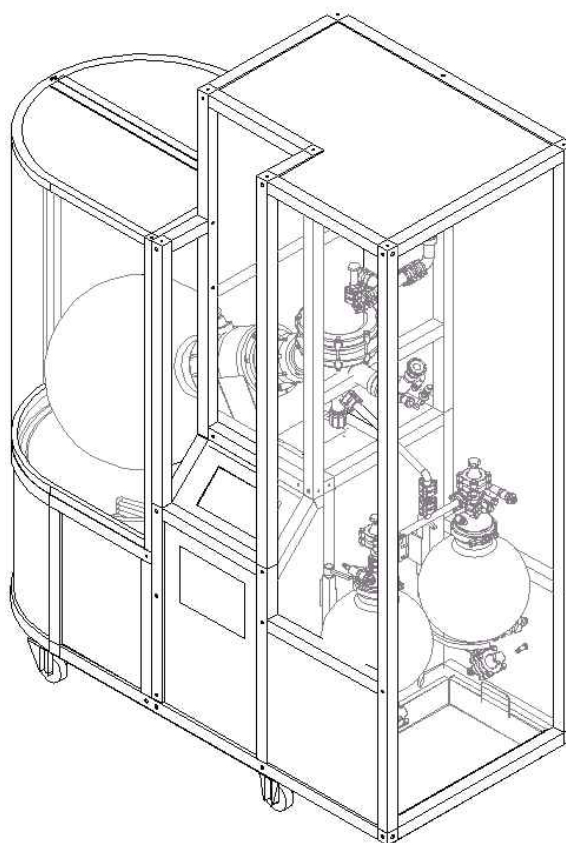


# ***Assembly Procedure STRIKE5000ATEX DISCENDENT VERSION***

Rev.	Descrizione revisione	Preparato	Verificato	Approvato	Data
5					
4					
3					
2					
1					
0	Prima emissione	_____	___	___	__/__/__
Rev.	Descrizione revisione	Prepar.	Verif.	Appr.	Data

Strike 5000 ATEX/IP55  
Discendent version



## 1. FOREWORD

The instrument is stored and shipped in two wooden cases. One of these contains all the glassware, while the other contains the pre-assembled “main body” and all the Lexan casing panels.

Before starting assembly make sure that the following are available in the proximity of the place of installation:

- POWER OUTLET:** Interlocked outlet, three-phase 380V (3-pole, neutral and earth). It is advisable for the outlet to be protected upstream by a differential automatic circuit-breaker (Bticino model F84/32 + G44/32AS or equivalent). As an alternative, a differential circuit-breaker immune to transients may be used (Bticino model F84/32A + G43/32A. or equivalent)
- COOLANT:** IN and OUT unions for the liquid coolant in the coil. Recommended pressure 1.5 – 2.0 bars (max 3.0 bars)
- VACUUM:** Union for creating a vacuum.
- NITROGEN:** (optional) Union for nitrogen with a maximum pressure of 0.4 bars (if required for the process)

If all the above utilities are available, the cases may be opened.

## 2. OPENING THE CASES

- Open the glassware case
- Remove all the protective material, place the glassware on a flat surface and check it for any transport damage (if any damage or anything unusual is found, contact the Steroglass S.r.l. Service Centre, phone +39 075-609091)

- Open the case containing the main body .  
The main body and the Lexan panels are wrapped in a protective film to avoid transport damages.

### **3. REMOVAL AND POSITIONING OF THE “MAIN BODY”**

- After opening the case, remove the wooden chocks holding the main body in place.
- Lift the main body and then remove it from its case.
- Position the main body where it is to be installed.
- Remove the protective film.

Now the main body looks as shown in Figure 1 here below:



*Figure 1.*

#### 4. REMOVAL OF THE PANELS OF THE THERMOSTATIC BATH

- Stand in front of the instrument.
- Unhook the two panels by releasing the locking device between the two handles, paying attention not to move the handles away from each other.
- Lift the left-hand panel and remove it.
- Open the white conduit and remove the cable of the “door closed” sensor from it.
- Unscrew the screws locking the sensor to the panel and place the sensor inside the tank.

Now the main body looks as shown in Figure 2 here below:

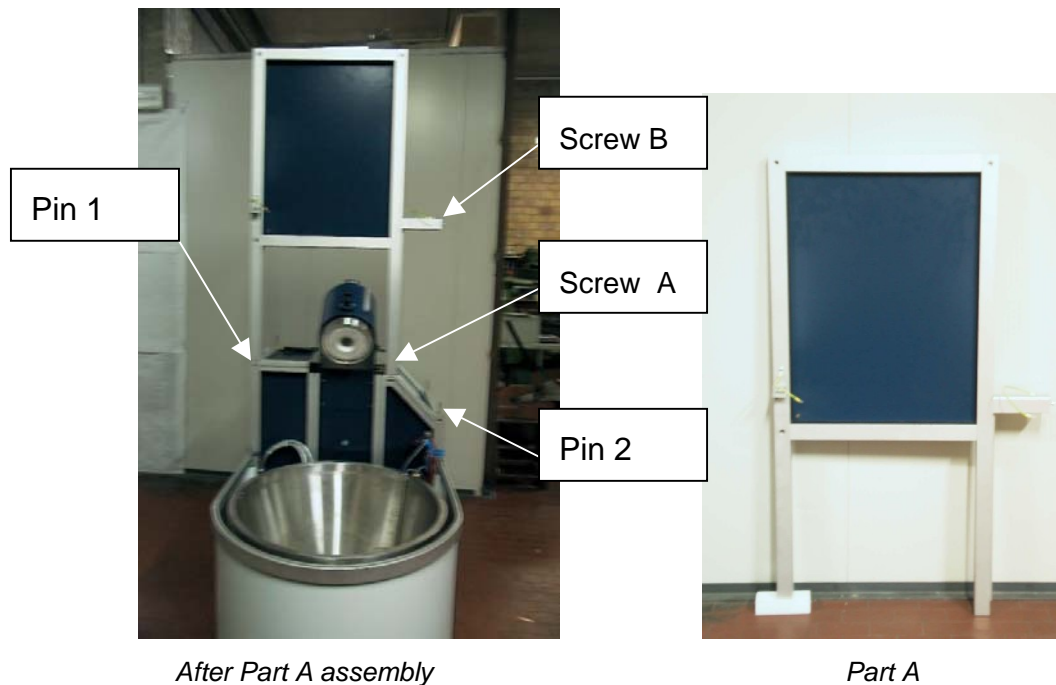


*Figure 2.*

#### 5. ASSEMBLY OF THE PANELS

*(Refer to figure 3 at the bottom of this paragraph)*

- Unscrew screw A , leaving the square nut in place.
- Take part A and stand in front of the console.
- Block the part in place by inserting pin 1 into the cavity as shown in the figure, and fix it by tightening the screw removed as above.

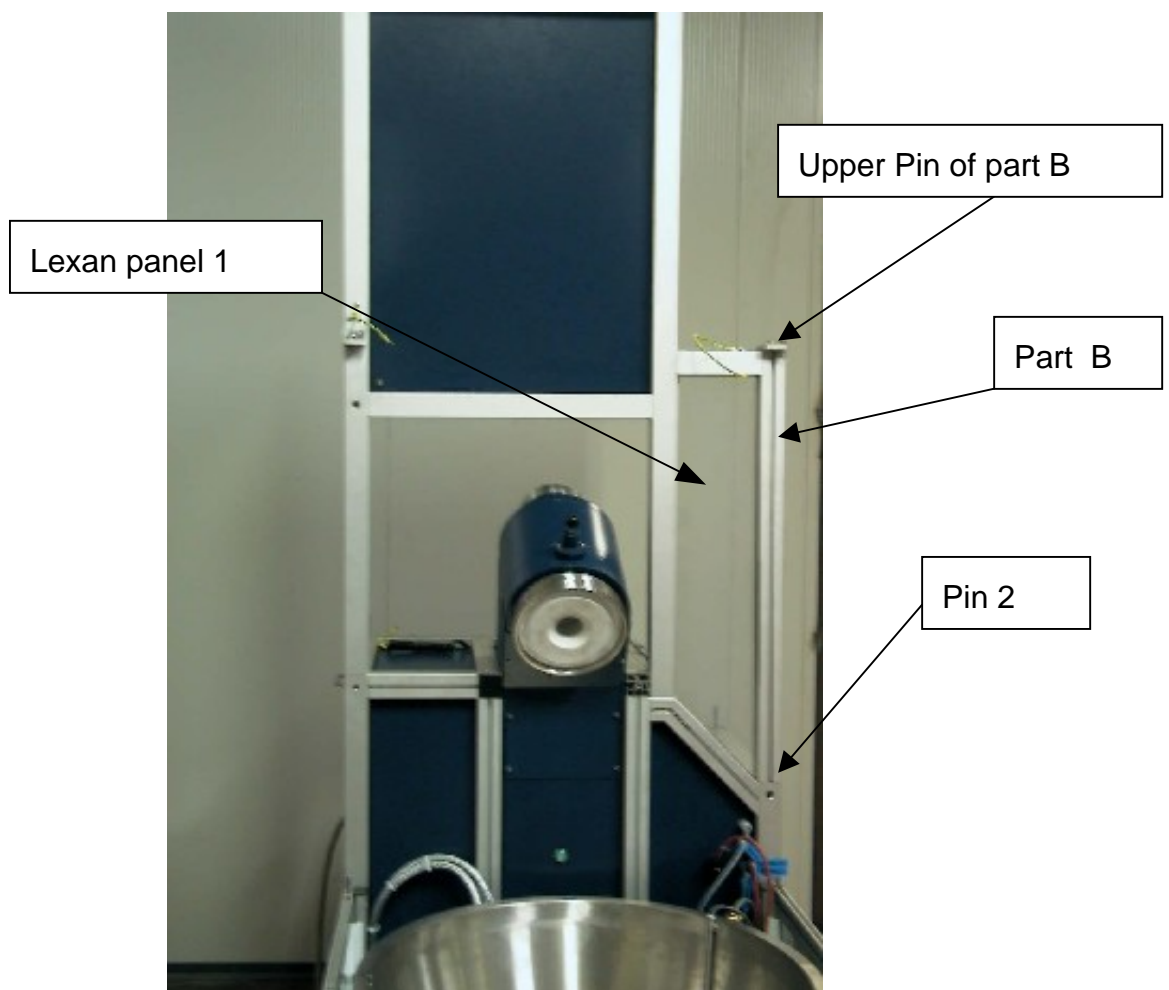


*Figure 3.*

## **LEXAN PANEL 1**

*(Refer to figure 4 at the bottom of this paragraph)*

- Take Lexan panel 1 and insert it into the grooves provided for it without removing the adhesive film protecting it.
- Take part B and hold it in a vertical position with the pin at the top and facing the thermostatic bath.
- Raise part B until the screw on part A is inserted into the groove provided for it.
- Slide part B downwards until the pin on the main body enters the hole provided for it at the bottom of part B.
- Tighten screw B.



*Figure 4.*

**PART C**

(Refer to figure 5 at the bottom of this paragraph)

- Unscrew screw C
- Take part C, and stand behind the instrument.
- Holding part C in a vertical position, and with the protruding part facing the console side, raise it and insert pin 2 into the hole provided for it.
- Tighten screw C that was removed earlier.
- Connect the ear thing cable.

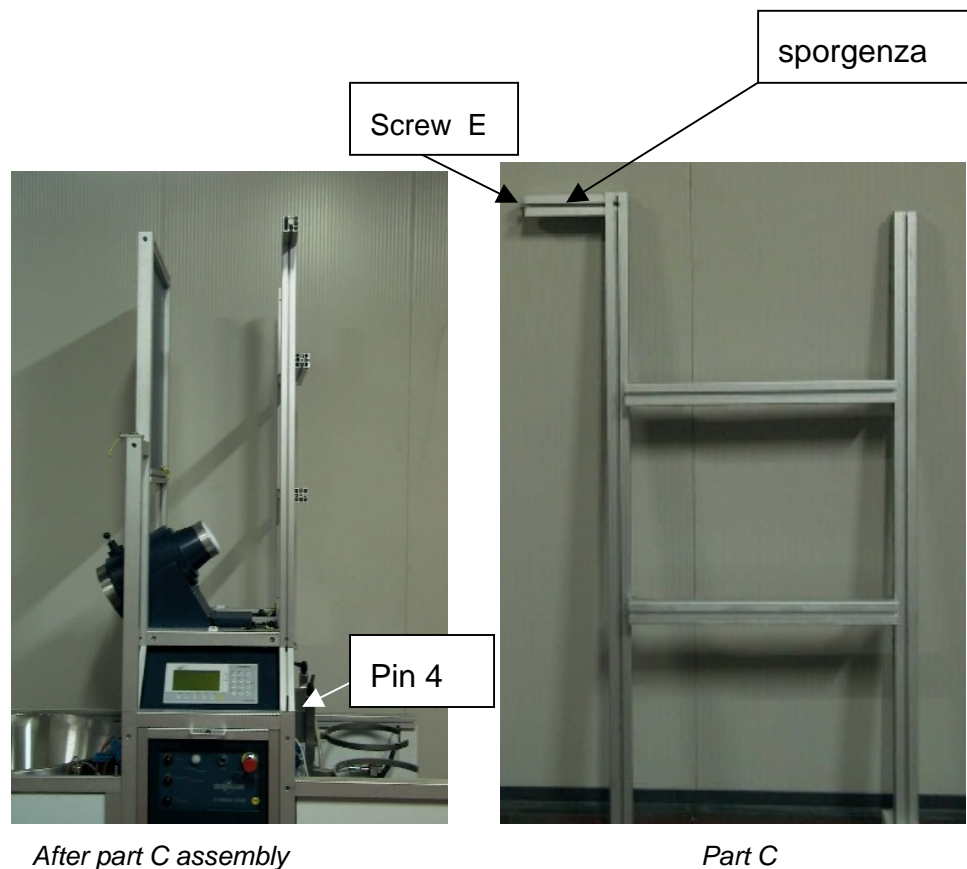


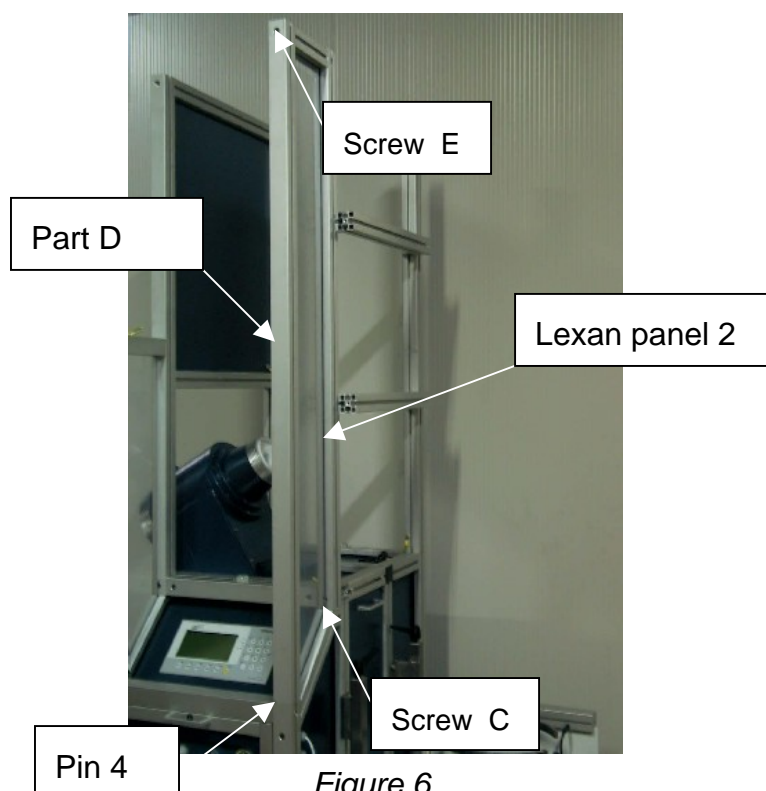
Figure 5.

**LEXAN PANEL 2**



*(Refer to figure 6 at the bottom of this paragraph)*

- Take Lexan panel 2 and the upright “part D”, e stand in front of the console.
- Insert the Lexan panel into the slots provided to the right of the display without removing the protective film.
- While holding the Lexan panel still, take part D and position it vertically with one groove facing towards the console and one towards the rear of the instrument
- Raise part D, inserting the head of screw E into the groove facing towards the console.
- Raise it until pin 4 (see figure 5 too) is inserted into the hole in the back of part D.
- Tighten screw E.

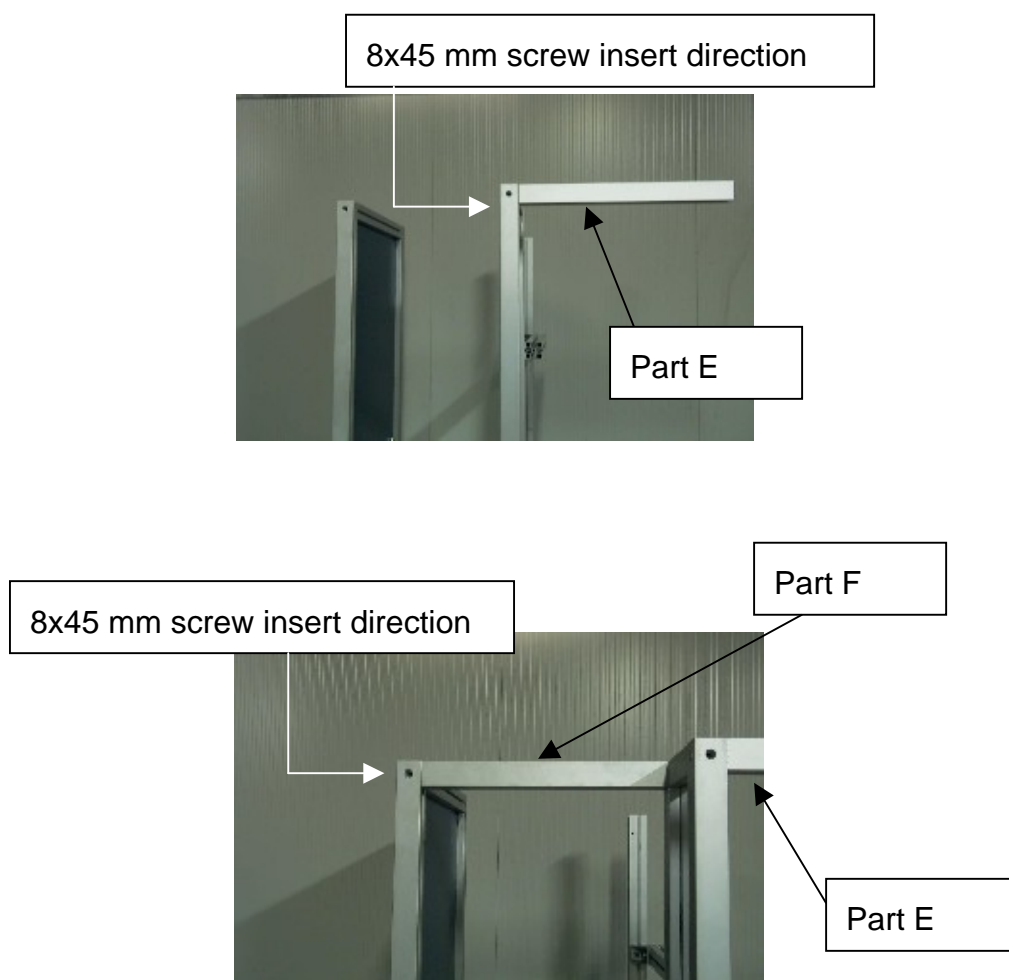


*Figure 6.*

### **PARTS E and F**

*(Refer to figure 7 at the bottom of this paragraph)*

- Take part E and an 8x45 mm screw.
- Fix it as shown in the figure, keeping the shiny side facing outwards.
- Take part F with two 8x45 mm screws and fix it at the top above the console.



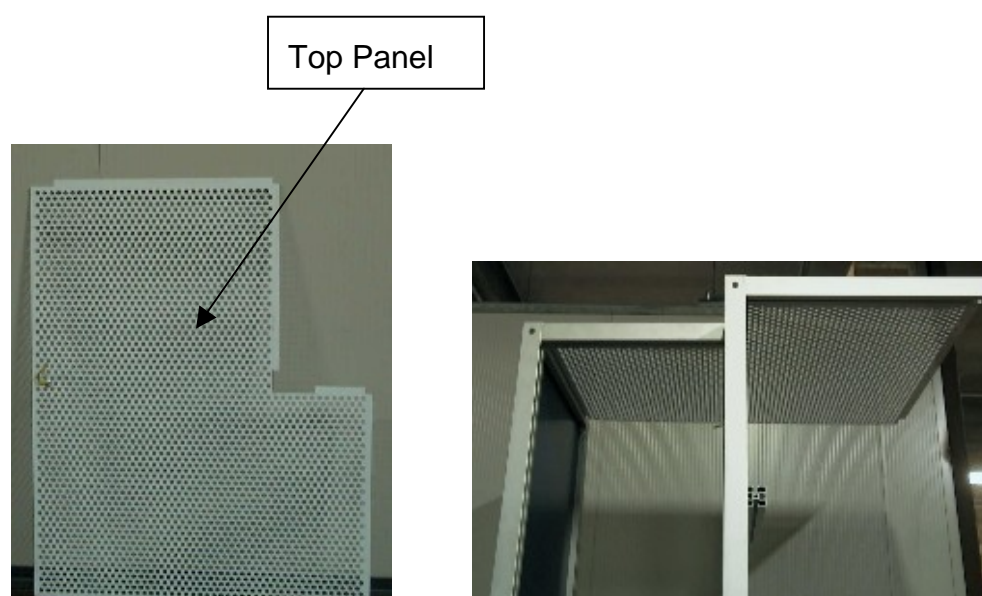
*Figure 7.*

## **TOP PANEL**

*(Refer to figure 8 at the bottom of this paragraph)*

- Take the top panel
- Holding the top panel in a horizontal position, insert it into the grooves provided for this purpose, as shown in the figure 8.

N.B. Proceed with caution, since during the next few steps the panel will not have been secured in place.

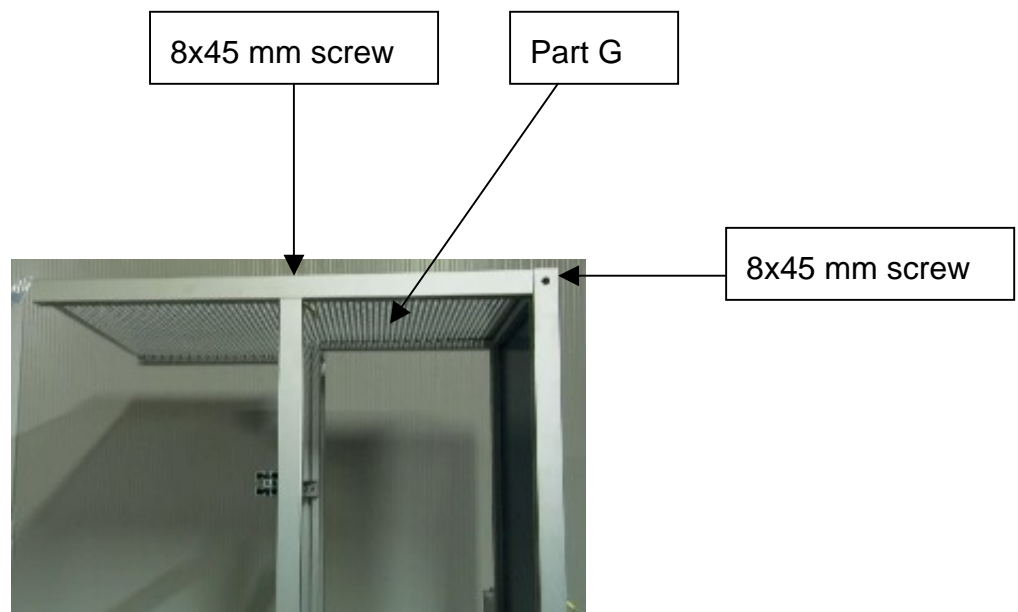


*Figure 8.*

**PART G**

*(Refer to figure 9 at the bottom of this paragraph)*

- Take the upright “part G” and two 8 x 45 mm screws.
- Stand on the side opposite to the console.
- Position the part with the shiny side facing outwards and the flared hole for the head of the screw upwards.
- Lift the part and bring it close to the instrument so that the upper panel enters the groove provided for it.
- Block the part in place with the two screws.

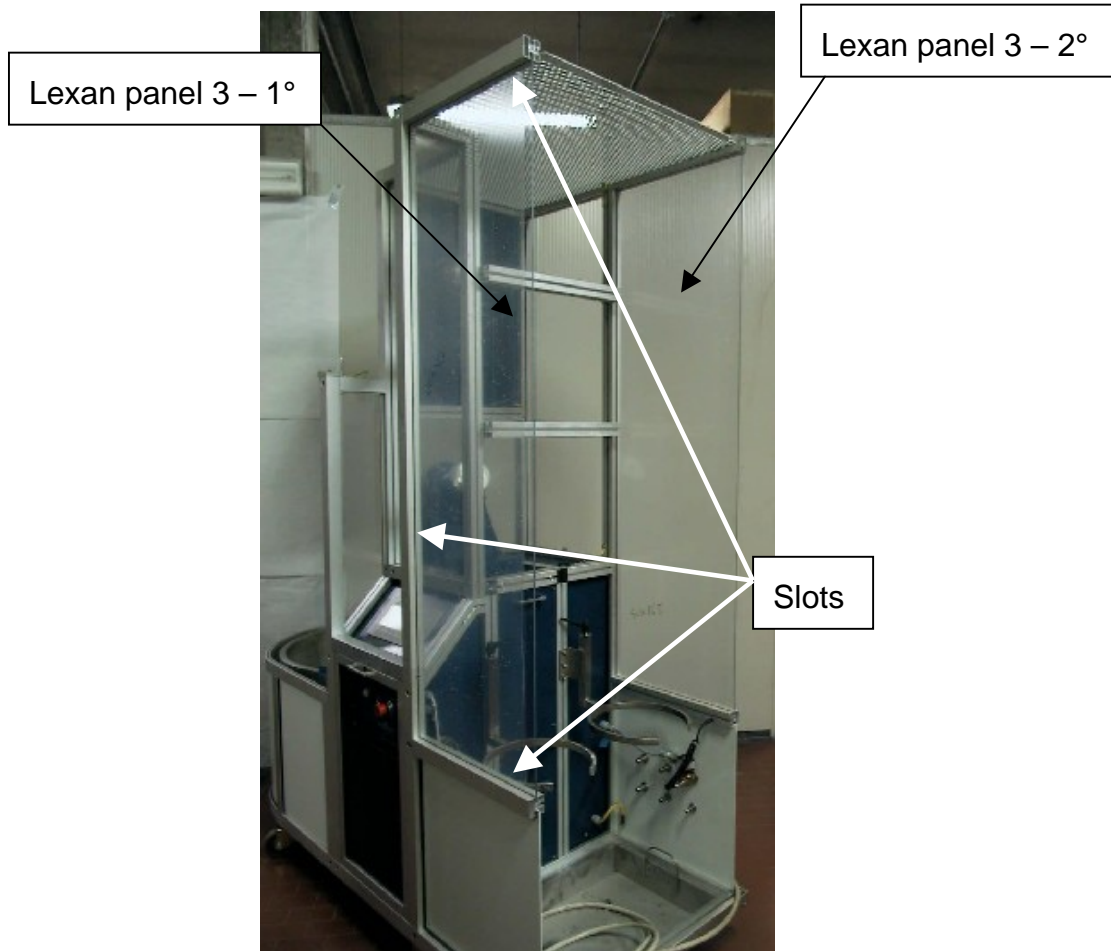


*Figure 9.*

**LEXAN PANEL 3**

*(Refer to figure 10 at the bottom of this paragraph)*

- Take Lexan panel 3 (1°) and stand in front of the console.
- Place the panel in a vertical position and parallel to the machine
- Insert the panel into the slots as shown in the figure 10.



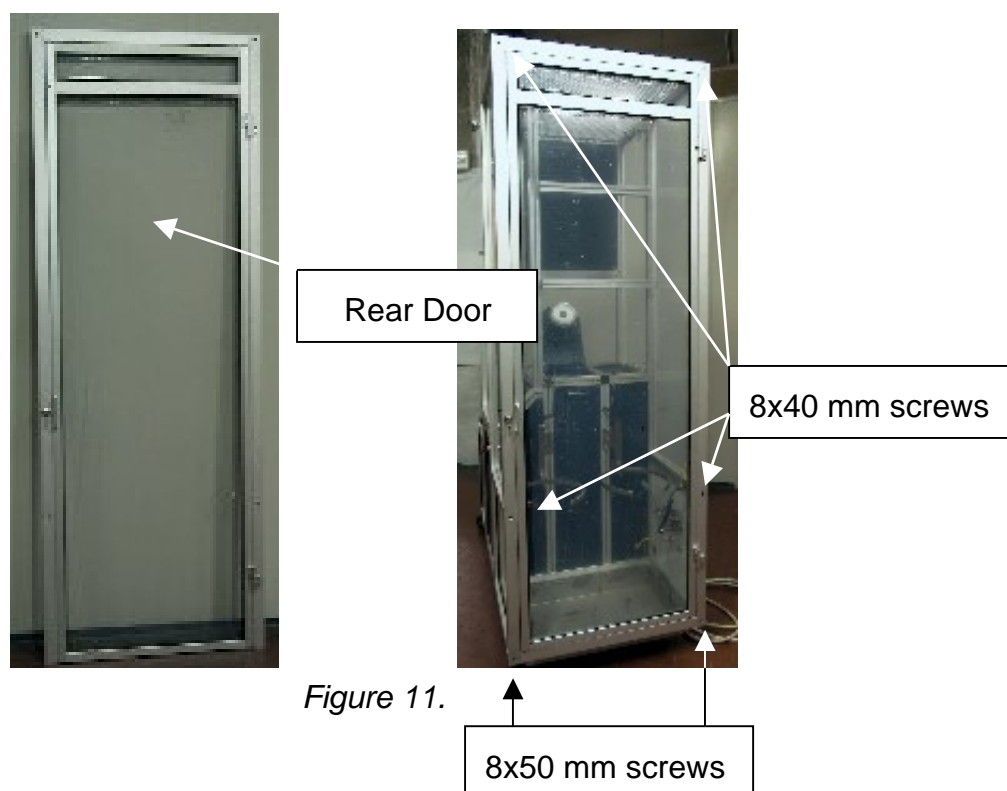
*Figure 10.*

- Take the second Lexan panel 3 (2°), and stand in front of the side opposite to the console.
- Place the panel in a vertical position and parallel to the machine
- Insert the panel into the slots as shown in the figure 10.

## REAR DOOR

*(Refer to figure 11 at the bottom of this paragraph)*

- Prepare 4 off 8x40 mm screws and 2 off 8x50 mm screws
- Position the door on the rear side of the instrument, in a vertical position with the handle on the left-hand side and on the outside.
- Raise the door slightly and bring it up against the instrument, inserting the top panel into the groove provided for it.
- Secure the door in place, first by inserting four 8x40 mm screws into the four front holes and then with the two 8x50 mm screws, screwing them into the holes in the bottom (from underneath)
- Tighten all the screws carefully.
- Make sure that the door can be opened and closed properly, if necessary loosening the screws, repositioning the, correctly and then tightening all six of them again.
- Connect the small earthing cable.



## RIGHT-HAND PANEL OF THE THERMOSTATIC BATH

(Refer to figure 12 at the bottom of this paragraph)

- Remove the hooking pin located at the top to the right of the console, unscrewing the Allen screw.
- Take the right-hand panel of the thermostatic bath.
- Position it in front of the instrument.
- Raise it and insert the pin 6 located on the strip protecting the tank near the console into the hole in the bottom surface of the panel.
- Rest the panel on the strip protecting the tank as it was on receipt.
- Insert the hooking system from above, inserting the pin into the hole located at the top of the panel.
- Tighten the screw securing the hooking system.
- Connect the small earthing cable

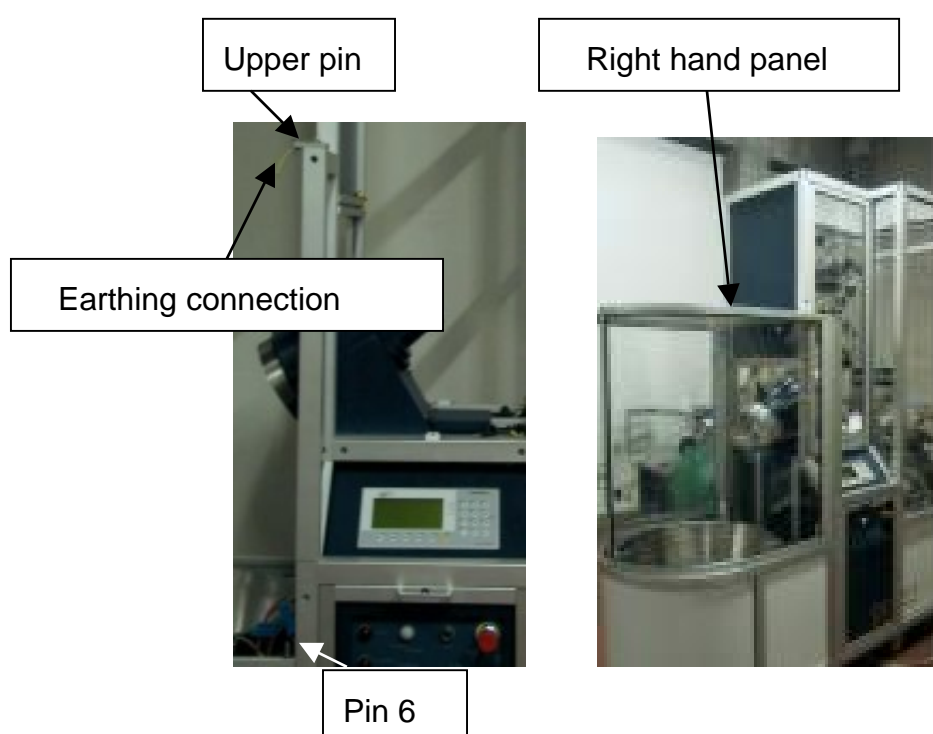


Figure 12.

## LEFT-HAND PANEL OF THE THERMOSTATIC BATH

(Refer to figure 13 at the bottom of this paragraph)

- Take the left-hand panel of the thermostatic bath.
- Position it in front of the instrument.
- Raise it and insert the pin located on the strip protecting the tank on the side opposite the console into the hole in the bottom surface of the panel.
- Rest the panel on the strip protecting the tank as it was on receipt.
- Insert the hooking system disassembled earlier, proceeding from above, and insert the pin into the hole in the panel.
- Tighten the screw securing the hooking system.

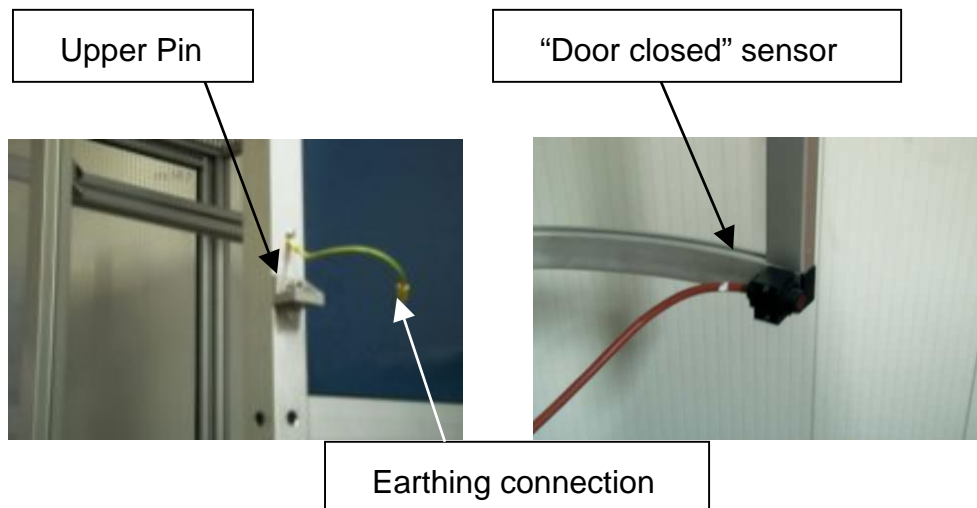
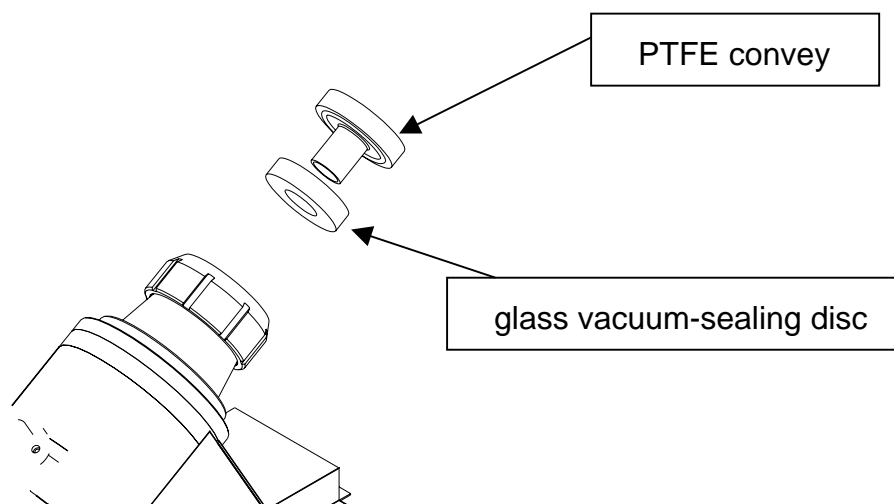


Figure 13.

- Connect the small earthing cable
- Secure the “door closed” sensor to the panel
- Insert the sensor cable into the conduit and close it.



**ASSEMBLY OF GLASSWARE****REFLUX HEAD***Figure 4.*

- Make sure that the glass vacuum-sealing disc and the PTFE conveyor inside the cavity through which the fumes rise are present (refer to figure 14).
- Take the reflux head (with the bottom valve and O-ring in place) and fix it using the 80 mm beil and the locking ring behind the cavity through which the fumes rise (refer to figure 5).
- Use a level to make sure that the upper flange of the reflux head is on a level
- Tighten the locking ring completely

*Figure5*

## BELLOWS

- Fit around the DN80 flange first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.



*Figure6*

- Prepare the bellows by inserting the two metal beil into it as shown in the figure below. Fit around the bellows a SCHD in such a way that the smooth side of the SCHD is facing towards the bottom. (see figures 7,8,9)



*Figure7*



*Figure8*



*Figure9*

- Take the bellows pre-assembled and position it on the DN80 flange. Tighten the joint. Use a torque wrench to tighten to 3 Newton. (see figures 10,11)



*Figure10*



*Figure11*

### **90° UNION**

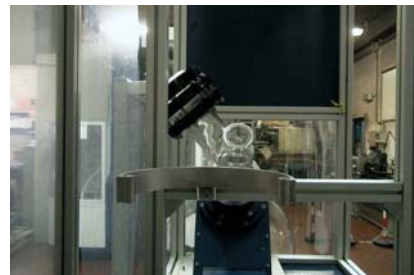
- Fit around the bellows first a SCHD and then two metal beils, in such a way that the smooth side of the SCHD is facing towards the two beils.

If needs stretch the bellows.

- Rotate the reflux head on a side in order to facilitate the next steps (see figure 12-13)

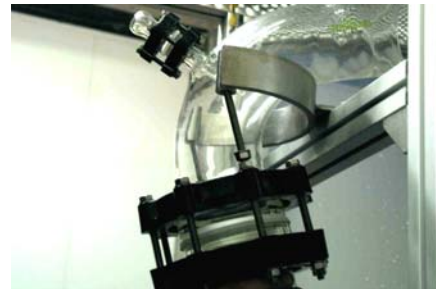


*Figure12*



*Figure13*

- Take the 90° union pre-assembled and insert the two screws into the provided holes, making sure not to damage the glass. (see figures 14,15).

*Figure14**Figure15*

- Tighten the screws slightly with the specially provided washers and dice blocking the part.
- Tighten the inferior DN80 joint slightly

## VACUUM SENSOR

- Take the vacuum sensor and the equipment required for the DN15 joint
- Fit around the DN15 flange indicated in figure16 first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown in *APPENDIX A*.
- Insert the free flange of the “vacuum sensor” part into the SCHD pre-assembled as above,,



figure16

from the side on which the heads of the screws are (not the smooth side)

- Place the second beil between the SCHD with the screws in it and the flange of the part "vacuum sensor"
- Slide the SCHD with the screws in it towards the flange, blocking the beil positioned as above in place
- Place the two glass flanges against each other with the gasket between them and tighten the joint slightly.
- Use a torque wrench to tighten to 3 Newton.
- Insert the PT100 probe into the appropriate lodging (see figure 17)

Vapor PT100  
probe lodging

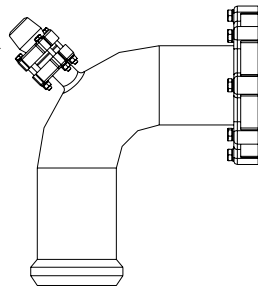


figure17

DN80 joint

PART "DN 15"

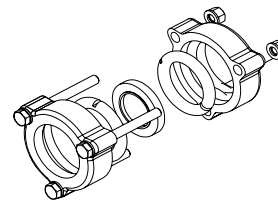
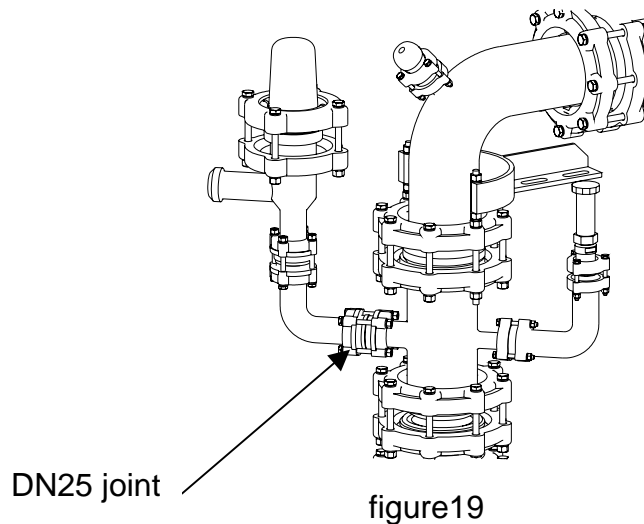


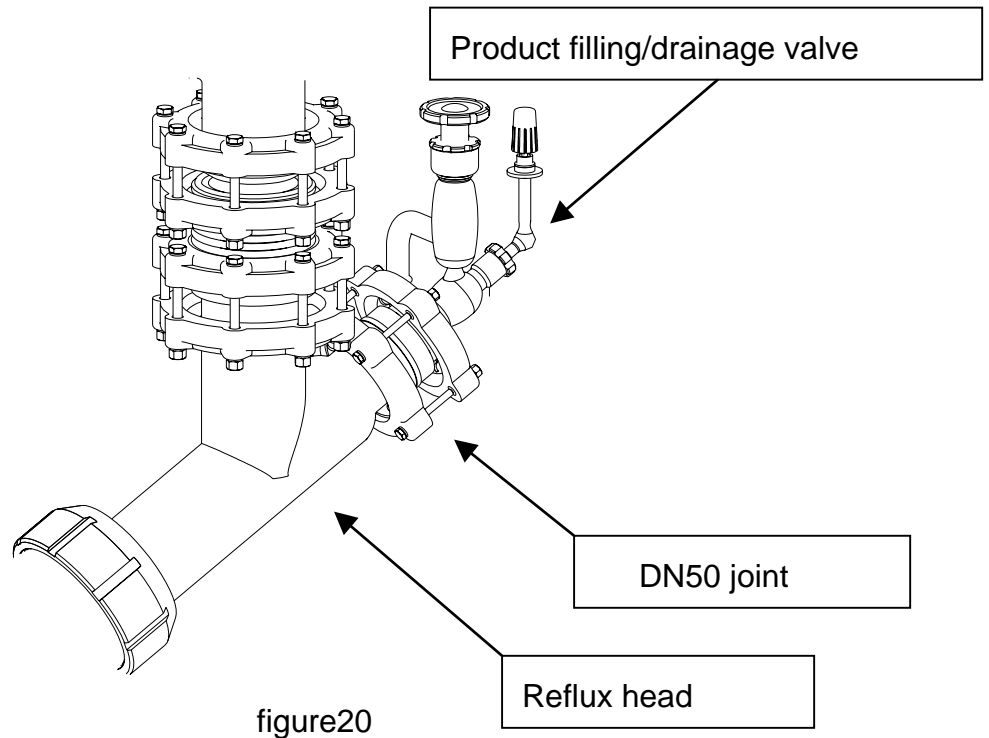
figure18

## SAFETY VALVE

- Take the safety valve and the equipment required for the DN25 joint
- Fit around the DN25 flange of the union Tee (facing towards the side opposite the console), first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown for the DN15
- Insert the free flange of the "safety valve" into the SCHD pre-assembled as above, from the side on which the heads of the screws are (not the smooth side)

- Place the second beil between the SCHD with the screws in it and the flange of the “safety valve” part.
- Slide the SCHD with the screws in it towards the flange, blocking the beil positioned as above in place
- Place the two glass flanges against each other with the gasket between them and tighten the joint slightly, leaving the valve facing upwards.
- Use a torque wrench to tighten to 3 Newton.



**PRODUCT FILLING AND DRAINAGE VALVE**

- Take product filling/drainage valve and the equipment required for the DN50 joint
- Fit around the DN50 flange of the reflux head (facing towards the rear of the instrument ), first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown in figure 20.

## PART "DN 50"

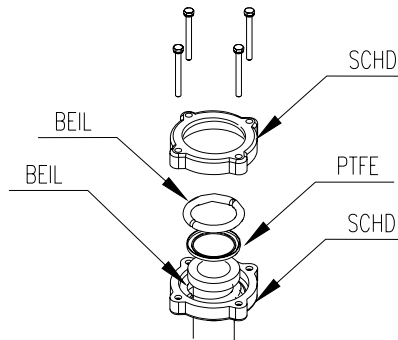


figure21

- Insert the valve flange into the SCHD, from the side on which the heads of the screws are (not the smooth side)
- Place the second beil between the SCHD with the screws in it and the valve flange (see figure 21).
- Slide the SCHD with the screws in it towards the flange, blocking the beil just positioned in place
- Position the gasket on the DN50 flange of the reflux head
- Position the two glass flanges against each other and tighten the joint slightly
- Use a torque wrench to tighten to 3 Newton.



## COOLANT

- Fit around the D80 flange, first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown in the figure 20.
- Insert the DN80 flange of the coolant inside the SCHD, from the side on which the heads of the screws are (not the smooth side)
- Place the second beil between the SCHD with the screws in it and the DN80 flange.
- Slide the SCHD with the screws in it towards the flange, blocking the beil just positioned in place
- Take the cooler and hold it in a vertical position, with the size DN80 flange facing downwards
- Raise it and then insert the two bars threaded in the two holes see figure below
- Position the two DN80 glass flanges against each other, position the gasket on the DN80 flange and tighten the joint slightly

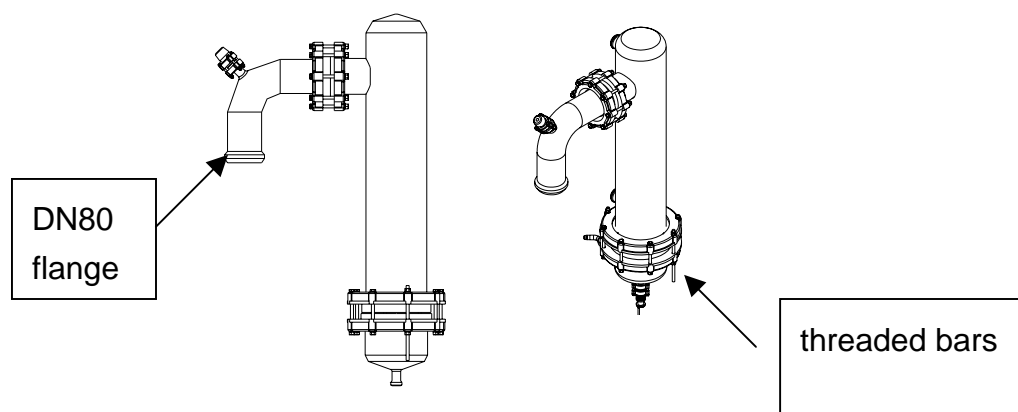


figure22

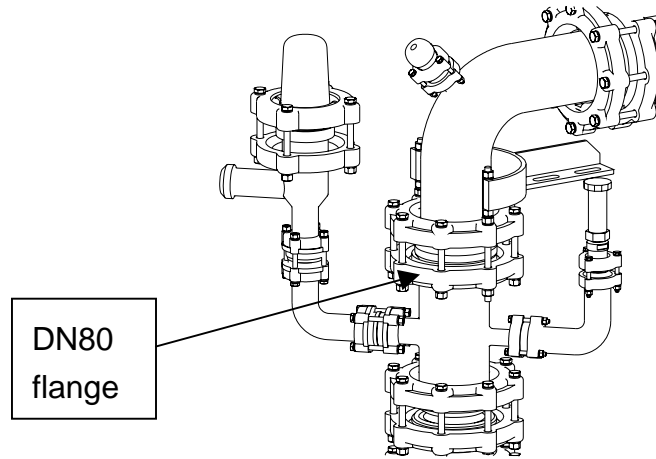


figure23

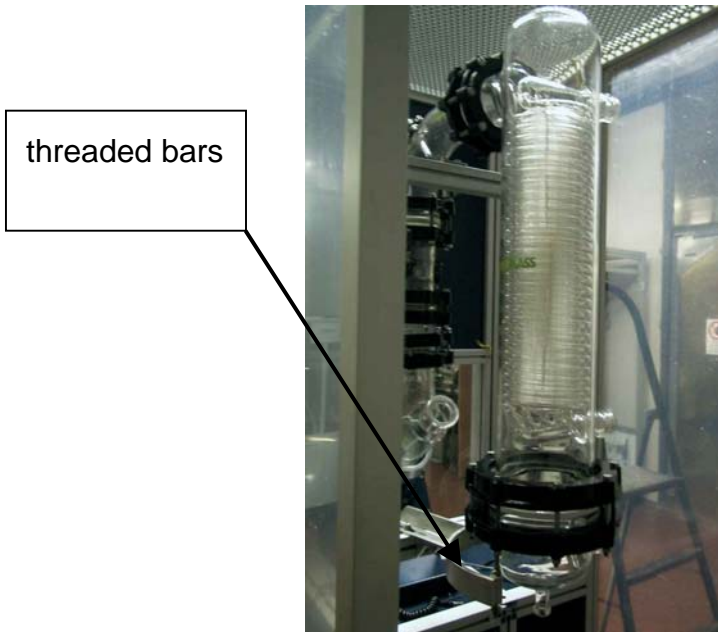


figure24

## UNION TEE

- Take the union tee and the equipment required for the DN15 joint
- Fit around the DN15 flange of the bellows first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown in Figure 18.
- Fit around the DN15 flange of the cooler the SCHD pre-assembled as above from the side on which the heads of the screws are (not the smooth side)
- Place the second beil between the SCHD with the screws in it and the flange of the cooler
- Slide the SCHD with the screws in it towards the flange, blocking the beil positioned as above in place
- Place the two flanges against each other and tighten the joint slightly.
- Use a torque wrench to tighten to 3 Newton.
- 

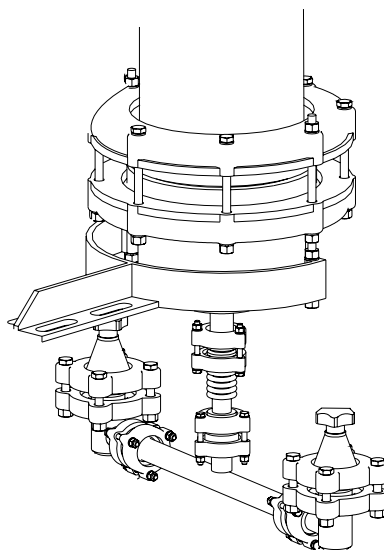


figure25

**RECOVERY FLASKS**

(Refer to figure 26)

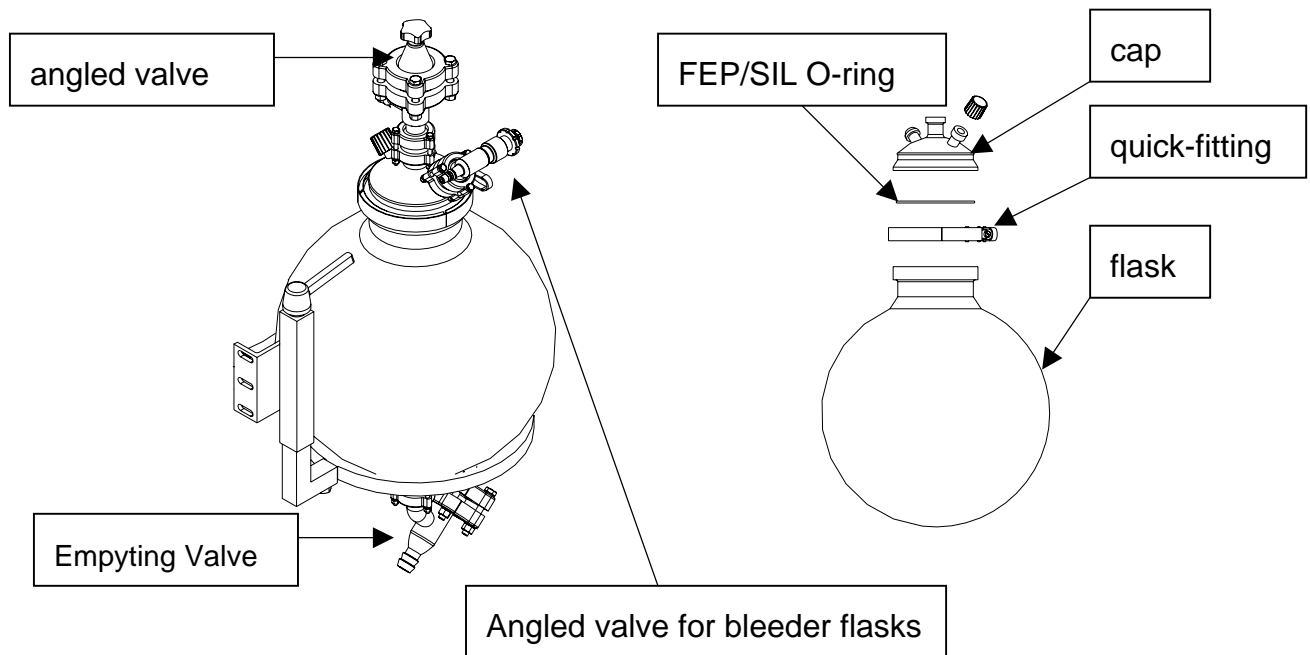


Figure 26.

- Position the first recovery flask on the bracket provided for it, leaving the DN100 flange facing upwards
- Position a DN100 FEP/SIL O-ring on top of the DN100 flange and then a cap as shown in the figure, leaving the threaded union facing towards the bracket for the other flask
- Secure the flask and the cap in place with the quick-fitting ring provided
- Screw the closed GL18 plug into the threaded union in the cap
- Repeat this sequence also for the second flask.

**ANGLED VALVE**

*(Refer to figure 26)*

- Take the valve and the equipment required for the DN15 joint
- Fit around the DN15 (female) vertical flange of the cap first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown in Figure 18.
- Insert the DN15 male flange inside the SCHD pre-assembled as above, from the side on which the heads of the screws are (not the smooth side)
- Place the second beil between the SCHD with the screws in it and the male flange of the valve
- Slide the SCHD with the screws in it towards the flange, blocking the beil positioned as above in place
- Place the two flanges (the male flange of the valve and the female flange of the cap) against each other with the gasket between them and tighten the joint slightly , leaving the female flange of the valve facing towards the other flask
- Use a torque wrench to tighten to 3 Newton.
  
- Repeat this sequence also for the second valve and the second flask

## UNION TEE BETWEEN THE FLASKS

(Refer to figure 27)

- Take the union and the necessary equipment for two DN15 joints
- Fit around the DN15 female flange of the valve on the right-hand side first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown in Figure 18.

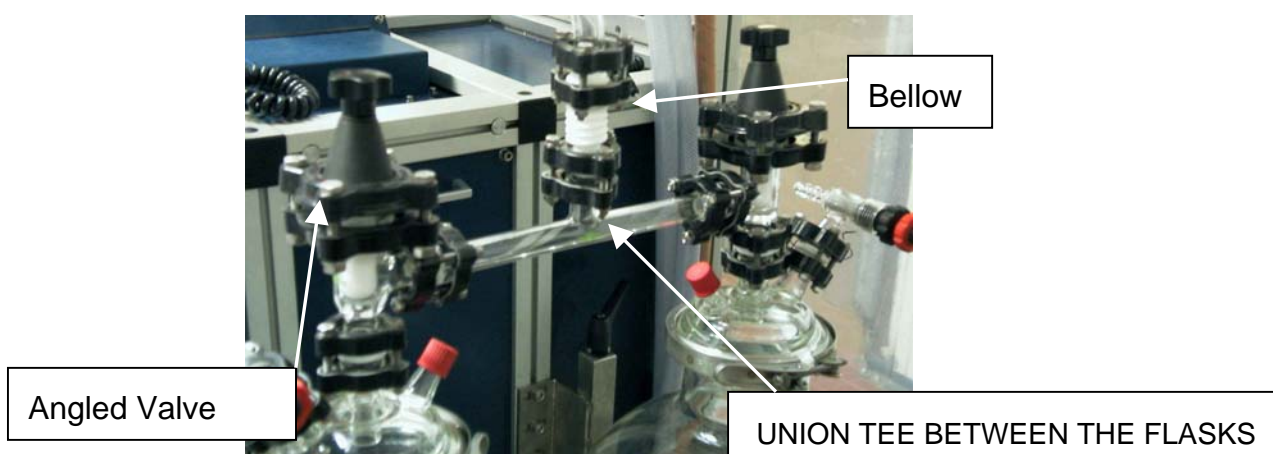


Figure 27.

- Insert the right-hand flange of the union into the SCHD pre-assembled as above, from the side on which the heads of the screws are (not the smooth side)
- Place the second beil between the SCHD with the screws in it and the right-hand flange of the union
- Slide the SCHD with the screws in it towards the flange, blocking the beil positioned as above in place
- Place the two flanges (the female flange of the valve and the right-hand flange of the union) against each other with the gasket between them and tighten the joint slightly, leaving the union in such a way that the central flange is facing towards the reflux head.

- Secure the joint slightly
- Repeat this sequence for the other valve and the left-hand flange
- Use a torque wrench to tighten all the bolts to 3 Newton.

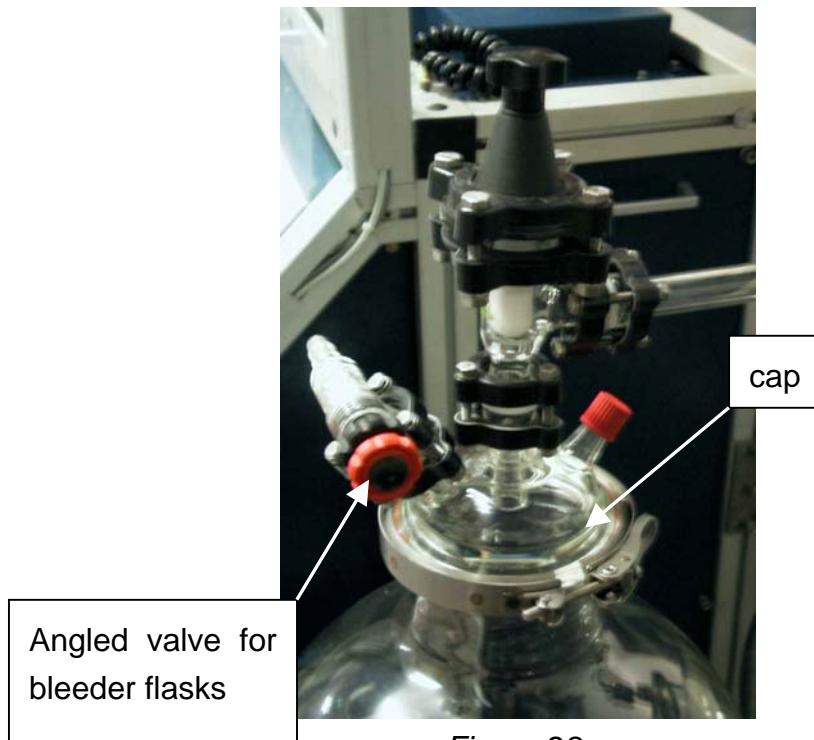
## **BELLOWS**

*(Refer to figure 27)*

- Take the bellows and the equipment required for the DN15 joint
- Fit around the DN15 free flange of the union Tee, first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown in Figure 18.
- Insert one of the flanges of the bellows into the SCHD pre-assembled as above, from the side on which the heads of the screws are (not the smooth side)
- Place the second beil between the SCHD with the screws in it and the flange of the bellows (the one on the smooth side of the SCHD)
- Slide the SCHD with the screws in it towards the flange, blocking the beil positioned as above in place
- Place the two flanges (the glass flange for the union and the PTFE flange for the bellows) against each other
- Tighten the joint slightly.

## ANGLED VALVES FOR BLEEDER FLASKS

(Refer to figure 28)



*Figure 28.*

- Take the two valves and the necessary equipment for two DN15 joints
- Fit around the DN15 female flange of valve first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown in Figure 18.
- Insert the flask flange into the SCHD pre-assembled as above, from the side on which the heads of the screws are (not the smooth side)
- Place the second beil between the SCHD with the screws in it and the flask flange



- Slide the SCHED with the screws in it towards the flange, blocking the beil positioned as above in place
- Place the two flanges (the female valve flange and the male flange of flask) against each other with the gasket between them and tighten the joint slightly , leaving the union in such a way that the outlet of the valve is facing towards the rear door
- Use a torque wrench to tighten the union to 3 Newton.
  
- Repeat the sequence for the second valve and the second flask

**EMPTYING VALVE**

(Refer to figure 29)

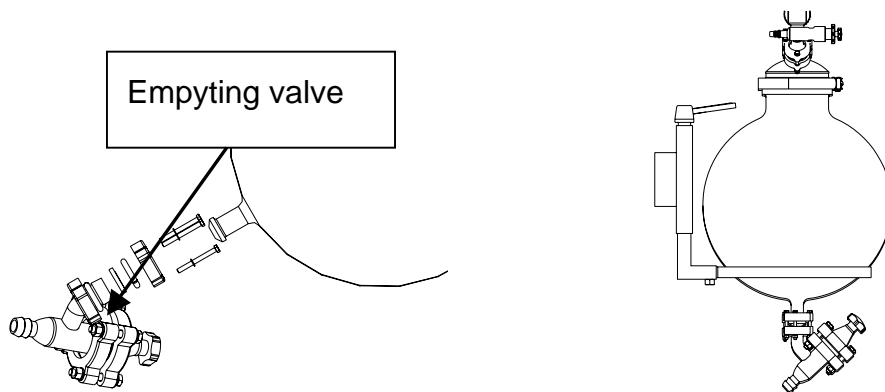


Figure 29.

- Take the two valves and the necessary equipment for two DN15 joints
- Fit around the DN15 male flange of the cap first a SCHD and then a beil, in such a way that the smooth side of the SCHD is facing towards the beil.
- Prepare the second SCHD by inserting the screws and washers into it, as shown in Figure 18.
- Insert the valve flange into the SCHD pre-assembled as above, from the side on which the heads of the screws are (not the smooth side)
- Place the second beil between the SCHD with the screws in it and the valve flange
- Slide the SCHD with the screws in it towards the flange, blocking the beil positioned as above in place

- Place the two flanges (the female valve flange and the male flange of the cap) against each other with the gasket between them and tighten the joint slightly , leaving the union in such a way that the outlet of the valve is facing towards the rear door
- Use a torque wrench to tighten the union to 3 Newton.
  
- Repeat the sequence for the second valve and the second flask

**EVAPORATION FLASK**

(Refer to figure 30)

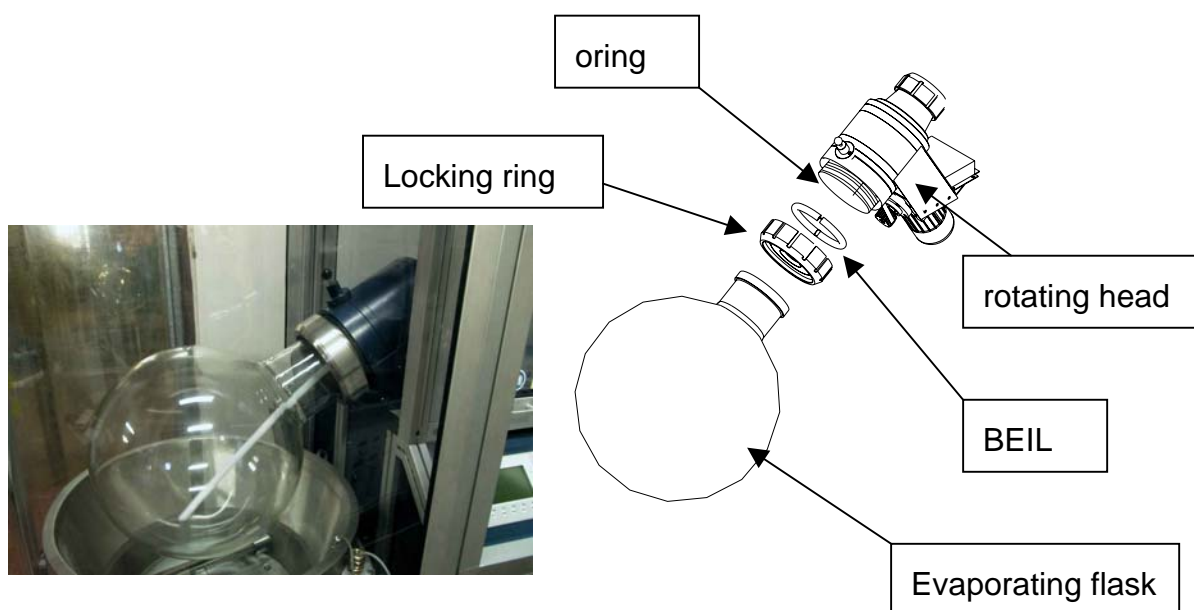
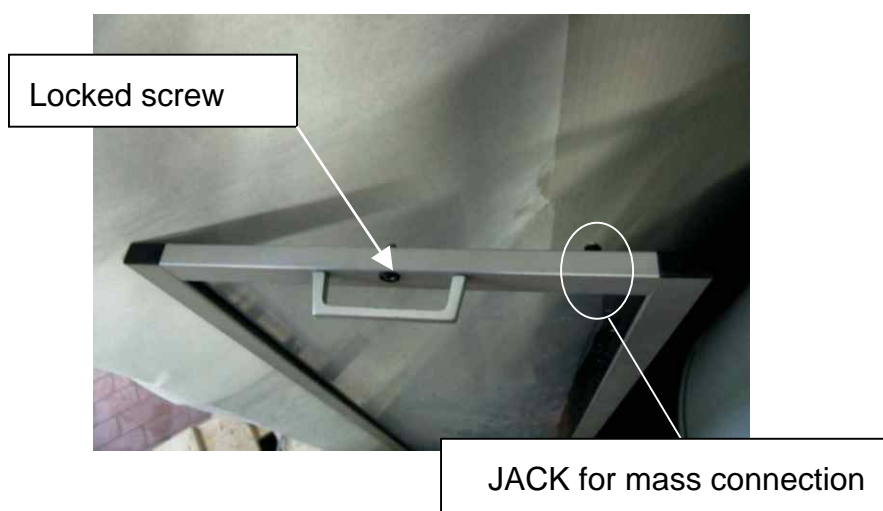


Figure 30.

- Make sure that the O-ring housed on the rotating head is in place
- If the O-ring will not remain firmly in position, secure it with silicone-based grease
- Take the evaporation flask
- Fit the front locking ring around the connecting flange of the flask
- Position a size 150 beil between locking ring and the flange of the flask
- Rest the flange of the flask against the rotating head
- Tighten the locking ring firmly, keeping the rotation-secure pin pressed
- Release the pin and make sure that the flask is free to move.

**CENTRAL PANELS**

*(Refer to figure 31 and 32)*



*Figure 31.*

- Take the panel for the side opposite to the console (see figure 29)
- Stand on the side opposite to the console, facing the instrument
- Position the panel vertically, with the handle on the outside and at the bottom (if the correct panel has been taken, the JACK for connecting to earth should be at the bottom on the left-hand side)
- Raise the panel and insert the two metal tabs into the slot located at the top of the frame of the instrument
- Place the panel against the instrument and fix it in place with the screw under the handle.

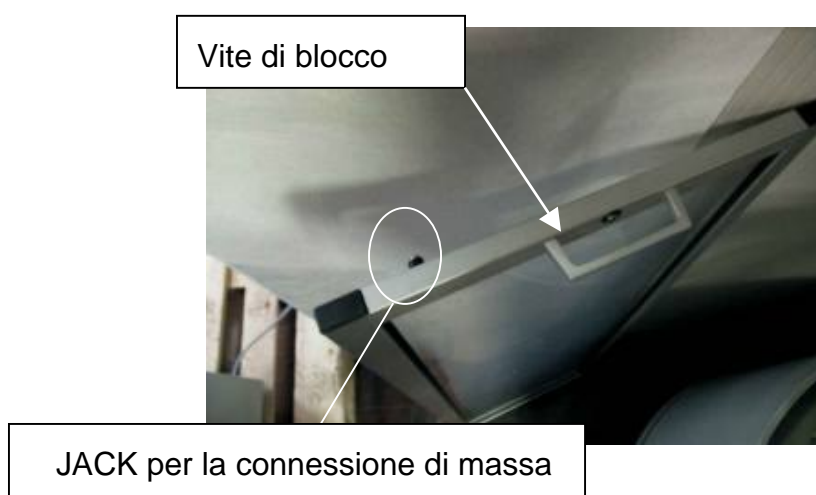


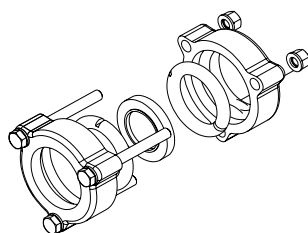
Figure 32.

- Take the panel for the console side (see figure 31)
- Stand in front of the console
- Position the panel vertically, with the handle towards you and at the bottom (if the correct panel has been taken, the JACK for connecting to earth should be at the bottom on the right-hand side)
- Raise the panel and insert the two metal tabs into the slot located at the top of the frame of the instrument
- Place the panel against the instrument and fix it in place with the screw under the handle.
- Connect the two small earthing cables to the two doors working from the rear of the instrument
  
- Check again with a torque wrench that all the screws have been tightened to 3 Newton.

**APPENDIX A: Material required for :****DN15 JOINT**

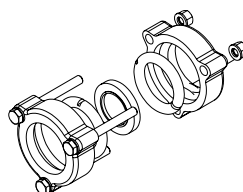
- M6x60 hexagonal-head screw 3 off
- DN15 flange (SCHDda15) 2 off
- $\phi 6$  washer 6 off
- M6 hexagonal nut 3 off
- DN 15 Beil 2 off
- DN 15 PFTE gasket 1 off

## PART "DN 15"

**DN25 JOINT**

- M8x60 hexagonal-head screw 8 off
- DN25 flange (size 25 SCHD) 2 off
- $\square 8$  washer 8 off
- M8 hexagonal nut 8 off
- DN 25 beil 2 off
- DN25 PTFE gasket 1 off

## PART "DN 25"



**DN50 JOINT**

- M8x80 hexagonal-head screw 8 off
- DN50 flange (size 50 SCHD) 2 off
- 8 washer 8 off
- M8 hexagonal nut 8 off
- DN 50 beil 2 off
- DN50 PTFE gasket 1 off

## PART "DN 50"

