Submersible Pump

QSB-JH-400B(Q400B3)

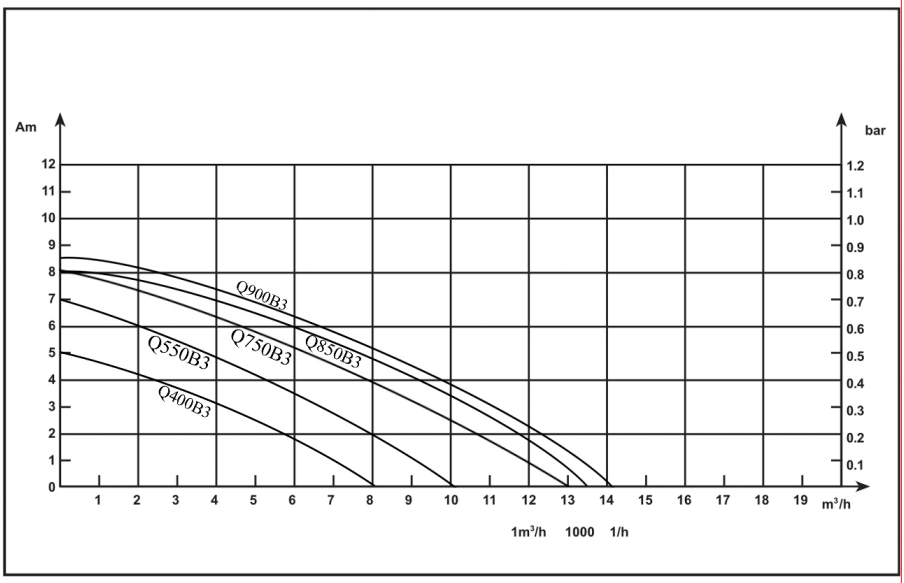
QSB-JH-550B(Q550B3)

QSB-JH-750B(Q750B3)

QSB-JH-850B(Q850B3)

QSB-JH-900B(Q900B3)

Operating Instructions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bar
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Q900B3
Q850B3
Q750B3
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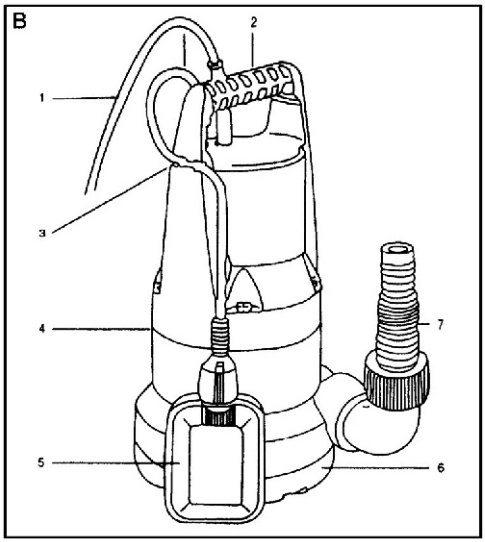
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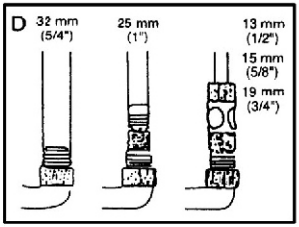
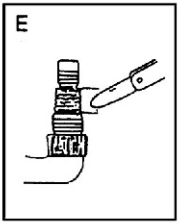

D
32 mm
(5/4")
25 mm
(1")
13 mm
(1/2")
15 mm
(5/8")
19 mm
(3/4")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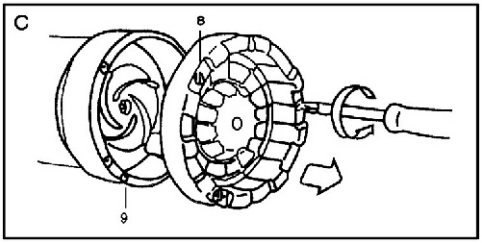
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Operating Instructions

Q400B3 Q850B3
Q550B3 Q900B3
Q750B3

1.Information concerning the Operating Instructions

Please read these operating instructions carefully. Follow the information given. Use the operating instructions to get acquainted with the proper use of your Submersible Pump.

For safety reasons, people who are not familiar with these operating instructions should not use this Submersible Pump.

Following the operating instructions supplied by the manufacturer is a prerequisite for the proper use of the pump.

2.Application Range and Liquids to be pumped

Submersible pumps have been designed for private use around your house and garden. Submersible pumps are predominantly used for drainage after follding, transfer of liquids, draining containers, taking water from wells and shafts, draining boats and yachts as well as for water aeration and circulation for limited period of time.

The pumps are fully submersible (waterproof sealed) and can be submerged down to a depth of 5m (Q400B3/Q550B3/Q750B3/Q850B3/Q900B3) into the liquid.

Liquids which can be handled by the Submersible Pump are the following clean or slightly contaminated water (max.particle size 5mm or 0.5mm) and soapy water.

Corrosive, easily combustible or expolsive substances (e.g. gasoline, petroleum, nitro thinner), fats, oils, salt and waste water of toilets and urinals must not be pumped.
The temperature of the liquid handled should not exceed 35°C.

The pumps are not designed for continuous opration (e.g. continuous circulating operation); your pump's life will be shortened correspondingly by such operation.

3.Functional Parts (ill. B/C)

1.Power cable
2.Carrying handle
3.Folat switch lock
4.Vent valve
5.Float switch
6.Suction base
7.Universal fitting
8.Cross recessed head screws
9.turbine

4.Measures before Operation

4.1 Hose Connection

Screw the supplied fittings onto the pump, as described in ill.B. The universal fitting (7) allows connection of 32mm (5/4"), 25mm(1"), 19mm(3/4") as well as of 13mm (1/3") hoses, according to your indvidual requirements, 32mm (5/4") hoses are connected to the pump via the step nipples of the universal fitting, 19mm (3/4") and 13mm (1/2") hoses with Hose Connection system parts (ill.D). It is recommended to fox 32mm (5/4") and 25mm (1") hoses additionally with a hose clamp.

Components of the universal fitting which you don't require (when connecting 32mm (1/2") hoses are detached with a knife from the universal fitting (ill.E).

Best results in delivery capacity are achieved vhen using 32mm (5/4") hoses.

4.2 Float Switch Adjustment

The float switch (5) automatically switches on the pump at a water height of approx 53cm (Q400B3/Q550B3/Q750B3/Q850B3/Q900B3) and automatically switches off at a water height of approx 5cm BY fixing the float switch cable to the float switch lock (3).
the cut-in/cut-0ut height can be adjusted individually.

4.3 Location and Transport

- Please take care that the pump is located in a stable position (especially for automatic operation).
- In addition pay attention, that in case of automatic operation the float switch can move free.
- Take care that the pump is located in a way ensuring that the inlet openings at the suctions base are obstrcucted neither completely nor partly, Therefore, it is advisable to place the pump for example on a brick.
- Don't use power cable or float switch for carrying or hanging up the pump. When submerging the pump is wills or shafts. please use a rope which is to the fastened to the pump's carrying handle (2).

5. Operation

5.1 Automatic Operation

After having connected the power cable, the pump is automatically switched on at a definite water height (cut-in height) and switches off as soon as the water level drops down to a definite water height (cotout height).

5.2 Manual Operation

In case of manual operation the Submersible Pump srarts when the power cable has been connected and the float switch has been lifted.

6. safety Hints before Operation

- For safety reasons the Submersible Pump should always be operated via a circuit breaker safety switch (FI switch) with rated fault current of ≤ 30mA. According to VDE (German Electrical Engineers' Association) 0100, useing garden ponds and fountains is only permissible if the pump is operated via a circuit breaker safety switch.
  The Ground Fault Circuit Interrupter, art. no 1737, or another autborised safety switch can be used ad additional safety device Furthermore. installation regulations according to VDE 0100 part 072, have to be observed. Please contact your electrician.
- In Austria, according to OVE B/EN 60 555 part 1 to 3, pumps which are used in swimming Pools and garden ponds, and equipped with firm power cable should be fed via an OVE approved isolating transformer-rated voltage must not exceed 230V or 120V.
- Always check the pump (above all power cable and plug) before each operation. A damaged pump must ont be used. It is absolutely necessary to have the pump checked by your electrician Cable quality H05RN-F OR H07RN-F.

- Take care that the electrical connections are made within dry area, protected rom flooding.
- protect plug and power cable (1) from heat, oil and sharp edges.
- Check line voltage. Data indicated on the type plate must match technical data of the mains supply.
- Children under the age of 12 are not allowed to operate the pump
  Keep them away from the connected unit.
- Before use, first clear the outlet line.
  Observe the minimum water level (see point 9 "Technical Data").
  Observe max. delivery height (see point 9. "Technical Data").
  Have the professional electricican or your agent replace the damaged cable.
  Please use a protective switch. (It's drair current is no more than 30mA.)

7. Operating Hints

- Dry-running operation causes increased wear and is to be avoided. Therefore, the pump must be immediately switched off when water fails to flow.
- The pump is automatically switched off on overheating by the built-in thermal motor protector. After having cooled down, the motor automatically switches on again. (reasons and remedy, see Trouble Shooting Guide, point 11).
- In order to unplug, pull the plum shell not the power cable.
- The power cable (1) must not be used for mounting or relocating the pump For submerging or lifting/securing the pump. fix a rope to the carrying handle (2).
- After having pumped chlorinated swimming pool water or other liquids leaving residues, the pump should be rinsed with clear water.
- Sand and other abrasive matcrial in the liquid cause increased wear and reduce the pump's output.
- Avoid running of the pump for more than 10 min, against closed delivery side of the pump.
- The Submersible pump sucks off down to a residual water height of approx. 5mm. This flat suction height of approx. 5mm. This flat suction height is only reached in case of manual operation (see point 5. "Operation"), but not In case of automatic operation.
- The Submersible Pump is equipped with an qutomatic deaerating device whose function is to remove probable air licks in the pump. If the water level drops below the vent valve(4), some water flows penetrates outsise through the vent valve. This I not a defect or your pump, but serves to deaerate the pump.
- If in case of manual operation the pump has sucked off completely and water flows again after the pump operation, the pumpisn't deaerated automatically. Then, the pump has to be switched off for a short time and then switched on again.

8. Maintenance. Care, Storage Caution! First always unplug the pump before working on it!

Submersible pumps are virtually maintenance-free.

In case of contamination inside the pump, the suction base (6) can be taken off by unscrewing the 3 cross recessed head screws (8).

Thus the turbine space can be cleaned.For safety reasons a damaged turbine (9) can only be exchanged by the Service Centre.

Caution! Repairs on electrical parts should only be done by our Service Centres.

To protect the pump from frost damage,store the pump in a dry place.

9.Technical Data

	Q400B3	Q550B3	Q750B3	Q900B3	Q850B3
Rated Powert	400W	550W	750W	900W	850W
Max. delivery capacity	8000l/h	10000 l/h	13000l/h	14000 l/h	13500 l/h
Max. pressure	0.5bar	0.7bar	0.8 bar	0.85bar	0.8 bar
Max. delivery height	5m	7m	8m	8.5m	8m
Max. submersion depth	8m	5m	5m	5m	5m
Flat submersion height approx	5mm	5mm	5mm	5mm	5mm
Cintaminated water with particle size of max.	35mm	35mm	35mm	35mm	35mm
Power cable	10mH05RN-F	10mH05RN-F	10mH07RN-F	10mH07RN-F	10mH07RN-F
Fitting	32mm(5/4")-/ 25mm(1")-universal fitting,option hose connection sustem parts	32mm(5/4")-/ 25mm(1")-universal fitting,option hose connection sustem parts	38mm(3/2")-/ 25mm(1")-universal fitting,option hose connection sustem parts	38mm(3/2")-/ 25mm(1")-universal fitting,option hose connection sustem parts	38mm(3/2")-/ 25mm(1")-universal fitting,option hose connection sustem parts
Min.water level for operation	7cm	7cm	7cm	7cm	7cm
Weight approx	5Kg	5.2Kg	5.6Kg	5.2Kg	6Kg
Max. media temperature	35°C	35°C	35°C	35°C	35°C
Voltage/Frequency	230W,50Hz 120W,60Hz	230W,50Hz 120W,60Hz	230W,50Hz 120W,60Hz	230W,50Hz 120W,60Hz	230W,50Hz 120W,60Hz
Cut-in height	53cm	53cm	53cm	53cm	53cm
Cut-out height	10cm	10cm	10cm	10cm	10cm

Attention: The cut-in and cut-out height vary, The indicated valucs, are average values and are not valid when the float switch is not tixed to the float switch lock (3).

Performance characteristics (ill.A)

10. Safety and Approval

Submersible Pumps are manufactured in accordance with

the current electrical safety regulations of the Appliance Safety Law (GSG) and inspected by the TUV (German institution for technical surveyance).

11.Truble-Shooting Guide

Problem	Probable cause	Remedy
Pump is running, but doesn't deliver	Air cannot escape, since pressure line is closed.	Open pressure line(e.g. kinked pressure pipe).
	Air locks in the suction base.	Wait for max.60 seconds until the pump deaerates automatically over the vent valve. If necessary, switch off and start it again.
	Turbine clogged.	Clean turbine (see point 8).
	When starting the pump, wather height falls below the min. water level.	Submerge pump deeper (see min. water level, point 9.).
Pump doesn't start or suddenly stops during operaion	T'hermal overload switch has switched the pump off due to overheating.	Disconect plug and clean turbine (see point 8.). Observe max. media temperature of 35 C
	No power.	Check fuses and electuic connections.
	Dirt particles (for example pebbles) are jammed in the suction base.	Disconnect plug and clean suction base (see point 8.).
Pump runs, but output suddenly decreases.	Suction base is clogged.	Clean suction base (see point8.)

We expressly point out-that in accordance with prodluct liability law-we are not liable for damage caused by our equipment if it is due to improper repair or if parts have been exchanged not using our Original parts or parts approved by us and if the repairs were not carried out by the Technical Service. The same applies to supplementary parts and accessories.