

# Radial piston pumps

## Type BRK11

heavy version

up to **1000 bar**

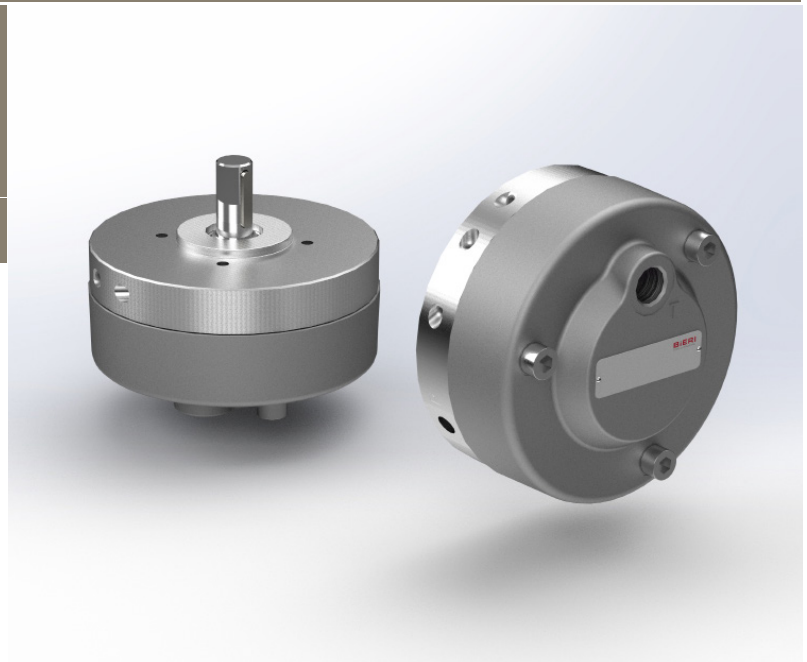
0.47 to 2.71 cm<sup>3</sup>/rev

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)

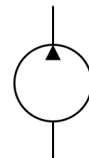


### Applications

- 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 or 5 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 <sup>2</sup> /s	
Max. operating pressure	1000 bar	
Operating pressure suction side	-0.2 bar to 0.5 bar gauge pressure	
Displacement volume	0.47 to 2.71 cm <sup>3</sup> /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	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

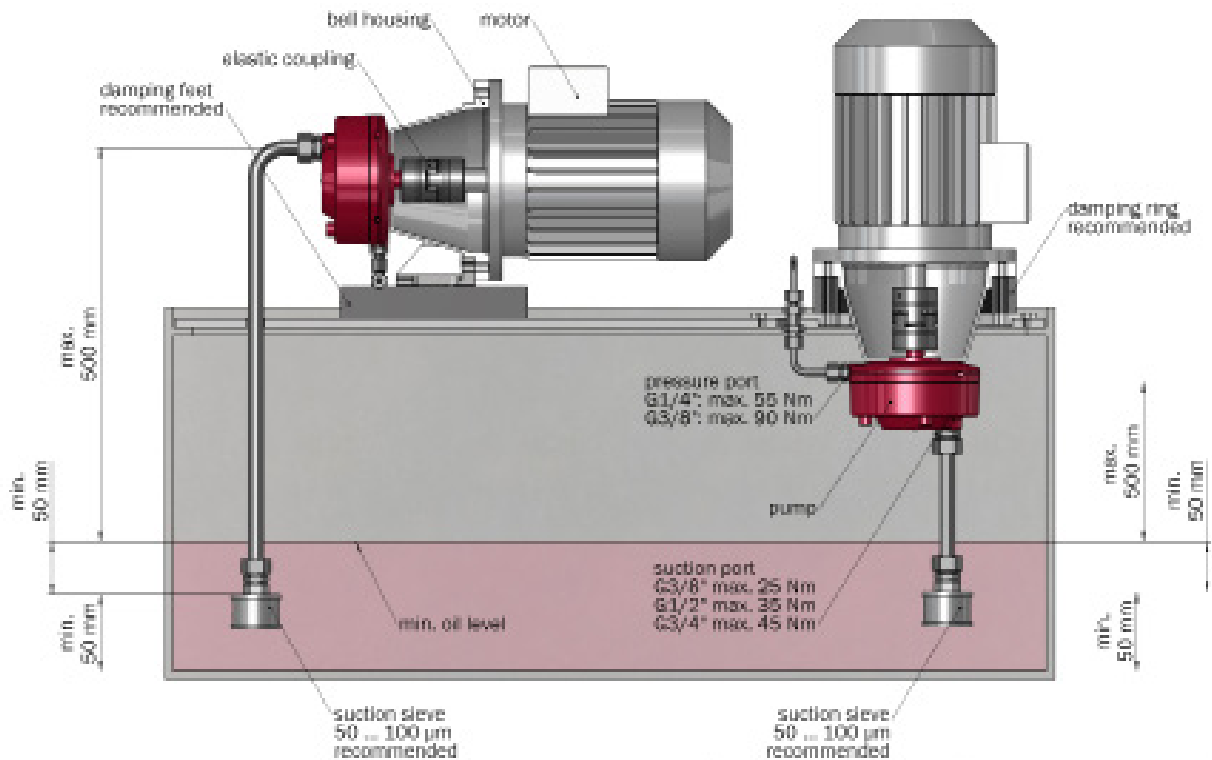
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## Type code

<b>Example</b>	<b>BRK</b>	<b>11</b>	-	<b>0,47</b>	-	<b>1000</b>	-	<b>V</b>	-	<b>C</b>		<b>00</b>
<b>Radial piston pumps</b>											<b>Design</b> 00 ... 99 For internal purposes	
<b>Size</b>	11											
<b>Displacement volume [cm<sup>3</sup>/rev]</b>	See overview Product information										<b>Index</b> Please leave blank For internal purposes	
<b>Max. operating pressure [bar]</b>	See overview Product information											
<b>Seal material</b>	V FKM other seal materials on request										<b>Design revision</b> For internal purposes	

## Mounting



## Product information

size	displacement volume [cm <sup>3</sup> /rev]	max. operating pressure [bar]	number of pumping elements	weight [kg]	max. torque* [Nm]	max. power* [kW]	part no.
11	0.47	1000	3	7.0	9.84	1.55	on request
11	0.68	1000	3	7.0	14.18	2.23	on request
11	1.13	1000	5	7.5	22.95	3.60	on request
11	1.21	1000	3	7.0	25.20	3.96	on request
11	1.53	1000	3	7.0	31.89	5.01	on request
11	1.88	900	3	7.0	35.44	5.57	on request
11	2.01	1000	5	7.5	40.80	6.41	on request
11	2.54	900	5	7.5	46.47	7.30	on request
11	2.71	850	3	7.0	48.20	7.57	on request

\* at n = 1500 rpm;  $\eta_t = 0.8$ ;  $p = p_{\max}$

## 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<sub>g</sub> = displacement volume [cm<sup>3</sup>/rev]  
 n = speed [rpm]  
 $\eta_t$  = overall efficiency approx. 0.8

k = pulsation factor  
 - with 3 pumping elements: k approx. 1.05  
 - with 5 pumping elements: k approx. 1.02

## Calculation of driving motor torque

$$M = \frac{p \cdot V_g}{62,8 \cdot \eta_t}$$

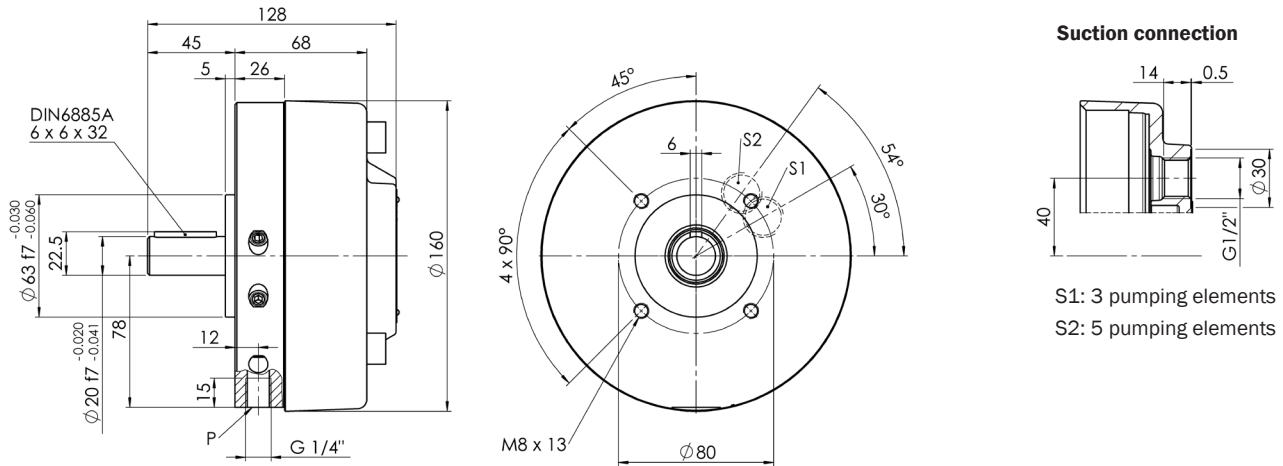
M = torque [Nm]

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## Dimensional drawings

### Size BRK11



## Spare parts

item description	part no.
seals kit for BRK11 FKM	4541677
seals kit for BRK11 NBR	4541679

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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.

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