

5000 S Art. 1778

**D Gebrauchsanweisung**

Tauchpumpe

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**GB Operating Instructions**

Submersible Pump

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**F Mode d'emploi**

Pompe d'évacuation pour eaux claires

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**NL Gebruiksaanwijzing**

Dompelpomp

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**S Bruksanvisning**

Dränkbar pump

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**I Istruzioni per l'uso**

Pompa sommersa

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**E Manual de instrucciones**

Bomba sumergible

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**P Instruções de utilização**

Bomba submersível

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**DK Brugsanvisning**

Dykpumpe

# GARDENA Submersible Pump 5000 S

Welcome to the garden of GARDENA ...



Please read these operating instructions carefully and observe the notes given. Use the instructions to familiarise yourself with the submersible pump, its correct use, and the notes on safety.



For safety reasons, children under 16 as well as persons not familiar with these operating instructions should not use this submersible pump.

→ Keep these operating instructions in a safe place.

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## 1. Applications Range of Your GARDENA Submersible Pump

### Intended use

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

### Liquids to be pumped

Liquids which can be handled by the GARDENA Submersible Pump are the following: clean and slightly contaminated water (max. particle size 5 mm), swimming pool water (prerequisite is the recommended dosage of additives) and soapy water.

The pump is fully submersible (waterproof sealed) and can be immersed in the liquid down to a depth of 9 m.

### Please note



**The GARDENA Submersible Pumps are not designed for continuous operation (e.g. continuous circulating operation) in a pond. Your pump's life will be shortened correspondingly by such operation.**  
**Corrosive, easily combustible or explosive substances (e.g. gasoline, petroleum, nitro thinner), fats, oils, salt-water and waste water of toilets and urinals must not be pumped.**  
**The temperature of the liquid handled should not exceed 35 °C.**

## 2. For Your Safety

### Residual-current device

According to DIN VDE (German Electrical Engineers' Association) 0100, submersible pumps may only be used in swimming pools, garden ponds, and fountains if the pump is operated via a residual-current device with a residual-current rating of  $\leq 30$  mA. The pump must not be operated when there are persons in the swimming pool or garden pond.

For safety reasons we recommend that you always operate the submersible pump via a residual-current device (DIN VDE 0100-702 and 0100-738).

→ Please contact your electrician.

### In Austria

In Austria, according to ÖVE 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 ÖVE approved isolating transformer – rated voltage must not exceed 230 V.

### In Switzerland

In Switzerland mobile appliances which are used outdoors, must be connected via a residual-current device.

### Mains power

According to DIN VDE (German Electrical Engineers' Association) 0620, mains power cables must not have a smaller cross-section than the rubber-sheathed cables of the designation H05 RNF. The cable length must be at least 10 m.

Data indicated on the type plate must match technical data of the mains supply.

→ Take care that the electrical connections are made within dry area, protected from flooding.

Protect plug and power cable from heat, oil and sharp edges.

→ Don't use the power cable for plugging off.

The power cable or the float switch must not be used for mounting or relocating the pump. For submerging or lifting/securing the pump, fix a rope to the pump's carrying handle.

Extension cables must meet the requirements of DIN VDE 0620.

### Visual check

→ Before operating the pump, first make a visual check, if there is any damage of the pump (esp. regarding power cable and plug).

→ Observe the minimum water level and the max. delivery height (see 8. Technical Data).

A damaged pump must not be used.

→ In case of damage, please have the pump checked by our GARDENA Service Centre.

### Manual operation

During manual operation, the pump must be switched off as soon as all the liquid has been pumped away.

→ Observe the pump at all times during manual operation.

### Notes on use

→ Clear the outlet line before use.

Dry-running operation causes increased wear and is to be avoided. Therefore, in manual operation the pump must be immediately unplugged when water fails to flow.

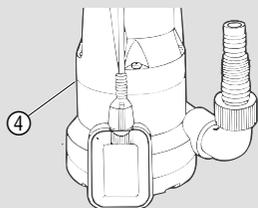
Avoid running of the pump for more than 10 min. against closed delivery side of the pump.  
 Sand and other abrasive substances cause increased wear and reduce the pump's output.  
 Take care that the pump is located where the inlet openings at the suction base are obstructed neither completely nor partly.  
 Stand the pump on a brick if using in a pond.

**Thermal motor protector**

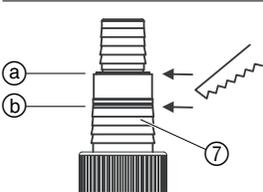
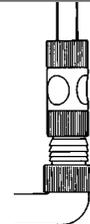
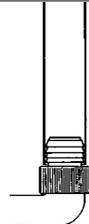
The pump is automatically switched off on overheating by the built-in thermal motor protector. After having cooled down, the motor automatically switches on again (see 6. Trouble Shooting).

**Automatic deaerating valve**

The automatic deaerating valve eliminates any air pockets in the pump. If the water level drops below the vent valve ④, some water flows penetrates outside through the vent valve ④. This is not a defect of your pump, but serves to deaerate the pump.

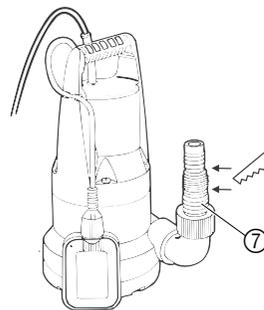


**3. Initial Operation**

| Hose diameter   | 13 mm (1/2")<br>15 mm (5/8")<br>19 mm (3/4")                                       | 25 mm (1")   | 38 mm (1 1/2")   |
|---|--|--|--|
|  |  |  |  |
| <b>Hose connection of universal fitting ⑦</b>                                     |  |  |  |

| Hose connection | Cut off topmost nipple at ①.  | Do not cut off any nipples. | Cut off top two nipples at ②. |
|-----------------|---|-----------------------------|-------------------------------|
|                 |   |                             |                               |
|                 | The following connection kits are required for 13 mm to 19 mm connections:<br>13 mm (1/2"): <b>GARDENA Pump Connection Set, Art. No. 1750</b><br>15 mm (5/8"): <b>GARDENA Tap Connector, Art. No. 902, and Standard Hose Connector, Art. No. 916</b><br>19 mm (3/4"): <b>GARDENA Pump Connection Set, Art. No. 1752</b> |                             |                               |
|                 | Best results in delivery capacity are achieved when using 38 mm (1 1/2") hoses.   |                             |                               |

**Connecting the hose:**



The universal fitting ⑦ allows you to connect all the hoses listed in the previous table.

1. Cut off nipples of the universal fitting ⑦, which are not needed, to match the hose connection.
2. Screw the universal fitting ⑦ onto the pump.
3. Connect the hose to the universal fitting ⑦.

We recommend that you secure 38 mm (1 1/2") and 25 mm (1") hoses additionally with a **GARDENA Hose Clip Art. No. 1591**.

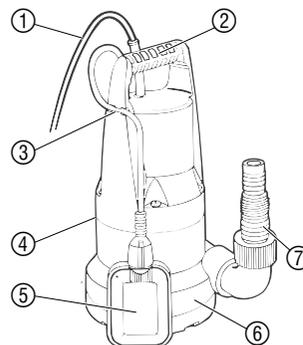
**Only for 13 mm (1/2") hose:**

The universal fitting ⑦ can also be equipped with a **GARDENA Regulator Valve Art. No. 977** so that the contents of the outlet line do not flow back through the pump after pumping. The Regulator Valve can be ordered from GARDENA Service.

**4. Operation**

**Automatic operation:**

To ensure that the pump draws the water out, the water to be drained must be at least 45 mm deep.  
 The float switch ⑤ turns the pump on automatically when the water level exceeds the cut-in height and the water is pumped out.  
 The float switch ⑤ turns the pump off again as soon as the water level falls below the cut-out height.

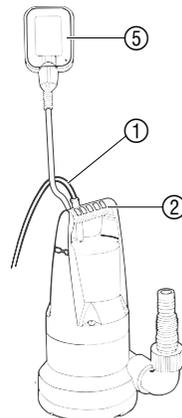


1. Stand the pump on a firm surface – or – use a rope attached to the carrying handle ② to immerse the pump in a well or shaft.  
*During automatic operation, ensure that the float switch ⑤ can move freely.*
2. Plug the power cable ① into a mains socket.

**Adjusting the Cut-in and Cut-out Height:**

The maximum cut-in height and minimum cut-out height (see 8. Technical Data) can be adjusted.  
 → Push the cable of the float switch ⑤ into the float switch lock ③.  
*Do not select a cable length that is too long or short to ensure that the float switch can turn on and off properly.*

- The shorter the length of cable between the float switch ⑤ and the float switch lock ③, the lower the cut-in height and the higher the cut-out height.



**Manual operation:**

- The pump remains in constant operation because the float switch is bypassed.
1. Stand the pump on a firm surface – or – use a rope attached to the carrying handle ② to immerse the pump in a well or shaft.
  2. Plug the power cable ① into a mains socket.
  3. Fix float switch ⑤ vertically above the pump (with the cable at the bottom).  
*As long as the float switch is positioned vertically above the pump, the pump will operate regardless of the water level.*

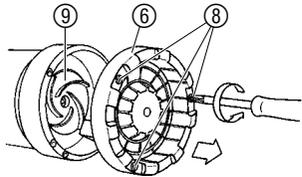
The residual water height of approx. 5 mm is only reached during manual operation since the float switch turns off the pump during automatic operation before this water level is reached.

## 5. Cleaning

### Flushing the Pump:

The pumps are virtually maintenance-free. After having pumped chlorinated swimming pool water or other liquids leaving residues, the pump should be rinsed with clear water.

### Cleaning the suction base and turbine:



#### Warning! Electric shock!

Risk of injury due to electric shock.

→ Disconnect the pump from the mains before cleaning the suction base and turbine.

1. Unscrew the 3 Phillips screws ⑧ and pull the suction base ⑥ off the pump.
2. Clean the suction base ⑥ and the turbine ⑨.
3. Reinstall the suction base ⑥ and screw in the Phillips screws ⑧.

For safety reasons a damaged turbine ⑨ can only be exchanged by the GARDENA Service Centre.

## 6. Trouble-Shooting

| Problem   | Probable cause   | Remedy  |
|---|--|---|
| <b>Pump is running, but doesn't deliver.</b>                  | 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.   | → Disconnect plug and clean turbine (see 5. Cleaning).  |
|   | When starting the pump, water height falls below the min. water level. | → Submerge pump deeper.   |
| <b>Pump doesn't start or suddenly stops during operation.</b> | Thermal overload switch has switched the pump off due to overheating.  | → Disconnect plug and clean turbine (see 5. Cleaning).<br>Observe max. media temperature of 35 °C.                                  |
|   | No power.  | → Check fuses and electric connections.   |
|   | Dirt particles are jammed in the suction base.                         | → Disconnect plug and clean suction base (see 5. Cleaning).   |
| <b>Pump runs, but output suddenly decreases.</b>              | Suction base is clogged.   | → Disconnect plug and clean suction base (see 5. Cleaning).   |



### Attention!

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

If you have any problems with your Pump, please contact our Service.

## 7. Storage

**Frost-free storage** Store the pump away from frost before the first frost sets in.

## 8. Technical Data

|  |  |
|--|--|
| <b>Type</b>  | <b>5000 S (Art. No. 1778)</b>  |
| <b>Rated power</b>                                   | 200 W  |
| <b>Max. delivery capacity</b>                        | 5,000 l/h  |
| <b>Max. pressure</b>                                 | 0.5 bar  |
| <b>Max. delivery height</b>                          | 5 m  |
| <b>Max. submersion depth</b>                         | 9 m  |
| <b>Flat suction down to approx.</b>                  | 5 mm   |
| <b>Contaminated water with particle size of max.</b> | 5 mm   |
| <b>Power cable</b>                                   | 10 m H05 RNF   |
| <b>Pump connection</b>                               | 38 mm (1 1/2") / 25 mm (1") graduated nipple, option GARDENA Water hose Plug-in-system |
| <b>Min. water level for operation</b>                | 45 mm  |
| <b>Weight approx.</b>                                | 4.0 kg   |
| <b>Max. media temperature</b>                        | 35 °C  |
| <b>Mains voltage / mains frequency</b>               | 230 V / 50 Hz  |
| <b>Min. cut-in height</b>                            | 380 mm   |
| <b>Min./max. cut-out height</b>                      | 100 mm / 140 mm  |
| <b>Noise level <math>L_{WA}^{1)}</math></b>          | 46 dB(A)   |

1) Measuring method according to EN 60335-1

### Cut-in / Cut-out height

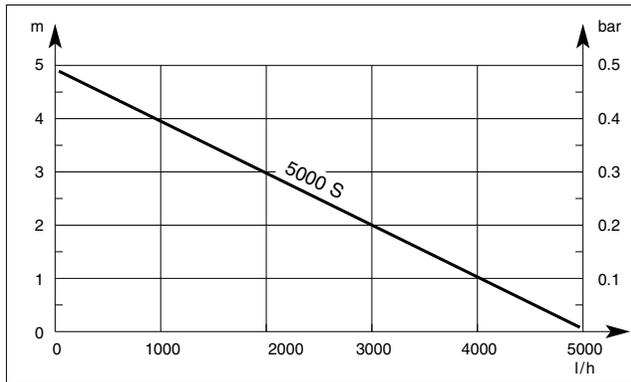
The cut-in and cut-out height varies.

The residual water depth (draining in the flat position down to approx. 5 mm) is only reached during manual operation (see 4. Operation).

### Safety and Approval



The GARDENA Submersible Pump is manufactured in accordance with the current electrical safety regulations of the Appliance Safety Law (GSG) and inspected by the TÜV (German institution for technical surveillance).



## 9. Service

### Warranty

GARDENA guarantees this product for 2 years (from date of purchase). This guarantee covers all serious defects of the unit that can be proved to be material or manufacturing faults. Under warranty we will either replace the unit or repair it free of charge if the following conditions apply:

- The unit must have been handled properly and in keeping with the requirements of the operating instructions.
- Neither the purchaser or a non-authorized third party have attempted to repair the unit.

The turbine is a wearing part and is not covered by the guarantee.

This manufacturer's guarantee does not affect the user's existing warranty claims against the dealer/seller.

If you have any problems with your pump, please contact our Customer Service or return the defective unit together with a short description of the problem directly to one of the GARDENA Service Centres listed on the back of this leaflet.

### Product Liability

We expressly point out that, in accordance with the product liability law, we are not liable for any damage caused by our units if it is due to improper repair or if parts exchanged are not original GARDENA parts or parts approved by us, and, if the repairs were not carried out by a GARDENA Service Centre or an authorised specialist. The same applies to spare parts and accessories.

## EU Certificate of Conformity

The undersigned

GARDENA Kress + Kastner GmbH · Hans-Lorenser-Str. 40 · D-89079 Ulm

hereby certifies that, when leaving our factory, the unit indicated below is in accordance with the harmonised EU guidelines, EU standards of safety and product specific standards.

This certificate becomes void if the unit is modified without our approval.

|                                   |   |
|-----------------------------------|---|
| <b>Description of the units :</b> | Submersible Pump  |
| <b>Types :</b>                    | 5000 S  |
| <b>Art. No. :</b>                 | 1778  |
| <b>EU directives :</b>            | Machinery Directive 98/37/EC<br>Electromagnetic Compatibility 89/336/EC<br>Low Voltage Directive 73/23/EC<br>Directive 93/68/EC |

**Harmonised European standards :**

EN 292-1  
EN 292-2  
EN 60335-1  
EN 60335-2-41

**Year of CE marking :**

2002

Ulm, 29.05.2001

Thomas Heint  
Technical Dept. Manager

**Deutschland**

GARDENA Kress + Kastner GmbH  
GARDENA Service  
Hans-Lorenser-Straße 40  
D-89079 Ulm  
Produktfragen: (07 31) 490-123  
Reparaturen: (07 31) 490-290

**Argentina**

Argensem S.A.  
Venezuela 1075  
(1618) El Talar - Buenos Aires

**Australia**

NYLEX Corporation Ltd.  
25-29 Nepean Highway  
P.O. Box 68  
Mentone, Victoria 3194

**Austria**

GARDENA Österreich Ges. m.b.H.  
Stettnerweg 11-15  
2100 Korneuburg

**Belgium**

MARKT (Belgium) NV/SA  
Sterrebeekstraat 163  
1930 Zaventem

**Brazil**

M. Cassab  
Av. das Nações Unidas, 20.882  
Santo Amaro, CEP 04795-000  
São Paulo - S.P.

**Bulgaria / България**

ДЕНЕКС ООД  
Бул. "Г.М.Димитров" 16 ет.4  
София 1797

**Canada**

GARDENA Canada Ltd.  
100, Summerlea Road  
Brampton, Ontario  
Canada L6T 4X3

**Chile**

Antonio Martinic Y CIA. LTDA.  
Gilberto Fuenzalida 185 Loc.  
Las Condes - Santiago de Chile

**Costa Rica**

Compania Exim  
Euroiberioamericana S.A.  
350 Sur del Automercado  
Los Yoses  
San Pedro

**Cyprus**

FARMOKIPIKI LTD  
P.O. Box 7098  
74, Digeni Akritia Ave.  
1641 Nicosia

**Czech Republic**

GARDENA spol. s.r.o.  
Řípská 20a, č.p. 1153  
62700 Brno

**Denmark**

GARDENA Danmark A/S  
Naverland 8  
2600 Glostrup

**Finland**

Habitec Oy  
Martinkyläntie 52  
01720 Vantaa

**France**

GARDENA France  
Service Après-Vente  
BP 50080  
95948 ROISSY CDG Cedex

**Great Britain**

GARDENA UK Ltd.  
27-28 Brenkley Way  
Blezard Business Park  
Seaton Burn  
Newcastle upon Tyne  
NE13 6DS

**Greece**

Agrokip G. Psomadopoulos & Co.  
20, Lykourgou str.  
Kallithea - Athens

**Hungary**

GARDENA Magyarország Kft.  
Késmárk utca 22  
1158 Budapest

**Iceland**

Heimilistaeki hf  
Saetun 8  
P.O. Box 5340  
125 Reykjavik

**Republic of Ireland**

Michael McLoughlin & Sons  
Hardware Limited  
Long Mile Road  
Dublin 12

**Italy**

GARDENA Italia S.r.l.  
Via Donizetti 22  
20020 Lainate (Mi)

**Japan**

KAKUDAI Mfg. Co. Ltd.  
1-4-4, Itachibori Nishi-ku  
Osaka 550

**Luxembourg**

Magasins Jules Neuberg  
Grand Rue 30  
Case Postale No. 12  
Luxembourg 2010

**Netherlands**

GARDENA Nederland B.V.  
Postbus 50176  
1305 AD ALMERE

**Neth. Antilles**

Jonka Enterprises N.V.  
Sta. Rosa Weg 196  
P.O. Box 8200  
Curaçao

**New Zealand**

NYLEX New Zealand Limited  
Private Bag 94001  
South Auckland Mail Centre  
10 Offenhauser Drive  
East Tamaki, Manukau

**Norway**

GARDENA Norge A/S  
Postboks 214  
2013 Skjetten

**Poland**

GARDENA Polska Sp. z o.o.  
Szymanów 9 d  
05-532 Baniocza

**Portugal**

MARKT (Portugal), Lda.  
Recta da Granja do Marquês  
Edif. GARDENA  
Algueirão  
2725-596 Mem Martins

**Russia / Россия**

АО АМИДА ТТЦ  
ул. Мосфильмовская 66  
117330 Москва

**Singapore**

Variware  
Holland Road Shopping Centre  
227-A 1st Fl., Unit 29  
Holland Avenue  
Singapore 1027

**Slovenia / Croatia**

Silk d.o.o. Trgovina  
Brodišče 15  
1236 Trzin

**South Africa**

GARDENA South Africa (Pty.) Ltd.  
P.O. Box 11534  
Vorna Valley 1686

**Spain**

ANMI Andreu y Miriam S.A.  
Calle Pere IV, 111  
08018 Barcelona

**Sweden**

GARDENA Svenska AB  
Box 9003  
20039 Malmö

**Switzerland**

GARDENA Kress + Kastner AG  
Bitziberg 1  
8184 Vachenbülach

**Ukraine / Украина**

АОЗТ АЛЬЦЕСТ  
ул. Гайдара 50  
г. Киев 01033

**Turkey**

Dost Diş Ticaret Müessesilik A.Ş.  
Yeşilbağlar Mah. Başkent  
Cad. No. 26  
Pendik - İstanbul

**USA**

GARDENA  
3085 Shawnee Drive  
Winchester, VA 22604

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Postfach 27 47, D-89070 Ulm  
<http://www.gardena.com>