

Radial piston pumps

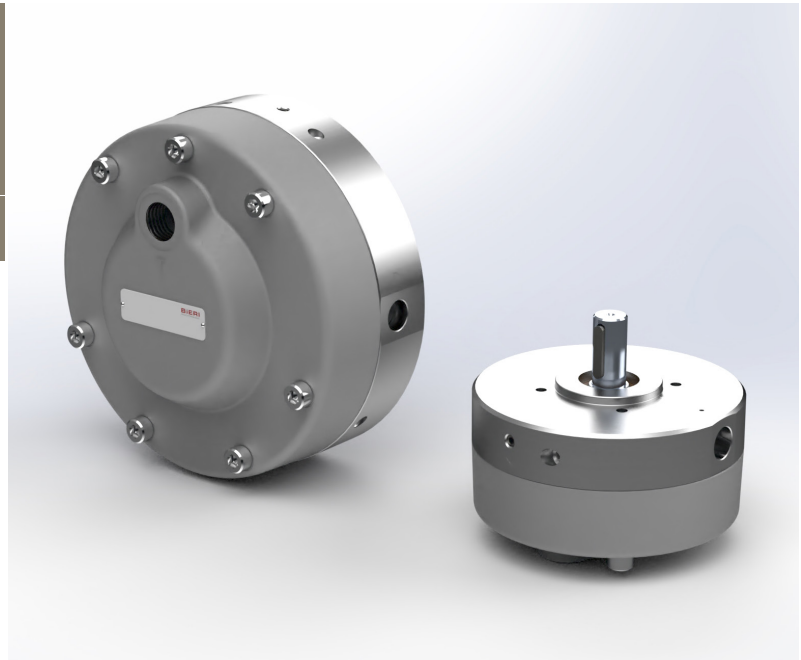
Type BRK1001/1002

heavy version
up to **1000 bar**
0.47 to 6.33 cm³/rev

500 bar → see data sheet BRK501/502
700 bar → see data sheet BRK701/702

Features

- High volumetric efficiency
- Selfventing and selfpriming
- Low pulsation
- Combination with gear pump possible (see separate technical data sheet BKP)

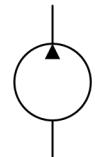


Applications

- Specially designed for demanding applications with continuous pressures up to 1000 bar → long economic lifetime!
- Machine tools
- Clamping device
- Power units (e.g. for presses)
- Test benches
- Accumulator charging systems
- Lifting and advancing systems

Design

- Radial piston pump of modular design
- With valve controlled pumping elements
- With 3, 5 or 7 pumping elements



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	
Filtration (recommendation)	according to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12	
Max. operating pressure	1000 bar	
Operating pressure suction side	-0.2 bar to 0.5 bar gauge pressure	
Displacement volume	0.47 to 6.33 cm ³ /rev	
Axial force onto driving shaft	can't be taken up	
Radial force onto driving shaft	on request	
Max. rotation speed	2000 rpm	
Direction of rotation	any	
Suction height	max. 500 mm	
Weight	see overview "product information"	
Materials	pressure flange:	high-strength steel
	driving shaft:	steel
	cover:	diecast aluminium

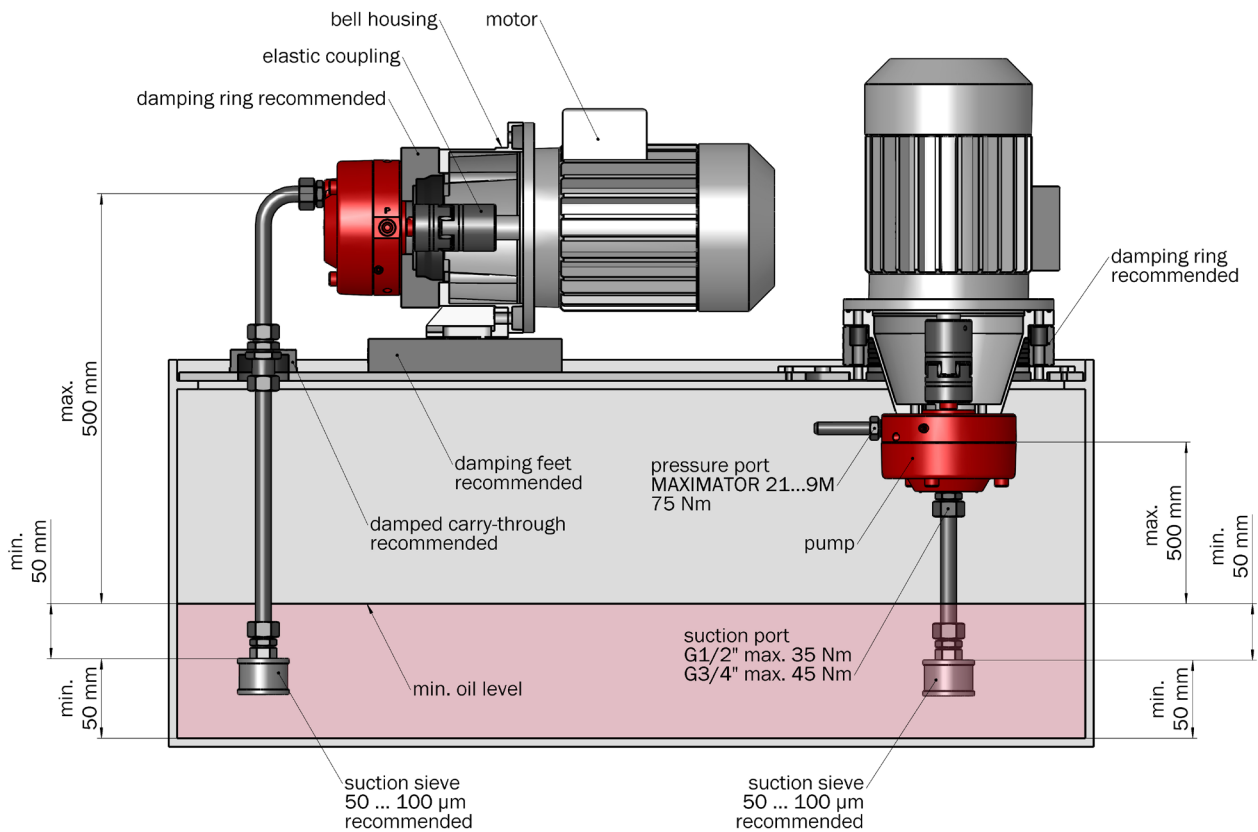
Type BRK1001/1002

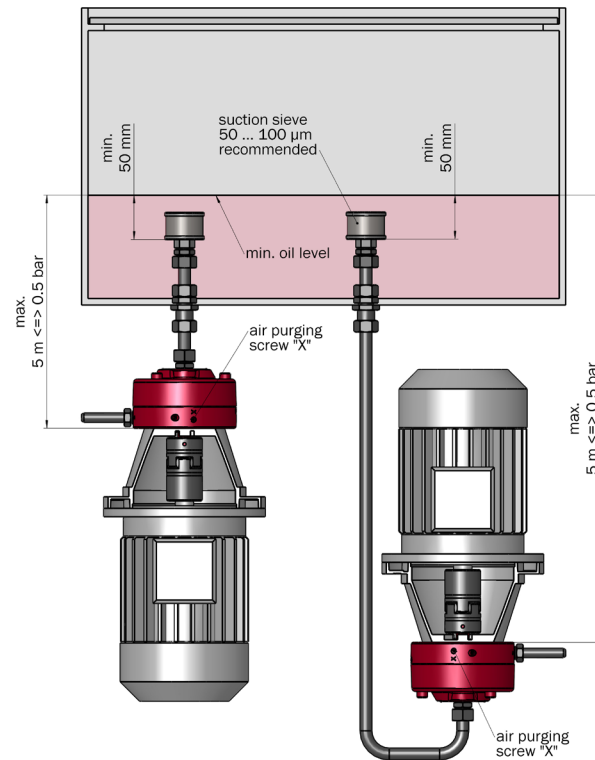
heavy version
to 1000 bar
0.47 up to 6.33 cm³/rev

Type code

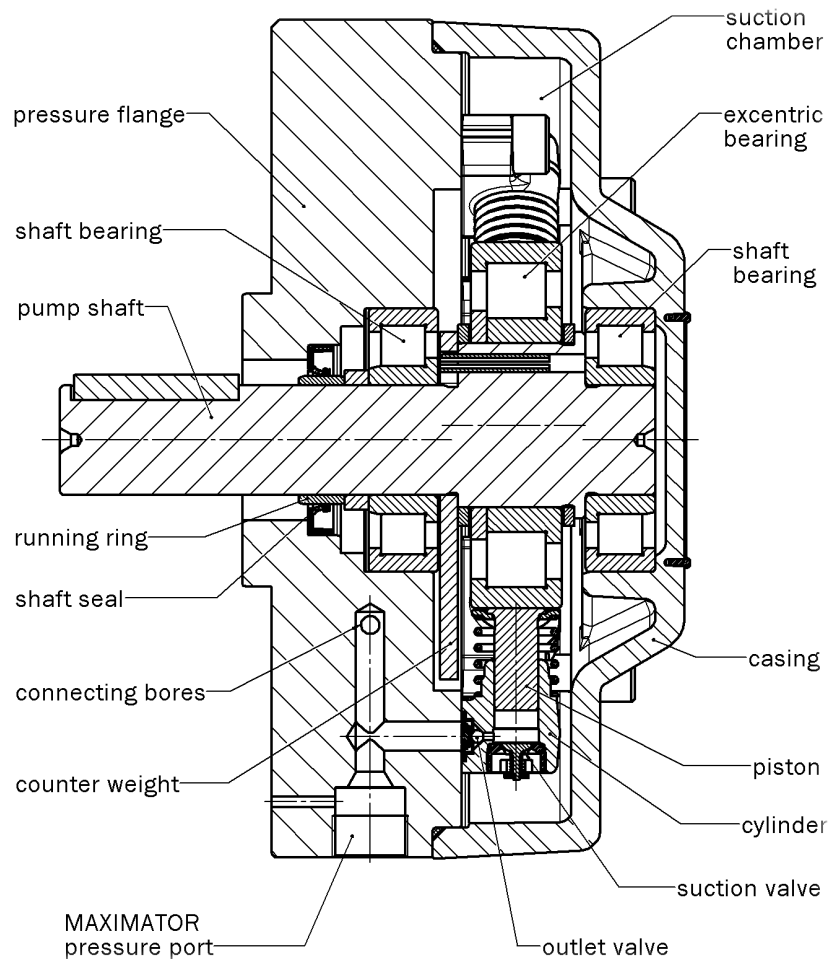
Example		BRK1002 - 3,56 - 1000 - V - C 00											
Radial piston pumps													Design 00 ... 99 For internal purposes Index Please leave blank For internal purposes Design revision For internal purposes
Size													
Displacement volume [cm³/rev]		1001 1002											
Max. operating pressure [bar]		See overview “Product information”											
Seal material		V FKM other seal materials on request											

Mounting





Main components



Type BRK1001/1002	
heavy version to 1000 bar 0.47 up to 6.33 cm ³ /rev	

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.
1001	0.47	1000	3	8.3	9.53	1.55	4488415
1001	0.68	1000	3	8.3	13.51	2.23	4488416
1001	0.79	1000	5	8.6	15.43	2.50	4488417
1001	1.13	1000	5	8.6	21.85	3.60	4488418
1001	1.21	1000	3	8.3	23.62	3.96	4488419
1001	1.53	1000	3	8.3	29.76	5.01	4488420
1001	1.88	900	3	8.3	33.00	5.57	4488421
1001	2.01	1000	5	8.6	38.21	6.41	4488422
1001	2.54	900	5	8.6	43.41	7.30	4488423
1002	1.10	1000	7	21.7	21.42	3.47	4488424
1002	1.58	1000	7	21.7	30.35	5.00	4488535
1002	2.81	1000	7	21.7	53.06	8.88	4488537
1002	3.56	1000	7	21.7	66.86	11.24	4488538
1002	4.40	900	7	21.7	74.16	12.49	4488539
1002	6.33	850	7	21.7	100.45	16.99	4488540

* at n = 1500 1/min; $\eta_t = 0.8$; p = p_{max}

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 = overall efficiency approx. 0.8
 k = pulsation factor
 - with 7 pumping elements: k approx. 1.01

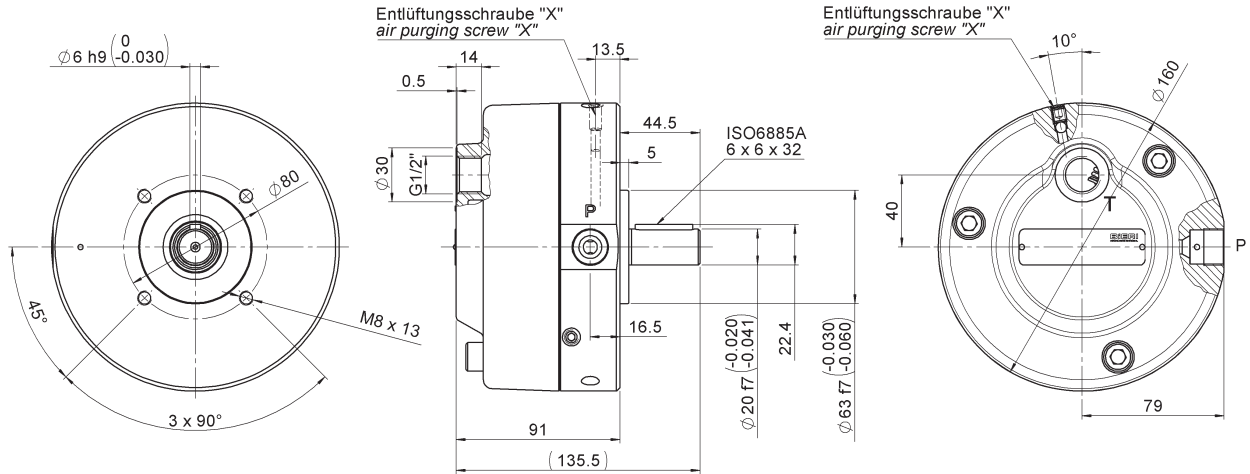
Calculation of driving motor torque

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

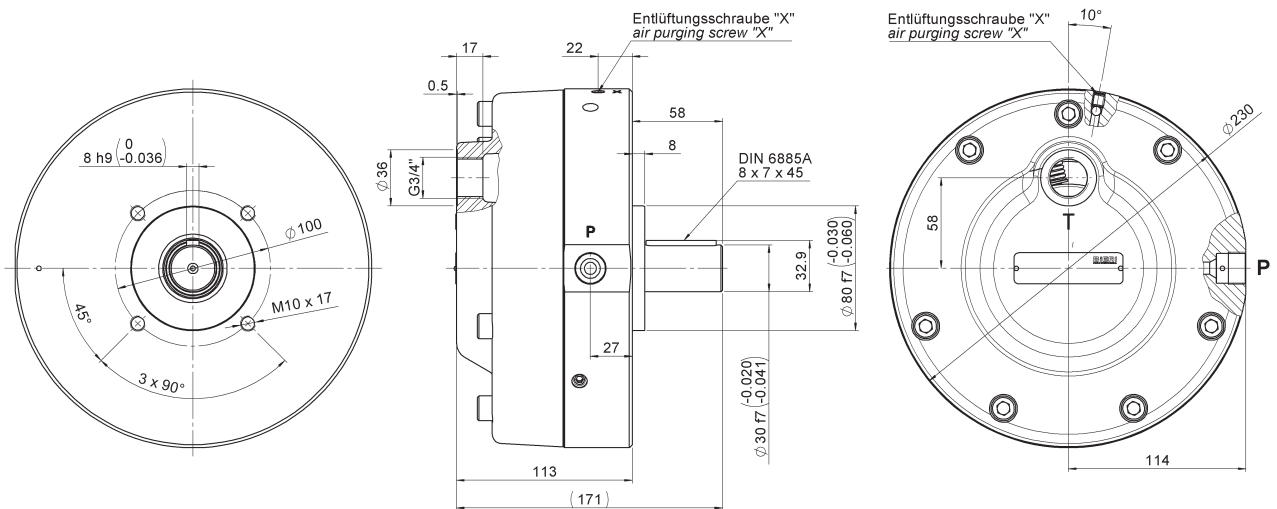
M = torque [Nm]

Dimensional drawings

Size BRK1001



Size BRK1002



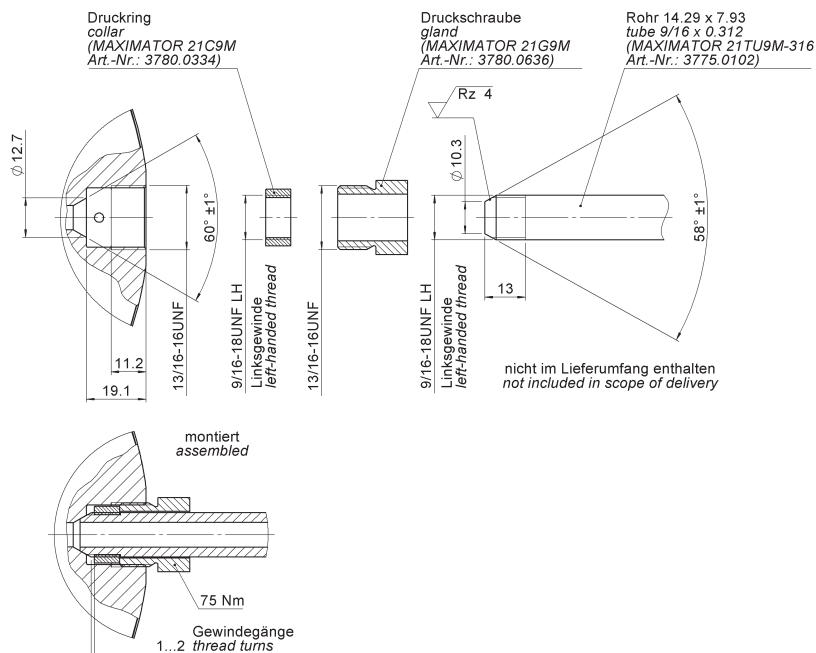
Spare parts

item description	part no.
seals kit for BRK1001	4709012
seals kit for BRK1002	4541678

Accessories

item description	part no.
adapter G1/4" MAXIMATOR	3939573

Anschluss "P" mit MAXIMATOR-Verrohrung 21...9M Connection "P" with MAXIMATOR piping 21...9M



Anschluss "P" mit System-Anschluss G1/4" Connection "P" with system adapter G1/4"

