Product Information
Changeover from RKP to RKP-II
Size 140 cm³/rev

Advantages and characteristics of the new radial piston pump RKP-II compared to the previous RKP design

The newly developed 2nd generation radial piston pump RKP-II will replace the previous RKP design.

Advantages of the RKP-II

- Reduced noise emission
- Reduced pressure pulsation
- For RKP-II with electro-hydraulic control: extended permitted viscosity range for the hydraulic fluid
- No need for reducing piece while connecting the suction pipe
- For RKP-II with R1 and R2-type compensator: No need for adapter fitting while connecting the control hose
- Extended flexibility when choosing add-on pumps

This information sheet lists the characteristics of the RKP-II which differ from the previous RKP design, with a particular focus on the **size 140 cm³/U**. A separate information sheet is available for the sizes 19, 32 and 45 cm³/U as well as for 63, 80 and 100 cm³/rev.

RKP-RKP-II 140 Product Information en.2007.01

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Contents

1 Operation

1.1 Noise Emission

When compared to its predecessors, the acoustic power of the RKP-II has been reduced by 50 to 60 %, depending on the duty point. With this improvement, RKP-II contributes to machine builders efforts to fulfill the EG standards with regards to noise (2003/10/EG). The noise pressure levels of the different sizes are shown in Figure 1.

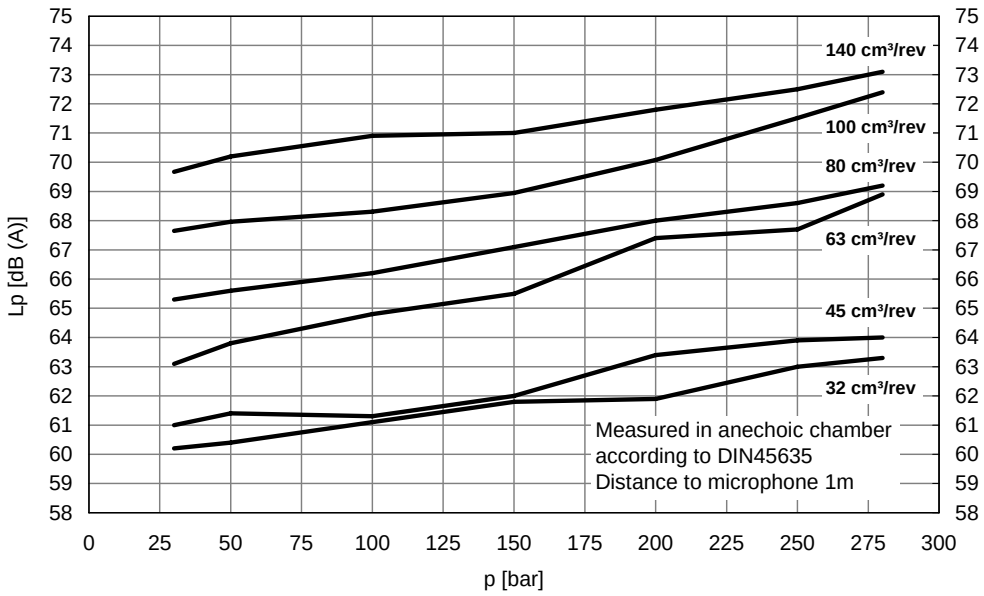

Figure 1: Noise pressure levels of the RKP-II with load sensing compensator J1 at n = 1500 min^{-1} and Q = Q_{max}

1.2 Pressure Pulsation

For the size 140 cm³/rev, pressure pulsation on the pressure side has been reduced by between 30 to 40 %, depending on the duty point.

1.3 Viscosity Range of the Hydraulic Fluid

For RKP-II with electro-hydraulic control the maximum permitted viscosity range of the hydraulic fluid has been extended. The same viscosity range now applies to all types of compensators. For the exact values, please refer to the RKP-II catalogue.

2 Width of RKP-II with mechanical stroke adjustment B1

The size 140 cm³/rev with mechanical stroke adjustment B1 is wider than previously. Table 1 shows the changes in more detail.

Pump generation	RKP-II	previous RKP
Width without adjustment screws	468,0 mm	326,0 mm
Maximum total width	548,4 mm	426,0 mm

Table 1: Width of the RKP-II and previous RKP with 140 cm³/rev and mechanical stroke adjustment B1

3 Control and Tank Port of R1 and R2-Type Compensator

The control port has been changed from M 12x1,5 to G $^{1}/_{4}$, the tank port from M 16x1,5 to G $^{3}/_{8}$. The position of the ports in the compensator housing remain unchanged (Figure 2).

Fittings with G threads are available for all recommended control hose sizes. An additional adapter fitting is no longer required.

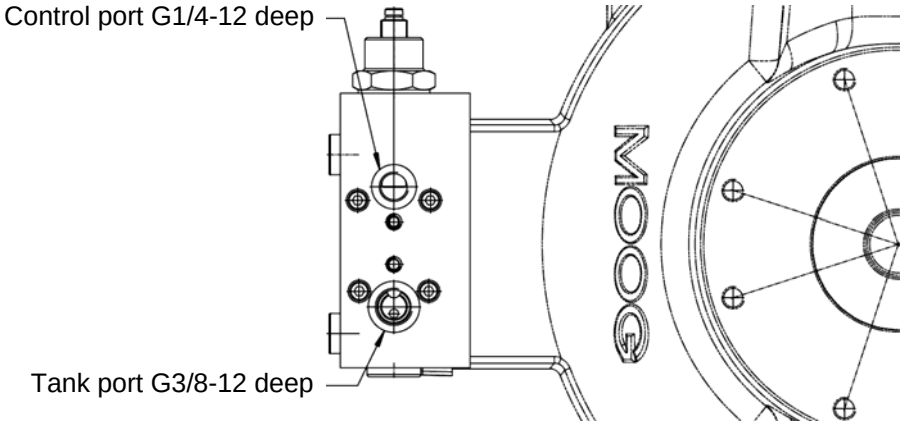

Figure 2: R1and R2-type compensator of the RKP-II, size 140 cm³/rev

4 Choosing Add-On Pumps

Multiple pump arrangements can be composed from RKP-II of all sizes. In addition, RKP and RKP-II of sizes 19, 63, 80, 100 and 140 cm³/rev can be combined across the product lines.

Furthermore, by means of new flange adapters, any pumps with a drive flange according to SAE-A or SAE-B can be mounted. This represents a significant extension in flexibility.

The flanges of the new Moog gear pumps are also configured to either SAE-A or SAE-B, depending on size. The previously used Bosch gear pumps for RKP (1517 222 xxx) cannot be used in combination with the RKP-II.

Note on nominal pressure and maximum permitted pressure:
The nominal pressure of an RKP-II specifies the pressure resistance of the single pump. The maximum permitted pressure of a pump stage within a multiple pump additionally depends on the flows and the maximum permitted drive-through torques and thus may be lower than the nominal pressure. Please follow the instructions in the RKP-II catalogue.

5 Order Information

5.1 Model Number

The format of the RKP-II model numbers is set out in Table 2. Please note that the format has changed from the previous RKP. The convention for the direction of rotation applies to both the new and existing pumps: Odd consecutive numbers refer to a clockwise rotation, even consecutive numbers to a counter clockwise rotation.

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Country Code				**Packing Index**	
Germany	**D**			**-10**	Standard packing
Series			**Consecutive Number**		
Radial piston pump	**95**		**0001..2000**	Pump stage (first, middle or last stage)	
Size			**2001..5000**	Single pump*	
19 cm³/rev	**1**		**5001..7000**	Double pump*	
32 cm³/rev	**2**		**7001..8000**	Triple pump*	
45 cm³/rev	**3**		**8001..9999**	Special version*	
63 cm³/rev	**4**	**Modification**			
80 cm³/rev	**5**	**-**	Standard according to type designation code		
100 cm³/rev	**6**	**E**	Customer prototype		
140 cm³/rev	**7**	**K**	Ex Version gas and dust		
		Z	Special version		

*) Pumps can contain gear pumps, but those do not count as pump stages.

Table 2: Model numbers of the RKP-II

Examples:	**D955-0009-10**	Pump stage with 80 cm³/rev as part of a multiple pump
	D955-2021-10	Single pump with 80 cm³/rev
	D954-5053-10	Double pump with 63 cm³/rev as first stage
	D956-7015-10	Triple pump with 100 cm³/rev as first stage
	D956Z8017-10	RKP-II special version with 100 cm³/rev

5.2 Nameplate

The layout of the nameplate of the RKP-II can be seen in Figure 3. For systems made up of multiple pump stages, each individual stage will have its own nameplate

Figure 3: Nameplate of the RKP-II