

Installation and maintenance guide

DAVtech

FLUID DISPENSER DA 1000T



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1 INTRODUCTION

1.1 The manual

The user guide is the document that accompanies the valve from the time of its construction and throughout the period of use, it is therefore an integral part of the valve. It requires reading the manual before taking any action involving the valve. The manual must be readily available for use by staff and maintenance of the valve. The user and the attendant use are required to know the contents of this manual.

Reproduction of any part of this manual, in any form, without the express written permission of DAV Tech. The text and illustrations in this manual are not binding, the DAV tech reserves the right, at any time and without notice, the right to make any changes to improve the product or for reasons of character manufacturing or commercial.

1.2 Warranty

The warranty is valid for a period of 12 months from the date of commissioning and no later than 15 months from the date of delivery. Interventions made during the warranty period do not in any way extend the warranty period. The seller does not respond to defects due to the normal wear of parts which, by their nature, are subject to wear.

The warranty is limited to the repair or replacement by the seller of any piece or part that has manufacturing defects after the existence of the defect has been established. During the warranty period, the technician's work hours are charged by the seller, while the living expenses of travel, food and accommodation are the responsibility of the customer. Shipping costs for sending the parts during the warranty period are borne by the vendor, while the cost of returning the replaced item is borne by the customer. Replacement of the piece replaced within 10 days of receipt of the goods, for the check of the break, will give the consensus to the seller for billing the new piece sent. In no case will the seller be liable for any consequential or indirect damages or, in any case, resulting from the termination of the production cycle or when the machine is stopped. The seller does not respond to defects due to the normal wear of parts which, by their nature, are subject to wear. The seller is not liable for damage resulting from improper use of the equipment or failure to observe the rules for regular periodic maintenance. Requests for these issues will be entirely borne by the customer. Seller fails to respond to faults and defects that may result from modifications, repairs, alterations or tampering with the customer or unauthorized personnel or the use of non-original spare parts. Excluded from the guarantee of damages that can be attributed to net voltage oscillations exceeding 10% of the normal line load, mechanical and / or electrical breakdowns due to customer's inconvenience and imperfection. Damage caused by atmospheric and / or natural events is excluded from the warranty. The customer is responsible for the relative costs of consumption required for the testing and commissioning of the appliance.

1.3 Goods receiving

The original configuration of the valve must never be changed.

Upon receipt of the goods, check that:

- The packaging is intact
- The exact correspondence of the material ordered.

In case of damage or incorrect supply, contact DAV Tech immediately.

1.4 Fields of application

Packaging machines

Automation machines

Paper industry

Graphic Industry and Continuous Forms

Food industry

Mechanical industry and assembly

Goldsmith and Optics Industry

Fashion accessories industry

Electronic and electrical industry

All fluid applications in manual, automatic or semi-automatic mode

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2 SAFETY RULES

This manual provides instructions for ensuring work safety and preventing accidents.

2.1 Terms definition

Below you will find some definitions of the terms used in the instruction manual.

Purposes. This term refers to the use of the machine as described by the manufacturer. For "Predefined Goals" refers to the use of the unit even through its design, its construction and function.

Secondary risks. A secondary risk is a danger that is not obvious and is the result of using the machine. Secondary risks are inevitable despite all the prevention measures being taken.

Personale competente. A person is competent when he or she has acquired sufficient knowledge in a particular field either through vocational education or experience. A competent person must familiarize himself with the specific rules on occupational safety and accident prevention and generally with the rules of technical knowledge.

Staff trained. A person is trained when informed by a competent person about the activities he or she is performing and the risks that arise from incorrect behavior and, if necessary, received the required training. Furthermore an educated person must be informed about the safety devices and the protective measures.

Qualified personnel. A qualified person is a competent or sufficiently educated person.

2.2 Use conformance

The DA1000T dispensing units are designed according to the current safety regulations and must only be used for the application of compatible fluids at a maximum pressure of 7 bar. Only qualified personnel are authorized to install and operate the DA1000T. Before proceeding with the installation and use of the dispensing unit, this manual must be read and understood carefully. For DA1000T dispensing units, only and exclusively the use fields in this manual are provided. All data and parameters in this manual must be respected. Only additional or auxiliary equipment recommended by DAV Tech can be used. Any other use or use is considered non-compliant.

3 TECHNICAL DESCRIPTION

This manual provides instructions for ensuring work safety and preventing accidents.

3.1 Functions of the unit

DA1000T dispensing units are designed to dispense fluids of varying viscosities in points or longitudes, in automatic, teach-mode or manual mode.

3.2 Technical specifications

Dispense time display	Digital
Dispensing time range	0.001-9.999s
Air pressure inlet	3-7 bar
Air pressure outlet	0,1-7 bar
Repeatability	0,00005 s
Minimum amount dispensed	0,001 cc
Max frequency	> 600 cycles/minute
Overall dimensions	250 mm x 150 mm x 70 mm
Weight <	3 Kg

3.3 Appearance of the unit

1. Outlet pressure gauge
2. Exit pressure regulation
3. Vacuum regulator
4. Power switch
5. Display timer
6. Syringe tube connection
7. Dispensing time



4 INSTALLATION

4.1 Unit assembly

- Connect the compressed air line to the control unit via a 6mm flexible hose to be inserted in the adapter A.
- Connect the power supply you will find in the box to the nearest power outlet and connect the other end to the socket B on the back of the control unit.
- Connect the pedal or the finger switch to socket C on the back of the control unit.
- Connect the transparent hose to the connector and 6 (see previous page figure)

4.2 Syringe loading

Depending on the viscosity of the material, the syringe can be filled manually or by means of a special DAV Tech pneumatic loader. The syringe should never be filled to the brim. In case of manual loading when filling the syringe with the liquid insert the piston, firmly tightening the syringe and exerting pressure on the edges of the syringe. This does not create air bags between the fluid to be dosed and the piston. Once the syringe has been loaded it is possible to mount it on the bayonet fastener by paying attention to the coupling operation. In the case of the use of the DAV Tech EuroCartucular Air Purifier, it is advisable to remove the syringe from the system in order to carry out the charging operation more comfortably. Please contact DAV Tech for more information about available pneumatic loaders.

5 UNIT ADJUSTMENT

5.1 Manual mode

After performing the necessary air connection, power supply etc. (See previous chapter), you can turn on the control unit via the switch; then it is necessary to check that timer 7 (See Figure 3.3) is at 0, otherwise it is possible to reset them using the keys on the timers. It is now possible to carry out the dispensing of the fluid to be delivered for the time interval in which the operator will continue to hold the foot pedal or the finger switch pressed. After the first dispensing it is possible to increase or decrease the fluid pressure by going to the knob 2 (See Figure 3.3) and calibrate the vacuum cleaner to avoid undesired dripping. In this regard, we recommend slowly increasing the opening of the vacuum valve 3 (see figure 3.3) until no dripping occurs; it is important to note at the same time that a too high vacuum valve adjustment to that required for the fluid with which it works will cause the piston contained in the syringe to detach from the fluid, causing problems in the repeatability of the dispensed product quantity. Once the correct settings are found, you can lock the vacuum valve with the lock nut and the pressure regulator by pressing it.

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5.2 Teach-mode

If you need to produce precise and extremely repeatable points or fills, the Teach-mode programming mode can be very useful. The Teach-mode mode allows you to determine the amount of product from dispensing through a series of tests performed in manual mode, then choosing the ideal setting. Starting as a dispensing performed in manual mode (see above), keeping the two timers 7 and 8 (Fig. 3.3) reset; you will then need to hold down the foot pedal or the finger switch until the desired product quantity is delivered. Once the dispense is reached, the opening time of the solenoid valve that is determined will remain on the screen and it will then be possible to manually return this time on the timer 8. Next, it will suffice for a single pressure to obtain the same dispensing time.

5.3 Automatic mode

If the optimum valve opening time is already known, it can be selected using the timer 8 (See fig. 3.3). Pressing the footswitch or the finger button will match the pre-selected solenoid valve opening, with maximum repeatability.

5.4 Adjusting the amount of material

In addition to the opening time of the solenoid valve, adjusting the amount of dispensed material also depends on:

> Needle diameter

> Fluid pressure

Acting on these factors, you can adjust the amount of material you want.

Each type of fluid requires special attention, it is advisable to first adjust the intermediate pressure and use a medium diameter needle. By modifying one, the other, or both parameters, you will get variations in the amount of dispensed material until you get the desired results.

5.5 Alternate dispensing function

When it is necessary to repeat the dispensing cycle several times, the alternate dispense function is very useful on the same component or on adjacent components.

This function, which can be adjusted by means of timer 7 (See Figure 3.3), allows, by keeping the pedal or the finger switch pressed, the product dispense for the determined time on the timer 8, ranging from the set time to a dispensation from the other.

5.6 Tips for a correct dispense

For accurate and stable dispensing, it is advisable to position near the surface on which to dispense the product and keep the slider between 45 ° and 80 ° from the horizontal plane, so it is possible to obtain very precise points or cords. In the case of cordage in particular, the operator must keep the syringe inclined according to the direction of movement along the path, then dragging the dispensing device and not pushing it. This will prevent excessive nozzle contamination, which compromises the functionality and requires replacement.

6 MAINTENANCE

6.1 General rules

DA1000T dispensing units, thanks to the construction methods and materials used, are easy to maintain. Minimal, simple, accurate and constant maintenance allows a long-lasting and smooth operation of the control unit over time, while maintaining performance. For cleaning, do not use metallic objects, sharp or sharp, only use soft brushes or cotton cloths. All maintenance work on the control unit and its accessories must be carried out by qualified personnel and after discharge from the power system. It is advisable to change the syringes and nozzles frequently, as excessive reuse can lead to leakage and infiltration. Only use original spare parts.

7 TROUBLESHOOTING

7.1 Problems and solutions

The search for any malfunctions must be carried out by qualified personnel only, subject to the relevant safety regulations.

8 CONSUMABLE DA1000T

Contact us for any need for replacement parts of the control unit and / or consumable materials such as:

- 10cc syringes with piston
- 30cc syringes with piston
- 55cc syringes with piston
- Plastic needles of all diameters
- Needles with metal tip of all diameters
- Special needles
- Pneumatic transfer nozzles for 10-30 and 55 cc syringes

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We reserve the right to modify at any time, without notice, the specifications, dimensions and weights in this manual.
The illustrations are not binding.