

E O L O

Suspended warm air heaters



CE

imitates nature



E O L O



Suspended warm air heaters

SYSTEMA introduces the new series of EOLO, suspended warm air heaters able to solve all heating problems, both for total and modular space heating. Compared with traditional heating systems needing a separate cabinet, the new EOLO heaters

offer an innovative solution for heating while keeping running costs at a minimum. This is possible thanks to the fact that EOLOs are completely self-sufficient working units, and that you don't need to heat up a heat transferring fluid such as

water for heating the space. In this way you don't have any needless heat losses.

ADVANTAGES OF EOLO SUSPENDED WARM AIR HEATER



It's a completely **SELF-SUFFICIENT** working unit

It's **AIRTIGHT** with respect to the outer environment

It can be suspended **OVERHEAD** for minimum space requirements

It's **EASY** to install

It's extremely **FLEXIBLE** as it can be used in a great variety of applications

It's very **low-noise**

EFFICIENCY: HIGHER THAN 90%

FUEL: natural gas, LPG or diesel oil

TECHNICAL FEATURES OF "EOLO" WARM AIR HEATERS

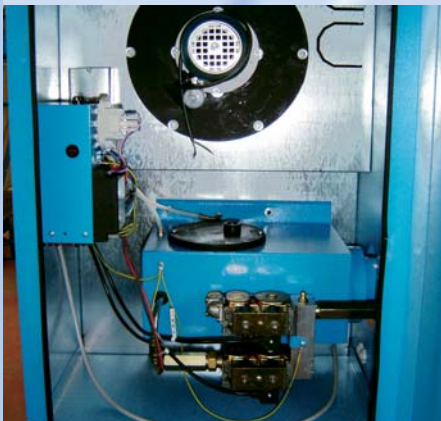
- **BURNER WITH SUCKED AND PARTIAL AIR/GAS PRE-MIXING** is done through a suction fan fitted at the end of the combustion chamber, with electronic ignition and checking of ignition. The appliances work both with natural gas or LPG and are approved and tested according to CE standard. They are fitted with the same components as the INFRA radiant tubes. These consist of: multiple gas combustion torch with stabilized flame, one approved ionization flame control, a double coil gas interception valve with adjustable slow ignition, safety pressure switch, pressure stabilizer and gas filter.
- **FAN:** class H combustion product suction device, fitted with self-lubricating bearings, 230 V – 50 Hz power feeding, fan treated with special paints, resistant both to thermic stresses and fume aggressions.
- **COMBUSTION CHAMBER** in stainless steel.
- Highly-efficient **STAINLESS STEEL HEAT EXCHANGER** working with three -fume cycles and large exchanging surface. The exchanger is moreover fitted with front and rear check doors to ease up maintenance of inner components.
- **ZINK-PLATED METAL PLATE COVER**, painted with epoxy powder with radiation-proof inner lining resistant to thermo-acoustic stresses.



- **VENTING GROUP:** fitted with two low-noise axial-flow fans statically balanced or alternatively with a low-noise centrifugal fan which thanks to the special housing allows for many applications, such as the recirculation and filtration of the ambient air or / and the external air.
- **AMBIENT VENTILATION IN THE SUMMER PERIOD:** if you want to get a better comfort in the workplace and to get a more frequent recirculation of the air, you can turn on only the venting group of your EOLO switching off the burner by means of a summer-winter switch.
- **FAN LIMIT SAFETY DOUBLE THERMOSTAT** for the control of the venting group in normal working conditions and as limiting device of delivery air temperature
- **JOINTS FOR CONNECTING FUME PIPES AND COMBUSTION AIR PIPES:** they allow for an easier airtight connection of the whole system to the outer space.
- **DELIVERY GRID:** fitted with horizontally and vertically adjustable fins for a better air distribution.
- **MODELS:** there are 5 different powers available, between 22 and 94 kW, in 20 models both with axial and centrifugal fan, gas or diesel oil fired.
- Appliance conforming to " LOW TENSION DIRECTIVE CEE 73/23"
- Appliance conforming to " EMC COMPATIBILITY CEE 89/ 336"
- Appliance tested in accordance to EN 1020 CE certificate nr. 0063 – AR 4020 according to CEE 90/ 396

MODELS

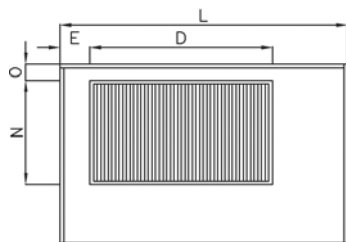
EOLO WITH AXIAL FAN



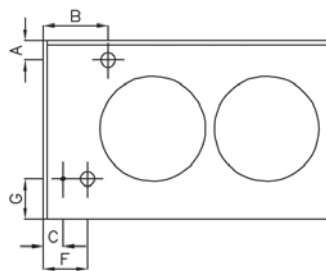
Sucked-air burner working with partial pre-mixing of air/ gas and suction fan fitted at the end of the combustion chamber



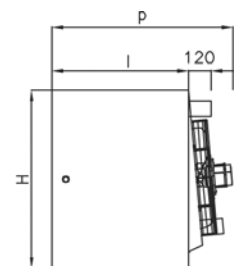
Front View



Rear View



Side View



OVERALL DIMENTIONS AXIAL SERIES

MODELS	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	L [mm]	M [mm]	N [mm]	O [mm]	P [mm]	Q [mm]	R [mm]	S [mm]	Weight [kg]
20AE	175	185	45	500	42	205	210	665	400	870		300	130	520				77,5
30AE	205	230	53	730	126	213	200	700	485	1170		380	100	650				115
50AE	100	345	105	930	175	235	215	800	555	1540		380	100	725				151
70AE	100	345	105	930	175	235	215	800	555	1540		380	100	725				168
90AE	330	340	100	1240	160	240	215	800	555	1830		380	100	725				199

MODELS

EOLO WITH CENTRIFUGAL FAN (WITH INNER/OUTER AIR INTAKE WITH FILTERS)

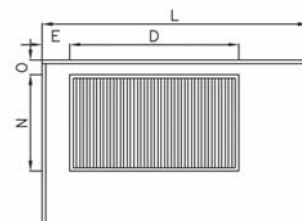


EOLO 30-50-70-90



EOLO AC

Front View

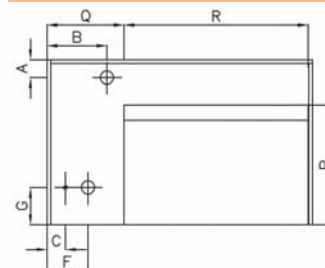


EOLO 20



EOLO 20AC

Rear View

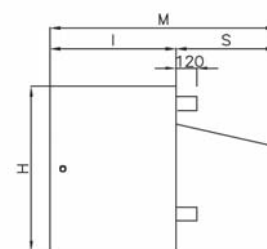


AIR FILTER MM. 100



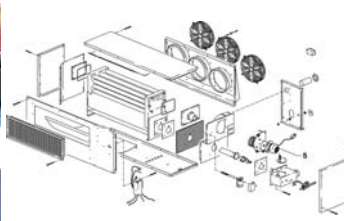
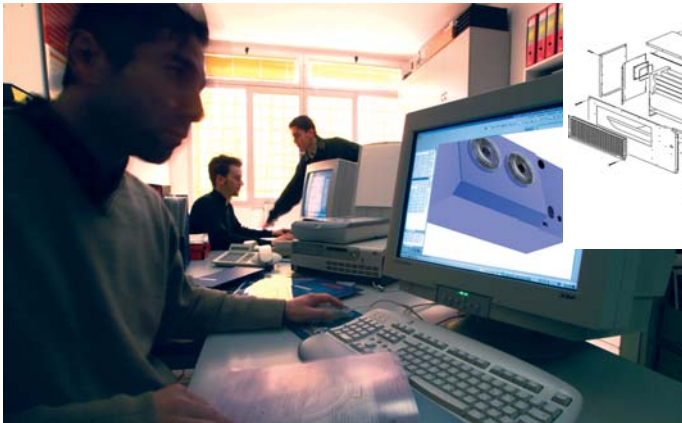
CONTROL PANEL

Side View



OVERALL DIMENSIONS CENTRIFUGAL SERIES																		
MODELS	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	L [mm]	M [mm]	N [mm]	O [mm]	P [mm]	Q [mm]	R [mm]	S [mm]	Weight [kg]
20AC	175	185	45	500	42	205	210	665	400	870	820	300	130	560	395	470	380	89
30AC	205	230	53	730	126	213	200	700	485	1170	995	380	100	640	326	860	510	132
50AC	100	345	105	930	175	235	215	800	555	1540	1065	380	100	755	444	1100	510	173
70AC	100	345	105	930	175	235	215	800	555	1540	1065	380	100	755	444	1100	510	193
90AC	330	340	100	1240	160	240	215	800	555	1830	1065	380	100	755	480	1400	510	229

HOW TO PLAN AND INSTALL "EOLO" WARM AIR HEATERS

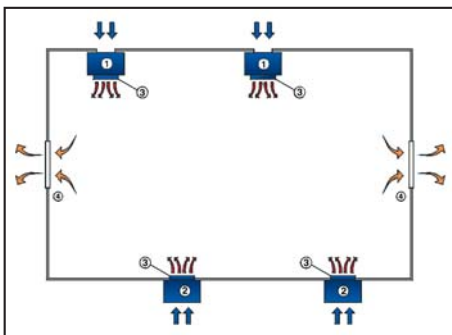


Very often due to existing regulations for fire prevention or due to special structural and architectural characteristics of the building it is necessary to install suspended warm air heaters outside the building to be heated. In order to comply with these needs, we have developed special accesso-

ries of our **EOLO** warm air heaters, which allow installation in different applications, granting anyway optimal heating conditions. Applications type E and EC can be used for the heating of those buildings where special fire prevention regulations forbid the recirculation of air taken from the inner environment (such as wood working

shops, car repair shops, garages, workshops with storage of inflammable gases or vapours). The **EOLO** applications type ECR and ECRR, taking advantage of the recirculation of ambient air, allow a mixing of recirculated air with fresh external air in any proportion (with air flow lockers). They also allow air treatments such as filtering, humidification and thermic recovery.

EXAMPLES OF APPLICATIONS OF SUSPENDED "EOLO" WARM AIR HEATERS

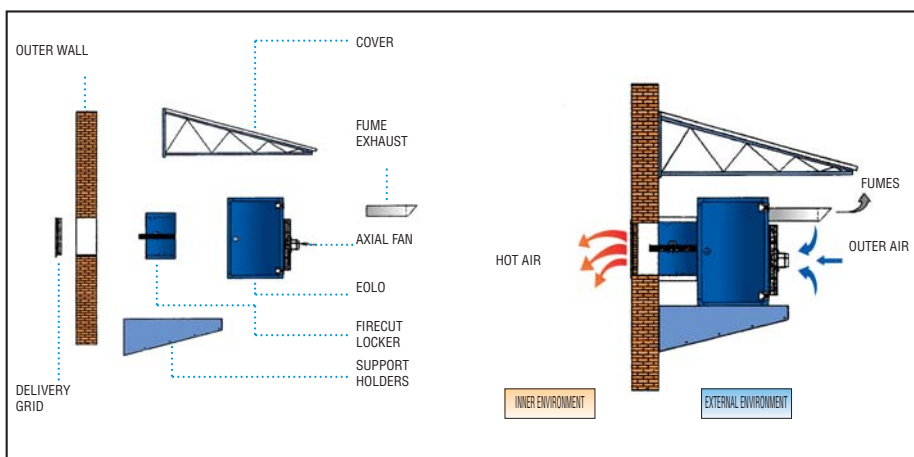


In case the Eolo warm air heaters are installed both **outside (2)** or **inside (1)** but in any case fitted with fresh air intake from outside (also partial), it is advisable to fix onto the delivery grid of the heaters a **gravity overpressure locker (3)** with **adjustable maximum opening**. In this way you avoid that the outer fresh air blown inside the room, which is slightly in pressure, might get out through one of the warm air heaters when they are switched off. For a correct functioning of

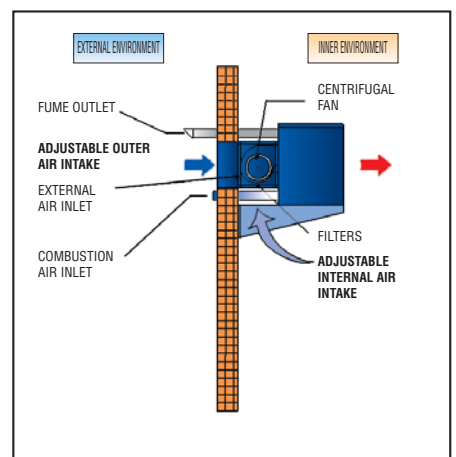
the installation, it is necessary to make on the walls special **openings (4)** with gravity outlet lockers, whose size must be adapted to the total external air flow taken from outside by the heaters.

The maximum adjustable opening of the overpressure locker (3) fitted onto the heaters is necessary to be able to adjust the air flow of the heaters according to the temperature of the air taken from outside.

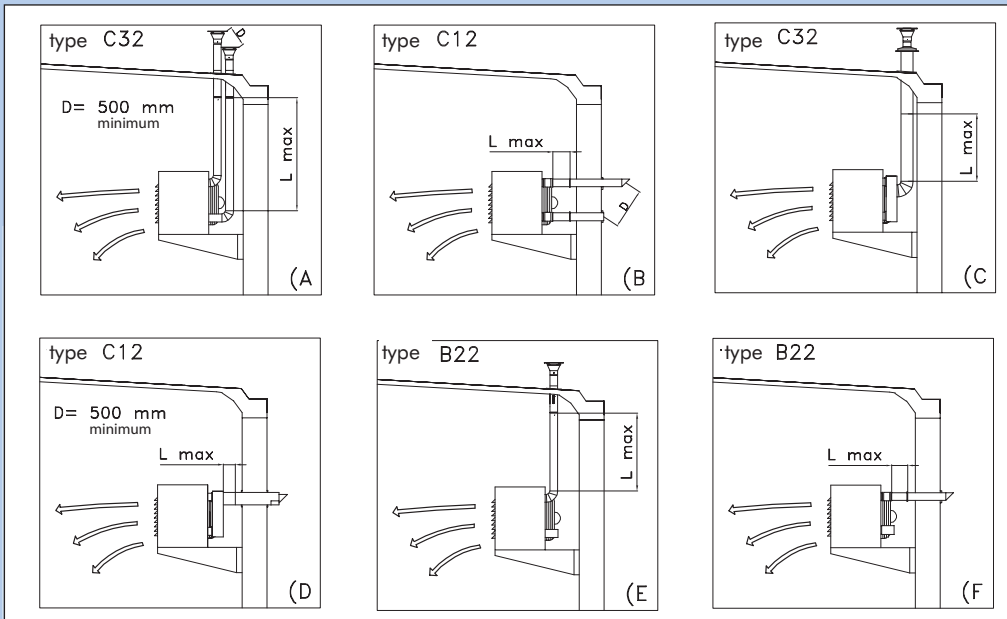
APPLICATION "E"



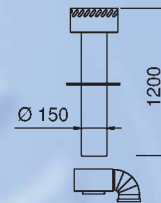
APPLICATION "IC"



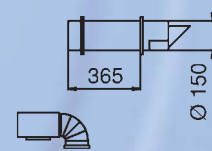
APPLICATION EXAMPLES OF AIR/FUME PIPES



	ACCESSOIRE	CODE	L max (m) EOLO AE/AC					
			20	30	50	70	90	
A		00CNTE0442	5	9	8	6	4	A
E		04CNTE0445	10	15	14	10	8	E
B		04CNTE0446	5	9	8	6	4	B
F		04CNTE0446	10	15	14	10	8	F
C		00CNKI2515	4	5	4	2	1	C
D		00CNKI2514	4	6	5	3	1	D

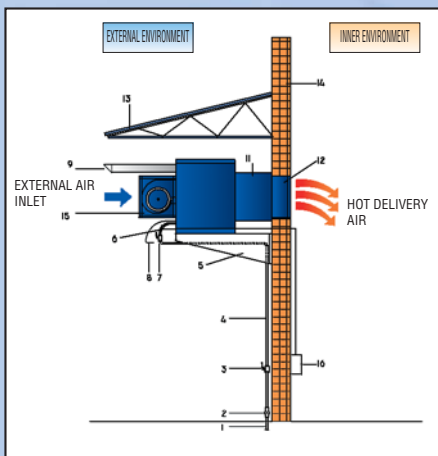


Exhaust/suction concentric kit for ceiling installation

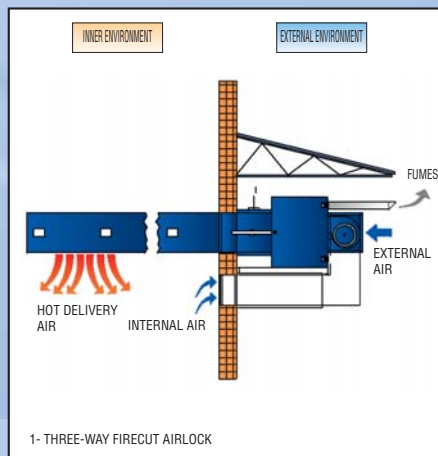


Exhaust/suction concentric kit

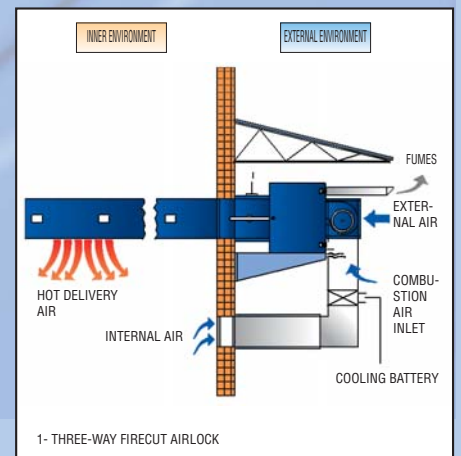
APPLICATION "EC"



APPLICATION "ECR"



APPLICATION "ECRR"



EXPLANATIONS:

- EARTHED STAINLESS STEEL TARRED PIPE
- DIELECTRIC JOINT
- EASILY ACCESSIBLE MANUAL INTERCEPTION VALVE
- GAS FEEDING TUBE IN WELDLESS ZINC PLATED STEEL
- SUPPORT HOLDER
- VIBRATION-DAMPING JOINT
- MANUAL INTERCEPTION VALVE
- COMBUSTION AIR FEEDING PIPE
- FUME EXHAUST PIPE
- SYSTEMA WARM AIR HEATER INSTALLED EXTERNALLY
- THREE-WAY FIRECUT AIRLOCK

- DELIVERY GRID
- PROTECTION ROOF
- EXTERNAL WALL
- ONE OR THREE-SPEED CENTRIFUGAL FAN WITH FILTER SUPPORT FRAME AND LOCKER FOR ADJUSTMENT OF AIR CAPACITY
- ELECTRIC CONTROL PANEL WITH ROOM TEMPERATURE THERMOSTAT

THE CALCULATION OF DUCTING SIZES MUST BE DONE IN ACCORDANCE WITH THE TECHNICAL DATA LISTED IN THE TECHNICAL FEATURE TABLE

For the Special Applications shown in this catalogue SYSTEMA S.r.l. will deliver only the main components such as: heater with original air outlets fitted with swinging fins, firecut locks, original filters, support holders, exhaust fume pipes.

Each other component necessary to implement Special Application such as: ducting pipes, external and recirculation air control locks, protection roof, cooling battery, etc. must be delivered by the installer.

TECHNICAL CHARACTERISTICS OF WARM AIR HEATERS "EOLO"

DESCRIPTION		MODELS										
		(*) SUCKED AIR MODELS (Systema Burner)					BLOWN AIR MODELS (diesel oil Burner)					
		AXIAL	20 AE	30 AE	50 AE	70 AE	90 AE	20 GE	30 GE	50 GE	70 GE	90 GE
		CENTRIFUGAL	20 AC	30 AC	50 AC	70 AC	90 AC	20 GC	30 GC	50 GC	70 GC	90 GC
		Measurements units										
THERMAL CAPACITY		Kcal/h	18.920	29.240	46.440	60.200	80.840	18.920	29.240	46.440	60.200	80.840
		kW	22	34	54	70	94	22	34	54	70	94
THERMAL POWER		Kcal/h	17.179	26.374	42.168	54.180	72.756	17.123	26.287	42.028	53.999	72.513
		kW	20	31	49	63	85	20	31	49	63	84
Combustion efficiency		%	90.8	90.2	90.8	90	90	90.5	89.9	90.5	89.7	89.7
Max. hour fuel consumption (at 15° C 1013 mbar)	Natural gas G20	Nmc/h	2.33	3.60	5.71	7.41	9.95					
	gas L G 25	Nmc/h	2.71	4.18	6.65	8.62	11.57					
	L.P.G. butan G 30	Kg/h	1.73	2.68	4.26	5.52	7.41					
	L.P.G. propan G31	Kg/h	2.71	2.64	4.20	5.44	7.30					
	Diesel oil	Kg/h						1.85	2.87	4.55	5.90	7.93
Fuel joint diameters		inches	3/4"	3/4"	3/4"	3/4"	3/4"	1/2"	1/2"	1/2"	1/2"	1/2"
Fuel exhaust pipe diameters		mm	80	100	100	100	100	120	120	140	140	140
Suction pipe diameter		mm	80	100	100	100	100	100	100	100	100	100
Input voltage		V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Total absorbed power		W (axial)	180	245	720	730	1130	320	365	580	750	580
		W (Centrifugal)	440	680	1040	1260	1800	470	765	870	910	1800
"AE" series with axial fans	Treated air capacity	mc/h	1.950	3.000	4.500	5.900	6.900	1.950	3.000	4.500	5.900	6.900
	Air throw	m	10	15	20	26	29	10	15	20	26	29
	Thermal rise	°C	28	28	30	30	34	28	28	30	30	34
	Power	W	185	165	300	475	355	185	165	300	475	355
	Revolution	n'	1.440	1.440	1.440	1.390	1.440	1.440	1.440	1.440	1.390	1.440
	Fan number		1	1	2	2	3	1	1	2	2	3
	Noise level (at 5 m)	db(A)	50	68	49	58	65	50	68	49	58	65
"AC" series with centrifugal fans	Treated air capacity	mc/h	1.900	3.150	4.500	5.700	8.600	1.900	3.150	4.500	5.700	8.600
	Air throw	mmH2O	12	10	11	12	10	12	10	11	12	10
	Thermal rise	°C	29	27	30	31	27	29	27	30	31	27
	Power	W	250	575	700	735	1.570	250	575	700	735	1.570
	Revolution	n'	900	900	900	900	900	900	900	900	900	900
	Fan number		1	1	2	2	3	1	1	2	2	3
	Noise level (at 5 m)	db(A)	45	62	45	54	60	45	62	45	54	60

(*) equipment in compliance with European standard EN 1020

A=Sucked air burner G=Oil burner E=Helical fan C=Centrifugal fan



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- GAS-FIRED CONVECTORS - INDUSTRIAL OVENS