



SERIES AM

Powerful, adjustable, and easy to
connect to vortex coolers
(patented system)

AIR AMPLIFIERS



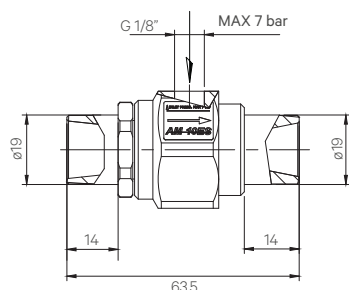
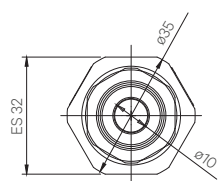
The **AM Series** air amplifiers offer excellent performance for both suction and blow-off. The quality of design and construction optimises the Coanda effect, so they use a small amount of compressed air to generate a powerful, high-speed flow.

Their capability to perform both functions of suction and blow-off make them useful for many applications, including ventilating electric cabinets, conveying fumes and lightweight particles produced by machining, conveying and handling of light parts, drying, and cooling. When combined with the VR Series coolers, they create an effective patented system where, by conveying the hot air flow exhausted by the cooler to actuate an AM Series amplifier, the cooling power is optimised, so that to make it possible to draw hot air out of enclosures and ventilate closed areas to be cooled. The flow-rate can be adjusted by simply turning the nut.

- Design geometries optimised to maximise the Coanda effect
- Adjustable flow-rate
- Wide section for suction and blow-off, suitable for a variety of applications
- Instant operation
- No moving part, so not subject to wear and tear
- No electricity or chemical substances required
- More efficient than venturis and ejectors
- It does not cause neither sparks nor interferences
- Reliable and maintenance-free

SERIES AM-10ES

AIR AMPLIFIERS



GENERAL FEATURES - AM-10ES

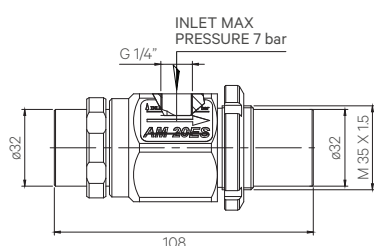
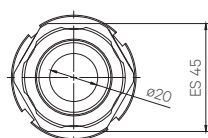
Materials	Anodized aluminium
Air inlet port	Fitting G-1/8" F
Inlet diameter	Ø-19
Outlet diameter	Ø-19
Air supply pressure	Max. 7 bar
Recommended hose	Ø-6x1 - Ø-8x1

PERFORMANCES AND CONSUMPTION TABLE

SUPPLY PRESSURE (BAR)	OPENING ADJUSTMENT	VACUUM AT INLET [m bar]	FLOW-RATE		AIR CONSUMPTION	AMPLIFICATION RATIO
			(Stm3/h)	[l/min]	[l/min]	
2	MIN	-80	33,5	558,3	78,3	7,1
	INTERMEDIATE	-91,5	46	766,7	158,3	4,8
	MAX	-98	46	766,7	220,0	3,5
3	MIN	-120	38	633,3	110,0	5,8
	INTERMEDIATE	-139	48	800,0	220,0	3,6
	MAX	-156	50	833,3	305,0	2,7
4	MIN	-160	42	700,0	138,3	5,1
	INTERMEDIATE	-180	50	833,3	283,3	2,9
	MAX	-194	52	866,7	383,3	2,3
5	MIN	-187	46	766,7	163,3	4,7
	INTERMEDIATE	-219	52	866,7	343,3	2,5
	MAX	-333	56	933,3	461,7	2,0
6	MIN	-224	47	783,3	191,7	4,1
	INTERMEDIATE	-249	56	933,3	403,3	2,3
	MAX	-360	60	1000,0	543,3	1,8
7	MIN	-256	49	816,7	223,3	3,7
	INTERMEDIATE	-345	58	966,7	456,7	2,1
	MAX	-377	65	1083,3	620,0	1,7

SERIES AM-20ES

AIR AMPLIFIERS



GENERAL FEATURES - AM-20ES

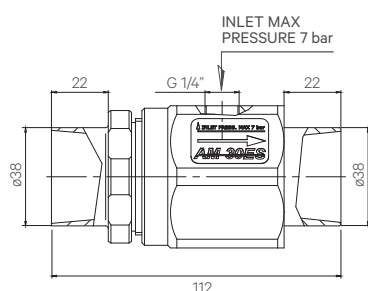
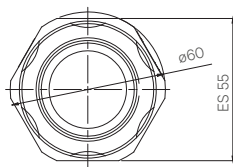
Materials	Anodized aluminium
Air inlet port	G-1/4" F
Inlet diameter	Ø-32
Outlet diameter	Ø-32
Fastening	M25x1,5 with nut
Air supply pressure	Max. 7 bar
Recommended hose	Ø-8x1

PERFORMANCES AND CONSUMPTION TABLE

SUPPLY PRESSURE (BAR)	OPENING ADJUSTMENT	VACUUM AT INLET [m bar]	FLOW-RATE		AIR CONSUMPTION	AMPLIFICATION RATIO
			(Stm3/h)	[l/min]	[l/min]	
1	MIN	-8,5	32	533,3	58,3	9,1
	INTERMEDIATE	-17	60	1000,0	116,7	8,6
	MAX	-14	50	833,3	333,3	2,5
2	MIN	-18	72	1200,0	125,0	9,6
	INTERMEDIATE	-39	106	1766,7	283,3	6,2
	MAX	-44	100	1666,7	533,3	3,1
3	MIN	-30	95	1583,3	200,0	7,9
	INTERMEDIATE	-59	134	2233,3	416,7	5,4
	MAX	-68	136	2266,7	700,0	3,2
4	MIN	-43	112	1866,7	283,3	6,6
	INTERMEDIATE	-79	158	2633,3	650,0	4,1
	MAX	-93	160	2666,7	883,3	3,0
5	MIN	-55	126	2100,0	325,0	6,5
	INTERMEDIATE	-128	180	3000,0	783,3	3,8
	MAX	-177	195	3250,0	1066,7	3,0
6	MIN	-66	140	2333,3	416,7	5,6
	INTERMEDIATE	-138	210	3500,0	950,0	3,7
	MAX	-141	210	3500,0	1183,3	3,0
7	MIN	-79	152	2533,3	516,7	4,9
	INTERMEDIATE	-147	240	4000,0	1083,3	3,7
	MAX	-171	240	4000,0	1333,3	3,0

SERIES AM-30ES

AIR AMPLIFIERS



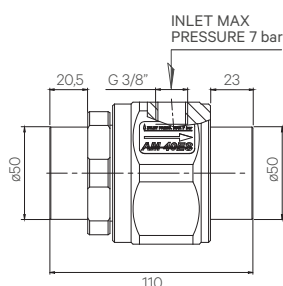
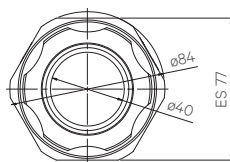
GENERAL FEATURES - AM-30ES

Materials	Anodized aluminium
Air inlet port	G-1/4
Inlet diameter	Ø-38
Outlet diameter	Ø-38
Air supply pressure	Max. 7 bar
Recommended hose	Ø-10x1 - Ø-12x1

PERFORMANCES AND CONSUMPTION TABLE

SUPPLY PRESSURE (BAR)	OPENING ADJUSTMENT	VACUUM AT INLET [m bar]	FLOW-RATE (Stm3/h)	[l/min]	AIR CONSUMPTION [l/min]	AMPLIFICATION RATIO
1	MIN	-6.0	136	2264	283	8
	INTERMEDIATE	-15.0	272	4536	567	8
	MAX	-10	174	2901	967	3
2	MIN	-15.0	224	3736	467	8
	INTERMEDIATE	-35.0	392	6531	933	7
	MAX	-40	285	4749	1583	3
3	MIN	-30.0	330	5600	700	8
	INTERMEDIATE	-60.0	504	8400	1400	6
	MAX	-65	429	7149	2383	3
4	MIN	-40.0	378	6300	1060	6
	INTERMEDIATE	-70.0	504	8400	2100	4
	MAX	-80	531	8850	2950	3
5	MIN	-50.0	450	7500	1250	6
	INTERMEDIATE	-120.0	600	10000	2500	4
	MAX	-110	630	10500	3500	3
6	MIN	-60.0	485	8085	1617	5
	INTERMEDIATE	-130.0	582	9699	3233	3
	MAX	-135	726	12099	4033	3
7	MIN	-70	580	9665	1933	5
	INTERMEDIATE	-140	696	11601	3867	3
	MAX	-130	870	14499	4833	3

SERIES AM-40ES



GENERAL FEATURES - AM-40ES

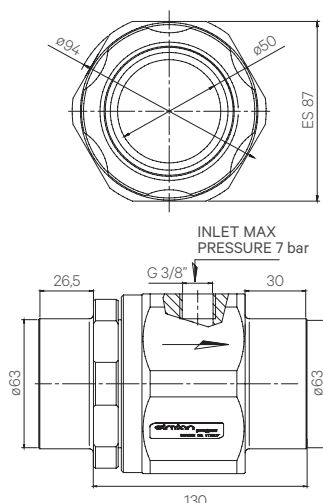
Materials	Anodized aluminium
Air inlet port	G-3/8
Inlet diameter	Ø-50
Outlet diameter	Ø-50
Air supply pressure	Max. 7 bar
Recommended hose	Ø-12x1 - Ø-14x1

PERFORMANCES AND CONSUMPTION TABLE

SUPPLY PRESSURE (BAR)	OPENING ADJUSTMENT	VACUUM AT INLET [m bar]	FLOW-RATE		AIR CONSUMPTION	AMPLIFICATION RATIO
			(Stm3/h)	[l/min]	[l/min]	
1	MIN	-6.0	328	5464	683	8
	INTERMEDIATE	-15.0	656	10036	1367	8
	MAX	-10	417	6951	2317	3
2	MIN	-15.0	520	8864	1083	8
	INTERMEDIATE	-35.0	910	15189	2167	7
	MAX	-40	663	11049	3683	3
3	MIN	-30.0	680	11336	1417	8
	INTERMEDIATE	-60.0	1020	16998	2833	6
	MAX	-65	867	14451	4817	3
4	MIN	-40.0	636	10502	1767	6
	INTERMEDIATE	-70.0	848	14132	3533	4
	MAX	-80	891	14850	4950	3
5	MIN	-50.0	744	12402	2067	6
	INTERMEDIATE	-120.0	992	16532	4133	4
	MAX	-110	1041	17349	5783	3
6	MIN	-60.0	750	12500	2500	5
	INTERMEDIATE	-130.0	900	15000	5000	3
	MAX	-135	1125	18750	6250	3
7	MIN	-70	900	15000	3000	5
	INTERMEDIATE	-140	1080	18000	6000	3
	MAX	-130	1350	22500	7500	3

SERIES AM-50ES

AIR AMPLIFIER



GENERAL FEATURES - AM-50ES

Materials	Anodized aluminium
Air inlet port	G-3/8
Inlet diameter	Ø-63
Outlet diameter	Ø-63
Supply pressure	Max. 7 bar
Recommended hose	Ø-10x1 - Ø-12x1

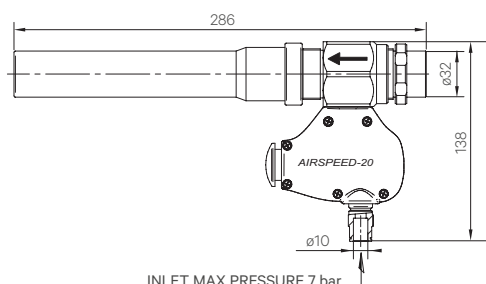
PERFORMANCES AND CONSUMPTION TABLE

(Theoretical values)

SUPPLY PRESSURE (BAR)	OPENING ADJUSTMENT	VACUUM AT INLET [m bar]	FLOW-RATE (Stm3/h)	[l/min]	AIR CONSUMPTION [l/min]	AMPLIFICATION RATIO
1	MIN	-6,0	361	6010	751	8
	INTERMEDIATE	-15,0	722	11040	1504	8
	MAX	-10	459	7646	2549	3
2	MIN	-15,0	572	9750	1191	8
	INTERMEDIATE	-35,0	1001	16708	2384	7
	MAX	-40	729	12154	4051	3
3	MIN	-30,0	748	12470	1559	8
	INTERMEDIATE	-60,0	1122	18698	3116	6
	MAX	-65	954	15896	5299	3
4	MIN	-40,0	700	11552	1944	6
	INTERMEDIATE	-70,0	933	15545	3886	4
	MAX	-80	980	16335	5445	3
5	MIN	-50,0	818	13642	2274	6
	INTERMEDIATE	-120,0	1091	18185	4546	4
	MAX	-110	1145	19084	6361	3
6	MIN	-60,0	825	13750	2750	5
	INTERMEDIATE	-130,0	990	16500	5500	3
	MAX	-135	1238	20625	6875	3
7	MIN	-70	990	16500	3300	5
	INTERMEDIATE	-140	1188	19800	6600	3
	MAX	-130	1485	24750	8250	3

AIR-SPEED 20

PISTOLA DI SOFFIAGGIO/ASPIRAZIONE



GENERAL FEATURES - AIR-SPEED 20

Materials	Anodized aluminium
Air inlet port	Ø-10 x 1
Inlet diameter	Ø-32
Outlet diameter	Ø-32
Air supply pressure	Max. 7 bar

N.B. It performs 2 functions: blowing and suction. To switch, simply turn the upper part of 180°. It features an extension tube. Adjustable flow-rate.

PERFORMANCES AND CONSUMPTION TABLE

SUPPLY PRESSURE (BAR)	OPENING ADJUSTMENT	VACUUM AT INLET [m bar]	FLOW-RATE (Stm3/h)	[l/min]	AIR CONSUMPTION [l/min]	AMPLIFICATION RATIO
1	MIN	-8.5	32	533.3	58,3	9,1
	INTERMEDIATE	-17	60	1000.0	116,7	8,6
	MAX	-14	50	833.3	333,3	2,5
2	MIN	-18	72	1200.0	125,0	9,6
	INTERMEDIATE	-39	106	1766.7	283,3	6,2
	MAX	-44	100	1666.7	533,3	3,1
3	MIN	-30	95	1583.3	200,0	7,9
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	INTERMEDIATE	-79	158	2633.7	650,0	4,1
	MAX	-93	160	2666.7	833,3	3,0
5	MIN	-55	126	2100.0	325,0	6,5
	INTERMEDIATE	-128	180	3000.0	783,3	3,8
	MAX	-117	195	3250.0	1066,7	3,0
6	MIN	-66	140	2333.3	416,7	5,6
	INTERMEDIATE	-138	210	3500.0	950,0	3,7
	MAX	-141	210	3500.0	1183,3	3,0
7	MIN	-79	152	2533.3	516,7	4,9
	INTERMEDIATE	-147	240	4000.0	1083,3	3,7
	MAX	-171	240	4000.0	1333,3	3,0

COOLER AIR SAVING

PATENTED SYSTEM



VR Series coolers and **AM Series** amplifiers used together to introduce cold air and extract hot air from electrical cabinets at the same time, using a single compressed air supply.

- Effective ventilation of the electrical cabinet
- Reduction of compressed air consumption
- Optimisation of cooling results

No matter how much cold air is introduced into an electrical cabinet, the effectiveness and efficiency of cooling will never be optimal unless the hot air generated by the electrical components is properly ventilated at the same time. With ventilation we mean both the creation of convection flows inside the cabinet which effectively distribute the air around the components, and the actual extraction of hot air from the cabinet itself.

By using the Cooler Air Saving patented system by Simian Project, two results are obtained: the first, using the VR Series coolers, is the prompt and precise cooling of the components that heat the cabinet the most. This thanks to the flexibility of installation (brackets and magnets) and the fact that the flow of cold air can be precisely directed on the main heat sources (by using adjustable nozzles). The second result is the

proper ventilation of the electrical cabinet, thanks to the extraction power generated by the AM Series air amplifier, which is actuated by the hot air exhausted from the cooler.

The picture shows the system set up inside an electrical cabinet:



The VRX-500 cooler (fig.1) is actuated with compressed air from outside; the flow of cold air is directed, by using adjustable nozzles, on the electrical components that give off the most heat, while the exhaust of hot air is channelled by the red hose (fig. 3) to actuate the AM Series amplifier

The amplifier (fig.2) is mounted on the top right-hand side of the electrical cabinet; the pass-through installation allows it to suction and extract air from the cabinet; in the example of the picture, its position in the upper part of the cabinet ensures that the extraction occurs where most of the hot air accumulates and that even the electrical components located on the opposite side of the source of cold air remain at a temperature suitable for optimal functioning.

Even where pass-through mounting is not possible (for example in the event of installations in cabinets where IP protection must be guaranteed), the fitting of the amplifier inside the cabinet ensures forced recycling of air, which eliminates the concentration of hot air in the areas located furthest away from sources of cold air.

ACCESSORIES

AIR AMPLIFIERS

The patented system also works well together with industrial air-conditioners in electrical cabinets with the following characteristics:

- Large electrical cabinets where the cold air generated by the air-conditioner has trouble in reaching all parts of the cabinet;
- Electrical cabinets with electrical components laid out in such a way that the convection of air around the components is tricky;
- Electrical cabinets where the heat is generated by a few components that are located far from the area where the air-conditioner introduces the cold air.

N.B.: The Cooler Air Saving system works with VRX-300, VRX-500, and VRX-1000 coolers together with AM-20 and AM-40 amplifiers.



STRAIGHT PUSH-IN FITTING FOR AIR SUPPLY

Part-number	Size	Item
6512	6-1/8	AM-10ES
6512	8-1/8	AM-10ES
6512	8-1/4	AM-20ES
6512	12-3/8	AM-40ES

Male parallel with O-Ring

ELBOW PUSH-IN FITTING FOR AIR SUPPLY

Part-number	Size	Item
6522	6-1/8	6-1/8
6522	8-1/8	8-1/8
6522	8-1/4	8-1/4
6522	12-3/8	12-3/8

Male parallel with O-Ring