

AX Water Fan Units





Company Presentation

Overview

APEN GROUP S.p.A. is a leading manufacturer of heating systems, and offers a wide range of products: condensing boilers, condensing heat exchangers, suspended warm air heaters, and floor standing condensing warm air heaters.

Apen Group has always been an innovation leader thanks to constant product and process development, and continuous research of advanced solutions in technology.

A Leading Company In The Industry

Our modern facility is built on an area of 30,000 sqm, 11,000 of which encompass headquarters, manufacturing and research facilities. Easy and timely intercompany communication is provided through an IBM AS400 server with a fully integrated Server Windows NT PC network.

The website www.apengroup.com and e-mail apen@apengroup.com, allow to communicate easily with all entities outside the company (eg. Customers, suppliers, associations).

Our Vision

We consider 'caring for the environment' (environment, persons, relationships, cooperation) our way towards the excellence.

Our Mission

Designing, manufacturing and marketing of HVAC products that stand out for their quality and for their compliance with environmental standards. Our R&D staff is deeply committed to the setup of products that assure low polluting emissions, high efficiency and minimum consumption, thereby assuring optimum heating and conditioning, from small residential spaces to large industrial buildings.

Environment

Environment protection is essential for present and next generations' guality of life.

Apen Group's challenge is investing in research and development activities which grant the design and the production of environment friendly products.

Such a concern is well resumed in the current slogan "Apen Group caring for environment" and it involves all the company organization: from research of suppliers and partners who share this same goal, to staff personnel, natural source optimization and definition of any prevention control and correction so to respect the fixed quality goals and environment deference.

Customer Service

To be truly customer-oriented, a service must satisfy custom's requests from the clients. APEN GROUP can meet any project need by developing custom products. Its flexibility in the manufacturing process and the availability of state-of-theart machinery for metal sheet processing guarantee cost effective products.

Cost effectiveness is another basic characteristic of APEN GROUP products, besides a high potential for technology, commercial and industrial development.

Global Presence

Apen Group operates nationally and internationally: it is present in Italy thanks to an efficient and well distributed organization: professional agents, consultants, engineers and designers are ready to match the demands of customers always and everywhere. Abroad, distributors, dealers, joint ventures with foreign partners, share with the company the principles of distribution of highly qualified equipment in relation to the needs of different countries.



Manufacturing Excellence

Each product is tested, checked, and commissioned to guarantee that combustion parameters, efficiency levels, and component reliability fully comply with quality standards required for user comfort and satisfaction. The manufacturing of our products takes advantage of ultimate, state-of-the-art planning and organization methods, which include: Digital control equipment. Welding robots. Forming robots. Computer assisted test lines.

Advanced automation assures top-quality products as well as manufacturing flexibility and timely deliveries. Innovation, reliability, and originality are built-in features of each of our products.

Technology Excellence

A qualified team of engineers and researchers, these committees for the development of standards UNICIG, researches and develops products using CAD computer systems, translating into production the best that you obtained from the research, studying cuttingedge technical and manufacturing solutions. Apen Group Heating and Conditioning Solutions

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Certified Quality

APEN GROUP S.p.A. ranges among the first Italian companies to be certified by an industry- wide acknowledging system at European level. We have been audited and certified to be in compliance with the quality standards defined in UNI EN ISO 9001:2015 protocol. Certification has been obtained for the design, manufacturing, marketing and service of hybrid systems, of warm air heaters, condensation heaters and exchangers, condensing boilers, water fan units, air destratifiers, air handling central units, and burners. The commitment to quality took by the company dates back to the beginning of our history, and it is confirmed by the following milestones:

In 1988 APEN GROUP was certified by DVGW Deutscher Verein Des Gas Und Wasserfaches E.V. and it was approved as a trading partner for suspended heaters in Germany. Then approvals for the sale of these heaters in other markets followed, such as France, Switzerland, the Netherlands, and Belgium.

In 1995 all the gas-fired appliances we manufacture were certified according to EC Directives.

In 1991 we were the first Italian company in the HVAC industry to be registered in accordance with UNI EN ISO 9003 requirements. In 1993 the auditing was extended to include compliance with UNI EN ISO 9002 standards.

In 2003, we were acknowledged to be compliant with UNI EN ISO 9001:2000, and the registration was confirmed in 2006. In 2013 the Board of Directors has adopted the organizational model 231.

In 2017 we obtained the certification in compliance with the UNI EN ISO 9001:2015.

International Certificates

Apen Group's products have been tested and certified by Gastec-Kiwa CERMET, the famous Dutch Notified Body, with test labs accredited by the EC.







CONFINDUSTRIA

eating and Conditioning

Solutions

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ApenGroup has an international presence. Contact us at **export@apengroup.it** to get our distributor's name in your country, or to become our partner.



APEN GROUP Company History

1967

The Origins: Thermovur

The great adventure of the company THERMOVÜR begins. It is created with the aim of manufacturing and selling gas-oil and fuel-oil burners. Founder members are two brothers-in-law with the same name, "Rigamonti Angelo" and "Rigamonti Angelo", with the assistance and professionalism of their father Emilio Rigamonti.

The 1980's

Research and Extension of the Range

The heating market undergoes quick changes: the booming house building industry and the increasing need of comfort urge the development of new and diversified products: floor standing boilers, wall boilers, gas burners, suspended gasfired warm air heaters, gas radiators.

Aermax



Thermovür is flanked by the company AERMAX for the marketing of floor-standing warm air heaters and burners in foreign markets.

Creation of ApenGroup

Thermovür and AERMAX merge into a single production and business unit, taking advantage of the skills, experience and know-how of both brands: thus creating the company APEN GROUP SPA.



The 2000's

New Projects, New Products

In 1998, the company launched the wallmounted gas-fired modulating heaters series PLUS. They are EC-approved and feature high efficiency stainless steel exchangers, pre-mix gas burner and forced draught with low NOx emissions. The research and development effort connected with this product have enabled the subsequent designing of the KONDENSA heaters. In 2001 the company presents AQUASPLIT, an outdoor boiler with matching indoor blower.

In 2008 APEN GROUP confirms its technical knowledge in the air handling industry launching KONDENSA heaters, (wallmounted condensation warm air heaters), air handling central units, and Roof Top standalone units with built-in condensing exchanger.

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Research, Innovation and Ecology

We are in continuos evolution.

The market experiences and difficulties have made us stronger and more committed to face new challenges, new technologies, new countries.

We aim to defend the values we believe in to improve the environmental comfort, the care for people, the good use of energy.

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We aim our company to contribute to a better future!



CARING for the environment



50 years of Caring for Environmental!

We are proud of having celebrated our first 50 years of activities!





Installation References

COMPANY	CATEGORY	COUNTRY
MERZIG	Showroom	Germany
DILLINGEN HUTTE GTS	Production hall	Germany
DEITERMANN MAXIT GROUP	Production hall	Germany
LEAR CORPORATION	Production hall	Germany
NIERIM INDIVIDUAL YACHTS	Production hall	Germany
WS WOLPERT SYSTEM TECHNIC	Logistic center	Germany
DAILMER CHRYSLER (WORTH)	Production hall and logistics	Germany
BRIDGESTONE	Production hall	Germany
STENDORF KUNSTSTOFFE	Production hall	Germany
RHENOTHERM COATINGS	Production hall	Germany
C.ED. SCHULTE GMBH SYLINDERSCHLOBFABRIK	Production hall	Germany
IN MACHINERY NAGEL	Production hall	,
		Germany
ORM + TEST	Production hall	Germany
TALFIM SPA	Metal grid manufacturer	Italy
LOCAT SPA	Engineering industry	Italy
MEC-TRACK SRL	Machinery manufacturer	Italy
SALMOIRAGHI SPA	Production hall	Italy
RACCORDERIA PIACENTINA	Fitting manufacturer	Italy
SPEEDLINE SPA	Car wheel rim manufacturer	Italy
GRUPPO BEA	Showroom	Italy
NUOVA MAGRINI GALILEO	Mechanical processing	Italy
	Sportswear manufacturer	Italy
MAGNETI MARELLI	Electro-mechanical industry	Italy
IDL	Supermarket chain	Italy
	,	,
NATO BASE IN VICENZA	Military base	Italy
DANIELI	Iron manufacturer	Italy
MOTO GUZZI	Motorbike production hall	Italy
LUXOTTICA	Glasses producer	Italy
MIDAS	Car servicing	Italy
OFFICINE ROSSI	Aluminium windows manufacturer	Italy
TNT	Logistics and transport	Italy
DMAG	Equipment for marble manufacturing	Italy
SPORTPIÙ	Sports center	Italy
CONSORZIO VARESE	Farmer's co-operative	Italy
ALTINI COMUNICAZIONE	Advertising graphics agency	Italy
MALPENSA AIRPORT	Transports	Italy
AIRBUS	Helicopter factory	France
	General store chain	France
NTERMARCHE'	General store chain	France
PEUGEOT	Car manufacturer	France
RENAULT	Car manufacturer	France
CITROEN	Car manufacturer	France
ROVER AUTOMOVILES	Production hall	Spain
ЗМЖ	Production hall	Spain
CARPINTERIA NAVA ABENOJAR	Production hall	Spain
AYUNTAMIENTO DE TOLEDO	Office	Spain
VECO	Production hall	Spain
RENAULT	Production hall	Spain
		,
NISSAN	Production hall	Spain
JAGUAR	Car manufacturer	England
ROVER	Car manufacturer	England
FORD	Car manufacturer	England
KEA	Furniture store chain	England
NESHAM	Soccer stadium	England
VODAPHONE WAREHOUSE	Warehouse	England
BUDAPEST CITY EXHIBITION FAIR	Exhibition center	Hungary
ETM	Electrical store chain	St Petersburg, Russia
LEON	Production and warehouse	Omsk, Russia
GUR'EVSNAB	Warehouse	Atirau, Kazakhstan
MERIDIAN	Package factory	Perm, Russia
	Perm oil machine engineering company	Perm, Russia
	Elevator company	Omsk, Russia
PTK TETRA	Building company, productions rooms	Siktivkar, Russia
VORONEZH AIRCRAFT JOINT-STOCK COMPANY	Joint-stock company	Voronezh, Russia
VORONEZ RAILROAD	Car repair plant	Voronezh, Russia
GRAINER REAL ESTATE	Real estate	Vladimir, Russia
DZNA	Integrated solutions for oil and gas industry	Russia
JSC SOLIKAMSKSTROY	Building company	Solikamsk, Russia
LIDIGA	Furniture factory	Smolensk, Russia



Installation References

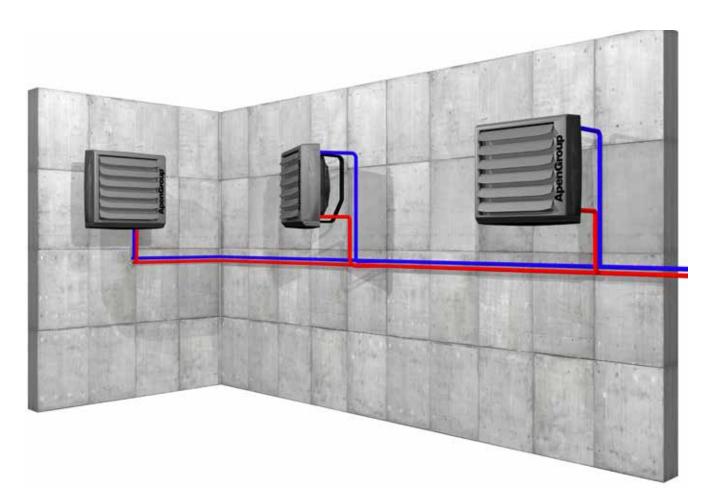
COMPANY NPO Iskra	CATEGORY Oil and gas equipment factory (for gazprom companies)	COUNTRY Perm, Russia
ETM	Electrical store chain	Rostov-na-Donu, Russia
Orenburg Factory RTO	Factory	Orenburg, Russia
Llitmash-M	Foundry	Russia
URSA Uralita	Insulation materials factory	Serpuhov, Russia
VKM-steel	Foundry	Saransk, Russia
ZBK-1	Concrete goods factory	Saratov, Russia
DOBRINYA company	General store chain	Belgorod, Russia
YAKUTSKIY Airport	Airport	Yakutsk, Russia
UMPO	Air engine factory	Ufa, Russia
DRILLMEC	Oil and gas drilling installation	Siberia, Russia
Shopping Park IKEA	Shopping center	Poland
Shopping Park MATARNIA	Shopping center	Poland
NGK Ceramics	Production hall	Poland
ALFA	Warehouses	Dobczyce, Poland
MDM	Production and storage hall	Bielsko-Biała, Poland
PROFILPAS	Production hall	Kutno, Poland
ELEKTRA	Production hall	Warszawa, Poland
KRISPOL	Production hall	Wrzesnia, Poland
SCANIA	Truck service station / service center	Gliwice, Gruszka and Kielce Poland
HYDRO Aluminium	Production hall	Chrzanów, Poland
ZBYSZKO Company	Production halls, warehouses	Białobrzegi, Poland
TERMOSPRZET	Production hall	Zabrze, Poland
ARIX	Warehouses, production hall	Złobnica, Poland
SYSTEM JWT	Warehouses	Szczecin, Poland
POLOMARKET	Commercial buildings	Swarzedz and Zielona Góra, Polano
ROLLER	Production hall	Łowicz. Poland
IMPRESJA	Car repair shop	Przeworsk, Poland
MAGNA PLAST	Production hall	Białe Błota, Poland
YUSK	Shopping center	Piotrków Trybunalski, Poland
KOL-INS-BUD	Warehouse	Tarnów, Poland
DOOR	Warehouse	Proszówki, Poland
SORTOWNIA POCZTY POLSKIEJ	Warehouse	Rzeszów, Poland
ARM	Warehouses	Stary Sacz, Poland
ECO-PACKERS	Storage hall	Włocławek, Poland
REM-BRUK	Storage hall	Rzezawa, Poland
ONNINEN	Storage hall	Lublin, Poland
SANNPROFI	Storage hall	Bukowiec and Łodz, Poland
DAF	Salon / service	Konin, Poland
LENIGO	Footwear production plant	Grudziadz, Poland
BESKID PLUS	Storage hall	Bielsko-Biała, Poland
AROT	Pvc pipe manufacturing plant	Leszno, Poland
HUTA ŁABEDY	Production hall	Łabedy, Poland
HG-Serwis	Storage hall	Chodziez, Poland
BAMBUS	Wholesale flowers	Czestochowa, Poland
NOWAK&NOWAK	Production hall	Szczecinek, Poland
VOIT	Production hall	Nowa Sól, Poland
PH ADEN	Shopping center	Gniezno, Poland
DEPARTMENT OF MUNICIPAL SERVICES	Warehouse	Brzesko, Poland
VICTAULIC	Production and storage hall	Drezdenko, Poland
HORTICULTURE FARM Tarnów	Foil tunnels	Tarnów, Poland
Tennis hall Łancut	Indoor tennis hall	Łancut, Poland
Printing Co. Janowice	Printing house	Janowice, Poland
Inn "ZŁOTY RÓG"	Restaurant	Rewal, Poland
JAROSŁAW CHURCH		
	Religious building Wholesale construction materials	Jarosław, Poland
		Grabów, Poland
Wedding hall "POD LIPAMI"	Wedding hall	Lewin Brzeski, Poland
CCC Store	Shopping center	Piotrków Trybunalski, Poland
	Machinery farmer manufacturer	Netherlands
	Museum	Netherlands
TELEGRAAF NEWSPAPER	Advertising graphics agency	Netherlands
WETRON TRANSPORT	Logistic and transport	Netherlands
NIJPELS FURNITURE	Furniture manufacturer	Netherlands
STORK	Machinery manufacturer	Netherlands
ANWB	General organisation	Netherlands
SCHEUTEN GLASSGROUP	Glasses producer	Netherlands
INNOSEEDS	Farmer seeds production	Netherlands
VDL GROUP	Engineering industry	Netherlands
MANDEMAKERS GROUP	Sanitair manufacturer	Netherlands



AERMAX AX / Water Fan Units

Why Choose AERMAX AX:

- Safety, ecological, advanced technology of air heating
- Highest efficiency on the market
- Quiet operation
- Horizontal and vertical installation available
- Environmental friendly
- Modern and ligth design
- High quality materials
- Efficient and innovative production systems
- Reliability and safety are guaranteed by a 100% factory test



Aerotherms can Be Matched with:

- Thermal power plant
- Water heat pumps
- Modules of boilers in cascade
- AquaKond System

Casing

Modern design. Very lightweight. It absorbs all mechanical loads.





Versatility of Installation

The aerotherms can be installed on the wall or suspended from the ceiling, directing air downwards. Vertical and horizontal installation available.

Easy Installation

Dimensions and very contained weight facilitate its handling and positioning. Easy installation with practical hitching and support systems.

Adjustable Flaps

Orientable with horizontal pivoting slats.

Modular System

The subdivision of the total thermal input into more installed Aerotherms, allows to rationalize the system: "zone" management of the supply of thermal power.

Cooling

It is possible to set Aerotherms in cooling mode, by activating the ventilation, so to improve the comfort of the environment (in which they are installed).





AERMAX Water Fan Units

What Does Air Heating Mean?

Air heating means delivery of hot air into the room. It is the most effective method for heating industrial and other large-size buildings.

Important benefit of this heating system is its very small thermal inertia which results in reaching the required temperature quickly and effectively. This feature and a modern automatic control ensure comfort to people in the room as well as minimizing heating costs.

Air heating units can be mounted almost anywhere: on ceiling, columns or walls, generally at a height of 2,5 - 8 m.





AERMAX / Features

Advantages

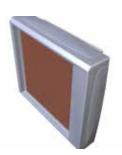
Aermax water fan heaters are high design heating devices that optimally deliver hot air for industrial and other large-size buildings. All the components included into the product come from main renowned European producers

Fan

Advanced aerodynamic blades for quiet and efficient operation. Optional stepless fan speed regulation on demand. Material is plastic to reduce the total weight.

Casing

Antistatic plastic material. Due to the modern look, the heaters are fit for buildings of high aesthetic demands. Thanks to the plastic the water fan is lightweight. The casing absorbs all mechanical loads.





Wall Brackets

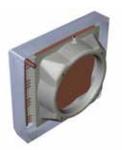
The water fan can be mounted with two orientations: parallel and angle of 60°. The water fan plane can rotate around its fixing points.

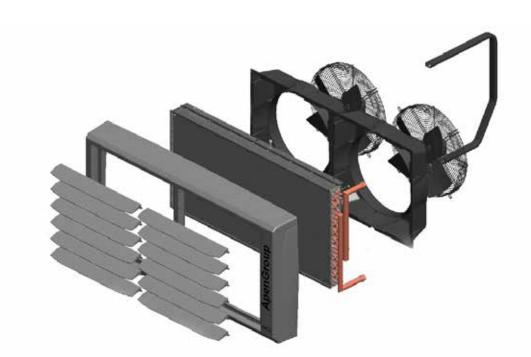


Air Flaps Continuous regulation of the air angle for a better air flow. They are made of painted steel for aesthetic design.

Back Aerodinamic Channel

The channel reduces the noise level at a very low output. It also distributes air coming from the fun blades homogenously on air/water exchanger.







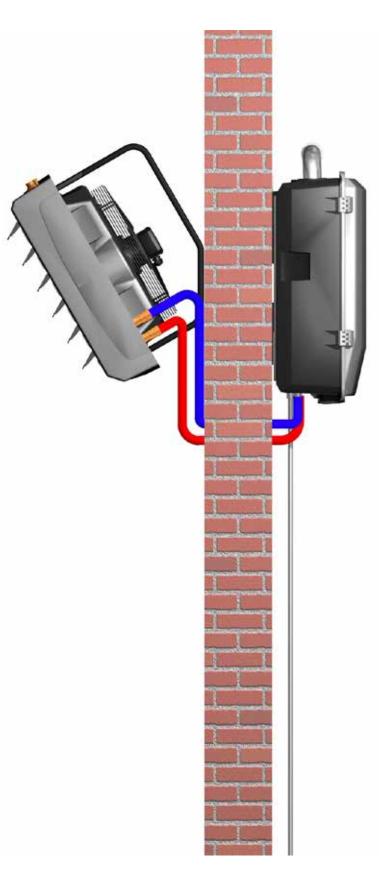
AERMAX Water Fan Units

Technical Features

- Available in 7 models from 7 kW to 125 kW output
- High efficiency coil exchange with one, two or three ranks flaps
- Adjustable horizontal louvers
- IP54 Protection degree
- Rotating Brackets supplied as standard
- Optional condensate drip tray housing for cooling mode

Fields of Application

- Garages
- Workshop with all kind of manufacturing process
- Joinery
- Warehouses
- Public environment
- Military Base
- Meeting and Conference Rooms
- Data Processing Center
- Theaters and Conference Centers
- Showrooms and Dancing rooms
- Tanneries
- Pools and Gyms
- Churches and oratories





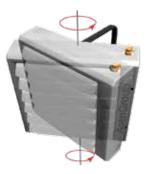
AERMAX / Accessories

Rotating Bracket

The aerotherms are already equipped (as standard) with rotating bracket.

This rotating bracket allows to satisfy several installation requirements, thanks to its particular conformation.

- Easy and quick fastening on walls, columns, beams or other suitable supporting structures.
- Possibility of orientation of the indoor unit and the relative air flow, according to the characteristics of the environment to be heated and the user's needs.





Accessories on Request

- IP54 Remote control with SUMMER/O/WINTER button and switch to select 5 speeds.
- Condensate drip tray for using in cooling (it can be placed even after wall installing).

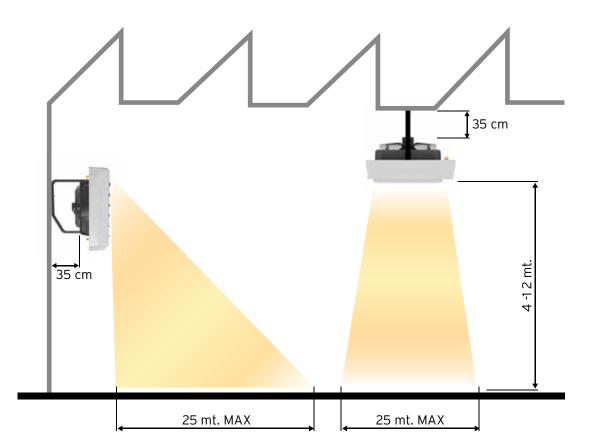
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• Flexible pipes.

Accessories on Request for AX-EC:

- Kit G24500 composed of SmartWeb, CPU electronic board, immersion probe to be connected to CPU, ambient probe and electrical panel.
- Kit potentiometer manual remote control.







AERMAX AX / Technical data

Model		AX020	AX025	AX030	AX040	AX050	AX070	AX090	
Max Air Flow	m ³ /h	2.590	6.150	2.390	5.100	4.700	8.600	8.000	
Max Sound Pressure*	dB(A)	51,2	56,2	50,9	55,7	55,5	63,3	63,2	
Max Water Temperature	°C				105°C				
Max Water pressure	bar				16				
Max Air Throw	m				25				
Water Content	1	1,8	2,5	2,5	2,5	3,2	5,3	6,5	
Water coil connection \emptyset			G 3/4" G1"						
Nº Fans and Ø blades		1 x 350	1 x 350 1 x 450 1 x 350 1 x 450 2 x 450						
Power supply	V		230V-50 Hz monophase						
Power rating	W/A	130W - 0,7A	260W - 1,13A	130W - 0,7A	260W - 1,13A	260W - 1,13A	520W - 2,26A	520W - 2,26A	
Absorbed Current	А	0,59	1,10	0,58	1,10	1,08	2,24	2,2	
Motor Revs	r.p.m.	1.290	1.300	1.280	1.280	1.250	1.320	1.280	
Protection degree	IP				IP54				
Weight at work	kg	20	22	21	24	26	38	40	
Weight with packaging	kg	24	26	25	28	30	43	45	

*measured at 5m

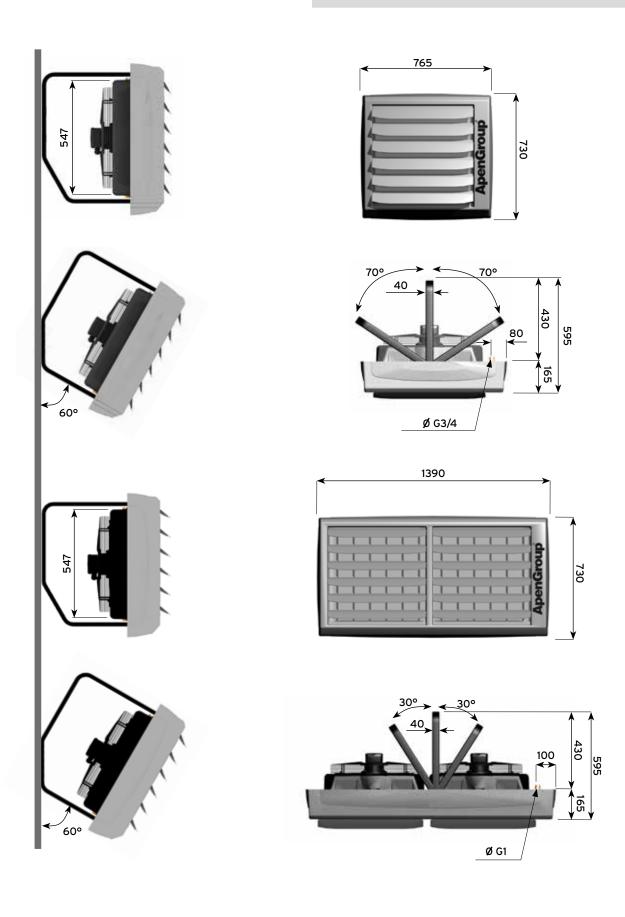
	No	minal performa	Nominal p	COOLING			
Model	Max Heat output*	Max Air Flow Rate	ΔT water	Water Flow Rate	Max Heat output*	Max Air Flow Rate	ΔT water
	kW	m³/h	°C	m³/h	kW	m ³ /h	°C
AX020	12,96	2.590	80-60	0,57	3,3	1.720	7-12
AX025	20,8	6.150	80-60	0,9	4,9	2.700	7-12
AX030	22,1	2.390	80-60	1,0	6,97	1.640	7-12
AX040	35,2	5.100	80-60	1,6	8,33	2.120	7-12
AX050	45,9	4.710	80-60	2,0	10,4	1.950	7-12
AX070	64,79	8.600	80-60	2,85	17,1	4.290	7-12
AX090	83,6	8.000	80-60	3,7	21,6	4.050	7-12

* Air temperature 15 ° C and relative humidity 50% ** Air temperature 27 ° C and relative humidity 50%





AERMAX AX / Dimensions





AERMAX AX-EC / Technical data



Model		AX020EC	AX025EC	AX030EC	AX040EC	AX050EC	AX070EC	AX090EC
Max Air Flow	m ³ /h	2.850	4.500	2.550	4.350	3.900	8.560	7.950
Max Sound Pressure*	dB(A)	50,7	55,0	50,3	54,4	53,8	57,4	56,8
Max Water Temperature	°C				105			
Max Water pressure	bar				16			
Max Air Throw	m	15,4	23,6	13,9	22,5	21,2	23,6	22,3
Water Content	1	1,8	2,5	2,5	2,5	3,2	5,3	6,5
Water coil connection \emptyset		G 3/4" G1"					1"	
Nº Fans and Ø blades		1 x 350	x 350 1 x 450 1 x 350 1 x 450 2 x 450					450
Power supply	V			230\	/-50 Hz monop	hase		
Power rating	W/A	110	300	110	300	300	600	600
Absorbed Current	А	0,95	2,05	0,95	2,05	2,05	4,10	4,10
Motor Revs	r.p.m.	1.350	1.280	1.350	1.280	1.280	1.280	1.280
Protection degree	IP	IP54	IP54 IP54 IP54					
Weight at work	kg	20	22	21	24	26	38	40
Weight with packaging	kg	24	26	25	28	30	43	45

*measured at 5m

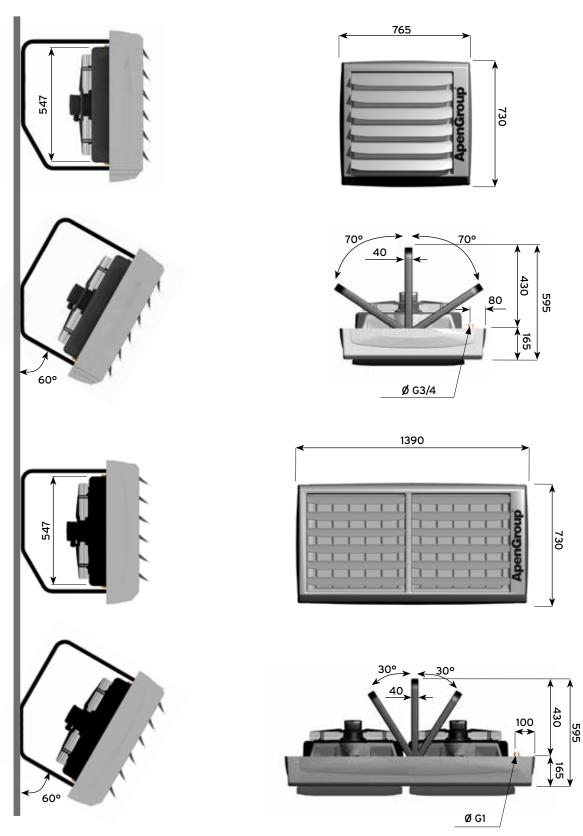
Model –	N	ominal performan	ces in HEATI	Nominal performances in COOLING			
	Max Heat output*	Max Air Flow Rate	∆T water	Water Flow Rate	Max Heat output*	Max Air Flow Rate	∆T water
	kW	m³/h	°C	l/h	kW	m³/h	°C
AX020EC	17,0	2850	80-60	750	4,2	2530	7-12
AX025EC	22,5	4500	80-60	990	4	2360	7-12
AX030EC	23,9	2550	80-60	1050	9,4	2550	7-12
AX040EC	34,1	4350	80-60	1500	8,9	2330	7-12
AX050EC	42,4	3900	80-60	1870	12,2	2440	7-12
AX070EC	68,9	8560	80-60	3040	20,7	5550	7-12
AX090EC	86,8	7950	80-60	3830	25,2	4985	7-12

* Air temperature 15 ° C and relative humidity 50% ** Air temperature 27 ° C and relative humidity 50%

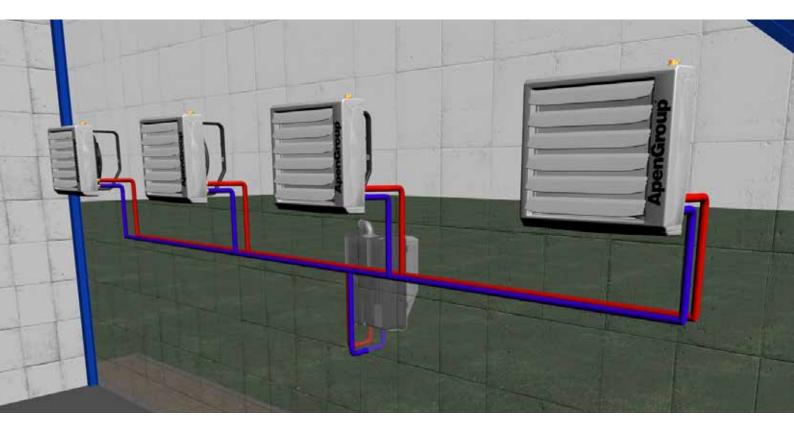




AERMAX AX-EC / Dimensions





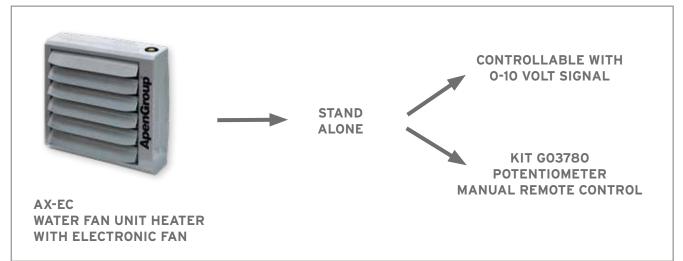




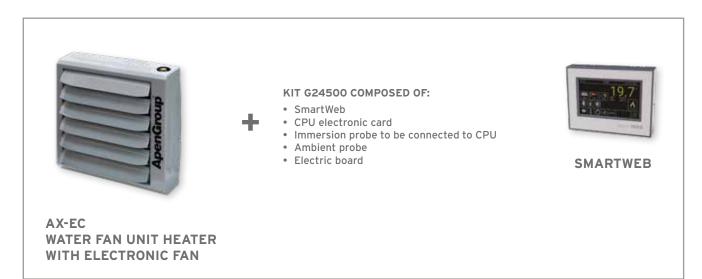






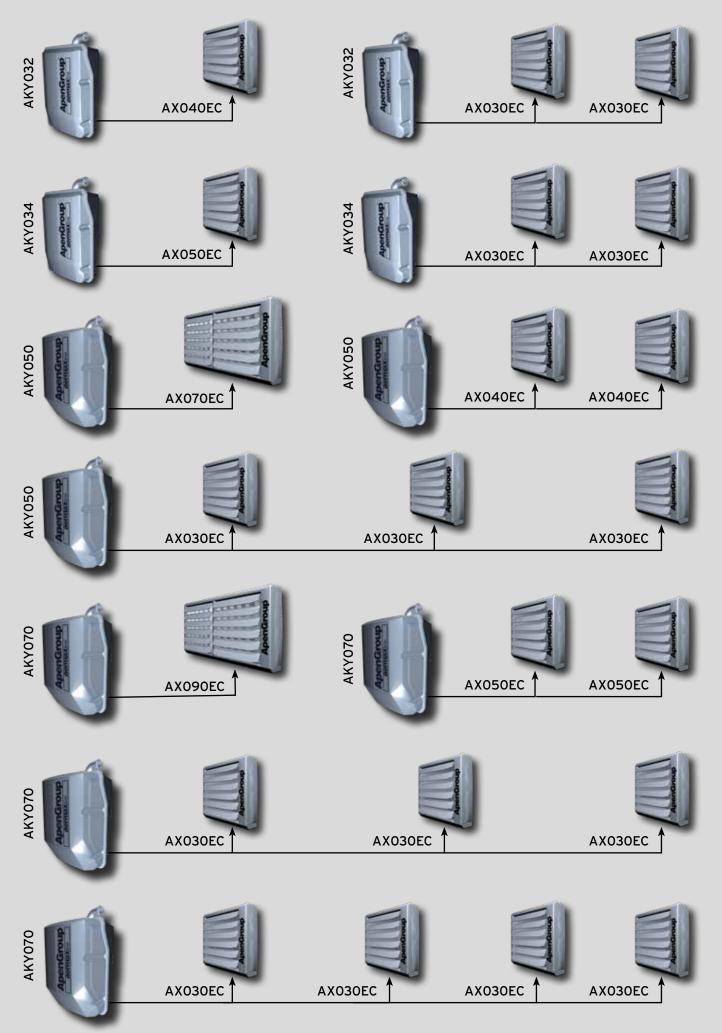




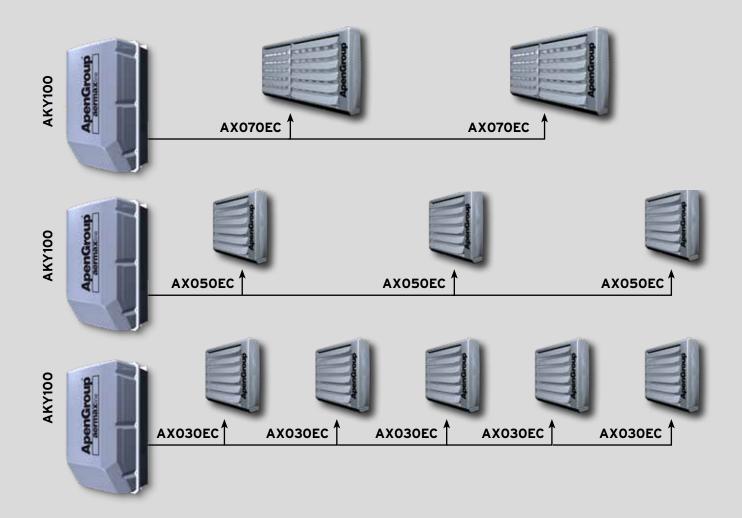




Combinations between AKY Boilers and AX-EC Aerotherm with electronic fan



Combinations between AKY Boilers and AX-EC Aerotherm with electronic fan





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