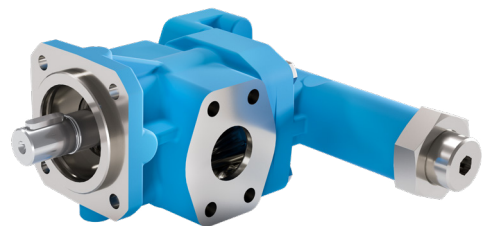


KRACHT[®]

- | Gear Pumps
- | Flow Measurement
- | Hydraulics
- | Valves

Gear Pumps
KF 32 ... 80
with T-Valve



Description

KF gear pumps are used for pumping a wide variety of fluids.

KF gear pumps are distinguished especially by their wide range of variants which are assembled as required on the modular principle and also permit subsequent upgrade.

The pumps are also suitable for media with low lubricating properties. The KF 32... 80 with T-valve comprises an attached pressure control valve with a separate tank connection. By a conformist damping the valve offers a good control characteristic and a good dynamic at a free from vibration operation in all working points of the pump.

The standard pump housing sections are of gray cast iron. The valve housing sections are of spheroidal cast iron.

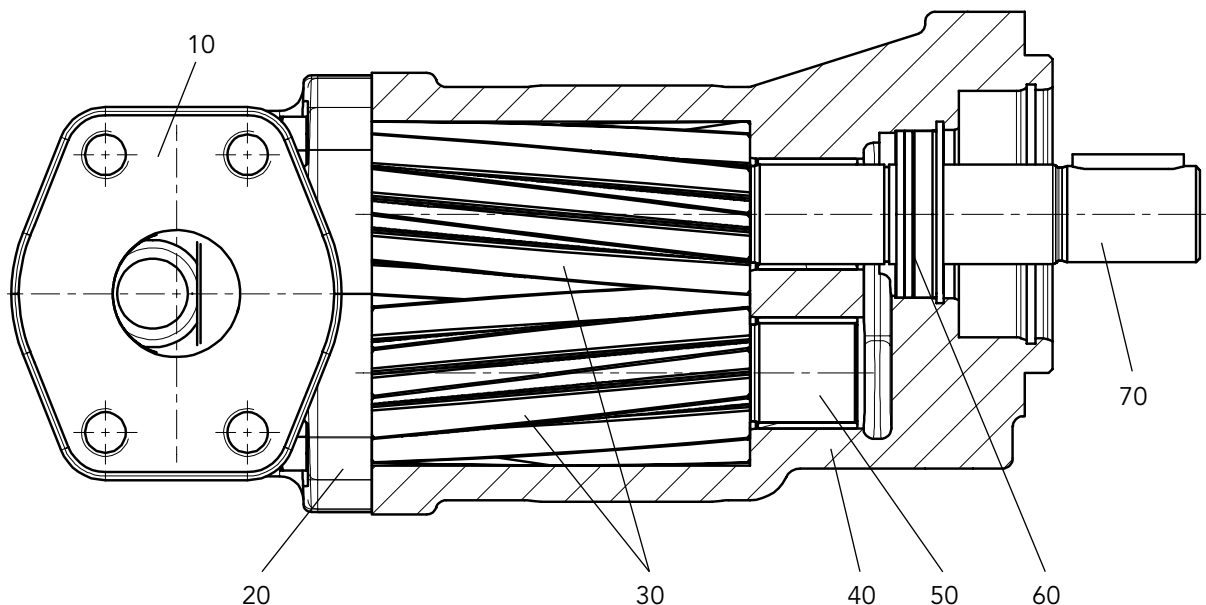
The gear units are manufactured from high-strength case-hardening steel, hardened and mounted in special multi-compound plain bearing bushes.

The standard drive shaft is sealed by rotary shaft lip-type seal. All pump sizes incorporate helical tooth system. This feature combined with special gear geometry, results in low noise levels and reduced pressure pulsation.

Operating Notes

- The fluids should ensure a certain minimum lubricating properties, should not contain solids and should be chemically compatible.
- Avoid dry operation.
- In order to prevent excessive overpressure, is a safety valve provided in the system.
- The pressure relief valve attached on the pump can be used for the pressure regulation of the pump, if the return conduit on the valve is connected directly with the storage tank.

Construction



- | | |
|--------------------|--------------------|
| 10 Tank connection | 50 Bearing bush |
| 20 T-Valve | 60 Shaft seal |
| 30 Gear | 70 Drive shaft end |
| 40 Pump housing | |

Materials

Pump housing	EN-GJL-250 (GG 25) or EN-GJS-400-15 (GGG 40)
Valve	EN-GJS-400-15 (GGG 40)
Gear	Steel 1.7139
Bearing bush	DU (multi-layer friction-type bearings P 10, DP 4) Bearings free of nonferrous metal on request
Shaft seal	NBR, FKM, PTFE, EPDM (other sealing materials on request. E.g. HNBR / CR)
O-ring	NBR, FKM, PTFE, EPDM (other sealing materials on request. E.g. HNBR / CR)

Characteristics

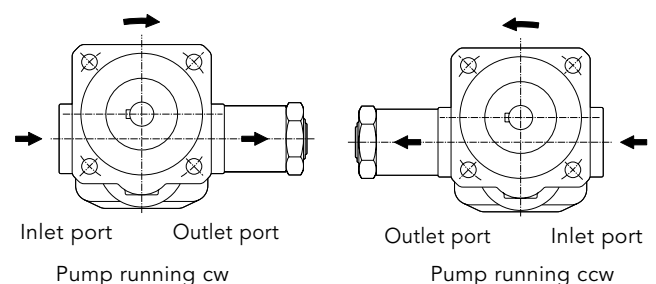
Nominal sizes 32...80 cm ³	V_g	32 / 40 / 50 / 63 / 80
Mounting position		arbitrary
Direction of rotation		right or left
Fixing type		flange (DIN ISO 3019)
Pipe connection on the pump		see datasheet transfer gear pumps KF 4...80
Pipe connection on the T-Valve		1½ SAE flange
Drive shaft end		ISO R 775 short cylindrical
Working pressure Outlet port	$p_{n \max}$	= 25 bar
Speed	n_{\min}	= 200 1/min
	n_{\max}	= 3000 1/min
Viscosity (dependent on pressure and rotational speed)	v_{\min}	= 12 mm ² /s
	v_{\max}	= 5000 mm ² /s (adapted valve specification)
Fluid temperature	$\vartheta_{m \min}$	= - 40 °C
	$\vartheta_{m \max}$	= 200 °C
Ambient temperature	$\vartheta_{u \min}$	= - 20 °C
	$\vartheta_{u \max}$	= 60 °C

Direction of Rotation

The following should be note for direction of rotation:

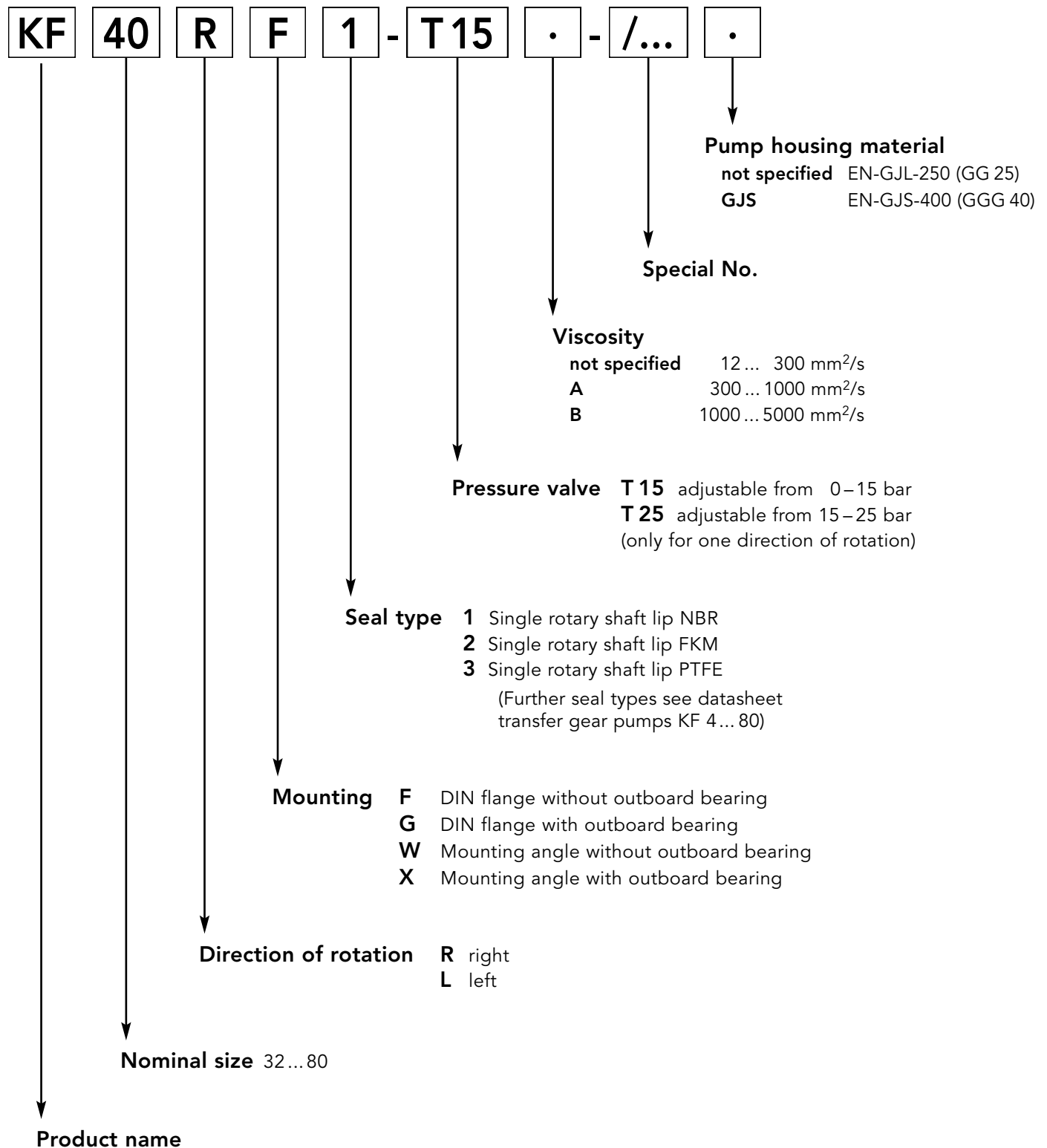
- when looking at the pump shaft end, the direction of pumping is from right to left if the shaft rotates **counterclockwise**.

With pressure relief valve



Type Key

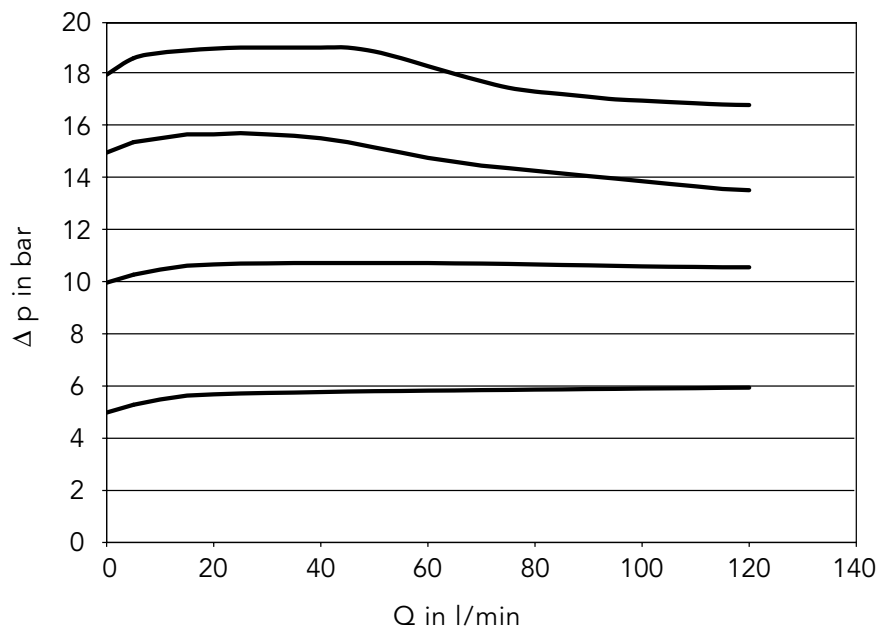
Ordering example



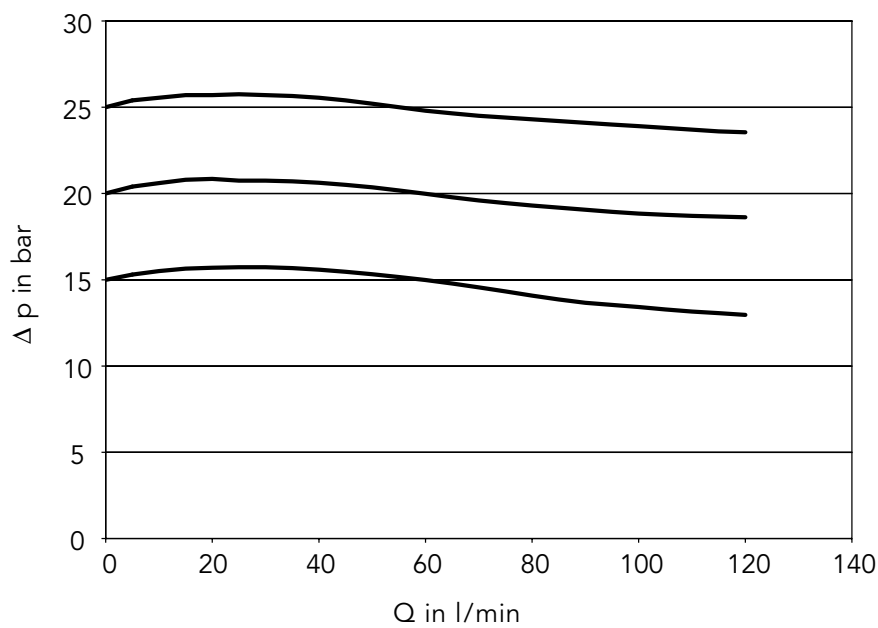
Characteristic Curves

Viscosity: 34 mm²/s
Speed: 1450 1/min

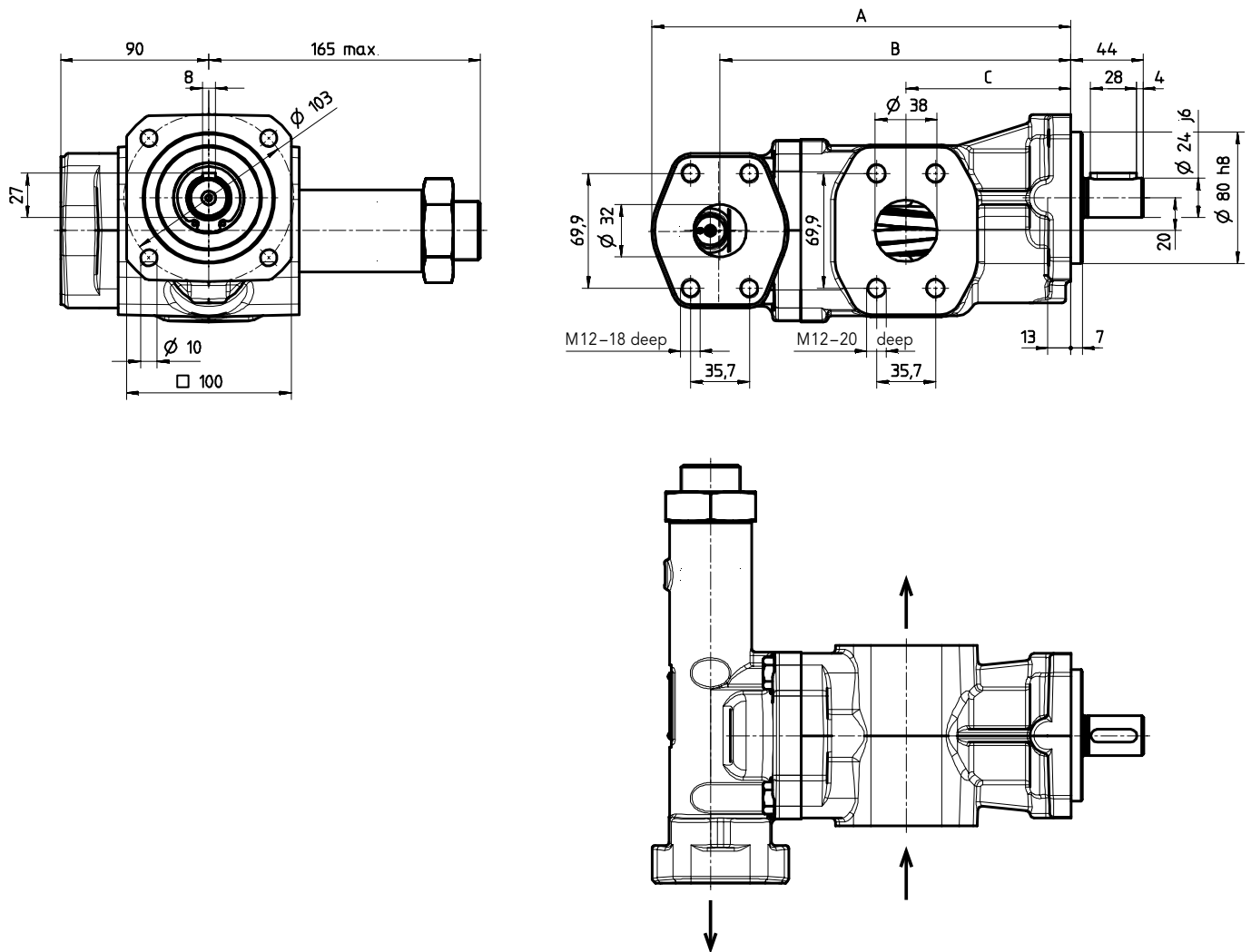
T 15



T 25



Dimensions (in mm)



Nominal displacement	A	B	C	Weight in kg
32 40 50	220	184	84	9.5
63 80	255	213	100	11.2

Note

I Gear Pumps

Low and high-pressure gear pumps for lubricating oil, hydraulic, process and test bench applications, fuel and metering systems.



I Flow Measurement

Gear, turbine and screw type flow meters and electronics for volume and flow, metering and consumption in the chemical industry, hydraulic, process and test bench technology.



I Hydraulics

Single and multistage high-pressure gear pumps, gear motors and valves for construction machinery, municipal vehicles, agricultural vehicles, special vehicles and truck bodies.



I Valves

Cetop valves for all requirements stationary and mobile applications. Pressure, switching and stop valves with pipe connection for high flow rates. Special valves.



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