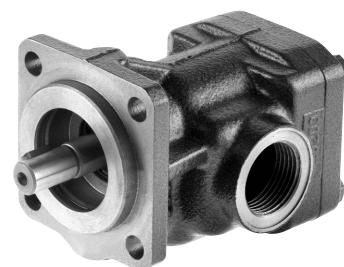


KRACHT



Transfer Gear Pumps

KF 2.5...200



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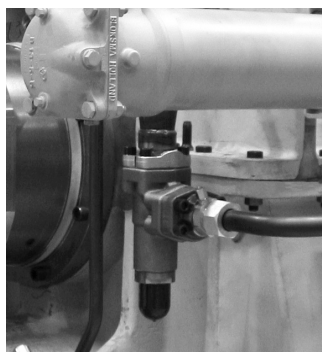
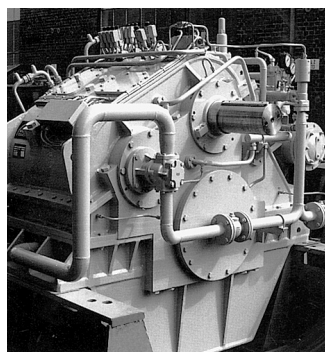
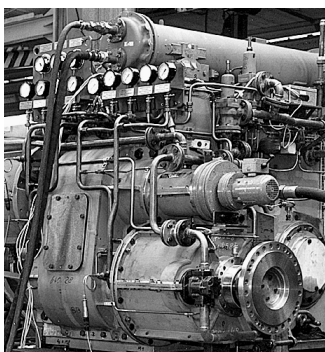
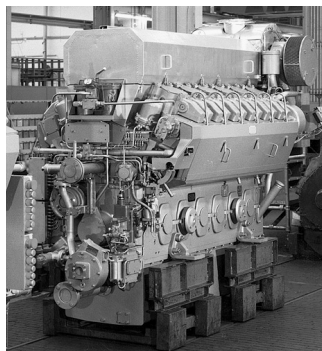
Applications, Suitable Fluids

Applications

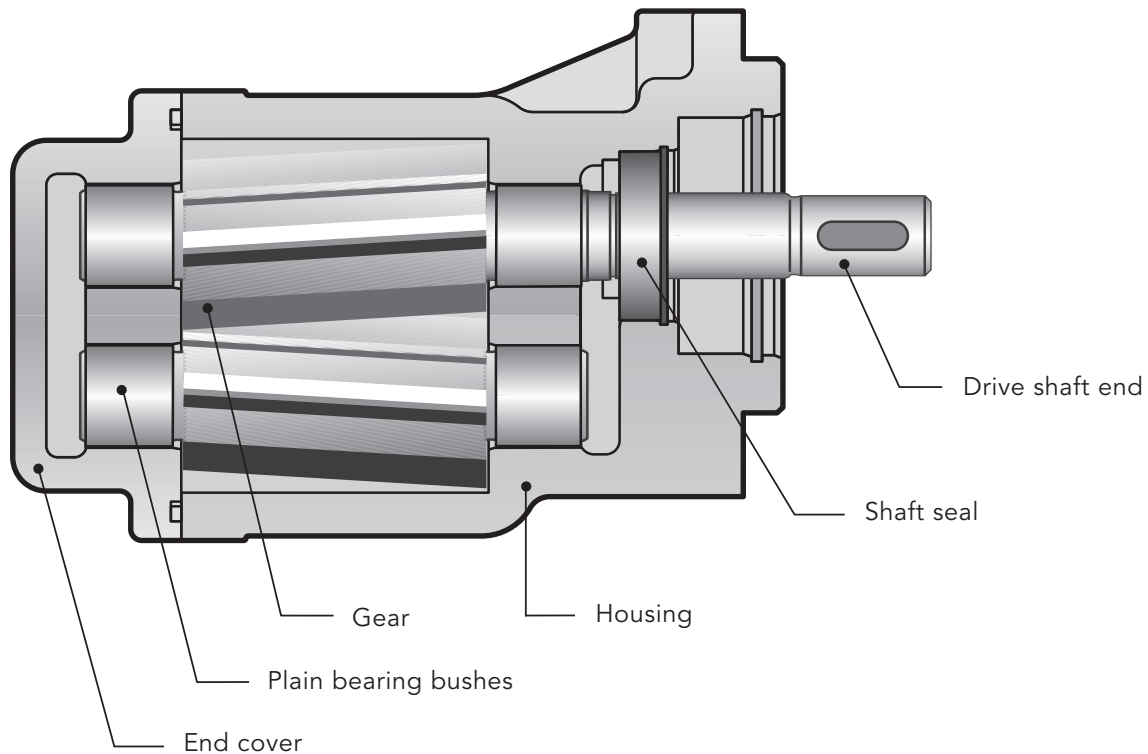
Centrifuge construction,
Coating machines, Compressors
Engine construction
Filling stations, Filter systems
Generator construction
Heat transfer systems, Heavy electrical machines
Lubricant manufacturers, Lubricating oil systems
Machine-building industry, Machine tools,
Manufacture of apparatus,
Marine engine construction,
Metal-forming machines, Metering systems
Paint industry, Plain metal bearing production,
Printing machines, PUR machinery
Refrigerators, Rubber and tire manufacturing
Tank plant construction,
Transmission building
Turbine construction
Vacuum machinery
Waste oil - disposal
- transport
- treatment

Suitable fluids

Adhesives, Antifreeze
Bore oils
Cutting oils
Diesel oils, Drawing compound
Emulsions
Fuel oils, L, EL, H
Gear oils, Grease
Hardening oils, Heat transfer media,
Heavy oils, Hydraulic fluids
Isocyanate
Lubricating oils, Lacquers
Motor oils
Paint, Paraffins, Plastics, Polyols
Printing inks, Processing oils
Resins, Rolling oils
Waste oils, Waxes



Construction



Product Features

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

Transfer gear pumps KF 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 standard housing sections are of grey 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 extremely low noise levels and reduced pressure pulsation.

Working Notes

- The fluids should ensure a certain minimum lubricating properties, should not contain solids and should be chemically compatible.
- Avoid dry operation.
- The pumps may only be operated in the specified direction of rotation, as otherwise the shaft seal will be destroyed.
- In order to prevent excessive overpressure, a safety valve should be provided in the system or on the pump.
- The pressure relief valve attached to the pump may only be used as safety valve for short-term operation.
- A separate pressure relief valve with return line to the reservoir must be foreseen, if a partial discharge flow has to be drained over a prolonged period.

Variants

- Sealing of the drive shaft:
 - Rotary shaft lip-type seal
 - Double rotary shaft lip-type seal (Quench)
 - Mechanical seal
- Outboard bearing to take up input drive-side radial load
- Pressure relief valve for pump and system
- Uniform discharge flow direction with changing direction of rotation by means of flange-mounting valve combination (universal device).

Special Design

Various shafts ends and gear units, as well as flange mounted versions, bearing alternatives, multi-stage pump combinations for your special application are available on request.

Our Sales engineers will be pleased to advise you.

Accessories

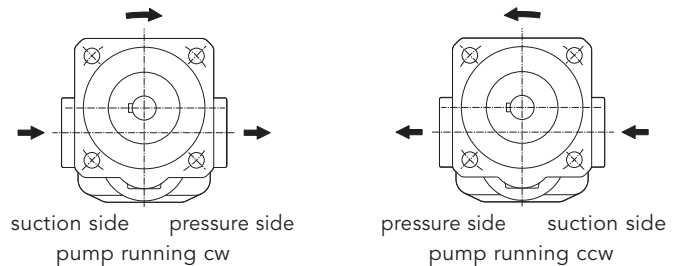
- Connecting flanges
- Couplings
- Bell housing
- Quench tank
- Attenuation elements

Direction of Rotation

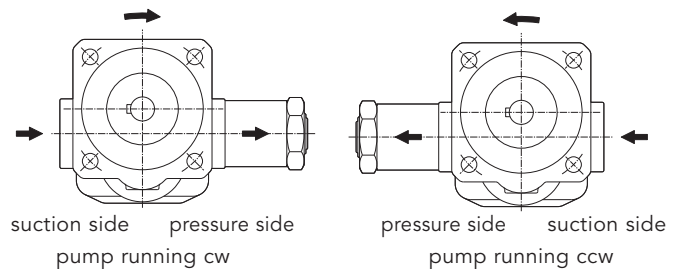
The following should be note for direction of rotation:

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

Without pressure relief valve



With pressure relief valve



With universal device

Direction of rotation right and left

Direction of rotation consistent, see dimension sheets page 18 to 21.

ATEX-Version

	KF 2,5...112 with lip-type seal	KF 2,5...112 with double lip-type seal
In Ex-area max. suitable for category	EX II 2G T4 EX II 2D T135 °C	EX II 2G T4
Perm. working pressure inlet port in bar	-0.4 ... +0.5	-0.4 ... +0.5
Perm. working pressure outlet port in bar	25	25
Perm. viscosity in mm ² /s	12 ... 20 000	12 ... 20 000
Max. speed in 1/min (viscosity dependent)	3 000	3 000
Perm. mounting position	Horizontal or shaft end toward bottom	Horizontal quencher up
Perm. media temperatures in °C	-10 ... +80	-10 ... +80
Perm. ambient temperatures in °C	-20 ... +60	-20 ... +60
Comments	Vertical mounting with shaft end up on request. In executing with outboard bearing max. speed 1500 1/min. In dust Ex-area, permissible only with non-conductive dusts. Dust-proof capsuling of pump shaft and coupling required.	Not suitable for dust-Ex. Execution with quench feed and quencher.

Additional products available on request.

Materials

Housing and cover	EN-GJL-250 (GG 25) EN-GJS-400-15 (GGG 40) on request
Gear	Steel 1.7139
Plain bearing bushes	DU (multi-layer friction-type bearings P 10, DP 4) Bearings free of nonferrous metal on request
Shaft end seals	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 2.5...200 cm ³	$V_g =$	2.5 / 4 / 5 / 6 / 8 / 10 / 12 / 16 / 20 / 25 / 32 / 40 / 50 / 63 / 80 / 100 / 112 / 125 / 150 / 180 / 200
Mounting position		KF... R/L/B ... without Quench optional KF... R/L/B ... with Quench horizontal, Quench connection above KF... U ... horizontal, Pressure connection above KF... U2...optional
Direction of rotation		right or left right and left
Fixing type		flange
Pipe connection	KF 2.5...25 KF 32...200	Whitworth pipe thread, SAE flange SAE flange
Drive shaft end		ISO R 775 short-cylindrical
Working pressure suction side		see chart page 8
Working pressure pressure side	P_n	25 bar (higher pressures on request)
Speed	KF 2.5... 63 KF 80... 180 KF 200	200 ... 3 600 1/min 200 ... 3 000 1/min 200 ... 2 500 1/min
Recommended speed		The speed of the pump must be chosen in such a way that complete pump filling is guaranteed. This is given if the relative pressure at the pump inlet does not fall below -0.4 bar (-0.6 bar briefly e.g. during cold start).
Viscosity (dependent on pressure and rotational speed)	V_{min} V_{max}	1.4... 12 mm ² /s (see table "permissible differential pressure") 20 000 mm ² /s
Fluid temperature		see chart page 8
Ambient temperature	$\vartheta_u =$	-20 °C ... 60 °C (-4 °F ... 140 °F) -30 °C... 60 °C Sealing type 23 (KF 2.5...80) -30 °C... 60 °C Sealing type 31 (KF 32...200)

Permissible Differential Pressure

Bearing	Δp_{max} [bar]		
	≥ 1.4 mm ² /s	≥ 6 mm ² /s	≥ 12 mm ² /s
Multi-layer plain bearing containing lead ⁽¹⁾ : DU®, P10	3	12	25
Multi-layer plain bearing lead-free ⁽²⁾ : DP4			
Polymer plain bearing ⁽²⁾ : Iglidur® X	-	3	10
White metal plain bearing ⁽²⁾			

(1) Standard (2) Is defined in the special number

Shaft End Seals

	Sealing material	Pressure suction side * (bar)		Fluid temperature	
		KF 2,5...80	KF 100...200	°C	°F
Pump with single rotary shaft lip	NBR/ max. 750 1/min	-0.4...6.0	-0.4...6.0	-10...90-NBR	14...194-NBR
	FKM max. 1000 1/min	-0.4...5.0	-0.4...5.0	-10...150-FKM	14...302-FKM
	max. 1500 1/min	-0.4...4.0	-0.4...3.5		
	max. 2000 1/min	-0.4...3.0	-0.4...2.5		
	max. 3000 1/min	-0.4...2.0	-0.4...1.5		
	FKM (low temperature)	-0.4...0.5		-30**...150	-22**...302
EPDM	-0.4...0.5		-10...120	14...248	
	PTFE	-0.4...2.0		-10...200	14...392
Pump with outboard bearing and single rotary shaft lip	NBR/ max. 750 1/min	-0.4...6.0	-0.4...6.0	-10...90-NBR	14...194-NBR
	FKM max. 1000 1/min	-0.4...5.0	-0.4...5.0	-10...150-FKM	14...302-FKM
	max. 1500 1/min	-0.4...4.0	-0.4...3.5		
	max. 2000 1/min	-0.4...3.0	-0.4...5.5		
	max. 3000 1/min	-0.4...2.0	-0.4...1.5		
		PTFE	-0.4...2.0		-10...200
Pump with double rotary shaft seal with connection borehole for liquid seal (quench)	NBR/ max. 750 1/min	-0.4...6.0	-0.4...6.0	-10...90-NBR	14...194-NBR
	FKM max. 1000 1/min	-0.4...5.0	-0.4...5.0	-10...150-FKM	14...302-FKM
	max. 1500 1/min	-0.4...4.0	-0.4...3.5		
	max. 2000 1/min	-0.4...3.0	-0.4...2.5		
	max. 3000 1/min	-0.4...2.0	-0.4...1.5		
		PTFE	-0.4...2.0		-10...200
Pump with double rotary shaft seal for vacuum operation with connection borehole for liquid seal (quench)	NBR	-0.9...0.2		-10...90	14...194
	FKM	-0.9...0.2		-10...150	14...302
	PTFE	-0.9...0.2		-10...200	14...392
Pump with triple rotary shaft seal for vacuum and normal operation with connection borehole for liquid seal (quench)	NBR/ max. 750 1/min	-0.9...6.0	-0.9...6.0	-10...90-NBR	14...194-NBR
	FKM max. 1000 1/min	-0.9...5.0	-0.9...5.0	-10...150-FKM	14...302-FKM
	max. 1500 1/min	-0.9...4.0	-0.9...3.5		
	max. 2000 1/min	-0.9...3.0	-0.9...2.5		
	max. 3000 1/min	-0.9...2.0	-0.9...1.5		
		FKM	-0.4...10.0		-10...150
	PTFE	-0.4...10.0		-10...200	14...392
	EPDM	-0.4...10.0		-10...120	14...248
Pump with mechanical seal and connection borehole for liquid seal (quench)	FKM	-0.4...10.0		-10...150	14...302

Speed: KF 2.5... 63 200 ... 3 600 1/min
 KF 80... 180 200 ... 3 000 1/min
 KF 200 200 ... 2 500 1/min

* short term during start-up status: -0.6 bar

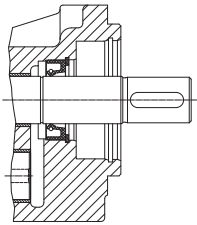
** only in connection with housing and cover material EN-GJS-400 (GGG 40)

The indicated maximum values are dependent upon the remaining working conditions.

In case of universal devices, pay attention to limitation of $P_{e \text{ min}}$.

Other sealing materials on request.

Variants Shaft End Seals

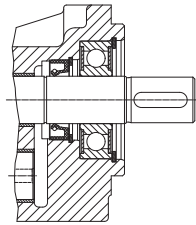


Pump with single rotary shaft lip

Fixing type: F/W

Sealing materials:

NBR = sealing type 1
 FKM = sealing type 2
 PTFE = sealing type 3
 EPDM = sealing type 9
 FKM low temperature = sealing type 23/31

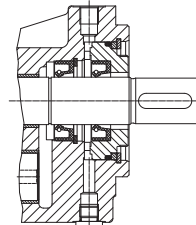


Pump with outboard bearing and single rotary shaft lip

Fixing type: G/X

Sealing materials:

NBR = sealing type 1
 FKM = sealing type 2
 PTFE = sealing type 3

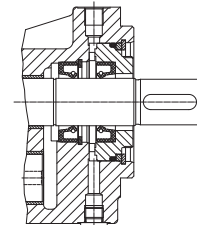


Pump with double rotary shaft seal with connection borehole for liquid seal (quench)

Fixing type: F/W

Sealing materials:

NBR = sealing type 19
 FKM = sealing type 7
 PTFE = sealing type 4
 EPDM = sealing type 32

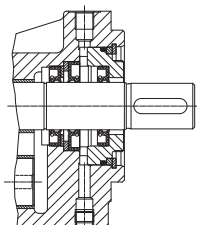


Pump with double rotary shaft seal for vacuum operation with connection borehole for liquid seal (quench)

Fixing type: F/W

Sealing materials:

NBR = sealing type 19
 FKM = sealing type 7
 PTFE = sealing type 4
 EPDM = sealing type 32
 Special number: 74

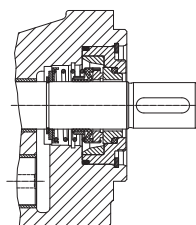


Pump with triple rotary shaft seal for vacuum and normal operation with connection borehole for liquid seal (quench)

Fixing type: F/W

Sealing materials:

NBR = on request
 FKM = on request

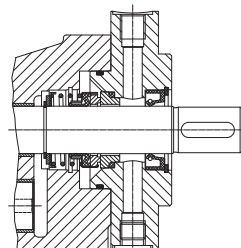


Pump with mechanical seal

Fixing type: F/W

Sealing materials:

FKM = sealing type 5
 PTFE = sealing type 6
 mechanical seal = sealing type 40

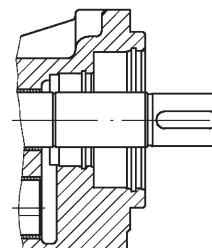


Pump with mechanical seal and connection borehole for liquid seal (quench)

Fixing type: F/W

Sealing materials:

FKM = sealing type 5
 Special number: 198



Pump without shaft sealing

Fixing type: F/W

Sealing material:

FKM o-ring = sealing type 30

KF 2.5...200 noise optimized for medias with increased air content

The noise optimized pumps in the KF series are designed for conveying for medias with increased air content, predominantly for use as lubricating oil pumps in transmissions. Special measures prevent the otherwise normally increased noise present in auriferous transmission oil. The noise levels do not exceed or only barely exceed the measurements with non-auriferous oils. Also, there is no noise spectrum shift to higher, unpleasant frequencies. In applications without auriferous portions in the media, it is not recommended to use this version as it will not bring about noise reduction effects there.

The noise optimized version of the KF pump is marked with the special number **197** at the end of the type key. Pumps with the special number **197** are built as pumps in combination with an electric motor or as mounted pumps. The pump in combination with an electric motor (Fig. 1) does not have an outboard bearing, so it has to be driven via an elastic coupling. The mounted pump (Fig. 2) comes equipped with an outboard bearing to absorb the centrifugal forces such as those which arise when using a flying pinion. Pumps for electric motor drives and mounted pumps are sealed at the shaft end using a lip-type shaft seal.

Fig. 1

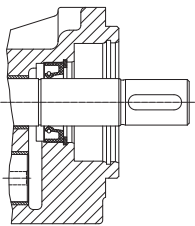
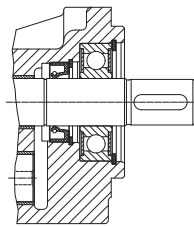


Fig. 2



Pump with single rotary shaft lip

Fixing type: F/W

Sealing materials:

NBR = sealing type 1

FKM = sealing type 2

Special number: 197

Pump with outboard bearing and single rotary shaft lip

Fixing type: G/X

Sealing materials:

NBR = sealing type 1

FKM = sealing type 2

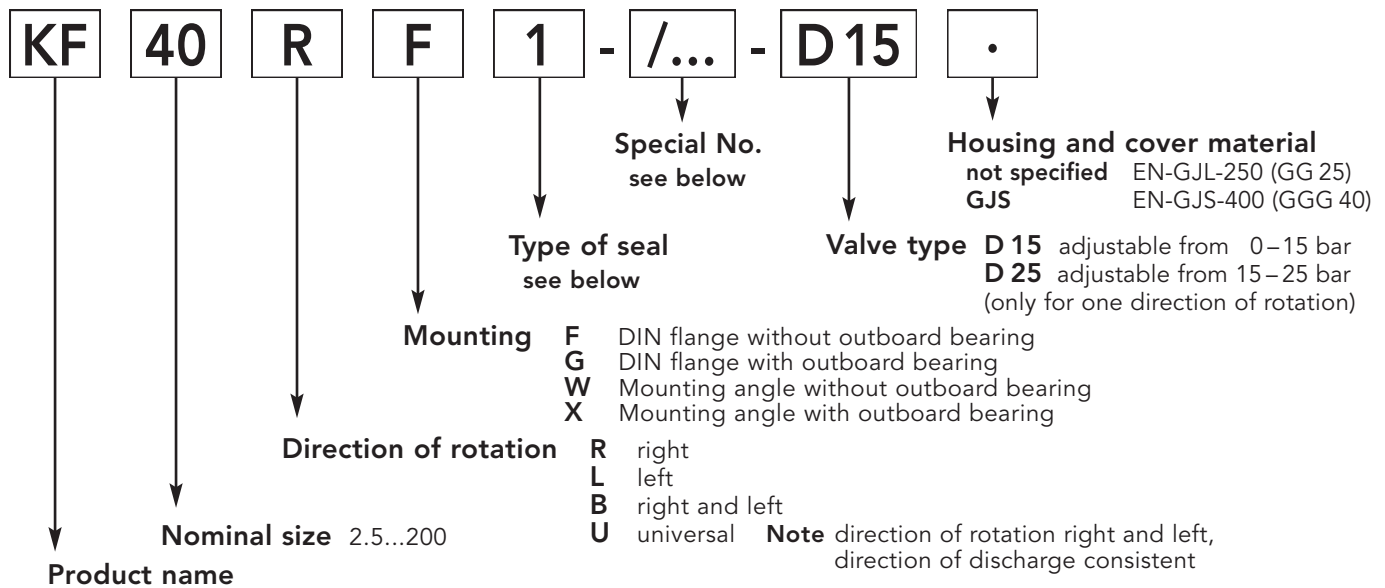
Special number: 197

The noise optimized version is also available in a ductile cast iron version. We can supply these pumps in the ATEX version also.

Note

Dimensions conformable standard pumps

Type Key (Ordering example)



Type of seal

- 1** Rotary shaft seal BABSL NBR
- 2** Rotary shaft seal BABSL FKM
- 3** Rotary shaft seal PTFE
- 4** Double rotary shaft seal PTFE
- 5** Mechanical seal with FKM secondary seals (C2S2V1G3G1)
- 6** Mechanical seal with FFKM secondary seals
Q2Q2K1G3 (KF 2.5... 25) Q2B2K1G3 (KF 32... 200)
- 7** Double rotary shaft seal BABSL FKM
- 9** Rotary shaft seal EPDM (not resistant to mineral oils)
- 19** Double rotary shaft seal BABSL NBR
- 23** Rotary shaft seal MSS-1 FKM
(low temperature) (KF 2.5... 80)
- 30** Without shaft seal ⁽¹⁾ O-ring FKM
- 31** Rotary shaft seal BABSL FKM
(low temperature) (KF 32... 200)
- 32** Double rotary shaft seal EPDM
(not resistant to mineral oils)
- 36** Without shaft seal ⁽¹⁾ O-ring NBR
- 40** Mechanical seal with FKM secondary seals (AQ2VFF)

⁽¹⁾ Leak oil discharged through the gland pocket

Special No.

- 74** Double rotary shaft seal (for vacuum operation)
Connection bore G 1/8" (for liquid seal)
- 158** KF 2.5... 12: Flange connection SAE 3/4"
KF 16... 25: Flange connection SAE 1"
- 197** Noise-optimized version for aerated oils and vacuum⁽¹⁾
- 198** Mechanical seal
KF 2.5... 25: Connection bore G 1/8" (for liquid seal)
KF 32... 80: Connection bore G 1/4" (for liquid seal)
- 232** KF 50...80: Flange connection SAE 2"
KF 100...112: Flange connection SAE 2 1/2"
KF 125...150: Flange connection SAE 3"
KF 180...200: Flange connection SAE 3 1/2"
- 304** Polymer plain bearing iglidur[®]X
(free from non-ferrous metals), $\Delta p_{max} = 10$ bar
- 317** Noise-optimized version for aerated oils and vacuum ⁽¹⁾
Polymer plain bearing iglidur[®]X
(free from non-ferrous metals), $\Delta p_{max} = 10$ bar
- 322** Triple rotary shaft seal (for normal operation + for vacuum operation)
Connection bore G 1/8" (for liquid seal)
Polymer plain bearing iglidur[®]X
(free from non-ferrous metals), $\Delta p_{max} = 10$ bar
KF 50... 80: Flange connection SAE 2"
- 353** Noise-optimized version for aerated oils and vacuum⁽¹⁾
Multi-layer plain bearing DP4 (lead-free)
- 355** Polymer plain bearing iglidur[®]X
(free from non-ferrous metals), $\Delta p_{max} = 10$ bar
Housing connection: KF 2.5... 25: as special number 158
- 363** Version for low-viscous media (housing and cover material = GJS)
Polymer plain bearing iglidur[®]X
(free from non-ferrous metals), $\Delta p_{max} = 10$ bar
Housing connection: KF 2.5... 25: as special number 158
KF 50... 200: as special number 232
- 391** Noise-optimized version for aerated oils and vacuum ⁽¹⁾
Housing connection: KF 50... 200: as special number 232
- 425** Shaft end with centre hole DIN 322-D
Outboard bearing with steel cage

⁽¹⁾ There can be a reduction in pumping capacity. Measures for noise optimisation are only feasible for one rotational direction and only effective for aerated oils or vacuum.

Technical Data

Nominal size	geom. displacement V_g cm ³ /r	Working pressure* p_b bar	Maximum pressure (pressure peaks) p_{max} bar	Speed range		Permissible load** ($n = 1500$ 1/min) F_{radial} N	Sound level dB (A)		
				n_{min} 1/min	n_{max} 1/min		$p =$ 5 bar	$p =$ 15 bar	$p =$ 25 bar
2.5	2.55	25	40	200	3600	700	≤ 65	≤ 66	≤ 67
4	4.03								
5	5.05								
6	6.38								
8	8.05								
10	10.11								
12	12.58								
16	16.09								
20	20.1								
25	25.1								
32	32.12								
40	40.21								
50	50.2								
63	63.18								
80	80.5								
100	101.5					3000	1500	≤ 67	≤ 68
112	113.5								
125	129.4								
150	155.6								
180	186.6								
200	206.2								
					2500				

Remark

* Working pressure $p_b =$ perm. sustained pressure (higher pressures on request)

** Permissible load only for version with outboard bearing. F_{radial} at centre of shaft end.

For certain working conditions, the minimum or maximum characteristics should not be used.

For example, the max. working pressure is not permissible in combination with low speed and low viscosity.

In such limit ranges, please consult us.

Sound level measured in dB(A) at 1 m distance

Sound level measured with drive motor, installation site:

Works hall, quiet sound level = 40 dB(A)

Pump assembly on rigid fastening angle,

Suction and pressure conduits: Hose

Measured with transmission oil,

Oil viscosity $\nu = 34$ mm²/s,

Speed $n = 1500$ 1/min.

Power Consumption

Speed n = 950 1/min

Discharge Q in l/min	Pressure p _b in bar								Nominal size	Pressure p _b in bar								Power consumption P in KW
	2	4	6	8	10	15	20	25		2	4	6	8	10	15	20	25	
	2.5	2.4	2.4	2.3	2.2	2.1	2	1.8		2.5	0.03	0.04	0.05	0.06	0.08	0.09	0.11	
3.7	3.7	3.6	3.6	3.6	3.5	3.4	3.3	4	0.04	0.05	0.07	0.08	0.09	0.13	0.16	0.2		
4.6	4.6	4.5	4.5	4.4	4.2	4.1	3.9	5	0.04	0.06	0.08	0.1	0.11	0.16	0.2	0.25		
5.8	5.7	5.6	5.5	5.5	5.3	5.1	4.9	6	0.05	0.07	0.09	0.12	0.14	0.19	0.25	0.3		
7.3	7.3	7.2	7.1	7	6.8	6.6	6.4	8	0.06	0.09	0.11	0.14	0.17	0.24	0.31	0.38		
9.2	9.1	9	8.9	8.8	8.5	8.2	7.9	10	0.07	0.1	0.14	0.17	0.21	0.29	0.38	0.47		
11.4	11.3	11.2	11.1	11	10.8	10.5	10.3	12	0.08	0.12	0.16	0.21	0.25	0.36	0.47	0.58		
14.2	14	13.8	13.6	13.4	12.9	12.3	11.8	16	0.09	0.15	0.2	0.26	0.31	0.45	0.6	0.74		
18	17.6	17.3	16.9	16.6	15.7	14.9	14	20	0.1	0.18	0.25	0.32	0.39	0.56	0.74	0.92		
22.8	22.5	22.3	22	21.7	21.1	20.4	19.8	25	0.12	0.21	0.3	0.39	0.48	0.7	0.92	1.14		
29	28	27	27	26	25	23	22	32	0.16	0.3	0.4	0.5	0.6	0.9	1.2	1.5		
36	36	35	34	34	32	30	28	40	0.25	0.4	0.5	0.6	0.8	1.1	1.5	1.8		
45	44	43	42	41	39	36	34	50	0.3	0.5	0.6	0.8	1	1.4	1.9	2.3		
57	56	54	53	52	50	46	43	63	0.4	0.6	0.8	1	1.2	1.8	2.4	2.9		
74	73	72	71	70	67	65	62	80	0.6	0.8	1.1	1.4	1.6	2.3	3	3.7		
92	90	88	86	84	79	73	67	100	0.7	1	1.3	1.6	1.9	2.7	3.6	4.5		
102	99	97	94	91	84	77	70	112	0.9	1.2	1.6	2	2.4	3.3	4.3	5.2		
114	112	109	106	103	96	89	82	125	1	1.4	1.8	2.3	2.8	3.9	5	6.1		
139	137	134	132	129	123	116	110	150	1.1	1.6	2.1	2.6	3.2	4.5	5.8	7.2		
169	166	163	160	156	148	140	132	180	1.2	1.8	2.4	3	3.6	5.1	6.6	8.1		
187	184	180	177	174	167	159	151	200	1.4	2.1	2.8	3.4	4	5.7	7.3	9		

Speed n = 1450 1/min

Discharge Q in l/min	Pressure p _b in bar								Nominal size	Pressure p _b in bar								Power consumption P in KW
	2	4	6	8	10	15	20	25		2	4	6	8	10	15	20	25	
	3.6	3.6	3.5	3.5	3.5	3.4	3.3	3.2		2.5	0.04	0.05	0.08	0.1	0.12	0.14	0.16	
5.7	5.7	5.6	5.6	5.5	5.4	5.4	5.3	4	0.06	0.08	0.16	0.12	0.15	0.2	0.25	0.3		
6.9	6.8	6.8	6.7	6.7	6.6	6.5	6.4	5	0.07	0.1	0.12	0.15	0.19	0.27	0.35	0.43		
8.9	8.8	8.8	8.7	8.6	8.4	8.2	8	6	0.08	0.11	0.115	0.18	0.22	0.32	0.39	0.47		
11.3	11.2	11.1	11	10.9	10.8	10.6	10.4	8	0.09	0.14	0.18	0.22	0.26	0.37	0.47	0.58		
14.2	14.1	14.1	13.8	13.7	13.4	13.1	12.8	10	0.11	0.16	0.21	0.27	0.32	0.45	0.58	0.72		
17.6	17.5	17.4	17.3	17.2	16.9	16.7	16.5	12	0.12	0.19	0.26	0.32	0.39	0.55	0.72	0.89		
22.2	21.9	21.7	21.4	21.2	20.5	19.9	19.3	16	0.16	0.26	0.37	0.47	0.57	0.82	1.08	1.33		
27.9	27.5	27.1	26.8	26.4	25.5	24.5	23.6	20	0.17	0.28	0.39	0.49	0.6	0.87	1.14	1.41		
35.3	35	34.7	34.4	34.1	33.3	32.6	31.8	25	0.24	0.34	0.47	0.61	0.74	1.08	1.41	1.75		
45	44	43	43	42	41	39	37	32	0.3	0.5	0.7	0.8	1	1.4	1.9	2.3		
57	56	55	55	54	52	50	48	40	0.4	0.6	0.9	1.1	1.3	1.8	2.3	2.9		
70	69	68	67	66	64	61	58	50	0.5	0.8	1.1	1.3	1.6	2.3	2.9	3.6		
88	87	86	85	84	81	78	75	63	0.7	1	1.3	1.7	2	2.9	3.7	4.5		
114	113	112	111	100	107	104	102	80	0.94	1.35	1.8	2.2	2.6	3.6	4.6	5.7		
144	142	140	138	136	131	125	120	100	1.2	1.6	2	2.5	3	4.3	5.7	7		
161	159	156	153	150	144	137	130	112	1.4	2	2.6	3.1	3.7	5.2	6.7	8.2		
181	178	175	172	169	162	155	147	125	1.7	2.3	2.9	3.6	4.2	5.8	7.4	9		
218	216	213	211	209	203	197	191	150	2	2.7	3.5	4.2	5	6.9	8.9	11		
264	261	257	254	251	242	234	226	180	2.3	3.2	4.1	5	5.9	8.2	10.4	12.7		
293	290	287	283	280	272	264	256	200	2.6	3.6	4.6	5.6	6.6	9.1	11.6	14		

The ratings refer to a mineral oil with a viscosity of 34 mm²/s.

Margin of error for the flow Q + 2.5 % ... - 5 % of the tabular value. For viscosity < 30 mm²/s, take a reduction of the rated flow Q into account.

The output of the drive motor should be selected 20 % higher than tabular value P.

For viscosity > 100 mm²/s, an increase in the required power is necessary, in this case proceed as per description on page 15.

Discharge Flow / Input Power

Calculation

$$P_{1Pu} = P_{tab} \cdot \frac{n}{1450} + f_v \cdot Q$$

P_{1Pu} = pump power consumption (kW)
 P_{tab} = power consumption per table (kW) at 1450 1/min
 n = speed (1/min)
 dependent on viscosity!
 (see speed recommendation)
 f_v = viscosity factor $\left[\frac{\text{kW}}{\text{l/min}} \right]$
 (see diagram)
 $Q = \frac{V_g \cdot n}{1000}$
 V_g = geometrical displacement (cm^3/r)

Example: Pump type KF 80

Viscosity $v = 3000 \text{ mm}^2/\text{s}$
 Working pressure $p = 15 \text{ bar}$
 at $P_{tab} = 3.6 \text{ kW}$
 $n = 500 \text{ 1/min}$
 $f_v = 0.017 \frac{\text{kW}}{\text{l/min}}$
 $Q = \frac{80.5 \cdot 500}{1000} = 40 \text{ l/min}$
 becomes
 $P_{1Pu} = \left(3.6 \cdot \frac{500}{1450} + 0.017 \cdot 40 \right) \text{ kW}$
 $P_{1Pu} = 1.92 \text{ kW}$
 Motorpower output: $P_{2Mot} = 1.2 \cdot P_{1Pu} = 2.3 \text{ kW}$
 Select helical geared motor with $P = 3.0 \text{ kW}$
 $n = 500 \text{ 1/min}$

Conversion factors

$1 \text{ bar} \triangleq 14.5 \frac{\text{lb}}{\text{in}^2} = 14.5 \text{ psi}$
 $1 \frac{\text{l}}{\text{min}} \triangleq 0.220 \frac{\text{gal}}{\text{min}} = [\text{U.K.}]$
 $1 \frac{\text{l}}{\text{min}} \triangleq 0.264 \frac{\text{gal}}{\text{min}} = [\text{US}]$

Input Power

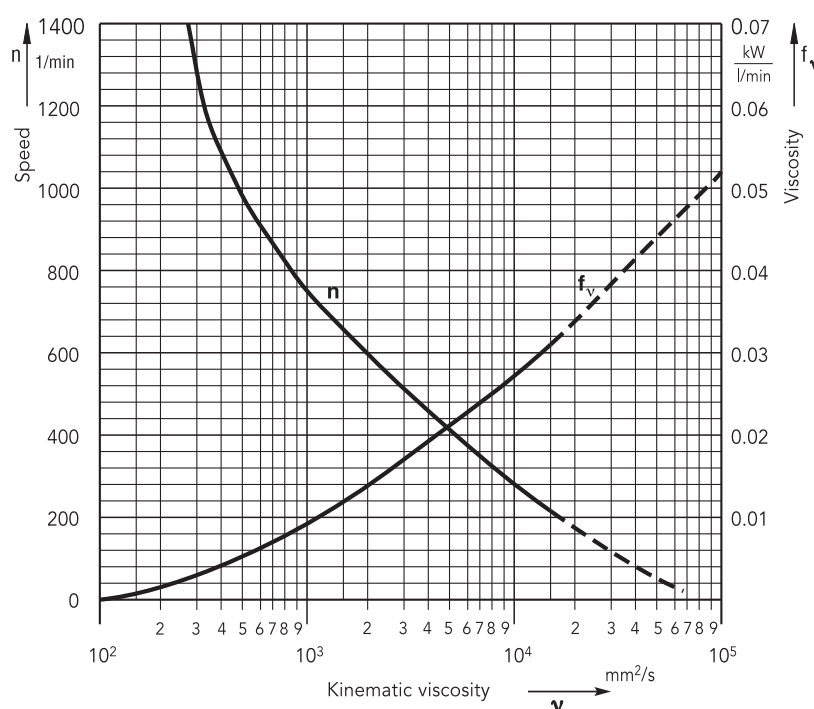


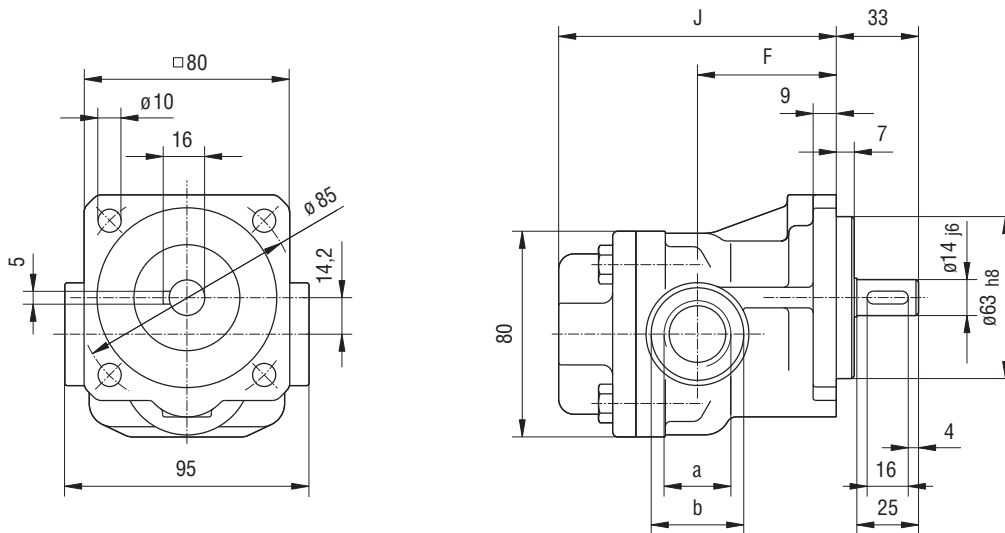
Diagramm: $n, f_v = f(v)$

Note:

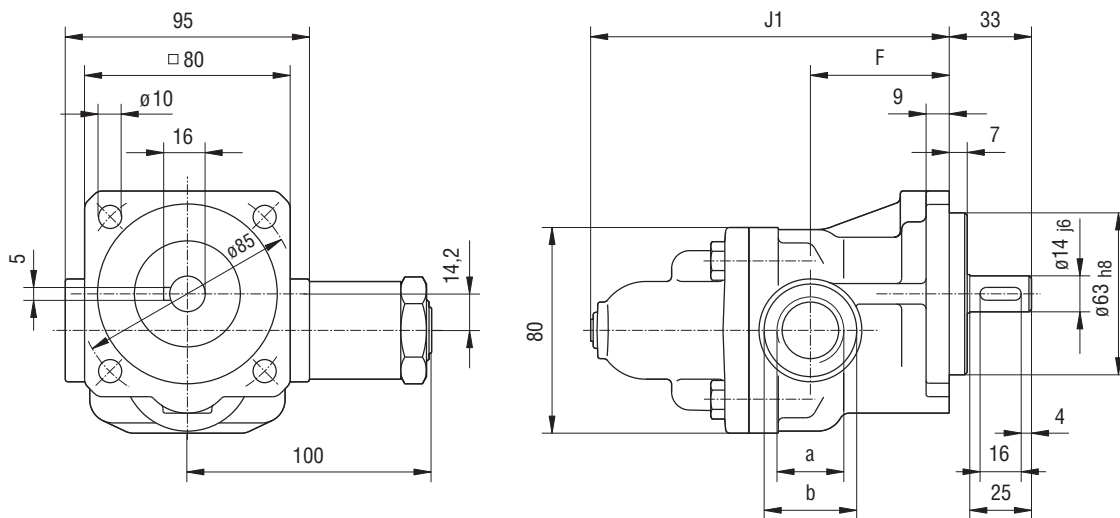
To determine the power consumption, always take the max. working viscosity at starting state into consideration. The power of the drive motor should be selected 20% higher than the value determined.

Flange-Mounting Version with Pipe Thread

KF 2.5... 25



KF 2.5... 25 with pressure relief valve

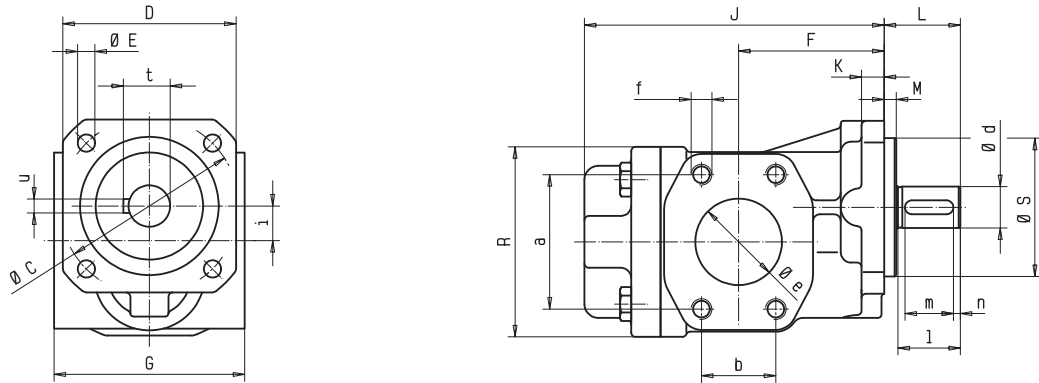


Nominal size	Suction and pressure connection		F	J	J ₁	Weight in kg	
	a	b				without valve	with valve
2,5...12	G 3/4 17 deep	Ø 36	54	109	140	2.9	3.7
16...25	G 1 19 deep	Ø 42	63	131	161	3.5	4.3

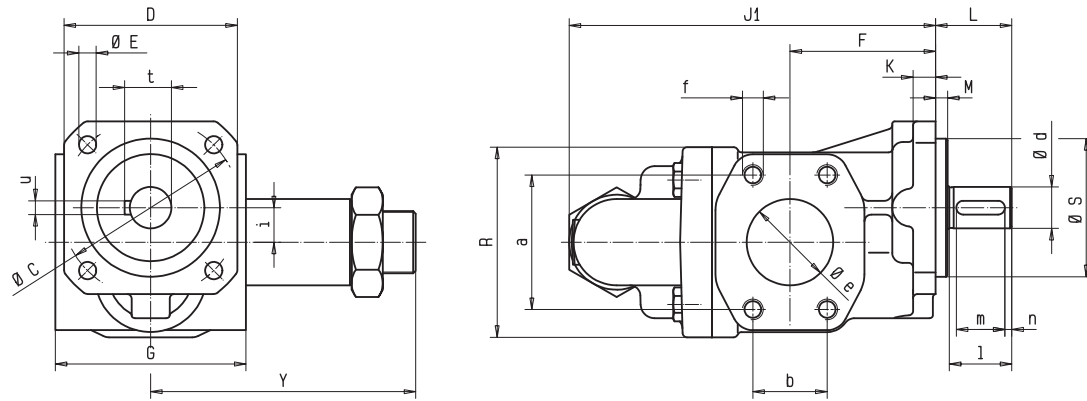
(Dimensions in mm)

Flange-Mounting Version with SAE-Connection

KF 2.5...200



KF 2.5...200 with pressure relief valve

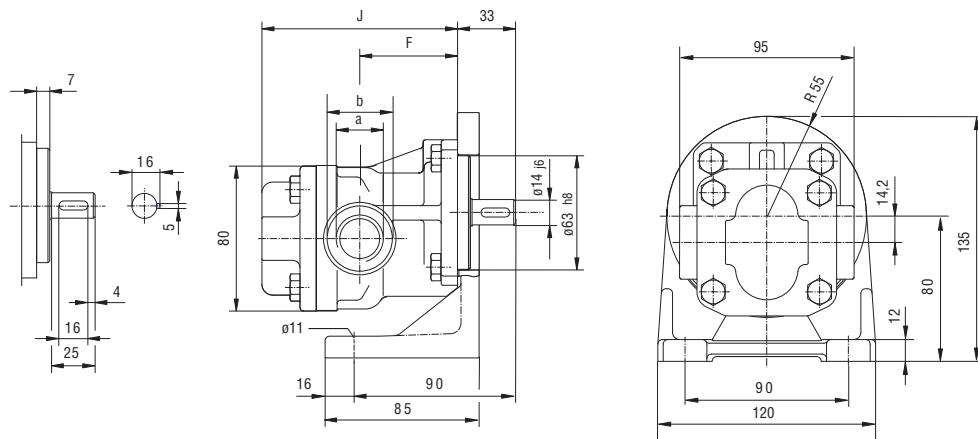


Nominal size	Sp.-No.	SAE	Seal	Suction- and pressure connection		Pump sizes															Shaft end						Weight in kg							
				a	b	e	f	C	D	E	F	G	J	J ₁	K	L	M	R	S _{h8}	i	Y	d _{j6}	l	m	n	t	u	without valve	with valve					
2.5...12	158	3/4"	-	47.6	22.2	19.5	M10-15deep	85	80	10	54	109	140																	4.2	5.0			
16...25	158	1"	-	52.4	26.2	25.0	M10-17deep				63	131	162	9	33	7	80	63	14,2	100	14	25	16	4	16	5			4.8	5.6				
32...50	-	1 1/2"	-	69.9	35.7	38.0					84	110	173	212																7.7	9.5			
63/80	-	1 1/2"	-					103	100	10	100	208	247	13	44	7	110	80	20	153	24	36	28	4	27	8			9.4	11.2				
50	232	2"	-			50.0					84	173	212																	7.7	9.5			
63/80	232	2"	-	77.8	42.9		M12-20deep				100	208	247																	9.4	11.2			
100/112	-	2"	-			50.8															28	50	40	5	31									
100/112	-	2"	31																		24	36	28	4	27					16.0	18.7			
100/112	232	2 1/2"	-								102	130	220.5	262.5	17							28	50	40	5	31								
100/112	232	2 1/2"	31	88.9	50.8	63.5															24	36	28	4	27									
125/150	-	2 1/2"	-																			28	50	40	5	31								
125/150	-	2 1/2"	31					145	135	14											24	36	28	4	27					22.2	24.9			
125/150	232	3"	-																			28	50	40	5	31								
125/150	232	3"	31	106.4	61.9	76.2					150			18	46		159				24	36	28	4	27									
180/200	-	3"	-																			28				31								
180/200	-	3"	31				M16-32deep														24				27									
180/200	232	3 1/2"	-								130	262	299	60								28				31								
180/200	232	3 1/2"	31	120.7	69.9	88.9															24	50	40	5	27									

(Dimensions in mm)

Pump with Mounting Angle, Pipe Thread

KF 2,5...25

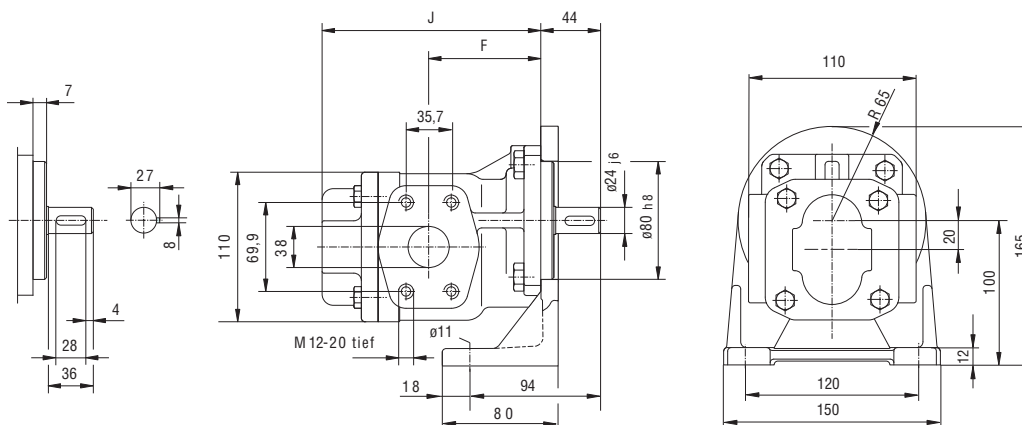


Nominal size	Suction and pressure connection		F	J	Weight in kg
	a	b			
2,5...12	G 3/4 17 deep	Ø 36	54	109	4,2
16...25	G 1 19 deep	Ø 42	63	131	4,8

(Dimensions in mm)

Pump with Mounting Angle, Pipe Thread, SAE 1 1/2-connection

KF 32... 80

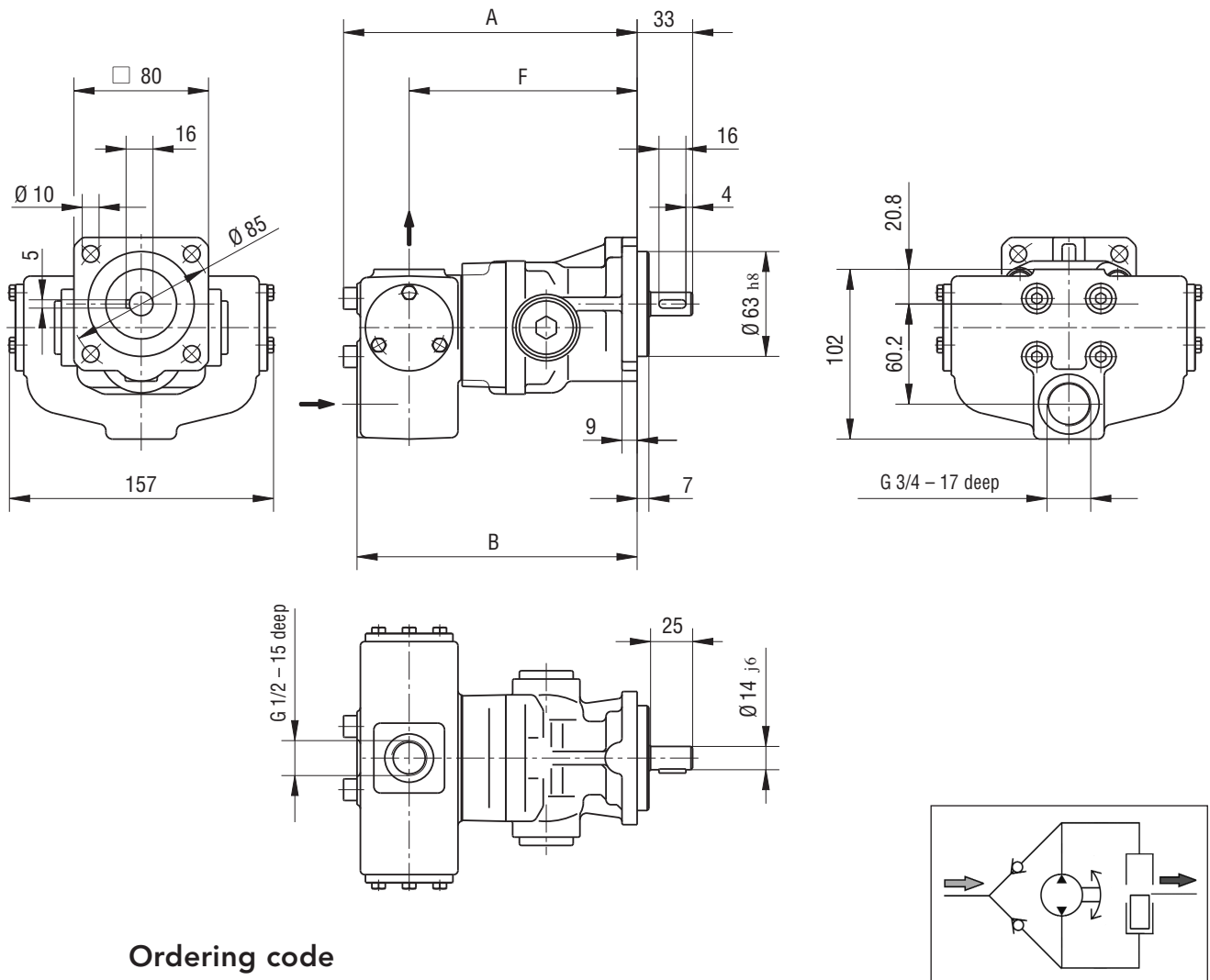


Nominal-size		F	J	Weight in kg
32...50	SAE 1 1/2	84	173	9.5
63 / 80	SAE 1 1/2	100	208	11.2

(Dimensions in mm)

Flange-Mounting Version with Universal Arrangement

KF 2.5...25



Ordering code

KF . UF .

Seals $\frac{1}{2}$

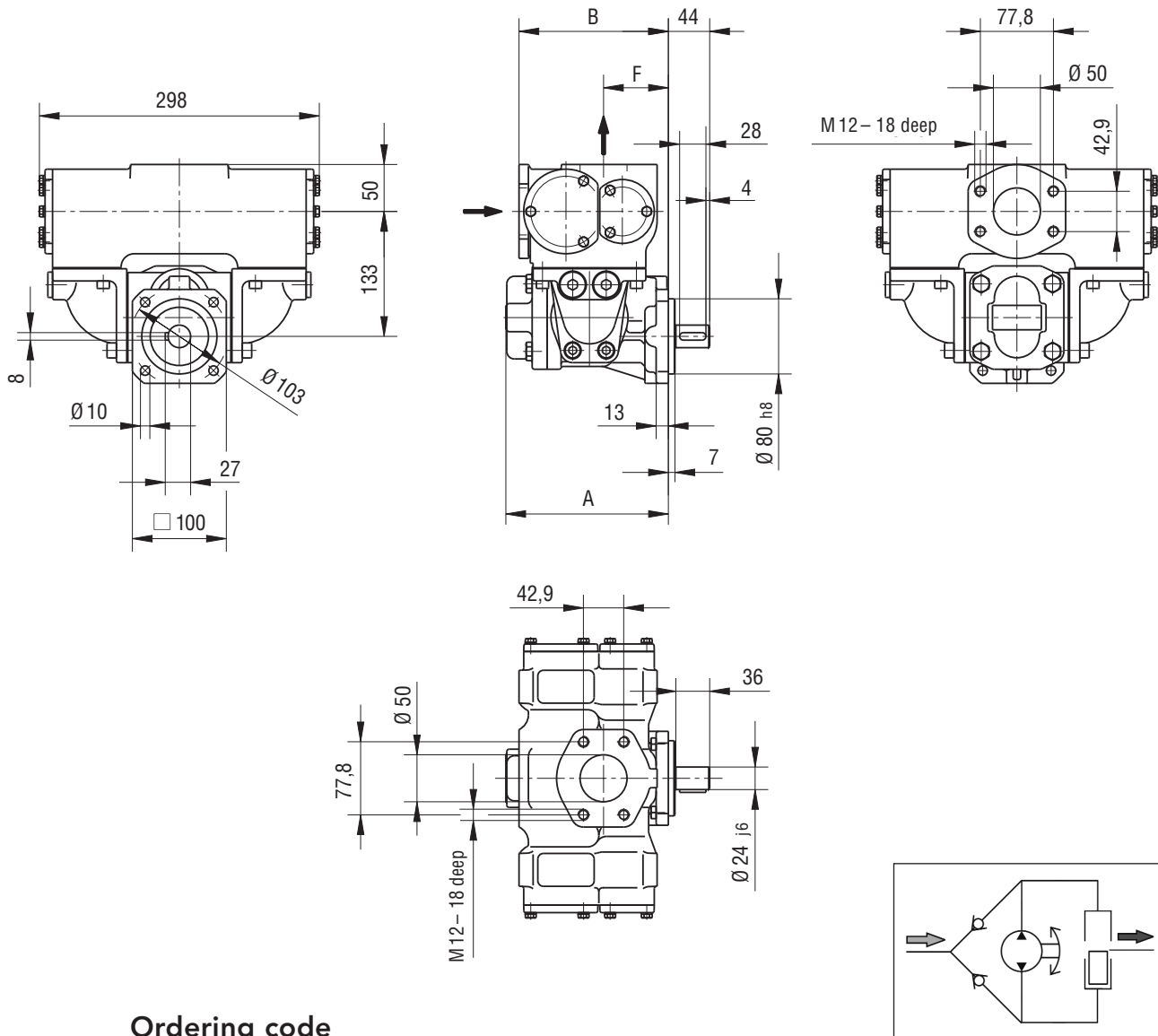
Nominal size	A	B	F	Weight in kg	Perm. manometr. low pressure at the pump suction connection p_e bar
2.5					0.35
4					
5					
6	174.5	166.5	135.5	6.9	
8					
10					
12					
16					
20	196.5	188.5	157.5	7.5	
25					

(Dimensions in mm)

Mounting position horizontal, Pressure connection above

Flange-Mounting Version with Universal Arrangement

KF 32 ... 80



Ordering code

KF . UF .

Seals ¹/₂

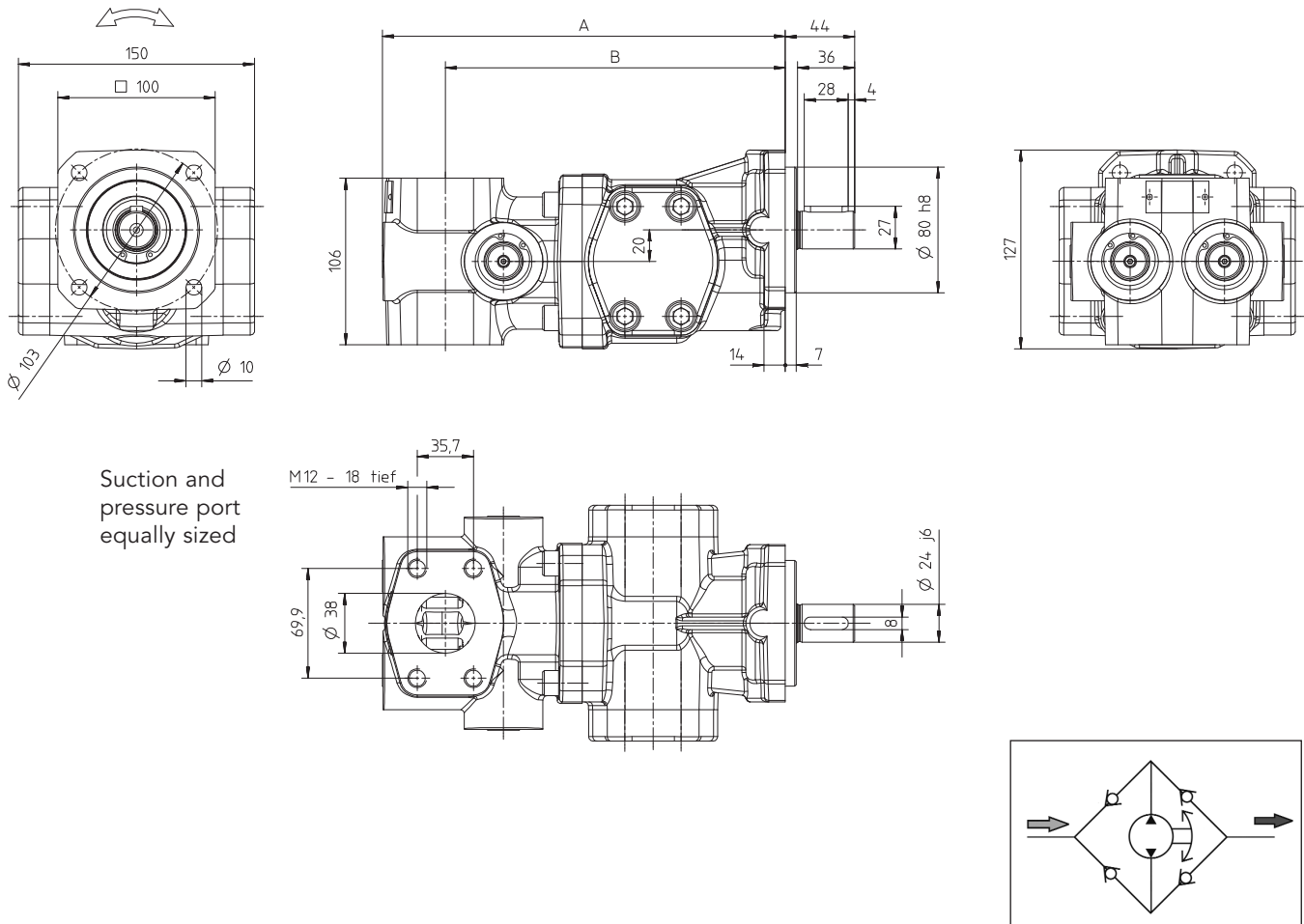
Nominal size	A	B	F	Weight in kg	Perm. manometr. low pressure at the pump suction connection p_e bar
32 40 50	173	159	69	27.5	0.35
63 80	208	175	85	29.5	

(Dimensions in mm)

Mounting position horizontal, Pressure connection above

Flange-Mounting Version with Universal Arrangement U2

KF 32...80



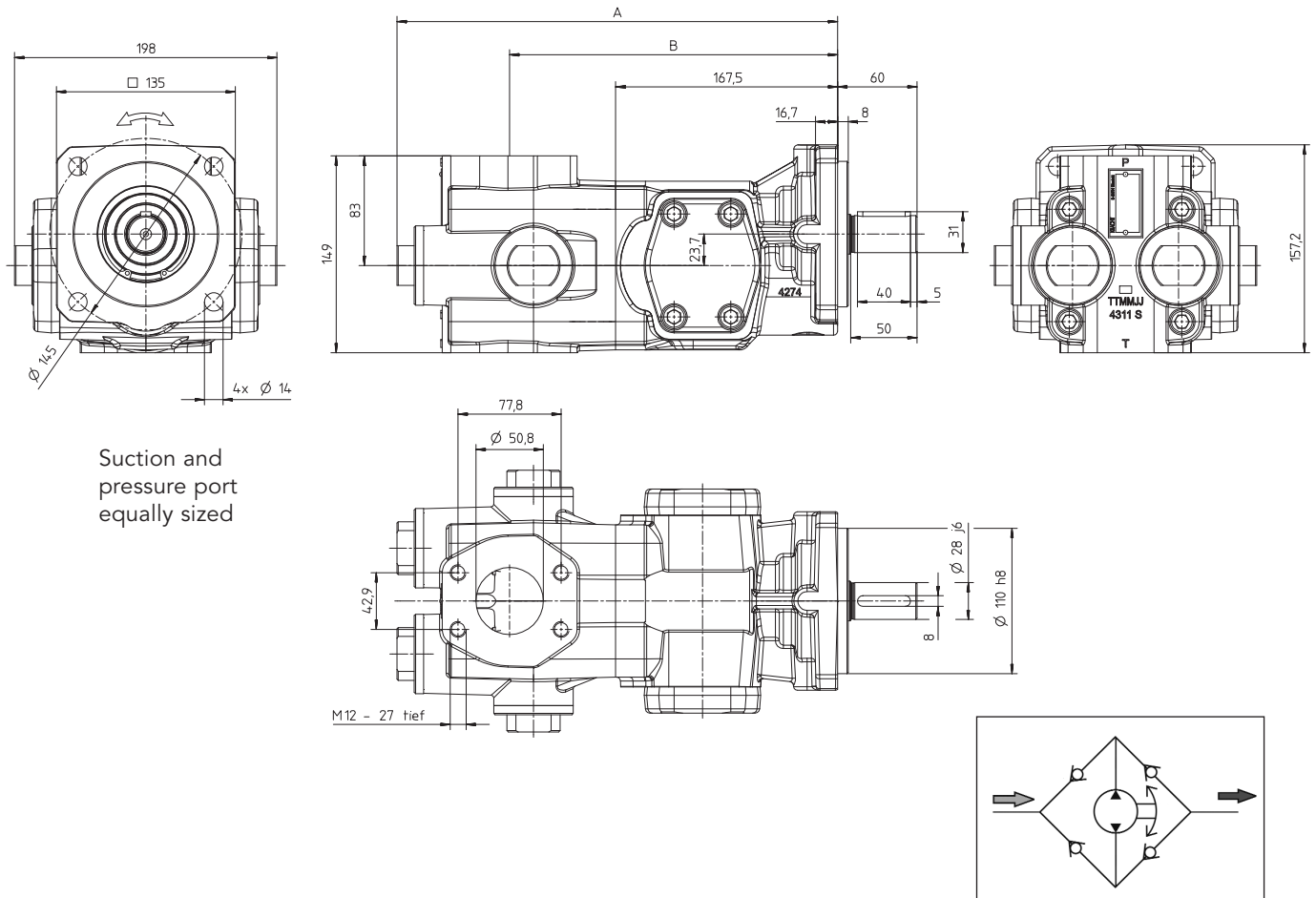
Nominal displacement	A	B	Weight in kg
32			
40	256	216	15.5
50			
63	291	251	17.5
80			

(Dimensions in mm)

Mounting position optional

Flange-Mounting Version with Universal Arrangement U2

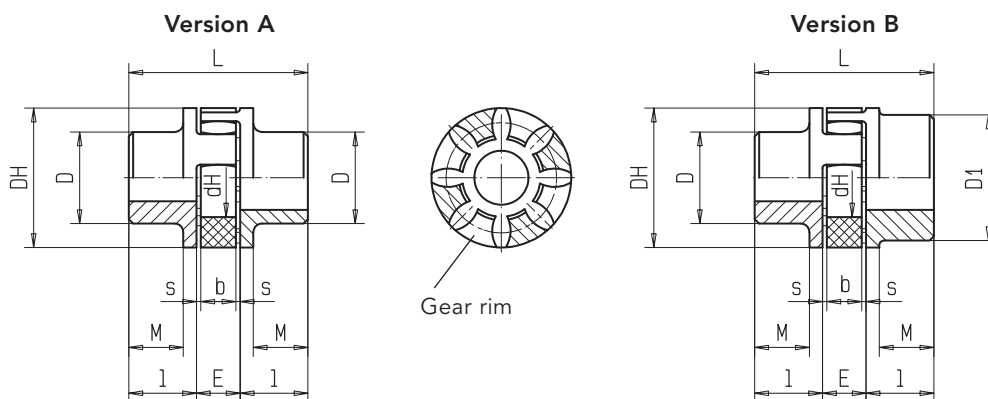
KF 100/112



Nominal displacement	A	B	Weight in kg
100 112	312,5	247,5	21.6

(Dimensions in mm)
Mounting position optional

Accessory Couplings



	Ordering code	Coupling size	Weight kg	Moment of inertia kgm ²	Pre bore		Finished bore		Dimensions (in mm)											
					part 1	part 2	min. part 1	max. part 2	l	E	s	b	L	M	DH	D	D ₁	dh		
Version A	RA 19-Z25/...-Z25/..	19	0.117	0.00003	4	-	6	-	19	-	25	16	2	12	66	20	40	32	-	18
	RA 24-Z30/...-Z30/..	24	0.24	0.00008	6	-	8	-	24	-	30	18	2	14	78	24	55	40	-	27
	RA 28-Z30/...-Z30/..	28	0.39	0.0002	8	-	10	-	28	-	30	20	2.5	15	80	28	65	48	-	30
Version B	RA 19/24-Z25/...-Z25/..	19/24	0.129	0.00004	4	17	6	19	19	24	25	16	2	12	66	20	40	32	-	18
	RA 24/28-Z30/...-Z30/..	24/28	0.26	0.0001	6	22	8	24	24	28	30	18	2	14	78	24	55	40	-	27
	RA 28/38-Z35/...-Z35/..	28/38	0.46	0.0003	8	26	10	28	28	38	35	20	2.5	15	90	28	65	48	-	30
	RA 38/45-Z45/...-Z45/..	38/45	0.89	0.0008	10	36	12	38	38	45	45	24	3	18	114	37	80	66	-	38
	RA 42/55-Z50/...-Z50/..	42/55	1.39	0.0018	12	40	14	42	42	55	50	26	3	20	126	40	95	75	-	46
	RG 42/55-Z50/...-Z75/..	42/55	3.57	0.005	12	40	14	42	42	55	50/75	26	3	20	151	40	95	75	-	46

Type Key KF Coupling

Ordering example

R.* 38 - Z 45/38 - Z 45/38

Coupling size

Pump side cylindrical

Motor side cylindrical

coupling hub length and hub bore

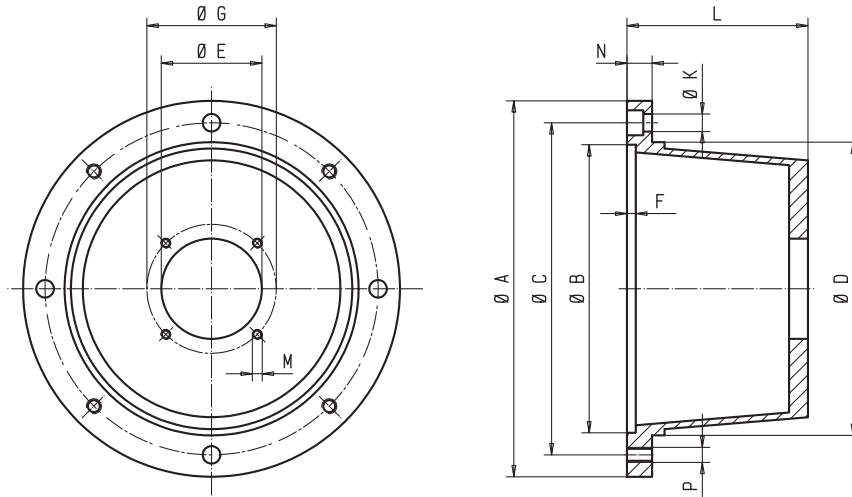
.*	Hub material
A	AL
G	GG

Working temperature:
-20 °C to +80 °C (-4 °F to 176 °F)
(short duration temperature peaks up to 120 °C / 248 °F are permissible).

Weights and mass moments of inertia refer to max. finish machined bore without slot.
Finish-machined bores to ISO Fit H7, parallel key slots in accordance with DIN 6886 Sh.1.

Bell Housing

KF 2,5 ... 25 Aluminum bell housing



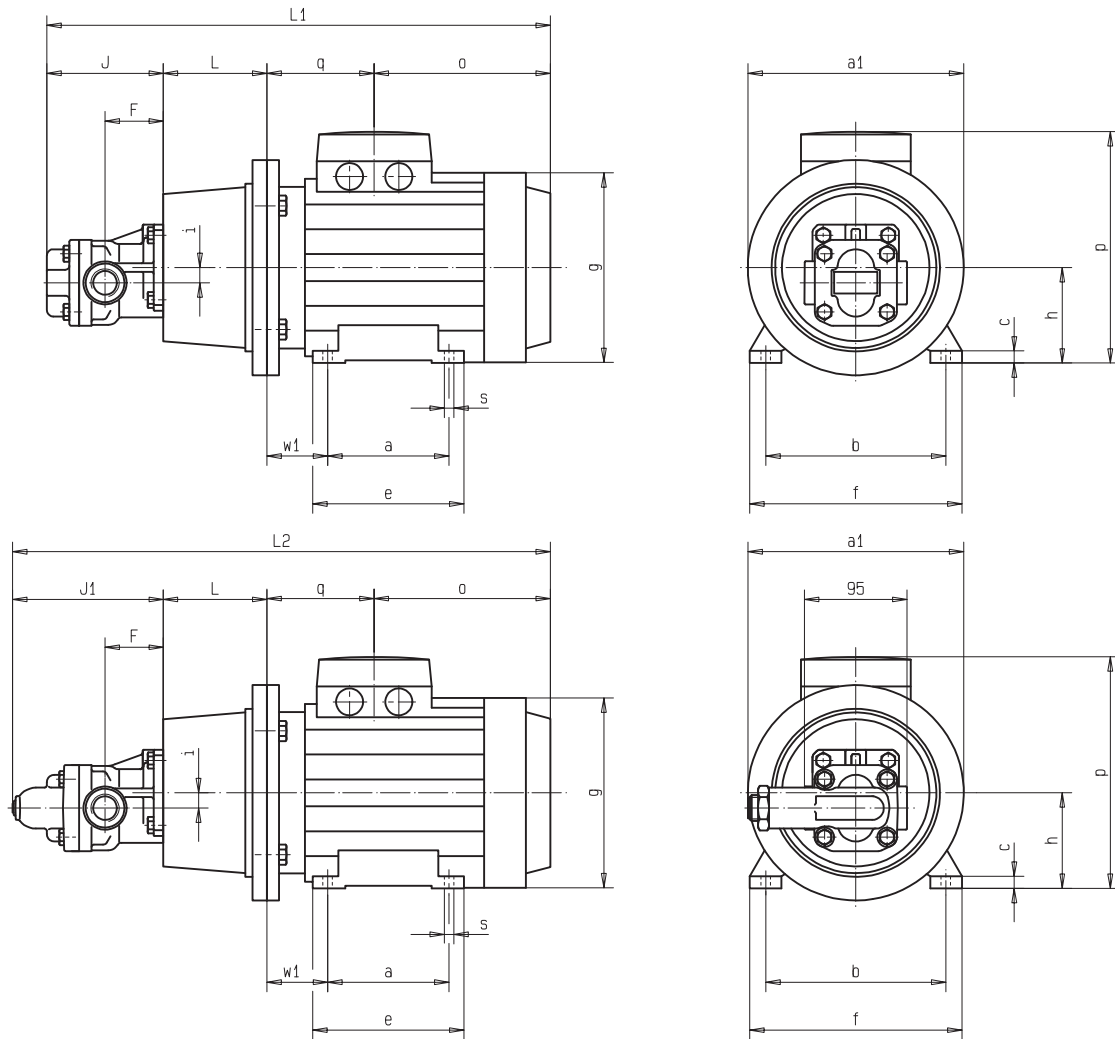
	Motor size	Bell housing	Coupling	Dimensions (in mm)												Weight
				A	B	C	D	E	F	G	K	L	M	N	P	
KF 2,5...25	71 S	PT160-A-063-80	RA19-Z25/14-Z25/14	160	110	130	110	63	7	85	9	80	M8	13	M8	1.01
	71															
	80 S	PT200-A-063-100	RA19-Z25/14-Z25/19	200	130	165	145	63	7	85	11	100	M8	16	M10	1.06
	80															
	90 S	PT200-A-063-100	RA19/24-Z25/14-Z25/24	200	130	165	145	63	7	85	11	100	M8	16	M10	1.06
	90 L															
	100 LS	PT250-A-063-120	RA24/28-Z30/14-Z30/28	250	180	215	190	63	7	85	14	120	M8	19	M12	1.75
100 L																
112 M																
KF 32...80	80 S	PT200-A-080-100	RA19/24-Z25/24-Z25/19	200	130	165	145	80	7	103	11	100	M8	16	M10	1.41
	80															
	90 S	PT200-A-080-110	RA24-Z30/24-Z30/24	200	130	165	145	80	7	103	11	110	M8	16	M10	1.19
	90 L															
	100 LS	PT250-A-080-124	RA24/28-Z30/24-Z30/28	250	180	215	190	80	7	103	14	124	M8	19	M12	1.42
	100 L															
	112 M															
	132 S	PT300-A-080-144	RA28/38-Z35/24-Z35/38	300	230	265	234	80	7	103	14	144	M8	20	M12	2.10
	132 M															
160 M	PT350-A-080-188	RA38/45-Z45/24-Z45/42	350	250	300	260	80	7	103	18	188	M8	26	M16	3.05	
160 L																
KF 100...200	100 L	PT250-A-110-135	RA24/28-Z30/28-Z30/28	250	180	215	190	110	7	145	14	135	M12	18	M12	1.4
	112 M		* RS24/28-Z30/24-Z30/28													
	132 S	PT300-A-110-168	RA28/38-Z35/28-Z35/38	300	230	265	234	110	7	145	14	168	M12	20	M12	2.0
	132 M		* PT300-A-110-144													
	132	** PT300-A-110-168	** RS28-Z35/24-Z60/38									* 144				* 1.6
	160 M	PT350-A-110-188	RA38/45-Z45/28-Z45/42	350	250	300	260	110	7	145	18	188	M12	26	M16	2.9
	160 L		* RS38/45-Z45/24-Z45/42													
	180 M	PT350-A-110-204	RA42/55-Z50/28-Z50/48	350	250	300	260	110	7	145	18	204	M12	26	M16	3.0
	180 L		* RG42/55-Z50/24-Z75/48													
180	** RG42/55-Z50/24-Z50/48															

* Version seal 31 (KF 100... 150)

** Version seal 31 (KF 180... 200)

Motor-Pump Assemblies with Pipe Thread

KF 2.5... 25



with pressure relief valve

KF 2.5... 25 Pump sizes (in mm)

Nominal size	Pump sizes		
	F	J	J ₁
2.5...12	54	109	140
16...25	63	131	162

Motor-Pump Assemblies with Pipe Thread

KF 2.5...25

Frame size	Power Motor 6 pole		Power Motor 4 pole		Bell housing	Coupling	Total weight * kg	
	kW	1/min	kW	1/min			Nominal size 4...12	16...25
71	0.18	880	0.25	1350	PT160-A-063-80	RA19-Z25/14-Z25/14	11.5	12.1
71	0.25	900	0.37	1370			11.5	12.1
80	0.37	900	0.55	1370	PT200-A-063-100	RA19-Z25/14-Z25/19	13.5	14.1
80	0.55	900	0.75	1420			15.5	16.1
90 S	0.75	935	1.1	1425	PT200-A-063-100	RA19/24-Z25/14-Z25/24	17.5	18.1
90 L	1.1	935	1.5	1420			20.5	21.1
100	1.5	940	2.2	1430	PT250-A-063-120	RA24/28-Z30/14-Z30/28	25.5	26.1
100	–	–	3	1430			28.5	29.1
112	2.2	940	4	1435			35	35.6

* with pressure relief valve add, weight 0.8 kg

KF 2.5...25 Dimensions

Frame size	Dimensions (in mm)																						
	4...12		16...25		4...12		16...25		L	i	a ₁	a	b	c*	e*	f*	g*	h	o*	p*	q*	ø s*	w ₁
	L ₁ *	L ₁ *	L ₂ *	L ₂ *																			
71	414	436	445	467	80	14.2	160	90	112	10	105	132	145	71	158	188	67	7	45				
80	459	481	490	512	100	14.2	200	100	125	10	130	160	165	80	170.5	217	79.5	10	50				
90 S	469	491	500	522	100	14.2	200	100	140	12	130	175	185	90	177.5	235	82.5	10	56				
90 L	494	516	525	547	100	14.2	200	125	140	12	155	175	185	90	202.5	235	82.5	10	56				
100	555	577	586	608	120	14.2	250	140	160	14	176	196	205	100	247.5	252	78.5	12	63				
112	564	586	595	617	120	14.2	250	140	190	14	180	220	230	112	247.0	292	88	12	70				

Note: Flange connection same outer dimensions as for pipe connection

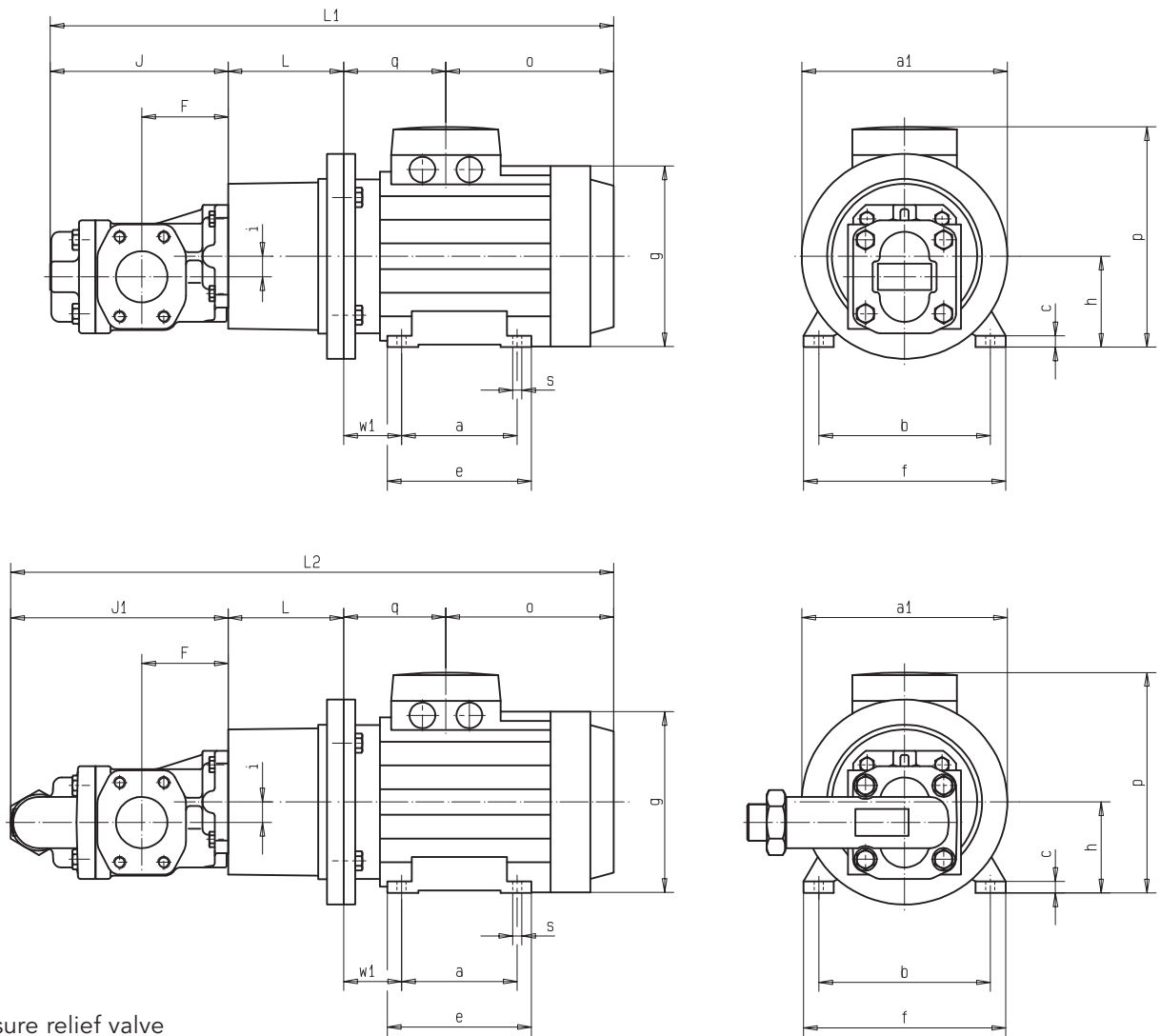
Note

* Dimensions dependent on motor typ
(drawing: manufacture ADDA).
Other manufactures motors can be supplied on request.
Motor frame sizes are based on DIN 42673/677.

All pump and motor sizes can be combined.

Motor-Pump Assemblies with SAE-Connection

KF 32... 80



KF 32... 80 Pump sizes (in mm)

Nominal size	F	J	J ₁
32...50	84	173	212
63/80	100	208	247

Motor-Pump Assemblies with SAE-Connection

KF 32 ... 80

Frame size	Power Motor 6 pole		Speed Motor 4 pole		Bell housing	Coupling	Total weight * kg	
	kW	1/min	kW	1/min			Nominal size 32...50 63...80	
80	0.37	900	0.55	1370	PT200-A-080-100	RA19/24-Z25/24-Z25/19	18.5	19.5
80	0.55	900	0.75	1420			19.5	21
90 S	0.75	935	1.1	1425	PT200-A-080-110	RA24-Z30/24-Z30/24	21	23
90 L	1.1	935	1.5	1420			23.5	25.5
100	-	-	2.2	1430	PT250-A-080-124	RA24/28-Z30/24-Z30/28	29.5	31
100	1.5	940	3	1430			32	34
112	2.2	940	4	1435			38.5	40
132 S	3	940	5.5	1430	PT300-A-080-144	RA28/38-Z35/24-Z35/38	49.5	51.5
132 M	4	945	7.5	1430			59	60.5
132 L	5.5	945	-	-			61	62.5
160 M	7.5	955	11	1440	PT350-A-080-188	RA38/45-Z45/24-Z45/42	81	82.5
160 L	11	960	15	1445			101	102.5

* with pressure relief valve add. weight 1.8 kg

KF 32 ... 80 Dimensions

Frame size	Dimensions (in mm)																			
	32...50 63...80				32 - 80															
	L ₁ *	L ₁ *	L ₂ *	L ₂ *	L	i	a ₁	a	b	c*	e*	f*	g*	h	o*	p*	q*	ø s*	w ₁	
80	523	558	562	597	100	20	200	100	125	10	130	160	165	80	170.5	217	79.5	10	50	
90 S	543	578	582	617	110	20	200	100	140	12	130	175	185	90	177.5	235	82.5	10	56	
90 L	568	603	607	642	110	20	200	125	140	12	155	175	185	90	202.5	235	82.5	10	56	
100	623	658	662	697	124	20	250	140	160	14	176	196	205	100	247.5	252	78.5	12	63	
112	532	567	571	606	124	20	250	140	190	14	180	220	230	112	247	252	88	12	70	
132 S	673	708	712	747	144	20	300	140	216	16	176	252	270	132	262	325	94	12	89	
132 M	712	747	751	786	144	20	300	178	216	16	213	252	270	132	301	325	94	12	89	
160 M	891	926	930	965	188	20	350	210	254	17	262	290	320	160	394	390	136	14.5	108	
160 L	891	926	930	965	188	20	350	254	254	17	306	290	320	160	394	390	136	14.5	108	

Note

* Dimensions dependent on motor typ
(drawing: manufacture ADDA).

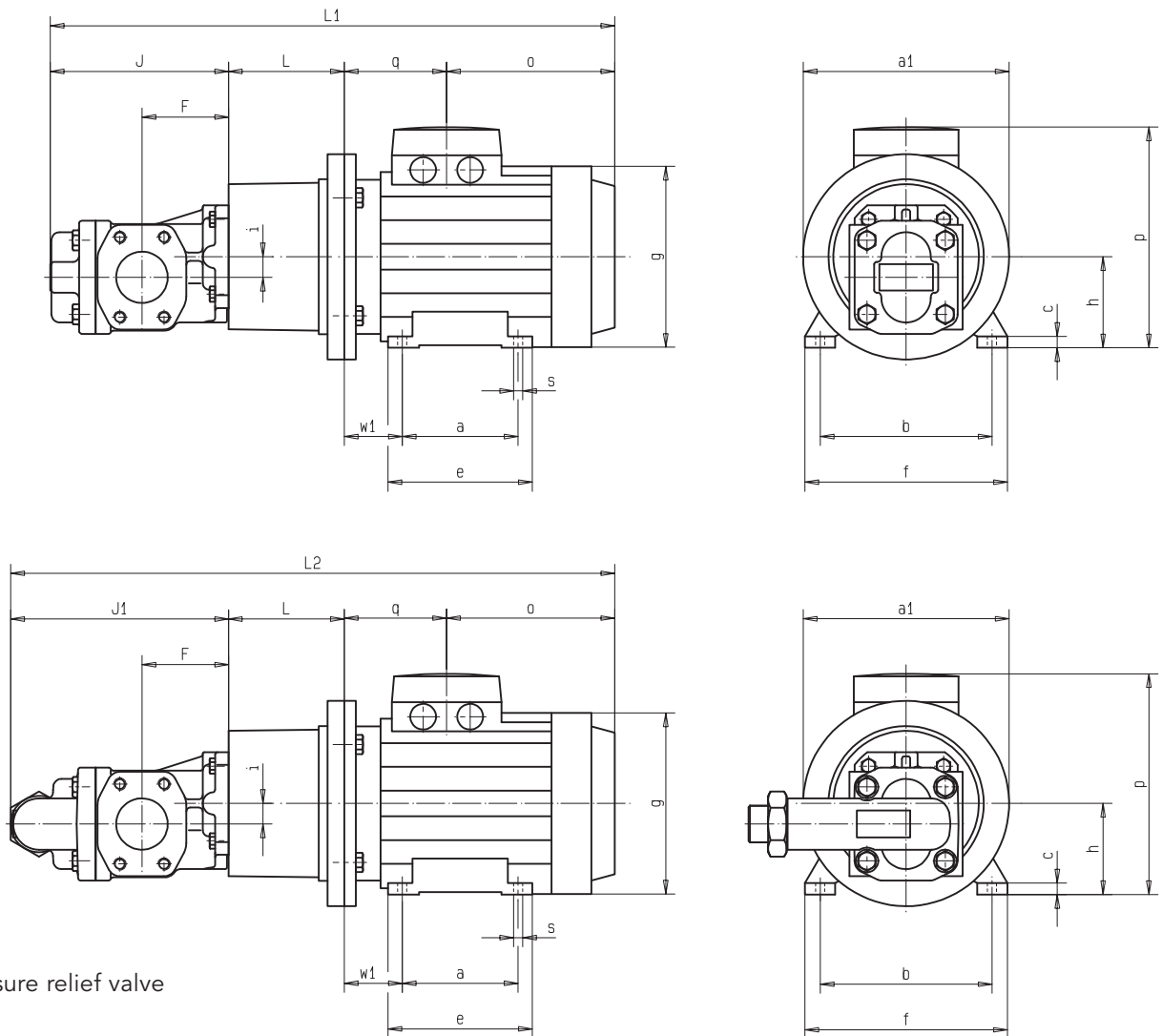
Other manufactures motors can be supplied on request.

Motor frame sizes are based on DIN 42673/677.

All pump and motor sizes can be combined.

Motor-Pump Assemblies with SAE-Connection

KF 100...200



with pressure relief valve

KF 100...200 Pump sizes (in mm)

Nominal-size	F	J	J ₁
100/112	102	220.5	262.5
125/150	120	245	282
180/200	130	261.5	298.5

Motor-Pump Assemblies with SAE-Connection

KF 100...200

Frame size	Power Speed Motor 6 pole		Power Speed Motor 4 pole		Bell housing	Coupling	Total weight * kg		
	kW	1/min	kW	1/min			Nominal size		
							100/112	125/150	180/200
100 L	–	–	2.2	1430	PT250-A-110-135	RA24/28-Z30/28-Z30/28	37.5	43.5	46.5
100 L	1.5	940	3	1430		**RA24/28-Z30/24-Z30/28	40.5	46.5	49.5
112 M	2.2	940	4	1435			47.5	53.5	56.5
132 S	3	940	5.5	1430	PT300-A-110-168 **PT300-A-110-144	RA28/38-Z35/28-Z35/38	58	64	67
132 M	4	945	7.5	1430		**RA28/38-Z35/24-Z35/38	67	73	76
132 L	5.5	945	–	–			69	75	78
160 M	7.5	955	11	1430	PT350-A-110-188	RA38/45-Z45/28-Z45/42	89	95	98
160 L	11	960	15	1140		**RA38/45-Z45/24-Z45/42	109	115	118
180 M	–	–	18.5	1445	PT350-A-110-204	RA42/55-Z50/28-Z50/48	129	135	138
180 L	15	960	22	1460		**RG42/55-Z50/24-Z50/48	139	145	148

* * with pressure relief valve KF 100-200 add. weight 2.7 kg

** Sealing version 31

KF 100...200 Dimensions

Frame size	Dimensions (in mm)																			
	100/112 125/150 180/200			100/112 125/150 180/200																
	L ₁ *	L ₁ *	L ₁ *	L ₂ *	L ₂ *	L ₂ *	L	a ₁	a	b	c*	e*	f*	g*	h	o*	p*	q*	ø s*	w ₁
100	670.5	695	711.5	712.5	754	770.5	124	250	140	160	14	176	196	205	100	247.5	252	78.5	12	63
112	579.5	604	620.5	621.5	663	679.5	124	250	140	190	14	180	220	230	112	147	292	88	12	70
132 S	720.5	745	761.5	762.5	804	820.5	144	300	140	216	16	176	252	270	132	262	325	94	12	89
132 M	759.5	784	800.5	801.5	843	859.5	144	300	178	216	16	213	252	270	132	301	325	94	12	89
160 M	938.5	963	979.5	980.5	1022	1038.5	188	350	210	254	17	262	290	320	160	394	390	136	14.5	108
160 L	938.5	963	979.5	980.5	1022	1038.5	188	350	254	254	17	306	290	320	160	394	390	136	14.5	108
180 M	1001.5	1026	1042.5	1043.5	1085	1101.5	204	350	279	279	27	300	348	360	180	336	450	241	15	121
180 L	1039.5	1064	1080.5	1081.5	1123	1139.5	204	350	279	279	27	338	348	360	180	354	450	261	15	121

Note

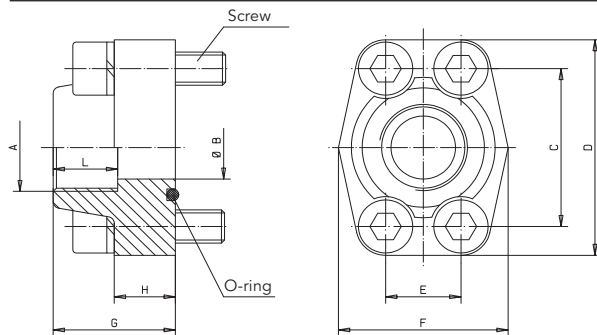
* Dimensions dependent on motor typ (drawing: manufacture ADDA).
Other manufactures motors can be supplied on request.

Motor frame sizes are based on DIN 42673/677.

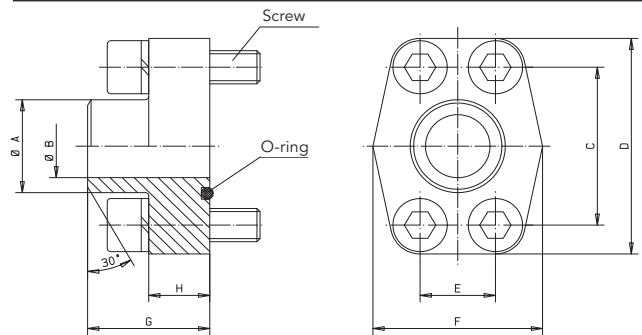
All pump and motor sizes can be combined.

Accessory Connections

SAE-Threaded Flange



SAE-Welding Flange



SAE-Threaded Flange Dimensions (in mm)

Nominal size SAE	DN	A	B max.	C	D*	E	F*	G	H*	L min.	Screws 10.9	O-ring	Working pressure max.**	Weight ca. [kg]
3/4"	13	G 1/2"	13	47.63	65	22.23	50	36	18	14	M 10x35	24.99 x 3.53	350	0.54
	19	G 3/4"	19							16				0.51
1"	13	G 1/2"	13	52.37	70	26.19	55	38	18	14	M 10x35	32.92 x 3.53	315	0.64
	19	G 3/4"	19							16				0.61
	25	G 1"	25							18				0.58
1 1/4"	19	G 3/4"	19	58.72	79	30.18	68	41	21	16	M 10x40	37.69 x 3.53	250	0.92
	25	G 1"	25							18				0.88
	32	G 1 1/4"	32							20				0.79
1 1/2"	25	G 1"	25	69.85	93	35.71	78	45	25	18	M 12x45	47.22 x 3.53	200	1.36
	32	G 1 1/4"	32							20				1.30
	38	G 1 1/2"	38							22				1.25
2"	25	G 1"	25	77.77	102	42.88	90	45	25	18	M 12x45	56.74 x 3.53	200	1.64
	32	G 1 1/4"	32							20				1.60
	38	G 1 1/2"	38							22				1.45
	51	G 2"	51							26				1.39
2 1/2"	51	G 2"	51	88.90	114	50.80	105	50	25	26	M 12x45	69.44 x 3.53	160	1.65
	64	G 2 1/2"	63							30				1.60
3"	64	G 2 1/2"	63	106.38	134	61.93	124	50	27	30	M 16x50	85.32 x 3.53	138	2.68
	76	G 3"	73											2.58
3 1/2"	76	G 3"	73	120.65	152	69.85	136	48	27	30	M 16x50	98.02 x 3.53	35	2.93
	89	G 3 1/2"	89											2.83

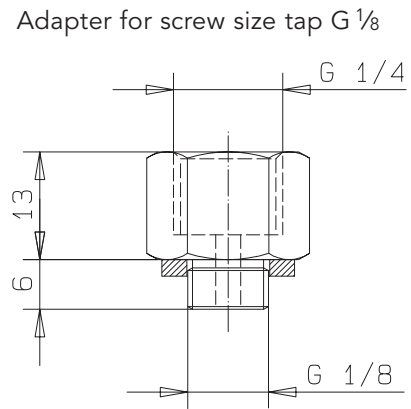
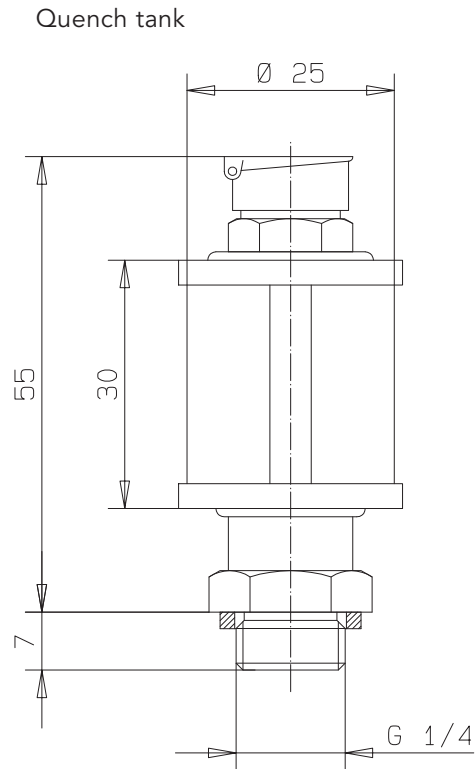
SAE-Welding Flange Dimensions (in mm)

Nominal size SAE	DN	A*	B max.	C	D*	E	F*	G	H*	Screws 10.9	O-ring	Working pressure max.**	Weight ca. [kg]
3/4"	19	28.0	19	47.63	65	22.23	50	36	18	M 10x35	24.99 x 3.53	350	0.51
1"	25	34.0	25	52.37	70	26.19	55	38	18	M 10x35	32.92 x 3.53	315	0.58
1 1/4"	32	42.8	32	58.72	79	30.18	68	41	21	M 10x40	37.69 x 3.53	250	0.79
1 1/2"	38	48.6	38	69.85	93	35.71	78	44	25	M 12x45	47.22 x 3.53	200	1.25
2"	51	61.0	51	77.77	102	42.88	90	45	25	M 12x45	56.74 x 3.53	200	1.39
2 1/2"	64	77.0	63	88.90	114	50.80	105	50	25	M 12x45	69.44 x 3.53	160	1.60
3"	76	92.0	73	106.38	134	61.93	124	50	27	M 16x50	85.32 x 3.53	138	2.58
3 1/2"	89	103.0	89	120.65	152	69.85	136	48	27	M 16x50	98.02 x 3.53	35	2.83

* Dimensions depending on the manufacturer
Material: Steel S355J2G3 or equivalent

** O-ring material with hardness 90 Shore A
Stainless steel 1.4404 or equivalent 316L

Accessory Quench Chamber



Product Portfolio

Transfer Pumps

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

Mobile Hydraulics

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

Flow Measurement

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

Industrial Hydraulics / Test Bench Construction

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

Technology Test benches / Fluid Test benches.



KF2.5...200/GB/06.14

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