-down travel mm	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3
Max. admissible speed min ⁻¹	5000	5000	4500	4500	3800	3800	3000	3000	2200	2200
Maximum draw bar pull kN	18	18	30	30	40	40	45	45	50	50
Max. total clamping force kN	44	44	73	73	93	93	105	105	120	120
Weight approx. kg	18	18	30	30	55	55	80	80	130	130

Jaws KBF-N

Tool group C 21
Type 543-12
**Soft top jaws,
3-jaw set**
Tongue and groove,
material: 16 MnCr 5



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width
168383	170	3	set	70	26,5	60
165694	200	3	set	80	31,5	65
165696	250/315	3	set	90	41,5	75
168385	400	3	set	125	46,5	105

Workpiece-specific top jaws can be placed on the cross-tenon interface of the ball levers. Six threaded bores are available for fastening.

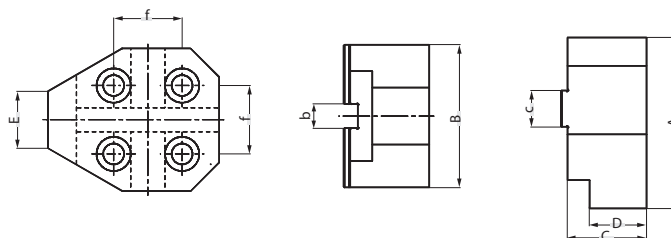
For exact clamping, it is advantageous to use soft top jaws. They are to be turned under clamping force to the desired clamping diameter. If these top jaws are still to be hardened, after hardening it is necessary to regrind them on the chuck.

For rough part clamping, hardened clamping inserts can be worked into the soft top jaws at the corresponding clamping diameter.

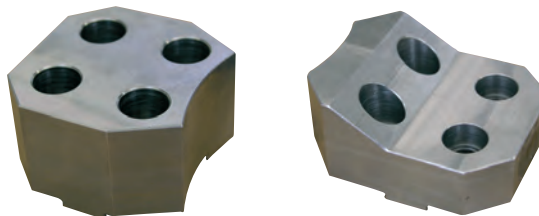
Special top jaws adapted to a specific workpiece can also be delivered upon request.

Soft top jaws for KBF-N

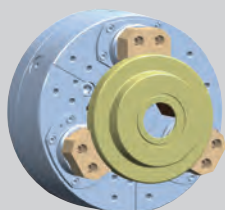
Chuck size	170	200	250	315	400
A	70	80	90	90	125
B	60	65	75	75	105
C	26,5	32	20	20	46,5
D	20	20	30	30	30
E	25	30	30	30	40
b	7,94	7,9	13	13	12,7
c	12,68	13	19	19	19,03
f	24	32	36	36	48



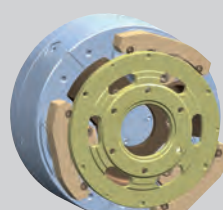
Examples for clamping jaws



Examples for applications:

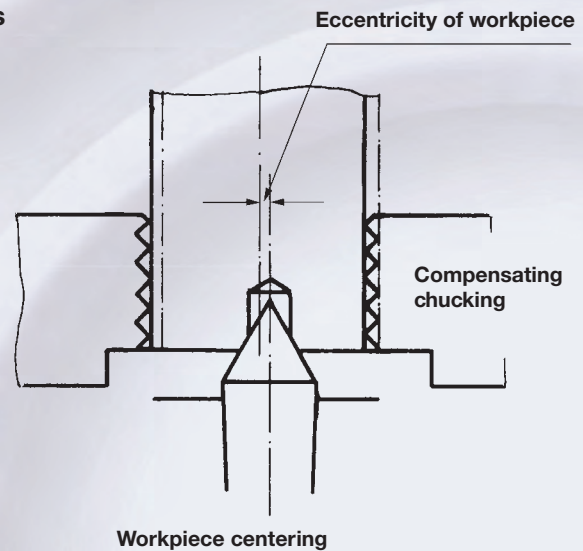


Fixed Jaws:
for exact clamping of flange
Typee workpieces like wheel
hubs, gears etc.



Pendulum Jaws:
for clamping of easy deformable
rough parts such as clutch
thrust plates or gear rings.

Interchangeable centering inserts and mounting adapters



The workpiece is located by a center mounted in a housing and chucked by means of compensating jaws. The compensating action is provided by the radially floating chucking piston. This chuck can be readily converted for use as an ordinary self-centering chuck by simply changing the centering insert.

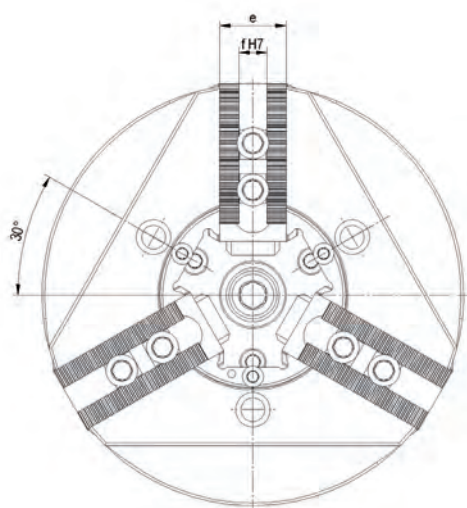
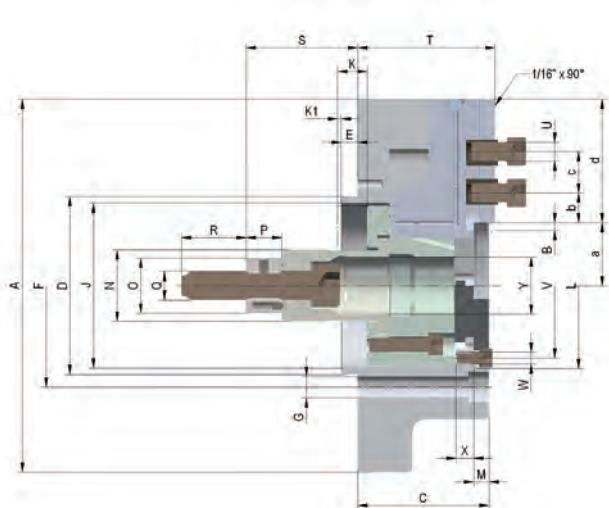
Technical features:

- Made of steel, all wear parts hardened and ground
Especial sealed against coolant
- **Interchangeable centering inserts:**
 - with spring-loaded center
 - with solid center
 - for self-centering chucking (no compensation)
- **Interchangeable mounting adapters:**
 - with centering shoulder
 - with short taper recess
 - with option for radial fine adjustment, upon request
- Smooth compensation
- Base jaws lubricated
- Piston lubricated in self-centering mode
- High gripping force

Note:

When ordering please state size of power chuck, style of centre insert and adapter plate.

KFD-AF serration 90°



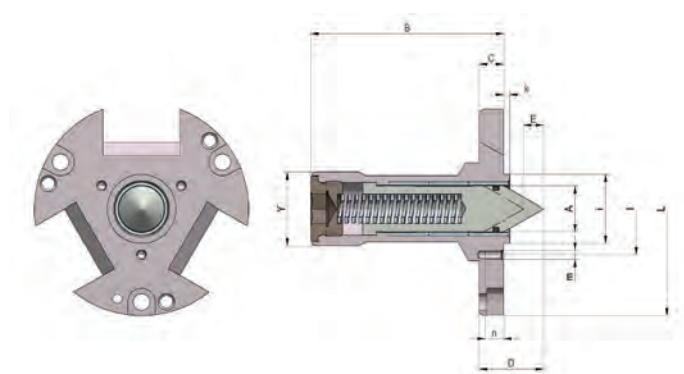
Tool group C 15
Typ 535-00
3-jaw compensation chucks
KFD-AF,
with **serration 90°**
Interchangeable centering insert
and adaption mounting

Item no.	144620	144621	144622	144623
Size	160	200	250	315
A	160	200	250	315
Jaw travel B	4,8	5,6	6,7	6,7
C	78	85	93	111
Dk5	90	115	135	150
E	14	14	14	14
F	104,8	133,4	171,4	171,4
G	3 x ø 12	3 x ø 14	3 x ø 18	3 x ø 18
J	82	103	122	139
Wedge stroke K	18	21	25	25
K _i	2	2	3	3
LH6	90	95	120	140
M	10	11	13	13
Ng6	38	42	50	60
O	34	40	46	46
P	25	30	30	30
Q	M16	M20	M24	M24
R	40	45	55	55
S min.	56	75	94	94
S max.	74	96	119	119
T	82	90	98	116
U	M12	M12	M16	M16
V	72	80	102	102
W	3 x M8	3 x M8	3 x M10	3 x M10
X	12	15	15	15
YH6	32	32	38	48
a min.	27,2	34,4	40,3	46,3
a max.	32	40	47	53
b min.	8	8	10	10
c min.	19	19	25	25
c max.	37	49	64	90
d	48	60	78	104,5
e	35	40	50	50
f ¹⁷	17	17	21	21
Maximum draw bar pull kN	25	36	50	65
Max. total clamping force approx. kN	50	72	110	150
Max. admissible speed min ⁻¹	3500	3200	3000	2300
Compensation on Ø mm	3	3	4	4
Moment of inertia J kgm ²	0,04	0,1	0,218	0,744
Weight without jaws approx. kg	13	20	28	60
Actuating cylinder hydraulic OVS	105-150	105-200	150-200	150-200
Reversible top jaws (set) Id.-Nr.	046408	118522	046414	046414
Soft top jaws (set) Id.-Nr.	133152	133153	133154	133154

Advice: When ordering please state size of power chuck, style of center insert and adaptor plate
Dia. Ng6 has to be guided in spindle

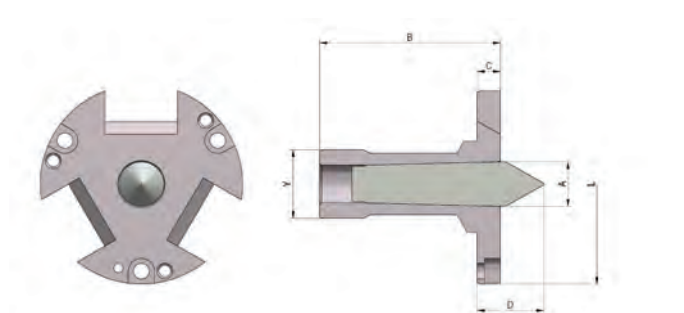
Centering inserts KFD-AF

Tool group C 15
Type 535-50 **Centering insert with spring-loaded centre**



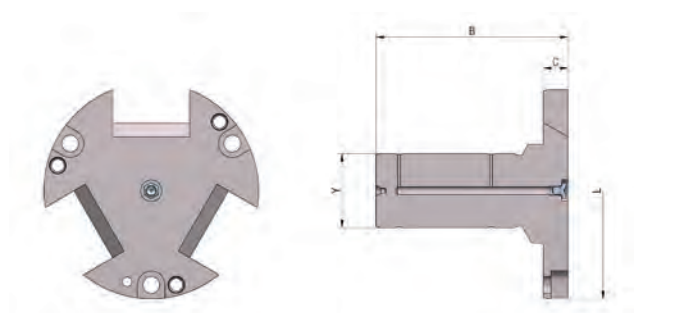
Item no.	Size	A	B	C	D	E	Lj6	i-0,05	k	Yg6	l	m	n
144624	160	17,5	90	13	~30	6	90	30	4	32	40	M 5	8
144625	200	20,5	91	14	~33	8	95	30	4	32	40	M 5	10
144626	250	25,5	109	16	~38	10	120	40	4	38	50	M 5	10
144627	315	30,5	125	16	~42	13	140	45	4	48	60	M 6	12

Tool group C 15
Type 535-51 **Centering insert with fixed centre**



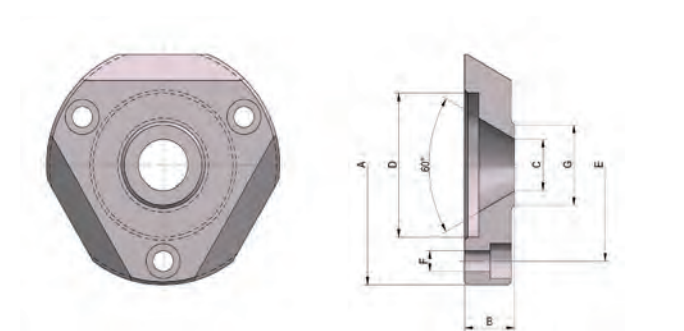
Item no.	Size	A	B	C	D	Lj6	Yg6
144628	160	~18	90	13	~33	90	32
144629	200	~18	91	14	~33	95	32
144630	250	~24	109	16	~38	120	38
144631	315	~32	125	16	~46	140	48

Tool group C 15
Type 535-52 **Centering insert for centric clamping**



Item no.	Size	B	C	Lj6	Yg6
144632	160	90	13	90	32
144633	200	91	14	95	32
144634	250	109	16	120	38
144635	315	125	16	140	48

Tool group C 15
Typ 535-60 **Workpiece stop for small shafts**

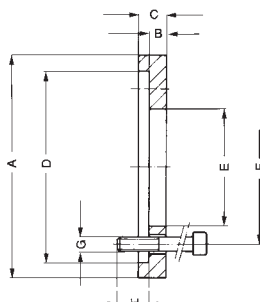


Item no.	Size	A	B	C	DH7	E	F	G
144640	160/200	53	13	8	30	40	5,5	14
144641	250	65	15	16	40	50	5,5	25
144642	315	75	16	16	45	60	6,6	25

Accessories KFD-AF

Tool group C 15

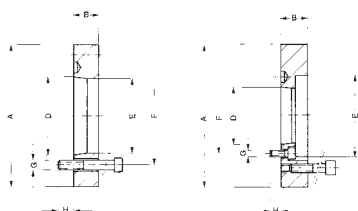
Type 535-70 **Adaptor plates** with cylindrical center mount to **DIN 6353**
complete with mounting screws



Item no.	Size	A	B	C	DH6	EH6	F	G	H
144636	160	160	16	22	140	90	104,8	3 x M 10	14
144637	200	200	16	22	170	115	133,4	3 x M 12	16
144638	250	250	17	23	220	135	171,4	3 x M 16	24
144639	315	280	17	23	220	150	171,4	3 x M 16	24

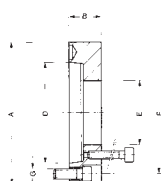
Tool group C 15

Type 535-72 **Adaptor plates** with short taper mount **ISO 702-1**
(DIN 55026/55021)
complete with mounting studs



Design I

Design II

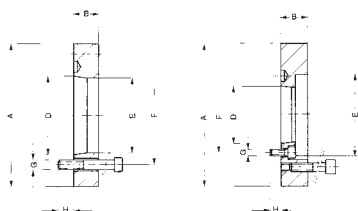


Design III

Item no.	Size	Design	A	B	D	EH6	F	G	H
144643	160/5	I	135	29	KK 5	90	104,8	3 x M10	15
144646	160/6	III	165	30	KK 6	90	133,4	3 x M12	18
144649	200/5	II	165	33	KK 5	115	104,8	3 x M10	14
144652	200/6	I	165	30	KK 6	115	133,4	3 x M12	18
144655	250/6	II	210	36	KK 6	135	133,4	3 x M12	18
144658	250/8	I	210	33	KK 8	135	171,4	3 x M16	24
144661	315/8	I	210	34	KK 8	150	171,4	3 x M16	25
144664	315/11	III	280	46	KK 11	150	235	3 x M20	30

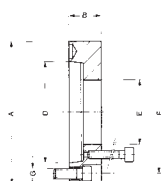
Tool group C 15

Type 535-73 **Adaptor plates** with short taper mount **ISO 702-3**
(DIN 55027) / **DIN 55022**
complete with mounting studs



Design I

Design II



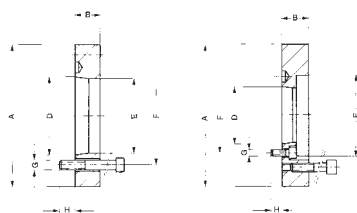
Design III

Item no.	Size	Design	A	B	D	EH6	F	G
144644	160/5	I	135	29	KK 5	90	104,8	Studs
144647	160/6	III	165	30	KK 6	90	133,4	Studs
144650	200/5	II	165	33	KK 5	115	104,8	Studs
144653	200/6	I	165	30	KK 6	115	133,4	Studs
144656	250/6	II	210	36	KK 6	135	133,4	Studs
144659	250/8	I	210	33	KK 8	135	171,4	Studs
144662	315/8	I	210	34	KK 8	150	171,4	Studs
144665	315/11	III	280	46	KK 11	150	235	Studs

Accessories KFD-AF

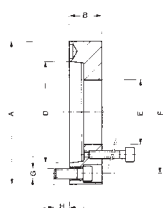
Tool group C 15

Type 535-74 **Adaptor plates** with short taper mount **Camlock ASA B5.9D** complete with mounting screws



Design I

Design II



Design III

Item no.	Size	Design	A	B	D	EH6	F	G
144645	160/5	I	135	35	KK 5	90	104,8	Studs Camlock
144648	160/6	III	165	35	KK 6	90	133,4	Studs Camlock
144651	200/5	II	165	40	KK 5	115	104,8	Studs Camlock
144654	200/6	I	165	35	KK 6	115	133,4	Studs Camlock
144657	250/6	II	210	50	KK 6	135	133,4	Studs Camlock
144660	250/8	I	210	40	KK 8	135	171,4	Studs Camlock
144663	315/8	I	210	40	KK 8	150	171,4	Studs Camlock
144666	315/11	III	280	46	KK 11	150	235	Studs Camlock

Compensating jaw chuck with through-hole



A highly versatile chuck with large through-hole, suitable for both bar work and chucking the most varied parts. Toggle joint levers convert the axial operating force into radial jaw movements.

The workpiece is located in the center bore by means of the spring-loaded center and chucked by means of the compensating jaws. Compensation for eccentricities is accomplished by means of a universal ball joint.

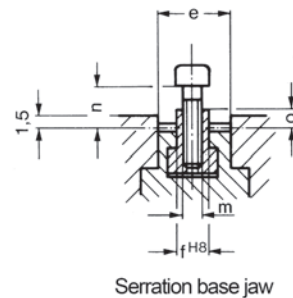
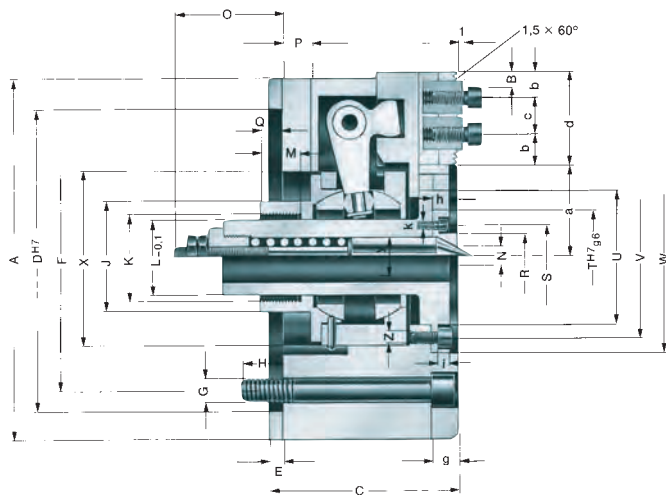
Scope of delivery:

Chuck and jaw mounting screws, wrenches, T-nuts, without top jaws

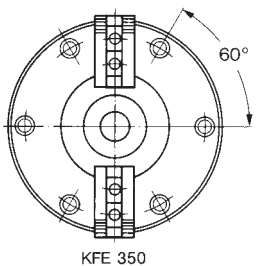
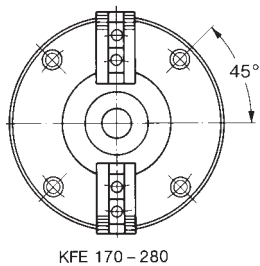
Technical features:

- Made of steel
- Large guiding ways for the base jaws
- Favorable leverage
- Jaw ways lubricated by means of conveniently accessible grease nipples at the axes of the levers
- All moving parts hardened and ground
- T-slots in chuck body

KFE 2 jaw, with through-hole or spring load center, serration 60°



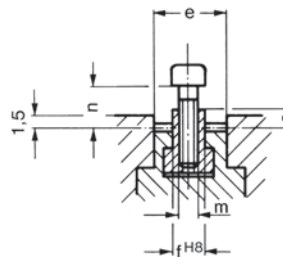
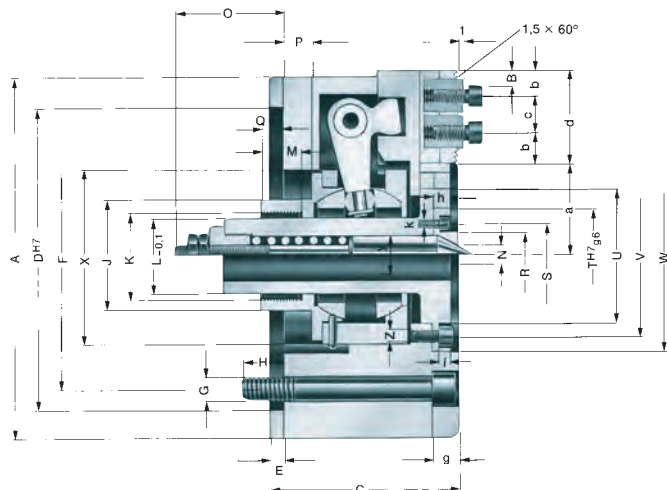
Tool group C 15
Type 524-50
2 jaw compensation chucks **KFE**
with **spring load center** /
Type 524-00
2 jaw compensation chucks
with **through-hole**
with **serration 60°**
cylindrical centre mount



Item no.	020714	020718	020715	020719	020716 ¹⁾	020720 ¹⁾	020717	020721
Size	170	170	215	215	280	280	350	350
Design	Center	Through-hole	Center	Through-hole	Center	Through-hole	Center	Through-hole
A	170	170	215	215	280	280	350	350
Jaw travel B	5	5	10	10	12,5	12,5	15	15
Max. exc. on Ø	4	4	4	4	6	6	10	10
C	99	99	126,2	126,2	154,7	154,7	187,7	187,7
DH7	140	140	190	190	255	255	320	320
E	4	4	4,2	4,2	5,7	5,7	5,7	5,7
F	104,8	104,8	133,4	133,4	171,4	171,4	235	235
G	4xM10	4xM10	4xM12	4xM12	4xM16	4xM16	6xM20	6xM20
H	20	20	25	25	25	25	25	25
J	52	52	57	57	58,5	58,5	110	110
K	M45x1,5	M45x1,5	M50x1,5	M50x1,5	M50x1,5	M50x1,5	M90x1,5	M90x1,5
L-0,1	30	30	30	30	40	40	55	55
M	20	20	20	20	20	20	25	25
N	10	10	15	15	20	20	22	22
O	78	78	66	66	71	71	42	42
P	15	15	25	25	30	30	30	30
Q	8	8	-1,5	-1,5	-	-	3	3
R	30	30	35	35	60	60	60	60
S	46	46	54	54	75	75	95	95
TH7g6	56	56	68	68	90	90	115	115
U	65	65	82	82	110	110	150	150
V	74	74	97	97	124	124	170	170
W	86	86	112	112	142	142	191	191
X	78	78	102	102	124	124	162	162
YH7g6	24	24	25	25	34	34	30	30
Z	M 6	M6	M 8	M 8	M 8	M 8	M 10	M 10
a min.	37,5	37,5	45	45	61,75	61,75	82,5	82,5
a max.	42,5	42,5	55	55	74,25	74,25	97,5	97,5
b	8	8	10	10	13	13	14	14
c min.	16	16	20	20	26	26	28	28
c max.	29	29	37,5	37,5	46	46	62	62
d	45	45	57,5	57,5	72	72	90	90
e	28	28	35	35	45	45	50	50
fH8	11	11	14	14	20	20	21	21
g	10,5	10,5	11,5	11,5	12,5	12,5	15	15
h	6	6	8	8	10	10	12	12
i	7,5	7,5	8,5	8,5	9,5	9,5	12	12
k	M 5	M5	M 6	M 6	M 6	M 6	M 8	M 8
m	M 8	M 8	M 10	M 10	M 12	M 12	M 16	M 16
n	7,5	7,5	8,5	8,5	13	13	15	15
o	1,5	1,5	1,5	1,5	2,5	2,5	3	3
Max. swing top jaws mm	225	225	280	280	360	360	460	460
Maximum draw bar pull kN	16	16	22,5	22,5	29	29	35	35
Max. total clamping force approx. kN	29	29	33,5	33,5	40	40	40	40
Max. admissible speed min ⁻¹	4400	4400	2900	2900	2050	2050	1400	1400
Moment of inertia J kgm ²	0,06	-	0,18	-	0,597	-	1,68	-
Weight without jaws approx. kg	15,5	-	29,5	-	61	-	110	-
Actuating cylinder hydraulic OVS	85	85	105	105	130	130	130	130

¹⁾ From contact surface to draw head = 10 mm inward

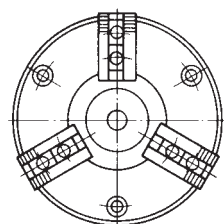
KFE 3 jaw, with through-hole or spring load center, serration 60°



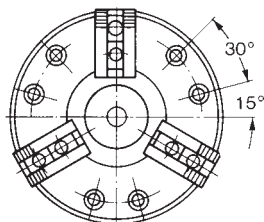
Tool group C 15
Type 534-50

3 jaw compensating chucks KFE
with **spring load center** /
Type 534-00

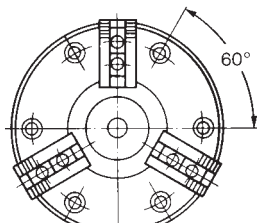
3 jaw compensating chucks KFE
with **through-hole**,
with **serration 60°**
cylindrical centre mount



KFE 170



KFE 215 – 280



KFE 350

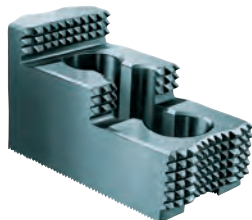
Item no.	020706	020710	020707	020711	012009 ¹⁾	020712 ¹⁾	020709	020713
Size	170	170	215	215	280	280	350	350
Design	Center	Through-hole	Center	Through-hole	Center	Through-hole	Center	Through-hole
A	170	170	215	215	280	280	350	350
Jaw travel B	5	5	10	10	12,5	12,5	15	15
Max. exc. on Ø	4	4	4	4	6	6	10	10
C	99	99	126,2	126,2	154,7	154,7	187,7	187,7
DH7	140	140	190	190	255	255	320	320
E	4	4	4,2	4,2	5,7	5,7	5,7	5,7
F	104,8	104,8	133,4	133,4	171,4	171,4	235	235
G	3xM10	3xM10	6xM12	6xM12	6xM16	6xM16	6xM20	6xM20
H	20	20	25	25	25	25	25	25
J	52	52	57	57	58,5	58,5	110	110
K	M45x1,5	M45x1,5	M50x1,5	M50x1,5	M50x1,5	M50x1,5	M90x1,5	M90x1,5
L-0,1	30	30	30	30	40	40	55	55
M	20	20	20	20	20	20	25	25
N	10	10	15	15	20	20	22	22
O	78	78	66	66	71	71	42	42
P	15	15	25	25	30	30	30	30
Q	8	8	-1,5	-1,5	-	-	3	3
R	30	30	35	35	60	60	60	60
S	46	46	54	54	75	75	95	95
TH7g6	56	56	68	68	90	90	115	115
U	65	65	82	82	110	110	150	150
V	74	74	97	97	124	124	170	170
W	86	86	112	112	142	142	191	191
X	78	78	102	102	124	124	162	162
YH7g6	24	24	25	25	34	34	30	30
Z	M 6	M 6	M 8	M 8	M 8	M 8	M 10	M 10
a min.	37,5	37,5	45	45	61,75	61,75	82,5	82,5
a max.	42,5	42,5	55	55	74,25	74,25	97,5	97,5
b	8	8	10	10	13	13	14	14
c min.	16	16	20	20	26	26	28	28
c max.	29	29	37,5	37,5	46	46	62	62
d	45	45	57,5	57,5	72	72	90	90
e	28	28	35	35	45	45	50	50
fH8	11	11	14	14	20	20	21	21
g	10,5	10,5	11,5	11,5	12,5	12,5	15	15
h	6	6	8	8	10	10	12	12
i	7,5	7,5	8,5	8,5	9,5	9,5	12	12
k	M 5	M 5	M 6	M 6	M 6	M 6	M 8	M 8
m	M 8	M 8	M 10	M 10	M 12	M 12	M 16	M 16
n	7,5	7,5	8,5	8,5	13	13	15	15
o	1,5	1,5	1,5	1,5	2,5	2,5	3	3
Max. swing top jaws mm	225	225	280	280	360	360	460	460
Maximum draw bar pull kN	24	24	35	35	43	43	52	52
Max. total clamping force approx. kN	44	44	50	50	60	60	60	60
Max. admissible speed min ⁻¹	4400	4400	2900	2900	2050	2050	1400	1400
Moment of inertia J kgm ²	0,06	0,06	0,18	0,18	0,597	0,597	1,68	1,68
Weight without jaws approx. kg	15,5	15,5	29,5	29,5	61	61	110	110
Actuating cylinder hydraulic OVS	105	105	130	130	150	150	150	150

¹⁾ From contact surface to draw head = 10 mm inward

Jaws KFE

Tool group C 21
Type 530

**Reversible top jaws,
2-jaw set, hardened
Serration 60° -
material: 16 MnCr 5**



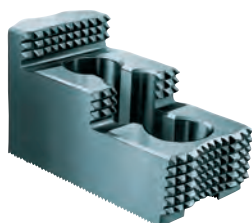
Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046431	170	2	set	62	37,5	26	1,5 x 60°
046433 ¹⁾	215	2	set	81	52,5	36	1,5 x 60°
046437	280	2	set	96	54	44,5	1,5 x 60°
046443	350	2	set	112	61	49,5	1,5 x 60°

¹⁾ Near the serration reduced to 34 mm

Reversible top jaws: ground to finished size at surcharge

Tool group C 21
Type 530

**Reversible top jaws,
3-jaw set, hardened
Serration 60° -
material: 16 MnCr 5**



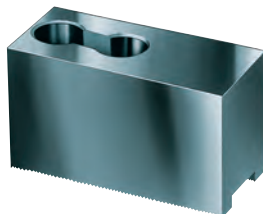
Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046410	170	3	set	62	37,5	26	1,5 x 60°
046412 ¹⁾	215	3	set	81	52,5	36	1,5 x 60°
046416	280	3	set	96	54	44,5	1,5 x 60°
046422	350	3	set	112	61	49,5	1,5 x 60°

¹⁾ Near the serration reduced to 34 mm

Reversible top jaws: ground to finished size at surcharge

Tool group C 21
Type 530

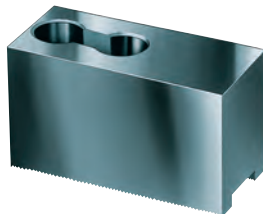
**Soft top jaws,
2-jaw set, can be hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046430	170	2	set	66,7	43	30,5	1,5 x 60°
046432	215	2	set	88,9	53	36,5	1,5 x 60°
046436	280	2	set	88,9	54,5	45	1,5 x 60°
046442	350	2	set	120	80	50	1,5 x 60°

Tool group C 21
Type 530

**Soft top jaws,
3-jaw set, can be hardened
Serration 60° -
material: 16 MnCr 5**

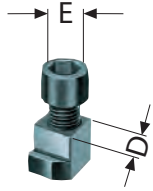


Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046409	170	3	set	66,7	43	30,5	1,5 x 60°
046411	215	3	set	88,9	53	36,5	1,5 x 60°
046415	280	3	set	88,9	54,5	45	1,5 x 60°
046421	350	3	set	120	80	50	1,5 x 60°

Accessories KFE

Tool group C 15

Type 530-05 **T-nuts**
without screw



Item no.	Chuck Size	Contents of delivery	D	E
029874	170	piece	11	M8
028329	215	piece	14	M10
009744	280	piece	20	M12
031051	350	piece	21	M16

Tool group C 15

Type 0040-Y **Mounting screws**

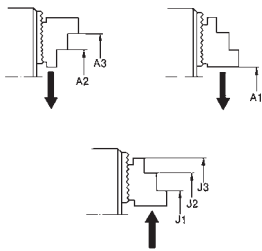


Item no.	Size	Contents of delivery	Thread	Length
340015	170	piece	M8	18
216594	215	piece	M10	20
233030	280	piece	M12	30
220564	350	piece	M16	35

Socket head cap screw to DIN 912, 12.9

Chucking capacities KFE

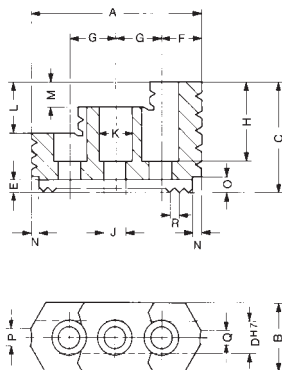
Chucking capacities with
reversible top jaws UB



Chuck size		170	215	280	350
with reversible jaws	Type	530-04	530-07	530-09	530-12
	Jaw position				
External chucking	A1	24-102	20-125	39-173	75-248
	A2	84-161	107-210	151-282	182-354
	A3	119-195	145-263	218-348	267-438
Internal chucking	J1	70-146	74-176	95-225	132-301
	J2	104-180	124-228	161-292	213-385
	J3	148-226	182-288	231-364	298-473

Jaw dimensions KFE

Reversible top jaws UB,
hardened, serration 60°,
material 16MnCr5



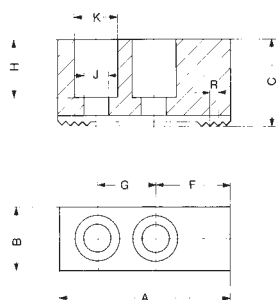
Chuck size	130	160	215	280	350
Type	530-03	530-05	530-07	530-09	530-12
Item no. 2-jaw	045798	046431	046433	046437	046443
Item no. 3-jaw	046406	046410	046412	046416	046422
A	56	62	81	96	112
B	26	26	36 1)	44,5	49,5
C	37,5	37,5	52,5	54	61
D	11	11	14	20	21
E	3,5	3,5	5	5	5,5
F	13,5	17,5	25	30	27
G	16,5	16,5	21	26	33
H	29	29	41	41	47,5
J	8,4	8,4	10,5	13	17
K	13,5	13,5	16,5	19	25
L	20	20	24	24	30
M	10	10	12	12	15
N	4	4	5	5	6,5
O	4	4	7	7	7
P	5	5	10	10	13
Q	5	5	5	5	13
R	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,165	0,215	0,600	0,750	1,550

1) Near the serration reduced to 34 mm

2) Serration 90°

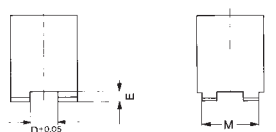
Reversible top jaws: ground to finished size at surcharge

Soft top jaws AB,
material 16MnCr5

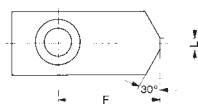


Chuck size	130	160	215	280	350
Type	530-03	530-05	530-07	530-09	530-12
Item no. 2-jaw	045797	046430	046432	046436	046442
Item no. 3-jaw	046405	046409	046411	046415	046421
A	53	66,7	88,9	88,9	120
B	26,5	30,5	36,5	45	50
C	38	43	53	54,5	80
D	11	11	14	20	21
E	3,5	3,5	5	5	5
F	29	30	45	45	67
G	15	20	26	26	28
H	28	33	41	42,5	67
J	8,4	8,4	10,5	13	17
K	13,5	13,5	16,5	19	25
L	-	-	-	-	-
M	-	27	34	-	-
R	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,320	0,550	1,125	1,400	3,125

1) Serration 90°



AB 530-04 and 530-07

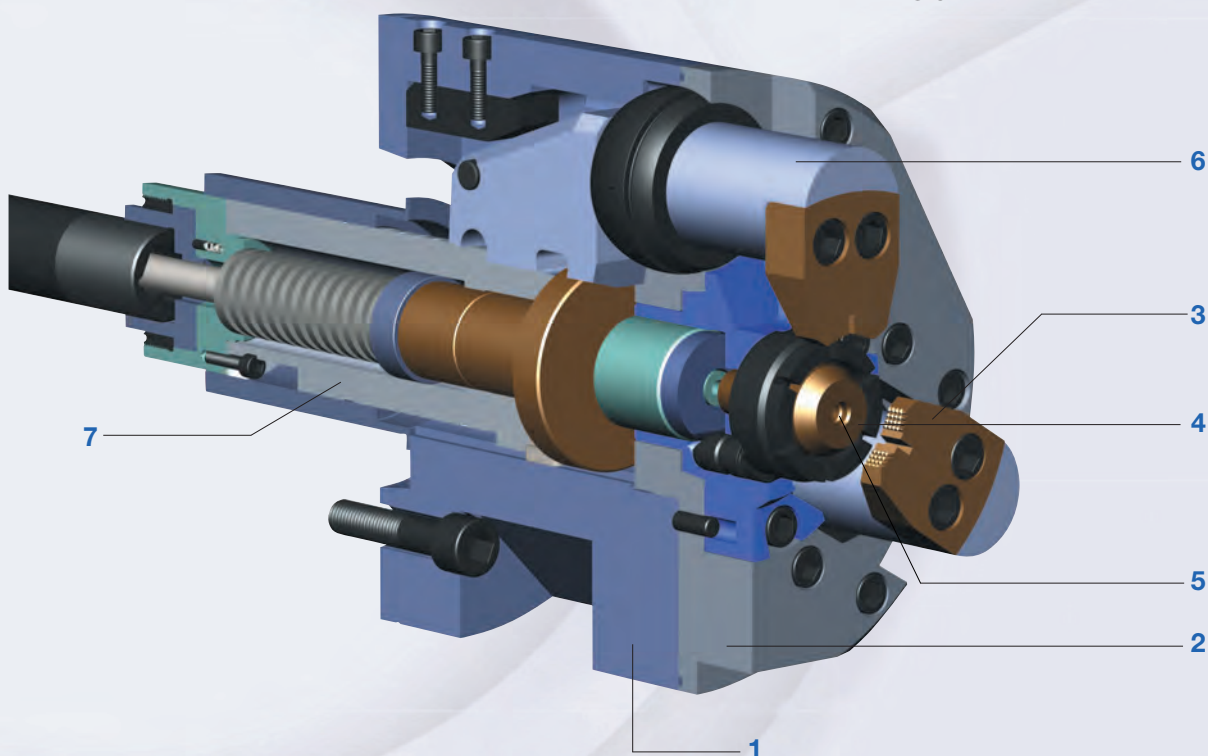


AB 530-02

with retractable jaws

Components KKHFR

1. Body
2. Cover
3. Clamping jaw
4. Face driver
5. Center
6. Retractable jaw
7. Piston



Range of application:

The Röhm KKHFR Combination Chuck with retractable jaws permits the full length of a shaft to be machined in one set-up, thereby further improving the utilization of the capabilities of modern multi-axis CNC lathes. Allowing for the limited torque-transmitting ability of the face driver, this chucking tool is additionally provided with 3 retractable power-operated jaws. In this manner, the gripping power of the face driver combines with that of the jaws to transmit the high torques required for roughing operations.

Application area:

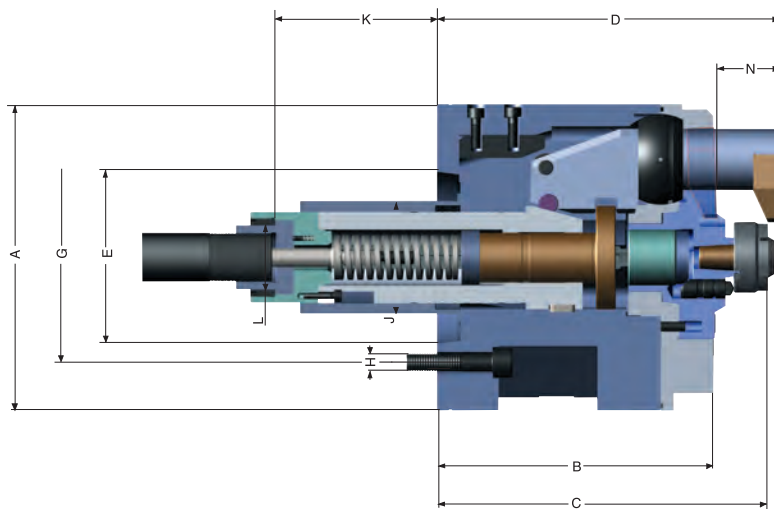
If a self-centering chuck style is used, the shaft must be pre-machined between centers on the length to be gripped, using the face driver for assistance. Subsequent roughing with the jaws applied can then be carried out under normal cutting conditions. For the finishing operation, the jaws are retracted so that the outside diameter can be finished on the full length of the shaft. These chucks can be used for a wide range of different workpiece diameters by simply changing the jaws and the face driver.

Advantages:

The chuck is actuated by means of the hydraulic dual piston cylinder if a power-operated face driver with rigid center is used or by means of the hydraulic closed center cylinder with extra long stroke if the face driver features a spring-loaded center. The chuck can be centrally lubricated via these cylinders with additional distributors.

KKHFR chuck styles with compensating jaws are available on request.

Power-operated combination chucks in special design on request.



Tool group C 15
Type 514
Power-operated combined chucks **KKHFR**, with **retractable jaws**, with **guide wedge**, with **central lubrication**
Short taper mount for **ISO 702-1** (DIN 55026)

Item no.	427601	428786	428222	425896	427016	425642	427550
Size	160	200	230	250	300	400	450
Short-taper	6/55026	6/55026	8/55026	8/55026	11/55026	11/55026	15/55026
A	165	205	230	250	300	400	450
B	170	200	233	225	244	285	325
C	204	231	278	266	292	335	395
D min.	175	203	235	226	251	293	358
D	213	243	290	278	306	348	410
E	106,375	106,375	139,719	139,719	196,869	196,869	285,775
G	133,4	133,4	171,4	171,4	235	235	330,2
H	3 x M 12	3 x M 12	3 x M 16	3 x M 16	6 x M 20	6 x M 20	6 x M 24
J	58	58	58,5	74	74	84	100
K min.	138	126	108	121	66	160	61
K max.	195	191	186	199	141	242	136
L	M 32 x 1,5	M 36 x 1,5	M 30 x 1,5	M 40 x 1,5	M 40 x 1,5	M 40 x 1,5	M 40 x 1,5
N	38	40	55	52	55	55	52
Maximum draw bar pull kN	26	38	45	75	80	78	70
Max. total clamping force approx. kN	37	65	75	100	120	130	120
Max. admissible speed min ⁻¹	3500	4000	4000	3500	2500	1500	1500
Moment of inertia J kgm ²	0,076	0,19	0,42	0,79	1,35	4,9	7,9
Weight without jaws approx. kg	25	48	68	85	120	248	430
Matching cylinder OVUSHDD	105/60 58/10	105/60 65/15	120/80 78/10	160/80 78/10	160/80 80/10	160/80 80/10	160/80 75/10
Clamping capacity Ø	18-60	18-80	20-110	25-110	40-140	90-230	190-300
Face driver Ø	12-30	12-70	12-90	12-100	30-130	80-150	100-210

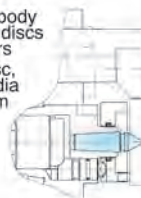
Power-operated combination chucks in special design on request

Front driver designs

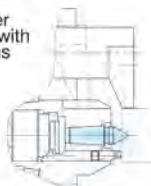
Mounting body for driver insert, taper dia 40 mm, clamping dia 12-30 mm possible



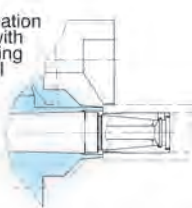
Mounting body for driving discs and centers
Driving disc, clamping dia 33-100 mm possible



Face driver complete with driving pins



Combination chuck with expanding mandrel



with through-hole and jaw movement



A highly versatile chuck with large through-hole, suitable for both bar work and chucking the most varied parts. Toggle joint levers convert the axial operating force into radial jaw movements.

KFM - Medium jaw movement

KFG - Long jaw movement

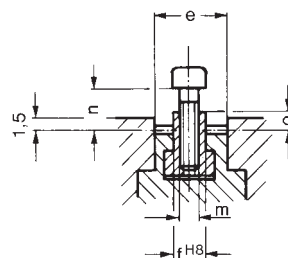
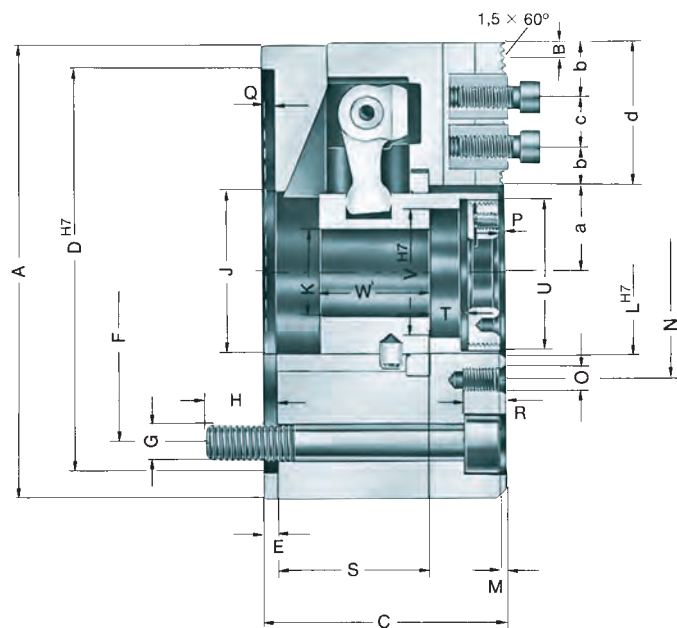
Scope of delivery:

Chuck and jaw mounting screws, wrenches, T-nuts, 2 keys for the draw sleeve. Please order top jaws separately.

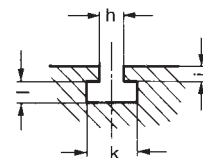
Technical features:

- Made of steel
- Large guiding ways for the base jaws
- Favorable leverage
- Jaw ways lubricated by means of conveniently accessible grease nipples at the axes of the levers
- All moving parts hardened and ground
- T-slots in chuck body

KFM 2 jaw, medium jaw movement, serration 60°

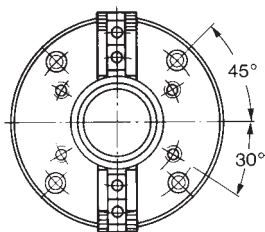


Serration base jaw

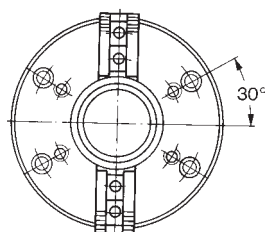


Clamping groove from KFM 215

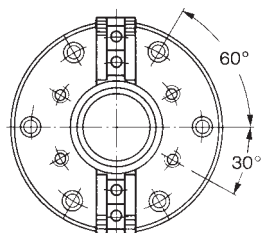
Tool group C 15
Type 521-05
2 jaw lever-type power chucks
KFM,
medium jaw movement,
with serration 60°
cylindrical centre mount



KFM 130 + 160 + 280



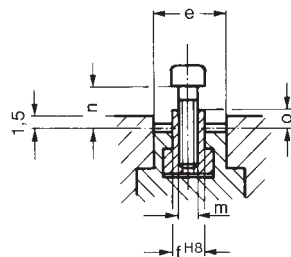
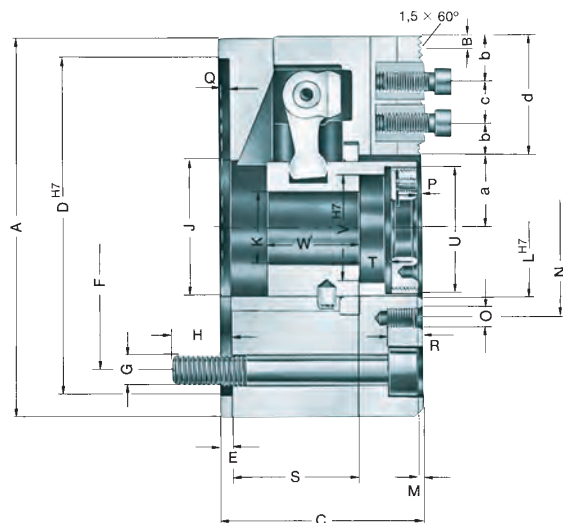
KFM 215



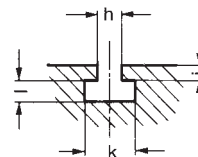
KFM 350

Item no.	020641	020642	020643	020644	020645
Size	130	160	215	280	350
Number of jaws	2	2	2	2	2
A	130	160	215	280	350
Jaw travel B	5,5	6	10	10	15
C	63	69,5	90,5	101	126
DH7	110	140	190	255	320
E	4,2	4,2	4,2	5,7	5,7
F	82,6	104,8	133,4	133,4	235
G	4xM10	4xM10	6xM12	4xM12	6xM20
H	17	20	25	25	35
J	46	61	74	102	135
K	25,3	40,5	45,5	66,5	90,5
LH7	50	66	80	105	140
M	2,5	2,5	2,5	2,5	2,5
N	58	76	90	90	156
O	M5	M6	M8	M8	M 10
P	2,6	1	1,4	0,5	5,5
Q	3,3	-	3,6	3,2	5,2
R	10	13	15	15	20
S min.	16,7	25,3	25,4	28,8	31,8
S max.	36,7	45,3	50,4	63,8	76,8
T	8	8	12	18	22
U	M40x1,25	M54x1,25	M65x1,25	M90x1,25	M112x1,5
V ^{H7}	36	50	62	87	109
W	20	23	29	32	37
a min.	24,25	32	39,5	53	69,5
a max.	29,75	38	49,5	63	84,5
b	7	8	10	13	14
c min.	14	16	20	26	28
c max.	24	29	43	56	70
d	38	45	63	82	98
e	27	28	35	45	50
fH8	11	11	14	20	21
g	-	-	35	63	83
h	-	-	16	16	22
i	-	-	10	10	15
k	-	-	24	24	35
l	-	-	10	10	17
m	M8	M 8	M10	M12	M16
n	7	7,5	8,5	13	15
o	1,5	1,5	1,5	2,5	3
Max. swing top jaws mm	190	216	285	365	470
Maximum draw bar pull kN	5	16	22,5	29	35
Max. total clamping force approx. kN	11	32	34	60	62
Max. admissible speed min ⁻¹	3950	5000	3150	2650	1850
Actuating cylinder hydraulic SZS	27/63	37/72	46/102	67/120	86/213
Actuating cylinder hydraulic OVS	85	105	130	150	150

KFM 3 jaw, medium jaw movement, serration 60°

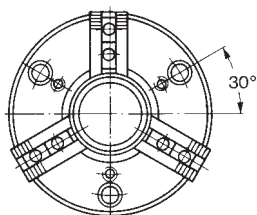


Serration base jaw

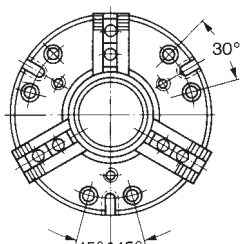


Clamping groove from KFM 215

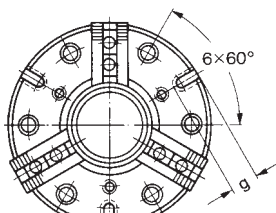
Tool group C 15
Type 531-05
3 jaw lever-type power chucks
KFM,
larger jaw movement,
with serration 60°
cylindrical centre mount



KFM 130 + 160



KFM 215 + 280

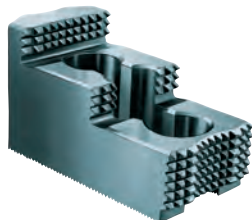


KFM 350

Item no.	020616	020617	020618	020619	020620
Size	130	160	215	280	350
Number of jaws	3	3	3	3	3
A	130	160	215	280	350
Jaw travel B	5,5	6	10	10	15
C	63	69,5	90,5	101	126
DH7	110	140	190	255	320
E	4,2	4,2	4,2	5,7	5,7
F	82,6	104,8	133,4	133,4	235
G	3xM10	3xM10	6xM12	6xM12	6xM20
H	17	20	25	25	35
J	46	61	74	102	135
K	25,3	40,5	45,5	66,5	90,5
LH7	50	66	80	105	140
M	2,5	2,5	2,5	2,5	2,5
N	58	76	90	120	156
O	M5	M6	M8	M8	M 10
P	2,6	1	1,4	0,5	5,5
Q	3,3	-	3,6	3,2	5,2
R	10	13	15	15	20
S min.	16,7	25,3	25,4	28,8	31,8
S max.	36,7	45,3	50,4	63,8	76,8
T	8	8	12	18	22
U	M40x1,25	M54x1,25	M65x1,25	M90x1,25	M112x1,5
VH7	36	50	62	87	109
W	20	23	29	32	37
a min.	24,25	32	39,5	53	69,5
a max.	29,75	38	49,5	63	84,5
b	7	8	10	13	14
c min.	14	16	20	26	28
c max.	24	29	43	56	70
d	38	45	63	82	98
e	27	28	35	45	50
fH8	11	11	14	20	21
g	-	-	35	63	83
h	-	-	16	16	22
i	-	-	10	10	15
k	-	-	24	24	35
l	-	-	10	10	17
m	M8	M8	M10	M12	M16
n	7	7,5	8,5	13	15
o	1,5	1,5	1,5	2,5	3
Max. swing top jaws mm	190	216	285	365	470
Maximum draw bar pull kN	7,5	24	33,5	43	52
Max. total clamping force approx. kN	16,5	48	51	90	93
Max. admissible speed min ⁻¹	3950	5000	3150	2650	1850
Moment of inertia J kgm ²	0,011	0,028	0,11	0,38	1,17
Weight without jaws approx. kg	5	8	17	37	71,5
Actuating cylinder hydraulic SZS	27/63	37/72	46/102	67/120	86/213
Actuating cylinder hydraulic OVS	85	105	130	150	150

Jaws KFM

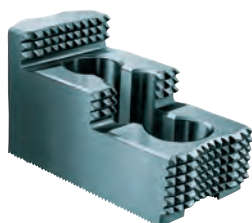
Tool group C 21
Type 530
**Reversible top jaws,
2-jaw set, hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
045798	130	2	set	56	37,5	26	1,5 x 60°
046431	160	2	set	62	37,5	26	1,5 x 60°
046433 ¹⁾	215	2	set	81	52,5	36	1,5 x 60°
046437	280	2	set	96	54	44,5	1,5 x 60°
046443	350	2	set	112	61	49,5	1,5 x 60°

¹⁾ Near the serration reduced to 34 mm
Reversible top jaws: ground to finished size at surcharge

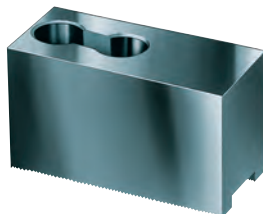
Tool group C 21
Type 530
**Reversible top jaws,
3-jaw set, hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046406	130	3	set	56	37,5	26	1,5 x 60°
046410	160	3	set	62	37,5	26	1,5 x 60°
046412 ¹⁾	215	3	set	81	52,5	36	1,5 x 60°
046416	280	3	set	96	54	44,5	1,5 x 60°
046422	350	3	set	112	61	49,5	1,5 x 60°

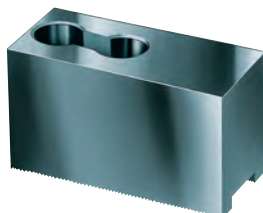
¹⁾ Near the serration reduced to 34 mm
Reversible top jaws: ground to finished size at surcharge

Tool group C 21
Type 530
**Soft top jaws,
2-jaw set, can be hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
045797	130	2	set	53	38	26,5	1,5 x 60°
046430	160	2	set	66,7	43	30,5	1,5 x 60°
046432	215	2	set	88,9	53	36,5	1,5 x 60°
046436	280	2	set	88,9	54,5	45	1,5 x 60°
046442	350	2	set	120	80	50	1,5 x 60°

Tool group C 21
Type 530
**Soft top jaws,
3-jaw set, can be hardened
Serration 60° -
material: 16 MnCr 5**

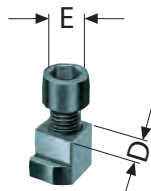


Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046405	130	3	set	53	38	26,5	1,5 x 60°
046409	160	3	set	66,7	43	30,5	1,5 x 60°
046411	215	3	set	88,9	53	36,5	1,5 x 60°
046415	280	3	set	88,9	54,5	45	1,5 x 60°
046421	350	3	set	120	80	50	1,5 x 60°

Accessories KFM

Tool group C 15

Type 530-05 **T-nuts**
without screw



Item no.	Chuck Size	Contents of delivery	D	E
028311	130	piece	11	M8
029874	160	piece	11	M8
028329	215	piece	14	M10
009744	280	piece	20	M12
031051	350	piece	21	M16

Tool group C 15

Type 0040-Y **Mounting screws**

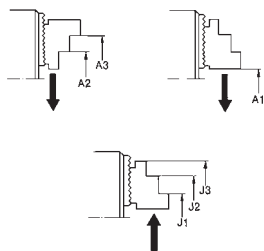


Item no.	Size	Contents of delivery	Thread	Length
340015	130/160	piece	M8	18
216594	215	piece	M10	20
233030	280	piece	M12	30
220564	350	piece	M16	35

Socket head cap screw to DIN 912, 12.9

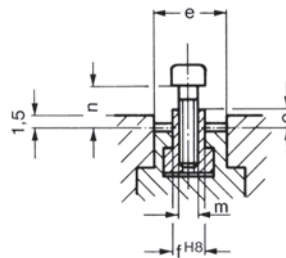
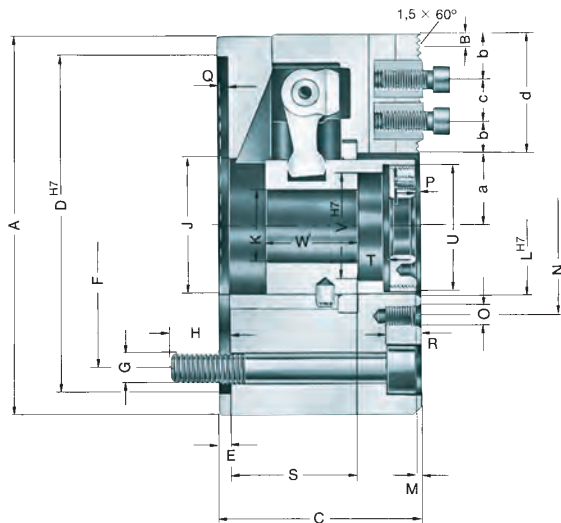
Chucking capacities KFM

Chucking capacities with
reversible top jaws UB

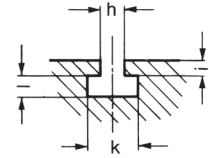


Chuck size		130	160	215	280	350
with reversible jaws	Type	530-03	530-04	530-07	530-09	530-12
	Jaw position					
External chucking	A1	5-69	14-90	9-126	22-170	50-238
	A2	63-125	75-150	96-210	134-280	159-344
	A3	93-161	109-184	148-263	196-348	242-428
Internal chucking	J1	41-101	62-135	65-176	80-221	108-291
	J2	73-136	94-169	113-228	144-289	189-375
	J3	117-182	138-215	171-288	215-361	274-462

KFG 2 jaw, large jaw movement, serration 60°



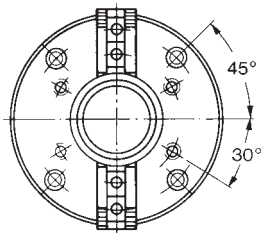
Serration base jaw



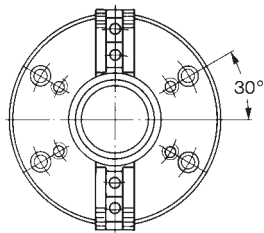
Clamping groove from KFG 215

Tool group C 15
Type 522-05

2 jaw lever-type power chucks KFG,
large jaw movement,
with serration 60°
cylindrical centre mount

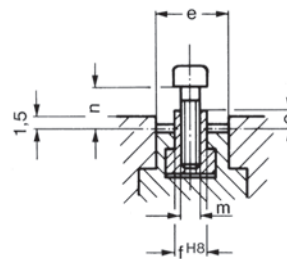
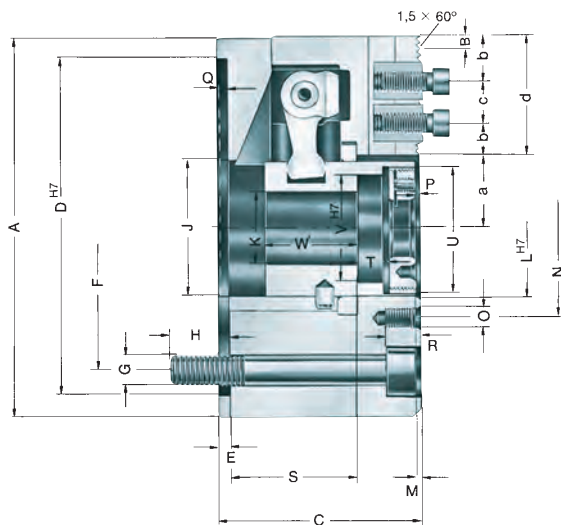


KFG 160 + 280 + 350

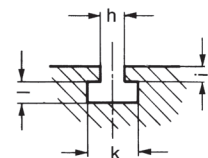


KFG 215

Item no.	020686	020687	020688	020689
Size	160	215	280	350
Number of jaws	2	2	2	2
A	160	215	280	350
Jaw travel B	16	20	25	25
C	79	92	116,2	134,7
DH7	140	190	255	320
E	4,2	4,2	5,7	5,7
F	104,8	133,4	133,4	171,4
G	4xM10	4xM12	4xM12	4xM16
H	20	25	25	35
J	54	74	102	135
K	26	45,5	66,5	90,5
LH7	66	80	105	140
M	2,5	2,5	2,5	2,5
N	76	90	120	156
O	M6	M 8	M 8	M 10
P	14	16,5	18,7	13,1
Q	3,2	3,7	3,2	4,1
R	13	15	15	20
S min.	19,8	25,3	28,8	32,9
S max.	39,8	50,3	63,8	77,9
T	8	12	18	22
U	M46x1,25	M65x1,25	M90x1,25	M122x1,5
V ^{H7}	43	62	87	109
W	23	29	32	37
a min.	23	31,5	47,5	69,5
a max.	39	51,5	72,5	94,5
b	8	10	13	14
c min.	16	20	26	28
c max.	41	46	54	65
d	57	66	80	93
e	28	35	45	50
fH8	11	14	20	21
g	-	35	63	73,5
h	-	16	16	22
i	-	10	10	15
k	-	24	24	35
l	-	10	10	17
m	M8	M 10	M12	M16
n	7,5	8,5	13	15
o	1,5	1,5	2,5	3
Max. swing top jaws mm	242	295	380	480
Maximum draw bar pull kN	16	22,5	29	35
Max. total clamping force approx. kN	14	20	28	44
Max. admissible speed min ⁻¹	3400	2700	1950	1800
Actuating cylinder hydraulic SZS	27/63	46/102	67/120	86/213
Actuating cylinder hydraulic OVS	85	105	130	130

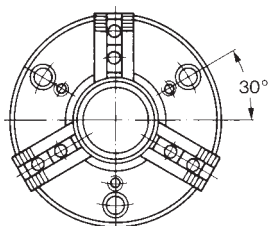


Serration base jaw

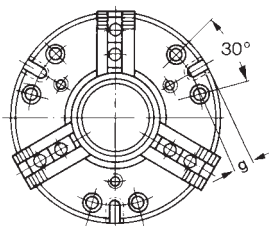


Clamping groove from KFG 215

Tool group C 15
Type 532-05
3 jaw lever-type power chucks KFG,
large jaw movement,
with serration 60°
cylindrical centre mount



KFG 160

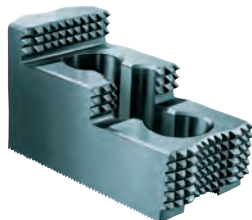


KFG 215 - 350

Item no.	020666	020667	020668	020669
Size	160	215	280	350
Number of jaws	3	3	3	3
A	160	215	280	350
Jaw travel B	16	20	25	25
C	79	92	116,2	134,7
DH7	140	190	255	320
E	4,2	4,2	5,7	5,7
F	104,8	133,4	133,4	171,4
G	3xM10	6xM12	6xM12	6xM16
H	20	25	25	35
J	54	74	102	135
K	26	45,5	66,5	90,5
LH7	66	80	105	140
M	2,5	2,5	2,5	2,5
N	76	90	120	156
O	M6	M 8	M 8	M 10
P	14	16,5	18,7	13,1
Q	3,2	3,7	3,2	4,1
R	13	15	15	20
S min.	19,8	25,3	28,8	32,9
S max.	39,8	50,3	63,8	77,9
T	8	12	18	22
U	M46x1,25	M65x1,25	M90x1,25	M112x1,5
VH7	43	62	87	109
W	23	29	32	37
a min.	23	31,5	47,5	69,5
a max.	39	51,5	72,5	94,5
b	8	10	13	14
c min.	16	20	26	28
c max.	41	46	54	65
d	57	66	80	93
e	28	35	45	50
fH8	11	14	20	21
g	-	35	63	73,5
h	-	16	16	22
i	-	10	10	15
k	-	24	24	35
l	-	10	10	17
m	M8	M10	M12	M16
n	7,5	8,5	13	15
o	1,5	1,5	2,5	3
Max. swing top jaws mm	242	295	380	480
Maximum draw bar pull kN	24	33,9	43	52
Max. total clamping force approx. kN	21	30	42	66
Max. admissible speed min ⁻¹	3400	2700	1950	1800
Moment of inertia J kgm ²	0,031	0,11	0,425	1,22
Weight without jaws approx. kg	9,3	17	41	75
Actuating cylinder hydraulic SZS	27/63	46/102	67/120	86/213
Actuating cylinder hydraulic OVS	105	130	150	150

Jaws KFG

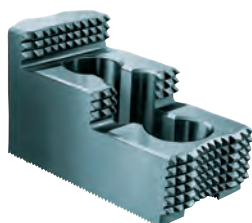
Tool group C 21
Type 530
**Reversible top jaws,
2-jaw set, hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046431	160	2	set	62	37,5	26	1,5 x 60°
046433 ¹⁾	215	2	set	81	52,5	36	1,5 x 60°
046437	280	2	set	96	54	44,5	1,5 x 60°
046443	350	2	set	112	61	49,5	1,5 x 60°

¹⁾ Near the serration reduced to 34 mm
Reversible top jaws: ground to finished size at surcharge

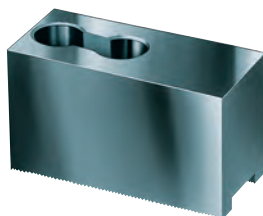
Tool group C 21
Type 530
**Reversible top jaws,
3-jaw set, hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046410	160	3	set	62	37,5	26	1,5 x 60°
046412 ¹⁾	215	3	set	81	52,5	36	1,5 x 60°
046416	280	3	set	96	54	44,5	1,5 x 60°
046422	350	3	set	112	61	49,5	1,5 x 60°

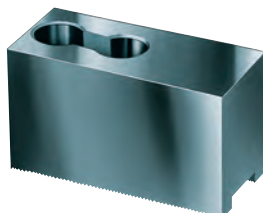
¹⁾ Near the serration reduced to 34 mm
Reversible top jaws: ground to finished size at surcharge

Tool group C 21
Type 530
**Soft top jaws,
2-jaw set, can be hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046430	160	2	set	66,7	43	30,5	1,5 x 60°
046432	215	2	set	88,9	53	36,5	1,5 x 60°
046436	280	2	set	88,9	54,5	45	1,5 x 60°
046442	350	2	set	120	80	50	1,5 x 60°

Tool group C 21
Type 530
**Soft top jaws,
3-jaw set, can be hardened
Serration 60° -
material: 16 MnCr 5**

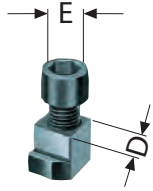


Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046409	160	3	set	66,7	43	30,5	1,5 x 60°
046411	215	3	set	88,9	53	36,5	1,5 x 60°
046415	280	3	set	88,9	54,5	45	1,5 x 60°
046421	350	3	set	120	80	50	1,5 x 60°

Accessories KFG

Tool group C 15

Type 530-05 **T-nuts**
without screw



Item no.	Chuck Size	Contents of delivery	D	E
029874	160	piece	11	M8
028329	215	piece	14	M10
009744	280	piece	20	M12
031051	350	piece	21	M16

Tool group C 15

Type 0040-Y **Mounting screws**

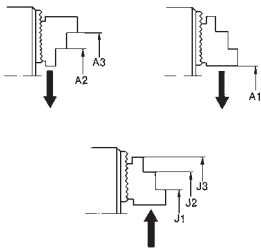


Item no.	Size	Contents of delivery	Thread	Length
340015	160	piece	M8	18
216594	215	piece	M10	20
233030	280	piece	M12	30
220564	350	piece	M16	35

Socket head cap screw to DIN 912, 12.9

Chucking capacities KFG

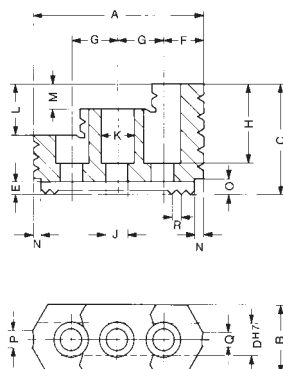
Chucking capacities with
reversible top jaws UB



Chuck size		160	215	280	350
with reversible jaws	Type	530-04	530-07	530-09	530-12
	Jaw position				
External chucking	A1	5-115	5-136	11-185	50-248
	A2	58-175	81-220	123-295	159-354
	A3	92-208	132-272	190-363	242-438
Internal chucking	J1	52-159	61-186	70-238	108-301
	J2	85-193	109-238	133-305	189-385
	J3	129-240	167-298	202-378	274-472

Jaw dimensions KFM / KFG

Reversible top jaws UB,
hardened, serration 60°,
material 16MnCr5



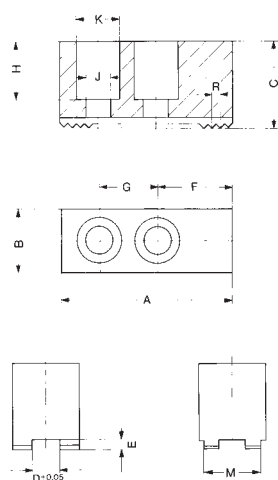
Chuck size	130	160	215	280	350
Type	530-03	530-05	530-07	530-09	530-12
Item no. 2-jaw	045798	046431	046433	046437	046443
Item no. 3-jaw	046406	046410	046412	046416	046422
A	56	62	81	96	112
B	26	26	36 1)	44,5	49,5
C	37,5	37,5	52,5	54	61
D	11	11	14	20	21
E	3,5	3,5	5	5	5,5
F	13,5	17,5	25	30	27
G	16,5	16,5	21	26	33
H	29	29	41	41	47,5
J	8,4	8,4	10,5	13	17
K	13,5	13,5	16,5	19	25
L	20	20	24	24	30
M	10	10	12	12	15
N	4	4	5	5	6,5
O	4	4	7	7	7
P	5	5	10	10	13
Q	5	5	5	5	13
R	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,165	0,215	0,600	0,750	1,550

1) Near the serration reduced to 34 mm

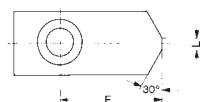
2) Serration 90°

Reversible top jaws: ground to finished size at surcharge

Soft top jaws AB,
material 16MnCr5



AB 530-04 and 530-07

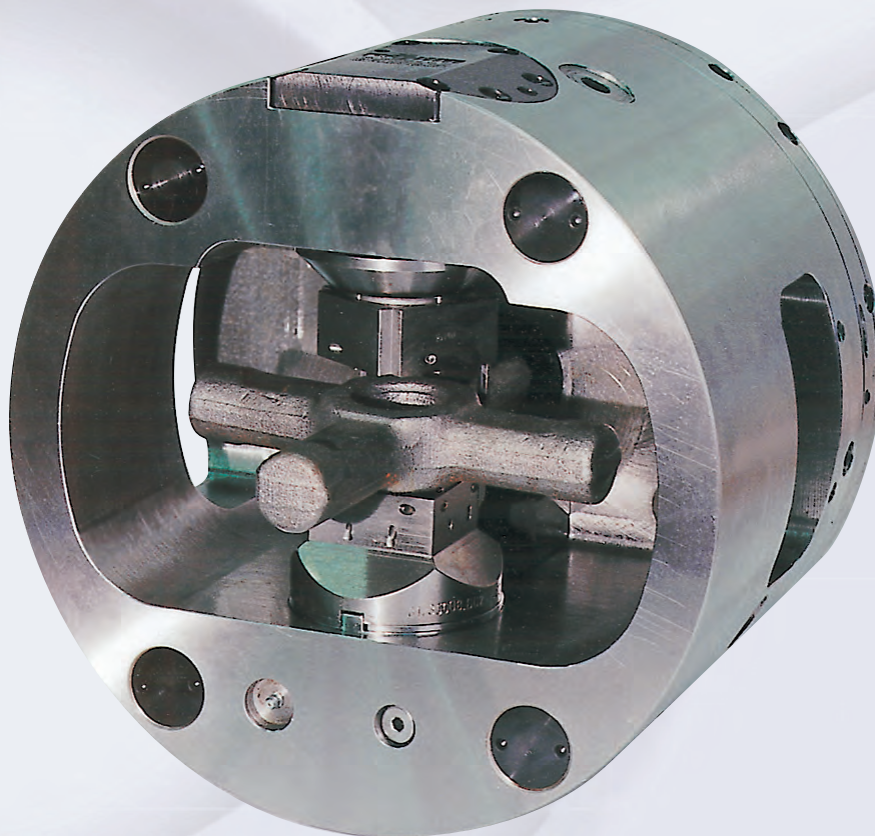


AB 530-02

Chuck size	130	160	215	280	350
Type	530-03	530-05	530-07	530-09	530-12
Item no. 2-jaw	045797	046430	046432	046436	046442
Item no. 3-jaw	046405	046409	046411	046415	046421
A	53	66,7	88,9	88,9	120
B	26,5	30,5	36,5	45	50
C	38	43	53	54,5	80
D	11	11	14	20	21
E	3,5	3,5	5	5	5
F	29	30	45	45	67
G	15	20	26	26	28
H	28	33	41	42,5	67
J	8,4	8,4	10,5	13	17
K	13,5	13,5	16,5	19	25
L	-	-	-	-	-
M	-	27	34	-	-
R	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,320	0,550	1,125	1,400	3,125

1) Serration 90°

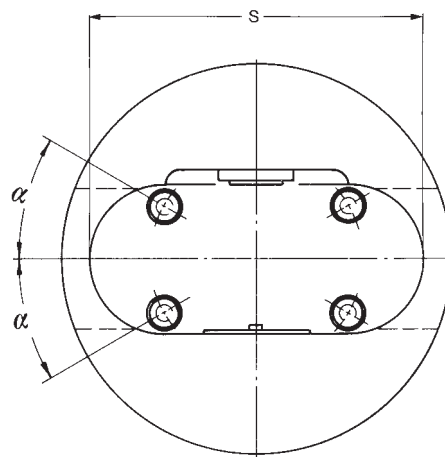
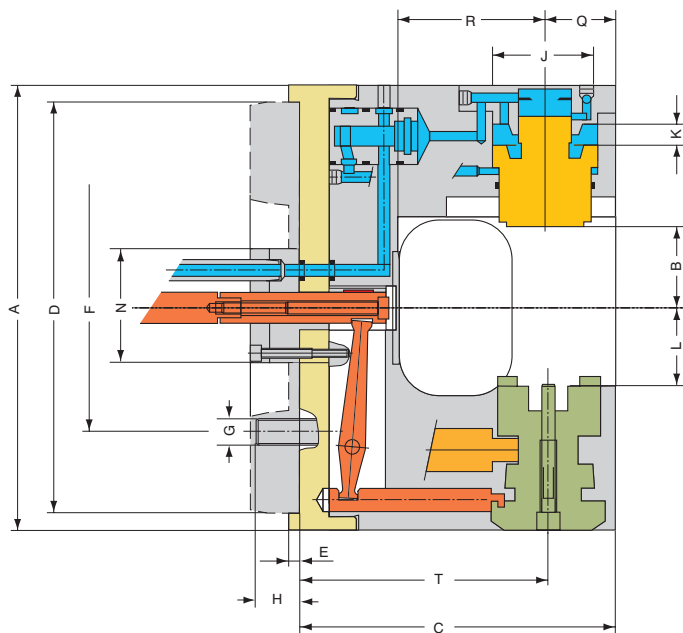
For machining workpieces with intersecting axes



RÖHM indexing chucks have an indexing axis aligned at 90° to their axis of rotation and can be used for machining workpieces with intersecting axes in one chucking operation (classic example: yoke journal assemblies).

The fully automatic operating sequence through the indexing positions with the machine spindle running means that these chucks are very successful in rationalising processes on relatively simple CNC lathes. The degree of rationalisation can be boosted still further by fitting an automatic workpiece handling system.

An oil distributor or a chucking cylinder is required for operating the indexing chuck. A control block integrated in the machine's hydraulic system is used for activating the chuck. Alternatively, a separate hydraulic power unit can be linked up to the machine electronically for use with existing machines.



Tool group C 15
Type 519-00
Hydraulically operated indexing
chuck **HSF**
For machining workpieces with
intersecting axes

Item no.	413172	413173	413174	413175	413176	413177	413178	413179
Size	200	230	250	315	400	500	630	800
A	200	230	250	315	400	500	630	800
B min.	30	40	32	57	92,5	120	160	220
B max.	44	54	49	80	119,5	154	205	275
C	157	175	195	245	280	328	405	460
DH6	185	185	210	220	300	380	380	380
E	5	6	6	6	6	6	8	8
F	104,8	133,4	133,4	171,4	235	330,2	330,2	330,2
G	M 10	M 12	M 12	M 16	M 20	M 24	M 24	M 24
H	16	20	22	25	30	35	35	40
J	50	55	70	85	100	115	125	145
Wedge stroke K	14	14	17	23	27	34	45	55
L	32	45	41	62	104	135	192	260
M	4	4	4	5	5	6	6	6
N	58	58	58	72	92	92	92	110
Q	32	35	45	50	60	68	75	90
R	80	90	105	135	160	200	260	300
S	170	195	210	260	340	410	530	620
T	125	140	155	195	220	260	330	375
α	30°	30°	30°	30°	30°	30°	60°	60°
Max. operating pressure bar	45	45	45	45	45	45	45	45
Max. clamping pressure bar	60	60	60	60	60	60	60	60
Max. total clamping force at 60 bar approx. kN	23	28	46	68	94	122	147	197
Maximum admissible speed ¹⁾ min ⁻¹	4200	3700	3600	2600	2000	1500	1100	550
Moment of inertia J kgm ²	0,15	0,31	0,45	1,36	3,80	10	30,5	66
Weight without jaw inserts approx. kg	27	42	52	95	150	250	450	580

Matching chuck adaptor plate, oil distributors and hydraulic control units on request

¹⁾ Depending on mass and center of gravity of the clamping inserts

Special solutions

Hydraulically operated indexing chucks HSFK

with correction piston

The special feature of this Typee comes into play for machining operations such as allround machining of wedge gate valve housings. Two correction pistons enable additional indexing movements of up to approx. 5° by means of an indexing disc on the indexing part. Because of the integrated piston no cylinder is needed.



Power operated indexing chucks KSFZ

with central chucking

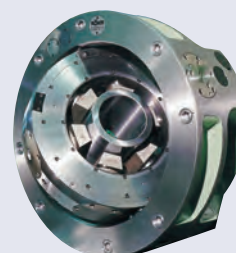
This central chucking indexing chuck is suitable for workpieces such as forgings and castings which require greater concentric compensation for diameter tolerances when chucking.



Hydraulically operated indexing chuck HSFZ

with indexable internal body

These chucks are used especially for large bells 7" or more. The chucking inserts can be equipped with several chucking points in order to prevent deformation of the workpiece.



Power operated indexing chuck KTF

with eccentric chucking

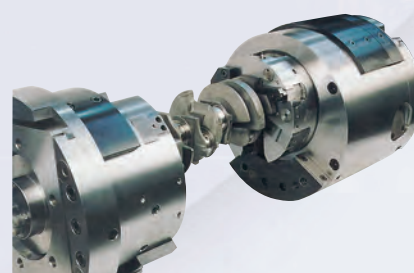
Power-operated radial indexing chucks are used for machining housings, pistons or crank parts which have mostly one central and one eccentric centre of rotation.



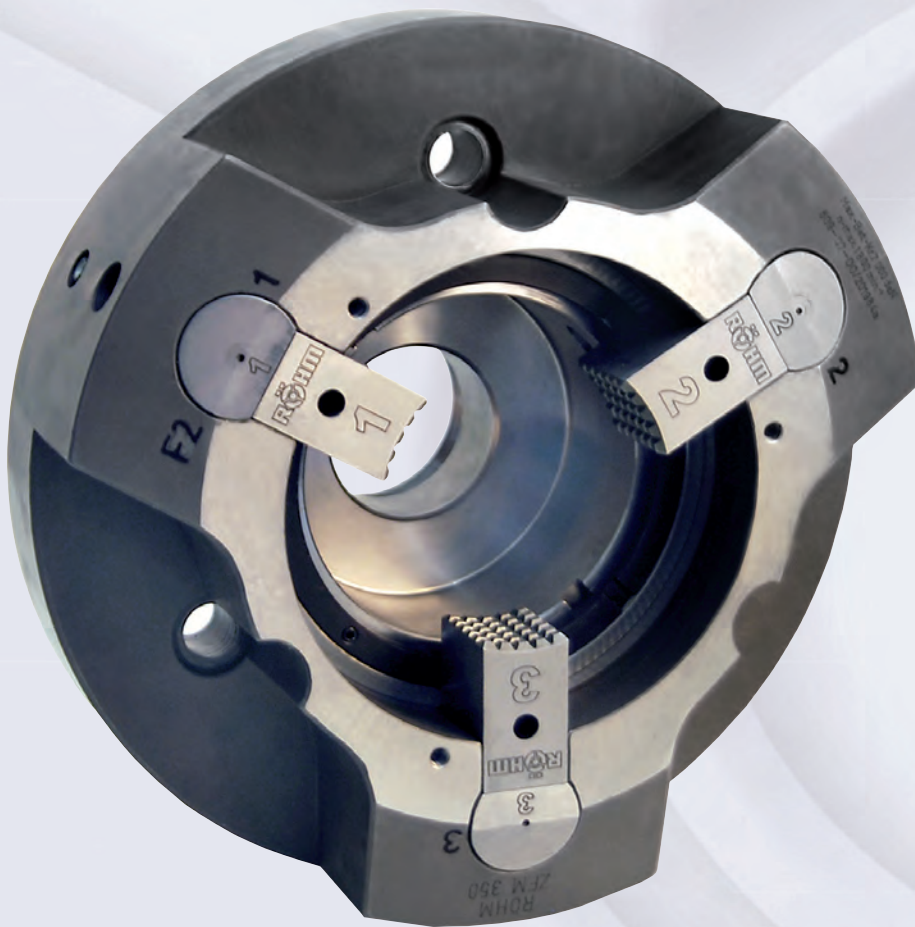
Hydraulically operated radial indexing chuck HTF

with eccentric chucking

Hydraulically operated radial indexing chucks are used for machining housings, pistons and crankshafts which have their centre of rotation offset to their central axis of rotation.



For machining bar stock, pipes and shafts



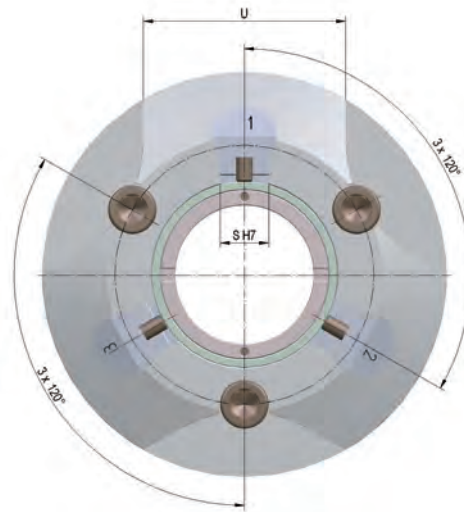
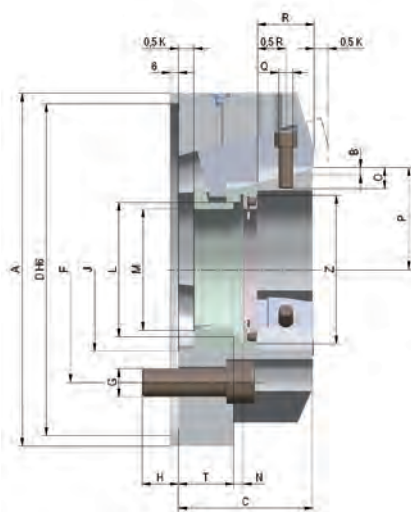
Technical features:

- Power transmission direct from piston to draw rod studs
- Draw down effect through axial movement of draw rod studs
- Different chucking diameters thanks to interchangeable gripping inserts
- Gripping inserts hardened, adapted to suit the workpiece diameter.
- External gripping only



Special designs:

E.g. power operated draw bar chuck ZFM, diameter 220 mm, with clamping inserts with chip flow grooves and threads, for work stops for clamping of aluminum flanges.



Tool group C 15
Type 509-00
Power-operated draw bar chuck
ZFM,
with gripping inserts
cylindrical centre mount

Item no.	201979	201980	201981	201982	201983	201984
Size	130	160	200	250	315	350
A	130	160	200	250	315	350
Jaw travel B	5,3	5,3	5,3	5,3	5,3	5,3
C	75	75	82	95	105	105
DH6	115	145	185	235	235	300
F	92	100	140	160	200	240
G	3 x M 12	3 x M 12	3 x M 16	3 x M 20	3 x M 20	3 x M 20
H	18	18	20	26	26	26
J	56	71	95	115	160	190
Wedge stroke K	20	20	20	20	20	20
L	38	52	72	95	136	160
M	32,5	45,5	65,5	85,5	125,5	150,5
N	7	7	7	7	7	7
O	12	12	15	15	15	15
P max.	40,65	48,15	64,65	74,65	101,65	116,65
P min.	35,35	42,85	59,35	69,35	96,35	111,35
Q	M 8	M 8	M 10	M 10	M 12	M 12
R	30	30	35	40	45	45
SH7	24	24	30	30	35	35
T max.	40	40	40	48	53	53
T min.	20	20	20	28	33	33
U	55	60	85	125	125	125
Z	M 48 x 1,25	M 62 x 1,25	M 85 x 1,25	M 105 x 1,25	M 150 x 1,25	M 175 x 1,25
Maximum draw bar pull kN	15	25	35	45	50	70
Max. total clamping force approx. kN	28	46	66	84	90	125
Max. admissible speed min ⁻¹	8000	8000	6300	5500	4200	3500
Moment of inertia J kgm ²	0,012	0,026	0,072	0,183	0,508	0,760
Weight without jaw inserts approx. kg	5,5	7,5	13	21	35	42
Chucking capacity mm	0-30	0-40	4-70	24-80	30-130	60-160
Actuating cylinder hydraulic OVS	85	105	130	150	150	200

Jaws ZFM

Tool group C 21
Type 509
Clamping Jaws, 3-jaw-set,
prefabricated, can be hardened
material: 16 MnCr 5

Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
210006	130	set	34,7	30	24
210007	160	set	42,7	30	24
210008	200	set	51,7	35	30
210009	250	set	61,7	45	30
210010	315/350	set	85,7	45	35



with through-hole, with integrated pneumatic chucking piston, clamping accuracy in the micron range



This chuck guarantees top precision chucking with both internal and external gripping, with an exceptionally long service life. The decisive characteristic is the innovative design of the piston and the transmission of force.

Application:

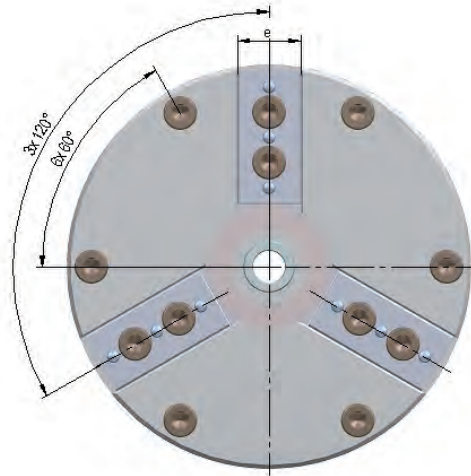
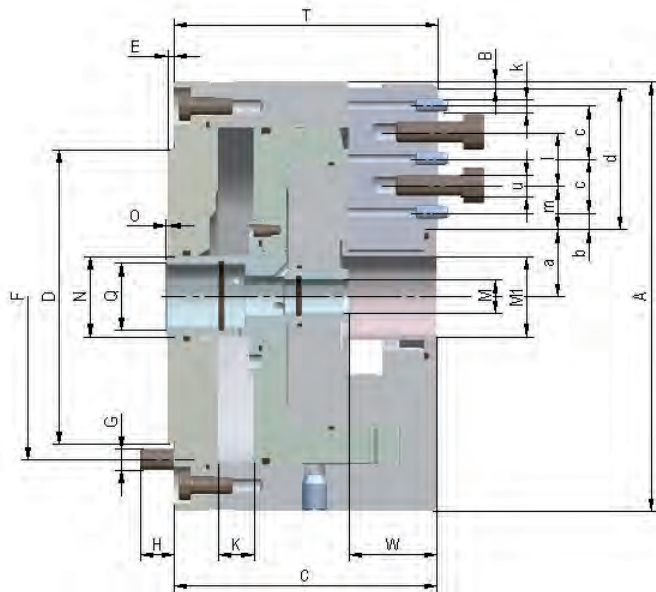
- Suitable for turning, grinding, gauging and indexing applications.
- Fast and convenient mounting on the machine spindle.

Technical features:

- Low on maintenance because of oil mist lubrication.
- Radial and axial true running accuracy within 0.003 mm (3 micron).
- The special design of the piston with force transmission on both sides, particular to the ROEHM KFD-HS principle, guarantees a very high chucking precision and an extremely long service life.
- The wide range of operating pressure from 2 to 10 bar allows an optimal adjusting of the chucking power, e. g. for the deformation-free chucking of thin-walled liners and rings.
- Self-locking, high safety in the event of a chucking energy failure.
- ROEHM offers a complete equipment with an air supply tube and a versatile jaw range.
- Sizes 100-200 with passage for coolant supply.

Note:

Air supply tube, service unit (containing filter, separator and oiler), top jaws, control valves, to be ordered separately.



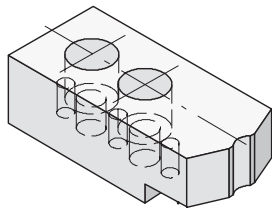
Tool group C 15
Type 586-00
High-precision pneumatic-operated lathe chuck **PKF**,
concentricity 0,003,
repetitive clamping accuracy 0,0015
with **through-hole**,
pneumatic operated,
with **integrated pneumatic chucking piston**,
clamping accuracy in the micron range

Item no.	153705	153706	153707	153708	153709	153710
Size	80	100	100	150	150	200
A	79,5	102	102	151	151	202
Jaw travel B	0,75	0,75	1,5	0,75	1,5	1,5
C	39	52,5	62,5	52,5	62,5	85,5
D-0,01	50,8	82,55	82,55	124,97	124,97	167,64
E	1,5	1,5	1,5	1,5	1,5	3,2
F	69,9	88,9	88,9	135,9	135,9	182,9
G	3 x 120° M5	M5	M5	M6	M6	M10
H	5,5	8	8	9	9	16
Wedge stroke K	4,25	4,25	8,5	4,25	8,5	8,5
M	-	3,2	3,2	3,2	3,2	3,2
M ₁	-	19	19	25,4	25,4	25,4
N	-	19	19	19	19	19
O min.	-	0,5	0,5	0,5	0,5	0,5
O max.	-	4,75	9	4,75	9	9
Q	3/8"	5/8"	5/8"	5/8"	5/8"	5/8"
W	-	19	19	19	19	35
T	39,3	52,8	62,8	52,8	62,3	85,9
a min.	15,5	16,75	16	22,75	22	21,9
a max.	16,25	17,5	17,5	23,5	23,5	23,4
b	5,1	3,9	3,9	14,9	14,9	4,5
c	12,7	2 x 12,7	2 x 12,7	2 x 12,7	2 x 12,7	2 x 31,75
d	23,5	33,5	33,5	52	52	76,1
e	13	16	16	24	24	32
k	1/8"	1/8"	1/8"	1/8"	1/8"	1/4"
l	-	12,7	12,7	3 x 12,7	3 x 12,7	31,75
m	11,5	10,25	10,25	8,55	8,55	20,375
u	M5	2 x M5	2 x M5	4 x M5	4 x M5	M10
Operating pressure bar	2-10	2-10	2-10	2-10	2-10	2-10
Area A ₁ clamping cm ²	29,3	47,4	47,4	100	100	185,0
Area A ₂ releasing cm ²	15,2	28,9	28,9	69	69	111,5
Total clamping force at 8 bar kN	8	13	13	27	27	31,5
Max. admissible speed at 8 bar min ⁻¹	5500	5500	5500	4000	4000	3000
Moment of inertia J kgm ²	0,0008	0,0029	0,0029	0,015	0,015	0,08
Weight kg	1	2,3	2,3	5,5	5,5	16

Higher speed on request

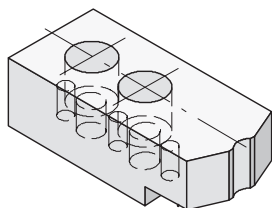
Jaws PKF

Tool group C 21
Type 586-00
Soft top jaws
Steel design set, jaw set



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
153817	80	set	38	16	16
153818	100	set	49	25	18,4
153819	150	set	74	30	26,5
153820	200	set	95	46	34,7

Tool group C 21
Type 586-00
Soft top jaws
Aluminium design, jaw set

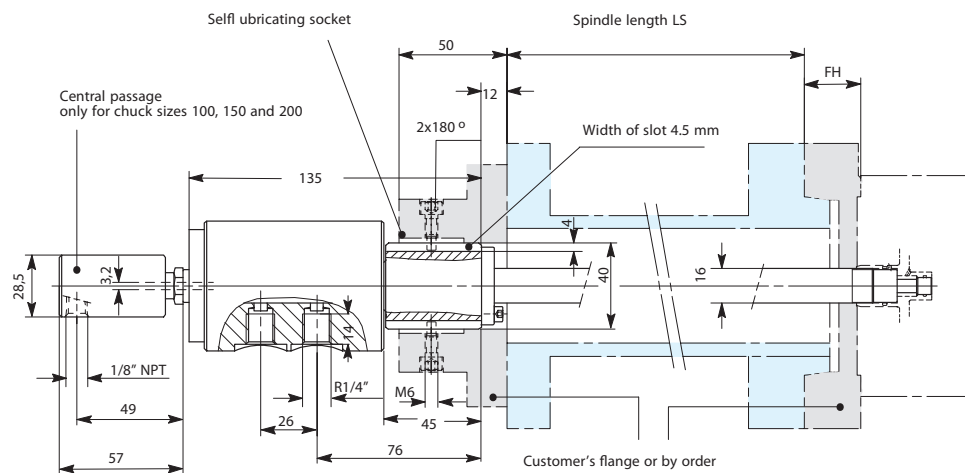


Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
153821	80	set	38	16	16
153822	100	set	49	25	18,4
153823	150	set	74	30	26,5
153824	200	set	95	46	34,7

Accessories PKF

Air supply tube

Air supply tube 3/8" and 5/8"
Type 586-80
Max. speeds = 10 000 min⁻¹
Central through-hole for air and coolant.
Max. air pressure = 10 bar



Ordering indications for air supply tube:

Chuck size + spindle length LS + height of flange FH

Accessories PKF

Tool group C 15
Type 592-38
Air-operated control LSG R^{1/4}
up to 10 bar, for air-operated
power chucks



Item no.	Width	Height	Depth	Control voltage	Conn. thread	Weight approx. kg
076804	370	350	140	220 V - 50 Hz	R 3/8" internal	6,4

Other voltages on request

Tool group C 15
Type 592-51
Service unit for
air operated control
This unit consists of:
Separator and filtre CKS-08/10,
pressure regulator CKS-08/10 and
lubricator CL-08/10



Item no.	Width	Height	Depth
216084	130	240	102

Max. flow Qn 33m3/h at 6 bar

Tool group C 15
Type 592-32
**Manually operated air control
valve LHV**
2-position with safety control lever



Item no.	Width	Height	Depth	Conn. thread internal	Conn. thread external
418224	66,5	64	38	R 1/4 "	M 16 x 1,5

Tool group C 15
Type 592-04 **Air shut-off valve**

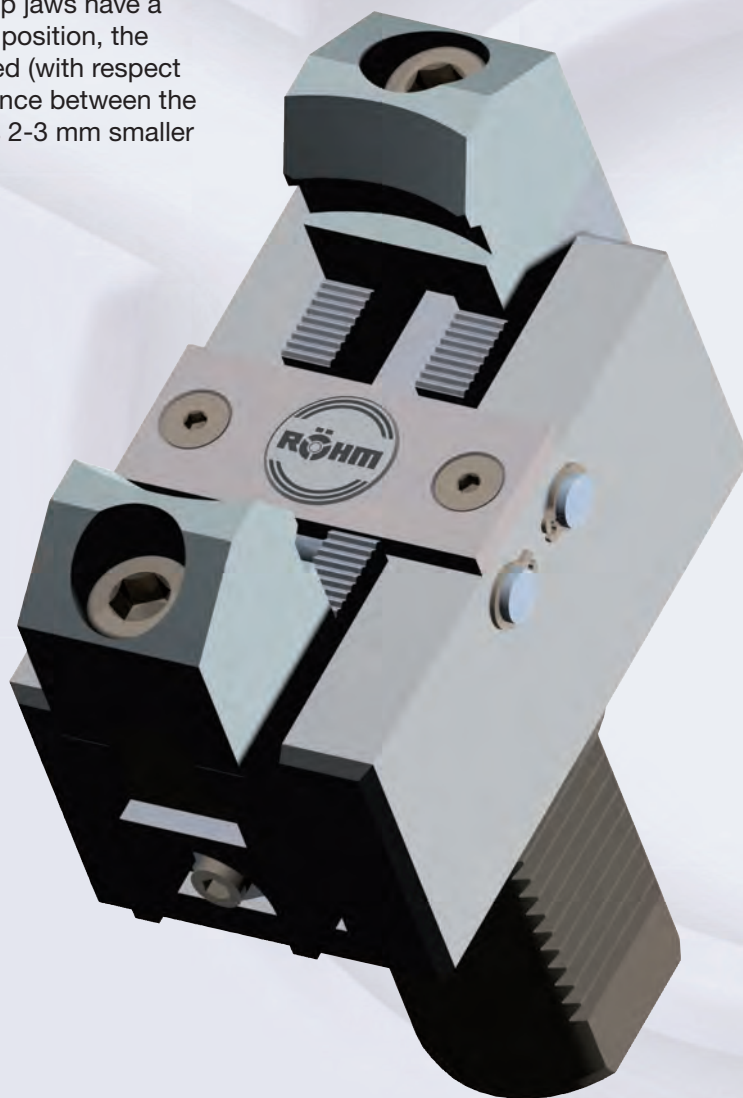


Item no.	Width	Height	Depth	Conn. thread
021237	51	55	30	R 1/4" innen

Accessories: 2 screw unions pipe thread 1/4", Id.-Nr. 8096

These gripper chucks are mainly used for moving and positioning bars and tubes.

When the chuck is open, the top jaws have a slight inward inclination. In this position, the serrations must be so positioned (with respect to the workpiece) that the distance between the gripping surfaces of the jaws is 2-3 mm smaller than the workpiece.

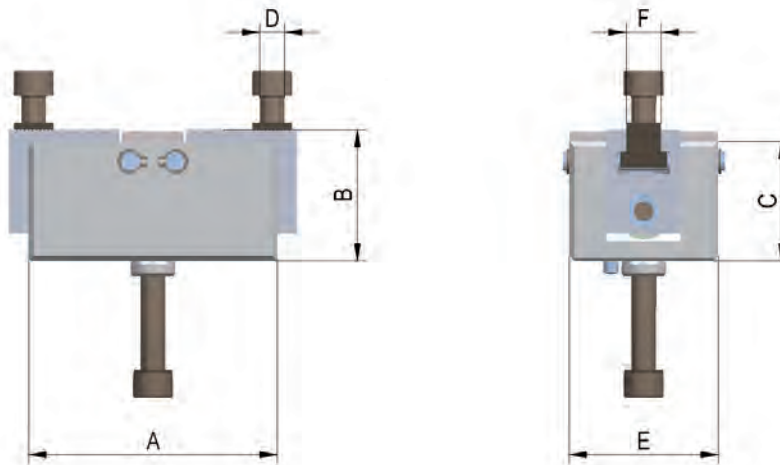


Functional characteristics

To grip the work, the bar puller chuck is moved against the chucked round stock, usually by means of the toolholder provided on the machine. The 30° approach angle chamfer causes the jaws to be positively forced outward until the workpiece diameter is reached and the work is gripped on the outside diameter. The gripping force is produced by a floating cup spring assembly acting on the jaws. The workholding chuck opens to release the round stock which has been gripped by the bar puller and moved into the predetermined position. In this position, the work is chucked again by the workholding chuck while the bar puller is simply pulled off. The jaws are automatically pushed inward by the cup spring assembly to return them to their initial position.

The interchangeable cylindrical shank meets DIN 69880.

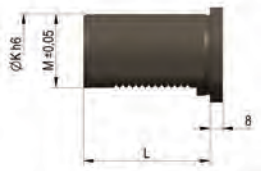
GF for cylindrical shank DIN 69880



Tool group C 15
Type 546-00
Two bar puller chucks **GF**
for cylindrical shank **DIN 69880**
Chucks without shank,
without jaws

Item no.	Size	A	B	C	D	E	FH7	H (Stroke)	Clamping force min. kN	Clamping force max. kN
141077	80	80	50,8	46	M8	50	12	3	1,3	1,7
141078	100	100	52,8	48	M 10	60	14	4	2	2,7
141079	125	125	72,8	67	M 10	65	14	4	5,3	6

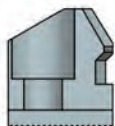
Tool group C 15
Type 546-30
Cylindrical shank DIN 69880



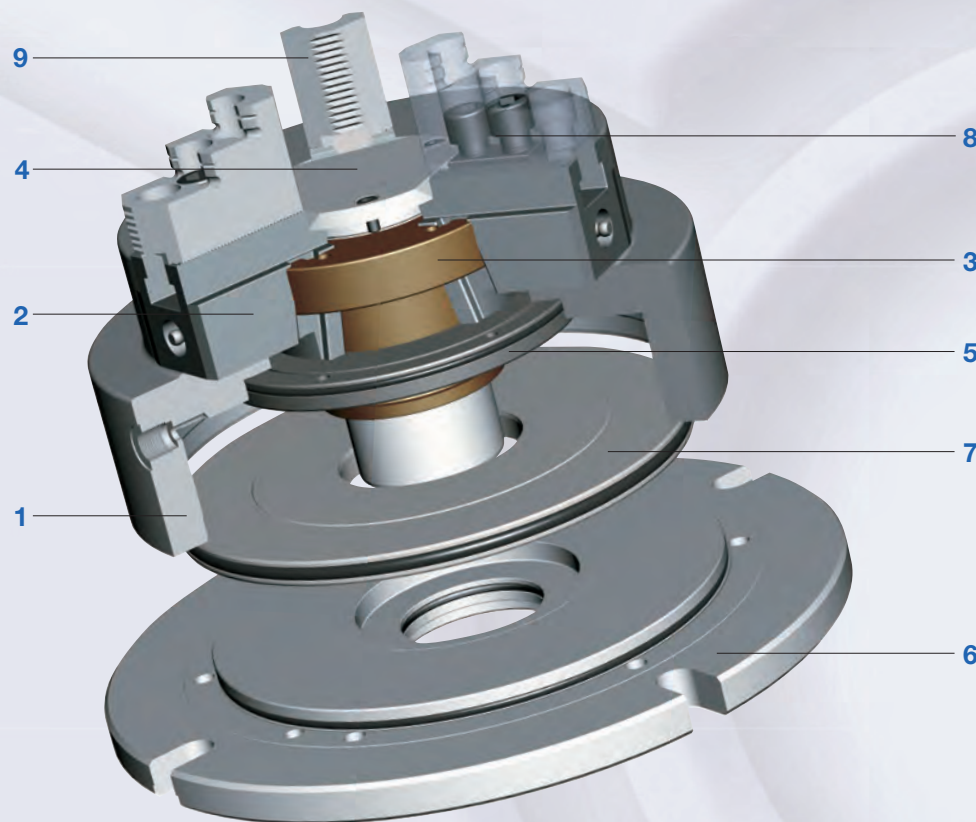
Item no.	Initial size	Kh6	L	M±0,05
359619	20	20	32	18
156806	25	25	48	23,5
141080	30	30	55	27
141081	40	40	63	36
141082	50	50	78	45
141083	60	60	94	55

Jaws GF

Tool group C 21
Type 546-70 **Clamping jaws**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
141084	80	set	28	26	28
141085	100/125	set	30	34	30
141086	100/125	set	40	42	30



Components

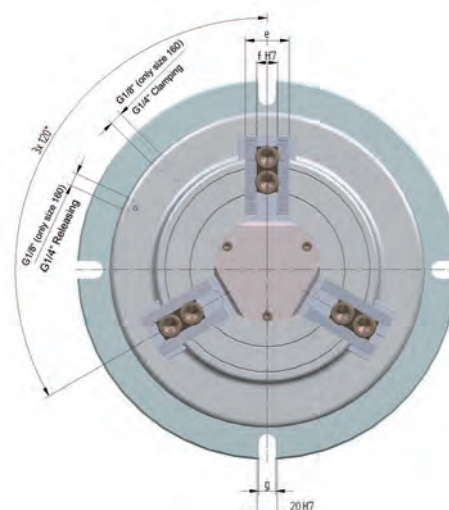
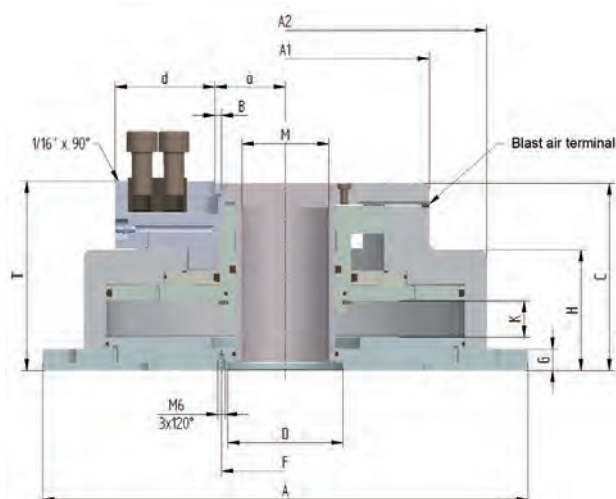
1. Body
2. Base jaw
3. Piston
4. Protective bushing
5. Intermediate disc
6. Mount
7. Piston disc
8. T-nut
9. Top jaws

Used as stationary chucks on drilling, milling and special purpose machines. Two- and three-jaw chucks, without through-hole, air (Type SSP) or oil (Type SSH) operated, serration 1/16" x 90° with through-hole on request.

Technical features:

- Quick and efficient chucking
- Concentric gripping of round as well as angular parts
- Universal through use of different jaws
- Ideal for series production
- Suitable for use in automated work cycles
- Gripping force adjustable by changing the pressure
- High chucking accuracy thanks to constant gripping force at constant pressure
- Oil or air operated
- Compact design
- Blast air terminal against dirt accumulation
- Two and three-jaw styles in four different sizes
- Available with stepped jaws or soft top jaws

SSP 2-/3-jaw, air operated, without through-hole

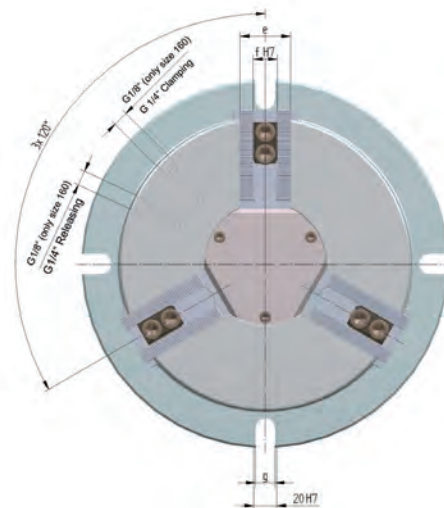
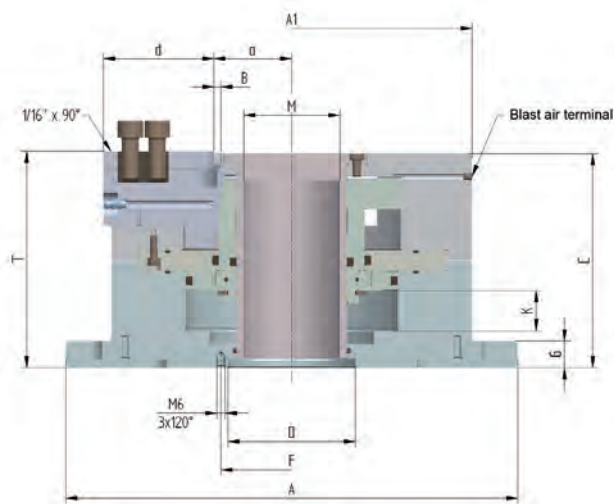


Tool group C 15
Type 447-0
Stationary power chucks **SSP**,
air operated
2-jaw and 3-jaw chucks,
without through-hole,
serration 1/16" x 90°

Item no.	161852	161505	161853	161506	161854	161507	161855	161508
Size	160	160	200	200	250	250	315	315
Number of jaws	2	3	2	3	2	3	2	3
A	260	260	320	320	380	380	415	415
A1	178	178	205	205	255	255	320	320
A2	210	210	255	255	315	315	350	350
Jaw travel B	4,2	4,2	4,2	4,2	5	5	5	5
C	130,5	130,5	134	134	146	146	156,5	156,5
Mount D ^{H6}	55	55	70	70	90	90	110	110
F	65	65	80	80	100	100	120	120
G	15	15	17	17	17	17	21,5	21,5
H	84,5	84,5	86	86	94	94	104,5	104,5
Wedge stroke K	24	24	23,8	23,8	28,4	28,4	28,4	28,4
Possible through-hole M	38	38	52	52	68	68	90	90
T	131,5	131,5	135,5	135,5	147,5	147,5	158	158
a min.	31,8	31,8	41,2	41,2	50	50	61,5	61,5
a max.	36	36	45,4	45,4	55	55	66,5	66,5
d	54,5	54,5	62	62	78	78	99	99
e	32	32	36	36	44	44	44	44
f ^{H7}	12	12	17	17	21	21	21	21
g	13	13	17	17	17	17	17	17
Piston area cm ²	209	209	323	323	532	532	654	654
Min. operating pressure bar	2	2	2	2	2	2	2	2
Max. operating pressure bar	5	8	5	8	5	8	5	8
Max. total clamping force at working pressure - External clamping kN	20 (bei 5 bar)	36 (bei 6 bar)	31 (bei 5 bar)	55 (bei 6 bar)	50 (bei 5 bar)	90 (bei 6 bar)	62 (bei 5 bar)	111 (bei 6 bar)
Max. total clamping force at working pressure - Internal clamping kN	22 (bei 5 bar)	38 (bei 6 bar)	34 (bei 5 bar)	60 (bei 5 bar)	54 (bei 5 bar)	96 (bei 6 bar)	66 (bei 5 bar)	118 (bei 6 bar)
Weight without jaws approx. kg	25	25	34	34	54	54	65	65

Stationary Power chucks with serration 1,5x60°, tongue and groove and/or through-hole on request available

SSH 2-/3-jaw, oil operated, without through-hole



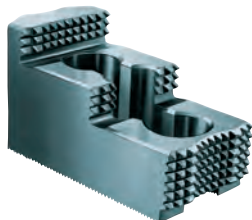
Tool group C 15
Type 447-1
Stationary power chucks **SSH**,
oil operated
2-jaw and 3-jaw chucks,
without through-hole,
serration 1/16" x 90°

Item no.	161856	161509	161857	161510	161858	161511	161859	161512
Size	160	160	200	200	250	250	315	315
Number of jaws	2	3	2	3	2	3	2	3
A	230	230	280	280	320	320	385	385
A1	178	178	205	205	255	255	320	320
Jaw travel B	4,2	4,2	4,2	4,2	5	5	5	5
C	133,5	133,5	134	134	151	151	159,5	159,5
Mount D ^{H6}	55	55	70	70	90	90	110	110
F	65	65	80	80	100	100	120	120
G	15	15	17	17	19	19	21,5	21,5
Wedge stroke K	24	24	23,8	23,8	28,4	28,4	28,4	28,4
Possible through-hole M	35	35	52	52	60	60	90	90
T	134,5	134,5	135,5	135,5	152,5	152,5	161	161
a min.	31,8	31,8	41,2	41,2	50	50	61,5	61,5
a max.	36	36	45,4	45,4	55	55	66,5	66,5
d	54,5	54,5	62	62	78	78	99	99
e	32	32	36	36	44	44	44	44
f ^{H7}	12	12	17	17	21	21	21	21
g	13	13	17	17	17	17	17	17
Piston area cm ²	32,4	32,4	47	47	92	92	118	118
Max. operating pressure / clamping bar	26	40	26	40	26	40	26	40
Max. operating pressure / opening bar	20	30	16	25	20	30	20	30
Max. total clamping force at max. operating pressure - External clamping kN	26	40	35	53	70	100	90	134
Max. total clamping force at max. operating pressure - Internal clamping kN	26	40	35	53	70	100	90	134
Weight without jaws approx. kg	22	22	30	30	50	50	60	60

Stationary Power chucks with serration 1,5x60°, tongue and groove and/or through-hole on request available

Jaws SSP / SSH

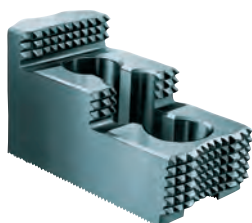
Tool group C 21
Type 543/538
**Reversible top jaws,
2-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
045796	160	2	set	56	37,5	26	1/16"x 90°
118521	200	2	set	75	49	36	1/16"x 90°
046435	250/315	2	set	103,5	58	50	1/16"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

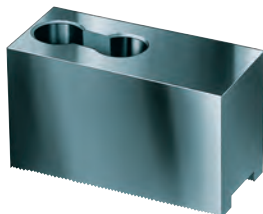
Tool group C 21
Type 543/538
**Reversible top jaws,
3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046404	160	3	set	56	37,5	26	1/16"x 90°
118522	200	3	set	75	49	36	1/16"x 90°
046414	250/315	3	set	103,5	58	50	1/16"x 90°

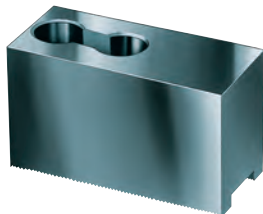
Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Tool group C 21
Type 543/538
**Soft top jaws,
2-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
045795	160	2	set	55	38	26,5	1/16"x 90°
133148	200	2	set	75	53	36,5	1/16"x 90°
133149	250/315	2	set	95	54,5	45	1/16"x 90°

Tool group C 21
Type 543/538
**Soft top jaws,
3-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046403	160	3	set	55	38	26,5	1/16"x 90°
133153	200	3	set	75	53	36,5	1/16"x 90°
133154	250/315	3	set	95	54,5	45	1/16"x 90°

Jaws SSP / SSH

Tool group C 21
Type 544-50
Claw-type jaws,
1 piece, **hardened**
Serration 90° -
width of the groove **12**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
144320	160	piece	66	38	52
144321	160	piece	56	38	34
144322	160	piece	66	38	25

Tool group C 21
Type 544-50
Claw-type jaws,
1 piece, **hardened**
Serration 90° -
width of the groove **17**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137031	200	piece	67	45	53
137032	200	piece	65	45	46
137039	200	piece	55	45	40
137034	200	piece	50	45	31
137035	200	piece	55	45	27
137036	200	piece	65	45	19
137037	200	piece	65	45	26
137038	200	piece	55	45	24
137033	200	piece	55	45	39

Tool group C 21
Type 544-50
Claw-type jaws,
1 piece, **hardened**
Serration 90° -
width of the groove **21**



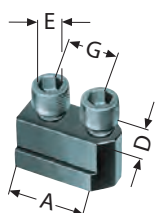
Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
137041	250/315	piece	95	50	80
137042	250/315	piece	75	50	60
137043	250/315	piece	60	50	43
137044	250/315	piece	70	50	37
137045	250/315	piece	95	50	25
137046	250/315	piece	80	50	30

Please note: For further details see jaw dimensions and chucking capacities.

Accessories SSP / SSH

Tool group C 15

Type 549-00 **Extended T-nuts**
without screw



Item no.	Chuck Size	Contents of delivery	A	D	E	G
343234	160	piece	42	12	M8	2x15
135765	200	piece	36	17	M 12	19
135767 ¹⁾	250/315	piece	46	21	M16	-

Tool group C 15

Type 0040-Y **Mounting screws**



Item no.	Size	Contents of delivery	Thread	Length
236949	160	piece	M8	25
233030	200	piece	M12	30
220564	250/315	piece	M16	35

Socket head cap screw to DIN 912, 12.9



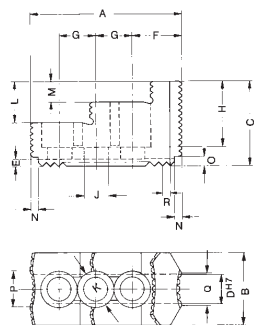
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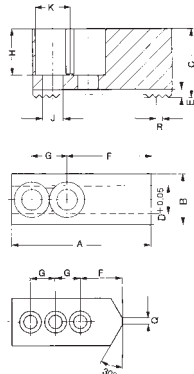
Jaw dimensions SSP / SSH

Reversible top jaws UB, hardened, serration 90°



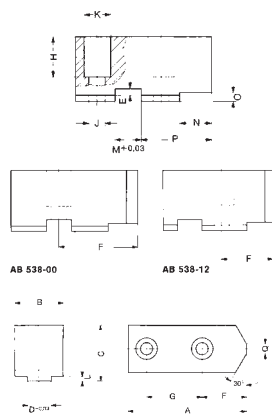
Chuck size	160	200	250/315
Type	538-02	538-04	538-05
Item no. 2-jaw	045796	118521	046435
Item no. 3-jaw	046404	118522	046414
A	56	75	103,5
B	26	36	50
C	37,5	49	58
DH7	12	17	21
E	3,5	5	5
F	14	21,5	33,5
G	15	19	25
H	29	37,5	45
J	8,4	13	17
K	13,5	19	25
L	20	24	28
M	10	12	14
N	4	6	6
O	4	7,5	6,5
P	5	18	24,5
Q	5	7	22,5
R	1/16"x90°	1/16"x90°	1/16"x90°
Weight/jaw kg	0,170	0,460	1,130

Soft top jaws AB, serration 90°



Chuck size	160	250	315
Type	538-03	538-05	538-06
Item no. 2-jaw	133147	133149	133150
Item no. 3-jaw	133152	133154	133155
A	66,7	95	103
B	36,5	45	50
C	53	54,5	80
D	17	21	21
E	5	5	5
F	36	55	62
G	19	25	25
H	43	42,5	67
J	13	17	17
K	19	25	25
Q	-	-	-
R	1/16"x90°	1/16"x90°	1/16"x90°
Weight/jaw kg	0,700	1,400	2,580

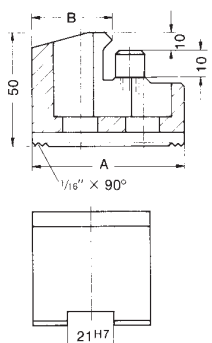
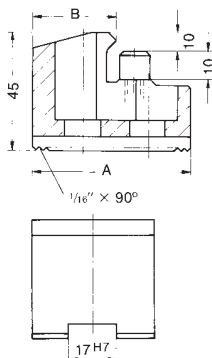
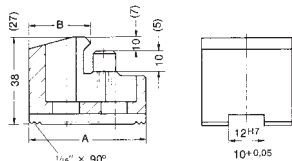
Soft top jaws AB, tongue and groove



Chuck size	160	200	250	315
Type	538-13	538-14	538-15	538-66
Item no. 2-jaw	123359	123431	123434	129847
Item no. 3-jaw	123358	123430	123433	129849
A	72,7	90,3	115,3	146
B	36,5	36,5	45	50
C	53	53	54,5	80
D-0,03	16	16	20	20
E	5,5	5,5	5,5	5,5
F	32,5	45,3	58,3	63,5
G	25	30	40	50
H	38	38	38	60
J	13	13	17	17
K	19	19	25	25
L	4,5	4,5	4,5	4,5
M+0,03	10	12	16	16
N	24,7	35,3	45,3	43
O	5	5	5	5
P	39,7	54,3	70,3	80,5
Q	3	6	6	6
Weight/jaw kg	0,720	1,000	1,550	3,600

Jaw dimensions SSP / SSH

Claw type jaws KB, serration 90°



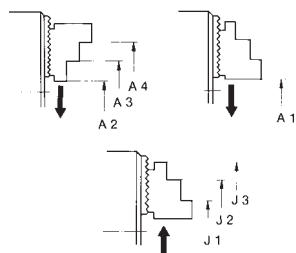
Chuck size	A	B	160
Item no. piece			Capacities external
144320	66	52	56-102
144321	56	34	96-152
144322	66	25	138-184
			Capacities internal
144322	66	25	70-116
144321	56	34	112-200
144320	66	52	152-198

Item no. Piece	A	B	200
			Capacities external
137031	67	53	66-104
137032	65	46	80-118
137039	55	40	106-144
137034	50	31	130-148
137035	55	27	126-164
			Capacities internal
137036	65	19	82-120
137037	65	26	92-130
137038	55	24	110-148
137035	55	27	132-170
137034	50	31	148-184
137039	55	40	134-190
137033	55	39	164-202
137032	65	46	178-216

Item no. Piece	A	B	250	315
				Capacities external
137041	95	80	54-112	78-186
137042	75	60	94-152	118-226
137043	60	43	128-186	152-260
137044	70	37	158-216	182-290
137045	95	25	238-280	262-330
				Capacities internal
137045	95	25	72-130	96-204
137046	80	30	110-168	134-242
137044	70	37	152-210	176-284
137043	60	43	182-240	206-314
137042	75	60	216-274	-

Chucking capacities SSP / SSH

Chucking capacities with reversible top jaws UB



Chuck size		160	200	250	315
with reversible jaws	Type	538-02	538-04	538-05	538-05
	Jaw position				
External chucking	A1	28-80	30-115	20-128	41-194
	A2	32-84	44-128	46-154	67-220
	A3	82-132	101-185	128-238	150-303
	A4	118-168	152-236	210-318	231-384
Internal chucking	J1	64-116	80-165	70-188	91-244
	J2	96-148	130-214	146-255	168-320
	J3	140-192	182-266	225-334	246-400

Overview

Our manually operated chucks are listed in our catalogue "Clamping technology - manual".

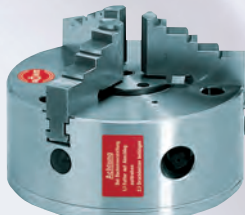
DURO-T

One-piece, stepped reverse jaws, base jaws with reverse top jaws or with base jaws only



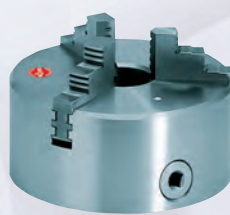
DURO A

One-piece, stepped jaws, 1 set stepped inwardly, 1 set stepped outwardly or with base jaws only. With cover for protection against dust on the face



ZGD

One-piece, stepped jaws with dual jaw guide, 1 set stepped inwardly, 1 set stepped outwardly or 1 set base jaws and reverse top jaws



ZG Hi-Tru

One-piece, stepped jaws, 1 set stepped inwardly, 1 set stepped outwardly. Clamping center adjustable with radial fine setting



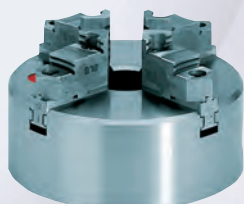
ZG/ZS

One-piece, stepped jaws, 1 set stepped inwardly, 1 set stepped outwardly



ZGU/ZSU

With base jaws and reverse top jaws



ZGF

Dual jaw version with base jaws and non-stepped top jaws (re-machinable)



EG/ES

Individually adjustable, stepped reverse jaws, centrally clamping -- particularly suitable for aligning nonregular workpieces



ZG/ZS
ZGU/ZSU
ZGD
ZG Hi-Tru
DURO-T
DURO A
ZGF
EG/ES

All chucks displayed on this page can be clamped to the base and support plates to work as manually operated vices. They are ideal for the safe clamping of round and partly rectangular workpieces on drilling, milling and special machines as well as machining centers.



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KZS-P / KZS-PG



Base jaws serration 1,5x60°
and possibility for tongue and groove connection

**Used as stationary centering vices on drilling, milling
and special purposes machines.**

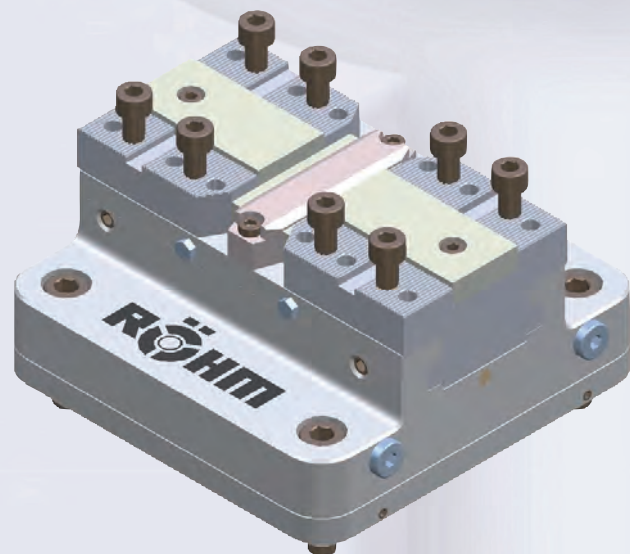
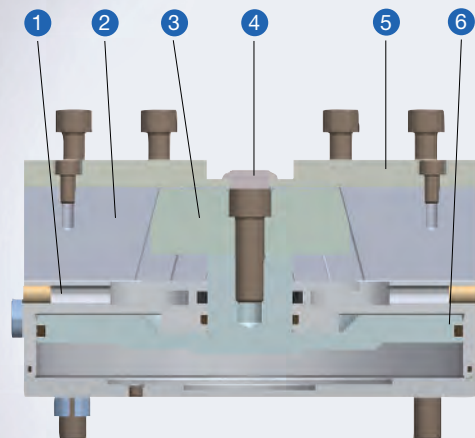
Force transmission by the proven wedge system.

Technical features:

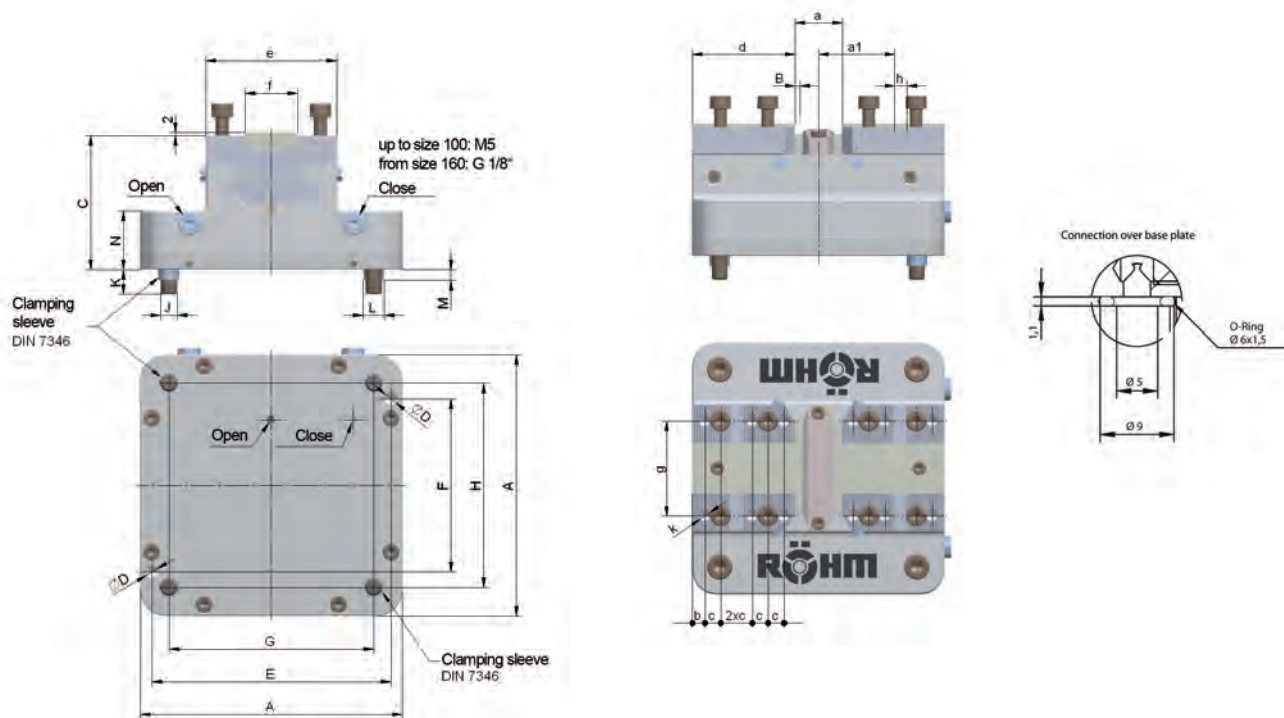
- Quick and efficient chucking
- Concentric gripping of round as well as angular parts
- Universal through use of different jaws
- Ideal for series production
- Suitable for use in automated work cycles
- Gripping force adjustable by changing the pressure
- High chucking accuracy thanks to constant gripping force at constant pressure
- Compact design, large jaw stroke
- High repeating accuracy
- For internal and external clamping
- Rigid, extra tight jaw guidings

Components:

- 1 Body
- 2 Base jaw
- 3 Piston
- 4 Cover bridge
- 5 Guiding rail
- 6 Piston disc



KZS-P



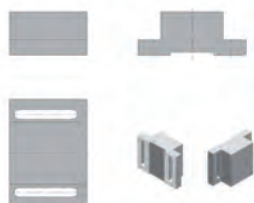
Tool group C 15
Type 501-00
Air-operated
centering vices **KZS-P**
Base jaws with
serration 1,5 x 60°
and **tongue and groove**
connection

Item no.	165092	165093	165094	165455	165095	165096
Size	64	100	160	200	250	315
A	64	100	160	200	250	315
Jaw travel B	2,2	2,5	3,2	3,5	4	5
C	50,5	69	82	90	98	138
Ø D	4	6	8	8	10	12
E±0,01	18 from center	90	146	184	230	280
F±0,01	56	64	106	146	154	210
G±0,04	50	80	125	160	200	250
H±0,04	50	80	125	160	200	250
J (4x)	M6	M8	M10	M10	M12	M16
K	8	12	15	15	18	23
Ø L Clamping sleeve	8	11	13	13	16	21
M	2,5	4,5	6,5	6,5	6	9
N	28	35	36	42	52	64
O	17	32	40	50	64	80
P	17	29,5	50	65	75	90
a min.	12	20	23,6	25	28	42
a max.	16,4	25	30	32	36	52
a 1 min.	13	25,5	44,8	54,5	57	88
a 1 max.	15,2	28	48	58	61	93
b	4	5	8	8	11	13,5
c	5	7	10	10	12	15
d	23	37,5	65	84	107	131,5
e	34	55	80	100	125	160
f g6	14	20	32	40	50	60
g	24	35	60	80	90	120
h H7	4	6	8	8	10	12
k	4xM4/6	4xM6/8	5xM8/13	6xM8/13	8xM10/16	8xM12/18
Piston area cm²	22	62	175	250	370	600
Max. operating pressure bar	6	9	9	6	6	6
Max. total clamping force kN	2,5	13	35	35	50	80
Weight kg	1	3	9	19	29,5	73
Air consumption/Double stroke cm³	31	126	420	650	1300	2310

Jaws KZS-P

Tool group C 21
Type 543-32

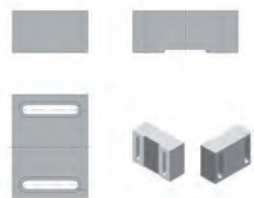
**Soft top jaws,
2-jaw set, can be hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
166138	64	set	25	20	34
166140	100	set	42	25	55
166142	160	set	60	40	80
166144	200	set	75	45	100
166146	250	set	90	50	125
166148	315	set	110	60	160

Tool group C 21
Type 543-38

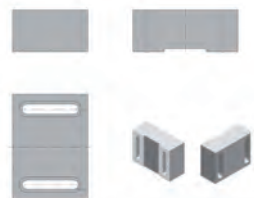
**Soft top jaws,
2-jaw set, Serration 60°,
design without holes -
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
167774	64	set	25	20	34
167776	100	set	42	25	55
167778	160	set	60	40	80
167780	200	set	75	45	100
167782	250	set	90	50	125
167784	315	set	110	60	160

Tool group C 21
Type 543-32

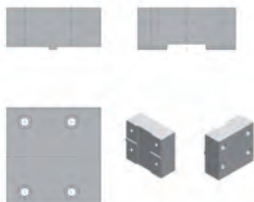
**Soft top jaws, 2-jaw set
Serration 60°
with long hole -
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
167786	64	set	34	13	20
167788	100	set	55	16	25
167790	160	set	80	28	40
167792	200	set	100	33	45
167794	250	set	125	32	50
167796	315	set	160	37	60

Tool group C 21
Type 543-12

**Soft top jaws, 2-jaw set
tongue and groove, flat design,
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
166114	64	set	28,5	16	34
166116	100	set	47	25	55
166118	160	set	76	40	80
166120	200	set	96	45	100
166122	250	set	120	50	125
166124	315	set	150	60	160

Tool group C 21
Type 543-12

**Soft top jaws, 2-jaw set
tongue and groove, high design,
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
166126	64	set	28,5	35	34
166128	100	set	47	48	55
166130	160	set	76	77,5	80
166132	200	set	96	85	100
166134	250	set	120	100	125
166136	315	set	150	110	160

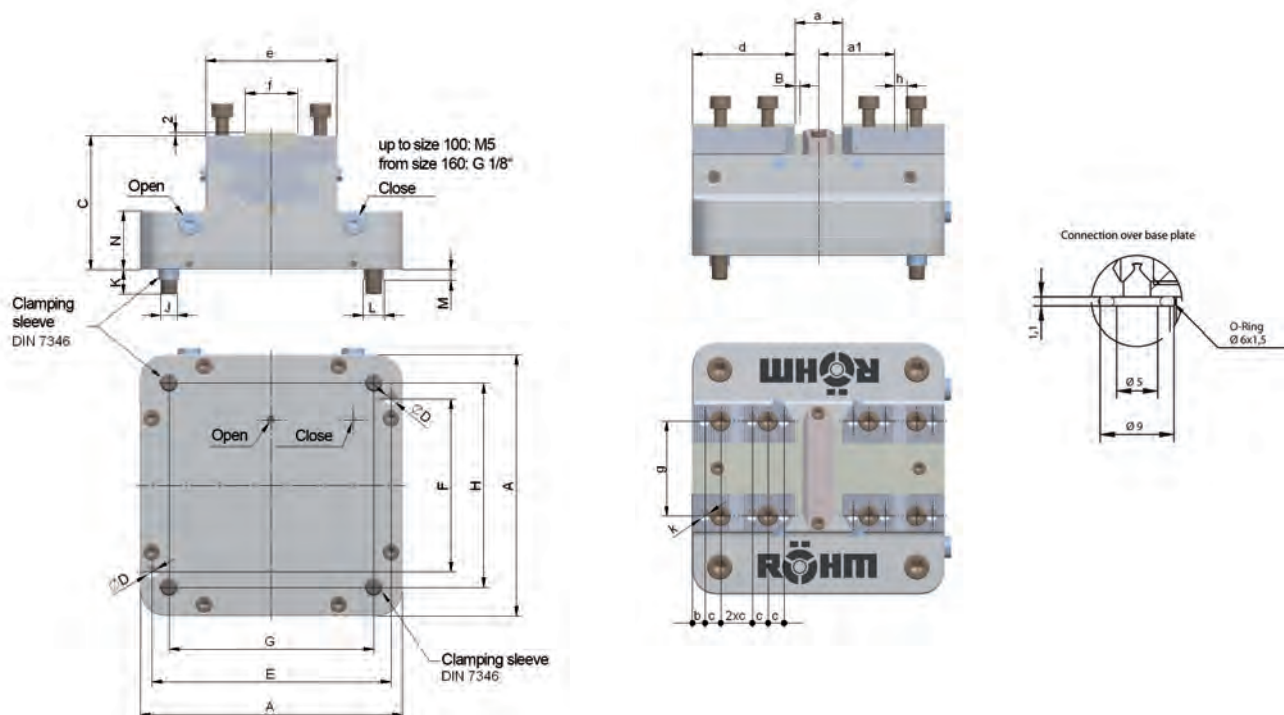


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KZS-PG large jaw movement



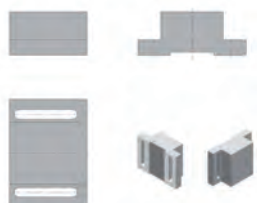
Tool group C 15
Type 501-10
Air-operated centering
vices **KZS-PG**,
large jaw movement
Base jaws with **serration 1,5 x 60°**
and **tongue and groove**
connection

Item no.	165340	165341	165456	165342	165343
Size	100	160	200	250	250
A	100	160	200	250	250
Jaw travel B	6	7,8	8,5	10,1	15
C	69	82	90	98	98
Ø D	6	8	8	10,1	10
E±0,01	90	146	184	230	230
F±0,01	64	106	146	154	154
G±0,04	80	125	160	200	200
H±0,04	80	125	160	200	200
J (4x)	M8	M10	M10	M12	M12
K	12	15	15	16	18
Ø L Clamping sleeve	11	13	13	16	16
M	4,5	6,5	6,5	4,5	6
N	35	36	42	52	52
O	32	40	50	64	64
P	29,5	50	65	75	75
a min.	20	23	25	28	33
a max.	32	38,6	42	48,2	63
a 1 min.	25,5	44,8	54,5	57	51,5
a 1 max.	31,5	52,6	63	67,1	66,5
b	5	11,2	11,5	15	15
c	7	10	10	12	12
d	37,5	68,5	87,5	111	103
e	55	80	100	125	125
f g6	20	32	40	50	50
g	35	60	80	90	90
h H7	6	8	8	10	10
k	4xM6/8	5xM8/13	6xM8/13	8xM10/15	8xM12/18
Piston area cm²	62	175	250	370	370
Max. operating pressure bar	6	6	6	6	6
Max. total clamping force kN	4,2	10,5	14	18	15
Weight kg	3	9	19	29,5	29,5
Air consumption/Double stroke cm³	126	420	650	1300	1300

Jaws KZS-PG

Tool group C 21
Type 543-32

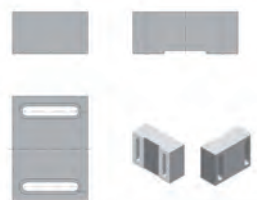
**Soft top jaws,
2-jaw set, can be hardened
Serration 60° -
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
166140	100	set	42	25	55
166142	160	set	60	40	80
166144	200	set	75	45	100
166146	250	set	90	50	125
166148	250	set	110	60	160

Tool group C 21
Type 543-32

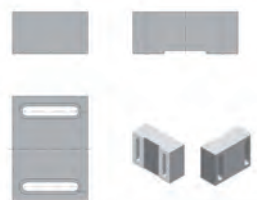
**Soft top jaws,
2-jaw set, serration 60°
with long hole -
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
167788	100	set	55	16	25
167790	160	set	80	28	40
167792	200	set	100	33	45
167794	250	set	125	32	50
167796	250	set	160	37	60

Tool group C 21
Type 543-38

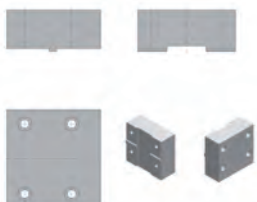
**Soft top jaws, 2-jaw set
Serration 60°
design without holes -
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
167776	100	set	42	25	55
167778	160	set	60	40	80
167780	200	set	75	45	100
167782	250	set	90	50	125
167784	250	set	110	60	160

Tool group C 21
Type 543-12

**Soft top jaws, 2-jaw set
tongue and groove, flat design,
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
166116	100	set	47	25	55
166118	160	set	76	40	80
166120	200	set	96	45	100
166122	250	set	120	50	125
166124	250	set	150	60	160

Tool group C 21
Type 543-12

**Soft top jaws, 2-jaw set
tongue and groove, high design,
material: 16 MnCr 5**



Item no.	Chuck Size	Contents of delivery	Jaw length	Jaw height	Jaw width
166128	100	set	47	48	55
166130	160	set	76	77,5	80
166132	200	set	96	85	100
166134	250	set	120	100	125
166136	250	set	150	110	160

LVE - with integrated cylinder



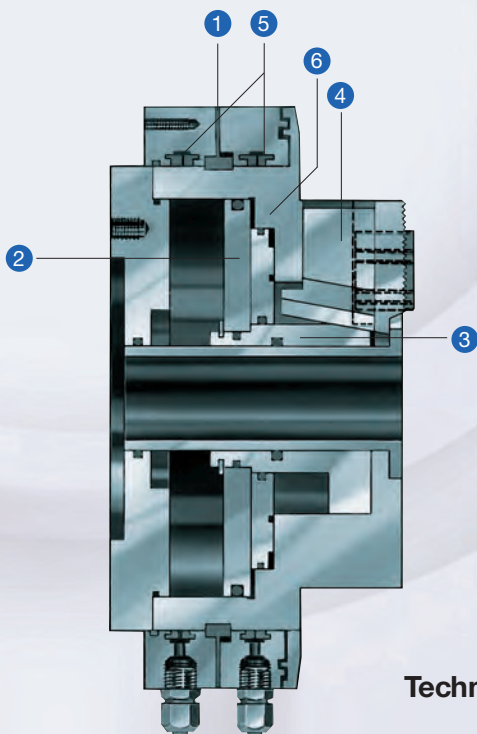
Suitable for machining flanges and bar stock and for chucking pipes. The actuating cylinder is incorporated in the chuck body. Thanks to the elimination of draw tube the spindle bore is free and unobstructed throughout its entire length. Compressed air is supplied to one of the piston spaces through the immobilized floating ring ① and the double non-return valve. The force acting on the pressure piston ② is transmitted to the base jaws ④ by the chucking piston via the proven wedge system ③. During chucking and unchucking, special seals ⑤ seal the floating ring ① against the body ⑥. On completion of the chucking operation, the chucking pressure is maintained by the nonreturn valve with no pressure existing in the supply lines. The seals rise by their elasticity and are not destroyed through the rotating chuck body.

Scope of delivery:

Chuck and jaw mounting screws, T-nuts (without top jaws)

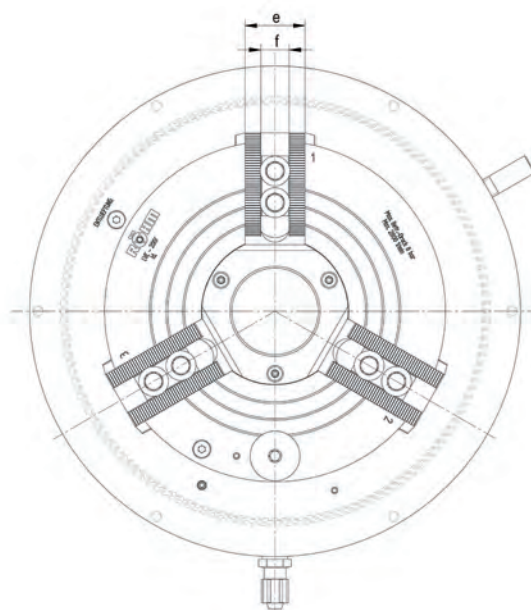
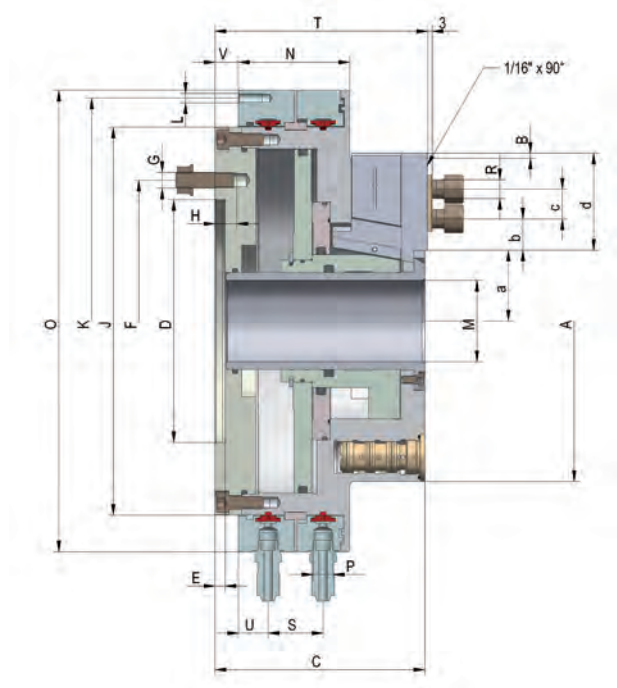
Components:

- ① Floating ring
- ② Pressure piston
- ③ Wedge system
- ④ Base jaws
- ⑤ Special seals
- ⑥ Body



Technical features:

- Self-contained
- High gripping force even at 6 bar
- No need for conversion when changing from bar work to normal chucking and vice versa
- Fast and convenient mounting on machine spindle
- Readily interchangeable with a manually operated chuck
- Unobstructed bore throughout spindle thanks to omission of draw tube
- Simple operation
- Chucking and unchucking only while spindle is not rotating

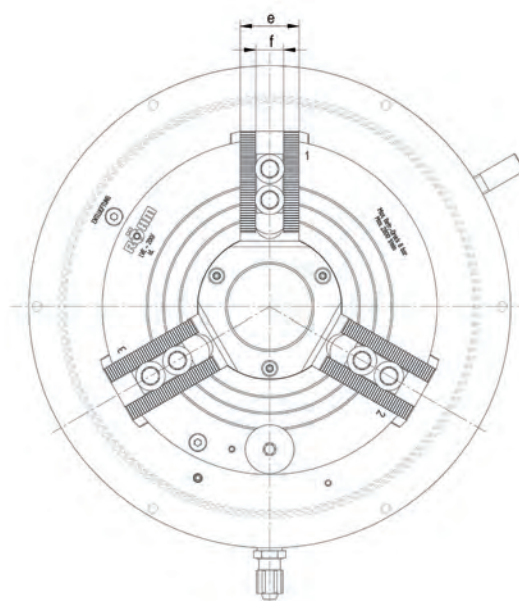
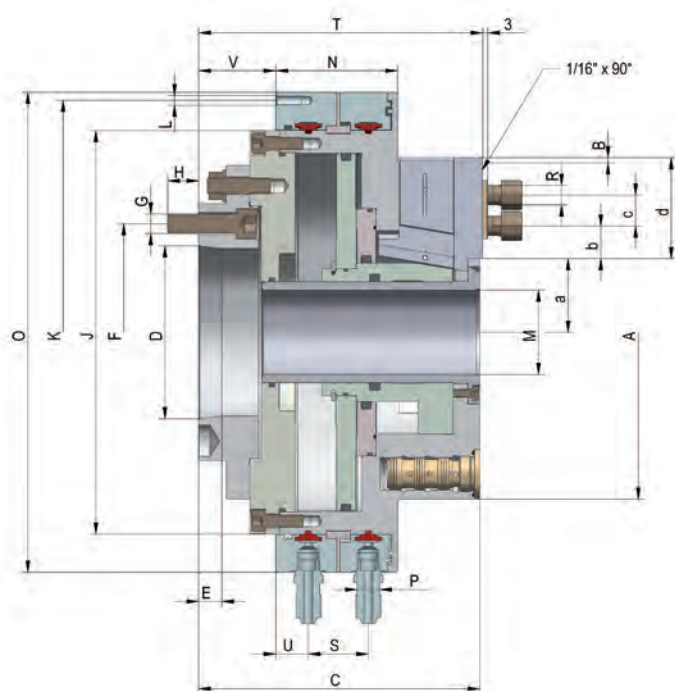


Tool group C 15
Type 525-00

3-jaw self-contained chucks **LVE**,
with **through-hole**,
max. operating pressure 10 bar,
with **serration**
cylindrical centre mount

Item no.	420189	420190	420191	420192	420193
Size	125	160	200	250	315
A	136	168	205	255	320
Jaw travel B	3	4,2	4,2	5	5
C	101,5	130,5	134	146	156,5
DH6	120	125	155	185	225
E	6	6,5	6,5	6,5	6,5
F	137	150	180	358	250
G	M 8	M 10	M 10	M 10	M 6
H	8	13	14	14	14
J	164	205	248	315	350
K	190	235	285	358	388
L	M 6	M 6	M 6	M 6	M 16
M	26	38	52	68	90
N	66,5	80,5	71	78,5	79,5
O	204	250	295	370	400
P	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"
R	M 8	M 8	M 12	M 16	M 10
S	32	41	35	37	36
T	103	131,5	134	147,5	158
U	20	20,7	19	19	18
V	-	4	15	15,5	25
a min.	24	31,8	41,2	50	61,5
a max.	27	36	45,4	55	66,5
b min.	10	10	13	15	14,5
b max.	21	19,5	35	43	64
c	min. 14 / max. 25	2 x 15	19	25	25
d	41	49,5	62	78	99
e	25	32	36	44	44
f ^{H7}	12	12	17	21	21
Max. operating pressure bar	8	8	8	8	8
Min. operating pressure bar	2	2,5	2,5	2,5	2,5
Total clamping force at 6 bar kN	20	35	60	95	120
Max. admissible speed min ⁻¹	4000	3500	2800	2200	1800
Moment of inertia J kgm ²	0,028	0,125	0,262	0,675	1,35
Air consumption/jaw travel at 6 bar NL	1,5	3,6	6,1	9,9	12,3
Weight without jaws approx. kg	13	25	36	57	85

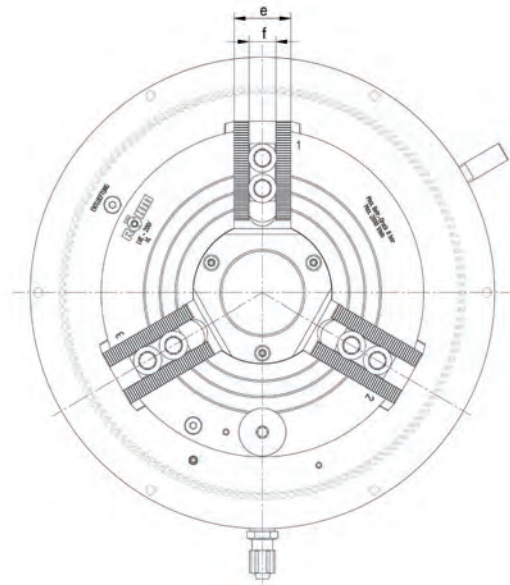
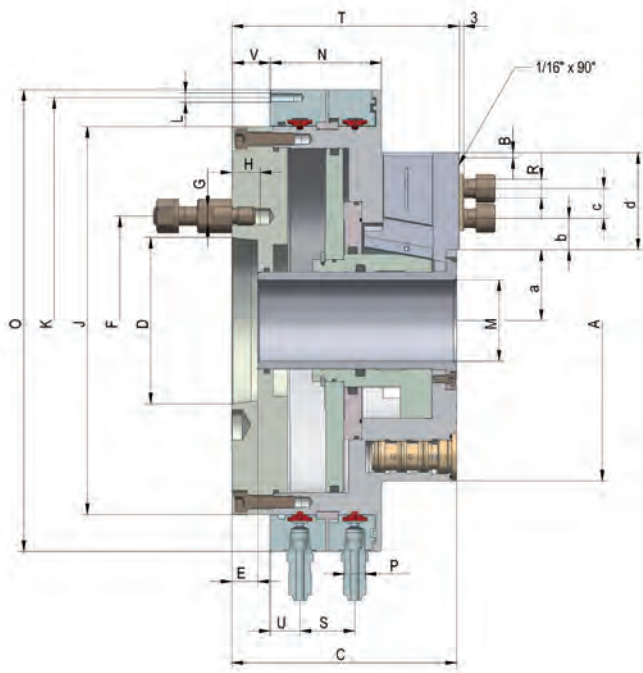
A stationary fastening of the floating ring allows higher speeds



Tool group C 15
Type 525-02
3-jaw self-contained chucks LVE,
with **through-hole,**
max. operating pressure 10 bar,
with **serration,**
incl. flange
Short taper mount ISO 702-1
(DIN 55026)
by short-taper intermediate flange

Item no.	421710	421711	421712	421713	421715	421716	421718	421719	421720	421721	421722
Size	125	125	160	160	200	200	250	250	315	315	315
Short-taper	4	5	4	5	5	6	6	8	6	8	11
A	136	136	168	168	205	205	255	255	320	320	320
Jaw travel B	3	3	4,2	160,5	4,2	4,2	5	5	5	5	5
C	124,5	128,5	155,5	160,5	164	164	181	181	191,5	191,5	201,5
DH6	120	120	125	125	155	155	185	185	225	225	225
E	6	6	6,5	6,5	6,5	6,5	6,5	6,5	6,5	6,5	6,5
F	137	150	150	150	180	180	180	210	250	250	250
G	M 8	M 8	M 10	M 10	M 10	M 10	M 10	M 10	M 10	M 10	M 10
H	8	8	13	13	14	14	14	14	14	14	14
J	164	164	205	205	248	248	315	315	350	350	350
K	190	190	235	235	285	285	358	358	388	388	388
L	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6
M	26	26	38	38	52	52	68	68	90	90	90
N	66,5	66,5	80,5	80,5	71	71	78,5	78,5	79,5	79,5	79,5
O	204	204	250	250	295	295	370	370	400	400	400
P	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"
R	M 8	M 8	M 8	M 8	M 12	M 12	M 16	M 16	M 16	M 16	M 16
S	32	32	41	41	35	35	37	37	36	36	36
T	126	130	157	162	165,5	165,5	182,5	182,5	193	193	203
U	20	20	20,7	20,7	19	19	19	19	18	18	18
V	23	27	29,5	34,5	45	45	50,5	50,5	60	60	70
a min.	24	24	31,8	31,8	41,2	41,2	50	50	61,5	61,5	61,5
a max.	27	27	36	36	45,4	45,4	55	55	66,5	66,5	66,5
b min.	10	10	10	10	13	13	15	15	14,5	14,5	14,5
b max.	21	21	19,5	19,5	35	35	43	43	64	64	64
c	min. 14 / max. 25	min. 14 / max. 25	2 x 15	2 x 15	19	19	25	25	25	25	25
d	41	41	49,5	49,5	62	62	78	78	99	99	99
e	25	25	32	32	36	36	44	44	44	44	44
f ¹⁷	12	12	12	12	17	17	21	21	21	21	21
Max. operating pressure bar	8	8	8	8	8	8	8	8	8	8	8
Min. operating pressure bar	2	2	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
Total clamping force at 6 bar kN	20	20	35	35	60	60	95	95	120	120	120
Max. admissible speed min ⁻¹	4000	4000	3500	3500	2800	2800	2200	2200	1800	1800	1800
Moment of inertia J kgm ²	0,028	0,028	0,125	0,125	0,262	0,262	0,675	0,675	1,35	1,35	1,35
Air consumption/jaw travel at 6 bar NL	1,5	1,5	3,6	3,6	6,1	6,1	9,9	9,9	12,3	12,3	12,3
Weight without jaws approx. kg	13	13	25	25	36	36	57	57	85	85	85

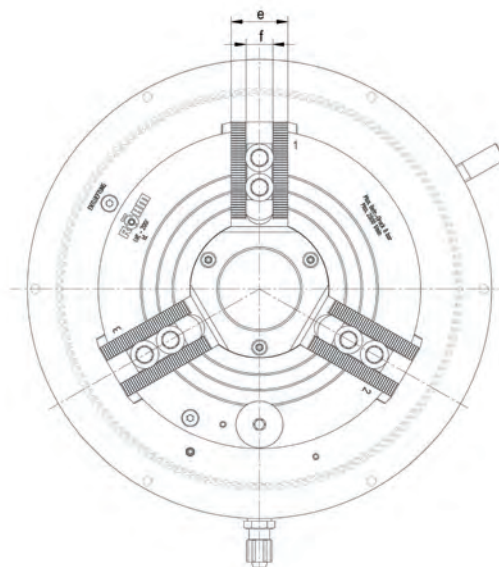
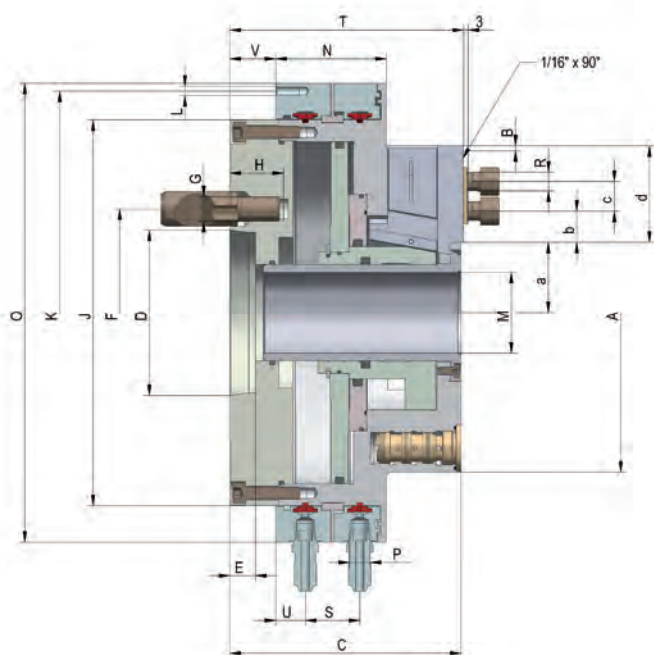
A stationary fastening of the floating ring allows higher speeds



Tool group C 15
Type 525-03
3-jaw self-contained chucks LVE,
with **through-hole,**
max. operating pressure 10 bar,
with **serration**
Short taper mount
ISO 702-3 (DIN 55027,
studs and locknuts)

Item no.	421046	421047	421048	421049	421050	421051	421052	421053	421054	421055	421056	421057	421058	421059
Size	125	125	160	160	160	200	200	200	250	250	250	315	315	315
Short-taper	4	5	4	5	6	5	6	8	6	8	11	6	8	11
A	136	136	168	168	168	205	205	205	255	255	255	320	320	320
Jaw travel B	3	3	4,2	4,2	4,2	4,2	4,2	4,2	5	5	5	5	5	5
C	108,5	111	138	138	140	144	143,5	145,5	157	157	159	166	166	168
D	63,513	82,563	63,513	82,563	106,375	82,563	106,375	139,719	106,375	139,719	196,869	106,375	139,719	196,869
E	15	15	15	15	18	15	18	18	18	18	19	18	18	19
F	85	104,8	85	104,8	133,4	104,8	133,4	171,4	133,4	171,4	235	133,4	171,4	235
G	3xM10	4xM10	3xM10	4xM10	4xM12	4xM10	4xM12	4xM16	4xM12	4xM16	6xM20	4xM12	4xM16	6xM20
H	15	15	15	15	18	15	18	24	18	24	30	18	24	30
J	164	164	205	205	205	248	248	248	315	315	315	350	350	350
K	190	190	235	235	235	285	285	285	358	358	358	388	388	388
L	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6
M	26	26	38	38	38	52	52	52	68	68	68	90	90	90
N	66,5	66,5	80,5	80,5	80,5	71	71	71	78,5	78,5	78,5	79,5	79,5	79,5
O	204	204	250	250	250	295	295	295	370	370	370	400	400	400
P	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"
R	M 8	M 8	M 8	M 8	M 8	M 12	M 12	M 12	M 16	M 16	M 16	M 16	M 16	M 16
S	32	32	41	41	41	35	35	35	37	37	37	36	36	36
T	110	112,5	139,5	139,5	-	144	145	147	158,5	158,5	160,5	167,5	167,5	169,5
U	20	20	20,7	20,7	20,7	19	19	19	19	19	19	18	18	18
V	7	9,5	12	12	13,5	23,5	24,5	26,5	26,5	26,5	28,5	34,5	34,5	36,5
a min.	24	24	31,8	31,8	31,8	41,2	41,2	41,2	50	50	50	61,5	61,5	61,5
a max.	27	27	36	36	36	45,4	45,4	45,4	55	55	55	66,5	66,5	66,5
b min.	10	10	10	10	10	13	13	13	15	15	15	14,5	14,5	14,5
b max.	21	21	19,5	19,5	19,5	35	35	35	43	43	43	64	64	64
c	min 14 / max 25	min 14 / max 25	2 x 15	2 x 15	2 x 15	19	19	19	25	25	25	25	25	25
d	41	41	49,5	49,5	49,5	62	62	62	78	78	78	99	99	99
e	25	25	32	32	32	36	36	36	44	44	44	44	44	44
f ¹⁷	12	12	12	12	12	17	17	17	21	21	21	21	21	21
Max. operating pressure bar	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Min. operating pressure bar	2	2	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
Total clamping force at 6 bar kN	20	20	35	35	35	60	60	60	95	95	95	120	120	120
Max. admissible speed min ⁻¹	4000	4000	3500	3500	3500	2800	2800	2800	2200	2200	2200	1800	1800	1800
Moment of inertia J kgm ²	0,028	0,028	0,125	0,125	0,125	0,262	0,262	0,262	0,675	0,675	0,675	1,35	1,35	1,35
Air consumption/ jaw travel at 6 bar NL	1,5	1,5	3,6	3,6	3,6	6,1	6,1	6,1	9,9	9,9	9,9	12,3	12,3	12,3
Weight without jaws approx. kg	13	13	25	25	25	36	36	36	57	57	57	85	85	85

A stationary fastening of the floating ring allows higher speeds



Tool group C 15
Type 525-04
3-jaw self-contained chucks LVE,
with **through-hole,**
max. operating pressure 10 bar,
with **serration**
Short taper mount **ISO 702-2**
(DIN 55029, studs for camlock)

Item no.	421723	421724	421725	421726	421727	421728	421729	421730	421731	421732	421733	421734	421735	421736
Size	125	125	160	160	160	200	200	200	250	250	250	315	315	315
Short-taper	4	5	4	5	6	5	6	8	6	8	11	6	8	11
A	136	136	168	168	168	205	205	205	255	255	255	320	320	320
Jaw travel B	3	3	4,2	4,2	4,2	4,2	4,2	4,2	5	5	5	5	5	5
C	113	113	138	138	144	142,5	148,5	150,5	161	161	166	171	171	171
D	63,513	82,563	63,513	82,563	106,375	82,563	106,375	139,719	106,375	139,719	196,869	106,375	139,719	196,869
E	15	15	15	15	18	15	18	18	18	18	19	18	18	19
F	85	104,8	85	104,8	133,4	104,8	133,4	171,4	133,4	171,4	235	133,4	171,4	235
G	3x7/16-20	6x1/2-20	3x7/16-20	6x1/2-20	6x5/8-18	6x1/2-20	6x5/8-18	6x3/4-16	6x5/8-18	6x3/4-16	6x7/8-14	6x5/8-18	6x3/4-16	6x7/8-14
H	28	30	28	30	35	30	35	38,5	35	38,5	45	35	38,5	45
J	164	164	205	205	205	248	248	248	315	315	315	350	350	350
K	190	190	235	235	235	285	285	285	358	358	358	388	388	388
L	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6	M 6
M	26	26	38	38	38	52	52	52	68	68	68	90	90	90
N	66,5	66,5	80,5	80,5	80,5	71	71	71	78,5	78,5	78,5	79,5	79,5	79,5
O	204	204	250	250	250	295	295	295	370	370	370	400	400	400
P	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"	R 1/4"
R	M 8	M 8	M 8	M 8	M 8	M 12	M 12	M 12	M 16	M 16	M 16	M 16	M 16	M 16
S	32	32	41	41	41	35	35	35	37	37	37	36	36	36
T	114,5	114,5	139,5	139,5	145,5	144	150	152	162,5	162,5	167,5	172,5	172,5	172,5
U	20	20	20,7	20,7	20,7	19	19	19	19	19	19	18	18	18
V	11,5	11,5	12	12	19	23,5	29,5	31,5	30,5	30,5	35,5	39,5	39,5	39,5
a min.	24	24	31,8	31,8	31,8	41,2	41,2	41,2	50	50	50	61,5	61,5	61,5
a max.	27	27	36	36	36	45,4	45,4	45,4	55	55	55	66,5	66,5	66,5
b min.	10	10	10	10	10	13	13	13	15	15	15	14,5	14,5	14,5
b max.	21	21	19,5	19,5	19,5	35	35	35	43	43	43	64	64	64
c	min 14 / max 25	min 14 / max 25	2 x 15	2 x 15	2 x 15	19	19	19	25	25	25	25	25	25
d	41	41	49,5	49,5	49,5	62	62	62	78	78	78	99	99	99
e	25	25	32	32	32	36	36	36	44	44	44	44	44	44
f ^{H7}	12	12	12	12	12	17	17	17	21	21	21	21	21	21
Max. operating pressure bar	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Min. operating pressure bar	2	2	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
Total clamping force at 6 bar kN	20	20	35	35	35	60	60	60	95	95	95	120	120	120
Max. admissible speed min ⁻¹	4000	4000	3500	3500	3500	2800	2800	2800	2200	2200	2200	1800	1800	1800
Moment of inertia J kgm ²	0,028	0,028	0,125	0,125	0,125	0,262	0,262	0,262	0,675	0,675	0,675	1,35	1,35	1,35
Air consumption/ jaw travel at 6 bar NL	1,5	1,5	3,6	3,6	3,6	6,1	6,1	6,1	9,9	9,9	9,9	12,3	12,3	12,3
Weight without jaws approx. kg	13	13	25	25	25	36	36	36	57	57	57	85	85	85

A stationary fastening of the floating ring allows higher speeds



AMTE

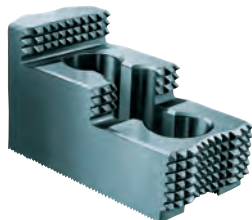


Jaws LVE

Tool group C 21
Type 543/538
**Reversible top jaws,
3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**

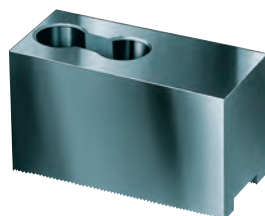
Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046404	125/160	3	set	56	37,5	26	1/16"x 90°
118522	200	3	set	75	49	36	1/16"x 90°
046414	250/315	3	set	103,5	58	50	1/16"x 90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.



Tool group C 21
Type 543/538
**Soft top jaws,
3-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5**

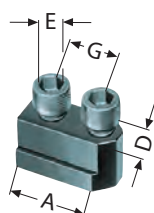
Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
046403	125/160	3	set	55	38	26,5	1/16"x 90°
133153	200	3	set	75	53	36,5	1/16"x 90°
133154	250/315	3	set	95	54,5	45	1/16"x 90°



Accessories LVE

Tool group C 15

Type 549-00 **Extended T-nuts**
without screw



Item no.	Chuck Size	Con- tents of delivery	D	E	G
041245 ¹⁾	125	piece	12	M8	-
343234	160	piece	12	M8	2x15
135765	200	piece	17	M 12	19
135767 ¹⁾	250/315	piece	21	M16	-

Tool group C 15

Type 0040-Y **Mounting screws**

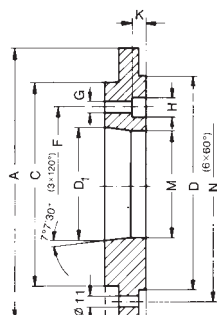


Item no.	Size	Thread
233058	125	M8x20
236949	160	M8x25
233030	200	M12x30
220564	250/315	M16x35

Socket head cap screw to DIN 912, 12.9

Tool group C 15
Type 518-10

**Short-taper intermediate flanges
ISO 702-1
(DIN 55026/55021)
for LVE-chucks with centering rim**



Item no.	Chuck Size	Short- taper	A	B	C	Dh5	D1	F	G	H	K	L	M	N
636874	125	4	160	28	112	120	63,525	82,55/85 1)	11	17	12	12	48,2	137
636875	125	5	160	32	160	120	82,563	104,8	11	17	17	14	26	137
267507	160	4	190	30	117	125	63,525	82,55/85 1)	11	18	12	13	60,7	150
267508	160	5	190	35	146	125	82,575	104,8	11	18	12	13	79,4	150
267509	200	5	215	35	146	155	82,575	104,8	11	18	12	13	79,4	180
267510	200	6	215	35	181	155	106,390	133,4	14	20	17	13	103	180
267511	250	6	250	40	181	185	106,390	133,4	14	20	17	13	103	210
267512	250	8	250	40	225	185	139,735	171,4	18	26	22	18	135,7	210
267513	315	6	290	40	181	225	106,390	133,4	14	20	17	18	103	250
267514	315	8	290	40	225	225	139,735	171,4	18	26	22	18	135,7	250
267515	315	11	290	50	298	225	196,885	235	22	33	28	35	192,5	250

¹⁾ dimensions to DIN 55021

Accessories LVE

Tool group C 15
Type 518-91 **Electro-Pneumatic
Safety Control Block**
for LVE 125-315



Item no.	voltage
437747	220 V 50 Hz
437748	24 V Dc

Please order accessories and the connection hoses separately

Tool group C 15
Type 518-91
Manual pulse generator,
without cable



Item no.	Contents of delivery
1071105	piece

Tool group C 15
Type 1025-Q **Double foot-control
switch**



Item no.	Contents of delivery
249325	piece

Tool group C 15
Type 3310-H **Service unit**



Item no.	Contents of delivery
367444 ¹⁾	piece

¹⁾ Containing filter, separator and oiler, R 3/8"

Tool group C 15
Type 3491-Y **Metal-coated hose**



Item no.	Chuck Size	Design	Contents of delivery
720237 ¹⁾	125-200	Ø 10/6 p. meter	piece
720262 ¹⁾	250-315	Ø 12/9 p. meter	piece

¹⁾ Please indicate the hose length

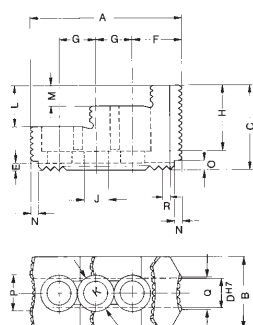
Tool group C 15
Type 30-Y **Connector**



Item no.	Chuck Size	Design	Contents of delivery
720233	125-200	snap-on connector CX-R 1/4"-PX-6	piece
720235	125-200	swivel connector LCX-R 1/4"-PX-6	piece
720260	250-315	straight screw-in unions Ø 12/9 R 1/4"	piece
720261	250-315	swivel connector Ø 12/9 R 1/4"	piece

Jaw dimensions LVE

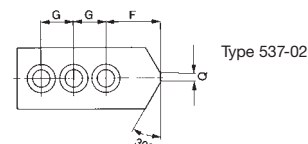
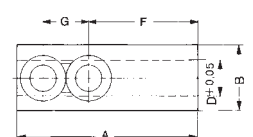
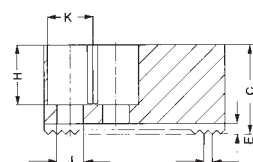
Reversible top jaws UB,
hardened, serration 90°,
material 16MnCr5



Chuck size	125	160	200	250	315
Type	538-02	538-02	538-04	538-05	538-05
Item no. 3-jaw	046404	046404	118522	046414	046414
A	56	56	75	103,5	103,5
B	26	26	36	50	50
C	37,5	37,5	49	58	58
DH7	12	12	17	21	21
E	3,5	3,5	5	5	5
F	14	14	21,5	33,5	33,5
G	15	15	19	25	25
H	29	29	37,5	45	45
J	8,4	8,4	13	17	17
K	13,5	13,5	19	25	25
L	20	20	24	28	28
M	10	10	12	14	14
N	4	4	6	6	6
O	4	4	7,5	6,5	6,5
P	5	5	18	24,5	24,5
Q	5	5	7	22,5	22,5
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°
Weight/jaw kg	0,170	0,170	0,460	1,130	1,130

Reversible top jaws: Ground to finished size at surcharge.

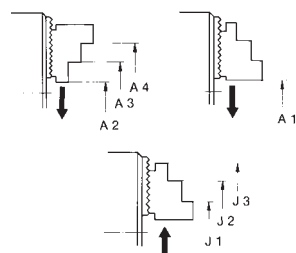
Soft top jaws AB,
material 16MnCr5



Chuck size	125	160	200	250	250
Type	538-02	538-02	538-04	538-05	538-05
Item no. 3-jaw	046403	046403	133153	133154	133154
A	55	55	75	95	95
B	26,5	26,5	36,5	45	45
C	38	38	53	54,5	54,5
DH7	12	12	17	21	21
E	3,5	3,5	5	5	5
F	31	31	44	55	55
G	15	15	19	25	25
H	28	28	43	42,5	42,5
J	8,4	8,4	13	17	17
K	13,5	13,5	19	25	25
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°
Weight/jaw kg	0,320	0,320	0,880	1,400	1,400

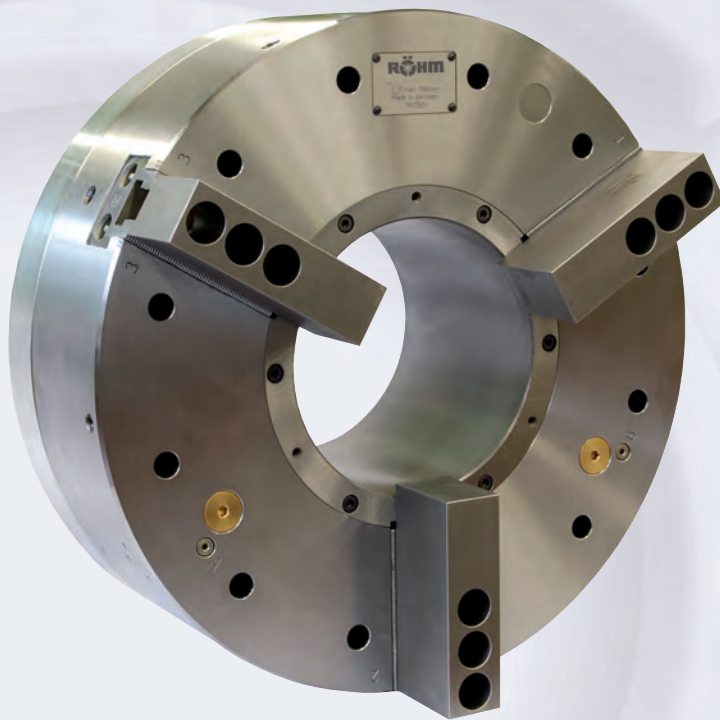
Chucking capacities LVE

Chucking capacities with
reversible top jaws UB



Chuck size		125	160	200	250	315
with reversible jaws	Type	538-02	538-02	538-04	538-05	538-05
	Jaw position					
External chucking	A1	12-63	28-80	30-115	20-128	41-194
	A2	17-69	32-84	44-128	46-154	67-220
	A3	67-119	82-132	101-185	128-238	150-303
	A4	101-153	118-168	152-236	210-318	231-384
Internal chucking	J1	49-99	64-116	80-165	70-188	91-244
	J2	81-131	96-148	130-214	146-255	168-320
	J3	125-175	140-192	182-266	225-334	246-400

LVE - with large through-hole



Sizes 400-1000

For the machining of large and long pipes of the type frequently used in the oil and gas industry.

Flange-type workpieces can of course, be chucked as well. A very reliable chucking tool thanks to high safety and modern production.

- Self-contained unit
- Unobstructed bore throughout spindle thanks to the elimination of the draw tube
- Quick interchangeability with manually operated chucks
- No retooling necessary when changing from bar work to normal chucking
- Specially for tube finishing as self-contained chuck

Application (example)

Two chucks are mounted at the front and rear of the machine spindle. A selector switch on our combined pneumatic and electrical control unit, LSV Typee 525-91, enables the two chucks to be used together or separately and even with different chucking pressures. These combinations permit the ends of large pipes to be machined with high stock removal rates and high turning accuracy.

Air-Operated Self-Contained Chucks Sizes 400-1000

A special feature of this chuck is a pneumatic piston built into the chuck body and which supplies the chucking power. The workpiece is clamped or released by compressed air supplied, with chuck stopped, via the distributor ring and a non-return valve to the pneumatic piston.

The pneumatic piston is screwed on to the clamping piston, which is itself connected to the base jaws via a wedgesystem.

An axial movement of the pneumatic piston thus produces a radial movement of the base jaws.

Distributor ring

The distributor ring has the function of transmitting the compressed air from outside into the chuck. This means that the ring is always stationary whilst the chuck rotates when the workpiece is being machined. It is therefore supported on the chuck and is prevented from turning with the chuck by means of a fork.

The distributor ring bearing is positioned axially via fixed bearings and radially via grooved ball bearings. Special seals seal the gap between ring and chuck during the clamping movement to ensure smooth pressure transmission.

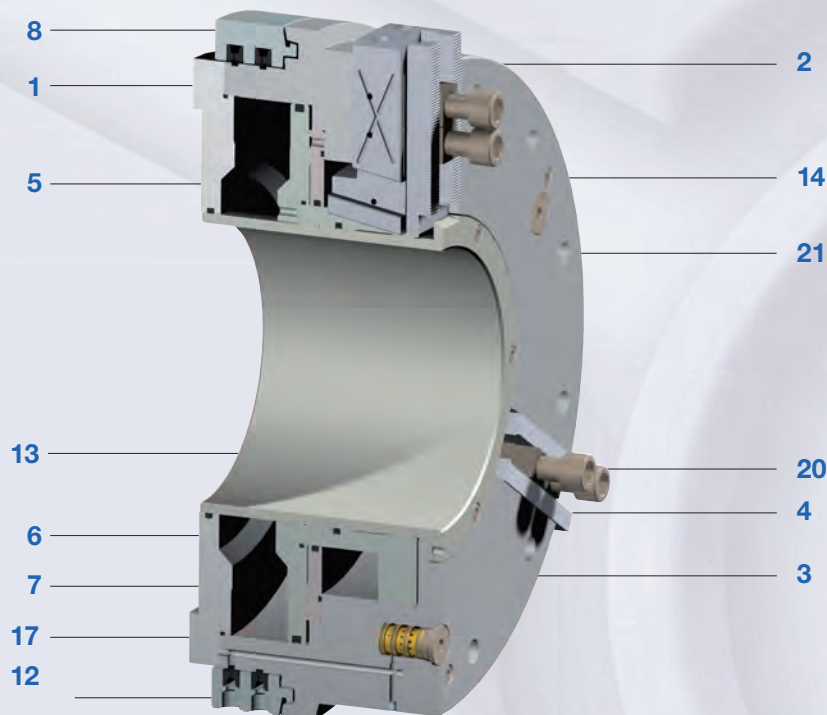
Important: To prevent destruction of the sealing ring pressure transmission must only be carried out with chuck stopped.

Control unit

The control unit has the function of keeping the compressed air required for clamping within a closed system throughout the whole machining operation.

It automatically seals the piston side under pressure, whereby the compressed air is automatically released from the opposite side of the piston. The valve can be dismantled as a complete unit and replaced.

LVE - large through-hole



Components LVE

1. Body
2. Base jaw
3. Piston
4. Protective bush
5. Intermediate washer
6. Piston plate
7. Flange
8. Distributor ring
12. Seal
13. T-Nut
14. Air-vent screw
17. Control valve
20. Jaw fixing screws
21. Chuck fixing screws

Control system

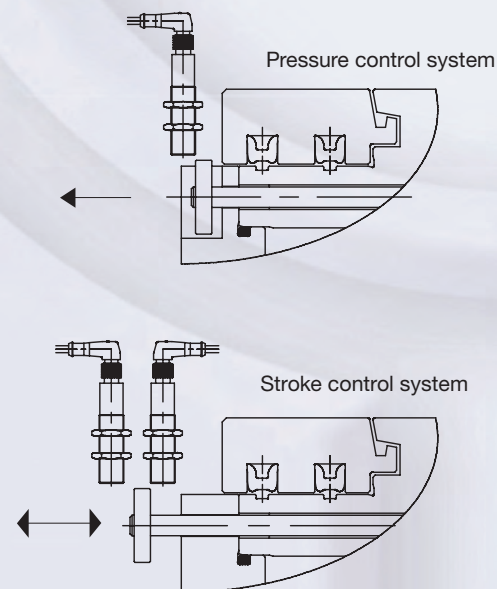
Clamping efficiency depends very much on the tightness of the sealed air chamber. A pressure drop during machining means a drop in clamping force. With the "Röhm control" the pressure in the sealed air chamber is monitored. If the pressure drops below a set minimum value, a spring-loaded pin mounted on the outside diameter of the chuck moves out.

A proximity sensor is mounted on the same level as the pin at a set radial distance. When the extended pin passes through the magnetic field of the switch, an electric pulse is triggered which can be used to stop the machine.

Wedge system

The transmission and conversion of axial piston force into radial jaw force is effected via the proven wedge system. The large power transmission surfaces guarantee long service life and permanent high precision of clamping. These features apply to both chucks with normal jaw stroke and chucks with rapid and clamping strokes.

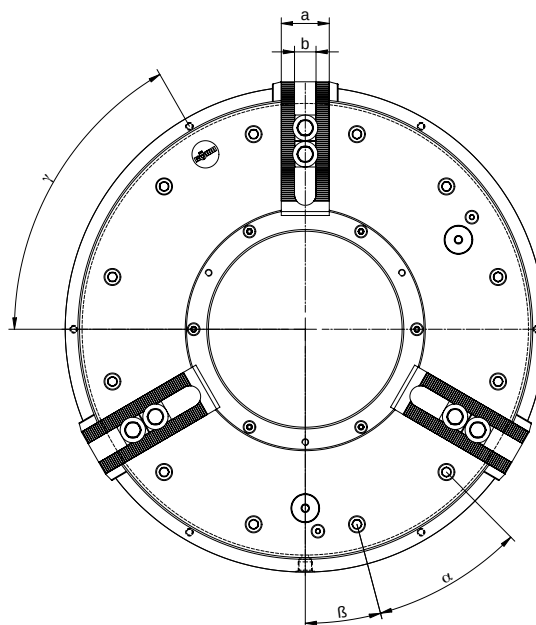
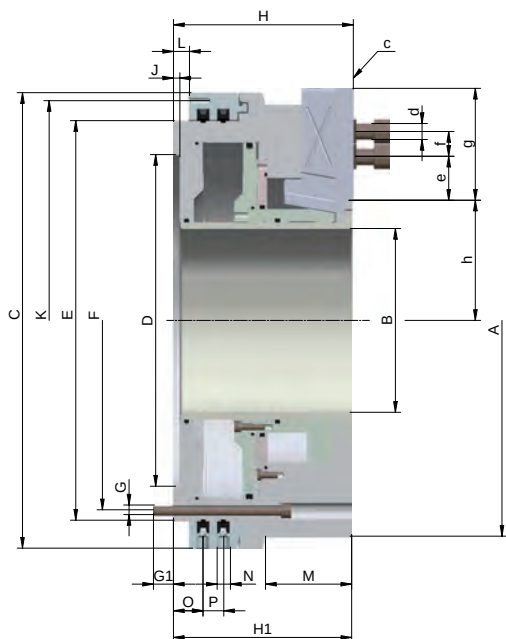
Röhm-Control system



The control unit is designed for LVE chucks with rapid and clamping strokes only for external clamping. For LVE chucks with a normal stroke only pressure control device for the external clamping is provided (on customer demand for internal clamping).

Further versions on request

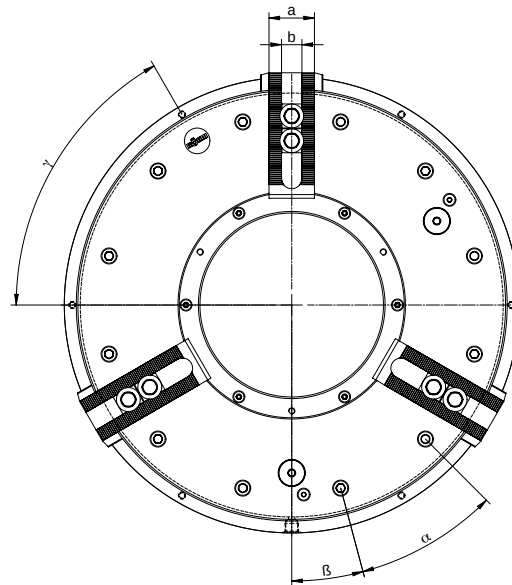
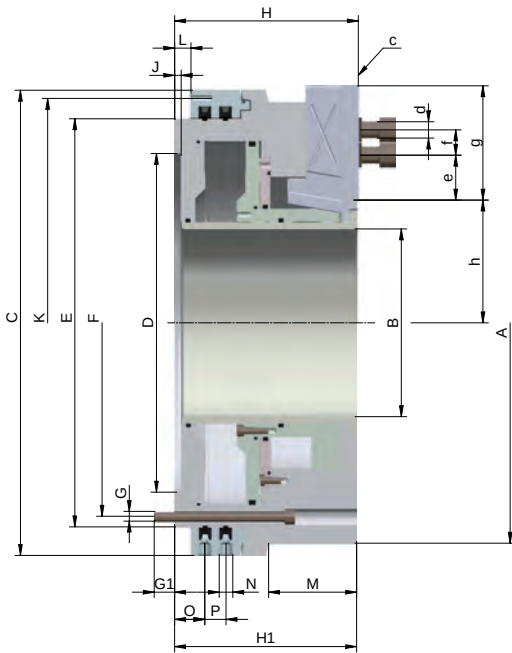
including, for example, compensating self-contained chucks and chucks that can be converted from self-centering to compensating action and vice versa.



Tool group C 15
Type 525-00
3-jaw self-contained chucks LVE,
with **large through-hole,**
max. operating pressure 8 bar,
with **serration**
adaptor recess
(standard design)

Item no.	169400	169401	169402	169403	169404	169405	169406	169407	169408	169409	169410
Size	400	400	500	500	600	600	600	700	800	800	1000
LVE	LVE 420-140	LVE 480-185	LVE 540-205	LVE 570-230	LVE 600-275	LVE 640-275	LVE 680-325	LVE 730-375	LVE 800-375	LVE 830-410	LVE 1000-570
Jaw travel	7	8,5	8,5	8,5	8,5	10	10	10	12	12	12
A	425	480	540	570	605	640	685	735	800	835	1000
B	140	185	205	230	275	275	325	375	375	410	570
C	470	530	570	570	605	685	685	735	850	850	925
DH6	310	365	415	415	450	510	510	560	700	700	700
E	400	460	500	500	535	610	610	660	775	775	850
F	374	434	474	474	508	580	580	630	745	745	815
G	M12	M12	M12	M12	M12	M16	M16	M16	M16	M16	M16
G ₁	25	25	25	25	25	30	30	30	30	30	30
H	196	225	225	225	225	263	263	263	305	305	315
H ₁	194	223	223	223	223	261	261	261	303	303	313
J	8	8	8	8	8	8	8	8	8	8	10
K	448	510	550	550	585	666	666	716	830	830	910
L	20	20	20	20	20	20	20	20	25	25	33
M	70	90	100	-	-	110	-	-	155	155	225
N	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8
O	37	37	37	37	37	39,5	39,5	39,5	44,5	44,5	52,5
P	26	26	26	26	26	33	33	33	33	33	33
a	57	57	57	57	57	75	75	75	75	75	75
bH7	25,5	25,5	25,5	25,5	25,5	30	30	30	30	30	30
c	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°
d	M20x50	M20x50	M20x50	M20x50	M20x50	M24x65	M24x65	M24x65	M24x65	M24x65	M24x65
e	20	20	20	20	20	28	28	28	28	28	28
f min.	32	32	32	32	32	42	42	42	42	42	42
f max.	85	85	105	105	105	100	100	100	125	125	125
g	120	120	140	140	135	145	145	145	173	173	173
h min.	94	118,5	131,5	141,5	164	175	195	220	225	242,5	323
h	101	127	140	150	172,5	185	205	230	237	254,5	345
α	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°
β	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°
	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	30°
Min. operating pressure bar	2	2	2	2	2	2	2	2	3	3	3
Max. operating pressure bar	8	8	8	8	8	8	8	8	8	8	8
Total clamping force at 6 bar kN	140	155	210	190	200	240	155	175	405	360	180
Cylinder surface area cm ²	710	899	1045	940	1010	1414	1181	1307	2382	2121	1075
Air consumption (total stroke) l	20	31	36	32	35	58	49	55	117	104	85
Max. admissible speed min ⁻¹	1700	1500	1300	1300	1200	1000	900	800	750	750	450
Moment of inertia kgm ²	3,50	7,50	10,65	8,00	15,50	24,25	29,10	45,80	67,80	71,25	157,5
Weight kg	150	215	255	200	280	413	418	560	712	650	950

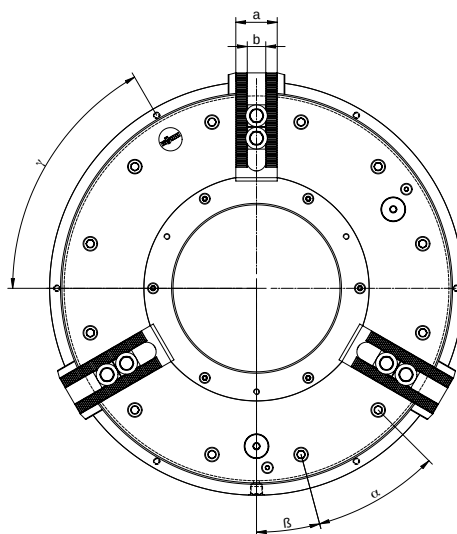
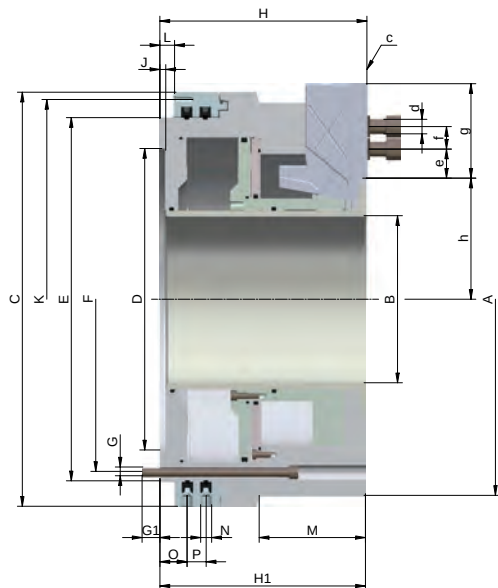




Tool group C 15
Type 525-10
3-jaw self-contained chucks LVE,
with large through-hole,
max. operating pressure 8 bar,
with serration
adaptor recess
with pressure control device for
external clamping

Item no.	169411	169412	169413	169414	169415	169416	169417	169418	169419	169420	169421
Size	400	400	500	500	600	600	600	700	800	800	1000
LVE	LVE 420-140	LVE 480-185	LVE 540-205	LVE 570-230	LVE 600-275	LVE 640-275	LVE 680-325	LVE 730-375	LVE 800-375	LVE 830-410	LVE 1000-570
Jaw travel	7	8,5	8,5	8,5	8,5	10	10	10	12	12	12
A	425	480	540	570	605	640	685	735	800	835	1000
B	140	185	205	230	275	275	325	375	375	410	570
C	470	530	570	570	605	685	685	735	850	850	925
DH6	310	365	415	415	450	510	510	560	700	700	700
E	400	460	500	500	535	610	610	660	775	775	850
F	374	434	474	474	508	580	580	630	745	745	815
G	M12	M12	M12	M12	M12	M16	M16	M16	M16	M16	M16
G ₁	25	25	25	25	25	30	30	30	30	30	30
H	196	225	225	225	225	263	263	263	305	305	315
H ₁	194	223	223	223	223	261	261	261	303	303	313
J	8	8	8	8	8	8	8	8	8	8	10
K	448	510	550	550	585	666	666	666	830	830	910
L	20	20	20	20	20	20	20	20	25	25	33
M	70	90	100	-	-	110	-	-	-	155	225
N	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8
O	37	37	37	37	37	39,5	39,5	39,5	39,5	44,5	52,5
P	26	26	26	26	26	33	33	33	33	33	33
a	57	57	57	57	57	75	75	75	75	75	75
bH7	25,5	25,5	25,5	25,5	25,5	30	30	30	30	30	30
c	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°
d	M20x50	M20x50	M20x50	M20x50	M20x50	M24x65	M24x65	M24x65	M24x65	M24x65	M24x65
e	20	20	20	20	20	28	28	28	28	28	28
f min.	32	32	32	32	32	42	42	42	42	42	42
f max.	85	85	105	105	105	100	100	100	125	125	125
g	120	120	140	140	135	145	145	145	173	173	173
h min.	94	118,5	131,5	141,5	164	175	195	220	225	242,5	323
h	101	127	140	150	172,5	185	205	230	237	254,5	345
α	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°
β	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°
	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
Min. operating pressure bar	2	2	2	2	2	2	2	2	3	3	3
Max. operating pressure bar	8	8	8	8	8	8	8	8	8	8	8
Total clamping force at 6 bar kN	140	155	210	190	200	240	155	175	405	360	180
Cylinder surface area cm²	710	899	1045	939	1010	1414	1181	1307	2382	2121	1075
Air consumption (total stroke) l	20	31	36	32	35	58	49	55	117	104	85
Max. admissible speed min ⁻¹	1700	1500	1300	1300	1200	1000	900	800	750	750	450
Moment of inertia kgm²	3,50	7,50	10,65	8,00	15,5	24,25	29,10	45,80	67,80	71,25	157,5
Weight kg	150	215	255	200	280	413	418	560	712	650	950

LVE standard design with rapid and gripping jaw movements



Tool group C 15
Type 525-20
3-jaw self-contained chucks LVE,
with **rapid and gripping jaw**
movements,
with **large through-hole,**
external chucking,
max. operating pressure 8 bar,
with **serration**
adaptor recess (standard design)

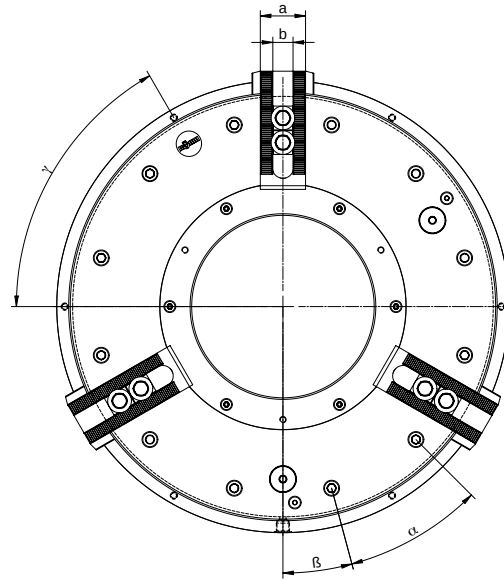
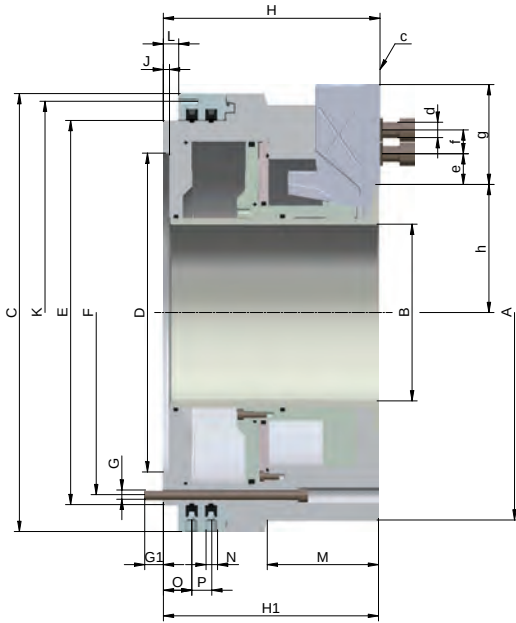
Item no.	169422	169423	169424	169425	169426	169427	169428	169429	169430	169431	169432
Size	400	400	500	500	600	600	600	700	800	800	1000
LVE	LVE 470-140 ES	LVE 490-185 ES	LVE 570-205 ES	LVE 570-230 ES	LVE 610-275 ES	LVE 680-275 ES	LVE 680-325 ES	LVE 730-375 ES	LVE 850-375 ES	LVE 850-410 ES	LVE 1000-570 ES
Jaw travel	19	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4
Rapid movement	12	16,9	16,9	16,9	16,9	16,9	16,9	16,9	14,9	14,9	14,9
Gripping movement	7	8,5	8,5	8,5	8,5	8,5	8,5	8,5	10,5	10,5	10,5
A	470	490	570	570	605	685	685	735	850	850	1000
B	140	185	205	230	275	275	325	375	375	410	570
C	470	530	570	570	605	685	685	735	850	850	925
DH6	310	365	415	415	450	510	510	560	700	700	700
E	400	460	500	500	535	610	610	660	775	775	850
F	374	434	474	474	508	580	580	630	745	745	815
G	M12	M12	M12	M12	M12	M16	M16	M16	M16	M16	M16
G ₁	25	25	25	25	25	30	30	30	30	30	30
H	240	282	282	282	282	308	308	308	322	322	332
H ₁	238	280	280	280	280	306	306	306	320	320	330
J	8	8	8	8	8	8	8	8	8	8	10
K	448	510	550	550	585	666	666	716	830	830	910
L	20	20	20	20	20	20	20	20	25	25	33
M	-	140	100	-	-	110	-	-	-	-	225
N	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8
O	37	37	37	37	37	39,5	39,5	39,5	44,5	44,5	52,5
P	26	26	26	26	26	33	33	33	33	33	33
a	57	57	57	57	57	75	75	75	75	75	75
bH7	25,5	25,5	25,5	25,5	25,5	30	30	30	30	30	30
c	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°
d	M20x50	M20x50	M20x50	M20x50	M20x50	M24x65	M24x65	M24x65	M24x65	M24x65	M24x65
e	20	20	20	20	20	28	28	28	28	28	28
f min.	32	32	32	32	32	42	42	42	42	42	42
f max.	80	80	95	95	95	95	95	95	120	120	120
g	112	112	130	130	125	140	140	140	170	170	170
h min.	126	132,6	142,1	154,6	177,1	182,6	202,6	227,6	234,6	252,1	329,6
h	145	158	167,5	180	202,5	208	228	253	260	277,5	355
α	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°
β	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°
	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
Min. operating pressure bar	2	2	2	2	2	2	2	2	3	3	3
Max. operating pressure bar	8	8	8	8	8	8	8	8	8	8	8
Total clamping force at 6 bar kN	120	150	190	170	180	240	200	175	200	185	180
Cylinder surface area cm ²	700	862	1003	895	958	1414	1181	1307	1345	1130	1075
Air consumption (total stroke) l	32	42	48	45	46	68	57	63	80	67	65
Max. admissible speed min ⁻¹	1500	1300	1200	1200	1100	900	800	750	750	750	450
Moment of inertia kgm ²	6,50	8,25	14,65	12,75	19,10	32,80	34,25	47,50	103,0	91,85	158,2
Weight kg	200	260	320	270	350	500	490	580	970	825	955



AMTE



LVE with pressure control device and rapid and gripping jaw movements

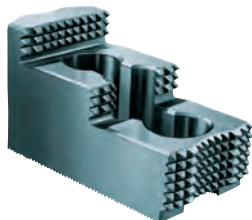


Tool group C 15
Type 525-30
3-jaw self-contained chucks **LVE**,
with **rapid and gripping**
jaw movements,
with **large through-hole**,
external chucking,
max. operating pressure 8 bar,
with **serration**
adaptor recess with pressure
control device for external
clamping

Item no.	169433	169434	169435	169436	169437	169438	169439	169440	169441	169442	169443
Size	400	400	500	500	600	600	600	700	800	800	1000
LVE	LVE 470-140 ES	LVE 490-185 ES	LVE 570-205 ES	LVE 570-230 ES	LVE 610-275 ES	LVE 680-275 ES	LVE 680-325 ES	LVE 730-375 ES	LVE 850-410 ES	LVE 850-410 ES	LVE 1000-570 ES
Jaw travel	19	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4	25,4
Rapid movement	12	16,9	16,9	16,9	16,9	16,9	16,9	16,9	14,9	14,9	14,9
Gripping movement	7	8,5	8,5	8,5	8,5	8,5	8,5	8,5	10,5	10,5	10,5
A	470	490	570	570	605	685	685	735	850	850	1000
B	140	185	205	230	275	275	325	375	375	410	570
C	470	530	570	570	605	685	685	735	850	850	925
DH6	310	365	415	415	450	510	510	560	700	700	700
E	400	460	500	500	535	610	610	660	775	775	850
F	374	434	474	474	509	580	580	630	745	745	815
G	M12	M12	M12	M12	M12	M16	M16	M16	M16	M16	M16
G ₁	25	25	25	25	25	30	30	30	30	30	30
H	240	282	282	282	282	308	308	308	322	322	332
H ₁	238	280	280	280	280	306	306	306	320	320	330
J	8	8	8	8	8	8	8	8	8	8	10
K	448	510	550	550	585	666	666	716	830	830	910
L	20	20	20	20	20	20	20	20	25	25	33
M	-	140	100	-	-	110	-	-	-	-	225
N	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8	G 3/8
O	37	37	37	37	37	39,5	39,5	39,5	44,5	44,5	52,5
P	26	26	26	26	26	33	33	33	33	33	33
a	57	57	57	57	57	75	75	75	75	75	75
bH7	25,5	25,5	25,5	25,5	25,5	30	30	30	30	30	30
c	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°
d	M20x50	M20x50	M20x50	M20x50	M20x50	M24x65	M24x65	M24x65	M24x65	M24x65	M24x65
e	20	20	20	20	20	28	28	28	28	28	28
f min.	32	32	32	32	32	42	42	42	42	42	42
f max.	80	80	95	95	95	95	95	95	120	120	120
g	112	112	130	130	125	140	140	140	170	170	170
h min.	126	132,6	142,1	154,6	177,1	182,6	202,6	227,6	234,6	252,1	329,6
h	145	158	167,5	180	202,5	208	228	253	260	277,5	355
α	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°	30°
β	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°	15°
	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°	60°
Min. operating pressure bar	2	2	2	2	2	2	2	2	3	3	3
Max. operating pressure bar	8	8	8	8	8	8	8	8	8	8	8
Total clamping force at 6 bar kN	120	150	210	170	180	240	200	175	200	185	180
Cylinder surface area cm ²	700	862	1024	895	958	1414	1181	1307	1345	1130	1075
Air consumption (total stroke) l	32	42	50	45	46	68	57	63	80	67	65
Max. admissible speed min ⁻¹	1500	1300	1200	1200	1100	900	800	750	750	750	450
Moment of inertia kgm ²	6,50	8,25	14,65	12,75	19,10	32,80	34,25	47,50	103,0	91,85	158,2
Weight kg	200	260	320	270	350	500	490	580	970	825	955

Jaws LVE

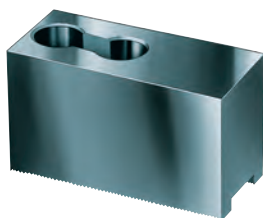
Tool group C 21
Type 543/538
**Reversible top jaws,
3-jaw set, hardened
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
037531	400/500/600	3	set	135	65	68	3/32"x 90°
169464	600/700	3	set	170	75	80	3/32"x90°
169466	800/1000	3	set	195	85	80	3/32"x90°

Hardened jaws, supplied as supplement or as spares, must be ground on the chuck.

Tool group C 21
Type 543/538
**Soft top jaws,
3-jaw set, can be hardened
Serration 90° -
material: 16 MnCr 5**



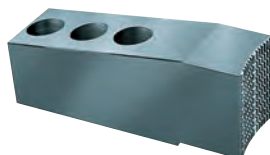
Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
118004	400	3	set	130	80	50	3/32"x90°
137028	400/500/600	3	set	180	80	50	3/32"x 90°
169450	600/700	3	set	215	89	68	3/32"x90°
169452	600/700/800/1000	3	set	245	89	68	3/32"x90°

Tool group C 21
Type 543
**extended soft top jaws,
3-jaw set
Serration 90° -
material: 16 MnCr 5**



Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
137028	400/500/600	3	set	180	80	50	3/32"x 90°
169449	500/600	3	set	205	80	50	3/32"x90°
169452	600/700/800/1000	3	set	245	89	68	3/32"x90°
169456	800/1000	3	set	285	89	68	3/32"x90°

Tool group C 21
Type 543
**extended hardened top jaws,
3-jaw set
Serration 90° -
material: 16 MnCr 5**

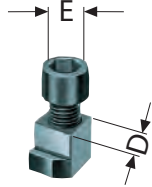


Item no.	Chuck Size	Number of jaws	Contents of delivery	Jaw length	Jaw height	Jaw width	Serration
284627	400	3	set	170	80	50	3/32"x 90°
321209	500/600	3	set	210	80	50	3/32"x 90°
169458	600/700	3	set	225	89	68	3/32"x90°
169460	800	3	set	285	89	68	3/32"x90°
169462	1000	3	set	325	89	68	3/32"x90°

Accessories LVE

Tool group C 15

Type 525-00 T-nuts
without screw



Item no.	Chuck Size	Contents of delivery	D	E
588960	400/500/600	piece	25,5	M20
169447	400/500/600	piece	25,5	3/4-10 UNC
588770	600/700/800/1000	piece	30	M24
169448	600/700/800/1000	piece	30	7/8-9 UNC

Tool group C 15

Type 0040-Y Mounting screws

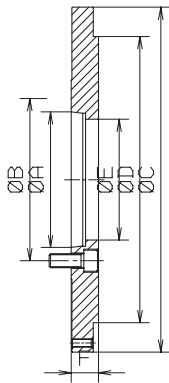


Item no.	Size	Contents of delivery	Thread
249388	400/500/600	piece	M20x50
243854	400/500/600	piece	3/4-10 UNCx2
236514	600/700/800/1000	piece	M24x60
680392	600/700/800/1000	piece	7/8-9 UNCx2-1/4

Socket head cap screw to DIN 912, 12.9

Tool group C 15
Type 518-10

Short-taper intermediate flanges
ISO 702-1 (DIN 55026)
for LVE-chucks with centering rim



Item no.	LVE	Spindle nose size	A	B	C	D	E	F
169475	400-140	A8	139,719	171,4	400	310	136	40
169477	400-140	A11	196,869	235	400	310	140	40
169479	480-185	A8	139,719	171,4	460	365	136	40
169481	480-185	A11	196,869	235	460	365	185	40
169483	480-185	A15	285,775	330,2	460	365	185	40
169485	540-205 / 570-230	A11	196,869	235	500	415	192	40
169487	540-205/570-230	A15	285,775	330,2	500	415	230	40
169489	540-205/570-230	A20	412,775	463,6	500	415	230	40
169491	600-275	A11	196,869	235	545	415	192	40
169493	600-275	A15	285,775	330,2	545	415	275	40
169495	600-275	A20	412,775	463,6	545	415	275	40
169497	630-275 / 680-325	A11	196,869	235	610	510	192	50
169499	630-275 / 680-325	A15	285,775	330,2	610	510	281	50
169501	630-275 / 680-325	A20	412,775	463,6	610	510	325	50
169503	730-375	A15	285,775	330,2	660	560	281	50
169505	730-375	A20	412,775	463,6	660	560	375	50
169507	800-375 / 830-410	A15	285,775	330,2	775	700	281	50
169509	800-375 / 830-410	A20	412,775	463,6	775	700	407,5	50
169511	1000-570	A20	412,775	463,6	775	700	407,5	50
169513	1000-570	A28	584,225	647,6	775	700	578,5	50

ISO 702-3 (DIN 55027) / ISO 702-2 (DIN 55029) on request

Accessories LVE

Tool group C 15
Type 525-91
Pneumatic control unit
for LVE 400-1000



Item no.	Width	Height	Depth	Control voltage	Connection	Weight approx. kg
426560	280	250	100	24 V	R ½ " inside thread	3

Two pneumatic control units are required for dual chucks

Tool group C 15
Type 3515-Y **Two Connecting hoses with screw couplings**



Item no.	Contents of delivery
302138 ¹⁾	set

¹⁾ Please indicate the hose length

Tool group C 15
Typ 525-60/70
Control units for single chucks
with dual foot switch, wired, 6 m
cable, for LVE 400-1000



Item no.	Design	Width	Width with plug	Height	Depth	Control voltage	Cable length
426481	without pressure monitoring	300	340	300	120	24 V	6 m
426263	with pressure monitoring	300	340	300	120	24 V	6 m

Supply on request: primary 35-264 V ~, 47-63 HZ - secondary 24V/1,5 A

Tool group C 15
Typ 525-80/90
Control units for dual chucks
with dual foot switch, wired, 6 m
cable, for LVE 400-1000



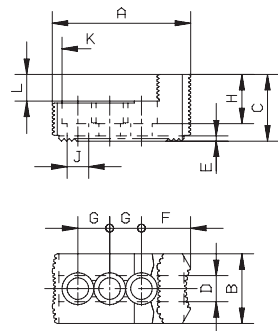
Item no.	Design	Width	Width with plug	Height	Depth	Control voltage	Cable length
426482	without pressure monitoring	300	340	300	120	24 V	6 m
426264	with pressure monitoring	300	340	300	120	24 V	6 m

Supply on request: primary 35-264 V ~, 47-63 HZ - secondary 24V/1,5 A

Jaw dimensions and clamping capacities LVE

Reversible top jaws UB

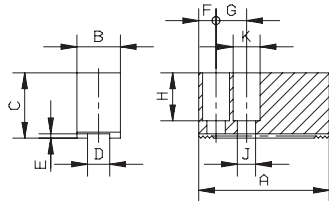
serration 90°,
material 16MnCr5



Chuck size	400		500		600		700		800		1000
LVE	400-140	480-185	540-205	570-230	600-275	630-275	680-325	730-375	800-375	830-410	1000-570
Typ	538-07		538-07		538-07		543-21		543-21		543-21
Item no. 3-jaw	037531		037531		037531		169464		169466		169466
A	135	135	135	135	135	170	170	170	195	195	195
B	68	68	68	68	68	80	80	80	80	80	80
C	65	65	65	65	65	75	75	75	85	85	85
D+0,05	25,5	25,5	25,5	25,5	25,5	30,0	30,0	30,0	30,0	30,0	30,0
E	5	5	5	5	5	6	6	6	6	6	6
F	48	48	48	48	48	56	56	56	78	78	78
G	31+31	31+31	31+31	31+31	31+31	42+42	42+42	42+42	42+42	42+42	42+42
H	48	48	48	48	48	58	58	58	62	62	62
J	21	21	21	21	21	26	26	26	26	26	26
K	31	31	31	31	31	40	40	40	40	40	40
L	26	26	26	26	26	32	32	32	35	35	35
M	--	--	--	--	--	--	--	--	--	--	--
Toothing	3/32"x90°		3/32"x90°		3/32"x90°		3/32"x90°		3/32"x90°		3/32"x90°
Weight/jaw kg	2,4	2,4	2,4	2,4	2,4	3,6	3,6	3,6	4,5	4,5	4,5
External chucking	A1	85 - 255	135 - 305	160 - 370	180 - 390	220 - 430	225 - 420	265 - 460	315 - 510	280 - 530	315 - 565
	A2	125 - 295	175 - 345	200 - 410	220 - 430	260 - 470	275 - 470	315 - 510	365 - 560	370 - 620	405 - 655
	A3	330 - 500	380 - 550	405 - 615	425 - 635	465 - 675	540 - 735	580 - 775	630 - 825	640 - 890	675 - 925
Internal chucking	J1	155 - 325	205 - 375	230 - 440	250 - 460	290 - 500	305 - 500	345 - 540	395 - 590	405 - 655	440 - 690
	J2	350 - 520	405 - 570	430 - 640	450 - 660	490 - 700	565 - 770	605 - 800	655 - 850	670 - 920	705 - 955
max. -Ø	S	570	625	690	710	750	800	840	890	1000	1030

Soft top jaws AB

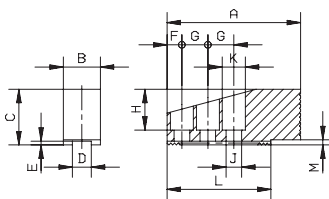
serration 90°,
material 16MnCr5



Chuck size	400		500		600		700		800		1000
LVE	400-140	480-185	540-205	570-230	600-275	630-275	680-325	730-375	800-375	830-410	1000-570
Typ	538-73		518-07		518-07		543-22		543-22		543-22
Item no. 3-jaw	118004		137028		137028		169450		169452		169452
A	130	130	180	180	180	215	215	215	245	245	245
B	50	50	50	50	50	68	68	68	68	68	68
C	80	80	80	80	80	89	89	89	89	89	89
D+0,05	25,5	25,5	25,5	25,5	25,5	30,0	30,0	30,0	30,0	30,0	30,0
E	5	5	5	5	5	6	6	6	6	6	6
F	20	20	20	20	20	25	25	25	25	25	25
G	35	35	35+35	35+35	35+35	45+45	45+45	45+45	45+45	45+45	45+45
H	60	60	60	60	60	69	69	69	69	69	69
J	21	21	21	21	21	25	25	25	25	25	25
K	31	31	31	31	31	37	37	37	37	37	37
L	130	130	180	180	180	140	140	140	140	140	140
M	-	-	-	-	-	7	7	7	7	7	7
Toothing	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°
Weight/jaw kg	3,1	3,1	4,2	4,2	4,2	7,8	7,8	7,8	9,1	9,1	9,1
A1 Ø External chucking	85 - 190	130 - 235	60 - 270	80 - 290	125 - 335	120 - 315	160 - 355	210 - 415	165 - 415	200 - 450	360 - 610
S Ø max.	460	505	640	660	710	760	800	850	920	955	1150

Extended top jaws AB

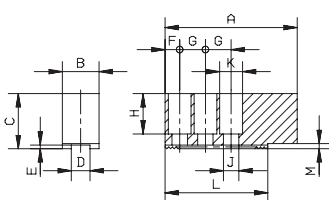
hardened
serration 90°,
material 16MnCr5



Chuck size	400		500		600		700		800		1000
LVE	400-140	480-185	540-205	570-230	600-275	630-275	680-325	730-375	800-375	830-410	1000-570
Typ	543-27		543-27		543-27		543-27		543-27		543-27
Item no. 3-jaw	284627		321209		321209		169458		169460		169462
A	170	170	210	210	210	225	225	225	285	285	325
B	50	50	50	50	50	68	68	68	68	68	68
C	80	80	80	80	80	89	89	89	89	89	89
D+0,05	25,5	25,5	25,5	25,5	25,5	30,0	30,0	30,0	30,0	30,0	30,0
E	5	5	5	5	5	6	6	6	6	6	6
F	22	22	20	20	20	25	25	25	30	30	30
G	35+35	35+35	45+45	45+45	45+45	45+45	45+45	45+45	50+50	50+50	60+60
H	60	60	60	60	60	69	69	69	69	69	69
J	22	22	22	22	22	26	26	26	26	26	26
K	33	33	33	33	33	40	40	40	40	40	40
L	121	121	135	135	135	140	140	140	160	160	180
M	6	6	6	6	6	7	7	7	7	7	7
Toothing	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°
Weight/jaw kg	3,1	3,1	4,1	4,1	4,1	7,1	7,1	7,1	9,4	9,4	11,0
A1 Ø External chucking	20 - 190	60 - 230	30 - 240	50 - 260	90 - 300	100 - 295	140 - 335	190 - 385	105 - 355	140 - 390	230 - 520
S Ø max.	540	580	660	680	720	760	800	850	940	975	1200

Extended soft top jaws AB

serration 90°,
material 16MnCr5

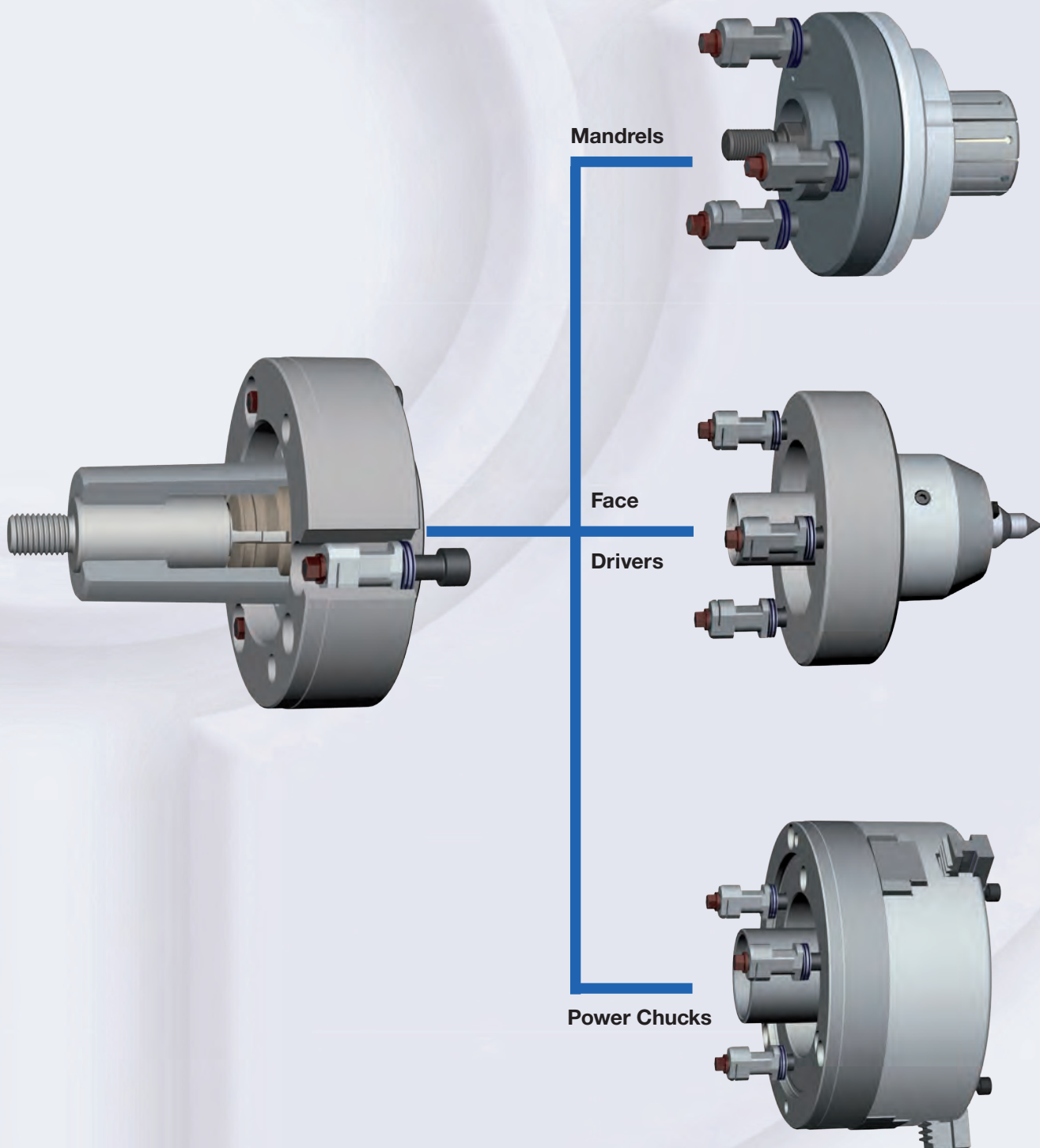


Chuck size	400		500		600		700		800		1000
LVE	400-140	480-185	540-205	570-230	600-275	630-275	680-325	730-375	800-375	830-410	1000-570
Typ	518-07		543-22		543-22		543-22		543-22		543-22
Item no. 3-jaw	137028		169449		169449		169452		169456		169456
A	180	180	205	205	205	245	245	245	285	285	285
B	50	50	50	50	50	68	68	68	68	68	68
C	80	80	80	80	80	89	89	89	89	89	89
D+0,05	25,5	25,5	25,5	25,5	25,5	30,0	30,0	30,0	30,0	30,0	30,0
E	5	5	5	5	5	6	6	6	6	6	6
F	20	20	20	20	20	25	25	25	25	25	25
G	35+35	35+35	35+35	35+35	35+35	45+45	45+45	45+45	55+55	55+55	55+55
H	60	60	60	60	60	69	69	69	69	69	69
J	21	21	21	21	21	25	25	25	25	25	25
K	31	31	31	31	31	37	37	37	37	37	37
L	180	180	190	190	190	140	140	140	160	160	160
M	--	--	6	6	6	7	7	7	7	7	7
Toothing	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°	3/32"x90°
Weight/jaw kg	4,2	4,2	5,0	5,0	5,0	9,1	9,1	9,1	10,9	10,9	10,9
A1 Ø External chucking	20 - 155	30 - 200	10 - 220	30 - 240	75 - 285	60 - 255	100 - 295	150 - 345	105 - 355	140 - 390	300 - 550
S Ø max.	330	575	640	660	710	760	800	850	945	980	1100

for manual chucking tool change

Advantages:

- Convenient chucking tool changes without the slightest sacrifice to safety.
- One and the same tool carrier can be used for virtually any Type of mandrel, face driver or power chuck as long as the connections are identical.



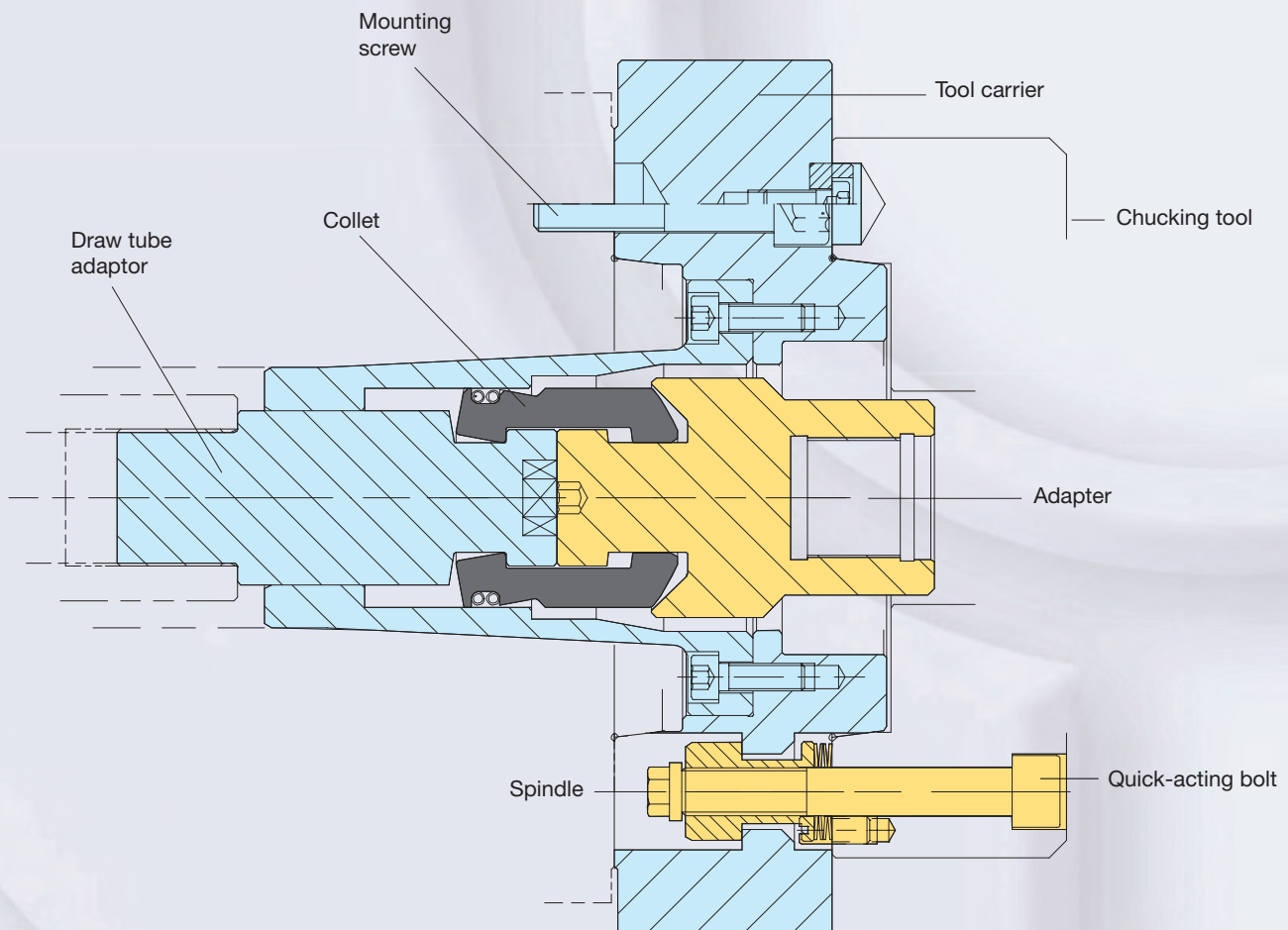
For manual chucking tool change

Permitting a variety of chucking tools to be changed in a minimum of time

Design

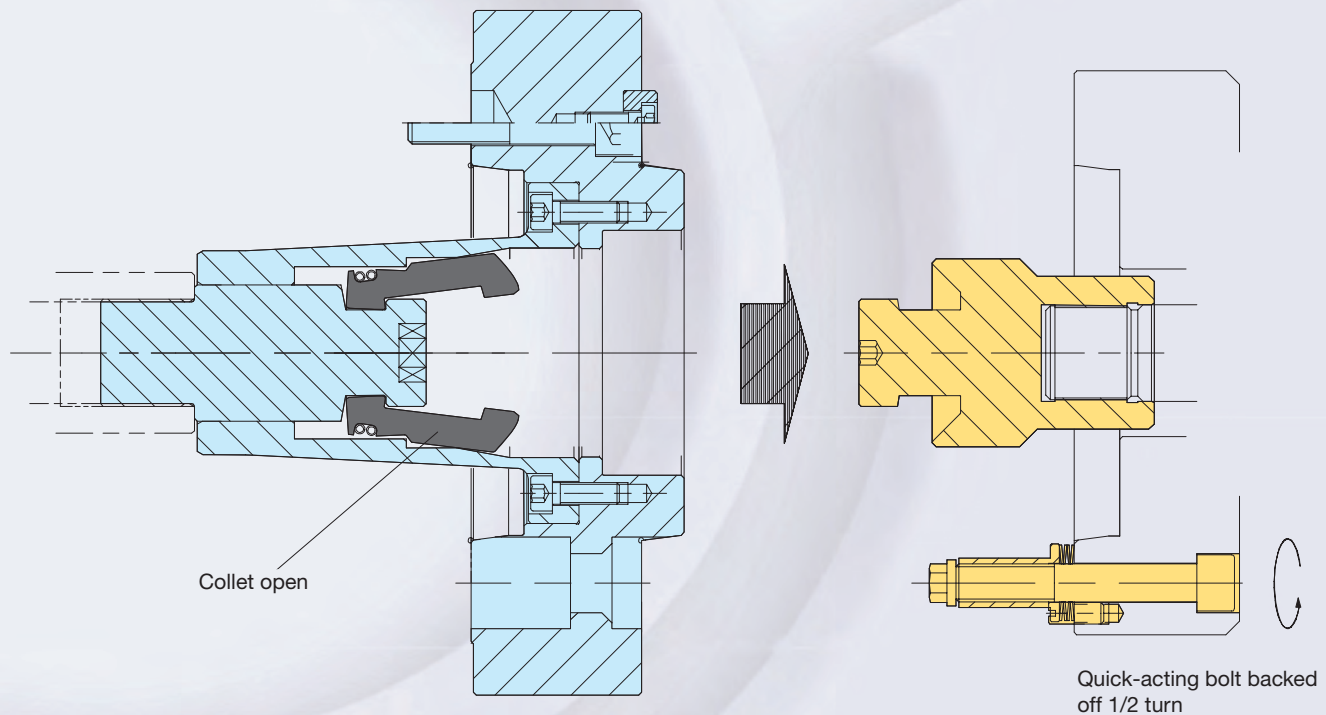
Like the automatic and semi-automatic chucking tool change systems, the manual change system allows a rising number of variants in diminishing batch sizes to be produced more economically. A standard cylinder can be used for actuation with no need for any additional equipment.

Not only mandrels, whose size must be changed frequently for reasons inherent in the design, but also chucking tools such as face drivers or power chucks can be interchanged both quickly and safely.



Changing the chucking tool

- Move actuating cylinder into forward position
- Back off quick-acting bolt 1/2 turn
- Remove chucking tool



Technical features:

- Short taper mounting for accurate holding and positioning of chucking tool
- Change accurate to within 0,005 mm
- Time required per change approx. 30 seconds
- Convenient handling
- Chucking tool locked by 3 bayonet nuts and a collet for connection to the draw tube adapter
- Bayonet nuts locked against rotation
- High chucking accuracy
- Actuating cylinder requires no additional equipment
- Travel monitored at actuating cylinder
- Central lubrication and/or pneumatic seating check on request
- Used in conjunction with the Röhm safety cylinders OVS, LVS and LTS, the RMS manual chucking tool quick change system meets the requirements of the German Employers Liability Insurance Association

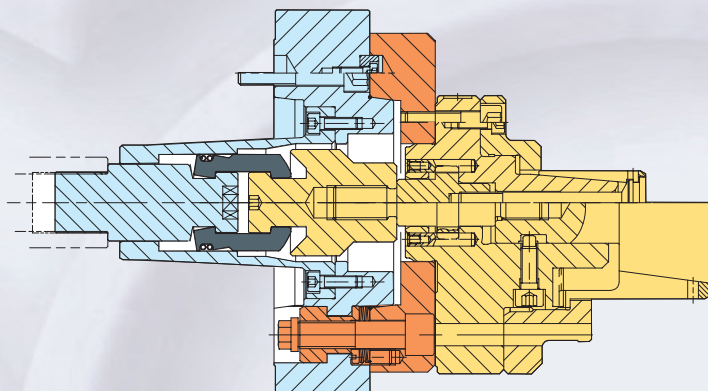
Function

A tool carrier with an integrated force-transmitting collet is mounted on a lathe spindle. The chucking tool proper is secured to his tool carrier by means of quick-acting bolts with one half turn of the wrench. The collet and the chucking tool are actuated by means of a safety cylinder at the spindle end with no need for any additional equipment.

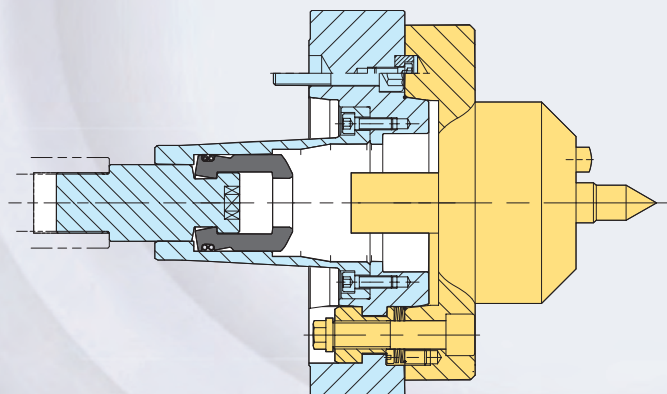
Description of function:

The tool carrier with integrated collet and draw tube adapter with draw tube connection is secured to the spindle by means of 3 mounting screws. Contact with the adapter of the chucking tool (e.g. mandrel, face driver, power chuck) closes the collet and connects the draw rod with the actuating element (e.g. piston). The chucking tool is secured manually by means of 3 quick-acting bolts requiring no more than one half turn of the wrench each. The bayonet nut is locked against rotation by a system of parallel pins. The reliability of this Typee of fastening is equivalent to that of conventional systems. The chucking tool is removed by reversing the above procedure.

For mandrels

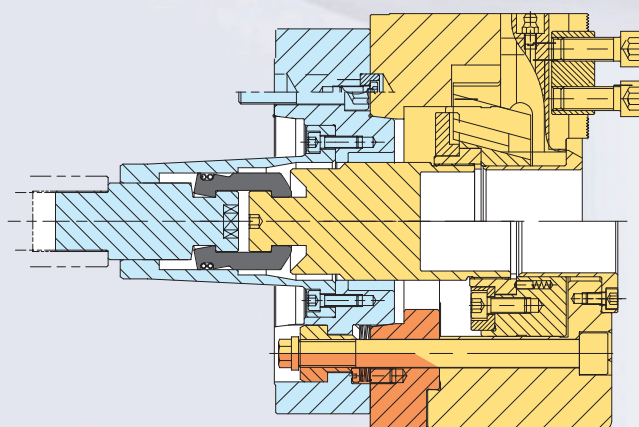


For face drivers



For power chucks

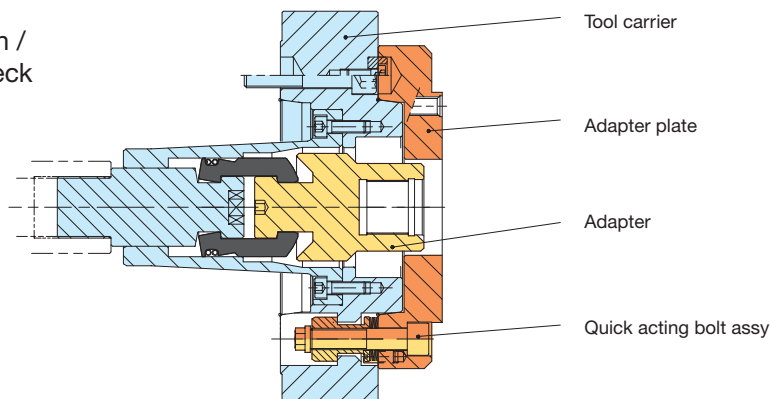
with direct mounting DIN 55026



with centre DIN 6353

Mating dimensions

With central lubrication /
pneumatic seating check
(on request)

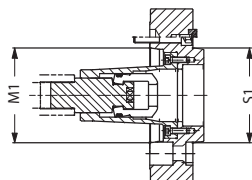


Tool carrier

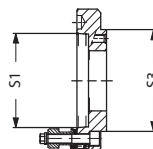
With mounting to ISO 702-1 (DIN 55026).
No adapter for direct mounting. Just order quick
acting bolt assy.
Rework on chucking tool necessary.

Adapter plate

With centre mounting to DIN 6353
With mounting to ISO 702-1 (DIN
55026)
(on request)



for:
- Face drivers
- Power chucks (on request)



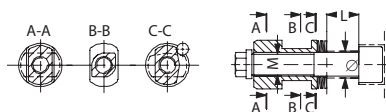
for:
- Power chucks



**Matching adapter
on request!**

Chuckling tool slide DIN (55026)	Machine side M1 (DIN 55)		Chuckling tool side S2		
	A6	A8	Ø 140	Ø 170	Ø 220
A6	156670		156674	156675	156676
A8		156671	156677	156678	156679

Quick acting bolt assy RMS-..SS

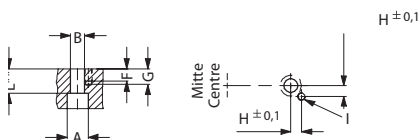


Size	8	10	12	14	16	18	20
for mounting DIN 55026		KK5	KK6		KK8		
Item no.	156682	156683	156684	156685	156686	156687	156688

The bolt must always be matched to the chucking tool / adapter plate to be fastened.
e.g. RMS-12SS Item no.156684, L=20,44mm, Ø =12,5mm

When ordering please state!

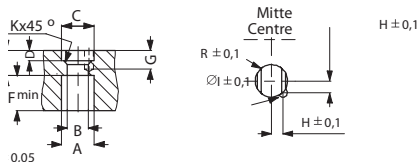
Mating dimensions for quick-acting bolt on adapter plate / Rework on chucking tool



RMS	A	B	F	G	H	I	L
08	14	8,5	8,5	11	7,25	M5	**
10	17	10,5	10	13	8,6	M6	**
12	19	12,5	13	17,5	10,3	M8	**
14	22	14,5	13	17,5	11,4	M8	**
16	25	16,5	17	22	13,6	M10	**
18	28	18,5	17	22	14,4	M10	**
20	31	20,5	17	22	16,2	M10	**

** Dimension "L" depends on the chucking tool used, but should at least be as long as dimension "B".

Mating dimensions for bayonet nut in tool carrier



RMS	A	B	C	D	E	F	G	H	I	K	R
08	19	12,5	19	7	16,1	18,6	7,5	7,25	5,5	2	3
10	22,5	15	24	7,8	19,1	23	8	8,6	6,5	3	3
12	25,5	16,7	28,5	10,7	25,2	25,5	11	10,3	8,5	3	4
14	29,5	18,8	30	10,9	26,4	29,5	11	11,4	8,5	4	4
16	34	22	34	11,1	29,2	34,2	11	13,6	10,5	4	4
18	38,5	26	38,5	12,8	30,7	39,8	13	14,4	10,5	4	4
20	41	28	42	14,1	33,6	46,2	14	16,2	10,5	4	4

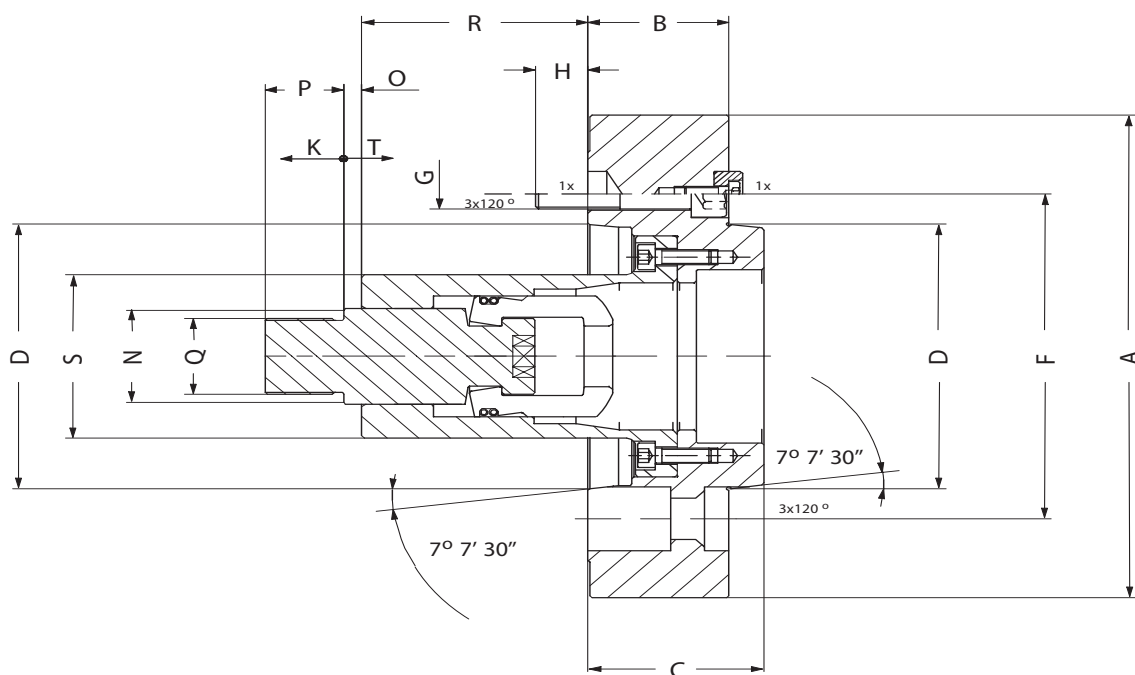


AMTE



Dimensions

Tool carrier assy RMS-.. GA, compl. short taper DIN 55026

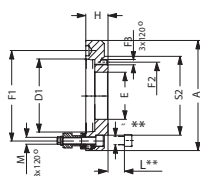


Type 461	A5/A5	A6/A6	A8/A8
Item No.	166946	156670	156671
A	135	170	220
B	45	52	63,5
C	58	66	79,5
D ^{+0,015}	82,563 (KK5)	106,375 (KK6)	139,719 (KK8)
F	104,8	133,4	171,4
G	M 10	M 12	M 16
H	16	17	24
K max.	20	27	34
N	30	36,5	51
O / O min.	10/5	8/3	8/1
O max.	30	35	42
P	30	30	30
Q	M 16	M 20	M 24
R	59	89	132
S	52	69	88
T	5	5	7
max. oper. power	15 kN	33 kN	52 kN
max. min ⁻¹	5000	6000	5000

Further short-taper combinations on request!

Adapter plate assy RMS-../. F
Short taper ISO 702-1 (DIN 55026) /
Centre mounting DIN 6353

Item No.: I.e. RMS-A6/170 F, Item No. 156675
Short taper ISO 702-1 (DIN 55026) /
Short taper ISO 702-1 (DIN 55026) (on request)
** When ordering, please state:
L = ... mm; Ø = ... mm



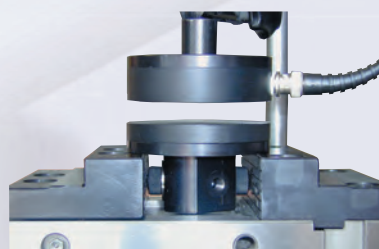
Tool carrier A6	s2 = Ø 140	s2 = Ø 170	s2 = Ø 220
Item No.	156674	156675**	156676
F2	Ø 104,8	Ø 133,4	Ø 171,4
F3	M 10, 3x120°		M 16, 3x120°
A	170	210	250
H	35	16	37
E	75	75	80

Tool carrier A8	s2 = Ø 140	s2 = Ø 170	s2 = Ø 220
Item No.	156677	156678	156679**
F2	Ø 104,8	Ø 133,4	Ø 171,4
F3	M 10, 3x120°	M 12, 3x120°	
A	220	220	250
H	42	42	18
E	80	101	101



Electronic-dynamical gripping measuring equipment EDS

Contactless transmission of data and energy from and to the measuring head (no collector rings) up to 12000 rpm



Two points measuring method

Measuring range EDS 50
Measuring range EDS 100
Permitted overload
Measuring frequency
Display 1
Display 2
Number of jaws
Gripping dia. EDS 50
Gripping dia. EDS 100
max. speed
Speed measuring
Measuring tolerance

Item no. 161425 0-50 kN per jaw
Item no. 161426 0-100 kN per jaw
110 % of max. range value
1 kHz
speed rpm
gripping force kN
2 or 3
50 - 138
85 - 175
12000 rpm
every 2 sec. (0,5 Hz)
< 3 % of max. range value

Dynamic measuring:
Distance between measuring head and stator
axial 10-40 mm, radial 0-15 mm
Serial port PC/Laptop
Voltage
Weight measuring head

RS 232 C
220 V AC
0,65 kg



EDS 50 + 100
complete in a massive case,
Item no. 161427

Display-Software for PC/Laptop

Data transmission via serial Port RS 232C.

Input:

- Automatic reading of the measuring values (speed/clamping)
- Number of measuring step/graph scale freely selectable

Output:

- Table of speed/clamping force
- Graph speed/clamping force

Technical features:

- Simple Operation
- Simple Inserting respective initialising
- Simple Reading of the values
- Simple Data transmission to the PC

Power-operated clamping devices

To ensure safe operation of power-operated clamping devices, particularly of chucks, on heavy-duty lathes with high speeds certain criteria must be observed:

1. When mounting the power chuck and the clamping cylinder on the lathe, the following safety requirements must be met:
 - 1.1 The machine spindle may only start when the clamping pressure has been built up in the actuating cylinder and the clamping has been carried out in the permissible working area.
 - 1.2 Unclamping may only be possible when the machine spindle has completely stopped.
 - 1.3 In case of a clamping energy failure, the workpiece must be firmly clamped until the spindle is completely stopped. (The Röhm safety cylinders meet this requirement.)
 - 1.4 In case of a current failure and upon return of the current supply the actual control position may not be changed.
 - 1.5 In case of a clamping energy failure the machine spindle must be stopped by a signal.
2. The safety instructions given in the respective operation manual must be precisely followed.
3. After having mounted the chuck and before starting the operation, the function of the chuck must be checked.

Two important points are:

3.1 Clamping force

The clamping force ($\pm 15\%$) stated for the clamping device must be reached at max. actuating force/pressure.

3.2 Stroke control

A safety range must be provided for the stroke of the clamping piston in the front and rear end position. The machine spindle may only start after the clamping piston has crossed the safety range.

Only limit switches meeting the requirements for safety limit switches in accordance with VDE 0113/12.73 section 7.1.3 may be used for monitoring the clamping path.

4. If the max. speed of the lathe exceeds the max. speed of the clamping device or clamping cylinder, the machine must be equipped with a speed limitation device.
5. When the clamping device has been changed, the stroke control must be adjusted to the new condition.
6. When calculating the required clamping force for machining a workpiece, the centrifugal force of the clamping jaws must be considered.
7. A reliable operation of the power chuck can only be guaranteed when the maintenance instructions contained in the instruction manual are precisely followed.

In particular the following points must be observed:

- 7.1 For the lubrication only the lubricants recommended in the operation manual shall be used. (An unsuitable lubricant can reduce the clamping force by more than 50%).
- 7.2 The lubrication must reach all surfaces to be lubricated.
(At the narrow fits of the mounting parts a high pressure is required for pressing-in the lubricant. For those purpose a pressure gun must be used).
- 7.3 In order to distribute the grease evenly, actuate the clamping piston several times to its end positions, repeat the lubrication and then check the clamping force.

Power-operated clamping devices

8. Before restarting a serial machining operation and in between the maintenance intervals the clamping force should be checked by means of a load cell. "Only regular checks ensure optimum reliability".
9. It is recommended to move the clamping piston several times to its end positions after 500 clamping strokes at the latest. (In this way any lubricant pushed away will be returned to the pressure surfaces. The pressure force is thus maintained for a longer period of time.)
10. When using special clamping jaws the following instructions must be observed:
 - 10.1 The clamping jaws should be designed in such a way that their weight and height is as low as possible. The clamping point should as possible be as close to the frontside of the chuck. (Clamping points at a larger distance may cause a higher surface pressure in the jaw guiding mechanism and may thus reduce the clamping force considerably.)
 - 10.2 In case the special jaws are for constructional reasons wider and/or higher than the step jaws assigned to the clamping device, the resulting higher centrifugal forces must be considered when calculating the required clamping pressure and the rated speed.

For calculating the rated speed for a certain machining task the following formula is to be applied:

$$n_{\max.} = \sqrt{\frac{F_{spo} - F_{spz}}{m \cdot r_c \cdot a}} \cdot \frac{30}{\pi}$$

F_{spo} = initial clamping force with the chuck at standstill (N)

F_{spz} = required clamping force with the chuck at standstill for a certain machining task (N)

n_{max.} = max. admissible speed (min 1)

m = mass of the entire jaw unit (kg) (base and top jaw)

r_c = center of gravity radius of the entire jaw unit (m)

a = number of jaws

10.3 Welded jaws should not be used. If required, the welding seams must be checked as to their centrifugal and clamping force capacity.

10.4 The mounting screws must be arranged in such a way that the highest possible useful moment is reached.

11. The max. speed may only be used at max. applied actuating force and with properly functioning chucks.

12. In case of high speeds the chucks may only be used below a protective hood with sufficiently large dimensions.

13. For power chucks with a jaw quick-change feature internal to the chuck a safety device is required which reverts the machine spindle from rotating when the clamping jaws are released.

14. After a collision the clamping device must be checked for fissures before being used again.

15. Worn or damaged jaw fixing bolts must be replaced. Only use bolts of quality 12.9.

Power-operated clamping devices

Determining the required gripping force of a power chuck and the corresponding operating power

- I) Calculating the gripping force F_{spz} (without considering the effects of angular speed) required for the job (machining operation).
- II) Determining the chuck's initial gripping force F_{spo} with spindle stationary (taking into account the centrifugal forces of the jaws).
- III) Determining the operating power required to provide the initial gripping force F_{spo} .

Definition of gripping force

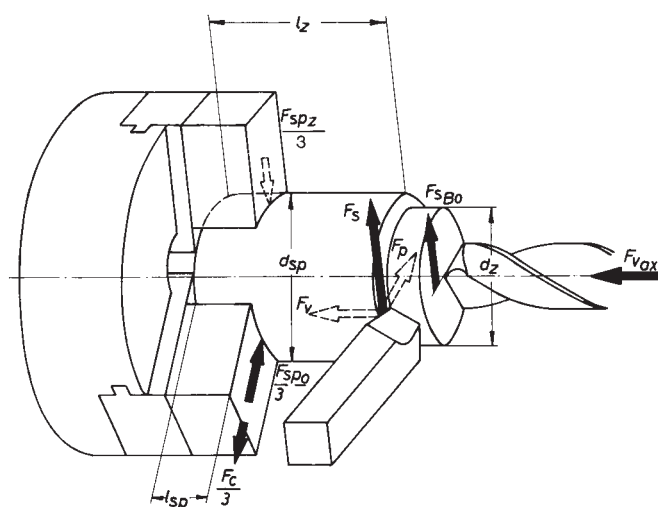
Progress in machining techniques has made it necessary for safety reasons not only to determine the **necessary gripping force** but also to know and consider its change with increasing angular speed.

The forces and moments generated by the machining operation must be properly absorbed and transmitted by the chuck. The chuck accomplishes this task mainly by **producing a gripping force**:

This gripping force is the arithmetic sum of the radial forces exerted on the workpiece by the jaws. The initial gripping force F_{spo} produced when the chuck is stationary can be measured at any time and is therefore controllable. (Denoted by 'total gripping force' in the gripping force / operating power diagrams).

The figures given in the catalogue refer only to chucks that are fully and correctly lubricated and in a properly serviced condition. Many factors act on the clamping point during any machining operation. A precise specification of these factors in the form of universally applicable tables is not possible in this context.

In most cases it is sufficient in practice to use a simplified formula containing the fundamental determining factors (crude determination).



Forces and moments acting at the machining and clamping points.

- F_s = Main cutting force on radially applied tool
- F_{sBo} = Cutting force on axially applied tool (drill)
- F_{vax} = Feeding force on axially applied tool
- F_{spz} = Required total gripping force (without considering the effects of angular speed)
- F_c = Centrifugal force of the jaws
= Loss of gripping force (see gripping force/speed diagram of each chuck type)
- F_{spo} = (Total) initial gripping force with the chuck stationary
- l_z = Distance between machining and clamping points
- d_z = Machining diameter
- d_{sp} = Chucking diameter
- l_{sp} = Chucking length

Power-operated clamping devices

A Turning

I) Calculating the required gripping force F_{spz}

The gripping force required depends on the Type of work to be performed.

The cutting force on the turning tool has three basic components:

Main cutting force F_s - feeding force F_v - passive force (static force) F_p .

During turning, the feeding force F_v and the passive force (static force) F_p are mainly absorbed by the jaw faces in contact with the seated workpiece. The remaining main cutting force produces a moment ($F_s \times d_z/2$) which must be absorbed by the chuck and transmitted by friction at the clamping point.

The moment produced by the main cutting force during turning determines the gripping force required:

$$F_{spz} = \frac{F_s \cdot S_z}{\mu_{sp}} \cdot \frac{d_z}{d_{sp}} \quad (1)$$

where:

F_{spz} = gripping force required for a specific job with the chuck stationary

F_s = main cutting force

chucking ratio $\frac{d_z}{d_{sp}} = \frac{\text{machining diameter}}{\text{chucking}}$
 μ_{sp} = cucking coefficient (friction between jaw and workpiece)
 S_z = safety factor

The feeding force and passive components, F_v and F_p , are not included in this formula. If necessary for extreme conditions, they are included in the safety factor S_z .

The **main cutting force F_s** is calculated from feed, depth of cut and material.

where:

s = feed, mm/rev.

t = depth of cut, mm

k_c = specific cutting force, kN/mm²

$$F_s = s \cdot t \cdot k_c \quad (2)$$

The product $s \times t$ (feed.depth of cut) =chip cross-section(cross sectional area of cut) can be obtained from Table 1.

Determining the chip cross section [mm²] Table 1

Feed (mm)	Depth of cut t (mm)									
	2	3	4	5	6	7	8	9	10	12
0,16				0,8	0,96	1,12	1,28	1,44	1,6	1,92
0,20			0,8	1,0	1,2	1,4	1,6	1,8	2,0	2,4
0,25		0,75	1,0	1,25	1,5	1,75	2,0	2,25	2,5	3,0
0,32	0,64	0,96	1,28	1,6	1,96	2,24	2,56	2,88	3,2	3,84
0,40	0,8	1,2	1,6	2,0	2,4	2,8	3,2	3,6	4,0	4,8
0,50	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	6,0
0,63	1,26	1,89	2,52	3,15	3,78	4,41	5,04	5,67	6,3	7,56
0,80	1,6	2,4	3,2	4,0	4,8	5,6	6,4	7,2	8,0	9,6
1,0	2,0	3,0	4,0	5,0	6,0	7,0	8,0	9,0	10,0	12,0
1,25	2,5	3,75	5,0	6,25	7,5	8,75	10,0	11,25	12,5	15,0
1,60	3,2	4,8	6,4	8,0	9,6	11,2	12,8	14,4	16,0	19,2

The specific cutting force k_c as a function of feed can be obtained from Table 2.

Power-operated clamping devices

Specific cutting force k_c [kN/mm²] Table 2

Specific cutting force k_c at feed s and a setting angle of 45°								
Material		Strength $\bar{\sigma}_B$ kN/mm ²	Feed s [mm]					
			0,16	0,25	0,4	0,63	1,0	1,6
Steels	St 42	sino 0,50	2,60	2,40	2,20	2,05	1,90	1,80
	St 50	0,52	3,50	3,10	2,75	2,45	2,15	1,95
	St 60	0,62	3,05	2,80	2,60	2,40	2,20	2,05
	C 45	0,67						
	C 60	0,77						
	St 70	0,72	4,35	3,80	3,30	2,90	2,50	2,20
	18 CrNi 6	0,63						
	42 CrMo 4	0,73						
	16 MnCr 5	0,77	3,75	3,30	2,95	2,60	2,30	2,05
	Mn, CrNi	0,85-1,00	3,70	3,40	3,10	2,80	2,55	2,35
Cast iron materials	Mn-austentic st.		5,40	4,90	4,40	4,00	3,60	3,30
	St 42	0,30-0,50	2,30	2,10	1,95	1,80	1,70	1,60
	St 42	0,50-0,70	2,55	2,35	2,20	2,05	1,90	1,80
	St 42	HB 2,00	1,50	1,35	1,20	1,10	1,00	0,90
	St 42	HB 2,00-2,50	2,05	1,80	1,60	1,45	1,30	1,15
NE-ferrous metals	Cast bronze		2,55	2,35	2,20	2,05	1,90	1,80
	Gunmetal		1,10	1,00	0,90	0,80	0,70	0,65
	Brass	HB 0,80-1,20	1,20	1,10	1,00	0,90	0,80	0,75
	Cast alumin.	0,30-0,422,60	1,10	1,00	0,90	0,80	0,70	0,65

The chucking ratio $\frac{d_z}{d_{sp}}$ can either be determined from the specified working conditions or obtained from Table 3.

Chucking ratio Table 3

Depth of cut- $\bar{\sigma}_B$ d_z [mm]															
Feed- $\bar{\sigma}_B$ d_{sp} (mm)	20	40	60	80	100	150	200	250	300	350	400	500	600	700	800
20	1,0	2,0	3,0	4,0											
40	0,5	1,0	1,5	2,0	2,5	3,8									
60	0,33	0,67	1,0	1,3	1,7	2,5	3,3	4,2							
80	0,25	0,5	0,75	1,0	1,3	1,9	2,5	3,1	3,8	4,4					
100	0,2	0,4	0,6	0,8	1,0	1,5	2,0	2,5	3,0	3,5	4,0				
150	0,13	0,27	0,4	0,53	0,67	1,0	1,3	1,7	2,0	2,3	2,7	3,3	4,0		
200		0,2	0,3	0,4	0,5	0,75	1,0	1,3	1,5	1,8	2,0	2,5	3,0	3,5	4,0
250		0,16	0,24	0,32	0,4	0,6	0,8	1,0	1,2	1,4	1,6	2,0	2,4	2,8	3,2
300			0,2	0,27	0,33	0,5	0,67	0,83	1,0	1,2	1,3	1,7	2,0	2,3	2,7
350			0,17	0,23	0,29	0,43	0,57	0,72	0,86	1,0	1,1	1,4	1,7	2,0	2,3
400				0,2	0,25	0,38	0,5	0,62	0,75	0,87	1,0	1,3	1,5	1,8	2,0
500				0,16	0,2	0,3	0,4	0,5	0,6	0,7	0,8	1,0	1,2	1,4	1,6
600					0,17	0,25	0,33	0,42	0,5	0,58	0,67	0,83	1,0	1,2	1,3
700						0,21	0,29	0,36	0,43	0,5	0,57	0,71	0,86	1,0	1,1
800						0,19	0,25	0,31	0,37	0,44	0,5	0,62	0,75	0,87	1,0

The chucking coefficient μ_{sp} accounts for the friction existing between the gripping surface of the jaws and the workpiece in the zone of contact.

It is influenced by

- the pattern of the gripping surfaces of the jaws
- the surface quality of the workpiece
- the material.

The chucking coefficient can be obtained from Table 4.

Note:

Forces are more efficiently transmitted by a snug fit than by edge or saddle-Type seats.

Chucking coefficient μ_{sp} for steel parts Table 4

Surface workpiece	smooth	Gripping surface of jaws Diamond style	Serrated
smooth machine finish ground	0,07	0,12	0,20
rough to medium machine finish	0,10	0,20	0,35
unmachined	0,15	0,30	0,45
Corrections:	Al, alloy = 0,95 Brass = 0,90 Gray cast iron = 0,80		

Power-operated clamping devices

Safety factor S_z

The magnitude of the safety factor S_z depends on the degree of accuracy with which the influencing parameters, such as load, chucking coefficient etc., can be determined and on the degree of safety required. It should be ≥ 2 wherever possible.

Safety factor S_z (approximate)

Table 5

Influencing parameters	Safety factor S_z	
	New chucks	Older chucks serviced regularly
a) overhung chucking $l_z \leq d_{sp}$ b) no radial support from tailstock c) tool applied radially d) no axial seating of workpiece against jaws e) ratio: chucking length to distance between cutting and clamping points $l_z \leq 3$	≥ 2.0	≥ 2.4
$l_z \geq 3 \leq 6$	$\geq 4.0^*$	$\geq 4.8^*$

* Lower safety factors can be applied if the workpiece is supported in the tailstock or axially seated against the jaws.

Superimpositions of alternating forces are neglected because their influence is very small in comparison with the total gripping force required.

The safety factors so determined are applicable if the following requirements are met:
Chuck in perfect condition, no damage, adequately lubricated (operating instructions followed to the letter).

No allowance has been made for the following loads acting on the chuck:

- a) Unbalanced forces and moments produced by unsymmetrical workpieces
- b) Weight of workpiece

For a precise calculation of the gripping force required for a given job, use VDI Recommendation 3106. Available from:
Beuth-Verlag GmbH, Kamekestraße 8, D-50672 Köln, Germany.

II)

At high speeds, the gripping force of the rotating lathe chuck is greatly influenced by the centrifugal forces of the jaws. These forces must be taken into account when determining the initial gripping force F_{spo}

The applicable formula is:

$$F_{spo} = S_{sp} \times (F_{spz} \pm F_c)$$

The + sign applies to external gripping.
The - sign applies to internal gripping.

Power-operated clamping devices

Where:

F_c = experimentally determined total centrifugal force of the chuck jaws obtained from the gripping force/speed diagram. The gripping force curves refer to the hard, stepped jaws of the chuck.

S_{sp} = safety factor for the initial gripping force in accordance with VDI Recommendation 3106 $\geq 1,5$

If extremely heavy top jaws (special jaws) are used, the centrifugal forces F_c can be calculated using VDI Recommendation 3106.

III)

The operating power bears a given relationship to the total gripping force, depending on the Type of chuck employed. The values for the operating power can be obtained from the gripping force/operating power diagram.

In special cases where the centrifugal forces of the jaws are very high in comparison with the initial gripping force and power chucks with standard top jaws cannot be used, certain operations can be done with aluminium top jaws of special strength.

Calculation (example)

Having:

1. Workpiece and machining data:

Material		= C 45
Chuck diameter:	d_{sp}	= 60 mm Ø
(roughed)		
Machining diameter:	d_z	= 20 mm Ø
Feed:	s	= 0,5 mm
Depth of cut:	t	= 5 mm
Distance cutting/clamp. points:	l_z	= 50 mm
Speed:	n	= 3000 min ⁻¹

2. Chuck data:

KFD 200 power chuck

Jaws with diamond style gripping surface Condition of chuck: new (no special influencing parameters)

External gripping with UB-538-04 top jaws at mid-position of gripping range.

Find:

- 1) Required gripping force F_{spz} = total gripping force required (without the effect of angular speed)
- 2) Initial gripping force F_{spo} = (total) initial gripping force with the chuck stationary
- 3) Operating power

Power-operated clamping devices

Solution

1) Main cutting force

(Formula 2)

$s \cdot t$ = from Table 1
 k_C = from Table 2

$$F_s = s \cdot t \cdot k_C$$

$$= 0,5 \cdot 5 \cdot 2,50 = 6,25 \text{ kN}$$

2) Required gripping force

(Formula 1)

$$F_{spz} = \frac{F_s \cdot S_z}{\mu_{sp}} \cdot \frac{d_z}{d_{sp}}$$

$$= \frac{6,25 \text{ kN} \cdot 2,0 \cdot 0,33}{0,20} \approx 21,00 \text{ kN}$$

Safety factor S_z = from Table 5

Chucking coeff. μ_{sp} = from Table 4

Chucking ratio $\frac{d_z}{d_{sp}}$ = from Table 3

3) Obtain the loss of the gripping force from the gripping force speed diagram for KFD 200.

At a speed of 3000 rpm: $F_c = 18 \text{ kN}$. See diagram below.

4) Initial gripping force $F_{spo} = S_{sp} \cdot (F_{spz} + F_c)$ (Formula 3) = $1,5 \cdot (21 \text{ kN} + 18 \text{ kN}) = 58,50 \text{ kN}$

S_{sp} determined in accordance with VDI Recommendation 3106 F_c obtained from diagram below

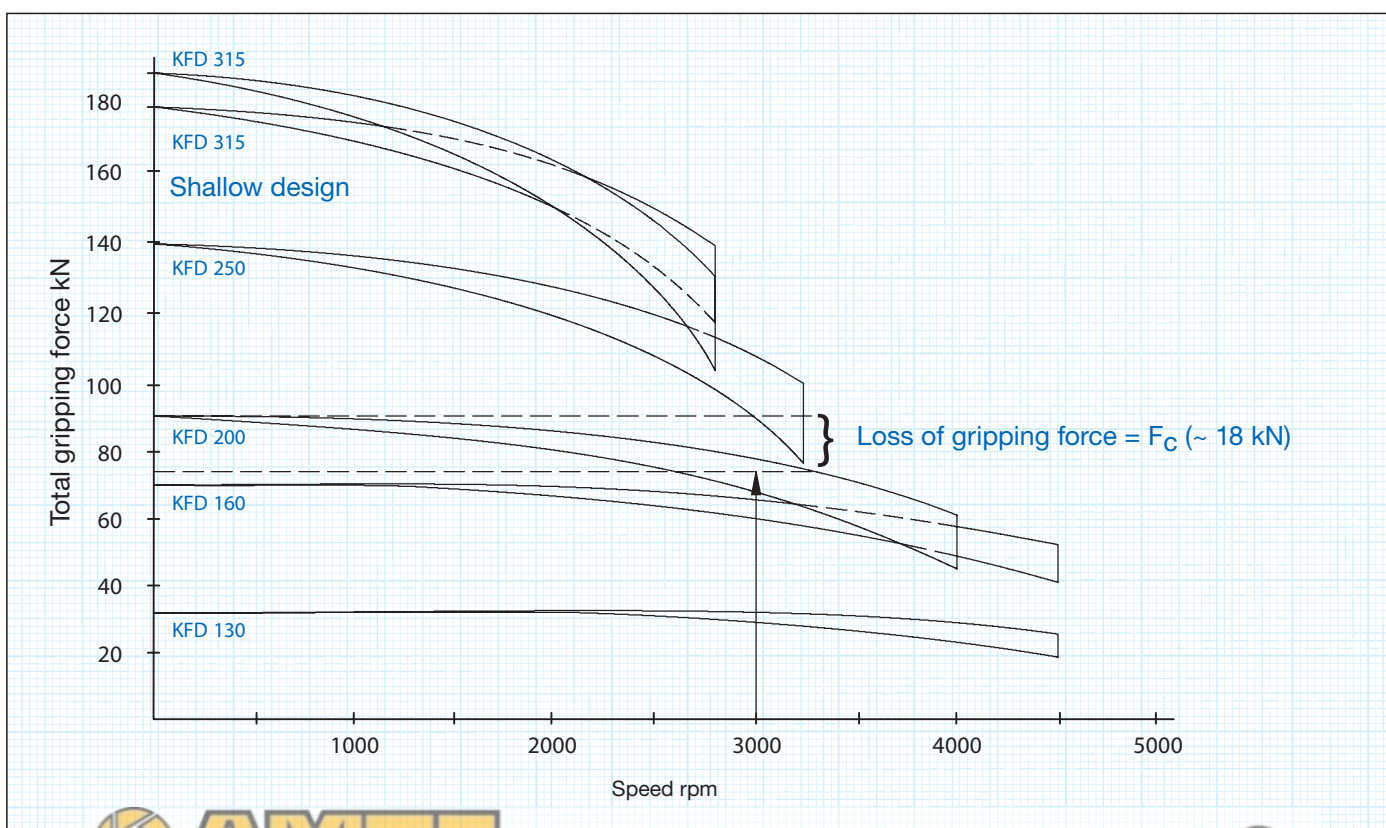
5) Obtain operating power from "gripping force/operating power" diagram for KFD 200. For a gripping force of 58,50 kN the operating power is ~ 29,00 kW (next page)

Gripping force/speed diagram for KFD 3-jaw chucks

upper curve:
min. centrifugal
force of top jaw

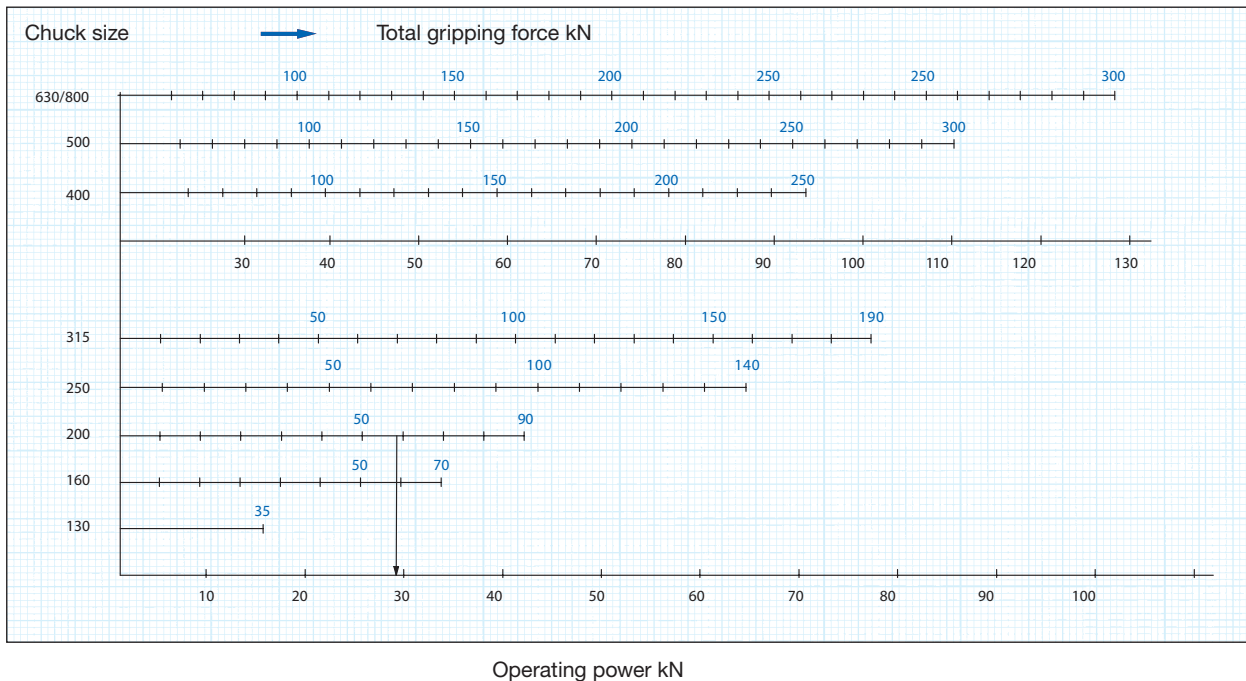


lower curve:
max. centrifugal
force of top jaw



Power-operated clamping devices

Gripping force/operating power diagram KFD 3-jaw chuck



B. Drilling

1. Drilling in solid material (Top lip twist drill, point angle $\geq 120^\circ$)

I)

The gripping force required is determined by the Type of work to be performed. The calculation described below applies to freely chucked work, i. e. workpieces which are not axially seated against the jaws. In this situation the components F_{sBo} (cutting force) and F_{vax} (feeding force) acting on the workpiece give the resultant F_R to determine the gripping force.

The cutting force F_{sBo} can be calculated from

$$F_{sBo} = s \cdot t \cdot k_c \quad (4)$$

where:

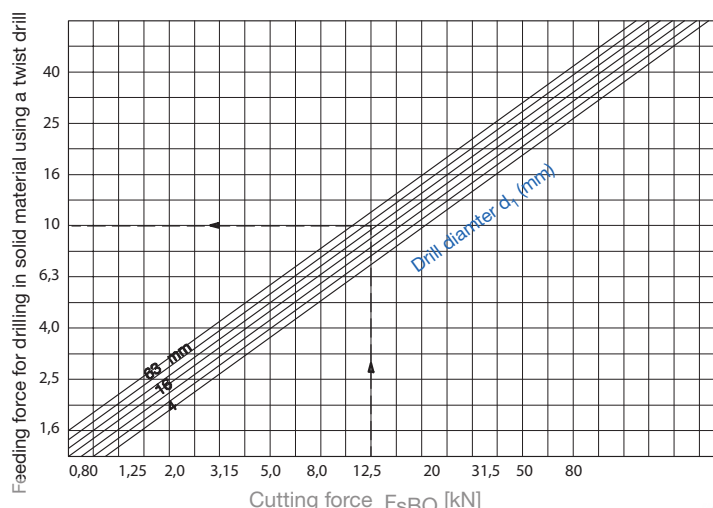
s = feed, mm/rev.

t = depth of cut, mm = $\frac{\text{drill diameter}}{2}$

k_c = specific cutting force kN/mm²

The feeding force F_{vax} bears a given relationship to the cutting force and can be directly obtained from Table 6.

Feeding force F_{vax} Table 6



Power-operated clamping devices

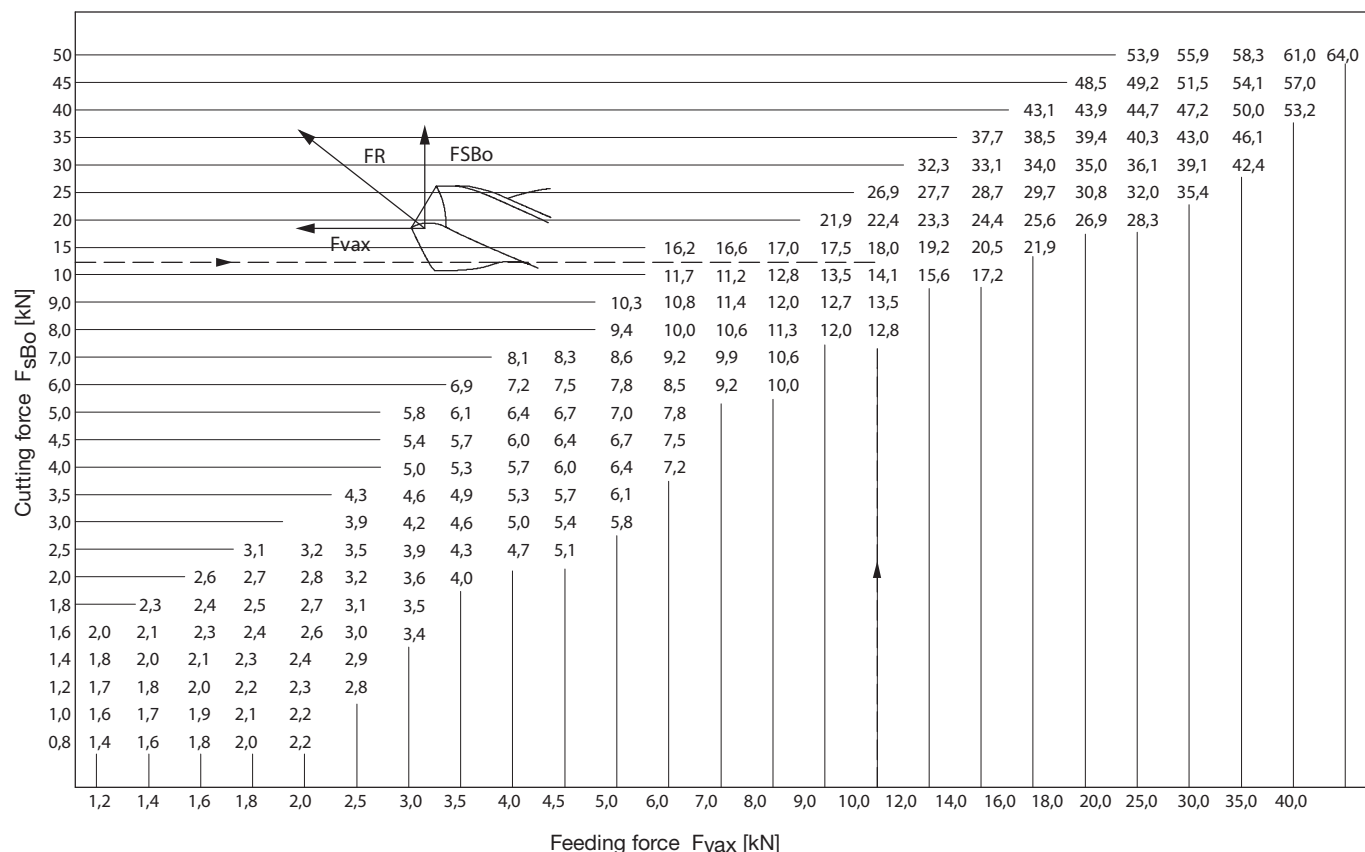
The two components F_{sBo} and F_{vax} give the resultant force F_R

$$F_R = \sqrt{F_{sBo}^2 + F_{vax}^2}$$

The amount of the resultant force F_R can be obtained directly from Table 7. Intermediate values will have to be determined by interpolation.

Resultant force F_R KN

Table 7



Place resultant force F_R for drilling in solid material in the known formula for determining the required gripping force F_{spz} :

$$F_{spz} = \frac{F_R \cdot S_z}{\mu_{sp}} \cdot \frac{d_z}{d_{sp}}$$

where:

F_{spz} = gripping force required for a given job with the chuck stationary.

F_R = resultant force of cutting force and feeding force

Chucking ratio $\frac{d_z}{d_{sp}} = \frac{\text{cutting dia.}}{\text{chucking dia.}}$ where $d_z = \frac{\text{drill dia.}}{2}$

μ_{sp} = chucking coefficient (friction between jaw and workiece)

S_z = safety factor

II and III

Continue the calculation - from determination of the initial gripping force F_{spo} to determination of operating power and the pressure required - exactly as described in Section A) Turning, II) and III).

Power-operated clamping devices

Calculation (example):

Having:

1. Workpiece and machining data.

Material	=	C 45
Chucking dia. d_{sp} (roughed)	=	60 mm
Drill dia. (in solid mat.)	=	30 mm
Feed s	=	0,3 mm
Depth of cut t	=	15 mm
Speed n	=	200 min ⁻¹

2. Chuck data

Power chuck KFD 200
 Jaws with diamond style gripping surface
 External gripping with UB 538-04 top jaws at mid position of gripping range
 Chuck in new condition (no special influencing parameters)

Find:

1. Required gripping force F_{spz}
2. Initial gripping force F_{spo}
3. Operating power

Solution:

1. Cutting force (Formula 4)

$F_{sBo} = s \cdot t \cdot kc = 0,3 \cdot 15 \cdot 2,70 = 12,10 \text{ kN}$
 $s \cdot t$ from Table 1 (or calculated)
 k_c from Table 2

2. Required gripping force

$$F_{spz} = \frac{F_R \cdot S_z}{\mu_{sp}} \cdot \frac{d_z}{d_{sp}} = \frac{15,70 \cdot 2,0}{0,2} \cdot 0,25 = 39,25 \text{ kN}$$

Obtain resultant force F_R

from Table 7

(after first obtaining F

Chucking ratio $\frac{d_z}{d_{sp}}$ from Table 3 (or calculated).

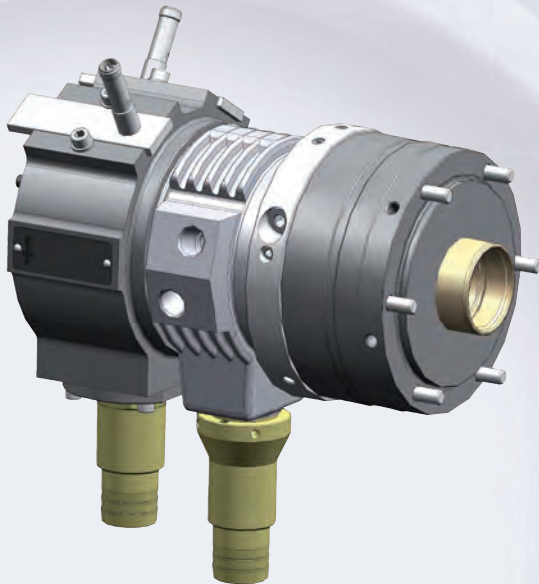
3. Check if any effective centrifugal forces act on the jaws at a speed of $n = 200 \text{ min}^{-1}$.
 As this is not the case in this example, we have:

4. Initial gripping force $F_{spo} = S_{sp} \cdot F_{spz} = 1,5 \cdot 39,25 \text{ kN}$
 S_{sp} from VDI recommendation 3106 $= 59,00 \text{ kN}$

5. Obtain operating power from the "gripping force/operating power" diagram for KFD 200.
 For a gripping force of 59,00 kN the operating power is 29 kN

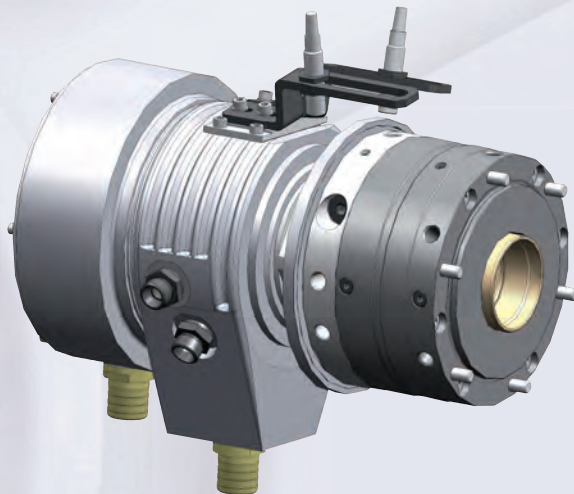
6. For boring (using a boring cutter) the calculation described under "A. Turning" applies analogously.

For high speeds, with safety device, stroke monitor, pressure control valve and coolant collector, mounting from the rear



Special salient features SZS 45 bar:

- Short design
- Safety device
- Stroke monitor
- Low Mass
- Low energy dissipation
- Filter of 0.0004 inch fineness must be mounted to the power unit between pump and control valve.
- The piston can also be actuated when the cylinder is rotating



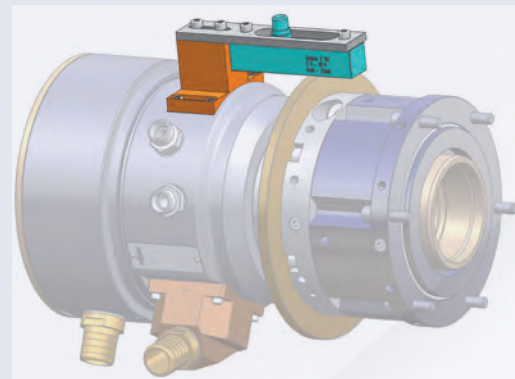
Special salient features SZS 80 bar:

- Safety device
- Stroke monitor beyond coolant collector
- Low energy dissipation
- Filter of 0.0004 inch fineness must be mounted to the power unit between pump and control valve.
- The piston can also be actuated when the cylinder is rotating

Optional stroke monitoring with F 90:

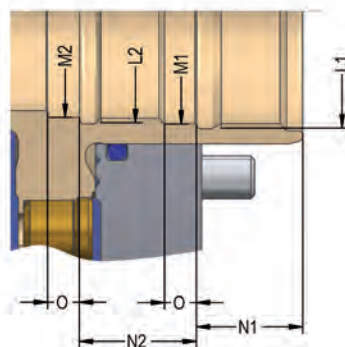
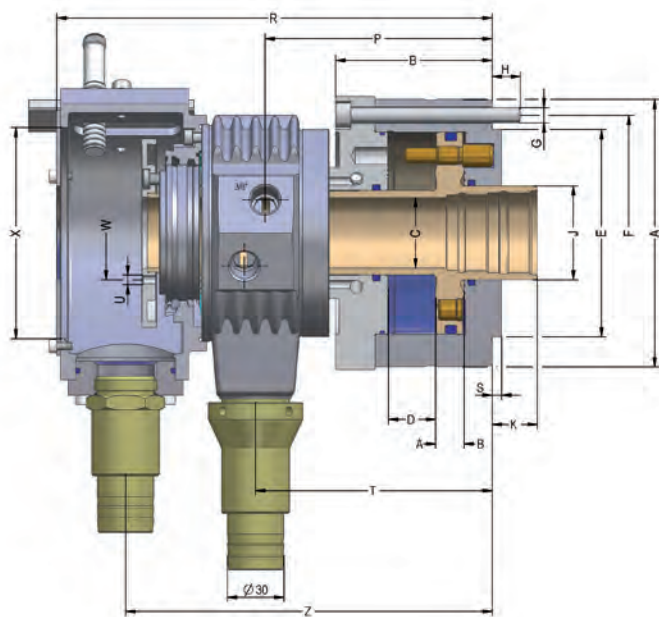


- High resolution
- Minimal temperature drift
- Contactless
- Teachable
- Inductive effect principle



Röhm actuating cylinders meet the requirements laid down by the German Employer's Liability Insurance Association by their safety device and stroke control. For their operation we recommend to use hydraulic oil HLP 32 DIN 51525 (32 Centistokes at 40° C or 100° F).

SZS up to 45 bar, short design

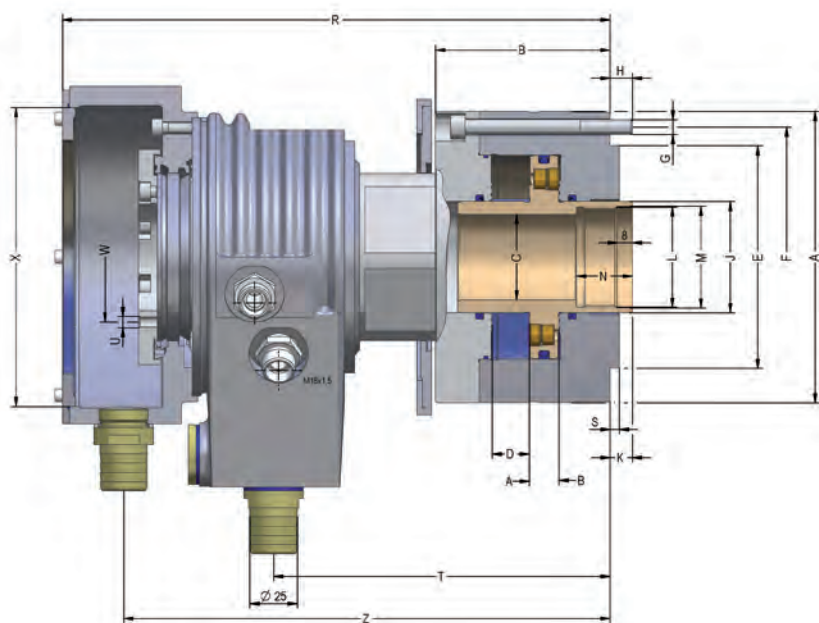


Tool group C 15
Type 559-00
Oil operated actuating cylinders **SZS**
Basic model up to **45 bar**,
short design
for **high speeds**, mounting from the rear, with safety device, stroke monitor, pressure control valve and coolant collector

With high and low pressure chucking the change-over of the safety valve is guaranteed when chucking pressure : releasing pressure $\leq 5,5 : 1$

Item no.	432764	432765	432766	432767	432768	432769	432770	435766	433217
Size	37/70	46/103	52/130	67/150	77/170	86/200	95/225	110/250	127/325
A	142	162	182	197	212	228	245	264	295
B	83	83	83	94	94	104	104	104	127
C	37,5	46,5	52,5	67,5	77	86,5	95,5	110,5	127,5
D stroke	25	25	25	30	30	35	35	35	40
E _{h6}	110	130	140	160	160	180	210	210	250
F	125	147	165	180	185	210	227	240	270
G	6xM8	6xM8	6xM8	6xM10	6xM10	6xM10	6xM10	6xM10	6xM12
H	13	15	15	15	15	15	15	16	20
J	50	61	70	85	95	105	115	130	145
K max.	24	22	22	25	25	31	31	31	44
K min.	-1	-3	-3	-5	-5	-4	-4	-4	4
L ₁	M44x1,5	M55x2	M60x1,5	M75x2	M85x2	M95x2	M105x2	M120x2	M135x2
L ₂	M42x1,5	M50x1,5	M55x2	M72x1,5	M80x2	M90x2	M100x2	M115x2	-
M ₁	42,5	52,5	57,5	72,5	82	92	102,5	117,5	132
M ₂	40	47	52,5	69	77	87	97	112	-
N1	20	25	25	25	25	32	32	32	30
N2	22	25	28	28	28	30	30	30	-
O	6	6	6	6	6	6	6	6	6
P	120,5	120,5	120,5	138,5	138,5	155	159	166,3	196
R	231	231	231	269	269	292	302	321	355
S	5	5	5	8	8	8	8	8	5
T	125,75	125,75	125,75	142,75	142,75	159,25	163,25	171,5	201,5
U	4xM5	2xM6	2xM6	2xM6	2xM6	2xM6	2xM6	4xM6	2xM6
W	50	68	76	91	91	116	120	135	150
X	112	122	122	135	145	167	177	116	131
Z	195,5	195,5	195,5	225	226	249	259	275	307
Piston area A cm ²	74	109,8	142,4	164,5	184	212,6	243,5	267	337
Piston area B cm ²	70	103,5	131	152	170	197	226,2	247,4	325,7
Eff. draw bar pull (F=45 bar) kN	31	46	58	68	76	88	100	110	145
Max. admissible speed min ⁻¹	8000	7000	6300	5500	5000	4500	4000	3500	3200
Oil leakage rate (30 bar 50° C - n max.) l/min ⁻¹	2,5	3	3,5	4	4,5	5	5	5	6
Moment of inertia J kgm ²	0,02	0,03	0,045	0,07	0,13	0,17	0,3	0,35	0,58
Weight approx. kg	11	16	18	22	30	35	38	48	66

SZS up to 80 bar



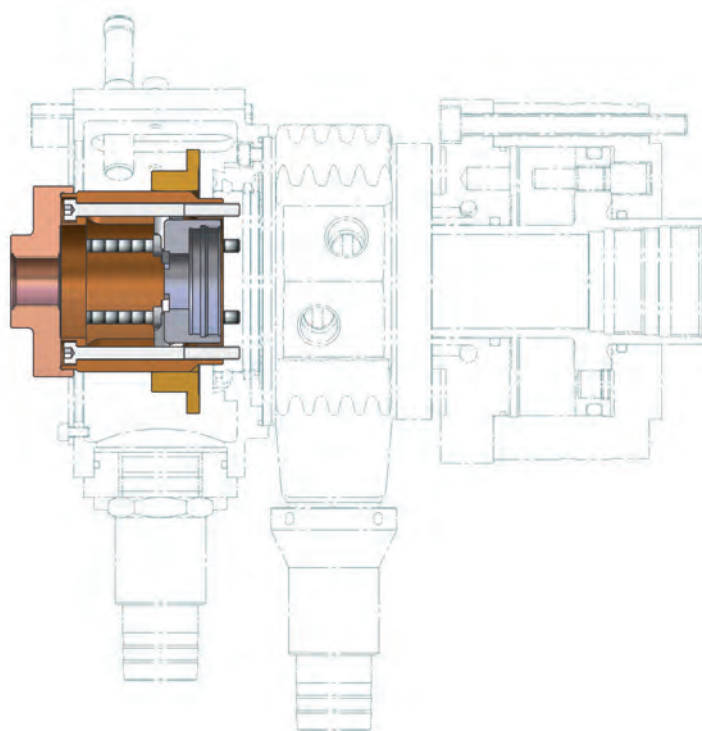
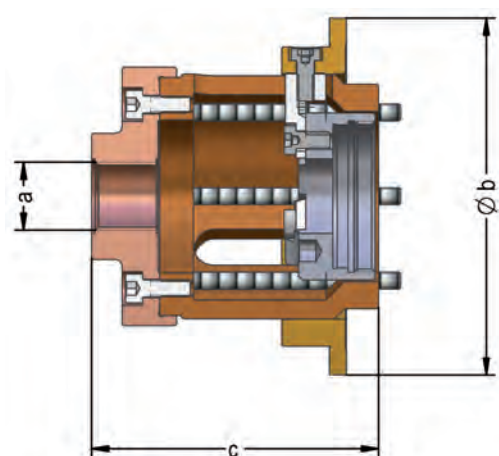
Tool group C 15
Type 559-10
Oil operated actuating cylinders **SZS**
Basic model **up to 80 bar**
for **high speeds**,
mounting from the rear,
with safety device, stroke monitor,
pressure control valve and coolant
collector

With high and low pressure
chucking the change-over of the
safety valve is guaranteed when
chucking pressure : releasing
pressure ≤ 5,5 : 1

Item no.	432760	432761	432762	432763
Size	46/67	67/86	92/110	104/132
A	157	177	203	245
B	94	95	110	135
C	46	67	92	104
D stroke	20	20	35	50
E _{h6}	120	125	155	180
F	140	160	185	225
G	6xM8	6xM8	6xM10	6xM10
H	12	12	15	15
J	60	85	115	125
K max.	12	12	25	25
K min.	-8	-8	-10	-25
L	M54x1,5	M74x1,5	M102x1,5	M115x2
M	55	76	103	117
N	30	35	40	40
P	180	185	215	245
R	295	310	355	400
S	5	5	5	5
T	181	187,5	215	250
U	6xM6	6xM6	6xM6	6xM6
W	70	85	115	125
X	160	180	200	210
Z	262	275	310	350
Piston area A cm ²	66,7	86,4	110	131,7
Piston area B cm ²	66,7	86,4	110	131,7
Eff. draw bar pull (F=60 bar) kN	40	51	66	78
Max. admissible speed min ⁻¹	8000	6000	4000	3200
Oil leakage rate (60 bar 50° C - n max.) l/min ⁻¹	2,5	3	4,0	4,5
Moment of inertia J kgm ²	0,048	0,078	0,23	0,35
Weight approx. kg	22	27	50	66

() Bracket values: Sizes 85 - 130

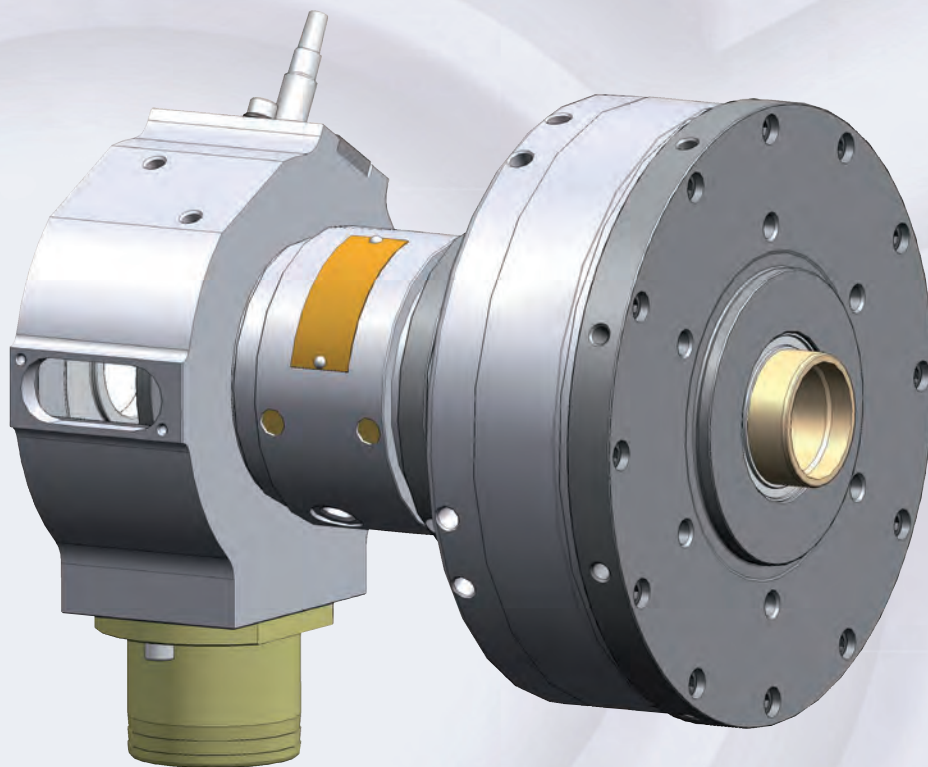
Accessories



Tool group
Type 594-19 longitudinal stop

Item no.	For	a	Ø b	c
1106137	SZS 37/70	M20x1,5	105	84,5
1106141	SZS 46/103	M20x1,5	110	84,5
1106145	SZS 52/130	M20x1,5	115	84,5
1091935	SZS 67/150	M20x1,5	130	89,5
1106149	SZS 77/170	M20x1,5	140	89,5
1106153	SZS 86/200	M20x1,5	162	94,5
1106157	SZS 95/225	M20x1,5	172	94,5
1106161	SZS 110/250	M20x1,5	200	98
1106165	SZS 127/325	M20x1,5	230	99,5

For use with lathes and grinding machines to take advantage of their normally large spindle bores.



Applications:

- Bar work
- Coolant supply through the hollow spindle
- Longitudinal location of workpiece toward the rear (swallowing) part of the workpiece
- Use of center sleeves to mount facing heads for machining parts at the rear
- As a rule through-hole cylinders can only be used for horizontal machining axes.
- Can also be switched while spindle is rotating.

Technical features:

- Safety device
- Stroke monitor
- Coolant collector
- High speeds
- Short design
- In the case of an accidental pressure drop in the feed lines, the safety device maintains the chucking pressure in the cylinder.

Accessories:

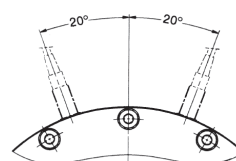
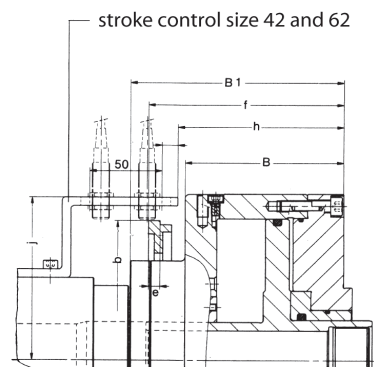
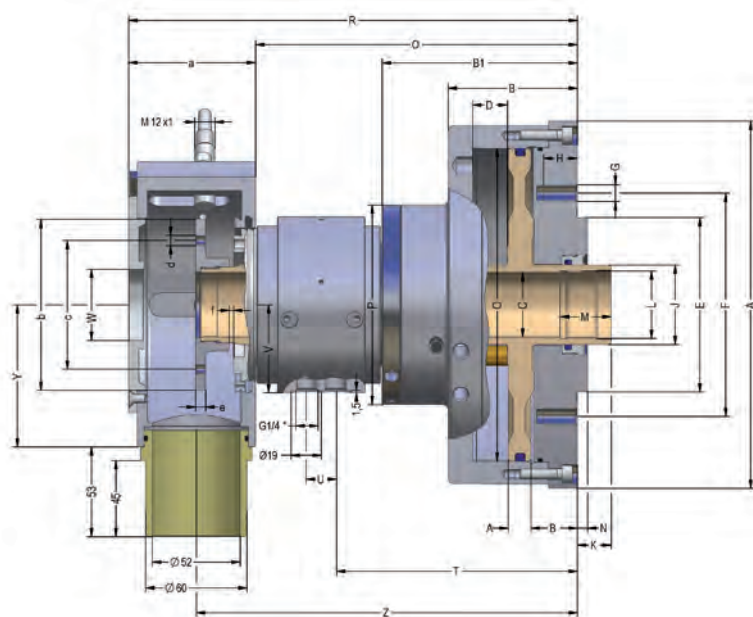
Connection for supply and drain hoses

Special accessories:

2 inductive proximity switches
 Piece/Item no. 381551 (Opener)
 or 2 inductive proximity switches
 Piece/Item no. 202759 (Closer)

With tandem piston on request.

LHS-L

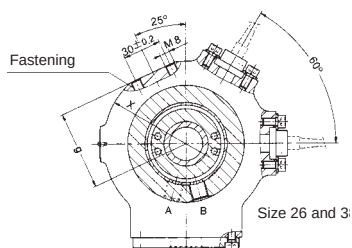


with tandem piston on request

Tool group C 15
Type 565-10 Air actuating cylinders with
through-hole **LHS-L with safety valve**,
stroke controle and
coolant collector,
housing stationary -
1,5 to 8 bar -
can be actuated during rotation

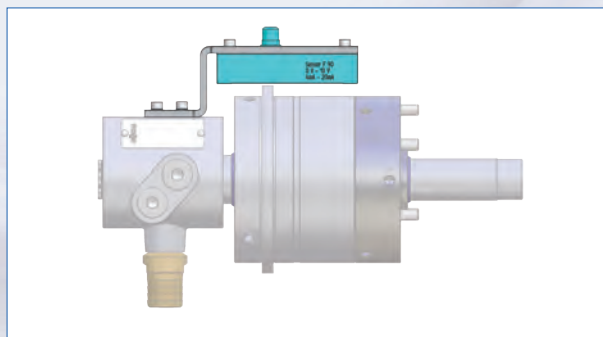
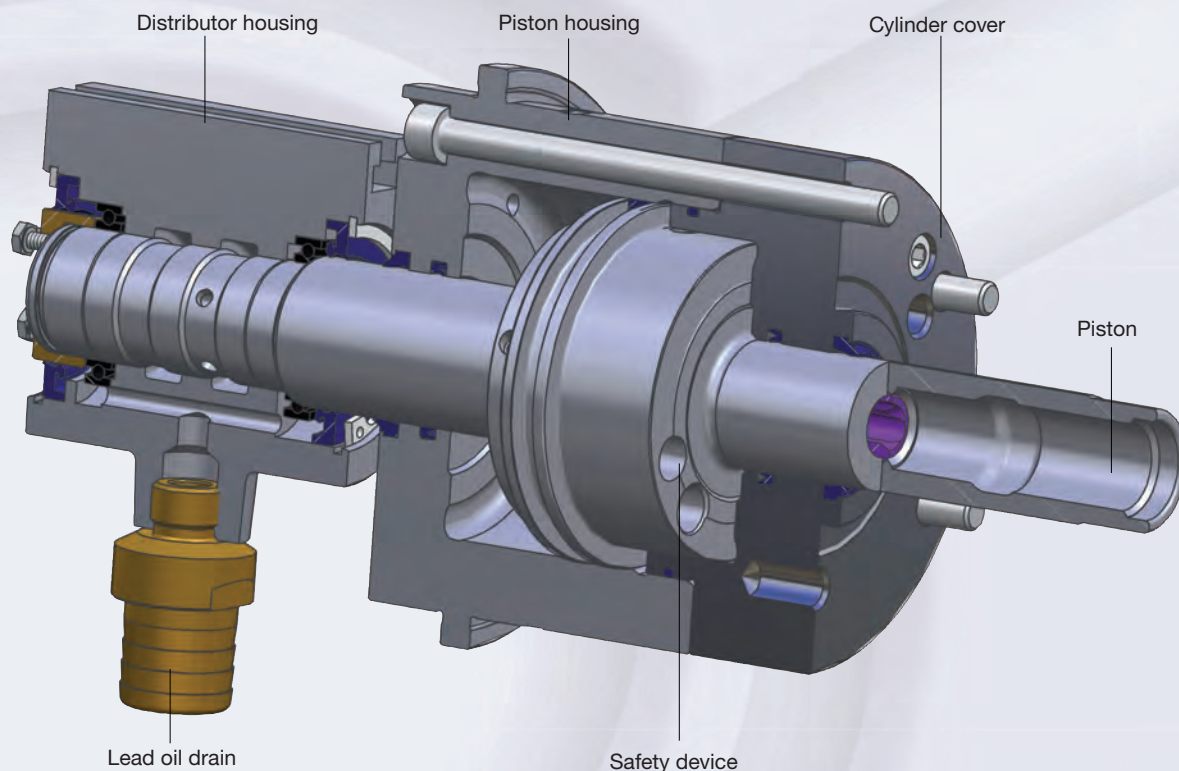
With sizes 26 and 38 the coolant collector is centrally held by means of a holding device at the machine.

With high and low pressure chucking the change-over of the safety valve is guaranteed when chucking pressure :
releasing pressure $\leq 2 : 1$



Item no.	417310	417311	417312	417313
Size	26/190	38/251	42/289	62/438
A	187	215	235	285
B	76	78	109,7	109,7
B ₁	110	110	147,5	147,5
C	26,2	38,2	42	62
D stroke	20	20	32	32
E-0,01	70	103	103	125
F	105	132	145	170
G	6 x M 8	6 x M 10	8 x M 8	8 x M 10
H	15	20	20	25
J	38	50	57	82
K max.	20	20	20	20
K min.	0	0	-12	-12
L	M 32 x 1,25	M 44 x 1,5	M 52 x 1,5	M 70 x 1,5
M	25	30	30	35
N	5	6	6	6
O	160	185	200	250
P	106	118	140	160
Q	197	198	263,7	263,7
R	275	273	337,7	342
S	210	211	283,5	283,5
T	141	140	188	188
U	23	23	28,5	28,5
V	46	52	60	70
W	42	42	51	70
X	130	151	151	161
Y	73,5	84	84	89
Z	233,5	233	297,7	300
a	78	75	74	80
b	77	101	197	217
c	61	76	-	-
d	4 x M 6	4 x M 6	-	-
e	7,5	7,5	8	8
f max.	22,5	22,5	135	135
f min.	2,5	2,5	167	167
g	62	72	-	-
h	-	-	114,7	114,7
j	-	-	115	125
Piston area A cm ²	189,7	249,1	288,6	438
Piston area B cm ²	190,9	251,4	291,3	447
Eff. draw bar pull (F=6 bar) kN	10,47	13,75	15,90	24,40
Max. admissible speed min ⁻¹	6500	6500	4000	4000
Volume for full double stroke l	0,762	1	1,9	2,84
Moment of inertia J kgm ²	0,03	0,06	0,102	0,24
Weight approx. kg	11,8	16	25,5	36

The air actuating cylinders LVS are available on request



Stroke control with F 90:

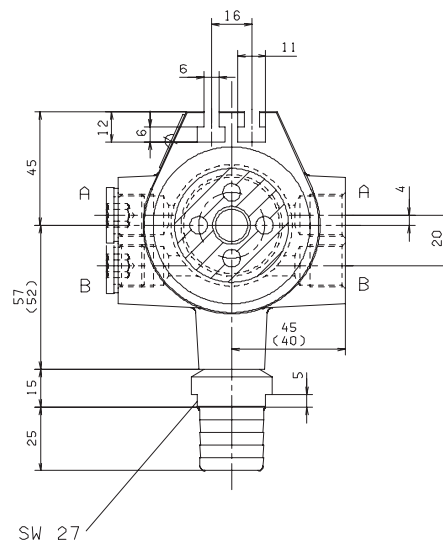
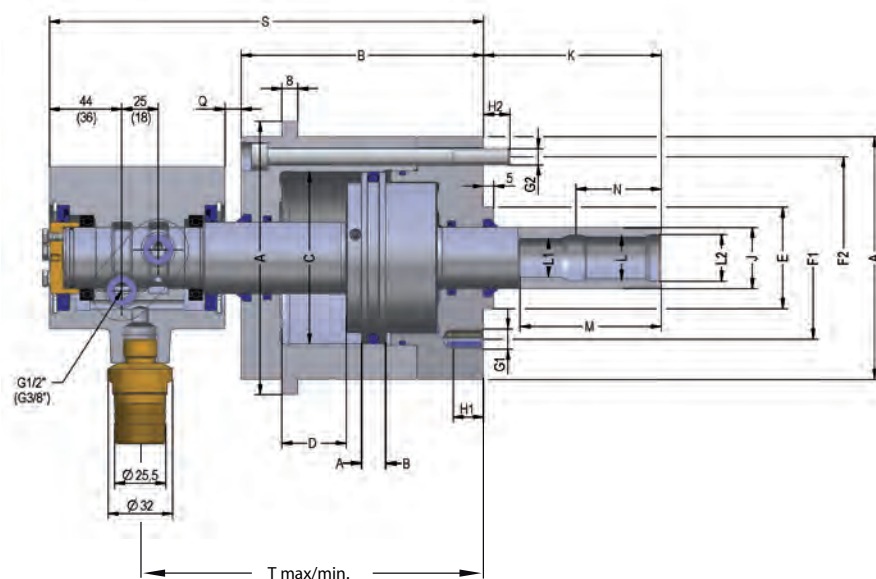
- High resolution and accuracy
- Minimal temperature drift
- Contactless
- Teaching mode
- Inductive principle of operation

With high and low pressure chucking the change-over of the safety valve is guaranteed when:
 chucking pressure : releasing pressure $\leq 5,5 : 1$ (Size 85 - 130)
 chucking pressure : releasing pressure $\leq 3,8 : 1$ (Size 150 - 200)

Oil operated actuating cylinders without through-hole OVS available as basic model in steel design, also available with following options:

- Inductive stroke monitoring (limit switch **not included** in scope of delivery)
- Linear stroke monitoring F 90 (F 90 system **included** in scope of delivery)

Suitable for horizontal or vertical installation. Compact design, low mass moment of inertia, minimum leakage. Additional connection for auxiliary functions, such as pneumatic contact monitoring, coolant supply, central lubrication etc., further rotating unions depending on operating condition on request (i.e. Deublin, Rotoflux brand).



Tool group C 15

Type 453-05

Oil-operated actuating cylinders without through-hole **OVS**

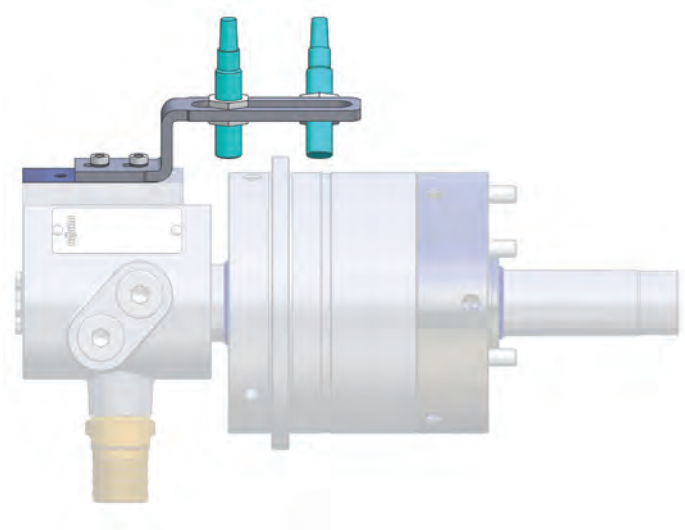
Basic model,
with **safety device,**
up to 80 bar -

Steel design
for high speeds,
mounting from the rear,
with central passage

With high and low pressure
chucking the change-over of the
safety valve is guaranteed when
chucking pressure : releasing
pressure $\leq 5,5 : 1$ (size 85-130) /
chucking pressure : releasing
pressure $\leq 3,8 : 1$ (size 150-200)

Item no.	438261	438262	438263	438264	438265
Size	85	105	130	150	200
Design	steel	steel	steel	steel	steel
A	120	140	165	193	245
A1	135	155	180	208	260
B	120	120	120	147	164
C	85	105	130	150	200
D stroke	32	32	32	45	50
E _{re}	50	50	80	95	125
F ₁	80	80	105	145	170
F ₂	100	120	145	170	220
G ₁	M10 (3x120°)	M10 (4x90°)	M12 (4x90°)	M16 (4x90°)	M16 (6x60°)
G ₂	M8 (6x60°)	M8 (6x60°)	M8 (8x45°)	M10 (8x45°)	M12 (8x45°)
H ₁	15	15	18	24	29
H ₂	13	13	13	14	19
J	30	32	42	50	70
K max.	88	88	82	98	108
K min.	56	56	50	53	58
L	M 22 x 1,5	M 22 x 1,5	M 30 x 2	M 36 x 2	M 48 x 2
L ₁	19	19	26	30	42
L ₂	23	23	32	38	50
M	70	70	88	105	125
Min. reach of draw bar N	43	43	65	78	90
Q max.	40	40	40	53	58
Q min.	8	8	8	8	8
S max.	252	247	247	307	329
S min.	220	215	215	262	279
T max.	202	202	202	250	272
T min.	170	170	170	205	222
Piston area A cm ²	47,1	77	116,8	160,8	298,2
Piston area B cm ²	49,7	78,6	118,9	157,1	275,7
Eff. draw bar pull (F=60 bar) kN	29,50	47	71,3	94	165,4
Max. admissible speed min ⁻¹	8000	8000	6300	5500	4500
Volume for full double stroke l	0,31	0,5	0,775	1,43	2,87
Moment of inertia J kgm ²	0,018	0,03	0,066	0,142	0,36
Weight approx. kg	10	12,7	17,7	31,4	49
Suitable connecting flange for Duoflow Rotating Unions	1022186	1022186	1022187	1022187	1022187

Stroke monitors

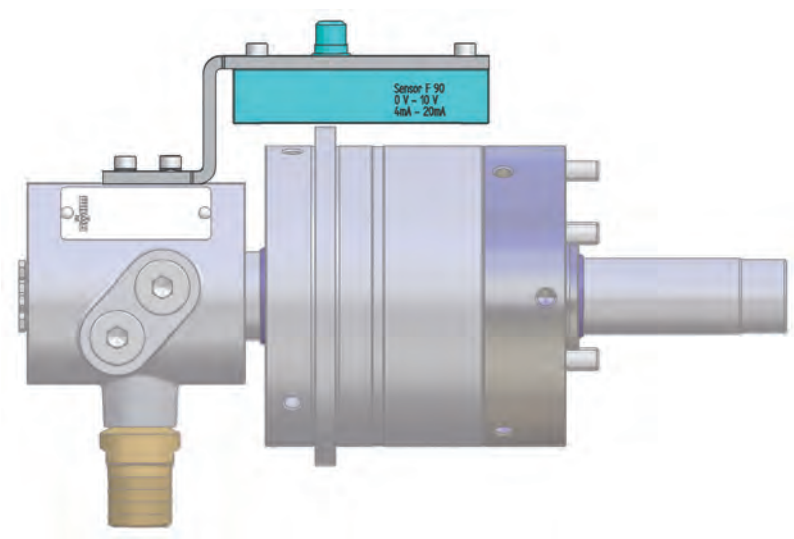


Tool group C 15
Type 453-05
OVS-stroke monitoring
by **inductive proximity switches**
(Limit switch not included)

Item no.	Size
1159712	OVS 85
1159713	OVS 105
1159714	OVS 130
1159715	OVS 150
1159716	OVS 200

Cylinders must be ordered separately
External rotating union suitable

Stroke monitors

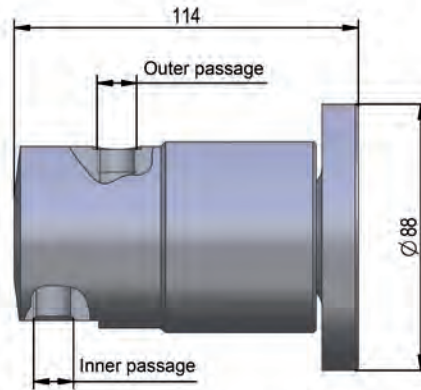


Tool group C 15
Type 453-05
OVS-stroke monitoring linear,
inductive F90
(F90 system included)

Item no.	Size
1159707	OVS 85
1159708	OVS 105
1159709	OVS 130
1159710	OVS 150
1159711	OVS 200

Cylinders must be ordered separately
External rotating union suitable

Accessories



Tool group C 15
Typ 4000-Y
2-Passage Rotating Unions

Item no.	Inner Passage			Outer Passage		
	Connection	Media	Max. Pressure	Connection	Media	Max. Pressure
1118078	1/4	Hydraulic Oil	100	1/4	Hydraulic Oil	30
1118079	1/4	Hydraulic Oil	70	1/4	Air	10
1118080	1/4	Coolant	70	1/4	Air	10
1118081	3/8	Air	10	1/8	Air	10
1118082	1/4	Air	10	1/4	Hydraulic Oil	40
1118083	1/4	Air	10	1/4	Coolant	40

Optional: 1-Passage Rotating Union for OVS Size 85-105 Item No.: 600599
Optional: 1-Passage Rotating Union for OVS Size 130-150 Item No.: 326372
Optional: 1-Passage Rotating Union for OVS Size 200 Item No.: 611172
Connecting Flange complete for 2-Passage Rotating Union Size 85-105 Item No.: 1022186
Connecting Flange complete for 2-Passage Rotating Union Size 130-200 Item No.: 1022187

Overview power chucks - cylinders

OVS Size		85	105	130	150	200			
3-and 4-jaw chucks	KFD	85-125+140	130	160	160-250	200-1600			
	KFL			250	250-400	315-600			
	KFD-G	125+160	200	250	315	400			
	KFD-HS	110	110-175	200	250	315-500			
	DURO-NC/SE		140	160	175+200	250-630			
	KFD-HE		160	160+200	250	315+400			
	KFM	130	160	215	280+350				
	KFG		160	215	280+350				
	KFE		170	215	280+350				

LVS Size		85	105	130	150	200	250	300	350
3-and 4-jaw chucks	KFD			85-125+140	85-125+140	130	160	200+250	250-315
	KFL						250	315+400	315-600
	DURO- NC/SE						160	200+250	250
	KFD-HE						160	200+250	300+400
	KFM			130		160	215	280	350
	KFG						160	215+280	350
	KFE						170	215+280	350

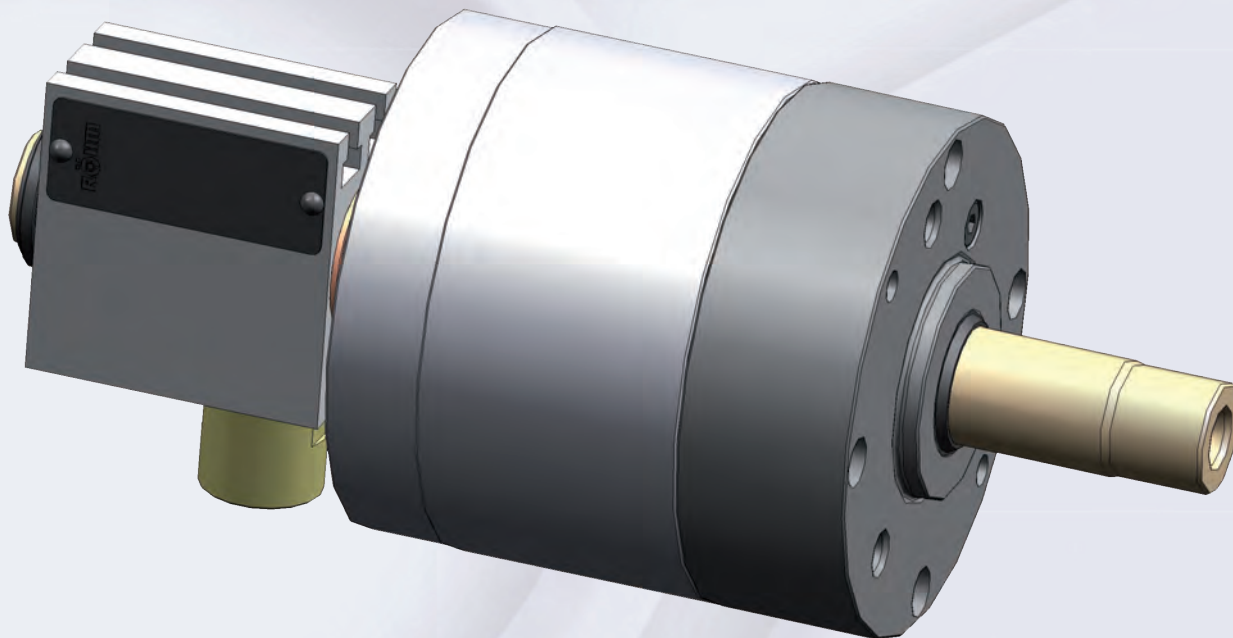
OVS Size		85	105	130	150	200			
2-jaw chucks	KFD	125-140	130+160	160+200	160-250	200-630			
	KFD-G	125+160	200	250	315	400			
	KFM	130	160	215	280+350				
	KFG	160	215	280+350					
	KFE	170	215	280+350					

LVS Size			105	130	150	200	250	300	350
2-jaw chucks	KFD		125	125+140	130	130+160	200	250+315	250-500
	KFD-G			125	160	200	250	250+315	315+400
	KFM			130		160	215	280	350
	KFG						160	215-350	
	KFE					170+215	280	350	



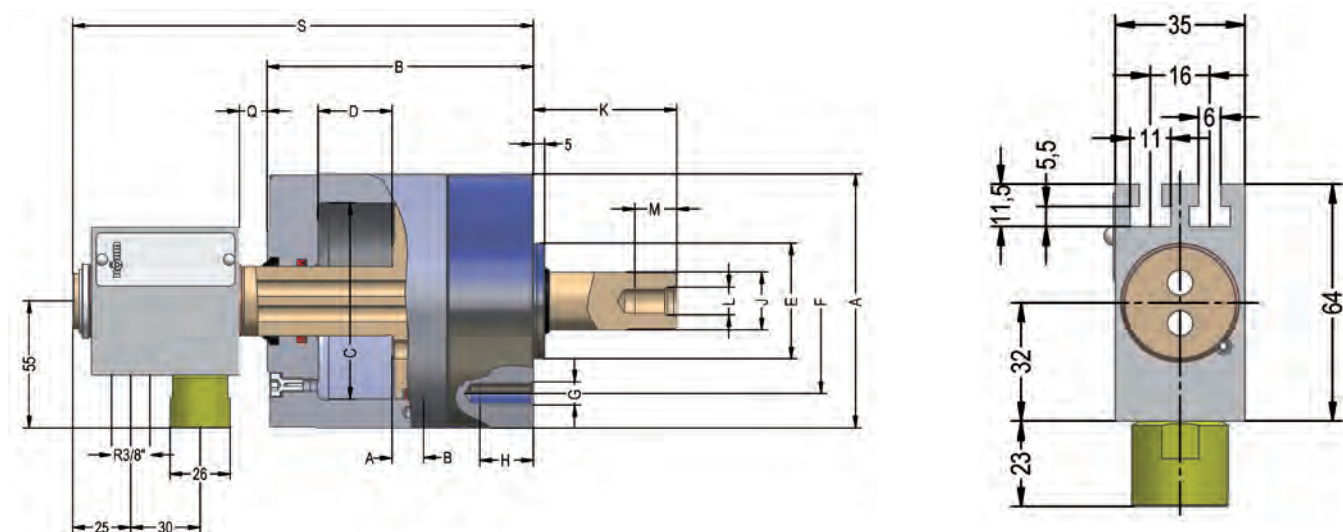
LVS - up to 10 bar

With safety device and stroke monitor



- Air actuating cylinder up to max. 10 bar, without through-hole
- The cylinders can also be actuated when rotating
- In case of a sudden decrease of pressure with cylinders LVS safety devices guarantee that the clamping pressure in the piston area will be maintained
- Stroke control by means of a single touch limit switch, inductive stroke monitoring, F 90 stroke monitoring system, attachment on the machine side
- Operating pressure max. 10 bar, min. 2 bar
- The max. admissible speed can be run continuously (100 % ED).

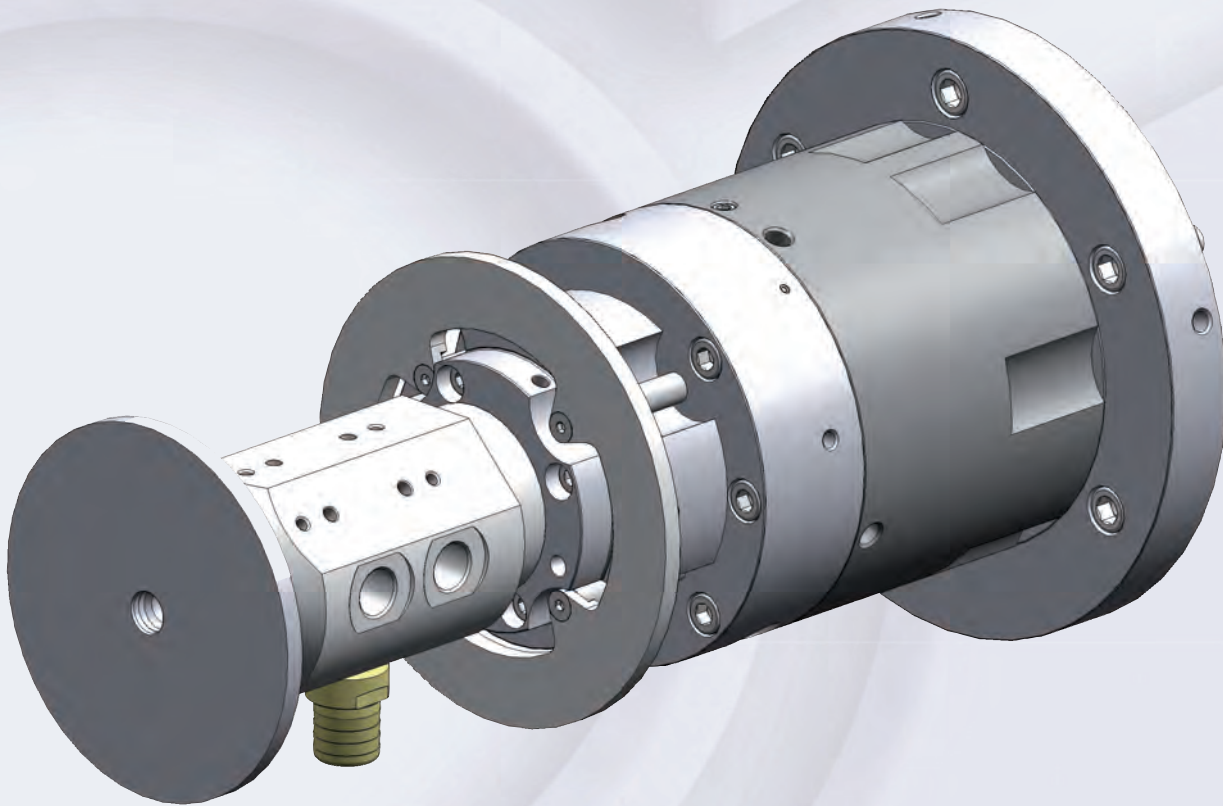
Available on request: Air actuating cylinder with through-hole LVS



Tool group C 15
Type 555-60
LVS Air actuating cylinders
without through-hole
with safety device
and stroke control

Item no.	096553	096554	096555	096556	096557	096558	096559	096560
Size	85	105	130	150	200	250	300	350
A	110	130	155	180	240	287	337	387
B	115	115	117	128	125	125	125	148
C	85	105	130	150	200	250	300	350
D stroke	32	32	32	32	32	32	32	45
E _{h6}	50	50	80	95	95	125	125	125
F	80	80	105	145	145	170	170	170
G	3 x M 10	3 x M 10	3x M 12	4 x M 16	4 x M 16	6 x M 16	6 x M 16	6 x M 16
H	23	23	27	35	35	35	35	35
J	25	25	25	25	35	35	35	35
K max.	62	88	79	74	87	87	82	82
K min.	30	56	47	42	55	55	50	37
L	M 12	M 12	M 16	M 16	M 24	M 24	M 24	M 24
M	18	18	24	24	36	36	36	36
Q max.	44	44	44	44	44	44	44	57
Q min.	12	12	12	12	12	12	12	12
S max.	231	231	233	244	241	241	241	277
S min.	199	199	201	212	209	209	209	232
Piston area A cm ²	49,7	79,5	125,7	169,6	307,1	483,8	699,8	955
Piston area B cm ²	51,8	81,7	127,8	171,8	304,5	481,5	697,2	952,5
Eff. draw bar pull (F=6 bar) kN	3	4,80	7,50	10	18	28,50	41,50	56,50
Max. admissible speed min ⁻¹	5000	5000	5000	5000	4500	4000	3200	3200
Air consumption for full double stroke at 6 bar NL	2,8	4,6	6,5	7,5	12,5	18	26	50
Moment of inertia J kgm ²	0,007	0,009	0,03	0,06	0,09	0,10	0,237	0,45
Weight approx. kg	5,3	6,5	9	12,5	19,5	23	28,5	32,5

With four-way oil distributor



Different Types are available:

A modular system permits the same basic cylinder to be offered with different strokes and piston areas and desired safety arrangement. If an additional connector head is attached to this cylinder, a further fluid (coolant, oil, air etc.) can be passed through the cylinder axis.

Available styles (examples):

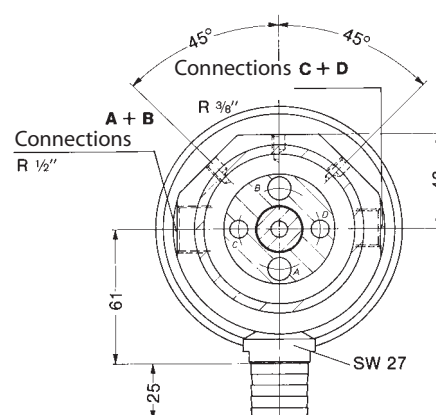
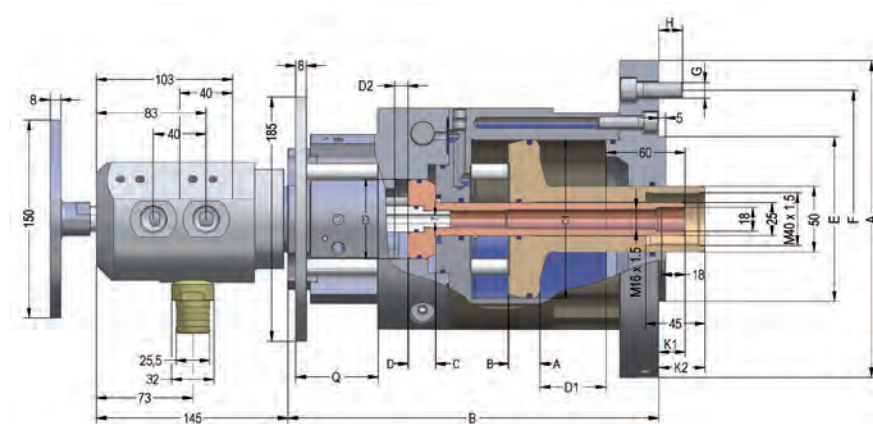
- Safety system for the large piston and stroke monitor for both pistons
= OVUSHH
- Safety system for both pistons
= OVUSHH
- Additional connector head
(e.g. for coolant, oil or air)
= OVUSHHD or OVUSHHHD

The range of chucks that can be used with this cylinder depends on the functions performed by the second piston and includes, for example, power chucks with ejectors, power chucks with retractable stops and power chucks with auxiliary functions generally.

[On request: Dual piston cylinder with rotating piston for swivelling movement.](#)

Scope of delivery:

Connections for supply and drain hoses (without touch limit switch, without inductive proximity switches).



Tool group C 15
Type 552-56
Hydraulic double piston
cylinders **OVUSHH**
with independent pistons
piston 1 with safety device,
both pistons with stroke control,
with central passage,
non-rotating distributor,
up to 50 bar

Item no.	419724	419727	419725	419726
Size	120/80	120/80	140/80	160/80
A	168	168	188	208
B	248	278	248	248
Ø Piston 1 C ₁	120	120	140	160
Ø Piston 2 (reduction possible down to 50mm) C ₂	80	80	80	80
Stroke piston 1 (reduction possible down to approx. 10 mm) D ₁	45	75	45	45
Stroke piston 2 (enlargement possible up to approx. 45 mm) D ₂	8	8	8	8
E	-	-	-	-
F	-	-	-	-
G	-	-	-	-
H	-	-	-	-
K1 min.	40	10	40	40
K1 max.	85	85	85	85
K ₂ min.	22	-8	22	22
K2 max.	30	0	30	30
Q min.	37	7	37	37
Q max.	82	82	82	82
Piston area Piston 1 A cm ²	93,5	93,5	134,5	181,4
Piston area Piston 1 B cm ²	103,7	103,7	144,5	191,6
Piston area Piston 2 C cm ²	45,4	45,4	45,4	45,4
Piston area Piston 2 D cm ²	46,1	46,1	46,1	46,1
Eff. draw bar pull (F=40 bar) 1 kN	38	38	56	74
Eff. draw bar pull (F=40 bar) 2 kN	18	18	18	18
Max. admissible speed min ⁻¹	5000	5000	5000	5000
Volume for full double stroke 1 l	0,86	1,42	1,26	1,67
Volume for full double stroke 2 l	0,1	0,1	0,1	0,1
Moment of inertia J kgm ²	0,13	0,14	0,18	0,25
Weight approx. kg	42,2	44,7	46,5	51,3

The dimensions E, F, G and H are machine-based and have to be stated for the ordering.



driven by technology

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