

Electrohydraulic Power Rod Technical Data Sheet



Design and Function

The electrohydraulic power rod is an optimized linear drive for cutting, punching and forming processes which require enhanced tool feed drive capabilities.

The electronic control circuit converts the input parameters like speed, position and tool movement profile into signals which drive a low-power stepper motor. This movement is amplified highly dynamically by the hydromechanical closed loop of hydraulic amplifier.

The hydromechanical closed loop operates without measuring systems or additional electronic control devices. This straightforward design concept ensures the ruggedness and reliability that is typical for our compact units.

Cylinder design, surface dimensions and mounting characteristics have been adapted specially to suit the area of application

Technical Data

General			
Stroke length	70/150 mm approx. 10% bis 20% rod force		
Return force			
Programmable step size	0.1 - 0.004 mm		
Max. rod speed	500 mm/s		
Ambient temperature	+5 to +50 °C		
Mounting position	any		
Hydraulic			
Operating pressure	max. 250 bar		
Oil temperature	-10 to +70 °C		
Viscosity range	10 to 300 mm ² /s		
Electric			
Control	2-phase amplifier digital / analog		

Features

- · Programmable speed, position and tool feed profiles
- · Hydromechanical closed loop
- Direction-sensing overload display
- Smooth rod movement
- · No measuring systems are required

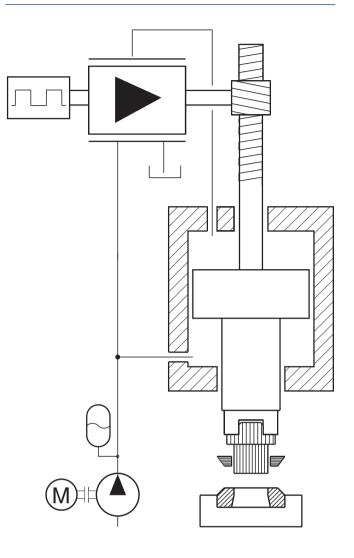
Options

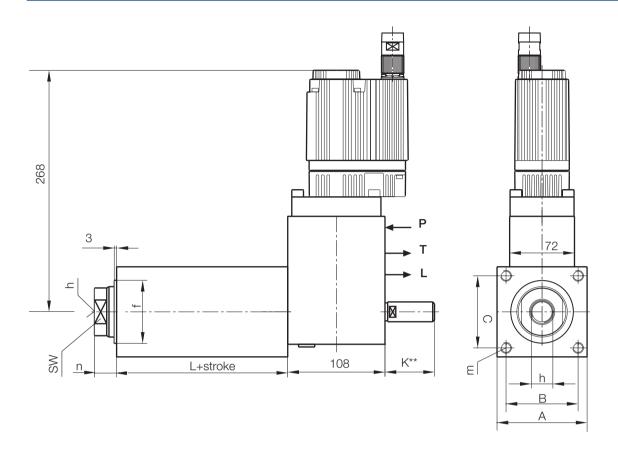
- Integrated stepper motor driver
- BDC/TDC position unit to reduce cycle times
- Electronic control of stepper motor, improved performance
- Design modifications for special safety requirements

Applications

- Bending
- Cutting
- Stamping
- Shearing
- Blanking

Functional Diagram





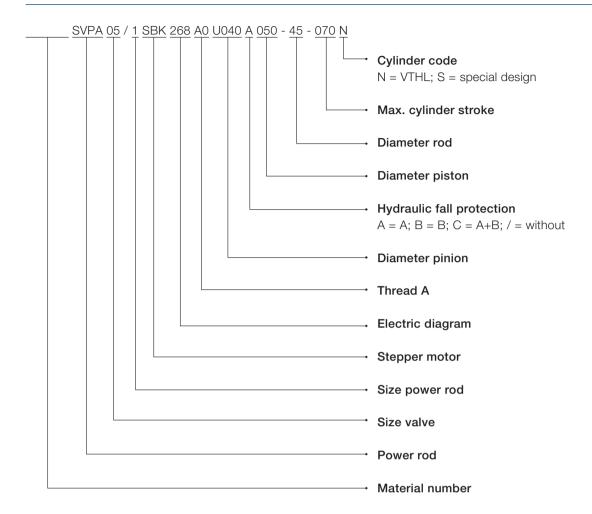
Size Table Standard Cylinder

n [mm]	m [mm]	h [mm]	Ø f [mm]	B/C [mm]	A [mm]	L+stroke* [mm]	Ø rod [mm]	Ø piston [mm]
18	M10	M16x1.5	50	56	76	110	28/36	40
20	M12	M20x1.5	65	56	76	110	36/45	50
25	M12	M24x1.5	70	80	100	120	45/56	63
25	M16	M24x1.5	90	100	130	125	56/70	80
30	M16	M42x1.5	110	120	160	170	79/90	100
35	M16	M42x1.5	120	130	170	170	80/100	110
35	M24	M48x1.5	140	140	180	175	85/105	120
40	M24	M48x1.5	140	140	200	205	100/125	140
40	M30	M64x1.5	170	190	240	210	120/140	160

electric connection plug not included

^{*}measurements given are minimum

^{**}measure K on request



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