

GOLDEN
DYNAMICS
(PVT) LTD.

NOWA




CENTRIFUGAL
NON-CLOGGING
PUMPS

GSH, GSN & GSV SERIES



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Message from CEO

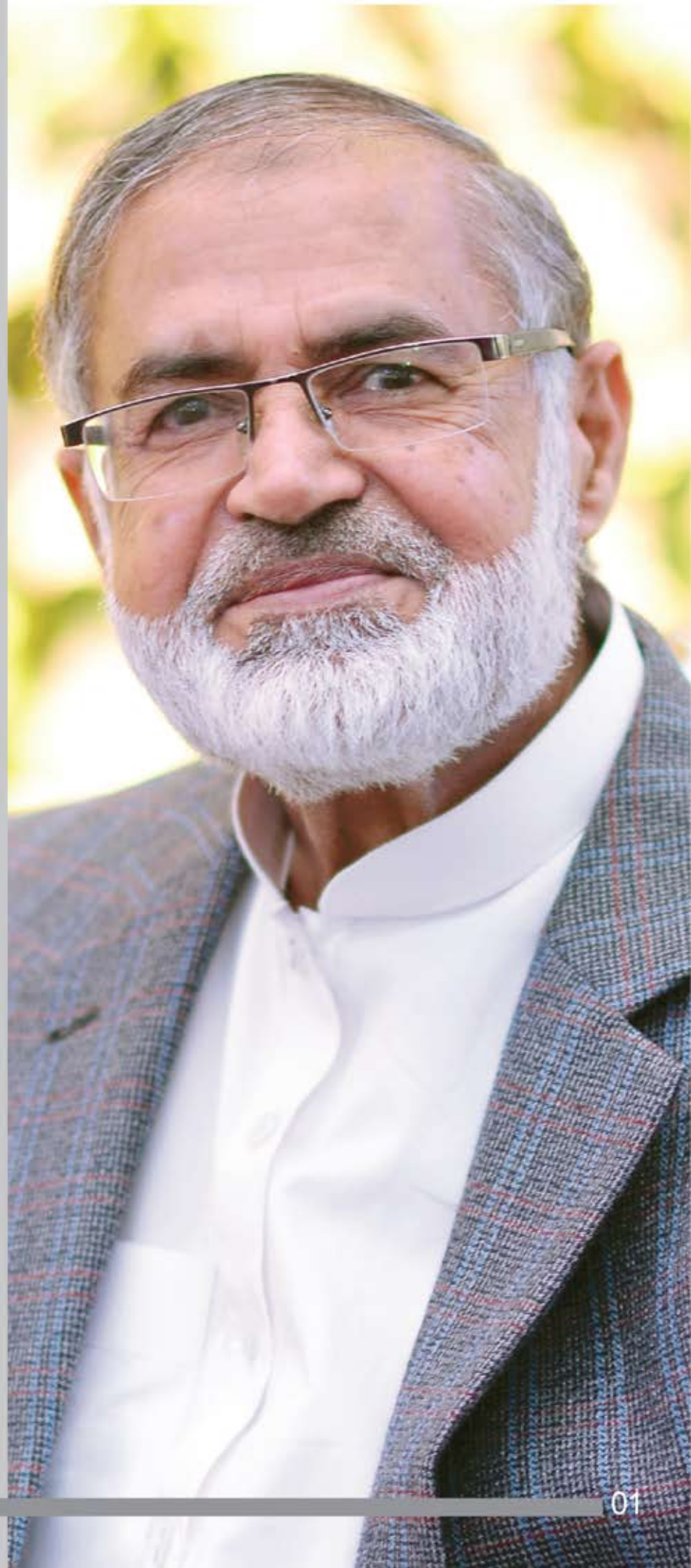
At **GOLDEN DYNAMICS**, we believe that we are ideally placed to cater your pumps / motors requirements whether it is for basic need, such as mono-block pump for your domestic utilization or specialized needs, such as centrifugal pumps for chemicals, beverage, dairy sector, large submersible pumps for water supply schemes, non-clogging pumps for rain / flood water, high-pressure pumps for high rise buildings, we are here to fulfill your residential, commercial, agricultural, industrial, public, mining and off-shore sector needs.

With more than seven decades of manufacturing industry experience under its belt, **GOLDEN DYNAMICS** engineers are confident that they have both the breadth of knowledge and profundity of involvement to offer proficient services from essential concepts all the way to the administration of turn-key ventures and beyond. We strive to utilize exceedingly persuaded and capable individuals who are devoted to put forth solutions that maximize esteem for our clients.

GOLDEN DYNAMICS endeavors to assist its clients to address their specific needs by providing them quality products in a cost-effective manner. We believe that our product quality is the key to our non-stop clientele growth. It distinguishes us from the rest of the manufacturing industry and has significantly contributed in developing **GOLDEN DYNAMICS** into an amazing company.

Today's client requests innovative products, which hold elevated degree of unwavering quality and strength. That's what you get at **GOLDEN DYNAMICS'** cutting-edge innovative product design, strong execution, and a lifetime of convenience.

And when we say "For Life", we mean it!



Profile

Haji Ghulam Rasool Mughal laid the foundation of Golden Pumps in 1950. Since its inception, the company set its goal of supplying durable and reliable pumping systems to its customers. Late Haji Ghulam Rasool Mughal believed in hard work, innovation and unique customer experience. He handed-over the baton to Mr. Abdul Rauf Mughal (CEO), who carried the company with his exceptional skills while keeping the founder's goals and beliefs in sight at all times and placed the company at the top among the locals in Pakistan.

In 2018, the Company received its name as GOLDEN DYNAMICS (PVT) LTD. GOLDEN DYNAMICS continues to offer the unbeatable quality products and great service that customers have cherished over the past 70 years. Our offerings are the result of years of research and sheer hard work of a well-experienced team comprised of highly skilled, talented and dedicated engineers and worker who are always in pursuit of maintaining the high standards of production and are relentlessly searching the best solutions to enhance products quality.

Customers today demand products which deliver the highest degree of reliability and durability and are built using latest technology. That is what you get at **GOLDEN DYNAMICS**; cutting-edge products design utilizing modern technology, rock solid performance and lifetime of convenience. We firmly believe in serving our customers by giving them more than their money's worth and our unwillingness to compromise on quality at any cost.



GOLDEN DYNAMICS

GOLDEN DYNAMICS is committed to produce "top of the range" products in its two units in Gujranwala. The company takes huge pride in being the market leader in offering a wide product range and setting higher industry standards in pumps technology. Today, it has become the symbol for quality and reliability in the pumping solutions market. With a glorious history of over 70 successful years, **GOLDEN DYNAMICS** has achieved tremendous success through utmost hard work, consistent quality, research, and innovation.

The extensive range of **GOLDEN DYNAMICS** are the products of more than 70 years' leadership in Pakistani industrial, commercial, agricultural & domestic pump market. **GOLDEN DYNAMICS** knows the importance of pump reliability when it comes to transferring water. The Company firmly believes in honoring its customers by giving more than the true value of money and is determined not to compromise on quality at any cost.

GOLDEN DYNAMICS has also collaboration with **Honda Atlas Power Product (Pvt) Ltd., Pakistan (HAPPL)**. **HAPPL** distributes **Honda** power products such as, generators, engines and water pumps in Pakistani market. **Honda** not only supplies its '4-Stroke Engines' for coupling with **GOLDEN DYNAMICS'** quality products but also provides spare parts, technical support and training. **GOLDEN DYNAMICS** is the **ONLY OEM** pumps manufacturing company of **Honda** in Pakistan.

GOLDEN DYNAMICS has alliance with **Zhejiang Jinlong Electric Machinery Stock Co., Ltd. (JLEM)**, a renowned company for its high efficiency electric motors and invertors. **JLEM** has expertise in motor technology research, development, manufacturing, and energy solutions. **JLEM** is member of China rotating motor industry standard committee and IEC standard working group and manufactures all the products in conformity with the IEC standards and all other standards of various countries i.e. NEMA, GOST, CECP etc. The **JLEM** branded motor has been granted the honor of China Top Brand and has been certified for the exemption from export inspection. **JLEM** exports its products over 80 countries including Australia, Turkey, America, Canada, Russia, South America, Germany, Italy, UK and many more. The partnership allows **GOLDEN DYNAMICS** to bring a new range of efficient solutions and technologies to the local market in Pakistan hence further increasing choices for its customer.

GOLDEN DYNAMICS has association in Pakistan with world renowned pumps & motors manufacturing company '**SAER ELETTROPOMPE S.p.A., Italy**'. **SAER** is one of the world's largest pumps & motors manufacturing company with more than 50 years of experience. It covers a wide range of pump technology and has satisfied customers in more than 120 countries through its 6 factories in Italy. The partnership has enabled **GOLDEN DYNAMICS** to share its advance usage procedures and upgrade its pumping technology in mining, offshore, agricultural, industrial, domestic and public sector.

Success and growth of any industry based on continuous 'Research & Development. It is indeed a privilege to have '**R & D Collaboration**' with Pakistan's leading educational institution '**National University of Sciences & Technology (NUST), Islamabad**' which is the most vibrant institution and shines as a beacon of excellence on the horizon of technical education will assist to **GOLDEN DYNAMICS** in different fields of our industry i.e. new product development, product improvement, energy efficiency etc. **NUST** has collaboration with several national & International industries which is ultimate for achieving meaningful and worthwhile results in conducting applied sciences research.



Centrifugal Non-Clogging Pumps

GSH, GSN & GSV are series of Centrifugal Non-Clogging Volute Pumps with semi-open / vortex impeller and enclosed impellers of stainless steel, bronze, S.G. iron, cast iron etc. (according to the project requirement). These can be fitted with a heavy-duty pedestal to give the machine high rigidity necessary for coupling it with electric motor. In case where it is not feasible to use electric motor, diesel combustion engine can also be used as prime mover. NOWA Vertical Sludge Pumps are available with semi-open / vortex impeller.

GSH series is horizontal sludge pumps have main structure of NOWA Centrifugal Pumps (GCP Series) with a hand-hole. The hand-hole of GSH & GSN series in the intermediate part can be opened to clean the interior of the pump.

GSN series are 'back pull type' non-clogging horizontal pumps. The impeller of the pump can be easily and readily inspected or repaired or reinstalled without troubling the pipe lines of the pump and even the electric motor remains fitted on the foundation structure.

GSV series are non-clogging vertical pumps work while submerged in the working fluid. However, motor on top remains outside the pit.

These pumps are featured by high efficiency, sound anti-clogging performance, stable operation, outstanding dependability, compact structure etc. mainly embodying the following aspects; use of semi-open / vortex or enclosed impeller, adjustable clearance between wear resisting plate and the front side of impeller, mechanical shaft seal / gland packing, high precision bearing, quality shaft material etc.

These pumps are used for handling sewage, solids containing fluids, waste water and sludge of all types, flood or rain water, viscous liquid, liquid with suspension of solid particles, fibrous material, slurry, pulp, cellulose and industrial effluents. These are also used in municipal and industrial waste water transport, sewage treatment plants, paper & board, chemical, sugar industries and in slaughter houses etc.

NOWA vertical sludge pumps are used almost for all the materials where NOWA horizontal sludge pumps can be used. In addition, they are specially used for dewatering the sludge water from basements, trenches, and are frequently used in ceramic and mining industry.



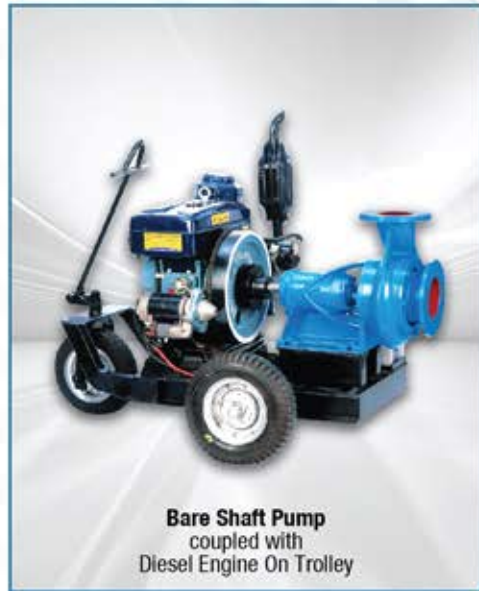
Non-Clogging (Horizontal) Pump
(Semi Open / Vortex Impeller)



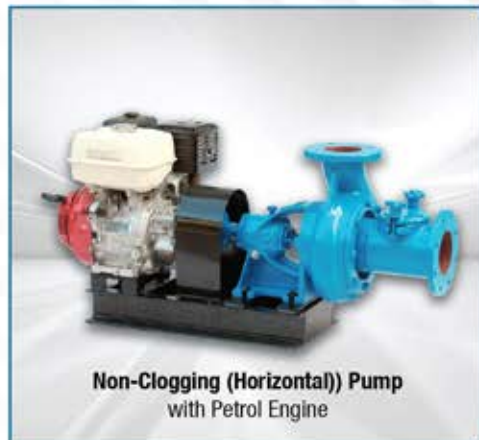
Non-Clogging (Horizontal) Pump
(Enclosed Impeller)



Non-Clogging (Vertical) Pump
(Semi Open / Vortex Impeller)



Bare Shaft Pump
coupled with
Diesel Engine On Trolley

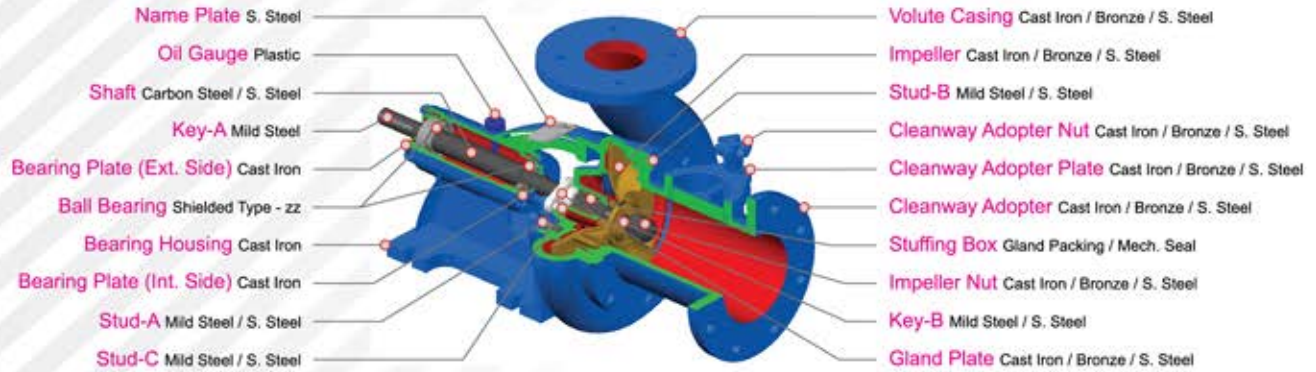


Non-Clogging (Horizontal) Pump
with Petrol Engine

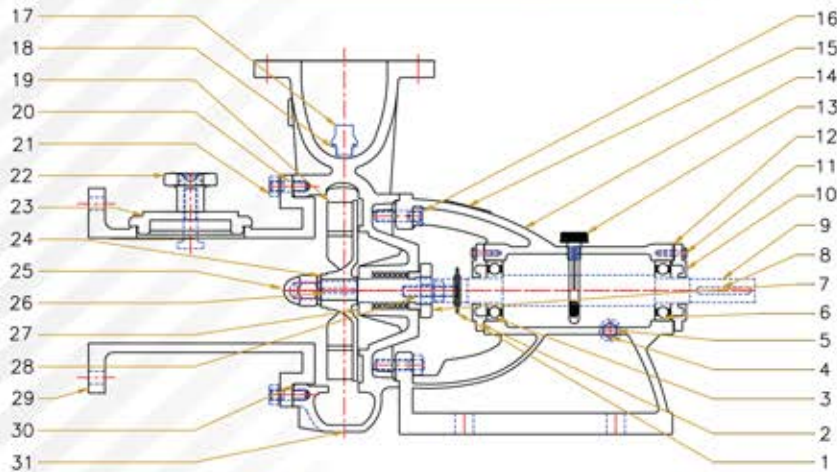
Centrifugal Non-Clogging (Horizontal) Pumps

(Semi Open Impeller) - GSH Series

Cross - Sectional View

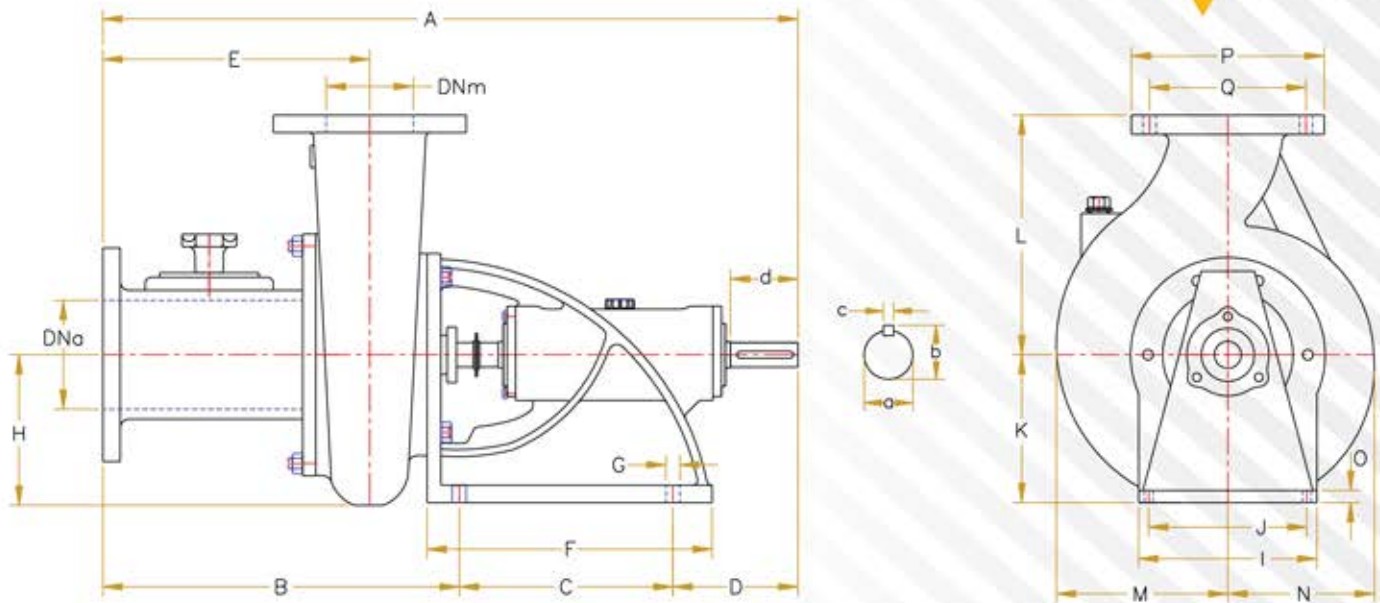


Schematic Diagram



No.	Description	Material
1	Splash Shield	Nitrile Rubber
2	Bearing Plate	Cast Iron
3	Ball Bearing (Pump Side)	Shielded Type zz
4	O-Ring (Oil Drain Plug)	Nitrile Rubber
5	Oil Drain Plug	Mild Steel
6	Ball Bearing (Drive Side)	Shielded Type zz
7	Gland Plate	Cast Iron / Bronze / S. Steel
8	Key (Coupling / Pulley)	Mild Steel
9	Shaft	Carbon Steel / S. Steel
10	Bearing Plate	Cast Iron
11	Bolt	Mild Steel
12	Gasket	Paper / Fire Fly
13	Oil Gauge	Plastic
14	Bearing Housing	Cast Iron
15	Name Plate	Mild Steel
16	Stud (Bearing Housing)	Mild Steel

No.	Description	Material
17	Prime Plug	Mild Steel
18	O-Ring (Prime Plug)	Nitrile Rubber
19	Impeller	Cast Iron / Bronze / S. Steel
20	Stud (Clean Way Adaptor)	Mild Steel / S. Steel
21	Nut	Mild Steel / S. Steel
22	Plug (For Vacuum Gauge)	Steel 4D
23	Clean Way Adopter Plate	Cast Iron / Bronze / S. Steel
24	Spring Washer	Mild Steel
25	Impeller Nut	Cast Iron / Bronze / S. Steel
26	Key (Impeller)	Mild Steel / S. Steel
27	Stuffing Box	Gland Packing / Mech. Seal
28	Stud (Gland Plate)	Mild Steel / Bronze / S. Steel
29	Clean Way Adopter	Cast Iron / Bronze / S. Steel
30	O-Ring (Suction Cover)	Nitrile Rubber
31	Volute Casing	Cast Iron / Bronze / S. Steel



Dimension Table

Model	Size	Bearing	DNa	DNm	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Shaft Projection	Weight (kg)
GSH 40-21	2" x 1.5"	6206	50	40	545	225	190	130	115	280	18	138	175	142	160	190	140	140	20	1	52
GSH 50-16	2.5" x 2"	6206	65	50	535	215	190	130	110	280	18	130	175	142	160	170	130	120	20	1	47
GSH 50-24	2.5" x 2" HH	6306	65	50	598	213	244	141	114	330	16	160	205	165	170	242	160	157	20	2	67
GSH 65-22	3" x 2.5"	6206	80	65	738	418	190	130	323	280	18	150	175	142	160	230	160	140	20	1	70
GSH 65-27	3" x 2.5" HH	6306	80	65	832	448	244	140	355	330	16	200	205	180	170	300	205	200	20	2	97
GSH 80-22	4" x 3"	6306	100	80	766	382	244	140	280	330	16	160	205	180	170	250	165	155	20	2	95
GSH 80-27	4" x 3" MH	6306	100	80	832	448	244	140	355	330	16	200	205	180	170	300	205	180	20	2	105
GSH 80-31	4" x 3" HH	6408	100	80	873	465	235	173	365	335	21	215	220	194	200	315	230	200	20	3	128
GSH 100-22	5" x 4"	6306	125	100	800	416	244	140	310	330	16	170	205	180	170	275	190	170	20	2	110
GSH 100-27	5" x 4" MH	6408	125	100	918	510	235	173	390	335	21	200	220	194	200	295	215	185	20	3	128
GSH 100-33	5" x 4" HH	6408	125	100	918	510	235	173	390	335	21	222	220	194	200	382	248	227	20	3	155

Note: GSH 40-21, GSH 50-16 and GSH 50-24 do not have 'Clean Way Adopter'

Shaft Projection

Type	a	b	c	d
	mm			
1	28	32	8	76
2	28	32	8	84
3	28	42	8	110

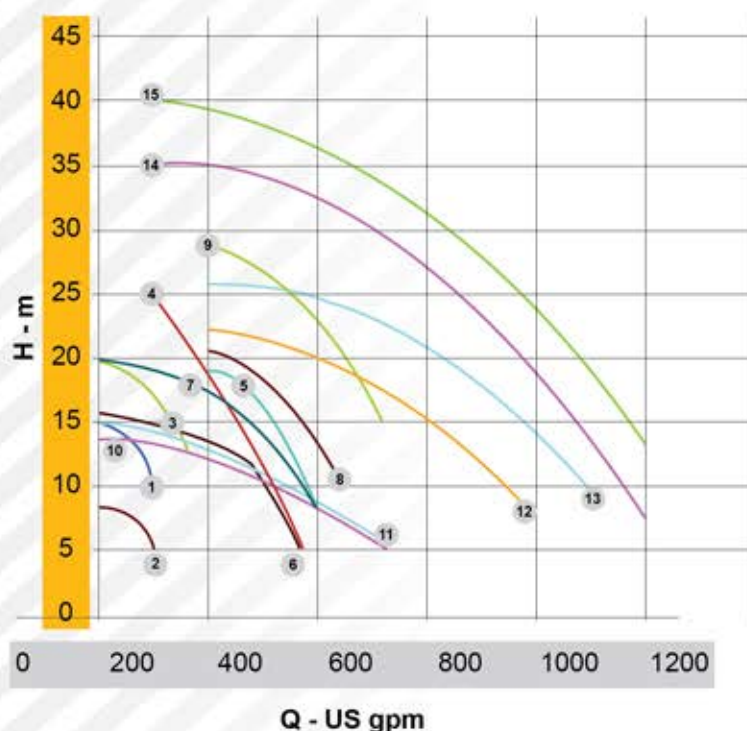
Flanges

Port DNm	P	Q	Holes	
	mm		No.	Ø mm
40	130	100	4	16
50	140	110	4	16
65	160	130	4	16
80	190	150	4	16
100	220	180	4	18

Performance Table

Model	Size	Impeller Dia Ø mm	Motor		Q - Capacity (m³/h - US gpm - lpm)																						
					2.3	4.6	9.1	13.6	18.2	22.7	34	45.4	56.8	68	79.4	90.8	102.2	113.5	124.9	136.3	147.5	159	170	181.7	193	204.4	227.1
					10	20	40	60	80	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000
		HP	kW	H - Total Head (m) @ 1450 RPM																							
38	76			151	227	303	379	567	756	946	1134	1323	1514	1703	1891	2081	2271	2459	2650	2838	3028	3216	3407	3785			
GSH 40-21	2"x1.5"	205	2	1.5	15	14.9	14.7	14	13	11																	
GSH 50-16	2.5"x2"	170	3	2.2	8.3	8.2	7.8	7	6	4.8																	
GSH 50-24	2.5"x2"	240	5.5	4	19	18.5	18	17.4	16.7	15.9	12.5																
GSH 65-22	3"x2.5"	222	5.5	4						24	21.5	18.5	13.6	10	5												
GSH 65-27	3"x2.5"	265	10	7.5							18	17	15.5	12	7												
GSH 80-22	4"x3"	200	5.5	4	15.5	15	15	14.7	14.5	14.2	13.5	13	12	8.5	5												
GSH 80-22	4"x3"	220	7.5	5.5	19	18.7	18.3	18	17.6	17.3	16.5	15.8	14.7	13.5	11.5	8											
GSH 80-27	4"x3"	265	10	7.5							20	19	17.5	15.7	12.5	9											
GSH 80-31	4"x3"	310	15	11							28	27	25.9	24	21.3	18.3	15										
GSH 100-22	5"x4"	210	7.5	5.5	13.5	13.4	13.3	13.2	13.1	12.8	12.4	11.8	11.3	10.5	10	8.2	7.2	6	5								
GSH 100-22	5"x4"	220	10	7.5	14.8	14.7	14.5	14.3	14.1	13.9	13.4	13	12.5	11.7	10.9	9.7	8.5	7	5								
GSH 100-27	5"x4"	240	15	11							21.2	21	20.7	20.2	19.5	18.8	18	17.3	16.2	15	13	11	8				
GSH 100-27	5"x4"	265	20	15							26	25.7	25.3	25	24.5	23.7	22.8	22	21	20	18.7	17	14.8	12.5	10.1		
GSH 100-33	5"x4"	310	25	18.5						35.2	34.9	34.5	34.1	33.5	32.8	32	31	29.5	28	26.5	25	24	21.5	20	17	14	6
GSH 100-33	5"x4"	330	30	22						40	39.7	39.3	38.8	38.2	37.1	36	35	33.9	32.9	31.4	30	28	26	24	22	19	13.3

Performance Chart

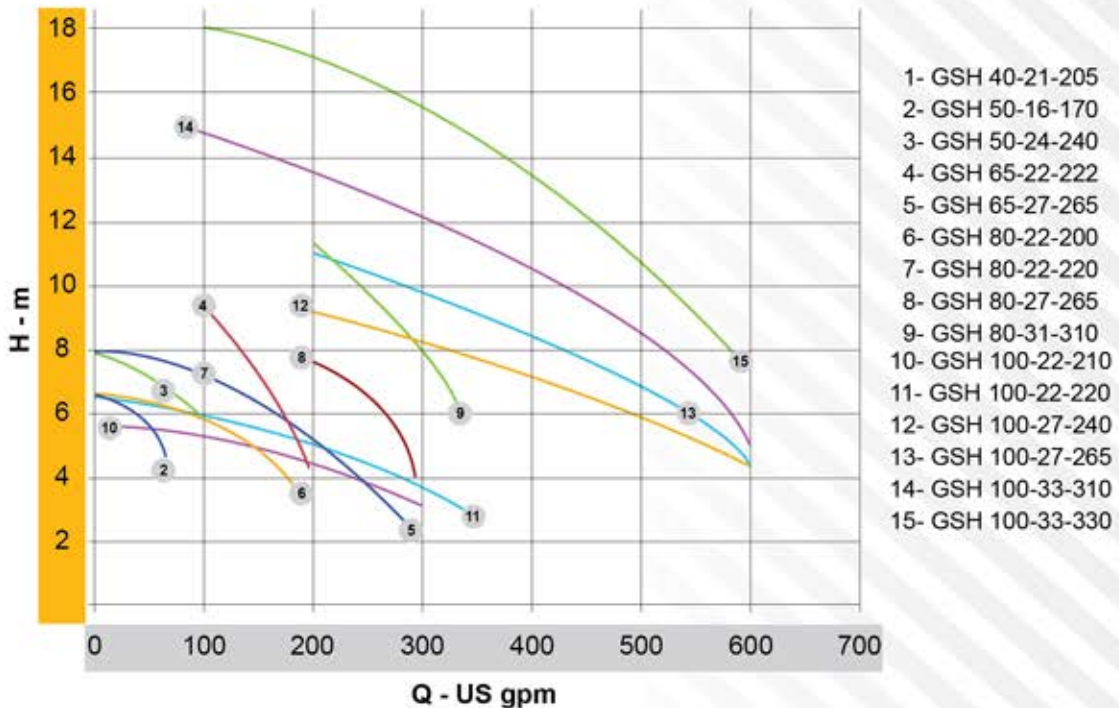


- 1- GSH 40-21-205
- 2- GSH 50-16-170
- 3- GSH 50-24-240
- 4- GSH 65-22-222
- 5- GSH 65-27-265
- 6- GSH 80-22-200
- 7- GSH 80-22-220
- 8- GSH 80-27-265
- 9- GSH 80-31-310
- 10- GSH 100-22-210
- 11- GSH 100-22-220
- 12- GSH 100-27-240
- 13- GSH 100-27-265
- 14- GSH 100-33-310
- 15- GSH 100-33-330

Performance Table

Model	Size	Impeller Dia Ø mm	Motor		Q - Capacity (m ³ /h - US gpm - lpm)															
			HP	kW	2	4.6	9	13.6	18	22.7	34	45.4	56.8	68	77.2	90.8	102.2	113.6	1363	
					H - Total Head (m) @ 950 RPM															
GSH 40-21	2" x 1.5"	205	1	0.75	6.4	6.3	5.8	5.1												
GSH 50-16	2.5" x 2"	170	1	0.75	3.5	3.4	3	2.3												
GSH 50-24	2.5" x 2"	240	1	0.75	8.1	8	7.6	7	6.7	5.9										
GSH 65-22	3" x 2.5"	222	2	1.5						9.2	6.8	4.3								
GSH 65-27	3" x 2.5"	265	3	2.2							5.7	4.2	2							
GSH 80-22	4" x 3"	200	2	1.5	6.6	6.5	6.3	6.1	5.9	5.7	5.1	3.6								
GSH 80-22	4" x 3"	220	3	2.2	8	7.9	7.7	7.5	7.3	7.1	6.5	5.7	4							
GSH 80-27	4" x 3"	265	3	2.2								7.7	6.2	3.9						
GSH 80-31	4" x 3"	310	5.5	4								11.4	9.9	8	6					
GSH 100-22	5" x 4"	210	2	1.5	5.8	5.8	5.7	5.6	5.5	5.4	5.1	4.6	4	3.1						
GSH 100-22	5" x 4"	220	3	2.2	6.5	6.4	6.3	6.2	6.1	6	5.6	5.1	4.4	3.5	2.7					
GSH 100-27	5" x 4"	240	5.5	4								9.1	8.6	8.1	7.8	7.1	6.5	5.8	4.3	
GSH 100-27	5" x 4"	265	5.5	4								11.1	10.7	10.3	9.9	9.2	8.5	7.5	4.3	
GSH 100-33	5" x 4"	310	7.5	5.5						14.9	14.7	14.3	13.9	13.3	12.6	11.4	10.4	9	5	
GSH 100-33	5" x 4"	330	10	7.5						17	16.7	16.4	15.8	15	14.3	13.2	12.2	11	7.8	

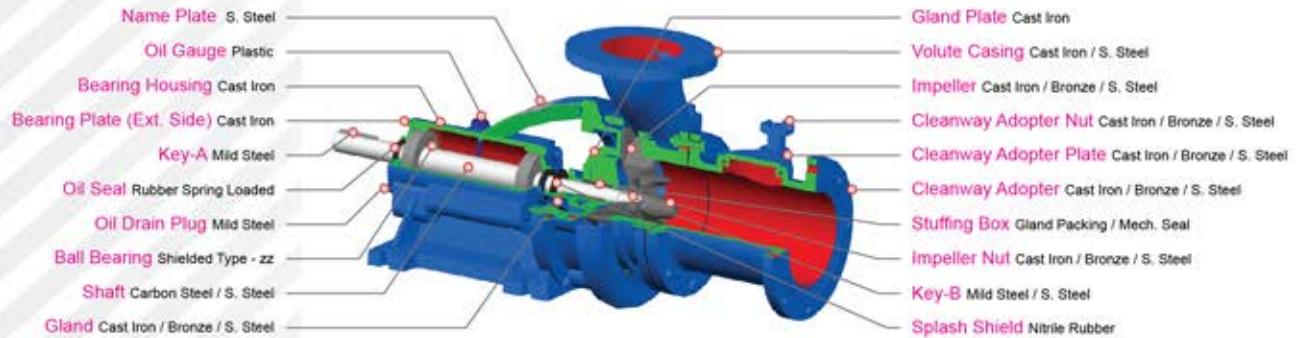
Performance Chart



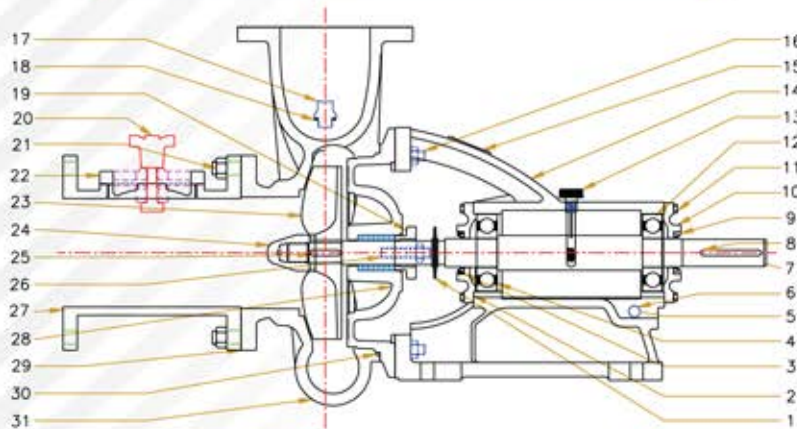
Centrifugal Non-Clogging (Horizontal) Pumps

(Semi Open Impeller) - GSN (A) Series

Cross - Sectional View

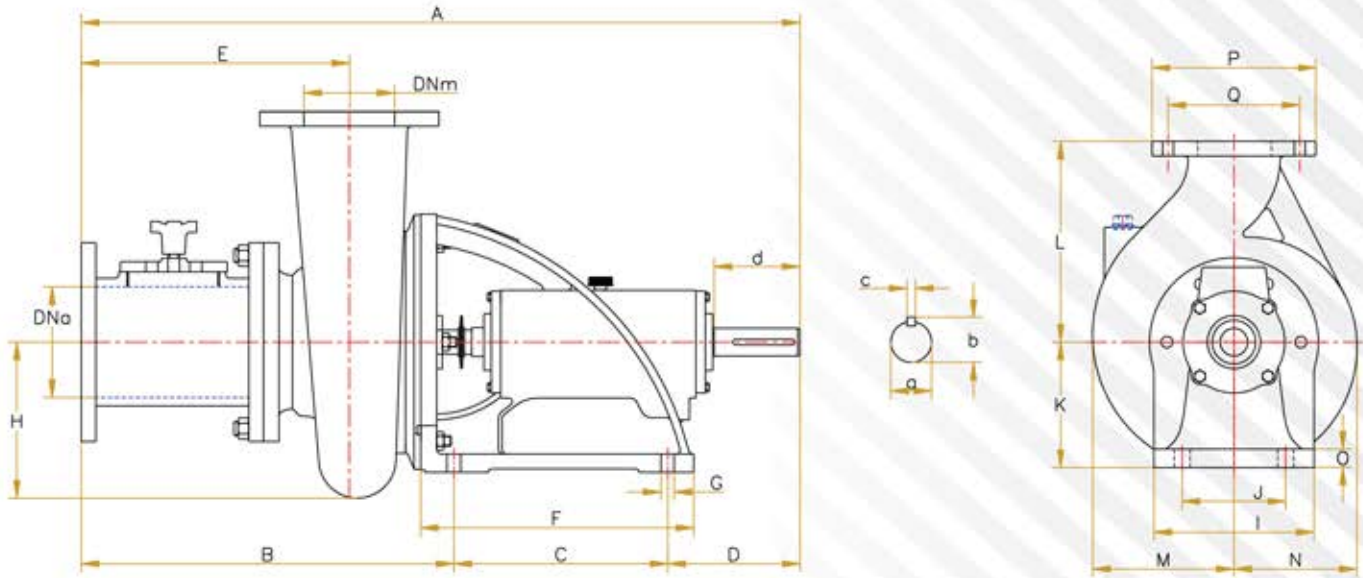


Schematic Diagram



No.	Description	Material
1	Splash Shield	Nitrile Rubber
2	Bearing Plate	Cast Iron
3	Oil Seal	Rubber Spring Loaded
4	Ball Bearing (Pump Side)	Shielded Type
5	O-Ring (Oil Drain Plug)	Nitrile Rubber
6	Oil Drain Plug	Mild Stee1
7	Shaft	Carbon Steel / S. Steel
8	Key Coupling / Pulley	Mild Stee1
9	Oil Seal	Rubber Spring Loaded
10	Bearing Plate	Cast Iron
11	Bolts	Mild Stee1
12	Ball Bearing (Drive Side)	Shielded Type
13	Oil Gauge	Plastic
14	Bearing Housing	Cast Iron
15	Name Plate	Mild Stee1
16	Stud (Bearing Housing)	Mild Steel

No.	Description	Material
17	Prime Plug	Mild Stool
18	O-Ring (Prime Plug)	Nitrile Rubber
19	Stuffing Box	Gland Packing / Mech. Seal
20	Plug (For Vacuum Gauge)	Steel 4D
21	Stud (Clean Way Adaptor)	Mild Steel / S. Steel
22	Clean Way Adopter Plate	Cast Iron / Bronze / S. Steel
23	Impeller	Cast Iron / Bronze / S. Steel
24	Impeller Nut	Cast Iron / Bronze / S. Steel
25	Key (Impeller)	Mild Steel
26	Stud (Gland)	Mild Steel / S. Steel
27	Clean Way Adopter	Cast Iron / Bronze / S. Steel
28	Gland Plate	Cast Iron / Bronze / S. Steel
29	Gasket	Paper / Fire Fly
30	O-Ring (Stuffing Box)	Nitrile Rubber
31	Volute Casing	Cast Iron/ Bronze / S. Steel



Dimension Table

Model	Size	Bearing	DNa	DNm	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Shaft Projection	Weight (kg)
GSN 125-25	6" x 5"	6408	150	125	986	511	295	180	375	375	18	215	255	225	180	320	234	198	25	1	135
GSN 125-27	6" x 5"	6408	150	125	986	511	295	180	375	375	18	215	255	225	180	320	234	198	25	1	140
GSN 150-27	6" x 6"	6408	150	150	1000	225	295	180	375	375	18	220	255	225	180	330	256	197	25	1	142
GSN 150-27-7	7" x 6"	6408	175	150	975	500	295	180	355	375	18	225	255	225	180	330	246	201	25	1	149
GSN 150-27-8	8" x 6"	6408	200	150	975	500	295	180	355	375	18	215	255	225	180	330	244	201	25	1	158

Shaft Projection

Type	a	b	c	d
	mm			
1	38	42	8	125

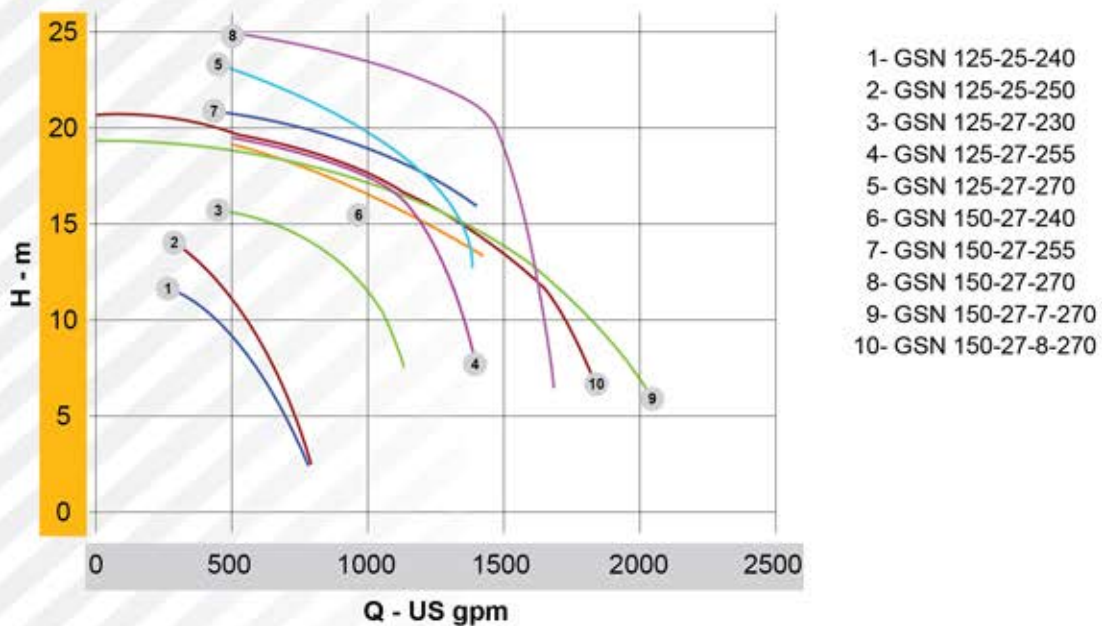
Flanges

Port	P	Q	Holes	
DNm	mm		No.	Ø mm
125	255	210	8	15
150	280	233	8	15

Performance Table

Model	Size	Impeller Dia Ø mm	Motor		Q - Capacity (m ³ /h - US gpm - lpm)																
			HP	kW	2.3	22.7	45.4	68	90.8	113.5	136.3	159	181.7	204.4	227.1	272.6	318	363.3	408.7	454.2	
					10	100	200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	
					38	379	756	1134	1514	1891	2271	2650	3028	3407	3785	4543	5300	6055	6812	7570	
H - Total Head (m) @ 1450 RPM																					
GSN 125-25	6" x 5"	240	15	11				11.5	10.5	9.5	8	6	3.5								
GSN 125-25	6" x 5"	250	20	15				13	12	10.5	9	7	4								
GSN 125-27	6" x 5"	230	20	15					15.6	15.2	14.8	14.2	13.2	12	8						
GSN 125-27	6" x 5"	255	25	18.5					19.5	19.2	18.7	18.2	17.5	16.7	14.8	8					
GSN 125-27	6" x 5"	270	30	22					22	21.5	21	20.5	20	19	16	11					
GSN 150-27	6" x 6"	240	20	15					18.4	18	17.5	17	16.5	16	14.7	13					
GSN 150-27	6" x 6"	255	25	18.5					20.8	20.3	19.7	19.3	18.8	18.3	17	15.5					
GSN 150-27	6" x 6"	270	30	22					23.7	23.2	22.6	22	21.5	21	20	18	6				
GSN 150-27-7	7" x 6"	270	30	22	19.3	19.1	18.9	18.7	18.5	18.2	17.8	17.5	17.2	16.9	16.6	15.7	13.8	11.5	9	6.7	
GSN 150-27-8	8" x 6"	270	30	22	20.3	20.3	20.2	19.9	19.6	19.3	19	18.7	18.3	17.9	17.4	15.2	12.8	10.4	7.5		

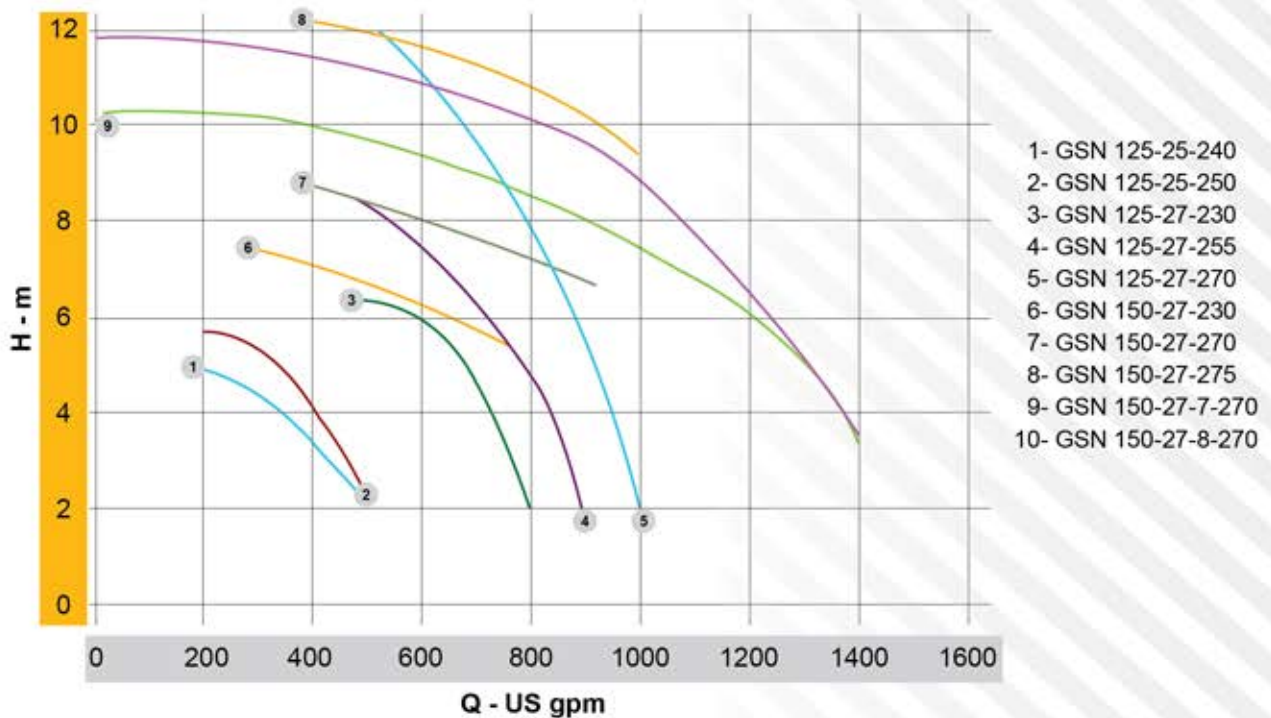
Performance Chart



Performance Table

Model	Size	Impeller Dia Ø mm	Motor HP kW	Q - Capacity (m ³ /h - US gpm - lpm)															
				2.3	22.7	45.4	68	90.8	113.5	136.3	159	181.7	204.3	227.1	272.5	318			
				10	100	200	300	400	500	600	700	800	900	1000	1200	1400			
				H - Total Head (m) @ 950 RPM															
GSN 125-25	6" x 5"	240	5.5 4			4.9	4.3	3.3	2										
GSN 125-25	6" x 5"	250	5.5 4			5.6	5	3.9	2.2										
GSN 125-27	6" x 5"	230	5.5 4							6.5	6	5	2						
GSN 125-27	6" x 5"	255	7.5 5.5							8.3	7.7	6.8	5.3	2					
GSN 125-27	6" x 5"	270	10 7.5							10	9.5	8.6	7.4	5.6	2				
GSN 150-27	6" x 6"	230	5.5 4			7.2	6.9	6.6	6.2	5.9	5.5								
GSN 150-27	6" x 6"	270	7.5 5.5					8.6	8.3	8	7.6	7.2	6.7						
GSN 150-27	6" x 6"	275	10 7.5					10.2	9.9	9.6	9.2	8.8	8.3	7.5					
GSN 150-27-7	7" x 6"	270	10 7.5	10.2	10.1	10	9.9	9.7	9.5	9.2	8.9	8.5	8	7.3	5.6	3.7			
GSN 150-27-8	8" x 6"	270	10 7.5	10.7	10.6	10.4	10.2	10	9.8	9.6	9.2	8.6	7.9	7.1	5.5	3.6			

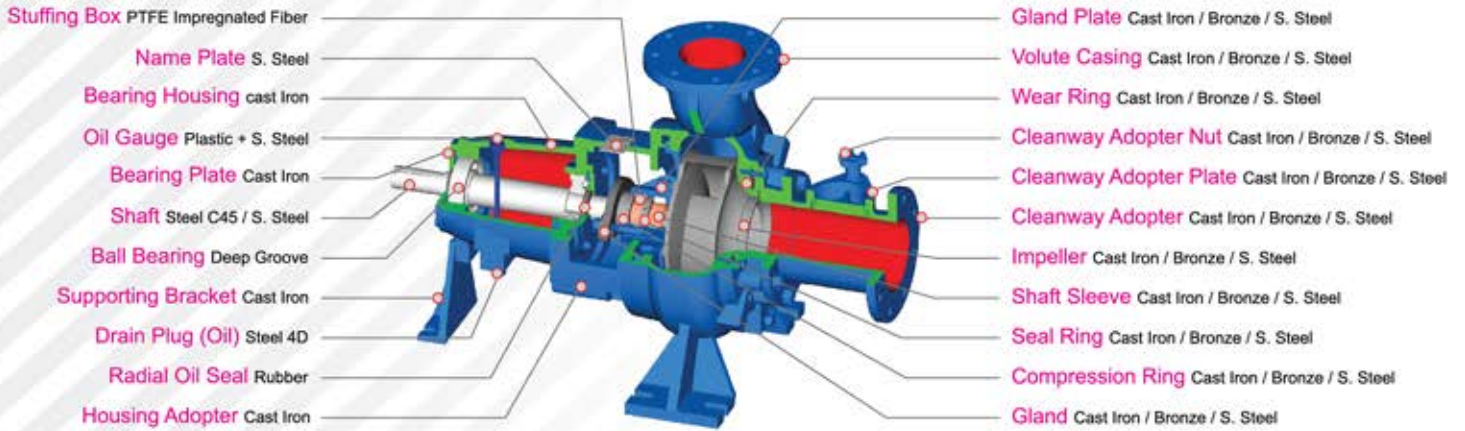
Performance Chart



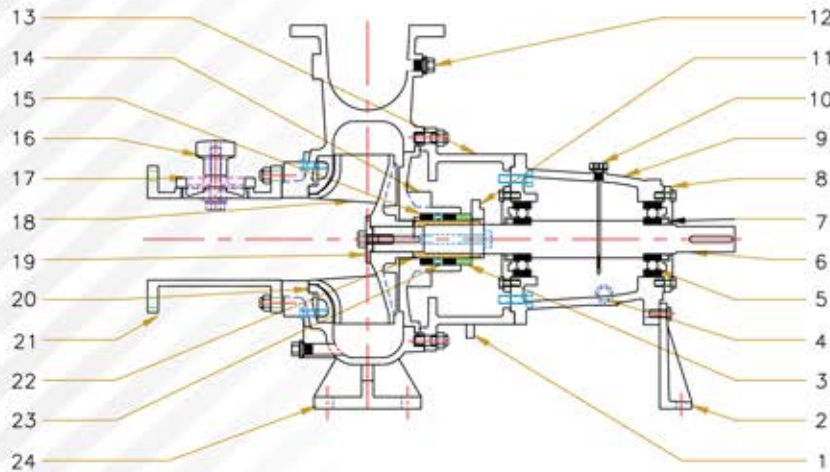
Centrifugal Non-Clogging (Horizontal) Pumps

(Enclosed Impeller) - GSN (B) Series

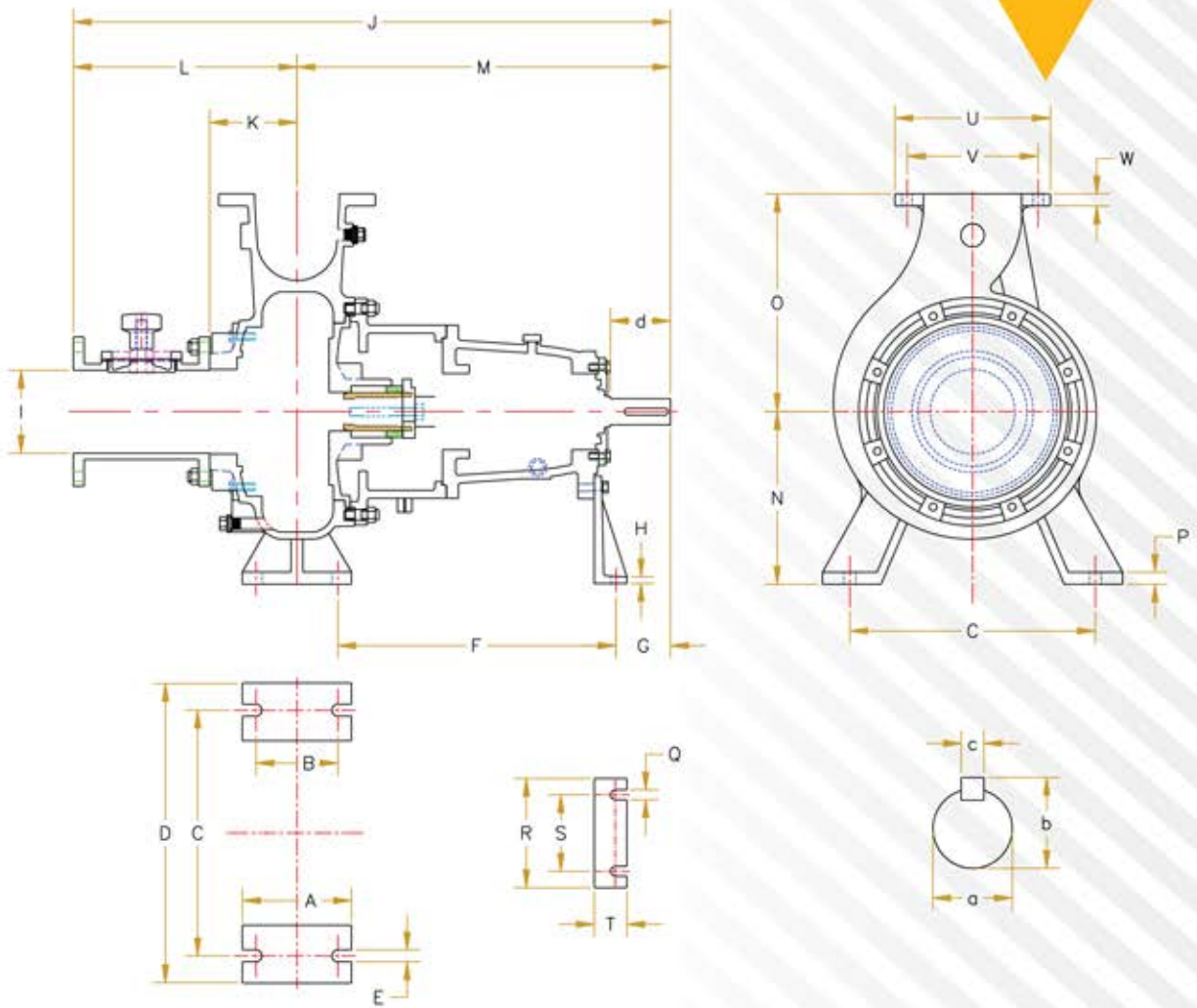
Cross - Sectional View



Schematic Diagram



No.	Description	Material	No.	Description	Material
1	Drain Pipe	Mild Steel	13	Housing Adopter	Cast Iron
2	Supporting Bracket	Cast Iron	14	Stuffing Box Plate	Cast Iron / Bronze / S. Steel
3	Compression Ring	Cast Iron / Bronze / S. Steel	15	Gland Packing	Cotton Lubricated / Mech. Seal
4	Drain Plug (Oil)	Steel 4D	16	Plug (For Vacuum Gauge)	Steel 4D
5	Bearing (6411)	Deep Groove Ball Bearing	17	Clean Way Adopter Plate	Cast Iron / Bronze / S. Steel
6	Shaft	Steel C45 / Stainless Steel	18	Impeller	Cast Iron / Bronze / S. Steel
7	Radial Oil Seal (55x80x12)	Rubber with Spring Loaded	19	Impeller Hub Cap	Cast Iron / Bronze / S. Steel
8	Bearing Housing Plate	Cast Iron	20	Wear Ring	Cast Iron / Bronze / S. Steel
9	Bearing Housing	Cast Iron	21	Clean Way Adopter	Cast Iron / Bronze / S. Steel
10	Oil Gauge	Plastic + S. Steel	22	Shaft Sleeve	Cast Iron / Bronze / S. Steel
11	Gland	Cast Iron/ Bronze / S. Steel	23	Seal Ring	Cast Iron / Bronze / S. Steel
12	Plug (For Pressure Gauge)	Steel 4D	24	Volute Casing	Cast Iron / Bronze / S. Steel



Dimension Table

Model	Size	Bearing	DNa	DNm	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	Shaft Projection	Weight (kg)
GSN 150-315	6" x 6"	6411	150	150	200	150	450	550	22	510	100	12	150	1095	160	410	685	315	400	22	18	200	140	60	1	260
GSN 200-315	8" x 8"	6411	200	200	200	150	450	560	22	530	90	12	200	1230	195	550	680	360	450	26	18	200	140	70	1	340

Shaft Projection

Type	a	b	c	d
	mm			
1	48	52	8	125

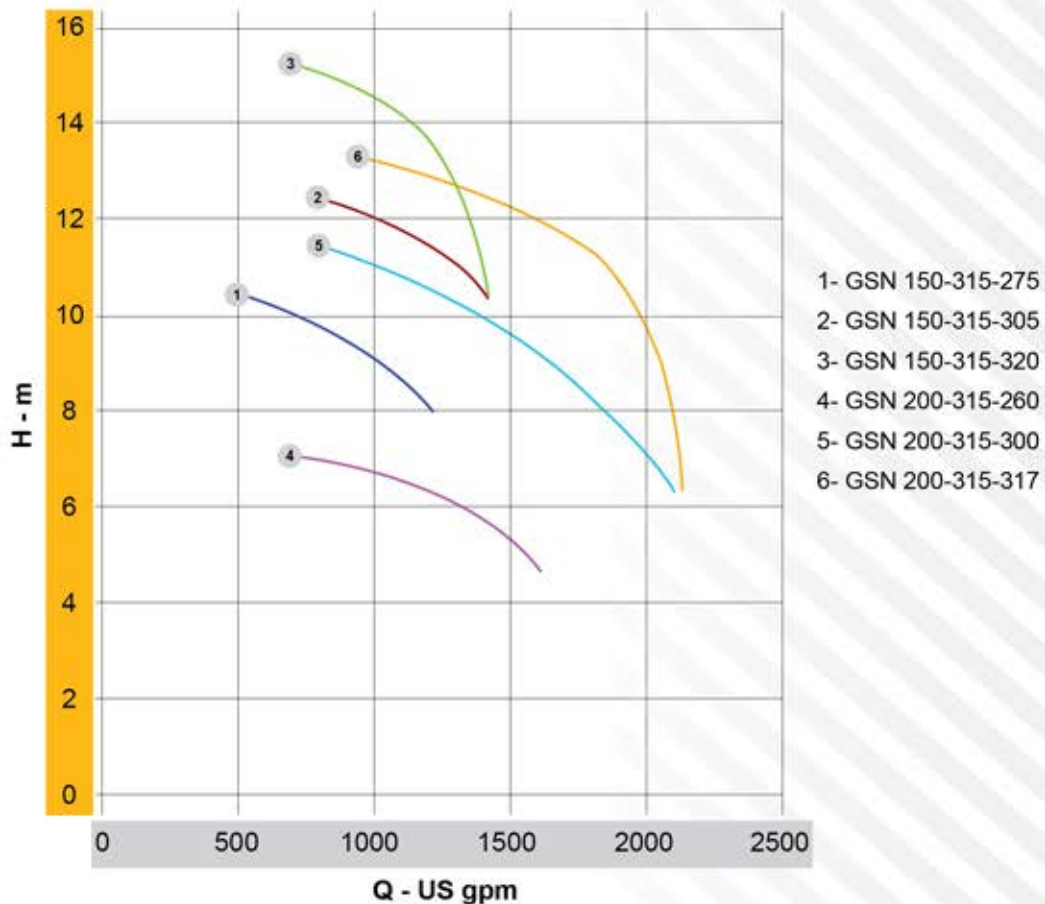
Flanges

Port	U	V	W	Holes	
DNm	mm			No.	Ø mm
150	285	240	22	8	22
200	340	295	24	8	22

Performance Table

Model	Size	Impeller Dia Ø mm	Motor		Q - Capacity (m ³ /h - US gpm - lpm)																				
					HP	kW	113.6	136.3	159	181.7	204.4	227.1	249.8	272.5	295.3	306.6	318	340.7	352	363.4	386.1	431.5	465.6	476.9	
					1893	2271	2650	3028	3407	3785	4164	4542	4921	5110	5300	5678	5867	6057	6435	7192	7760	7949			
					H - Total Head (m) @ 950 RPM																				
GSN 150-315	6" x 6"	275	10	7.5	10.3	10.2	10	9.7	9.4	9	8.6	8.2													
GSN 150-315		305	15	11					12.2	12	11.7	11.3	10.9	10.7											
GSN 150-315		320	20	15				14.8	14.6	14.3	14	13.6	13	12.5	11.2										
GSN 200-315	8" x 8"	260	10	7.5			7.1	6.9	6.7	6.5	6.3	6	5.9	5.7	5.4	5.2									
GSN 200-315		300	15	11			11.3	11.1	10.9	10.6	10.3	10.1	9.9	9.5	9.3	9.1	8.7	7.5	6.3						
GSN 200-315		317	20	15				12.9	12.8	12.6	12.4	12.3	12.2	12	11.9	11.7	11.3	10	8.2	6.5					

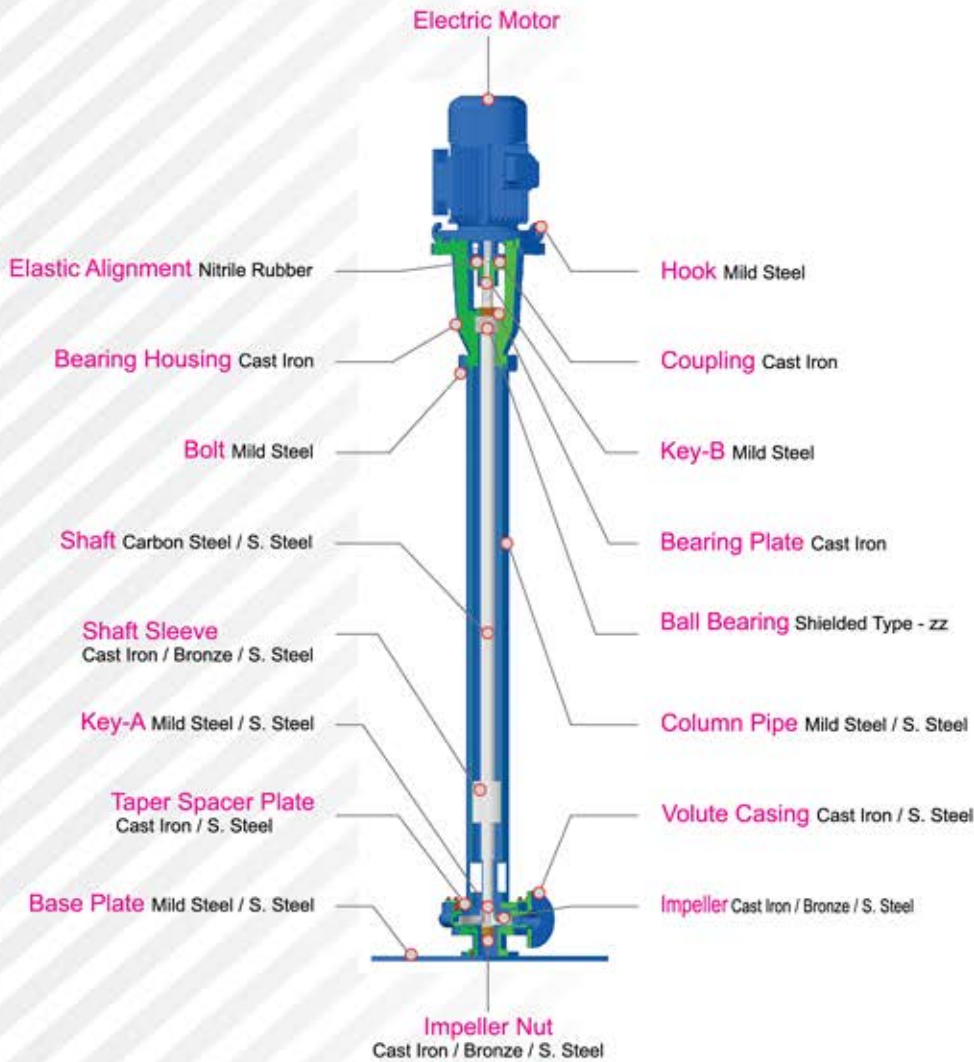
Performance Chart



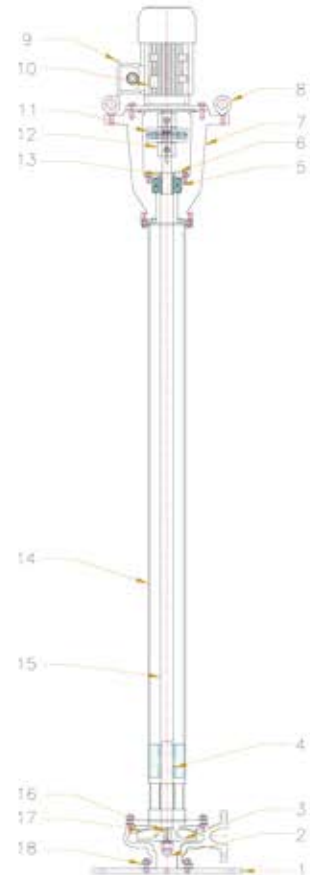
Centrifugal Non-Clogging (Vertical) Pumps

(Semi Open Impeller) - GSV Series

Cross - Sectional View

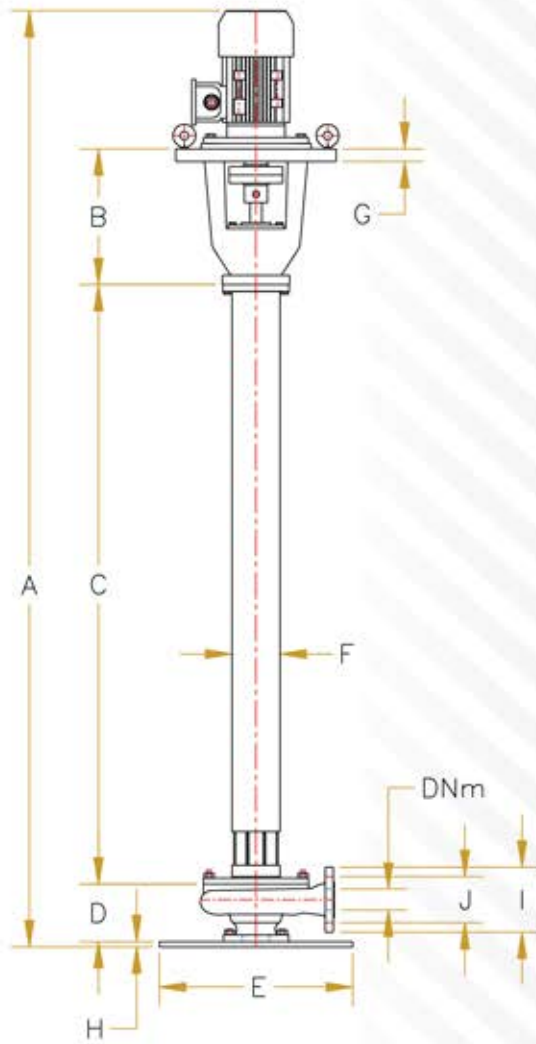


Schematic Diagram



No.	Description	Material
1	Base Plate	Mild Steel/S. Steel
2	Impeller Nut	Cast Iron / Bronze / S. Steel
3	Impeller	Cast Iron / Bronze / S. Steel
4	Shaft Sleeve	Cast Iron / Bronze / S. Steel
5	Ball Bearing	Shield Type-zz
6	Bearing Housing Plate	Cast Iron
7	Bearing Housing	Cast Iron
8	Hook	Mild steel
9	Connection Cover	Cast Iron / Aluminum / Plastic

No.	Description	Material
10	Electric Motor	-
11	Elastic Alignment	Nitrile Rubber
12	Coupling	Cast Iron
13	Shaft Bush	Mild steel
14	Column Pipe	Mild Steel / S. Steel
15	Shaft	Cast Iron / S. Steel
16	Key (Impeller)	Mild Steel
17	Taper Spacer Plate	Cast Iron / S. Steel
18	Volute Casing	Cast Iron / S. Steel



Dimension Table

Model	Size	Bearing	DNm	A	B	C	D	E	F	G	H	Weight (kg)
GSV 50-16	2.5" x 2"	6308	50	2230	323	1427	137	460	115	30	13	160
GSV 50-24	2.5" x 2"	6308	50	2265	323	1420	122	460	115	30	13	175
GSV 65-22	3" x 2.5"	6308	65	2275	323	1420	132	460	115	30	13	182
GSV 80-22	4" x 3"	6308	80	2270	323	1420	116	460	115	30	13	177
GSV 100-22	5" x 4"	6308	100	2370	323	1420	150	460	115	30	13	218

Flanges

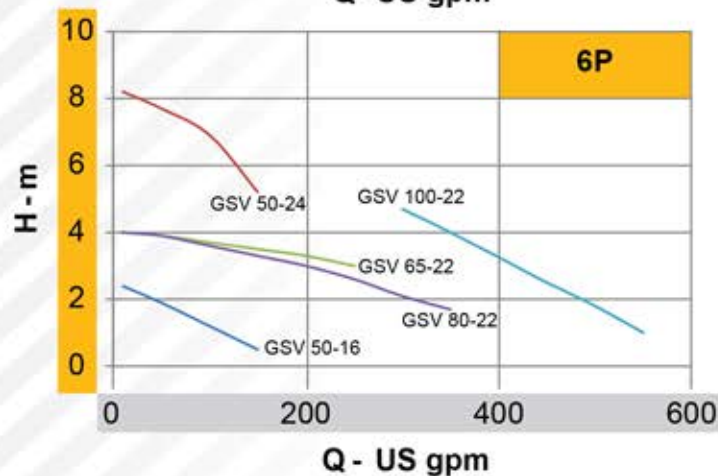
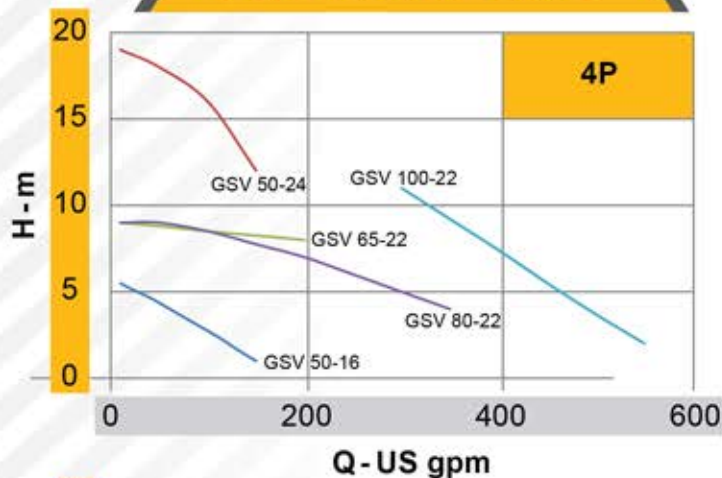
Port	U	V	Holes	
DNm	mm	mm	No.	Ø mm
50	140	110	4	16
65	160	130	4	16
80	190	150	4	16
100	220	180	4	18

Performance Tables

Model	Size	Motor		Q - Capacity (m ³ /h - US gpm - lpm)													
				2.3	11.3	22.7	34.1	45.4	56.8	68	79.4	90.8	102.1	113.5	124.9		
		10	50	100	150	200	250	300	350	400	450	500	550				
		HP/kW		H - Total Head (m) @ 1450 RPM													
GSV 50-16	25" x 2"	2	1.8	5.5	4.2	2.5	1										
GSV 50-24	25" x 2"	5.5	4	19	18	16	12										
GSV 65-22	3" x 25"	5.5	4	9	8.8	8.5	8.3	8									
GSV 80-22	4" x 3"	5.5	4	9	9	8.5	7.8	7	6	5	4						
GSV 100-22	5" x 4"	7.5	5.5									11	9.2	7.4	5.5	3.7	2

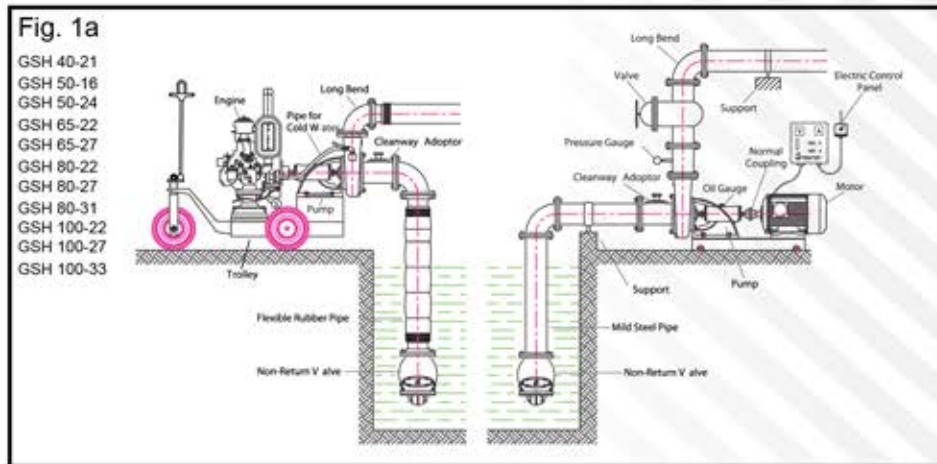
Model	Size	Motor		Q - Capacity (m ³ /h - US gpm - lpm)													
				2.3	11.3	22.7	34.1	45.4	56.8	68	79.4	90.8	102.1	113.5	124.9		
		10	50	100	150	200	250	300	350	400	450	500	550				
		HP/kW		H - Total Head (m) @ 950 RPM													
GSV 50-16	25" x 2"	1	0.75	2.4	1.9	1.2	0.5										
GSV 50-24	25" x 2"	2	1.8	8.2	7.7	6.9	5.2										
GSV 65-22	3" x 25"	2	1.8	4	3.9	3.7	3.5	3.3	3								
GSV 80-22	4" x 3"	2	1.8	4	3.9	3.6	3.3	3	2.6	2.1	1.7						
GSV 100-22	5" x 4"	3	2.2									4.7	4	3.2	2.5	1.8	1

Performance Charts

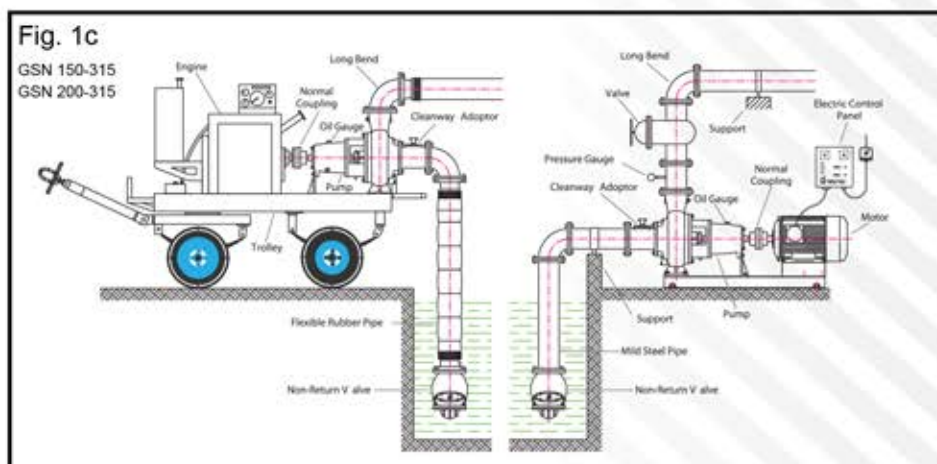
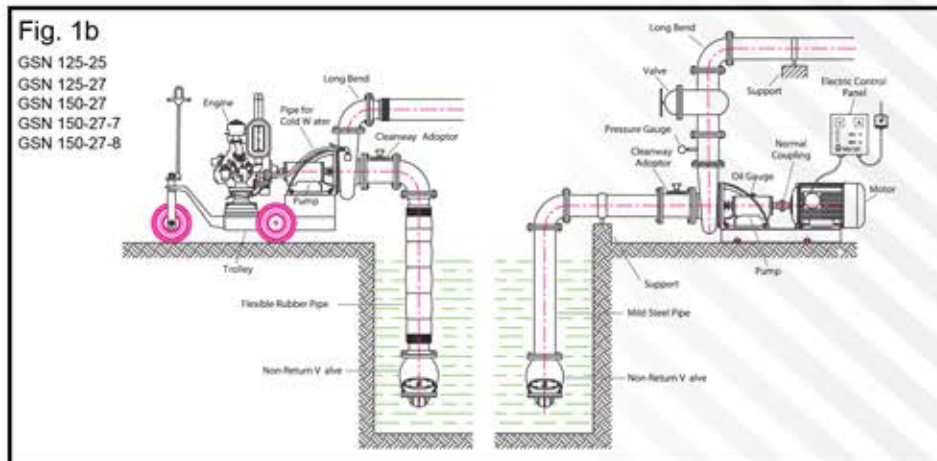


Installation and Commissioning

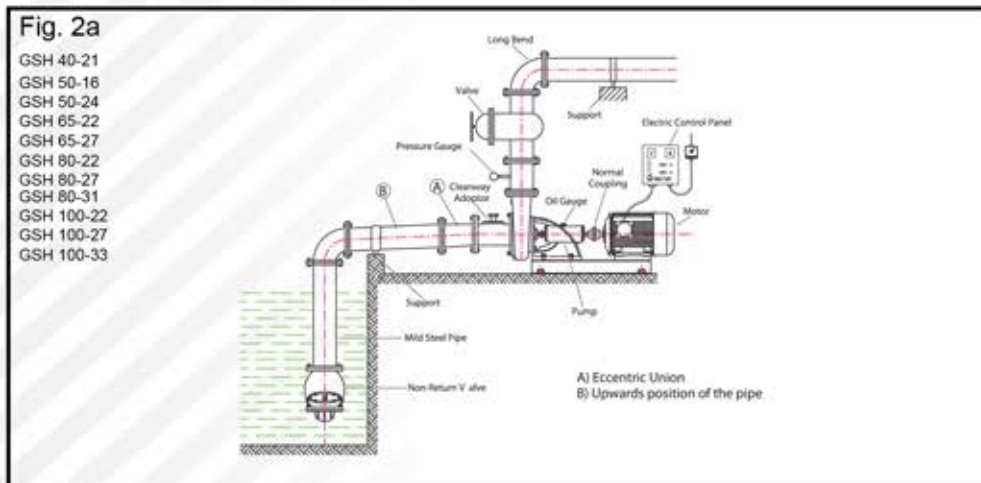
- The GSH & GSN pumps are designed to be used only for a horizontal purpose.
- The pump must be installed as near as possible to the spot of suction on the liquid.
- The pump must not be used as a support of the pipes; therefore, the pipes must be fixed on their own supports. However, this is not the case in Mobile Trolley mounted Pump where flexible suction/delivery pipes are used (Fig. 1a, 1b, 1c).



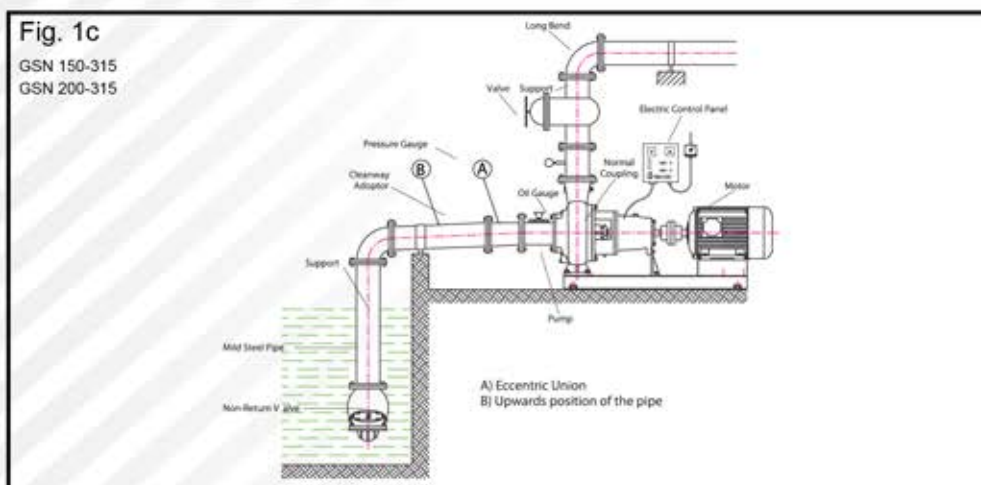
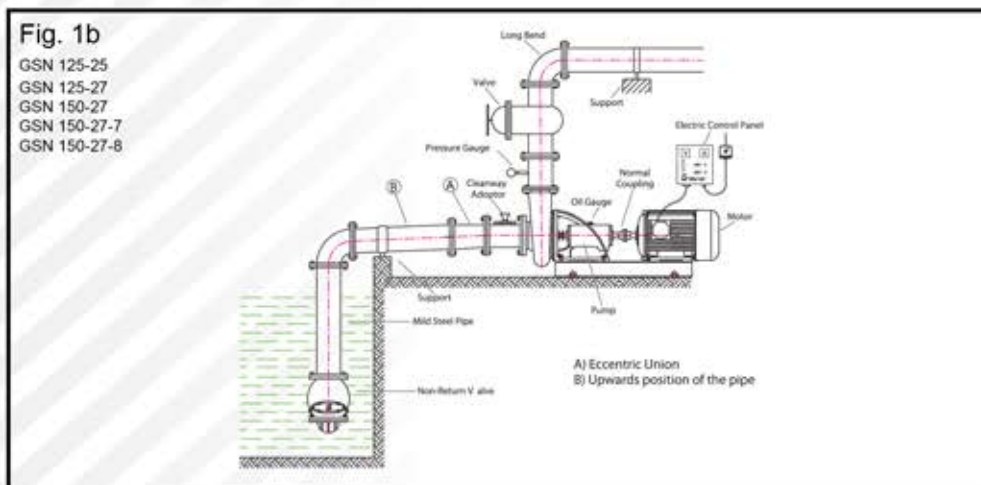
Note: GSH 40-21, GSH 50-16 and GSH 50-24 do not have 'Clean-Way Adaptor'.



- For connection of the suction inlet into the pipes with higher diameter, use an eccentric union (see figure below). In any case, the diameter of the pipes must not be inferior to the diameter of the in/outlets of the pump.



Note: GSH 40-21, GSH 50-16 and GSH 50-24 do not have 'Clean-Way Adaptor'.

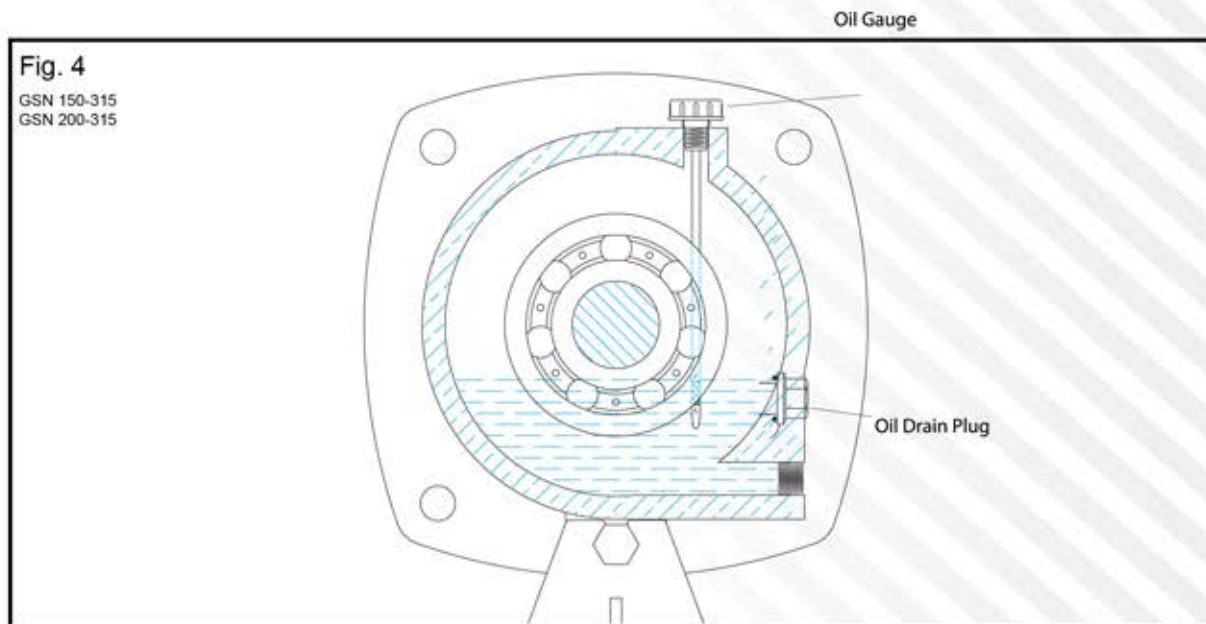


Lubrication

The bearings for the shaft of measures up to 40 mm are pre-lubricated for life and they do not require any maintenance. You are recommended to use only double sealed grease fixed Ball Bearing.

The bearings for the shaft of measures up to 40 mm are pre-lubricated for life and they do not require any maintenance. However, the bearings for the shaft of measures 55 mm are oil lubricated. The quality of the oil should be checked regularly and the level should be maintained according to the levels marked on the gauge.

Remove the oil gauge from the top and unscrew the oil drain plug from the bottom. Completely remove the oil from the Bearing Housing. When the bearing housing is completely empty, screw up the oil drain plug again. Fill up the bearing housing with the lubricant according to the level



marked on the oil gauge. Put the oil gauge back on the bearing housing before starting the pump. The first change of oil must be done after about 300 working hours of operation, and then it must be done after every 6000 working hours. This interval should be changed in case the oil is contaminated. Make this decision after inspection of the lubricant.

The temperature of the bearing housing can reach 60°C above the ambient temperature. But, in any case, it can't go over SOC, measures externally on the bearing housing.

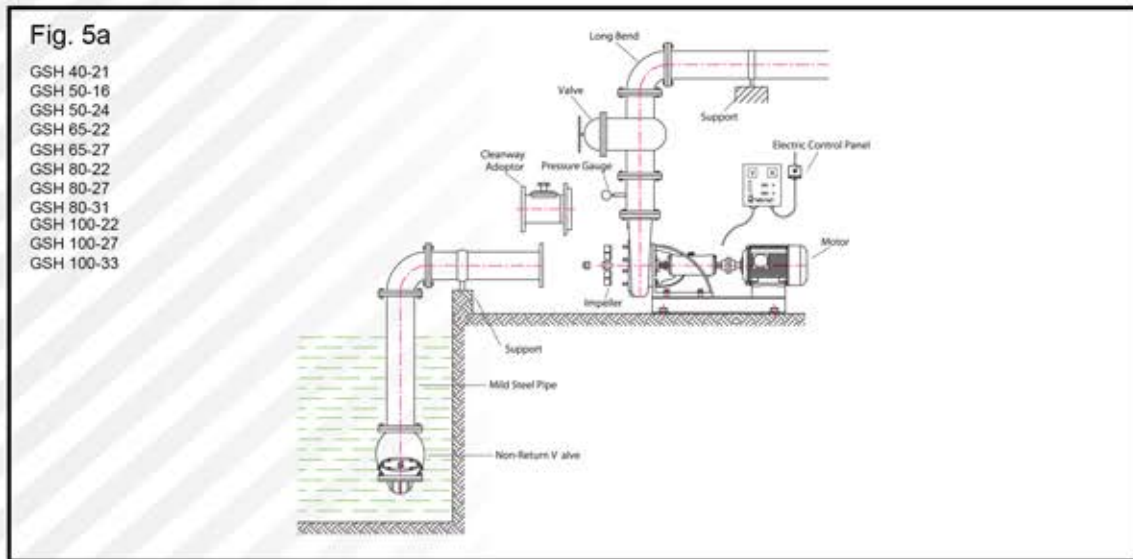
The oil quality should be of the following specs only: SAE 20 W / 20 HD or CLP 68 to DIN 51517 or ISO VG 100. Oil leakage from bearing housing is prevented by using 'Radial Shaft Seals' on both ends. See parts list for specs of oil seal used in your pump. Do not pour lubricant more than the recommended level on the oil gauge. Excess oil and the unlevelled ground surface where the pump set is mounted can cause the leakage of the oil seals on the Bearing Housings.

Sequence for Disassembly / Assembly

Skid Mounted Pump Directly Coupled with Electric Motor (Fig. 5a, 5b, 5c):

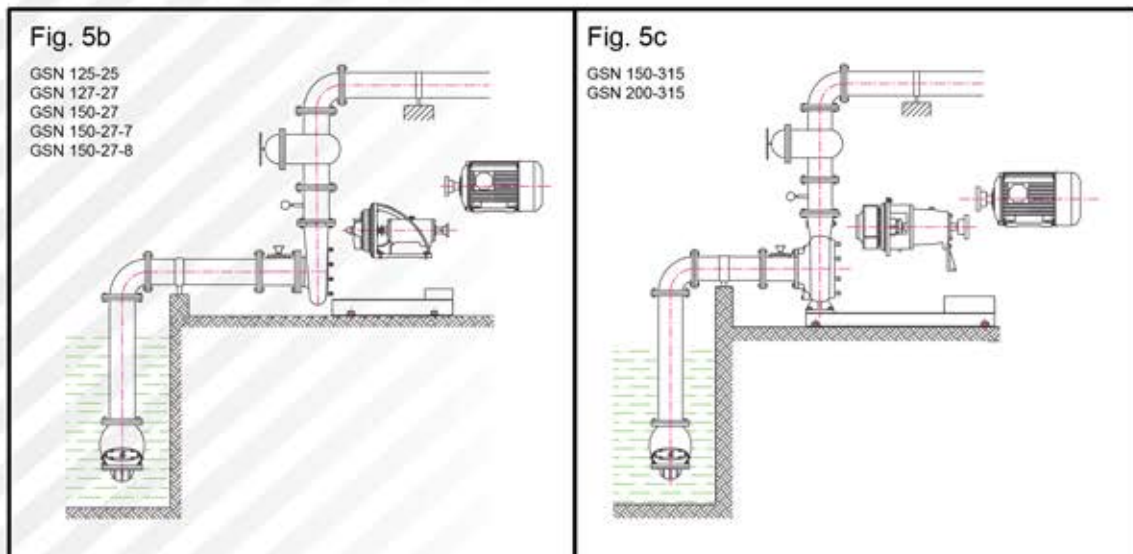
The pump can be disassembled for repair/maintenance without removing the Volute Casing from the Suction/Discharge pipelines. For disassembly remove the Clean-way Adopter, then unscrew the impeller nut. Now simply pull out the Impeller for repair/replacement.

However, if the bearings or shaft need to be repaired/replaced, then it is necessary to remove the Volute Casing from the pipeline after removing the Impeller. Now pull out the complete Bearing Housing Assembly for maintenance. Do the opposite for assembly.

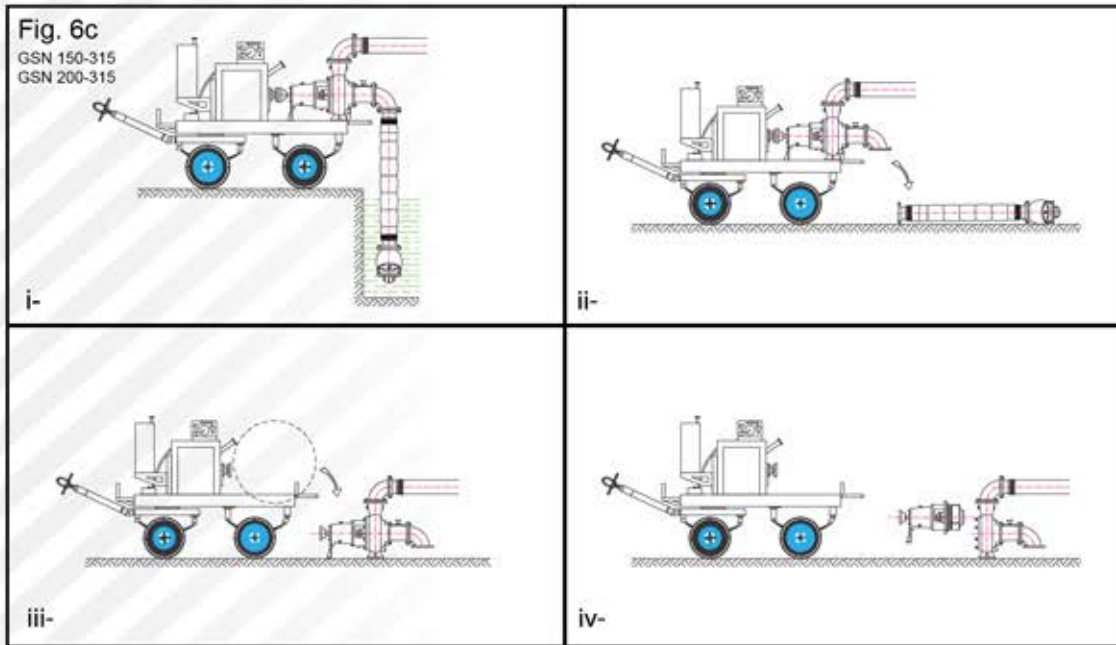


Note: GSH 40-21, GSH 50-16 and GSH 50-24 do not have 'Clean-Way Adaptor'

Pump can be disassembled for repair/maintenance without removing the Volute Casing from the Suction/Discharge pipelines. For disassembly remove the motor & then pull out complete Bearing Housing Assembly along with impeller from Volute Casing. Do the opposite for assembly.



Remove Suction / Discharge pipe lines from the Volute Casing. Now remove the pump from the Mobile Trolley and place it on leveled ground. Pull out the complete Bearing Housing Assembly, along with impeller, from the Volute Casing. Do the opposite for assembly.



Note

As we are constantly endeavoring to improve the performance of our products, we reserve the right to make alteration in our products from time to time, and actual product may differ from that detail mentioned in this brochure.

Company has been awarded ISO-9001:2015 'Quality Management Certificate. Company achieved this certificate for designing, development, procurement, manufacturing, inspection, testing, delivery and related after sales services of different types of pumps, electric motors, turbines and assembly of combustion diesel engines.

Performance, durability and reliability are the core values of **GOLDEN DYNAMICS**, which makes us one of the leading companies in Pakistan. This is the result of years of research, sheer hard work of experienced team members, talented engineers, highly skilled and devoted workers who are always busy not only maintaining the high standards in production but also continuously researching to enhance product quality.

Company would like to thank its valued customers, dealers and suppliers for their continuous support and feedback in all spheres of activities. Company is further improving efficiency to achieve excellence in its cordial customer relationship and ensure moral integrity in its dealings.

ISO Certificate

CERTIFICATE | ZERTIFIKAT | ΠΙΣΤΟΠΟΙΗΤΙΚΟ | CERTIFICA | 5344 | CERTIFICAT

CERTIFICATE



**Management System as per
EN ISO 9001 : 2015**

In accordance with TÜV AUSTRIA procedures, it is hereby certified that

GOLDEN DYNAMICS (PVT) LTD
G.T Road Gujranwala, PAKISTAN

Applies a Quality Management System in line with the above Standard for the following Scope

DESIGN & MANUFACTURING OF DIFFERENT TYPES OF PUMPS, ELECTRIC MOTORS AND TURBINES. ASSEMBLING OF COMBUSTION DIESEL ENGINES. PROVIDING OF RELATED AFTER SALES SERVICES.

Certificate Registration No.: 0418386067172



Rashid Mehr
CEO
Certification Body
at TÜV AUSTRIA

Valid until: 2021-05-02

Lahore, 2018-05-03

This certification was conducted in accordance with TÜV AUSTRIA auditing and certification procedures and is subject to regular surveillance audits.

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