

Radial piston pumps

Type BRK701/702

heavy duty series

700 bar

0,24 to 8,14 cm³/rev

500 bar → see data sheet BRK501/502

1000 bar → see data sheet BRK11/12

Features

- High volumetric efficiency
- Self-priming and venting
- Low pulsation
- Low noise level
- Combination with gear pump possible (see separate data sheet BKP)

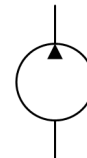


Design

- Radial piston pump of modular design
- With valve controlled pumping elements
- Can be supplied with 3, 5, 7 and 9 pistons (depending on size)

Applications

- Specially designed for demanding applications with continuous pressures up to 700 bar → long economic lifetime!
- Machine tools
- Clamping device
- Power units (e.g. for presses)
- Test stands
- Accumulator charging systems
- Lifting and advancing systems



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
Viscosity range	5 to 220 mm ² /s
Max. operating pressure	700 bar continuous pressure (S1), see product information
Operation pressure at suction port	-0,2 bar to 0,5 bar gauge pressure
Filtration (recommendation)	According to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12
Weight	See product information
Axial force onto driving shaft	Not allowed
Radial force onto driving shaft	On Request
Max. speed range	2000 min ⁻¹
Direction of rotation	Any
Suction height	Max. 500 mm
Material	Pressure flange: steel Driving shaft: steel Cover: die casted aluminium

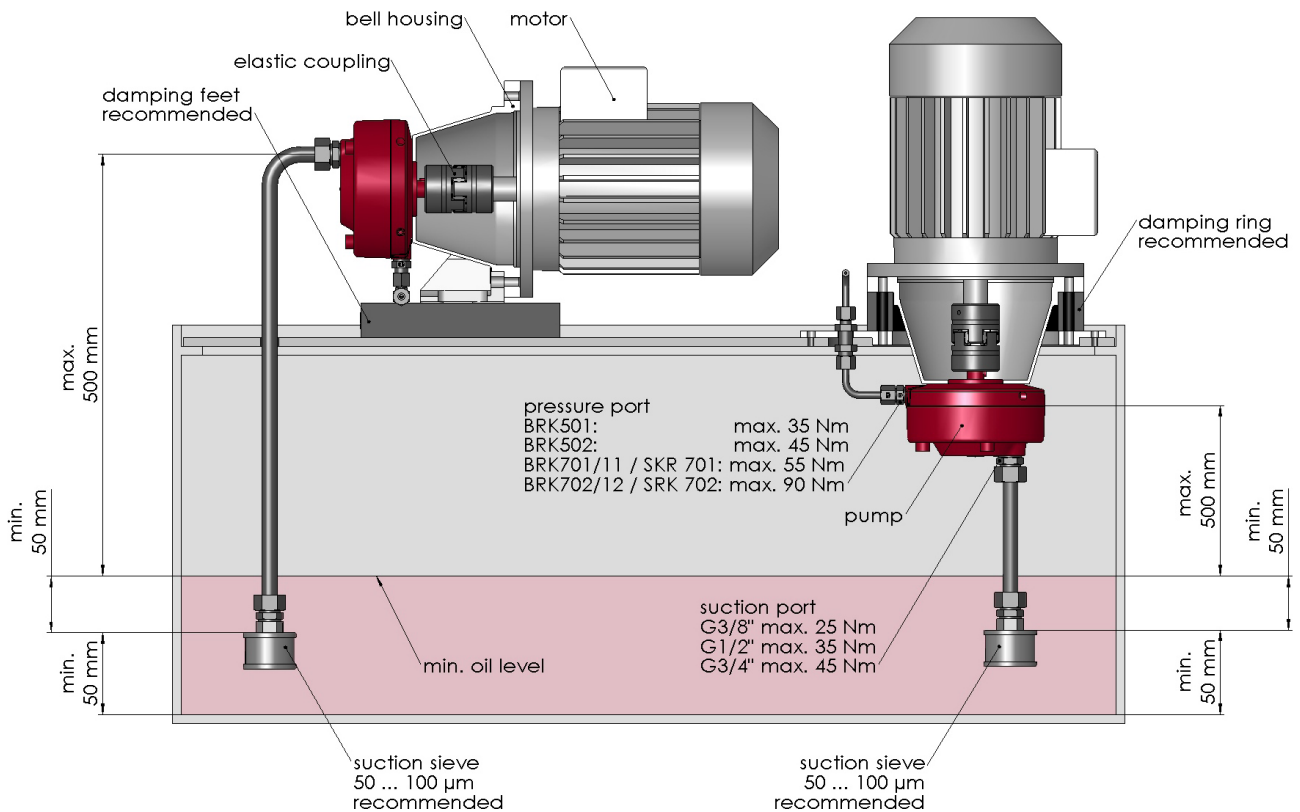
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Ordering code

Example	BRK	701	-	0,24	-	700	-	V	-				00
Radial piston pump													
Size	701 702												
Displacement [cm³/rev]	see product information												
Max. operating pressure [bar]	see product information												
Seal material	V [FPM] other seal materials on request												
Special design 01 ... 99 (00 for standard)													
Part index Please leave it blank (small letters a-z; different letters do not effect interchangeability)													
Design revision see dimension drawings (capital letters A-Z; identical letters equal same connecting dimensions)													

Mounting



Product information

Size	Displacement [cm ³ /rev]	Operating pressure max. [bar]	Number of pumping elements	Weight ca. [kg]	max. Torque * [Nm]	max. Power * [kW]	Part No.
701	0,24	700	3	5,7	3,45	0,54	3845253**
701	0,34	700	3	5,7	4,96	0,78	3845317**
701	0,47	700	3	5,7	6,89	1,08	3845318
701	0,60	700	3	5,7	8,82	1,39	3845319**
701	0,68	700	3	5,7	9,92	1,56	3845320
701	0,76	700	3	5,7	11,16	1,75	3845321**
701	0,79	700	5	6,0	11,16	1,75	3845322
701	0,94	700	3	5,7	13,78	2,16	3845323**
701	1,03	700	3	5,7	15,07	2,37	3845335
701	1,13	700	5	6,0	16,07	2,52	3845336
701	1,21	700	3	5,7	17,64	2,77	3845337
701	1,31	700	3	5,8	19,20	3,02	3845338
701	1,53	700	3	5,8	22,33	3,51	3845340
701	1,66	700	3	6,2	24,26	3,81	3850172
701	1,88	700	3	6,2	27,56	4,33	3845344
701	2,01	700	5	6,5	28,56	4,49	3845365
701	2,54	700	5	6,5	36,15	5,68	3845366
701	2,71	700	3	6,2	39,69	6,23	3845367
701	3,14	700	5	6,5	44,63	7,01	3845369
701	4,52	500	5	6,5	45,90	7,21	3845372
702	4,52	700	5	15,1	64,26	10,09	3845374
702	5,65	700	9	15,7	79,54	12,49	3845386
702	6,33	650	7	15,4	82,72	12,99	3845387
702	7,31	550	9	15,7	80,83	12,70	3845388
702	8,14	500	9	15,7	81,81	12,85	3845389

* n = 1500 1/min; $\eta_t = 0,8$; p = p_{max}

** longer delivery time

Other displacements on request

Pumps with low pulsation 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 [cm³/rev]
 n = Speed [rpm]
 η_t = Overall 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

Sealkit for BRK701 4006555

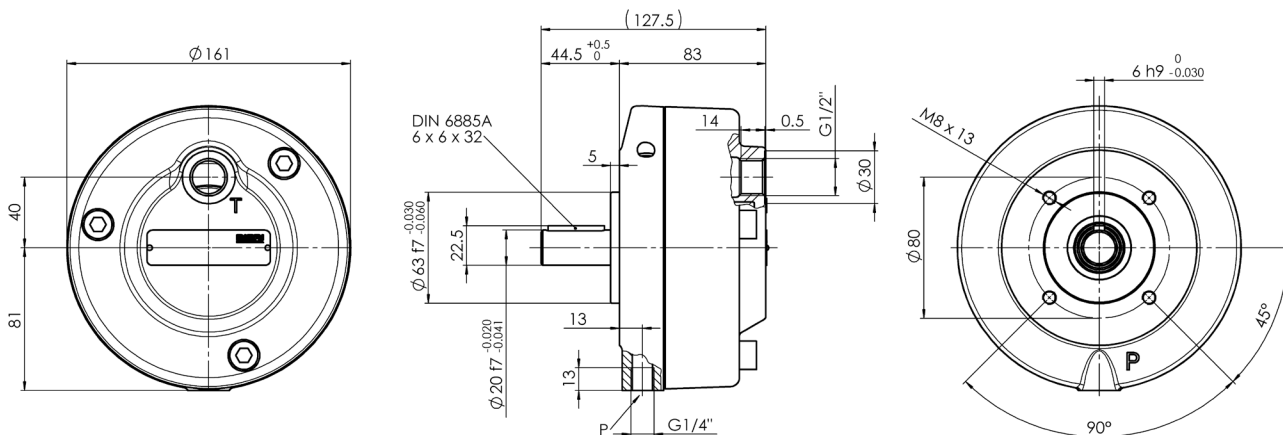
Sealkit for BRK702 4006559

Type BRK701/702

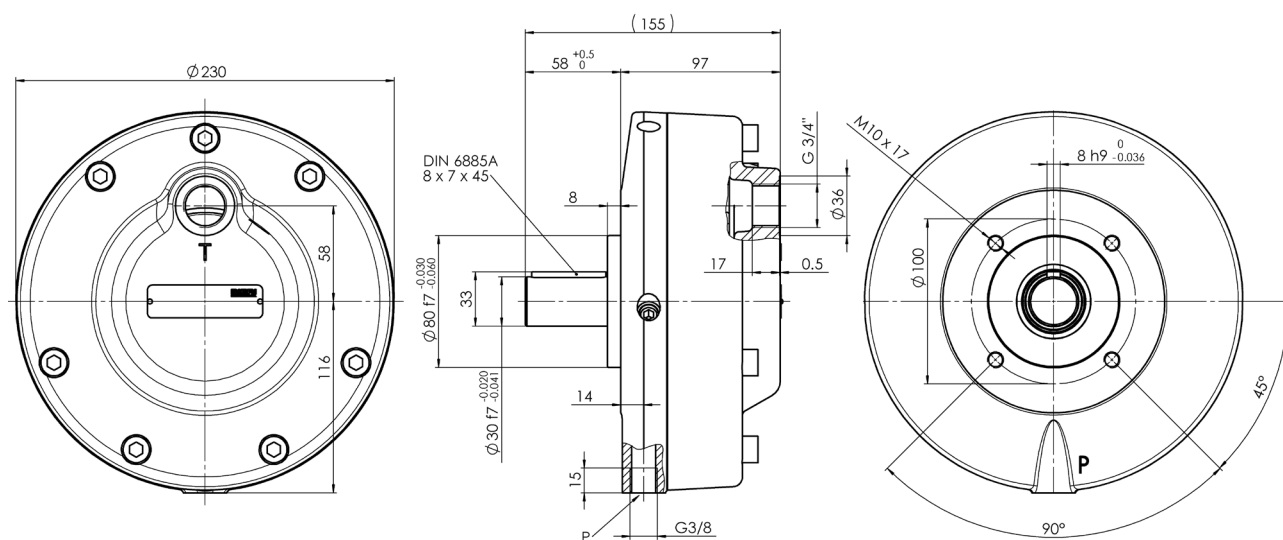
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Dimensional drawings

Size BRK701 / Design revision C



Size BRK702 / Design revision C



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The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.