# SZS

## APPLICATION

Hydraulic actuation of power chucks/collet chucks with through-hole.

## TYPE

Hollow clamping cylinders for actuation pressures of 8-45 bar.

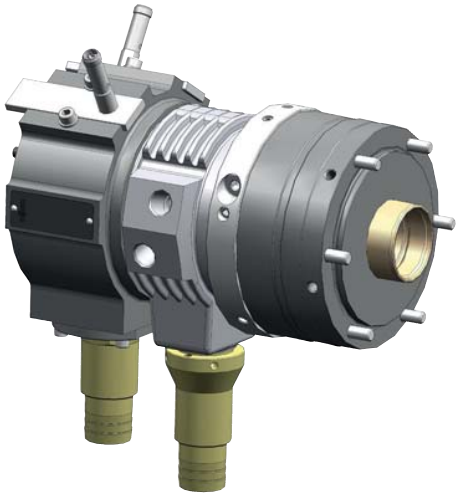
## CUSTOMER BENEFITS

- Short design and low weight ensure small machine spindle load and also allow high speeds
- Thanks to the large through-hole, optimally suited for machining bar material
- Operational safety thanks to safety mechanism, guaranteed even if there is a pressure drop during spindle rotation

## TECHNICAL FEATURES

- Stroke control by means of inductive proximity system or linear path measuring system F90 (stroke control system not included in the scope of delivery)
- Overpressure safeguard
- Coolant collector
- Fastening from the rear with through bolts
- For its actuation, we recommend hydraulic oil H-LP 32, DIN 51525 (32 centistokes at 40° Celsius)
- Insert a filter unit (10 µm) between the pump and control valve
- Can also be actuated during rotation
- Hollow clamping cylinders can usually only be used for horizontal machining axes

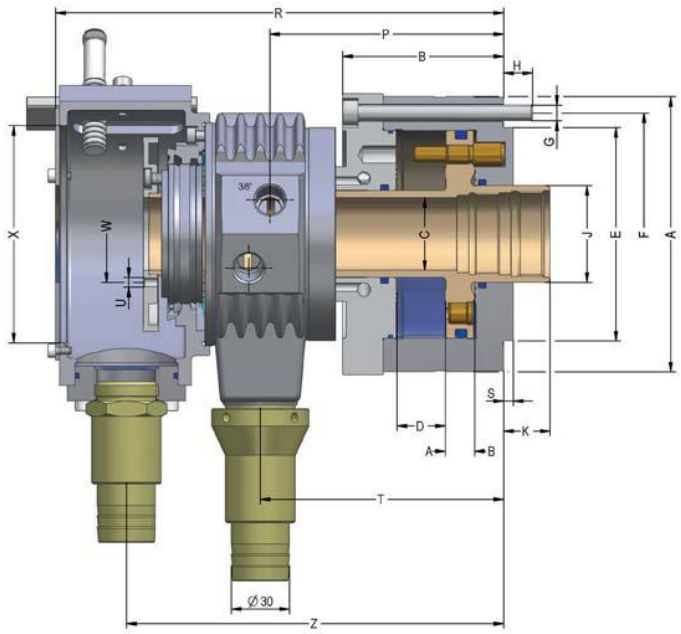
**Note:**
RÖHM clamping cylinders meet the testing requirements of the Employer's Liability Insurance Association thanks to their safety system and stroke check

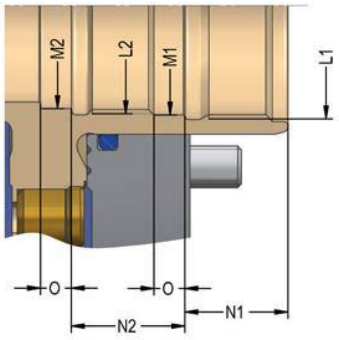


**Standard:**
Prepared for inductive proximity system

**Optional stroke monitoring with F 90:**
High resolution, minimal temperature drift, contactless, teachable, inductive effect principle

# SZS up to 45 bar, short design




C 15
**Oil operated cylinders SZS,** basic model up to 45 bar, short design for high speeds

| Item no. | 432765 | 432766 | 432767 | 432768 | 432769 ▲ | 432770 ▲ | 435766 ▲ | 433217 ▲ |
|---|---|---|---|---|---|---|---|---|
| Size | 46/103 | 52/130 | 67/150 | 77/170 | 86/200 | 95/225 | 110/250 | 127/325 |
| A mm | 162 | 182 | 197 | 212 | 228 | 245 | 264 | 295 |
| B mm | 83 | 83 | 94 | 94 | 104 | 104 | 104 | 127 |
| C mm | 46,5 | 52,5 | 67,5 | 77 | 86,5 | 95,5 | 110,5 | 127,5 |
| Stroke D mm | 25 | 25 | 30 | 30 | 35 | 35 | 35 | 40 |
| Eh6 mm | 130 | 140 | 160 | 160 | 180 | 210 | 210 | 250 |
| F mm | 147 | 165 | 180 | 185 | 210 | 227 | 240 | 270 |
| G | 6xM8 | 6xM8 | 6xM10 | 6xM10 | 6xM10 | 6xM10 | 6xM10 | 6xM12 |
| H mm | 15 | 15 | 15 | 15 | 15 | 15 | 16 | 20 |
| J mm | 61 | 70 | 85 | 95 | 105 | 115 | 130 | 145 |
| K max. | 22 | 22 | 25 | 25 | 31 | 31 | 31 | 44 |
| K min. | -3 | -3 | -5 | -5 | -4 | -4 | -4 | 4 |
| L1 | M55x2 | M60x1,5 | M75x2 | M85x2 | M95x2 | M105x2 | M120x2 | M135x2 |
| L2 | M50x1,5 | M55x2 | M72x1,5 | M80x2 | M90x2 | M100x2 | M115x2 | - |
| M1 mm | 52,5 | 57,5 | 72,5 | 82 | 92 | 102,5 | 117,5 | 132 |
| M2 mm | 47 | 52,5 | 69 | 77 | 87 | 97 | 112 | - |
| N1 mm | 25 | 25 | 25 | 25 | 32 | 32 | 32 | 30 |
| N2 mm | 25 | 28 | 28 | 28 | 30 | 30 | 30 | - |
| O mm | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| P mm | 120,5 | 120,5 | 138,5 | 138,5 | 155 | 159 | 166,3 | 196 |
| R mm | 231 | 231 | 269 | 269 | 292 | 302 | 321 | 355 |
| S mm | 5 | 5 | 8 | 8 | 8 | 8 | 8 | 5 |
| T mm | 125,75 | 125,75 | 142,75 | 142,75 | 159,25 | 163,25 | 171,5 | 201,5 |
| U | 2xM6 | 2xM6 | 2xM6 | 2xM6 | 2xM6 | 2xM6 | 4xM6 | 2xM6 |
| W mm | 68 | 76 | 91 | 91 | 116 | 120 | 135 | 150 |
| X mm | 122 | 122 | 135 | 145 | 167 | 177 | 116 | 131 |
| Z mm | 195,5 | 195,5 | 225 | 226 | 249 | 259 | 275 | 307 |
| Piston area A cm2 | 109,8 | 142,4 | 164,5 | 184 | 212,6 | 243,5 | 267 | 337 |
| Piston area B cm2 | 103,5 | 131 | 152 | 170 | 197 | 226,2 | 247,4 | 325,7 |
| Eff. draw bar pull (F=45 bar) kN | 46 | 58 | 68 | 76 | 88 | 100 | 110 | 145 |
| Max. admissible speed min-1 | 7000 | 6300 | 5500 | 5000 | 4500 | 4000 | 3500 | 3200 |
| Oil leakage rate (30 bar 50° C - n max.) l/min | 3 | 3,5 | 4 | 4,5 | 5 | 5 | 5 | 6 |
| Moment of inertia J kgm2 | 0,03 | 0,045 | 0,07 | 0,13 | 0,17 | 0,3 | 0,35 | 0,58 |
| Weight approx. kg | 16 | 18 | 22 | 30 | 35 | 38 | 48 | 66 |