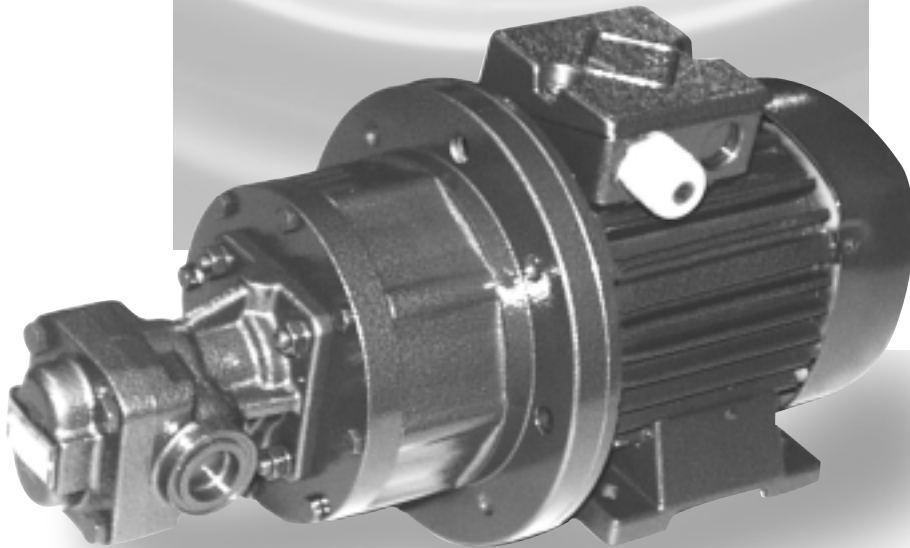


KRACHT

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through experience,
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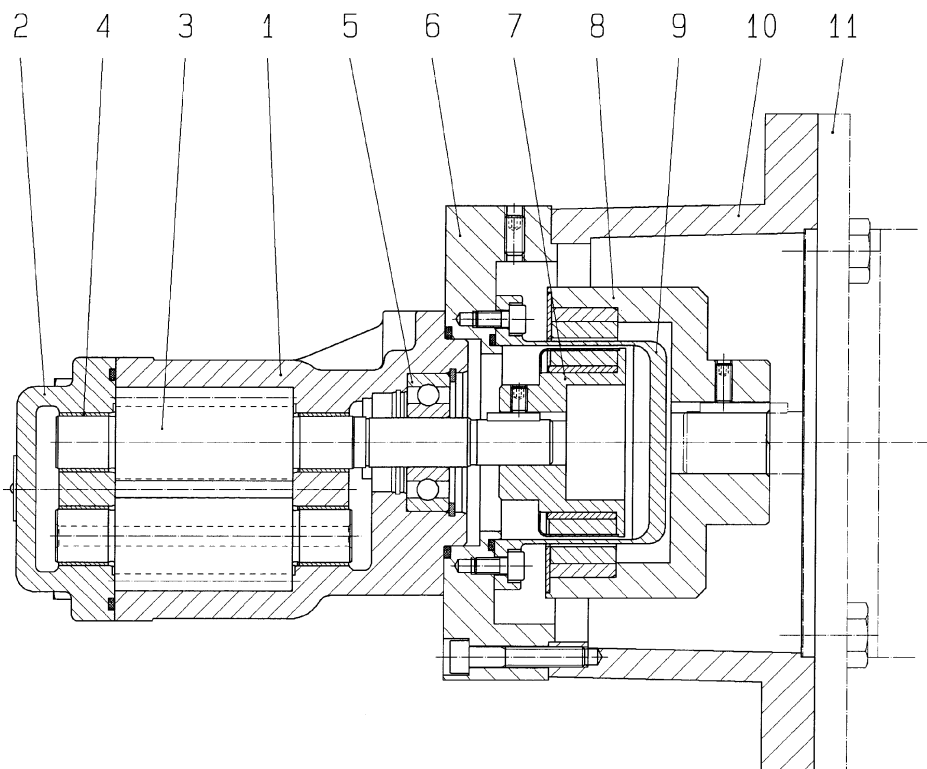
**Transfer Gear Pumps
KF 4 ... 80
with magnetic coupling**

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Transfer Gear Pumps KF 4 ... 80 with magnetic coupling

Construction



- | | |
|----------------------|-----------------|
| 1 Housing | 7 Inner rotor |
| 2 Cover | 8 Outer rotor |
| 3 Gear | 9 Split case |
| 4 Plain bearing bush | 10 Bell housing |
| 5 Outboard bearing | 11 Drive motor |
| 6 Adapter flange | |



Transfer Gear Pumps KF 4 ... 80 with magnetic coupling

Function

Conventional sealing gaskets are pushed to their limits with different applications. Typical applications are found in polyurethane facilities, refrigerating machines and vacuum facilities. For these applications, you have the possibility to equip the KF 4...80 with a magnetic coupling.

The magnetic coupling serves as a shaft seal and for the transmission of the torque. The outer rotor of the magnetic coupling is assembled on the engine shaft and the inner rotor is assembled directly on the pumping shaft. The torque is transmitted through the magnetic forces between the outer and inner rotor. Between the two rotors, you have the split case which hermetically seals the pump.

The magnetic coupling is used when an absolute sealing is required between the pumping room and the atmosphere, for example, in the case of a dosage of isocyanate, where the contact with air would lead to an unwanted cure of the medium. It can be used in vacuum operation – for example, filling brake fluid – in which an intrusion of air into the system is steadily prevented.

Also, a leak-free operation is ensured when operating in closed systems with high pressure on the pump inlet side. The magnetic coupling is predestined for dispensing dangerous and health hazardous mediums.

Technical data

General characteristics

Fixing type	Flange type	
Pipe connection	KF4 ... 25 KF32 ... 80	Pipe thread Flange connection
Direction of rotation	clockwise or anticlockwise	
Fitting position	Horizontal, vertical (shaft end facing downward/at the bottom)	

Operation characteristics

Nominal displacement	$V_g =$	4 / 5 / 6 / 8 / 10 / 12 / 16 / 20 / 25 / 32 / 40 / 50 / 63 / 80 cm ³ /r
Operating pressure	Suction side	
	$p_{e \text{ min}}$	0,4 bar, vacuum facility - 0.92
	$p_{e \text{ max}}$	16 bar (SN1 / SS1 / NN1)
	$p_{e \text{ max}}$	25 bar (SN2 / SS2 / NN2)
	$p_{e \text{ max}}$	40 bar (SN3 / SS3 / NN3)
	Standstill	
	$p_{e \text{ min}}$	- 1 bar
	$p_{e \text{ max}}$	16 bar (SN1 / SS1 / NN1)
	$p_{e \text{ max}}$	25 bar (SN2 / SS2 / NN2)
	$p_{e \text{ max}}$	40 bar (SN3 / SS3 / NN3)
	Pressure side	
	$p_{n \text{ max}}$	DU bearing: 25 bar Iglidur bearing: 10 bar via p_e

Transfer Gear Pumps KF 4 ... 80 with magnetic coupling

Technical data

Operation characteristics

Speed	n_{\min}	=	200 1/min		
	n_{\max}	=	3000 1/min		
Viscosity	v_{\min}	=	10 mm ² /s		
	v_{\max}	=	5000 mm ² /s		
Fluid temperature pump	$\vartheta_{m \min}$	=	-10 °C		
	$\vartheta_{m \max}$	=	130 °C (EPDM)		
	$\vartheta_{m \max}$	=	100 °C (CR)		
	$\vartheta_{m \max}$	=	100 °C (HNBR)		
	$\vartheta_{m \max}$	=	130 °C (FKM), Magnet material NdFeB		
	$\vartheta_{m \max}$	=	150 °C (FKM), Magnet material SmCo		
	$\vartheta_{m \max}$	=	200 °C (FEP), Magnet material SmCo		
Fluid temperature magnetic coupling	$\vartheta_{m \max}$	=	130 °C Magnet material NdFeB		
	$\vartheta_{m \max}$	=	250 °C Magnet material Sm2Co17		
Ambient temperature	$\vartheta_u \min$	=	-20 °C		
	$\vartheta_u \max$	=	60 °C		
Nominal torque magnetic coupling	MSA 46/6	3 Nm	MSB 75/10	20 Nm	
	MSA 60/8	7 Nm	MSC 75/10	30 Nm	
	MSB 60/8	14 Nm	MSB 110/16	50 Nm	
	MSA 75/10	10 Nm	MSC 110/16	80 Nm	
Materials pump	Housing and Cover	EN-GJL-250 (GG 25)			
	Gearing	16 Mn Cr 5			
	Bearing bushes	DU Iglidur (sealing number 12, 16)			
	Seals	EPDM, CR, HNBR, FKM, FEP			
Materials magnetic coupling	Inner rotor	Hub made of stainless steel 1.4571 Magnets made of SM2Co17 Magnet covering made of stainless steel 1.4571			
	Split case	Flange made of stainless steel 1.4571 Pot made of stainless steel 1.4571 From construction size 75, alternatively made of Hastelloy			
	Outer rotor	Hub made of 355J2G3 (St 52) Magnet made of Sm2Co17 oder NdFeB			

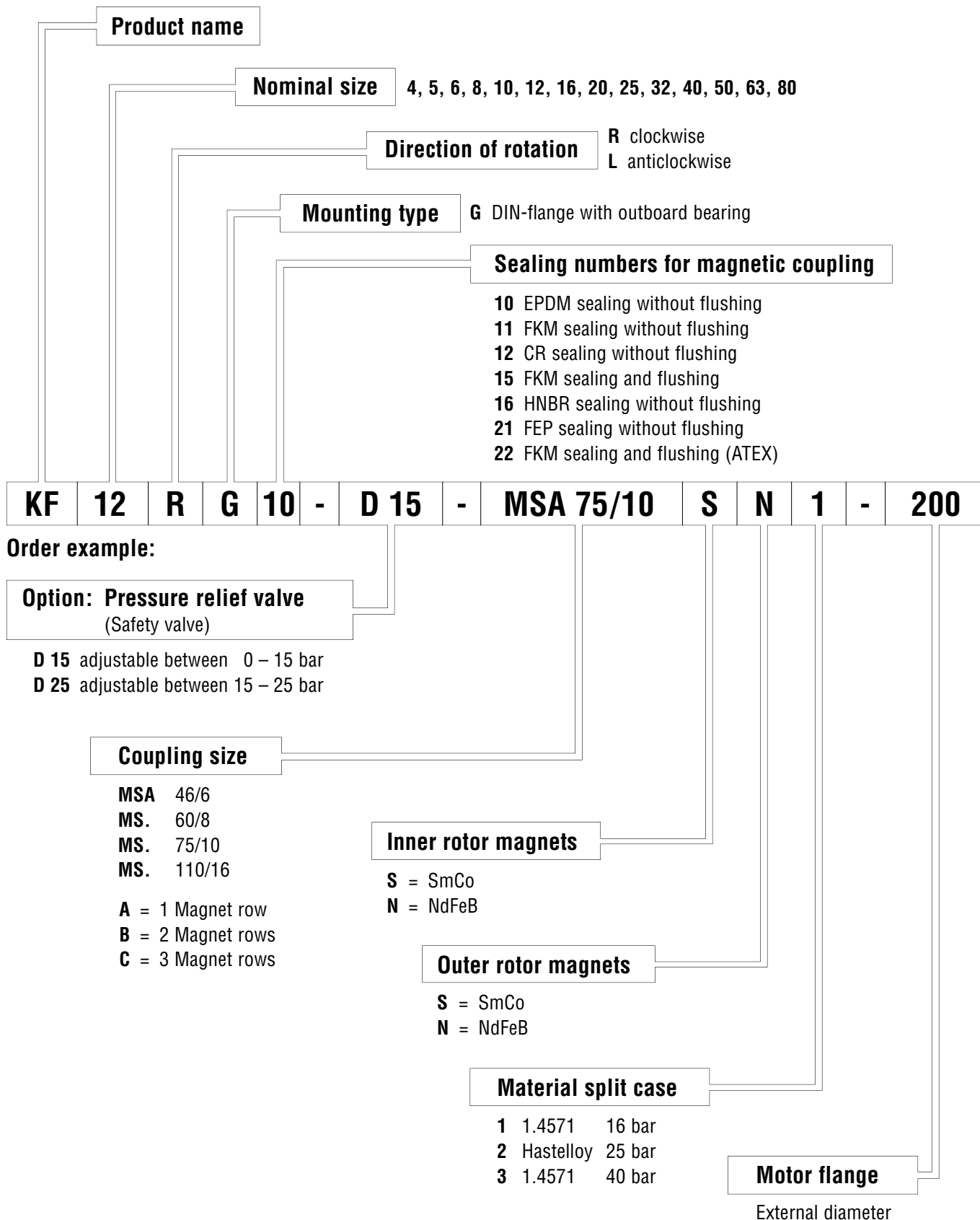
Transfer Gear Pumps KF 4 ... 80 with magnetic coupling

Selection assistance

Pump	Coupling size	Permitted torque [Nm]	Permitted power consumption [kW] at n = 750 1/min	Motor size	Permitted power consumption [kW] at n = 950 1/min	Motor size	Permitted power consumption [kW] at n = 1450 1/min	Motor size
KF 4-25	MSA 46	3	0.18	80	0.25	71	0.37	71
	MSA 60	7	0.25	80	0.37	80	0.55	80
			0.37	90	0.55			
	MSB 60	14	0.55	90	0.75	90	1.1	90
			0.75	100	1.1			
MSB 75	20	1.1	100	1.5	100	2.2	100	
KF 32-80	MSA 75	10	0.55	90	0.75	90	1.1	90
	MSB 75	20	1.1	100	1.1	90	1.5	90
			–	–	1.5	100	2.2	100
	MSC 75	30	–	–	–	–	3	100
			1.5	112	2.2	112	4	112
	MSB 110	50	2.2	132	2.2	112	4	112
			3.0	132	3	132	5.5	132
	MSC 110	80	4.0	160	4	132	–	–
–			–	5.5	132	7.5	132	

Transfer Gear Pumps KF 4 ... 80 with magnetic coupling

Type code



Overview of our complete program

Transfer pumps

Transfer pumps for lubricating oil supply equipment, low pressure filling and feed systems, dosing and mixing systems.

Flow measurement

Gear and turbine flow meters and electronics for volume and flow metering technology in hydraulics, processing and laquering technology.

Mobile hydraulics

Single and multistage high pressure gear pumps, hydraulic motors and valves for construction machinery, vehicle-mounted machines.

Industrial hydraulics

Directional control and proportional valves to Cetop. Hydraulic cylinders, pressure, quantity and stop valves for pipe and slab construction, hydraulic accessories for industrial hydraulics (mobile and stationary use).

With our decades of experience, we are at your side, world-wide, for the professional mastery of specific applications and complete solutions in hydraulics and process technology.



KF4-80/e/08.06
with magnetic coupling