



DDA Submersible Well Pumps



DDA 1000P



DDA 600C/1200C2



DDA 900C

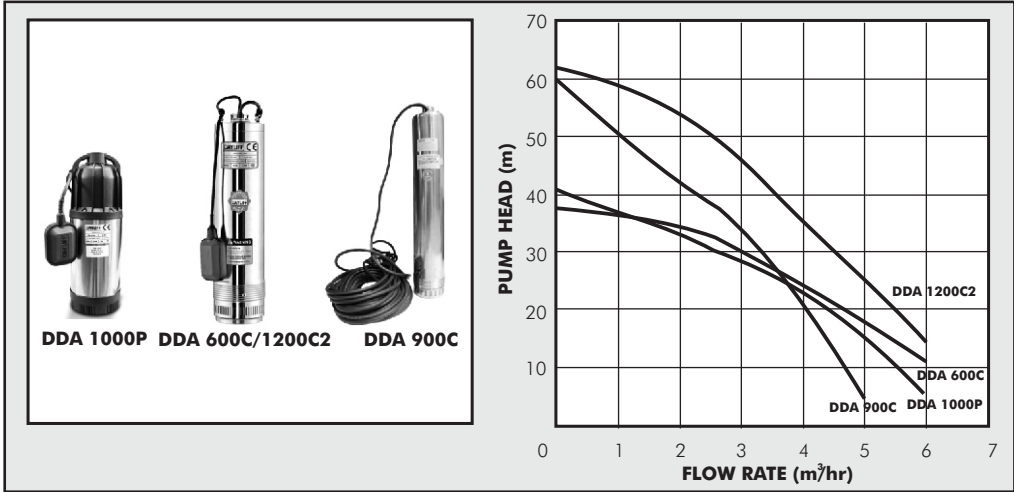
Installation & Operating Manual

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Congratulations on selecting a Dayliff DDA Pump. They are manufactured to the highest standards and if installed and operated correctly will give many years of efficient and trouble free service. Careful reading of this Installation Manual is therefore important, though should there be any queries they should be referred to the equipment supplier.

1. PUMP SPECIFICATIONS



PUMP

DAYLIFF DDA submersible multistage centrifugal pumps are designed for pumping clean, non-aggressive water in various domestic and light duty applications. They are particularly suitable for wells and boreholes, though can also be used for water transfer from tanks, irrigation and pressure boosting applications as an alternative to a conventional dry mounted pump. A design feature is the jacketed motor arrangement which provides excellent cooling and allows the pump to work semi-submerged. The pumps also feature mechanical seals (twin on DDA600C & DDA1200C2) in an intermediate oil chamber for greater pump reliability and pump construction is Polypropylene impellers and diffusers and stainless steel pump casing.

Pumps can be fitted with a pressure controller for automatic operation. All pumps are supplied complete with 20m cable.

DDA1000P, DDA600C & DDA1200C2 are fitted with a low level float switch with adjustment clamp and an inbuilt capacitor for simplified installation and are particularly suitable to well and tank applications.

DDA900C is particularly suited to borehole applications and is supplied with an external control box which incorporates an isolator, run indicator light, thermal overload protection and starting capacitor which can be connected directly to mains power. The box is also provided with auxiliary terminals for control probes, pressure switch or float switch.

MOTOR

Enclosed and rewindable liquid cooled, non-overloading induction motor designed for continuous operations incorporating a thermal cut-out in the windings to protect against overloading. Pumps can be connected directly to the mains power supply through a 10A fuse or MCB.

Enclosure Class: X8

Insulation Class: B

Voltage: 1x240V

Speed: 2900rpm

OPERATING CONDITIONS

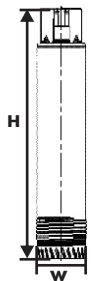
Pumped Liquids: Thin, chemically non aggressive liquids without solids or fibres

Max. Liquid temperature: 35°C

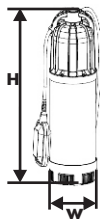
Max. Immersion Depth: DDA1000P-6m, DDA600C & DDA1200C2-20m;
DDA900C-16m

PUMP DATA

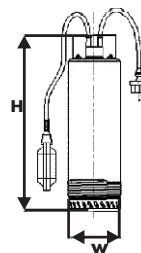
Model	Power		Max. Particle Size, mm	Max. Current (A)	Outlet (")	Dimensions (mm)		Weight (kg)
	kW	HP				H	W	
DDA 600C	0.55	0.75	1	5.9	1	538	128	15
DDA 1200C2	0.92	1.2		6.5		18		
DDA 1000P	1.0	1.3	1.5	5		440	150	9.4
DDA 900C	0.9	1.2	1	1.5		645	245	26



DDA 900C

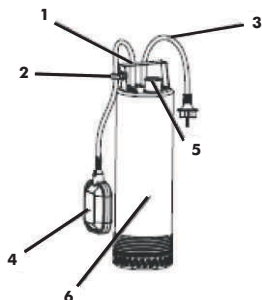


DDA 1000P



DDA 600C & DDA 1200C2

1. Carrying Handle
2. Float switch height adjustment
3. Mains cable and plug
4. Float switch (not DDA900C)
5. Pump outlet
6. Pump casing



2. INSTALLATION



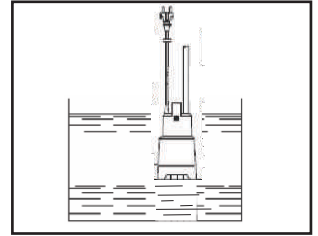
The rope must be checked regularly for wear and tear and replaced if necessary.

- Attach a sufficiently long and strong rope to the handle and lower the pump until it is submerged into the well.
- Connect the discharge using a suitable water hose or pipe. The use of rigid pipes with a non-return valve is recommended for use at fixed locations. This prevents return flow of the water when the pump is switched off.
 - i) Screw pressure line onto the pressure connection. All threaded connections must be sealed with thread sealing tape (e. g. Teflon® tape).
 - ii) When using a hose, screw a suitable hose adapter onto the pump outlet and secure the hose with a clamp.
- DDA 1200C2 and DDA1000P need an area of at least 50 × 50 cm (the floatswitch must be able to move freely so that it functions properly). These are fitted with an inbuilt capacitor and thermal control and can be connected to mains power directly after a 10A MCB or fuse.
- DDA 900C is more applicable for use in boreholes and shallow wells and low level controls should be provided by a separate level control switch. As standard it is supplied with a separate control unit which can be connected directly to mains power after 10A MCB or fuse.
- The pumps may be submerged under water up to the allowable submerged operating depth as given in the technical data.
- The installation must be such that the suction openings are not blocked by foreign bodies.



Do not lift the pump with the cable or pressure hose as these are not designed to carry the weight of the pump.

- Using a strong rope, submerge the pump at an angle into the water so that no air pocket forms on the underside of the pump. Once the pump is submerged, lower it vertically.



- ***Do not operate the pump without pressure hose.***
- ***Avoid the pump twisting around its longitudinal axis.***

- After the pump has been connected to the mains power supply, it is ready for use.

3. MAINTENANCE



When fitted the float switch must be able to move so that the submersible pump does not run dry.

Periodically, e.g monthly, when permanently installed, the following should be carried out;

- Check casing and cables for damage through visual inspection.
- Check float switch operation by lifting and shaking the switch to check the free movement of the contained weights.
- Rinse the pump with clean water to remove particles, a brush and detergent may be used. Submerge the pump in a container with clean water and switch on for a short time to rinse the inside of the pump.
- Clean all accessible areas of the casing. Remove fibres which may be wound around the rotor shaft by opening the pressure connection.
- After a long time of storage “soak” the pump so that any possible dirt residues may be removed.

4. TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Pump does not run	No power	Check connections and power supply
	Motor overheating due to: i) Liquid temperature being too high ii) Blocking by foreign bodies	Eliminate the cause of overheating
	Residual current circuit breaker triggered	Reset circuit breaker
	Motor defective	Check motor
Pump runs with no output	Suction openings blocked	Clear blockage
	Pump drawing in air	Keep the pump at an angle while submerged
	Pump blocked by foreign bodies	Clean the suction area
Flow rate insufficient	Delivery height too big	Readjust to allowable delivery height
	Pressure line diameter too small	Use pressure line with larger diameter
	Suction openings blocked	Clean suction opening
	Pressure line kinked	Straighten pressure line
	Pressure line leaks	Seal pressure line, tighten threaded connections
Pump runs very loudly	Pump drawing in air	Ensure there is sufficient water at suction
		Keep the pump at an angle when submerged

5. TERMS OF WARRANTY

i) General Liability

- In lieu of any warranty, condition or liability implied by law, the liability of Dayliff (hereafter called the Distributor) in respect of any defect or failure of equipment supplied **is limited to making good by replacement or repair** (at the Distributor's discretion) defects which under proper use appear therein and arise solely from faulty design, materials or workmanship within a specified period. This period commences **immediately after the equipment has been delivered to the customer** and at its termination all liability ceases. Also the warranty period will be assessed **on the basis of the date that the Distributor is informed of the failure.**
- This warranty applies solely to equipment supplied and **no claim for consequential damages**, however arising, will be entertained. Also the warranty specifically excludes defects caused by fair wear and tear, the effects of careless handling, lack of maintenance, faulty installation, incompetence on the part of the equipment user, Acts of God or any other cause beyond the Distributors's reasonable control. Also, any repair or attempt at repair carried out by any other party **invalidates all warranties.**

ii) Standard Warranty

If equipment failure occurs in the normal course of service having been competently installed and when operating within its specified duty limits warranty will be provided as follows:-

- **Up to 1 year- The item will be replaced or repaired at no charge**
- **Over 1 year, less than two year - The item will be replaced or repaired at a cost to the customer of 50% of the Davis & Shirliff market price.**

The warranty on equipment supplied or installed by others is conditional upon the defective unit **being promptly returned free to a Davis & Shirliff office** and collected thereafter when repaired. No element of site repair is included in the warranty and any site attendance costs will be payable in full at standard chargeout rates. Also proof of purchase including the purchase invoice must be provided for a warranty claim to be considered.

DAYLIFF is a brand of **Davis & Shirliff**

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for details of the nearest branch or stockist