NEW

CA MD

IN-LINE CENTRIFUGAL DUCT FANS
WITH TWO SPEEDS

IP44 LONG LIFE 30.000 h

VORTICE

VENTILATION
AIR CONDITIONING
AIR CLEANING
HEATING

NEW

CA MD RANGE

IN-LINE CENTRIFUGAL DUCT FANS WITH TWO SPEEDS

IMPROVED PERFORMANCES WITH REDUCED NOISE LEVELS

- Complete range: 8 models available, 100-125-150 Q-150-160-200-250-315
- Suitable for domestic, commercial and industrial applications: kitchens, bathrooms, offices, laboratories, factories, stores, dry cleaners, shops, restaurants, bars, theatres, dance halls, etc.
- Two speeds
- IMQ safety certification, performance and noise level certified IMQ Performance.
- Polyesther powder coating metal casing for any weather condition
- Motor-holder and air flow deflectors shaped to minimize air turbulence and noise level.
- Prewired and supplied with mounting brackets for easy installation
- Protection rating IP44
- Manual resettable thermal cut out (model 250, 315)
- Turbine fan balanced directly on ball-bearing-mounted motor
- The CA units can be mounted in any position
- Class II insulation

NEW

TECHNICAL DATA

Product	Code	V	Hz	W		A		Air flow (m^3/h)		Air flow (l/s)		Pressure (mmH_2O)		Pressure (Pa)		RPM		Lp dB(A) 3 m*		Approv.	IP	Ins. Class	Max Temp. °C
				min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max				
CA 100 MD	16150	230	50	60	85	0,30	0,40	220	340	61	94	30	39	294	383	1730	2450	32.2	43.2		44	cl. II	50
CA 125 MD	16151	230	50	60	85	0,30	0,40	280	450	78	125	27	37	265	363	1580	2380	30.8	45.9		44	cl. II	50
CA 150 Q MD	16152	230	50	60	85	0,30	0,40	300	500	83	139	21	35	206	343	1430	2350	34.7	48.1		44	cl. II	50
CA 150 MD	16153	230	50	110	155	0,50	0,70	570	770	158	214	44	54	432	530	1615	2080	40.7	48.0		44	cl. II	50
CA 160 MD	16154	230	50	110	155	0,55	0,70	640	840	178	233	41	50	402	491	1645	2080	40.7	47.4		44	cl. II	50
CA 200 MD	16155	230	50	110	155	0,55	0,70	820	1050	228	292	37	48	363	471	1700	2100	43.8	49.6		44	cl. II	50
CA 250 MD	16156	230	50	115	200	0,55	0,90	950	1300	264	361	42	56	412	549	1800	2420	46.7	55.9		44	cl. II	50
CA 315 MD	16157	230	50	190	280	0,85	1,25	1350	1800	375	500	52	72	510	706	1940	2500	52.4	57.7		44	cl. II	50

* Sound level measured at 3 m from inlet in free air condition with product ducted only in outlet according to EN ISO 3741:2009

FREQUENCY BANDS IN OCTAVES AND SOUND OUTPUT (Minimum Speed)

The measurements of the sound power have been carried out according to international standard ISO-3741:2009

Models	Code	Hz 125	Hz 250	Hz 500	Hz 1000	Hz 2000	Hz 4000	Hz 8000
CA 100 MD	16150	49,4	42	51,7	49,3	46,4	42,8	38,7
CA 125 MD	16151	45	51,7	51	45,9	42,1	35,1	n.a.
CA 150 Q MD	16152	45,2	57,6	53,7	48,9	48,9	39,7	26,3
CA 150 MD	16153	56	65,4	59,7	53,3	50	42,6	32,8
CA 160 MD	16154	58,6	64,9	59,8	53	53	41,5	32,2
CA 200 MD	16155	58	68,3	61,5	55,4	54,2	45,7	38
CA 250 MD	16156	60,2	69,6	65,1	60,9	58,5	51,5	44,7
CA 315 MD	16157	70,8	71,8	74	64,7	62,8	60,5	57,7

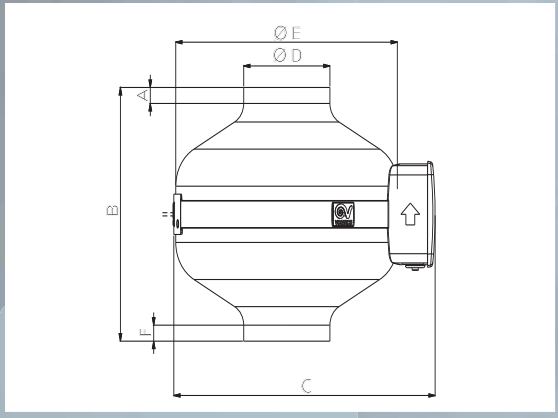
FREQUENCY BANDS IN OCTAVES AND SOUND OUTPUT (Maximum Speed)

The measurements of the sound power have been carried out according to international standard ISO-3741:2009

Models	Code	Hz 125	Hz 250	Hz 500	Hz 1000	Hz 2000	Hz 4000	Hz 8000
CA 100 MD	16150	58,3	53,3	60,7	59,8	56,5	54,1	46,3
CA 125 MD	16151	55,4	63,4	64,5	61,6	58,7	55,2	48,4
CA 150 Q MD	16152	55,9	68,4	66,1	62,6	62,6	56,9	48,9
CA 150 MD	16153	62,2	71,1	67,3	61,6	59,2	51,9	44,6
CA 160 MD	16154	62,1	70,4	66,5	60,9	60,9	50,4	43,1
CA 200 MD	16155	61,5	70,3	69,7	63,2	60,8	54,5	47,4
CA 250 MD	16156	65,8	71,2	77,9	69,4	65,8	60,9	55,6
CA 315 MD	16157	74,3	72,4	77,6	71,6	70,3	67,1	66

SIZES (mm)

Models	A	B	C	Ø D	Ø E	F
CA 100 MD	15	239	295	97	255	15
CA 125 MD	23	239	295	122	255	23
CA 150 Q MD	30	239	295	147	255	30
CA 150 MD	17	275	392	147	347	17
CA 160 MD	18	275	392	157	347	18
CA 200 MD	17	275	392	197	347	20
CA 250 MD	35	275	392	247	347	38
CA 315 MD	30	306	455	312	406	36

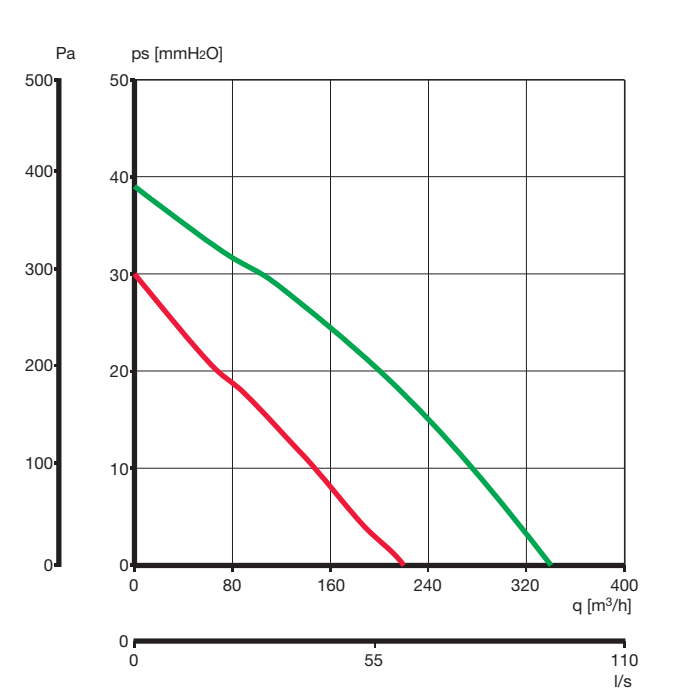


NEW

PERFORMANCE CURVES

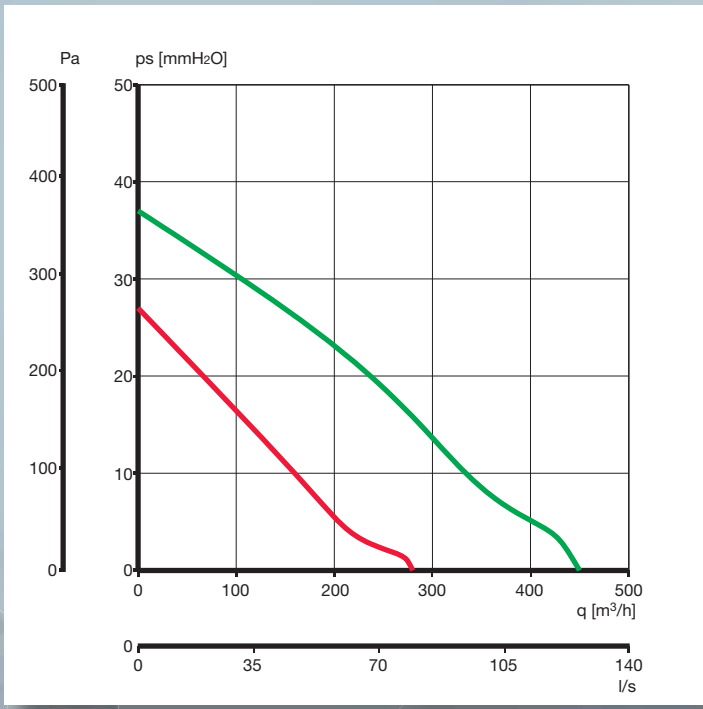
CA 100 MD

code 16150



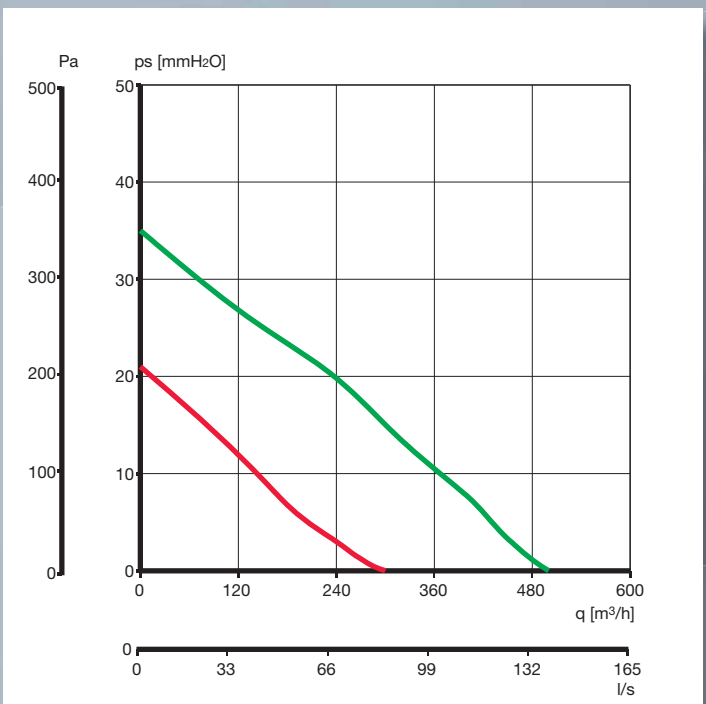
CA 125 MD

code 16151



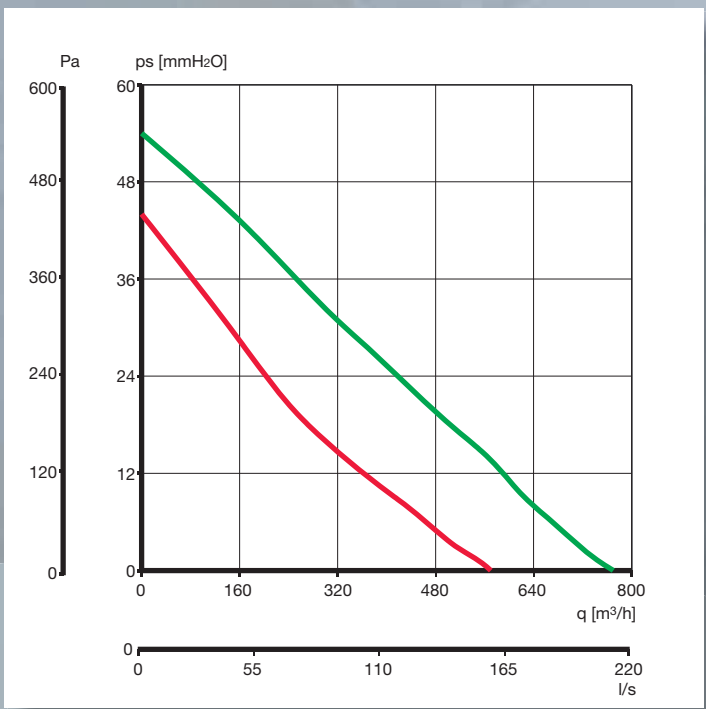
CA 150 Q MD

code 16152



CA 150 MD

code 16153



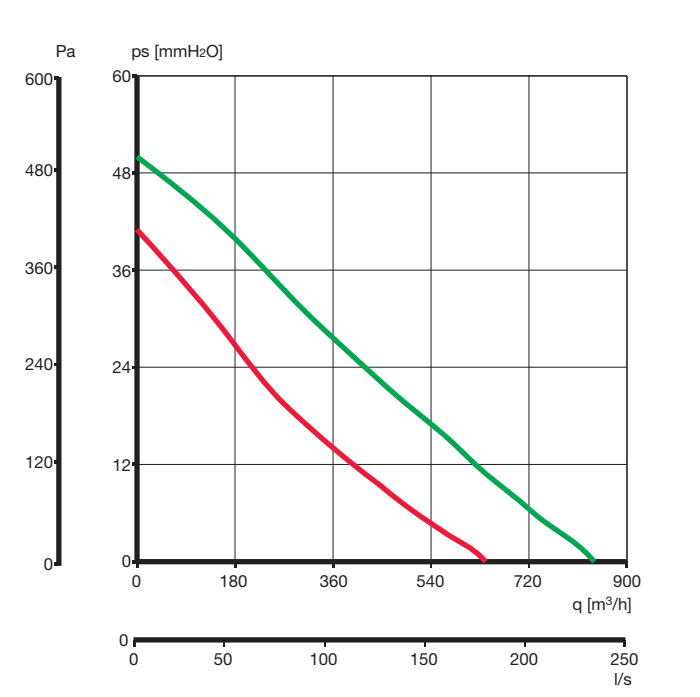
NEW

MIN

MAX

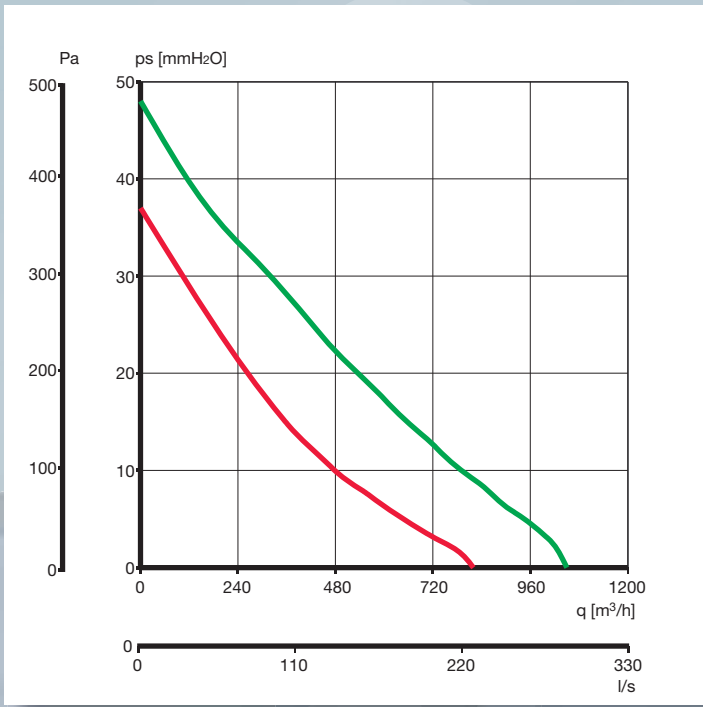
CA 160 MD

code 16154



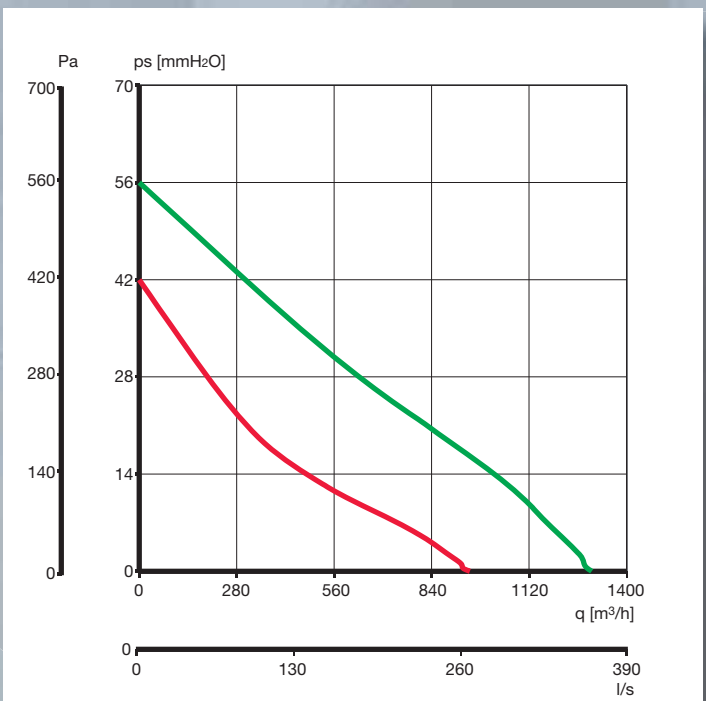
CA 200 MD

code 16155



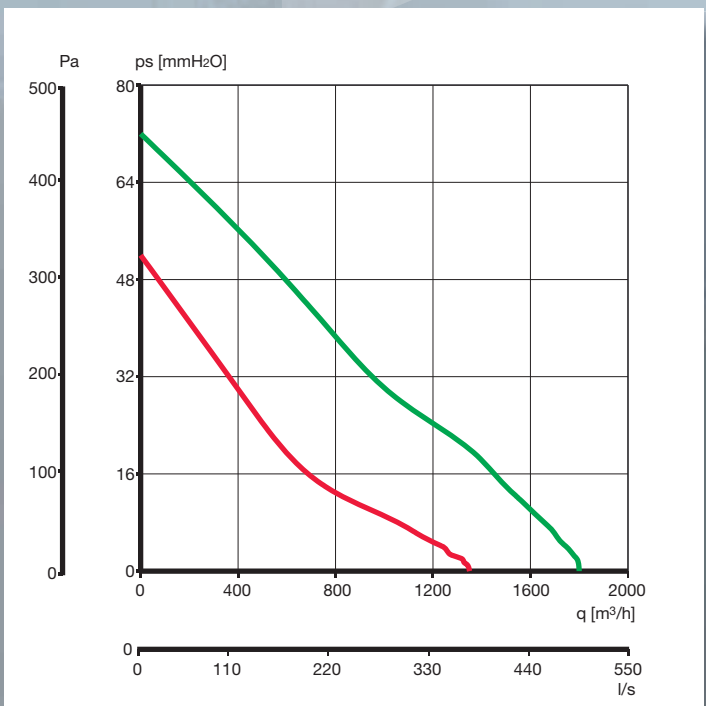
CA 250 MD

code 16156



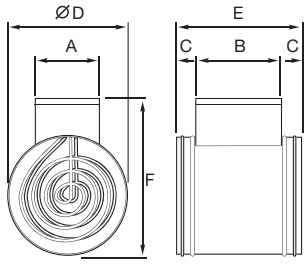
CA 315 MD

code 16157



ACCESSORIES

Product	Code	Model	A [mm]	B [mm]	C [mm]	Ø D [mm]	E [mm]	F [mm]	Weight [kg]	Sizes
DUCT HEATERS AH	22796	AH 100	100	230	40	100	325	185	2,01	
	22797	AH 125	125	230	40	125	325	225	2,57	
	22759	AH 150	150	285	40	150	380	250	2,60	
	22798	AH 160	150	285	40	160	380	260	2,95	
	22790	AH 200	150	285	40	200	380	300	3,50	
	22791	AH 250	150	285	40	250	380	350	3,83	
	22792	AH 315 (1 kW)	150	245	60	315	380	415	5,10	
	22779	H3 315 (3 kW)	150	240	60	315	380	415	5,27	



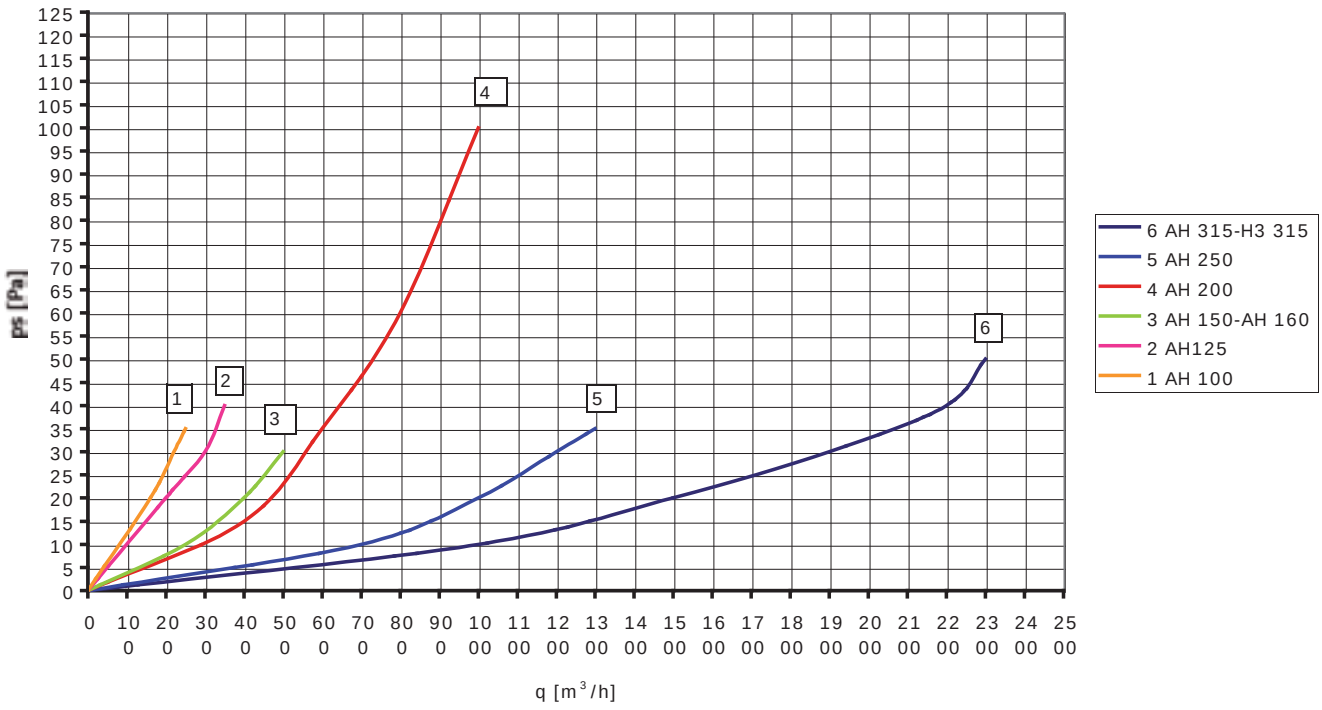
Description

- To be installed in the ventilation system, always after the fan, and/or the noise attenuator/air filter.
- Suitable for mono phase and three phase systems.
- Galvanized steel box, stainless steel electrical resistances carried by tubular duct in galvanized steel.
- Automatic security thermostat set on 60 °C (±15%) linked in a series with a second security thermostat with manual reset (RESET) set on 120 °C ± 15%.
- Operative temperature from –30 °C to +50 °C (not suitable with powders or chemical agents).
- Minimum air volume is based on a minimum air speed of 2m/s.

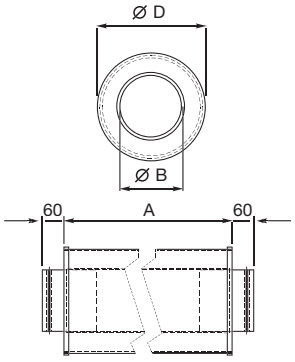
Frequency: 50[Hz] - Protection class: IP40

Code	Model	V	kW	A	N. Resist.	Min Air Flow [m³/h]	Insul. Cl. I
22796	AH 100	230	0,4	1,7	1 x 0,4	21	⏚
22797	AH 125	230	0,5	2,2	1 x 0,5	27	⏚
22759	AH 150	230	1,2	5,2	1 x 1,2	64	⏚
22798	AH 160	230	1,2	5,2	1 x 1,2	64	⏚
22790	AH 200	230	2	8,7	1 x 2	107	⏚
22791	AH 250	230	3	13	2 x 1,5	161	⏚
22792	AH 315	230	1	4,3	1 x 1	54	⏚
22779	H3 315	230	3	13	2 x 1,5	161	⏚

PRESSURE LOSSES



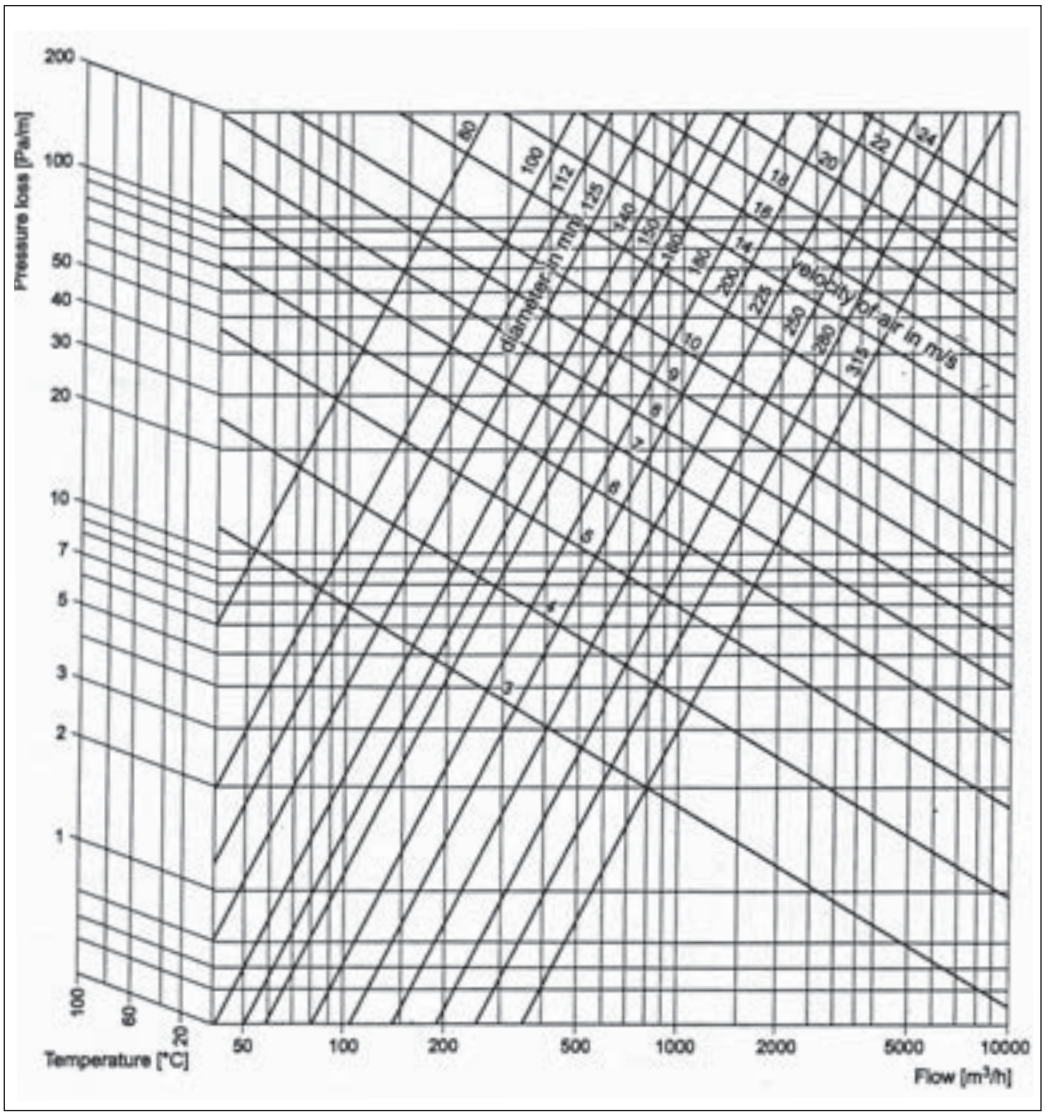
Product	Code	Model	A [mm]	Ø B [mm]	Ø D [mm]	Weight [kg]	Sizes
NOISE ATTENUATOR	22780	NA 100	1.000	100	211	2	
	22781	NA 125	1.000	125	241	2	
	22756	NA 150	1.000	150	266	2	
	22783	NA 160	1.000	160	266	2	
	22784	NA 200	1.000	200	316	3	
	22785	NA 250	1.000	250	367	3	
	22786	NA 315	1.000	315	417	4	



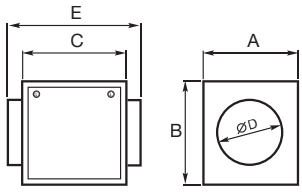
Description

- To be installed in the ventilation system, always after the fan, and/or the filter box/duct heater.
- Useful when noise level required is particularly low.

Sound attenuation in frequency bands [Hz]								
Code	Model	125	250	500	1000	2000	4000	8000
22780	NA 100	16	17	33	48	39	18	16
22781	NA 125	9	13	27	46	21	11	10
22756	NA 150	7	8	18	36	16	8	8
22783	NA 160	5	13	26	45	20	10	11
22784	NA 200	6	13	29	31	10	6	9
22785	NA 250	4	7	15	25	8	5	5
22786	NA 315	2	7	14	24	8	8	5



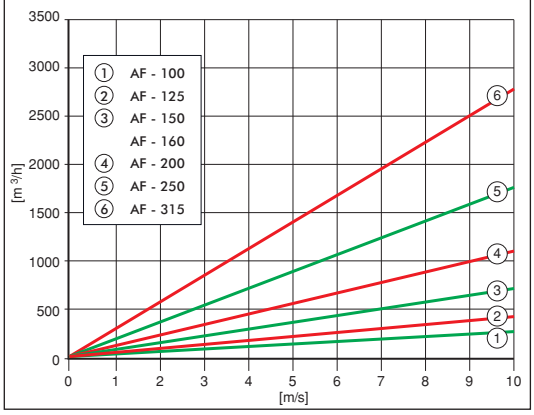
Product	Code	Model	A [mm]	B [mm]	C [mm]	Ø D [mm]	E [mm]	Weight [kg]	Sizes
FILTER BOX	22793	AF 100	210	170	125	100	227	2,1	
	22794	AF125	220	205	145	125	252	2,1	
	22799	AF 150	270	235	160	150	267	2,3	
	22795	AF 160	270	235	160	160	267	2,3	
	22787	AF 200	320	275	185	200	302	3,5	
	22788	AF 250	355	320	235	250	352	3,5	



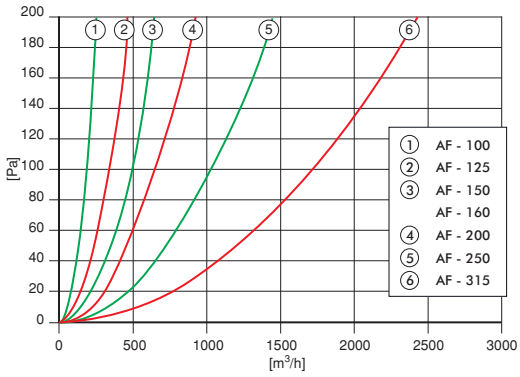
Description

- To be installed in the ventilation system, always before the fan, and/or the noise attenuator/duct heater.
- Suitable to avoid impurities entering into the ventilation system.
- Synthetic Fiber Filter (G3/89% Filtration Class).
- Galvanized steel box, with cover fixed by two adapters to simplify maintenance.
- Max working temperature: +60 °C.

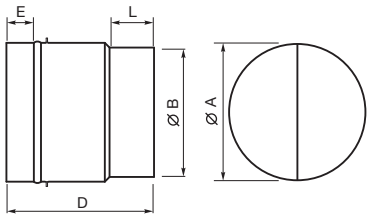
Air flow/Speed diagram



Filter pressure loss diagram



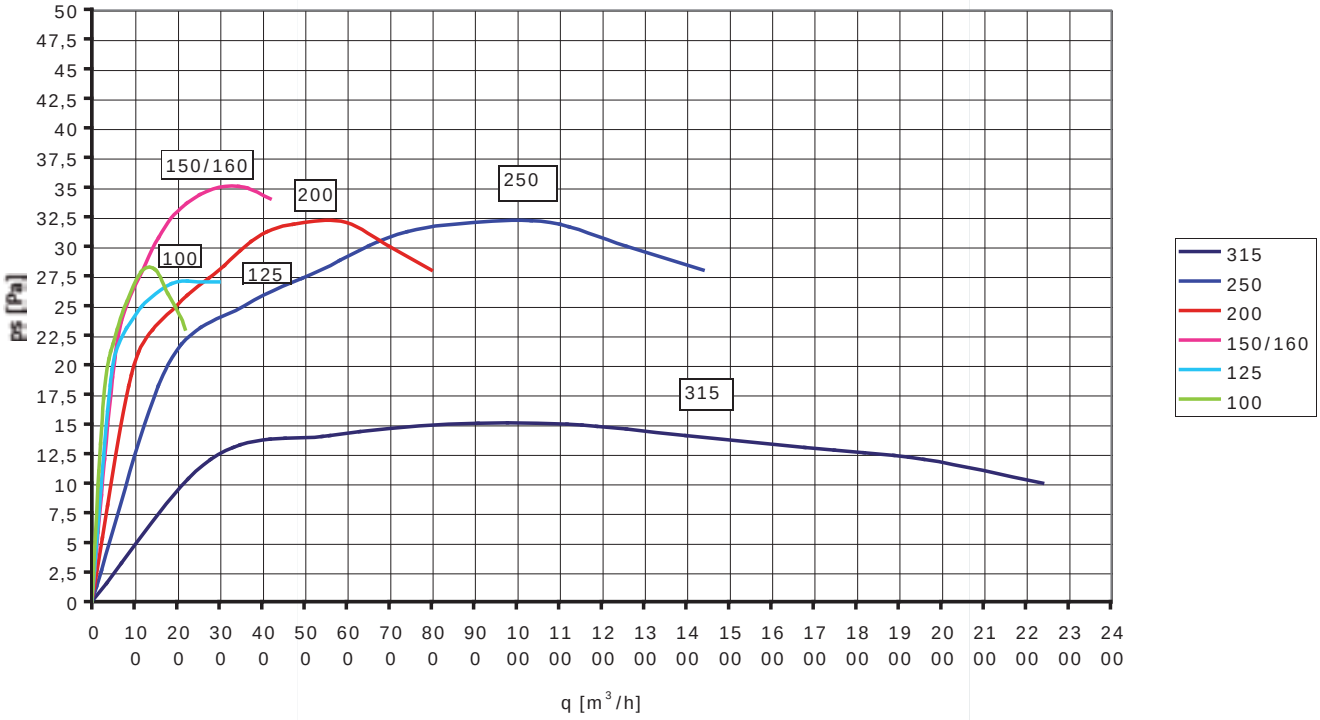
Product	Code	Model	A [mm]	Ø B [mm]	D [mm]	E [mm]	L [mm]	Weight [kg]	Sizes
BACKDRAUGHT SHUTTERS	22551	IN-LINE 100 S	103	96	100	23	36,5	0,196	
	22556	IN-LINE 125 S	128	122	110	23	36,5	0,270	
	22562	IN-LINE 150 S	153	146	120	28	36,5	0,353	
	22563	IN-LINE 160 S	163	156	125	28	36,5	0,392	
	22566	IN-LINE 200 S	203	196	150	28	36,5	0,887	
	22571	IN-LINE 250 S	253	247	180	28	36,5	1,324	
	22576	IN-LINE 315 S	318	312	210	33	46,5	1,947	

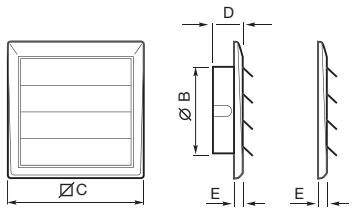


Description

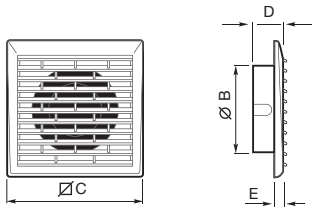
- To be directly mounted in ventilation ducts or on fan outlet.
- Composed by a cylinder in electro galvanized sheet steel calendered and welded.
- Closure and the seal are ensured by a toroidal gasket in Neoprene closed cell.

PRESSURE LOSSES IN-LINE-S

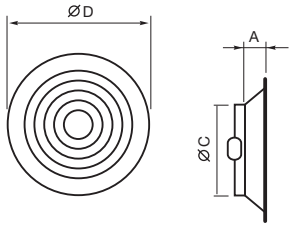


Product	Code	Model	Ø B [mm]	⧄ C [mm]	D [mm]	E [mm]	Nr flaps	Weight [kg]	Sizes
GRAVITY SHUTTERS	22332	GGR 100	99	140	28	8	4	-	
	22333	GGR 120/125	119	160	28	8	4	-	
	22334	GGR 150/160	155	198	28	8	5	-	
	22335	GGR 200	-	254	-	14	6	-	
	22336	GGR 250	-	299	-	14	7	-	
	22337	GGR 315	-	391	-	14	7	-	

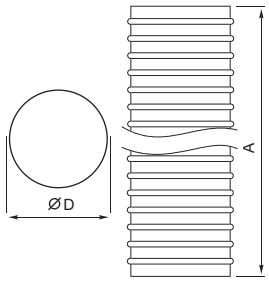
Description
- To be installed at the duct outlet on vertical wall.
- Useful to avoid air return from the outside and to protect the fluctuating parts.
- Totally manufactured from shockproof thermoplastic anti UV resina.
- Flaps are shaped so in order to avoid their block.

Product	Code	Model	Ø B [mm]	⧄ C [mm]	D [mm]	E [mm]	Weight [kg]	Sizes
FIXED GRILLE	22165	FG 100	99	140	28	8	-	
	22166	FG 125	119	160	28	8	-	
	22167	FG 150	155	198	28	8	-	

Description
- To be mounted at the beginning or the end of a ventilation duct.
- Totally manufactured from shockproof thermoplastic anti UV resin.

Product	Code	Model	A [mm]	Ø C [mm]	Ø D [mm]	Sizes
AIR DIFFUSER CD	22128	CD 160	47	150	260	
	22127	CD 200	47	200	310	
	22168	CD 250	47	250	360	
	22169	CD 315	47	300	420	

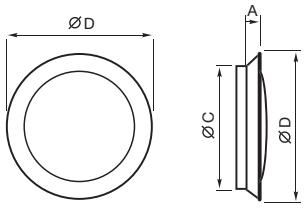
Description
- To be applied to plafond, ceilings, ventilation ducts, double-ceilings etc.
- Painted aluminium.
- Suitable acoustical or decorative ceiling of normal height.
- The detachable case offers free access to the integral butterfly plastic volume damper.
- Bridge for ceiling mounting

Product	Code	Model	A [mm]	Ø D [mm]	Sizes
ALUMINIUM FLEXIBLE DUCT	22175	AFD 100-4	4.000	102	
	22176	AFD 125-4	4.000	127	
	22177	AFD 150-4	4.000	152	
	22178	AFD 160-10	10.000	160	
	22179	AFD 200-10	10.000	203	
	22180	AFD 250-10	10.000	254	
	22181	AFD 315-10	10.000	315	

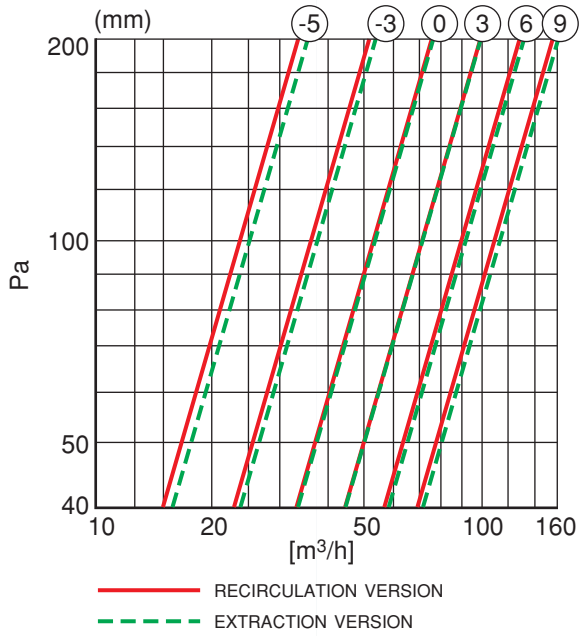
Description
- Ideal for ventilation and air conditioning, low noise and for high pressure.
- Totally manufactured from aluminum.
- Length from 4 m Ø 100 mm
- 150 mm up to 10 m (Ø 160 mm - 315 mm).

Product	Code	Model	A [mm]	Ø C [mm]	Ø D [mm]	Sizes
AIR VALVE	22189	AV 100	19	100	138	
	22190	AV 125	20	125	164	
	22191	AV 150	20	150	192	
	22192	AV 160	20	160	192	
	22193	AV 200	19	200	240	

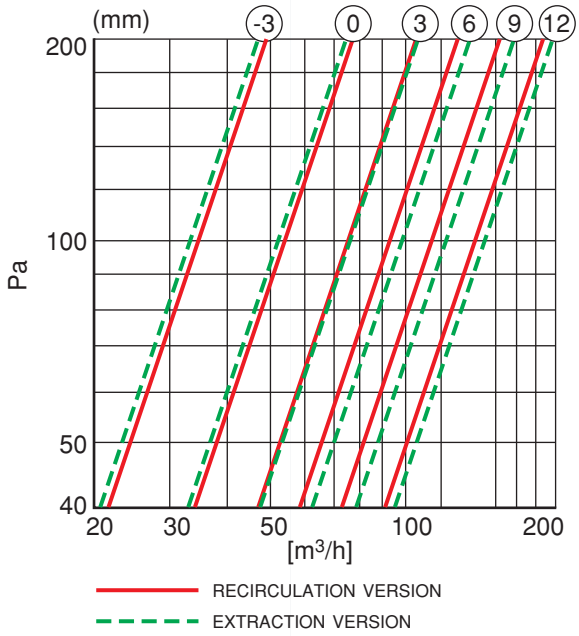
Description
- To be applied to plafond, ceilings, ventilation ducts, double-ceilings etc.
- Allow flow rate regulation with a simple adjustment of the rotating core.
- White thermoplastic polystyrene.



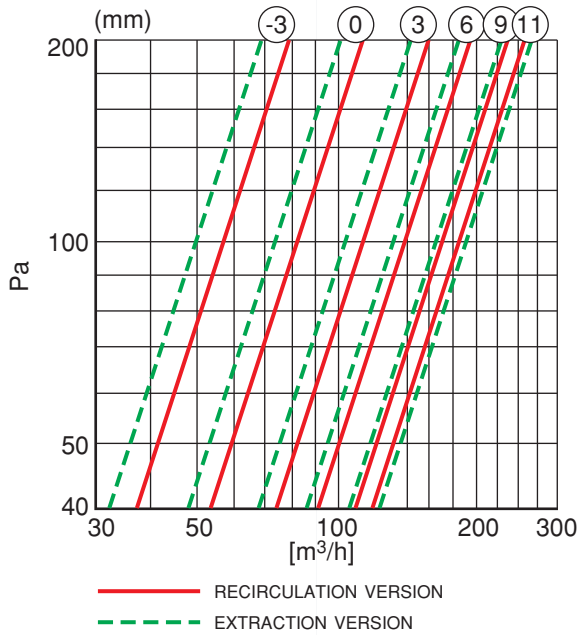
AV 100



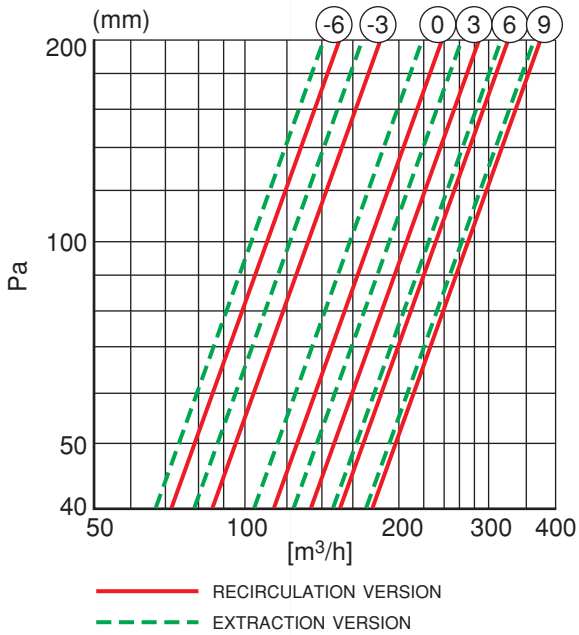
AV 125



AV 150/160

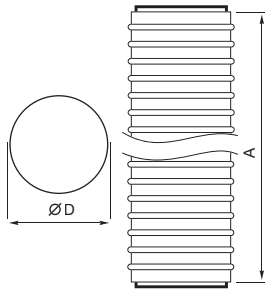


AV 200



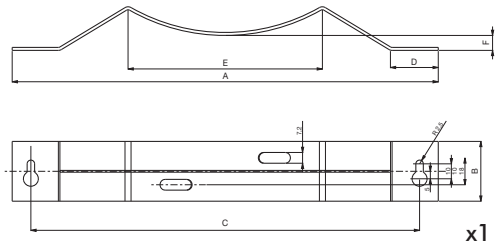
Product	Code	Model	A [mm]	Ø D [mm]	Sizes
INSULATED ALUMINIUM FLEXIBLE DUCT	22182	AFD-I 100-4	4.000	102	
	22183	AFD-I 125-4	4.000	127	
	22184	AFD-I 150-4	4.000	152	
	22185	AFD-I 160-10	10.000	160	
	22186	AFD-I 200-10	10.000	203	
	22187	AFD-I 250-10	10.000	254	
	22188	AFD-I 315-10	10.000	315	

Description
- Ideal for ventilation and air conditioning, low heat dissipation, condensation, noise and for high pressure.
- Totally manufactured from aluminum with internal thermal insulation by standard fiberglass (25 mm 16 kg/m³).
- Length from 4 m (Ø 100 mm - 150 mm) up to 10 m (Ø 160 mm - 315 mm).

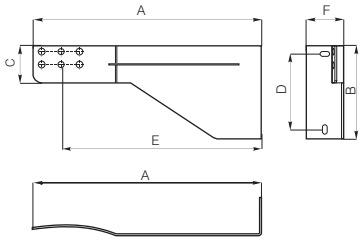


ACCESSORIES INCLUDED

Product	CA	A	B	C	D	E	F	CA	A	B	C	D	E	F
GALVANISHED SHEET-METAL BRACKETS	100-125-150 Q	285	40	260	32	130	10	150-160-200-250-315	245	100	40	80	215	10



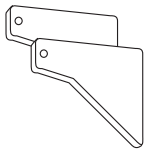
x1

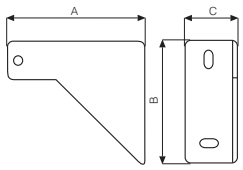


x2

ACCESSORIES OPTIONAL

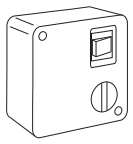
Product	Code	A	B	C
CA - MU Special galvanized sheet-metal brackets.	22674	84	75	35



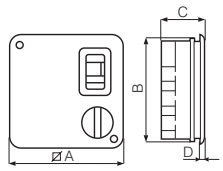


x2

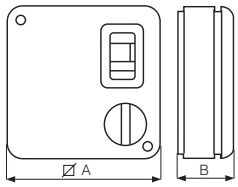
Product		Code	V	W	kg	Insulation	⌀ A	B	C	D
SCNR B C 1,5 - C 2,5 Non reversible variable electronic speed controller. SCNR - C 1,5 - C 2,5	SCNRB (flush fitting electr. speed controller) for all products	12971*	220-240	200	0,2	⧈ cl. II	142	135	59,5	4,5
	C 1,5 for all products up to 1,5 A Max	12966	220-240	1,5 A	0,2	⧈ cl. II	120	43	-	-
	C 2,5 for all products up to 2,5 A Max	12967	220-240	2,5 A	0,2	⧈ cl. II	120	43	-	-
	SCB Kit (to convert SCNR to flush) for SCNR	22481								



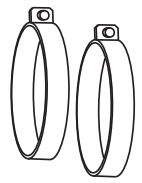
SCNR B

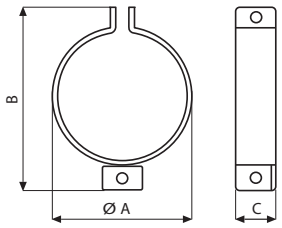


C 1,5 - C 2,5



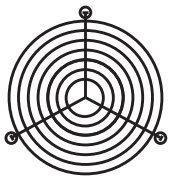
Product	Model	Code	Ø A	B	C
PIPE CLAMPS	CA-FU 100	22667	103	138	30
	CA-FU 125	22668	128	163	30
	CA-FU 150	22669	153	188	30
	CA-FU 160	22666	163	189	30
	CA-FU 200	22671	203	198	30
	CA-FU 250	22672	253	238	30
	CA-FU 315	22673	318	288	30

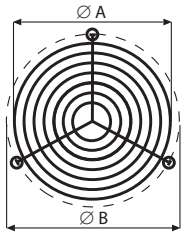




Product	Model	Code	Products	Ø A	Ø B	N. fiss.
PROTECTION GRILLE	CA-G 100 (intake protection grille)	22750	16002	82	99	3X120°
	CA-G 125 (intake protection grille)	22755	16012	102	124	3X120°
	CA-G 150 (intake protection grille)	22760	16022	142	149	3X120°
	CA-G 160 (intake protection grille)	22762	16072			3X120°
	CA-G 200 (intake protection grille)	22765	16042	142	183	3X120°
	CA-G 250 (intake protection grille)	22770	16052	182	220	3X120°
	CA-G 315 (intake protection grille)	22775	16062	222	260	3X120°

Description
- For use on the intake port when the unit is mounted within reach (EN 294 standards).

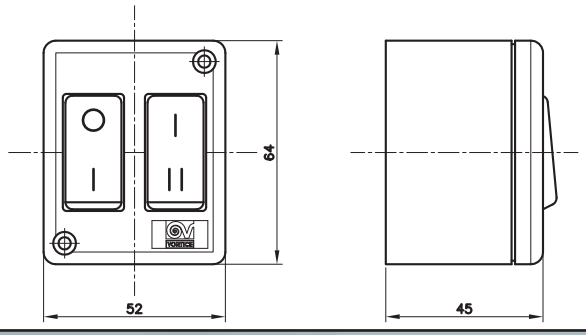




SPEED CONTROLLERS

DUO - code 22914
- Two speeds switch
- On/Off switch

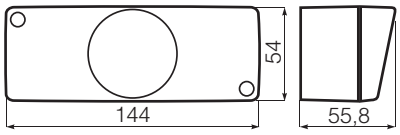
Dimensions (mm)



ENVIRONMENTAL SENSORS

Environmental sensors are designed to detect specific environmental conditions (humidity, temperature, presence of a moving body and air quality) and suitable for use with all Lineo models. For basic models only.

Dimensions (mm)



- Supply power: 220-240 V
- Frequency: 50/60Hz
- Maximum load: 3 A
- Operating temperature: 50 °C
- Protection class: IP20

C HCS-HUMIDITY - CODE 12994
Measures ambient relative humidity. It starts the fan when the R.H. It incorporates an over-run timer (adjustable between 3 and 20 minutes).

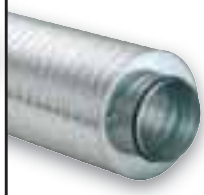
C TEMP-TEMPERATURE - CODE 12992
Measures ambient room temperature, and starts the fan when the temperature exceeds the preset value. Once the temperature drops below the preset value, you can adjust the overrun timer from 3 to 20 minutes.

C SMOKE - CODE 12993
Measures the air quality, detecting the presence of cigarette smoke, odours and other pollutants, and starts the fan when the concentration of pollutants exceeds the preset value. You can adjust the over-run timer from 3 to 20 minutes.

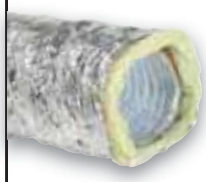
C PIR-MOVEMENT DETECTOR - CODE 12998
Detects the presence of a moving body within its sensor range, and starts the fan automatically.
You can adjust the over-run timer from 3 to 20 minutes.

C TIMER - CODE 12999
Adjustable over-run timer between 3 and 20 minutes.

ACCESSORIES SELECTION

CA MD	Code	AH Duct heater	NA Noise attenuator	AF Filter box	IN-LINE S Backdraught shutter
					
CA 100 MD	**16150**	22796	22780	22793	22551
CA 125 MD	**16151**	22797	22781	22794	22556
CA 150 Q MD **CA 150 MD**	**16152** **16153**	22759	22756	22799	22562
CA 160 D	**16154**	22798	22783	22795	22563
CA 200 MD	**16155**	22790	22784	22787	22566
CA 250 MD	**16156**	22791	22785	22788	22571
CA 315 MD	**16157**	22792 (1 kW) 22779 (3 kW)	22786	–	22576

TABLE

CA-G Protection grille	**GGR** Gravity shutter	**FG** Fixed grille	**AV** Air valve	**CD** Air diffuser	**AFD** Aluminium flexible duct	**AFD-I** Insulated aluminium flexible duct
						
22750	22332	22165	22189	–	22175	22182
22755	22333	22166	22190	–	22176	22183
22760	22334	22167	22191	–	22177	22184
22762	22334	–	22192	22128	22178	22185
22765	22335	–	22193	22127	22179	22186
22770	22336	–	–	22168	22180	22187
22775	22337	–	–	22169	22181	22188

CERTIFICATIONS

IMQ

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C.F./P.I. 12898410159
Capitale Sociale € 4.000.000

CA05.02757
SNJ0018L

PID: 05310120
CID: C.1993.2416

Certificato di approvazione
Approval certificate

IMQ, ente di certificazione accreditato, autorizza la ditta

IMQ, accredited certification body, grants to

VORTICE ELETTROSOCIALI SPA
STRADA CERCA 2
20067 TRIBIANO MI

all'uso del marchio

the licence to use the mark

IMQ+INQ-PERFORMANCE

Il presente certificato è soggetto alle condizioni previste nel "Regolamento IMQ - Certificazione prodotto e Tabella Informativa IMQ" ed è relativo ai prodotti descritti nell'Allegato al presente certificato.

per i seguenti prodotti

Ventilatore/aspiratore
(Tipo CA MD)

for the following products

Fan/aspirator
(Type CA MD)

This certificate is subjected to the conditions foreseen by "IMQ Rules - Product Certification and IMQ Informative Table" and is relevant to the products listed in the annex to this certificate.

Emesso il | Issued on:
2009-11-10
Data di aggiornamento | Updated on

Sostituisce | Replaces

IMQ S.p.A.

Code 5.170.084.779 03/10

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VORTICE

Although the basic characteristics of the models described and illustrated here shall remain unaltered, Vortice reserves the right to change its products at any time and without notice to modify components, details or accessories to improve the performance of its products or to meet specific manufacturing or commercial requirements.