

ZHVD-SZ

Rotating hydraulic cylinder
with 2 independent pistons

- up to 80 bar
- central bore for air/coolant/oil
- stroke control via proximity switch or linear positioning system



Application/customer benefits

- Actuation of retractable jaw chuck with power operated face drivers
- Actuation of power chuck with part-ejector
- Actuation of power chucks with retractable axial stop/finger chucks with power operated centering fixture

Technical features

- Double piston cylinder with 4 way oil manifold for separate actuation of the cylinders
- Horizontal or vertical installation
- Stroke control on each cylinder, safety valves on the big cylinder
- Central bore for coolant, oil or air with thread for rotary union
- Mounting from the rear side with bolts
- A 10 µm filter in pressure line is requested. Use oil HM32 ISO 3448
- Pressure range 8-70 bar

Standard equipment

Double piston cylinder
Mounting screws
Stroke control on each cylinder
Proximity bracket (without proximity switch)

Ordering example

Double piston cylinder ZHVD-SZ 068-17
or
Double piston cylinder ZHVD-SZ 068-17
with rotary union (optional)

Technical data

| SMW-AUTOBLOK Type | | ZHVD-SZ 068-17 | ZHVD-SZ 110-25 | ZHVD-SZ 240-40 |
|----------------------------|--------------------------|----------------|----------------|----------------|
| Id. No. | | 044429 | 044577 | 045220 |
| Piston stroke | mm | 70/15 | 90/15 | 105/20 |
| Piston area A/piston force | max. cm ² /kN | 68/54 | 110/88 | 241/144 |
| Piston area B/piston force | max. cm ² /kN | 60/48 | 92/73 | 222/133 |
| Piston area C/piston force | max. cm ² /kN | 16/12 | 25/20 | 40/24 |
| Piston area D/piston force | max. cm ² /kN | 14/11 | 21/16 | 36/21.6 |
| Speed | max. r.p.m. | 5000 | 4000 | 4000 |
| Weight | kg | 26 | 37 | 68 |
| Moment of inertia J | kg-m ² | 0.065 | 0.125 | 0.42 |
| Operating pressure | max. bar | 80 | 80 | 60 |
| Operating pressure | min. bar | 8-10 | 8-10 | 8-10 |
| Oil leakage (*) | dm ³ /min | 3 | 3 | 3 |

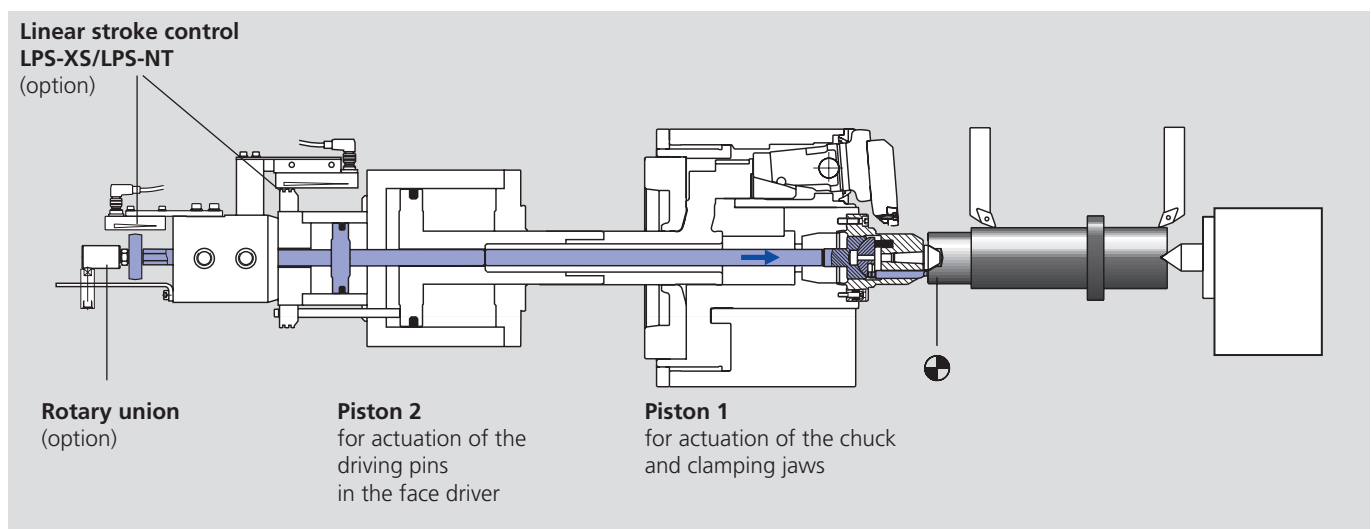
* Total at 30 bar / 50 °C

** At max. speed/ oil HM32 ISO 3448

Important: On higher pressure the leakage increases proportionally. On higher oil temperature the leakage increases over proportionally (the use of an oil cooler is recommended).

When designing/checking the hydraulic unit please ask for our data sheets.

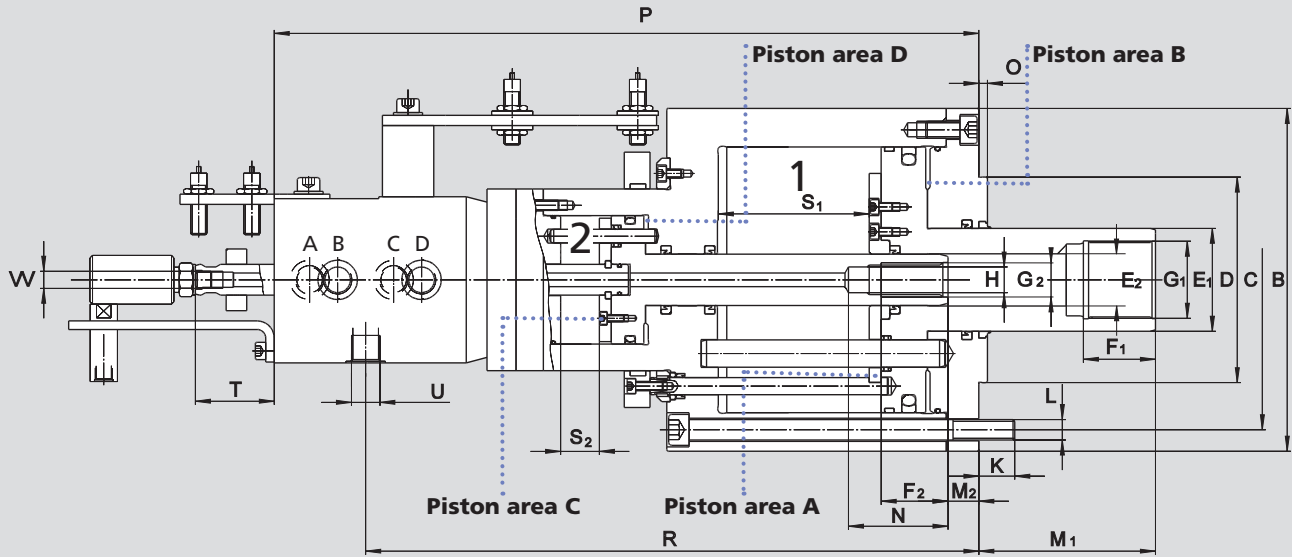
ZHVD-SZ cylinder with retractable jaw chuck and power operated face driver



ZHVD-SZ

- up to 80 bar
- central bore for air/coolant/oil
- stroke control via proximity switch or linear positioning system

Rotating hydraulic cylinder with 2 independent pistons



Subject to technical changes
For more detailed information please ask for customer drawing

| SMW-AUTOBLOK Type Id. No. | | ZHVD-SZ 068-17 044429 | ZHVD-SZ 110-25 044577 | ZHVD-SZ 240-40 045220 |
|---------------------------|------------------------|--------------------------|--------------------------|--------------------------|
| | B mm | 165 | 198 | 230 |
| Fixing bolts circle | C mm | 145 | 175 | 205 |
| Centering rim | h6 D mm | 105 | 120 | 160 |
| | E1 mm | 45 | 60 | 60 |
| | E2 mm | 25 | 30 | 30 |
| | F1 mm | 33 | 42 | 42 |
| | F2 mm | 28 | 41 | 39 |
| Piston rod thread 1 | G1 mm | M36 x 1.5 | M45 x 1.5 | M50 x 1.5 |
| Piston rod thread 2 | G2 mm | M16 | M20 | M20 |
| | H mm | 13.5 | 15 | 15 |
| | K mm | 15 | 15 | 21 |
| Fixing bolts/number | L mm | M10 / 6x | M12 / 6x | M12 / 6x |
| | max./min. M1 mm | 82/12 | 105/15 | 106/1 |
| | max./min. M2 mm | 33/18 | 33/18 | 67/47 |
| | N mm | 50 | 58 | 58 |
| | O mm | 5 | 5 | 5 |
| | P mm | 381 | 400 | 442 |
| | R mm | 329 | 348 | 389 |
| Stroke Piston 1 | S1 mm | 70 | 90 | 105 |
| Stroke Piston 2 | S2 mm | 15 | 15 | 20 |
| | max./min. T mm | 48/33 | 52/37 | 77/57 |
| | U mm | G3/8" | G3/8" | G3/8" |
| | W mm | M10 x 1 | M10 x 1 | M10 x 1 |

Option: LPS-NT Linear stroke control
Rotary union for oil/coolant/air