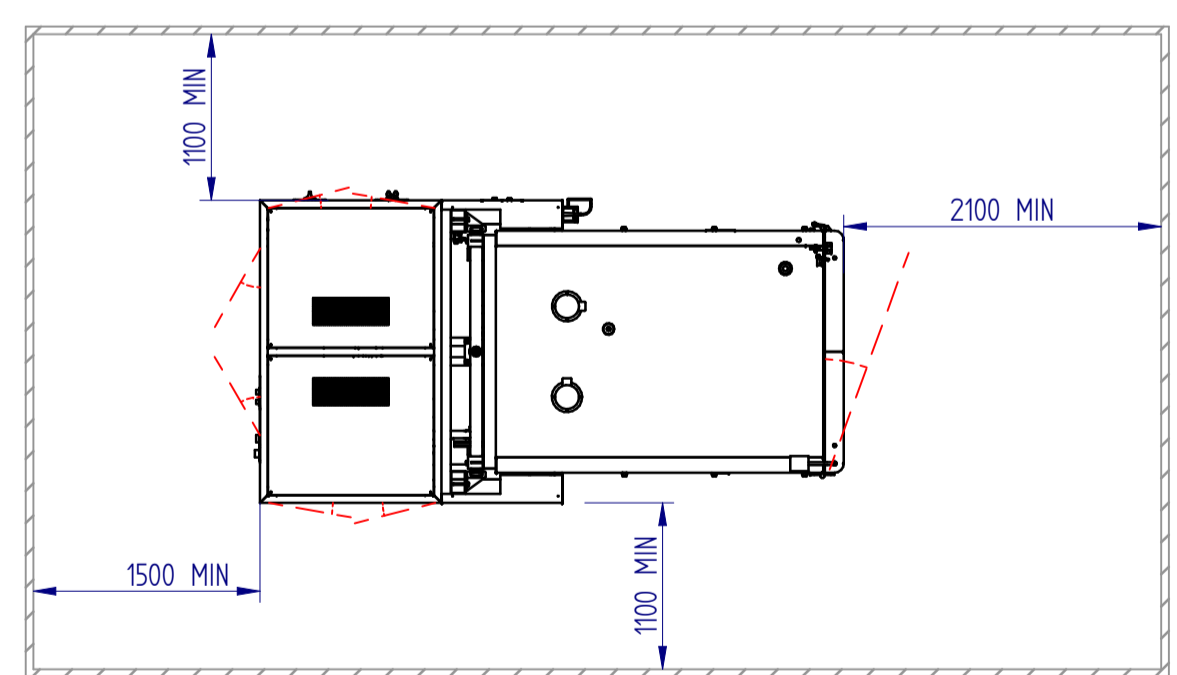


STANDARD CONFIGURATION

SEZIONE A-A

SEZIONE B-B



SUGGESTION FOR THE INSTALLATION
150

DRAWING FOR INFORMATION ONLY
GENERAL TOLERANCE ±5 mm

SUPPLY LIMITS: Customer
Angelantoni Test Technologies

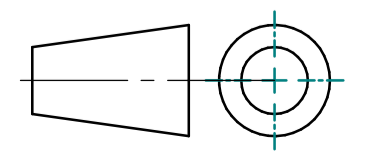
LEGEND	
1- INSPECTION WINDOW 450x450 mm	231- FLOOR WITH HOLE FOR VERTICAL VIBRATION TEST (T. max 180°C)
2- EVAPORATOR/DEHUMIDIFICATOR	241- ETHERNET PORT
3- POWER SUPPLY CONNECTION (cable)	251- CONNECTOR FOR AUXILIARY CONTACTS
4- EMERGENCY PUSH-BUTTON	261- HANDLING PORTHOLE (OPTIONAL)
5- RS232 INTERFACE	271- PORTHOLE Ø150mm
6- MAIN SWITCH	281- REFRIGERATING UNIT
7- MIN/MAX ELECTRONIC THERMISTAT	291- STEAM GENERATOR (ONLY FOR CLIMATICS)
8- ELECTRICAL HEATERS	301- N°2 RAILS 5 m FOR MANUAL/AUTOMATIC MOVEMENT OF THE CHAMBER (OPTIONAL)
9- TEMPERATURE PROBE	311- FLOOR PLUG
10- CAPACITIVE PROBE (ONLY FOR CLIMATICS)	321- ELECTROMAGNETIC LOCK WITH GATEKEEPER SYSTEM (OPTIONAL)
11- TOWN / TOWER WATER INLET (PIPES AT CUSTOMER CARE) (1): MODELS AV2200 (T) S, AV2200 C (T) S: 1.1/4" G MODELS AV2200 C (T) S, AV2200 C (T) S: 1.1/2" G	331- HEAD EXTENDER (AT CUSTOMER CARE)
12- TOWN / TOWER WATER OUTLET (PIPES AT CUSTOMER CARE) (1): MODELS AV2200 (T) S, AV2200 C (T) S: 1.1/4" G MODELS AV2200 C (T) S, AV2200 C (T) S: 1.1/2" G	341- SILICONE GASKET (AT ACS CARE)
13- HUMIDIFICATION WATER INLET (ONLY FOR CLIMATICS) approx consumption 6 kg/h, connection 1/2" G (1)	351- COLLAR WITH CLAMP (AT ACS CARE)
14- CONDENSATE DRAIN (COUNTER PRESSURE FREE) 1/2" G	361- RING TO FIX SILICON GASKET TO THE FLOOR (AT ACS CARE)
15- PORTHOLE Ø150mm	371- COMPRESSED AIR INLET FOR DEEP DEHUMIDIFICATION KIT 1/2" G (OPTIONAL) (1)
16- HELICOIDAL FAN	381- CHAMBER MOVING SYSTEM CONTROLS
17- FAN MOTOR	391- 3/8" MALE CONNECTION FOR RUBBER WITH VALVE
18- SHEET FOR CONDENSATE DRAIN OF THE DOOR	401- RESET BUTTON
19- INTERNAL LAMP (60W)	411- FAN KIT, FILTER AND GRID
20- MACHINE UNIT	421- WI-FI REMOVABLE ANTENNA
21- ELECTRICAL CABINET	431- LIMITS CONNECTION
22- TOUCH SCREEN CONTROL PANEL	441-

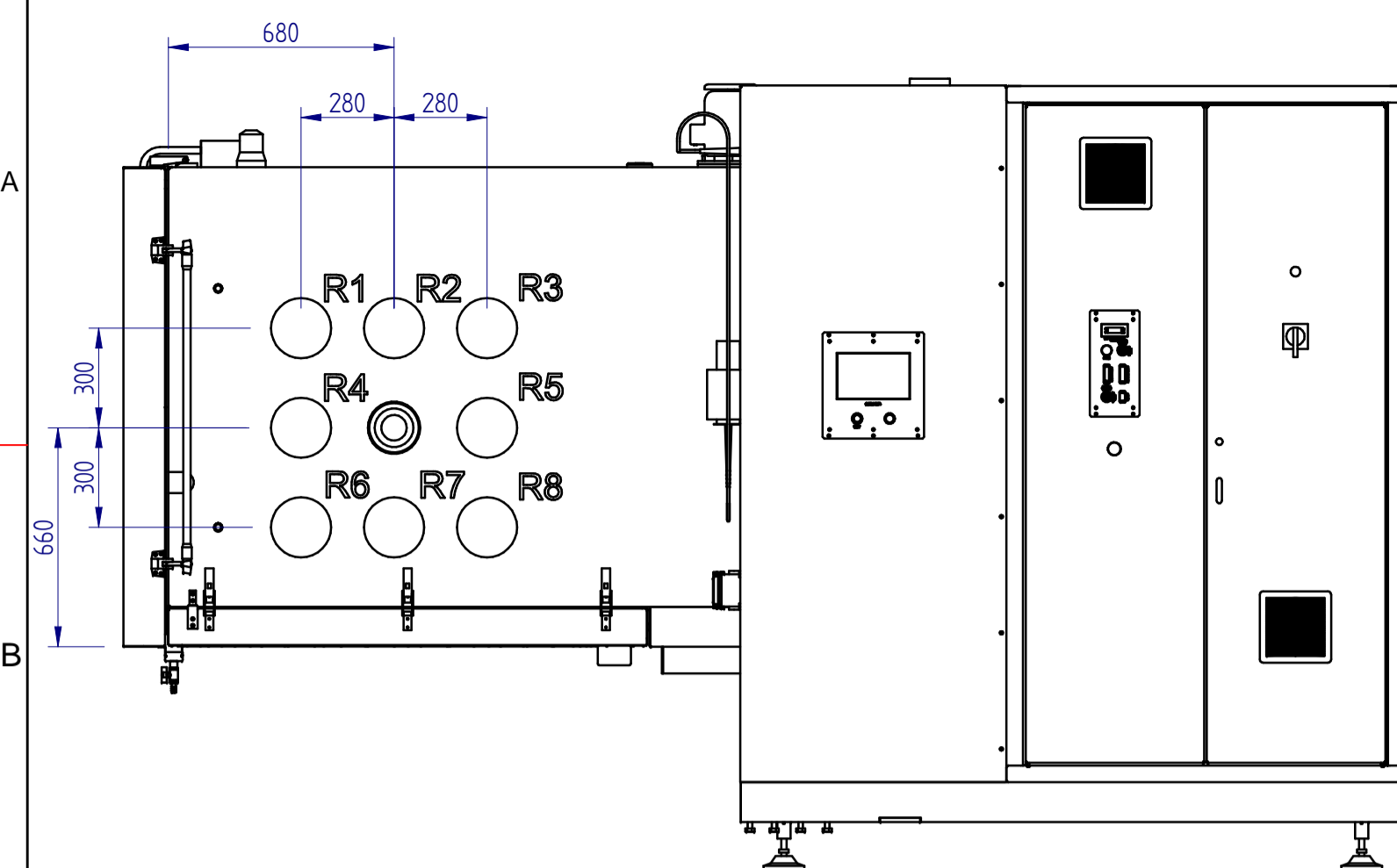
NOTE (1)
Reference to D002041

LAYOUT VIBRATION 2200

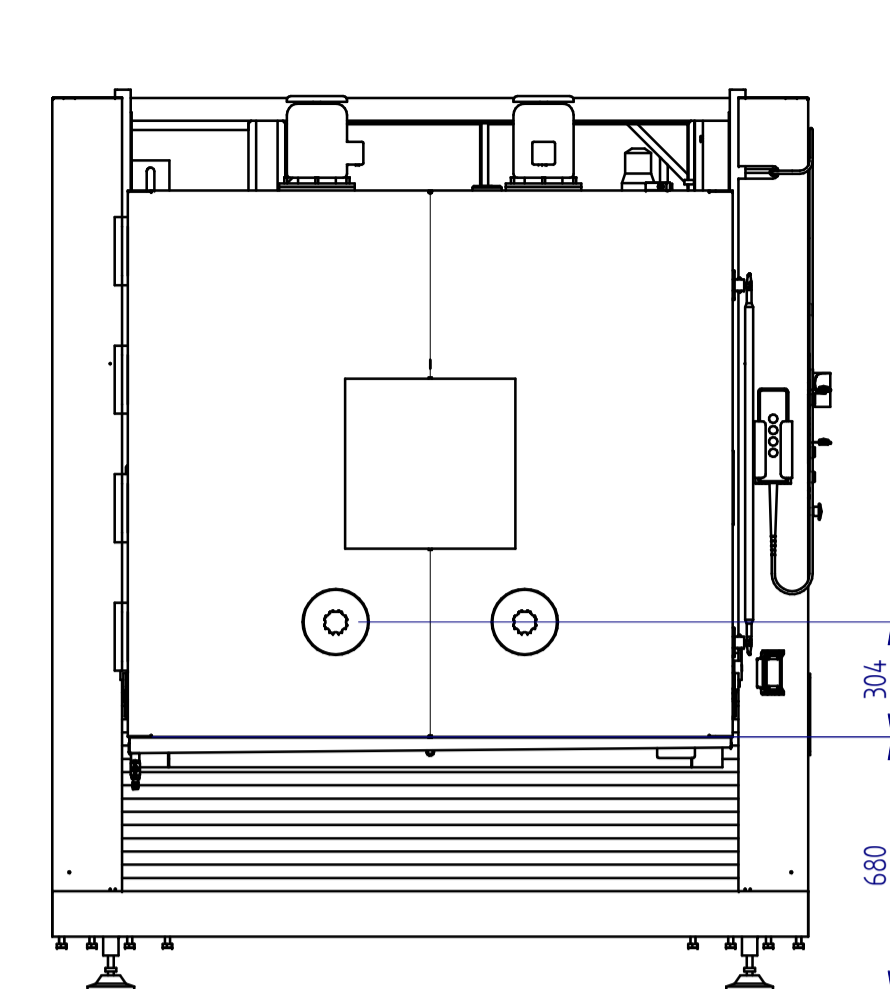
Drawing No. **D0010577** Revision **U** Scale **1:20** Sheet **1 of 4**

Standards Approval	M.F.	Date	09/05/2011
Technical Manager	P.Q.	Date	09/05/2011
Inspected by	P.Q.	Date	09/05/2011
Drawn by	G.M.	Date	09/05/2011

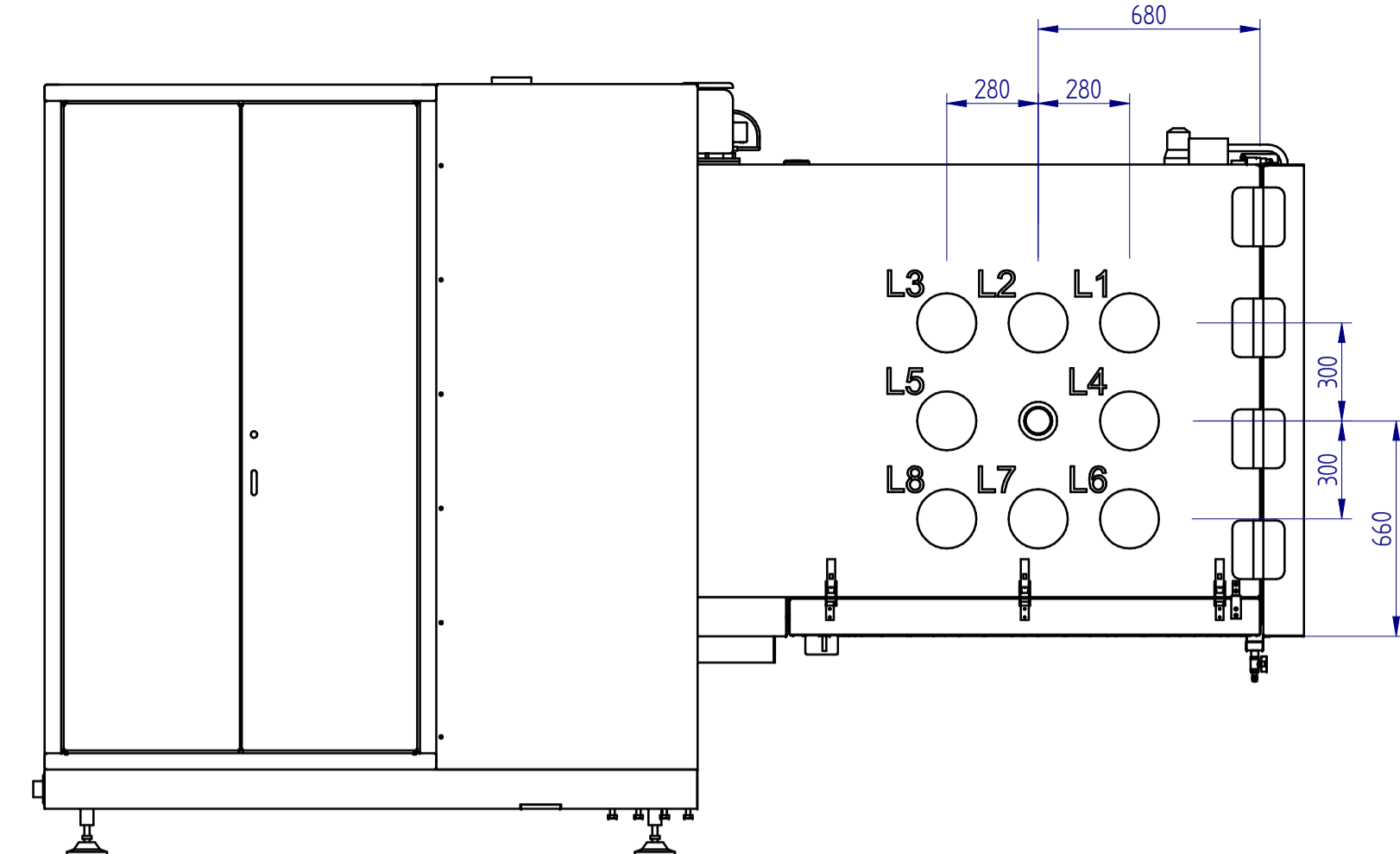




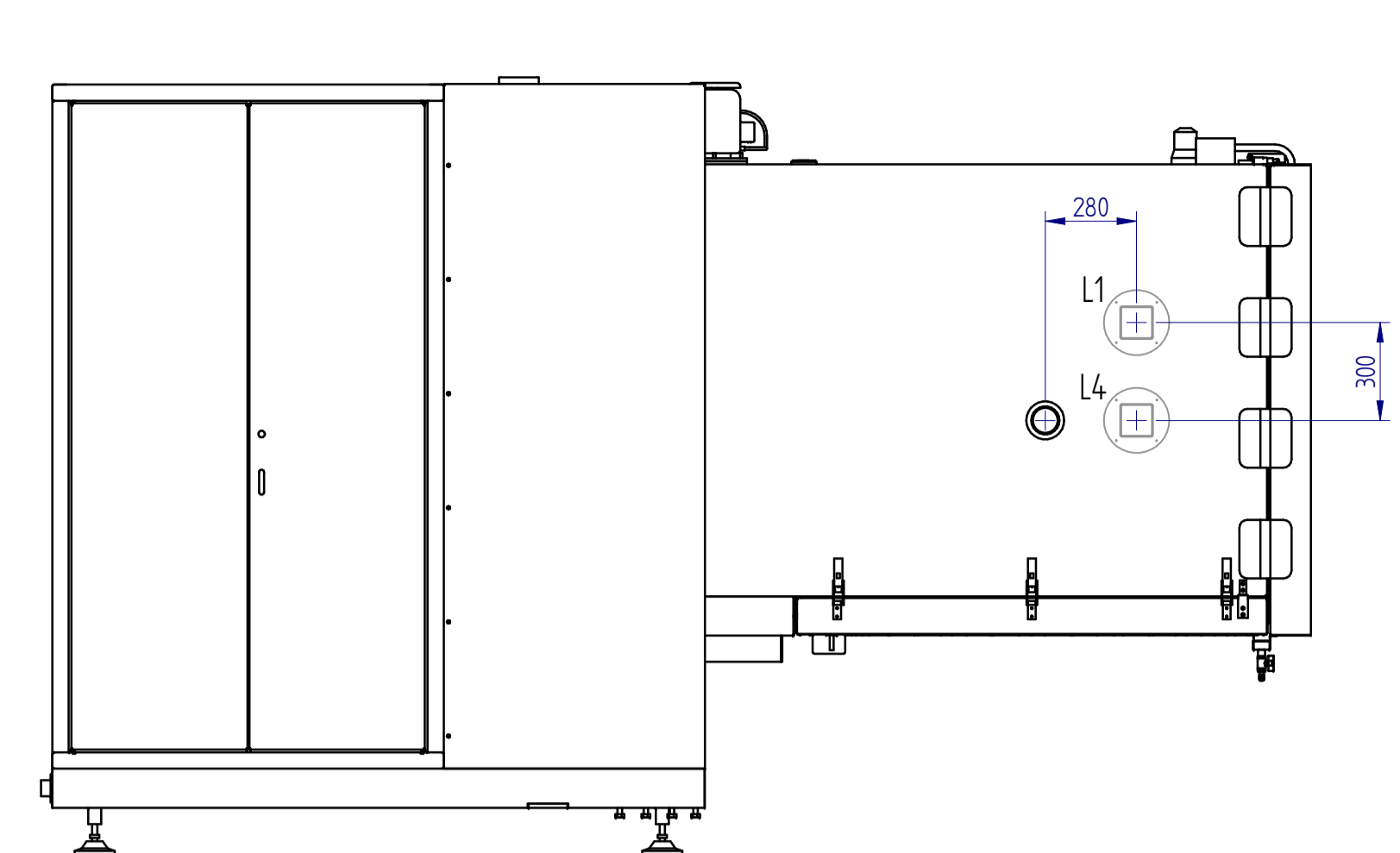
ADDITIONAL PORTHOLES POSITION (AVAILABLE SIZE: Ø80 OR Ø150 OPTIONAL)



HANDLING PORTHOLES POSITION (OPTIONAL)



ADDITIONAL PORTHOLES POSITION (AVAILABLE SIZE: Ø80 OR Ø150 OPTIONAL)



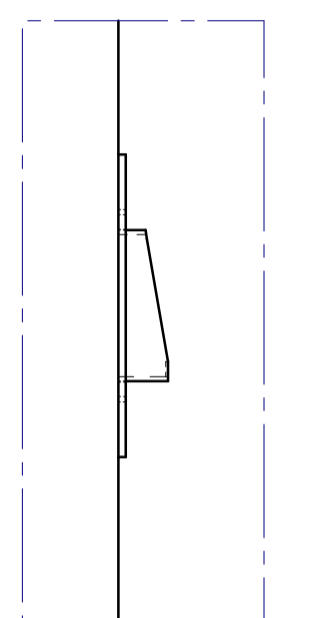
ADDITIONAL COMPENSATION VALVES POSITION - SIZE: 100X100 (OPTIONAL)

COMPENSATION VALVES ARE LOCATED IN THE POSITION OF SOME OPTIONAL PORTHOLES, WHICH THEREFORE CAN NOT BE SELECTED.

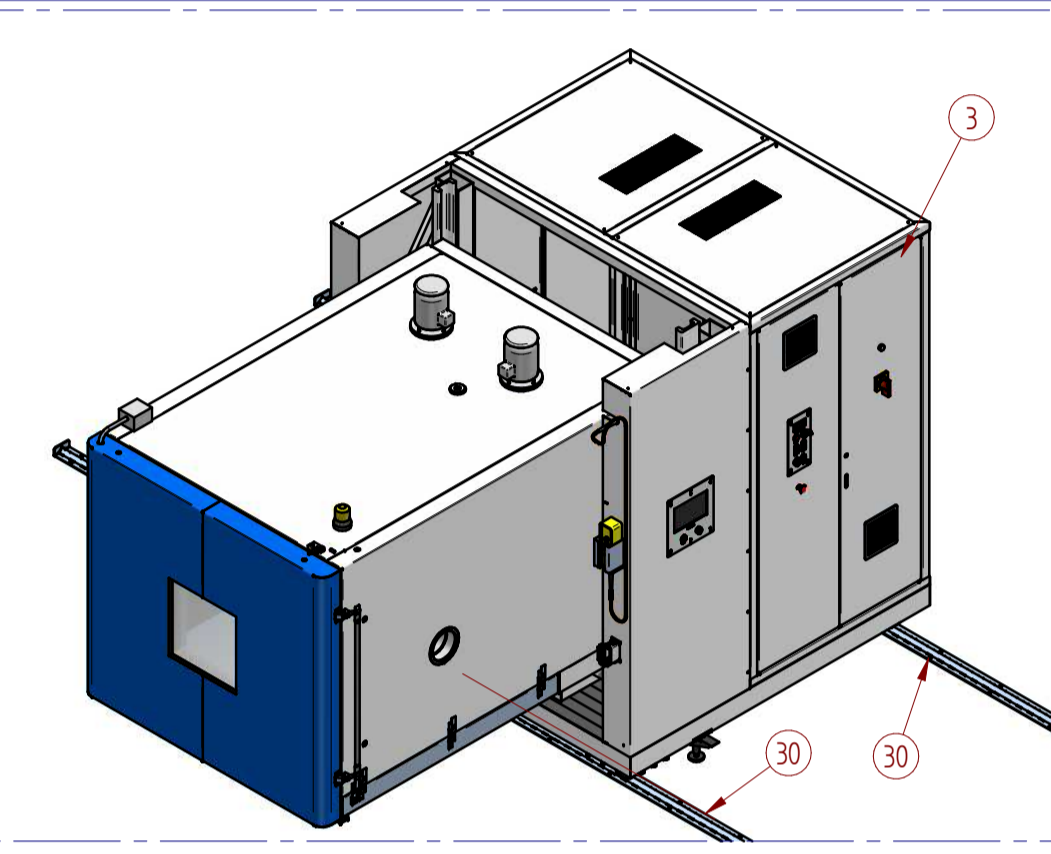
THE AIM OF THESE COMPONENTS IS TO INCREASE AIR EXCHANGE FLOW BETWEEN THE CHAMBER USEFUL VOLUME AND OUTSIDE; THIS MAY LEAD TO SOME EFFECTS:

- THIS CAN LEAD TO PERFORMANCE REDUCTION AT NEGATIVE TEMPERATURE (CAPABILITY OF THE CHAMBER TO HOLD TEMPERATURE SETPOINT FOR A LONG TIME) AND MAY CAUSE CONDENSATION OR ICE FORMATION INSIDE THE CHAMBER.

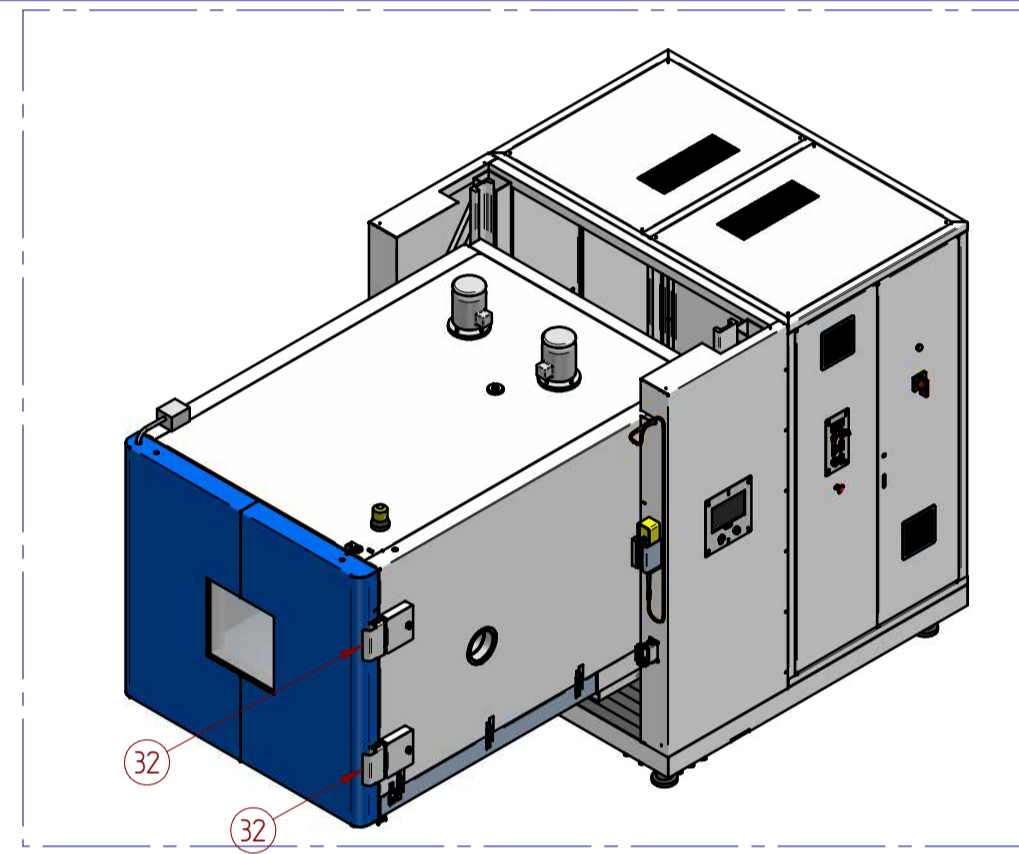
- IF THE CHAMBER OR THE SPECIMEN IS EQUIPPED WITH ACCESSORIES THAT MODIFY THE AIR COMPOSITION INSIDE THE CHAMBER (FOR EXAMPLE LIQUID OR GASEOUS NITROGEN), IT IS REQUIRED A SPECIFIC RISK ASSESSMENT BY THE PLANT MANAGER.



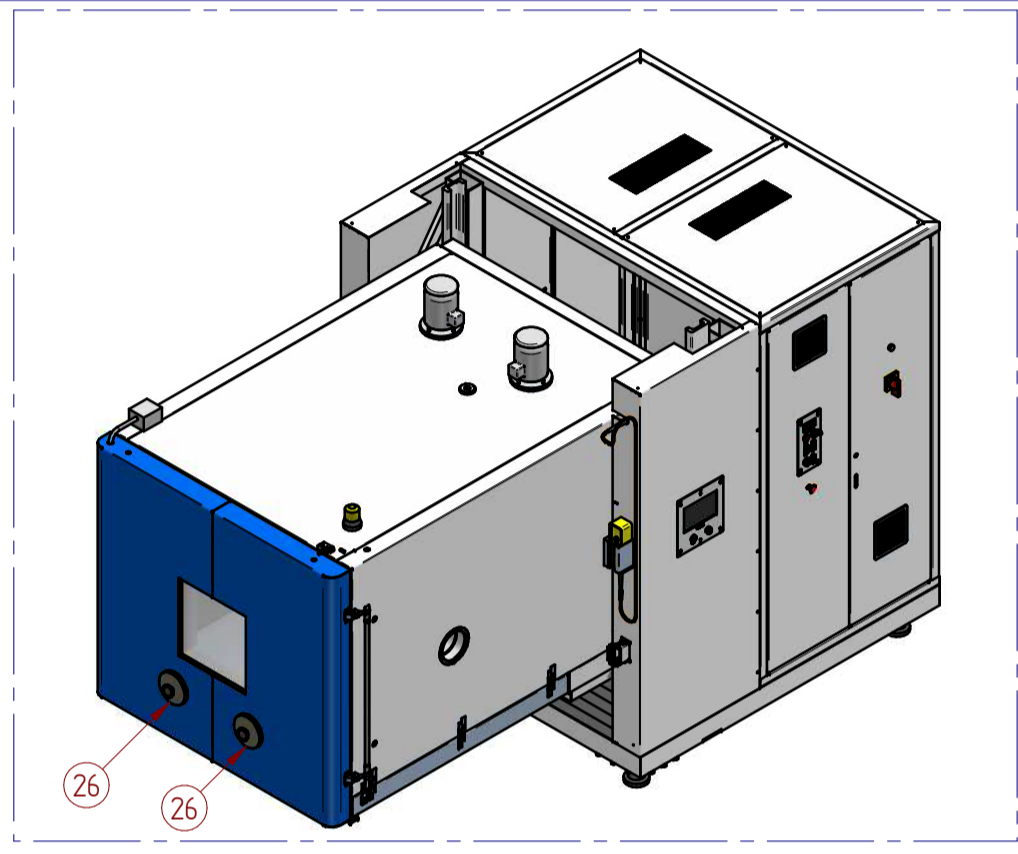
COMPENSATION VALVE SIDE VIEW



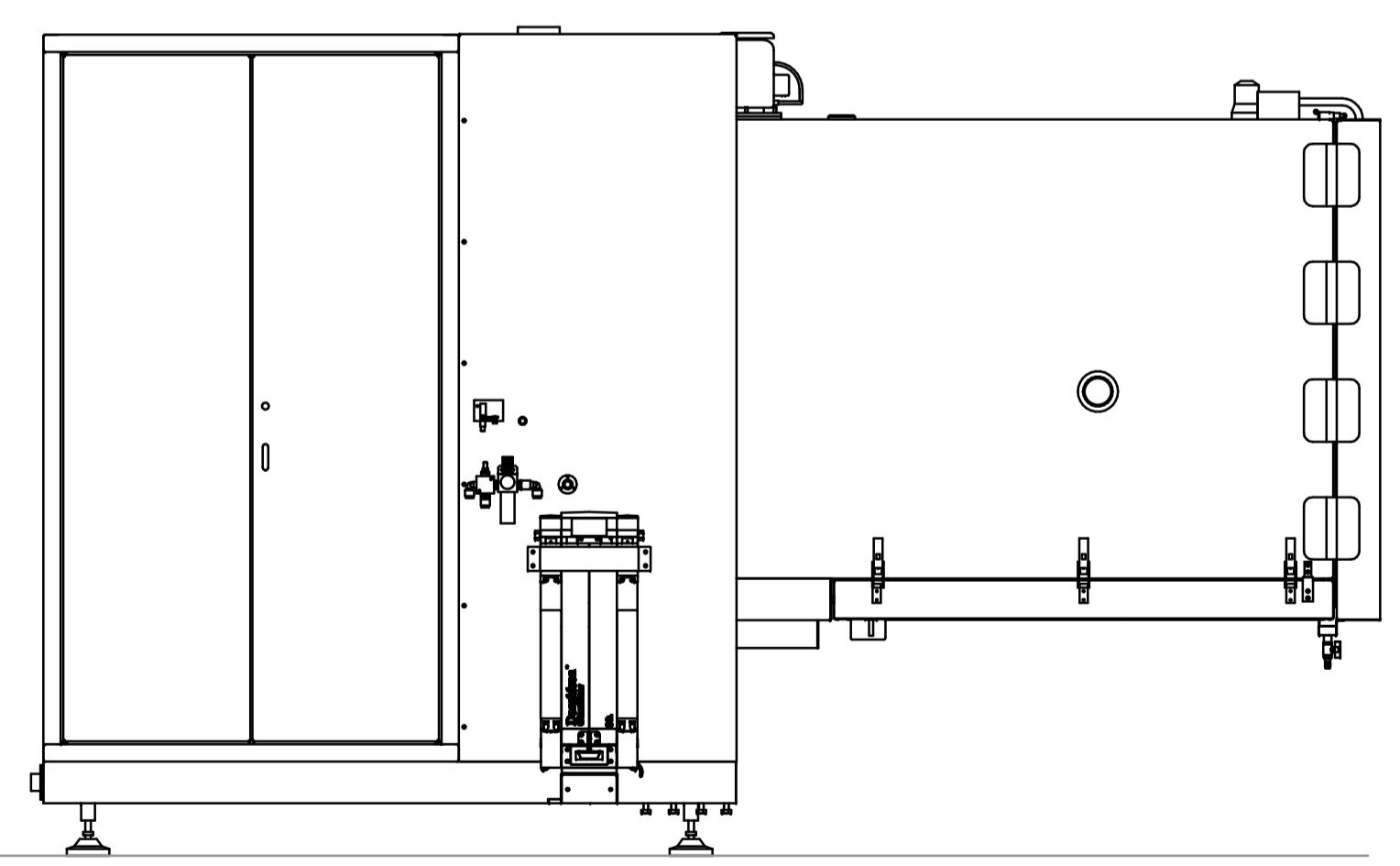
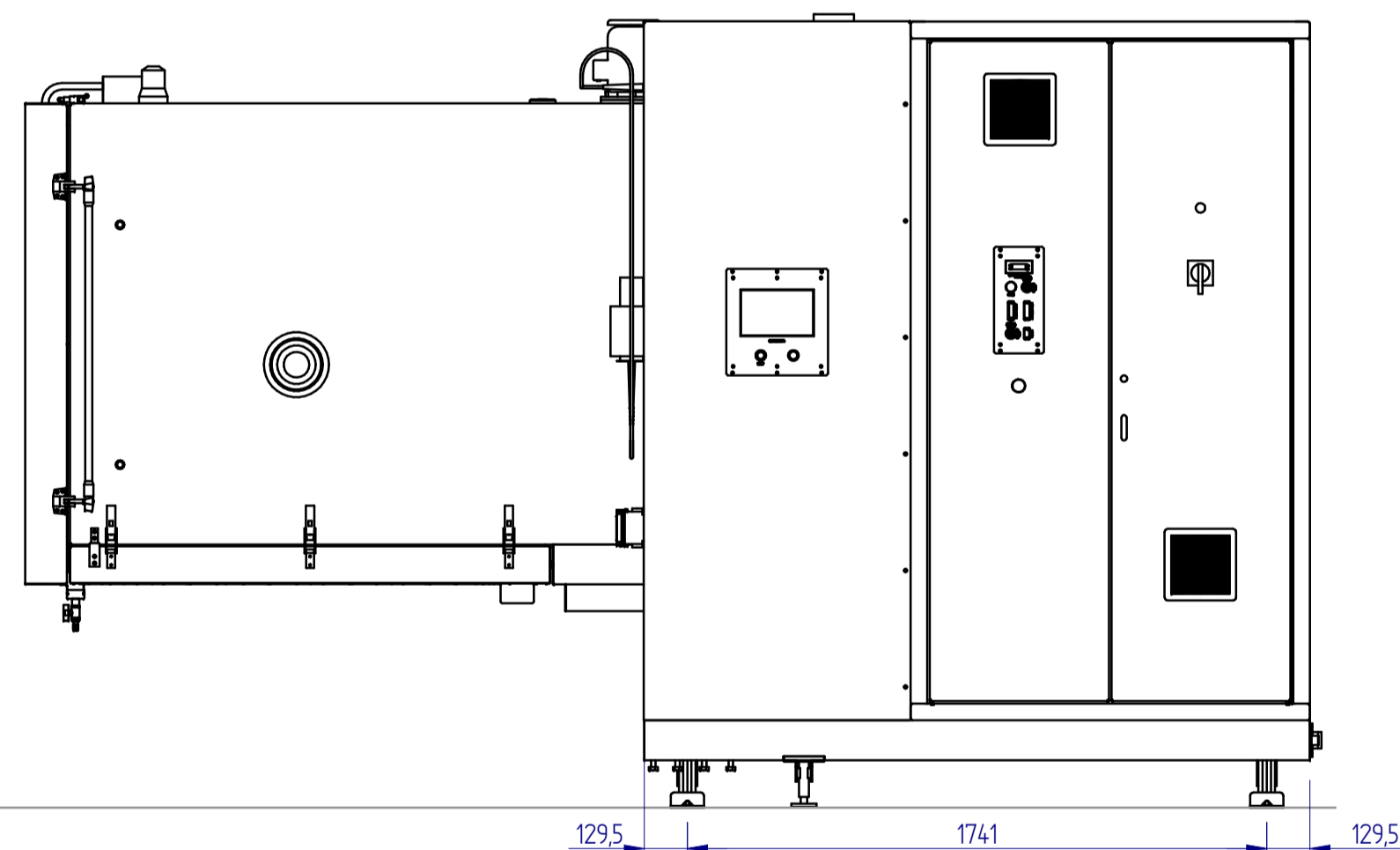
RAILS VERSION (OPTIONAL)



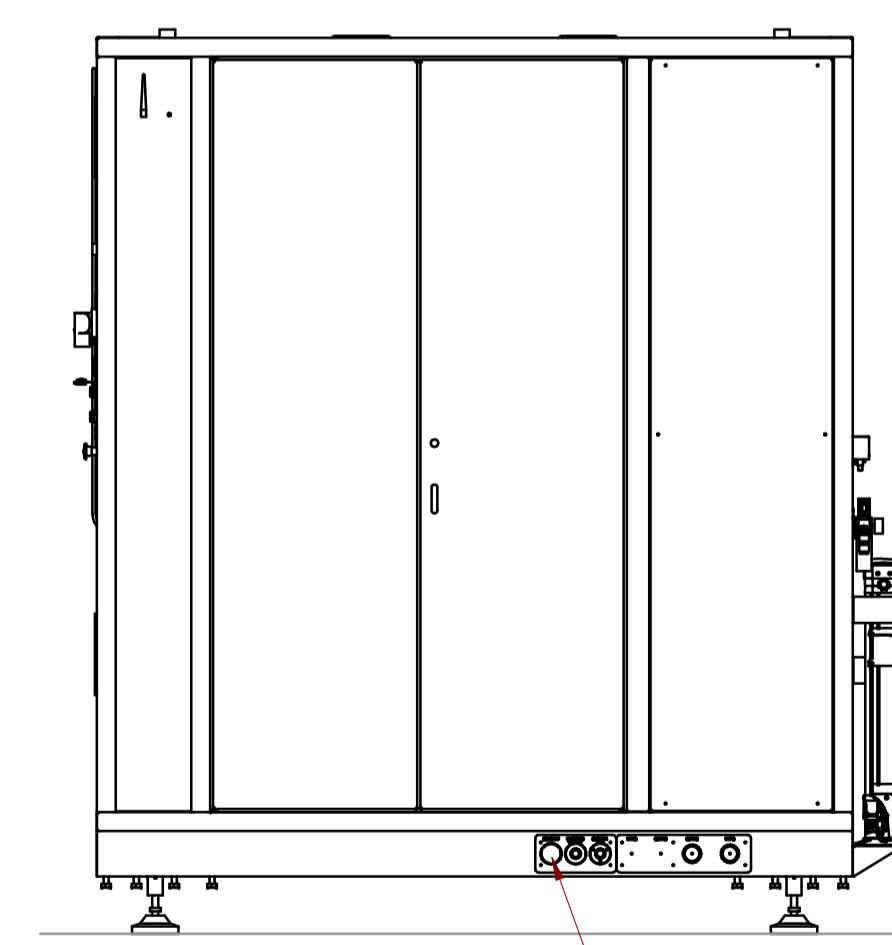
DOOR ELECTRO-MAGNETIC C.S. (OPTIONAL)



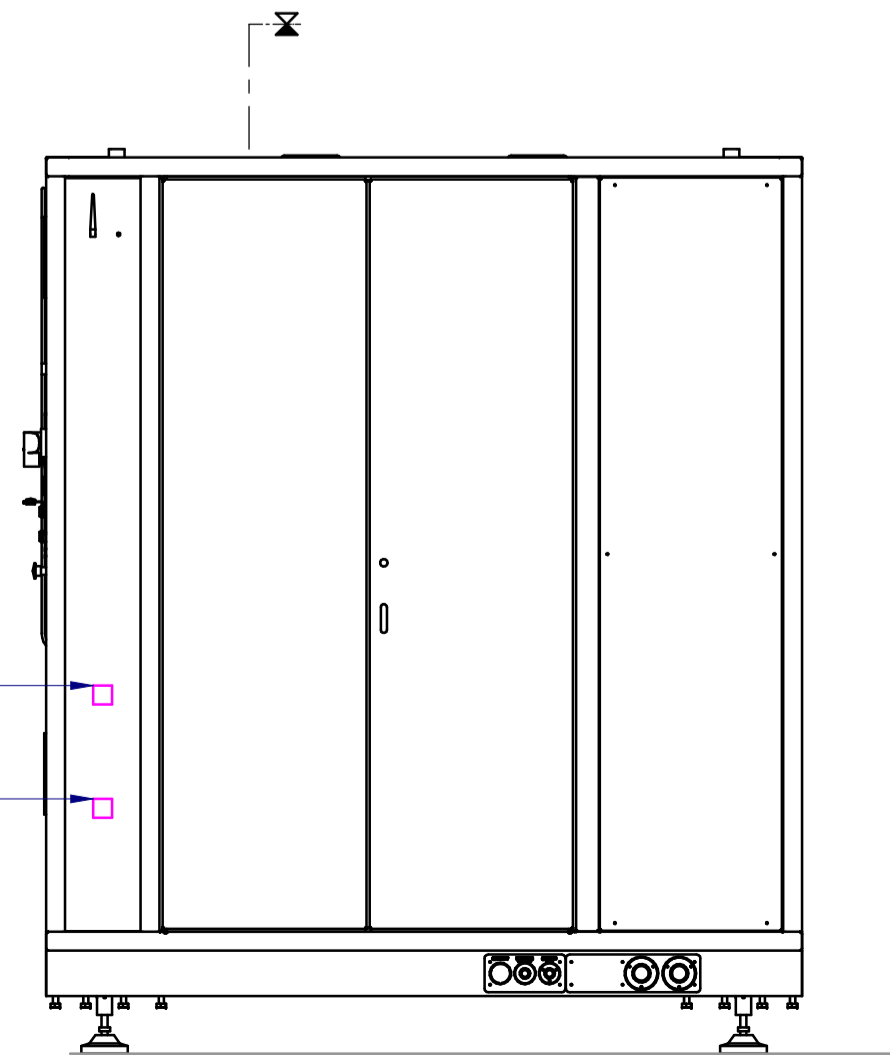
HANDLING PORTHOLES VERSION (OPTIONAL)



DEEP DEHUMIDIFICATION KIT (OPTIONAL)



VISTA C



SPECIMEN SWITCHING OFF IN CASE OF CHAMBER ALARM (OPTIONAL)

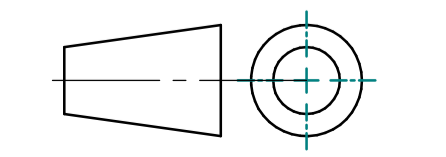
DRAWING FOR INFORMATION ONLY	SUPPLY LIMITS:	Customer
GENERAL TOLERANCE ±5 mm		Angelantoni Test Technologies

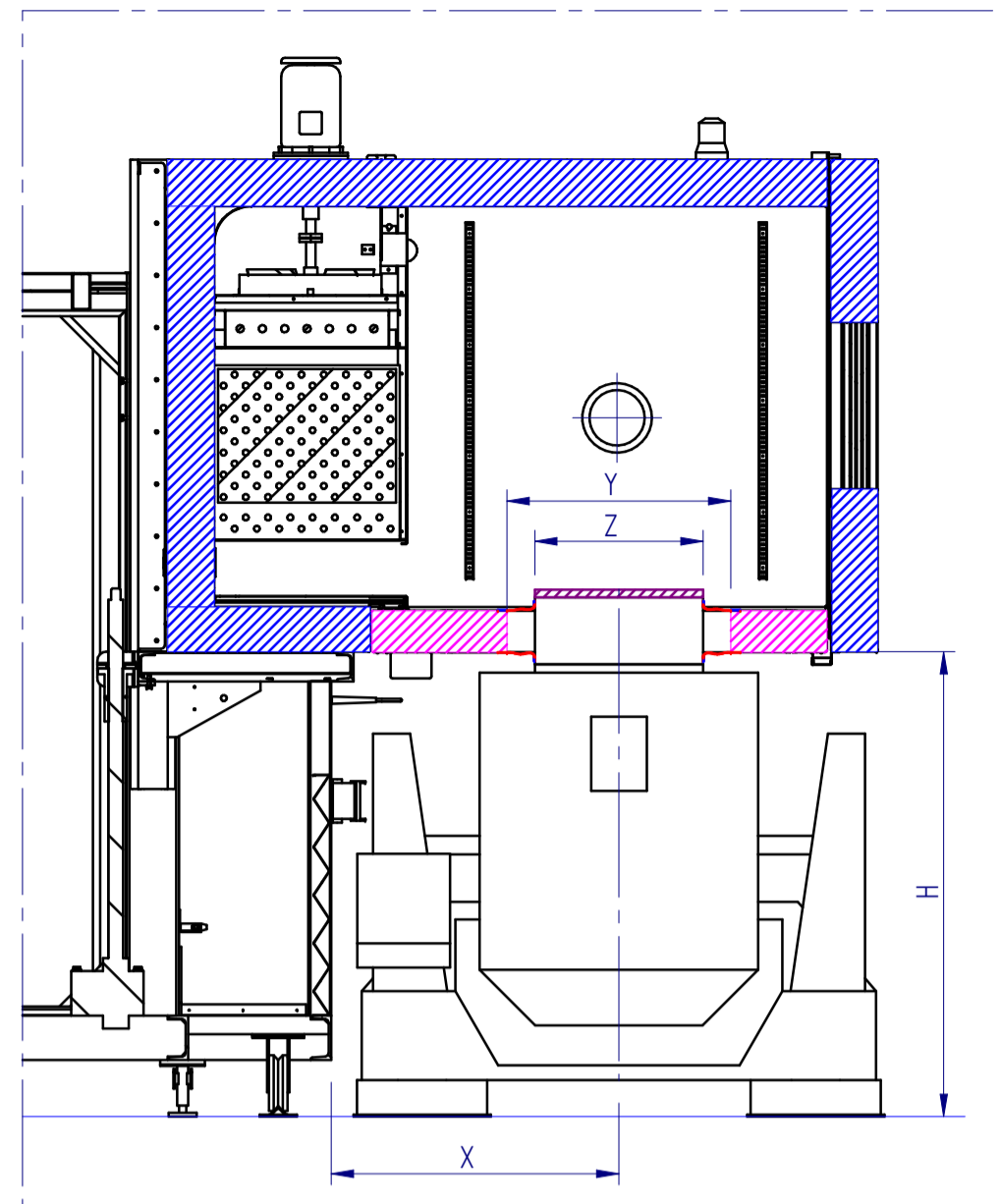
LEGEND	
1) - INSPECTION WINDOW 450x450 mm	23) - FLOOR WITH HOLE FOR VERTICAL VIBRATION TEST (T. max 180°C)
2) - EVAPORATOR/DEHUMIDIFICATOR	24) - ETHERNET PORT
3) - POWER SUPPLY CONNECTION (switch)	25) - CONNECTOR FOR AUXILIARY CONTACTS
4) - EMERGENCY PUSH-BUTTON	26) - HANDLING PORTHOLE (OPTIONAL)
5) - RS232 INTERFACE	27) - PORTHOLE Ø150mm
6) - MAIN SWITCH	28) - REFRIGERATING UNIT
7) - MIN/MAX ELECTRONIC THERMOSTAT	29) - STEAM GENERATOR (ONLY FOR CLIMATICS)
8) - ELECTRICAL HEATERS	30) - IN2 RAILS 5 m FOR MANUAL/AUTOMATIC MOVEMENT OF THE CHAMBER (OPTIONAL)
9) - TEMPERATURE PROBE	31) - FLOOR PLUG
10) - CAPACITIVE PROBE (ONLY FOR CLIMATICS)	32) - ELECTROMAGNETIC LOCK WITH GATEKEEPER SYSTEM (OPTIONAL)
11) - TOWN / TOWER WATER INLET (PIPES AT CUSTOMER CARE) (1): MODELS AV2200 (T) S, AV2200 C (T) S, 1.1/4" G MODELS AV2200 C (T) S, AV2200 C (T) S, 1.1/2" G	33) - HEAD EXTENDER (AT CUSTOMER CARE)
12) - TOWN / TOWER WATER OUTLET (PIPES AT CUSTOMER CARE) (1): MODELS AV2200 (T) S, AV2200 C (T) S, 1.1/4" G MODELS AV2200 C (T) S, AV2200 C (T) S, 1.1/2" G	34) - SILICONE GASKET (AT ACS CARE)
13) - HUMIDIFICATION WATER INLET (ONLY FOR CLIMATICS) approx consumption 6 kg/h, connection 1/2" G (1)	35) - COLLAR WITH CLAMP (AT ACS CARE)
14) - CONDENSATE DRAIN (COUNTER PRESSURE FREE) 1/2" G	36) - HING TO FIX SILICON GASKET TO THE FLOOR (AT ACS CARE)
15) - PORTHOLE Ø80mm	37) - COMPRESSED AIR INLET FOR DEEP DEHUMIDIFICATION KIT 1/2" G (OPTIONAL) (1)
16) - HELICOIDAL FAN	38) - CHAMBER MOVING SYSTEM CONTROLS
17) - FAN MOTOR	39) - 3/8" MALE CONNECTION FOR RUBBER WITH VALVE
18) - SHEET FOR CONDENSATE DRAIN OF THE DOOR	40) - RESET BUTTON
19) - INTERNAL LAMP (60W)	41) - FAN KIT, FILTER AND GRID
20) - MACHINE UNIT	42) - WI-FI REMOVABLE ANTENNA
21) - ELECTRICAL CABINET	43) - UNITS CONNECTION
22) - TOUCH SCREEN CONTROL PANEL	44) -

NOTE (1) Reference to: D002041

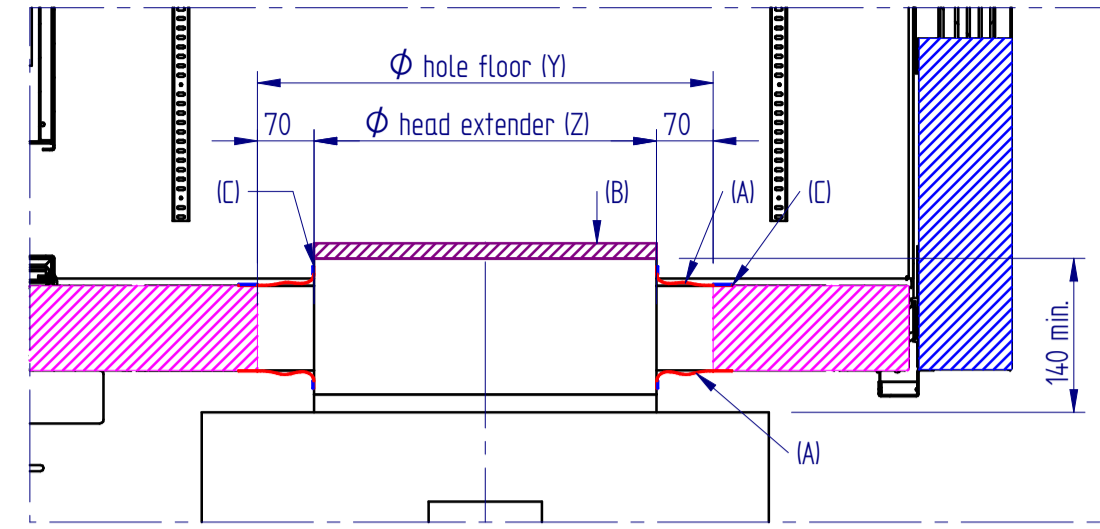
LAYOUT VIBRATION 2200

Drawing No. Designation: D0010577	Revision: U	Scale: 1:10	Sheet: 2 of 4
Standards Approval: M.F.	Date: 09/05/2011	Technical Manager: P.Q.	Date: 09/05/2011
Inspected by: P.Q.	Date: 09/05/2011	Drawn by: G.M.	Date: 09/05/2011





VERTICAL VIBRATION (with head extender)



VERTICAL VIBRATION (with thermal insulated head extender)

VERTICAL VIBRATIONS STD SOLUTION AV2200

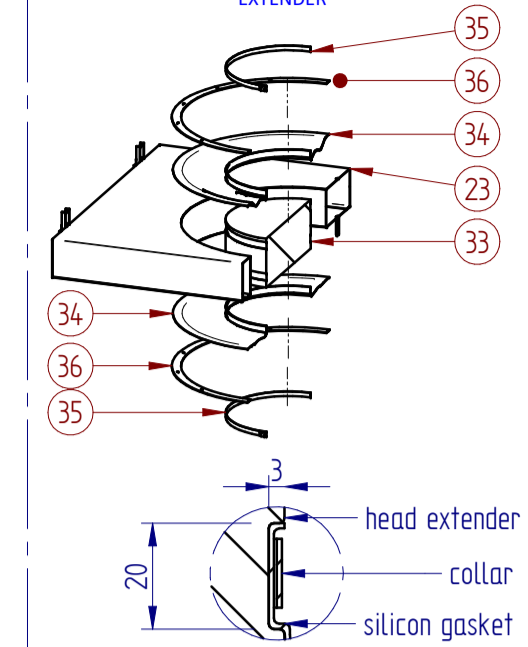
Item	Description
X [mm]	1065
H [mm]	min 680...max 1430
Hole floor diameter (Y)	Head extender diameter (Z) with height 140 mm
Ø680 mm	Ø440 mm
Ø780 mm	Ø560 or Ø640 mm
Ø860 mm	Ø640 mm
Ø1200 mm	DEFAULT

Item	Description
A	Silicon Gasket (at ATT care)
B	Thermal Barrier (at Customer care)
C	Steel frame (at ATT care)

Shaker limitations for vertical vibrations
 1. Max stroke p-p 50mm and anyway the ratio of displaced shaker volume and useful chamber volume equal to 0.5% (1% extension available on request - with the supply of No. 2 compensation valves 100x100mm)
 2. Operations in the frequency range 5...30Hz only possible for short periods of times (it is the resonance range of the structure)

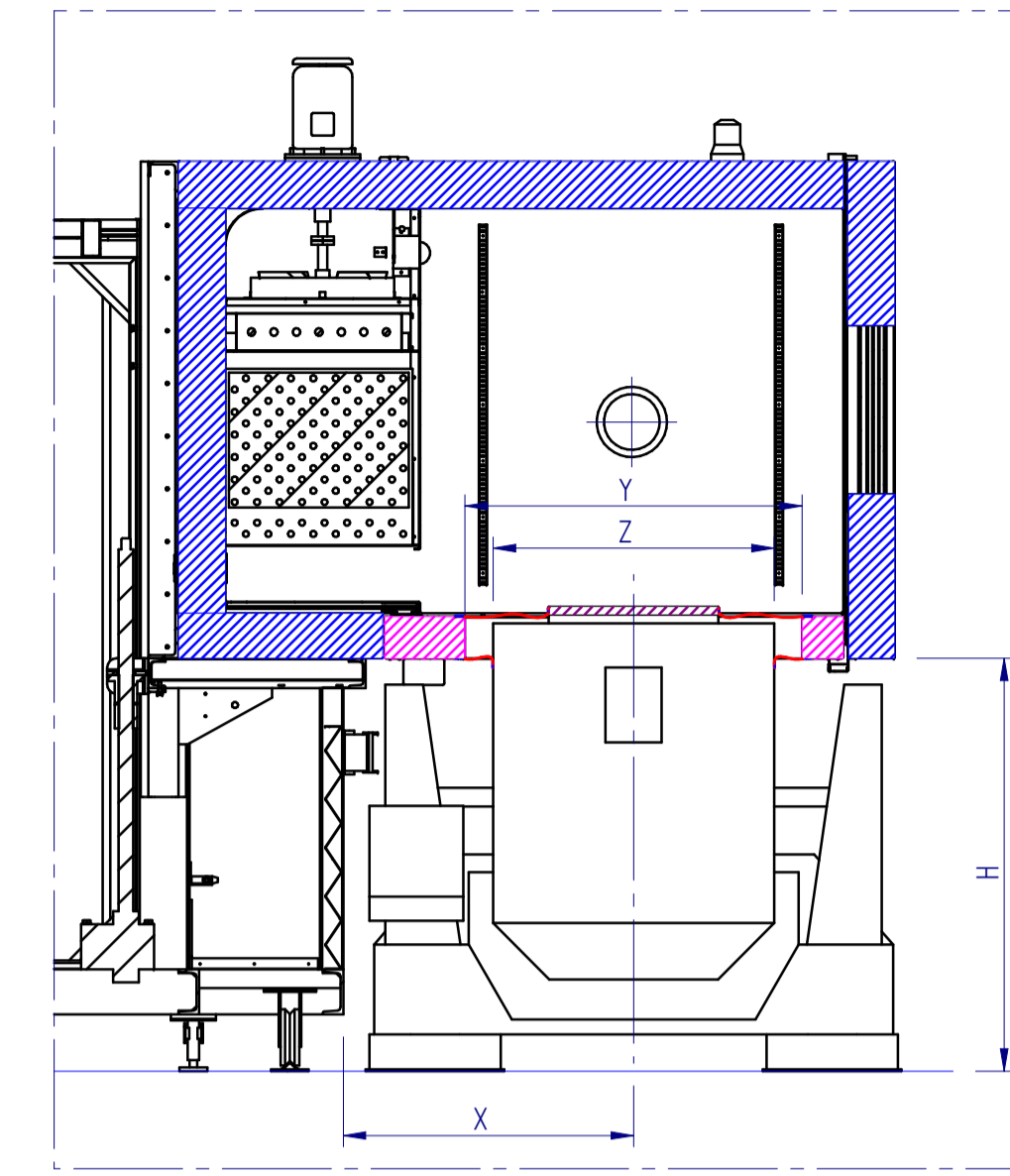
Note
 Head extender 140 mm height and two silicone gaskets both fixed around the head extender for full temperature range applications -75...+180°C also for continuous tests

INSTRUCTIONS TO FIX THE SILICON GASKETS ON THE HEAD EXTENDER

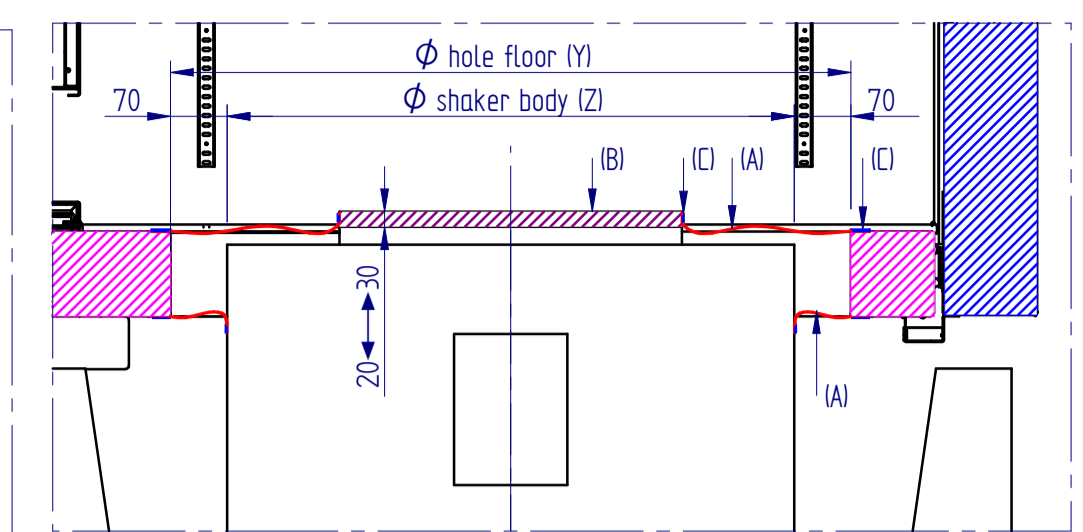


HEAD EXTENDER DIG

- Cut n.2 silicone gasket parts (34). Internal diameter should be 20 mm smaller than external diameter of shaker head extender; external diameter should be 50 mm bigger than the diameter of the hole floor
- Fix bottom gasket (34) on the floor (23) (overturnd on the table) with the ring (36)
- Install the floor (23) to the chamber
- Open the door and fix the bottom gasket (34) to the head extender (33) (to make detailed dig, at customer care) throw the floor hole with the collar (35)
- Install upper gasket (34) to the floor (23) with the ring (36)
- Fix upper gasket (34) to head extender (33) (to make detailed dig, at customer care) with the collar (35)



VERTICAL VIBRATION (without head extender)



VERTICAL VIBRATION (without head extender)

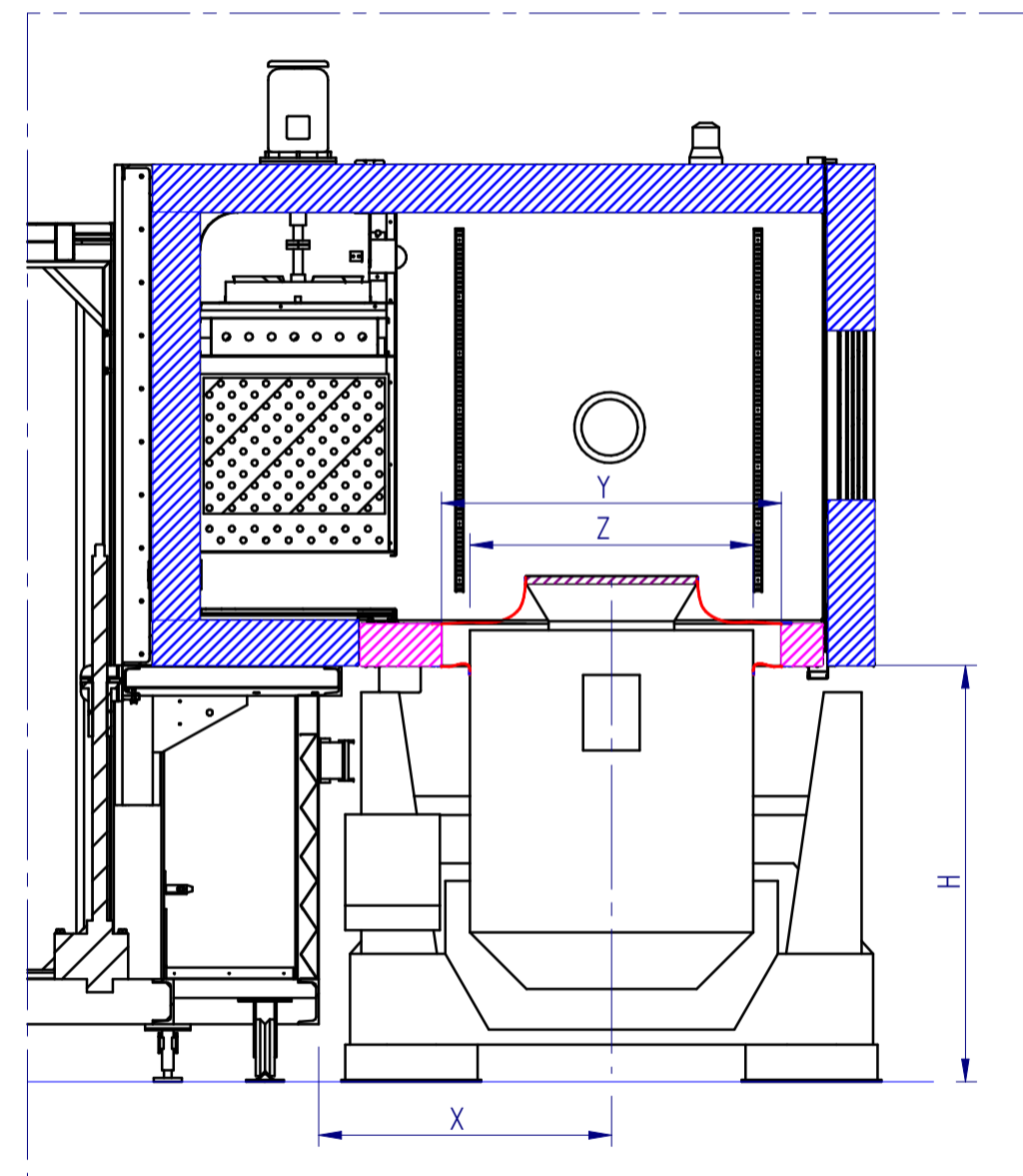
VERTICAL VIBRATIONS STD SOLUTION AV2200

Item	Description
X [mm]	1065
H [mm]	min 680...max 1430
Hole floor diameter (Y)	Shaker diameter (Z)
Ø680 mm	Ø440 mm
Ø780 mm	Ø560 or Ø640 mm
Ø860 mm	Ø640 mm
Ø1200 mm	DEFAULT

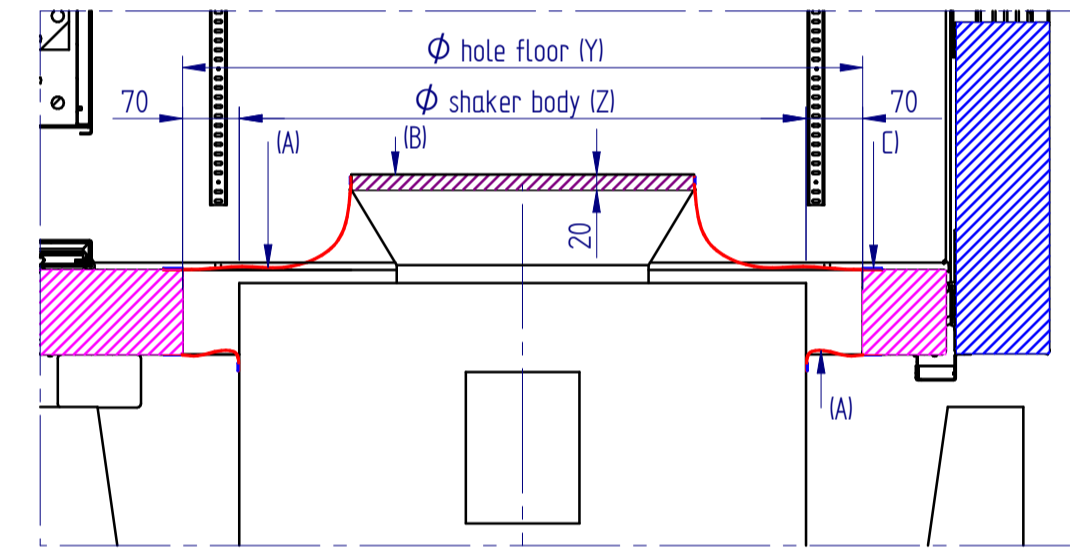
Item	Description
A	Silicon Gasket (at ATT care)
B	Thermal Barrier (at Customer care)
C	Steel frame (at ATT care)

Shaker limitations for vertical vibrations
 1. Max stroke p-p 50mm and anyway the ratio of displaced shaker volume and useful chamber volume equal to 0.5% (1% extension available on request - with the supply of No. 2 compensation valves 100x100mm)
 2. Operations in the frequency range 5...30Hz only possible for short periods of times (it is the resonance range of the structure)

Note
 20...30 mm thermal barrier and two silicone gaskets, one to be fixed on the thermal barrier and the other around the shaker body. The solution is recommended for chamber performance down to -40°C and 16h continuous tests. Exceeding this range may cause condensation or ice on the shaker.



VERTICAL VIBRATION (with head expander)



VERTICAL VIBRATION (with head expander)

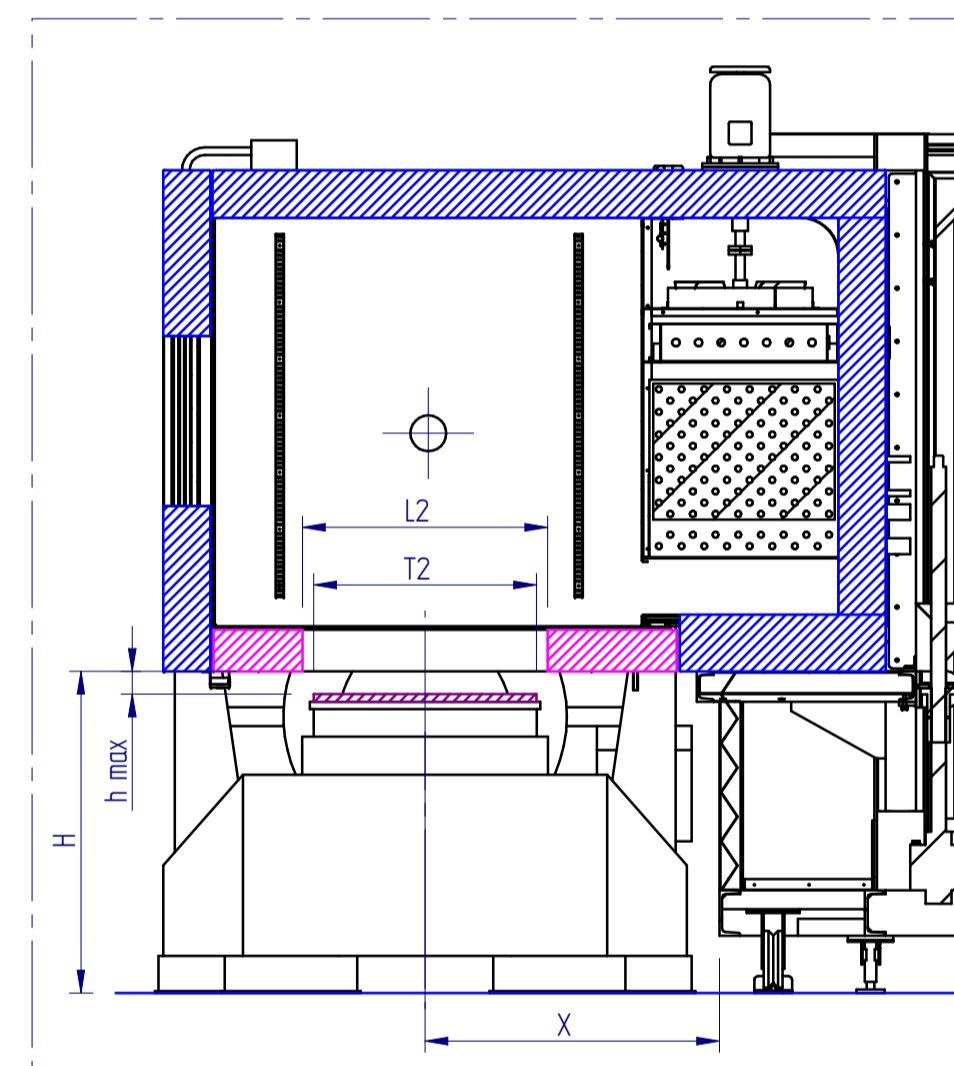
VERTICAL VIBRATIONS STD SOLUTION AV2200

Item	Description
X [mm]	1065
H [mm]	min 680...max 1430
Hole floor diameter (Y)	Shaker diameter (Z)
Ø680 mm	Ø440 mm
Ø780 mm	Ø560 or Ø640 mm
Ø860 mm	Ø640 mm
Ø1200 mm	DEFAULT

Item	Description
A	Silicon Gasket (at ATT care)
B	Thermal Barrier (at Customer care)
C	Steel frame (at ATT care)

Shaker limitations for vertical vibrations
 1. Max stroke p-p 50mm and anyway the ratio of displaced shaker volume and useful chamber volume equal to 0.5% (1% extension available on request - with the supply of No. 2 compensation valves 100x100mm)
 2. Operations in the frequency range 5...30Hz only possible for short periods of times (it is the resonance range of the structure)

Note
 20 mm thermal barrier and two silicone gaskets, one to be fixed on the thermal barrier and the other around the shaker. The solution is recommended for chamber performance down to -40°C and 16h continuous tests. Exceeding this range may cause condensation or ice on the shaker.



HORIZONTAL VIBRATION

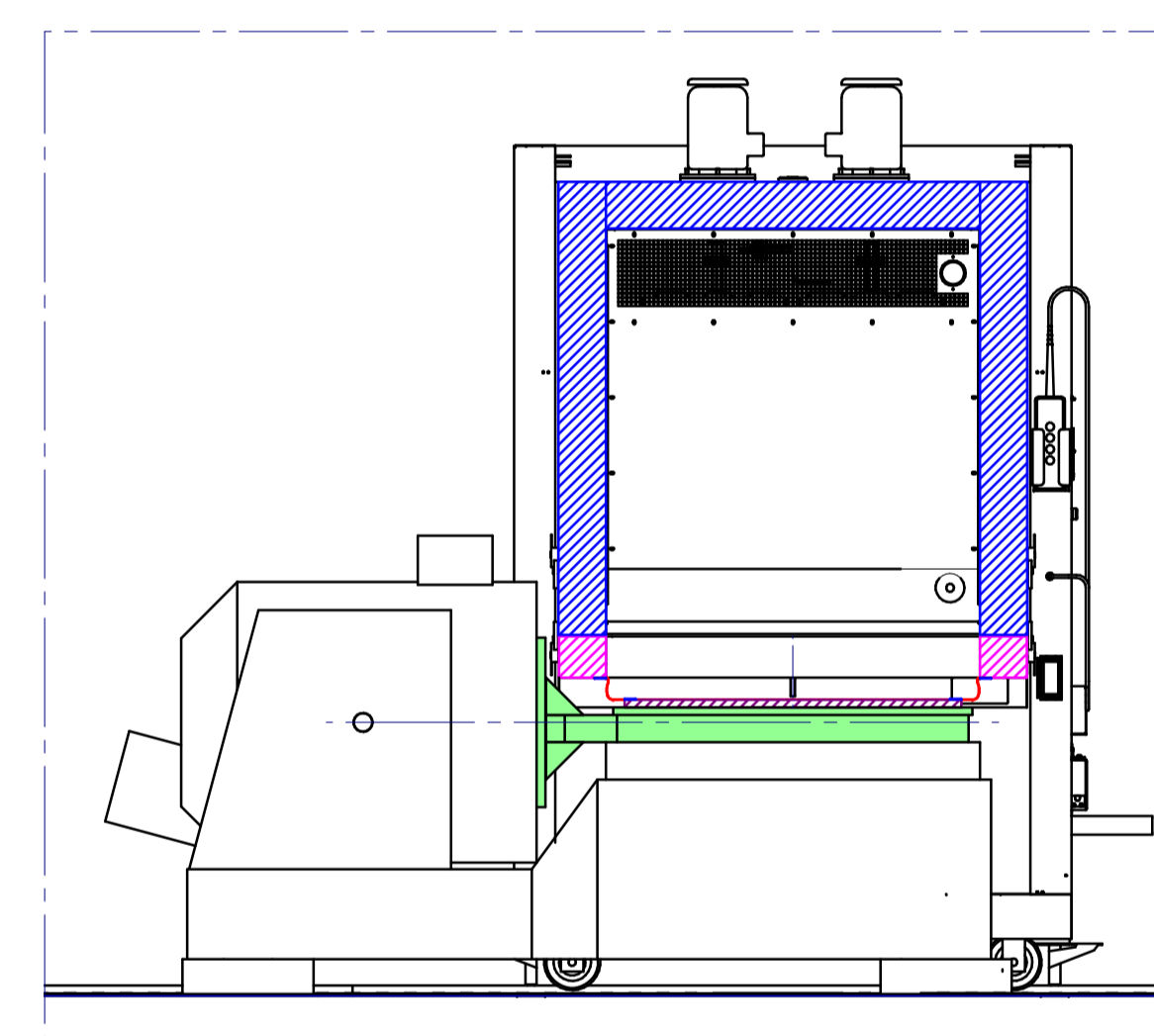
HORIZONTAL VIBRATIONS STD SOLUTION AV600

Item	Description
X [mm]	575
H [mm]	min 650...max 1430
L1 [mm]	850
L2 [mm]	580
L3 [mm]	125
L4 [mm]	125
T1 [mm]	750 max
T2 [mm]	520 max
S [mm]	175+L5
h max [mm]	515

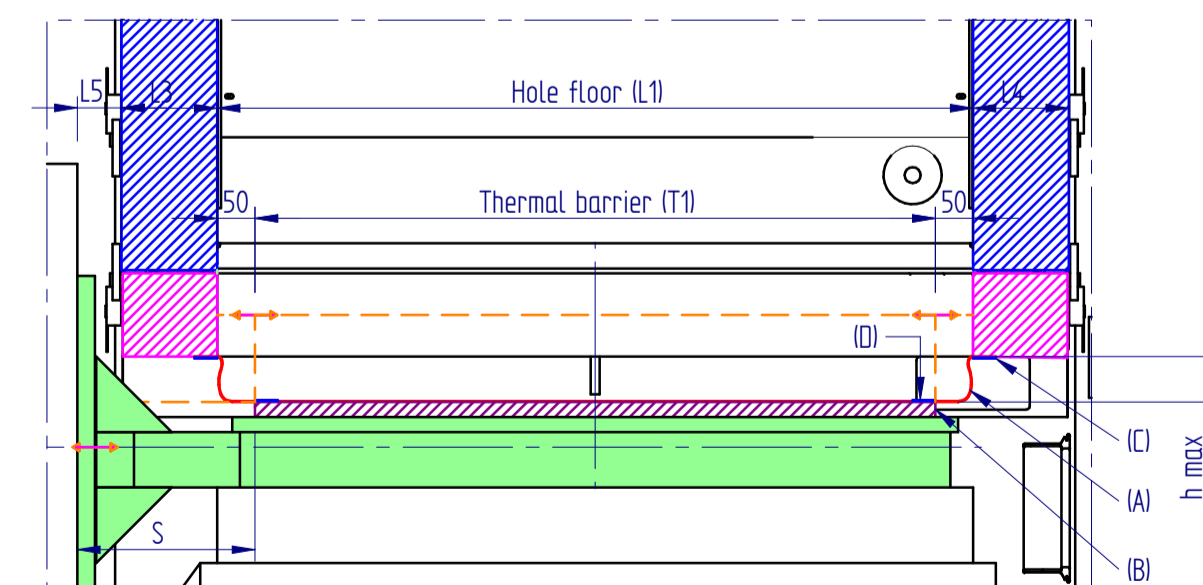
Item	Description
A	Silicon Gasket (at ATT care)
B	Thermal Barrier (at Customer care)
C	Steel frame (at ATT care)
D	Steel frame (at Customer care)

Shaker limitations for horizontal vibrations
 1. Max stroke p-p 50mm
 2. Operations in the frequency range 5...30Hz only possible for short short periods of time (it is the resonance range of the structure)
 3. Dew point range +4°C a +40°C

Note
 One silicon gasket to be fixed under the floor and from there directly to the thermal barrier. For negative temperature tests this configuration may cause condensation or ice on the shaker and gaskets. A condensate drain must be placed on the thermal barrier (at customer care)



HORIZONTAL VIBRATION



HORIZONTAL VIBRATION (Standard solution for optional floor)

DRAWING FOR INFORMATION ONLY GENERAL TOLERANCE ±5 mm

LEGEND	
1- INSPECTION WINDOW 450x450 mm	231 FLOOR WITH HOLE FOR VERTICAL VIBRATION TEST (T. max 180°C)
2- EVAPORATOR/DEHUMIDIFICATOR	241 ETHERNET PORT
3- POWER SUPPLY CONNECTION (cable)	251 CONNECTOR FOR AUXILIARY CONTACTS
4- EMERGENCY PUSH-BUTTON	261 HANDLING PORTHOLE (OPTIONAL)
5- RS232 INTERFACE	271 PORTHOLE Ø150mm
6- MAIN SWITCH	281 REFRIGERATING UNIT
7- MIN/MAX ELECTRONIC THERMOSTAT	291 STEAM GENERATOR (ONLY FOR CLIMATICS)
8- ELECTRICAL HEATERS	301 N°3 RAILS 5 in FOR MANUAL/AUTOMATIC MOVEMENT OF THE CHAMBER (OPTIONAL)
9- TEMPERATURE PROBE	311 FLOOR PLUG
10- CAPACITIVE PROBE (ONLY FOR CLIMATICS)	321 ELECTROMAGNETIC LOCK WITH GATEKEEPER SYSTEM (OPTIONAL)
11- TOWN / TOWER WATER INLET (PIPES AT CUSTOMER CARE) (1)	331 HEAD EXTENDER (AT CUSTOMER CARE)
12- TOWN / TOWER WATER OUTLET (PIPES AT CUSTOMER CARE) (1)	341 SILICONE GASKET (AT ACS CARE)
13- HUMIDIFICATION WATER INLET (ONLY FOR CLIMATICS) approx consumption 6 kg/h, connection 1/2" G (1)	351 COLLAR WITH CLAMP (AT ACS CARE)
14- CONDENSATE DRAIN (COUNTER PRESSURE FREE) 1/2" G	361 HING TO FIX SILICONE GASKET TO THE FLOOR (AT ACS CARE)
15- PORTHOLE Ø100mm	371 COMPRESSED AIR INLET FOR DEEP DEHUMIDIFICATION KIT 1/2" G (OPTIONAL) (1)
16- HELICOIDAL FAN	381 CHAMBER MOVING SYSTEM CONTROLS
17- FAN MOTOR	391 3/8" MALE CONNECTION FOR RUBBER WITH VALVE
18- SHEET FOR CONDENSATE DRAIN OF THE DOOR	401 RESET BUTTON
19- INTERNAL LAMP (60W)	411 FAN KIT, FILTER AND GRID
20- MACHINE UNIT	421 WI-FI REMOVABLE ANTENNA
21- ELECTRICAL CABINET	431 UNITS CONNECTION
22- TOUCH SCREEN CONTROL PANEL	441

LAYOUT VIBRATION 2200

Designing No. D0010577	Revision U	Scale 1:20	Sheet 4 of 4
Designing No. D0010577	Revision U	Scale 1:20	Sheet 4 of 4
Designing No. D0010577	Revision U	Scale 1:20	Sheet 4 of 4
Designing No. D0010577	Revision U	Scale 1:20	Sheet 4 of 4

ACS Angelantoni Test Technologies www.acstestchambers.com

Standards Approval M.F. Date 09/05/2011
 Technical Manager P.Q. Date 09/05/2011
 Inspected by P.Q. Date 09/05/2011
 Drawn by G.M. Date 09/05/2011