



Pump • Fire Fighting Units • Booster Set

# SKM-EVK PROCESS PUMPS (SUMP DESIGN)



SKM-EVK Rev.11 09.2021

## 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 m<sup>3</sup>/h

Head \_\_\_\_\_ up to 220 m

Speed \_\_\_\_\_ up to 1450 rpm

Design 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.
- Axial thrust is balanced by impeller balancing holes system.
- Direction of rotation is counter clockwise viewed from driver.

## Pump Designation

Pump Type \_\_\_\_\_

Discharge Nozzle (DN-mm) \_\_\_\_\_

Nominal Impeller Diameter (mm) \_\_\_\_\_

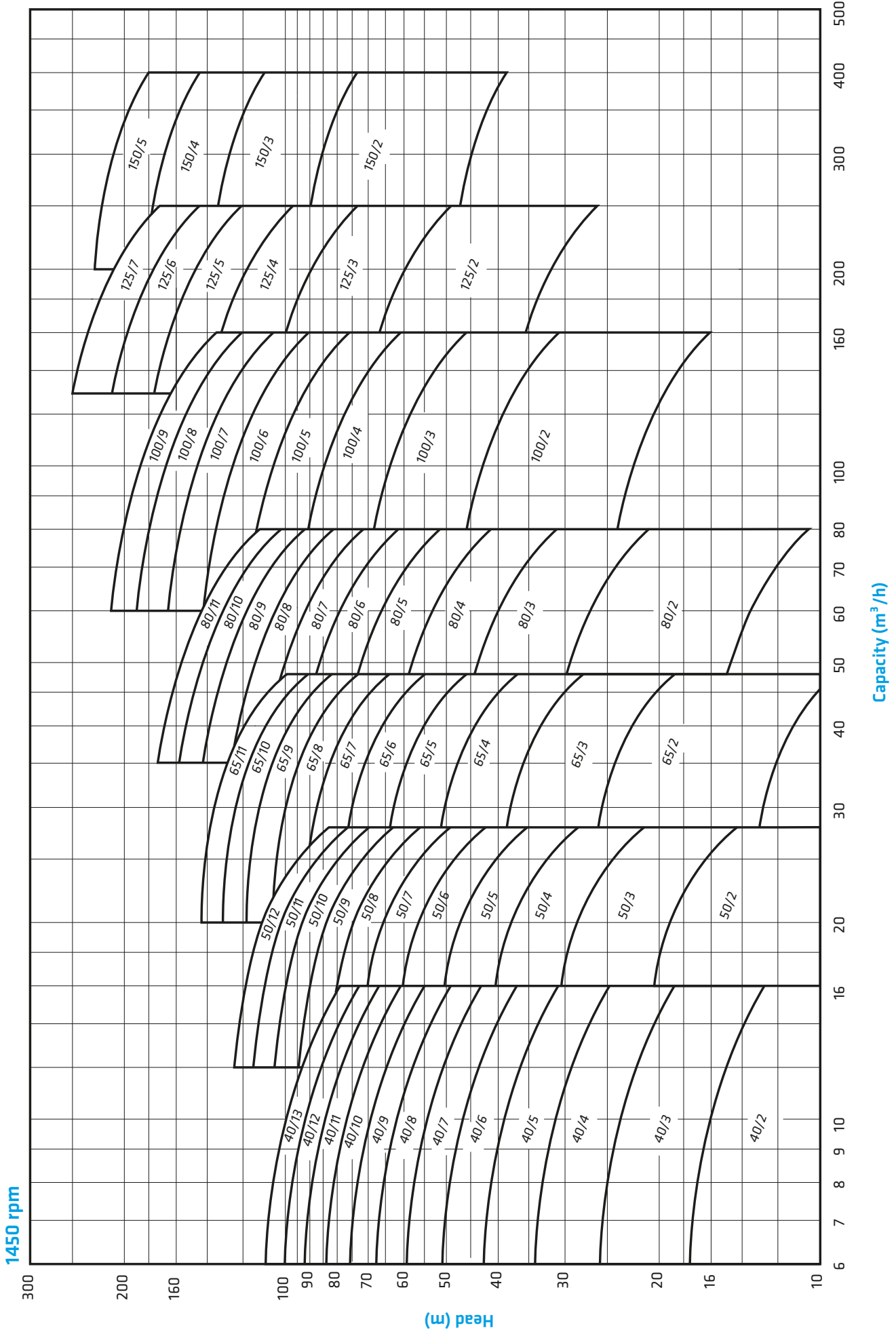


- Bearings of SKM-EVK type pumps are grease lubricated. Bottom and internal sleeve bearings are lubricated by the pumping liquid. (different lubrication systems can be applied for the sleeve bearings in case of request or requirement. Contact for detailed information)

## 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.

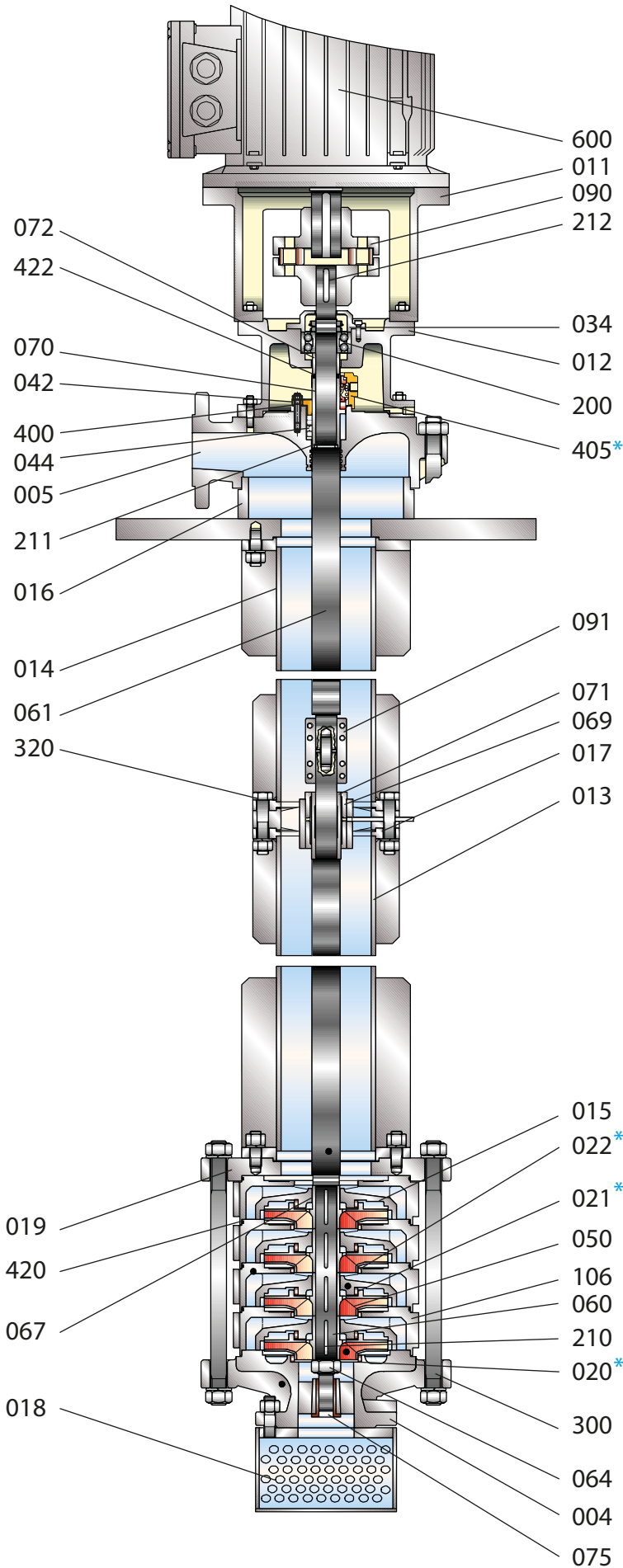
# SKM-EVK 40 / 3



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



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	

Technical drawing of a flange. The left view is a side profile showing dimensions: Df (total thickness), k (flange thickness), and DNe/DNb (inner diameter). The right view is a top-down view showing a circular flange with a central hole and 'n' holes around the perimeter, with 's' representing the hole spacing.

“ n “ number of holes