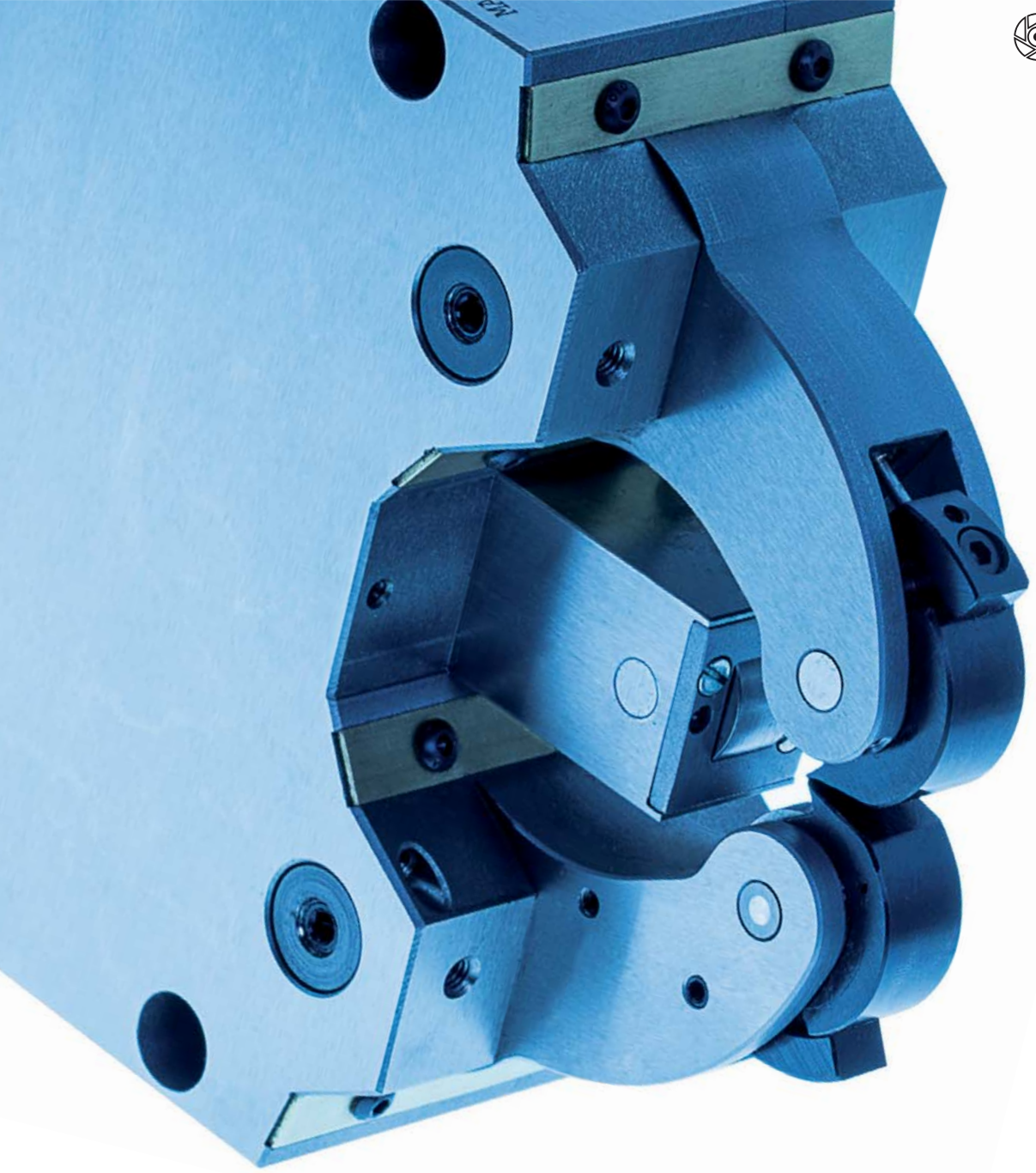
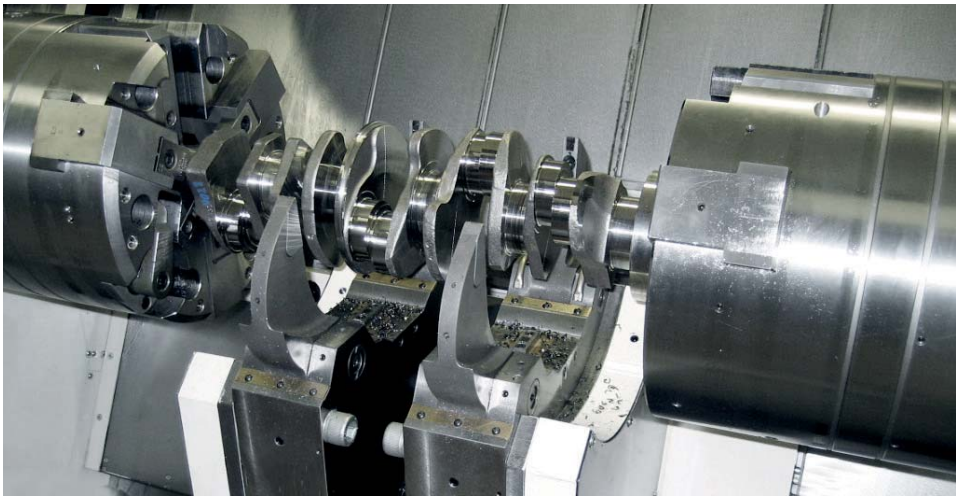


OPTIMAL COMPONENT SUPPORT



Optimal support of components for every application, e.g. crankshaft machining

AMTC BV sales@amtc.eu 0165 304188 (+31)

SELF-CENTERING STEADY RESTS

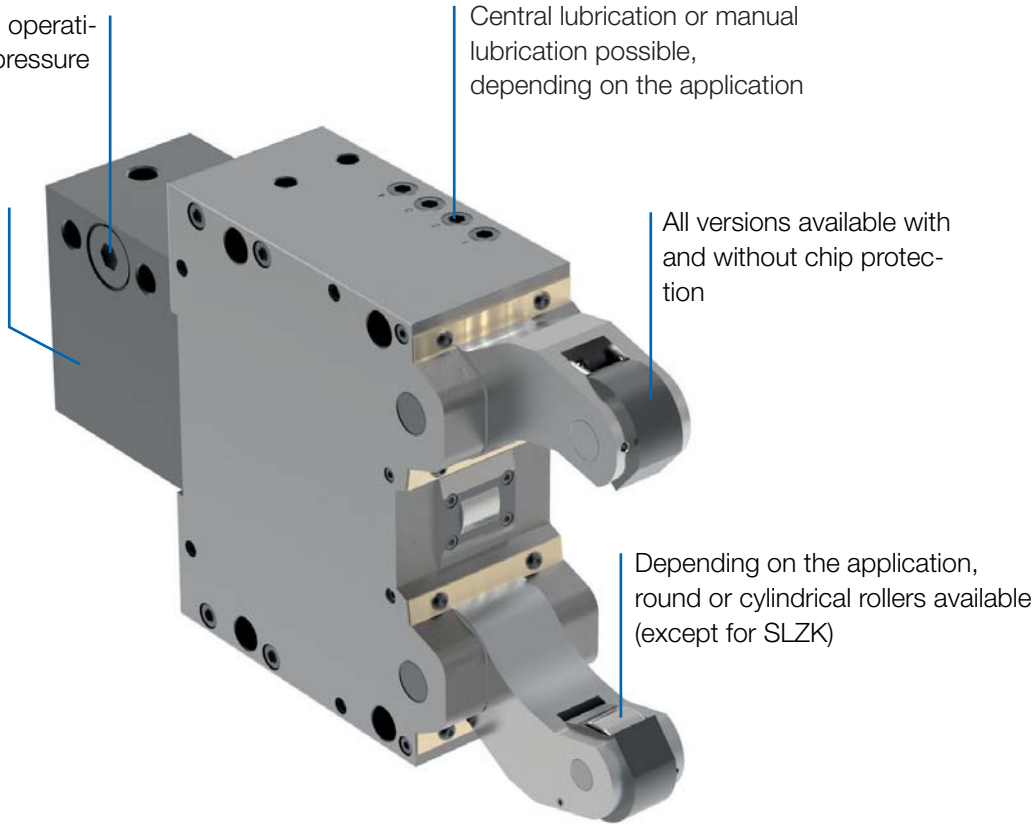
With self-centering steady rests, RÖHM makes an important contribution toward the support of slender turned parts on lathes and meets all requirements for a large clamping range without change elements, a short and sturdy design, high centering precision and repeatability, as well as precision stability for clamping pressure changes and central lubrication.

ADVANTAGES AT A GLANCE

- Support of components with extreme center precision and repeatability thanks to optimized cam lever system
- Standardized equipped with central lubrication for use under difficult conditions and with high dirt accumulation
- Large clamping range without change elements thanks to special curved geometry

NEW

Simple attachment of a safety valve and dosing valves for the central lubrication system to increase maintenance friendliness for SLZN or SLZN-B



Function description

Different attachment options allow possible use for turning, facing, centering, drilling, internal machining, copy turning, etc., both as a stationary as well as a rotating steady rest in any angular position relative to the lathe tool.

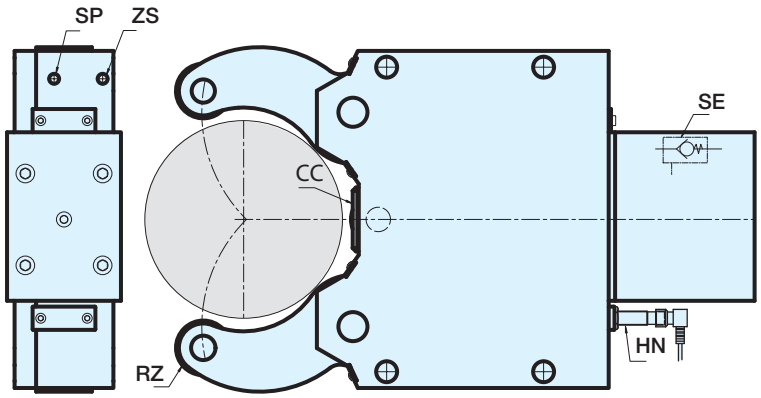
Also in the case of a stationary steady rest, the shaft can be machined along the entire length since, on the one hand, the opening between the rollers leaves room for tools and on the other hand, the rollers reclamp self-centering. Here, 2 supporting steady rests are to be provided so that one of these can support the workpiece over the entire width of the roller.

The cylinder installed to actuate the steady rest can be selected for hydraulic or pneumatic actuation. The only difference is the size of the piston surfaces.

List of abbreviations

SP	=	Air purge connection
ZS	=	Central lubrication of the steady rest
HN	=	Check via steady rest proximity switch (not included in delivery) in the open position
HK	=	Stroke control rod
RZ	=	Rollers, cylindrical
RB	=	Rollers, convex

Standard configuration



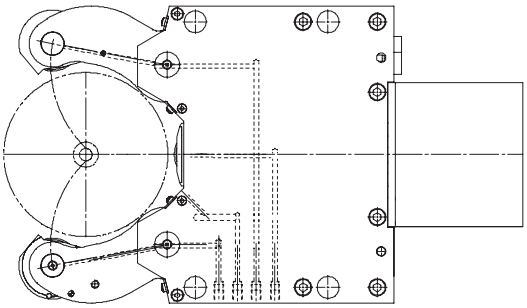
The standard steady rest is configured as follows:

– Cylindrical rollers
– Pressurization
– Central lubrication
– Axially extended cylinder with safety valve (except SLZ-047)
– Proximity switch component (open steady rest) for possible using of HN
– Device for manual lubrication via grease cup or oiler

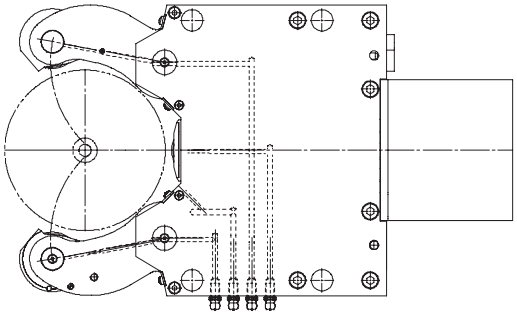
Function description

Lubrication
Only one connection is required for the central lubrication system. The dosing units for the rollers are integrated in the steady rest body and ensure sufficient lubrication in the corresponding time interval.

Oil central lubrication (standard)
RÖHM steady rests are standard-equipped with a central lubrication system. The dosing valves required for lubrication are built into the steady rest body. Lubrication intervals (depending on load) 2-5 minutes at an operating pressure of 16-50 bar.

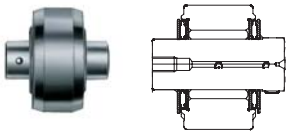


Manual lubrication (option)
Steady rest for moderate load and low dirt accumulation. Lubrication points and rollers are supplied with grease via grease nipples and grease gun. Lubrication intervals every 4 to 8 operating hours, depending on application.

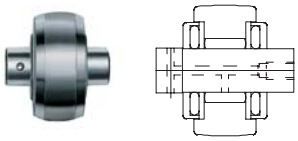


Rollers
The rollers are supported by roller bearings radially and axially. In the standard version, these are cylindrical or convex. In the case of conical workpieces and for follower rests arrangement, convex rollers are to be used. Here, too, customized designs on request supplement the product range.

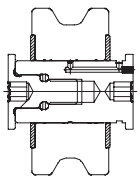
Cylindrical rollers
Roller version for standard inserts



Convex rollers
For conical workpieces and for following steady rest arrangement

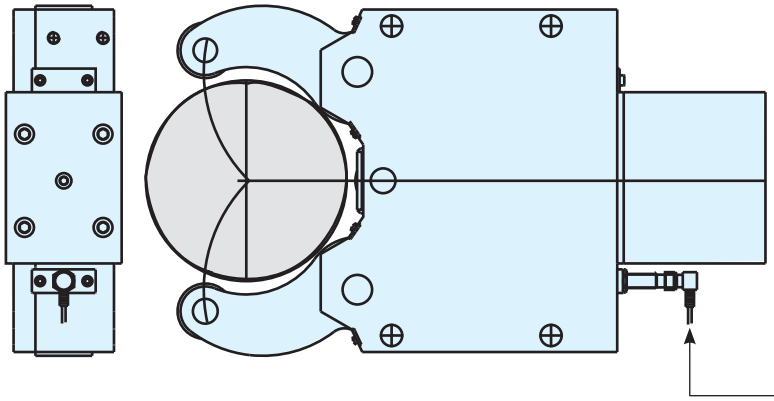


Customized rollers
on request



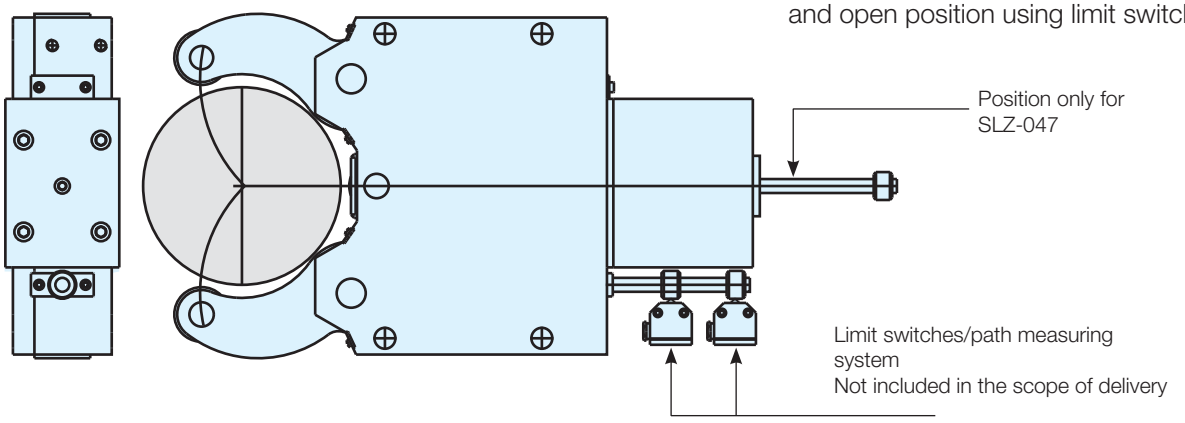
Standard accessories of SLZN series

Clamping arm control system SLZ-HN



There is the option of attaching a sensor (proximity switch) to the steady rests as standard, which measures the position of the opened steady rest. This option is not available for the steady rest of type SLZ-047. The proximity switch is not included in the delivery of the steady rest.

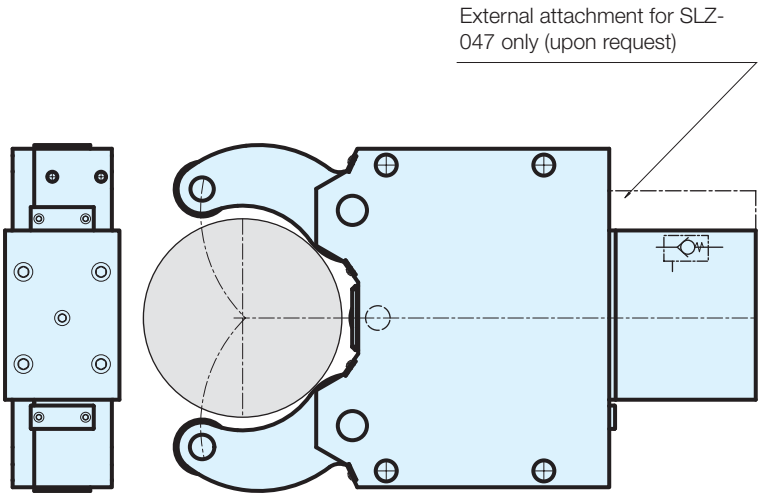
Control system of the clamping arms SLZ-HK



All steady rests of type SLZN and SLZNB can be equipped with holders and rods or only with rods, in order to be able to control the clamping position and open position using limit switches.

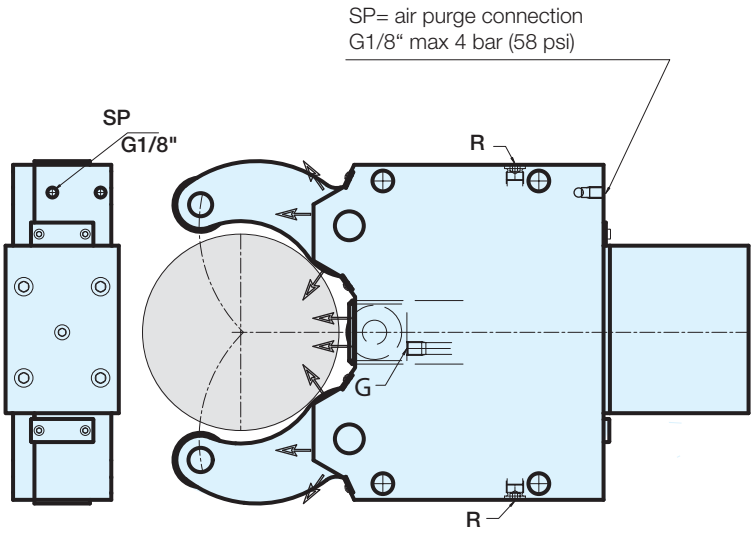
Standard accessories of SLZN series

Safety valve SE



All standard steady rests come equipped with a safety valve integrated in the cylinder. If the clamping pressure in the cylinder should be interrupted, the valve prevents the steady rest from opening. With moving applications, the safety valve isn‘t necessary. We would be happy to help you if need be. This device is available as an option for the SLZ-047 series.

Pressurization



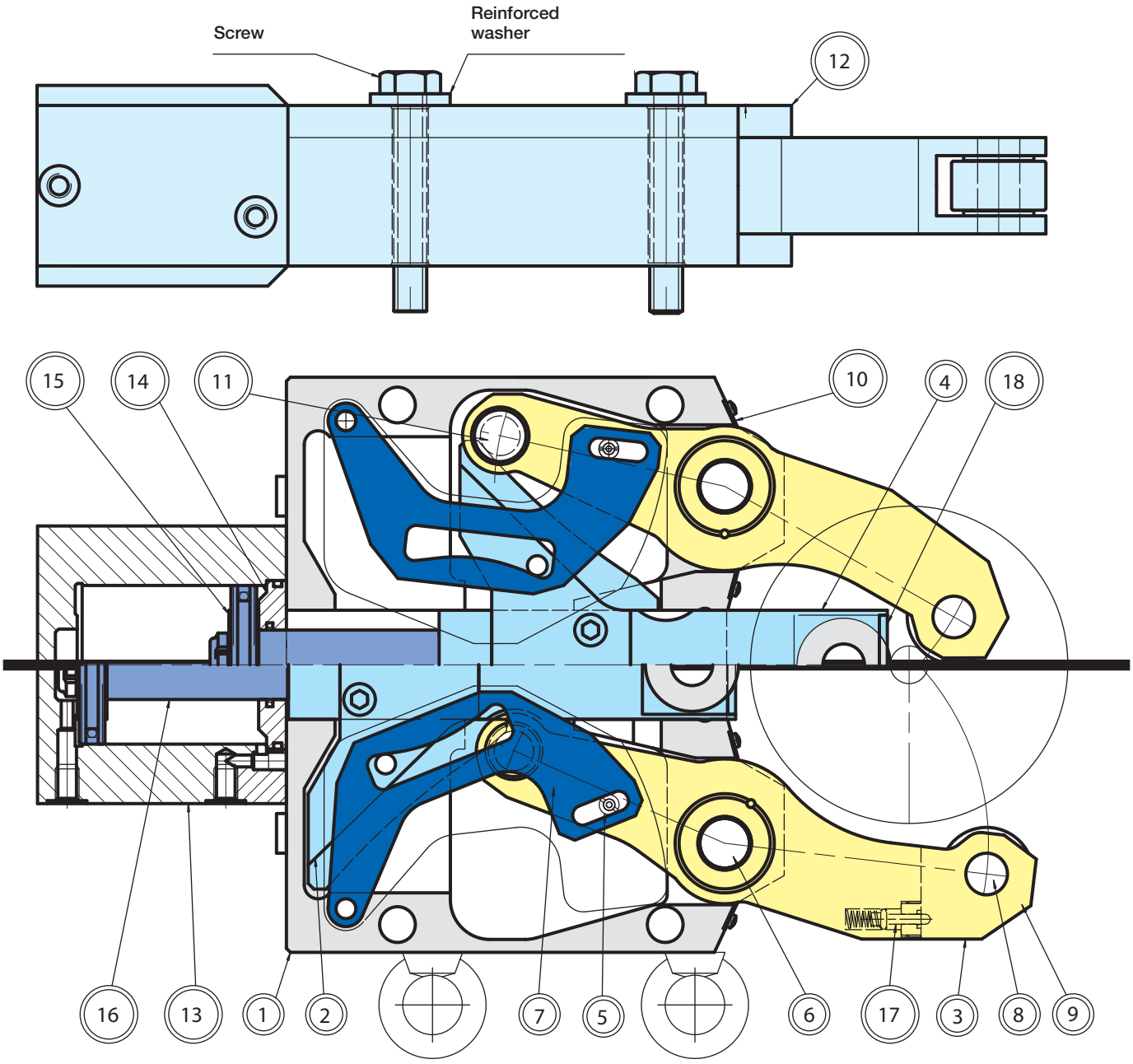
All RÖHM steady rests have a G 1/8“ air purge connection; This system protects the body of the steady rest from chip and dust penetration. When the steady rest is completely open, the air consumption is automatically reduced, but not completely interrupted to prevent unnecessary air consumption. The system includes the cleaning of the middle roller bearings.
To activate this option, the screw „G“, which is located in the housing floor, must be removed. The pressure can vary between a minimum of 2 bar and maximum of 4 bar (58 psi). The steady rest can also be used without the air purge.
Drain holes are on the top and bottom part of the steady rest housing.
It is recommended that the lower one of the two seals be loosened to allow the cooling water to drain and to prevent penetration of contaminants into the body of the steady rest.

Set-up princicple SLZN

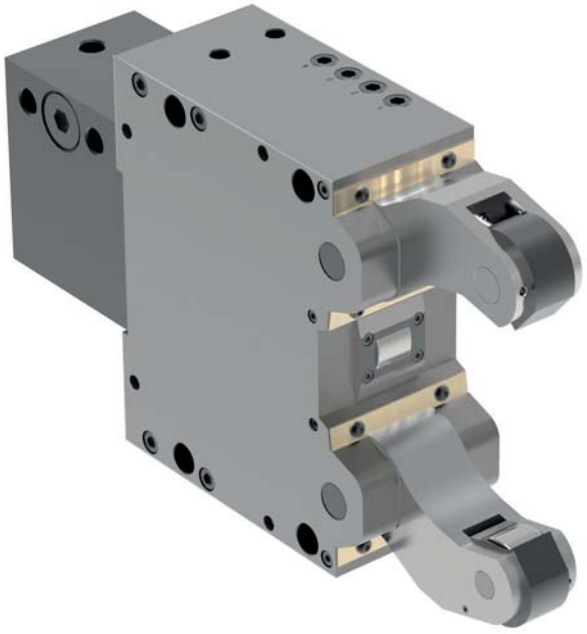
All steady rests have an engraved identification number. This number must be provided when ordering replacement parts.

Components SLZN/SLZNB

1. Body
2. Carm segment
3. Clamping arm outside
4. Clamping arm center
5. Bolt and roller
6. Clamping arm arbore
7. Return lever
8. Roller center
9. Roller
10. Scraper band
11. Axle and rollers
12. Cover
13. Cylinder housing
14. Cylinder flange
15. Piston
16. Piston rod
17. Pressure sleeve
18. Scraper center



SLZN - standard design



APPLICATION

Support of slender shafts for rational turning and end machining.

TYPE

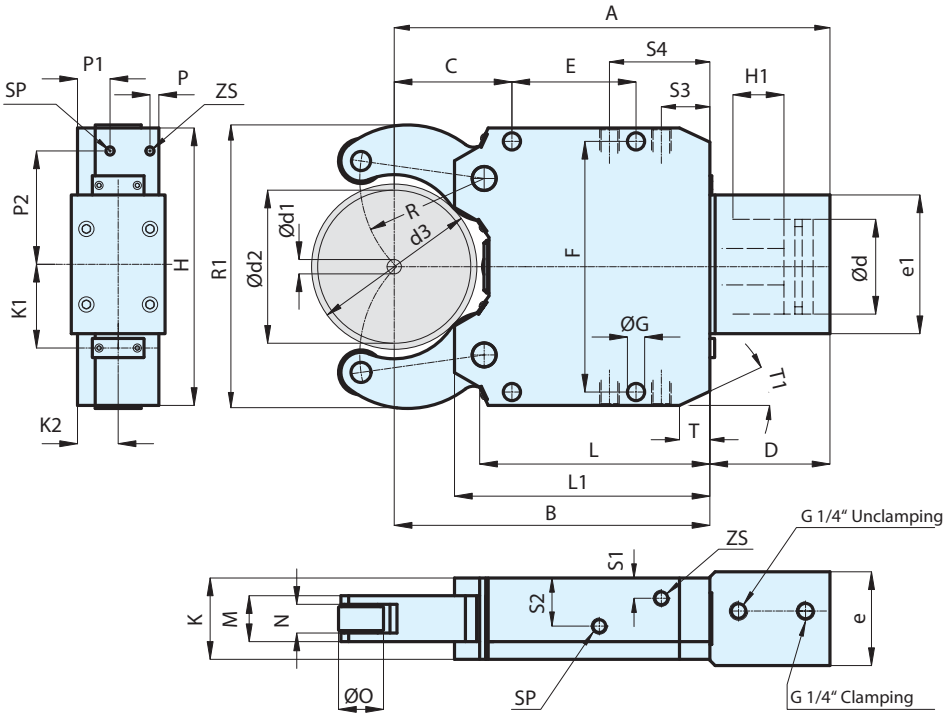
Standard version with cylinder mounted at rear.

CUSTOMER BENEFITS

- Large clamping range without change elements
- Operational safety thanks to safety valve, even if pressure drops (SLZ-047 optional)
- Compact and sturdy design for variable use
- High centering precision and repeatability thanks to proven cam lever system
- Resilient chip protection for optimal workpiece wiping (for version „with chip protection“)
- Purge air connection to prevent penetration of dirt inside the steady rest

TECHNICAL FEATURES

- Central lubrication or manual lubrication possible, depending on the operating conditions
- Standard version available with cylindrical or convex rollers
- Available with and without chip protection
- Prepared for end position check, except SLZ-047 (limit switch not included in the scope of delivery)



SLZN - standard design

C 15

Self-centering steady rests SLZN - oil or air operated with mounted cylinder

Clamping ranges Type	SLZ 047	SLZN 067	SLZN 08105	SLZN 1152	SLZN 1517	SLZN 40200	SLZN 325	SLZN 50315	SLZN 85350
Clamping range - with chip protection mm	15-62	11-70	16-101	22-140	25-158	40-195	40-240	50-305	85-345
Clamping range - without chip protection mm	4-70	6-75	8-105	11-152	15-170	40-200	30-250	50-315	85-350
Max. radial clamping range - d3 mm	70	79	105	161	170	200	250	320	350
With chip protectors RZ	**685751**	**1685567**	**1685571**	**1685575** ▲	**1685579** ▲	**1685583** ▲	**1685587** ▲	**1685591** ▲	**1685595** ▲
With chip protectors RB	**685752**	**1685568**	**1685572**	**1685576** ▲	**1685580** ▲	**1685584** ▲	**1685588** ▲	**1685592** ▲	**1685596** ▲
Without chip protectors RZ	**685753**	**1685569**	**1685573**	**1685577** ▲	**1685581** ▲	**1685585** ▲	**1685589** ▲	**1685593** ▲	**1685597** ▲
Without chip protectors RB	**685754**	**1685570**	**1685574**	**1685578** ▲	**1685582** ▲	**1685586** ▲	**1685590** ▲	**1685594** ▲	**1685598** ▲
d1 mm	4	6	8	11	15	40	30	50	85
d2 mm	70	75	105	152	170	200	250	315	350
d3 mm	70	79	105	161	170	200	250	315	350
A mm	206	214	279,5	432,5	440,5	459,5	617,5	699	716,5
B mm	137	149	197	306	314	333	448	510	530
C mm	51	52	70	115	123	138	146	203	198
D mm	69	65	82,5	126,5	126,5	126,5	162	186,5	186,5
E mm	64	66	85	135	135	135	240	270	270
F mm	118	140	170	262	262	262	365	400	400
G mm	11	11	14	18	18	18	23	23	23
H mm	132	160	190	290	290	290	400	440	440
K mm	54	63	75	85	85	85	110	145	145
L mm	102	108,5	146	223	223	223	328,5	353,5	353,5
L1 mm	115,5	125,5	164	251	251	251	361	394,5	394,5
Clamping arm width M mm	20	28	35	48	48	48	60	75	75
Roller width N mm	11,5/9	17,5/14	20,5/18	30/25	30/25	30/25	40/35	45/40	45/40
O mm	19	24	35	47	47	47	52	60	60
P mm	-	9,75	-	9,5	9,5	9,5	12,5	21,5	21,5
P1 mm	-	8,75	-	34	34	34	12,5	68,5	68,5
P2 mm	-	51,5	-	117,5	117,5	117,5	160	183	183
R mm	48,5	55	74,5	122	130	143,5	178,5	209	229
S1 mm	8	-	10	-	-	-	-	-	-
S2 mm	23	-	40	-	-	-	-	-	-
S3 mm	10	-	28	-	-	-	-	-	-
S4 mm	34,5	-	28	-	-	-	-	-	-
K1 mm	-	51,5	59,5	85	85	85	110	140	140
K2 mm	-	31	36,5	42,5	42,5	42,5	55	59,5	59,5
d mm	40	35	50	80	80	80	100	100	100
e mm	60	62	68	98	98	98	124	142	143
e1 mm	87	22	92	145	145	145	136	156	175
T mm	-	-	-	-	-	-	45	31,5	54,5/22
T1	-	-	-	-	-	-	30°	30°	18°/40°
R1 mm	121	144	190	291	303	326	394	483	512
Weight kg	7	10	14,5	47	47	48	115	185	188
ZS	M 10x1	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"
SP	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"	G 1/8"
Cylinder-Ø	C40	C 35	C50	C80	C80	C80	C100	C100	C100
Cylinder surface area cm2	12,5	9,6	19,6	50	50	50	78,5	78,5	78,5
Max. operating pressure bar	25	54	53	62	68	40	57	80	61
Operating pressure bar	6-20	6-30	8-30	8-40	8-44	8-25	8-42	8-58	8-40
Clamping force per roller at max. operating pressure N	830	960	1960	6500	6500	4160	11000	15000	10460
Max. permissible clamping force per roller N	1040	1700	3500	10000	10000	6670	15000	20000	16000
Clamping force per roller at 20 bar N	830	640	1300	3300	3300	3300	5200	5200	5200
Centering accurancy over the entire clamping range mm	0,02*	0,02*	0,02*	0,04*	0,04*	0,04*	0,05*	0,06*	0,06*
Repeat accurancy for the same clamping-Ø at the same operating pressure mm	0,005	0,005	0,005	0,005	0,005	0,005	0,005	0,01	0,01
Max. roller peripheral speed m/min	800	800	800	725	725	725	715	700	700
Max. roller peripheral speed at half the max. clamping force per roller m/min	900	900	950	875	875	875	860	850	850
Displacement of the geometrical workpiece center in the event of a 20-70% change in the operating pressure /at constant force) mm	0,02	0,02	0,02	0,03	0,03	0,03	0,03	0,03	0,03

*) At constant pressure and clamping force

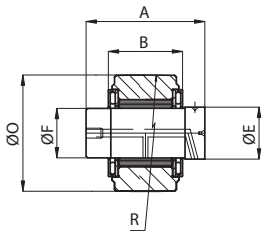
▲ on request

Accessories SLZN

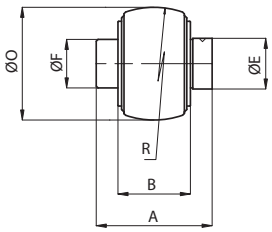
C 15
Cylindrical rollers

Item no.	For	A mm	B mm	Ø F mm	Ø O mm	Ø E mm	R mm
735120	SLZ 047	20	11,5	6	19	6	500
1835444	SLZN 067	28	17,5	8	24	8	500
1835388	SLZN/SLZNB 08105	31	20,5	15	35	15	500
649513	SLZN/SLZNB 1152, SLZN/SLZNB 1517, SLZN/SLZNB 40200	48	30	20	47	21	1000
649514	SLZN/SLZNB 325	60	40	20	52	21	3000
381420	SLZN/SLZNB 50315, SLZN/SLZNB 85350	75	45	20,1	60	21	3000

Rollers SLZ 047 and SLZNB 08105 without axle



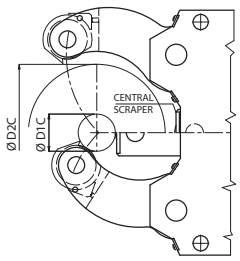
C 15
Convex rollers



Item no.	For	A mm	B mm	Ø F mm	Ø O mm	Ø E mm	R mm
835542	SLZ 047	20	11,5	6	19	6	100
1835572	SLZN 067	28	17,5	8	24	8	100
1835513	SLZN/SLZNB 08105	31	20,5	15	35	15	100
649515	SLZN/SLZNB 1152, SLZN/SLZNB 1517, SLZN/SLZNB 40200	48	30	20	47	21	100
649516	SLZN/SLZNB 325	60	40	20	52	21	100
381426	SLZN/SLZNB 50315, SLZN/SLZNB 85350	75	45	20,1	60	21	500

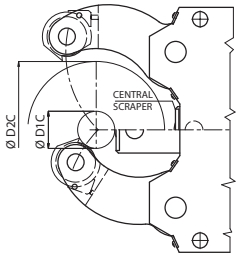
C 15
Central scraper RZ

Item no.	For	Clamping ranges D1C mm	Clamping ranges D2C mm
836591	SLZ 047	15	62
1835423	SLZN 067	11	70
1835391	SLZN/SLZNB 08105	16	101
1831222	SLZN/SLZNB 1152	22	140
1831134	SLZN/SLZNB 1517, SLZN/SLZNB 40200	25/40	158/195
735005	SLZN/SLZNB 325	40	240
836584	SLZN/SLZNB 50315, SLZN/SLZNB 85350	50/85	305/345



Accessories SLZN

C 15
Central scraper RB



Item no.	For	Clamping ranges D1C mm	Clamping ranges D2C mm
1836046	SLZ 047	15	62
1835573	SLZN/SLZNB 067	11	70
1835606	SLZN/SLZNB 08105	16	101
1831220	SLZN/SLZNB 1152	22	140
1831282	SLZN/SLZNB 1517, SLZN/SLZNB 40200	25/40	158/195
1831403	SLZN/SLZNB 325	40	240
836820	SLZN 50315, SLZN 85360	50/85	305/345

C 15
Chip protector outer Set = 2 Pieces

Item no.	For	Clamping ranges D1C mm	Clamping ranges D2C mm
836609	SLZ 047	15	62
1835435	SLZN 067	11	70
836610	SLZN/SLZNB 08105	16	101
836611	SLZN/SLZNB 1152, SLZN/SLZNB 1517, SLZN/SLZNB 40200	22/25/40	140/158/195
836612	SLZN/SLZNB 325	40	240
836613	SLZN/SLZNB 50315, SLZN/SLZNB 85350	50/85	305/345