

EN ISO 9905

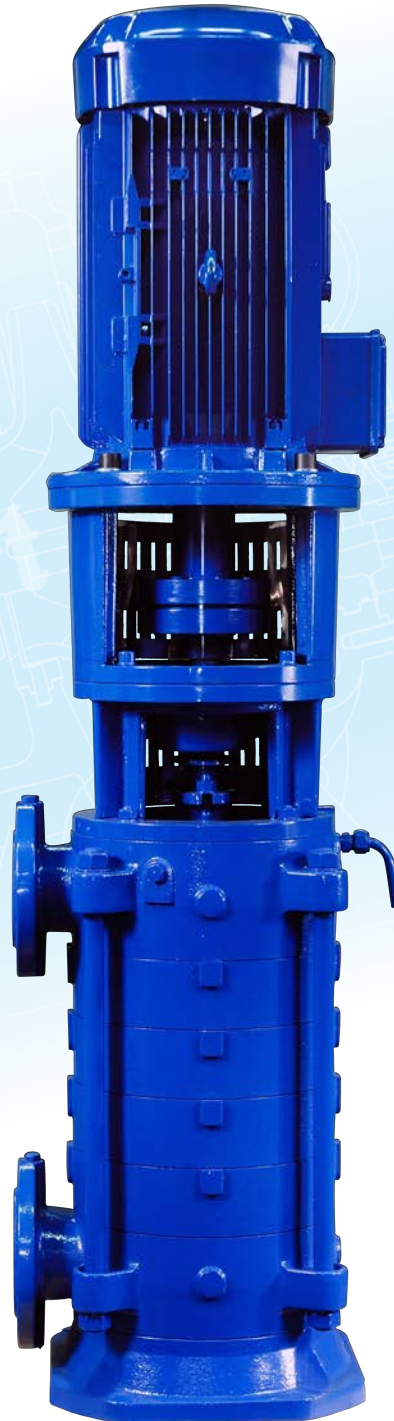
# Standart

# SKMV-H

Vertical-Multistage Centrifugal Pumps



ATEX



SKMV-H 00 07-11 EN

[www.castlepumps.com](http://www.castlepumps.com)

## Liquids Handled

SKMV-H Type pumps are suitable for clean or slightly contaminated liquids with low viscosity.

## Technical Data

**Discharge Nozzle Range** — DN 32 .... DN 150 mm

**Capacity** — up to 400 m<sup>3</sup>/h

**Head** — up to 350 m

**Speed** — up to 2900 rpm

**Operating Temperature** — -10°C up to +120°C\*

**Casing Pressure (Pmax)** — 30 bar (40 bar) \*

(Pmax: Suction pressure + Shutoff Head)

(\*) The material of pumps differs according to the type of pumped liquid, operating temperature and pressure. Contact our company for detailed information.

## Fields of Application

- Water supply systems
- Booster units
- Boiler feed water and condensate
- Heating - air conditioning
- Irrigation - sprinkler
- Fire fighting systems

## Design Features

- Vertical, multistage centrifugal pumps with closed impellers and diffusers.
- 8 models from DN 32 to DN 150.
- Suction nozzle flanges are according to ISO 7005-2 / PN 16 and discharge nozzle flanges are according to ISO 7005-2 / PN 40
- Axial thrust is balanced by back wear ring and balancing holes in each impeller.
- Pump impellers are balanced statically and dynamically according to ISO 1940 class 6.3.
- Pump shaft is coupled with standard motor shaft by means of a flexible coupling.

## Bearings

- Pump shaft is supported by medium lubricated sleeve bearing in suction casing and grease lubricated ball bearing on the delivery side.

## Shaft Sealing

- In standard production soft packed stuffing boxes are used. Depending on customer requirement mechanical seals are available.

## Direction of Rotation

- Direction of rotation is counter clockwise viewed from driver end.

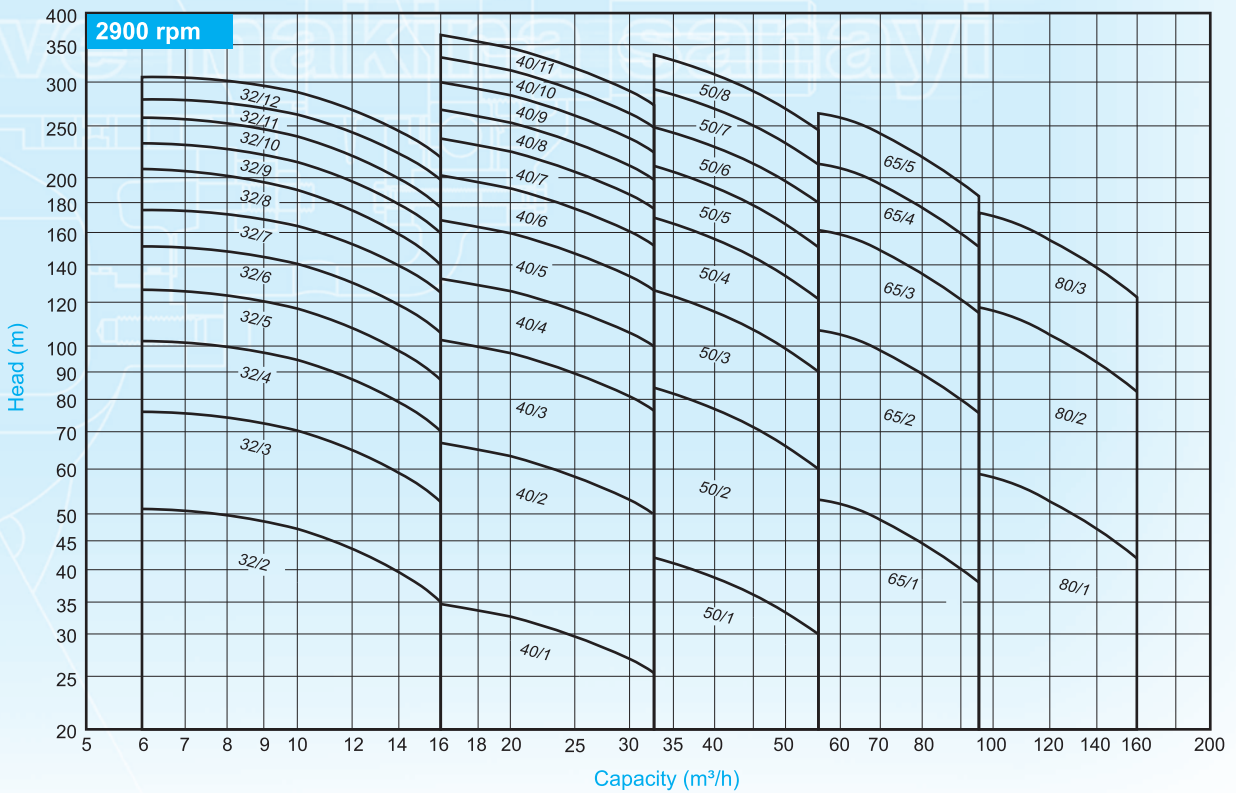
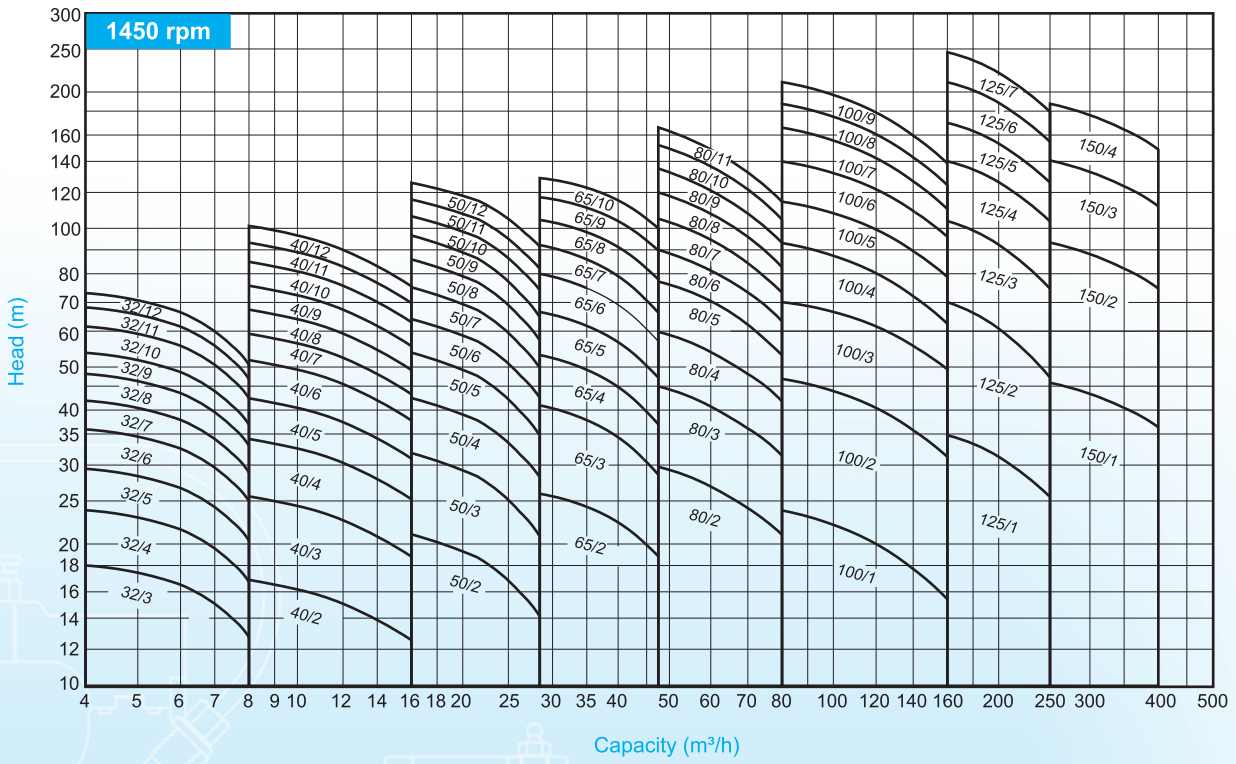
## Pump Designation

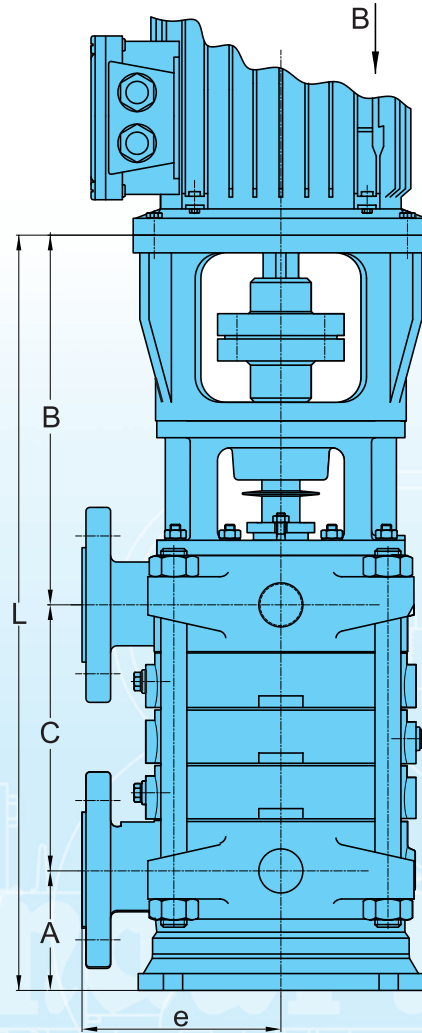
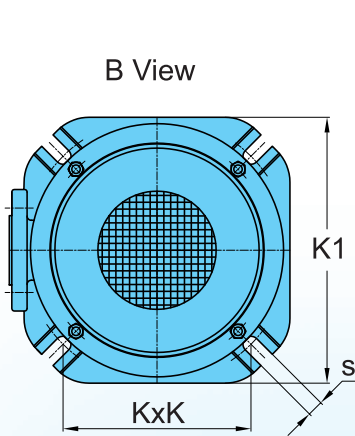
# SKMV-H 100 / 6

Pump Type

Discharge Nozzle (DN)

Number of Stage



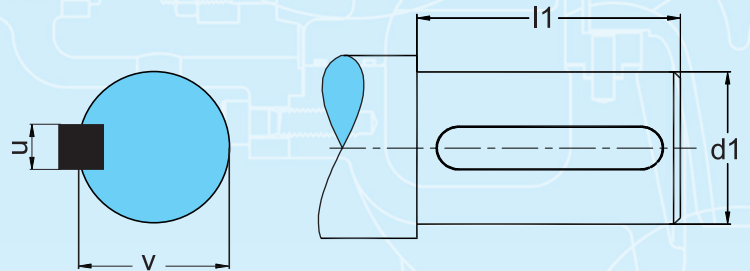


**Bearing Types**

Pump Type	Bearing type
32	3305
40	3305
50	3306
65	3307
80	3308
100	3309
125	3310
150	3312

**Shaft End**

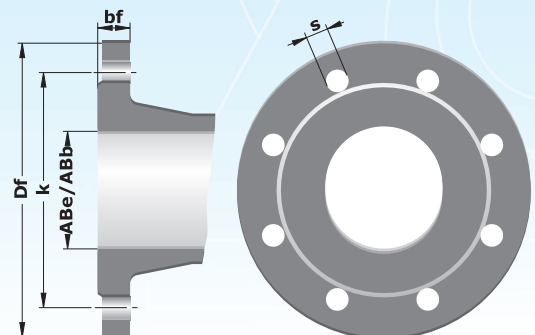
Pump Type	d1	l1	v	u
32	22	50	25	6
40	22	50	25	6
50	28	65	31	8
65	32	65	35	10
80	38	80	41	10
100	42	110	45	12
125	48	110	51.5	14
150	55	110	59	16



**Flange Dimensions**

Pump Type	Suction (PN 16)							Discharge (PN 40)						
	ABe	Df	k	s	n	bf	ABb	Df	k	s	n	bf		
32	40	150	110	18	4	18	32	140	100	18	4	20		
40	50	165	125	18	4	20	40	150	110	18	4	20		
50	65	185	145	18	4	20	50	165	125	18	4	22		
65	80	200	160	18	8	22	65	185	145	18	8	24		
80	100	220	180	18	8	24	80	200	160	18	8	26		
100	125	250	210	18	8	26	100	235	190	23	8	28		
125	150	285	240	23	8	26	125	270	220	27	8	30		
150	200	340	295	23	12	30	150	300	250	27	8	34		

"n" number of holes



1450 rpm

Pump Type	MOTOR IEC No	Dimensions (mm)										C mm No of Stages											
		DN1	DN2	L	A	B	e	KxK	K1	s	1	2	3	4	5	6	7	8	9	10	11	12	
32	80	40	32	399+C	105	298	155	212	300	18	71	114	157	200	243	286	329	372	415	458	501	544	
	90			409+C		308																	
	100			405+C		302																	
40	90	50	40	415+C	103	312	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	683	
	100			435+C		332																	
	112																						
132																							
50	100	65	50	453+C	114	340	190	247	350	18	90	152	214	276	338	400	462	524	586	648	710	772	
	112			473+C		360																	
	132			503+C		390																	
160																							
65	100	80	65	505+C	135	368	215	247	350	18	107	178	249	320	391	462	533	604	675	746	-	-	
	112			525+C		388																	
	132			555+C		420																	
160																							
180																							
80	132	100	80	568+C	145	423	265	247	350	23	112	195	278	361	444	527	610	693	776	859	-	-	
	160			598+C		453																	
	180			628+C		483																	
200																							
225																							
100	160	125	100	675+C	170	504	300	318	450	23	133	233	333	433	533	633	733	833	933	-	-	-	
	180			705+C		534																	
	200																						
225																							
250																							
280																							
125	200	150	125	717+C	178	538	375	424	600	27	165	280	395	510	625	740	855	-	-	-	-	-	
	225			747+C		568																	
	250			777+C		598																	
280																							
315																							
150	250	200	150	888+C	265	623	425	424	600	27	218	363	508	653	-	-	-	-	-	-	-	-	
	280			918+C		653																	
	315																						

2900 rpm

Pump Type	MOTOR IEC No	Dimensions (mm)										C mm No of Stages											
		DN1	DN2	L	A	B	e	KxK	K1	s	1	2	3	4	5	6	7	8	9	10	11	12	
32	112	40	32	409+C	105	306	155	212	300	18	71	114	157	200	243	286	329	372	415	458	501	544	
	132			429+C		326																	
	160			459+C		356																	
40	132	50	40	435+C	103	332	175	212	300	18	78	133	188	243	298	353	408	463	518	573	628	-	
	160			465+C		362																	
	180			495+C		392																	
200																							
225																							
50	160	65	50	503+C	114	389	190	247	350	18	90	152	214	276	338	400	462	524	-	-	-	-	
	180			533+C		419																	
	200																						
225																							
250																							
65	160	80	65	555+C	135	420	215	247	350	18	107	178	249	320	391	-	-	-	-	-	-	-	
	180			615+C		480																	
	200																						
225																							
250																							
280																							
80	200	100	80	598+C	145	453	265	247	350	23	112	195	278	-	-	-	-	-	-	-	-	-	
	225			628+C		483																	
	250																						
280																							

NOTE : Right reserved to change without notice.



Material Options

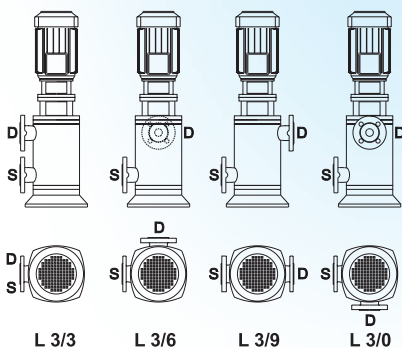
Part List	0.6025	0.7040	1.0619	1.4308	1.4408	2.1050.01	2.1090.01	2.1096.01	1.4021	1.4301	1.4401	Tungsten Carbide
Suction casing	●	○	○	○	○	○						
Discharge casing	●	○	○	○	○	○						
Stage casing	●	○	○	○	○	○						
Diffuser	●	○	○	○	○	○						
Impeller	●	○	○	○	○	○	○	○				
Shaft									●	○	○	
Bearing housing	●	○										
Wear ring (Casing )	○	○	○	○	○	○	○	○				
Spacer sleeve						○	○	○	●	○	○	
Shaft protecting sleeve						○	○	○	●	○	○	
Bearing bush						●						○
Mechanical seal (*)						EN 12756 / DIN 24960						

(\*) Optional :Depending on customer requirement or request different types and brands of mechanical seals are applicable. ● Standard manufacturing ○ Optional

Material Equivalentents

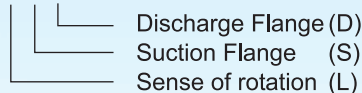
Description	DIN 17007	EN-DIN	ASTM
Cast iron	0.6025	GJL-250 (GG 25)	A 48 Class 40-B
Nodular cast iron	0.7040	GJS-400-15 (GGG 40)	A 536 Gr. 60-40-18
Cast steel	1.0619	GP240GH (GS-C 25)	A 216 Gr. WCB
Chrome nickel cast steel	1.4308	G-X6 Cr Ni 19-10	A 351/743/744 Gr. CF8
Chrome nickel molybdenum cast steel	1.4408	G-X6 Cr Ni Mo 19-11-2	A 351/743/744 Gr. CF8M
Cast bronze	2.1050.01	G-Cu Sn 10	B 584 C 90700
Cast bronze	2.1090.01	G-Cu Sn 7 Zn Pb	B 584 C 93200
Cast bronze	2.1096.01	G-Cu Sn 5 Zn Pb	B 584 C 83600
Chrome steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome nickel steel	1.4301	X5 Cr Ni 18-10	A 276 Type 304
Chrome nickel molybdenum steel	1.4401	X5 Cr Ni Mo 17-12-2	A 276 Type 316

Flange Positions



Explanation :

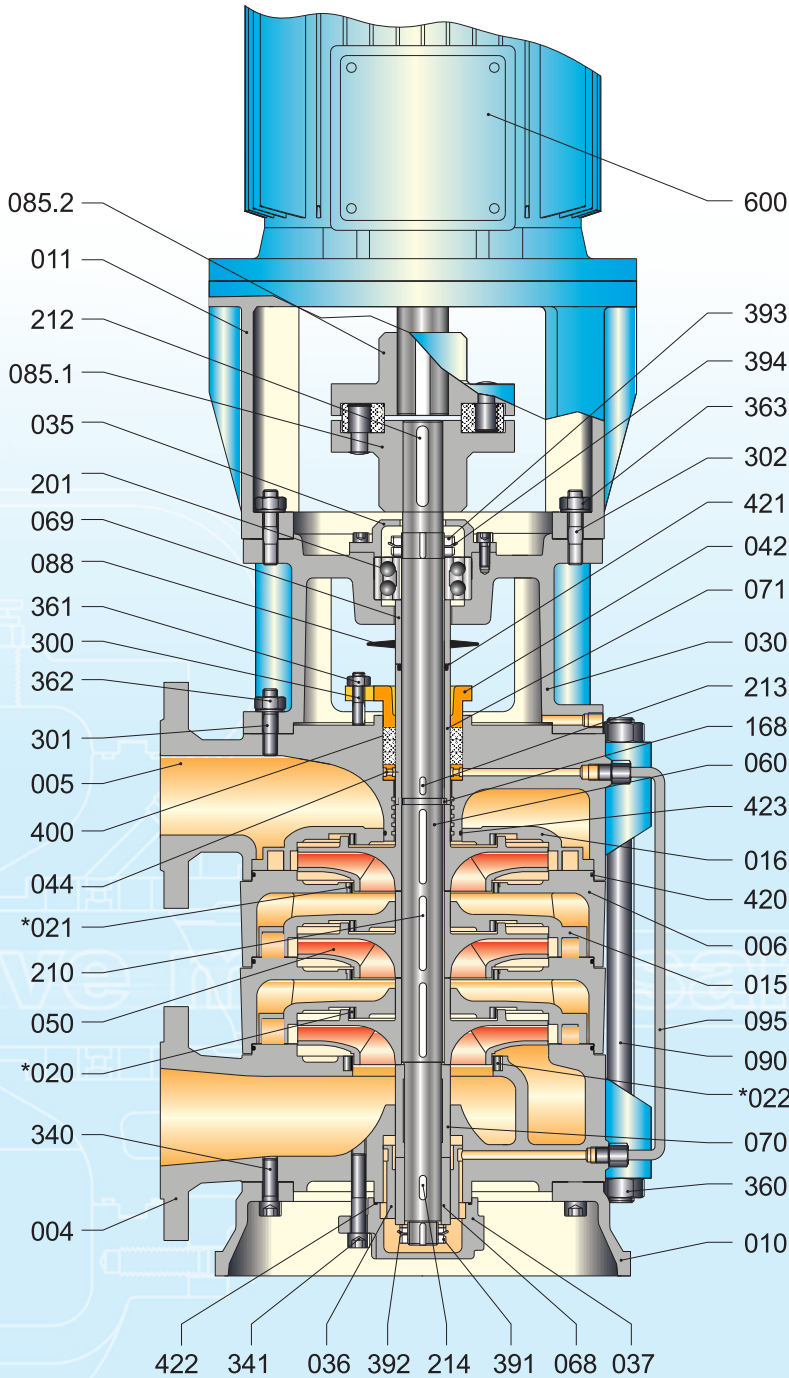
X X X



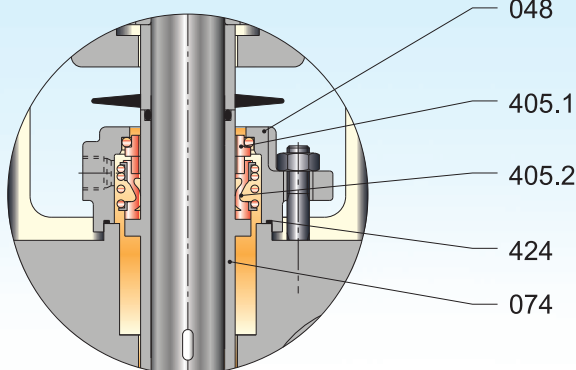
Sense of rotation viewed from driver end  
L : Left

Attention :

In the absence of specific requirement pumps are supplied with the following nozzle arrangements :  
L 3/9 : up to 2 stages  
L 3/3 : 3 or more stages



Mechanical Seal Application



PART LIST

- 004 Suction Casing
- 005 Discharge Casing
- 006 Stage Casing
- 010 Pump Foot
- 011 Motor Pedestal
- 015 Diffuser
- 016 Final Stage Diffuser
- \*020 Wear Ring (Stage Casing)
- \*021 Wear Ring (Stage Casing)
- \*022 Wear Ring (Suction Casing)
- 030 Bearing Housing
- 035 Bearing Cover
- 036 Sleeve Bearing
- 037 Sleeve Bearing Cover
- 042 Gland
- 044 Lantern Ring
- 048 Mechanical Seal Cover
- 050 Impeller
- 060 Pump Shaft
- 068 Shaft Sleeve
- 069 Spacer Sleeve (Discharge Casing)
- 070 Spacer Sleeve (Suction Casing)
- 071 Spacer Sleeve (Soft Packing)
- 074 Spacer Sleeve (Mechanical Seal)
- 085.1 Coupling (Pump Side)
- 085.2 Coupling (Motor Side)
- 088 Thrower
- 090 Tiebolt
- 095 Sleeve Bearing Feeding Pipe
- 168 Split Ring
- 201 Angular Contact Ball Bearing
- 210 Key (Impeller)
- 212 Key (Coupling)
- 213 Key
- 214 Key
- 300 Gland Stud
- 301 Stud
- 302 Stud
- 340 Allen Bolt
- 341 Allen Bolt
- 360 Hex. Nut
- 361 Hex. Nut
- 362 Hex. Nut
- 363 Hex. Nut
- 391 Shaft End Nut
- 392 Lock Washer
- 393 Shaft End Nut
- 394 Lock Washer
- 400 Stuffing Box Packing
- \*405.1 Mechanical Seal (Stationary Part)
- \*405.2 Mechanical Seal (Rotating Part)
- 420 O-Ring
- 421 O-Ring
- 422 O-Ring
- 423 O-Ring
- 424 O-Ring
- 600 Electric Motor

\* Optional