

SPERONI[®]
WATER PUMPS



SQ



water...is life!

Summary

- SQ bg_ be improve the same type pumps of the local and overseas. It optimizes the hydraulic, seal technology, structure, protection. And it innovates, makes it more reliable and safe. Easy to use, long service, good drainage capacity. The whole series is easy for selection. If fit with electronic control cabinet, which will protect pump.
- Optimize performance, two channel impeller, two to three mechanical seal, make mechanical seal lubricate, and cool better, run stable without clogging, easy to pass for pumped liquid.
- Mechanical seal is in serial, the shaft seal is more reliable, long service.
- The improve the structure is benefit for seal, running reliable, less vibration, optimized structure, pump is easy for usage.
- IPX8 motor, good cooling motor, temperature increase is lower than normal motor, durable, Class F insulation, long service of motor.
- There are many protections in the motor, easy for user selection.

Structure

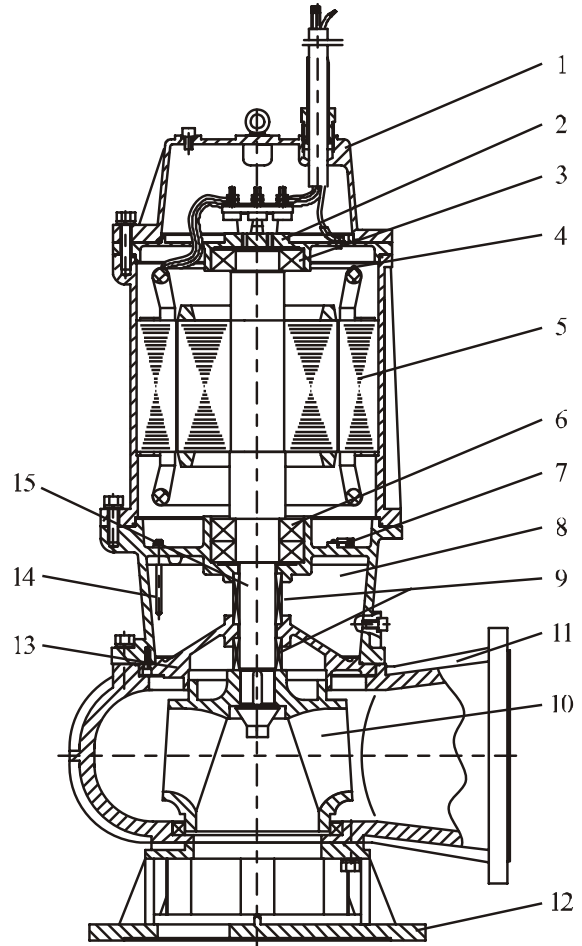
- Impeller: After optimized design, it can pump liquid with best flow and speed and efficient. Performance curve is flat, not easy to overload. There is less vibration of impeller, rotate stably.
- Motor: Specially designed submersible motor, the protection level is IPX8, Insulation class: F, cooling performance is good, long service
- Motor cooling: The motor heat is cooled by motor shell. As long as the liquid is over half of the shell within motor stationary part, it can run safely.
- Mechanical seal: Two or three sets of mechanical seal work in series. One seal separate liquid from the oil chamber. Another seal separate oil from the motor
- Oil chamber: There is suitable oil in the oil chamber, there are two mechanical seal, oil chamber is separate liquid from the motor. Prevent liquid go into the motor. If the first mechanical seal is leaked, there is oil in oil chamber to prevent liquid from going to the motor. And the two separate mechanical seals can be lubricated and cooled, it make mechanical seal work stably. and, it will take away part of the heat caused by bottom bearing.
- Bearing: The bottom bearing sets forms the stably support for shaft. According to the radial force, axial force and the load, the bottom bearing can be formed with two or three kinds of different bearings, to ensure pump work stable and service long life.
- Cable and mechanical seal:
 - 1.The cable is soft rubber cable which can resist sewage. It is designed according to ambient temperature 40 degree centigrade and motor full load working conditions. When pump is working, keep motor working at not full load or ambient temperature below 40 degree, pumps can work longer.
 - 2.There is seal between cable rubber cover and motor, it press them to prevent medium leak to motor cabinet.
 - 3.Cable slot and cables are rubber vulcanization, one rubber cover is broken, it can prevent medium leak to motor cabinet also.
- Motor shell: Base, bearing seat, motor cover composed the motor shell. There is seal at the part joint. Every pump is water pressure tested to ensure the seal.
- Safe protection in pump(Earthed professional power supply controlled cabinet):
 - 1.Oil water detector, it is installed in the oil chamber, check the leakage of the first mechanical seal(in the medium), when the medium leaked to oil chamber to some amount, it will alarm.
 - 2.Water in detector: It is installed in the motor shell, detect the second mechanical seal leak, when oil or oil water mixture go into the motor, water in detector will alarm and stop pump.
 - 3.Thermal part: It is installed in the windings of motor, if motor overload for long time, the temperature of windings will increase(or other reason cause temperature rise) to some amount, it will alarm and stop pump.
- Outer control system: The user shall use the professional control cabinet to control and protect pump.
- Special hand lift for easy movement. It is prohibited to pump/move pump by the cable, it will loose the seal between cable and motor cover, then motor will leaks. Fix cable on the hand lift also not prohibited to move pump with cable.
- Performance curve and main technical data: The performance curve show the suggested pump running scope. When the medium changed, be noted that run pump in the shaft power and motor power, when found overload, motor will burn.

Application

- Building, hospital, residential area, municipal projects, roads, factory sewage, small sewage treatment, etc. The pumped liquid is rain water, waste water with solid, long fabrics

Working conditions

- Power supply: 50Hz, 3PH, 380V
- Liquid temperature shall less than 40 degree centigrade, Ph value is between 4 and 10. Density shall less than 1200kg/m3, solid and liquid ratio shall less than 2%
- The lowest liquid level shall in conform to the lowest liquid in the size dimension
- The pump is not suitable for strong corrosive liquid or solid.
- The solid shall not exceed the max. allowed solid diameter.

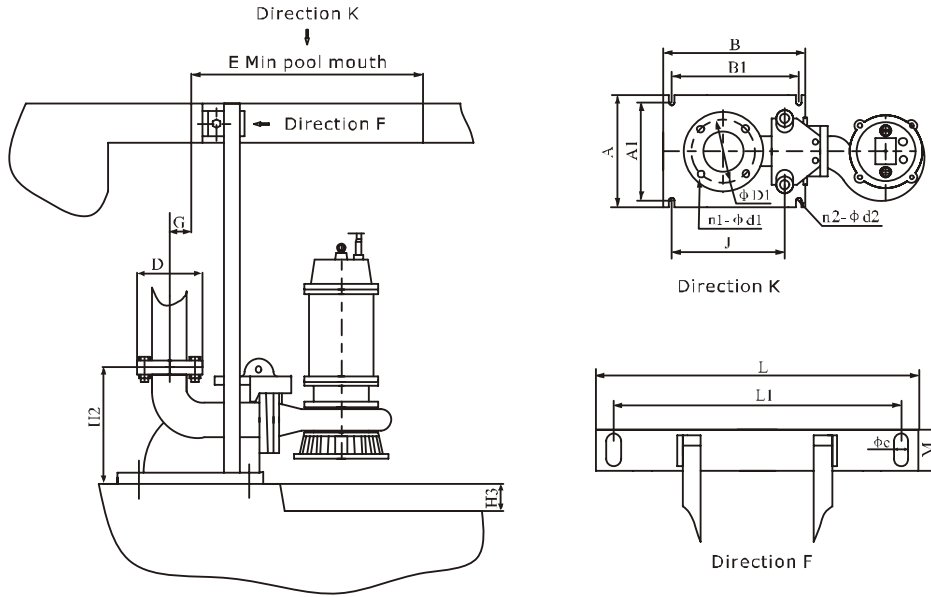


SN	Name	Material
1	Pump cover	Cast iron HT200
2	Upper bearing seat	Cast iron HT200
3	Bearing	
4	Heat control switch	
5	Motor	
6	Bearing	
7	Water in detector	
8	Oil chamber	Cast iron HT200
9	Mechanical seal	Sic/Tungsten Carbide
10	Impeller	Cast iron HT200
11	Casing	Cast iron HT200
12	Base	Cast iron HT200
13	Oil chamber cover	Stainless steel
14	Oil water detector	
15	Shaft	Stainless steel2Cr13

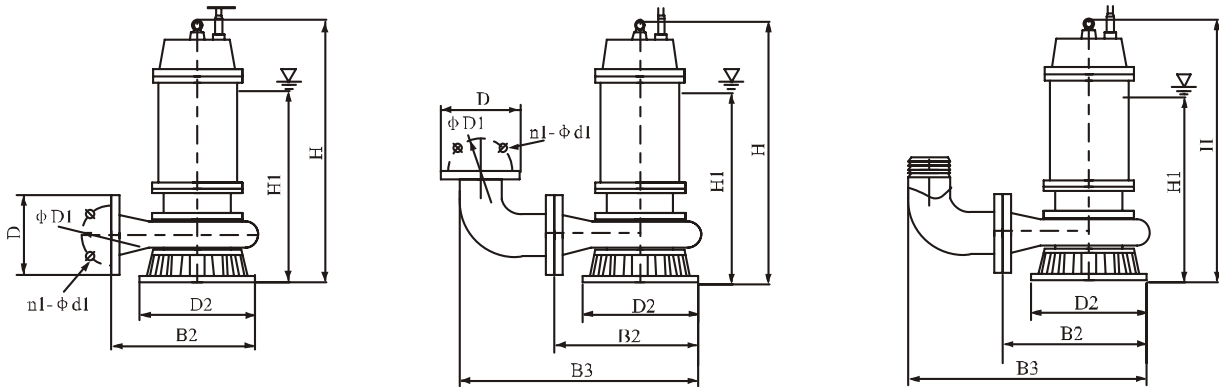
Installation type

For pumps, there is auto coupling device installation (Z),
hard pipe movable installation (Y), soft pipe movable installation (R)

Fixed auto coupling device installation



Movable installation



Hard pipe movable installation

Hard pipe movable installation with flange joint

Soft pipe movable installation

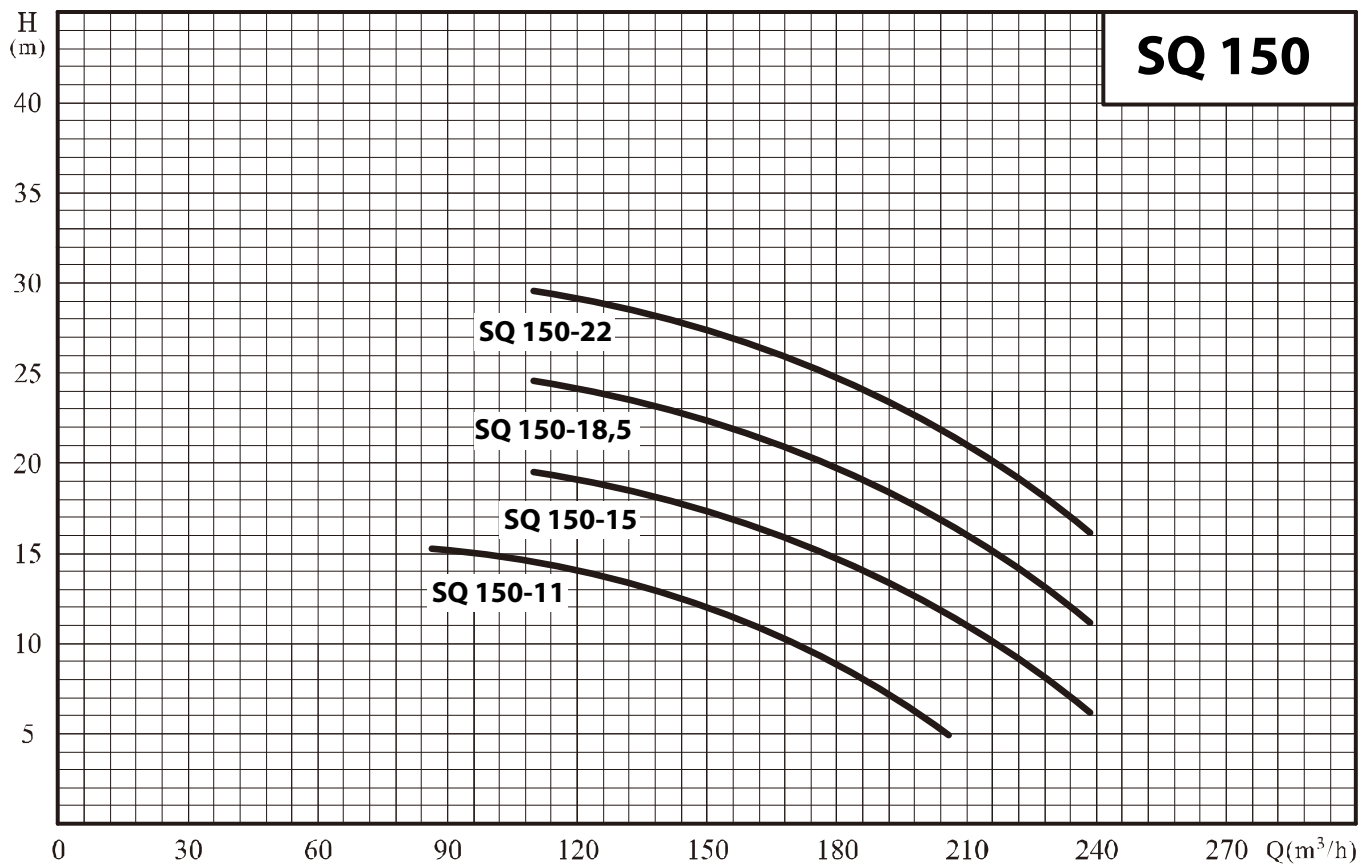
Coupling device dimensions

Model	Flange connection size PN6 (mm)			Coupling base dimensions (mm)					G	H2	H3	L	L1	m	φe	E
	D	D1	n1-φd1	A	A1	B	B1	n2-φd2								
SQ 150	265	225	8-φ18	400	300	410	350	4-φ18	190	480	200	410	260	60	15	1000×800

Dimensions

Item	Diameter
Guide rod Tap pipe/Steel pipe	1.5 " /48×3.5
Guide rod length	Pool depth - 390
Quantity of expansion bolt and specification	3-M12×150
Quantity of bolt and specification	4-M16×250
footer bolt hole size	80×80×300
Dia. of rubber pipe	6 " /150

Measure: mm (except inch)



Technical data and dimensions

Model	Q	H	Speed	Power	Current	Max. dia. of passing solid (mm)	Dimensions(mm)										Weight (kg)
	(m³/h)	(m)	(rpm)	(kW)	(A)		H	H1	B3	B2	D2	d	D	D1	n1-φ d1		
SQ 150-11	150	12	1450	11	23.6	45	1050	1000	820	620	420	150	265	225	8-φ 18	210	
SQ 150-15	180	15	1450	15	32.0	45	1050	1000	820	620	420	150	265	225	8-φ 18	200	
SQ 150-18,5	180	20	1450	18.5	37.0	45	1080	1030	820	620	420	150	265	225	8-φ 18	290	
SQ 150-22	180	25	1450	22	45.0	45	1080	1030	820	620	420	150	265	225	8-φ 18	315	