

Radial piston pumps 500

Type BRK501/502

light version

500 bar

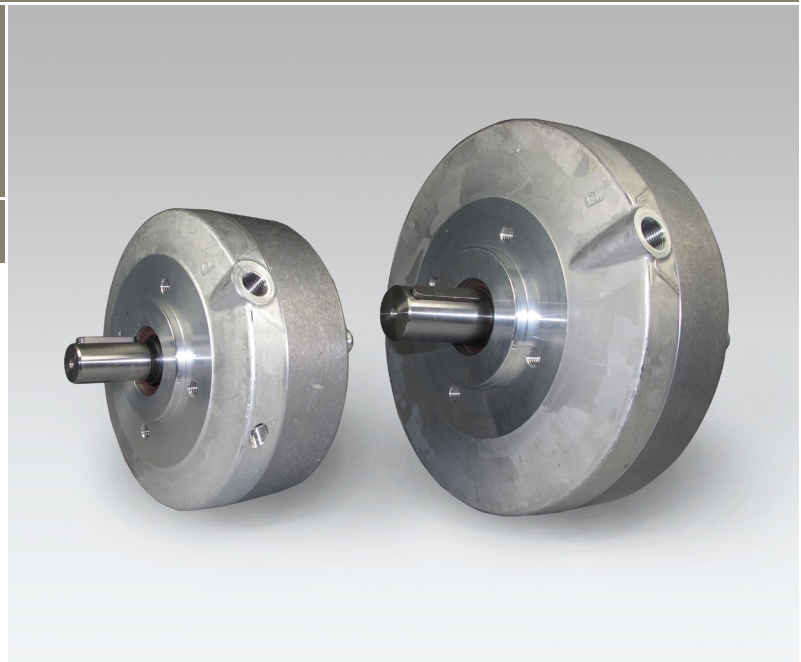
0,24 to 8,14 cm³/rev

700 bar → see data sheet BRK701/702

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)

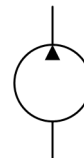


Design

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

Applications

- Machine tools
- Clamping device
- Power units (e.g. for presses)
- Accumulator charging systems
- Lifting systems
- Hydraulic tools
- Not suited for pulsation



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	500 bar continuous pressure (S1)
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: hot forged aluminium Driving shaft: steel Cover: aluminium

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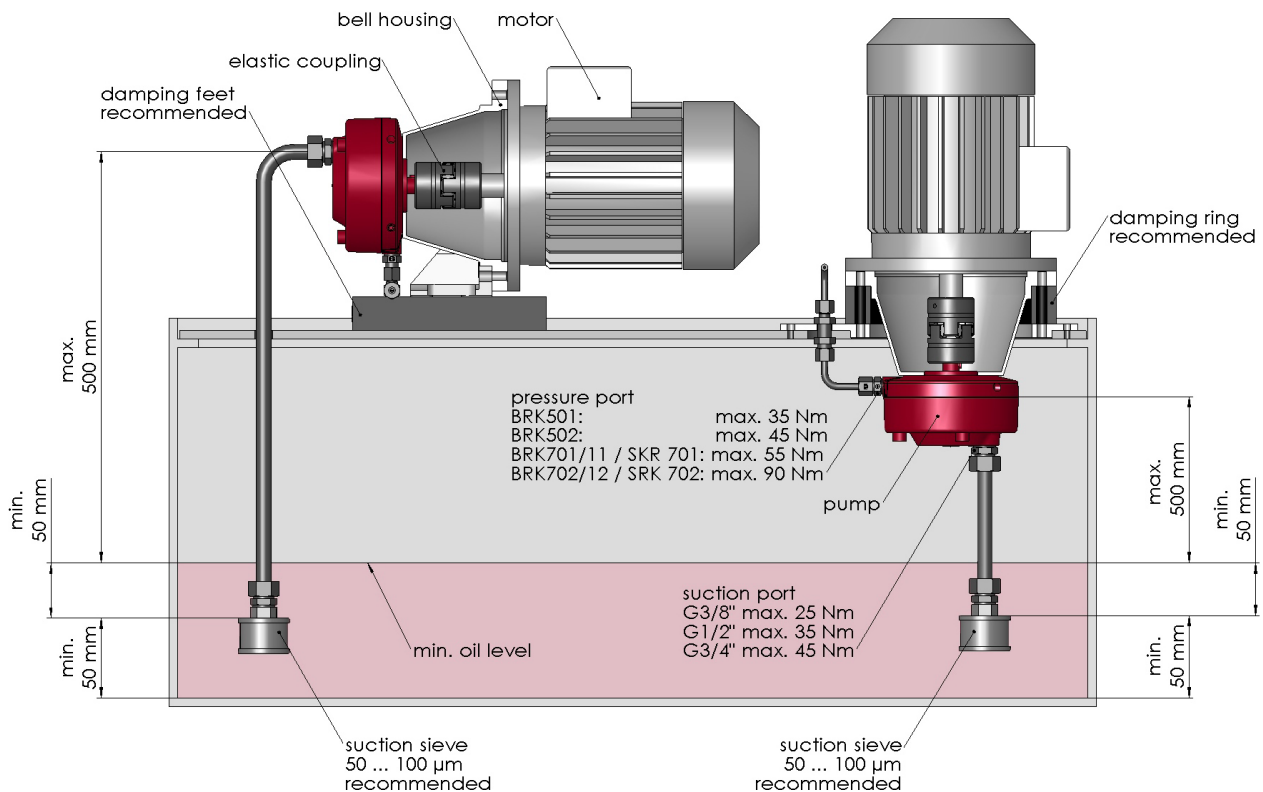
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0,24 to 8,14 cm³/rev

Ordering code

Example	BRK	501	-	0,24	-	500	-	V	-			00
Radial piston pump												
Size	501											
	502											
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]	max. Operating pressure [bar]	Number of pumping elements	Weight ca. [kg]	max. Torque * [Nm]	max. Power * [kW]	Part No.
501	0,24	500	3	3,9	2,46	0,39	3829341**
501	0,34	500	3	3,9	3,54	0,56	3829342**
501	0,47	500	3	3,9	4,92	0,77	3829343
501	0,60	500	3	3,9	6,30	0,99	3829344**
501	0,68	500	3	3,9	7,09	1,11	3829365
501	0,76	500	3	3,9	7,97	1,25	3829367**
501	0,94	500	3	3,9	9,84	1,55	3829368**
501	1,13	500	5	4,4	11,48	1,80	3829369
501	1,21	500	3	3,9	12,60	1,98	3829370
501	1,31	500	3	3,9	13,72	2,15	3829372
501	1,53	500	3	3,9	15,95	2,50	3829373
501	1,88	500	3	3,9	19,69	3,09	3829374
501	2,01	500	5	4,4	20,40	3,20	3829375
501	2,54	500	5	4,4	25,82	4,06	3829376
501	2,71	500	3	3,9	28,35	4,45	3829377
501	3,14	500	5	5,4	31,88	5,01	3829378
501	3,56	500	7	5,7	35,79	5,62	3829380
501	4,52	400	5	5,4	36,72	5,77	3829384
501	6,33	250	7	5,7	31,82	5,00	4000810
502	4,52	500	5	9,0	45,90	7,21	3829387
502	5,65	500	9	9,8	56,81	8,92	3829388
502	6,33	500	7	9,4	63,63	9,99	4000894
502	7,31	500	9	9,8	73,48	11,54	3829390
502	8,14	450	9	9,8	73,63	11,57	3958951

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

** longer delivery time

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. 1,0
- with 7 pumping elements: k approx. 1,0
- with 9 pumping elements: k approx. 1,0

Sealkit for BRK501	4006555
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Sealkit for BRK502	4006559
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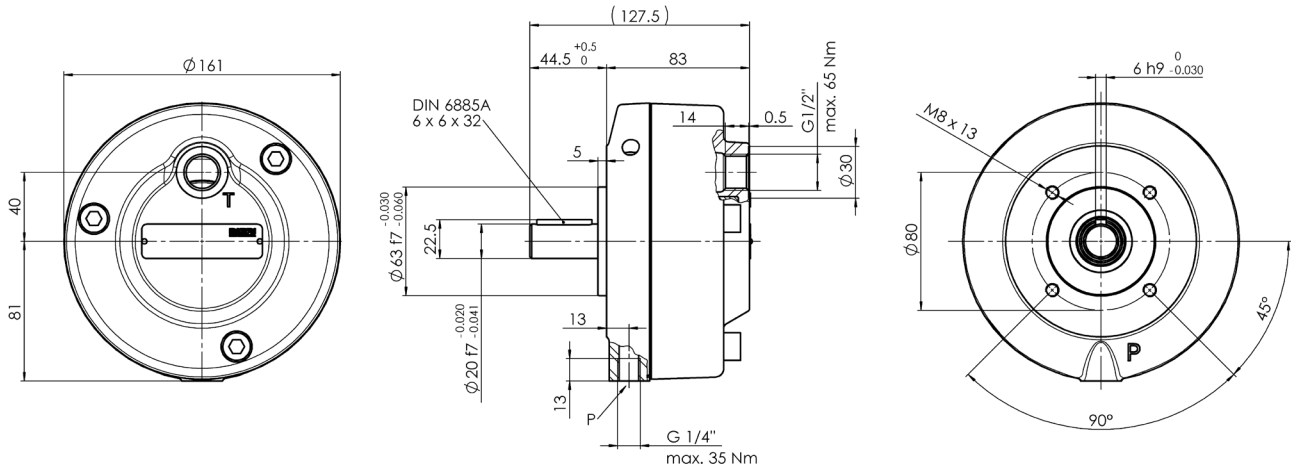
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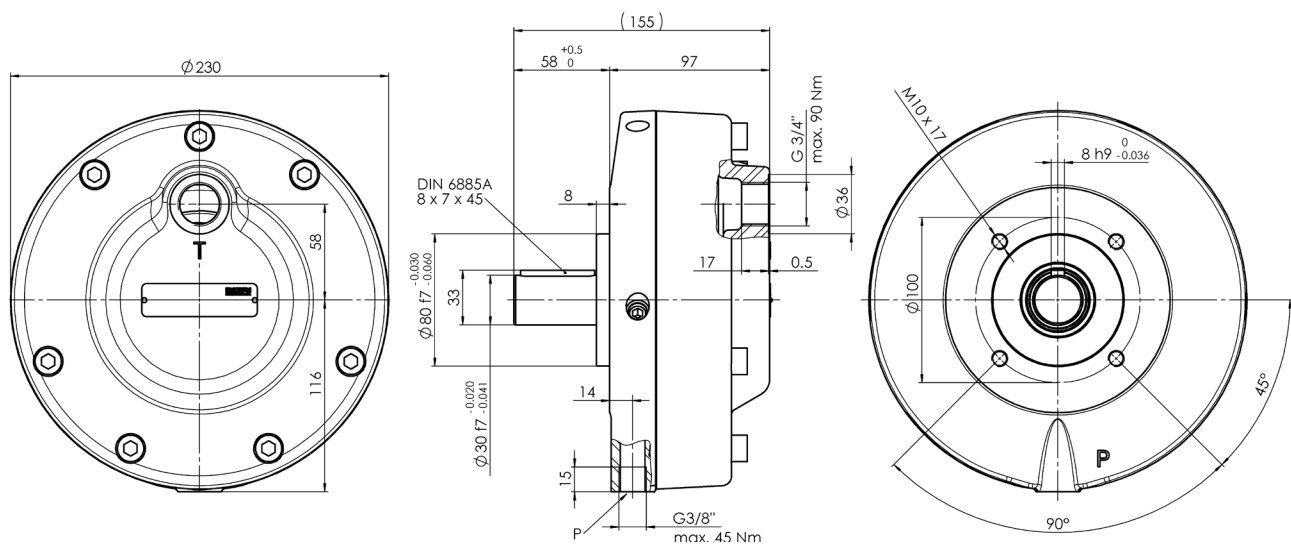
0,24 to 8,14 cm³/rev

Dimensional drawings

Size BRK501 / Design revision C



Size BRK502 / 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.