

Special radial piston pumps

Type SRK701

up to **700 bar**

0.47 to 6.33 cm³/rev

Features

- High volumetric efficiency
- Self-venting and priming
- Low pulsation
- Robust design

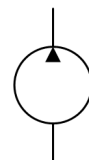


Applications

- Specially designed for demanding applications with continuous pressures up to 700 bar → long economic lifetime!
- Test benches
- Suitable for operation with fluids with reduced lubricating properties

Design

- Radial piston pump of modular design
- With valve controlled pumping elements
- With 3, 5 or 7 pumping elements
- Optimized pistons with hard coating
- Polygon eccentric



Technical data

Hydraulic fluid	mineral oil according to DIN 51524 (other fluids on request)
Fluid temperature range	-20 to 80 °C
Ambient temperature range	-30 to 50 °C (-40 °C on request)
Viscosity range	5 to 220 mm ² /s
Max. operating pressure	700 bar
Operation pressure suction side	-0.2 bar to 0.5 bar gauge pressure
Displacement volume	0.47 to 6.33 cm ³ /rev
Filtration (recommendation)	according to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12
Axial force onto driving shaft	can't be taken up
Radial force onto driving shaft	on request
Max. rotation speed	1800 rpm
Direction of rotation	any
Suction height	max. 500 mm
Weight	see overview "Product information"
Materials	pressure flange: forged steel driving shaft: steel cover: diecast aluminium

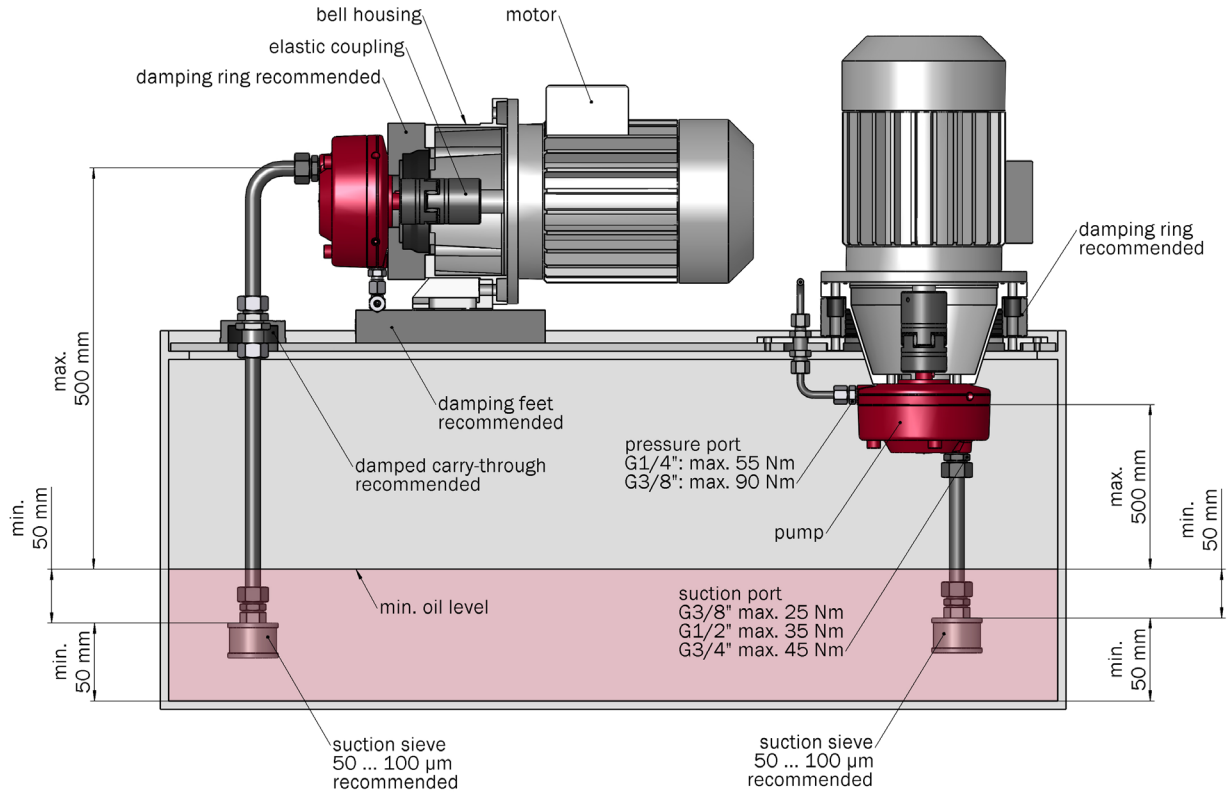
Type SRK701

up to 700 bar
0.47 to 6.33 cm³/rev

Type code

Example	SRK 701 - 0,47 - 700 - V - C	00
Special radial piston pumps		Design 00 ... 99 for internal purposes
Size	700 bar	
Displacement volume [cm³/rev]	See overview "Product information"	Index Please leave blank for internal purposes
Max. operating pressure [bar]	See overview "Product information"	
Seal material	V FKM other seal materials on request	Design revision for internal purposes

Mounting



Product information

size	displacement volume [cm ³ /rev]	max.operating pressure [bar]	number of pumping elements	weight [kg]	max. torque [Nm]	max. power [kW]	part no.
701	0.47	700	3	6.2	6.89	1.08	on request
701	0.68	700	3	6.2	9.92	1.56	on request
701	0.79	700	5	6.6	11.16	1.75	on request
701	1.10	700	7	6.9	15.47	2.43	on request
701	1.21	700	3	6.2	17.64	2.77	on request
701	1.53	700	3	7.2	22.33	3.51	on request
701	2.01	700	5	6.9	28.56	4.49	on request
701	2.81	700	7	7.2	39.59	6.22	on request
701	3.56	650	7	7.2	46.53	7.31	on request
701	4.40	500	7	7.2	44.19	6.94	on request
701	6.33	350	7	7.2	44.54	7.00	on request

Calculation of driving motor power

$$P = \frac{p \cdot V_g \cdot n \cdot k}{\eta_t \cdot 600 \cdot 10^3}$$

P = driving power [kW]
 p = operating pressure [bar]
 V_g = displacement volume [cm³/rev]
 n = speed [rpm]
 η_t = efficiency approx. 0.8

k = pulsation factor
 - with 3 pumping elements: k approx. 1.05
 - with 5 pumping elements: k approx. 1.02
 - with 7 pumping elements: k approx. 1.01
 - with 9 pumping elements: k approx. 1.00

Calculation of driving motor torque

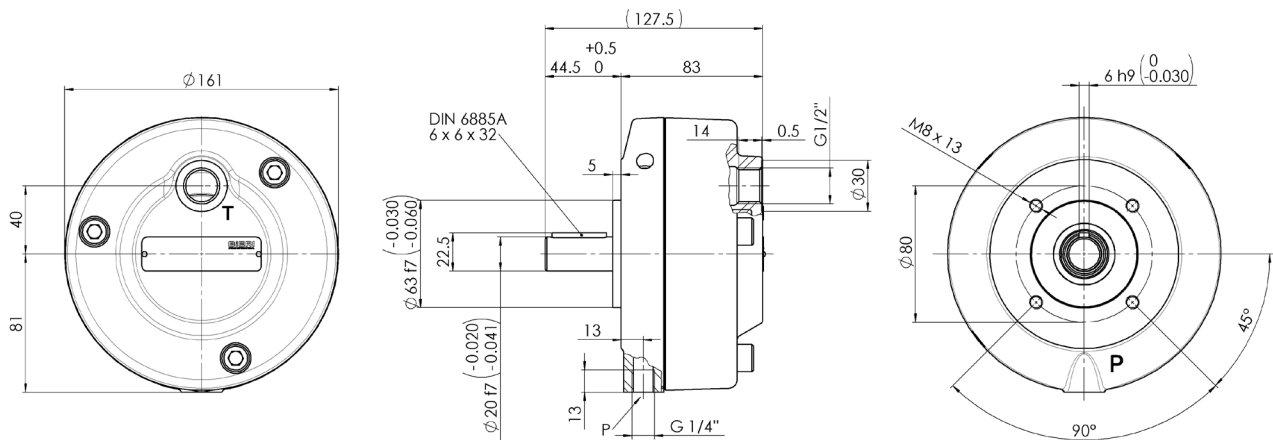
$$M = \frac{p \cdot V_g}{62.8 \cdot \eta}$$

M = torque [Nm]
 V_g = displacement volume [cm³/rev]
 η = efficiency approx. 0.8
 p = operating pressure [bar]

Type SRK701

up to 700 bar
0.47 to 6.33 cm³/rev

Dimensional drawing



Spare parts

item description	part no.
seals kit for SRK701	4006555