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# TechUp™ - Instruction and Maintenance manual

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## INTRODUCTION

Dear User,

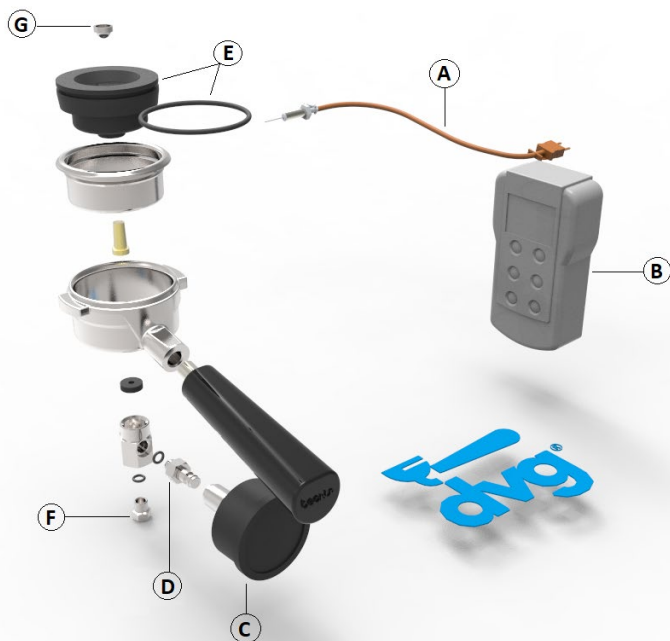
Thank you for choosing to buy TechUp™.

This product has been designed to allow you to detect with extreme precision the parameters of temperature and water pressure, coming out of the delivery unit, of your coffee machine. Make sure you have the digital thermometer included in the complete kit, suitable for reading the "T" type thermocouple of which our instrument is equipped. Follow the instructions below to get reliable data.

We wish you a good job with TechUp™.

## DESCRIPTION OF THE PRODUCT

TechUp™ seems to be a standard portafilter for coffee while inside there are technical and functional features coming from more than 50 years of our experience inside the professional coffee machines world.



TechUp™ is made of

- A- T thermocouple with 1mm sensor and response time of 0,15''
- B- Digital thermometer with 2 input channel and resolution of 0,1°C (only with complete kit)
- C- Precision manometer 0-25bar/0-360psi full of glycerine
- D- Joint for mount/dismount the manometer
- E- Technopolymer adaptor with sealing o-ring
- F- 0,3mm hole gicleur
- G- Mechanical filters

Complete kit is distributed in a practical box contained a graduated beaker, a cleaning product for grouphead, a blind filter and a nylon brush, a wrench for mount/dismount the manometer and the gicleur, PTFE liquid.

## OPERATIVE MODE

### Pre-setting

Before start to use TechUp™ you must be sure that your coffee machine group head is perfectly clean, without any trace of coffee powder. It is necessary to carry out a complete washing cycle with a suitable detergent product (in case of need replace the shower). At the end of the washing procedure, wait 10 minute in stand-by to allow the thermal recovery of the machine.

### Complete operating procedure

- 1 Make a "flash" delivery of 2 seconds on the brewing group
- 2 Hook TechUp™ onto the brewing group (*make sure the digital thermometer is powered on and positioned on the correct channel, and the probe connected correctly*)
- 3 Execute 3 cycles of 30 seconds each one with a 30 seconds interval of pause, performing the "flash" delivery before each cycle (*this procedure allows the body of the instrument to be warmed up to avoid that the temperature of the instrument influences the data that will be detected*)
- 4 Verify, at the end of the 30 seconds of delivery, that about 60ml +/- 5% of water have been dispensed (*use the graduated beaker supplied. Alternatively, check with a coffee scale the delivery of 60g +/- 5% of water*)
- 5 Starting from the 4th cycle up to the 6th, always performed with the same mode (30 "ON / 30" OFF), detect the temperatures (**for each cycle detect 3 temperatures: at 15", at 20" and at 25"**)
- 6 We obtain 9 temperature measurements, from which we then perform a mathematical average  
$$T_{\text{final}} = (T1+T2+T3+T4+T5+T6+T7+T8+T9) / 9$$
- 7 The resulting value must be between 90°C and 96°C (*temperature range suitable for the delivery of Made in Italy espresso coffee*)

### Simple operating procedure

- 1 Repeat the complete procedure until point 4
- 2 Starting from the 4th cycle, measure the temperature after 15/20 seconds of delivery (*stabilized temperature*)
- 3 The resulting value must be between 90°C and 96°C (*temperature range suitable for the delivery of Made in Italy espresso coffee*)

## **MAINTENANCE**

TechUp™ has been designed in such a way that it can be disassembled (in some of its parts) to allow for its replacement and / or cleaning.

Use compressed air to clean the gicleur (F). It is recommended to blow the same at the end of each use to avoid limescale formation. Do not use metal tips that could alter the size of the calibrated hole.

Do not allow the pressure gauge (C) to suffer shocks that could compromise the calibration. Once dismantled add liquid PTFE to ensure the seal of the fitting (D).

Remove the stainless steel filter (G) in case it is clogged with impurities. Wash it with cold running water. Pay attention to the probe terminal (A) when removing the stainless steel filter. Avoid excessive bends that would compromise the integrity of the probe itself.

The technopolymer adapter (E) is equipped with a sealing o-ring which allows easy disassembly (not necessary for cleaning).

For more info and for more details visit [www.dvg.coffee](http://www.dvg.coffee)