

GV-Sub Pump Series

Catalogue & Manual



Contents

1. Introduction	→	Pg 3
1.1GV-ElecMotor Series	→	Pg 4
1.2GV-Pump Series	→	Pg 5
2. Characteristics	→	Pg 6
2.1SV-Sub Pump Series	→	Pg 6
2.2GV-Sprayer	→	Pg 7
3. Comparison	→	Pg 8
3.1Performance graph	→	Pg 10
4. Installation/Set-Up/Star-Up	→	Pg 13
5. Warranty	→	Pg 14

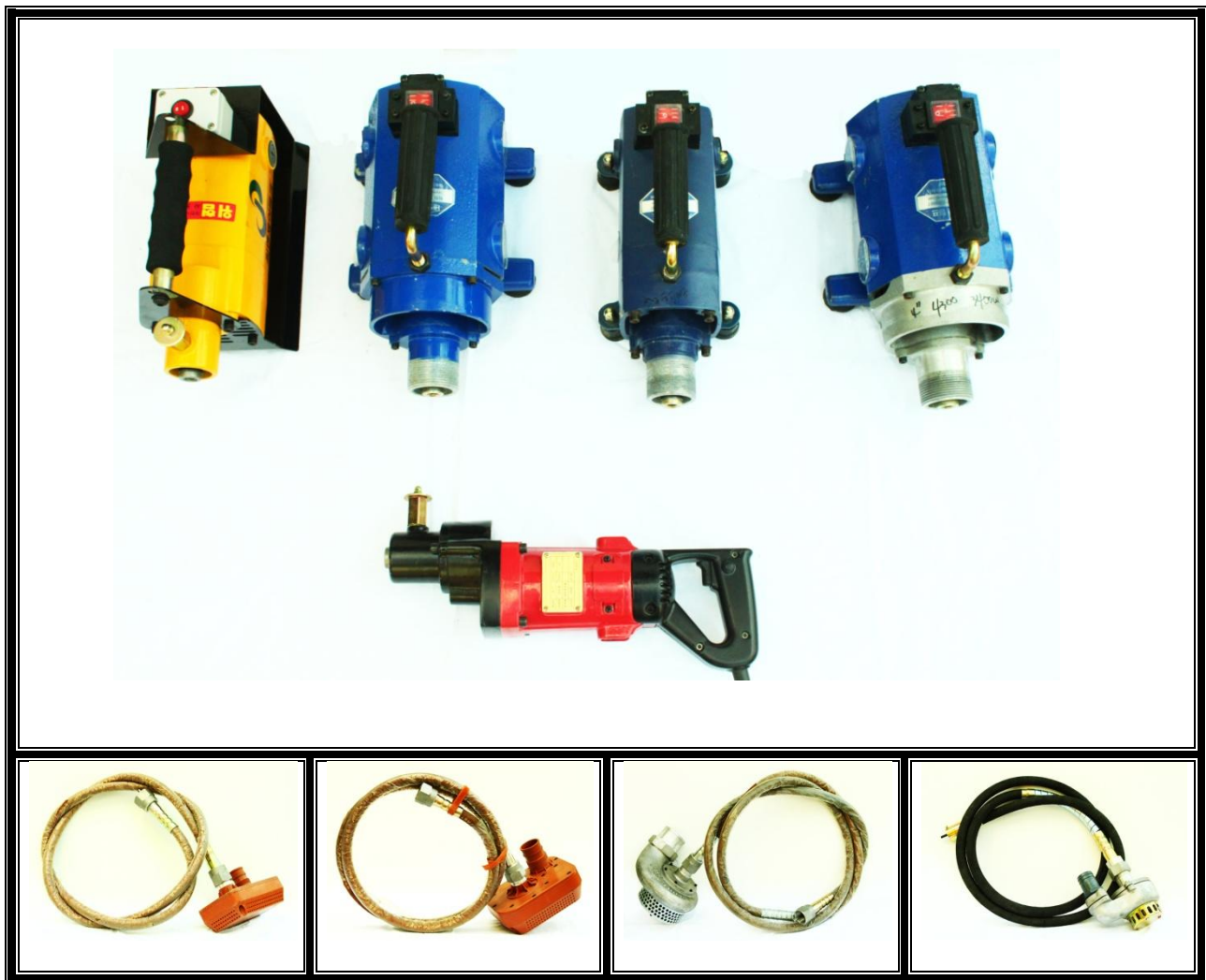
1. Introduction

The climate has changed dramatically for the past few years. We have seen cities being flooded all around the world and expected to see more of this flooding in the future. Therefore the water pump has become indispensable in our daily lives.







Our Submersible water pumps have proven its effectiveness with low cost. And best of all it is easy to use, unlike other conventional engine driven water pumps. Our pumps are being used by the City and featured on the national news in Korea.

We strive to make the utmost efforts for customer satisfaction with the best quality and service. It is our duty to meet the expectation of the customers with constant technology development, up-to-date machinery and equipment, and expert know-how. With its solid foundation, we will meet customers demand on the basis of technology through constant research and efforts.

We will excel in every aspect and duty as the leader in the construction equipment.



1.1 GV-ElecMotor Series

GV-ElecMotors	Model Name	Power (W)	Speed Of Motor (RPM)	Maximum Lift	Maximum Capacity (ℓ/min)	Weight (Kg)	Note
	GVH-Emotor	1,050	3,600	8	300	3.5	Works on GV2-Pump (2 Inches hose) or Vibrator
	GV23-Emotor	2,400	3,600	8	400	4	Best performance with GV2-Pump and GV3-Pump
	GV2-Emotor	1500	3600	16	530	4	GV2-Pump
	GV3-Emotor	2200	3600	12	950	7	GV3-Pump
	GV4-Emotor	3800	3600	5	1,800	7	GV4-Pump
N.A	GV6-Emotor	6,800	4,000	5	5,500	25	GV6-Pump
	GV-Brush Cutter	Engine	1,720	10	400		When used with GV2T-Pump

*All the motors operate on 220v (from household power)

*All the GV electric motors come in with water resistant case

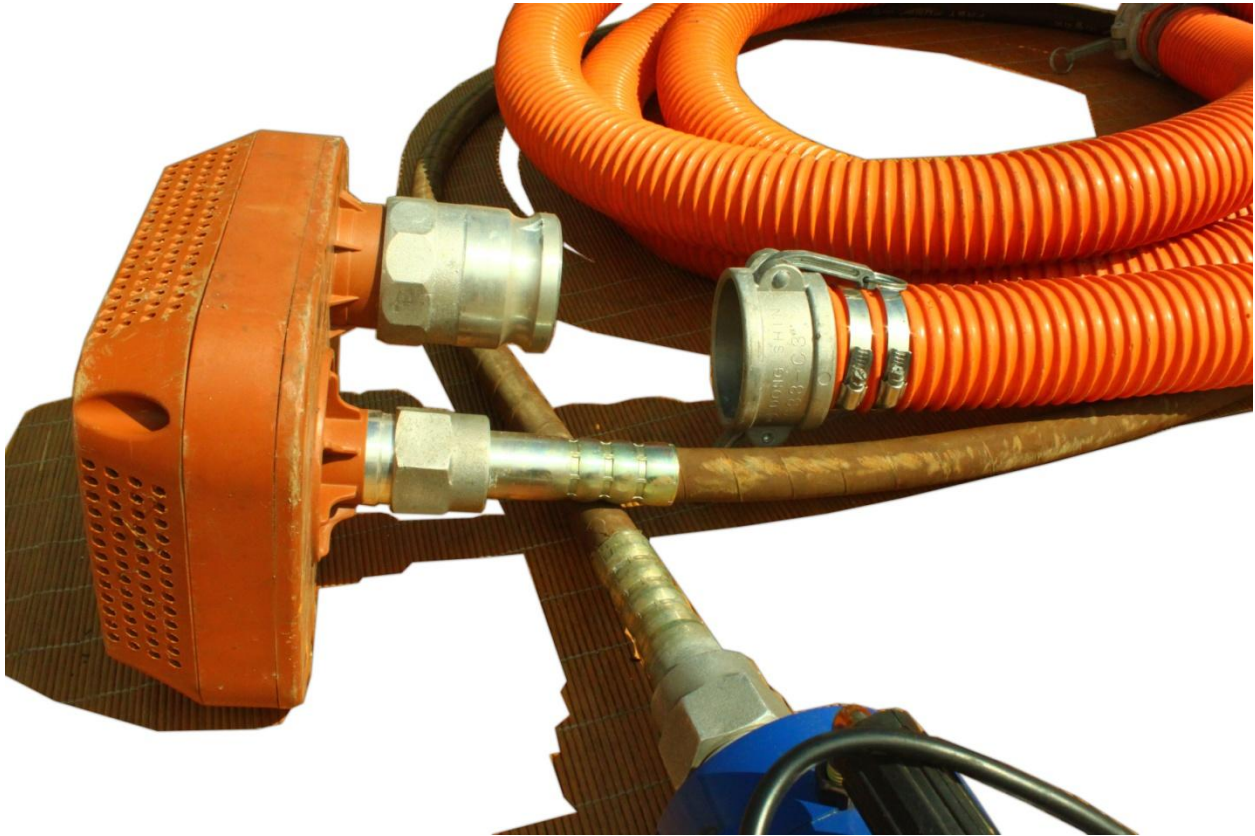
1.2 GV-Pump Series

GV-Pump	Model Name	Pumping Depth	Weight	Note
	GV2-Pump	3.5m ~ 5m	12 g	2 inch hose
	GV3-Pump	3.5m ~ 5m	16 kg	3 inch hose
	GV4-Pump	3.5m ~ 5m	22 kg	4 inch hose
N.A	GV6-Pump	3.5m ~ 5m	38 kg	6 inch hose
	GV2T-Pump	3.5m ~ 5m	7 kg	2 inch hose, works with brush cutter
	GV-Sprayer	Maximum Hose length : 200m Spray distance : 10m Capacity : 7L/Min	4 kg	Can fit into any type of brush cutter.

2. Characteristics

2.1 GV-Sub Pump Series

- Made of MPPO plastic
- High corrosion resistance, last longer, can be used for sea water and other chemical
- Box shape improves the performance of the pump; prevents the pump from being clotted or blocked
- Prevents electrical accidents (Water resistant case)
- The GV-Sub Pump series includes submersible water pumps for both clean and dirty water and they can drain water to a level of 20 millimeters
- Operate on 100v ~ 220v (80A). Household power.
- From installation to operation takes 1 minute.



GV-Submersible pump are made of special plastic called MPPO, modified polyphenylene oxide. It is durable and lightweight and unlike other metal based pump, it can be used to operate on seawater due to high corrosion resistance.

Our patented box shape pump for 2 ~ 3 inches hose improves the performance and prevents the pumps from being clotted and blocked by eliminating vortex effect around the pump.

Our GV-Emotor operates on ground which prevents any electrical accidents which is very different from conventional submersible pumps. All our GV-Emotors are encased in a water resistant case for safety feature.

All GV-Emotors can be operated by household power (220v) and it can still do equally better job compared to any other industrial water pump which can only operated on heavy power source.

It is so easy to use and anybody can learn to install and operate this submersible pump in one minute!

2.2 GV-Sprayer

GV-Sprayer can be fitted into any type of brusher cutter and use it for watering the plants, spraying the pesticide and even washing your car. It can cover up to 110 m in radius from the source (water, patricide, etc).

If you already own a brush cutter, GV-Sprayer is a must have item.

*GV-Sprayer also works with GV-ElecMotor Series.

3. Comparison

So why GV-Submersible water pump?

These 2 tables show the comparison between our pump and other manufacturers and it is obvious that our pump performs better or equally better with such a low power and small weight.

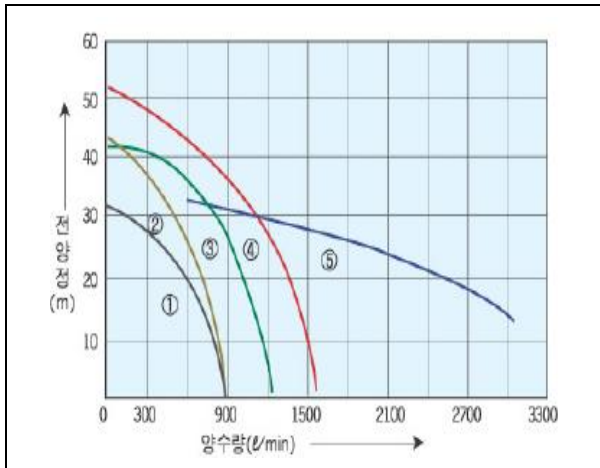
Model Name	Power (kW)	Average Lift (m)	Maximum Capacity (ℓ/min)	Speed of Motor (rpm)	Weight (kg)
GV-Sub Pump	3.4 (4.5Hp)	10	1,500	5,100	7
HA Company PCH-xxx	11.2	51	1,540	3,600	170
HY Company HSV-xxx	7.5	6	1,400	3,600	100
K Company KSB-xxx	11.2	35	1,200	3,600	220
D Company DS-xxx	15	40	1,200	3,600	220
T Company TYP-xx	11.2	35	1,000	3,450	148

*Comparison between other well-known Korean manufacturers

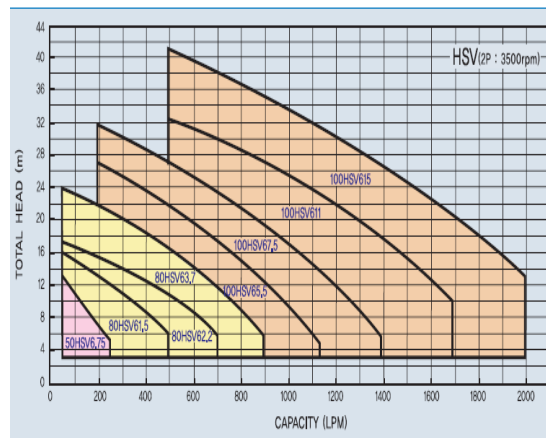
Model Name	Power (kW)	Average Lift (m)	Maximum Capacity (ℓ/min)	Speed of Motor (rpm)	Weight (kg)
GV-Sub Pump	3.4	10	1,500	5,100	7
W Company PDH-xxx	30	60	16	3,450	-
G Company GOxx-xx	5.6	130	530	-	62
F Company GPxx-xx	5.5	112	630	3,600	61
S Company ST-xxx	5.5	87	730	3,600	60

*Comparison between other well-known international manufacturers

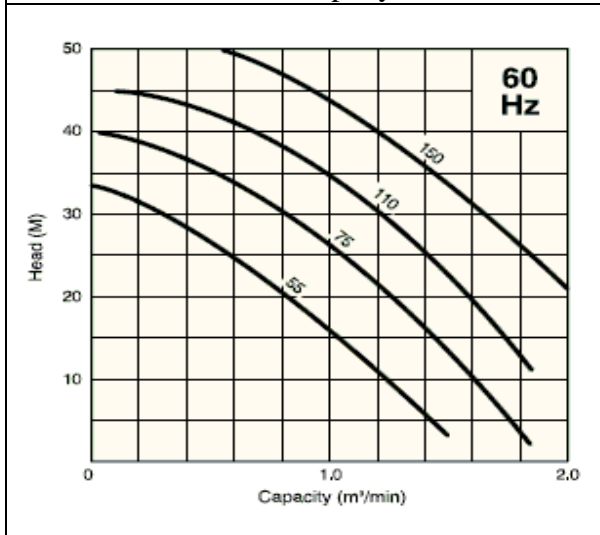
3.1 Performance graph



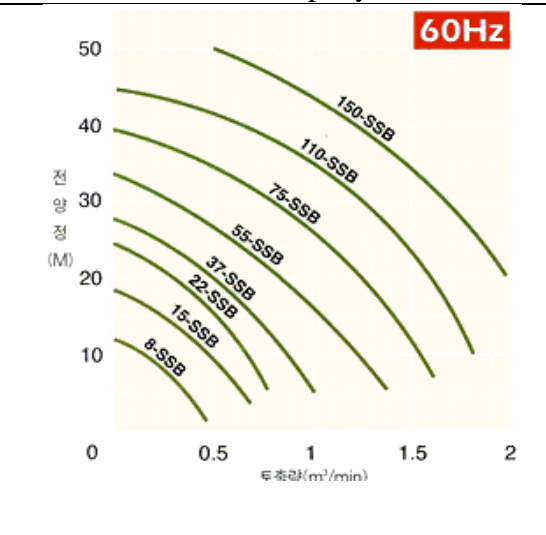
HA Company



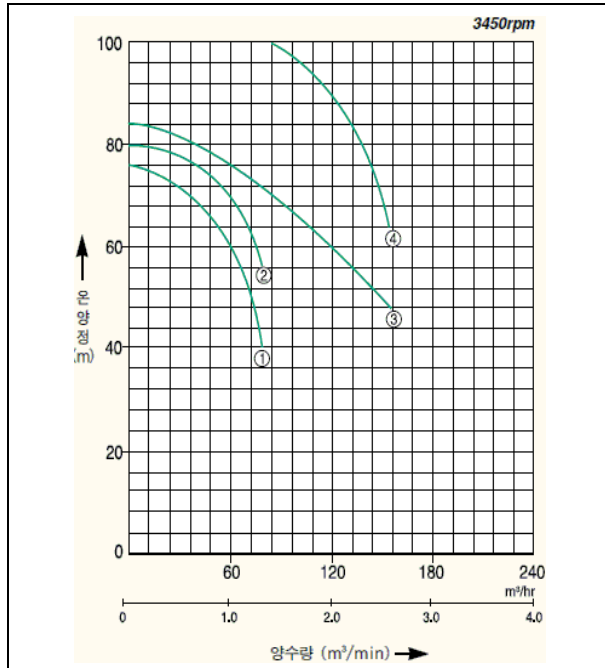
HY Company



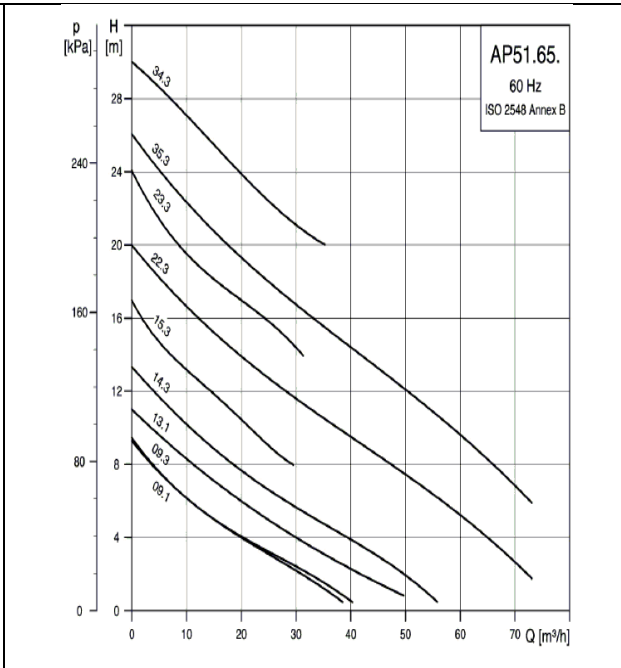
K Company



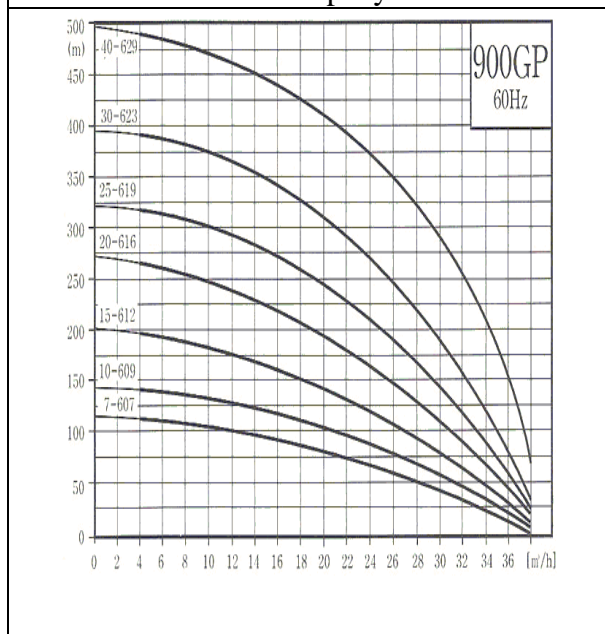
D Company



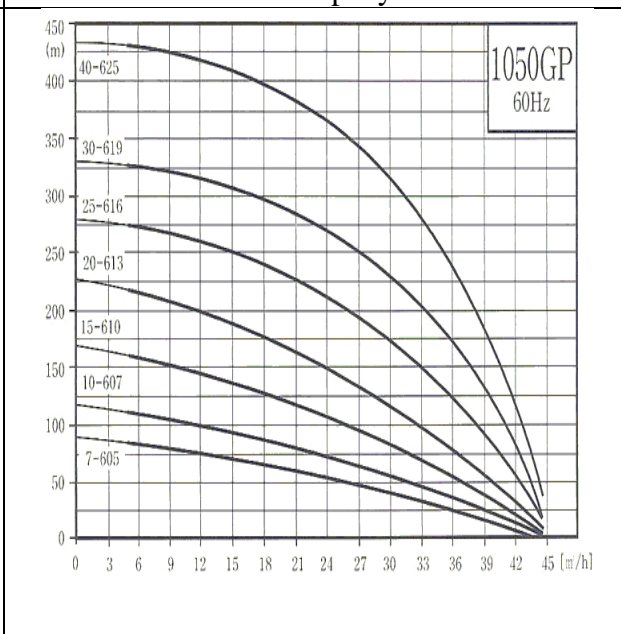
W Company



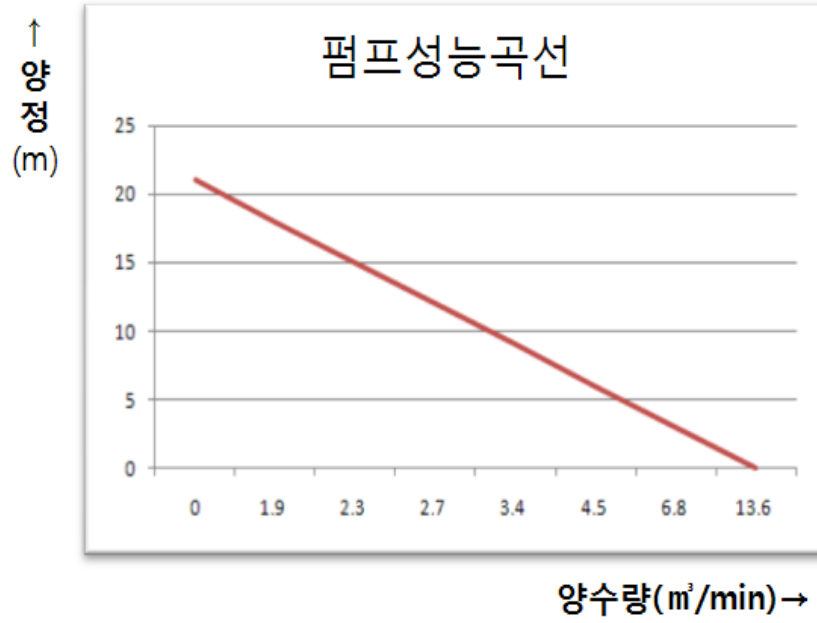
G Company



F Company



S Company



GV-Sub Pump

It is clear that GV-Sub Pump performs twice better when comparing to the pump which consumes similar power and GV-Sub Pump is far lighter than any other counter parts. The tested GV-Emotor has the horse power of 2~3hp but only consumes 10 Ampere whereas other electric motors from other companies consume about 16 Ampere. The linearity in the performance graphs show that GV- Sub Pump has high efficiency compared to any other brands.

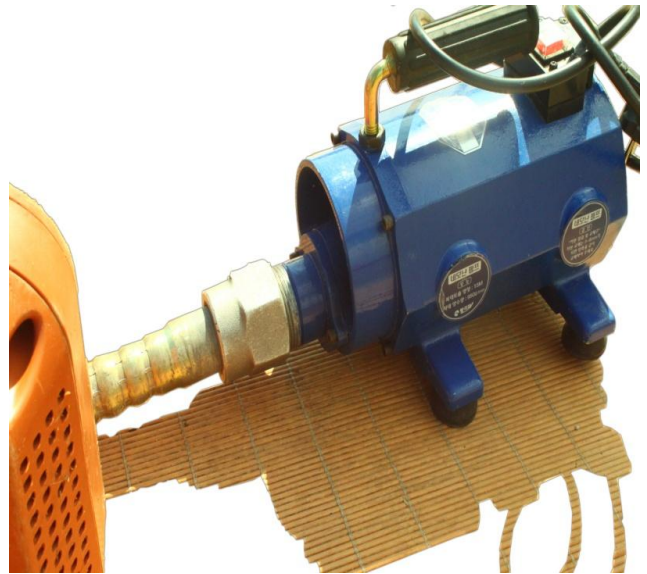
4. Installation/Set-Up/Star-Up

From installation to star up only takes less than a minute.

Make sure to connect every part before supplying the power to the motor.



Attach the right size hose to the GV-Pump



Attach the other end with GV-Emotor and screw **tightly**.



Make sure the GV-Pump is fully submerged.



Connect the GV-ElecMortor to the power source (220v) and press on/off to start.

Please watch our demonstration video on www.gvt.co.kr/GVSubPump.html.

5. Warranty

Terms of warranty

The warranty period is settled by terms of your contract or at least by the general terms and conditions of sales.

ATTENTION

Modifications or alterations of the product supplied are only permitted after consultation with the manufacturer. Original spare parts and accessories authorized by the manufacturer ensure safety. The use of other parts can invalidate any liability of the manufacturer for consequential damage.

ATTENTION

The warranty relating to the operating reliability and safety of the product supplied is only valid if the product is used in accordance with its designated use as described in the following sections of this manual. The limits stated in the data sheet must not be exceeded under any circumstances.

The warranty becomes invalid if one or more of the points below occur.

- The buyer makes modifications himself.
- The buyer carries out repairs himself or has these carried out by a third party.
- The product has been handled or maintained improperly.
- The product has non original DP-Pumps spare parts fitted.

GV-Sub Pump remedies defects under warranty if the points below are observed.

- Defects are caused by flaws in the design, the materials or the production.
- The defect has been reported within the warranty period.

Safety and environment

General

This GV-Sub Pump product has been developed in accordance with state-of-the-art technology; it is manufactured with utmost care and subject to continuous quality control.

GV-Sub Pump does not accept any liability for damage and injury caused by not observing the directions and instructions in this manual. This also applies in cases of carelessness during the installation procedure, use and maintenance of the product.

Non-compliance with safety instructions can jeopardize the safety of personnel, the environment and the product itself. Non-compliance with these safety instructions will also lead to forfeiture of any and all rights to claims for damages.

In particular, non-compliance can, for example, result in:

- Failure of important pump/system functions,
- Failure of prescribed maintenance and servicing practices,
- Injury to persons by electrical, mechanical and chemical effects,
- Hazard of the environment due to leakage of hazardous substances,
- Explosions.

Depending on specific activities, extra safety measures may be required. Contact DP-Pumps if during use a potential danger arises.

ATTENTION

The owner of the product is responsible for compliance with the local safety regulations and internal company guidelines.

ATTENTION

Not only must the general safety instructions laid down in this chapter on "Safety" be complied with, but also the safety instructions outlined under specific headings

Users

All personnel involved in the operation, maintenance, inspection and installation of the product must be fully qualified to carry out the work involved.

Personnel responsibilities, competence and supervision must be clearly defined by the operator. If the personnel in question is not already in possession of the required know-how, appropriate training and instruction must be provided.

If required, the operator may commission the manufacturer / supplier to take care of such training. In addition, the operator is responsible for ensuring that the contents of the operating instructions are fully understood by the responsible personnel.

Safety provisions

The product has been designed with the greatest possible care. Original parts and accessories meet the safety regulations. Modifications in the construction or the use of non-original parts may lead to a safety risk.

ATTENTION

Make sure that the product operates within its working range. Only then the product performance is guaranteed.

Safety precautions

- Contact the local electricity company for questions about the power supply.
- Shield parts that can become hot in such a way, that direct contact is impossible.
- When applicable, always place undeformed coupling protection plates to protect the coupling, before putting the pump into use. Make sure that the coupling protection plates are never in contact with the running coupling.
- Always close the switch box.

During installation, maintenance and repair

Only authorized personnel may install, maintain and inspect the product and repair electrical components.

Observe the local safety regulations.

WARNING

- Always disconnect the energy supply to the product first, before installation, maintenance and repairs. Secure this disconnection.
- Surfaces of a pump can be hot, after continuous operation.
- Make sure that no one can be near rotating components when starting a pump.
- Handle a pump with dangerous liquids with the utmost care. Avoid danger for persons or the environment when repairing leakages, draining liquids and venting. It is strongly recommended to place a relief barge under the pump.
- Immediately following completion of the work, all safety-relevant and protective devices must be re-installed and / or re-activated.

The products of GV-Sub Pumps are designed to function in an environmentally friendly way during their entire life. Therefore, when applicable, always use biodegradable lubricants for maintenance.

LIMITED WARRANTY

Grand Vertex Trading (herein "GVT"), warrants that each new water pump sold by it will be free, under normal use and service, from defects in material and workmanship for a period listed below from the date of sale to the original retail purchaser. GVT's obligation under this Limited warranty shall be limited to the repair and replacement, GVT's option, of any part or parts, which upon examination is/are found, in GVT's judgment, to have been defective in material or workmanship. Anything replaced under warranty becomes the property of GVT. All parts replaced under warranty will be considered as part of the original product and any warranty on those parts will expire coincident with the original product warranty. It shall be a condition of GVT's obligation under this Limited Warranty that GVT, directly or through one of its Distributors or Service Centers authorized to service the particular motor/water pump involved, receive prompt notice of any warranty claim and that the engine/water pump or the part or parts claimed to be defective be promptly delivered, transportation prepaid, to such Distributor or Service Center for inspection and repair. All repairs qualifying under this Limited Warranty must be performed by GVT or one of its authorized Distributors or Service Centers.

WARRANTY PERIODS:

GV- Pump Series, GV-Sprayer Limited 1 year Warranty, GV- ElecMotor Series and GV-Brush Cutter Limited 180 Day Warranty

The repair or replacement of any part or parts under this Limited Warranty shall not extend the term of the engine/water pump warranty beyond the original term as set forth above.

LIMITATIONS AND EXCLUSIONS

This Limited Warranty shall not apply to:

1. Repairs required because of prolonged storage including damage caused by corrosion and rust of engine parts.
2. Repairs required to damaged or broken pump housing parts or pump impeller parts caused by materials other than the intended use specified in the operator's manual.
3. Dirt or grit related engine wear caused by improper air cleaner maintenance (most often resulting in worn piston, piston rings, cylinders, valves, valve guides, fuel contamination, carburetor or other internal components).
4. Broken or scored parts caused by low oil level, dirty or improper grade of oil.
5. Engine tune-ups and normal maintenance service including, but not limited to, valve adjustment, normal replacement of service items, fuel and lubricating oil, etc.
6. Any engine/water pump that has been installed, repaired, or altered by anyone in a manner which in GVT's sole judgment adversely affects its performance or reliability.
8. Any engine/water pump which has been fitted with or repaired with parts or components not manufactured or approved by GVT which in GVT's sole judgment adversely affects its performance or reliability.
9. Warranty does not extend to parts affected or damaged by accident and/or collision, normal wear, fuel contamination, use in an application for which the product was not designed or any other misuse, neglect, incorporated or use of unsuitable electrical attachments or parts.
10. Instances where normal use has exhausted the life of a component.
11. Instances where normal use has exhausted the life of wear items such as o-rings, gaskets, and mechanical seals.
12. In case, without any prior approval of GVT, the water pump is employed for powering equipment to be operated on/in water and is located where it gets exposed to water.
13. In case the claim arises from such regulations as on noise level and exhaust gas emission etc.

The customer is responsible for all transportation charges in connection with any warranty work.

GVT reserves the right to modify, alter or improve any engine/water pump or parts without incurring any obligation to modify or replace any engine/water pump or parts previously sold without such modification, alternation or improvement.

No person is authorized to give any other warranty or to assume any additional obligation on GVT's behalf unless made in written and signed by an officer of GVT.

For optimum performance and safety, please read the operator's manual before operating your Subaru Robin water pump.

THIS WARRANTY, AND GVT'S OBLIGATION HERE UNDER, ARE IN LIEU OF ANY OTHER WARRANTIES OR OBLIGATIONS OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HERE-OF. GVT SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES.