

END SUCTION VOLUTE PUMP Model GS/GSS

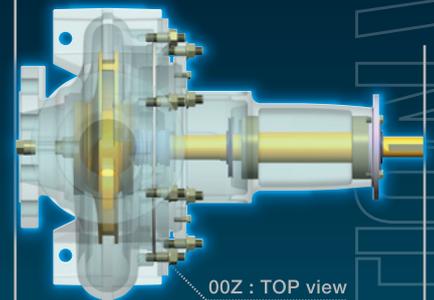
Model GS

Casing : Cast Iron or Ductile Cast Iron
Impeller : Cast Iron, Bronze or
Ductile Cast Iron



Model GSS

Casing : 304/316 Stainless Steel
Impeller : 304/316 Stainless Steel

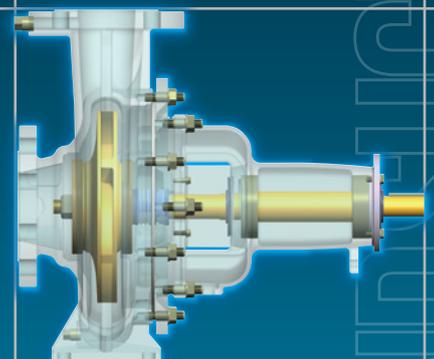


00Z : TOP view

EBARA Corporation, Tokyo
Series Name : GS
Model : GS / GSS
Applicable Standard : EN733



00X : FRONT view



00Y : SIDE view

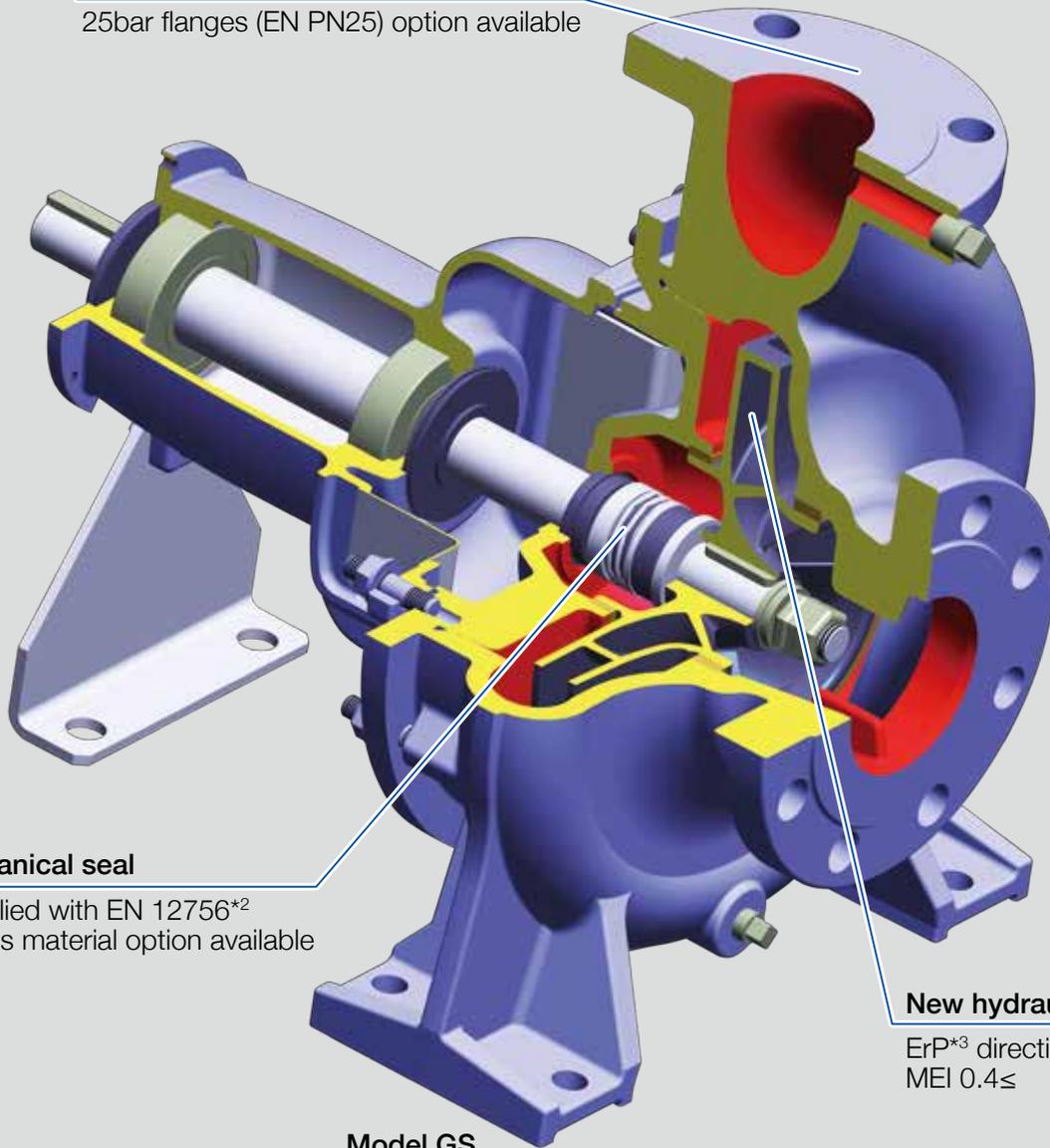
GS SERIES PUMPS

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		-10°C to 140°C 120 °C
Max. Operating Pressure		Up to 16bar (1.6MPa) / for standard flange DIN-PN16 Up to 14bar (1.4MPa) / for standard flange JIS10K
Flange Standard		EN1092-2 , JIS B 2239
Construction	Impeller	Closed
	Shaft seal	Mechanical Seal , Gland Packing
	Flushing	N/A , Self , External
	Ball bearing	Shield ball bearing (grease lubrication)
Material (*3)	Casing	Cast iron
	Impeller	Cast iron or Ductile cast irons (*1) Bronze , 304 Stainless steel
	Shaft	Cr.steel , Duplex stainless steel (*2)
	Case wear ring	Bronze , Cast iron
	Shaft sleeve	N/A , 304 Stainless steel (Gland packing or some mechanical seal)
	O-ring	NBR , 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		-10°C to 140°C
Max. Operating Pressure		Up to 25bar (2.5MPa) / for standard flange DIN-PN25 Up to 25bar (2.5MPa) / for standard flange JIS20K
Flange Standard		EN1092-2 , JIS B 2239
Construction	Impeller	Closed
	Shaft seal	Mechanical Seal
	Flushing	N/A , Self , External
	Ball bearing	Shield ball bearing (grease lubrication)
Material (*3)	Casing	Ductile cast irons
	Impeller	Cast iron or Ductile cast irons (*1) Bronze , 304 Stainless steel
	Shaft	Cr.steel , Duplex stainless steel (*2)
	Case wear ring	Bronze , Cast iron
	Shaft sleeve	N/A , 304 Stainless steel (in case of some mechanical seal)
	O-ring	NBR , 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		-10°C to 140°C
Max. Operating Pressure		Up to 16bar (1.6MPa) / for standard flange DIN-PN16 Up to 14bar (1.4MPa) / for standard flange JIS10K
Flange Standard		EN1092-2 , JIS B 2239
Construction	Impeller	Closed
	Shaft seal	Mechanical Seal , Gland Packing
	Flushing	N/A , Self , External
	Ball bearing	Shield ball bearing (grease lubrication)
Material (*2)	Casing	304 Stainless steel , 316 Stainless steel
	Impeller	304 Stainless steel , 316 Stainless steel
	Shaft	Duplex stainless steel (*1)
	Case wear ring	316 Stainless steel
	Shaft sleeve	N/A , 304/316 Stainless steel (in case of Gland packing or some mechanical seal)
	O-ring	FKM , 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**

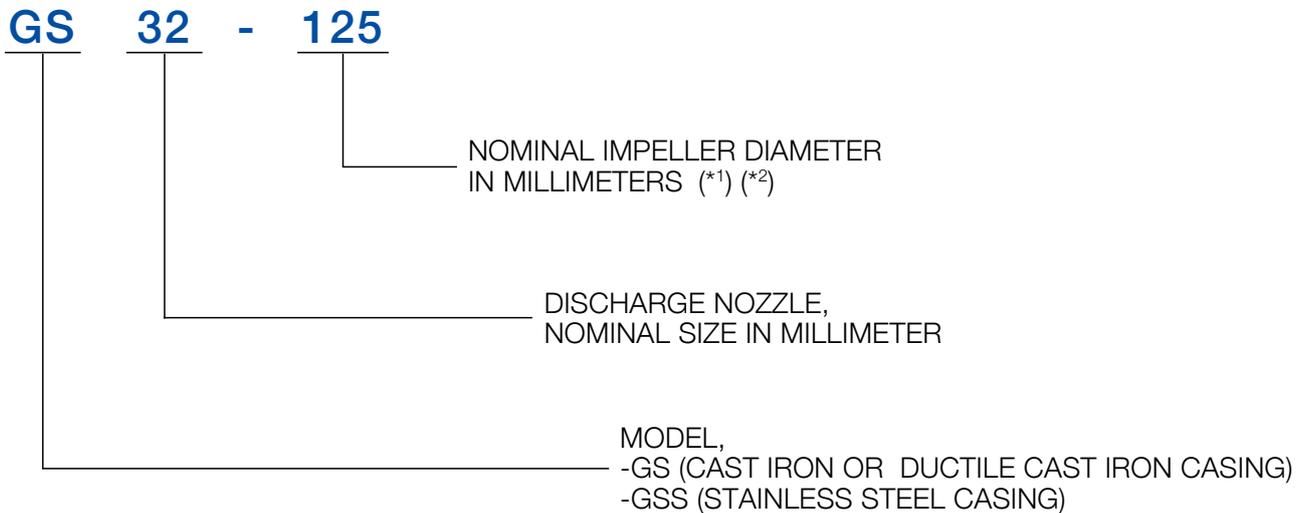
- Cooling Water
- Deaerater
- Condensate water

- **Other Chemical**

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

MODEL CODE

The following designation is system according to EN733.

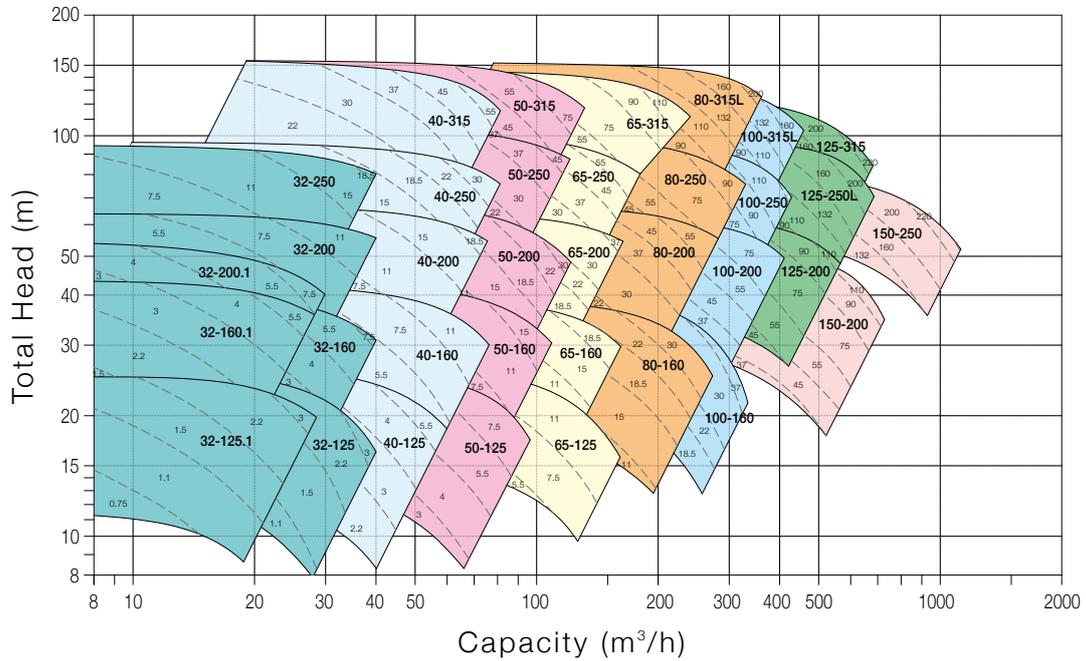


(*1) The letter "L" following the impeller classification code indicates different bearing designs. To give an example, GS80-315 and GS80-315L have different bearing designs and shaft size.

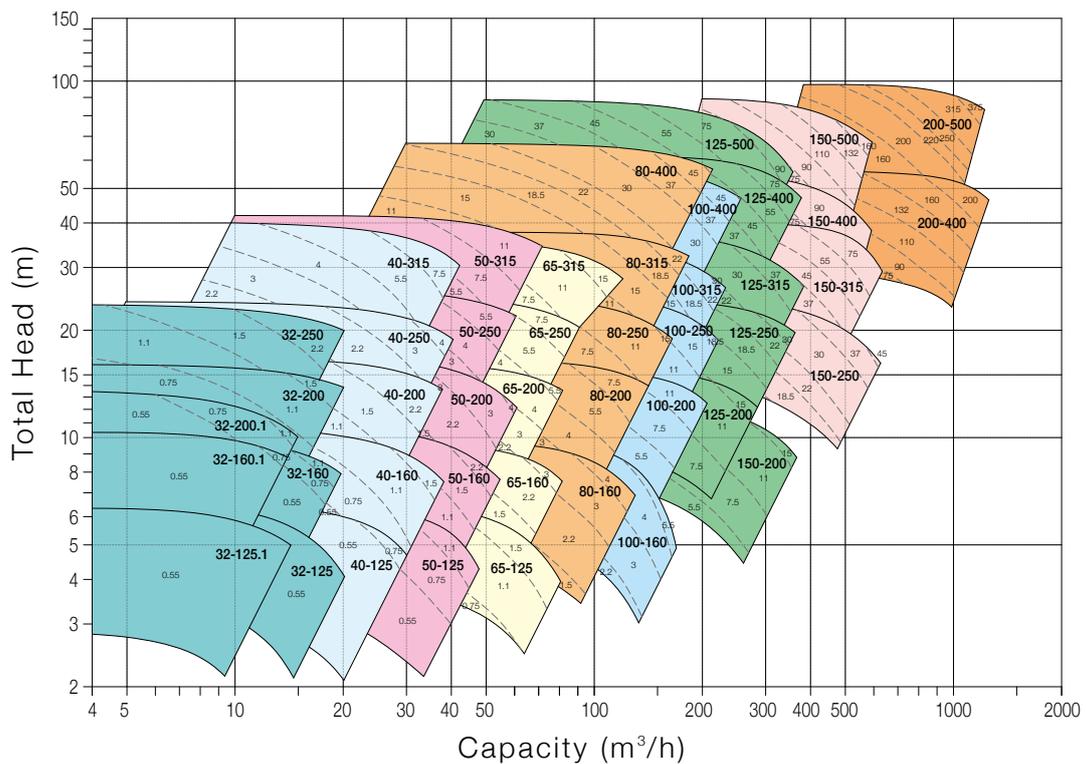
(*2) The letter ".1" following the impeller classification code indicates different casing and impeller designs. To give an example, GS32-125 and GS32-125.1 have different casing and impeller designs from one another.

PERFORMANCE CHART

Model GS 2P/50Hz

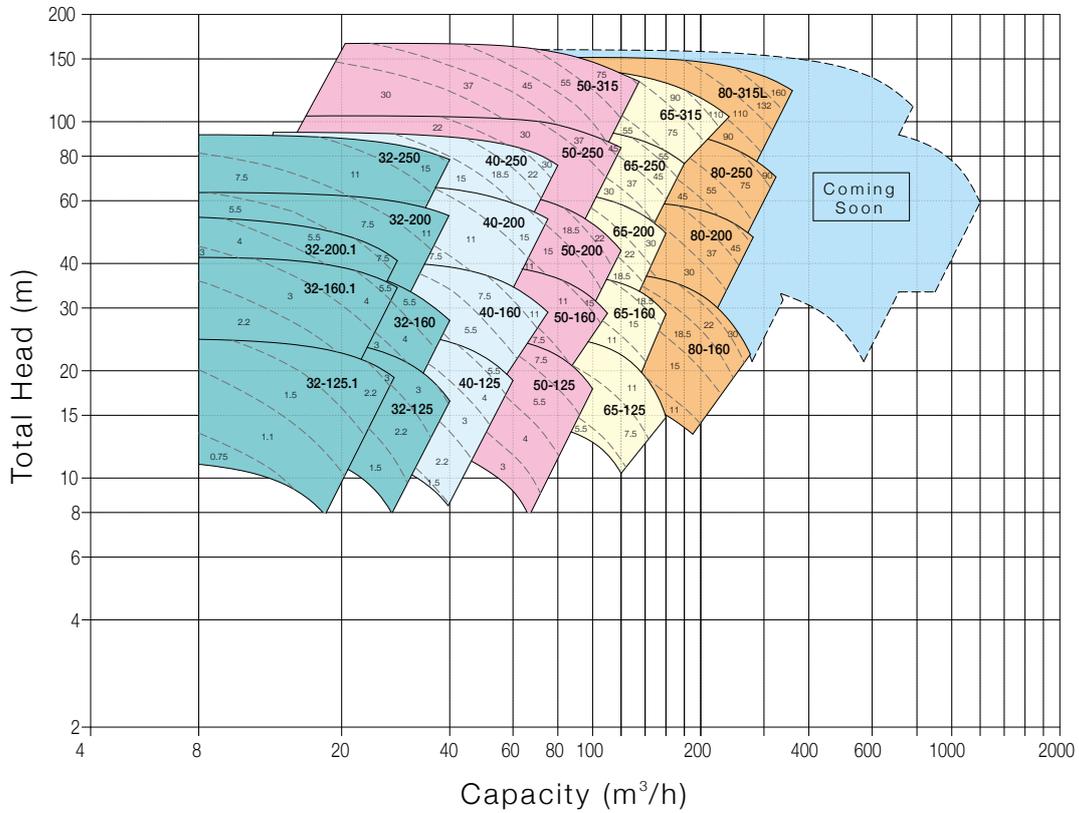


Model GS 4P/50Hz

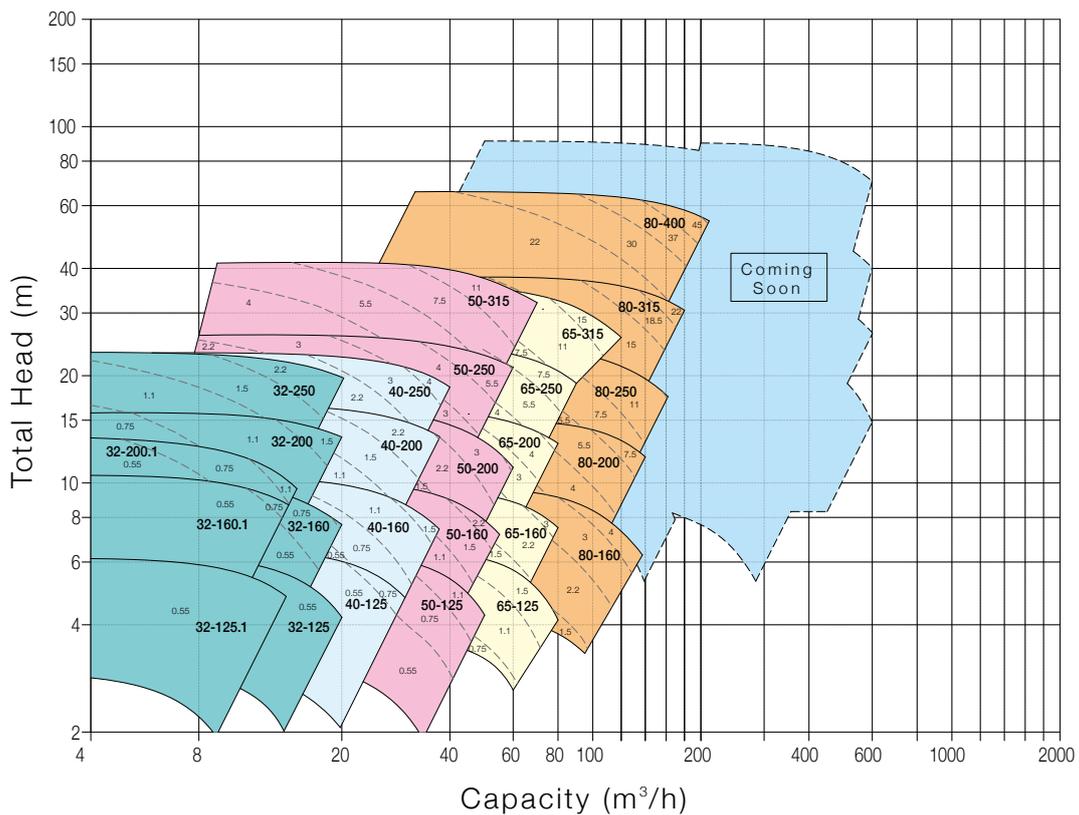


PERFORMANCE CHART

Model GSS 2P/50Hz

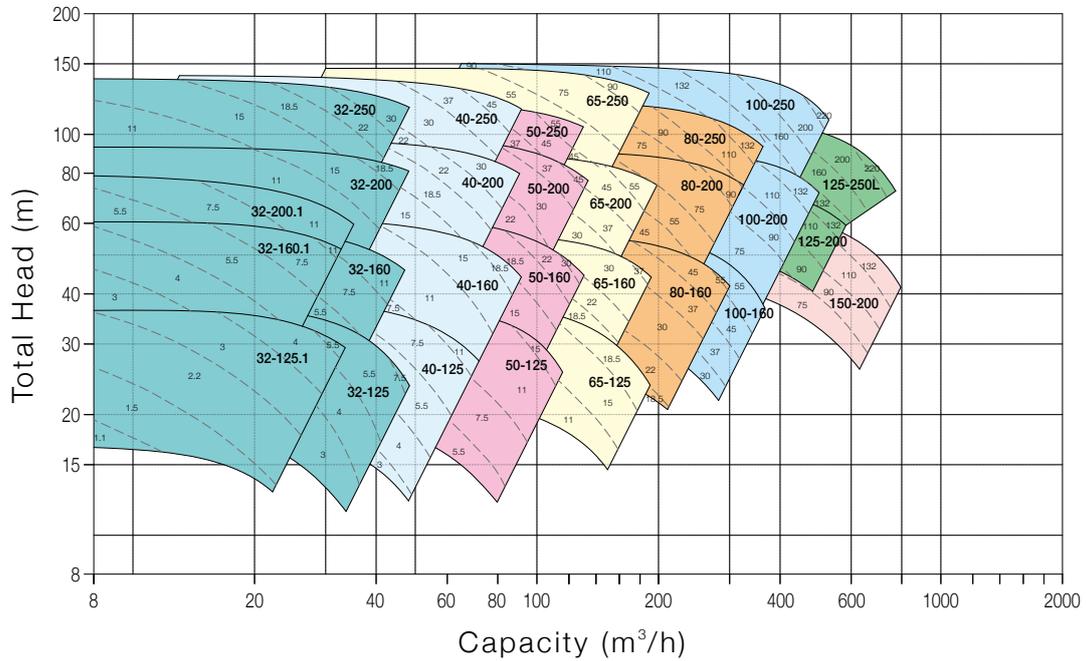


Model GSS 4P/50Hz

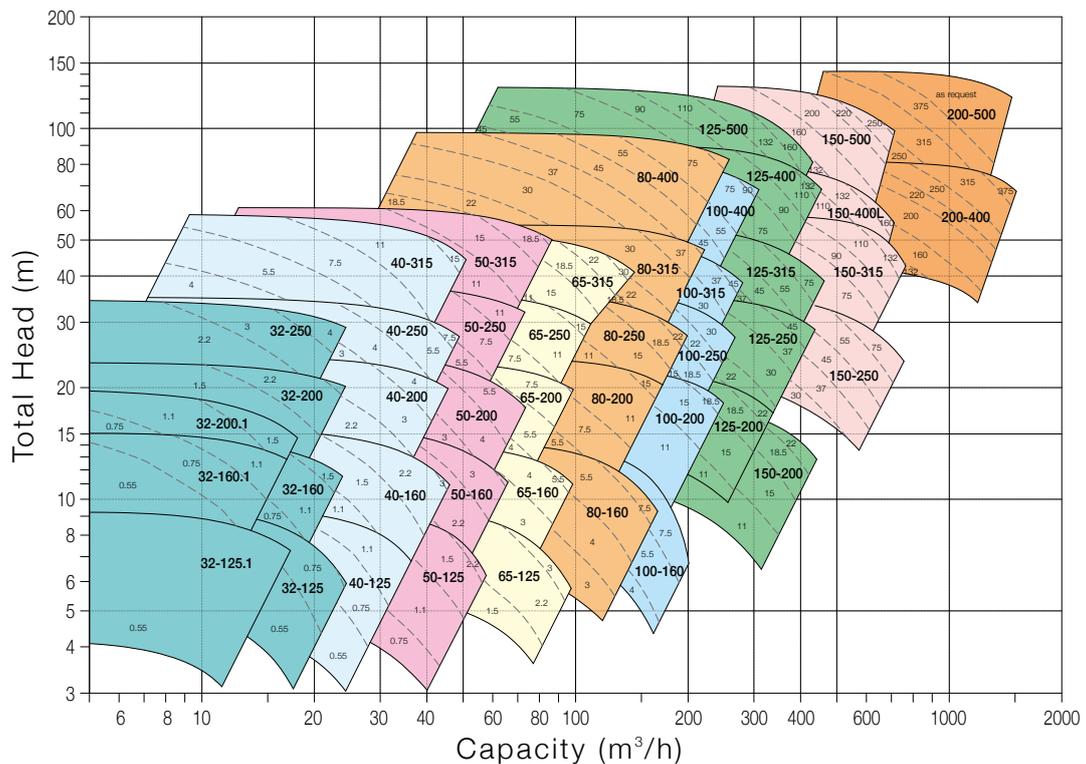


PERFORMANCE CHART

Model GS 2P/60Hz

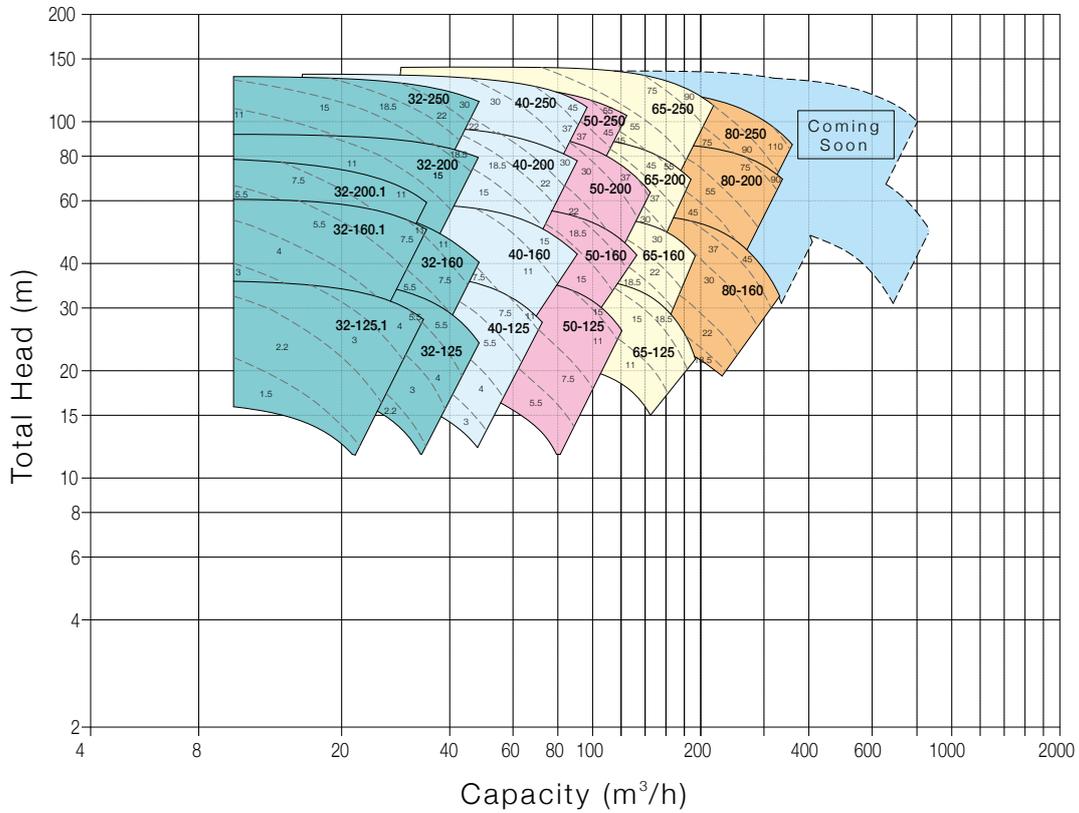


Model GS 4P/60Hz

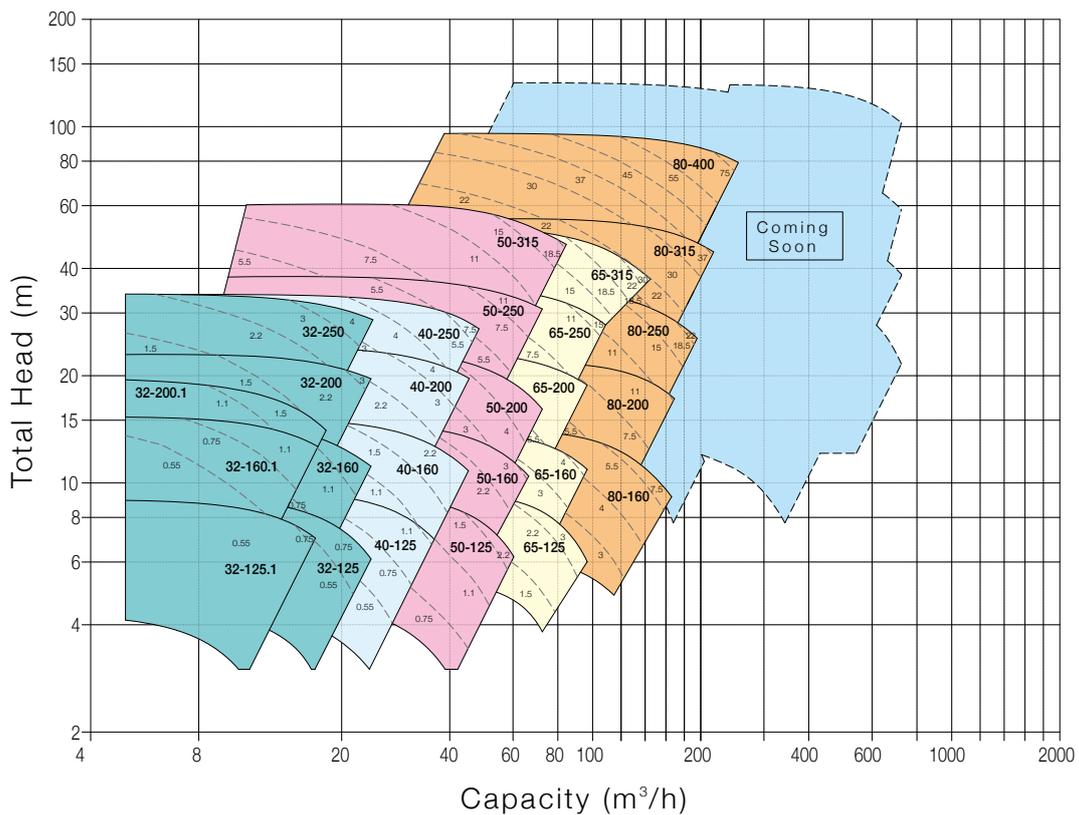


PERFORMANCE CHART

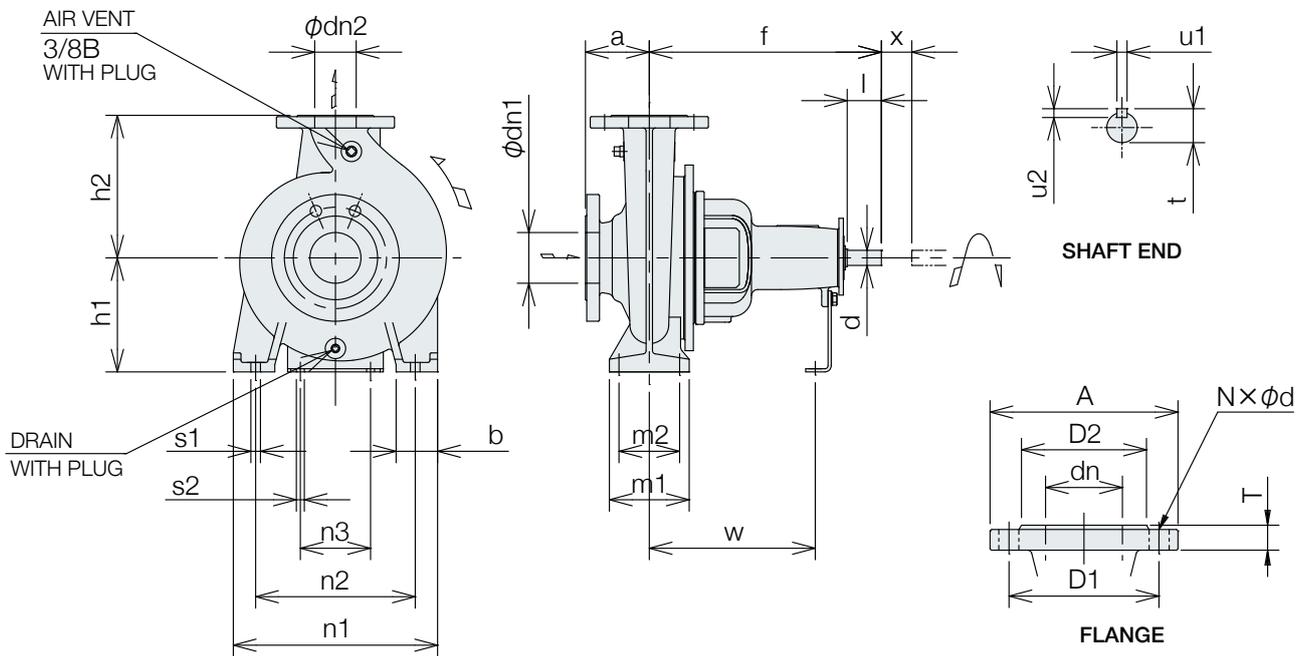
Model GSS 2P/60Hz



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

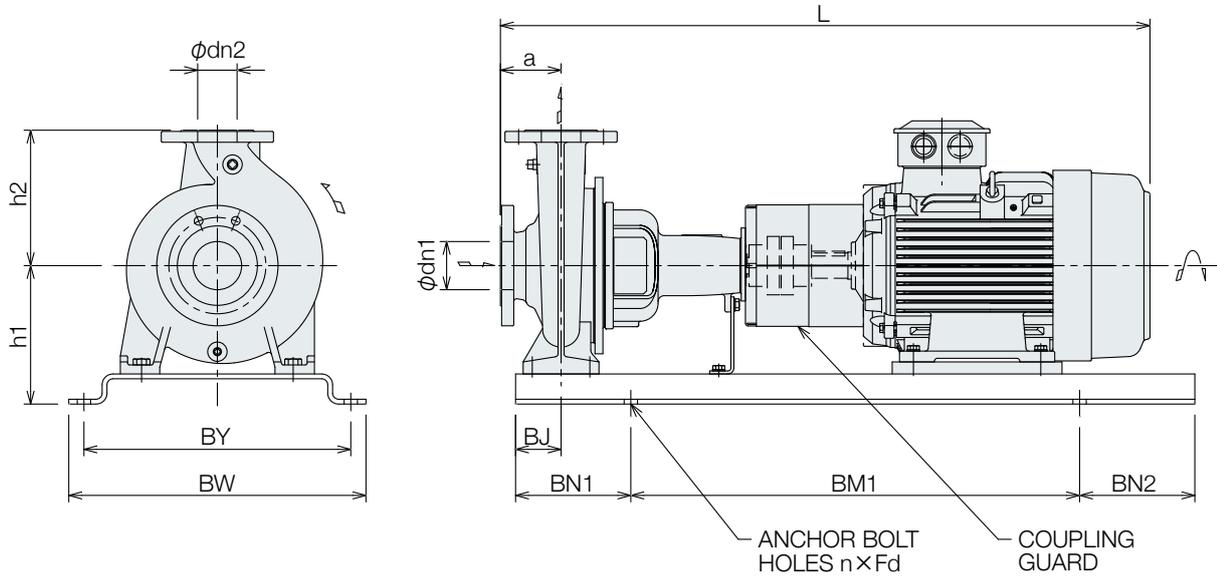
Unit: mm

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					132	160					240	190										100	28	27
32-160.1					132	160					240	190										100	29	28
32-160					132	160					240	190										100	29	28
32-200.1					160	180					240	190										100	39	38
32-200					160	180					240	190										100	39	37
32-250					180	225					320	250										65	125	95
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					132	160					240	190										100	31	30
40-200					160	180					265	212										100	41	40
40-250					180	225					320	250										100	48	48
40-315					180	225					320	250										65	125	95
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										100	33	33
50-200					160	200					320	250										100	44	43
50-250					180	225					320	250										100	50	49
50-315					180	225					345	280										65	125	95
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										100	41	43
65-200					200	250					360	280										100	47	45
65-250					200	250					360	280										100	73	72
65-315					225	280					400	315										80	160	120
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										100	67	67
80-250					250	315					400	315										100	77	77
80-315					250	315					400	315										100	101	102
80-315L					280	355					435	355										100	112	112
80-400					280	355					435	355										100	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					225	280					400	315										100	103	
100-250					225	280					400	315										100	108	
100-250L					530	315					400	315										100	120	
100-315					470	250					340	315										100	109	
100-315L					470	250					340	315										100	134	
100-400					530	280					370	355										100	189	
125-200	150	125	140	470	315	355	3/8B	80	160	120	400	315	110	340	M16	M12	32	80	35	10	8	140	120	future
125-250					250	355					400	315										100	131	
125-250L					280	355					400	315										100	148	
125-315					280	355					400	315										100	176	
125-400					315	400					400	315										100	218	
125-500					180	670					375	450										100	200	
150-200	200	150	160	470	355	375	3/8B	100	200	150	500	400	110	340	M20	M12	32	80	35	10	8	140	154	future
150-250					280	375					400	315										100	171	
150-315					315	450					400	315										100	225	
150-400					315	450					400	315										100	339	
150-400L					670	375					450	560										100	363	
150-500					180	670					375	560										100	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																						200	820	

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.

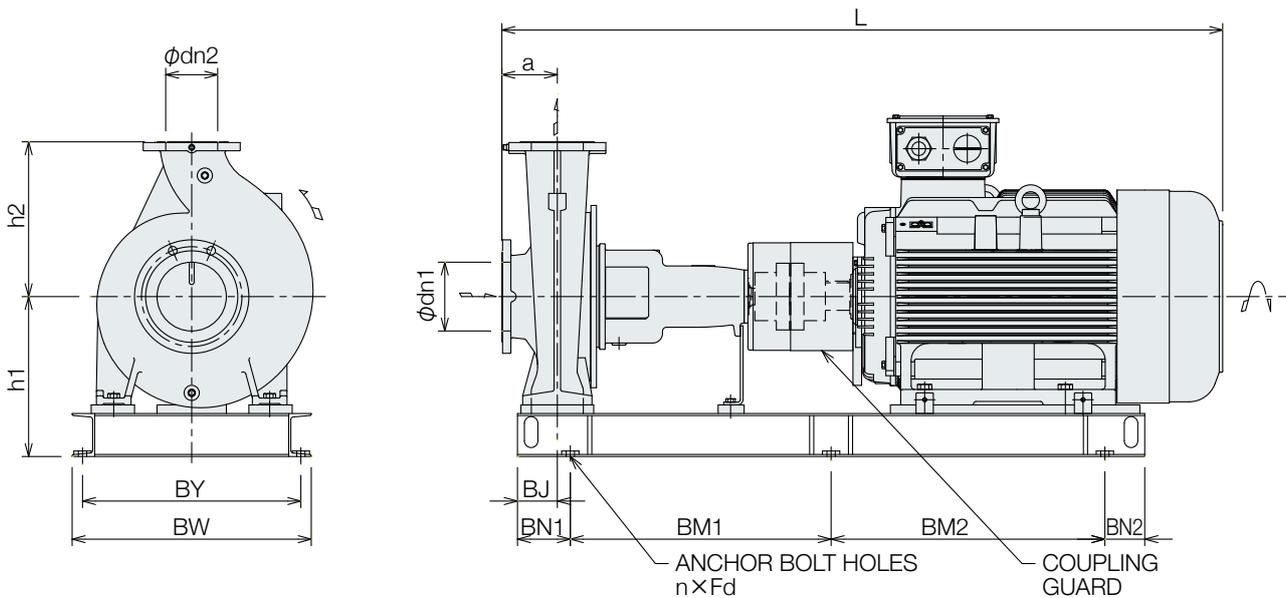
DIMENSIONS

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	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	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														
32-125	2	✓	✓	0.75	A	50	32	80	140	28	27	80M	16.5	162	60	540	-	130	130	320	360	4xM16	21	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	65	909								136	135														
32-160.1	2	✓	✓	1.5	A	50	32	80	160	29	28	90S	23	182	60	540	-	130	130	350	390	4xM16	23	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	65	909								136	135														
		160M	105	909								136	135														
		160M	120	1051								189	188														
32-160	2	✓	✓	2.2	A	50	32	80	160	29	28	90L	27	182	60	540	-	130	130	350	390	4xM16	23	23	812	92	91
		100L	37.5	835								105	104														
		112M	47.5	855								114	113														
		132S	61	855								131	130														
		132S	65	909								136	135														
		160M	105	909								136	135														
		160M	120	1051								189	188														
		160M	120	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	23	835	117	116
		112M	47.5	855								129	128														
		132S	61	855								145	144														
		132S	65	909								150	149														
		160M	105	909								150	149														
		160M	120	1051								199	198														
		160M	120	1051								215	214														
		160M	120	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	25	909	145	143
		132S	65	909								150	148														
		160M	105	909								150	148														
		160M	120	1051								199	197														
		160L	135	1051								215	213														
		180M	175	1095								232	230														
		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	-	150	150	440	490	4xM20	31	31	929	169	169
		160M	105	1071								215	215														
		160M	120	1071								231	231														
		160L	135	1115								248	248														
		180M	175	1136								288	288														
		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	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														
		160M	105	909								138	137														
		160M	105	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	23	855	116	115
		132S	61	855								134	133														
		132S	65	909								138	137														
		160M	105	909								138	137														
		160M	120	1051								192	191														
		160L	135	1051								208	207														
		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	25	929	152	151
		160M	105	1071								201	200														
		160M	120	1071								217	216														
		160L	135	1115								234	233														
		180M	175	1136								284	283														
		200L	240	1234								369	368														
		200L	240	1234								402	401														
		200L	240	1234								402	401														
40-250	2	✓	✓	11	A	65	40	100	225	48	48	160M	105	230	75	660	-	170	170	440	490	4xM20	35	35	1071	217	217
		160M	120	1115								250	250														
		160L	135	1136								291	291														
		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														
40-315	2	✓	✓	22	A	65	40	125	250	82	83	180M	175	275	75	840	-	205	205	490	540	4xM20	47	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														
		280SA	515	1636								802	803														
		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	-	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	-	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	-	170	170	400	450	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	-	190	190	490	540	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	225MA	315	300	75	-	205	205	490	540	4xM20	47	1410	524	524	
		250MA	405	1520								645	645													
		280SA	515	1636								797	797													
		280MA	552	1686								847	847													
		200L	240	1369								430	430													
		200L	270	1463								463	463													
		225MA	315	1842								490	489													
65-125	2	✓		4	A	80	65	100	180	37	37	112M	47.5	210	75	-	130	130	400	450	4xM20	32	929	151	151	
		132S	61	1071								196	196													
		132S	65	1115								213	213													
		160M	105	1115								229	229													
		160L	120	1136								281	281													
		160L	135	1246								337	336													
		180M	175	1344								407	406													
65-160	2	✓		7.5	A	80	65	100	200	41	43	132S	65	210	75	-	170	170	400	450	4xM20	32	1071	201	203	
		160M	105	1115								234	236													
		160M	120	1136								285	287													
		160L	135	1234								370	372													
		160L	135	1344								407	405													
		180M	175	1495								514	513													
		180M	175	1520								645	645													
65-200	2	✓		11	A	80	65	100	225	47	45	160M	105	230	75	-	170	170	440	490	4xM20	35	1115	249	247	
		160M	120	1136								289	287													
		160L	135	1234								375	373													
		180M	175	1385								486	484													
		200L	240	1520								645	645													
		200L	270	1661								791	790													
		225MA	315	1842								832	831													
65-250	2	✓		22	A	80	65	100	250	73	72	180M	175	250	90	-	205	205	490	540	4xM20	47	1246	337	336	
		200L	240	1344								407	406													
		200L	270	1440								439	439													
		225MA	315	1611								791	790													
		250MA	405	1661								832	831													
		280SA	515	1661								832	831													
		280MA	552	1815								1173	1172													
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	1520								651	650													
		280SA	515	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	-	170	170	440	490	4xM20	35	1140	248	250	
		160L	135	1161								288	290													
		180M	175	1259								374	376													
		200L	240	1407								407	409													
		200L	270	1520								630	630													
		225MA	315	1636								781	781													
		225MA	315	1686								822	822													
80-200	2	✓		22	A	100	80	125	250	67	67	180M	175	230	75	-	190	190	440	490	4xM20	39	1271	316	316	
		200L	240	1369								402	402													
		200L	270	1435								435	435													
		225MA	315	1410								508	508													
		250MA	405	1520								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	-	205	205	550	610	4xM24	66	1410	519	519	
		250MA	405	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	1746								875	875													
80-315L	2	✓		90	B	100	80	125	315	112	112	280MA	552	380	90	1060	-	270	270	670	730	6xM20	175	1815	1164	1164
		315SA	800	1875								1203	1203													
		315MA	900	1925								1313	1313													
		315LA	980	1414								1414	1414													
		315LA	1100	1546								1546	1546													
		280MA	552	1746								875	875													
		280MA	552	1746								875	875													

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										
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										
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																					
		✓	✓	90	280MA							552	1686	865																					
		✓	✓	110	315SA							800	1815	1193																					
		✓	✓	132	315MA							900	1865	1303																					
		100-250	2	✓								37	A	125	100	140	280	108	future	200L	270	300	90	840	-		205	205	550	610	4xM24	66	1384	508	future
				✓								45								225MA	315												1425	548	
✓	✓			55	250MA	405	1535	671																											
✓	✓			75	280SA	515	1651	825																											
✓	✓			90	280MA	552	1701	875																											
✓	✓			110	315SA	800	1830	1193																											
✓	✓			132	315MA	900	1880	1303																											
100-250L	2	✓		90	A	125	100	140	280	120	future	280MA	552	380	90	1060	-	270	270	670	730	4xM24	104	1761	879	future									
		✓	✓	110								315SA	800											1890	1211										
		✓	✓	132								315MA	900											1940	1321										
		✓	✓	160	315LA							980	2040	1414																					
		✓	✓	200	315LA							1100	2040	1555																					
		✓	✓	220	355MA							1550	2300	2279																					
		✓	✓	220	355MA							1550	2300	2279																					
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	2040	1570																					
		✓	✓	220	355MA							1550	2300	2279																					
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																					
		✓	✓	132	355MA							1550	2300	2279																					
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	2040	1586																					
		✓	✓	220	355MA							1550	2300	2279																					
125-315	2	✓		110	B	150	125	140	355	176	future	315SA	800	465	120	710	710	120	120	630	690	6xM20	185	1890	1283	future									
		✓		132								315MA	900											1940	1393										
		✓	✓	160								315LA	980											2040	1495										
		✓	✓	200	315LA							1100	2040	1627																					
		✓	✓	220	355MA							1550	2300	2162																					
		✓	✓	250	355MA							1650	2300	2285																					
		✓	✓	250	355MA							1650	2300	2285																					
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																					
		✓	✓	132	315MA							900	1900	1364																					
150-250	2	✓		110	B	200	150	160	375	171	future	315SA	800	465	120	710	710	120	120	630	690	6xM20	185	1910	1278	future									
		✓		132								315MA	900											1960	1388										
		✓	✓	160								315LA	980											2060	1489										
		✓	✓	200	315LA							1100	2060	1621																					
		✓	✓	220	355MA							1550	2299	2156																					
		✓	✓	250	355MA							1650	2299	2279																					
		✓	✓	250	355MA							1650	2299	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	15	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	807								116														
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	81								80														
40-250	4	✓	✓	0.55	A	65	40	100	225	48	48	80M	15	230	75	600	-	150	150	440	490	4xM20	31	756	109	109
		80M	16.5	807								116														
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	1102								230														
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
		80M	16.5	85								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	740	-	190	190	440	490	4xM20	35	1064	219	219
		80M	16.5	1102								234														

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	Frame	wt(kg)	h1	BJ	BM1	BM2	BN1	BN2	BY	BW	nxFd	wt(kg)	L	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
		✓		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											929	158	160
		✓		5.5								90L	24											832	119	117
		✓		2.2								100L	32											855	130	128
		✓	✓	3								100L	37.5											855	137	135
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											1071	216	214
		✓		3								90L	24											832	119	117
		✓		4								112M	47.5											896	190	189
		✓	✓	5.5								132S	64											1039	211	210
65-250	4	✓		7.5	A	80	65	100	250	73	72	132M	78	250	90	740	-	190	190	490	540	4xM20	42	1077	226	225
		✓		11								160M	105											1181	264	263
		✓		15								160L	130											1226	293	292
		✓		7.5								132M	78											1102	273	272
		✓		11								160M	105											1207	307	306
		✓	✓	15								160L	130											1251	335	334
		✓	✓	18.5								180M	175											1271	384	383
65-315	4	✓		22	A	80	65	125	280	90	89	180L	190	300	90	840	-	205	205	550	610	4xM24	66	1309	405	404
		✓		30								200L	255											1369	472	471
		✓		7.5								132M	78											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
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	31	990	153	153
		✓		3								100L	37.5											990	159	159
		✓	✓	4								112M	47.5											1011	175	175
		✓	✓	5.5								132S	64											1064	196	196
		✓	✓	7.5								132M	78											1102	211	211
		✓		11								160M	105											1206	242	242
		✓		15								160L	130											1251	271	271
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	160M	105	325	90	840	-	205	205	550	610	4xM24	66	1251	349	350
		✓		18.5								160L	130											1271	402	403
		✓	✓	22								180M	175											1309	418	419
		✓	✓	30								180L	190											1369	493	494
		✓		37								200L	255											1415	555	556
		✓		45								225SC	315											1440	572	573
		✓		11								225MC	330											1464	590	588
80-400	4	✓		15	A	100	80	125	355	162	160	160M	105	355	90	940	-	230	230	550	610	4xM24	66	1267	390	388
		✓		18.5								160L	130											1311	418	416
		✓	✓	22								180M	175											1331	490	479
		✓	✓	30								180L	190											1369	497	495
		✓	✓	37								200L	255											1429	578	576
		✓		45								225SC	315											1475	643	641
		✓		55								225MC	330											1500	668	666
		✓		75								250MC	450											1580	798	796
		✓		90								280SB	566											1696	940	938
		✓		90								280MB	624											1746	1012	1010

DIMENSIONS

Model	Pole	Hz		Power kW	Fig	Size		Pump				MotorX		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	
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	259	
		✓	✓	7.5								132M	78											1102	246	
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	
		✓	✓	18.5								180M	175											1271	370	
100-250	4	✓		5.5	A	125	100	140	280	108	future	132S	64	300	90	840	-	205	205	550	610	4xM24	66	1079	277	future
		✓		7.5								132M	78											1117	293	
		✓	✓	11								160M	105											1222	327	
		✓	✓	15								160L	130											1266	354	
		✓	✓	18.5								180M	175											1286	408	
		✓	✓	22								180L	190											1324	424	
		✓	✓	30								200L	255											1384	491	
100-315	4	✓		7.5	A	125	100	140	315	109	future	132M	78	325	90	840	-	205	205	550	610	4xM24	66	1117	295	future
		✓		11								160M	105											1222	330	
		✓	✓	15								160L	130											1266	358	
		✓	✓	18.5								180M	175											1286	410	
		✓	✓	22								180L	190											1324	427	
		✓	✓	30								200L	255											1384	507	
		✓	✓	37								225SC	315											1430	564	
		✓	✓	45								225MC	330											1455	580	
		✓	✓	15								160L	130											1326	476	
		✓	✓	18.5								180M	175											1346	530	
100-400	4	✓		22	A	125	100	140	355	189	future	180L	190	380	110	940	-	230	230	670	730	4xM24	92	1384	546	future
		✓	✓	30								200L	255											1444	627	
		✓	✓	37								225SC	315											1490	692	
		✓	✓	45								225MC	330											1515	718	
		✓	✓	55								250MC	450											1595	842	
		✓	✓	75								280SB	566											1711	969	
		✓	✓	90								280MB	624											1761	1042	
		✓	✓	5.5								160M	105											1326	462	
		✓	✓	7.5								180M	175											1346	516	
		✓	✓	11								180L	190											1384	532	
125-200	4	✓		11	A	150	125	140	315	120	future	160M	105	325	90	840	-	205	205	550	610	4xM24	66	1079	291	future
		✓	✓	15								160L	130											1117	307	
		✓	✓	18.5								180M	175											1222	342	
		✓	✓	22								180L	190											1266	370	
		✓	✓	30								200L	255											1286	419	
		✓	✓	37								225SC	315											1324	439	
		✓	✓	45								225MC	330											1422	354	
125-250	4	✓		15	A	150	125	140	355	131	future	160L	130	325	90	840	-	205	205	550	610	4xM24	66	1266	382	future
		✓	✓	18.5								180M	175											1286	435	
		✓	✓	22								180L	190											1324	451	
		✓	✓	30								200L	255											1384	531	
		✓	✓	37								225SC	315											1430	588	
		✓	✓	45								225MC	330											1455	605	
		✓	✓	55								250MC	450											1595	828	
125-315	4	✓		22	A	150	125	140	355	176	future	160L	130	380	110	940	-	230	230	670	730	4xM24	92	1326	462	future
		✓	✓	30								180M	175											1346	516	
		✓	✓	37								180L	190											1384	532	
		✓	✓	45								200L	255											1444	613	
		✓	✓	55								225SC	315											1490	678	
		✓	✓	75								225MC	330											1515	703	
		✓	✓	90								250MC	450											1595	828	
		✓	✓	110								280SB	566											1711	955	
		✓	✓	132								280MB	624											1761	1042	
		125-400	4	✓									22											A	150	
✓	✓			30	200L	255	1444	661																		
✓	✓			37	225SC	315	1490	728																		
✓	✓			45	225MC	330	1515	754																		
✓	✓			55	250MC	450	1595	901																		
✓	✓		75	280SB	566	1711	1040																			
B	✓			90	B	150	125	140	400	218	future	280MB	624	465	120	710	710	120	120	630	690	6xM20	185	1761	1104	future
	✓		✓	110								315SB	800											1920	1338	
	✓		✓	132								315MB	900											1970	1448	
	✓		✓	30								200L	255											1624	840	
	✓	✓	37	225SC								315	1670											908		
125-500	4	✓		45	A	150	125	180	450	365	future	225MC	330	475	110	1060	-	270	270	670	730	4xM24	104	1695	933	future
		✓	✓	55								250MC	450											1775	1071	
		✓	✓	75								280SB	566											1891	1226	
		✓	✓	90								280MB	624											1941	1290	
		✓	✓	110								315SB	800											2100	1535	
	B	✓		132	B	150	125	180	450	365	future	315MB	900	525	115	790	790	115	115	630	690	6xM20	220	2150	1645	future
		✓	✓	160								315LB	990											2250	1762	

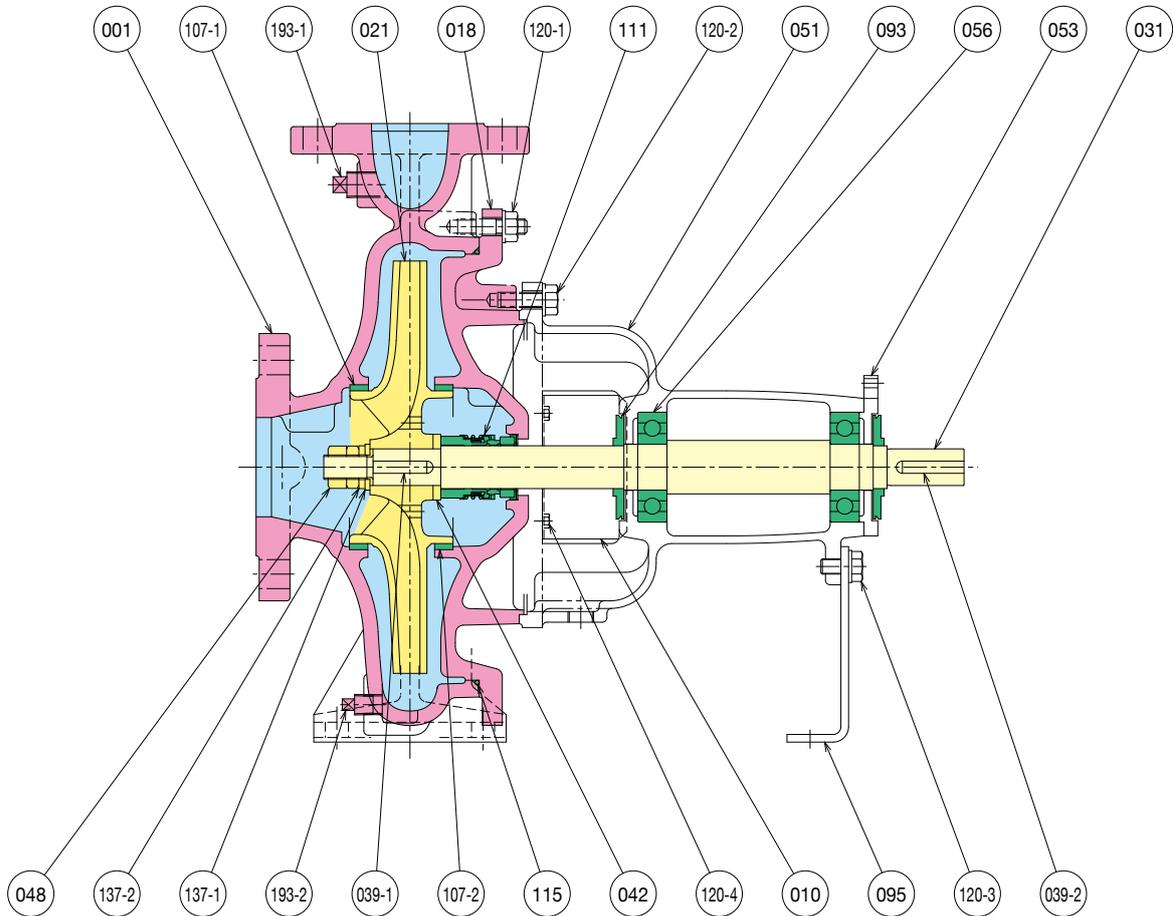
DIMENSIONS

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	
		✓	✓	75								280SB	566											1731	950	
		✓		18.5								180M	175											1366	510	
		✓	✓	22								180L	190											1404	527	
150-315	4	✓		30	A	200	150	160	400	225	future	180M	175	415	110	940	-	230	230	670	730	4xM24	92	1366	571	future
		✓		37								180L	190											1404	588	
		✓	✓	45								200L	255											1464	669	
		✓	✓	55								225SC	315											1510	736	
		✓	✓	75								225MC	330											1535	761	
		✓	✓	90								250MC	450											1615	909	
		✓	✓	110								280SB	566											1731	1058	
		✓	✓	132								280MB	624											1781	1122	
		✓		18.5								180M	175											1366	571	
		✓	✓	22								180L	190											1404	588	
150-400	4	✓		37	A	200	150	160	450	339	future	225SC	315	415	110	940	-	230	230	670	730	4xM24	92	1510	861	future
		✓		45								225MC	330											1535	887	
		✓		55								250MC	450											1615	1035	
		✓		75								280SB	566											1731	1173	
		✓		90								280MB	624											1781	1237	
		✓	✓	110								315SB	800											1940	1346	
150-400L	4	✓		55	A	200	150	160	450	363	future	250MC	450	415	110	1060	-	270	270	670	730	4xM24	104	1755	1061	future
		✓		75								280SB	566											1781	1215	
		✓		90								280MB	624											1921	1288	
		✓		110								315SB	800											2080	1502	
		✓		132								315MB	900											2130	1612	
		✓	✓	160								315LB	990											2200	1735	
		✓		55								250MC	450											1615	1035	
		✓	✓	75								280SB	566											1731	1173	
150-500	4	✓		75	A	200	150	180	560	491	future	250MC	450	475	110	1060	-	270	270	670	730	4xM24	104	1775	1210	future
		✓		90								280SB	566											1781	1237	
		✓		110								280MB	624											1941	1429	
		✓	✓	132								315SB	800											2100	1673	
		✓	✓	160								315MB	900											2150	1796	
		✓	✓	200								315LB	990											2250	1900	
		✓	✓	220								315LB	1160											2300	2087	
		✓	✓	250								355MB	1550											2643	2643	
		✓	✓	315								355MB	1650											2753	2753	
		✓	✓	375								355LB	1900											3028	3028	
200-400	4	✓		75	B	250	200	180	560	508	future	280SB	566	535	220	650	650			680	740	6xM20	235	1891	1449	future
		✓		90								280MB	624											1941	1429	
		✓	✓	110								315SB	800											2100	1673	
		✓	✓	132								315MB	900											2150	1796	
		✓	✓	160								315LB	990											2250	1900	
		✓	✓	200								315LB	1160											2300	2087	
		✓	✓	220								355MB	1550											2643	2643	
		✓	✓	250								355MB	1650											2753	2753	
		✓	✓	315								355LB	1900											3028	3028	
		✓	✓	375								355CB	2340											3643	3643	
200-500	4	✓		160	B	250	200	200	630	645	future	315LB	990	585	220	870	870			680	740	6xM20	260	2420	2105	future
		✓		200								315LB	1160											2304	2304	
		✓		220								355MB	1550											2643	2643	
		✓	✓	250								355MB	1650											2953	2953	
		✓	✓	315								355LB	1900											3249	3249	
		✓	✓	375								355CB	2340											3743	3743	
		✓		160								315LB	990											2105	2105	

※ 0.75kW to 55kW: EBARA motor
0.55kW and more than 75kW: TECO motor(AESV)

SECTIONAL VIEW

MECHANICAL SEAL TYPE

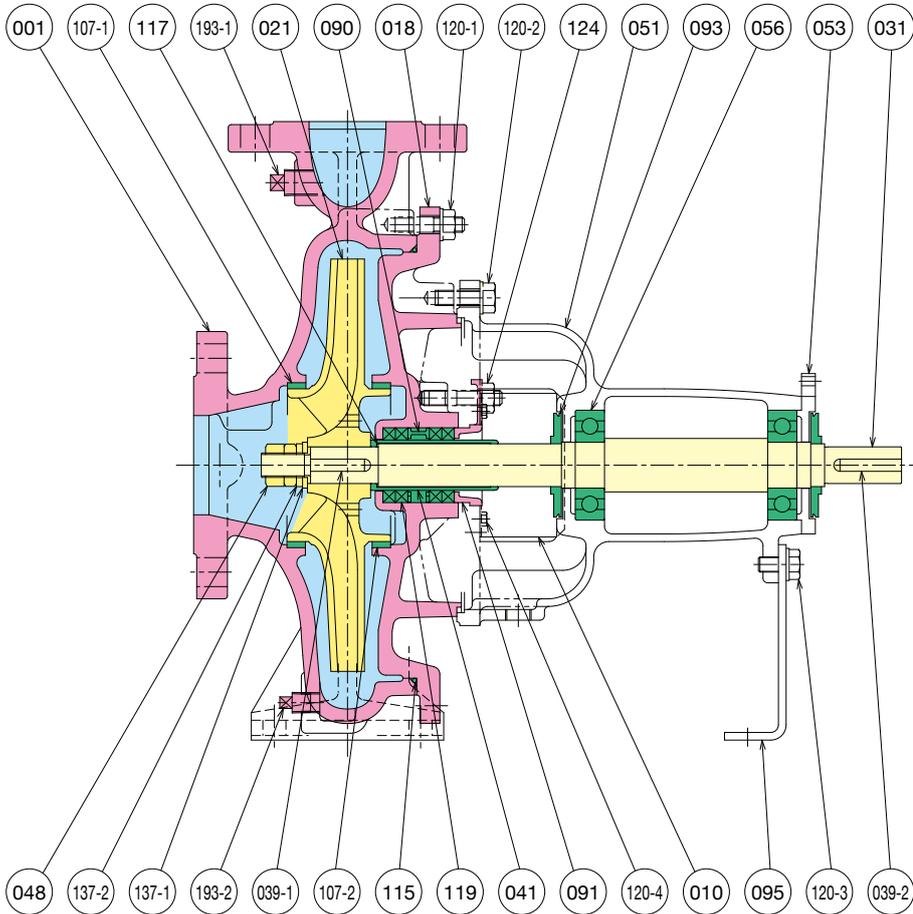


No.	Part name	Qty
001	CASING	1
010	PROTECTOR	2
018	CASING COVER	1
021	IMPELLER	1
031	SHAFT	1
039-1	KEY	1
039-2	KEY	1
042	SPACER	1
048	IMPELLER NUT	1
051	BEARING HOUSING	1
053	BEARING COVER	1
056	BALL BEARING	2
093	DEFLECTOR	2

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 (*1)	FC200	A278-30	EN-GJL-200 (EN-JL1030)	●	●				
		Ductile cast irons (*2)	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 (*3)	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 (*4)	---	---	---	●	●	●	●	●	●
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 (*5)	---	---	---	●	●	●	●	●	●
		Sic/carbon/EPDM (*5)	---	---	---	○	○	○	○	○	○
		Tc/carbon/EPDM (*6)	---	---	---	○	○	○	○	○	○
		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)						○

(*1) 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.

(*2) 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.

(*3) Wetted part only

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

(*5) Elastomer bellows seal

(*6) O ring/Spring

MATERIALS

Materials of gland packing application ^{(*)7}

●: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 ^{(*)8}	---	---	---	●	●	●	●	●	●
119	GLAND PACKING	Silicone carbide fiber packing ^{(*)9}	---	---	---	●	●	●	●	●	●
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)						○

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

^{(*)8} V#6500AC

^{(*)9} 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

MEMO
