



FILTER CEILING



TECHNICAL DATA

Designed to adapt to the new installation in hazardous areas, our ceiling filter has a very simple and reliable filter locking system. Thanks to the safe flow diffusion grid which generates a unidirectional flow over the entire surface to be protected, an anti-induction screen for particles is created in compliance with the requirements of the NFS 90-351 standard.

Our filter ceiling is a monobloc false ceiling for hospital operating rooms. It includes a plenum in stainless steel or painted steel and a set of high efficiency filters (H 14) associated with a safe flow diffusion that guarantees unidirectional flow on the operator's field. For specific projects, positions and sizes other than the standard, contact our offices.

RANGE:

- 9 standard dimensions
- Air flow from 1.680 to 13.560 m³/h
- Standard height: 450 mm
- High efficiency filters: H14 in standard sizes (sp.68 mm)
- 100% filter ceiling, same ceiling but without the passage watertight for surgical light

FEATURES:

● Plenum:

- RAL 9010 painted steel sheet
- Pressure connection (Ø7 mm) on the surgical light
- 25 mm angle in the lower part for installation of the false ceiling
- Angular iron equipped with fixing holes (Ø10 mm every 50 cm) in the upper part for fixing to the slab
- Side air intake through a rigid attachment (height 200 mm - depth 150 mm)

● High efficiency filters

- Filter cells; sizes: 3.6 - 6.6 - 9.6 and 12.6
- Efficiency: H14

● Filter support frames

- RAL 9010 painted steel sheet
- Self-supporting frame in the lower part on which the filters are mounted
- Junction plane perfectly sealed, without possibility of leaking from corners
- Assembly of frame/frame and frame/plenum at the factory
- 4 or 6 fixing filters stainless steel block 1/4 turn
- 4 inserts fixing grids or covers

● Surgical lamp passage

- RAL 9010 painted steel sheet
- Waterproof part in the center of the plenum
- Pressure socket with crystal tube that allows the integrity test or the measurement of the filter obstruction from the room
- Easy access to the base of the operating light thanks to 2 waterproof and removable half plates

● Secure Flow diffusion grids:

- Steel sheet (perforation rate: 40%) painted white RAL 9010
- Unidirectional air diffusion, without flow interruptions compliant with NFS 90-351



DIMENSIONING OF THE FILTER CEILING ACCORDING TO NFS 90-351

Size	Air flow as a function of speed (m³/h)				
	0,25 m/s	0,28 m/s	0,30 m/s	0,32 m/s	0,35 m/s
2 x 1.5	1.680	1.900	2.030	2.380	2.600
2.5 x 1.5	2.350	2.650	2.840	3.000	3.280
2 x 2	2.660	2.980	3.190	3.405	3.725
2.5 x 2	3.700	4.100	4.390	4.700	5.140
3 x 2	4.200	4.700	5.335	5.350	5.852
2.5 x 2.5	5.000	5.600	6.000	6.400	7.000
3 x 2.5	6.350	7.100	7.600	8.100	8.860
3.5 x 3	8.000	9.000	9.640	10.300	11.270
4 x 3	9.700	10.850	11.625	12.400	13.560

FILTERS

Dimensions	Code	type of filtration	Pressure drop	Airflow m³/h
305x610x68	FILTROH14-30561068	H14	ΔP: 100 Pa	300
610x610x68	FILTROH14-61061068	H14	ΔP: 100 Pa	600
915x610x68	FILTROH14-91561068	H14	ΔP: 100 Pa	900
1220x610x68	FILTROH14-122061068	H14	ΔP: 100 Pa	1.200

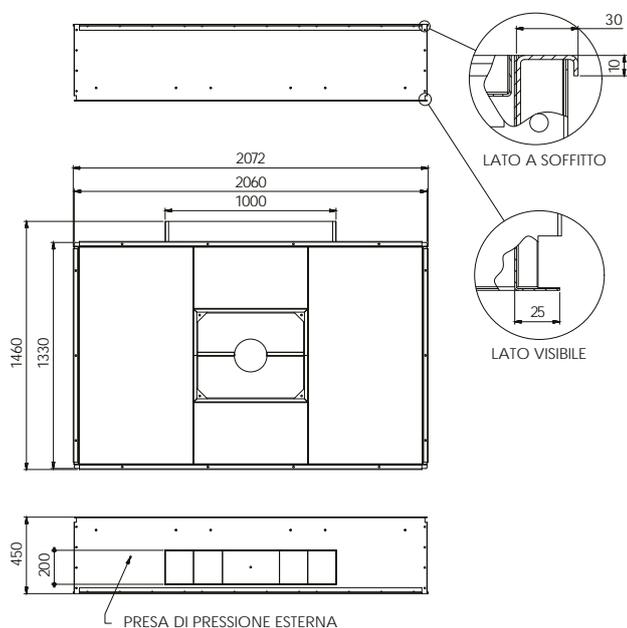
TECHNICAL SPECIFICATIONS

Code	Size	Overall dimensions [mm]	Spigot dimensions [mm]	Scialytic diameter [mm]	Max scialytic diameter possible	Approx. weight [kg]	N° filters
PFZL206133	2 x 1.5	2060x1330x450	1000x200x150	190	490	98	(2x) 12.6 + (2x) 6.3
PFZL273133	2,5 x 1,5	2730x1330x450	1000x200x150	190	490	120	(3x) 12.6 + (2x) 6.3
PFZL200206	2 x 2	2060x2000x450	1550x200x150	190	560	134	(4x) 9.6 + (2x) 6.6
PFZL261206	2,5 x 2	2610x2060x450	1550x200x150	190	560	160	(4x) 12.6 + (2x) 9.6
PFZL267273	3 x 2	2975x2060x450	1800x200x150	190	620	184	(7x) 9.6 + (1x) 12.6
PFZL2975206	2,5 x 2,5	2730x2670x450	2100x200x150	190	620	210	(10x) 9.6
PFZL328273	3 x 2,5	3280x2730x450	2350x200x150	190	620	244	(8x) 12.6 + (2x) 9.6
PFZL328340	3,5 x 3	3400x3280x450	2950x200x150	190	620	296	(12x) 12.6
PFZL407328	4 x 3	4070x3280x450	3580x200x150	190	620	352	(14x) 12.6 + (2x) 6.3

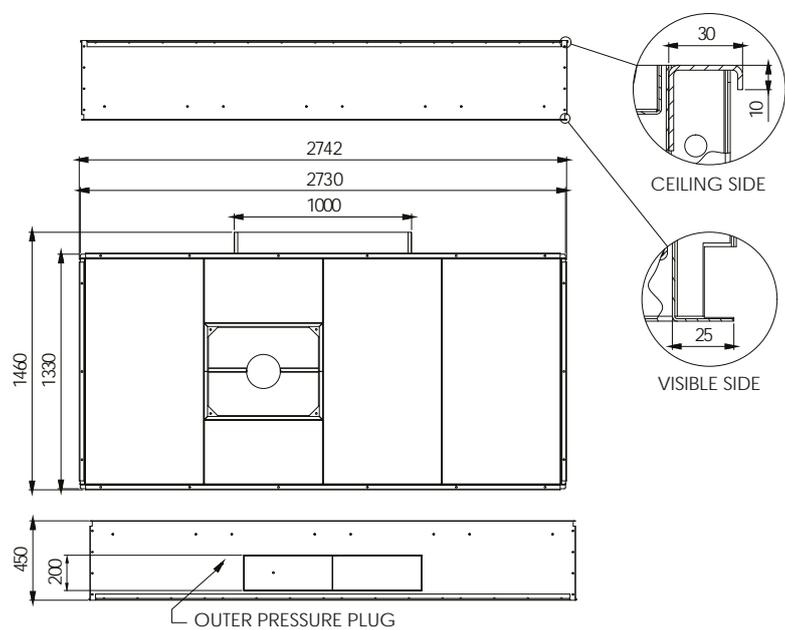
PACKING SPECIFICATIONS

Size	Approx. dimension and weight of each part [mm-kg]	Approx. pallet dimension [mm]
2 x 1.5	2060x1330x450 [98 kg]	560x1650x2230
2,5 x 1,5	2730x1330x450 [120 kg]	560x2850x2230
2 x 2	(2x) 2190x1006x450 [67 kg]	(1x) 1060x2320x2230
2,5 x 2	(2x) 2190x1311x450 [80 kg]	(1x) 1060x2320x2230
3 x 2	2190x1981x450 [120 kg] + 2190x1006x450 [64 kg]	(1x) 1060x2320x2230
2,5 x 2,5	2682x1489x450 [107 kg] + 2682x1389x450 [103 kg]	(1x) 1060x2850x2230
3 x 2,5	1981x1489x450 [75 kg] + 1981x1389x450 [71 kg] + 1489x1311x450 [50 kg] + 1389x1311x450 [48 kg]	(1x) 1060x2320x2230 + (1x) 1060x1650x2230
3,5 x 3	2099x1981x450 [105 kg] + 2041x1311x450 [70 kg] + 1981x1489x450 [70 kg] + 1489x1311x450 [51 kg]	(1x) 1060x2320x2230 + (1x) 1060x1650x2230
4 x 3	(2x) 2041x1981x450 [104 kg] + (2x) 2041x1429x450 [72 kg]	(1x) 1060x2320x2230 + (1x) 1060x1650x2230

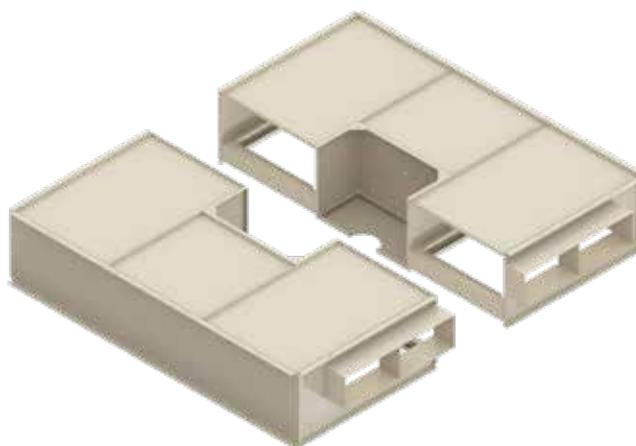
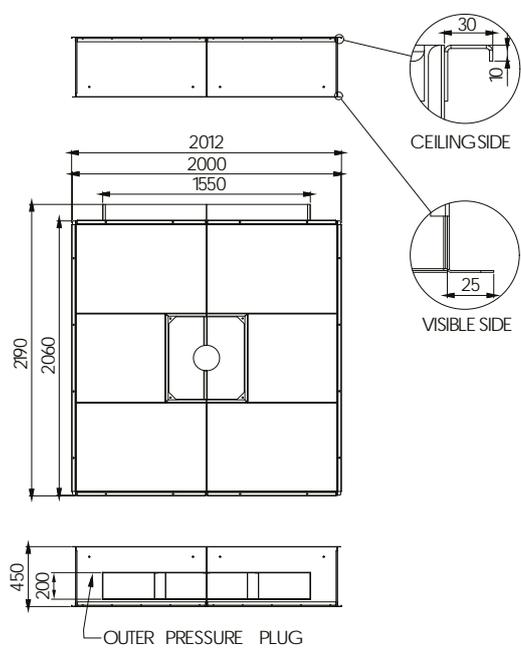
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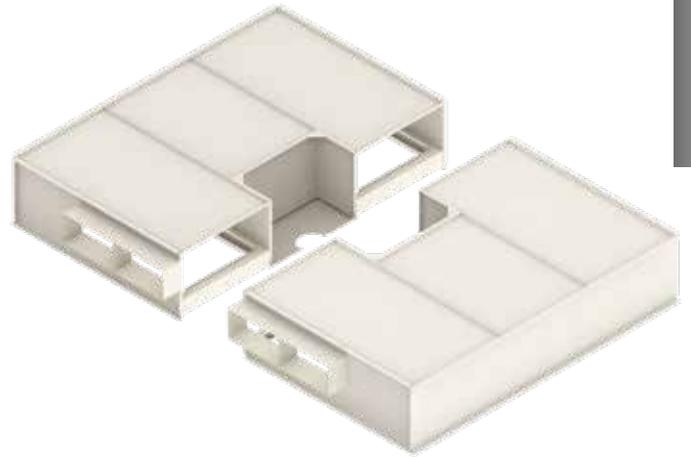
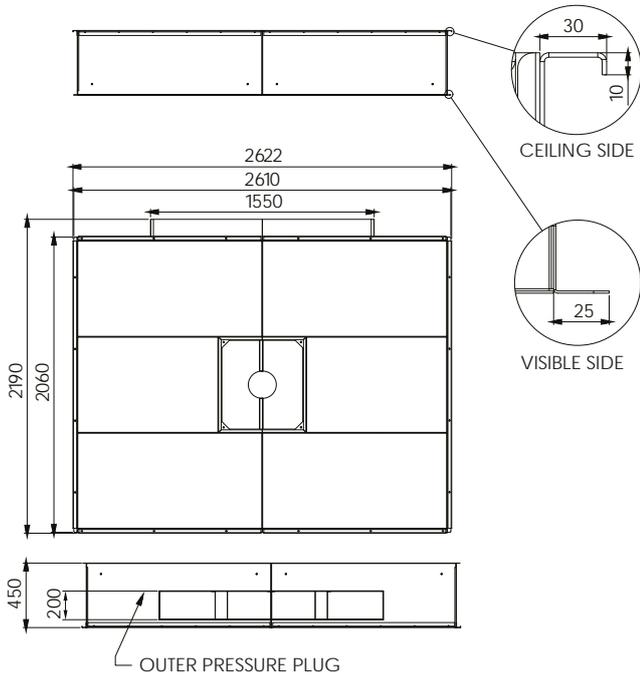
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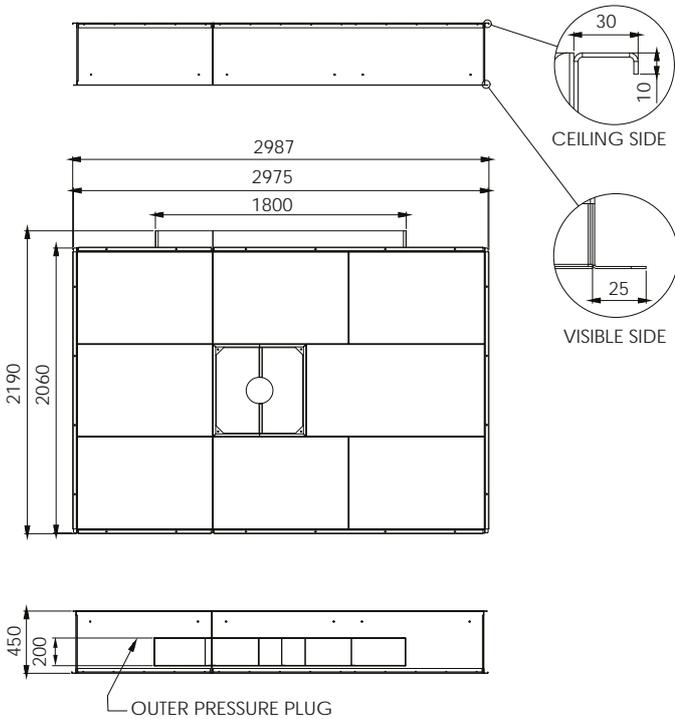
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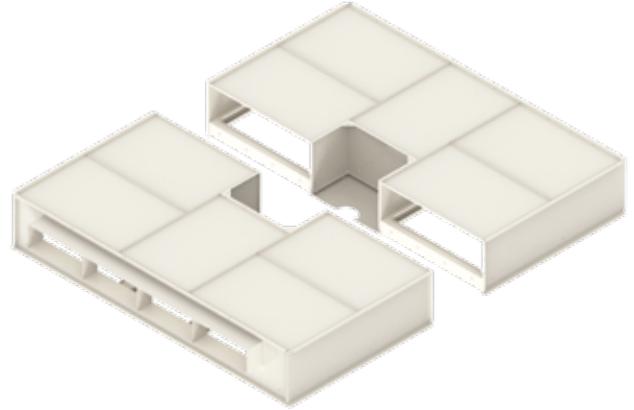
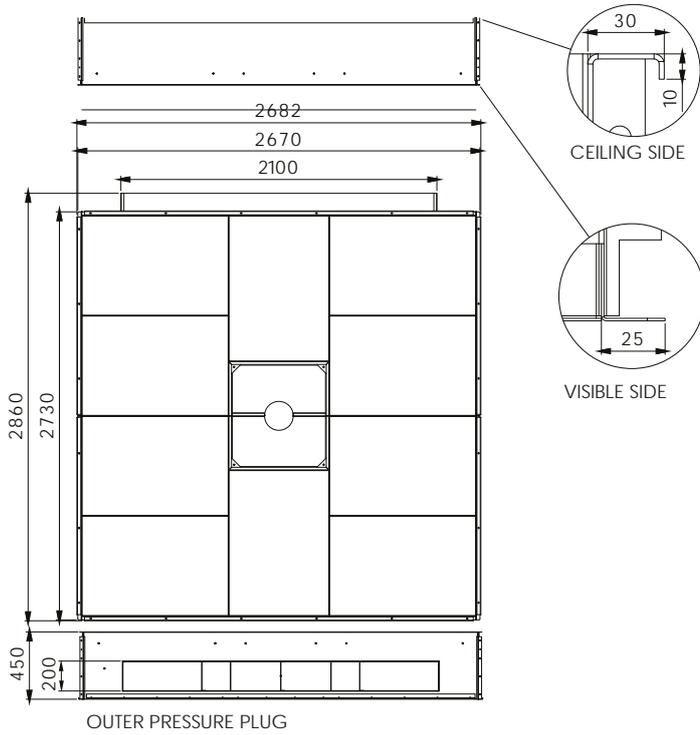
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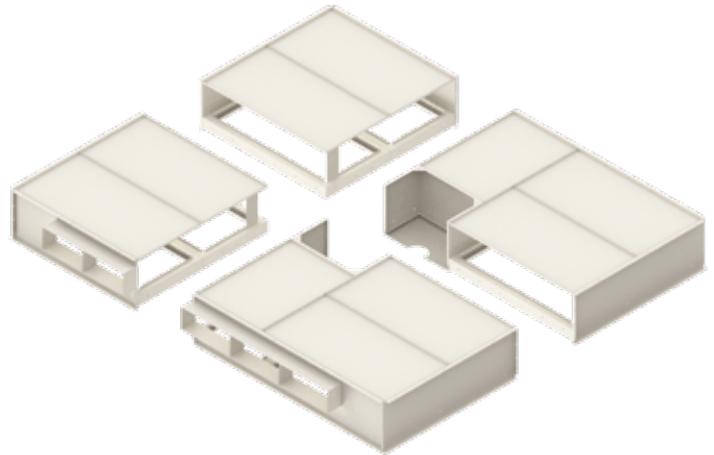
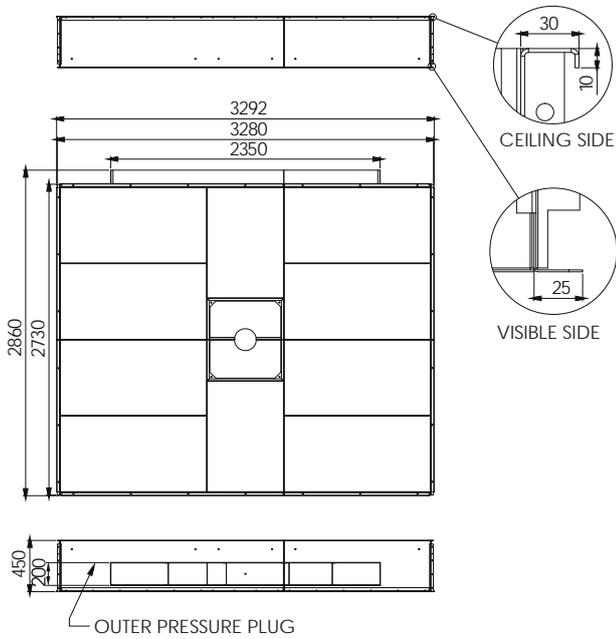
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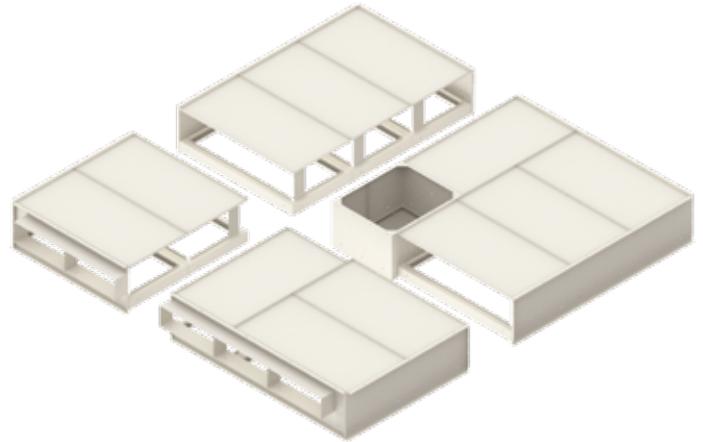
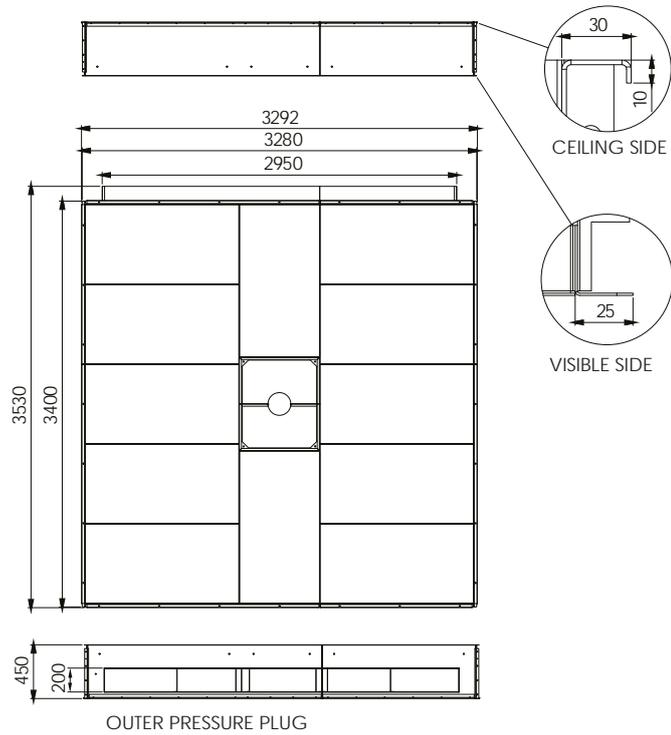
DIMENSIONAL DRAWING PFZL 2.5 x 2.5



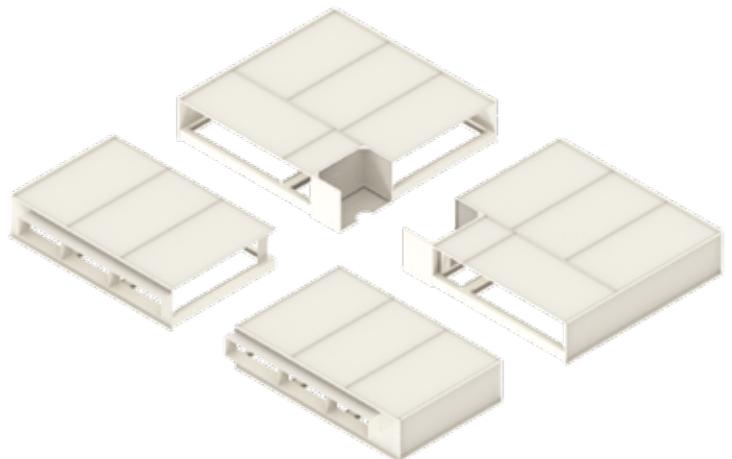
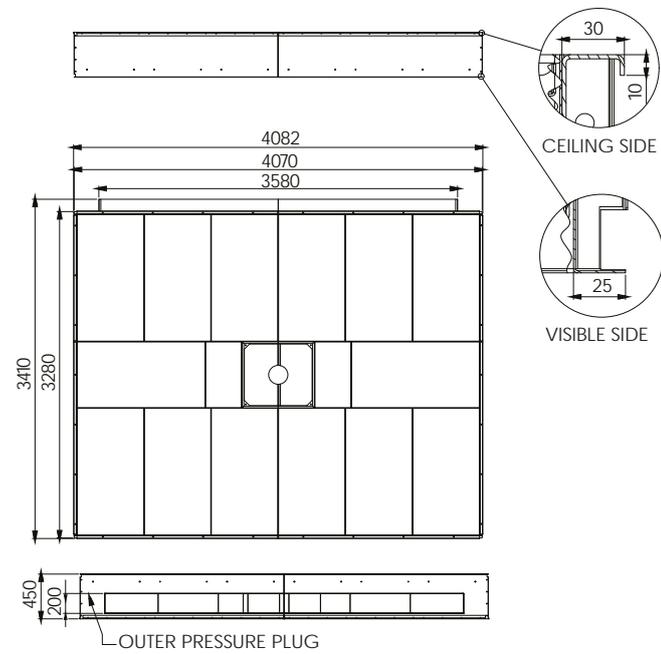
DIMENSIONAL DRAWING PFZL 3 x 2.5



DIMENSIONAL DRAWING PFZL 3.5 x 3



DIMENSIONAL DRAWING PFZL 4 x 3



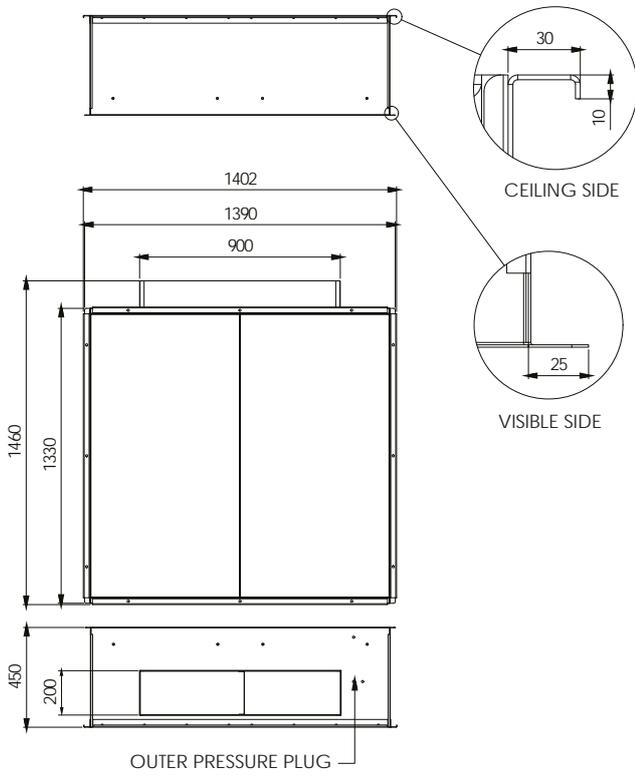
Code	Size	Overall dimensions (mm)	Spigot dimensions (mm)	Approx. weight (kg)	N° filters
PFZ139133	1,5 x 1,5	1390x1330x450	900x200x150	63	(2x) 126
PFZ2061025	2 x 1	2060x1025x450	1300x200x150	75	(3x) 96
PFZ206133	2 x 1,5	2060x1330x450	1550x200x150	88	(3x) 126
PFZ200206	2,5 x 1,5	2610x1390x450	2100x200x150	111	(4x) 126
PFZ261139	2 x 2	2060x2000x450	1550x200x150	126	(6x) 96
PFZ261206	3 x 1,5	2975x1390x450	2100x200x150	133	(6x) 96
PFZ273261	2,5 x 2	2610x2060x450	2100x200x150	156	(6x) 126
PFZ2975139	3 x 2	2975x2060x450	2350x200x150	181	(9x) 96
PFZ2975206	2,5 x 2,5	2730x2610x450	2350x200x150	196	(8x) 126

DIMENSIONING OF THE FILTER CEILING ACCORDING TO NFS 90-351

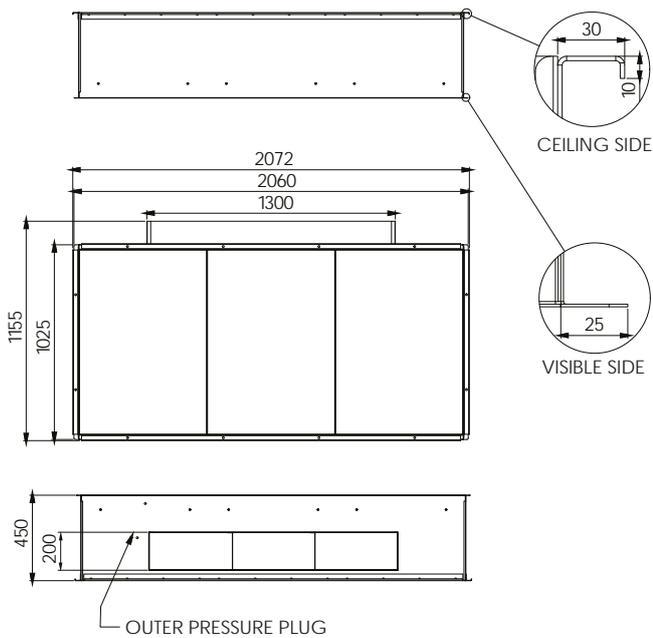
Code	Model	Air flow as a function of speed (m³/h)				
		0,25 m/s	0,28 m/s	0,30 m/s	0,32 m/s	0,35 m/s
PFZ139133	1,5 x 1,5	1.330	1.490	1.600	1.700	1.860
PFZ2061025	2 x 1	1.500	1.680	1.800	1.920	2.100
PFZ206133	2 x 1,5	2.000	2.240	2.400	2.560	2.800
PFZ200206	2,5 x 1,5	2.660	2.980	3.200	3.400	3.700
PFZ261139	2 x 2	3.000	3.360	3.600	3.850	4.200
PFZ261206	3 x 1,5	3.000	3.360	3.600	3.850	4.200
PFZ273261	2,5 x 2	4.000	4.480	4.800	5.100	5.600
PFZ2975139	3 x 2	4.500	5.040	5.400	5.800	6.300
PFZ2975206	2,5 x 2,5	5.350	5.990	6.400	6.850	7.500

Size	Approx. dimension and weight of each part (mm-kg)	Approx. pallet dimension (mm)
1,5 x 1,5	1390x1330x450 [63 kg]	560x1650x2240
2 x 1	2060x1025x450 [75 kg]	560x1650x2240
2 x 1,5	2060x1330x450 [88 kg]	560x1650x2240
2,5 x 1,5	2610x1390x450 [111 kg]	560x2850x2240
2 x 2	2012x1371x450 [79 kg] + 2012x820x450 [47 kg]	560x2320x2240
3 x 1,5	2975x1390x450 [133 kg]	550x3100x1680
2,5 x 2	(2x) 2190x1311x450 [78 kg]	560x1650x2240
3 x 2	2987x1371x450 [112 kg] + 2987x820x450 [69 kg]	550x3100x1530 + 550x3100x950
2,5 x 2,5	(2x) 2740x1371x450 [98 kg]	(2x) 560x2850x2240

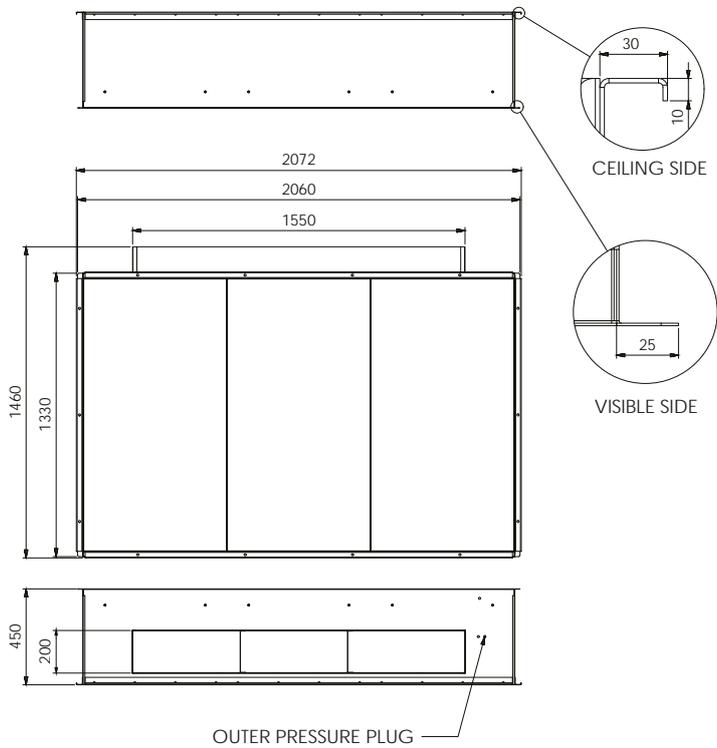
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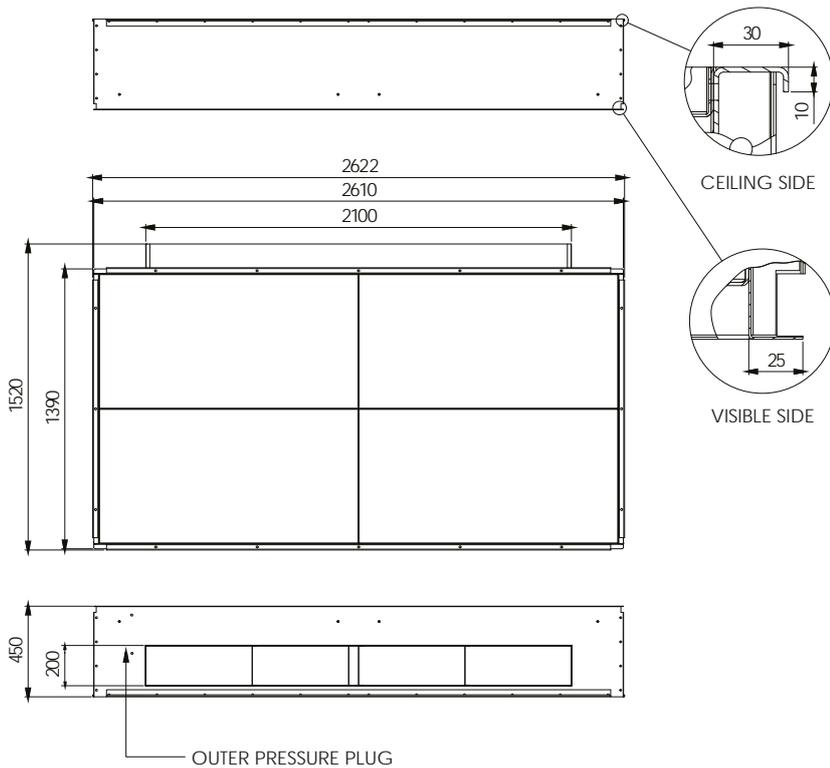
DIMENSIONAL DRAWING PFZ 2 x 1



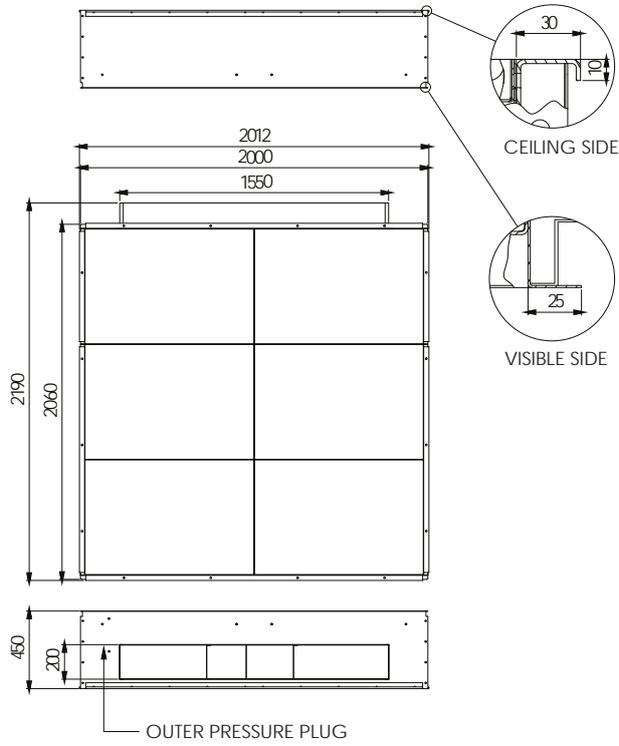
DIMENSIONAL DRAWING PFZ 2 x 1.5



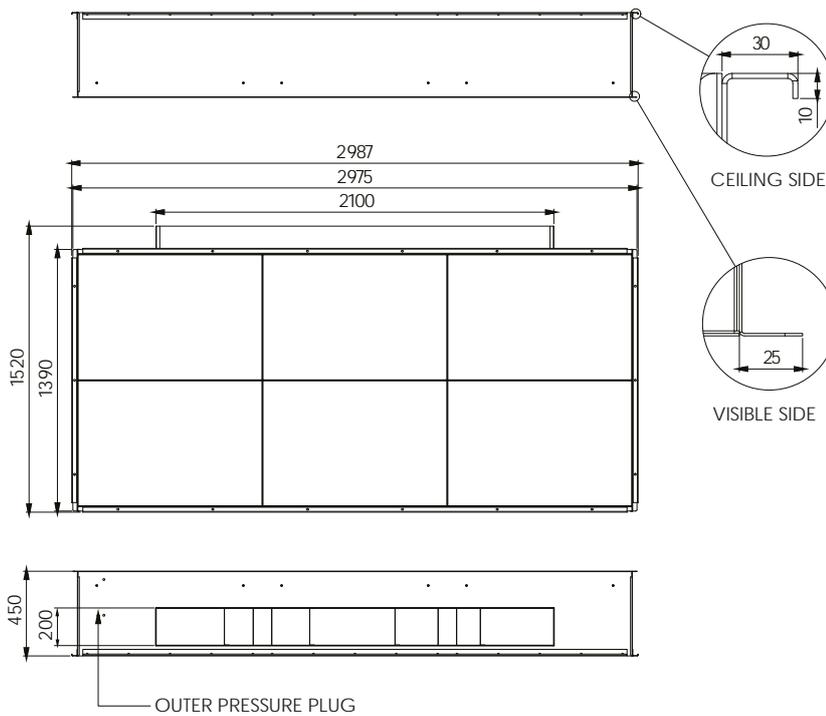
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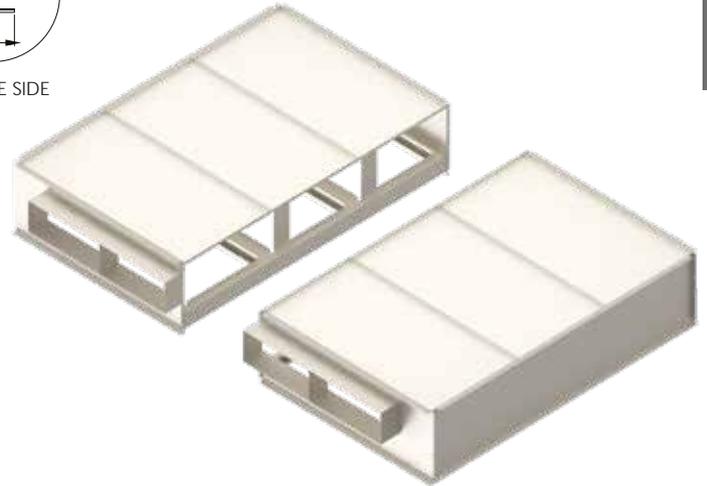
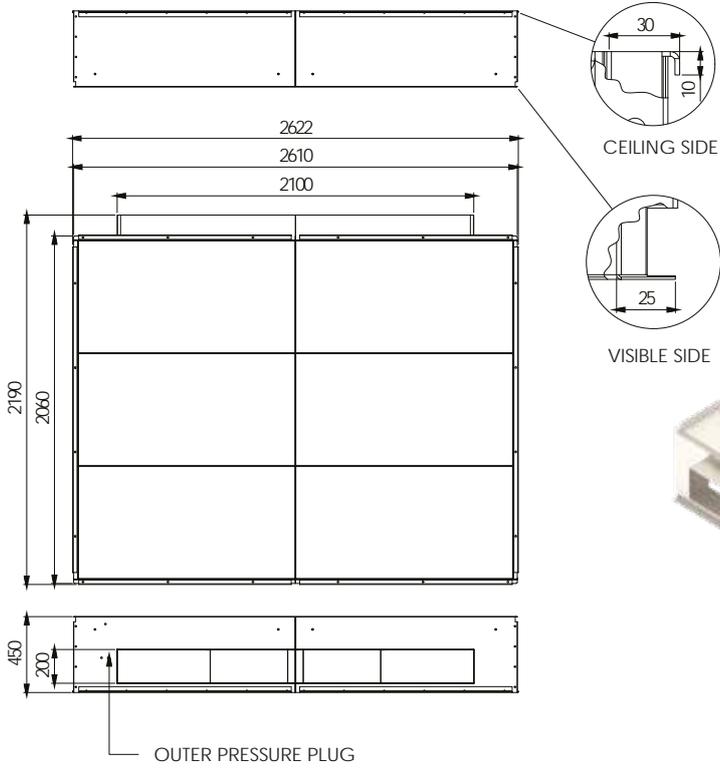
DIMENSIONAL DRAWING PFZ 2 x 2



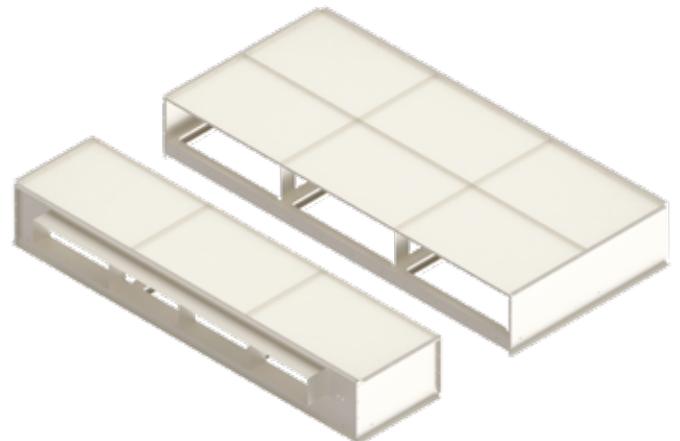
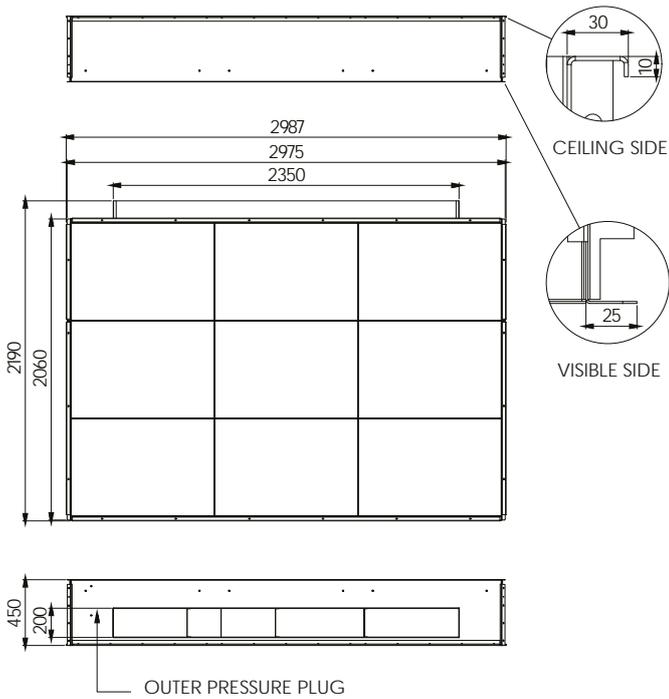
DIMENSIONAL DRAWING PFZ 3 x 1.5



DIMENSIONAL DRAWING PFZ 2.5 x 2



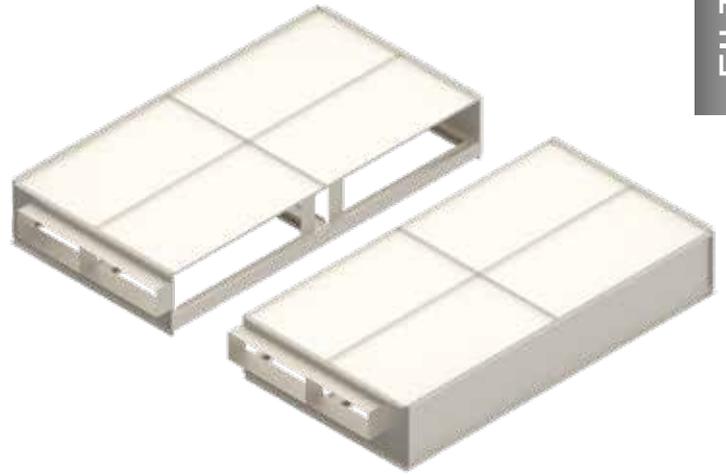
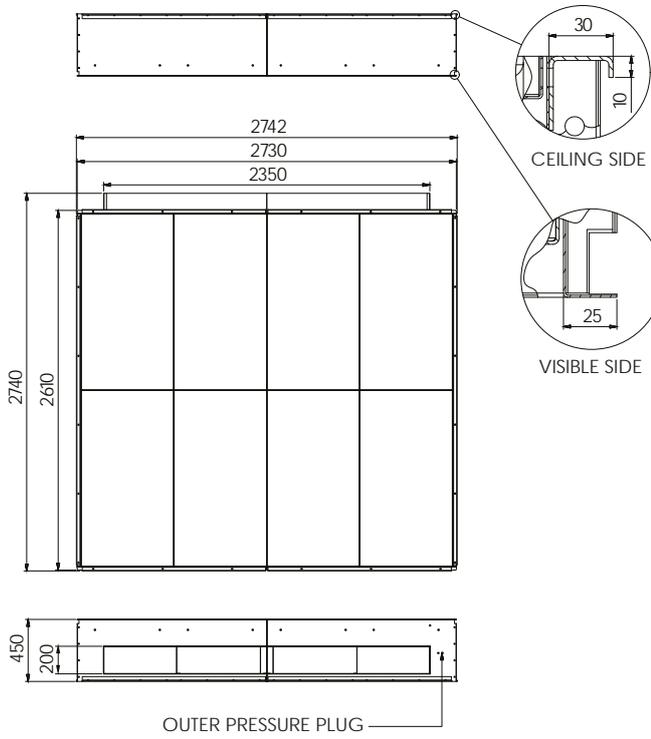
DIMENSIONAL DRAWING PFZ 3 x 2



DIMENSIONAL DRAWING PFZ 2.5 x 2.5



FILTER CEILING



GUIDELINES FOR ASSEMBLY

MAINTENANCE

filters changing and filter ceiling cleaning

INSTALLATION CONDITIONS

Installation inside buildings (hospital operating rooms); provide ducting and power supply when the operating light is present.

RECEIPT OF GOODS

Each product is carefully checked before being shipped. Upon receipt, check that the product has not been damaged during transport you have inform the transporter and CLA. The filtering ceilings are packed in wooden cages and fixed to them by means of polypropylene straps, protected with cardboard and stretch film.

HANDLING

Before moving the product, make sure that the vehicle used is of adequate capacity.
To lift, use a forklift, lifting the cage.

Store the ceiling in a sheltered place, without excessive humidity and not subject to strong temperature changes in order to avoid the formation of condensation especially if still protected by the stretch film (the formation of condensation inside would evaporate with difficulty and could trigger corrosion).

ASSEMBLY

Assembly must be carried out by qualified personnel.

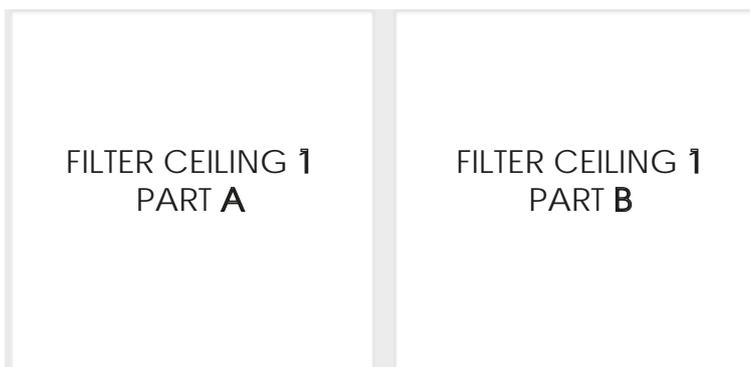
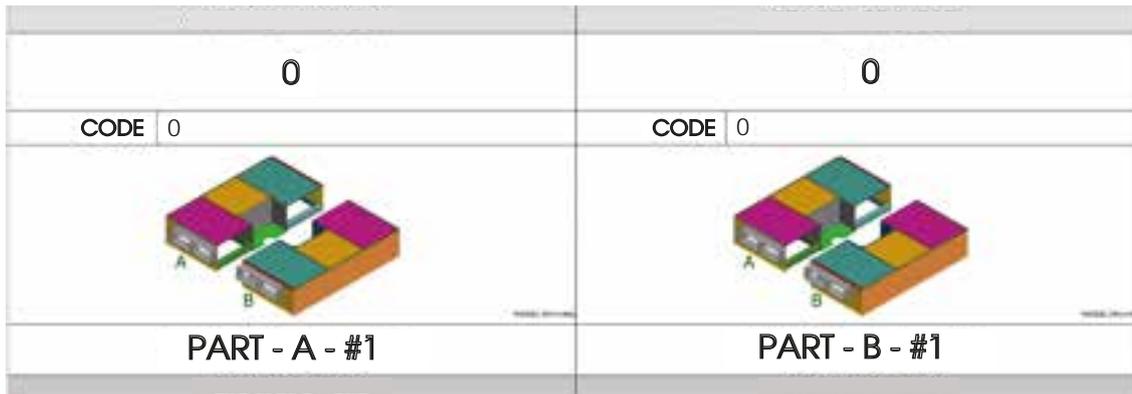


GUIDELINES FOR ASSEMBLY

The filter ceiling, depending on the size, can be produced in several parts (2, 3 and also 4 in the standard versions). The large filters ceiling are made of several parts to facilitate handling on the construction site and access to operating rooms (it would not be possible to move a single piece).

The test of the correct matching of the various parts (pre-assembly) is done in CLA before shipping.

The finished parts are sent to the customer in cages; the cages are identified by labels with the design of the ceiling and the indication of the part (A-1, B-1 ... C-1, D-1 if in 4 parts, where the letter identifies the part of the same filter ceiling and the number identifies the filter ceiling, there could be several identical filter ceiling with the same dimensions in which case they will be identified with A-2, B-2, ... A-3, B-3, C-3, D-3) to identify the parts as assembled in CLA. If the customer should remove the parts from the cages and store them on his site, they can however be identified; in the rear part of the filter ceiling a label with the indication of the part is applied (see images).



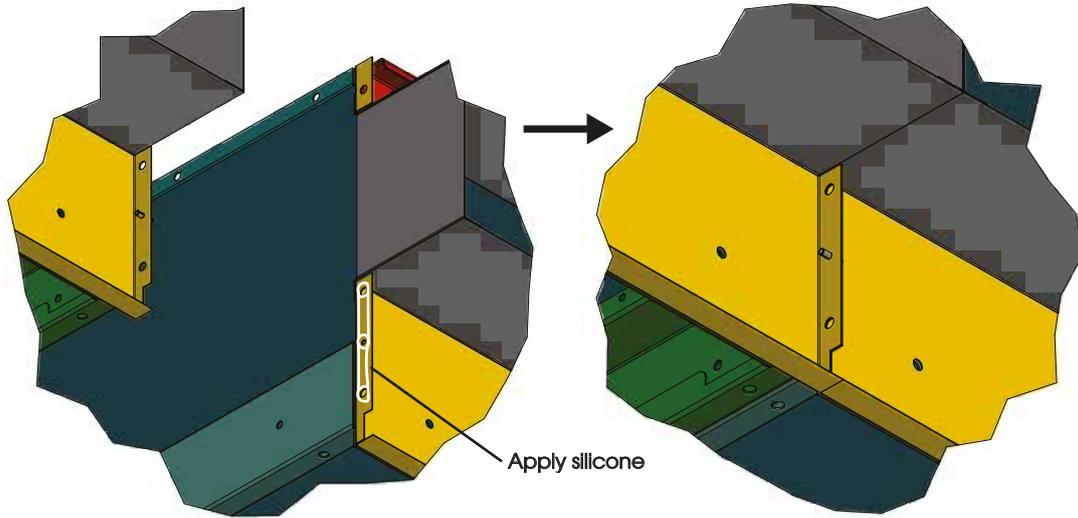
For fixing the filter ceiling, the ceiling has a 20/10 thick flange on the rear part with a drawing hole.

- place the parts of the filter ceiling on trestles, identified in the manner described above and according to the scheme shown in the assembly drawing and present on the label of the cage.
- CAUTION: before matching the parts, seal with Merbenit SF50 to ensure sealing (img. A: on the sides of the filter holders, between the sides of the scalytic tunnel and between the sides) and once paired (img. B: between the filter holders, between the filter holders and the scalytic tunnel and between the funds) (the images refer to the unpainted ceiling and to the assembly in CLA, the methods are identical).

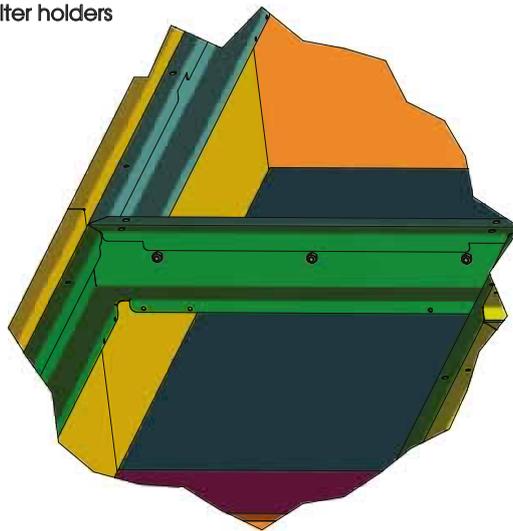


GUIDELINES FOR ASSEMBLY

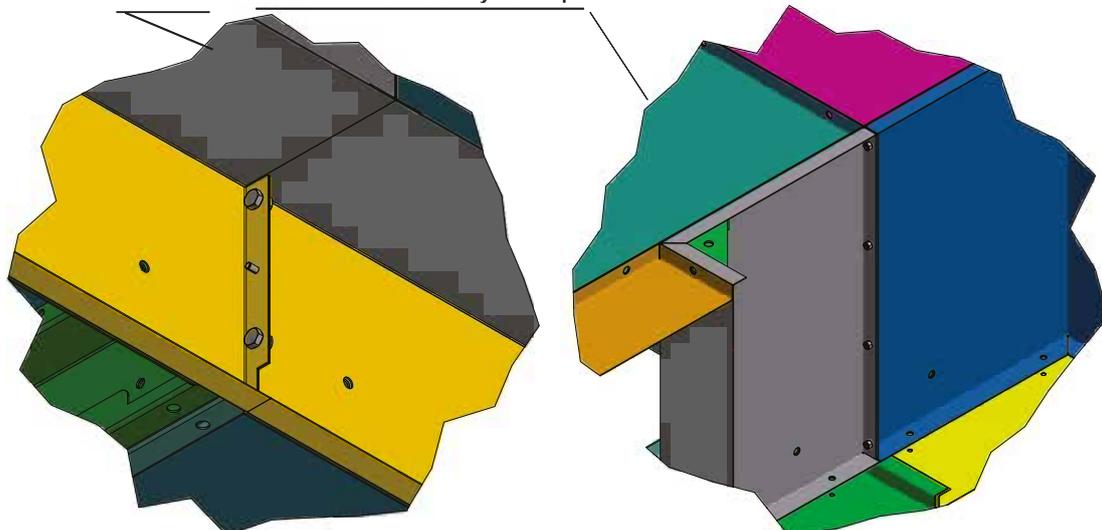
1) Then bring the parts closer together using the reference pin supplied



2) Then proceed to insert the bolts in the filter holders



3) Then proceed to bolt the sides and the tunnel for the scalytic lamp



Note: the necessary nuts and bolts for assembly are supplied as well as the sealant cartridges

GUIDELINES FOR ASSEMBLY



Once assembled in the correct position, with a laser level, the corresponding points are identified on the ceiling corresponding to the holes in the filter ceiling's flange; subsequently the ceiling will be drilled and the threaded bars will be fixed.



The filter ceiling is relieved by the lifters making sure that the filter ceiling is raised in the same way by all the lifts to avoid structural deformations. The threaded bars must be inserted in the holes of the filter ceiling flange which will be aligned and locked with nuts screwed to the threaded bars.

When the ceiling is complete (false ceiling and plasterboard) and the filters will be mounted, the Emery test will be performed to verify the seal. At the end install the grides and provide to clean the operating room.

PRICE LIST PFZL WITH SCIALITIC LAMP

PFZL RAL9010 GALVANIZED PANEL PRECONFIGURED FOR SCIALYTIC LAMP

Dimensions	Code	Price*
2060x1330	PFZL206133	€ 4.013,03
2730x1330	PFZL273133	€ 4.317,32
2000x2060	PFZL200206	€ 4.714,28
2610x2060	PFZL261206	€ 5.302,85
2670x2730	PFZL267273	€ 6.937,61
2975x2060	PFZL2975206	€ 6.036,71
3280x2730	PFZL328273	€ 9.444,77
3280x3400	PFZL328340	€ 10.814,58
4070x3280	PFZL407328	€ 12.593,14

*Complete with grilles

PFXL AISI 304 PANEL PRECONFIGURED FOR SCIALYTIC LAMP

Dimensions	Code	Price*
2060x1330	PFXL206133	€ 6.460,93
2730x1330	PFXL273133	€ 6.870,59
2000x2060	PFXL200206	€ 7.901,07
2610x2060	PFXL261206	€ 8.887,63
2670x2730	PFXL267273	€ 11.427,08
2975x2060	PFXL2975206	€ 11.453,99
3280x2730	PFXL328273	€ 15.247,52
3280x3400	PFXL328340	€ 17.901,53
4070x3280	PFXL407328	€ 21.019,40

*Complete with grilles

PRICE LIST PFZ WITHOUT SCIALITIC LAMP

PFZ RAL9010 GALVANIZED, WITHOUT FOR SCIALYTIC LAMP

Dimensions	Code	Price*
1390x1330	PFZ139133	€ 2.874,32
2060x1025	PFZ2061025	€ 3.722,51
2060x1330	PFZ206133	€ 3.945,38
2000x2060	PFZ200206	€ 5.153,91
2610x1390	PFZ261139	€ 4.340,66
2610x2060	PFZ261206	€ 5.357,98
2730x2610	PFZ273261	€ 6.122,78
2975x1390	PFZ2975139	€ 5.480,73
2975x2060	PFZ2975206	€ 6.123,59

*Complete with grilles

PFX AISI 304 WITHOUT SCIALYTIC LAMP

Dimensions	Code	Price*
1390x1330	PFX139133	€ 4.745,15
2060x1025	PFX2061025	€ 5.172,88
2060x1330	PFX206133	€ 5.885,26
2000x2060	PFX200206	€ 7.460,49
2610x1390	PFX261139	€ 7.966,92
2610x2060	PFX261206	€ 9.576,14
2730x2610	PFX273261	€ 11.503,24
2975x1390	PFX2975139	€ 8.855,01
2975x2060	PFX2975206	€ 11.799,94

*Complete with grilles

FILTRES

Dimensions	Code	Type of filtration	Pressure drop	Airflow m³/h	Price
305x610x68	FILTROH14-30561068	H14	ΔP: 100 Pa	300	€ 284,42
610x610x68	FILTROH14-61061068	H14	ΔP: 100 Pa	600	€ 448,27
915x610x68	FILTROH14-91561068	H14	ΔP: 100 Pa	900	€ 612,15
1220x610x68	FILTROH14-122061068	H14	ΔP: 100 Pa	1.200	€ 725,16

ON REQUEST

AISI 316L version: AISI 304 + 30%

Additional connection: + € 280.00

Reduced height: + € 550.00

Flange on connection: + € 210.00

Opposite-side connection: + € 120.00

Special diameter for scialytic lamp: + € 100.00

CLA & UTEK reserves the right to at any time the necessary changes to improve products without prior notice .