

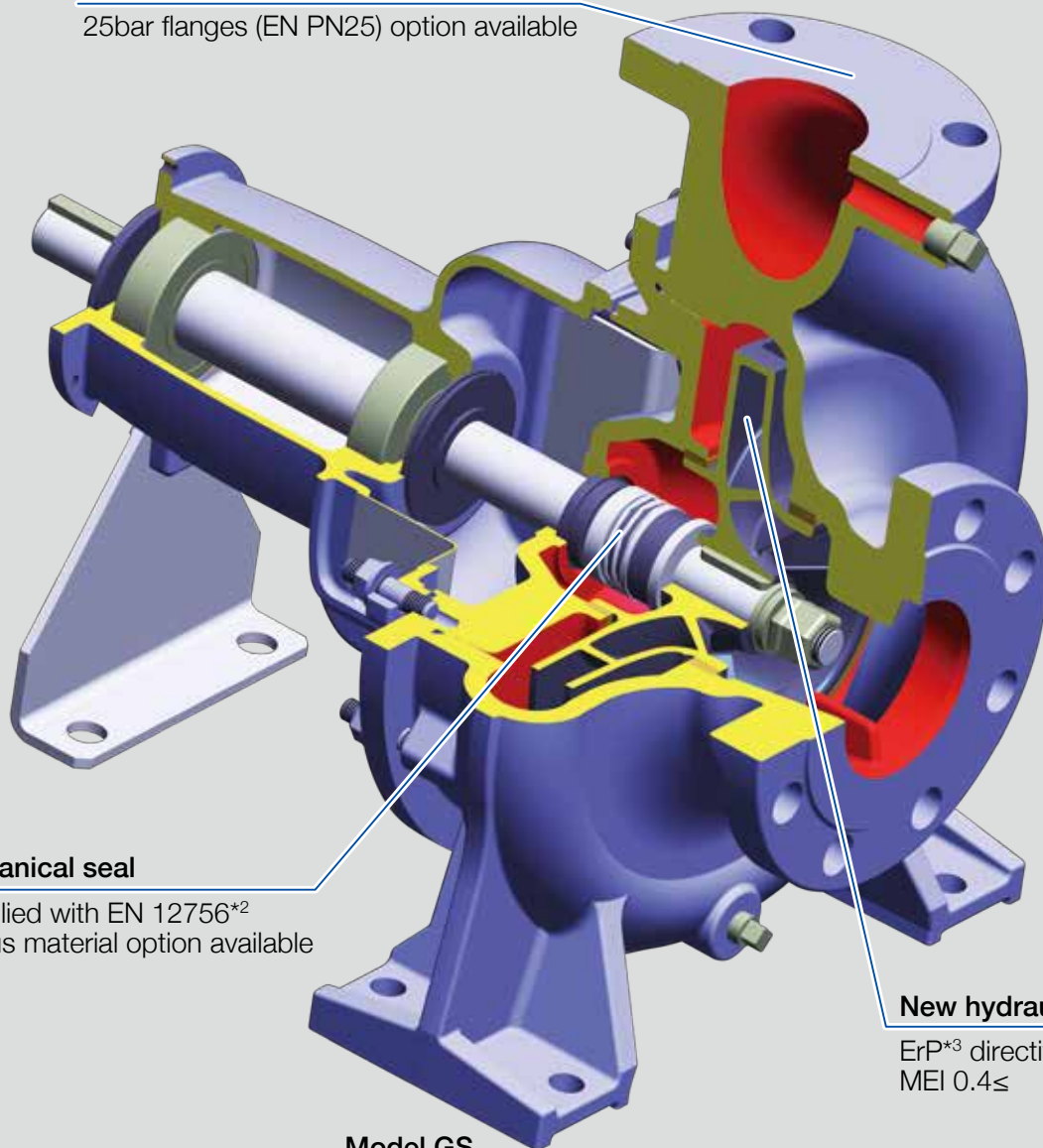
# GS SERIES PUMPS

## Standardized pumps

The European Standard EN733\*1 complied

### DIN 16bar flanges (EN PN16)

25bar flanges (EN PN25) option available



### Mechanical seal

Complied with EN 12756\*2  
Various material option available

### New hydraulic design

ErP\*3 directive complied  
MEI  $0.4 \leq$

Model GS

**EN733\*1** : End-suction centrifugal pumps, rating with 10 bar with bearing bracket - Nominal duty point, main dimensions, designation system

**EN 12756\*2** : Mechanical seals. Principal dimensions, designation and material codes

**ErP\*3** : Eco-design requirements of Energy-related Products

# PRODUCT FEATURES

## 1 ENERGY-SAVING DESIGN

- World top class pump efficiency achieved.
- Major improvement over our previous models by impeller designed using our proprietary 3D inverse design technology.
- Higher efficiency means lower energy consumption and motor output, and more compact size.

## 2 SIMPLE MAINTENANCE

- Back pull-out structure enables disassembly and inspection without removal of suction and discharge piping.
- Shield bearings eliminate need for adding or exchanging lubricating oil.
- Shaft seal flushing and quenching piping not required for the standard application.
- Air-bleeding not required.
- Simplified bearings and shaft seal enable easy assembly.

## 3 PUMP SPECIFICATIONS

- Maximum operating pressure: 25 bar
- Liquid temperature range expansion: -25°C to 140°C
- Compatible with multiple flange standards.
- Able to meet customer specifications with many combinations of shaft seals and materials.

## 4 INTERNATIONAL STANDARDS

- Pump dimensions adopt EN733
- Mechanical seal adopts EN12756
- Protector fitted in accordance with EN294.

# PUMP GENERAL SPECIFICATION

## MODEL GS

Casing Material: **Cast Iron**

		Description
Liquid temperature		<b>-10°C to 140°C</b>
Max. Operating Pressure		<b>Up to 16bar (1.6MPa) / for standard flange DIN-PN16</b> Up to 14bar (1.4MPa) / for standard flange JIS10K
Flange Standard		<b>EN1092-2</b> , JIS B 2239
Construction	Impeller	<b>Closed</b>
	Shaft seal	<b>Mechanical Seal , Gland Packing</b>
	Flushing	<b>N/A</b> , Self , External
	Ball bearing	<b>Shield ball bearing (grease lubrication)</b>
Material (*3)	Casing	<b>Cast iron</b>
	Impeller	<b>Cast iron or Ductile cast irons (*1)</b> <b>Bronze</b> , 304 Stainless steel
	Shaft	<b>Cr.steel</b> , Duplex stainless steel (*2)
	Case wear ring	<b>Bronze</b> , Cast iron
	Shaft sleeve	<b>N/A</b> , 304 Stainless steel (Gland packing or some mechanical seal)
	O-ring	<b>NBR</b> , FKM , EPDM

**Bold characters are applied for standard specification**

(\*1) Impellers made of ductile cast iron are applied only the pumps model GS100-400, 125-400, 125-500, 150-400, 150-500, 200-400 and 200-500.

(\*2) Wetted part only

(\*3) Please see P24 and P25 for specific materials

## MODEL GS

Casing Material: **Ductile Cast Irons (Larger than pump model 100X80)**

		Description
Liquid temperature		<b>-10°C to 140°C</b>
Max. Operating Pressure		<b>Up to 25bar (2.5MPa) / for standard flange DIN-PN25</b> Up to 25bar (2.5MPa) / for standard flange JIS20K
Flange Standard		<b>EN1092-2</b> , JIS B 2239
Construction	Impeller	<b>Closed</b>
	Shaft seal	<b>Mechanical Seal</b>
	Flushing	<b>N/A</b> , Self , External
	Ball bearing	<b>Shield ball bearing (grease lubrication)</b>
Material (*3)	Casing	<b>Ductile cast irons</b>
	Impeller	<b>Cast iron or Ductile cast irons (*1)</b> <b>Bronze</b> , 304 Stainless steel
	Shaft	<b>Cr.steel</b> , Duplex stainless steel (*2)
	Case wear ring	<b>Bronze</b> , Cast iron
	Shaft sleeve	<b>N/A</b> , 304 Stainless steel (in case of some mechanical seal)
	O-ring	<b>NBR</b> , FKM , EPDM

**Bold characters are applied for standard specification**

(\*1) Impellers made of ductile cast iron are applied only the pumps model GS100-400, 125-400, 125-500, 150-400, 150-500, 200-400 and 200-500.

(\*2) Wetted part only

(\*3) Please see P24 and P25 for specific materials

# PUMP GENERAL SPECIFICATION

## MODEL GSS

Casing Material: **Stainless Steel**

		Description
Liquid temperature		<b>-10°C to 140°C</b>
Max. Operating Pressure		<b>Up to 16bar (1.6MPa) / for standard flange DIN-PN16</b> Up to 14bar (1.4MPa) / for standard flange JIS10K
Flange Standard		<b>EN1092-2</b> , JIS B 2239
Construction	Impeller	<b>Closed</b>
	Shaft seal	<b>Mechanical Seal , Gland Packing</b>
	Flushing	<b>N/A</b> , Self , External
	Ball bearing	<b>Shield ball bearing (grease lubrication)</b>
Material (*2)	Casing	<b>304 Stainless steel</b> , 316 Stainless steel
	Impeller	<b>304 Stainless steel</b> , 316 Stainless steel
	Shaft	<b>Duplex stainless steel</b> (*1)
	Case wear ring	<b>316 Stainless steel</b>
	Shaft sleeve	<b>N/A</b> , 304/316 Stainless steel (in case of Gland packing or some mechanical seal)
	O-ring	<b>FKM</b> , EPDM

**Bold characters are applied for standard specification**

(\*1) Wetted part only

(\*2) Please see P24 and P25 for specific materials

# APPLICATIONS

## BUILDING

- **Air conditioning-District heating & cooling**

- General water supply
- Brine (antifreeze liquid)
- Hot water circulation
- High pressure booster

## WATER SUPPLY

- **Water supply duties for municipalities**

- **Irrigation**
- **Drainage clean water**
- **Fire fighting protection**
- **Swimming pool**

## GENERAL INDUSTRY

- **Semiconductor Industry**

- Pure water

- **Food Industry**

- General water (Cooling water, Recycling water, Filtered water)
- CIP (Cleaning In Place)

- **Pulp and Paper Industry**

- White water (below pulp conc.of 0.3%)

- **Automotive Industry**

- Water (without slurry)

- **Steel Industry-Non-ferrous metals Industry**

- Coolant
- Cooling Water

- **Garbage incineration**

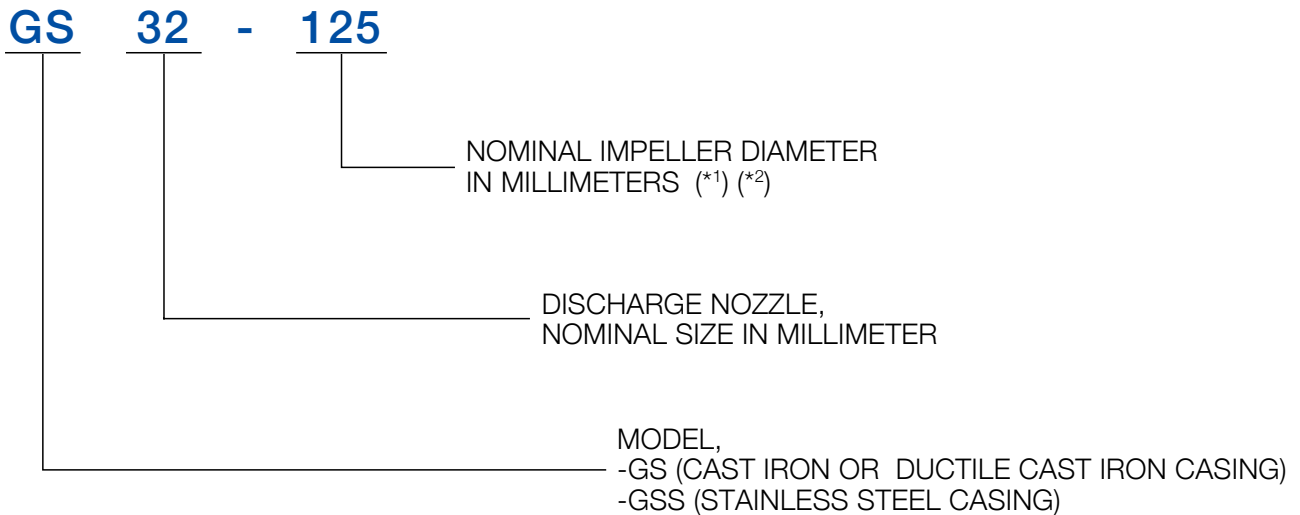
- Cooling Water
- Deaerater
- Condensate water

- **Other Chemical**

- **Diesel Oil, Fuel Oil, Lubricants Oil**

## MODEL CODE

The following designation is system according to EN733.

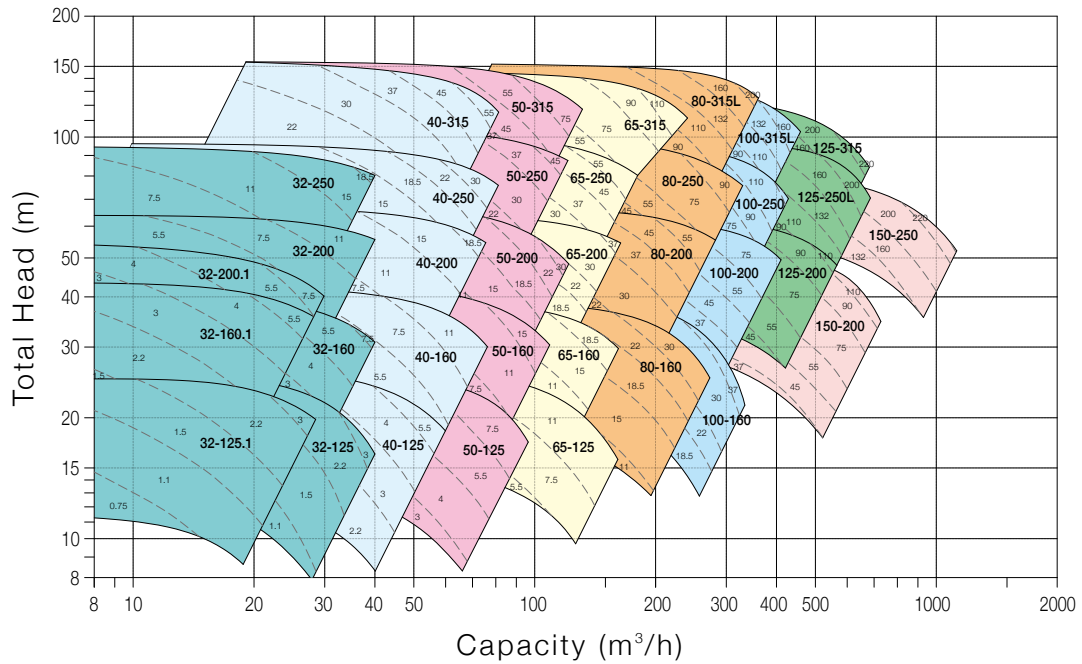


(\*1) The letter "L" following the impeller classification code indicates different bearing designs. To give an example, GS80-315 and GS80-315L have different bearing designs and shaft size.

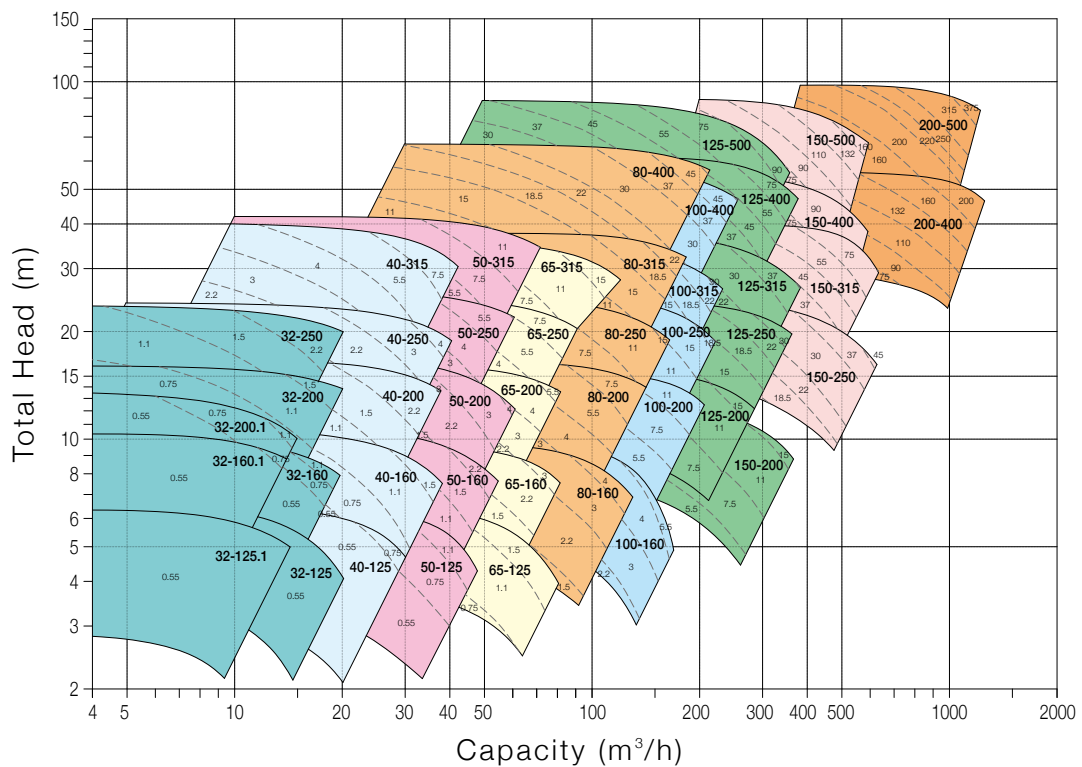
(\*2) The letter ".1" following the impeller classification code indicates different casing and impeller designs. To give an example, GS32-125 and GS32-125.1 have different casing and impeller designs from one another.

# PERFORMANCE CHART

## Model GS 2P/50Hz

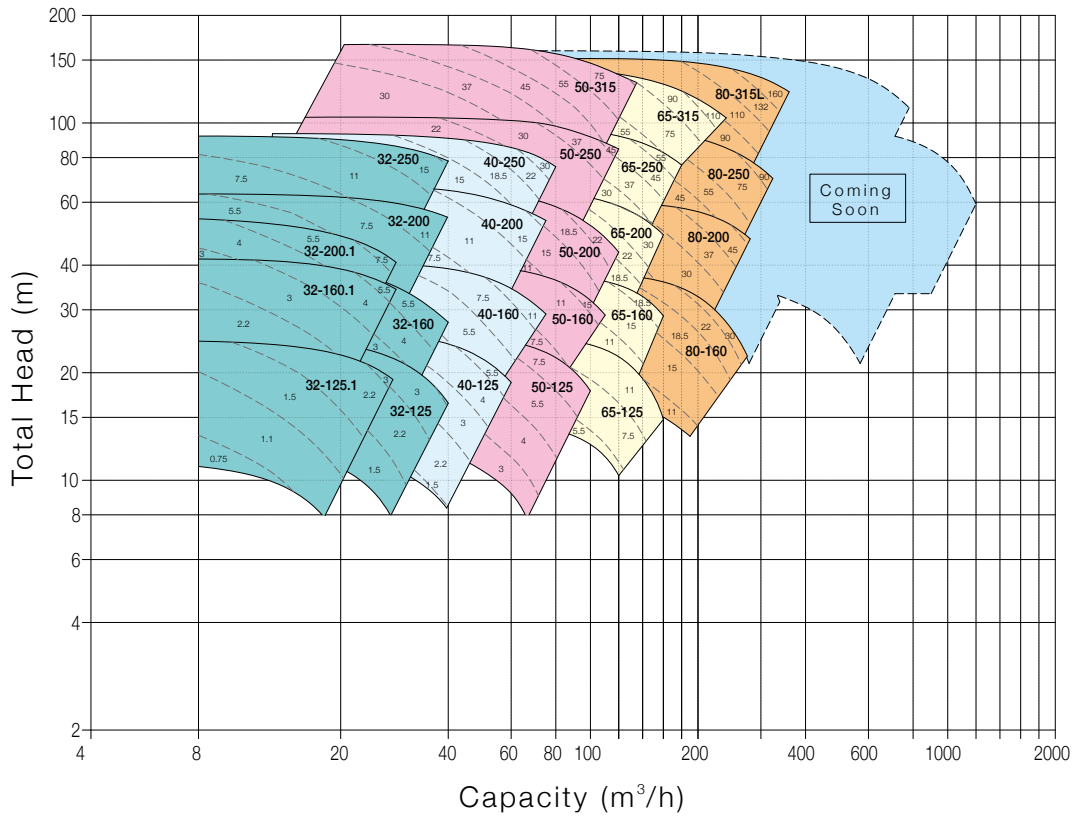


## Model GS 4P/50Hz

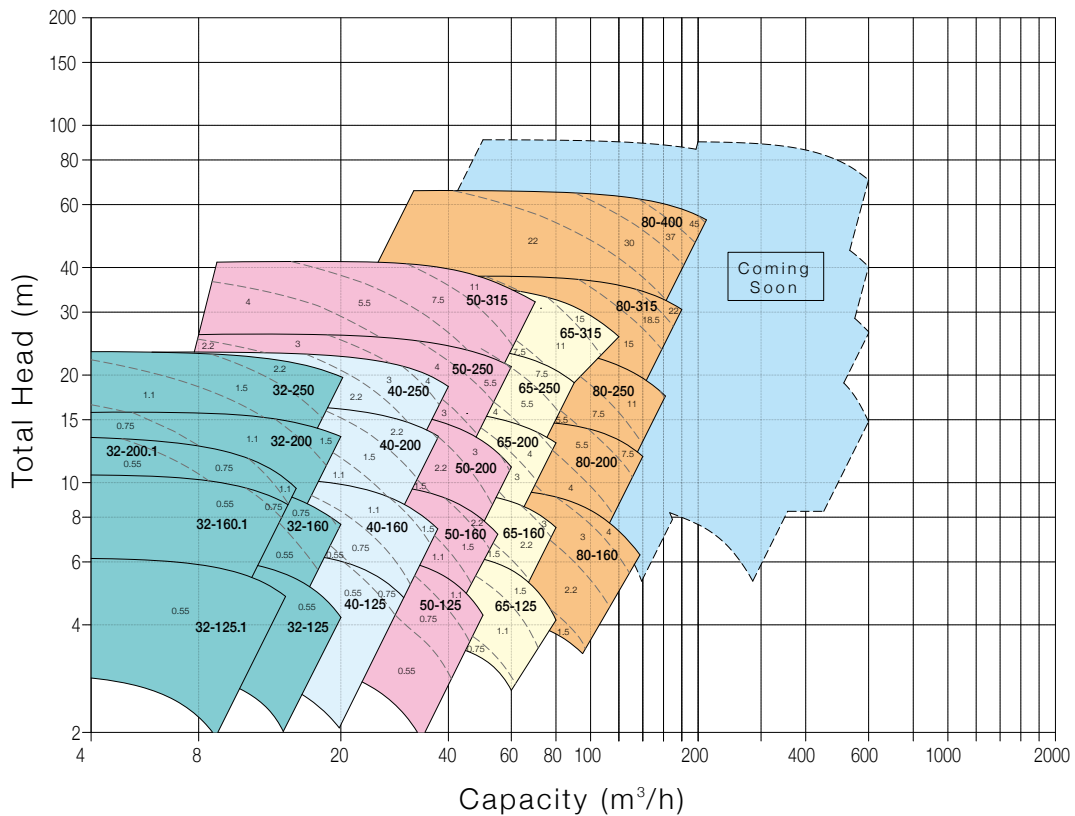


# PERFORMANCE CHART

## Model GSS 2P/50Hz



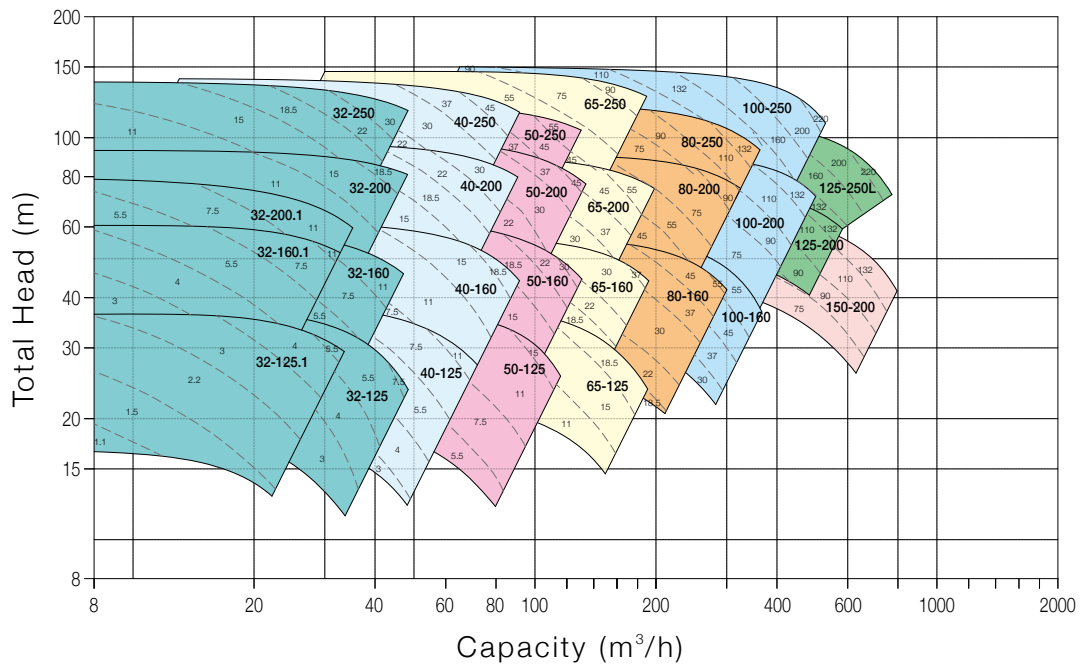
## Model GSS 4P/50Hz



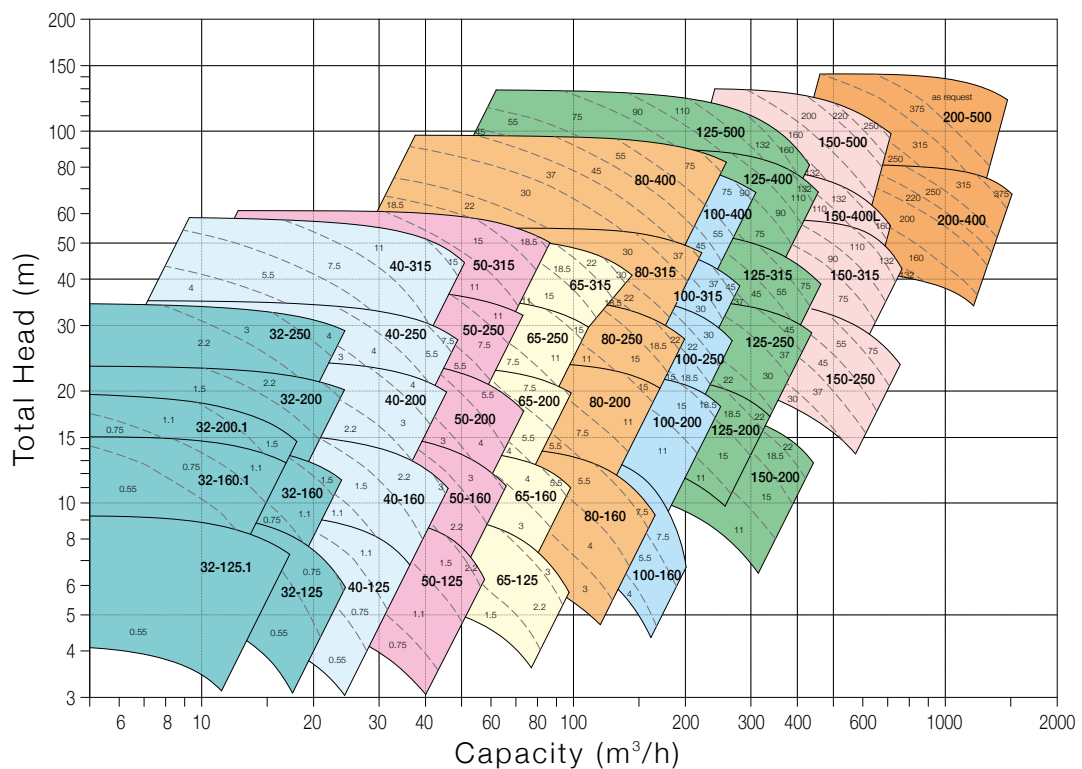


# PERFORMANCE CHART

## Model GS 2P/60Hz

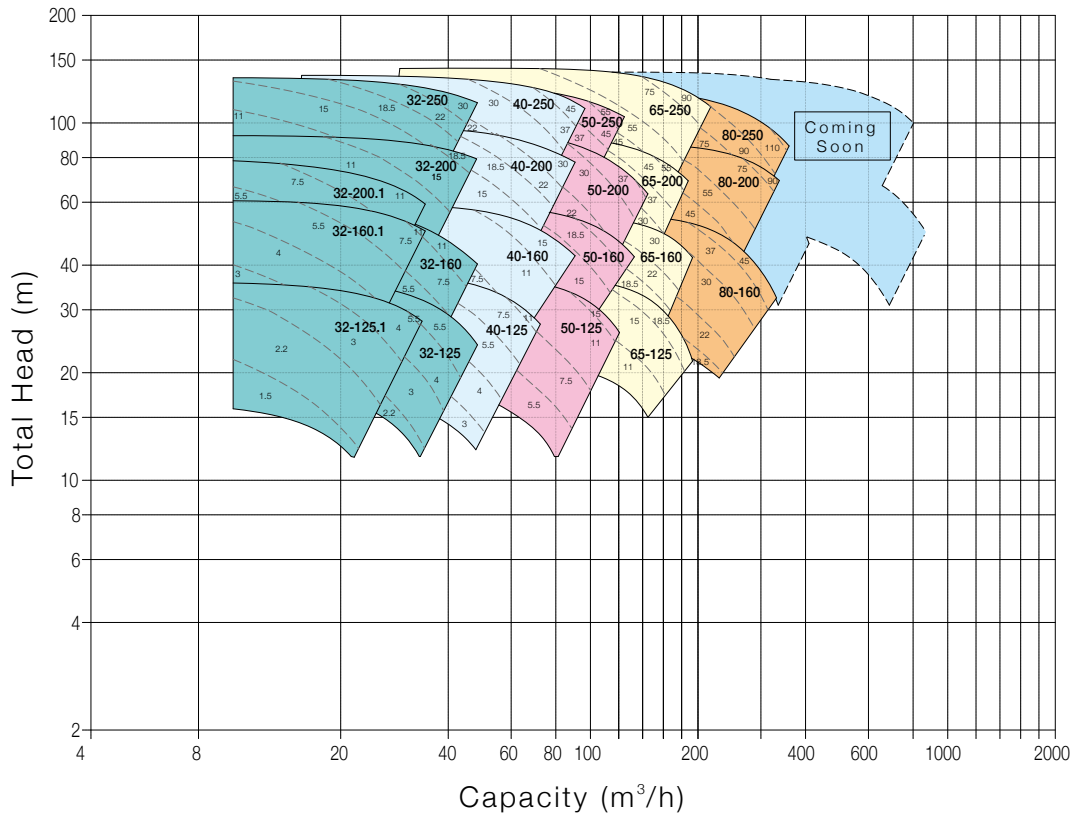


## Model GS 4P/60Hz

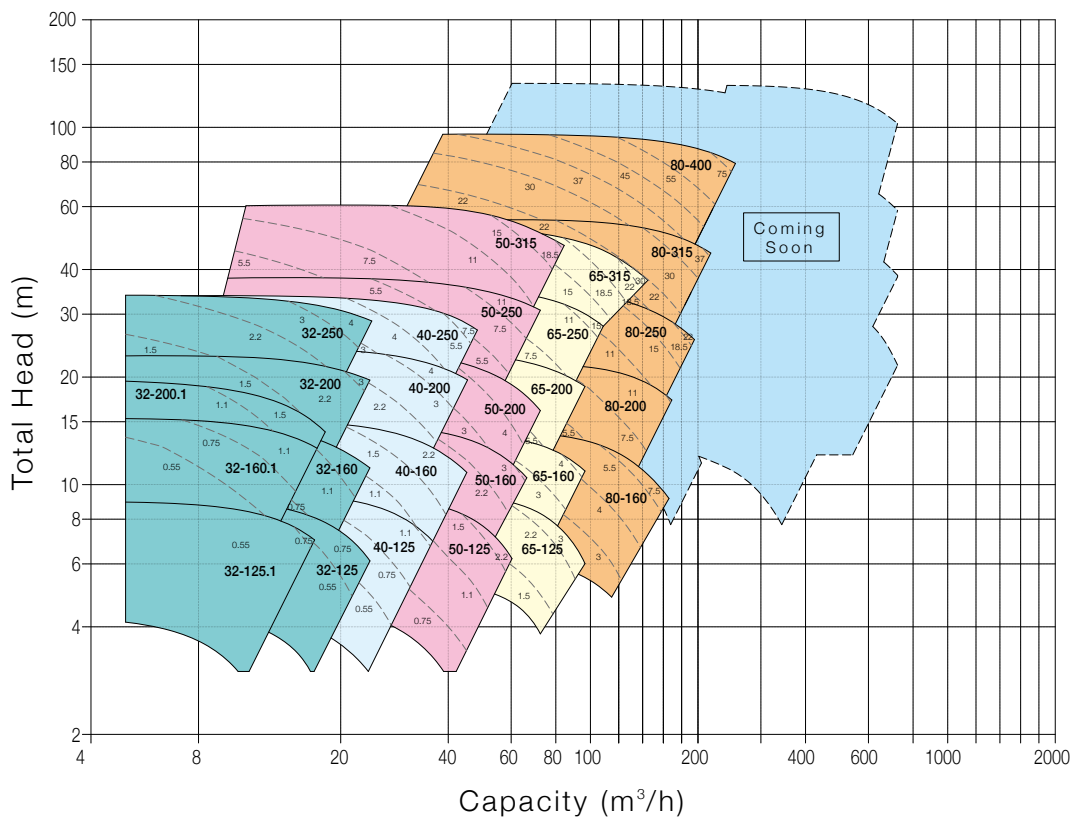


# PERFORMANCE CHART

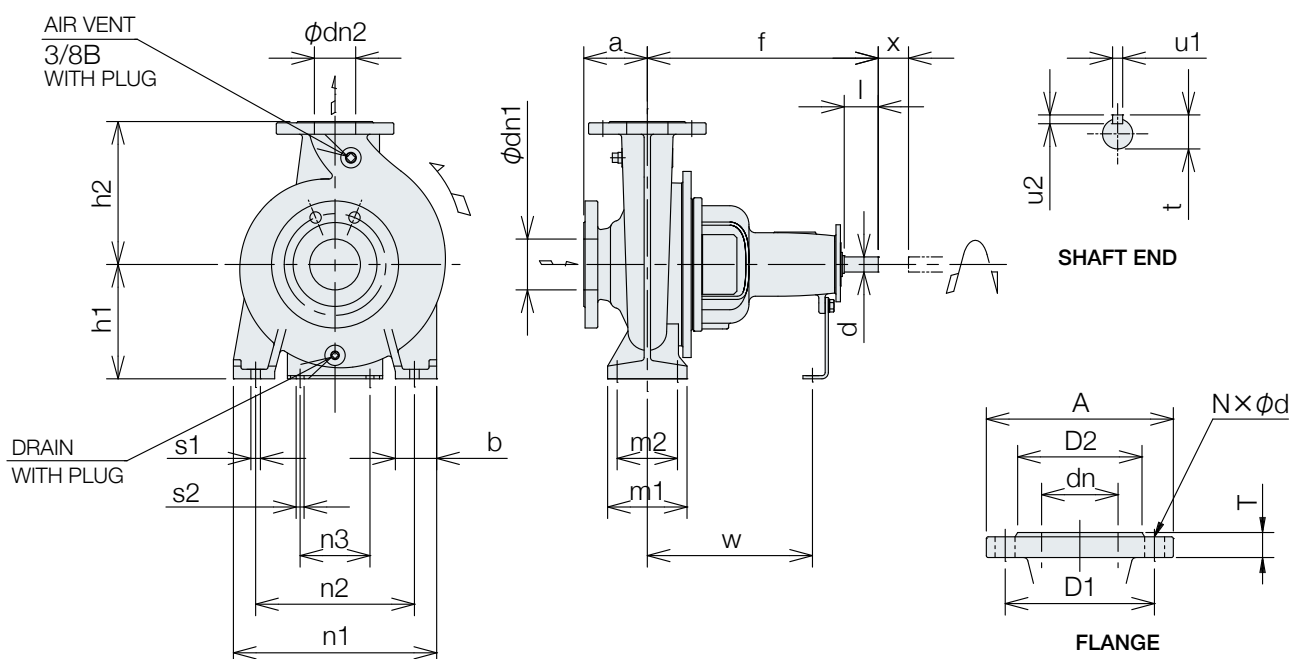
## Model GSS 2P/60Hz



## Model GSS 4P/60Hz



# DIMENSIONS



## Flange Dimension

Material: Cast Iron

Flange Standard: **EN PN16**

Unit: mm

MODEL	Suction flange							Discharge flange						
	dn1	A	D1	D2	T	N	d	dn2	A	D1	D2	T	N	d
GS32	50	165	125	99	20	4	19	32	140	100	76	18	4	19
GS40	65	185	145	118	20	4	19	40	150	110	84	18	4	19
GS50	65	185	145	118	20	4	19	50	165	125	99	20	4	19
GS65	80	200	160	132	22	8	19	65	185	145	118	20	4	19
GS80	100	220	180	156	24	8	19	80	200	160	132	22	8	19
GS100	125	250	210	184	26	8	19	100	220	180	156	24	8	19
GS125	150	285	240	211	26	8	23	125	250	210	184	26	8	19
GS150	200	340	295	266	30	12	23	150	285	240	211	26	8	23
GS200	250	405	355	319	32	12	28	200	340	295	266	30	12	23

Flange Standard: **JIS 10K**

Unit: mm

MODEL	Suction flange							Discharge flange						
	dn1	A	D1	D2	T	N	d	dn2	A	D1	D2	T	N	d
GS32	50	155	120	96	20	4	19	32	135	100	76	20	4	19
GS40	65	175	140	116	22	4	19	40	140	105	81	20	4	19
GS50	65	175	140	116	22	4	19	50	155	120	96	20	4	19
GS65	80	185	150	126	22	8	19	65	175	140	116	22	4	19
GS80	100	210	175	151	24	8	19	80	185	150	126	22	8	19
GS100	125	250	210	182	24	8	23	100	210	175	151	24	8	19
GS125	150	280	240	212	26	8	23	125	250	210	182	24	8	23
GS150	200	330	290	262	26	12	23	150	280	240	212	26	8	23
GS200	250	400	355	324	30	12	25	200	330	290	262	26	12	23

Material: Ductile Cast Iron

Flange Standard: **EN PN25**

Unit: mm

MODEL	Suction flange							Discharge flange						
	dn1	A	D1	D2	T	N	d	dn2	A	D1	D2	T	N	d
GS80	100	235	190	156	19	8	23	80	200	160	132	19	8	19
GS100	125	270	220	184	19	8	28	100	235	190	156	19	8	23
GS125	150	300	250	211	20	8	28	125	270	220	184	19	8	28
GS150	200	360	310	274	22	12	28	150	300	250	211	20	8	28
GS200	250	425	370	330	24.5	12	31	200	360	310	274	22	12	28

Flange Standard: **JIS 20K**

Unit: mm

MODEL	Suction flange							Discharge flange						
	dn1	A	D1	D2	T	N	d	dn2	A	D1	D2	T	N	d
GS80	100	225	185	160	24	8	23	80	200	160	132	22	8	23
GS100	125	270	225	195	26	8	25	100	225	185	160	24	8	23
GS125	150	305	260	230	28	12	25	125	270	225	195	26	8	25
GS150	200	350	305	275	30	12	25	150	305	260	230	28	12	25
GS200	250	430	380	345	34	12	27	200	350	305	275	30	12	25

# DIMENSIONS

## Dimensions of Bare Shaft Pump

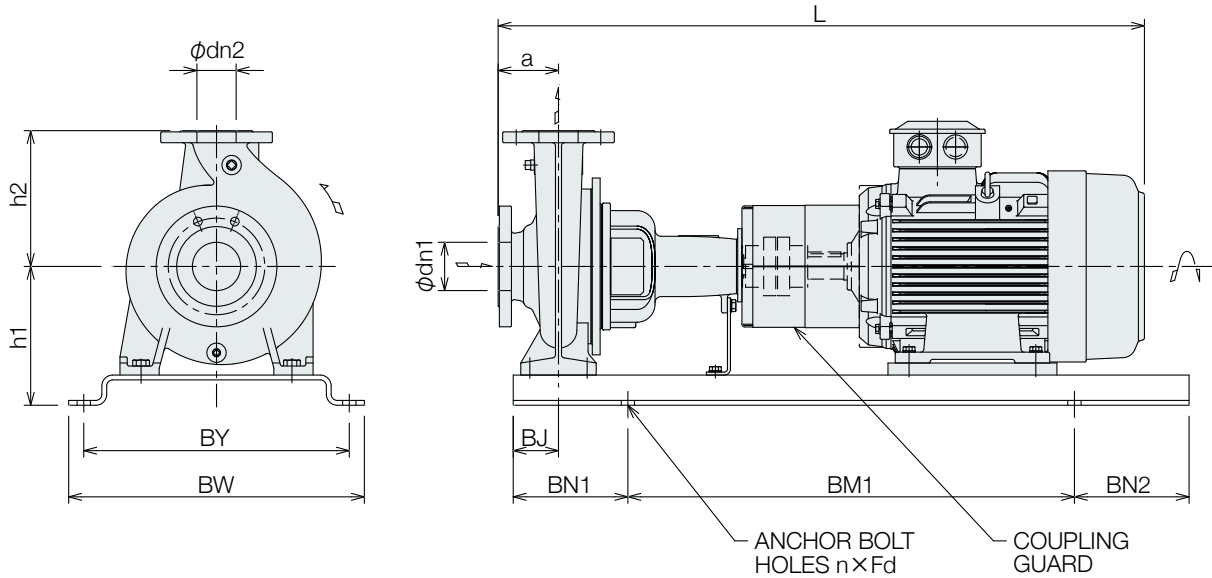
Unit: mm

MODEL	Nominal Diameter		Pump				DRAIN PLUG	Support								Shaft end					1)			Weight Kg	
	dn1	dn2	a	f	h1	h2		b	m1	m2	n1	n2	n3	W	s1	s2	d	l	t	u1	u2	X	GS	GSS	
32-125.1	50	32	80	360	112	140	1/4B	50	100	70	190	140	110	260	M12	M12	24	50	27	8	7	100	28	30	
32-125					100	28					27														
32-160.1					100	29					28														
32-160					100	29					28														
32-200.1					100	39					38														
32-200					100	39					37														
32-250					100	46					46														
40-125	65	40	80	360	112	140	1/4B	50	100	70	210	160	110	260	-	M12	24	50	27	8	7	100	30	29	
40-160					100	31					30														
40-200					100	41					40														
40-250					100	48					48														
40-315					125	82					83														
50-125	65	50	100	360	132	160	1/4B	50	100	70	240	190	110	260	M12	M12	24	50	27	8	7	100	33	34	
50-160					100	33					33														
50-200					100	44					43														
50-250					100	50					49														
50-315					125	86					86														
65-125	80	65	100	360	160	180	1/4B	65	125	95	280	212	110	260	M12	M12	24	50	27	8	7	100	37	37	
65-160					100	41					43														
65-200					140	47					45														
65-250					140	73					72														
65-315					125	90					89														
80-160	100	80	125	360	180	225	1/4B	65	125	95	320	250	110	260	M12	M12	24	50	27	8	7	140	46	48	
80-200					140	67					67														
80-250					140	77					77														
80-315					140	101					102														
80-315L					140	112					112														
80-400					140	162					160														
100-160	125	100	125	470	200	250	3/8B	80	160	120	360	280	110	340	M16	M12	32	80	35	10	8	140	91	future	
100-200					140	103																			
100-250					140	108																			
100-250L					140	120																			
100-315					140	109																			
100-315L					140	134																			
100-400					140	189																			
125-200	150	125	140	470	250	315	3/8B	80	160	120	400	315	110	340	M16	M12	32	80	35	10	8	140	120	future	
125-250					140	131																			
125-250L					140	148																			
125-315					140	176																			
125-400					140	218																			
125-500					180	365																			
150-200	200	150	160	470	280	355	3/8B	100	200	150	500	400	110	340	M20	M12	42	110	45	12	8	140	154	future	
150-250					140	171																			
150-315					140	225																			
150-400					140	339																			
150-400L					140	363																			
150-500					180	491																			
200-400	250	200	180	670	385	560	1/2B	100	315	250	660	560	140	500	M20	M16	60	110	64	18	11	180	508	future	
200-500											180	645													

1) Dimension to be considered by the manufacturer in respect of removal of inner parts of the Pump. The dimension X must not be identical with the distance between the shafts of the pump and the driving machine. The given dimension considers the use of flexible shaft couplings with spacer sleeve. The gap is necessary for the withdrawal of the rotor toward the driven side.

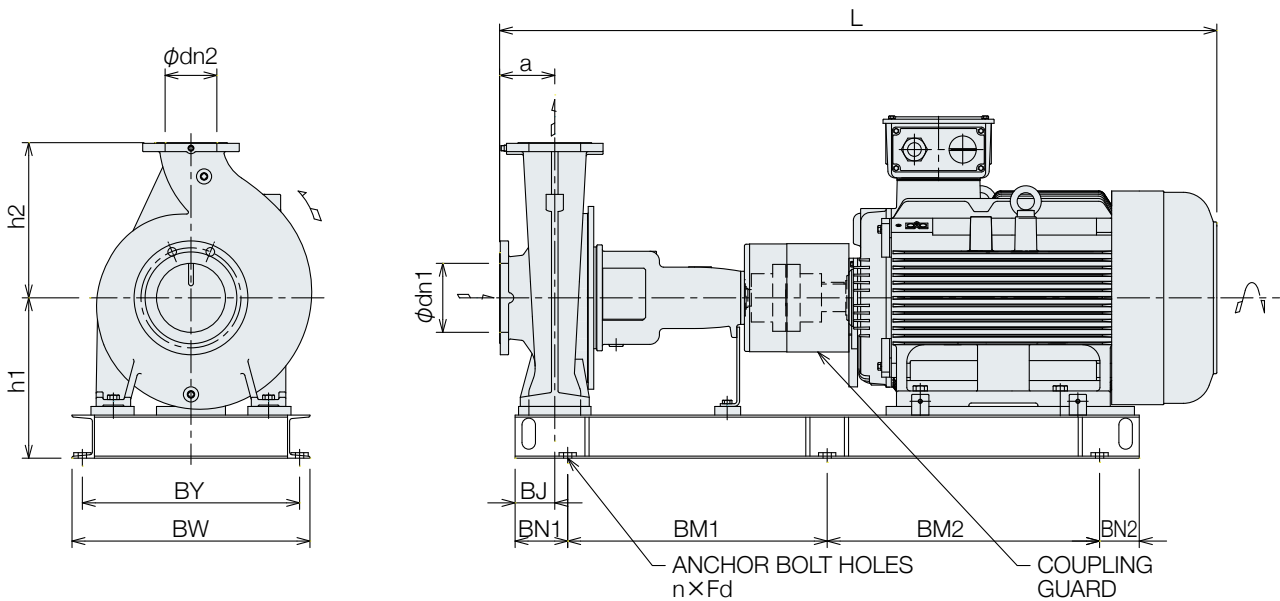
# DIMENSIONS

## Model GS/GSS with Motor ISO BASE (Fig. A)



\*This base is not necessary to grout.  
Special base can be provided for grouting.

## CHANNEL BASE (Fig. B)



# DIMENSIONS

## DIMENSION-Model GS/GSS Pump with Moter-2P 50Hz/60Hz

Model	Pole	Hz		Power kW	Fig	Size				Pump		Motor✕		Base								Total (Approx.)				
		50	60			dn1	dn2	a	h2	wt(kg)		Frame	wt(kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	wt(kg)	L	Weight kg	
		✓	✓			GS	GSS																			GS
32-125.1	2	✓	✓	0.75	A	50	32	80	140	28	30	80M	16.5	162	60	540	-	130	130	320	360	4xM16	21	736	76	78
		80M	18	78								80														
		90S	23	812								82	84													
		90L	27	812								87	89													
		100L	37.5	835								98	100													
		112M	47.5	855								110	112													
		132S	61	855								132	134													
		132S	61	909								132	134													
		132S	61	909								132	134													
		132S	61	909								132	134													
32-125	2	✓	✓	0.75	A	50	32	80	140	28	27	80M	16.5	162	60	540	-	130	130	320	360	4xM16	21	736	76	75
		80M	18	78								77														
		90S	23	812								82	81													
		90L	27	812								87	86													
		100L	37.5	835								98	97													
		112M	47.5	855								110	109													
		132S	61	855								132	131													
		132S	61	909								132	131													
		132S	61	909								132	131													
		132S	61	909								132	131													
32-160.1	2	✓	✓	1.5	A	50	32	80	160	29	28	90S	23	182	60	540	-	130	130	350	390	4xM16	23	787	88	87
		90L	27	812								92	91													
		100L	37.5	835								105	104													
		112M	47.5	855								114	113													
		132S	61	855								131	130													
		132S	61	909								136	135													
		132S	61	909								136	135													
		132S	61	909								136	135													
		132S	61	909								136	135													
		132S	61	909								136	135													
32-160	2	✓	✓	2.2	A	50	32	80	160	29	28	90L	27	182	60	540	-	130	130	350	390	4xM16	23	812	92	91
		100L	37.5	835								105	104													
		112M	47.5	855								114	113													
		132S	61	855								131	130													
		132S	61	909								136	135													
		132S	61	909								136	135													
		132S	61	909								136	135													
		132S	61	909								136	135													
		132S	61	909								136	135													
		132S	61	909								136	135													
32-200.1	2	✓	✓	3	A	50	32	80	180	39	38	100L	37.5	210	60	540	-	130	130	350	390	4xM16	23	835	117	116
		112M	47.5	855								129	128													
		132S	61	855								145	144													
		132S	61	909								150	149													
		160M	105	909								199	198													
		160M	105	909								199	198													
		160M	105	909								199	198													
		160M	105	909								199	198													
		160M	105	909								199	198													
		160M	105	909								199	198													
32-200	2	✓	✓	5.5	A	50	32	80	180	39	37	132S	61	210	60	600	-	150	150	350	390	4xM16	25	909	145	143
		132S	65	150								148														
		160M	105	199								197														
		160M	120	1051								215	213													
		160L	135	1095								232	230													
		180M	175	1116								282	280													
		180M	175	1116								282	280													
		180M	175	1116								282	280													
		180M	175	1116								282	280													
		180M	175	1116								282	280													
32-250	2	✓	✓	7.5	A	50	32	100	225	46	46	132S	65	230	75	660	-	170	170	440	490	4xM20	31	929	169	169
		160M	105	1071								215	215													
		160M	120	1115								248	248													
		160L	135	1136								288	288													
		180M	175	1234								370	370													
		200L	240	1234								370	370													
		200L	240	1234								370	370													
		200L	240	1234								370	370													
		200L	240	1234								370	370													
		200L	240	1234								370	370													
40-125	2	✓	✓	1.5	A	65	40	80	140	30	29	90S	23	162	60	540	-	130	130	320	360	4xM16	21	787	84	83
		90L	27	812								89	88													
		100L	37.5	835								100	99													
		112M	47.5	855								112	111													
		132S	61	855								134	133													
		132S	65	909								138	137													
		132S	65	909								138	137													
		132S	65	909								138	137													
		132S	65	909								138	137													
		132S	65	909								138	137													
40-160	2	✓	✓	4	A	65	40	80	160	31	30	112M	47.5	182	60	540	-	130	130	350	390	4xM16	23	855	116	115
		132S	61	855								134	133													
		132S	65	909								138	137													
		160M	105	1051								192	191													
		160M	120	1095								208	207													
		160L	135	1095								225	224													
		160L	135	1095								225	224													
		160L	135	1095								225	224													
		160L	135	1095								225	224													
		160L	135	1095								225	224													
40-200	2	✓	✓	7.5	A	65	40	100	180	41	40	132S	65	210	60	660	-	150	150	350	390	4xM16	25	929	152	151
		160M	105	1071								201	200													
		160M	120	1115								217	216													
		160L	135	1115								234	233													
		180M	175	1136								284	283													
		200L	240	1234								369	368													
		200L	240	1234								369	368													
		200L	240	1234								369	368													
		200L	240	1234								369	368													
		200L	240	1234								369	368													
40-250	2	✓	✓	11	A	65	40	100	225	48	48	160M	105	230	75	660	-	170	170	440	490	4xM20	35	1071	217	217
		160M	120	1115								233	233													
		160L	135	1136								250	250													
		180M	175	1136								291	291													
		200L	240	1234								376	376													
		200L	270	1234								409	409													
		225MA	315	1275								488	488													
		250MA	405	1385								609	609													
		250MA	405	1385								609	609													
		250MA	405	1385								609	609													
40-315	2	✓	✓	22	A	65	40	125	250	82	83	180M	175	275	75	840	-	205	205	490	540	4xM20	47	1271	355	356
		200L	240	1369								425	426													
		200L	270	1369								458	459													
		225MA	315	1410								520	521													
		250MA	405	1520								641	642													
		250MA	405	1520								641	642													
		250MA	405	1520								641	642													
		250MA	405	1520								641	642													
		250MA	405	1520								641	642													
		280SA	515	1636								802	803													

# DIMENSIONS

Model	Pole	Hz		Power kW	Fig	Size				Pump		Motor※		Base								Total (Approx.)				
		50	60			dn1	dn2	a	h2	wt(kg)		Frame	wt(kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	wt(kg)	L	Weight kg	
				GS		GSS																			GS	GSS
50-125	2	✓		2.2	A	65	50	100	160	33	34	90L	27	182	60	540	-	130	130	350	390	4xM16	23	832	97	98
		100L	37.5	855								110	111													
		112M	47.5	875								118	119													
		132S	61																							
		132S	65																							
		160M	105																							
		160M	120																							
50-160	2	✓		5.5	A	65	50	100	180	33	33	132S	61	210	60	600	-	150	150	400	450	4xM16	25	929	136	137
		132S	65	929								140	141													
		160M	105	1071								194	195													
		160M	120	1071								210	211													
		160L	135																							
		180M	175																							
		200L	240																							
50-200	2	✓		11	A	65	50	100	200	44	43	160M	105	210	60	660	-	170	170	400	450	4xM20	32	1071	204	203
		160M	120	1071								221	220													
		160L	135	1115								237	236													
		180M	175	1136								287	286													
		200L	240	1234								372	371													
		200L	270																							
		225MA	315																							
50-250	2	✓		22	A	65	50	100	225	50	49	180M	175	250	75	740	-	190	190	490	540	4xM20	35	1136	293	292
		200L	240	1234								378	377													
		200L	270	1234								411	410													
		225MA	315	1275								490	489													
		250MA	405	1385								611	610													
		200L	240																							
		200L	270																							
50-315	2	✓		30	A	65	50	125	280	86	86	200L	240	275	75	840	-	205	205	490	540	4xM20	47	1369	430	430
		200L	270	1410								463	463													
		225MA	315	1410								524	524													
		250MA	405	1520								645	645													
		280SA	515	1636								797	797													
		280MA	552	1686								847	847													
		200L	240																							
65-125	2	✓		4	A	80	65	100	180	37	37	112M	47.5	210	75	660	-	170	170	400	450	4xM20	32	875	130	130
		132S	61	929								151	151													
		132S	65	929								155	155													
		160M	105	1071								196	196													
		160M	120	1071								213	213													
		160L	135	1115								229	229													
		180M	175	1136								281	281													
65-160	2	✓		7.5	A	80	65	100	200	41	43	132S	65	210	75	660	-	170	170	400	450	4xM20	32	929	160	162
		160M	105	1071								201	203													
		160M	120	1071								217	219													
		160L	135	1115								234	236													
		180M	175	1136								285	287													
		200L	240	1234								370	372													
		200L	270																							
65-200	2	✓		11	A	80	65	100	225	47	45	160M	105	230	75	660	-	170	170	440	490	4xM20	35	1071	216	214
		160M	120	1115								249	247													
		160L	135	1136								289	287													
		180M	175	1234								375	373													
		200L	240	1234								408	406													
		200L	270																							
		225MA	315																							
65-250	2	✓		22	A	80	65	100	250	73	72	180M	175	250	90	840	-	205	205	490	540	4xM20	47	1246	337	336
		200L	240	1344								407	406													
		200L	270	1344								440	439													
		225MA	315	1385								514	513													
		250MA	405	1495								637	636													
		280SA	515																							
		280MA	552																							
65-315	2	✓		55	A	80	65	125	280	90	89	250MA	405	325	90	1060	-	230	230	600	660	4xM24	104	1636	805	804
		280SA	515	1686								855	854													
		280MA	552	1815								1173	1172													
		315SA	800	1865								1283	1282													
		315MA	900																							
		160M	105																							
		160M	120																							
80-160	2	✓		11	A	100	80	125	225	46	48	160M	105	230	75	660	-	170	170	440	490	4xM20	35	1096	215	217
		160M	120	1140								248	250													
		160L	135	1161								288	290													
		180M	175	1259								374	376													
		200L	240	1259								407	409													
		200L	270																							
		225MA	315																							
80-200	2	✓		30	A	100	80	125	250	67	67	200L	240	250	75	740	-	190	190	490	540	4xM20	42	1259	374	376
		200L	270	1300								485	487													
		225MA	315	1410								606	608													
		250MA	405	1410								606	608													
		180M	175																							
		200L	240																							
		200L	270																							
80-250	2	✓		45	A	100	80	125	280	77	77	180M	175	230	90	840	-	205	205	490	540	4xM20	39	1271	316	316
		200L	240	1271								402	402													
		200L	270	1369								435	435													
		225MA	315	1410								508	508													
		250MA	405	1520								630	630													
		280SA	515																							
		280MA	552																							
80-315L	2	✓		90	B	100	80	125	315	112	112	225MA	315	300	90	1060	-	270	270	670	730	4xM24	104	1686	822	822
		250MA	405	1410								519	519													
		280SA	515	1520								641	641													
		280MA	552	1636								795	795													
		315SA	800	1815								1164	1164													
		315MA	900	1865								1274	1274													
		280MA	552																							
315SA	800																									
315MA	900																									
315LA	980																									
315LA	1100																									

# DIMENSIONS

Model	Pole	Hz		Power kW	Fig	Size				Pump		Motor※		Base								Total (Approx.)				
		50	60			dn1	dn2	a	h2	wt(kg)		Frame	wt(kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	wt(kg)	L	Weight kg	
		✓	✓	GS		GSS	GS	GSS	GS	GSS																
100-160	2	✓		15	A	125	100	125	250	91	future	160M	120	250	90	840	-	205	205	490	540	4xM20	47	1206	300	future
		✓		18.5								160L	135											1250	317	
		✓	✓	22								180M	175											1271	356	
		✓	✓	30								200L	240											1369	426	
		✓	✓	37								200L	270											1369	459	
		✓	✓	45								225MA	315											1410	534	
		✓	✓	55								250MA	405											1520	657	
												225MA	315											1271	370	
100-200	2	✓		22	A	125	100	125	280	103	future	180M	175	250	90	840	-	205	205	490	540	4xM20	47	1271	370	future
		✓		30								200L	240											1369	440	
		✓	✓	37								200L	270											1369	473	
		✓	✓	45								225MA	315											1410	547	
		✓	✓	55								250MA	405											1520	670	
		✓	✓	75								280SA	515											1636	824	
	2	✓		90	B	125	100	140	280	108	future	280MA	552	380	1060	270	270	670	730	6xM20	175	1815	1193	future		
		✓	✓	110								315SA	800									1865	1303			
		✓	✓	132								315MA	900									1880	1303			
		✓		37								200L	270									1384	508			
		✓		45								225MA	315									1425	548			
		✓		55								250MA	405									1535	671			
100-250	2	✓		75	A	125	100	140	280	108	future	280SA	515	380	1060	270	270	670	730	4xM24	104	1651	825	future		
		✓	✓	90								280MA	552									1701	875			
		✓	✓	110								315SA	800									1830	1193			
		✓	✓	132								315MA	900									1880	1303			
		✓		37								200L	270									1384	508			
		✓		45								225MA	315									1425	548			
	2	✓		90	B	125	100	140	280	120	future	280SA	515	465	120	680	680	120	120	630	690	6xM20	170	1830	1206	future
		✓	✓	110								315SA	800											1880	1303	
		✓	✓	132								315MA	900											1940	1321	
		✓		160								315LA	980											2040	1414	
		✓		200								315LA	1100											2155	1555	
		✓		220								355MA	1550											2279	2100	
100-250L	2	✓		90	A	125	100	140	280	120	future	280MA	552	380	90	1060	-	270	270	670	730	4xM24	104	1711	849	future
		✓		110								315SA	800											1890	1227	
		✓	✓	132								315MA	900											1940	1337	
		✓	✓	160								315LA	980											2040	1414	
		✓	✓	200								315LA	1100											2155	1555	
		✓	✓	220								355MA	1550											2279	2100	
	2	✓		75	B	125	100	140	315	134	future	280SA	515	465	120	710	710	120	120	630	690	6xM20	175	1890	1227	future
		✓		90								280MA	552											1940	1321	
		✓	✓	110								315SA	800											2040	1414	
		✓	✓	132								315MA	900											2155	1555	
		✓	✓	160								315LA	980											2279	2100	
		✓	✓	200								315LA	1100											2425	2255	
100-315L	2	✓		75	A	125	100	140	315	134	future	280SA	515	380	90	1060	-	270	270	670	730	4xM24	104	1711	849	future
		✓		90								280MA	552											1761	899	
		✓	✓	110								315SA	800											1890	1227	
		✓	✓	132								315MA	900											1940	1337	
		✓	✓	160								315LA	980											2040	1438	
		✓	✓	200								315LA	1100											2157	1570	
	2	✓		75	B	125	100	140	315	134	future	280SA	515	465	120	710	710	120	120	630	690	6xM20	175	1890	1227	future
		✓		90								280MA	552											1940	1337	
		✓	✓	110								315SA	800											2040	1438	
		✓	✓	132								315MA	900											2157	1570	
		✓	✓	160								315LA	980											2279	2100	
		✓	✓	200								315LA	1100											2425	2255	
125-200	2	✓		45	A	150	125	140	315	120	future	225MA	315	325	90	840	-	205	205	550	610	4xM24	66	1425	571	future
		✓		55								250MA	405											1535	680	
		✓	✓	75								280SA	515											1651	834	
		✓	✓	90								280MA	552											1701	883	
		✓	✓	110								315SA	800											1830	1206	
		✓	✓	132								315MA	900											1880	1316	
	2	✓		75	B	150	125	140	315	148	future	280SA	515	465	120	680	680	120	120	630	690	6xM20	170	1830	1206	future
		✓		90								280MA	552											1880	1316	
		✓	✓	110								315SA	800											1940	1337	
		✓	✓	132								315MA	900											2040	1438	
		✓	✓	160								315LA	980											2157	1570	
		✓	✓	200								315LA	1100											2279	2100	
125-250L	2	✓		75	A	150	125	140	355	148	future	280SA	515	380	90	1060	-	270	270	670	730	4xM24	104	1711	865	future
		✓		90								280MA	552											1761	914	
		✓	✓	110								315SA	800											1890	1242	
		✓	✓	132								315MA	900											1940	1352	
		✓	✓	160								315LA	980											2040	1454	
		✓	✓	200								315LA	1100											2158	1586	
	2	✓		220	B	150	125	140	355	176	future	355MA	1550	505	135	840	840	135	135	765	825	6xM20	230	2279	2131	future
		✓		250								355MA	1650											2425	2255	
		✓	✓	110								315SA	800											1890	1283	
		✓	✓	132								315MA	900											1940	1393	
		✓	✓	160								315LA	980											2040	1495	
		✓	✓	200								315LA	1100											2162	1627	
125-315	2	✓		220	B	150	125	140	355	176	future	355MA	1550	505	135	840	840	135	135	765	825	6xM20	230	2279	2162	future
		✓		250								355MA	1650											2425	2285	
		✓	✓	110								315SA	800											1890	1283	
		✓	✓	132								315MA	900											1940	1393	
		✓	✓	160								315LA	980											2040	1495	
		✓	✓	200								315LA	1100											2162	1627	
	2	✓		220	B	150	125	140	355	176	future	355MA	1550	505	135	840	840	135	135	765	825	6xM20	230	2279	2162	future
		✓		250								355MA	1650											2425	2285	
		✓	✓	110								315SA	800											1890	1283	
		✓	✓	132								315MA	900											1940	1393	
		✓	✓	160								315LA	980											2040	1495	
		✓	✓	200								315LA	1100											2162	1627	
150-200	2	✓		37	A	200	150	160	355	154	future	200L	270	380	110	940	-	230	230	670	730	4xM24	92	1404	600	future
		✓		45								225MA	315											1445	649	
		✓	✓	55								250MA	405											1555	745	
		✓	✓	75								280SA	515											1671	866	
		✓	✓	90								280MA	552											1721	915	
		✓	✓	110								315SA	800											1850	1254	
	2	✓		132	B	200	150	160	375	171	future	315MA	900	465	120	680	680	120	120	630	690	6xM20	180	1900	1364	future
		✓		160								315LA	980											2060	1489	
		✓	✓	200								315LA	1100											2162	1621	
		✓	✓	220								355MA	1550											2255	2156	
		✓	✓	250								355MA	1650											2279	2279	
		✓	✓	250								355MA	1650											2279	2279	

※Up to 55kW: EBARA motor  
more than 75kW: TECO motor(AESV)



# DIMENSIONS

## DIMENSION-Model GS/GSS Pump with motor-4P 50Hz/60Hz

Model	Pole	Hz		Power kW	Fig	Size				Pump		Motor**		Base								Total (Approx.)				
		50	60			Fig	dn1	dn2	a	h2	wt(kg)		Frame	wt(kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	wt(kg)	L	Weight kg
		GS	GSS	GS		GSS	Frame	wt(kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	wt(kg)	L	GS	GSS					
32-125.1	4	✓	✓	0.55	A	50	32	80	140	28	30	80M	15	162	60	540	-	130	130	320	360	4xM16	21	736	75	77
		80M	16.5	76								78														
32-125	4	✓	✓	0.55	A	50	32	80	140	28	27	80M	15	162	60	540	-	130	130	320	360	4xM16	21	736	75	76
		80M	16.5	76								77														
32-160.1	4	✓	✓	0.55	A	50	32	80	160	29	28	80M	15	182	60	540	-	130	130	350	390	4xM16	23	736	79	78
		80M	16.5	80								79														
32-160	4	✓	✓	0.55	A	50	32	80	160	29	28	80M	15	182	60	540	-	130	130	350	390	4xM16	23	736	79	78
		80M	16.5	80								79														
32-200.1	4	✓	✓	0.55	A	50	32	80	180	39	38	80M	15	210	60	540	-	130	130	350	390	4xM16	23	736	90	91
		80M	16.5	92								91														
32-200	4	✓	✓	0.55	A	50	32	80	180	39	37	80M	16.5	210	60	540	-	130	130	350	390	4xM16	23	736	92	90
		80M	16.5	92								90														
32-250	4	✓	✓	0.55	A	50	32	100	225	46	46	80M	16.5	230	75	600	-	150	150	440	490	4xM20	31	756	109	109
		80M	16.5	107								107														
40-125	4	✓	✓	0.55	A	65	40	80	140	30	29	80M	15	162	60	540	-	130	130	320	360	4xM16	21	736	77	76
		80M	16.5	79								78														
40-160	4	✓	✓	0.55	A	65	40	80	160	31	30	80M	15	182	60	540	-	130	130	350	390	4xM16	23	736	81	80
		80M	16.5	83								82														
40-200	4	✓	✓	0.55	A	65	40	100	180	41	40	80M	15	210	60	540	-	130	130	350	390	4xM16	23	736	83	82
		80M	16.5	86								85														
40-250	4	✓	✓	0.55	A	65	40	100	225	48	48	80M	15	230	75	600	-	150	150	440	490	4xM20	31	756	88	88
		80M	16.5	91								90														
40-315	4	✓	✓	0.55	A	65	40	125	250	82	83	80M	15	275	75	660	-	170	170	440	490	4xM20	35	1064	215	216
		80M	16.5	230								231														
50-125	4	✓	✓	0.55	A	65	50	100	160	33	34	80M	15	182	60	540	-	130	130	350	390	4xM16	23	756	84	84
		80M	16.5	86								86														
50-160	4	✓	✓	0.55	A	65	50	100	180	33	33	80M	15	210	60	540	-	130	130	350	390	4xM16	23	756	84	84
		80M	16.5	86								86														
50-200	4	✓	✓	0.55	A	65	50	100	200	44	43	80M	15	210	60	540	-	130	130	350	390	4xM16	23	756	84	84
		80M	16.5	86								86														
50-250	4	✓	✓	0.55	A	65	50	100	225	50	49	80M	15	230	75	600	-	150	150	440	490	4xM20	31	756	84	84
		80M	16.5	86								86														
50-315	4	✓	✓	0.55	A	65	50	125	280	86	86	80M	15	275	75	660	-	170	170	440	490	4xM20	35	1064	215	216
		80M	16.5	230								231														

# DIMENSIONS

Model	Pole	Hz		Power kW	Fig	Size				Pump wt(kg)		Motor**		Base								Total (Approx.)																							
		50	60			dn1	dn2	a	h2	GS	GSS	Frame	wt(kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	wt(kg)	L	Weight kg																				
																								GS	GSS																				
65-125	4	✓		0.55	A	80	65	100	180	37	37	80M	15	210	75	540	-	130	130	400	450	4xM20	26	756	92	92																			
		✓		0.75								80M	16.5											807	93	93																			
		✓	✓	1.1								90S	22											807	100	100																			
		✓	✓	1.5								90L	24											832	102	102																			
		✓	✓	2.2								100L	32											855	112	112																			
		✓	✓	3								100L	37.5											855	119	119																			
65-160	4	✓		0.75	A	80	65	100	200	41	43	80M	16.5	210	75	540	-	130	130	400	450	4xM20	26	756	98	100																			
		✓		1.1								90S	22											807	104	106																			
		✓	✓	1.5								90L	24											832	106	108																			
		✓	✓	2.2								100L	32											855	117	119																			
		✓	✓	3								100L	37.5											855	124	126																			
		✓	✓	4								112M	47.5											876	135	137																			
		✓	✓	5.5								132S	64											876	148	146																			
65-200	4	✓		1.5	A	80	65	100	225	47	45	90L	24	230	75	600	-	150	150	440	490	4xM20	31	832	119	117																			
		✓		2.2								100L	32											855	130	128																			
		✓	✓	3								100L	37.5											855	137	135																			
		✓	✓	4								112M	47.5											876	148	146																			
		✓	✓	5.5								132S	64											929	169	167																			
		✓	✓	7.5								132M	78											967	184	182																			
		✓	✓	11								160M	105											979	198	196																			
65-250	4	✓		3	A	80	65	100	250	73	72	100L	37.5	250	90	740	-	190	190	490	540	4xM20	42	965	178	177																			
		✓		4								112M	47.5											986	190	189																			
		✓	✓	5.5								132S	64											1039	211	210																			
		✓	✓	7.5								132M	78											1077	226	225																			
		✓	✓	11								160M	105											1181	264	263																			
		✓	✓	15								160L	130											1226	293	292																			
65-315	4	✓		7.5	A	80	65	125	280	90	89	132M	78	300	90	840	-	205	205	550	610	4xM24	66	1102	273	272																			
		✓	✓	11								160M	105											1207	307	306																			
		✓	✓	15								160L	130											1251	335	334																			
		✓	✓	18.5								180M	175											1271	384	383																			
		✓	✓	22								180L	190											1309	405	404																			
		✓	✓	30								200L	255											1369	472	471																			
80-160	4	✓		1.1	A	100	80	125	225	46	48	90S	22	230	75	600	-	150	150	440	490	4xM20	31	832	116	118																			
		✓		1.5								90L	24											857	118	120																			
		✓	✓	2.2								100L	32											880	129	131																			
		✓	✓	3								100L	37.5											880	136	138																			
		✓	✓	4								112M	47.5											901	147	149																			
		✓	✓	5.5								132S	64											954	168	170																			
		✓	✓	7.5								132M	78											992	183	185																			
80-200	4	✓		2.2	A	100	80	125	250	67	67	100L	32	230	75	660	-	170	170	440	490	4xM20	35	990	153	153																			
		✓		3								100L	37.5											1011	175	175																			
		✓	✓	4								112M	47.5											1064	196	196																			
		✓	✓	5.5								132S	64											1102	211	211																			
		✓	✓	7.5								132M	78											1206	242	242																			
		✓	✓	11								160M	105											1251	271	271																			
		✓	✓	15								160L	130																																
80-250	4	✓		5.5	A	100	80	125	280	77	77	132S	64	275	90	840	-	205	205	550	610	4xM24	66	1064	241	241																			
		✓	✓	7.5								132M	78											1102	257	257																			
		✓	✓	11								160M	105											1207	291	291																			
		✓	✓	15								160L	130											1251	319	319																			
		✓	✓	18.5								180M	175											1271	362	362																			
		✓	✓	22								180L	190											1309	382	382																			
		✓	✓	30								200L	255											1369	472	471																			
80-315	4	✓		11	A	100	80	125	315	101	102	160M	105	325	90	840	-	205	205	550	610	4xM24	66	1207	321	322																			
		✓		15								160L	130											1251	349	350																			
		✓	✓	18.5								180M	175											1271	402	403																			
		✓	✓	22								180L	190											1309	418	419																			
		✓	✓	30								200L	255											1369	493	494																			
		✓	✓	37								225SC	315											1415	555	556																			
		✓	✓	45								225MC	330											1440	572	573																			
80-400	4	✓		11	A	100	80	125	355	162	160	160M	105	355	90	940	-	230	230	550	610	4xM24	66	1267	390	388																			
		✓		15								160L	130											1311	418	416																			
		✓	✓	18.5								180M	175											1331	490	479																			
		✓	✓	22								180L	190											1369	497	495																			
		✓	✓	30								200L	255											1429	578	576																			
		✓	✓	37								225SC	315											1475	643	641																			
		✓	✓	45								225MC	330											1500	668	666																			
		✓	✓	55								250MC	450											1580	798	796																			
		✓	✓	75								280SB	566											1696	940	938																			
		✓	✓	90								280MB	624											1746	1012	1010																			

# DIMENSIONS

Model	Pole	Hz		Power	Fig	Size				Pump		Motor		Base								Total (Approx.)				
		50	60	kW		dn1	dn2	a	h2	wt(kg)		Frame	wt(kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	wt(kg)	L	Weight	
		✓	✓	✓		GS	GSS	GS	GSS	GS	GSS															
100-160	4	✓		2.2	A	125	100	125	250	91	future	100L	32	250	90	740	-	190	190	490	540	4xM20	42	990	192	future
		✓		3								100L	37.5											1011	210	
		✓	✓	4								112M	47.5											1064	243	
		✓	✓	5.5								132S	64											1102	246	
		✓	✓	7.5								132M	78											1102	259	
100-200	4	✓		4	A	125	100	125	280	103	future	112M	47.5	250	90	740	-	190	190	490	540	4xM20	42	1011	223	future
		✓	✓	5.5								132S	64											1064	243	
		✓	✓	7.5								132M	78											1102	259	
		✓	✓	11								160M	105											1207	299	
		✓	✓	15								160L	130											1251	326	
100-250	4	✓		5.5	A	125	100	140	280	108	future	180M	175	300	90	840	-	205	205	550	610	4xM24	66	1271	370	future
		✓	✓	7.5								132S	64											1079	277	
		✓	✓	11								132M	78											1117	293	
		✓	✓	15								160M	105											1222	327	
		✓	✓	18.5								160L	130											1266	354	
100-315	4	✓		7.5	A	125	100	140	315	109	future	180M	175	325	90	840	-	205	205	550	610	4xM24	66	1286	408	future
		✓	✓	15								180L	190											1324	427	
		✓	✓	18.5								200L	255											1384	491	
		✓	✓	22								225SC	315											1430	564	
		✓	✓	30								225MC	330											1455	580	
100-400	4	✓		15	A	125	100	140	355	189	future	160L	130	380	110	940	-	230	230	670	730	4xM24	92	1326	476	future
		✓	✓	18.5								180M	175											1346	530	
		✓	✓	22								180L	190											1384	546	
		✓	✓	30								200L	255											1444	627	
		✓	✓	37								225SC	315											1490	692	
125-200	4	✓		5.5	A	150	125	140	315	120	future	225MC	330	325	90	840	-	205	205	550	610	4xM24	66	1515	718	future
		✓	✓	7.5								280SB	566											1595	842	
		✓	✓	11								280MB	624											1711	969	
		✓	✓	15								160L	130											1761	1042	
		✓	✓	18.5								160M	105											1079	291	
125-250	4	✓		7.5	A	150	125	140	355	131	future	132M	78	325	90	840	-	205	205	550	610	4xM24	66	1117	307	future
		✓	✓	11								132M	78											1222	342	
		✓	✓	15								160L	130											1266	370	
		✓	✓	18.5								180L	190											1286	419	
		✓	✓	22								200L	255											1324	439	
125-315	4	✓		11	A	150	125	140	355	176	future	160M	105	380	110	940	-	230	230	670	730	4xM24	92	1222	354	future
		✓	✓	15								160L	130											1266	382	
		✓	✓	18.5								180M	175											1286	435	
		✓	✓	22								180L	190											1324	451	
		✓	✓	30								200L	255											1384	531	
125-400	4	✓		15	A	150	125	140	400	218	future	225SC	315	415	110	940	-	230	230	670	730	4xM24	92	1430	588	future
		✓	✓	18.5								225MC	330											1455	605	
		✓	✓	22								250MC	450											1595	901	
		✓	✓	30								280SB	566											1711	1040	
		✓	✓	37								280MB	624											1761	1104	
125-500	4	✓		30	A	150	125	180	450	365	future	315SB	800	475	110	1060	-	270	270	670	730	4xM24	104	1920	1338	future
		✓	✓	37								315MB	900											1970	1448	
		✓	✓	45								200L	255											1624	840	
		✓	✓	55								225SC	315											1670	908	
		✓	✓	75								225MC	330											1695	933	
125-500	4	✓		30	A	150	125	180	450	365	future	250MC	450	475	110	1060	-	270	270	670	730	4xM24	104	1775	1071	future
		✓	✓	37								280SB	566											1891	1226	
		✓	✓	45								280MB	624											1941	1290	
		✓	✓	55								315SB	800											2100	1535	
		✓	✓	75								315MB	900											2150	1645	
125-500	4	✓		30	B	150	125	180	450	365	future	315LB	990	525	115	790	790	115	115	630	690	6xM20	225	2250	1762	future
		✓	✓	37								315LB	990											2150	1645	
		✓	✓	45								315LB	990											2150	1645	
		✓	✓	55								315LB	990											2150	1645	
		✓	✓	75								315LB	990											2150	1645	

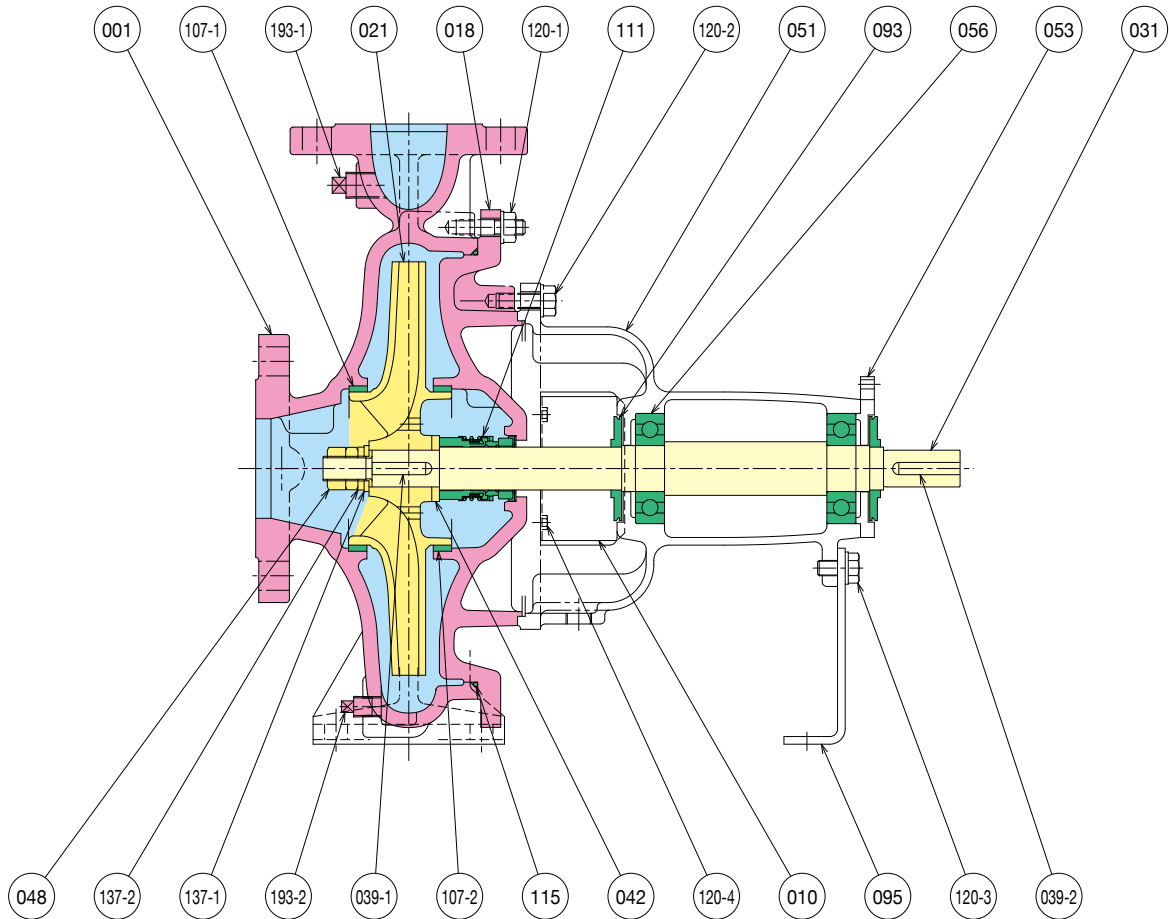
# DIMENSIONS

Model	Pole	Hz		Power	Fig	Size				Pump		Motor※		Base								Total (Approx.)				
		50	60	kW		dn1	dn2	a	h2	wt(kg)		Frame	wt(kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	wt(kg)	L	Weight	
		GS	GSS																						GS	GSS
150-200	4	✓		4	A	200	150	160	355	154	future	112M	47.5	380	110	940	-	230	230	670	730	4xM24	92	1046	337	future
		✓		5.5								132S	64											1099	358	
		✓	✓	7.5								132M	78											1137	374	
		✓	✓	11								160M	105											1242	410	
		✓	✓	15								160L	130											1286	437	
		✓		18.5								180M	175											1306	488	
		✓	✓	22								180L	190											1344	508	
150-250	4	✓		15	A	200	150	160	375	171	future	160L	130	380	110	940	-	230	230	670	730	4xM24	92	1346	457	future
		✓		18.5								180M	175											1366	510	
		✓		22								180L	190											1404	527	
		✓	✓	30								200L	255											1464	607	
		✓	✓	37								225SC	315											1510	672	
		✓	✓	45								225MC	330											1535	698	
		✓	✓	55								250MC	450											1615	822	
150-315	4	✓		75	A	200	150	160	400	225	future	280SB	566	415	110	1060	-	270	270	670	730	4xM24	92	1731	950	future
		✓	✓	110								180M	175											1366	571	
		✓		132								180L	190											1404	588	
		✓		30								200L	255											1464	669	
		✓	✓	37								225SC	315											1510	736	
		✓	✓	45								225MC	330											1535	761	
		✓	✓	55								250MC	450											1615	909	
150-400	4	✓		90	A	200	150	160	450	339	future	280SB	566	415	110	1060	-	270	270	670	730	4xM24	92	1731	1058	future
		✓	✓	110								180M	175											1366	571	
		✓		132								180L	190											1404	588	
		✓		30								200L	255											1464	669	
		✓	✓	37								225SC	315											1510	736	
		✓	✓	45								225MC	330											1535	761	
		✓	✓	55								250MC	450											1615	909	
150-400L	4	✓		132	A	200	150	160	450	363	future	280SB	566	415	110	1060	-	270	270	670	730	4xM24	92	1731	1058	future
		✓	✓	160								180M	175											1366	571	
		✓		185								180L	190											1404	588	
		✓		30								200L	255											1464	669	
		✓	✓	37								225SC	315											1510	736	
		✓	✓	45								225MC	330											1535	761	
		✓	✓	55								250MC	450											1615	909	
150-500	4	✓		160	A	200	150	180	560	491	future	280SB	566	475	110	1200	-	300	300	670	730	4xM24	104	1755	1061	future
		✓	✓	200								180M	175											1366	571	
		✓		220								180L	190											1404	588	
		✓		315								200L	255											1464	669	
		✓	✓	375								225SC	315											1510	736	
		✓	✓	450								225MC	330											1535	761	
		✓	✓	550								250MC	450											1615	909	
200-400	4	✓		200	B	250	200	180	560	508	future	315LB	990	535	220	790	790	220	220	680	740	6xM20	235	1891	1449	future
		✓	✓	250								180M	175											1366	571	
		✓		275								180L	190											1404	588	
		✓		315								200L	255											1464	669	
		✓	✓	375								225SC	315											1510	736	
		✓	✓	450								225MC	330											1535	761	
		✓	✓	550								250MC	450											1615	909	
200-500	4	✓		315	B	250	200	200	630	645	future	315LB	990	585	220	975	975	220	220	680	740	6xM20	260	2105	2304	future
		✓	✓	375								180M	175											1366	571	
		✓		450								180L	190											1404	588	
		✓		550								200L	255											1464	669	
		✓	✓	630								225SC	315											1510	736	
		✓	✓	750								225MC	330											1535	761	
		✓	✓	900								250MC	450											1615	909	

※Up to 55kW: EBARA motor  
more than 75kW: TECO motor(AESV)

# SECTIONAL VIEW

## MECHANICAL SEAL TYPE

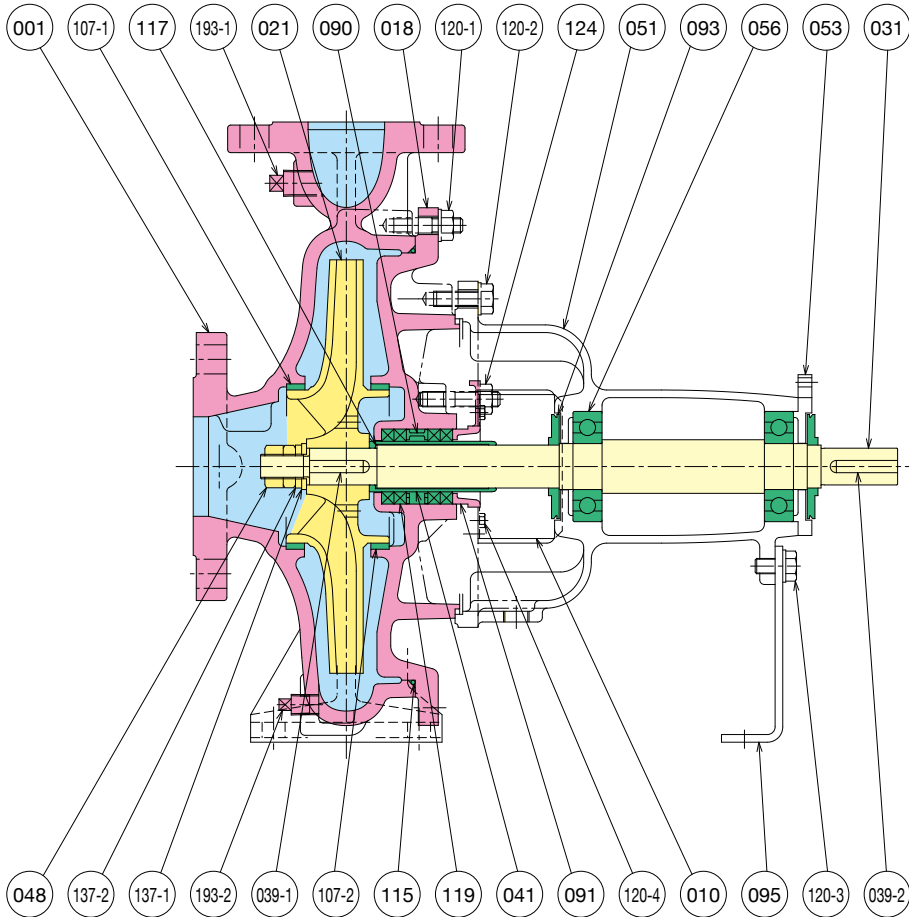


No.	Part name	Qty
001	CASING	1
010	PROTECTOR	2
018	CASING COVER	1
021	IMPELLER	1
031	SHAFT	1
039-1	KEY	1
039-2	KEY	1
042	SPACER	1
048	IMPELLER NUT	1
051	BEARING HOUSING	1
053	BEARING COVER	1
056	BALL BEARING	2
093	DEFLECTOR	2

No.	Part name	Qty
095	STAY	1
107-1	CASE WEAR RING	1
107-2	CASE WEAR RING	1
111	MECHANICAL SEAL	1
115	O-RING	1
120-1	BOLT	-
120-2	BOLT	6
120-3	BOLT	1
120-4	BOLT	4
137-1	PLAIN WASHER	1
137-2	SPRING LOCK WASHER	1
193-1	PLUG	1
193-2	PLUG	1

# SECTIONAL VIEW

## GLAND PACKING TYPE



No.	Part name	Qty
001	CASING	1
010	PROTECTOR	2
018	CASING COVER	1
021	IMPELLER	1
031	SHAFT	1
039-1	KEY	1
039-2	KEY	1
041	SHAFT SLEEVE	1
048	IMPELLER NUT	1
051	BEARING HOUSING	1
053	BEARING COVER	1
056	BALL BEARING	2
090	LANTERN RING	1
091	GLAND	1
093	DEFLECTOR	2

No.	Part name	Qty
095	STAY	1
107-1	CASE WEAR RING	1
107-2	CASE WEAR RING	1
115	O-RING	1
117	GASKET	1
119	GLAND PACKING	4
120-1	BOLT	-
120-2	BOLT	6
120-3	BOLT	1
120-4	BOLT	4
124	GLAND BOLT	2
137-1	PLAIN WASHER	1
137-2	SPRING LOCK WASHER	1
193-1	PLUG	1
193-2	PLUG	1

# MATERIALS

## MATERIALS

Materials of mechanical seal application (conical type)

●: Standard ○: Optional

No.	Name of part	Material	JIS Material	ASTM equivalent	ISO or EN equivalent	Material group					
						G1	G2	G3	G4	A1	A2
001	CASING	Cast iron	FC250	A278-35	EN-GJL-250 (EN-JL1040)	●	●	●	●		
		Ductile cast irons	FCD400	A536-60-40-18	EN-GJS-400-15 (5.3106)	○	○	○	○		
		304 Stainless steel	SCS13	A351-CF8	GX5CrNi19-10 (1.4308)					●	
		316 Stainless steel	SCS14A	A351-CF8M	GX5CrNiMo19-11-2 (1.4408)						○
010	PROTECTOR	Carbon steel	SPCC	A569	DC01 (1.0330)	●	●	●	●	●	●
018	CASING COVER (conical)	Cast iron	FC250	A278-35	EN-GJL-250 (EN-JL1040)	●	●	●	●		
		Ductile cast irons	FCD400	A536-60-40-18	EN-GJS-400-15 (5.3106)	○	○	○	○		
		304 Stainless steel	SCS13	A351-CF8	GX5CrNi19-10 (1.4308)					●	
		316 Stainless steel	SCS14A	A351-CF8M	GX5CrNiMo19-11-2 (1.4408)						○
021	IMPELLER	Cast iron (*)	FC200	A278-30	EN-GJL-200 (EN-JL1030)	●	●				
		Ductile cast irons (*)	FCD400	A536-60-40-18	EN-GJS-400-15 (5.3106)	●	●				
		Bronze	CAC406	B584-C83600	CuSn5Zn5Pb5 (CC491K)			●			
		304 Stainless steel	SCS13	A351-CF8	GX5CrNi19-10 (1.4308)				○	●	
		316 Stainless steel	SCS14A	A351-CF8M	GX5CrNiMo19-11-2 (1.4408)						○
031	SHAFT	Cr. steel	SUS431eq. or SUS420J2	A276-431 or A276-420 eq.	X17CrNi16-2 (1.4057) or X30Cr13 (1.4028) eq.	●	●	●			
		Duplex stainless steel (*)	SUS329J3 / S35C	A276-S31803 / Grade1035	X2CrNiMoN22-5-3 (1.4462) / C35				○	●	●
039-1	KEY	12% Cr. steel	SUS420J2	A276-420	X30Cr13 (1.4028)	●	●	●			
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)				○	●	●
039-2	KEY	Carbon steel	S50C	A576-1050	C50 (1.0540)	●	●	●	●	●	●
042	SPACER	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○
048	IMPELLER NUT	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○
051	BEARING HOUSING	Cast iron	FC150	A48-20	EN-GJL-150 (EN-JL1020)	●	●	●	●	●	●
053	BEARING COVER	Cast iron	FC150	A48-20	EN-GJL-150 (EN-JL1020)	●	●	●	●	●	●
056	BALL BEARING	Steel (*)	---	---	---	●	●	●	●	●	●
093	DEFLECTOR	EPDM	---	---	---	●	●	●	●	●	●
095	STAY	Carbon steel	SPHC	A569	---	●	●	●	●	●	●
107	CASE WEAR RING	Bronze	CAC406	B584-C83600	CuSn5Zn5Pb5 (CC491K)	●	●				
		Cast iron	FC150	A48-20	EN-GJL-150 (EN-JL1020)		●		●		
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)					●	●
111	MECHANICAL SEAL	Sic/carbon/FKM (*)	---	---	---	●	●	●	●	●	●
		Sic/carbon/EPDM (*)	---	---	---	○	○	○	○	○	○
		Tc/carbon/EPDM (*)	---	---	---	○	○	○	○	○	○
		Sic/Sic/	---	---	---	○	○	○	○	○	○
115	O-RING	NBR	---	---	---	●	●	●	●		
		FKM	---	---	---	○	○	○	○	●	●
		EPDM	---	---	---	○	○	○	○	○	○
120	BOLTS	Carbon steel	SS	A283-D	---	●	●	●	●	●	
137-1	PLAIN WASHER	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○
137-2	SPRING LOCK WASHER	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○
193-1	PLUG	Carbon steel	SS	A283-D	---	●	●	●	●		
		304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)					●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○
193-2	PLUG	Carbon steel	SS	A283-D	---	●	●	●	●		
		304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)					●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○

(\*) Except pumps model GS100-400, 125-400, 125-500, 150-400, 150-500, 200-400 and 200-500, impellers made of cast iron are applied for all pumps.

(\*) Impellers made of ductile cast iron are applied only the pumps model GS100-400, 125-400, 125-500, 150-400, 150-500, 200-400 and 200-500.

(\*) Wetted part only

(\*) Deep groove ball bearing, single row / Vacuum degassed steel

(\*) Elastomer bellows seal

(\*) O ring/Spring

# MATERIALS

## Materials of gland packing application <sup>(\*)7</sup>

●:Standard ○:Optional

No.	Name of part	Material	JIS Material	ASTM equivalent	ISO or EN equivalent	Material group					
						G1	G2	G3	G4	A1	A2
018	CASING COVER (cylindrical)	Cast iron	FC250	A278-35	EN-GJL-250 (EN-JL1040)	●	●	●	●		
		304 Stainless steel	SCS13	A351-CF8	GX5CrNi19-10 (1.4308)					●	
		316 Stainless steel	SCS14A	A351-CF8M	GX5CrNiMo19-11-2 (1.4408)						○
041	SHAFT SLEEVE	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○
090	LANTERN RING	Cast iron	FC150 or 200	A48-20 or 30	EN-GJL-150 (EN-JL1020) or EN-GJL-200 (EN-JL1030)		○				
		Bronze	---	---	---	●		●			
		304 Stainless steel	SCS13	A351-CF8	GX5CrNi19-10 (1.4308)				○	●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○
091	GLAND	Cast iron	FC150	A48-20	EN-GJL-150 (EN-JL1020)	●	○				
		Brass	---	---	---	●		●			
		304 Stainless steel	SCS13	A351-CF8	GX5CrNi19-10 (1.4308)				○	●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○
117	GASKET	Joint sheet gasket <sup>(*)8</sup>	---	---	---	●	●	●	●	●	●
119	GLAND PACKING	Silicone carbide fiber packing <sup>(*)9</sup>	---	---	---	●	●	●	●	●	●
124	GLAND BOLT	12% Cr. steel	SUS403	A276-403	---		○				
		Brass	C3604BD	B16-C36000	---	●		●			
		304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)				○	●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○

<sup>(\*)7</sup> The components which constitute the gland packing pump are these parts instead of P/N 018, 042 and 111 of the mechanical seal pump.

<sup>(\*)8</sup> V#6500AC

<sup>(\*)9</sup> P#6501L or P#6502L

## Explanation of Material Group

Material Group	Casing, 001 and Casing Cover, 018	Impeller, 021	Case Wear Ring, 107	Shaft, 031	Notes
G1	Cast iron or Ductile cast irons	Cast iron or Ductile cast irons	Bronze	Cr.steel	Cast iron impeller with Bronze case wear ring
G2		Cast iron or Ductile cast irons	Cast iron	Cr.steel	All wetted parts are Iron material.
G3		Bronze	Bronze	Cr.steel	Bronze impeller with Bronze case wear ring
G4		304 Stainless steel	Cast iron	Duplex stainless steel	Stainless steel impeller with Duplex stainless steel shaft
A1	304 Stainless steel	304 Stainless steel	316 Stainless steel	Duplex stainless steel	---
A2	316 Stainless steel	316 Stainless steel	316 Stainless steel	Duplex stainless steel	---



# MEMO

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# MEMO

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