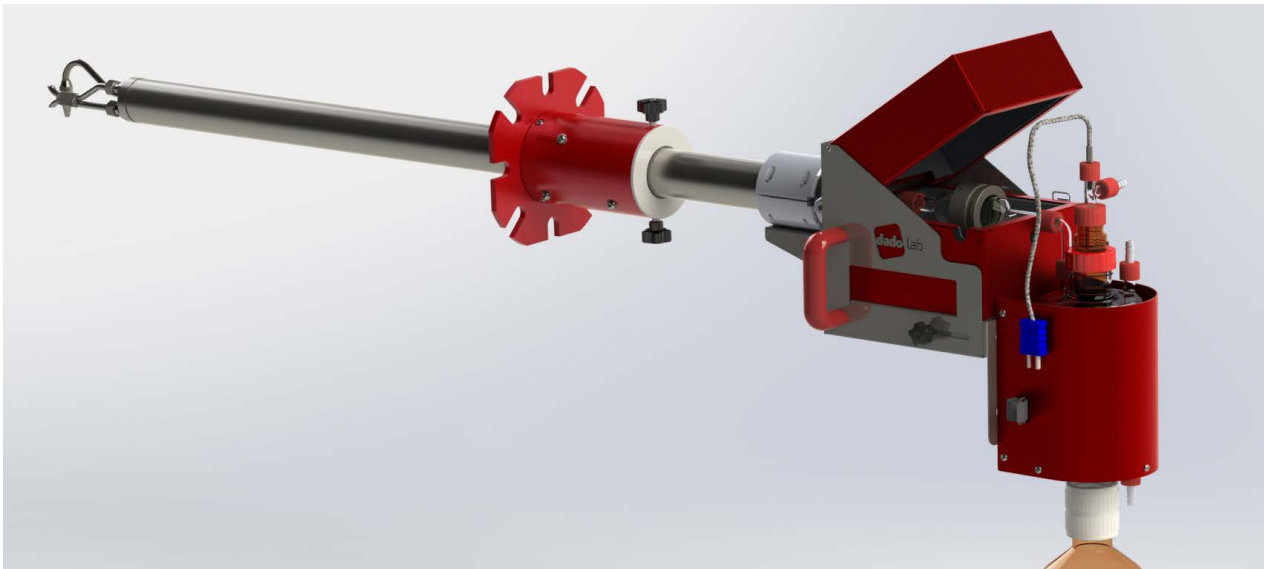


# **dado lab** HP5

User Manual



Stack Emission



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# 1 General Rules

## Receiving the goods

Remove the instrument from packaging and verify immediately the integrity and presence of the content.

### **Important :**

In case of damages of the packaging, a note to the courier must be immediately written on the transport papers supplied they will ask you to sign. If the note it's not carried out, no claims for refunding or replacing the instrument will be accepted.

Any damage observed after unpacking must be notified within 8 days from receiving the goods and a written communication to the delivery company must be sent considering them responsible for any consequence.

## Test

Test and calibration are carried out in Dado Lab facilities, at the end of test, a report with test and calibration results will be produced and given to the customer.

To request a test in your facility, please contact your local dealer. .

## Warranty conditions

Warranty cover a period of 12 months from the day you receive the goods or from test in your facility (if applicable).

Disposable or rechargeable batteries have a 6 months warranty.

Consumable materials, such as components which have to be replaced periodically during the instrument lifetime (protection filters, fuses, lamps etc) are not covered by warranty.

## Warranty exclusion/limitation

Dado Lab takes no responsibility for damages caused by external factors, unvoluntary damages, improper use, modifications of the instrument or use of third party devices, negligency, improper transport or loss caused by shipping back the instruments, in those cases, warranty will not be applied.

Moreover, warranty expires in case of service or maintenance not carried out by Dado lab or non authorized dealers.

Warranty is limited to the value of the purchased instrument. .

In case of malfunctioning, please contact your local dealer or [service@dadolab.com](mailto:service@dadolab.com)

## Conformity

### Safety and CE mark

Dado Lab declares that the instrument is in compliance to the following safety :

Low Voltage devices Directive BT 2014/35/UE

Directive 2011/65/UE ROHS - Restriction of Hazardous Substances Directive

Directive EMC 2014/30/UE for the electromagnetic compliance (EMC)

Machinery Directive 2006/42/EC

### Sampling methods

Dado Lab declares the instrument is compliant to the following standards and rules for the sampling :

### Emissions

UNI EN 16911-1

Measurement of stationary source emissions — Manual and automatic determination of velocity and volumetric flow in ducts - Part 1 : Manual reference method

UNI EN 13284-1:2003

Stationary source emissions – Determination of low range mass concentration of dust – Part 1: Manual gravimetric method.

UNI EN 1911

Stationary source emissions - Determination of mass concentration of gaseous chlorides expressed as HCl - Standard reference method

UNI EN 14385

Stationary source emissions – Determination of the total emission

of As, Cd, Cr, Co, Cu, Mn, Ni, Pb, Sb, Tl and V

UNI EN 13211

Air quality. Stationary source emissions - Manual method of determination of the concentration of total mercury.

UNI EN 13649

Stationary source emissions. Determination of the mass concentration of individual gaseous organic compounds. Activated carbon and solvent desorption method.

EN 1948-1

Stationary source emissions

Determination of the mass concentration of PCDDs/PCDFs and dioxin-like PCBs

Part 1: Sampling of PCDDs/PCDFs

## Safety rules for the use

To correctly use the instrument, please follow carefully the safety indications :

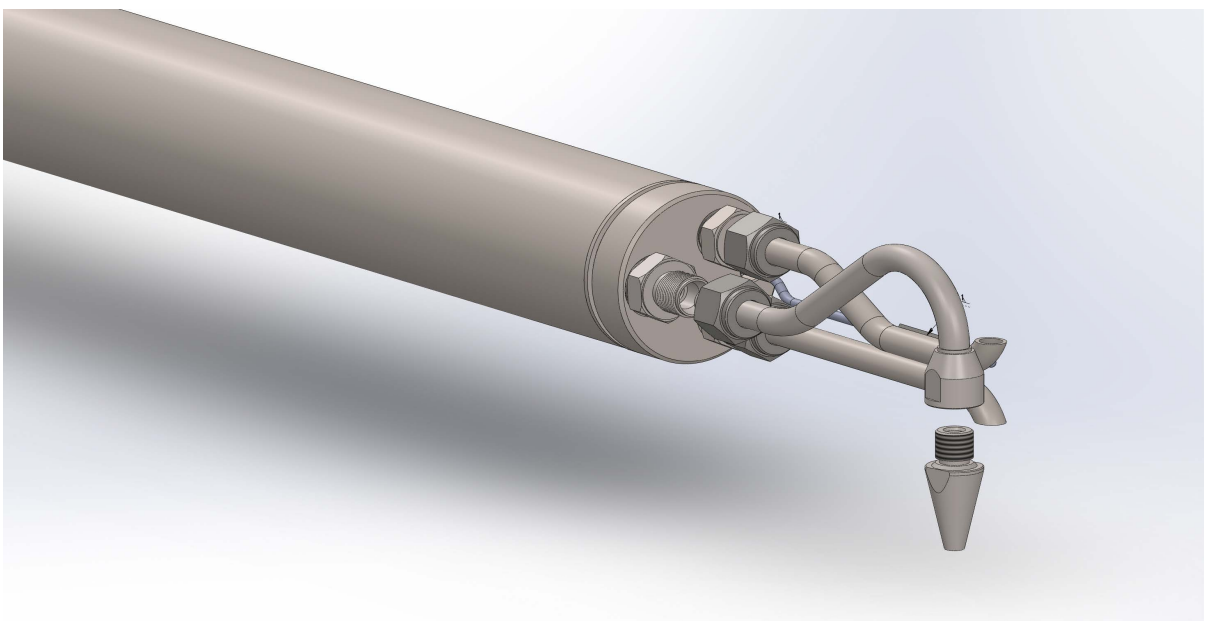
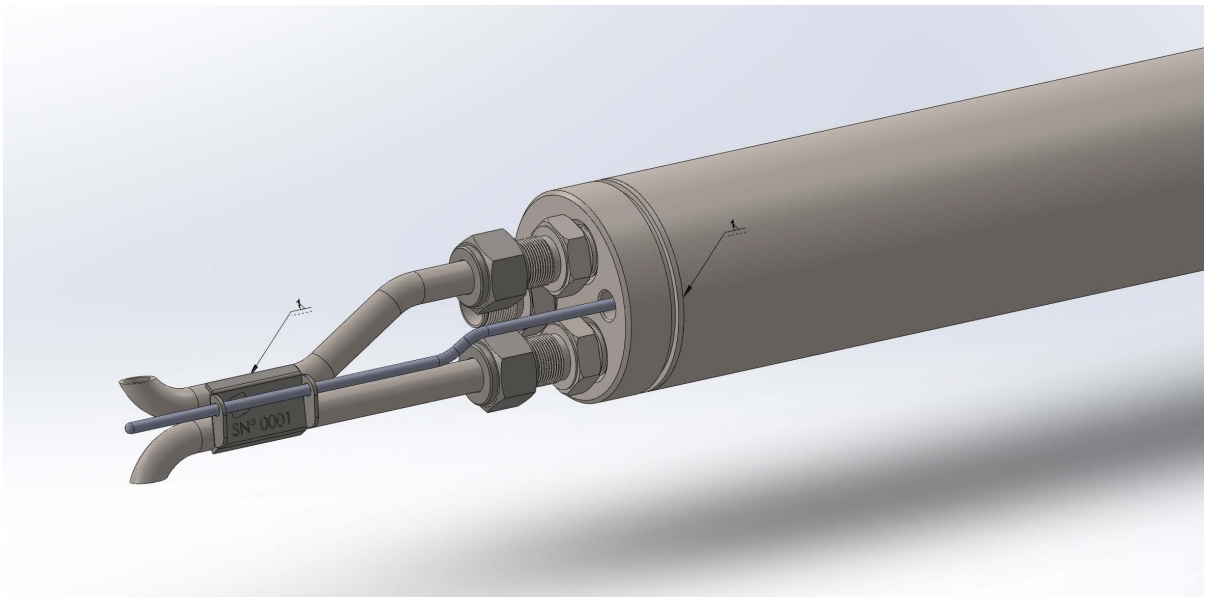
1. Do not remove, for any reason, any part of the device without having disconnected before the power supply.
2. Always use protected and grounded power supply.
3. Do not use the HP5 outdoor without having ready a good protection for rain conditions or possible sources of humidity
4. Max operating temperature : 400 °C.

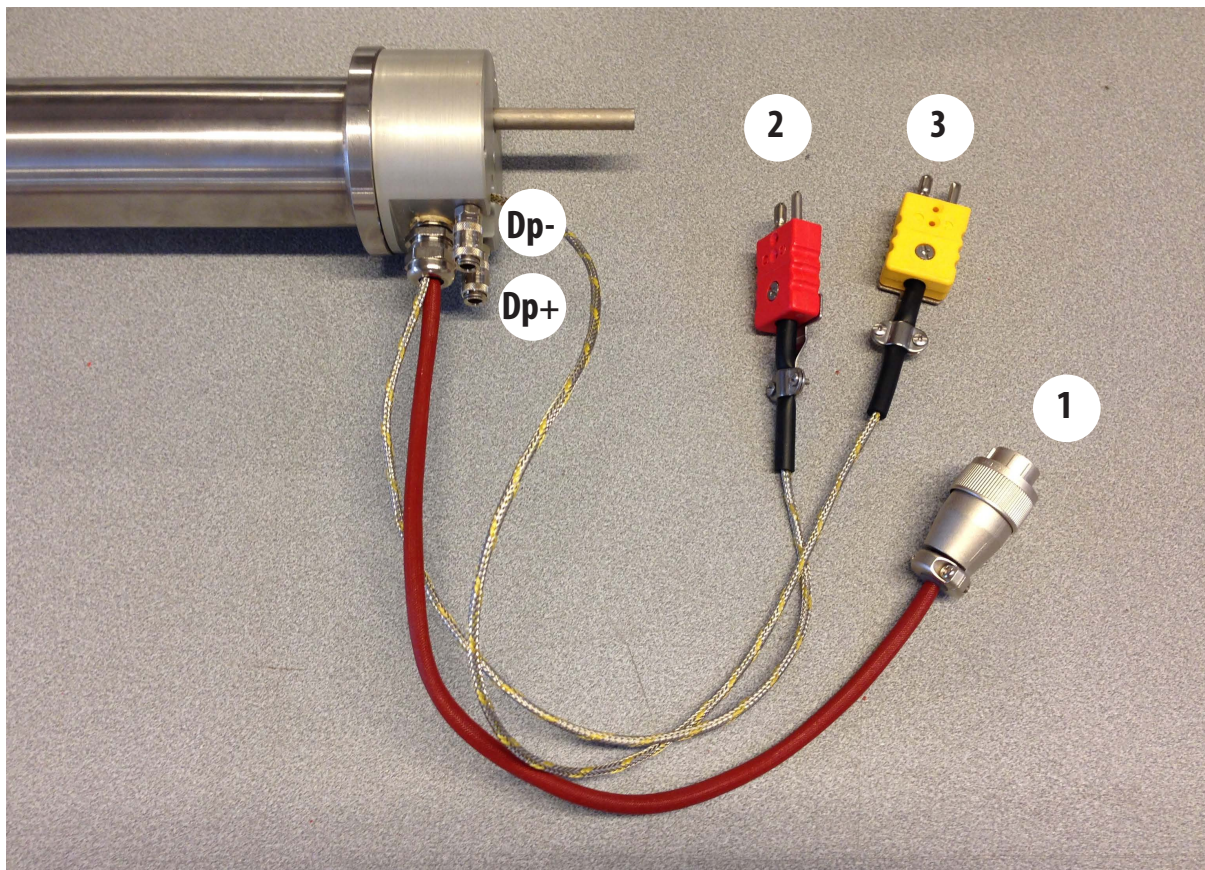
Mount the gooseneck curve aligned to the Pitot tip.

## 2 Sampling Probe

### Installing the Pitot tube and Nozzle

Install the Pitot tip and place the stack thermocouple as indicated in the picture here below.





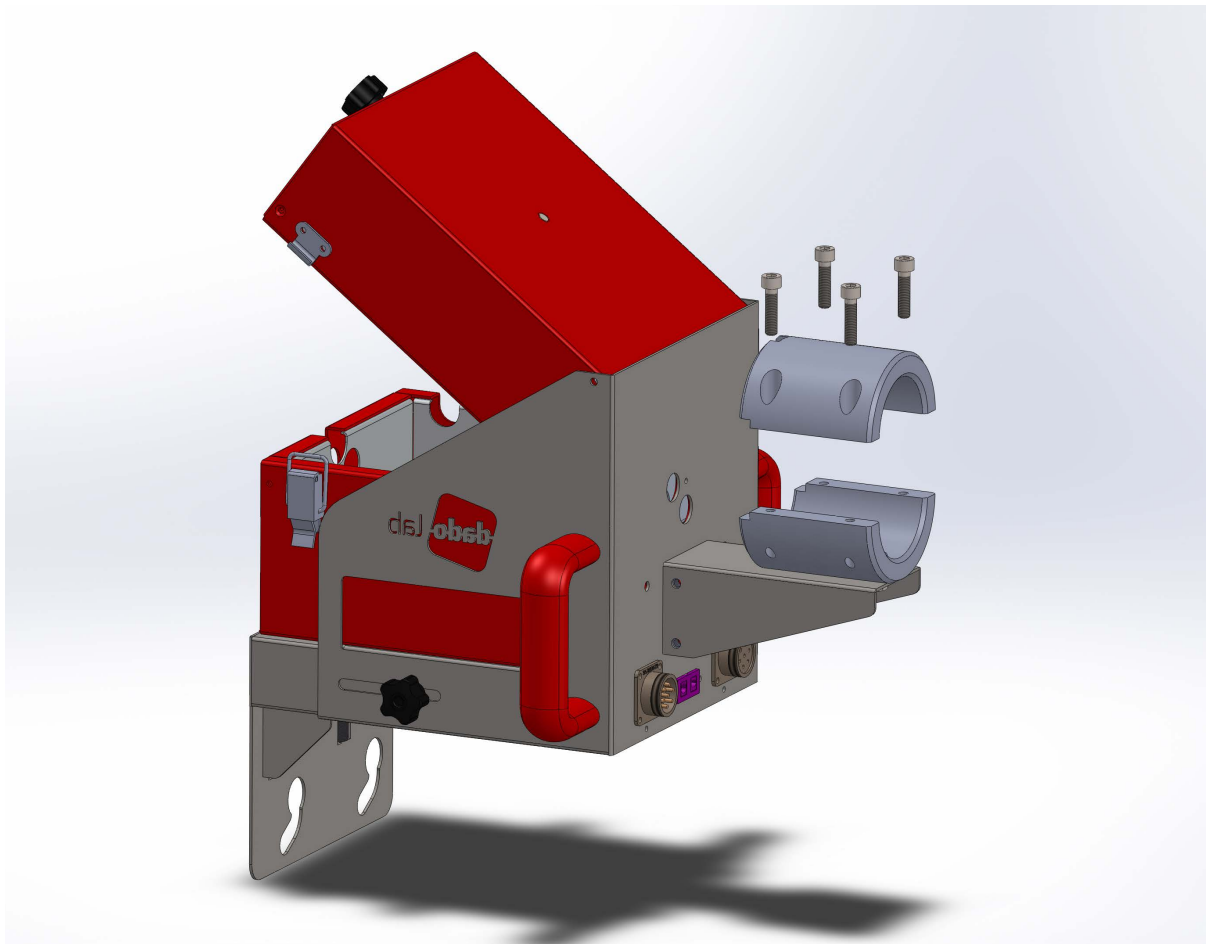
# 3 HUB

## Connection of the Hub to the probe and umbilical cable

Unscrew the four allen screws which close the probe locking clamp.

Remove the inner tube and place the probe, with the desired position, on the support. Check the position using the correct positioning of the reference screw.

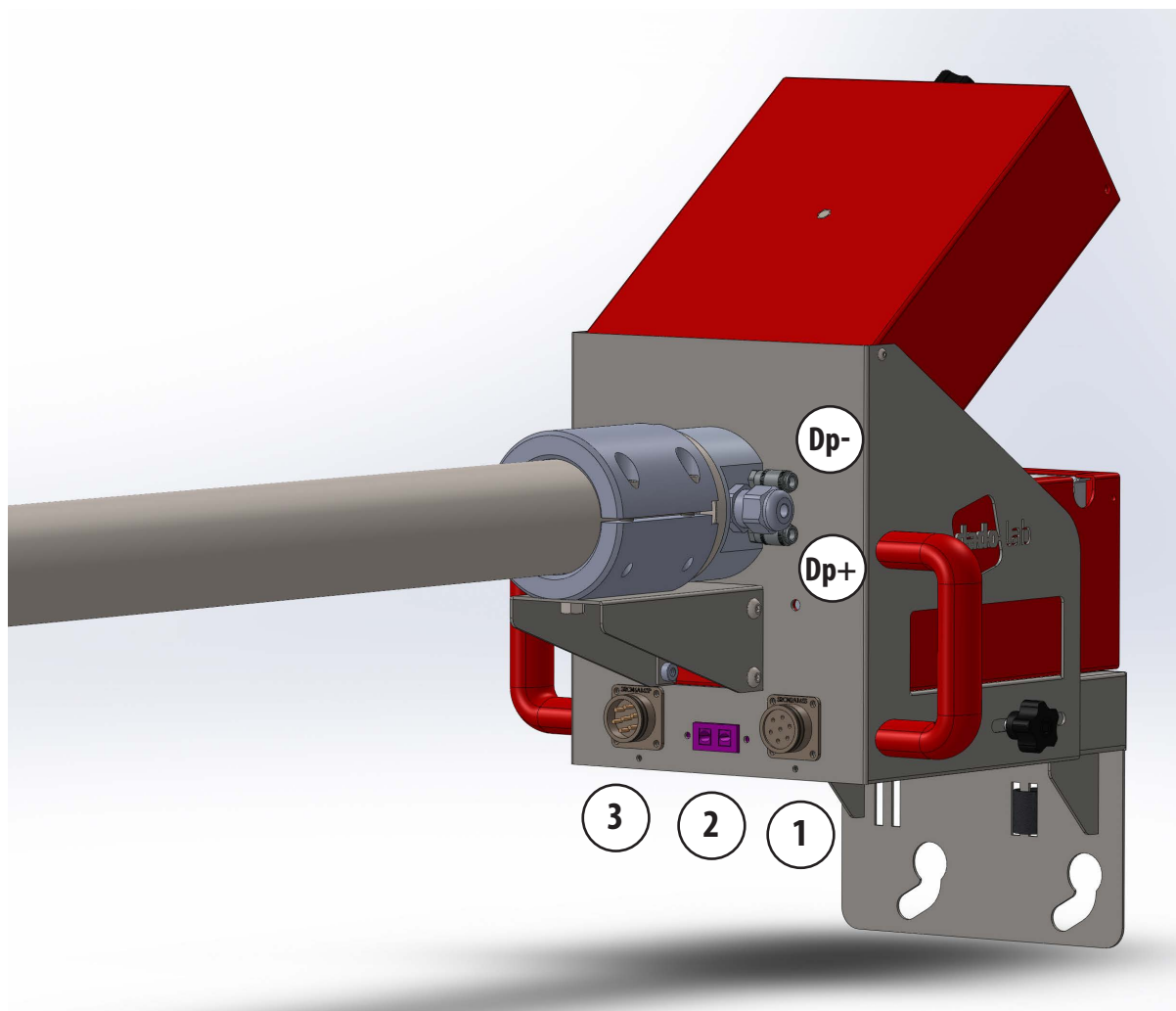
Lock again using the clamp and the four allen screws. Place the inner tube.





## Electrical and pneumatic connections

1. HUB power supply socket, connect the umbilical cable plug.
  2. HUB thermocouple (heated filter) socket, connect to the umbilical cable.
  3. Probe power supply plug, connect to the umbilical cable
- Dp- Pitot differential pressure connector, negative signal, connect to the umbilical cable.
- Dp+ Pitot differential pressure connector, positive signal, connect to the umbilical cable.

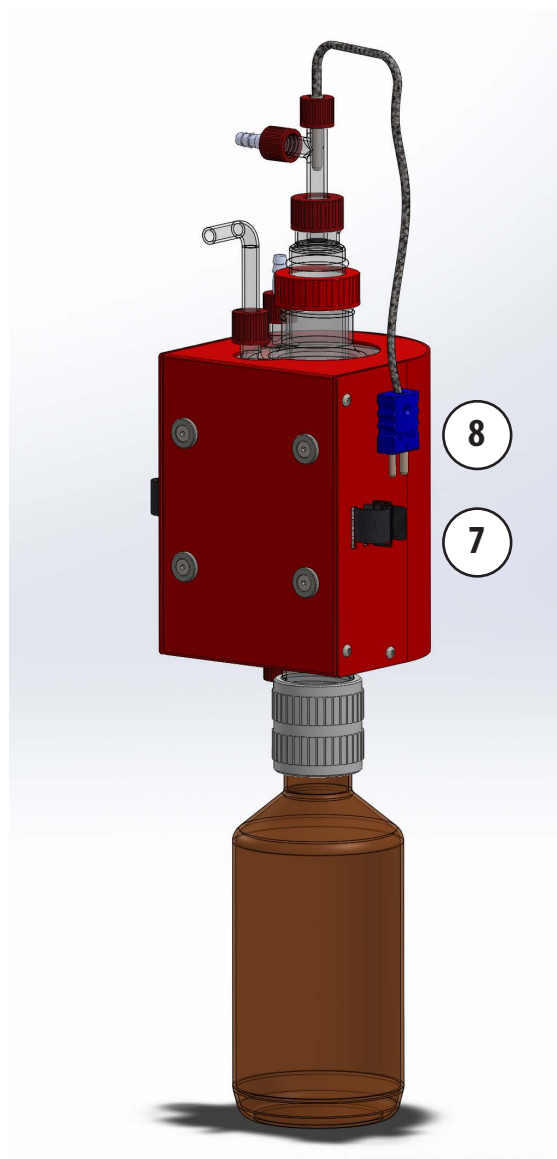
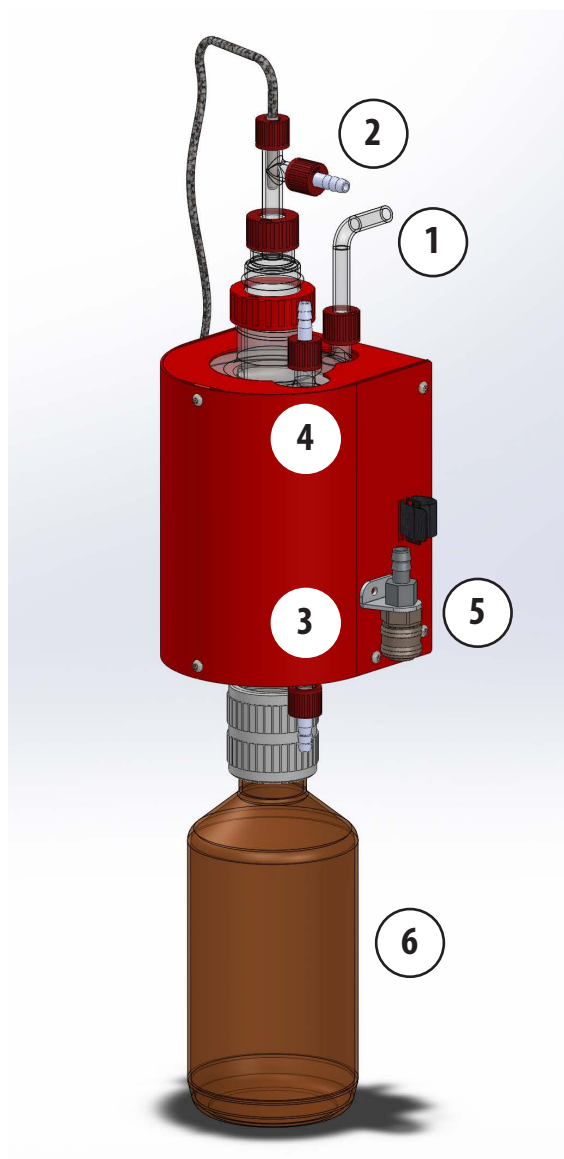


# 4 FC5 Condenser

## Connections

1. Gas inlet from the filterholder. The connection tube can be made of titanium or glass, Il giunto di collegamento può essere realizzato in Titanio e/o Vetro, this one can be used only the glass filterholder.
2. Gas outlet, to be connected with a silicon tube
3. Cooling liquid inlet.
4. Cooling liquid outlet.
5. Umbilical cable quick connector.
6. Condense flask, 1 liter, with GL45 connector
7. Velcro strip to fix the umbilical cable
8. Condensation gas thermocouple, connect to the umbilical cable.

to the position n° 5.

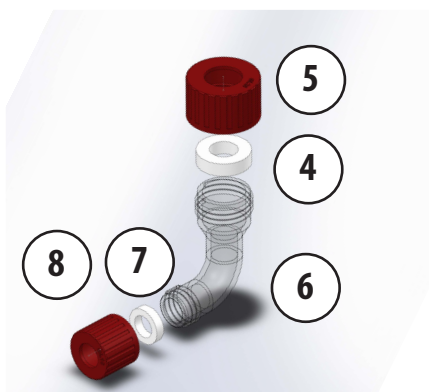
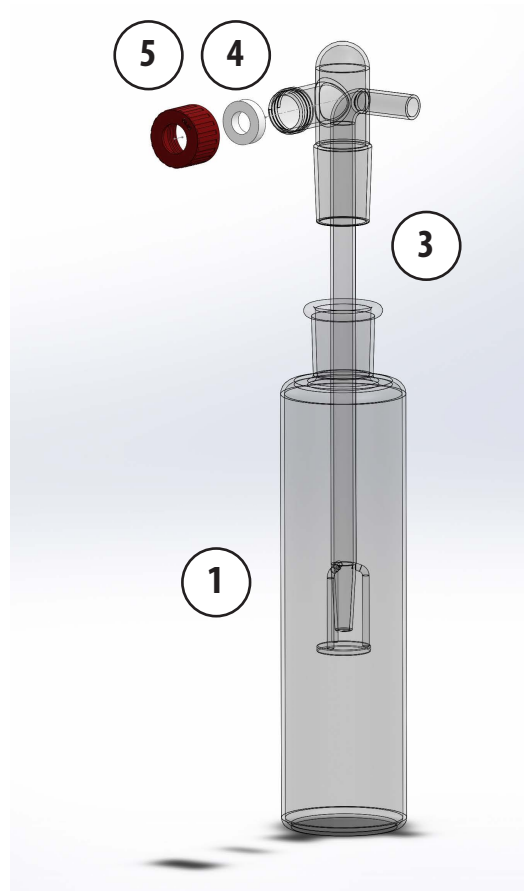
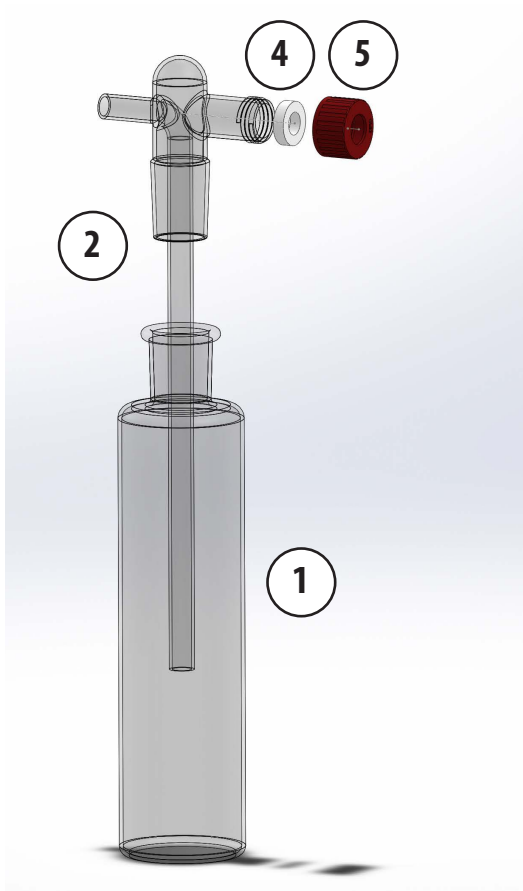


# 5 500 cc impingers

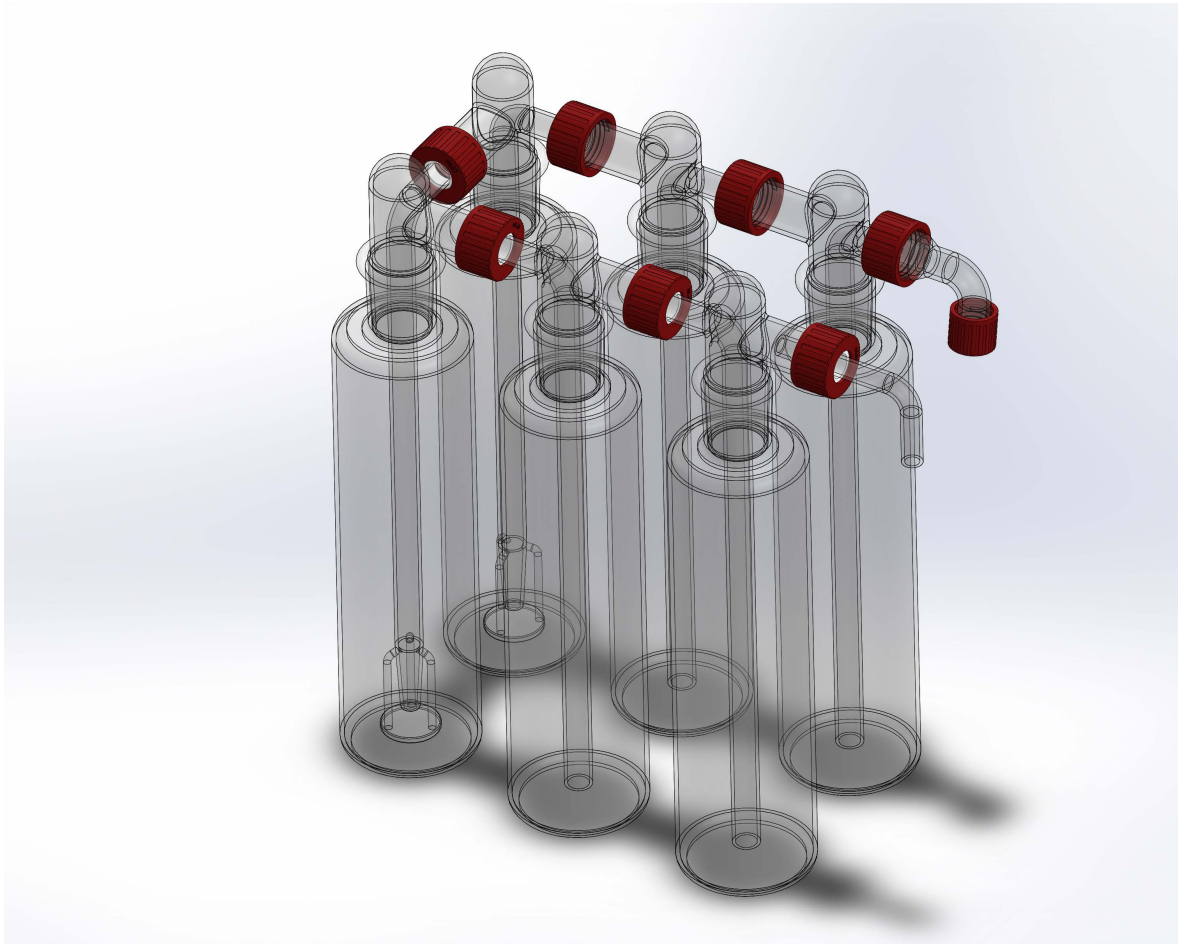
## Spare parts code

1. Bottle 500 cc - PR02 GL 302
2. Free tube - PR02 GL 303
3. Plate tube - PR02 GL 304

4. PTFE/Silicon ring GL25 - PR00 FJ 002
5. Cap w/ hole GL25 - PR00 FJ 001
6. 90° Elbow - PR02 GL 302
7. PTFE/Silicon ring GL18 - PR00 FJ 004
8. Cap w/ hole GL18- PR00 FJ 003
9. Elbow w/ hosebarb - 101 103 2013



## Assemble of 6/4 500cc impingers



# 6 Filterholders

2. PTFE/Silicon ring GL18 d8 - PR00 FJ 004
3. Kit of 10 Silicone gaskets (Tmax 200°C)  
PN 101-102-1450
- 3a Kit of 10 Silicone gaskets (Tmax 350°C)  
PN 101-102-1451

## Spare parts code

1. PTFE/Silicon ring GL18 - PR00 FJ 004

