

KOOLAIR

series

KPA

Absolute filter plenums

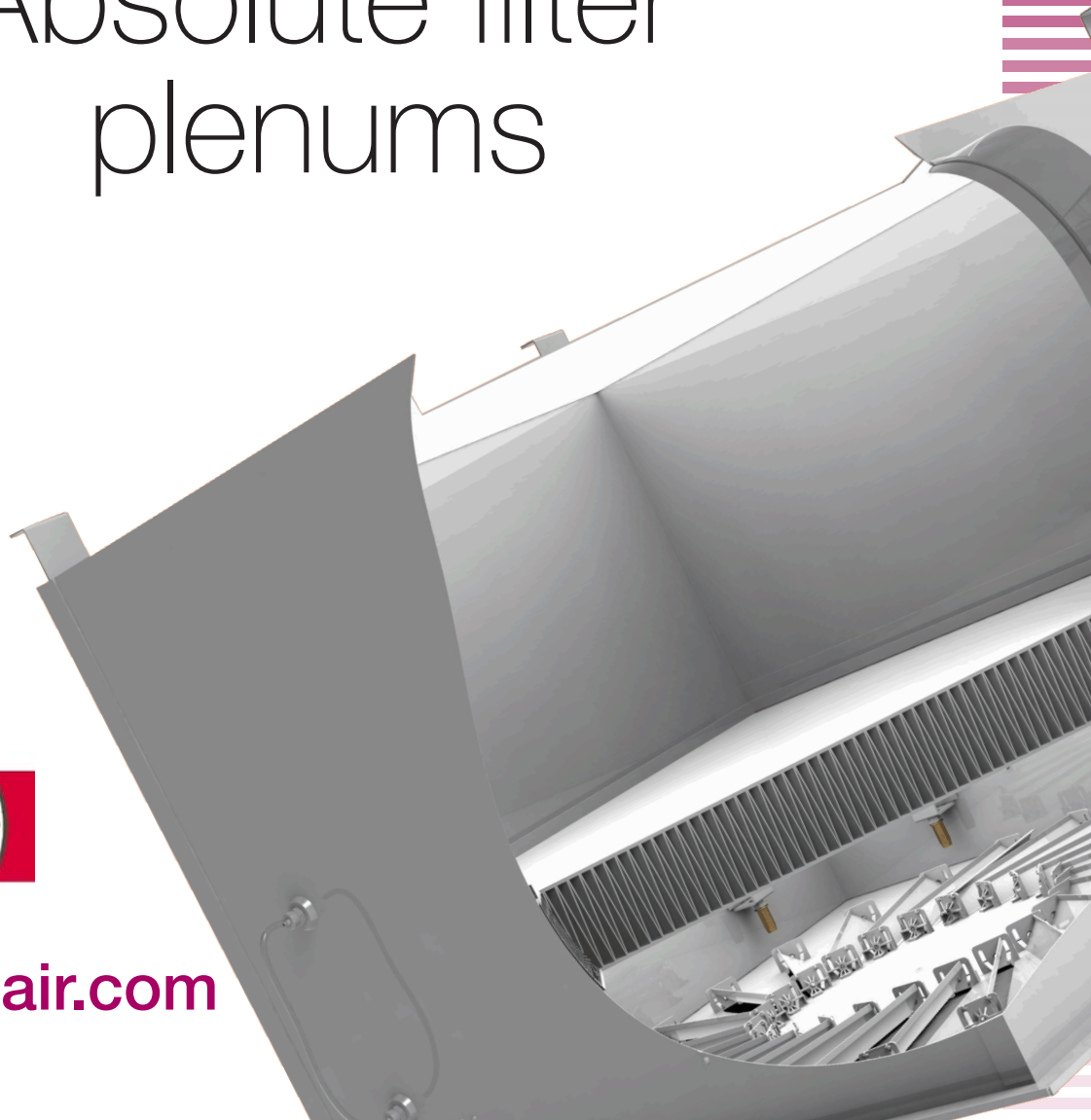
ISO 9001

BUREAU VERITAS
Certification

Sistema de Gestión

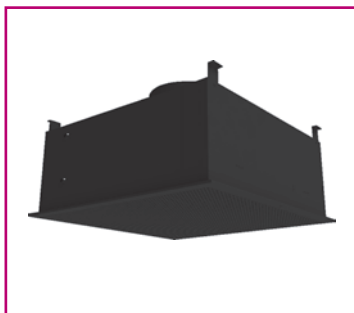


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High performance filter plenum KPA



Circular side entry plenum

Description

Plenum and diffusion element set for high-performance filtering. Are available in different sizes and allowing executions including different types of diffuser (swirl, square, perforated plate, ...) Ceiling and wall installation.

The plenum design has been adapted to the measurements of diverse-performance absolute filters existing on the market (H10...H14 and U15...U17): 305x305, 305x610, 610x610, 915x610, 1200x610 mm with thicknesses of 68, 78, 88, 150 and 292 mm

Lateral or top connection plenum manufactured. Differential pressure meter included. With additional manually adjustable shut-off damper.

High performance filter KPA has been tested for tightness in accordance with the UNE 100713, and its leakage rate less than 0.003% of nominal airflow.

The filters are individually tested and certified according to EN1822 standard.

Material

Plenum manufactured in galvanised steel plate painted on the inside and outside in gloss RAL 9010.

Special finishes upon request.

To ensure sealing the plenum is welded and sealed with white polyurethane perimeter also includes a tight closure.

Grilles and diffusers

Air diffusion elements for high efficiency in facilities both laminar and turbulent flow.

Technical data be found in their catalogs in the folder Koolair C1

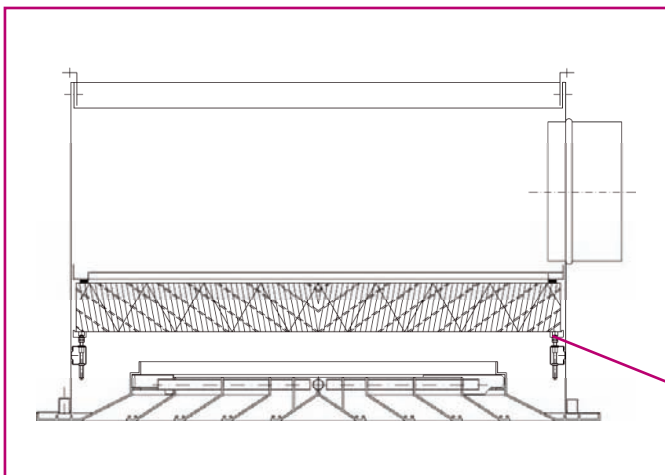
Applications

For zones which require high air purity and an absence of germs, such as in the pharmacy and medicine fields.

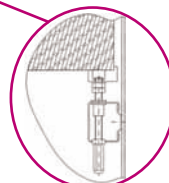
Air diffusion control, supply by laminar flow.



Circular top entry plenum

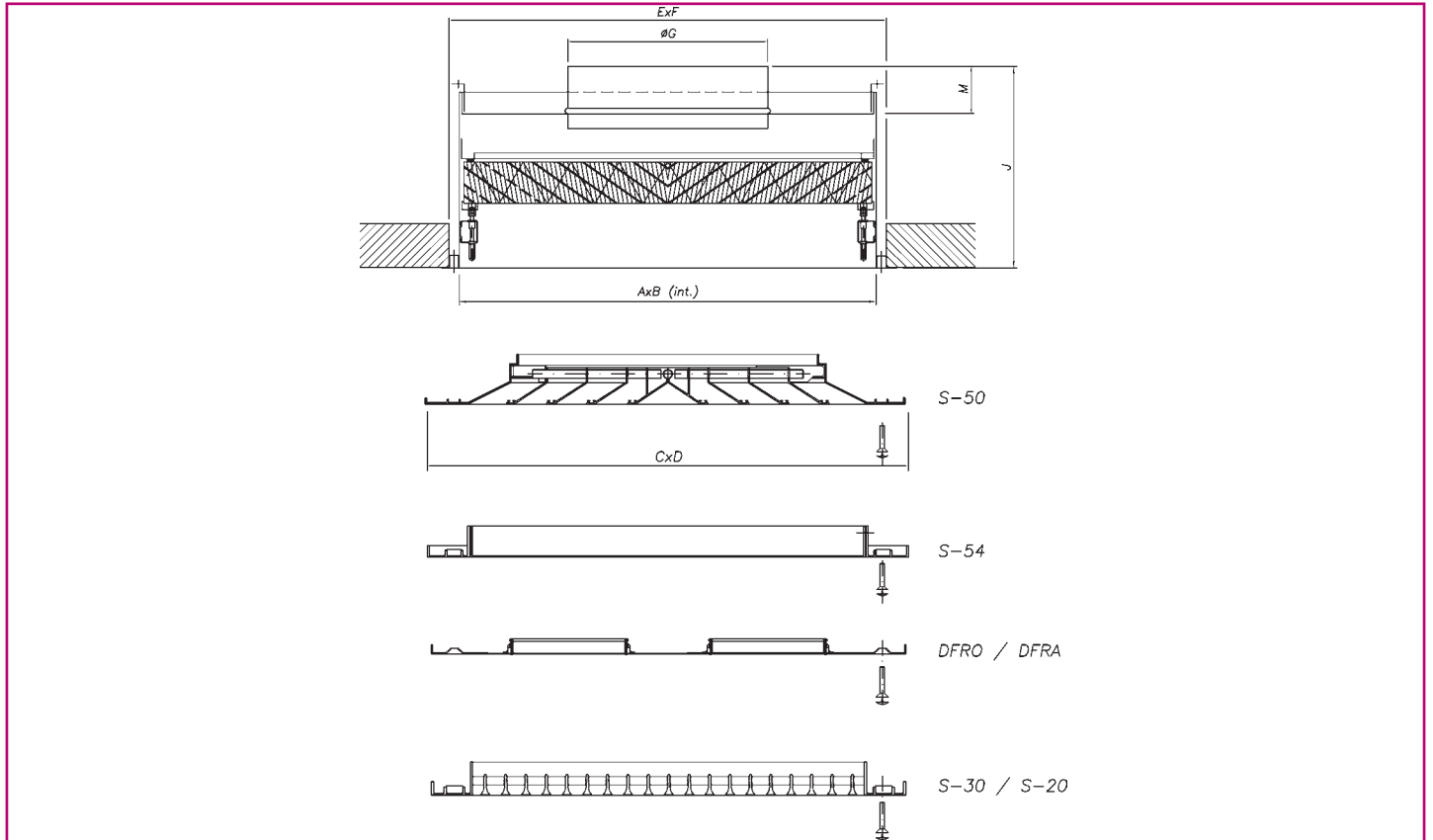


Air-tight element



High performance filter plenum KPA

Circular top entry plenum



FILTER	Laminar flow		Turbulent flow		PLENUM DIMENSIONS							
	Q (m ³ /h)	ΔP (Pa)	Q (m ³ /h)	ΔP (Pa)	A	B	C	D	E	F	Ø G	J
305 x 305 x 68	150	120	250	220							123	293
305 x 305 x 150	150	120			319	319	369	369	355	355	123	375
305 x 305 x 292			550	280							198	517
610 x 610 x 68	600	120	1000	220							198	293
610 x 610 x 150	600	120			624	624	669	669	655	655	198	375
610 x 610 x 292			2000	280							298	517
610 x 305 x 68	300	120	560	220							158	293
610 x 305 x 150	300	120			319	624	369	669	355	655	158	375
610 x 305 x 292			2000	280							298	517
915 x 610 x 68	900	120	1500	220							248	293
915 x 610 x 150	900	120			624	929	669	969	655	959	248	375
915 x 610 x 292			2750	280							498	517
1220 x 610 x 68	1200	120	2000	220							298	293
1220 x 610 x 150	1200	120			624	1234	669	1274	655	1264	298	375
1220 x 610 x 292			3500	280							498	517
457 x 457 x 68	335	120	560	220	471	471	519	519	505	505	158	293
545 x 545 x 68	480	120	800	220	559	559	594	594	584	584	198	

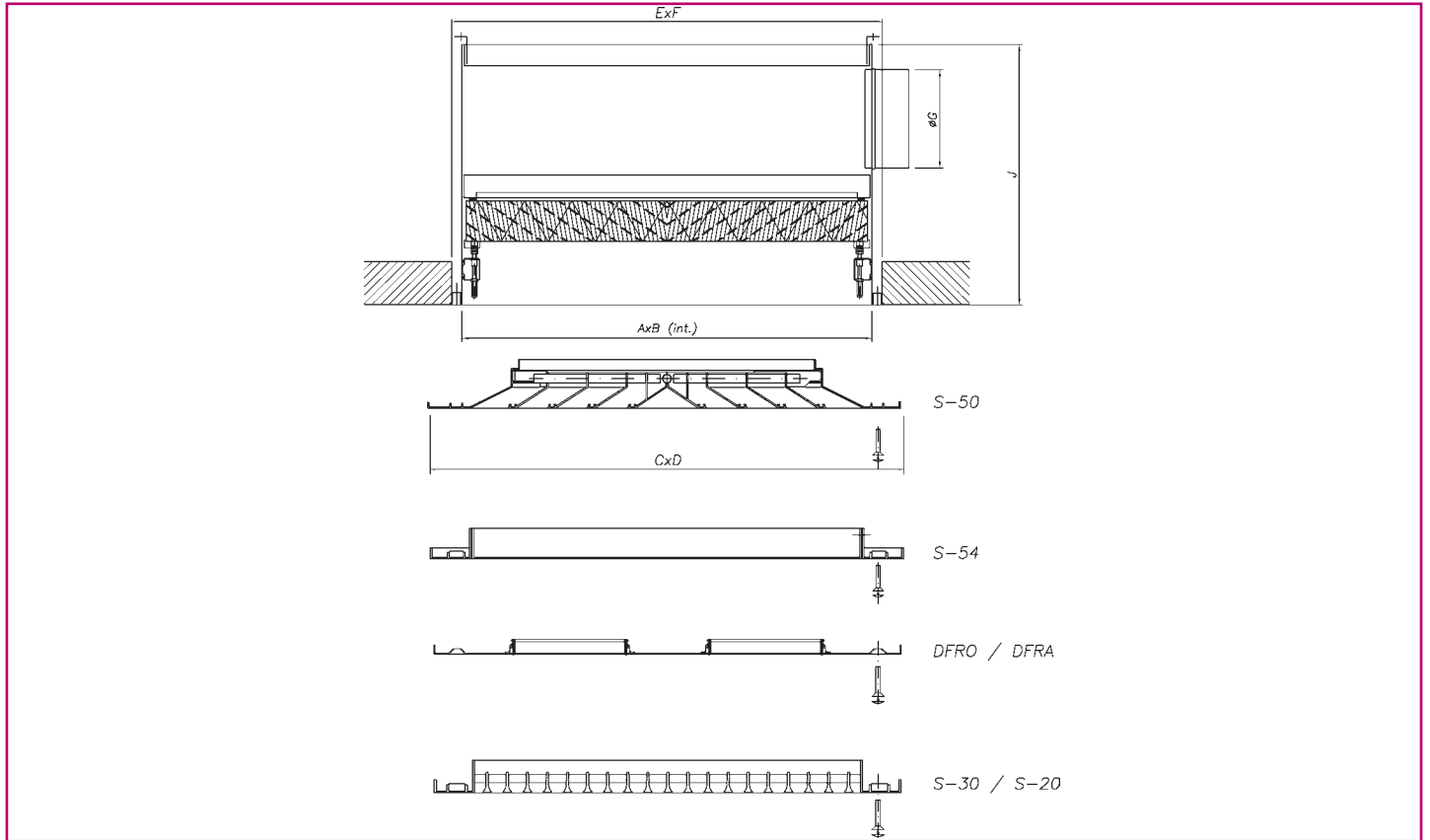
0.45 m/s face velocity for laminar flow

0.75 m/s face velocity for turbulent flow

Technical data for absolute filters with filter class H13/H14

High performance filter plenum KPA

Circular side entry plenum



FILTER	Laminar flow		Turbulent flow		PLENUM DIMENSIONS							
	Q (m ³ /h)	ΔP (Pa)	Q (m ³ /h)	ΔP (Pa)	A	B	C	D	E	F	Ø G	J
305 x 305 x 68	150	120	250	220	319	319	369	369	355	355	123	405
305 x 305 x 150	150	120									123	487
610 x 610 x 68	600	120	1000	220	624	624	669	669	655	655	198	480
610 x 610 x 150	600	120									198	562
610 x 305 x 68	300	120	560	220	319	624	369	669	355	655	158	440
610 x 305 x 150	300	120									158	522
915 x 610 x 68	900	120	1500	220	624	929	669	969	655	959	248	530
915 x 610 x 150	900	120									248	612
1220 x 610 x 68	1200	120	2000	220	624	1234	669	1274	655	1264	298	580
1220 x 610 x 150	1200	120									298	662
457 x 457 x 68	335	120	560	220	471	471	519	519	505	505	158	440
545 x 545 x 68	480	120	800	220	559	559	594	594	584	584	198	480

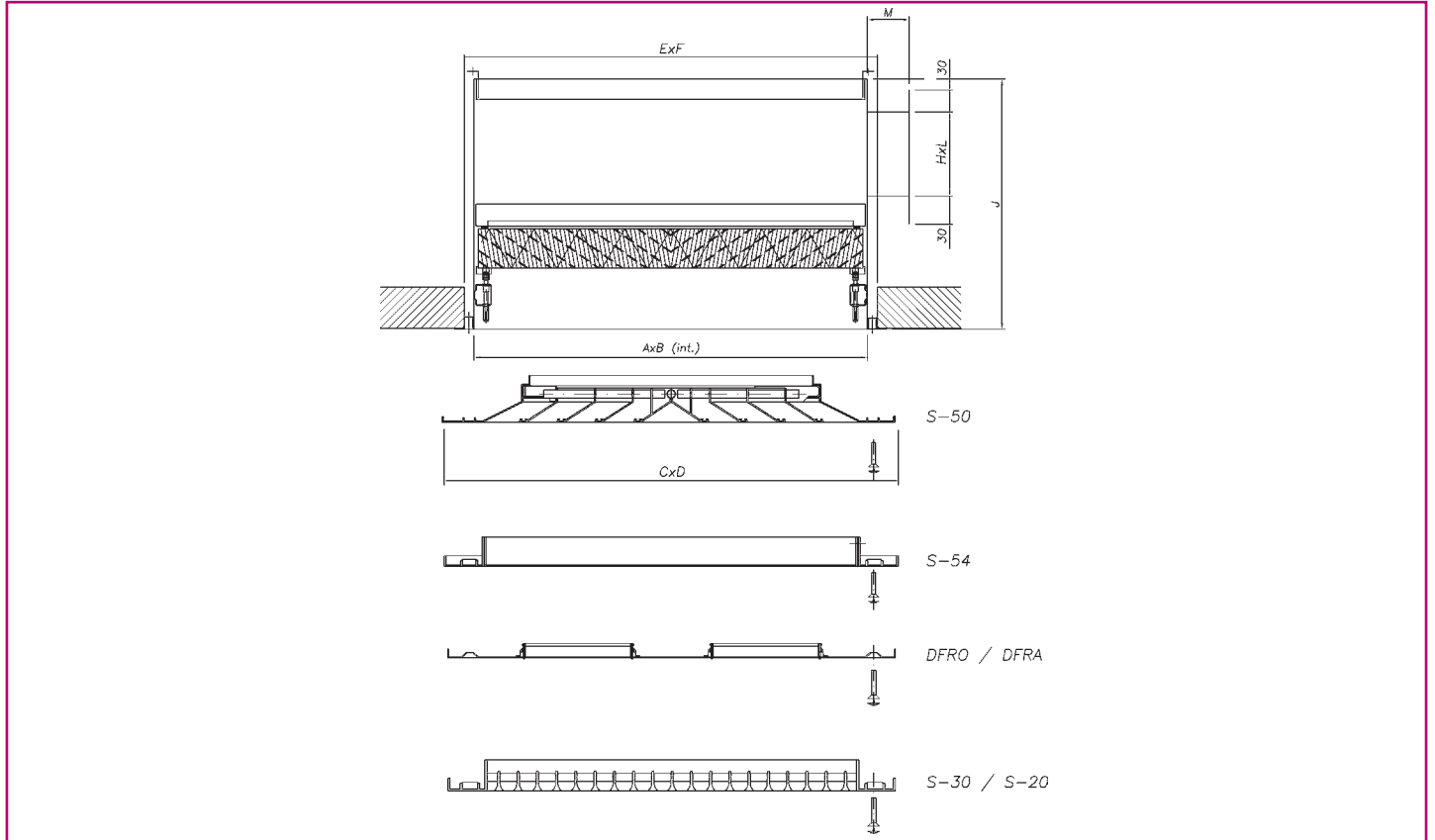
0.45 m/s face velocity for laminar flow

0.75 m/s face velocity for turbulent flow

Technical data for absolute filters with filter class H13/H14

High performance filter plenum KPA

Rectangular side entry plenum



FILTER	Laminar flow		Turbulent flow		PLENUM DIMENSIONS								
	Q (m³/h)	ΔP (Pa)	Q (m³/h)	ΔP (Pa)	A	B	C	D	E	F	L	H	J
305 x 305 x 68	150	120	250	220	319	319	369	369	355	355	150	100	363
305 x 305 x 150											150	100	445
305 x 305 x 292											275	100	587
610 x 610 x 68	600	120	1000	220	624	624	669	669	655	655	350	100	363
610 x 610 x 150											350	100	445
610 x 610 x 292											500	150	637
305 x 610 x 68	300	120	560	220	319	624	369	669	355	655	200	100	363
305 x 610 x 150											200	100	445
305 x 610 x 292											500	150	637
610 x 915 x 68	900	120	1500	220	624	929	669	969	655	959	500	100	363
610 x 915 x 150											500	100	445
610 x 915 x 292											750	250	737
610 x 1220 x 68	1200	120	2000	220	624	1234	669	1274	655	1264	700	100	363
610 x 1220 x 150											700	100	445
610 x 1220 x 292											750	250	737
457 x 457 x 68	335	120	560	220	471	471	519	519	505	505	200	100	363
545 x 545 x 68	480	120	800	220	559	559	594	594	584	584	350	100	363

0.45 m/s face velocity for laminar flow

0.75 m/s face velocity for turbulent flow

Technical data for absolute filters with filter class H13/H14

High performance filter plenum KPA



Return grille

KPA return grille

High performance filter plenum with return grille, available in sizes to adapt the filter dimensions. The plenum is airtight and has a pressure device to control the filter pressure drop.

Available models: egg-crate grilles, S22-5, fixed blades S20-45, perforated plate and single deflection grilles S20SH, between others.



Fastening system

Installation and maintenance

The fastening system of diffusers and grilles to the plenum is by means of perimeter screws that allow easy access for cleaning and disinfection.

Filters

Filtration class and overall filter efficiency in accordance with CEN-EN 1822.

Filtration class	Overall filter efficiency %	Local efficiency %
H13	≥ 99,95	99.75
H14	≥ 99,995	99.975

Grilles and diffusers coding

Ceiling application:

Swirls: Technical data in catalogue Series 40.2.



DFRO



DFRA

Square and perforated plate: Technical data in catalogue Series 50.



50-FR-4



54-FR

Wall application:

Single deflection grilles and linear grilles: Technical data in catalogue Series 20.1 and Series 30.



20-SH



31-1

Egg-crate: Technical data in catalogue Series 20.2.



22-5

Filter size	Diffuser model		
	DFRO/DFRA (slots)	S50	S54
305x305x68	12	225x225	369x369
305x305x150	12	225x225	369x369
305x305x292	*	*	*
610x610x68	24	525x525	669x669
610x610x150	24	525x525	669x669
610x610x292	*	*	*
610x305x68	16	525x225	669x369
610x305x150	16	525x225	669x369
610x305x292	*	*	*
915x610x68	40	825x525	969x669
915x610x150	40	825x525	969x669
915x610x292	*	*	*
1220x610x68	48	1025x525	1274x669
1220x610x150	48	1025x525	1274x669
1220x610x292	*	*	*
457x457x68	16	375x375	519x519
545x545x68	24	450x450	524x524

- (*) grille only, (dimensions adapted to filter size).

High performance filter plenum KPA

Coding

Coding provides a unique description of the model ordered by the customer.

Example:

(a) (b) (c) (d) (e) (f) (g) (h)
KPA – BLC – 610x610x68 – H14 – DFRO24 – P – RE – RAL

(a): **Model**

KPA: high performance filter plenum

(b): **Plenum**

BSC: with circular top entry plenum

BLC: with circular side entry plenum

BLR: with rectangular side entry plenum

(c): **Filter**

LxHxP: filter dimensions

(d): **Filter efficiency**

H13

H14

others

(e): **Diffusers**

DFRO: adjustable swirl diffuser (size indicated in table page 9)

S50: square diffuser (size indicated in table page 9)

S54: perforated plate diffusers (size indicated in table page 9)

S20SH: single deflection grille

S22-5: egg-crate grille

(f): **Preassure device**

P with preassure device

SP: without preassure device

(g): **Components**

- without regulation damper

RE: with regulation damper

(h): **Finished**

RAL 9010 Painted in white RAL 9010, standard

RAL ... Painted in RAL upon requested

Specification

High-performance filter plenum KPA side entry, dimensions 610x610x68 adjustable swirl diffuser model DFRO 24. It incorporates high efficiency filter type H14. Manufactured in galvanized steel painted inside and outside, integrated differential pressure measurement and regulation damper in the spigot, with all their attachments. Painted in RAL upon request by the prescriptions.



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