

FKM

PROCESS PUMPS (SUMP DESIGN)

Handled Liquids

Clean or normal contaminated low or medium viscosity liquids without solid & fibrous particles.

Technical Data

Discharge Flange _____ DN 32.....DN 150 mm

Capacity _____ up to 400 m³/h

Head _____ up to 220 m

Speed _____ up to 1450 rpm

Operating Temperature _____ up to +95 °C

Casing Pressure (Pmax) _____ 30 bar

Design Features

- Vertical ring section, multistage, centrifugal pumps with closed impellers and diffusers.
- Up to 4 m. column length.
- Suction nozzle flanges conform to EN 1092 - 2 / PN 16 and discharge nozzle flanges conform to EN 1092 - 2 / PN 40 (PN 63) (For steel or stainless steel casing pumps, flanges conform to related pressure class ratings defined in EN 1092 - 1)
- All impellers are balanced dynamically or statically according to ISO 1940 class 6.3.

Pump Designation

Pump Type _____

Discharge Nozzle (DN-mm) _____

Nominal Impeller Diameter (mm) _____



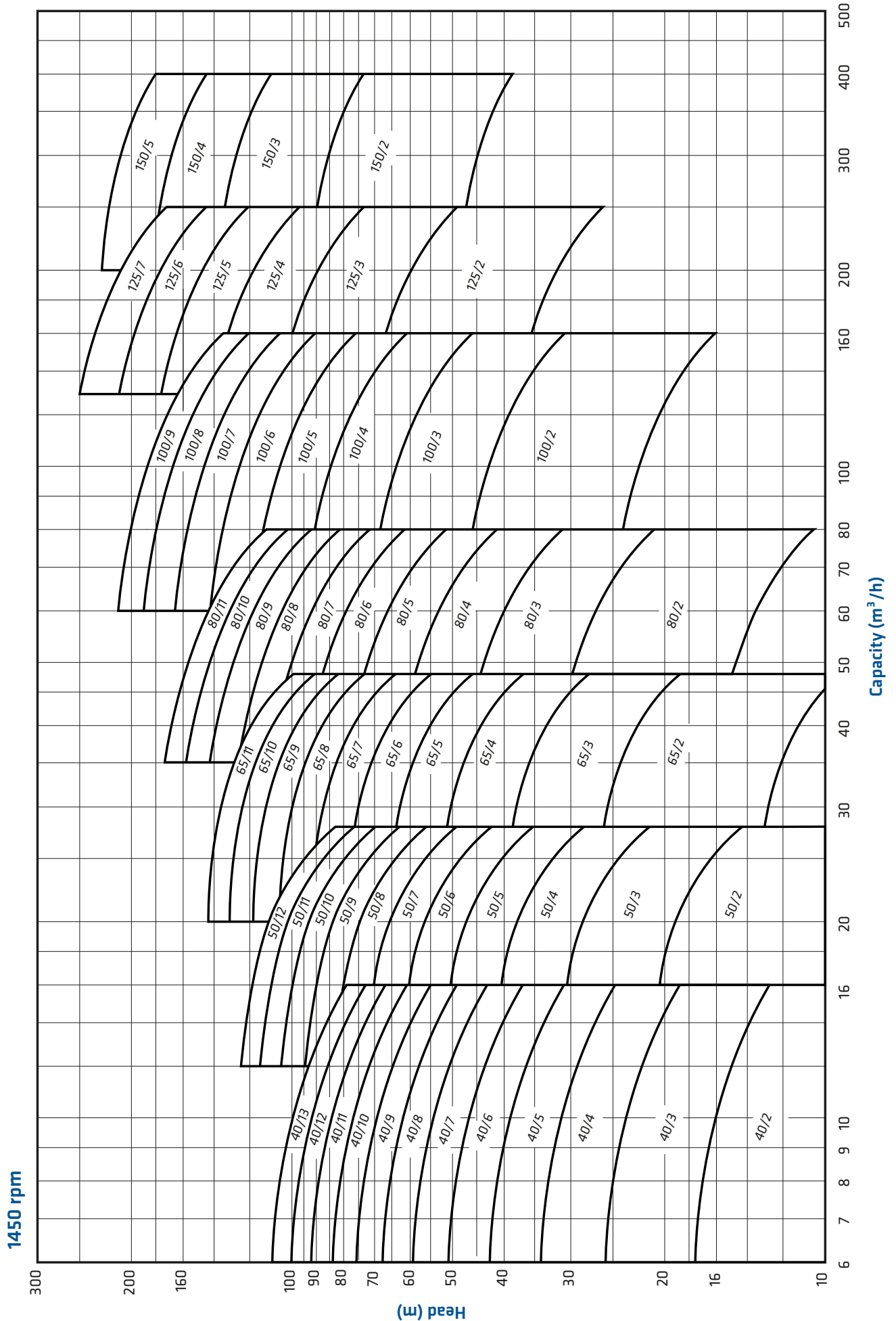
- Axial thrust is balanced by impeller balancing holes system.
- Direction of rotation is counter clockwise viewed from driver.
- Bearings of FKM type pumps are grease lubricated. Bottom and internal sleeve bearings are lubricated by the pumping liquid. (different lubrication systems can be applied for the sleeve bearings in case of request or requirement. Contact for detailed information)

Shaft Sealing

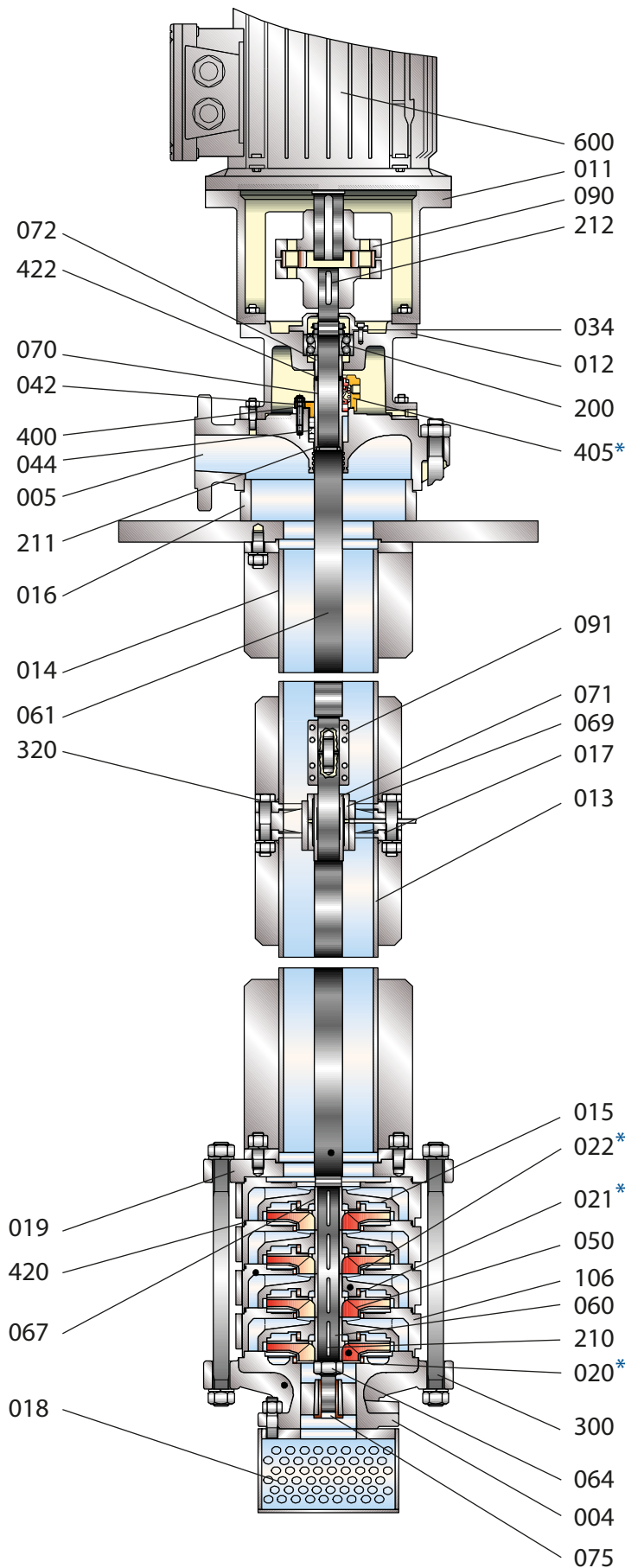
- In standard production soft packed stuffing boxes are used.
- Depending on customer request, mechanical seals are available. In this case, pump shaft is always stainless steel.

FKM 40 / 3

Field Charts



Sectional Drawings



Part List

004	Suction Casing
005	Discharge Casing
011	Motor Pedestal
012	Bearing Housing
013	Column Pipe (Bottom)
014	Column Pipe (Up)
015	Diffuser
016	Base Plate
017	Intermediate Bearing Housing
018	Filter
019	Casing Flange
* 020	Wear Ring (Suction Casing)
* 021	Wear Ring (diffuser)
* 022	Wear Ring (Stage)
034	Bearing Housing Cover
042	Gland
044	Lantern Ring
050	Impeller
060	Shaft (Bottom)
061	Shaft (Up)
064	Impeller Nut
067	Interstage Sleeve
069	Intermediate Sleeve Bearing
070	Shaft Protecting Sleeve
071	Intermediate Bearing Sleeve
072	Spacer Sleeve
075	Bottom Sleeve Bearing
090	Flexible Coupling
091	Rigid Coupling
106	Stage Casing
200	Bearing
210	Impeller Key
211	Sleeve Key
212	Coupling Key
300	Stud
320	Screw
400	Soft Packing
* 405	Mechanical Seal
420	O-ring
422	O-ring
600	Electrical Motor

(*) Optional



Technical Data

Part List	0.6025	0.7040	1.0619	1.4308	1.4309	1.4408	1.4409	1.4500	1.4517	1.4469	1.4317	1.4008	2.1050.01	2.0975.01	2.1096.01	1.0037	1.0503	1.4021	1.4021+QT	1.4301	1.4404	1.4460	1.4462	Tungsten Carbide	
Suction Casing	●	○		○	○	○	○	○	○	○	○	○	○												
Discharge Casing	●	○		○	○	○	○	○	○	○	○	○	○												
Stage Casing	●	○		○	○	○	○	○	○	○	○	○	○												
Diffuser	●	○	○	○	○	○	○	○	○	○	○	○	○												
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○								○		
Shaft																	●	○	○	○	○			○	
Bearing Housing	●	○	○	○	○	○	○																		
Wear Ring	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○										
Spacer Sleeve																	●	○	○	○	○			○	
Shaft Protecting Sleeve																	●	○	○	○	○			○	
Interstage Sleeve																	●	○	○	○	○			○	
Sleeve Bearing													●											○	
Column Pipe																●					○	○			
Mechanical Seal (*)	EN 12756																								

● Standard manufacturing
○ Optional

Material Equivalents

Description	DIN / EN	AISI / SAE / ASTM	
Cast Iron	0.6025	EN-GJL-250 (GG25)	A48 Class 40B
Nodular Cast Iron	0.7040	EN-GJS-400-15 (GGG40)	A536 60-40-18
Nodular Cast Iron	0.7043	EN-GJS-400-18-LT (GGG40.3)	A536 60-40-18
Cast Steel	1.0619	GP240GHGS-C25	A216 WCB
Chrome Nickel Cast Steel	1.4308	GX5CrNi19-10	A351 CF8
Chrome Nickel Cast Steel (low carbon)	1.4309	GX2CrNi19-11	A351 CF3
Chrome Nickel Molybdenum Cast Steel	1.4408	GX5CrNiMo19-11-2	A351 CF8M
Chrome Nickel Molybdenum Cast Steel (low carbon)	1.4409	GX2CrNiMo19-11-2	A351 CF3M
Austenitic Cast Steel	1.4500	GX7NiCrMoCuNb25-20	A351 CN7M
Austenitic - Ferritic Cast Steel (duplex)	1.4517	GX2CrNiMoCuN25-6-3-3	A890 CD4MCuN
Austenitic - Ferritic Cast Steel (super duplex)	1.4469	GX2CrNiMoN26-7-4	A890 CE3MN
Martenzitic Stainless Cast Steel	1.4317	GX4CrNi13-4	A352 CA6NM
Martenzitic Stainless Cast Steel	1.4008	GX7CrNiMo12-1	A217 CA15
Cast Bronze (tin alloy)	2.1050.01	G-CuSn10	B427 C90700
Cast Bronze (nickel alloy)	2.0975.01	G-CuAl10Ni	B148 C95500
Cast Bronze (lead)	2.1096.01	G-CuSn5ZnPb	B584 C83600
Carbon Steel	1.0503	C45	AISI 1045
Chrome Steel	1.4021	X20Cr13	A276 Type 420
Chrome Steel (heat treated)	1.4021	X20Cr13	A276 Type 420+QT
Chrome Nickel Steel	1.4301	X5CrNi18-10	A276 Type 304
Chrome Nickel Steel (low carbon)	1.4404	X2CrNiMo17-12-2	A276 Type 316L
Duplex (austenitic-ferritic) Steel	1.4460	X3CrNiMoN27-5-2	AISI 329
Duplex (austenitic-ferritic) Steel	1.4462	X2CrNiMoN22-5-3	UNS S32205

Flange Dimensions

TS EN 1092 - 2	DNe/DNb	Suction & Discharge (PN 16)				Suction & Discharge (PN 40)			
		Df	k	s	n	Df	k	s	n
	40	150	110	19	4	150	110	19	4
	50	165	125	19	4	165	125	19	4
	65	185	145	19	4	185	145	19	8
	80	200	160	19	8	200	160	19	8
	100	220	180	19	8	235	190	23	8
	125	250	210	19	8	270	220	28	8
	150	285	240	23	8	300	250	28	8
	200	340	295	23	12	375	320	31	12

"n" number of holes

