TUBO®
the advanced
vacuum system.

RESIDENTIAL TECHNICAL MANUAL

DT3



AERTECNICA®
think clean


TUBO®
the advanced
vacuum system.

Residential Technical Manual DT3

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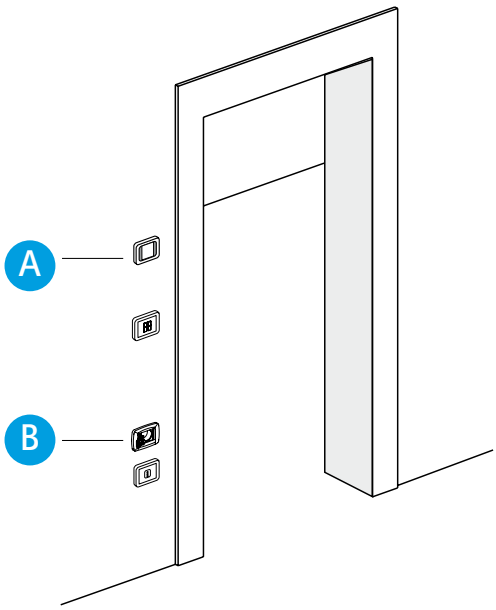
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DESIGNING THE TUBÒ VACUUM SYSTEM

POSITIONING THE VACUUM SOCKETS

Correct positioning of the vacuum sockets facilitates cleaning operations for the user, allows for reaching all areas of the building and reduces the costs for constructing the system.

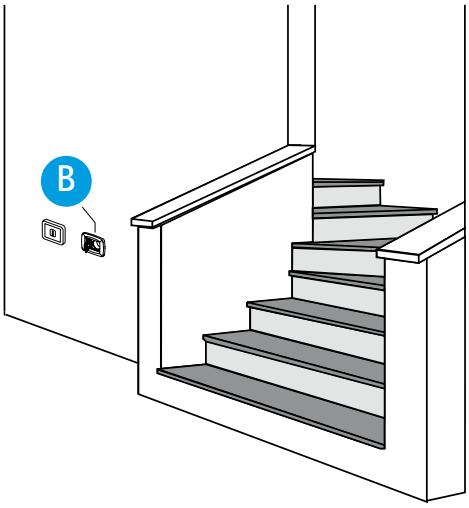
The main parameter to be considered when positioning the sockets is the length of the flexible hose; in the residential sector, a 7 m or 9 m hose is recommended.



CRITERIA FOR POSITIONING THE VACUUM SOCKETS

1 - Position the vacuum socket near doors so that they will not be covered by any furniture elements.

2 - Position the vacuum socket at the bottom of stairs.

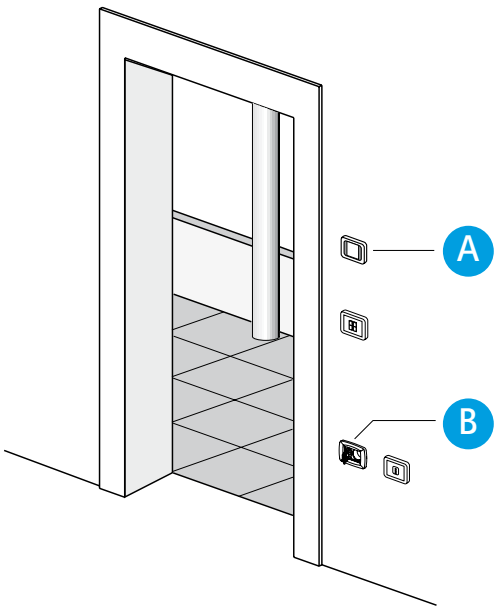


3 - Consider all areas of the building to be reached by the flexible hose, including balconies, store-rooms, outdoor stairs, porch, etc.).

A - Dynamic Control Display (CMT800)

or REMOTE Panel Kit (CM8890)

B - Vacuum socket



HOW TO CALCULATE THE NUMBER OF VACUUM SOCKETS: RESIDENTIAL SECTOR

Proceed as follows to correctly position the vacuum sockets.

ANALYTICAL METHOD

EQUIPMENT REQUIRED

1 - map to scale
2 - ruler and pencil
3 - compass

HOW TO PROCEED

1
Bear in mind that the tube is 9 m long, therefore consider the future arrangement of any furniture when defining the distribution of the sockets.

2
Find a compass and all maps of the building. Refer to the drawing's scale ratio and set the compass opening measurement to 1 m less than the length of the flexible hose.

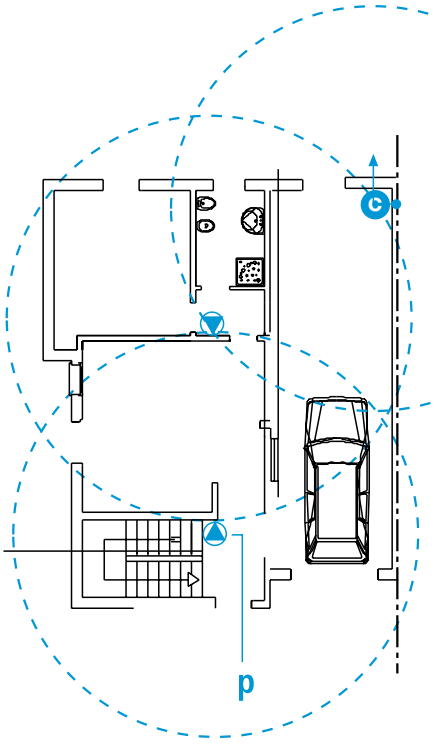
3
Position the first socket at the foot of the stairs (see Point **p** on GROUND FLOOR).

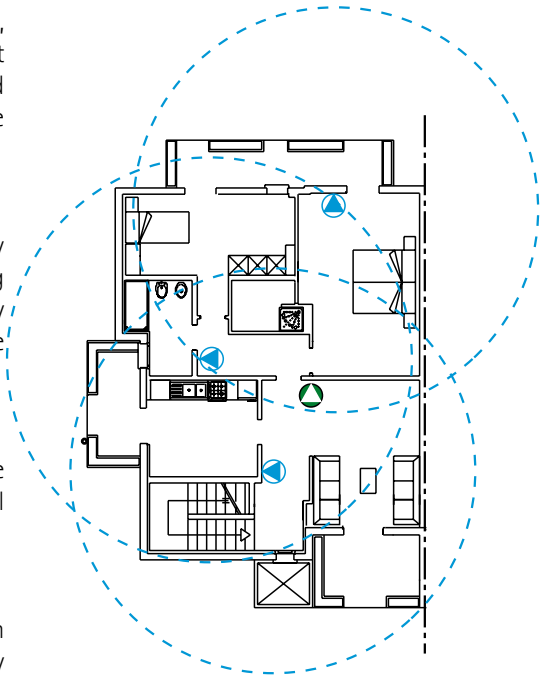
4
Trace a circumference on the drawing, by placing the centre on the point where the socket will be installed and drawing the operating range of the socket itself.

5
Position the successive sockets by taking into account the operating range of the first socket, and by including a small overlap of the operating ranges as a safety margin.

6
Use a ruler to check whether the positioning is sufficient to cover all rooms (very important phase).

7
Position the central vacuum unit in the garage or in a suitable utility room.





QUICK METHOD

The formula below allows for rapidly calculating the approximate number of vacuum sockets using the total usable surface:

WITH 7 m HOSE

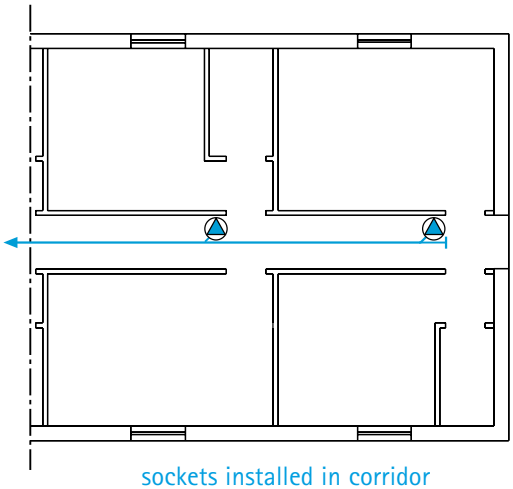
$$\text{number of vacuum sockets} = \frac{\text{total area}}{30\text{m}^2}$$

WITH 9 m HOSE.

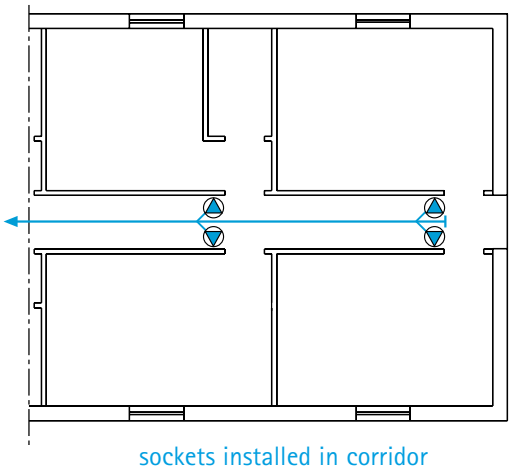
$$\text{number of vacuum sockets} = \frac{\text{total area}}{50\text{m}^2}$$

- Vacuum socket
- C — Central vacuum unit with integrated socket
- Dynamic Control Display or REMOTE Panel
- p — Positioning of first socket

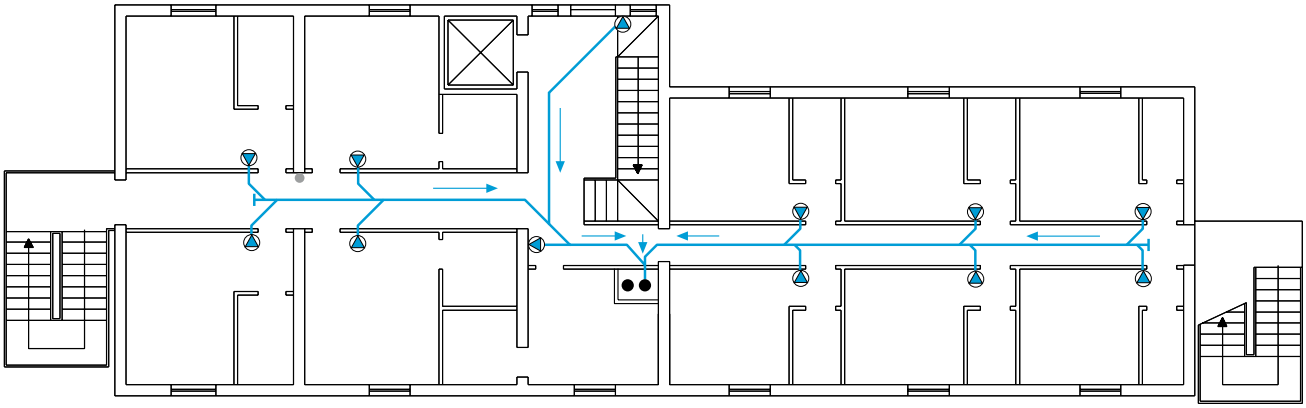
HOW TO CALCULATE THE NUMBER OF VACUUM SOCKETS FOR THE TERTIARY SECTOR



sockets installed in corridor



sockets installed in corridor



sockets installed in rooms

RECOMMENDED METHOD FOR THIS TYPE

(9-metre hose)

The formula below allows for rapidly calculating the approximate number of vacuum sockets using the total usable surface.

WITH 9 m HOSE

$$\text{number of vacuum sockets} = \frac{\text{total area}}{40\text{m}^2}$$

TUBÒ CENTRAL VACUUM SYSTEM CONFIGURATION

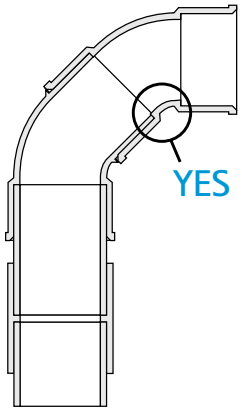
MATERIAL SELECTION

AERTECNICA supplies a complete range of items for installing the TUBÒ central vacuum system.

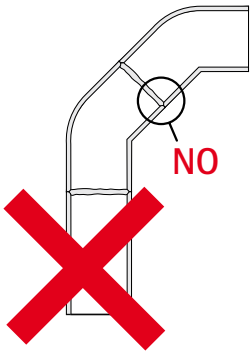


TYPES OF PIPING

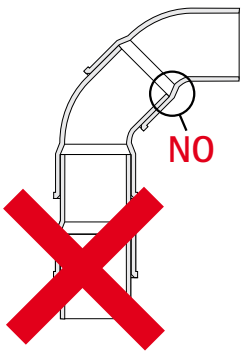
All AERTECNICA fittings are designed to create a completely smooth inner surface with perfectly united joints so as to prevent potential clogging.



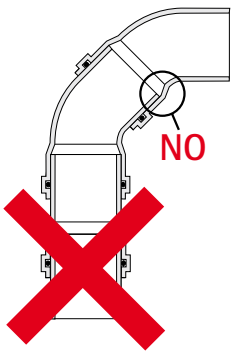
cold bonded piping
perfectly smooth inner surface



heat-sealed piping
inner surface with casting burrs



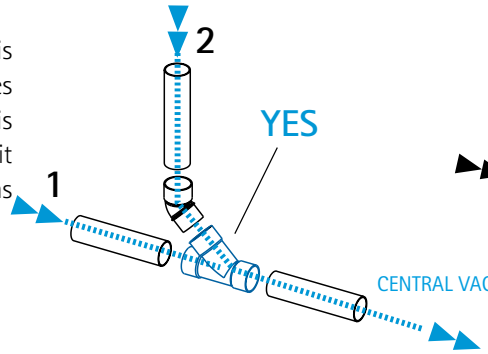
cold bonded socketed piping
stepped inner surface



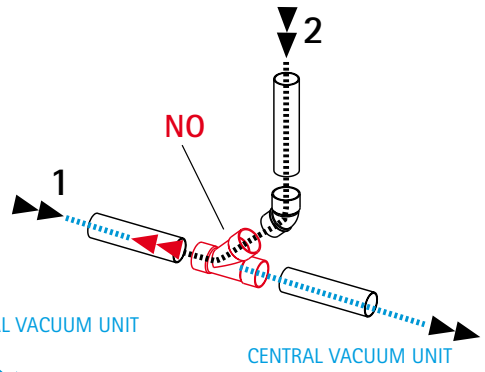
socketed piping with O-ring
stepped inner surface

DIRECTION OF OFFTAKES

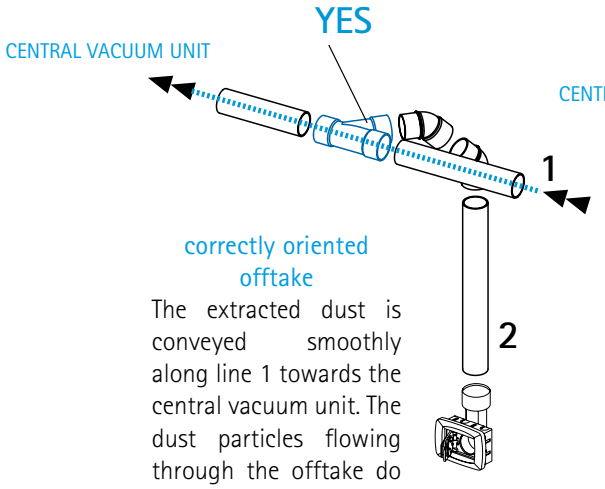
When installing the fittings, it is important to direct the offtakes towards the central vacuum unit. This will allow the central vacuum unit to suck the material as smoothly as possible.



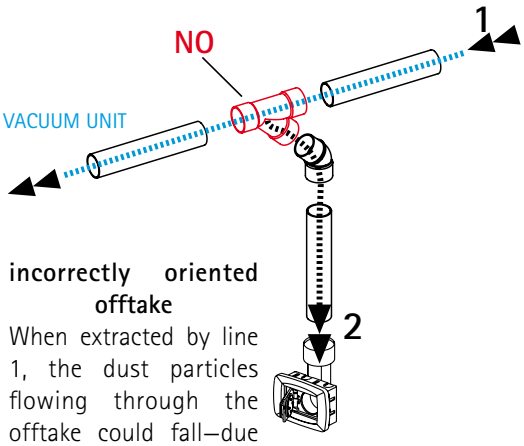
correctly oriented offtake
The extracted dust is conveyed smoothly along line 1 or line 2 towards the central vacuum unit.



incorrectly oriented offtake
The extracted dust is conveyed along line 2 in the opposite direction to the central vacuum unit.



correctly oriented offtake
The extracted dust is conveyed smoothly along line 1 towards the central vacuum unit. The dust particles flowing through the offtake do not fall into line 2.



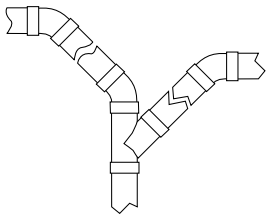
incorrectly oriented offtake
When extracted by line 1, the dust particles flowing through the offtake could fall—due to gravity—into line 2 and clog the inlet of the vacuum socket connected to the central unit

HOW TO REDUCE PRESSURE DROPS

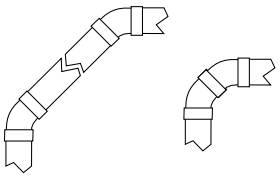
To optimise the system by eliminating potential clogging and reducing pressure loss, the piping network should be installed so as to create the widest possible curving radii.
The solutions shown in the adjacent pictures are all optimal.
AERTECNICA also provides the elbow and offtake with 90° curving radius.



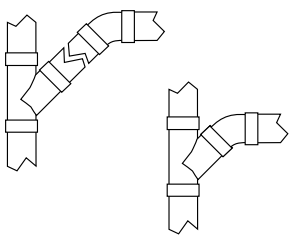
offtake for two end lines



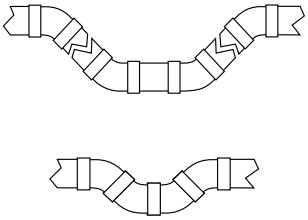
composed 90° elbow



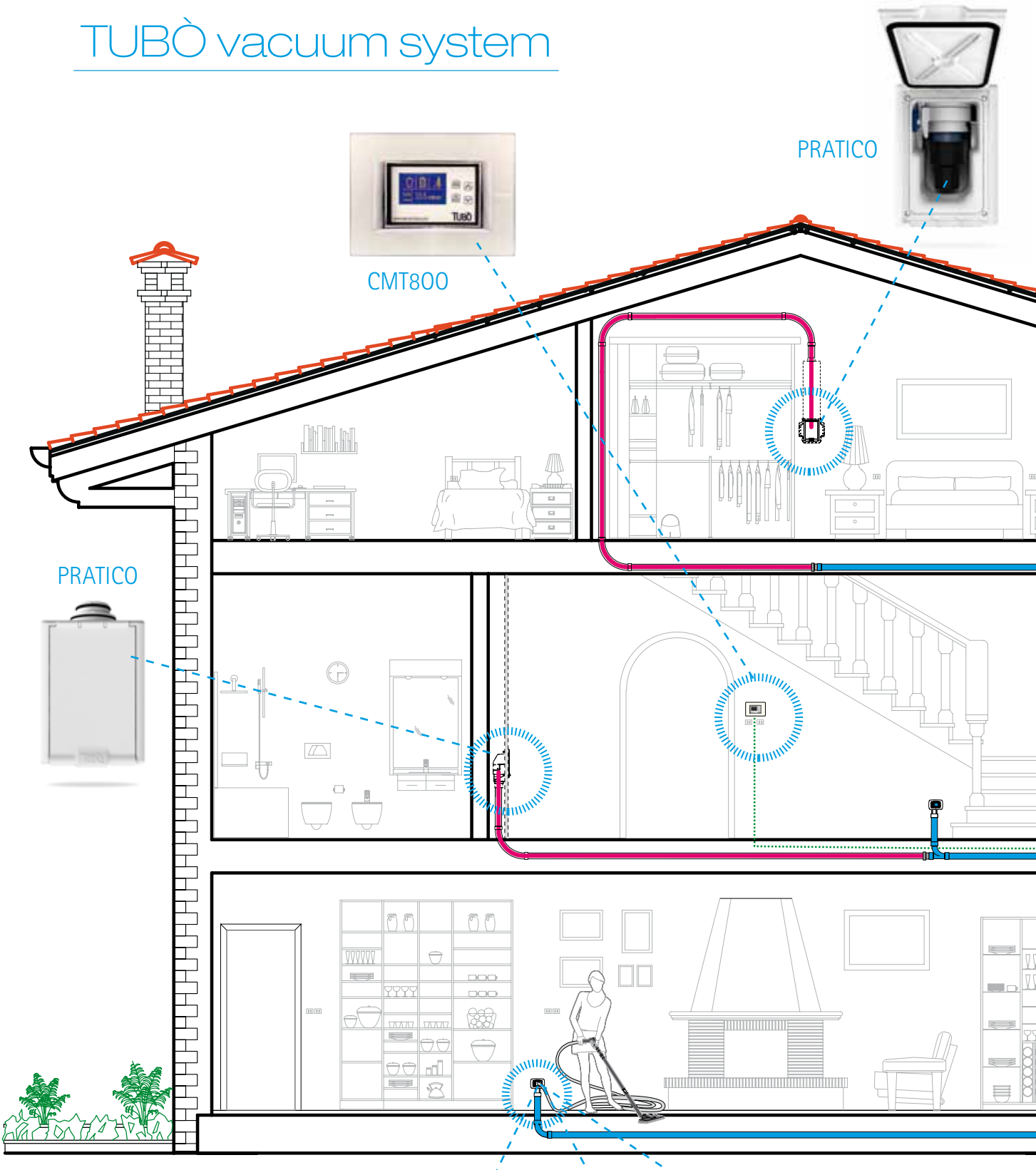
composed 90° offtake



typical saddle



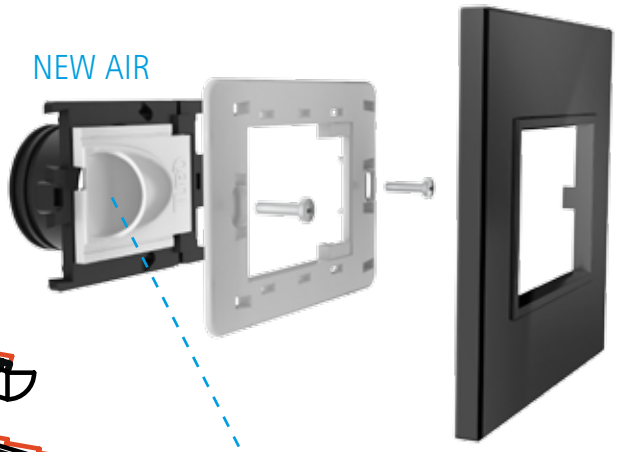
TUBÒ vacuum system

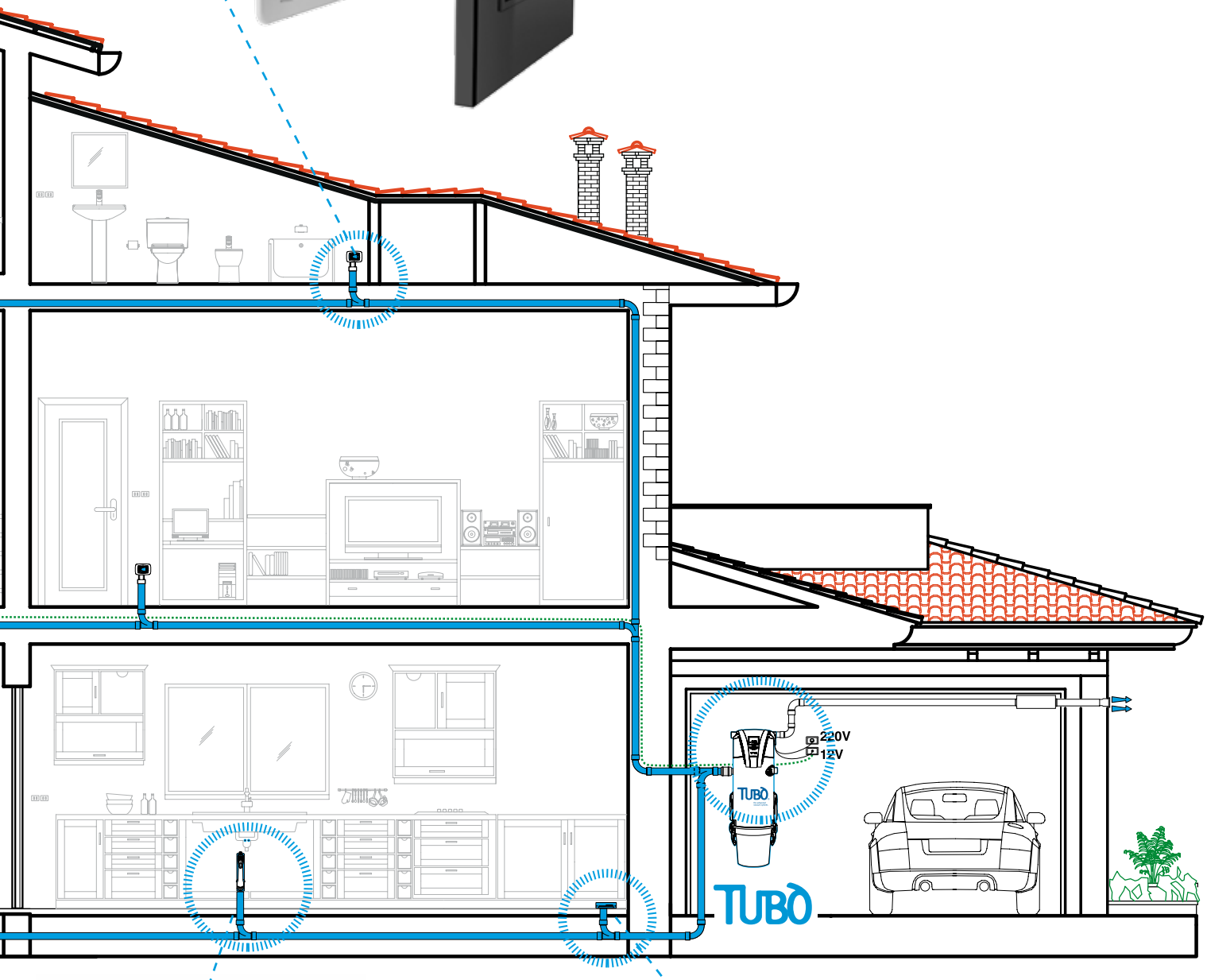


AERTECNICA® think clean

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NEW AIR







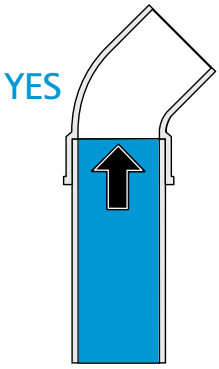
VROOM



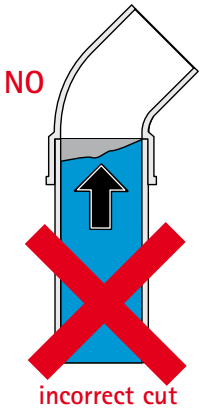
VAC PAN

PIPE AND UNION ASSEMBLY

The pipe must be cut exclusively using a specific pipe cutter to ensure a clean cut.



correct cut
correct assembly of the union

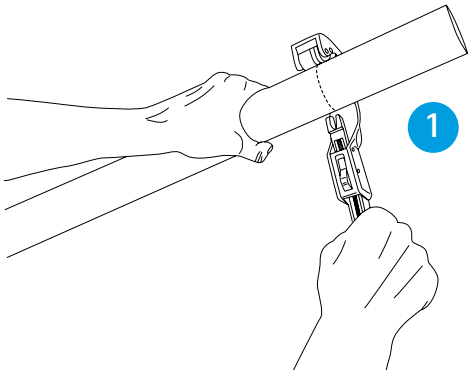


incorrect cut
incorrect pipe cutting
use pipe cutter wheel

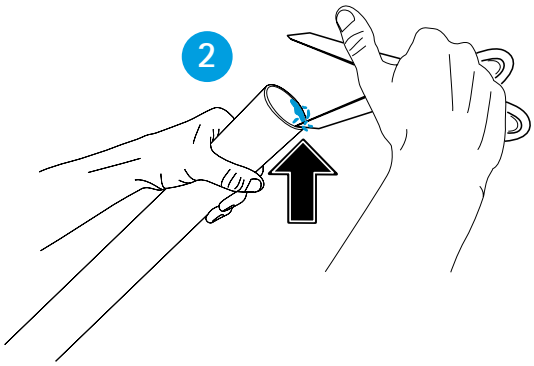
CLEANING THE BURRS

Once the pipe is cut, remove any material burrs inside and outside the cut using the deburring tool built into the pipe cutter (code AT110), or scissors.

1 - cutting of the pipe
2 - cleaning of material burrs



ATTENTION
Before gluing them on, the fittings should be pre-assembled to verify their correct installation.

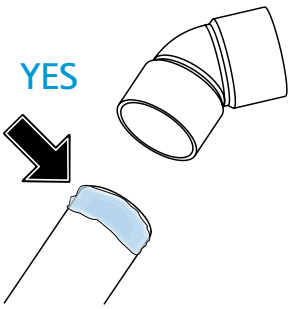


APPLICATION OF THE ADHESIVE

Clean the surface to be glued.

Apply the mastic only on the male union—use enough so that some mastic remains visible on the surface once the union is inserted.

3 - the mastic must be applied to the male union
4 - **the mastic must not be applied to the female union**





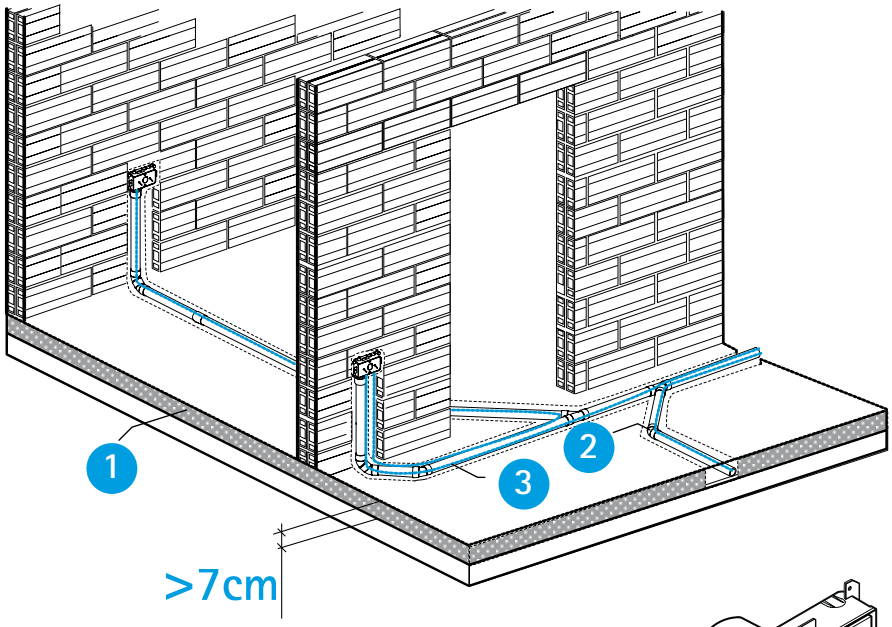
CENTRAL VACUUM SYSTEM WITH MASONRY CONFIGURATION

Pipe path

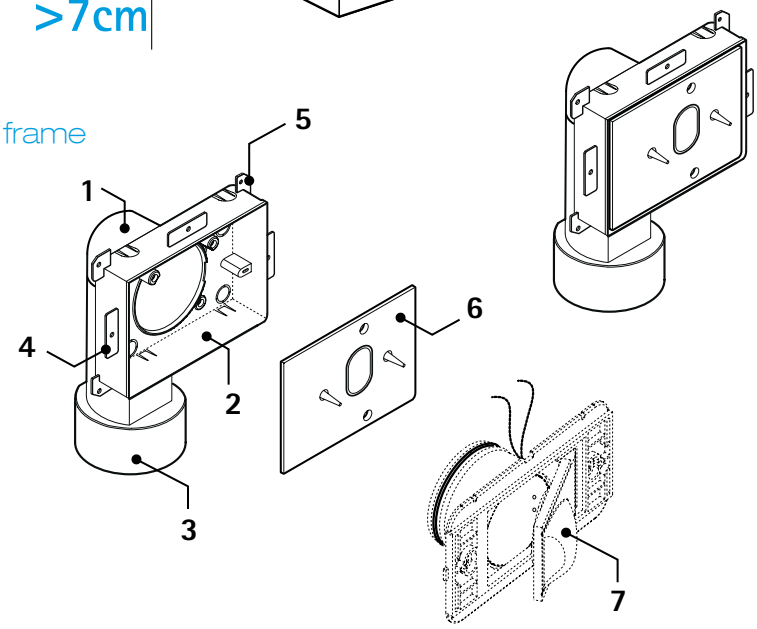
With standard ø50 piping, the minimum floor slab thickness must be >7 cm (thickness required for Aertecnica system)

1 - screed > 7 cm
2 - ø50 mm pipe
3 - pre-inserted for parallel electrical connection of sockets

ATTENTION
Install the piping along the passage of the doors to avoid making chases in the wall dividing two environments.



Configuration of NEW AIR built-in socket frame

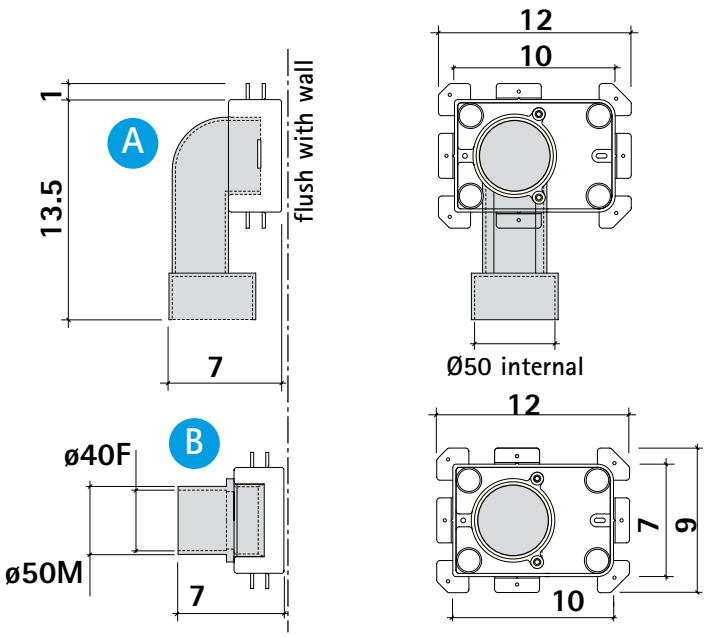


Legend

1 - curved union
2 - NEW AIR socket frame
3 - Ø50 pipe inlet
4 - front fixing tabs
5 - rear fixing tabs
6 - socket frame cover
7 - NEW AIR socket (compatible with:
- the entire NEW AIR socket body range
- SIRIO NEW AIR sockets
- SIRIO NEW AIR CONFORT sockets
- NEW AIR TOUCH sockets
- NEW AIR ALLUMIA TOUCH sockets
- LOGIK NEW AIR sockets

Types of socket frames

The NEW AIR built-in socket frame can have:
A - curved union
B - straight union

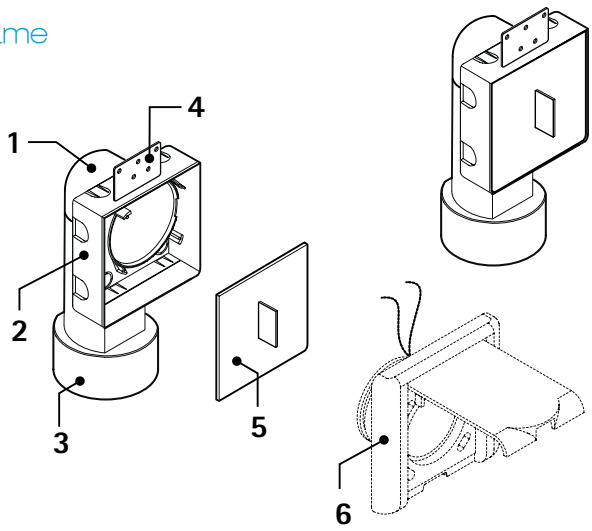


female union (F) for Ø40 pipe
male union (M) for Ø50 pipe

Configuration of SQUARE built-in socket frame

Legend

1 - curved union
2 - SQUARE socket frame
3 - Ø50 pipe inlet
4 - fixing tab
5 - socket frame cover
6 - SQUARE socket

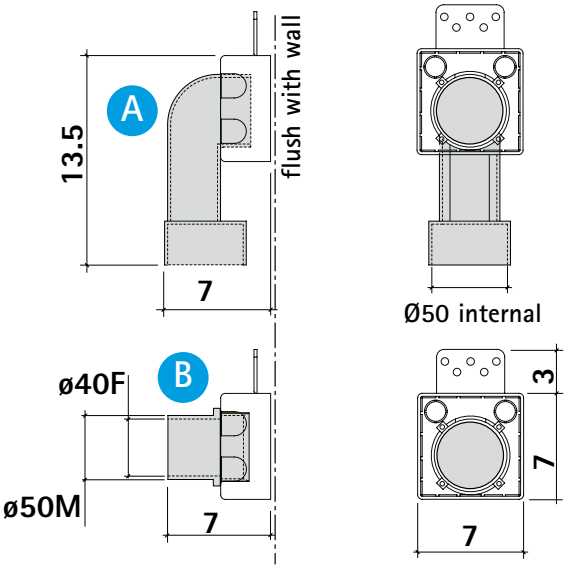


Types of socket frames

The SQUARE built-in socket frame can have:

A - curved union
B - straight union

female union (F) for Ø40 pipe
male union (M) for Ø50 pipe



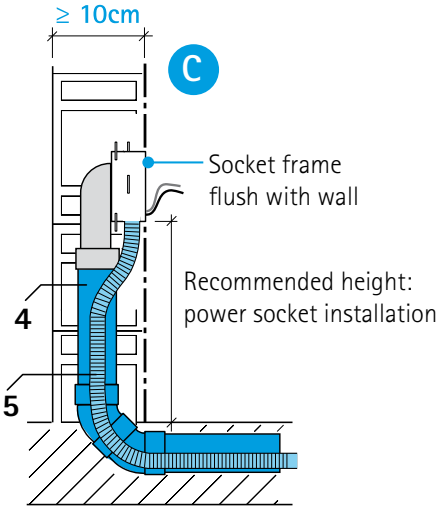
Arrangement and connection of the NEW AIR and SQUARE built-in socket frames

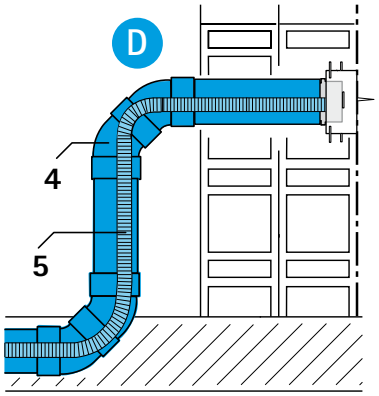
The use of built-in socket frames with curved union is particularly appropriate for walls with 10 cm thickness (C).

The use of built-in socket frames with straight union is particularly appropriate when the dust line must pass through a wall (D).

The built-in socket frame must always be installed flush with the wall.

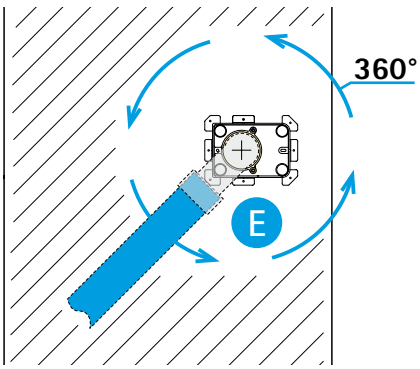
4 - dust line pipe Ø50mm
5 - 12V socket activation line





Socket frame arrangement

The curved union must be turned 360° around the socket frame inlet axis (E) to facilitate connection to the incoming dust line.



Decentring of the NEW AIR socket frame for alignment with wall plates

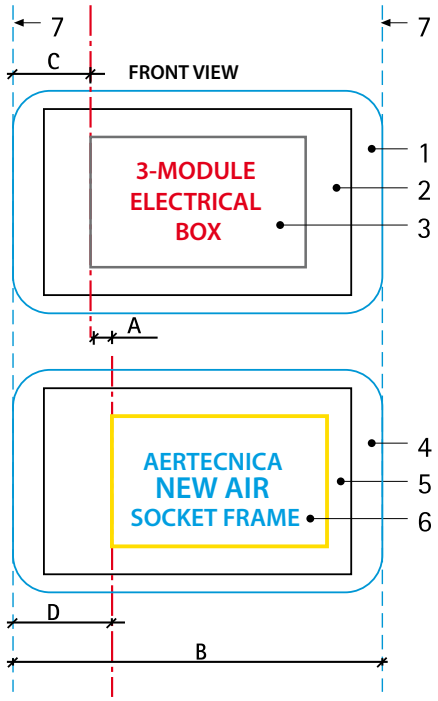
For the models listed in the table, the socket frame axis must be decentred with respect to the electrical box axis, so that the wall plate of the vacuum socket is perfectly aligned with the wall plate of the light switch or household power socket.

ATTENTION
For the updated list of compatible cover plates contact AERTECNICA.

1 - switch wall plate
2 - plate adapter support
3 - electrical box
4 - vacuum socket wall plate
5 - socket adapter support
6 - socket frame
7 - imaginary line aligning the electrical wall plate with the vacuum socket wall plate

DECENTRING The measurements are expressed in mm

Model	A	B	C	D
Bticino international	3	118	10	13
Bticino light	4	115	9	13
Bticino livinglight	3	120	11	14
Bticino livinglight air	4	120	11	15
Bticino axolute quadra	1	126	15	16
Bticino axolute tonda	1	125	14	15
Bticino matix	2	120	11	13
Vimar plana	2	119	11	13
Vimar eikon	3	120	11	14
Vimar eikon evo	5	117	10	15
Vimar Arkè	4	112	10	14
Legrand mosaic	2	123	13	15
Legrand vela tonda	3	124	13	16
Legrand vela quadra	2	121	11	13
Legrand cross	3	123	12	15
Abb elos	1	122	12	14
Gewiss chorus art	2	146	24	26
Gewiss chorus lux	2	123	12	14
Gewiss chorus one	2	118	10	12



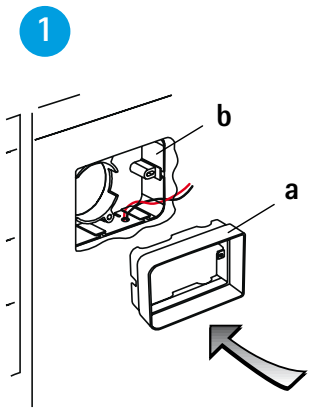
Plaster finishing mould on NEW AIR socket frame

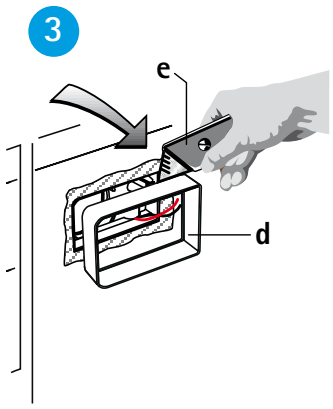
The plaster finishing mould is used with the NEW AIR socket frame whenever the irregular surface of the wall needs to be evened out with cement.

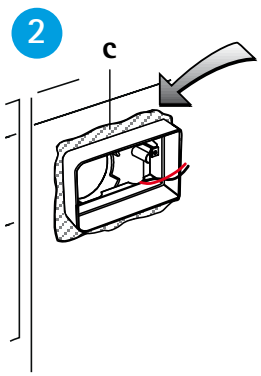


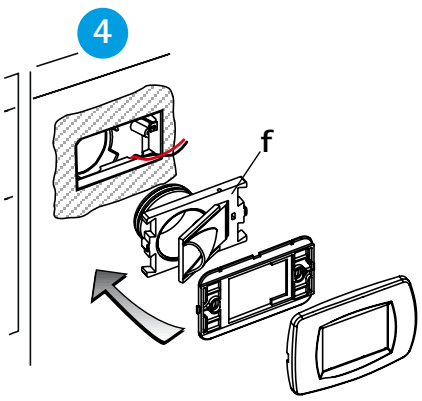
1 - insert the plaster finishing mould (a) into the NEW AIR socket frame (b)
2 - apply the plaster (c) around the mould
3 - cut the part of the mould (d) projecting from the plaster surface flush with the wall, using an appropriate cutter (e)
4 - mount the NEW AIR vacuum socket (f)

ATTENTION
The plaster finishing mould is only used with NEW AIR.socket frames.









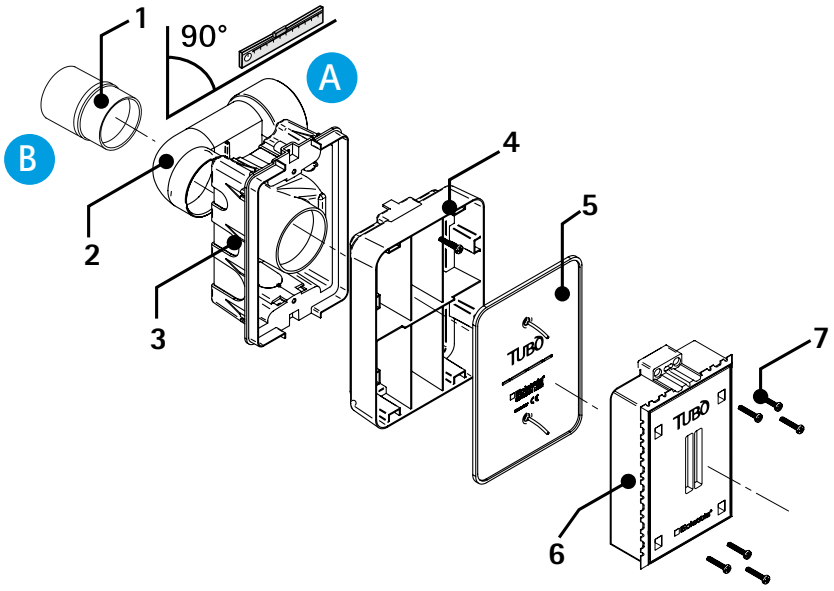
Configuration of ECLETTIS built-in socket frame

Types of socket frames

The ECLETTIS TUBÒ built-in socket frame can have:

A - curved union

B - straight union



Legend

1 - straight union

2 - curved union

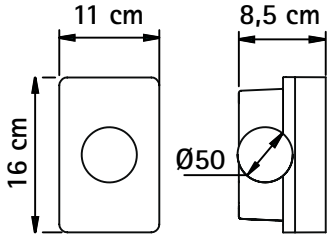
3 - ECLETTIS TUBÒ socket frame

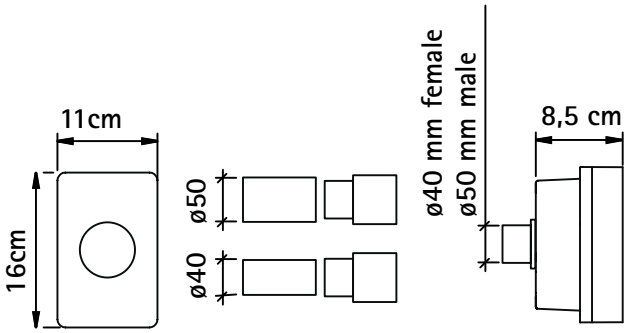
4 - installation jig

5 - cover

6 - inner frame

7 - fixing screws





Connections with the ECLETTIS built-in socket frame

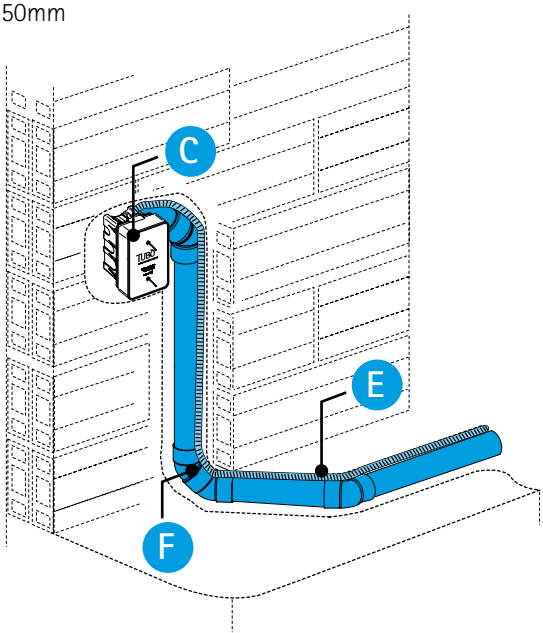
Legend

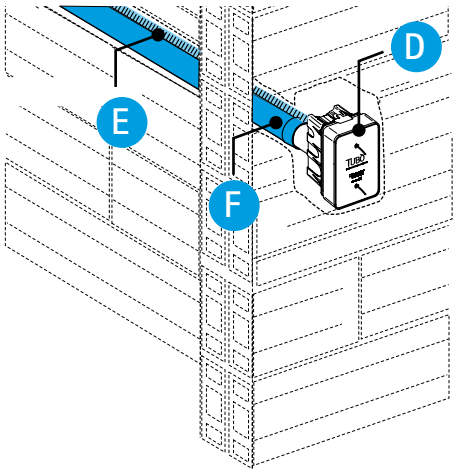
C - socket frame with curved union

D - socket frame with straight union

E - 12V socket activation line

F - dust line pipe Ø50mm

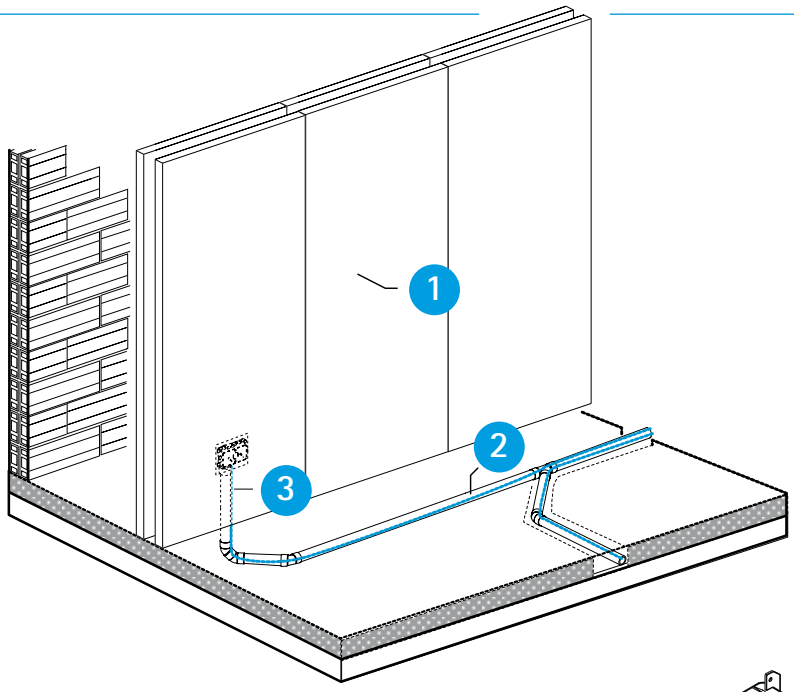




CENTRAL VACUUM SYSTEM WITH PLASTERBOARD CONFIGURATION

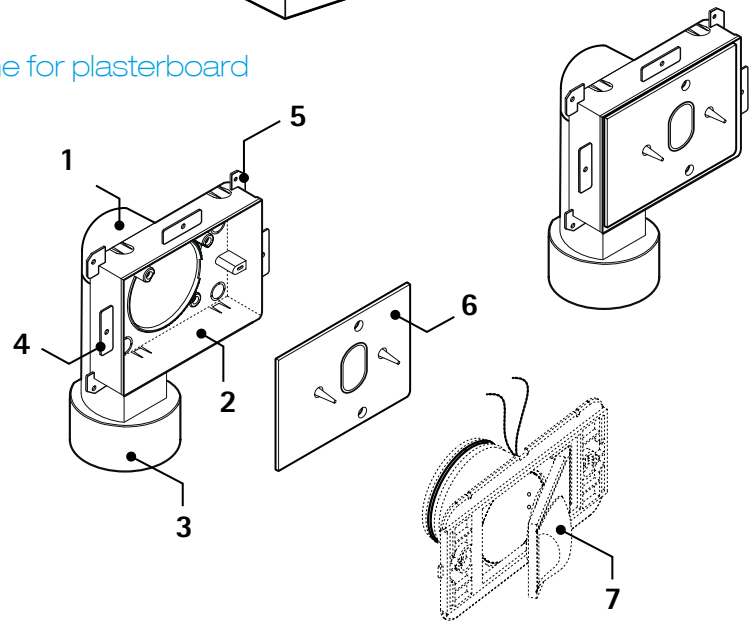
On this type of wall the following sockets can be installed:
- NEW AIR
- SQUARE
- LOGIK NEW AIR
- ECLETTIS

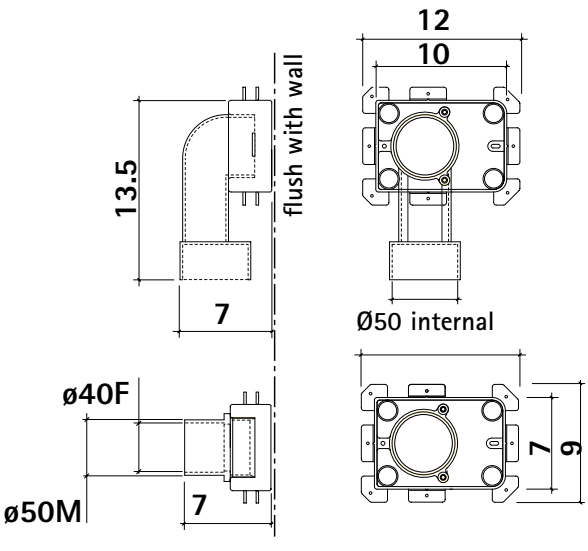
1 - plasterboard panel
2 - ø50 mm pipe
3 - pre-inserted for parallel electrical connection of sockets

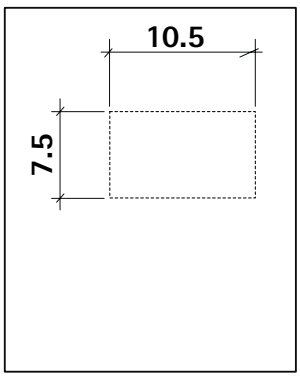


Configuration of NEW AIR socket frame for plasterboard

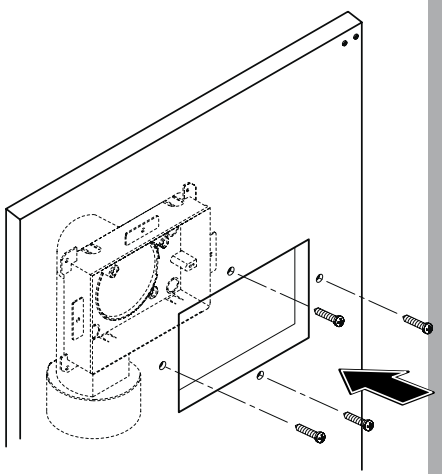
Legend
1 - curved union
2 - NEW AIR socket frame
3 - Ø50 and Ø40 pipe inlet
4 - plasterboard fixing bracket
5 - socket frame cover
6 - NEW AIR socket (compatible with:
- the entire NEW AIR socket body range
- SIRIO NEW AIR sockets
- SIRIO NEW AIR CONFORT sockets
- NEW AIR TOUCH sockets
- NEW AIR ALLUMIA TOUCH sockets
- LOGIK NEW AIR sockets







Cutting of the panel



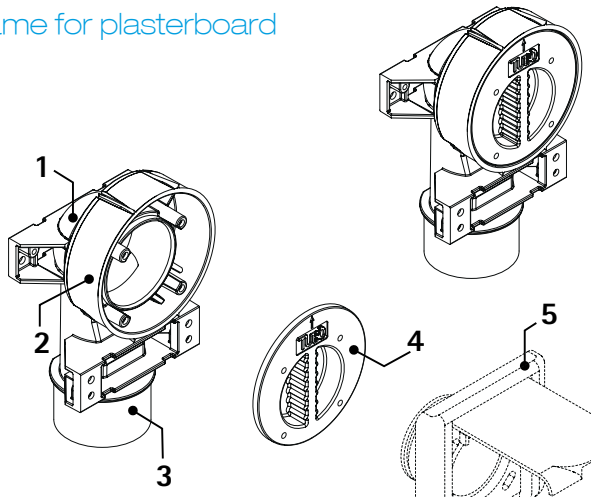
Fixing of screws from outside

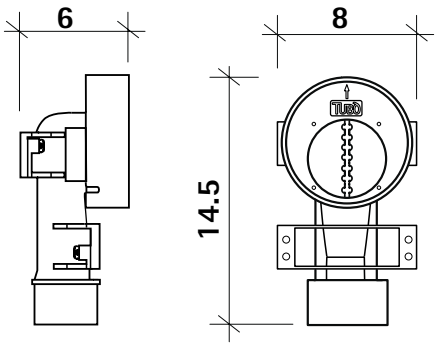
NOTE: consult the NEW AIR socket frame decentring table for aligning the wall plates in the General Catalogue.

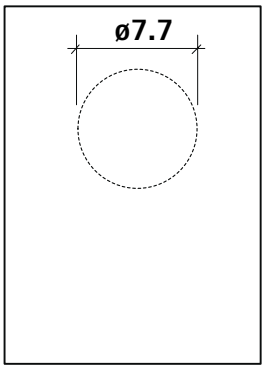
Configuration of SQUARE socket frame for plasterboard

Legend

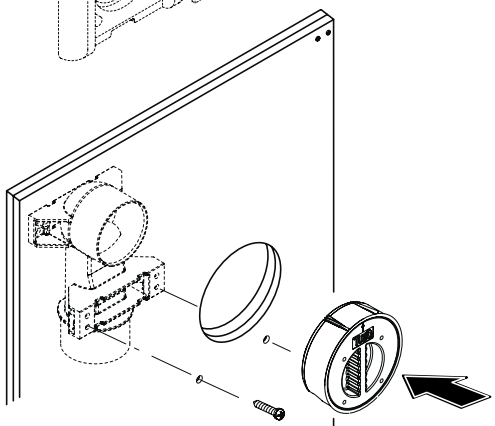
1 - curved union
2 - SQUARE socket frame
3 - Ø50 and Ø40 pipe inlet
4 - socket frame cover
5 - SQUARE socket





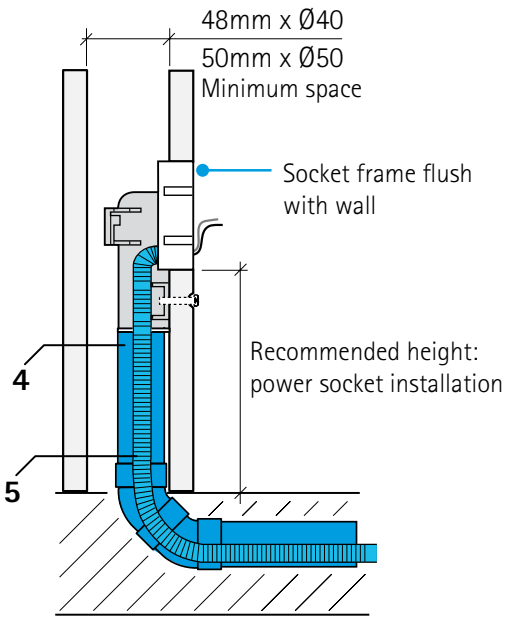


Cutting of the panel

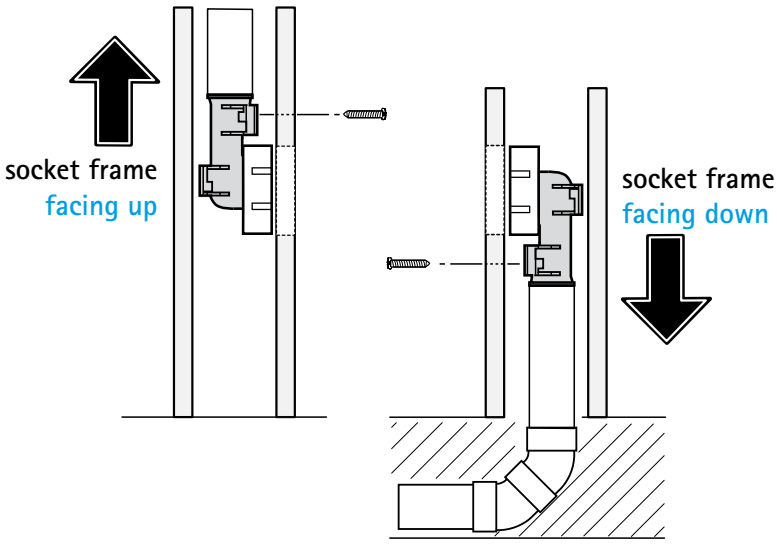


Fixing of screws from outside

Arrangement and connection of the NEW AIR and SQUARE plasterboard socket frames



4 - dust line pipe Ø50mm
5 - 12V socket activation line



Socket frame arrangement

The socket frame must be directed upwards or downwards and must always be installed flush with the wall.
The fixing screws must be inserted from the outside.

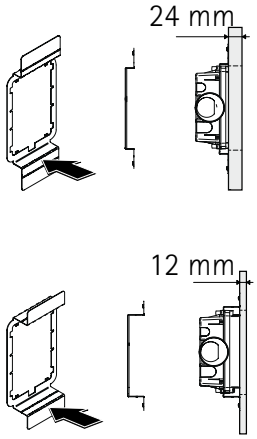
Configuration of ECLETTIS socket frame for plasterboard

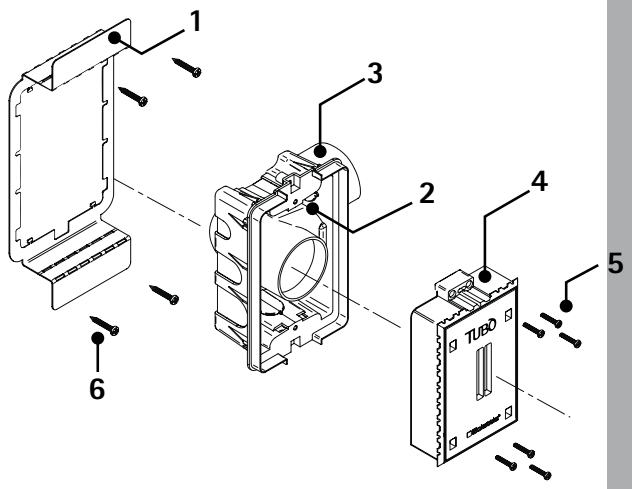
Legend

1 - fixing bracket for plasterboard
2 - ECLETTIS TUBÒ SOCKET FRAME
3 - curved union
4 - inner frame
5 - screws for inner frame
6 - self-tapping screws for securing bracket

The inner frame (4) is mounted on the socket frame (2).

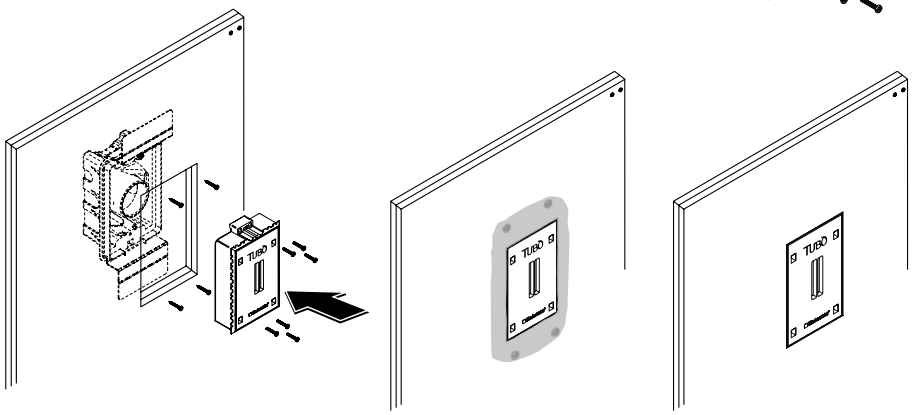
The bracket can be adjusted according to the thickness of the plasterboard (24 mm or 12 mm).





The ECLETTIS TUBÒ socket frame is inserted inside the plasterboard panel and secured with the appropriate bracket in the vertical position.

After filling the spaces around the ECLETTIS TUBÒ socket frame with filler, even out the surface flush with the wall.

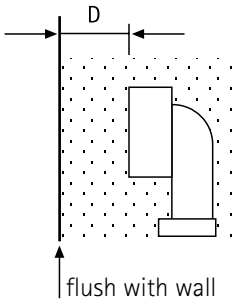


EXTENSION between the socket frame and vacuum socket

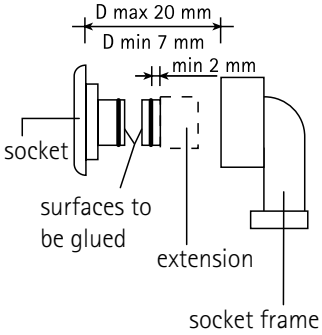
Extensions are necessary when the socket frame is not properly recessed into the wall with respect to the reference surface and airtight sealing of the system is not guaranteed.

The extension is compatible with the following sockets:
NEW AIR, LOGIK NEW AIR, SQUARE

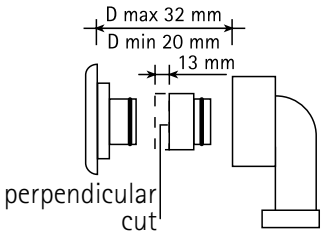




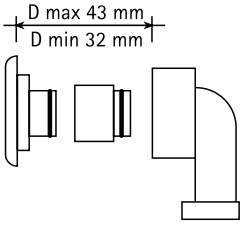
For depths between 20 mm and 32 mm, use the extension by cutting 13 mm off the side opposite that of the O-ring.



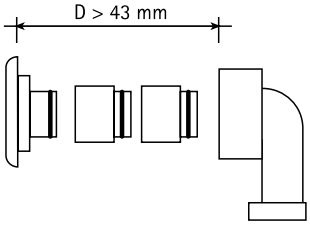
For depths between 7 mm and 20 mm, insert the extension into the socket from the O-ring side and cut it down to 2 mm.
Glue it on using cyanoacrylic glue.



For depths between 20 mm and 32 mm, use the extension by cutting 13 mm off the side opposite that of the O-ring.



For depths between 32 mm and 43 mm, use the entire extension.



For depths exceeding 43 mm, use two or more extensions.

Configuration of VAC PAN vacuum socket for furniture

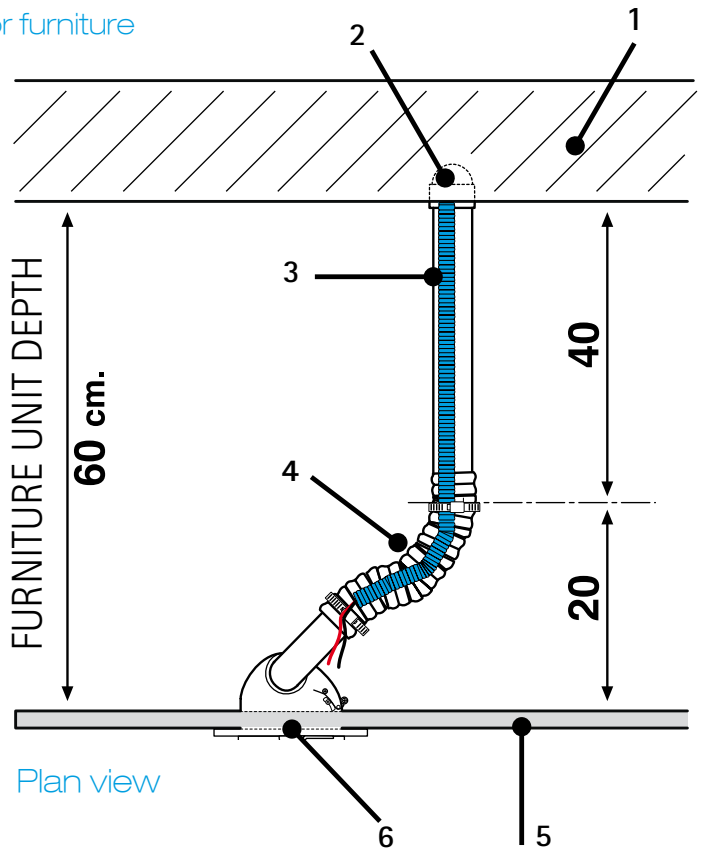
The Vac Pan vacuum socket is installed into the skirting board of furniture units (we recommend installing it in the kitchen).
The dust line to which it must be connected must be near the socket installation zone.

VAC PAN furniture socket

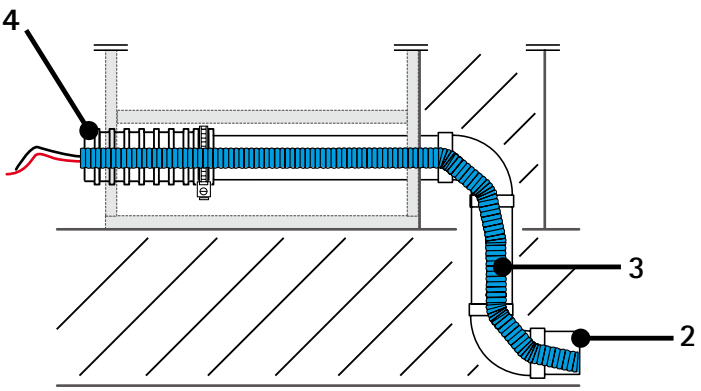


Legend

1 - wall
2 - system dust line
3 - 12V socket activation line
4- flexible hose for connecting the piping to the socket
5 - kitchen furniture unit skirting board
6- VAC PANsocket



Plan view



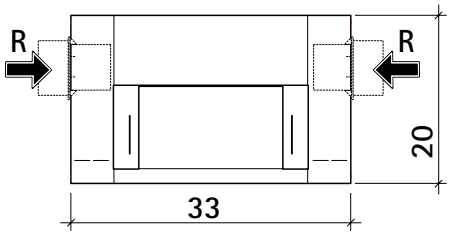
Side view

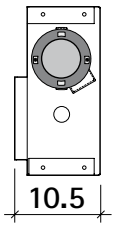
Built-in socket frame for VAC PAN configuration



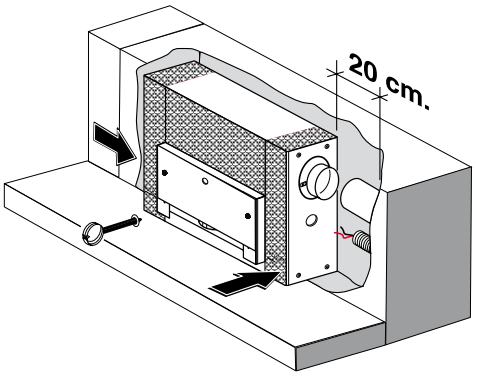
NOTE: the fitting **(R)** can be inserted on both the right-hand and left-hand side of the socket frame

Socket frame dimensions





Chase



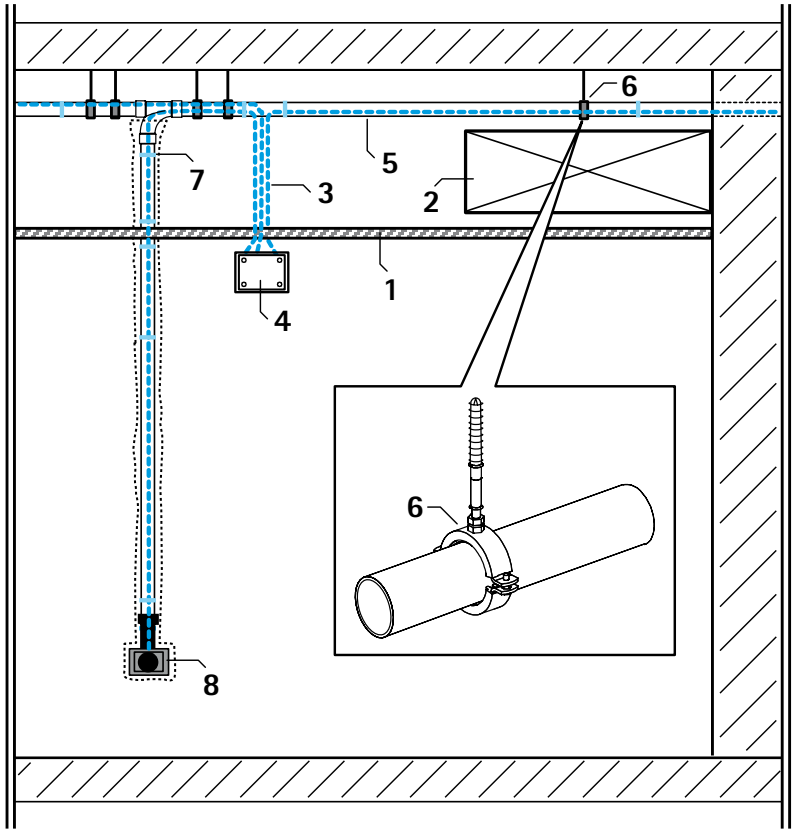
SYSTEM INSTALLATION ON SUSPENDED CEILING

Pipe fixing

For systems installed in suspended ceilings, it is important to use pipe collars along the trunk lines to prevent noise caused by vibrations and to allow the pipes to settle.

Electrical boxes should be installed beneath the suspended ceiling so that they can be inspected.

1 - suspended ceiling
2 - air conditioning duct
3 - electrical connection lines
4 - inspectable electrical box
5 - surface piping anchored to the floor
6 - pipe collars
7 - clamps
8 - socket frame



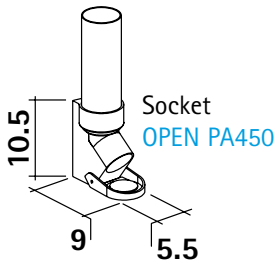
SYSTEM INSTALLATION WITH SURFACE PIPING

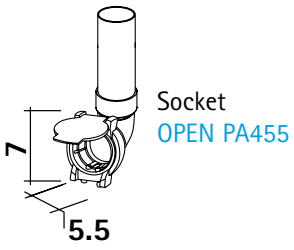
This type of system is installed in two cases:
A - When the walls are made of reinforced concrete, therefore chases cannot be made.

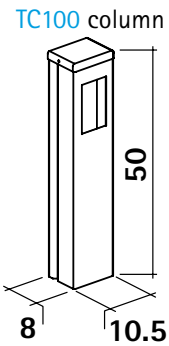
B - When the building is already finished and chasing work would require drastic interventions.

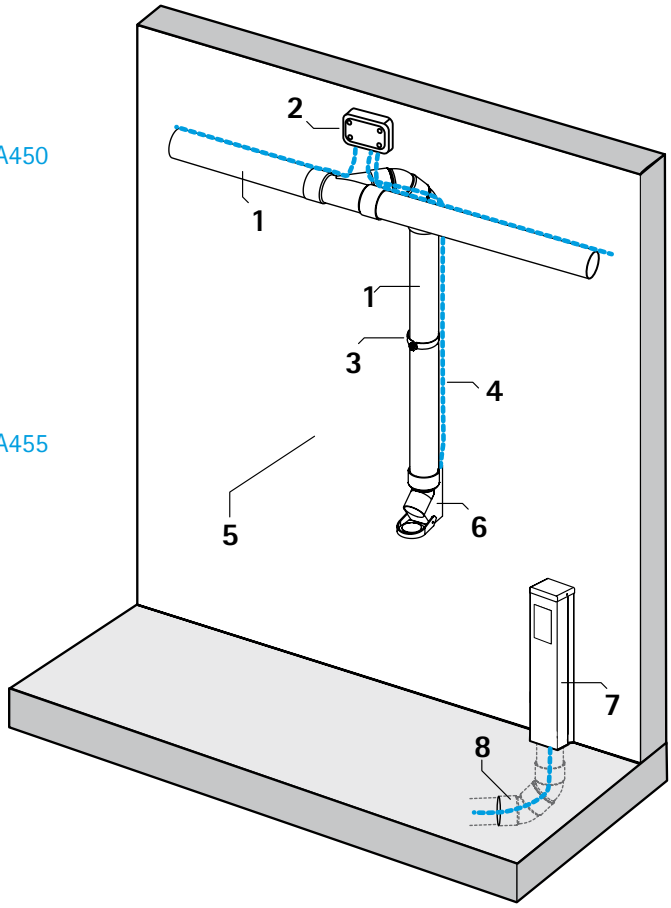
1 - Ø50 surface pipe
2 - sealed junction box
3 - pipe collar with bolt
4 - 12V socket activation line
5 - reinforced concrete wall
6 - OPEN PA450 socket
7 - TC100 column
8 - Ø50 buried pipe

The following vacuum sockets can be used with this type of system:
- OPEN PA450 vacuum socket
- OPEN PA455 vacuum socket
- NEW AIR and LOGIK NEW AIR vacuum sockets installed in the white TC100 aluminium column







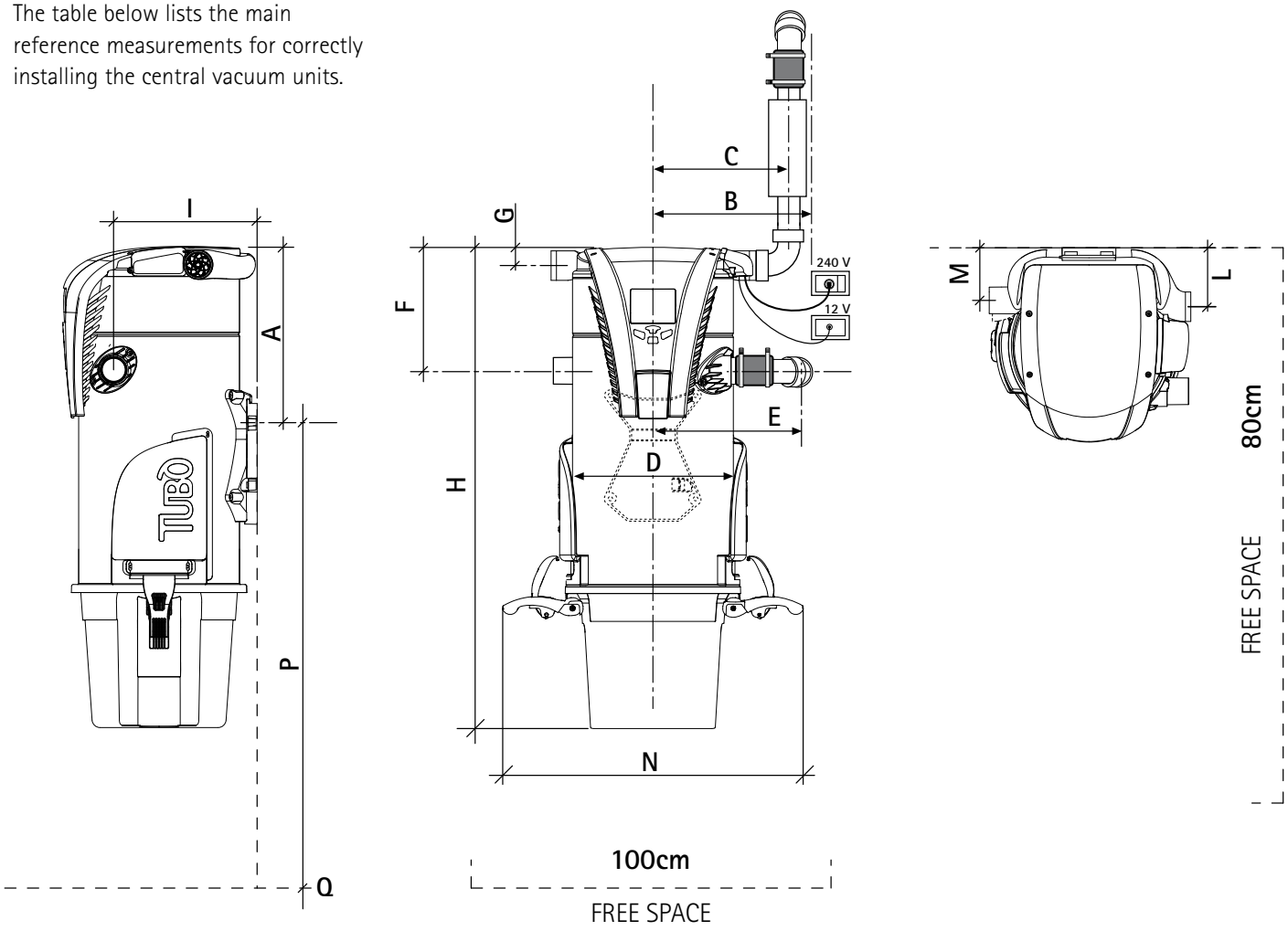


INSTALLATION OF THE CENTRAL VACUUM UNIT

INSTALLATION OF
PERFETTO TXA, TPA, TP AND CLASSIC TC
CENTRAL VACUUM UNITS

Installation measurements

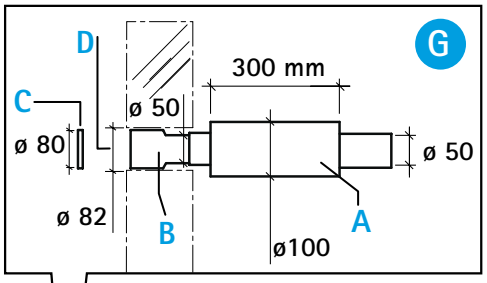
The table below lists the main reference measurements for correctly installing the central vacuum units.



	PERFETTO TXA				PERFETTO TPA – PERFETTO TP				CLASSIC TC			
	TX1A	TX2A	TX3A	TX4A	TP1A/ TP1	TP2A/ TP2	TP3A/ TP3	TP4A/ TP4	TC1	TC2	TC3	TC4
A	138	328	418	418	138	328	418	418	138	328	418	418
B	350	350	350	350	350	350	350	350	350	350	350	350
C	257	257	257	257	257	257	257	257	257	257	257	257
D	300	300	340	340	300	300	340	340	300	300	340	340
E	286	286	304	304	286	286	304	304	286	286	304	304
F	230	230	340	340	230	230	340	340	230	230	340	340
G	34	34	34	34	34	34	34	34	34	34	34	34
H	600	900	1115	1115	600	900	1115	1115	600	900	1115	1115
I	273	273	308	308	273	273	308	308	273	273	308	308
L	115	115	137	137	115	115	137	137	115	115	137	137
M	103	103	112	112	103	103	112	112	103	103	112	112
N	560	560	600	600	560	560	600	600	560	560	600	600
P	1500	1400	1400	1400	1500	1400	1400	1400	1500	1400	1400	1400

P RECOMMENDED MEASUREMENT

Q FLOOR LINE - The dimensions are expressed in mm



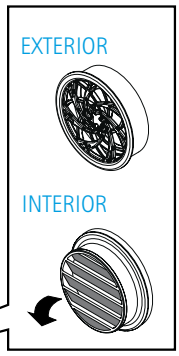
AIR EXHAUST ELEMENTS

A - silencer ø100
B - conical increasing adapter ø50F - ø80F
C - exhaust grille ø80
D - outlet ø82

DIRECTION OF AERATION GRILLES

INTERIOR the blades of the grille must be turned downwards

EXTERIOR the helical sector pattern must be mounted towards the outside



UNUSED DUST INLET

The unused dust inlet (E) must be closed by inserting the relevant cap (F) supplied.

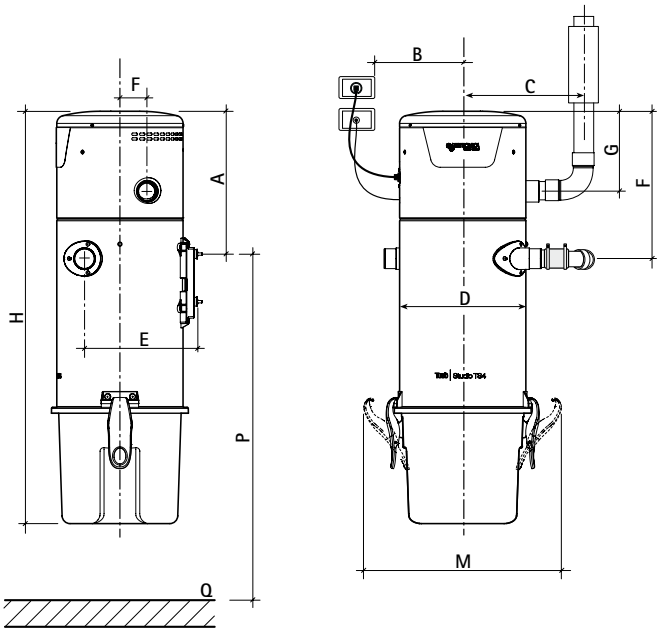
INSTALLATION EXAMPLE

1 - incoming dust line
2 - central vacuum unit dust inlet
3 - socket frames

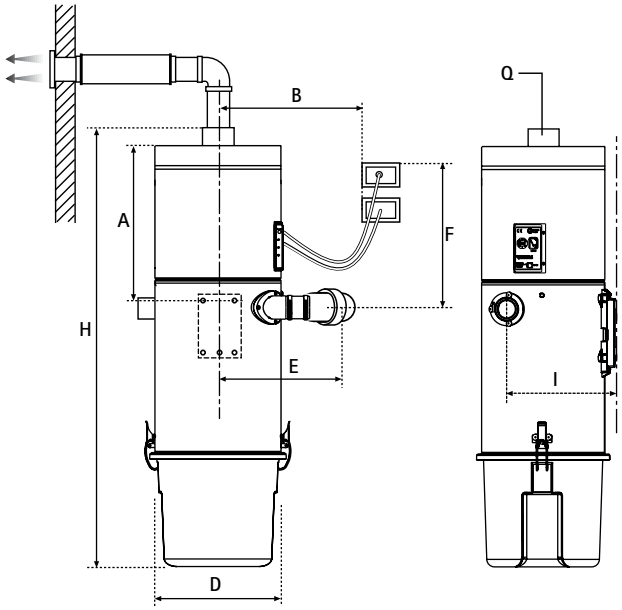
G - ducted air exhaust line
(install the indicated elements for conveying the extracted dust micro-particles from the central unit to outside the domestic environment)

H - direct air exhaust nozzle (arrange the aeration vents according to the chosen type of exhaust)

INSTALLATION OF STUDIO TS CENTRAL VACUUM UNITS



INSTALLATION OF C500 CENTRAL VACUUM UNITS



Installation measurements

The table below lists the main reference measurements for correctly installing the central vacuum units.

	STUDIO TS1	STUDIO TS2	STUDIO TS4	C500
A	143	298	360	360
B	400	400	350	350
C	330	330	260	-
D	280	280	320	320
E	270	270	290	290
F	314	321	370	400
G	124	124	200	-
H	650	900	1038	1030
I	250	250	285	285
M	47	47	51	-
P	1500	1400	1400	-

P RECOMMENDED MEASUREMENT
Q FLOOR LINE

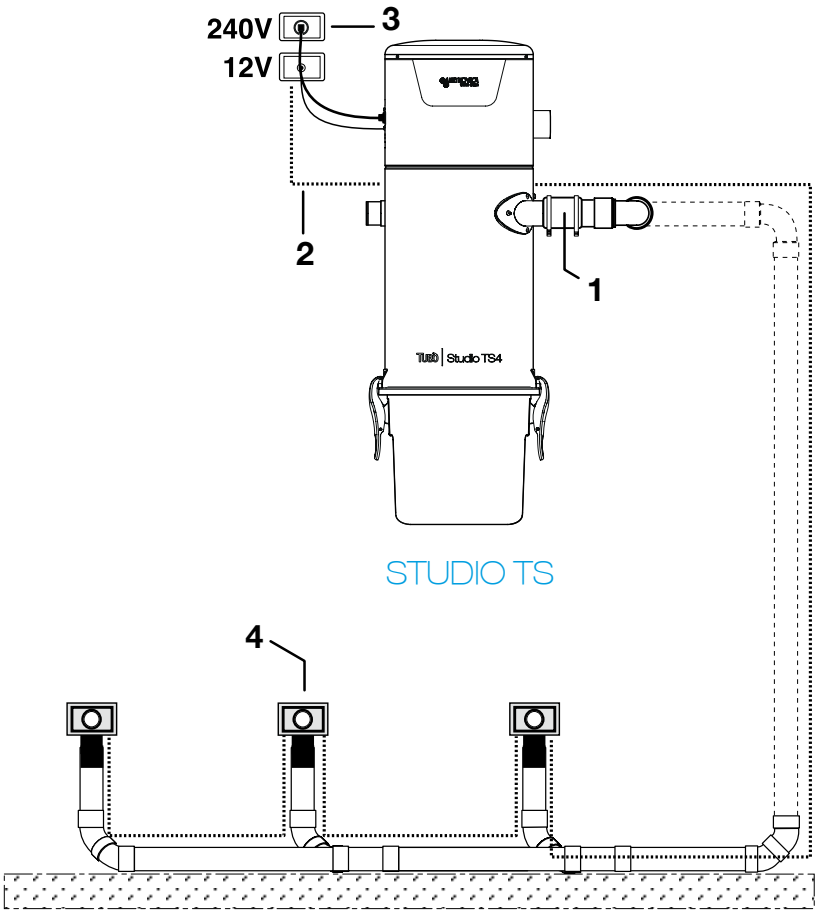
INSTALLATION EXAMPLE

1 - incoming dust line

2 - 12V activation line

3 - 240V domestic power supply line

4 - socket frames



STUDIO TS

INSTALLATION EXAMPLE

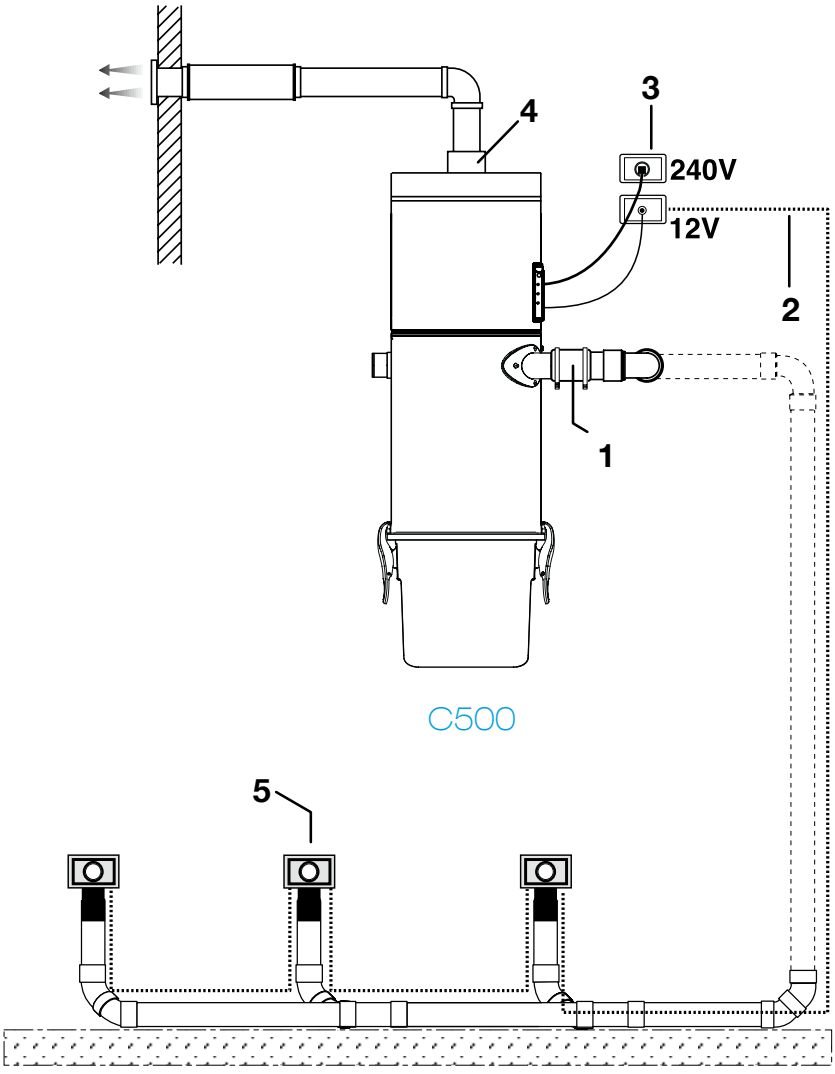
1 - incoming dust line

2 - 12V activation line

3 - 240V domestic power supply line

4 - air exhaust line Ø63 mm.

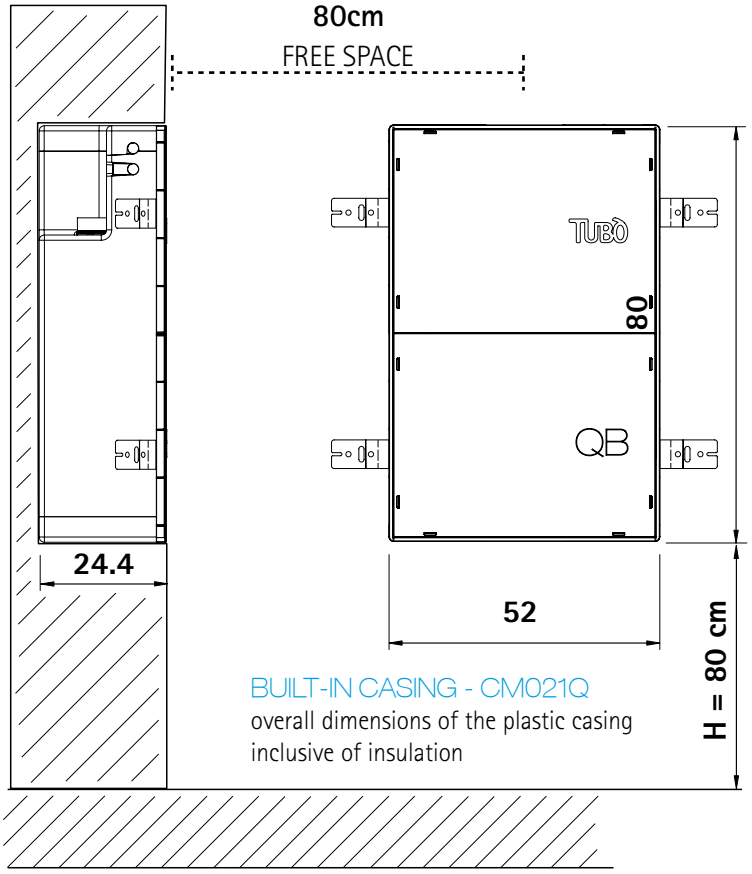
5 - socket frames



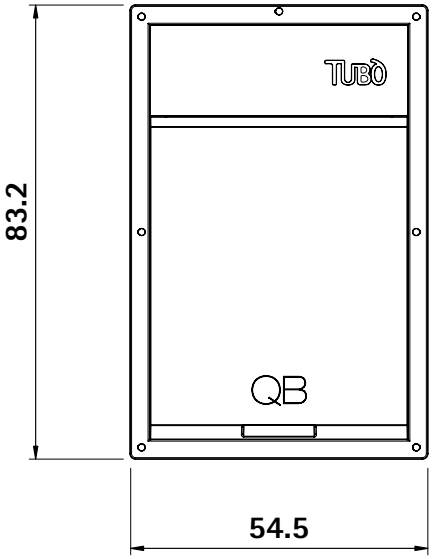
C500

INSTALLATION OF THE QB CENTRAL VACUUM UNIT WITH BUILT-IN CASING

Installation measurements



BUILT-IN CASING - CM021Q
overall dimensions of the plastic casing inclusive of insulation



FRAME AND DOOR - CM821Q
overall dimensions of the finishing frame

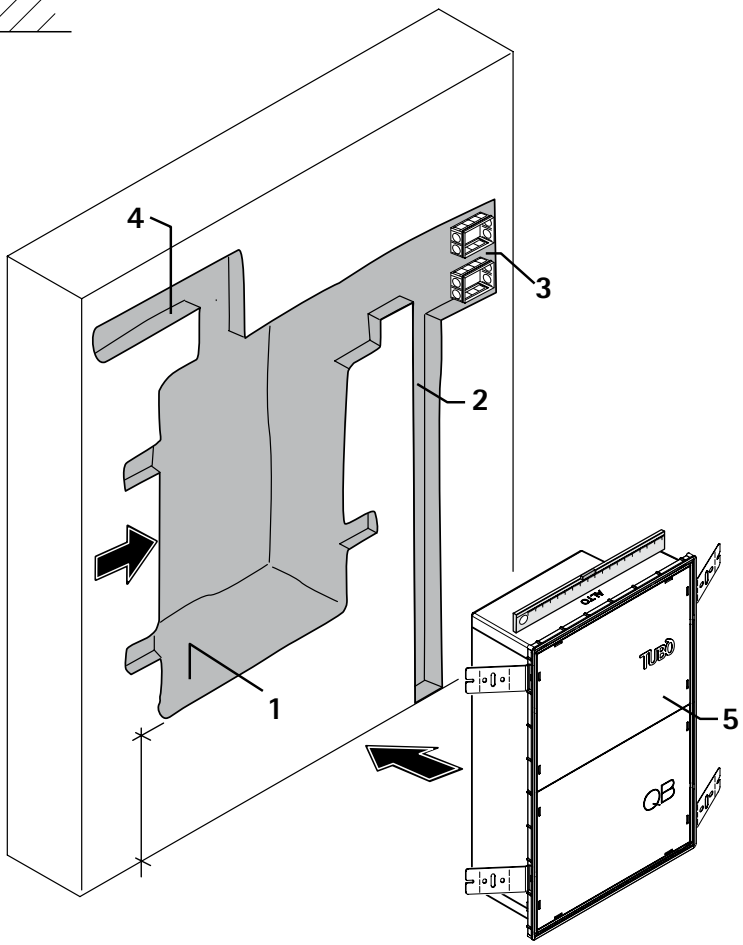
MASONRY CONFIGURATION

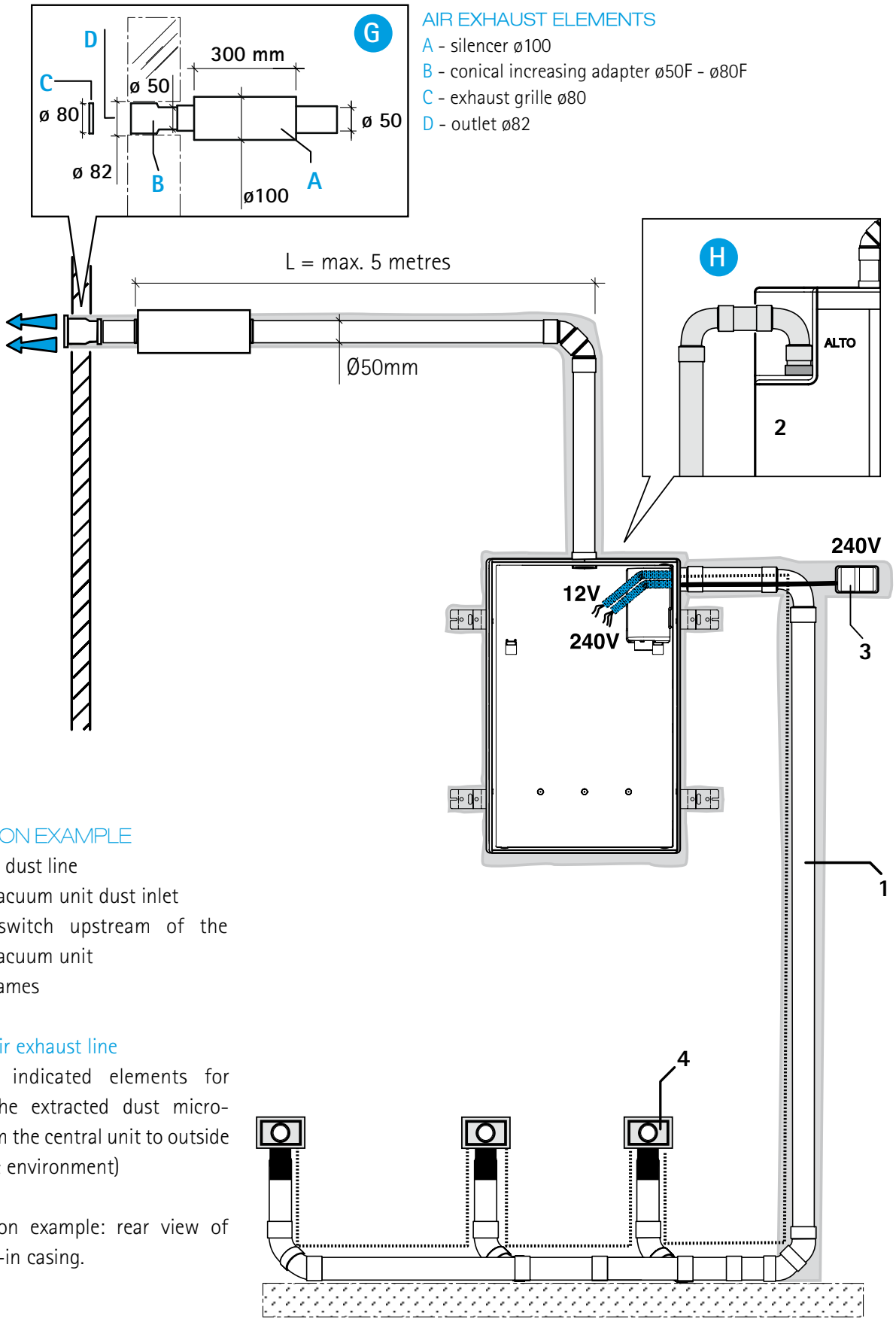
The chases in the wall must be made by taking into account the overall dimensions of the casing inclusive of the insulation.

The casing is supplied with appropriate plaster-saving doors for protecting the interior against debris and cement and for strengthening the structure.

The doors must be mounted before inserting the casing in the masonry.

1 - Chase for QB casing
2 - Chase for central vacuum unit configuration
3 - Chase for electrical connections
4 - Chase for ducted exhaust line (if present)
5 - Plaster-saving doors





AIR EXHAUST ELEMENTS

A - silencer ø100
B - conical increasing adapter ø50F - ø80F
C - exhaust grille ø80
D - outlet ø82

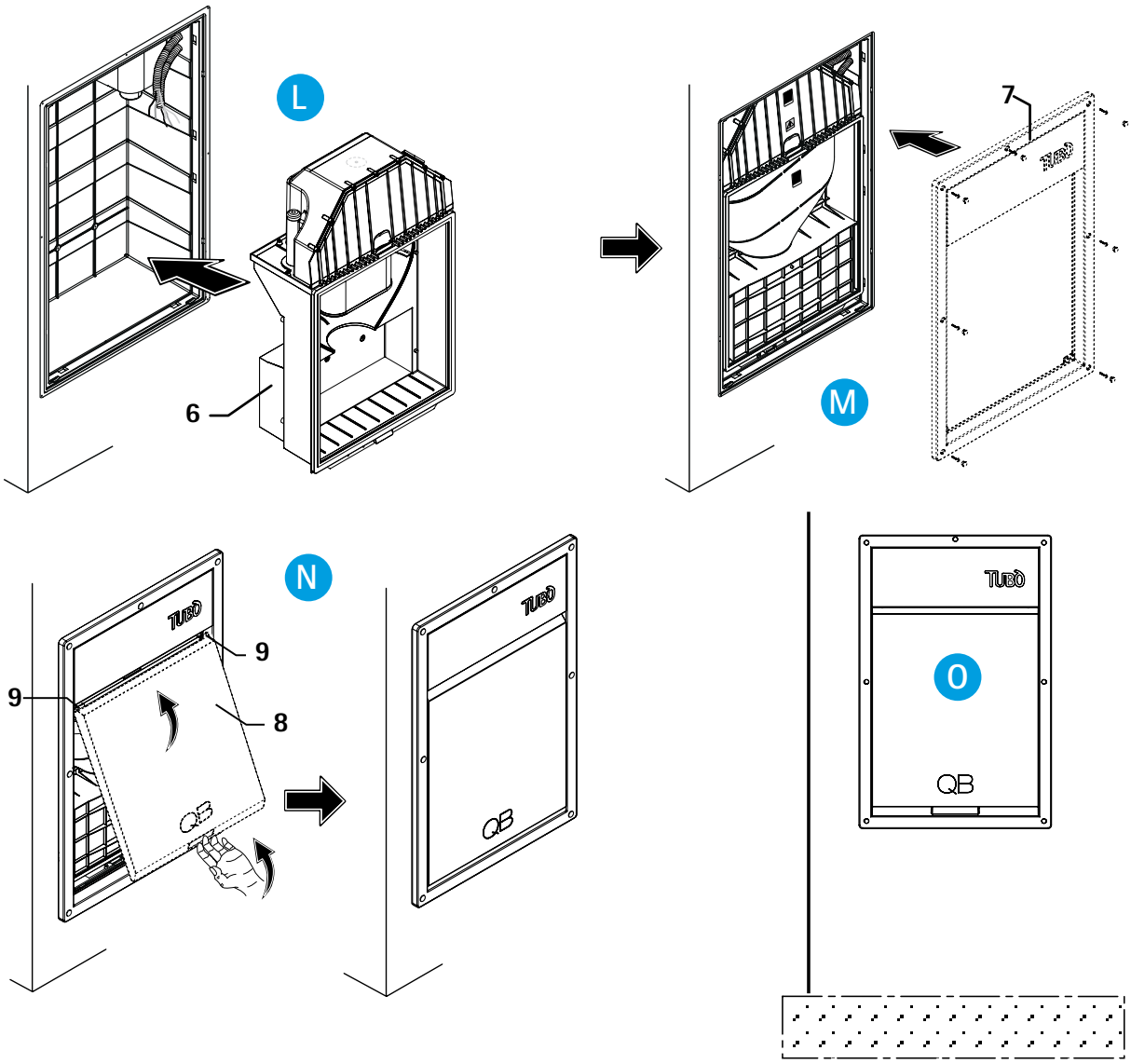
INSTALLATION EXAMPLE

1 - incoming dust line
2 - central vacuum unit dust inlet
3 - bipolar switch upstream of the central vacuum unit
4 - socket frames

G - ducted air exhaust line
(install the indicated elements for conveying the extracted dust micro-particles from the central unit to outside the domestic environment)

H - connection example: rear view of the built-in casing.

INSTALLATION OF QB + FRAME AND DOOR KIT



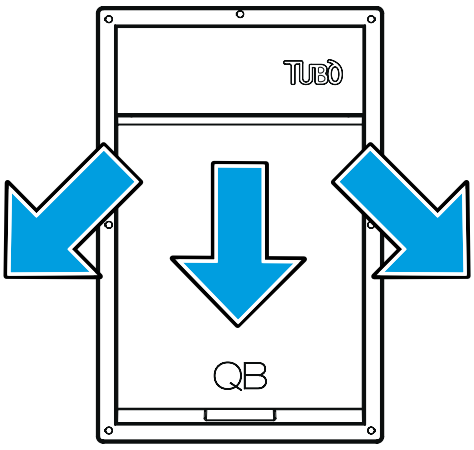
INSTALLATION OF THE QB CENTRAL VACUUM UNIT

L - Insert the body of the QB unit (6) into the casing.

M - Mount the frame (7) onto the wall, by screwing the fixing screws through the holes on the casing.

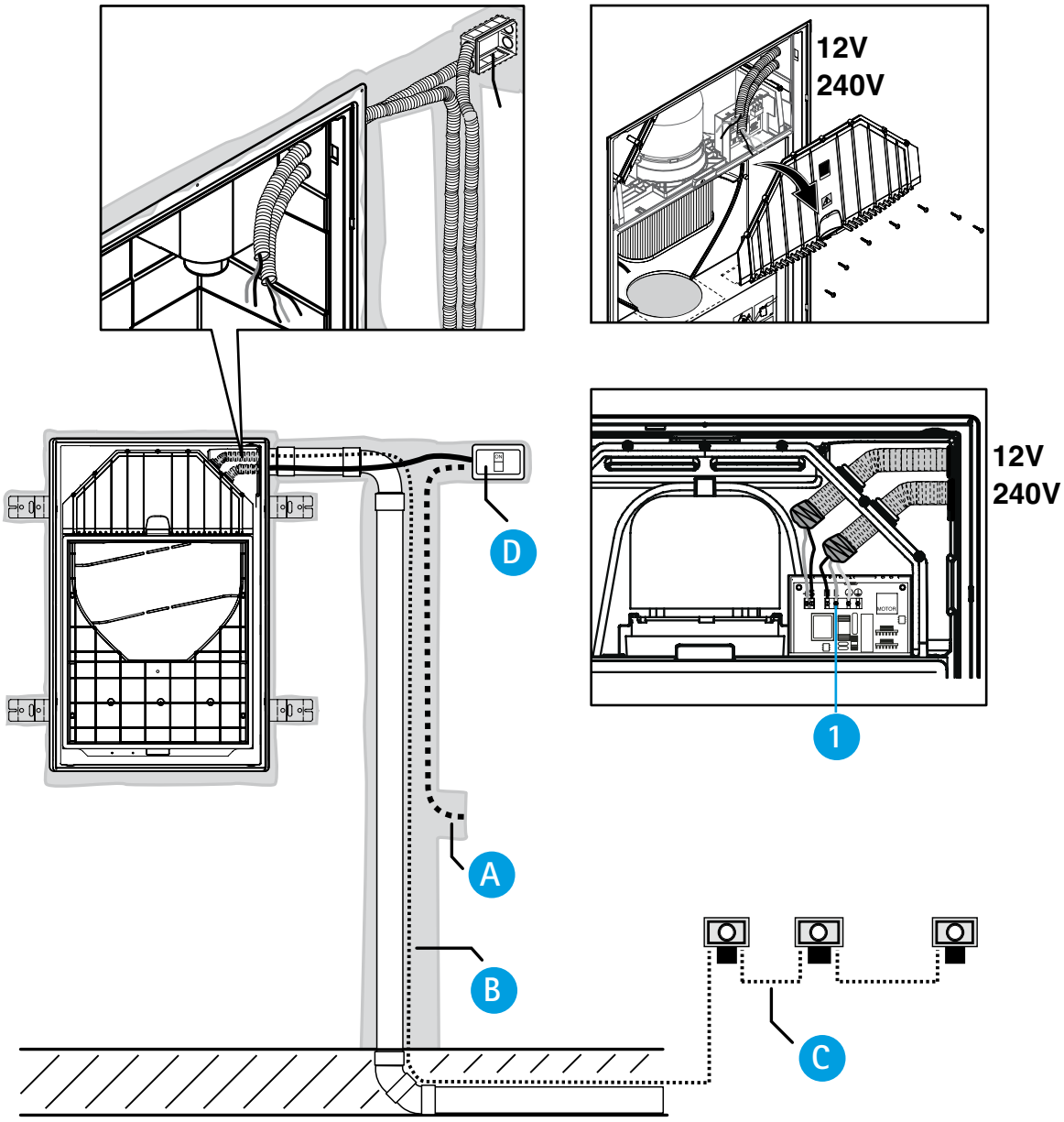
N - Mount the door (8) onto the frame, by inserting the two pins (9) on the upper edge while holding onto the handle.

O - Door closing is guaranteed by the magnet fastening system.



The CM021Q built-in casingis already configured by the manufacturer for directly expelling air from the door.

ELECTRICAL CONNECTION OF THE QB CENTRAL VACUUM UNIT



GENERAL SYSTEM CONNECTION

A - 240V domestic line, Ø20 3x1.5mm for powering the central vacuum unit

B - sheath containing 2x1 ø16 cable for 12V socket activation line

C - parallel connection of vacuum sockets

D - bipolar switch upstream of the central vacuum unit

CENTRAL VACUUM UNIT POWER SUPPLY

The 240V domestic line must be connected to the electrical panel (1) of the central vacuum unit.

VACUUM SOCKET ACTIVATION

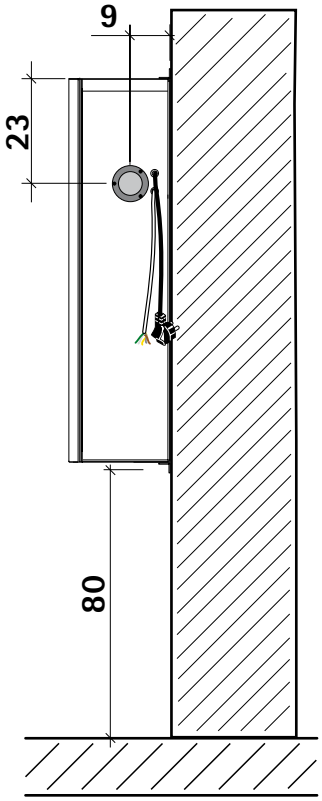
The 12V socket activation consent line must be connected to the electrical panel (1) of the central vacuum unit.

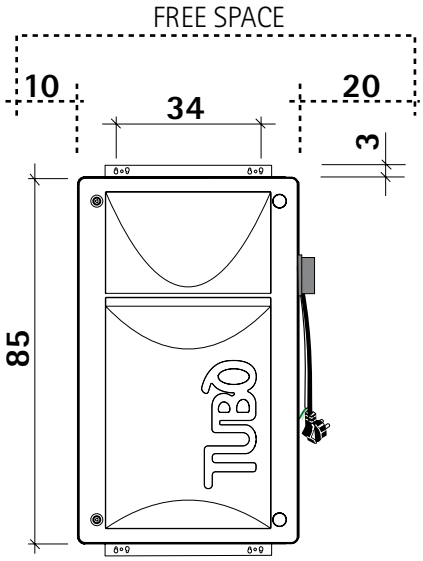
BIPOLAR SWITCH

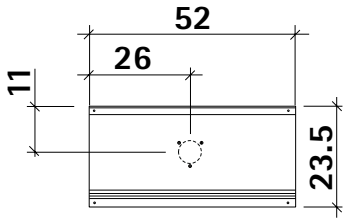
The power supply line of the QB central vacuum unit must be fitted with a bipolar switch (D) positioned upstream of the unit itself.

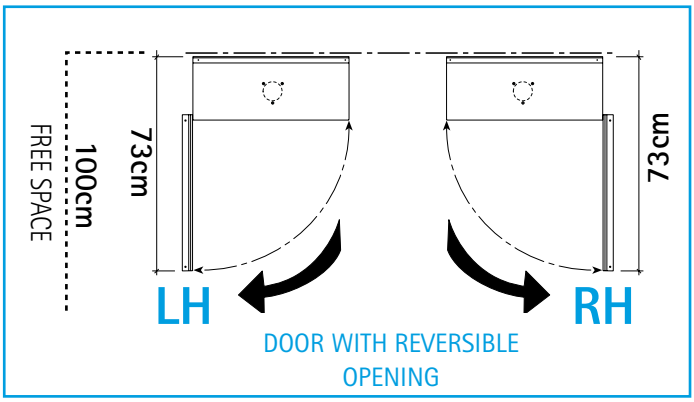
INSTALLATION OF THE QB CENTRAL VACUUM UNIT WITH WALL-MOUNTED CASING

Installation measurements









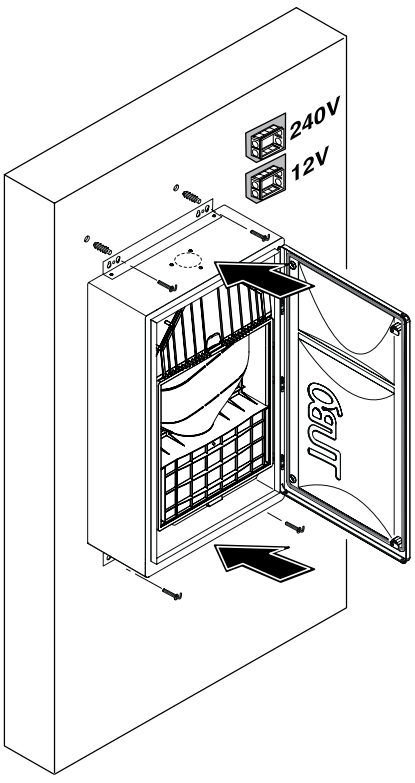
WALL-MOUNTING

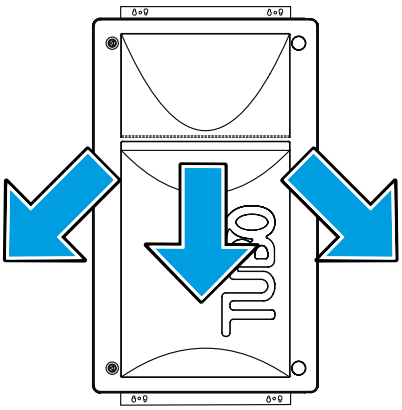
The QB central vacuum unit is already fitted inside the wall-mounted casing.

The unit is already wired with a 240V power supply cable, Shuko plug and 12V socket activation cable.

The unit is mounted on the wall with two brackets (upper and lower) to be fixed to the wall using appropriate plugs.

ATTENTION
If the casing is mounted outdoors, use junction boxes with suitable electrical protection.

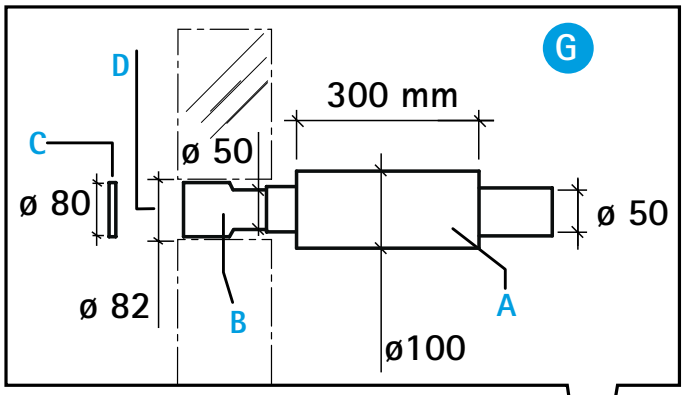


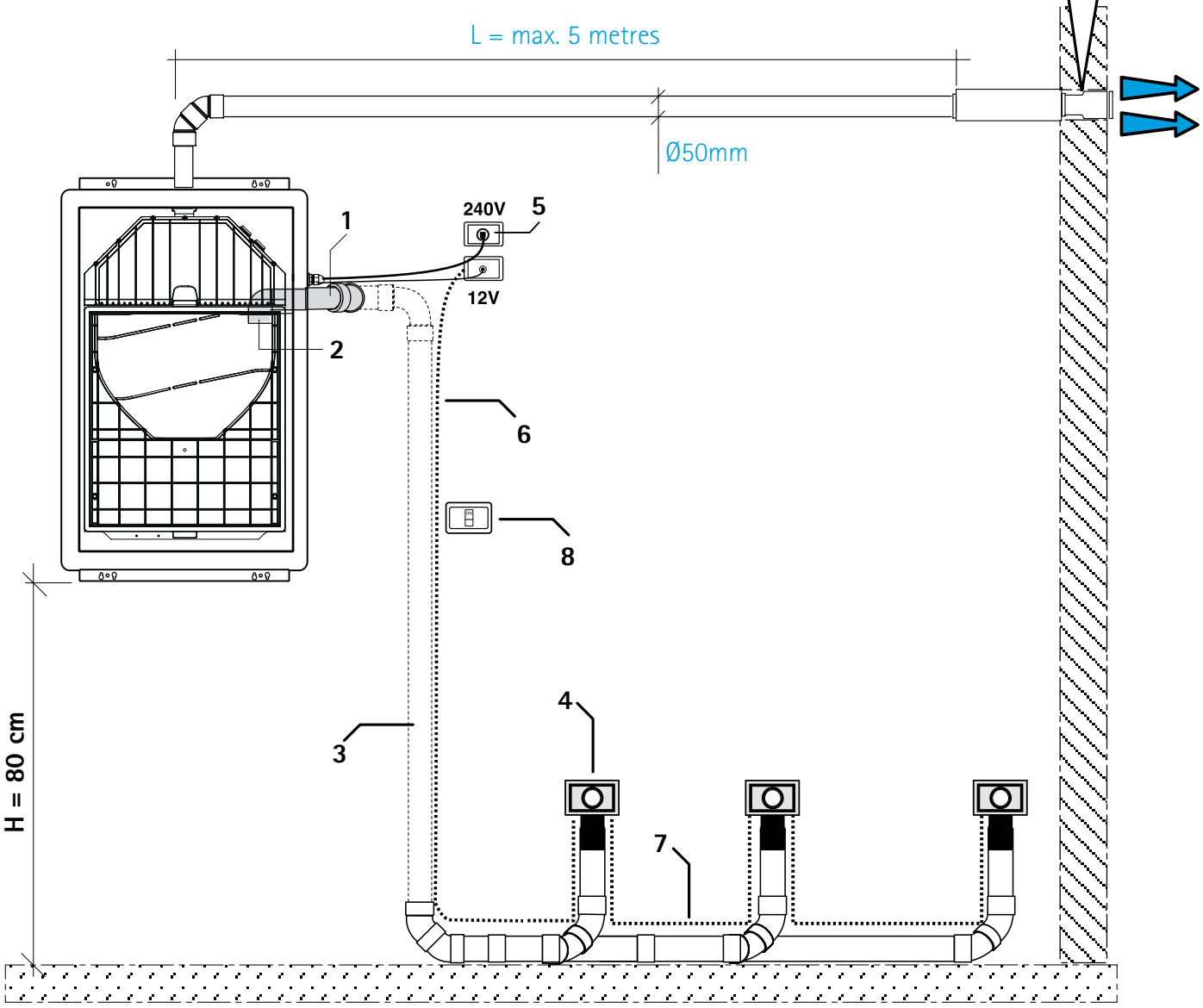


The CM020Q built-in casingis already configured by the manufacturer for directly expelling air from the door.

Air exhaust elements

A - silencer ø100
B - conical increasing adapter ø50F - ø80F
C - exhaust grille ø80
D - outlet ø82





INSTALLATION EXAMPLE

1 - incoming dust line
2 - dust inlet fitting
3 - dust line pipe Ø50mm
4 - socket frames

G - ducted air exhaust line
(install the indicated elements for conveying the extracted dust micro-particles from the central unit to outside the domestic environment)

GENERAL SYSTEM CONNECTION

5 - 240V power line for powering the central vacuum unit
6 - sheath containing 2x1 ø16 cable for 12V socket activation line
7 - parallel connection of vacuum sockets
8 - bipolar switch upstream of the central vacuum unit

WIRELESS KIT

WIRELESS FLEXIBLE HOSE

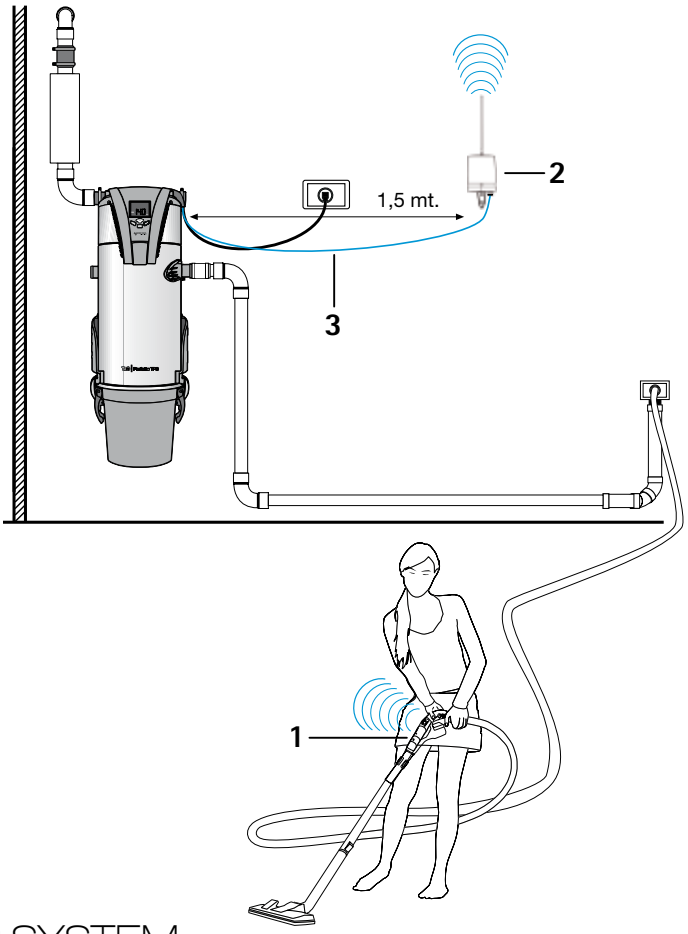
The ideal solution whenever the system is not electrically configured, or for adding a new socket to an existing system without having to install the 12V socket line.

It can be used with all types of vacuum sockets.

RECEIVER

Inside a building, the transmission range between the wireless hose and the receiver is 15 m, which allows for crossing 2 floors.

1 - wireless hose
2 - receiver
3 - direct connection line to central vacuum unit

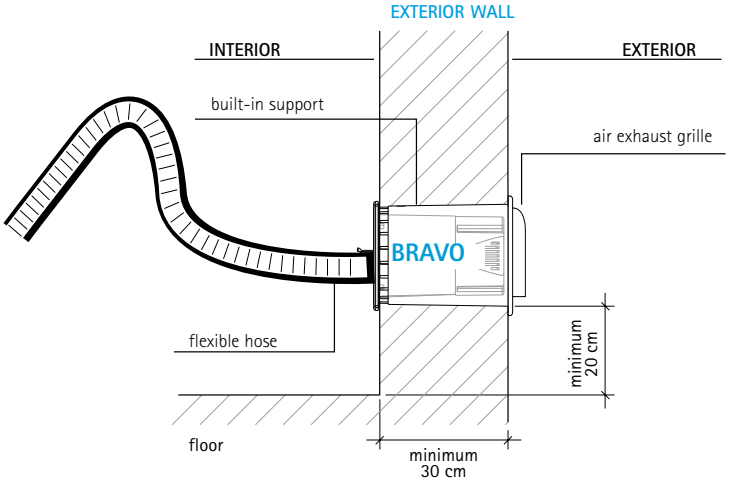


BRAVO VACUUM CLEANER SYSTEM

The BRAVO built-in vacuum cleaner system is designed to solve space-related problems occurring in all types of modern homes with compact spaces.
BRAVO is recommended for bachelor apartments, shops, small offices, bars, garages, etc.

INSTALLATION IN AN EXTERNAL WALL

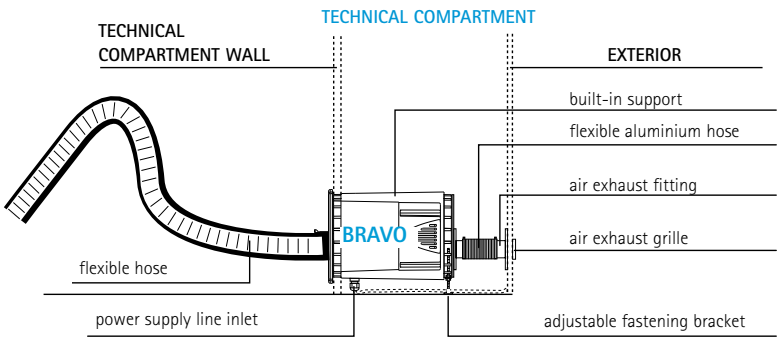
The built-in vacuum cleaner unit must be installed in the external wall of the room of installation.
A hole with 25 cm diameter and 30 cm minimum depth is sufficient for housing the vacuum cleaner unit.



INSTALLATION IN A TECHNICAL COMPARTMENT

BRAVO can also be installed in a technical compartment, cabinet, compact utility space, etc.





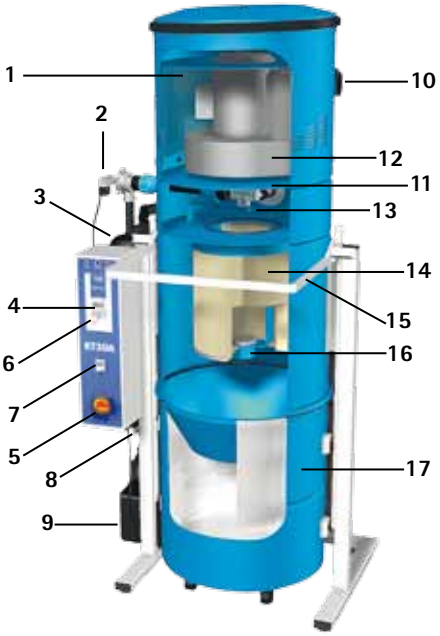
KOMPATTA KT

The KOMPATTA KT range is designed to satisfy the requirements of the tertiary/professional sector, by offering maximum installation speed and reduced overall dimensions.

The major features of this product include:

1 - three-phase turbine motor incorporated into the central vacuum unit body;
2 - electrical panel incorporated into the central vacuum unit body;
3 - simultaneous use of one to three operators;
4 - models with self-cleaning system;
5 - rapid installation;
6 - reduced overall dimensions;
7 - 150-litre dust container.



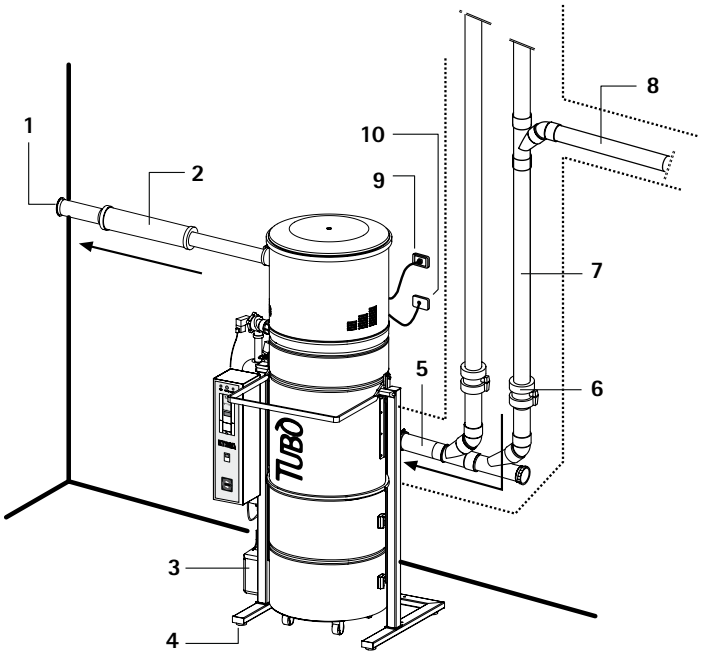


LEGEND

1 - Soundproofed motor chamber
2 - Self-cleaning solenoid valve
3 - Self-cleaning tank
4 - Vacuum level display
5 - Main switch
6 - Electrical panel
7 - Self-cleaning timer
8 - Condensate discharge device
9 - Self-cleaning air compressor
10 - Reversible air exhaust outlet
11 - Motor support
12 - Turbine motor
13 - Self-cleaning nozzle
14 - Polyester filter cartridge
15 - Dust container opening/closing lever
16 - Filter cartridge tightening knob
17 - Dust container

INSTALLATION EXAMPLE

1 - Air exhaust grille
2 - Silencer
3 - Self-cleaning system compressor
4 - Base with anti-vibration devices
5 - Dust inlet collector
6 - Ball valve
7 - Riser
8 - Trunk line
9 - 400V power supply socket
10 - 12V line socket



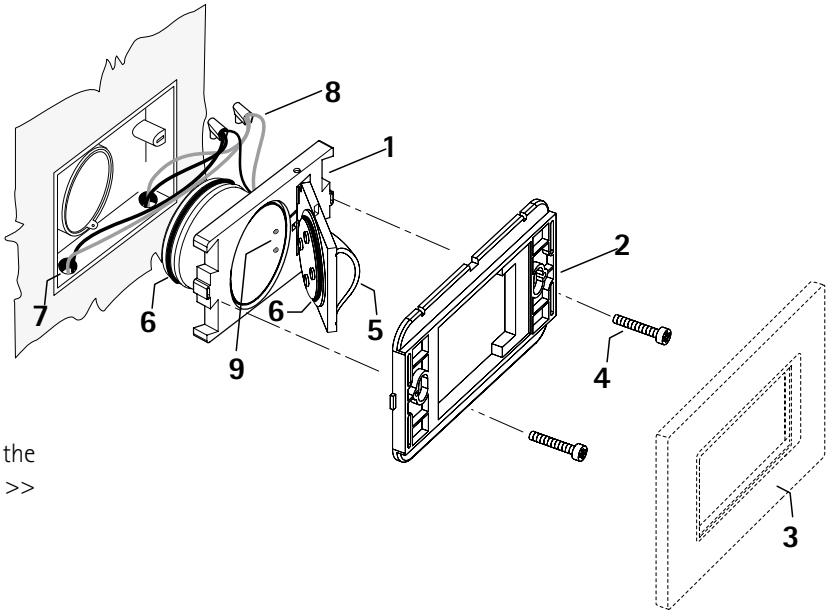
INSTALLATION OF THE VACUUM SOCKETS

Socket bodies combinable with wall plates



NEW AIRsocket body range

Aertecnica sockets are made of top-grade thermoplastic materials: New Air sockets are sturdy and solve the problem of fixing the socket perfectly to the wall.
The double O-ring seal ensures a tight seal between the parts and prevents air leakages in the system.



1 - NEW AIR RANGE SOCKET BODY
2 - adapter support for wall plate
3 - wall plate (not supplied by AERTECNICA)
4 - fixing screws
5 - flap easy-opening mechanism
6 - 2 airtight O-ring seals to be lubricated
7 - 12V socket activation line
8 - parallel electrical connection
9 - socket activation contacts

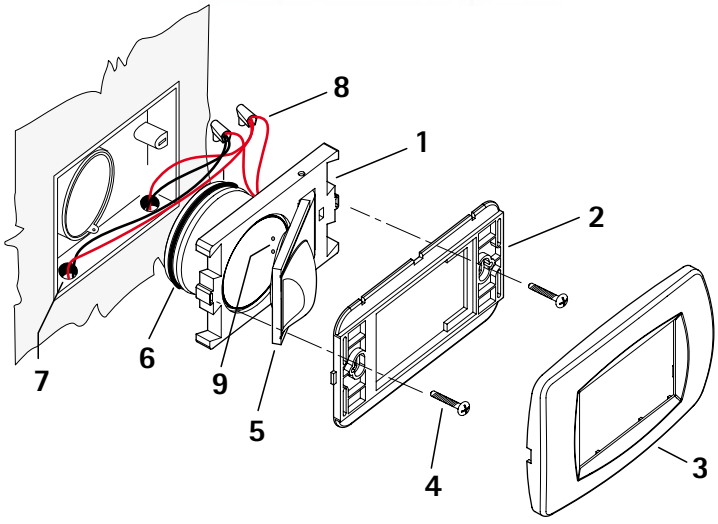
To view the complete list of vacuum sockets of the TUBÒ central vacuum system, click on "Products >> Sockets" on our website **www.aertecnica.com**

AERTECNICA complete vacuum sockets



SIRIO NEW AIR range

Captivating design, ergonomic opening, strength, top-grade materials; the Sirio New Air vacuum sockets are both reliable and durable.
Wall plate included.

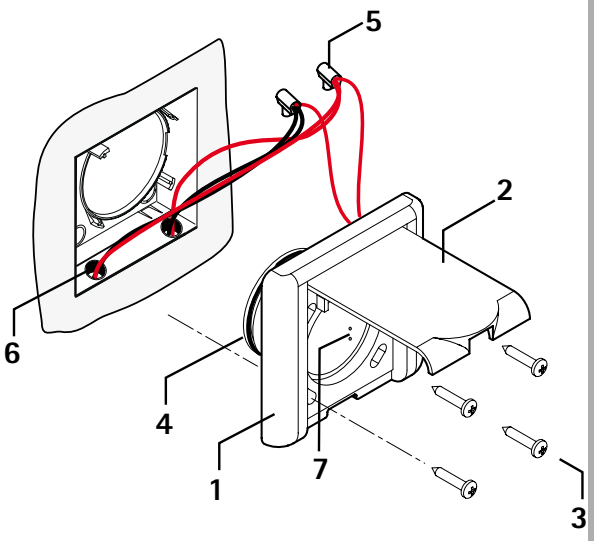


1 - SIRIO NEW AIR SOCKET
2 - AERTECNICA socket adapter support included
3 - AERTECNICA wall plate included
4 - fixing screws
5 - flap easy-opening mechanism
6 - 2 airtight O-ring seals to be lubricated
7 - 12V socket activation line
8 - parallel electrical connection
9 - socket activation contacts

SQUARE vacuum socket



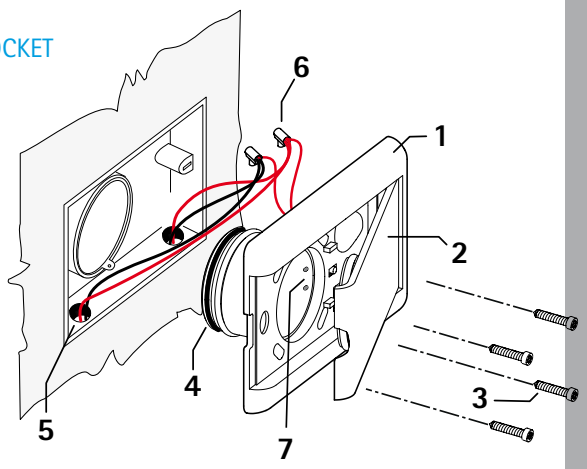
1 - SQUARE complete ABS socket
2 - flap upwards opening
3 - fixing screws
4 - 2 seals to be lubricated
5 - parallel electrical connection
6 - 12V socket activation line
7 - socket activation contacts



LOGIK vacuum socket



1 - LOGIK NEW AIR COMPLETE SOCKET
2 - flap opening
3 - fixing screws
4 - 2 airtight O-ring seals to be lubricated
5 - 12V socket activation line
6 - parallel electrical connection
7 - socket activation contacts



ECLETTIS TUBÒ vacuum socket

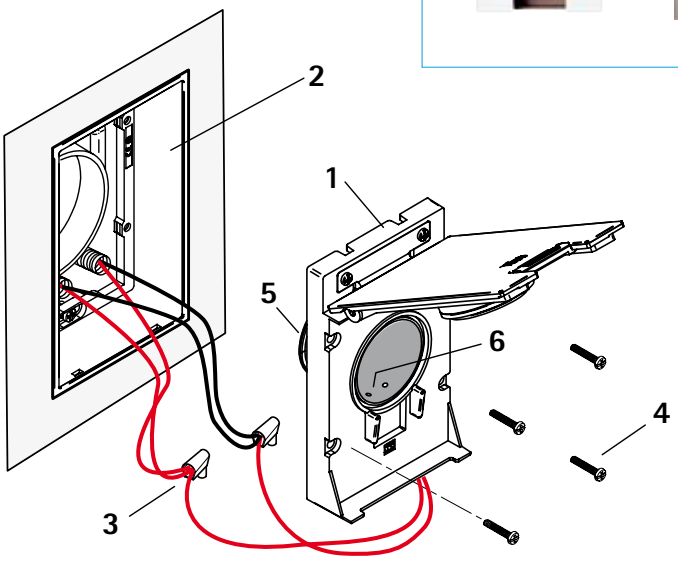
The Eclettis TUBÒ satin stainless steel socket is the ideal solution for environments of particular architectural prestige.

The Eclettis TUBÒ vacuum socket can be installed in masonry walls, with curved or straight pipe union, and in plasterboard walls.

AVAILABLE:
PA800 - stainless steel
PA810 - white



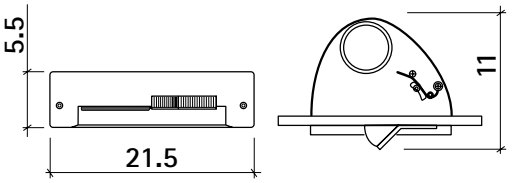
1- Eclettis TUBÒ SOCKET BODY
2 - socket frame with Eclettis socket frame
3 - parallel electrical connection
4 - fixing screws
5 - O-ring seal to be lubricated
6 - socket activation contacts



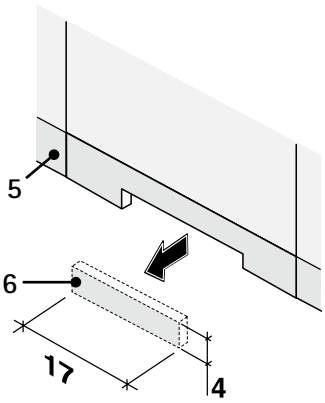
VAC PAN INSTALLATION

VAC PAN - integrated into furniture unit





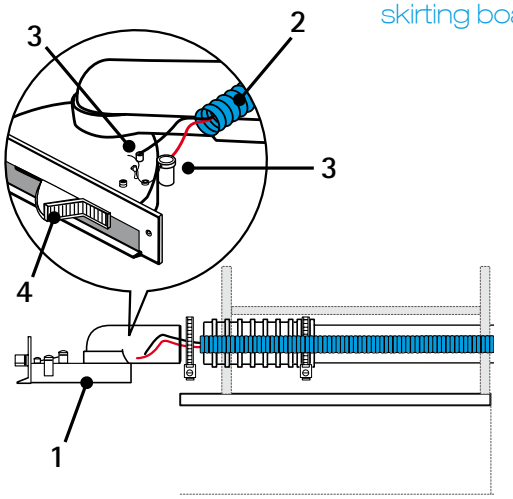
Socket dimensions



Cutting of the furniture unit skirting board

1 - VAC PAN SOCKET
2 - 12V socket activation line
3 - socket electrical connections
4 - socket on/off activation lever
5 - kitchen furniture unit skirting board
6 - skirting board CUTTING

Electrical connection



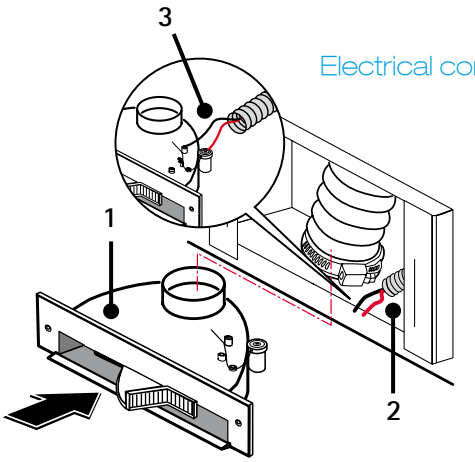
ATTENTION
The TUBÒ central vacuum system can be turned on and off by pressing and releasing the lever (4).

Dust swept near the socket with a broom is rapidly sucked up.

VAC PAN - integrated into masonry

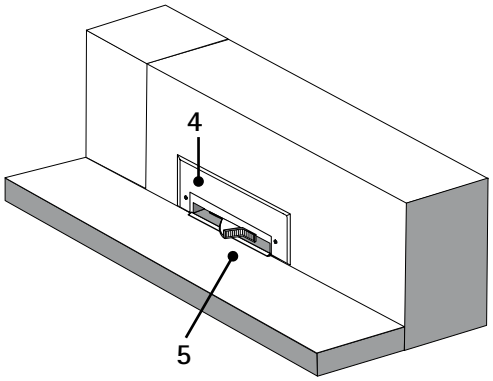


Electrical connection



1 - VAC PAN socket
2 - 12V socket activation line
3 - socket electrical connections
4 - finishing frame
5 - socket on/off activation lever

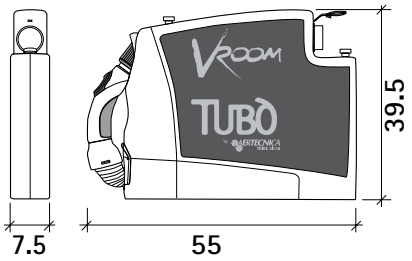
Completion

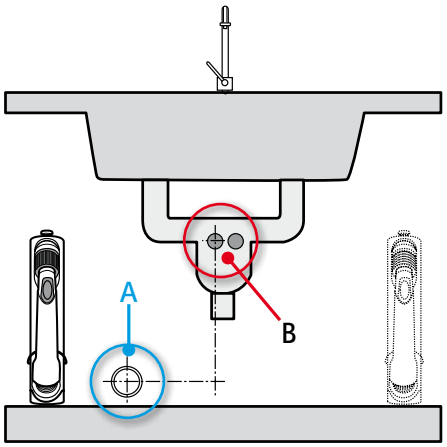


VROOM CLEANING ACCESSORIES KIT



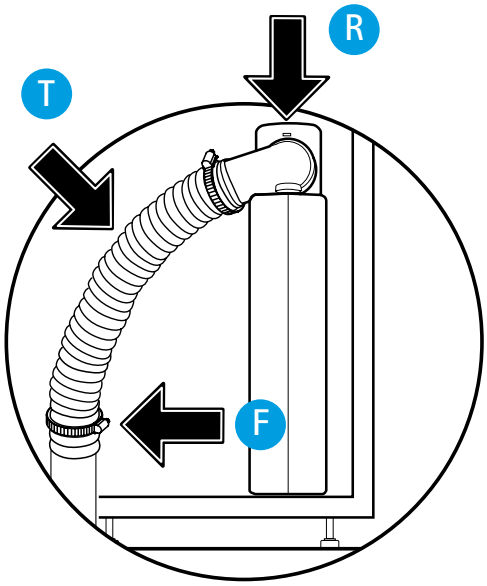
Vroom dimensions





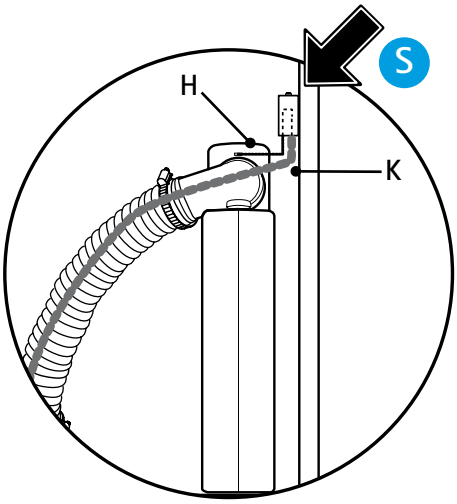
The system's dust line **(A)** must be close to the plumbing connections (B) of the kitchen sink

Dust line connection



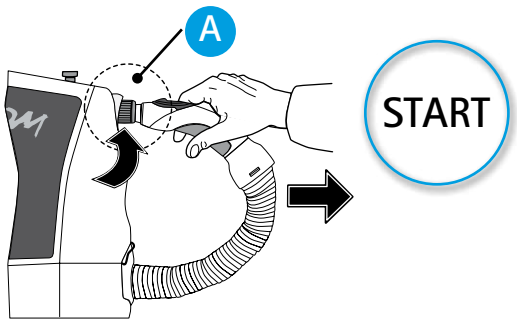
Connect the fitting (R) to the system's dust line using the flexible hose (T) supplied with the installation kit. Secure the hose to the fitting using the 2 clamps (F).

Activation line connection

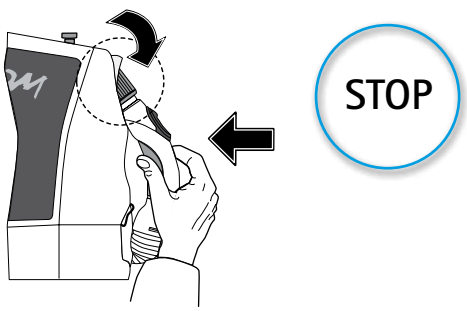


A junction box (S) must be positioned near Vroom: it must be used for connections between the 12V socket line (H) and the Vroom power line (K).

Switching the unit on/off

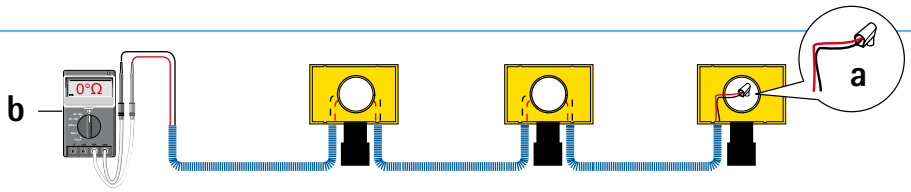


To start vacuum cleaning, turn the knob (A) upwards and extract the vacuum cleaner hose.



To end vacuum cleaning, insert the hose into the knob and turn it downwards.

TESTING OF THE TUBÒ VACUUM SYSTEM

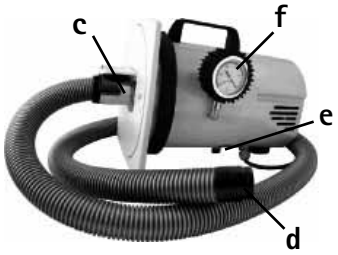


ELECTRIC CONSENT TESTING

For verifying the correct laying of the activation line, connect the inlet line to the outlet line in parallel on each socket frame. Short-circuit the two wires in the last socket (A). Connect a tester (B) to the central vacuum unit activation line, select the 'CONTINUITY' function and verify that the circuit is a closed loop (a 0 ohm reading should appear on the instrument).

TESTING OF PIPING

This check is used to verify that there are no air leakages in the piping still without sockets and the central vacuum unit.
It must be performed once the chosen configuration has been laid and repeated before pouring the screed.
Use the TUBÒ (AT380) system tester kit or—if unavailable—a portable vacuum cleaner, a vacuum gauge to measure the vacuum and a series of caps for testing.



1 - Insert a system tester cap on each socket frame.
2 - Power the TUBÒ system tester with the flexible hose inserted in the built-in socket (C).
3 - Start the TUBÒ system tester and seal off the other end of the hose with a hand (D). The safety valve (E) must open and the incorporated vacuum gauge (F) should read a vacuum value of roughly 150 mbar (value 1).
Note down value 1 that appears.

4 - Connect the TUBÒ system tester hose to the dust inlet line entering the central vacuum unit and read the vacuum value appearing on the vacuum gauge (value 2), which should be similar to value 1 (roughly 150 mbar) previously noted down, while verifying as before that the safety valve opens.

If value 2 is similar to value 1, the test outcome is positive.

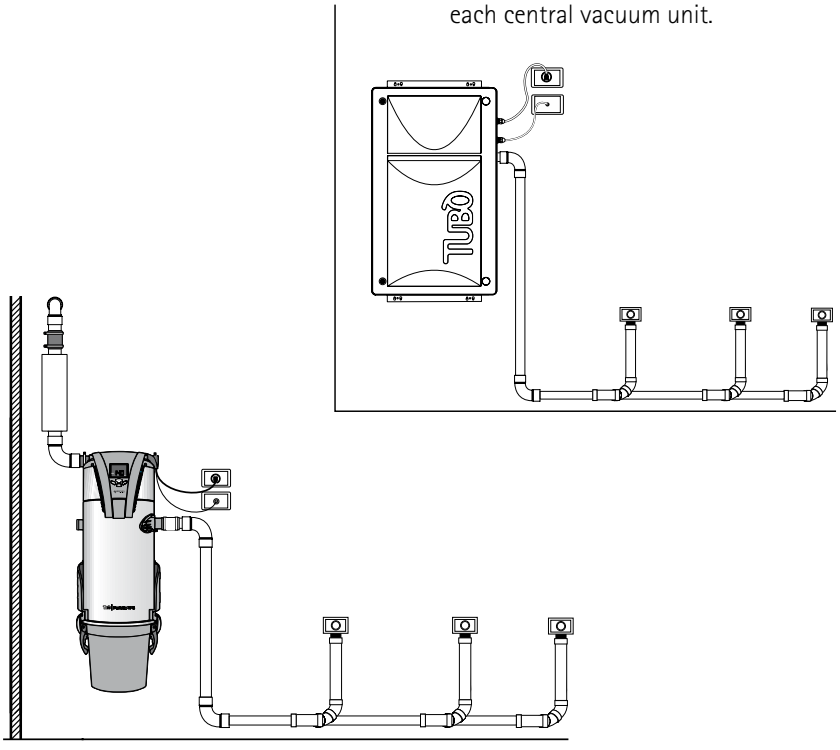
If the difference between value 1 and value 2 is greater than 15 mbar, this means that there are abnormal leaks in the piping: with the system in a vacuum, identify the location of such leakages and eliminate them.

ATTENTION

Keep the TUBÒ system tester kit in a vacuum for a maximum continuous period of 5 minutes. If the system tester kit must be used in a vacuum for a longer period of time, remove the flexible hose from the socket in which it is inserted for at least 3 minutes then reinsert it to restart the control phase.

GENERAL TESTING OF THE VACUUM CLEANER SYSTEM

A general test of the central vacuum system must be conducted after the final assembly of all vacuum sockets and the selected central vacuum unit.
The detection of the operating vacuum and the features of the central vacuum units differ from each other. It is therefore advisable to observe the specific testing procedures indicated in the user manual accompanying each central vacuum unit.



TECHNICAL SPECIFICATIONS - PERFETTO TPA CENTRAL VACUUM UNIT

UPPER SECTION

Motor: positioned inside the appropriate compartment, in a totally soundproofed chamber. It is anchored to a base fitted with an anti-vibration system for minimising vibrations and noise. The motor starts gradually ('SOFT START') thought the PCB. This allows for reducing electrical consumption and extending the system's life.
Protection rating: the central vacuum unit is made of highly resistant material coated with paint guaranteed and certified for withstanding 1,000 hours of salt spray testing. It can be installed anywhere, both indoors and outdoors Models TP1A - TP2A have IP 55 protection rating, while models TP3A - TP4A with ducted air exhaust have IP 45 protection rating; the central vacuum unit has IP 43 protection rating (all models) with direct air exhaust from the central vacuum unit.
Dual air exhaust: the air exhaust ducting is connected to special fittings located on the top outer side of the motor compartment, on both the right-hand and left-hand sides, to facilitate the installer's job.
EVOLUTION 1.0 PCB: for controlling and managing the central vacuum unit via the display, configured for MODBUS communication, interfaceable with the most common home automation systems.
AVI Display : (With Immediate Display), displays the central power unit's operating parameters in real time, including:

FILTER SECTION

PRECISION filter cartridge: made of washable polyester, it features a broad filtering surface. The PRECISION filter cartridge is equipped with a new internal centring system that simplifies and speeds up maintenance operations, while guaranteeing maximum safety and ease-of-use.
APF System* (Filter Self-Cleaning System)**:** it operates through a mechanical system by conveying the extracted air from the motor to a fan that creates vibrations on the PRECISION filter cartridge. These vibrations cause the small dust particles to detach from the walls of the PRECISION cartridge and deposit in the container. The APF system significantly reduces maintenance operations and enables the motor to work in optimal conditions without excessive stress, which therefore improves it performance and durability.
** APF System, Filter Self-Cleaning System, Aertecnica patent (Europe PATENT pending no. 067934216.6)*
Machine body : made of a metal structure treated with epoxy hot coating, guaranteed and certified for withstanding 1,000 hours of salt spray testing.
Dual dust inlet: the central structure contains two plastic fittings in a tangential position (right-hand/left-hand side) used for connecting the plant's line (suction) to the central vacuum unit. The dual air and dust inlet offers greater installation options.
Service socket : a service socket—to be used directly with the flexible hose connected—is located on the front side of the machine body and integrated into the instrument panel.
QUICK FIX mounting bracket: the rear of the machine body is equipped with the QUICK FIX wall-mounting bracket with front connection, which improves fixing and minimised the space required for installing the central vacuum unit.
Multifunctional pockets : two pockets for housing the CE instruction manual, spare dust bags, etc. are attached to the side of the machine body.

COLLECTION CONTAINER

Dust container : made of plastic, inclusive of ergonomic handles and the CLEAN BAG dust bag fastening system, whereby the bag is inserted and fastened to the bottom of the container by a system of pressure clips.
Ergonomic handles: secured to the sides of the dust container, they allow for rapidly attaching and detaching the latter from the machine body, while ensuring partial opening of the container. This allows for closing the CLEAN BAG without coming into contact with the dust.
CLEAN BAG: bag for collecting dust that is secured to the bottom of the container through pressure clips. The CLEAN BAG is equipped with a system of strings enabling the user to close the bag easily and rapidly before removing it from the container. This allows for avoiding any contact with the dust, thereby guaranteeing total hygiene and safety.
Cone conveyor: built-in and secured to the machine body. It improves and speeds up closing of the CLEAN BAG. Thanks to its new shape with increased depth, larger amounts of dust can be collected in the container without being dispersed in the machine body and dirtying the filter. This ensures enhanced and longer-lasting performance.

A - CONFIGURATION - Carried out with ø50 mm AERTECNICA PVC pipes and fittings with PIIP/C mark, cold bonded with self-bonding mastic and inclusive of 12V electrical system. Floor-mounted or buried configuration.
Each €.....x..... Total €.....
B - VACUUM SOCKETS - Made of ABS and available in the SQUARE - LOGIK NEW AIR - SIRIO NEW AIR and/or NEW AIR versions, they can be adapted to original wall plates (models: Bticino International, Light, Light Tech, Matix, Axolute, Livinglight, Livinglight Air; AVE Sistema 44, Sistema 45, Banquise, Life 44, Domus 100, Allumia; VIMAR Idea Rondò, Plana, Plana Silver, Eikon, Eikon Next, Eikon Evo, Arké; GEWISS Playbus and Chorus; LEGRAND Cross, Vela and Mosaic; ABB series Elòs), inclusive of micro-switch for remote start-up of the central vacuum unit.
Each €.....x..... Total €.....
C - CLEANING ACCESSORIES KIT - Comprising a chrome-plated telescopic extension, 30 mm brush for floors, range of 5 brushes for suits, carpeting, dusting, corners, radiators, brush holder accessory.
Each €.....x..... Total €.....
D - FLEXIBLE HOSE - 9-metre long, electrified with pressure regulator and speed control device.
Each €.....x..... Total €.....
E - CLEAN BAG - Pack of 5 bags with hermetic closing system.
Each €.....x..... Total €.....
G - PRECISION FILTER CARTRIDGE - Washable polyester filter cartridge.
Each €.....x..... Total €.....

TECHNICAL SPECIFICATIONS - - QB CENTRAL VACUUM UNIT

BUILT-IN PLASTIC CASING (CM021Q)
The QB Q200 central vacuum unit of the TUBÒ system must be installed in an appropriate built-in casing that ensures a totally integrated installation. In this way, the central vacuum unit can be installed either inside or outside of the building.
The casing containing the QB Q200 central vacuum unit must be walled into walls at least 25 mm thick, and is equipped with 4 foldable brackets for installation in both traditional masonry and thermal coating systems.
The housing must be made of high-resistance thermoplastic materialand must be connected to the TUBÒ vacuum system through an ABS fitting for the dust inlet line and ABS fittings for the air exhaust line that allow for expelling the air front-wise from the door or via a ducted exhaust line.
The casing contains fixing inserts for installing the QB Q200 central vacuum unit.
The casing is configured for connection to the 12V low-voltage line of the TUBÒ vacuum system and for the 220/240V electrical connections for powering the QB Q200 central vacuum unit.
The casing can be insulated with the CM321Q polystyrene insulation roughly 20 mm thick, for thermal and acoustic insulation.
The built-in casing is completed by the wall-mounted frame and access door to the central vacuum unit, supplied in a kit (code CM821Q) and made of high-resistance thermoplastic material. The door is equipped with a seal for guaranteeing protection ratings IP55 (with ducted air exhaust) and IP45 (with air exhaust from the door), and has a magnet fastening system for securing it to the fixed body of the QB central vacuum unit.

WALL-MOUNTED CASING (CM020Q)
The QB Q200 central vacuum unit of the TUBÒ system must be installed in an appropriate wall-mounted casing, which allows for installing the central vacuum unit either in internal or external walls of the building.
The casing must be secured to the wall using appropriate fixing brackets located inside the CM020Q casing.
The casing and relevant door are made of steel treated with epoxy hot coating, guaranteed and certified for withstanding 1,000 hours of salt spray testing. The door is fitted with a seal for guaranteeing protection ratings IP55 (with ducted air exhaust) and IP45 (with air expelled from the door); the door opening/closing mechanism is reversible for allowing opening towards the left or towards the right, and includes a double lock for protecting access to the central vacuum unit.
The casing is connected to the TUBÒ central vacuum unit configuration through an ABS fitting; a second ABS air exhaust fitting allows for expelling air from the door or ducting it through an appropriate exhaust line.
The casing contains inserts for securing the QB Q200 central vacuum unit.
The casing is equipped with a connection to the 12V low-voltage line of the TUBÒ central vacuum system, and with a 220/240V electrical connection to the QB Q200 central vacuum unit power supply line.

QB Q200 BUILT-IN CENTRAL VACUUM UNIT (CM200Q)
The QB Q200 central vacuum unit is a monobloc structure comprising the following components: vacuum motor with SOFT START electronic starter housed in a soundproofed compartment, control PCB with 220V to 12V transformer for powering the socket power supply line, radio anti-interference filter conforming to CE standards, cyclonic compartment with deflectors for channelling dust into the container, removable ecological dust collection box, washable polyester oval filter cartridge with broad surface and compensating/safety valve.
The central vacuum unit structure allows for inspecting the filtering compartment via a magnet fastening/release system for routine maintenance interventions.
The central vacuum unit is secured to the casing by means of a joint system and three fixing screws that intervene from inside the casing on the three inserts located in the casing itself.

A - CONFIGURATION - Carried out with ø50 mm AERTECNICA PVC pipes and fittings with PIIP/C mark, cold bonded with self-bonding mastic and inclusive of 12V electrical system for remote start-up of the central vacuum unit. Floor-mounted or buried configuration.
Each €.....x..... Total €.....
B - VACUUM SOCKETS - Made of ABS and available in the SQUARE - LOGIK NEW AIR - SIRIO NEW AIR and/or NEW AIR versions, they can be adapted to original wall plates (models: Bticino International, Light, Light Tech, Matix, Axolute, Livinglight, Livinglight Air; AVE Sistema 44, Sistema 45, Banquise, Life 44, Domus 100, Allumia; VIMAR Idea Rondò, Plana, Plana Silver, Eikon, Eikon Next, Eikon Evo, Arké; GEWISS Playbus and Chorus; LEGRAND Cross, Vela and Mosaic; ABB series Elòs), inclusive of micro-switch for remote start-up of the central vacuum unit.
Each €.....x..... Total €.....
C - CASING - built-in (CM021Q) or wall-mounted (CM020Q) casing for QB central vacuum unit (CM200Q)
Each €.....x..... Total €.....
D - INSULATION (CM321Q, optional) - for the CM021Q casing, made of roughly 20 mm thick polystyrene, for thermal and acoustic insulation.
Each €.....x..... Total €.....
E - QB Q200 CENTRAL VACUUM UNIT (CM200Q) - central vacuum unit for built-in (CM021Q) or wall-mounted (CM020Q) casing
Each €.....x..... Total €.....
F - FRAME AND DOOR KIT (CM821Q) - for CM021Q casing, made of high-resistance thermoplastic material
Each €.....x..... Total €.....
G - CLEANING ACCESSORIES KIT - comprising cleaning accessories for the TUBÒ vacuum system: Luxury Kit (AP254), Deluxe Kit (AP253), Standard Kit (AP244), Basic Kit (AP261)
Each €.....x..... Total €.....
H - FLEXIBLE HOSE - 9-metre long, electrified with pressure regulator and speed control device.
Each €.....x..... Total €.....
I - DUST CONTAINER - cardboard dust container box for QB Q200 central vacuum unit (5-piece pack)
Each €.....x..... Total €.....
L - FILTER CARTRIDGE - washable polyester filter cartridge for QB Q200 central vacuum unit
Each €.....x..... Total €.....

The number of sockets can be increased up to 7 socket points, using two-socket additional sets (code TR022)

LIST OF MATERIALS FOR THE CENTRA VACUUM SYSTEM

RESIDENTIAL SECTOR

The following table shows a grid that can be used for general reference in order to have a reliable indication of the amount of required installation material based on the number of vacuum sockets to be installed.
The first column shows the number of vacuum sockets; the row corresponding to the number of vacuum sockets to be installed shows the amount of the fitting items and installation material required.

	PA012	TR050	TR055	TR051	TR052	TR056	TR210	PE110	CF105	PE410	TR250	TR310	PE309	CF080
														
socket points n°	socket frames n°	hose ø50 metres	elbows f/f ø 50 90° n°	elbows m/f ø50 45° n°	elbows f/f ø50 45° n°	offtake f/f ø 50 90° n°	sleeve f/f ø 50 n°	sheath 2x1 mm. metres	mastic 250 gr. n°	clamp 30 cm. n°	relief outlet extension ø50-82 n°	vent grille ø82 n°	electrical box n°	wall bracket n°
1	1	8	2	2	2	0	2	10	1	5	1	1	1	1
2	2	14	3	4	4	2	4	25	1	15	1	1	1	1
3	3	20	4	6	6	3	8	25	1	15	1	1	1	1
4	4	26	5	7	7	4	9	30	1	20	1	1	1	1
5	5	34	7	8	8	5	10	50	1	30	1	1	1	1
6	6	40	8	10	10	6	11	60	1	30	1	1	1	1
7	7	48	10	12	12	7	12	75	1	35	1	1	2	1
8	8	56	12	13	13	8	14	75	1	40	1	1	2	1
9	9	62	12	18	18	8	15	75	2	45	1	1	2	1
10	10	70	14	20	20	9	17	80	2	50	1	1	2	1
11	11	76	15	22	22	10	19	90	2	55	1	1	2	1
12	12	84	16	24	24	11	20	100	2	60	1	1	2	1
13	13	90	18	26	26	12	22	110	3	65	1	1	2	1
14	14	98	19	28	28	13	24	120	3	70	1	1	3	1
15	15	104	20	30	30	14	25	125	3	75	1	1	3	1
16	16	110	22	32	32	15	27	130	3	80	1	1	3	1
17	17	118	23	34	34	16	29	140	3	85	1	1	3	1
18	18	124	24	36	36	17	30	150	3	90	1	1	3	1
19	19	132	26	38	38	18	32	160	4	95	1	1	3	1
20	20	140	27	40	40	19	34	170	4	100	1	1	3	1

ATTENTION

If the Dynamic Control Display remote device (CMT800) or the REMOTE Panel are to be installed, the 4x1 ø16 sheath (code PE130) must be purchased.

EN

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