

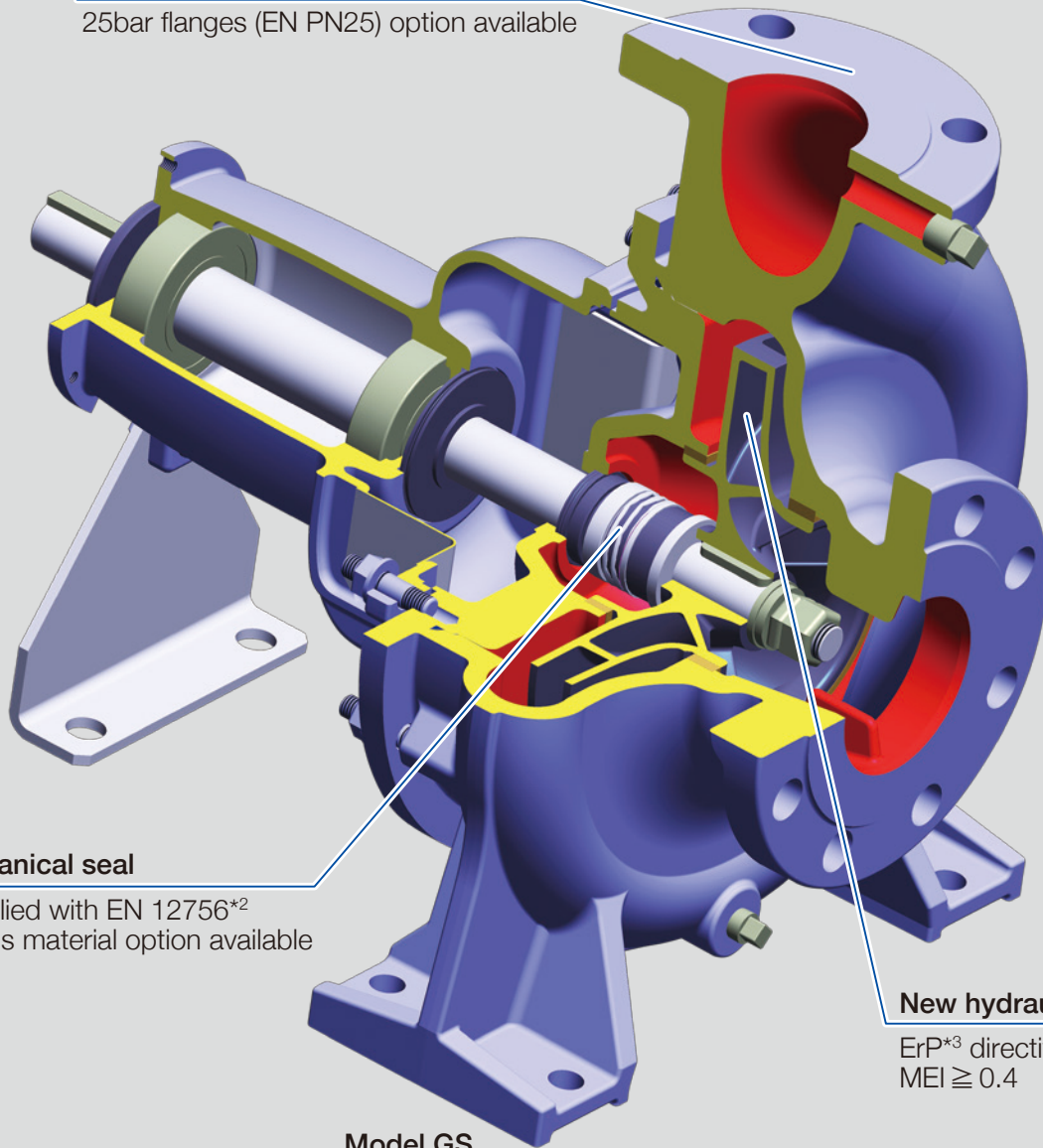
# GS SERIES PUMPS

## 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  $\geq 0.4$

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 , Self + Reverse , External
	Ball bearing	<b>Shield ball bearing (grease lubrication)</b>
Material (*3)	Casing	<b>Cast iron</b>
	Impeller	<b>Cast iron or Ductile cast iron (*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 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 Iron (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 iron</b>
	Impeller	<b>Cast iron or Ductile cast iron (*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>-25°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>EN1092-1</b> , JIS B 2220
Construction	Impeller	<b>Closed</b>
	Shaft seal	<b>Mechanical Seal , Gland Packing</b>
	Flushing	<b>N/A</b> , Self , Self + Reverse , External
	Ball bearing	<b>Shield ball bearing (grease lubrication)</b>
Material (*2)	Casing	<b>304 Stainless steel</b> , 316 Stainless steel , Duplex stainless steel
	Impeller	<b>304 Stainless steel</b> , 316 Stainless steel , Duplex stainless steel
	Shaft	<b>Duplex stainless steel</b> (*1)
	Case wear ring	<b>316 Stainless steel</b> , Duplex stainless steel
	Shaft sleeve	<b>N/A</b> , 304/316 Stainless steel , Duplex 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)
- Detergent (without slurry)

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

- Coolant
- Cooling water

- **Garbage incineration**

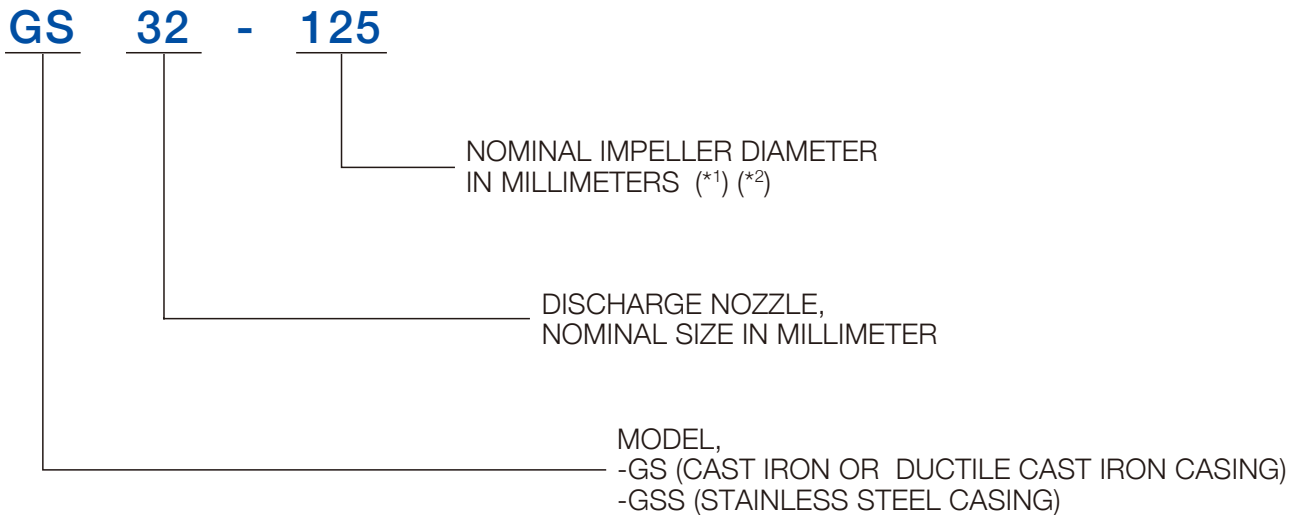
- Cooling water
- Deaerator
- Condensate water

- **Others**

- Seawater
- Brackish water
- Oils
- Other chemical

## MODEL CODE

The following designation is system according to EN733.

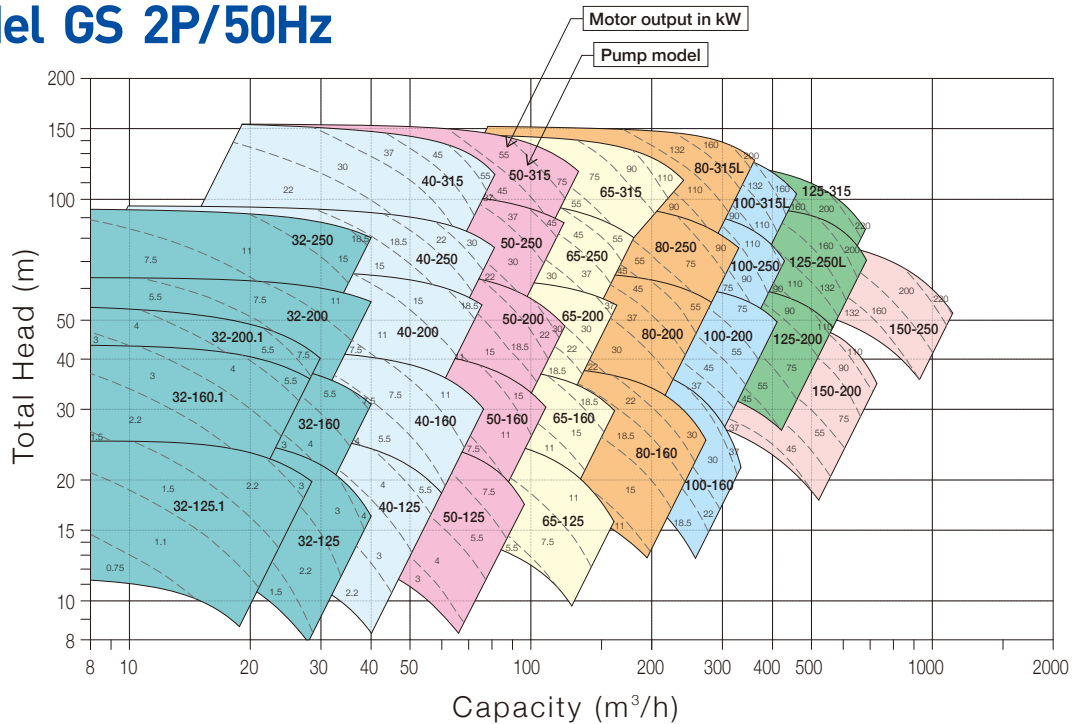


(\*1) The letter "L" following the impeller classification code indicates different bearing designs. To give an example, GS80-315 and GS80-315L have different bearing designs and shaft size.

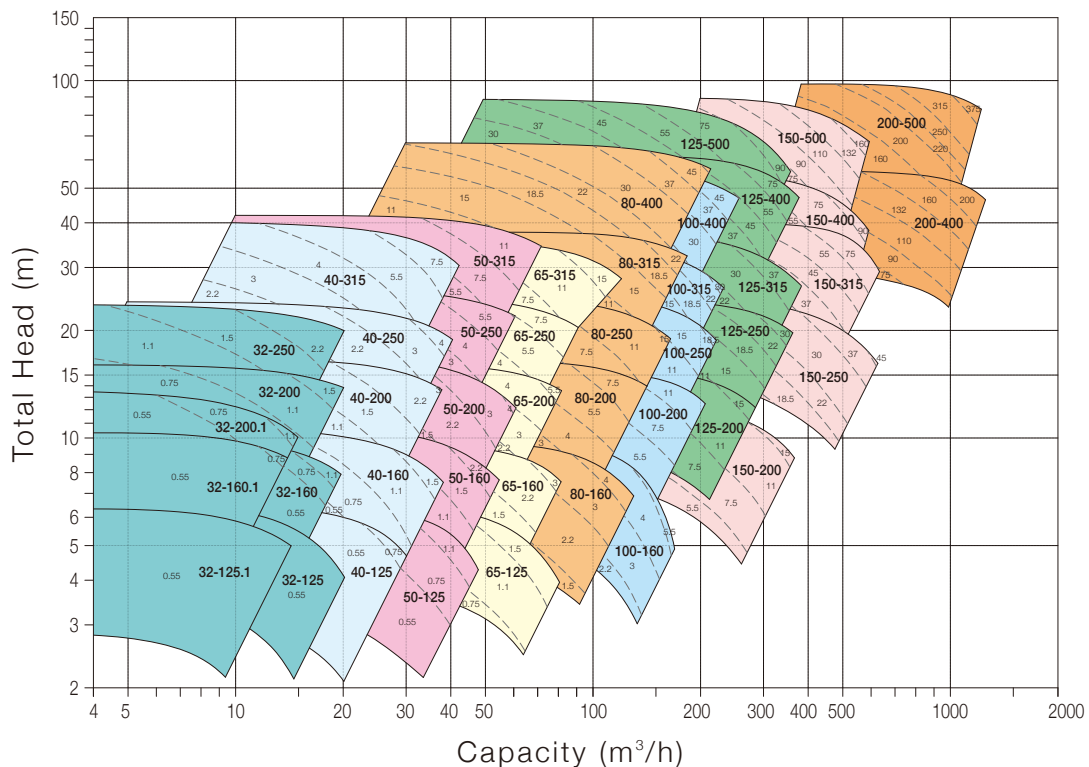
(\*2) The letter ".1" following the impeller classification code indicates different casing and impeller designs. To give an example, GS32-125 and GS32-125.1 have different casing and impeller designs from one another.

# PERFORMANCE CHART

## Model GS 2P/50Hz



## Model GS 4P/50Hz



Note1 : The values inside the broken lines are motor output(kW) in case of density 1.0kg/L and viscosity 1.0mPa·s.

Note2 : The indicated motor output(kW) value includes the following safety margins ;

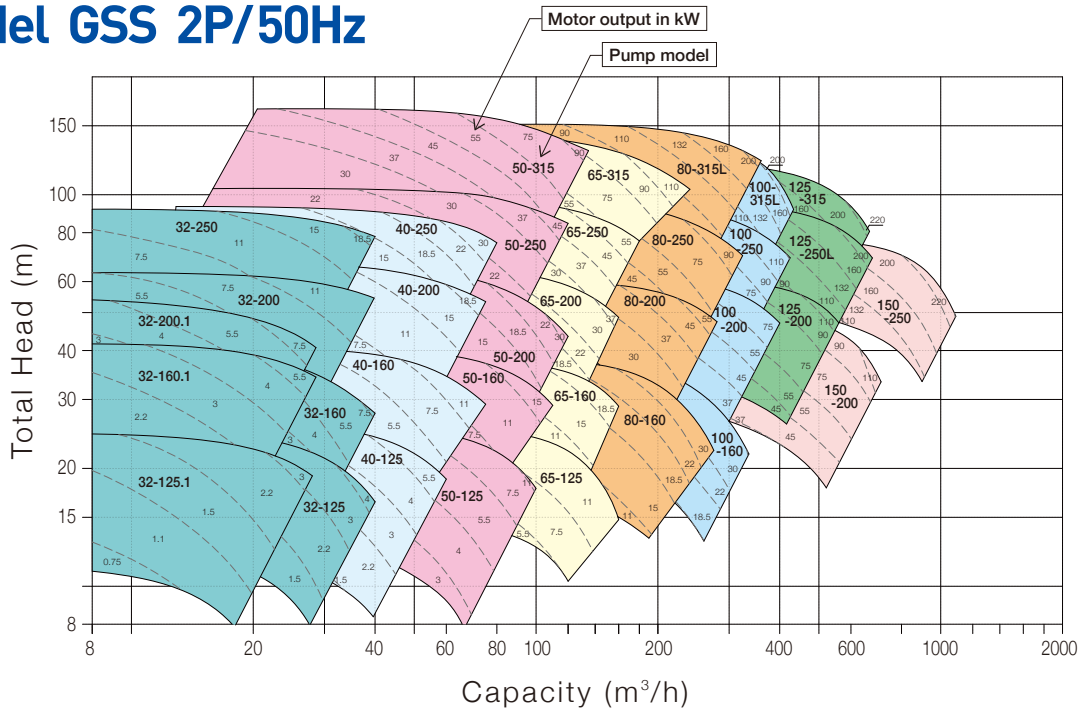
up to 7.5kW : 15%

11kW and above : 10%

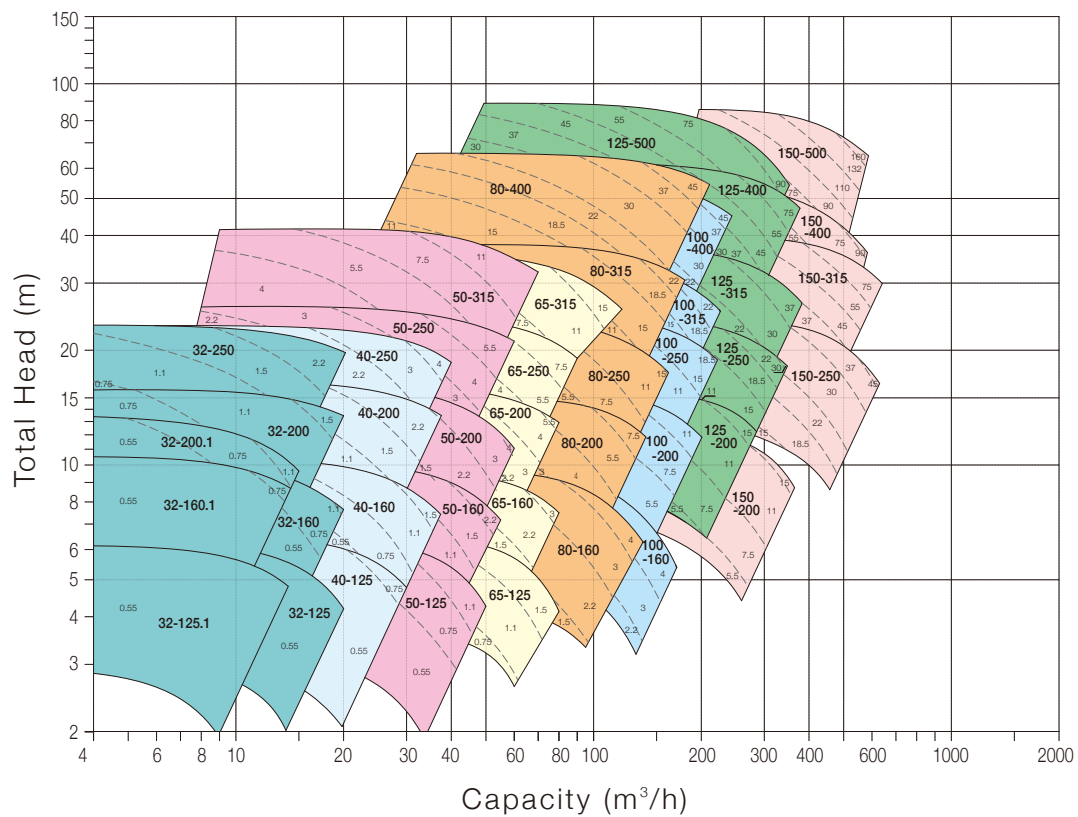
Note3 : When selecting a pump , NPSH Av. should have a safety margin of at least 0.5m from NPSH Re.

# PERFORMANCE CHART

## Model GSS 2P/50Hz



## Model GSS 4P/50Hz



Note1 : The values inside the broken lines are motor output(kW) in case of density 1.0kg/L and viscosity 1.0mPa·s.

Note2 : The indicated motor output(kW) value includes the following safety margins ;

up to 7.5kW : 15%

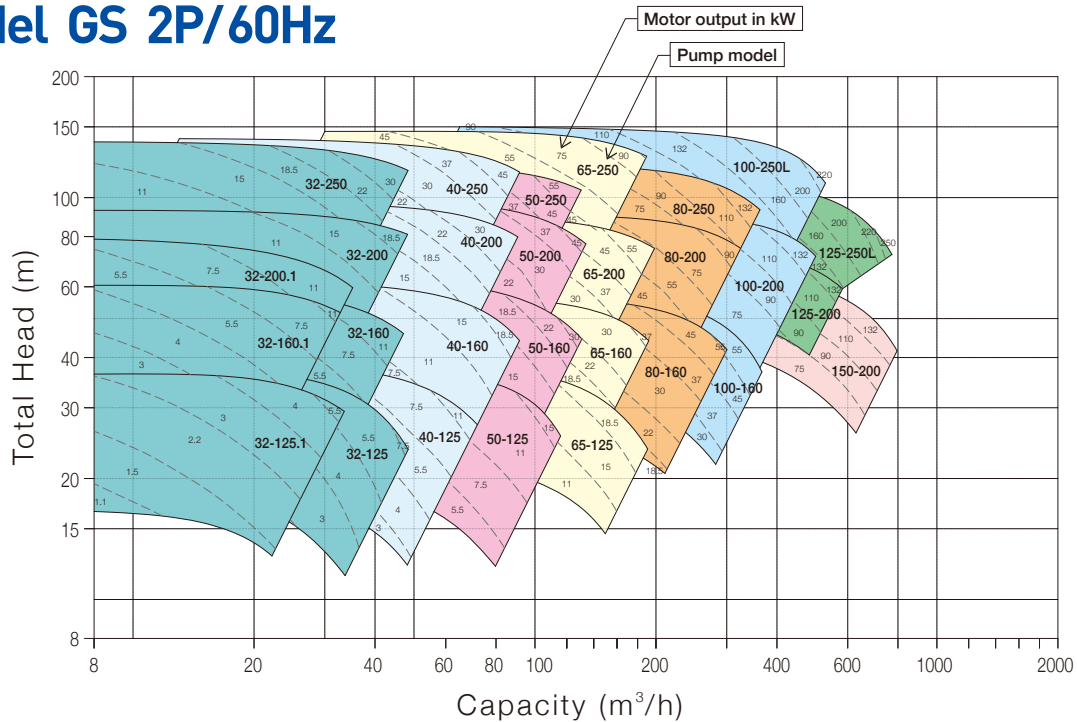
11kW and above : 10%

Note3 : When selecting a pump , NPSH Av. should have a safety margin of at least 0.5m from NPSH Re.

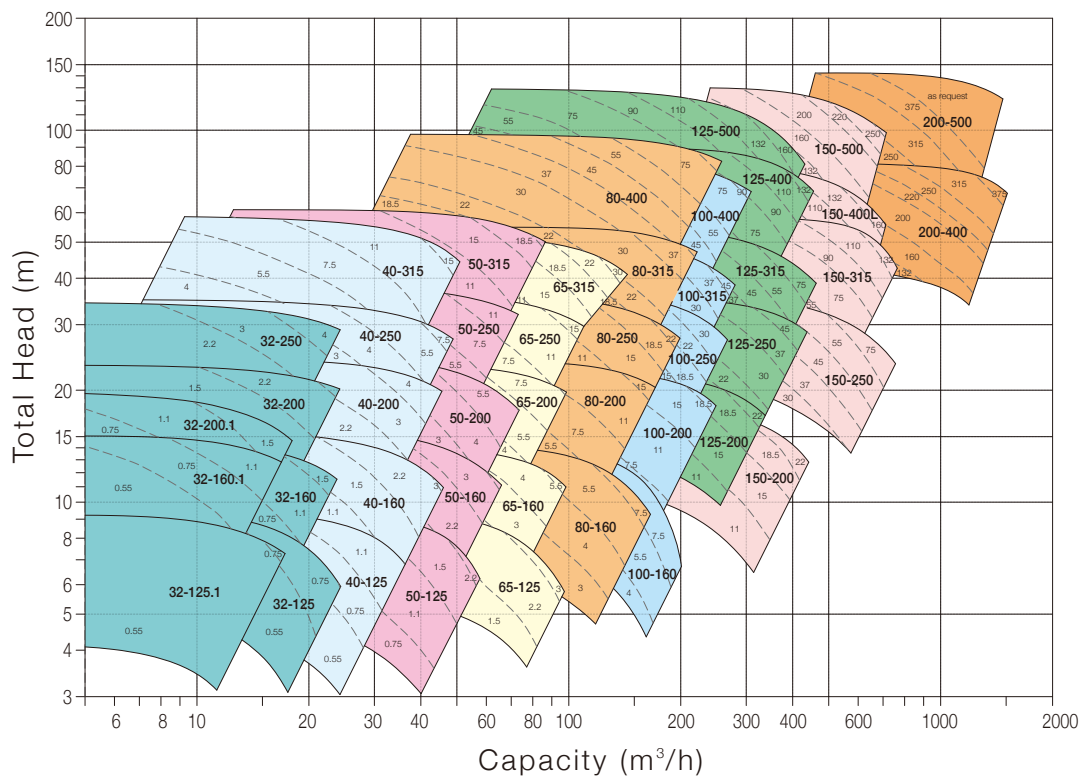


# PERFORMANCE CHART

## Model GS 2P/60Hz



## Model GS 4P/60Hz



Note1 : The values inside the broken lines are motor output(kW) in case of density 1.0kg/L and viscosity 1.0mPa·s.

Note2 : The indicated motor output(kW) value includes the following safety margins ;

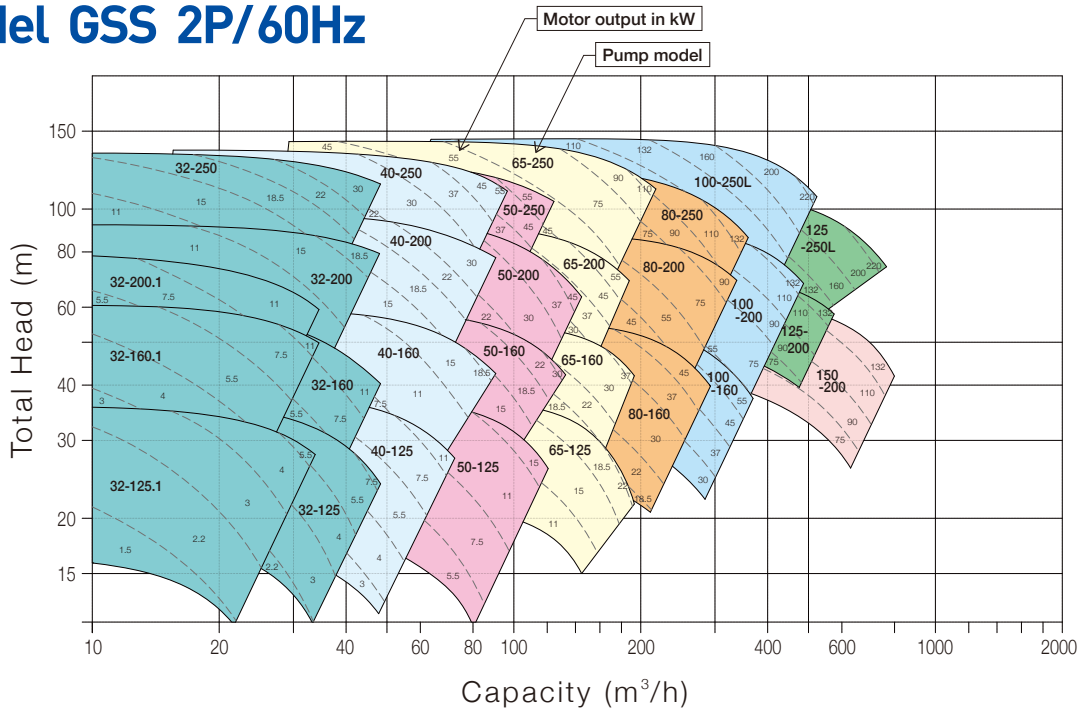
up to 7.5kW : 15%

11kW and above : 10%

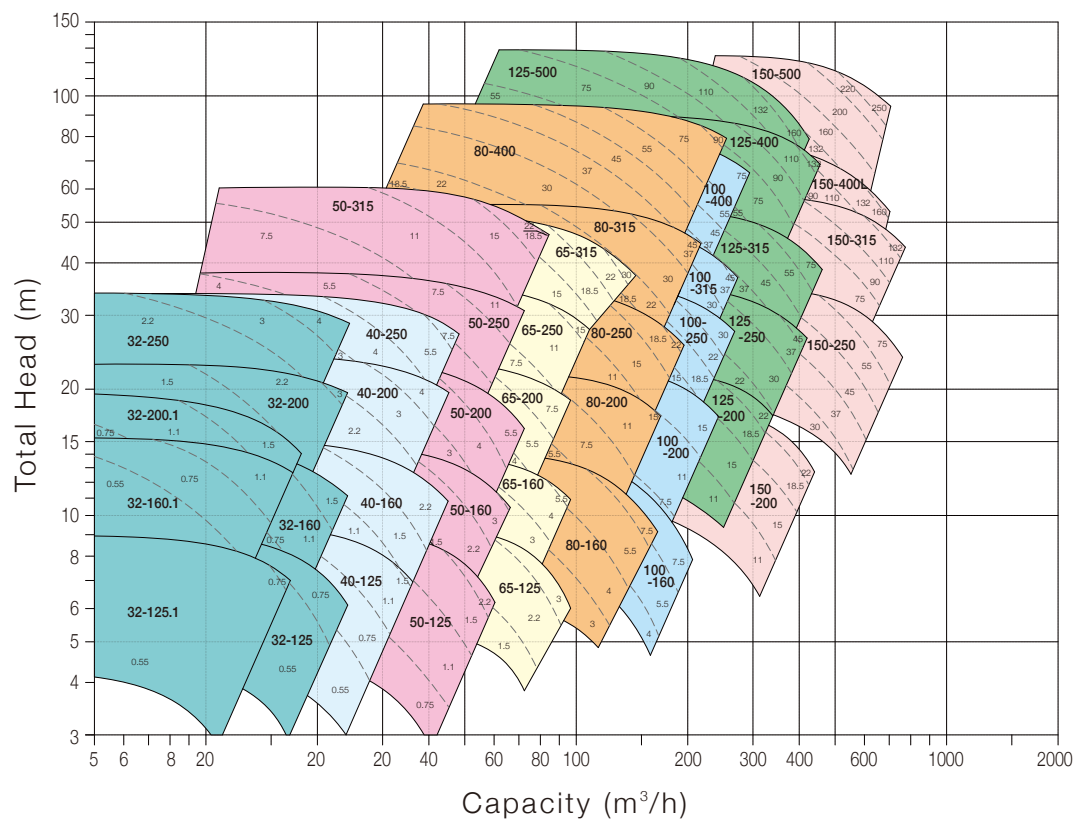
Note3 : When selecting a pump , NPSH Av. should have a safety margin of at least 0.5m from NPSH Re.

# PERFORMANCE CHART

## Model GSS 2P/60Hz



## Model GSS 4P/60Hz



Note1 : The values inside the broken lines are motor output(kW) in case of density 1.0kg/L and viscosity 1.0mPa·s.

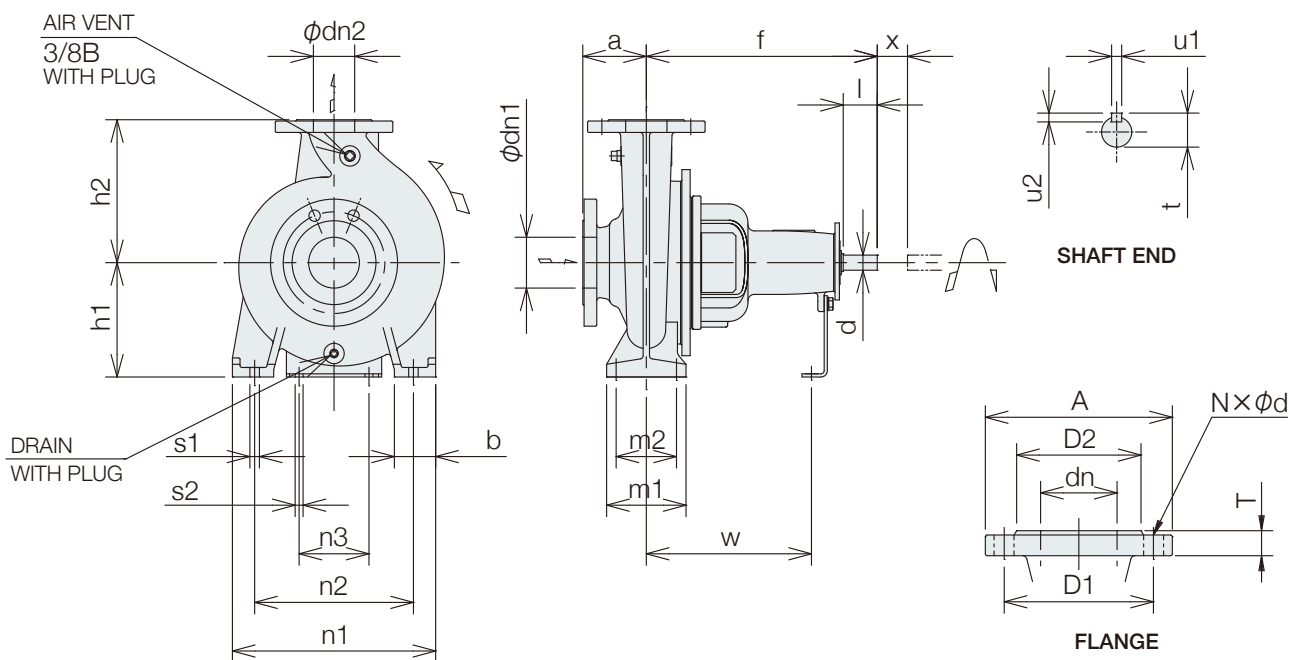
Note2 : The indicated motor output(kW) value includes the following safety margins ;

up to 7.5kW : 15%

11kW and above : 10%

Note3 : When selecting a pump , NPSH Av. should have a safety margin of at least 0.5m from NPSH Re.

# 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

Material: Stainless Steel

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
GSS32	50	165	125	102	18	4	18	32	140	100	78	18	4	18
GSS40	65	185	145	122	18	4	18	40	150	110	88	18	4	18
GSS50	65	185	145	122	18	4	18	50	165	125	102	18	4	18
GSS65	80	200	160	138	20	8	18	65	185	145	122	18	4	18
GSS80	100	220	180	158	20	8	18	80	200	160	138	20	8	18
GSS100	125	250	210	188	22	8	18	100	220	180	158	20	8	18
GSS125	150	285	240	212	22	8	22	125	250	210	188	22	8	18
GSS150	200	340	295	268	24	12	22	150	285	240	212	22	8	22

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
GSS32	50	155	120	96	16	4	19	32	135	100	76	16	4	19
GSS40	65	175	140	116	18	4	19	40	140	105	81	16	4	19
GSS50	65	175	140	116	18	4	19	50	155	120	96	16	4	19
GSS65	80	185	150	126	18	8	19	65	175	140	116	18	4	19
GSS80	100	210	175	151	18	8	19	80	185	150	126	18	8	19
GSS100	125	250	210	182	20	8	23	100	210	175	151	18	8	19
GSS125	150	280	240	212	22	8	23	125	250	210	182	20	8	23
GSS150	200	330	290	262	22	12	23	150	280	240	212	22	8	23

# DIMENSIONS

## Dimensions of Bare Shaft Pump

Unit: mm

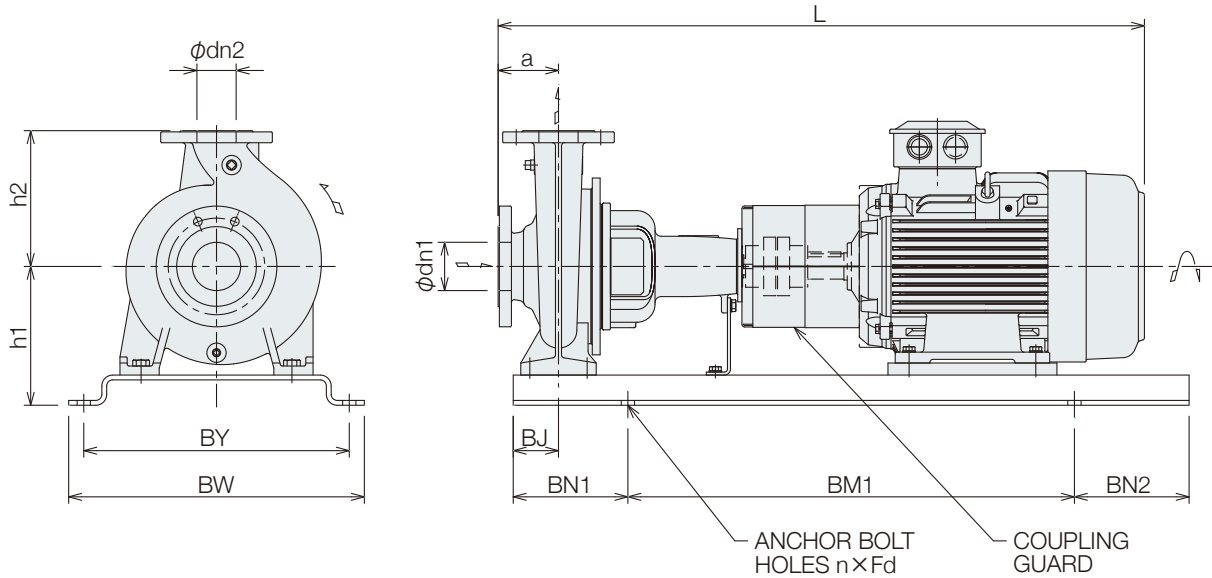
MODEL	Nominal Diameter		Pump				Support						Holes for bolts		Shaft end					1)	Mass (kg)																				
	dn1	dn2	a	f	h1	h2	Drain plug	b	m1	m2	n1	n2	n3	W	s1	s2	d	l	t		u1	u2	X	GS	GSS																
32-125.1	50	32	80	360	112	140	1/4B	50	100	70	190	140	110	260	M12	M12	24	50	27	8	7	100	28	30																	
32-125					132	160					240	190											28	27																	
32-160.1					160	180					320	250											29	28																	
32-160					180	225					320	250											29	28																	
32-200.1					65	40					80	360											112	140	50	100	70	210	160	110	260	M12	M12	24	50	27	8	7	100	30	29
32-200					132	160					240	190											31	30																	
32-250	160	180	320	250	41	40																																			
40-125	65	40	80	360	112	140	1/4B	50	100	70	210	160	110	260	M12	M12	24	50	27	8	7	100	30	29																	
40-160					132	160					240	190											31	30																	
40-200					160	180					320	250											41	40																	
40-250					180	225					320	250											48	48																	
40-315					125	470					225	250											82	-																	
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					160	180					265	212											33	33																	
50-200					180	225					320	250											44	43																	
50-250					200	250					320	250											50	49																	
50-315					125	470					225	280											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					180	225					320	250											41	43																	
65-200					200	250					360	280											47	45																	
65-250					225	280					400	315											73	72																	
65-315					125	470					225	280											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					200	280					345	280											67	67																	
80-250					250	315					400	315											77	77																	
80-315					280	355					435	355											101	102																	
80-315L					530	250					400	315											112	112																	
80-400					280	355					435	355											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	90																	
100-200					225	280					400	315											103	109																	
100-250					250	315					400	315											108	106																	
100-250L					280	355					435	355											120	118																	
100-315					315	400					435	355											109	107																	
100-315L					355	400					435	355											134	132																	
100-400					370	400					435	355											189	164																	
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	119																	
125-250					280	355					400	315											131	128																	
125-250L					315	400					435	355											148	145																	
125-315					355	400					435	355											176	170																	
125-400					370	400					435	355											218	202																	
125-500					180	670					375	450											365	361																	
150-200					200	150					160	470											280	355	3/8B	100	200	150	500	400	110	340	M20	M12	32	80	35	10	8	140	154
150-250	315	400	435	355			171	153																																	
150-315, 2)	355	400	435	355			225	214																																	
150-400	370	400	435	355			339	341																																	
150-400L	400	400	435	355			363	365																																	
150-500	180	670	375	560			491	504																																	
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	-																	
200-500					200	820					435	630											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. The gap is necessary for the withdrawal of the rotor toward the driven side.  
2) h1 is 35mm higher than EN733 dimension.

# DIMENSIONS

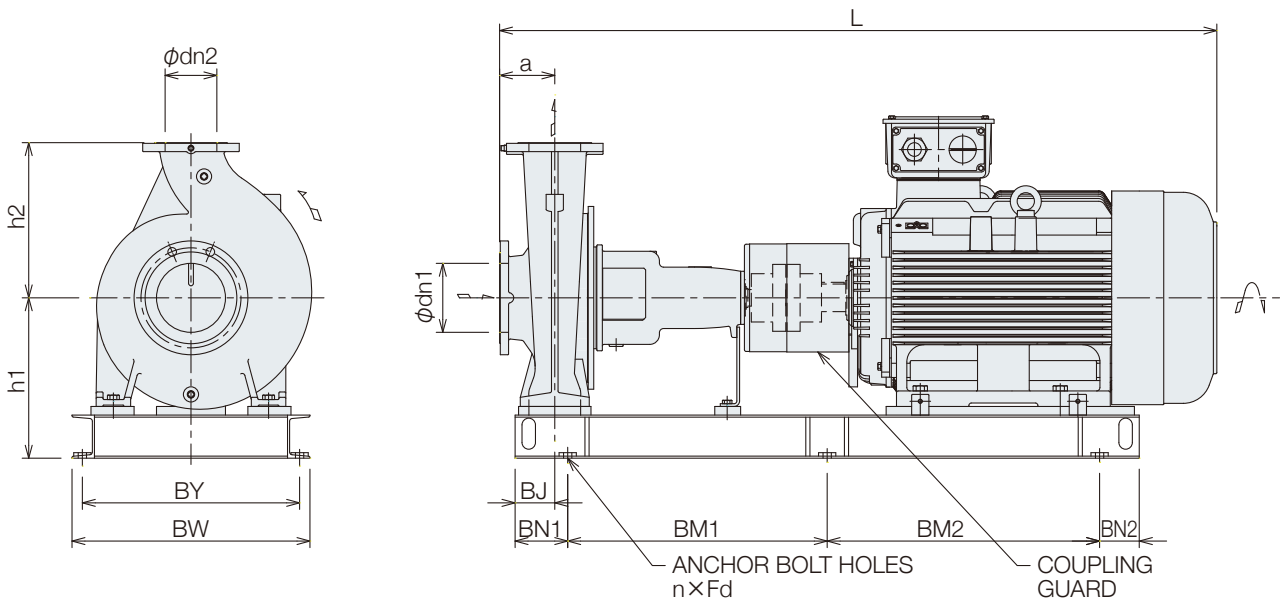
## Model GS/GSS with Motor Steel Baseplate (Fig. A) up to 90kW\*

\*Except for Model GS 200 - 400



This baseplate is not necessary to grout.  
Special baseplate can be provided for grouting.

## Fabricated Baseplate (Fig. B) 110kW and over



# DIMENSIONS

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

Model	Pole	Hz		Power kW	Fig	Size				Pump		Motor		Baseplate								Total (Approx.)																							
		50	60			dn1	dn2	a	h2	Mass(kg)	Frame	Mass (kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	Mass (kg)	L	Mass kg																					
		✓	✓			GS	GSS	GS	GSS															GS	GSS																				
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	909								132	134																																
		132S	61	182								600	150											150	350	390	23	855	110	112															
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	909								132	131																																
		132S	61	182								600	150											150	350	390	23	855	110	109															
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	909								131	130																																
		132S	61	25								909	136											135																					
		160M	105	210								660	170											170	400	450	4xM20	32	1051	189	188														
		160M	120	210								660	170											170	400	450	4xM20	32	1051	206	205														
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	909								131	130																																
		132S	61	25								909	136											135																					
		160M	105	210								660	170											170	400	450	4xM20	32	1051	189	188														
		160M	120	210								660	170											170	400	450	4xM20	32	1051	206	205														
		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			909	145	144																																							
132S	61			25	909	150	149																																						
160M	105			210	660	170	170	400	450	4xM20	32	1051	199	198																															
160M	120			210	660	170	170	400	450	4xM20	32	1051	215	214																															
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	230	600	150								150	350									390	4xM16	25	909	145	143																
		180M	175	230	600	150								150	350									390	4xM16	25	909	150	148																
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																																
		132S	65	250								600	150											150	350	390	4xM16	25	929	152	151														
		160M	105	250								600	150											150	350	390	4xM16	25	929	152	151														
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	909								134	133																																
		132S	65	25								909	138											137																					
		160M	105	210								660	170											170	400	450	4xM20	32	1051	192	191														
		160M	120	210								660	170											170	400	450	4xM20	32	1051	217	216														
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	909								134	133																																
		132S	65	25								909	138											137																					
		160M	105	1051								192	191																																
		160M	120	1051								208	207																																
		160L	135	1095								225	224																																
		132S	65	250								600	150											150	350	390	4xM16	25	929	152	151														
		160M	105	250								600	150											150	350	390	4xM16	25	929	152	151														
40-200	2	✓	✓	7.5	A	65	40	100	180	41	40	132S	65	210	60	660	-	170	170	440	490	4xM20	32	1071	201	200																			
		160M	105	1115								234	233																																
		160M	120	1136								284	283																																
		160L	135	1234								369	368																																
		180M	175	1234								402	401																																
		200L	240	1234								402	401																																
		132S	65	250								600	150											150	350	390	4xM16	25	929	152	151														
		160M	105	250								600	150											150	350	390	4xM16	25	929	152	151														
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								250	250																																
		160L	135	1136								291	291																																
		180M	175	1234								376	376																																
		200L	240	1234								409	409																																
		200L	270	1234								409	409																																
		225MA	315	300								840	205											205	550	610	4xM24	66	1275	488	488														
		250MA	405	325								940	230											230	600	660	4xM24	79	1385	609	609														
40-315	2	✓	✓	22	A	65	40	125	250	82	-	180M	175	275	75	840	-	205	205	490	540	4xM20	47	1271	355	-																			
		200L	240	1369								425	-																																
		200L	270	1369								458	-																																
		225MA	315	300								840	230											230	600	660	4xM24	66	1410	520	-														
		250MA	405	325								940	270											270	670	730	4xM24	79	1520	641	-														
		280SA	515	380								1060	270											270	670	730	4xM24	104	1636	802	-														

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

# DIMENSIONS

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

Model	Pole	Hz		Power kW	Fig	Size				Pump		Motor※		Baseplate								Total (Approx.)									
		50	60			dn1	dn2	a	h2	Mass(kg)	Frame	Mass (kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	Mass (kg)	L	Mass kg							
		GS	GSS			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	929								136	137																		
		132S	65	140								141																			
		160M	105	194								195																			
		160M	120	210								211																			
50-160	2	✓	✓	5.5	A	65	50	100	180	33	33	132S	61	210	60	660	-	150	150	400	450	4xM16	25	929	139	139					
		132S	65	143								143																			
		160M	105	192								192																			
		160M	120	209								209																			
		160L	135	1115								225	225																		
		180M	175	1136								275	275																		
		200L	240	1234								360	360																		
50-200	2	✓	✓	11	A	65	50	100	200	44	43	160M	105	210	60	660	-	170	170	440	490	4xM20	32	1071	204	203					
		160M	120	221								220																			
		160L	135	1115								237	236																		
		180M	175	1136								287	286																		
		200L	240	1234								372	371																		
		200L	270	1405								405	404																		
		225MA	315	1842								482	481																		
50-250	2	✓	✓	22	A	65	50	100	225	50	49	180M	175	230	75	660	-	170	170	440	490	4xM20	35	1136	293	292					
		200L	240	1234								378	377																		
		200L	270	1411								411	410																		
		225MA	315	1842								490	489																		
		250MA	405	2385								611	610																		
		200L	240	1369								430	430																		
		200L	270	1463								463	463																		
50-315	2	✓	✓	30	A	65	50	125	280	86	86	200L	240	275	75	840	-	205	205	550	610	4xM20	47	1369	524	524					
		200L	270	1520								645	645																		
		225MA	315	1636								797	797																		
		250MA	405	1886								847	847																		
		280SA	515	1060								1060																			
		280MA	552	540								540																			
		200L	240	205								205	490											540	4xM24	66	1275	482	481		
65-125	2	✓	✓	4	A	80	65	100	180	37	37	112M	47.5	210	75	660	-	130	130	400	450	4xM20	32	875	130	130					
		132S	61	929								151	151																		
		132S	65	155								155																			
		160M	105	196								196																			
		160M	120	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								217	219																		
		160M	120	1115								234	236																		
		160L	135	1136								285	287																		
		180M	175	1234								370	372																		
		200L	240	1403								403	405																		
		200L	270	1520								645	645																		
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	232								230																			
		160L	135	1115								249	247																		
		180M	175	1136								289	287																		
		200L	240	1234								375	373																		
		200L	270	1408								408	406																		
		225MA	315	1842								486	484																		
65-250	2	✓	✓	22	A	80	65	100	250	73	72	180M	175	250	90	840	-	205	205	550	610	4xM20	47	1246	337	336					
		200L	240	1344								407	406																		
		200L	270	1440								440	439																		
		225MA	315	1385								514	513																		
		250MA	405	1495								637	636																		
		280SA	515	1611								791	790																		
		280MA	552	1661								832	831																		
65-315	2	✓	✓	55	A	80	65	125	280	90	89	315SA	800	465	120	680	680	120	120	630	690	6xM20	175	1790	1160	1159					
		250MA	405	320								940	230											230	600	660	4xM24	79	1520	651	650
		280SA	515	380								1060	270											270	670	730	4xM24	104	1636	805	804
		280MA	552	1686								855	854																		
		315SA	800	1815								1173	1172																		
		315MA	900	1865								1283	1282																		
		160M	105	1096								215	217																		
80-160	2	✓	✓	15	A	100	80	125	225	46	48	160M	120	230	75	660	-	170	170	440	490	4xM20	35	1096	231	233					
		160L	135	1140								248	250																		
		180M	175	1161								288	290																		
		200L	240	1259								374	376																		
		200L	270	1407								407	409																		
		225MA	315	1300								485	487																		
		250MA	405	1410								606	608																		
80-200	2	✓	✓	22	A	100	80	125	250	67	67	180M	175	230	75	740	-	190	190	440	490	4xM20	39	1271	316	316					
		200L	240	1369								402	402																		
		200L	270	1435								435	435																		
		225MA	315	1610								508	508																		
		250MA	405	1790								630	630																		
		280SA	515	1636								781	781																		
		280MA	552	1686								822	822																		
80-250	2	✓	✓	45	A	100	80	125	280	77	77	225MA	315	300	90	1060	-	205	205	550	610	4xM24	66	1410	519	519					
		250MA	405	325								940	230											230	600	660	4xM24	79	1520	641	641
		280SA	515	1636								795	795																		
		280MA	552	1686								845	845																		
		315SA	800	1815								1164	1164																		
		315MA	900	1865								1274	1274																		
		280MA	552	380								90	1060											270	270	670	730	6xM20	175	1746	875
80-315L	2	✓	✓	90	B	100	80	125	315	112	112	315SA	800	465	120	680	-	120	120	630	690	6xM20	175	1875	1203	1203					
		315MA	900	1925								1313	1313																		
		315LA	980	1414								1414																			
		315LA	1100	1546								1546																			
		200L	240	180								2025	1414											1414							

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



# DIMENSIONS

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

Model	Pole	Hz		Power kW	Fig	Size			Pump		Motor ※1)		Baseplate										Total (Approx.)																									
		50	60			φ1	φ2	a	h2	Mass (kg)	Frame	Mass (kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	Mass (kg)	L	Mass (kg)																								
		GS	GSS	GS	GSS	GS	GSS	GS	GSS	GS	GSS	GS	GSS	GS	GSS	GS	GSS	GS	GSS	GS	GSS	GS	GSS	GS	GSS																							
100-160	2	✓		15	A	125	100	125	250	91	90	160M	120	250	90	840	-	205	205	490	540	4xM20	47	1206	300	299																						
		✓		18.5									160L											135	1250	317	316																					
		✓	✓	22									180M											175	1271	356	355																					
		✓	✓	30									200L											240	1369	426	425																					
		✓	✓	37									200L											270	1369	459	458																					
		✓	✓	45									225MA											315	300	66	1410	534	533																			
		✓	✓	55									250MA											405	325	79	1520	657	656																			
		✓		22									180M											175	1271	370	376																					
		✓		30									200L											240	1369	440	446																					
		✓	✓	37									200L											270	1369	473	479																					
100-200	2	✓		22	A	125	100	125	280	103	109	180M	175	250	90	840	-	205	205	490	540	4xM20	47	1271	370	376																						
		✓		30									200L											240	1369	440	446																					
		✓	✓	37									200L											270	1369	473	479																					
		✓	✓	45									225MA											315	300	66	1410	547	553																			
		✓	✓	55									250MA											405	325	79	1520	670	676																			
		✓	✓	75									280SA											515	380	104	1636	824	830																			
		✓	✓	90									280MA											552	380	104	1686	865	871																			
		✓	✓	110									315SA											800	465	175	1815	1193	1199																			
		✓	✓	132									315MA											900	465	175	1865	1303	1309																			
		100-250	2	✓																				37	A	125	100	140	280	108	106	200L	270	300	90	840	-	205	205	550	610	4xM24	66	1384	508	506		
✓				45	225MA	315	300	66	1425	548	546																																					
✓	✓			55	250MA	405	325	79	1535	671	669																																					
✓	✓			75	280SA	515	380	104	1651	825	823																																					
✓	✓			90	280MA	552	380	104	1701	875	873																																					
✓	✓			110	315SA	800	465	170	1830	1193	1191																																					
✓	✓			132	315MA	900	465	170	1880	1303	1301																																					
100-250L	2			✓		90	A	125	100	140	280	120	118	280MA	552	380	90	1060	-	270	270	670	730	4xM24									104											1761	879	877		
				✓		110									315SA																													800	175	1890	1211	1209
				✓		132									315MA																													900	175	1940	1321	1319
		✓	✓	160	315LA	980									180										2040	1414	1412																					
		✓	✓	200	315LA	1100									180										2040	1555	1553																					
		✓	✓	220	355MA	1550									505										230	2279	2100	2098																				
		✓	✓	75	280SA	515									380										90	1060	1711	849	847																			
		✓	✓	90	280MA	552									380										90	1060	1761	899	897																			
		✓	✓	110	315SA	800									465										175	1890	1227	1225																				
		✓	✓	132	315MA	900									465										175	1940	1337	1335																				
100-315L	2	✓		90	B	125	100	140	315	134	132	315LA	980	465	120	710	710	120	120	630	690	6xM20	180	2040	1438	1436																						
		✓		110									315LA											980	180	2040	1570	1568																				
		✓	✓	132									315LA											1100	180	2040	1701	1701																				
		✓	✓	160									355MA											1550	505	230	2279	2100	2098																			
		✓	✓	200									315SA											800	465	175	1890	1227	1225																			
		✓	✓	220									315MA											900	465	175	1940	1337	1335																			
		✓	✓	75									280SA											515	380	90	1060	1711	849	847																		
		✓	✓	90									280MA											552	380	90	1060	1761	899	897																		
		✓	✓	110									315SA											800	465	175	1890	1227	1225																			
		✓	✓	132									315MA											900	465	175	1940	1337	1335																			
125-200	2	✓		45	A	150	125	140	315	120	119	225MA	315	325	90	840	-	205	205	550	610	4xM24	66	1425	571	570																						
		✓		55									250MA											405	325	79	1535	680	679																			
		✓	✓	75									280SA											515	380	104	1651	834	833																			
		✓	✓	90									280MA											552	380	104	1701	883	882																			
		✓	✓	110									315SA											800	465	170	1830	1206	1205																			
		✓	✓	132									315MA											900	465	170	1880	1316	1315																			
		✓		75									280SA											515	380	90	1060	1711	865	862																		
		✓		90									280MA											552	380	90	1060	1761	914	911																		
		✓	✓	110									315SA											800	465	175	1890	1242	1239																			
		✓	✓	132									315MA											900	465	175	1940	1352	1349																			
125-250L	2	✓		110	B	150	125	140	355	148	145	315LA	980	465	120	710	710	120	120	630	690	6xM20	180	2040	1454	1451																						
		✓		132									315LA											980	180	2040	1586	1583																				
		✓	✓	160									315LA											1100	180	2040	1711	1711																				
		✓	✓	200									355MA											1550	505	230	2279	2131	2128																			
		✓	✓	220									355MA											1650	505	230	2279	2241	2238																			
		✓	✓	75									280SA											515	380	90	1060	1711	865	862																		
		✓	✓	90									280MA											552	380	90	1060	1761	914	911																		
		✓	✓	110									315SA											800	465	175	1890	1242	1239																			
		✓	✓	132									315MA											900	465	175	1940	1352	1349																			
		✓	✓	160									315LA											980	465	175	1940	1352	1349																			
125-315	2	✓		110	B	150	125	140	355	176	170	315LA	1100	465	120	710	710	120	120	630	690	6xM20	185	1890	1283	1277																						
		✓		132									315LA											980	185	1940	1393	1387																				
		✓	✓	160									315LA											1100	185	1940	1495	1489																				
		✓	✓	200									355MA											1550	505	230	2279	2162	2156																			
		✓	✓	220									355MA											1650	505	230	2279	2285	2279																			
		✓	✓	75									280SA											515	380	90	1060	1711	865	862																		
		✓	✓	90									280MA											552	380	90	1060	1761	914	911																		
		✓	✓	110									315SA											800	465	175	1890	1242	1239																			
		✓	✓	132									315MA											900	465	175	1940	1352	1349																			
		✓	✓	160									315LA											980	465	175	1940	1352	1349																			
150-200	2	✓		37	A	200	150	160	355	154	157	200L	270	380	110	940	-	230	230	670	730	4xM24	92	1404	600	603																						
		✓		45									225MA											315	1445	649	652																					
		✓	✓	55									250MA											405	1555	745	748																					
		✓	✓	75									280SA											515	1671	866	869																					
		✓	✓	90									280MA											552	1721	915	918																					
		✓	✓	110									315SA											800	465	185	1850	1254	1257																			
		✓	✓	132									315MA											900	465	185	1900	1364	1367																			
		✓		110									315SA											800	465	185	1910	1278	1260																			
		✓		132									315MA											900	465	185	1960	1388	1370																			
		✓	✓	160									315LA											980	465	185	1990	1489	1471																			
150-250	2	✓		200	B	200	150	160	375	171	153	315LA	1100	465	120	760	760	120	120	630	690	6xM20	190	2060	1489	1471																						
		✓		220									315LA											980	190	2060	1621	1603																				
		✓	✓	250									355MA											1550	230	2299	2156	2138																				
		✓	✓	250									355MA											1650	230	2299	2279	2261																				

※1) 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**		Baseplate								Total (Approx.)					
		50	60			dn1	dn2	a	h2	Mass(kg)		Frame	Mass (kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	Mass (kg)	L	Mass kg		
		GS	GSS	GS		GSS	Frame	Mass (kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	Mass (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	
		✓	✓	0.75								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	
		✓	✓	0.75								80M	16.5												76	77	
		✓	✓	1.1								90S	22												78	81	82
		✓	✓	1.5								80M	15												79	78	
32-160.1	4	✓	✓	0.55	A	50	32	80	160	29	28	80M	16.5	182	60	540	-	130	130	350	390	4xM16	23	736	80	79	
		✓	✓	0.75								80M	16.5												80	79	
		✓	✓	1.1								90S	22												78	81	86
		✓	✓	1.5								90L	24												81	89	88
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	
		✓	✓	0.75								80M	16.5												80	79	
		✓	✓	1.1								90S	22												78	81	86
		✓	✓	1.5								90L	24												81	89	88
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	89	
		✓	✓	0.75								80M	16.5												92	91	
		✓	✓	1.1								90S	22												78	99	98
		✓	✓	1.5								90L	24												81	101	100
		✓	✓	2.2								100L	32												83	111	110
32-200	4	✓	✓	0.75	A	50	32	80	180	39	37	80M	16.5	210	60	540	-	130	130	350	390	4xM16	23	736	92	90	
		✓	✓	1.1								90S	22												78	99	97
		✓	✓	1.5								90L	24												81	101	99
		✓	✓	2.2								100L	32												83	111	109
		✓	✓	3								100L	37.5												83	118	116
		✓	✓	0.75								80M	16.5												75	109	109
32-250	4	✓	✓	1.1	A	50	32	100	225	46	46	90S	22	230	75	600	-	150	150	440	490	4xM20	31	756	109	109	
		✓	✓	1.5								90L	24												80	116	116
		✓	✓	2.2								90L	24												82	118	118
		✓	✓	3								100L	32												85	129	129
		✓	✓	4								100L	37.5												85	136	136
		✓	✓	5.5								112M	47.5												87	147	147
		✓	✓	0.55								132S	64.0												92	168	168
		✓	✓	0.75								80M	15												77	76	
40-125	4	✓	✓	0.75	A	65	40	80	140	30	29	80M	16.5	162	60	540	-	130	130	320	360	4xM16	21	736	79	78	
		✓	✓	1.1								80M	16.5												77	78	
		✓	✓	1.5								90S	22												78	83	82
		✓	✓	2.2								90L	24												81	86	85
		✓	✓	3								80M	15												81	80	
40-160	4	✓	✓	0.55	A	65	40	80	160	31	30	80M	16.5	182	60	540	-	130	130	350	390	4xM16	23	736	81	80	
		✓	✓	0.75								80M	16.5												83	82	
		✓	✓	1.1								90S	22												78	89	88
		✓	✓	1.5								90L	24												81	91	90
		✓	✓	2.2								100L	32												83	101	100
		✓	✓	3								100L	37.5												85	108	107
40-200	4	✓	✓	1.1	A	65	40	100	180	41	40	90S	22	210	60	540	-	130	130	350	390	4xM16	23	807	101	100	
		✓	✓	1.5								90L	24												82	103	102
		✓	✓	2.2								100L	32												85	113	112
		✓	✓	3								100L	37.5												85	120	119
		✓	✓	4								112M	47.5												87	132	131
		✓	✓	5.5								132S	64												92	151	150
		✓	✓	0.55								90L	24												83	120	120
40-250	4	✓	✓	1.5	A	65	40	100	225	48	48	100L	32	230	75	600	-	150	150	440	490	4xM20	31	832	120	120	
		✓	✓	2.2								100L	32												85	131	131
		✓	✓	3								100L	37.5												85	138	138
		✓	✓	4								112M	47.5												87	149	149
		✓	✓	5.5								132S	64												92	170	170
		✓	✓	7.5								132M	78												97	186	186
		✓	✓	2.2								100L	32												99	171	-
		✓	✓	3								100L	37.5												99	177	-
40-315	4	✓	✓	4	A	65	40	125	250	82	-	112M	47.5	275	75	660	-	170	170	440	490	4xM20	35	1011	195	-	
		✓	✓	5.5								132S	64												1064	215	-
		✓	✓	7.5								132M	78												1102	230	-
		✓	✓	11								160M	105												1207	269	-
		✓	✓	15								160L	130												1251	296	-
		✓	✓	0.55								100L	32												99	171	-
		✓	✓	0.75								100L	37.5												99	177	-
		✓	✓	1.1								112M	47.5												1011	195	-
50-125	4	✓	✓	0.55	A	65	50	100	160	33	34	80M	15	182	60	540	-	130	130	350	390	4xM16	23	756	83	84	
		✓	✓	0.75								80M	16.5												85	86	
		✓	✓	1.1								90S	22												80	91	92
		✓	✓	1.5								90L	24												82	94	95
		✓	✓	2.2								100L	32												85	103	104
		✓	✓	3								80M	15												84	84	
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	
		✓	✓	0.75								80M	16.5												86	86	
		✓	✓	1.1								90S	22												80	92	92
		✓	✓	1.5								90L	24												82	94	94
		✓	✓	2.2								100L	32												83	94	94
		✓	✓	3								100L	37.5												85	105	105
		✓	✓	4								112M	47.5												87	123	123
50-200	4	✓	✓	1.1	A	65	50	100	200	44	43	90S	22	210	60	540	-	130	130	350	390	4xM16	23	807	104	103	
		✓	✓	1.5								90L	24												83	106	105
		✓	✓	2.2								100L	32												85	117	116
		✓	✓	3								100L	37.5												85	124	123
		✓	✓	4								112M	47.5												87	135	134
		✓	✓	5.5								132S	64												92	154	153
		✓	✓	7.5								132M	78												97	169	168
		✓	✓	11								160M	105												97	169	168
50-250	4	✓	✓	2.2	A	65	50	100	225	50	49	100L	32	230	75	600	-	150	150	440	490	4xM20	31	855	133	132	
		✓	✓	3								100L	37.5												85	140	139
		✓	✓	4								112M	47.5												87	151	150
		✓	✓	5.5								132S	64												92	172	171
		✓	✓	7.5								132M	78												97	188	187
		✓	✓	11								160M	105												97	188	187
		✓	✓	2.2								100L	32												85	133	132
		✓	✓	3								100L	37.5												85	140	139
50-315	4	✓	✓	4	A	65	50	125	280	86	86	112M	47.5	275	75	660	-	170	170	440	490	4xM20	35	1011	198	198	
		✓	✓	5.5								132S	64												1064	219	219
		✓	✓	7.5								132M	78												1102	234	234
		✓	✓	11								160M	105												1207	273	273
		✓	✓	15								160L	130												1251	300	300
		✓	✓	18.5								180M	175												1271	359	359
		✓	✓	22								180L	190												1309	379	379
		✓	✓	22								180L	190												1309	379	379

\*\*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※		Baseplate								Total (Approx.)				
		50	60			dn1	dn2	a	h2	Mass(kg)		Frame	Mass (kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	Mass (kg)	L	Mass kg	
		✓	✓	GS		GSS																			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	100	100
		✓	✓	1.1								90S	22											832	102	102
		✓	✓	1.5								90L	24											855	112	112
		✓	✓	2.2								100L	32													
		✓	✓	3								100L	37.5													
		✓	✓	0.75								80M	16.5													
65-160	4	✓		1.1	A	80	65	100	200	41	43	80M	16.5	210	75	540	-	130	130	400	450	4xM20	26	756	98	100
				1.5								90S	22											807	104	106
		✓	✓	2.2								90L	24											832	106	108
		✓	✓	3								100L	32											855	117	119
		✓	✓	4								100L	37.5													
		✓	✓	5.5								112M	47.5													
		✓	✓	3								132S	64													
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											876	148	146
		✓	✓	4								112M	47.5											929	169	167
		✓	✓	5.5								132S	64											967	184	182
		✓	✓	7.5								132M	78													
		✓	✓	11								160M	105													
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
		✓	✓	7.5								132M	78													
65-315	4	✓		11	A	80	65	125	280	90	89	160M	105	300	90	840	-	205	205	550	610	4xM24	66	1102	273	272
				15								160M	105											1207	307	306
		✓	✓	18.5								160L	130											1251	335	334
		✓	✓	22								180M	175											1271	384	383
		✓	✓	30								180L	190											1309	405	404
		✓	✓	7.5								200L	255											1369	472	471
		✓	✓	11								90S	22													
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	119
				1.5								90L	24											857	118	120
		✓	✓	2.2								100L	32											880	129	131
		✓	✓	3								100L	37.5											890	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
		✓	✓	11								160M	105											1207	321	322
80-315	4	✓		15	A	100	80	125	315	101	102	160L	130	325	90	840	-	205	205	550	610	4xM24	66	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
		✓	✓	11								160M	105											1267	390	388
80-400	4	✓		15	A	100	80	125	355	162	160	160L	130	355	90	940	-	230	230	550	610	4xM24	74	1311	418	416
				18.5								180M	175											1331	480	478
		✓	✓	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

※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 ※1		Baseplate										Total (Approx.)				
		50	60			φ1	φ2	a	h2	Mass (kg)	Frame	Mass (kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	Mass (kg)	L	Mass (kg)			
		✓	✓	GS		GSS	GS	GSS	GS															GSS			
100-160	4	✓		2.2	A	125	100	125	250	91	90	100L	32	250	90	740	-	190	190	490	540	4xM20	42	42	990	192	191
		✓		3								100L	37.5												1011	210	209
		✓	✓	4								112M	47.5												1064	230	229
		✓	✓	5.5								132S	64												1102	246	245
		✓	✓	7.5								132M	78												1117	293	291
100-200	4	✓		4	A	125	100	125	280	103	109	112M	47.5	250	90	740	-	190	190	490	540	4xM20	42	42	1011	223	229
		✓	✓	5.5								132S	64												1064	243	249
		✓	✓	7.5								132M	78												1102	259	265
		✓	✓	11								160M	105												1207	299	305
		✓	✓	15								160L	130												1251	326	332
		✓	✓	18.5								180M	175												1271	370	376
		✓	✓	5.5								132S	64												1079	277	275
100-250	4	✓		7.5	A	125	100	140	280	108	106	132S	64	300	90	840	-	205	205	550	610	4xM24	66	66	1117	293	291
		✓	✓	11								160M	105												1222	327	325
		✓	✓	15								160L	130												1266	358	356
		✓	✓	18.5								180M	175												1286	410	408
		✓	✓	22								180L	190												1324	427	425
		✓	✓	30								200L	255												1384	507	505
		✓	✓	37								225SC	315												1430	564	562
100-315	4	✓		7.5	A	125	100	140	315	109	107	132M	78	325	90	840	-	205	205	550	610	4xM24	66	66	1117	295	293
		✓	✓	11								160M	105												1222	330	328
		✓	✓	15								160L	130												1266	358	356
		✓	✓	18.5								180M	175												1286	410	408
		✓	✓	22								180L	190												1324	427	425
		✓	✓	30								200L	255												1384	507	505
		✓	✓	37								225SC	315												1430	564	562
		✓	✓	45								225MC	330												1455	580	578
		✓	✓	15								160L	130												1326	476	451
		✓	✓	18.5								180M	175												1346	530	505
100-400	4	✓		22	A	125	100	140	355	189	164	180L	190	380	110	940	-	230	230	670	730	4xM24	92	92	1384	546	521
		✓	✓	30								200L	255												1444	627	602
		✓	✓	37								225SC	315												1490	692	667
		✓	✓	45								225MC	330												1515	718	693
		✓	✓	55								250MC	450												1595	842	817
		✓	✓	75								280SB	566												1711	969	944
		✓	✓	90								280MB	624												1761	1042	1017
		✓	✓	5.5								132S	64												1079	291	290
		✓	✓	7.5								132M	78												1117	307	306
		✓	✓	11								160M	105												1222	342	341
125-200	4	✓		15	A	150	125	140	315	120	119	160L	130	325	90	840	-	205	205	550	610	4xM24	66	66	1266	370	369
		✓	✓	18.5								180M	175												1286	419	418
		✓	✓	22								180L	190												1324	439	438
		✓	✓	11								160M	105												1222	354	351
		✓	✓	15								160L	130												1266	382	379
		✓	✓	18.5								180M	175												1286	435	432
		✓	✓	22								180L	190												1324	451	448
125-250	4	✓		20	A	150	125	140	355	131	128	200L	255	325	90	840	-	205	205	550	610	4xM24	66	66	1384	531	528
		✓	✓	30								225SC	315												1430	588	585
		✓	✓	37								225MC	330												1455	605	602
		✓	✓	45								160L	130												1326	462	456
		✓	✓	15								180M	175												1346	516	510
		✓	✓	18.5								180L	190												1384	532	526
		✓	✓	22								200L	255												1444	613	607
125-315	4	✓		30	A	150	125	140	355	176	170	225SC	315	380	110	940	-	230	230	670	730	4xM24	92	92	1490	678	672
		✓	✓	37								225MC	330												1515	703	697
		✓	✓	45								250MC	450												1595	828	822
		✓	✓	55								280SB	566												1711	955	949
		✓	✓	75								160L	130												1326	482	456
		✓	✓	15								180M	175												1346	532	526
		✓	✓	18.5								180L	190												1384	546	521
125-400	4	✓		22	A	150	125	140	400	218	202	180L	190	415	110	940	-	230	230	670	730	4-M24	92	92	1384	580	564
		✓	✓	30								200L	255												1444	661	645
		✓	✓	37								225SC	315												1490	728	712
		✓	✓	45								225MC	330												1515	754	738
		✓	✓	55								250MC	450												1595	901	885
		✓	✓	75	280SB	566	1711	1040	1024																		
		✓	✓	90	280MB	624	1761	1104	1088																		
		✓	✓	110	315SB	800	1920	1338	1322																		
		✓	✓	132	315MB	900	1970	1448	1432																		
		125-500	4	✓		30	A	150	125	180	450	365	361	200L	255	475	110	1060	-	270	270	670	730	4xM24	104	104	1624
✓	✓			37	225SC	315								1670	908												904
✓	✓			45	225MC	330								1695	933												929
✓	✓			55	250MC	450								1775	1071												1067
✓	✓			75	280SB	566								1891	1226												1222
✓	✓			90	280MB	624	1941	1290	1286																		
✓	✓			110	315SB	800	2100	1535	1531																		
✓	✓			132	315MB	900	2150	1645	1641																		
✓	✓			160	315LB	990	2250	1762	1758																		

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

# DIMENSIONS

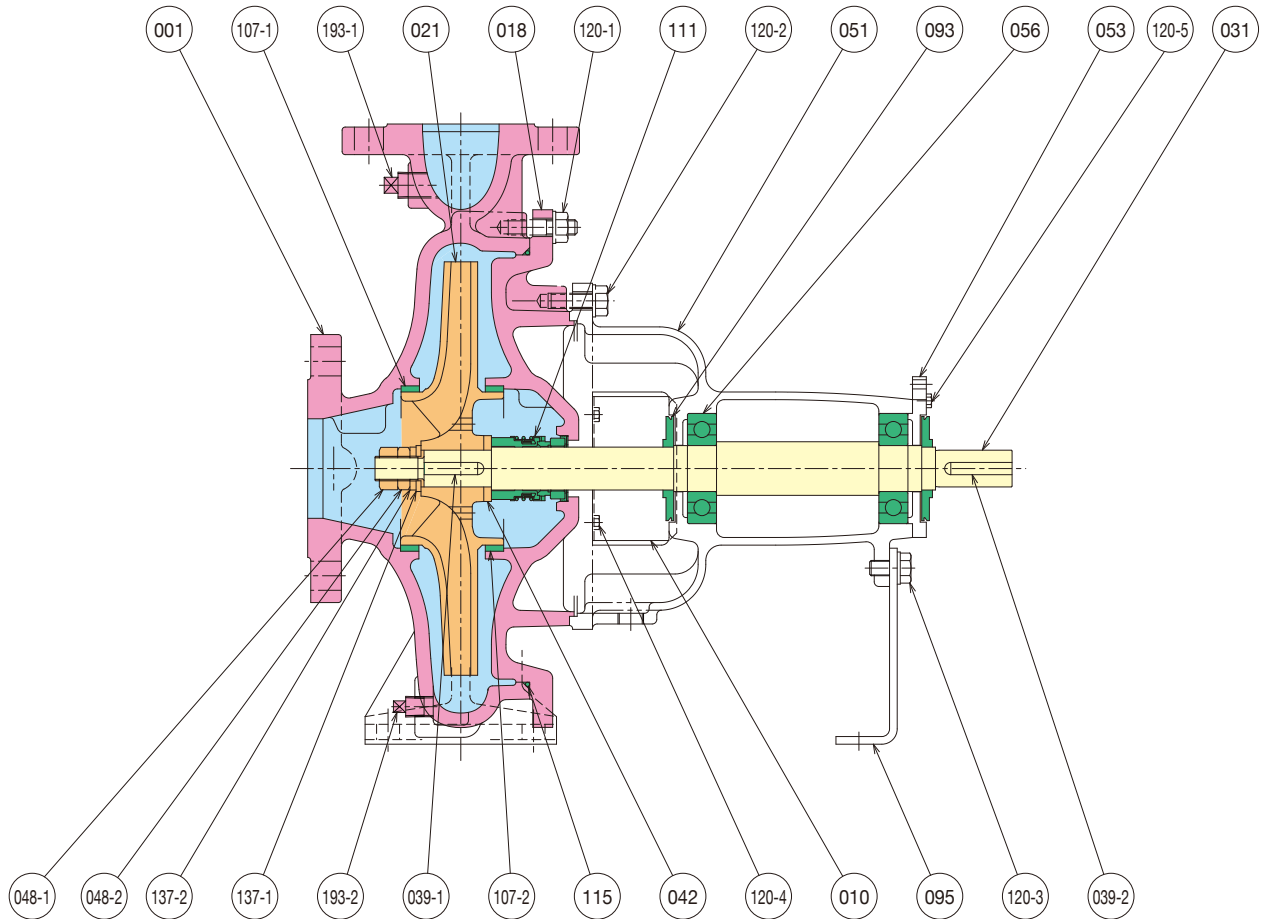
## DIMENSION-Model GS/GSS Pump with motor-4P 50Hz/60Hz

Model	Pole	Hz		Power kW	Fig	Size			Pump		Motor ※1)		Baseplate								Total (Approx.)						
		50	60			φ 1	φ 2	a	h2	Mass (kg)	Frame	Mass (kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	Mass (kg)	L	Mass (kg)			
		GS	GSS	GS		GSS	GS	GSS	GS															GSS			
150-200	4	✓		4	A	200	150	160	355	154	157	112M	47.5	380	110	940	-	230	230	670	730	4xM24	92	1046	337	340	
		✓		5.5								132S	64											1099	358	361	
		✓	✓	7.5								132M	78											1137	374	377	
		✓	✓	11								160M	105											1242	410	413	
		✓	✓	15								160L	130											1286	437	440	
		✓	✓	18.5								180M	175											1306	488	491	
		✓	✓	22								180L	190											1344	508	511	
		✓	✓	15								160L	130											1346	457	439	
150-250	4	✓		18.5	A	200	150	160	375	171	153	180M	175	380	110	940	-	230	230	670	730	4xM24	92	1366	510	492	
		✓		22								180L	190											1404	527	509	
		✓	✓	30								200L	255											1464	607	589	
		✓	✓	37								225SC	315											1510	672	654	
		✓	✓	45								225MC	330											1535	698	680	
		✓	✓	55								250MC	450											1615	822	804	
		✓	✓	75								280SB	566											1731	950	932	
		✓	✓	18.5								180M	175											1366	571	560	
		✓	✓	22								180L	190											1404	588	577	
		✓	✓	30								200L	255											1464	669	658	
150-315	4	✓		37	A	200	150	160	400	225	214	225SC	315	415	110	940	-	230	230	670	730	4xM24	92	1510	736	725	
		✓		45								225MC	330											1535	761	750	
		✓	✓	55								250MC	450											1615	909	898	
		✓	✓	75								280SB	566											1731	1058	1047	
		✓	✓	90								280MB	624											1781	1122	1111	
		✓	✓	110								315SB	800											1940	1346	1335	
		✓	✓	132								315MB	900											1990	1456	1445	
		✓	✓	37								225SC	315											1510	861	863	
		✓	✓	45								225MC	330											1535	887	889	
		✓	✓	55								250MC	450											1615	1035	1037	
150-400	4	✓		75	A	200	150	160	450	339	341	280SB	566	415	110	1060	-	270	270	670	730	4xM24	92	1731	1173	1175	
		✓		90								280MB	624											1781	1237	1239	
		✓	✓	55								250MC	450											1615	1060	1063	
		✓	✓	75								280SB	566											1731	1215	1217	
		✓	✓	90								280MB	624											1781	1288	1290	
		✓	✓	110								315SB	800											1940	1502	1504	
		✓	✓	132								315MB	900											1990	1612	1614	
		✓	✓	160								315LB	990											2000	1735	1737	
150-500	4	✓		55	A	200	150	180	560	491	504	250MC	450	475	110	1060	-	270	270	670	730	4xM24	104	1775	1210	1223	
		✓		75								280SB	566											1891	1365	1378	
		✓		90								280MB	624											1941	1429	1442	
		✓	✓	110								315SB	800											2100	1673	1686	
		✓	✓	132								315MB	900											2150	1796	1809	
		✓	✓	160								315LB	990											2250	1900	1913	
		✓	✓	200								355MB	1550											2087	2100		
		✓	✓	220								355MB	1650											2643	2656		
		✓	✓	250								355MB	1650											2753	2766		
		✓	✓	315								355LB	1900											3028	3041		
200-400	4	✓		75	B	250	200	180	560	508	-	280SB	566	535	220	650	650	-	220	220	680	740	6xM20	235	1891	1449	-
		✓		90								315SB	800												1941	1513	-
		✓		110								315MB	900												2100	1752	-
		✓	✓	132								315LB	990												2150	1875	-
		✓	✓	160								315LB	990												2183	1984	-
		✓	✓	200								355MB	1550												2712	2712	-
		✓	✓	220								355MB	1650												2822	2822	-
		✓	✓	250								355LB	1900												3097	3097	-
		✓	✓	315								355CB	2340												3643	3643	-
		✓	✓	375								315LB	990												2105	2105	-
200-500	4	✓		160	B	250	200	200	630	645	-	315LB	1160	585	220	870	870	-	220	220	680	740	6xM20	260	2420	2304	-
		✓		200								355MB	1550												2843	2843	-
		✓	✓	220								355MB	1650												2953	2953	-
		✓	✓	250								355LB	1900												3249	3249	-
		✓	✓	315								355CB	2340												3743	3743	-
		✓	✓	375								315LB	990												2105	2105	-
		✓	✓	200								315LB	1160												2304	2304	-
		✓	✓	220								355MB	1550												2843	2843	-

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

# SECTIONAL VIEW

## MECHANICAL SEAL TYPE

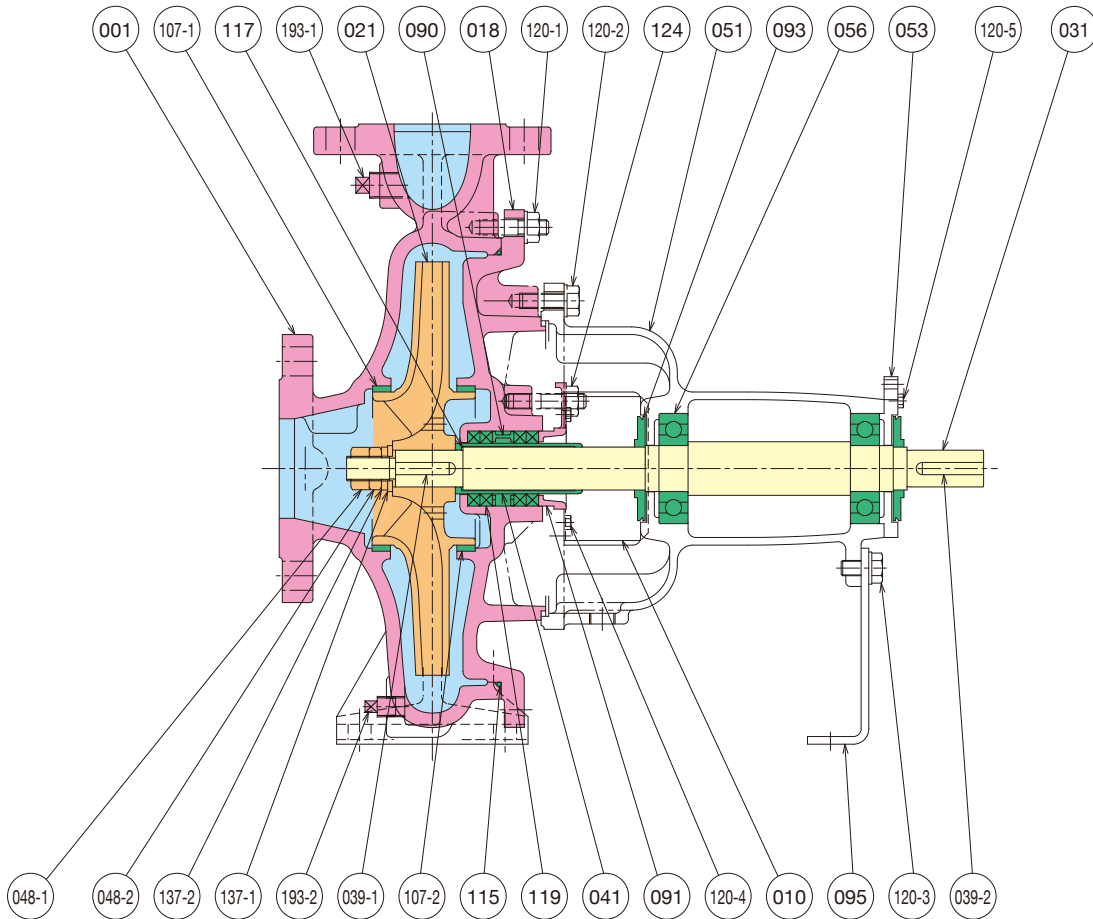


No.	Part name	Qty
001	CASING	1
010	PROTECTOR	2
018	CASING COVER	1
021	IMPELLER	1
031	SHAFT	1
039-1	KEY	1
039-2	KEY	1
042	SPACER	1
048-1	IMPELLER NUT (A)	1
048-2	IMPELLER NUT (B)	1
051	BEARING HOUSING	1
053	BEARING COVER	1
056	BALL BEARING	2
093	DEFLECTOR	2

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
120-5	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
048-1	IMPELLER NUT (A)	1
048-2	IMPELLER NUT (B)	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
120-5	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 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	D1
001	CASING	Cast iron	FC250	A278-35	EN-GJL-250 (EN-JL1040)	●	●	●	●			
		Ductile cast iron	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)						○	
		Duplex stainless steel	---	A890-1B (CD4MCuN)	GX2CrNiMoCuN-25-6-3-3 (1.4517)							○
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 iron	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)						○	
		Duplex stainless steel	---	A890-1B (CD4MCuN)	GX2CrNiMoCuN-25-6-3-3 (1.4517)							○
021	IMPELLER	Cast iron (*)	FC200	A278-30	EN-GJL-200 (EN-JL1030)	●	●					
		Ductile cast iron (**)	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 (**)	SUS329J3L/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)				○	●	●	
		Duplex stainless steel	SUS329J3L	A276-S31803	X2CrNiMoN22-5-3 (1.4462)							○
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)						○	
		Duplex stainless steel	SUS329J3L	A276-S31803	X2CrNiMoN22-5-3 (1.4462)							○
048-1	IMPELLER NUT (A)	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●		
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○	
		Duplex stainless steel	SUS329J3L	A276-S31803	X2CrNiMoN22-5-3 (1.4462)							○
048-2	IMPELLER NUT (B)	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●		NA
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○	NA
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)					●	●	
		Duplex stainless steel	SUS329J3L	A276-S31803	X2CrNiMoN22-5-3 (1.4462)							○
111	MECHANICAL SEAL	SiC/carbon/FKM (**)	---	---	---	●	●	●	●	●	●	
		SiC/carbon/EPDM (**)	---	---	---	○	○	○	○	○	○	
		Tc/carbon/EPDM (**)	---	---	---	○	○	○	○	○	○	
		SiC/SiC/EPDM/HAS-C (**)	---	---	---							○
115	O-RING	NBR	---	---	---	●	●	●	●			
		FKM (**)	---	---	---	○	○	○	○	●	●	●
		EPDM	---	---	---	○	○	○	○	○	○	○
120-1	BOLT	Carbon steel	SS	A283-D	---	●	●	●	●	●	●	
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)							○
120-2,3,4,5	BOLT	Carbon steel	SS	A283-D	---	●	●	●	●	●	●	
137-1	PLAIN WASHER	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●		NA
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○	NA
137-2	SPRING LOCK WASHER	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●		NA
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○	NA
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)						○	
		Duplex stainless steel	SUS329J3L	A276-S31803	X2CrNiMoN22-5-3 (1.4462)							○
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)						○	
		Duplex stainless steel	SUS329J3L	A276-S31803	X2CrNiMoN22-5-3 (1.4462)							○

(\*) 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.

(\*\*\*) Duplex stainless steel is used for wetted part only. The remaining atmospheric side of shaft is made of carbon steel.

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

(\*\*) Elastomer bellows seal (\*\*\*) O ring/Spring (\*\*) Viton

# MATERIALS

## Materials of gland packing application <sup>(\*)8)</sup>

●:Standard ○:Optional

No.	Name of part	Material	JIS Material	ASTM equivalent	ISO or EN equivalent	Material group						
						G1	G2	G3	G4	A1	A2	D1
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)						○	
		Duplex stainless steel	---	A890-1B (CD4MCuN)	GX2CrNiMoCuN-25-6-3-3 (1.4517)							NA
041	SHAFT SLEEVE	304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)	●	●	●	●	●		
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○	
		Duplex stainless steel	---	A890-1B (CD4MCuN)	GX2CrNiMoCuN-25-6-3-3 (1.4517)							NA
090	LANTERN RING	Cast iron	FC150 or 200	A48-20 or 30	EN-GJL-150 (EN-JL1020) or EN-GJL-200 (EN-JL1030)		○					NA
		Bronze	CAC406	B584-C83600	CuSn5Zn5Pb5 (CC491K)	●		●				NA
		304 Stainless steel	SCS13	A351-CF8	GX5CrNi19-10 (1.4308)				○	●		NA
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○	NA
091	GLAND	Cast iron	FC150	A48-20	EN-GJL-150 (EN-JL1020)		○					NA
		Bronze	CAC406	B584-C83600	CuSn5Zn5Pb5 (CC491K)	●		●				NA
		304 Stainless steel	SCS13	A351-CF8	GX5CrNi19-10 (1.4308)				○	●		NA
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○	NA
117	GASKET	Joint sheet gasket <sup>(*)9)</sup>	---	---	---	●	●	●	●	●	●	NA
119	GLAND PACKING	Silicone carbide fiber packing <sup>(*)10)</sup>	---	---	---	●	●	●	●	●	●	NA
124	GLAND BOLT	12% Cr. steel	SUS403	A276-403	---		○					NA
		Brass	C3604BD	B16-C36000	---	●		●				NA
		304 Stainless steel	SUS304	A276-304	X5CrNi18-10 (1.4301)				○	●		NA
		316 Stainless steel	SUS316	A276-316	X5CrNiMo17-12-2 (1.4401)						○	NA

<sup>(\*)8)</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>(\*)9)</sup> V#6500AC

<sup>(\*)10)</sup> P#6501L

## 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 iron	Cast iron or Ductile cast iron	Bronze	Cr.steel	Cast iron casing, Cast iron impeller with Bronze case wear ring
G2		Cast iron or Ductile cast iron	Cast iron	Cr.steel	All wetted parts are Iron material.
G3		Bronze	Bronze	Cr.steel	Cast iron casing, Bronze impeller with Bronze case wear ring
G4		304 Stainless steel	Cast iron	Duplex stainless steel	Cast iron casing, Stainless steel impeller with Duplex stainless steel shaft
A1	304 Stainless steel	304 Stainless steel	316 Stainless steel	Duplex stainless steel	304/316 Stainless steel wetted parts with Duplex stainless steel shaft
A2	316 Stainless steel	316 Stainless steel	316 Stainless steel	Duplex stainless steel	316 Stainless steel wetted parts with Duplex stainless steel shaft
D1	Duplex stainless steel	Duplex stainless steel	Duplex stainless steel	Duplex stainless steel	All wetted parts are Duplex stainless steel



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