GEM Pump

(Green Engineering and Management Co.,Ltd)

CATALOGUE

Submersible Sewage Pumps

APPLICATION

For Handling Pure, Raw and Waste Water as well as Seawater in

- Water Works
- Irrigation and Drainage
- Pumping Stations
- Power Stations
- Industrial Water Supply
- Fire Fighting Systems





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Series description

Product series

The SG series submersible sewage pump has been developed by our company through the adoption of advanced technologies from renowned pump designs. It features a high technical foundation, remarkable energy-saving performance, strong compatibility, and broad applicability. With its distinctive functions and reliable quality, the pump has earned wide recognition and praise from users, and has been selected as an import substitute for numerous national key construction projects.

Main applications

- Water Works
- Irrigation and Drainage
- Pumping Stations
- Power Stations
- Industrial Water Supply
- Fire Fighting Systems
- Raw and clean water pumps in waterworks and waste water treatment plants

Fluids handled

- Waste water
- Sludge
- Surface water
- Stormwater
- Grey water
- Seawater
- Brackish water

Design

- Fully floodable submersible pump in discharge tube (submersible motor pump)
- Not self-priming
- Close-coupled design
- Single-stage
- Vertical installation

Series Code

Example:
150SG-22
150 : Discharge Diameter mm
SG : Submersible Sewage Pump
22 : Power(kW)

Operating properties		
Caracteristic value		
Flow	Q	Up to 10000 m^3/h
Head	H	Up to 80 m
Motor rating	P2	Up to 160 kW
Fluid temperature	t	Up to +40°C
Column pipe	Dia.	65 – 1000 mm

Operating data

Drive

Submersible Motor : Three-phase asynchronous squirrel-cage motor

- Protection class : IP68
- Basic installation type : IM3013
- Voltage : up to 160kw, 380V 400V
- Insulation class : H
- Rated power : 50Hz
- Length of cable : 10m, 15m, 20m

Shaft seal (Double-mechanical seal)

Equipped with a double-faced mechanical seal installed within an oil chamber, ensuring that both the upper and lower seal faces operate consistently in a clean environment.



Seal	Material
Upper Seal Face	Corrosion resistant silicon carbide (Sic)
	Corrosion resistant Ceremic
Lower Seal Face	Corrosion resistant silicon carbide (Sic)
	Corrosion resistant Ceremic

Impeller type

The next innovative step to improve non-clog behavior handling higher rag and solid content uses unique vane geometry and Pulse-Out technology for highly efficient solids passage.

Bearings

Used rolling bearings, which can bear all the axial and radial loads and be isolated from pumped medium.

Lubricating Oil

Type of Lubricating Oil

-Turbine Oil (ISO VG32)

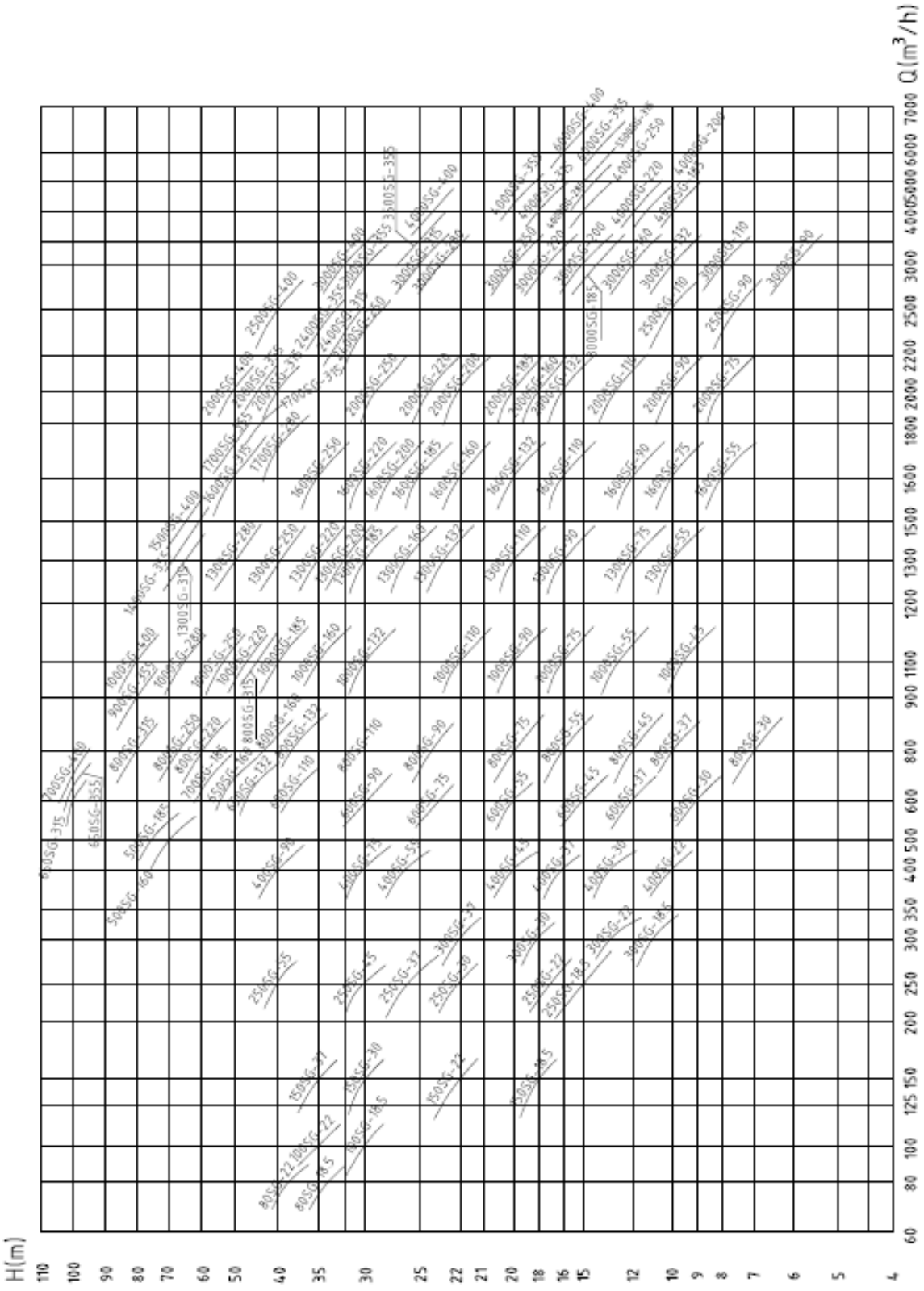
Special coating

The special coating on request.

Order Data

- Designation of the pump
- Flow Q
- Head H_{total}
- Type and temperature of the fluid pumped
- Voltage, frequency, starting method, cable length
- Quantity and language of operating manuals

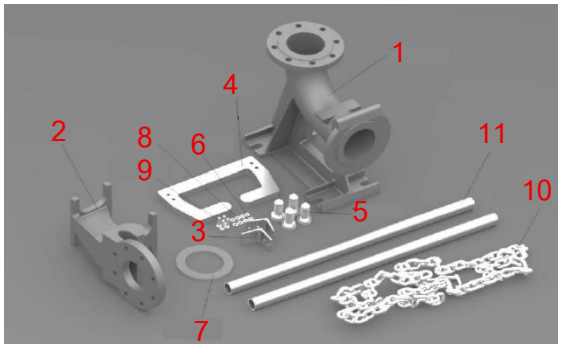
Performance range



Installation types

Automatic Coupling Installation



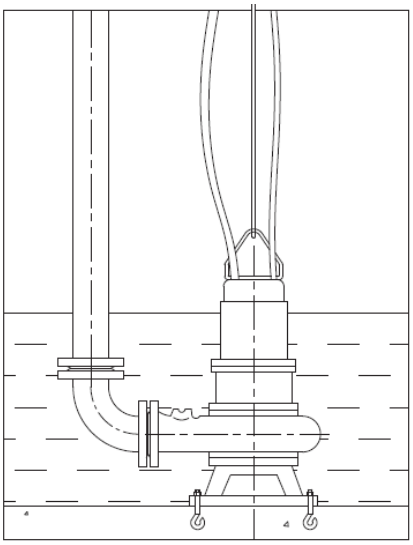


Part No.	Description	Part No.	Description
1	Duck Foot Bend	8	Hexagonal Screw
2	Clamp	9	Hexagonal Nut
3	Structural equal leg	10	Chain
4	Bracket	11	Guide pipe
5	Guide cap	-	
6	Flat Washer	-	
7	polyethylene washer	-	

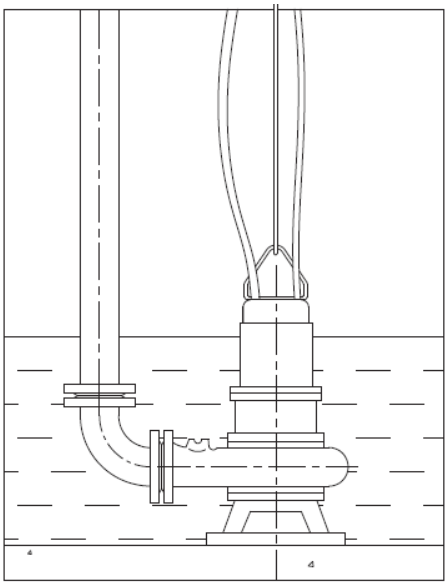
Automatic coupling installation actually USES coupling device to connect pump and pipeline.With the coupling device, the pump and the outlet line is independent of each other, without the need for conventional fasteners connection, so pump and outlet line connection and disconnection is very easy.Coupling device is very simple in fact, only out of the water pipe seat, guide rod, guide rod frame, coupling the four things, guide rod only play a guiding role, do not force, with ordinary water pipe or steel pipe can be, users can be self-provided, and can be very convenient according to the depth of the pool cut into the required length.When installation, the outlet pipe, guide rod, guide frame installed, the coupling loaded on the pump body, lift pump, wear the coupling frame of semicircle orifice into the guide rod and the pump to slide along the guide bar, coupling will put the pump body and outlet pipe fasten, at the same time, the pump body outlet and outlet pipe entrance automatic alignment, automatic tiejin flange end face.When you need to repair the pump, just put the pump up, the pump body and the outlet pipe seat off.This way of installation, really save worry, effort, trouble.
Since the coupling device and the pump are relatively independent, you can still use the original coupling device if your pump station needs to change to the same caliber pump with low head or high head due to the change of circumstances.

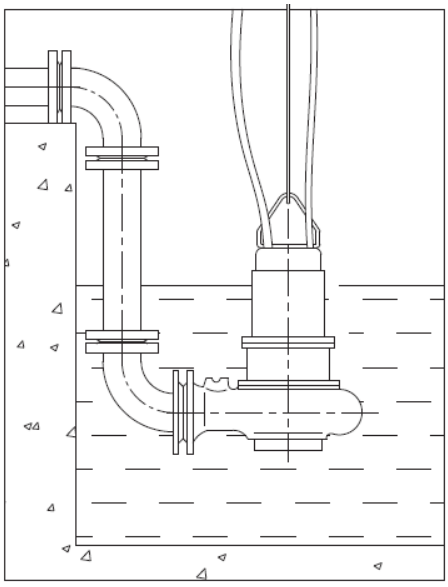
Fixed Installation

Fix the supporting base on the foundation and connect the outlet pipe to operate.The base needs to be bolted.



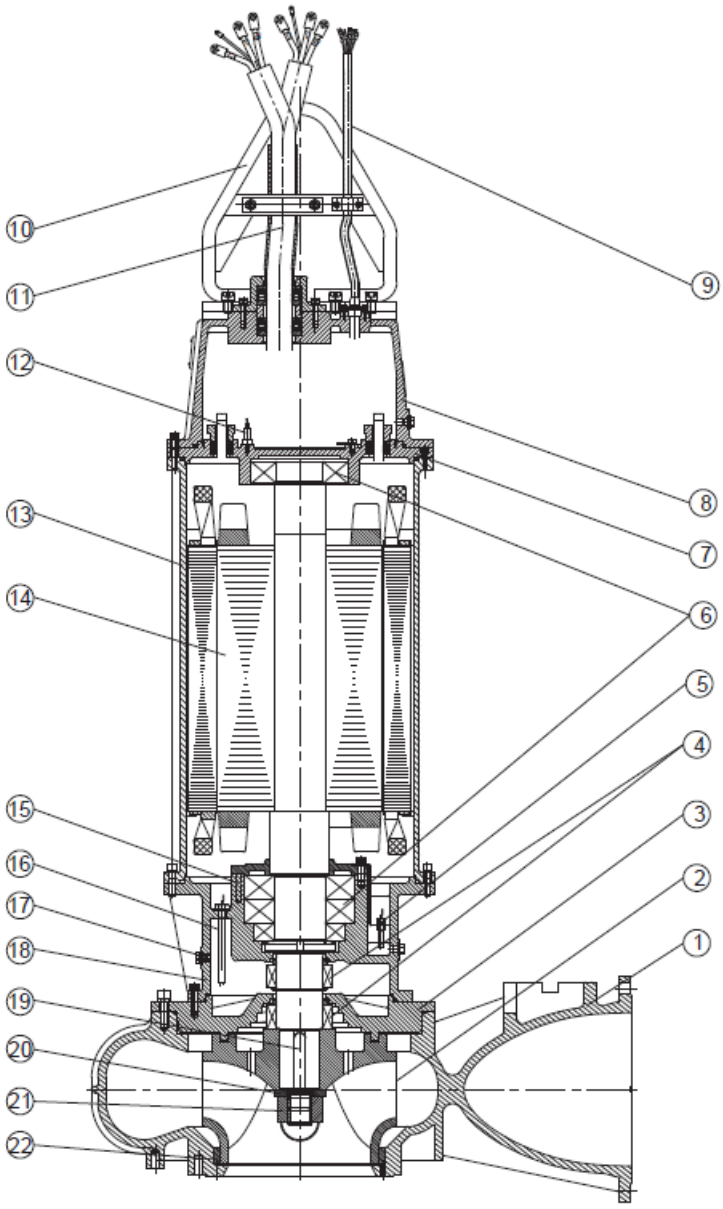
Support the pump by its base and connect the discharge hose or pipe to run the pump. This mode is mainly used for emergency use or repair or construction. If the pipeline for mobile pipe installation has enough stiffness, it is acceptable to hang the pump by pipeline for use.





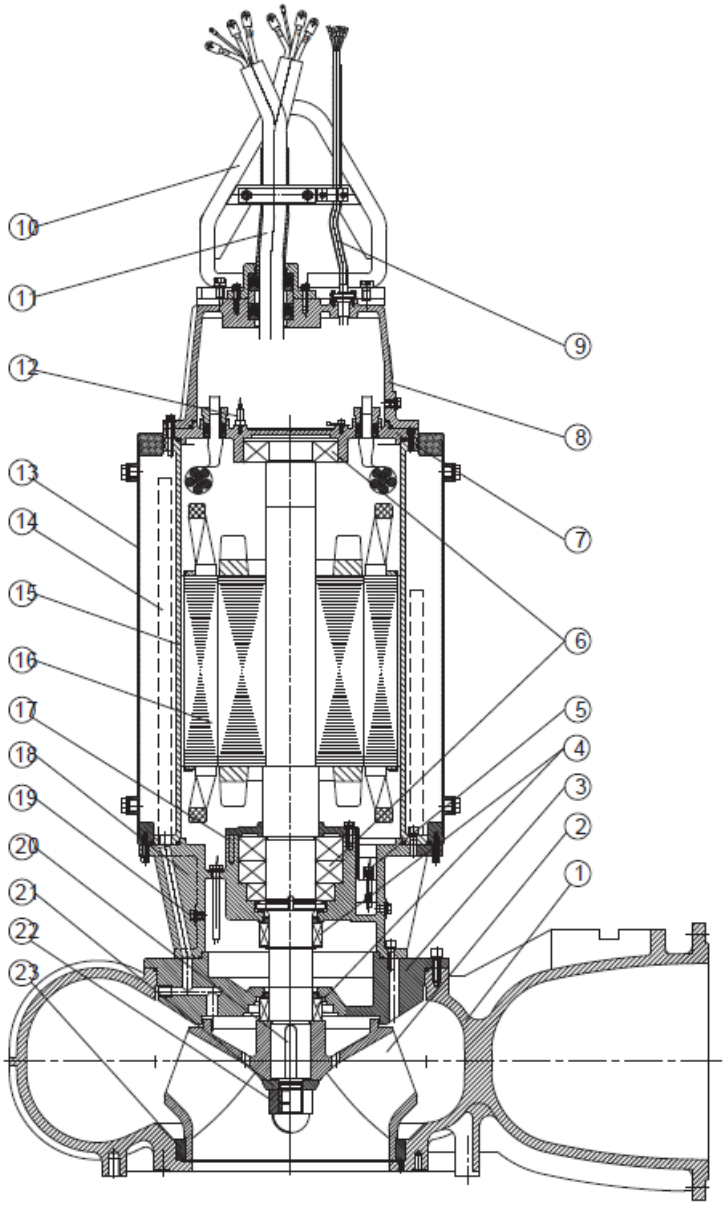
Structure Profile

Structure Diagram



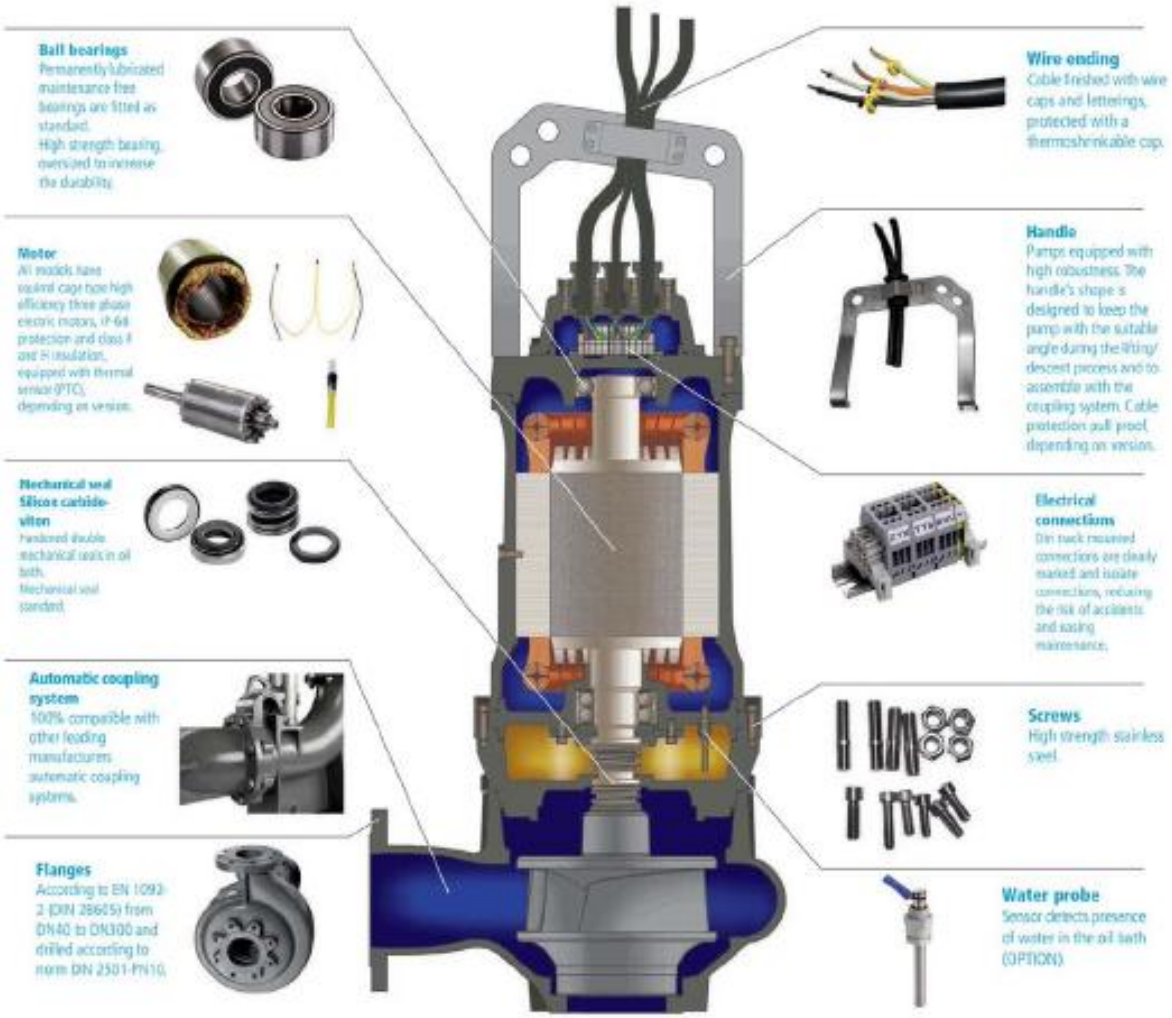
1. Casing 2. Impeller 3. Cover 4. Mechanical Seal
5. Leakage Detector 6. bearing 7. Upper Cover 8. Terminal Box
9. Control Cable 10. Handle 11. Pow.Cable 12. Vibration Sensor
13. Motor Case 14. Motor 15. B.T.S 16. Leakage Detector
17. Bolt and water hole 18. Bracket 19. Key 20. Impeller Plate
21. Impeller Nut 22. Seal Ring

Structure Diagram Withe Cooling jacket



1. Casing 2. Impeller 3. Cover 4. Mechanical Seal
5. Leakage Detector 6. Bearing 7. Upper Cover 8. Terminal Box
9. Control Cable 10. Handle 11. Pow.Cable 12. Vibration Sensor
13. Cooling Jacket 14. Cooling Pipe 15. Motor Case 16. Motor
17. Bearing PT100 18. Bracket 19. Bolt and water hole 20. Key
21. Impeller Plate 22. Impeller Nut 23. Seal Ring

Submersible Pump Cable Data Sheet





VORTEX NON-CLOGGED IMPELLER HANDLE FLUID WITH SOLIDS UP TO Ø35 MM