

Radial piston pumps

Type HRK

700 bar

0,12 up to 0,34 cm³/rev

Features

- Compact design
- Hollow shaft
- Low pulsation
- Self priming
- High volumetric efficiency

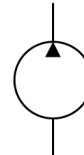


Design

- With hollow shaft for direct assembly of motor without bell housing and coupling
- With 1 or 2 pumping elements (depending on size)

Applications

- Machine tools
- Clamping device
- Power units (e.g. for presses)
- Pull-off fixtures
- Lifting systems
- Mobile power unit
- Small units
- Not suited for pulsation



Technical Data

Hydraulic fluid	Mineral oil according to DIN 51524 (other fluids on request)	
Fluid temperature range	-20 up to 80 °C	
Ambient temperature range	-30 up to 50 °C	
Viscosity range	12 to 220 mm ² /s	
Operation pressure at suction port	-0,2 bar to 0,5 bar gauge pressure	
Max. operating pressure	700 bar continuous pressure	
Filtration (recommendation)	According to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12	
Weight	See product information	
Installation position	In tank (any)	
Max. speed range	500-3600 min ⁻¹ (see product information)	
Direction of rotation	Any	
Suction height	Max. 150 mm	
Material	Eccentric shaft:	steel
	Pressure port body:	steel
	Pump housing and flange:	aluminium

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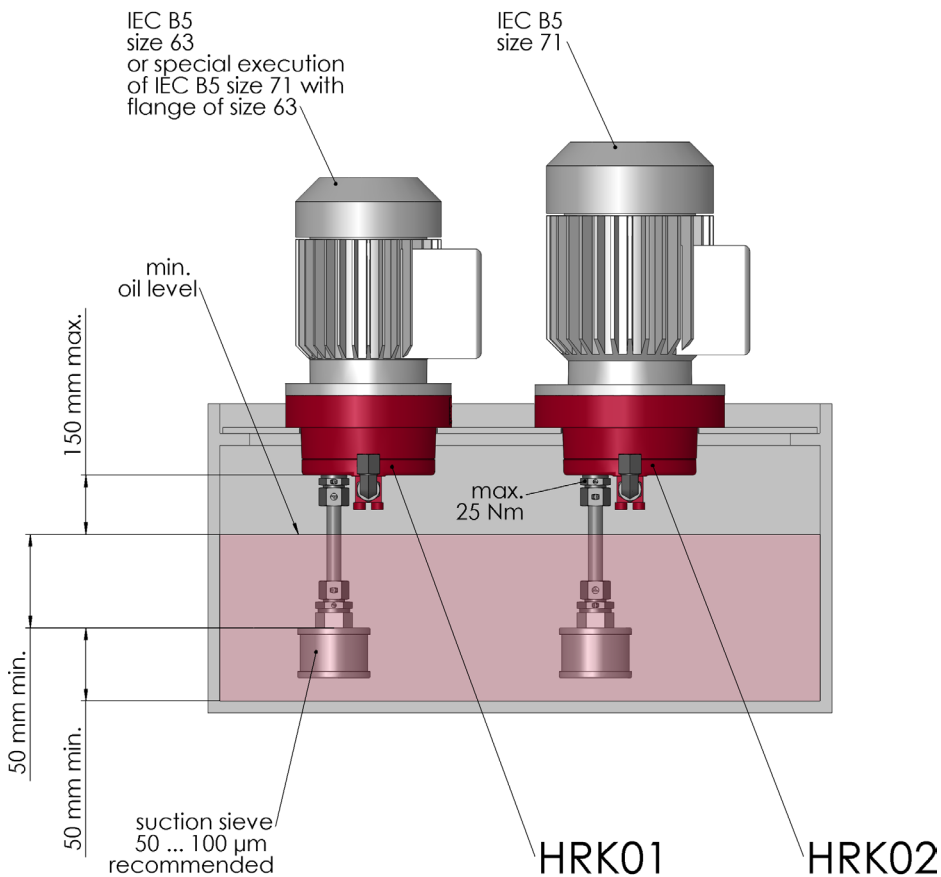
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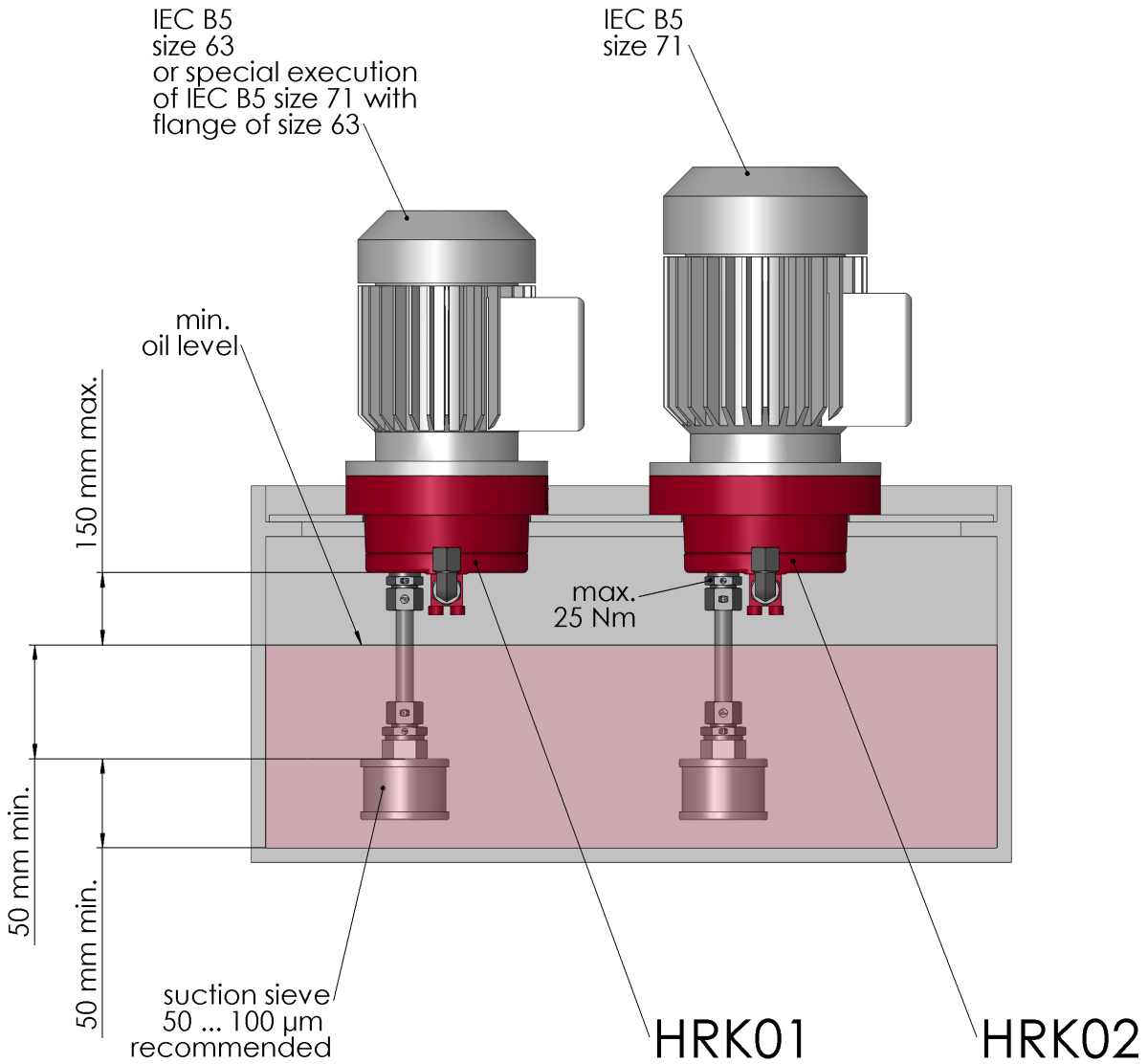
Ordering code

Example	HRK	01	- 0,34 -	700 -	V -	DV -			00
Radial piston pump									Special design 01 ... 99 (00 for standard)
Type	01 02								
Displacement [cm³/rev]	see product inform.								
Max. operating pressure [bar]	see product information								
Seal material	V [FPM] other seal materials on request								
Options	DV (pressure relief valve) X (without pressure relief valve)								
									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



Mounting



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Product information

Size	Displacement ¹⁾ [cm ³ /rev]	Operating pressure max. [bar]	Number of pumping elements	PR* yes / no	max. speed [RPM]	Weight ca. [kg]	max. Torque ²⁾ [Nm]	max. Power ²⁾ [kW]	Part No.
01	0,12	700	1	no	3600	1,8	5,15	0,81	4002080
01	0,12	700	1	yes	3600	1,8	5,15	0,81	4002075
01	0,17	700	1	no	3600	1,8	7,42	1,17	4002081
01	0,17	700	1	yes	3600	1,8	7,42	1,17	4002076
01	0,24	700	2	no	3600	1,8	5,15	0,81	4002074
01	0,24	700	2	yes	3600	1,8	5,15	0,81	4002077
01	0,29	700	2	no	3600	1,8	6,28	0,99	4002082
01	0,29	700	2	yes	3600	1,8	6,28	0,99	4002078
01	0,34	700	2	no	3600	1,8	7,42	1,17	4002083
01	0,34	700	2	yes	3600	1,8	7,42	1,17	4002079
02	0,12	700	1	no	3600	1,9	5,15	0,81	4002086
02	0,12	700	1	yes	3600	1,9	5,15	0,81	4002087
02	0,17	700	1	no	3600	1,9	7,42	1,17	4002088
02	0,17	700	1	yes	3600	1,9	7,42	1,17	4002089
02	0,24	700	2	no	3600	1,9	5,15	0,81	4002084
02	0,24	700	2	yes	3600	1,9	5,15	0,81	4002090
02	0,29	700	2	no	3600	1,9	6,28	0,99	4002093
02	0,29	700	2	yes	3600	1,9	6,28	0,99	4002091
02	0,34	700	2	no	3600	1,9	7,42	1,17	4002095
02	0,34	700	2	yes	3600	1,9	7,42	1,17	4002094

* PR: pressure relief valve

1) Higher displacements on request

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

Calculation of driving motor power

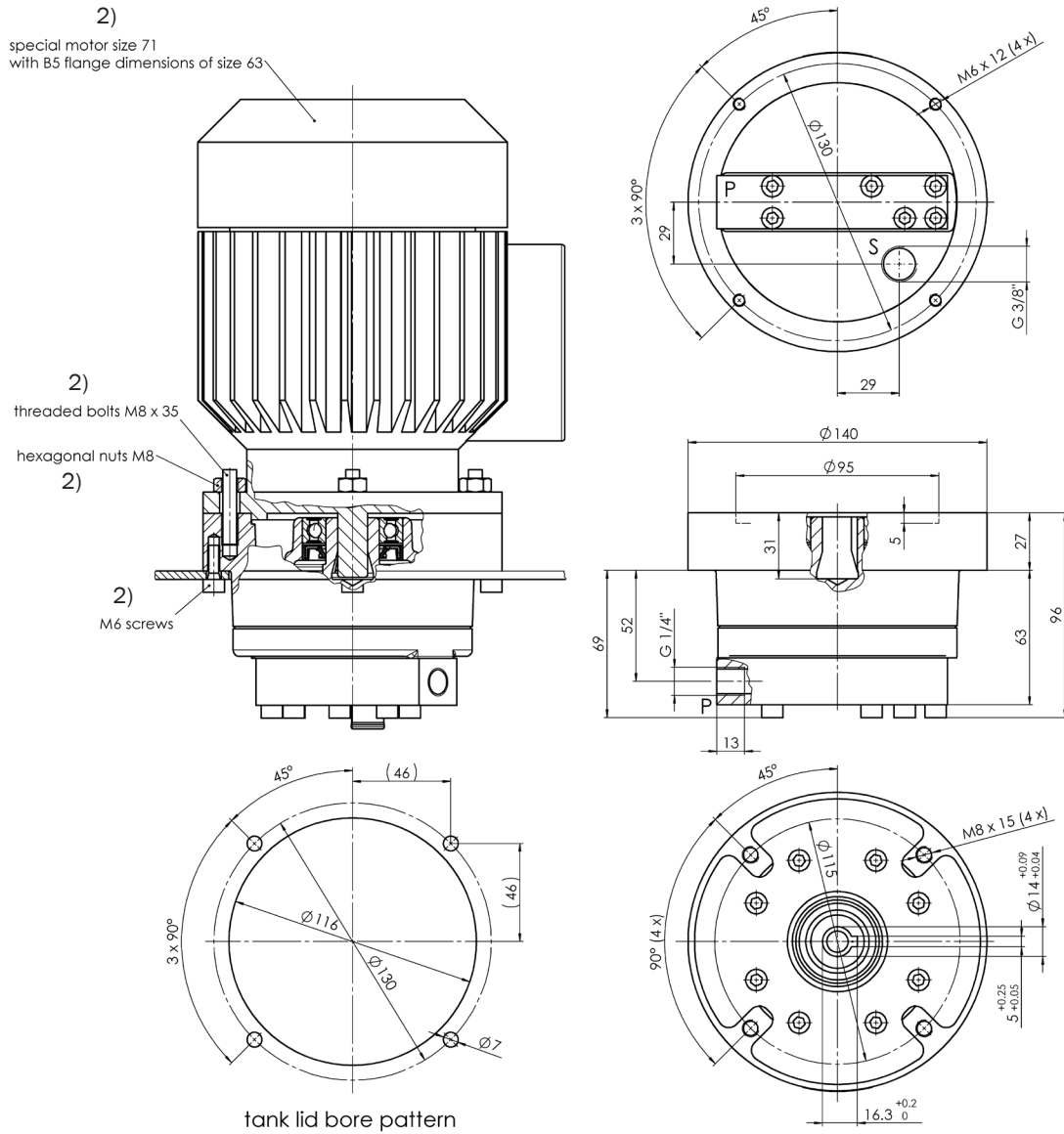
$$P = \frac{p \cdot V_g \cdot n \cdot k}{\eta_t \cdot 600 \cdot 10^3}$$

P = Driving power [kW]
p = Operating pressure [bar]
V_g = Displacement [cm³/rev]
n = Speed [rpm]
 η_t = Overall efficiency approx. 0,8

k = Pulsation factor
- with 1 pumping element: k approx. 3,10
- with 2 pumping elements: k approx. 1,60

Dimensions drawings

Size HRK01 / Design revision A



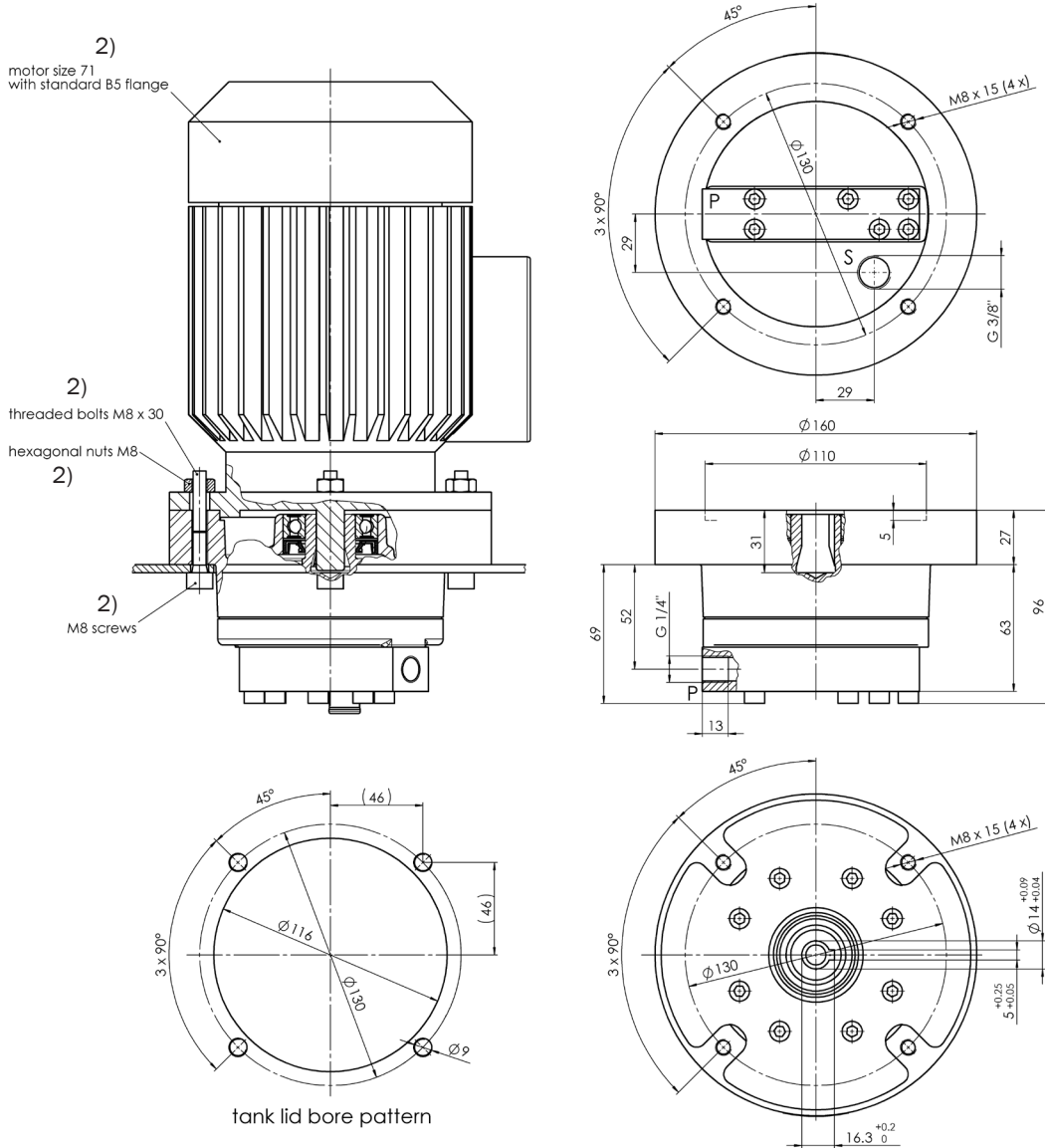
2) Not included in the scope of supplier

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Size HRK02 / Design revision A



2) Not included in the scope of supplier

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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.