PK
Floor-standing warm air heater

ApenGroup®

RESEARCH, ECOLOGY AND ENERGY SAVING

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.

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.

A LEADING COMPANY

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).

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-the-art 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.

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 cutting-edge technical and manufacturing solutions.

ENVIRONMENT

Environment protection is essential for present and next generations' quality 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.

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.

SALES EFFICIENCY

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.

ApenGroup

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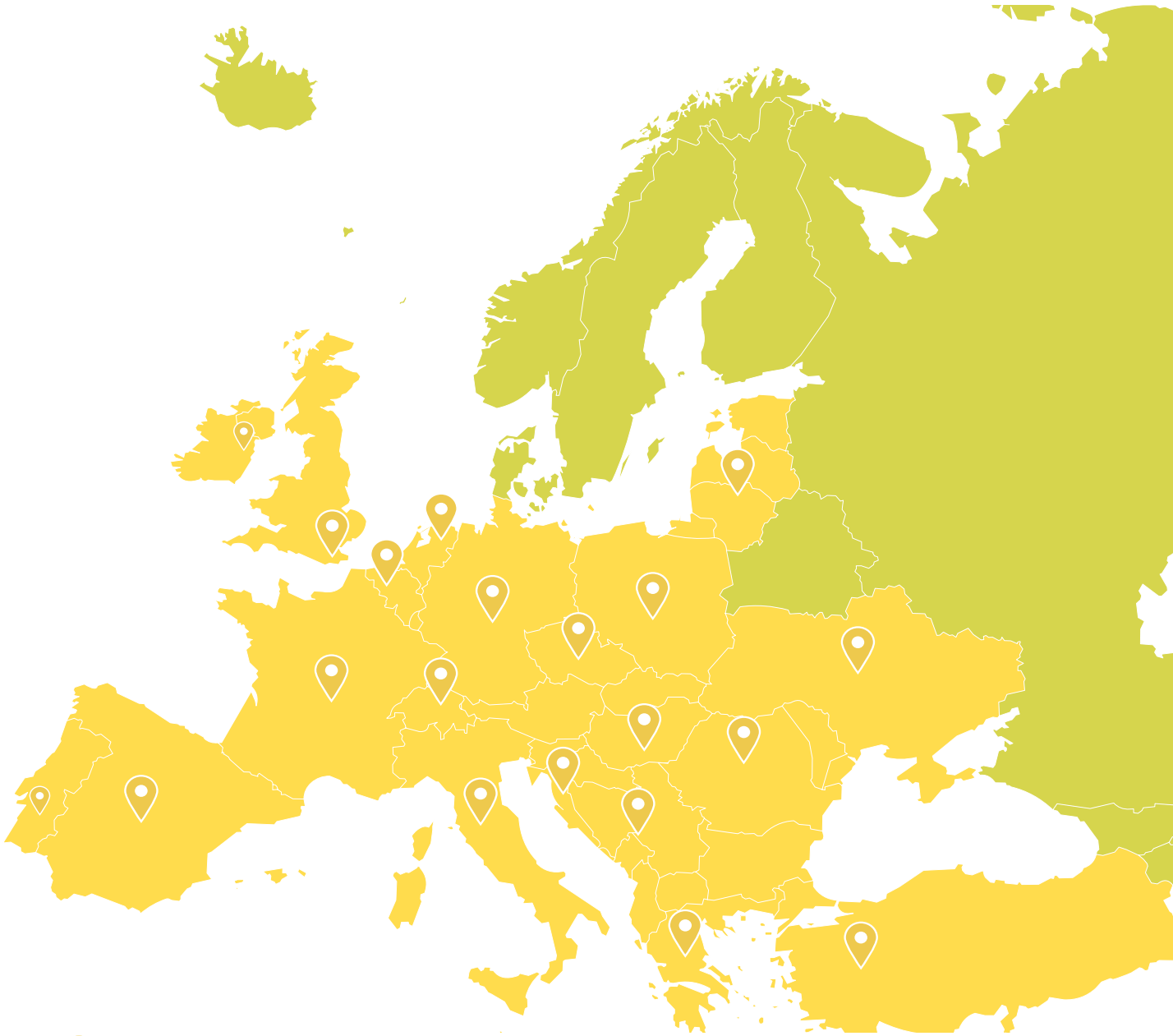


ApenGroup has an international presence. Contact us at **export@apengroup.it** to get our distributor's name in your country, or to become our partner.

HISTORY

1967

THE ORIGINS: THERMOVÜR

The company - founded under the name Thermovür - began its great adventure with the production and sale of oil and gas burners.
The founding partners are two brothers-in-law having the same name - Angelo Rigamonti - with the assistance and great professionalism of their father/ father-in-law Emilio Rigamonti.

1973

AERMAX

Thermovür is supported by the company AERMAX for the marketing of floor-standing warm air heaters and burners, particularly for the foreign market.

1980'S

EXPERIENCE AND KNOW-HOW

The heating sector is evolving rapidly, the building boom and the need to keep everyone warm leads to the need for new and different products: floor-standing boilers, wall-hung boilers, gas burners, gas-fired wall-mounted warm air heaters, gas radiators.

1991

APENGROUP IS BORN

The two companies create a single company, which will benefit from the wealth of knowledge of the two brands and the know-how now internalised by the company: APEN GROUP SPA is born, a group of companies for new energies. Apen Group today.

2000'S

NEW PROJECTS, NEW PRODUCTS

In 2008, confirmation of the company's technical capabilities in the field of air conditioning was confirmed by the introduction on the market of the Kondensa product (condensing warm air heater), air handling units and RoofTop monobloc machines with built-in condensing heat exchanger.

2017

50 YEARS OF LOVE FOR THE CLIMATE!

We are proud to have celebrated our first 50 years in business.
In the book "La storia siamo Noi" (We are history), we have recounted the main events that have marked the most important milestones which have made us grow in terms of competence and technological know-how in the heating sector.
A continuous evolution, because progress is a never ending process.

1967 2017 50 CARING for the environment

2024

RESEARCH, INNOVATION AND ECOLOGY

We are always evolving.
The market, the experiences, the difficulties have made us stronger and more committed to facing new challenges, new technologies, new countries.
We want to defend the values we believe in to be able to improve environmental comfort, attention to people and the use of energy.
We also want our company to contribute to a better future!

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.

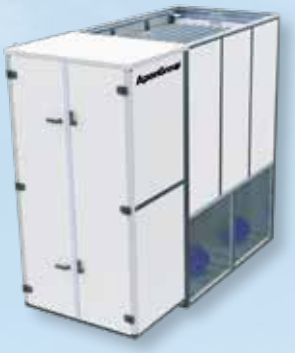
INTERNATIONAL CERTIFICATES

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.

PK SERIES

HIGH-EFFICIENCY FLOOR-STANDING WARM AIR HEATERS

VERTICAL UNITS
FOR INDOOR



VERTICAL UNITS
FOR OUTDOOR

HORIZONTAL UNITS
FOR INDOOR

HORIZONTAL UNITS
FOR OUTDOOR

PK-K

HIGH
EFFICIENCY

ERP 2021

VERIFY THE CORRECT HEATER-BURNER COUPLING IN ORDER TO SATISFY ERP REQUIREMENTS

AVAILABLE
ON REQUEST

PK-N MODELS (NON CONDENSING) ONLY FOR INDUSTRIAL PROCESSES AND EXTRA EUROPEAN COUNTRY (NON ERP 2021)

PK SERIES
High-efficiency floor-standing warm air heater

PK FLOOR-STANDING WARM AIR HEATERS

PK floor-standing warm air heaters, with high efficiency, are designed for indoor or protected place and outdoor installations.

THE HEAT THAT LASTS OVER TIME

The high-efficiency floor-standing heaters have been designed both to increase technical performance and therefore safety and quality, and to meet the increasingly frequent requests for customised solutions and adaptability to the environment.
The aluminium profiles, placed on the panels, harmonise the rigidity of the geometric figures. These machines therefore become an integral part of the building/system, whether in an industrial or tertiary sector.

SECTORS OF USE

- Industries
- Facilities
- Sheds
- Depots
- Warehouses
- Shopping malls
- Places of worship

VERIFY THE CORRECT COUPLING OF THE BURNER TO SATISFY ERP 2021 REQUIREMENTS

QUALITY AND RELIABILITY

Quality and reliability are just some of the features that make Apen Group's floor-standing heaters "the excellence of the heating system".
Technology, ecology, safety and state-of-the-art construction methods determine the best possible efficiency of the machines and make PK heaters a top product for all heating requirements.

RANGE AVAILABILITY

Depending on size and space, a wide range of models from 100 kW to 550 kW is available.
PK floor-standing heaters can be combined with both two-stage and modulating burners, which must be correctly matched to meet ErP 2021 requirements.

SIMPLE INSTALLATION

The great flexibility, adaptability and possibility of customised installations make PK floor-standing heaters a top level product for all heating requirements.

AVAILABLE STATIC PRESSURES

The available static pressures, supplied as standard, are:

- 10A Version.
  With average values of available static pressure, for installations with standard ducting, where there is no need for particular head.
- 20A Version.
  With high available static pressure, for installations with articulated distribution ducts or with high air speeds.

CONFIGURATION VERSATILITY

The heaters can be supplied in two versions:

- PKA floor-standing heaters for indoor installation.
- PKE floor-standing heaters approved for outdoor installation.

For both versions we have a great flexibility and adaptability of installation, both in vertical and horizontal configurations.

SPECIAL VERSIONS

Apen Group designs the floor-standing heaters for any special case and condition, for example in case of heating combined with high air flow rates, reduced heat drops and much more.

TECHNICAL FEATURES

COMBUSTION CIRCUIT

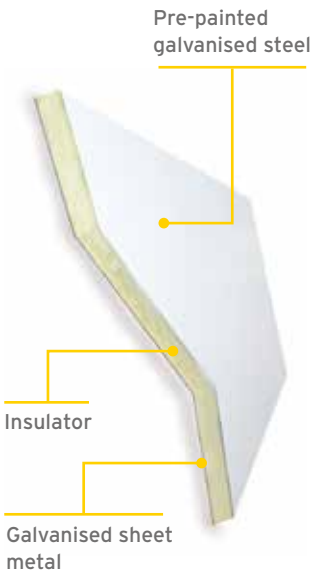
- Combustion chamber, made of AISI 441 stainless steel, characterised by a high exchange surface area (high volume compared to the unit heat load). Thanks to its particular shape it ensures low heat loads and uniform heat distribution.
- Flame reversing furnace, with combustion circuit with three flue passes, fully welded, to ensure a long life.
- High-efficiency heat exchanger made of AISI 441 stainless steel. Consisting of a tube bundle with an aerodynamic profile, it guarantees very little resistance to the passage of air, constant speed of the passage of flue gas and therefore high heat exchange.
- Patented tube bundle.
- T.I.G. welded heat exchanger tubes and plates.
- Inspection panels (one front panel and four rear panels on the heat exchanger) insulated with ceramic fibre.
- Peep-hole with combustion chamber pressure intake.
- Insulation panel for burner plate in mineral fibre.

STRUCTURE AND PANELLING

- Supporting structure (heater frame) in aluminium.
- Double sandwich panelling with glass wool insulation to reduce noise propagation and limit heat loss to the environment for the benefit of performance, consisting of:

1. panels on the heat exchanger section, insulated, 25 mm thick, complete with gaskets, consisting of an external panel in pre-painted galvanised steel, 1 mm thick, protected by plastic film, glass wool insulation material and an internal panel in galvanised steel, 0.6 mm thick, fixed with rivets to the external panel.
2. panels on the ventilating part, insulated with 25 mm thickness, complete with gaskets, composed of external panel in pre-painted galvanized steel, 1 mm thick, protected by plastic film, insulating material in glass wool closed externally with glass fabric, fixed to the external panel by means of riveted galvanised steel crossbeams.

- Air intake protected by a galvanised steel grid, 1.5 mm thick.
- Supplied as standard on the right side of the heater, the grid can easily be repositioned on the left side by replacing the closed panel.
- All heaters are equipped with lifting hooks.



FAN SECTION

- Fan section, depending on the different capacities of the heater, consisting of one or more centrifugal fans, with low speed rotation, to ensure lower noise levels. Statically and dynamically balanced and with double suction, the fans are driven by electric motors on belt tensioning slides and belt pulley transmissions.
- The protection degree of the fan motor is IP 54.
- Motor and fan support base in aluminium.
- For motors of 5.5 kW and above, the soft-starter is supplied as standard (optional for motors of lower power).

SAFETY DEVICES

- Fan thermostat and burner safety shut-off thermostat up to PK 320 model (manual reset).
- Control panel conforming to current standards, in epoxy powder coated steel, with IP 40 protection rating for PKA and IP44 for PKE.

IT IS equipped with:

1. Main switch with door lock closure.
2. Summer/Off/Winter switch.
3. Electrical protections, contactor and thermal relay for each motor/fan.
4. Power indicator light.
5. Thermal relay trip indicator light.

PK: THE HEAT THAT LASTS OVER TIME

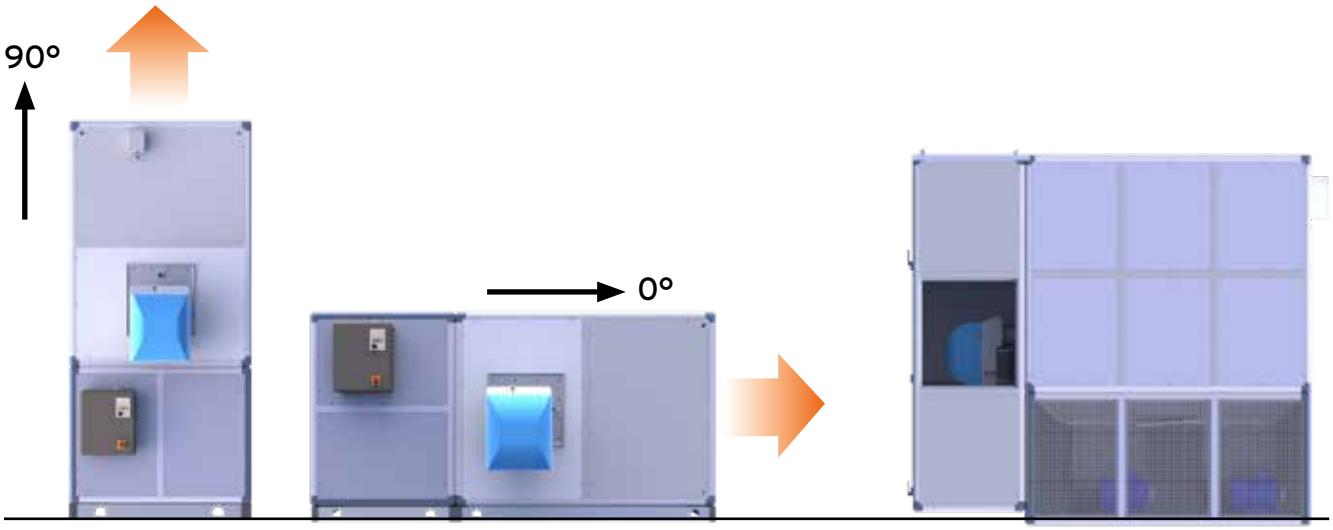
Apen Group has redesigned the new PK series of floor-standing heaters both to increase technical performance and therefore safety, efficiency and quality, and to satisfy the increasingly frequent requests for customised solutions and adaptability to the environment.
The aesthetics has been improved and the aluminium profiles on the panels harmonise the rigidity of the geometric figures.

MODELS

The heaters can be supplied in two versions:

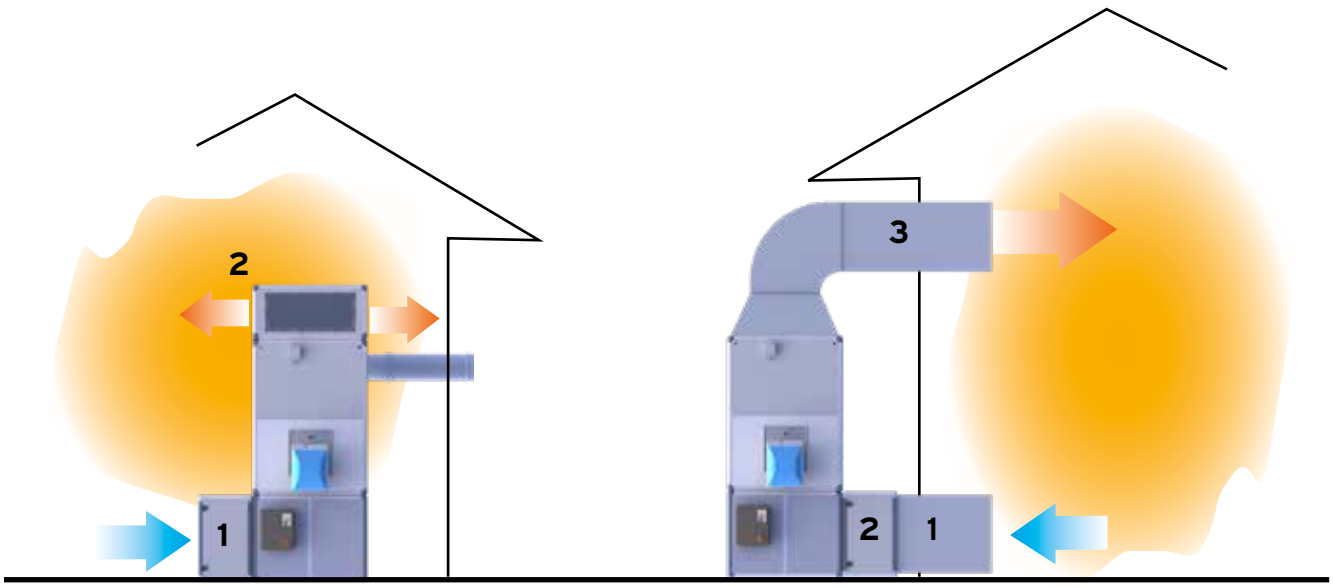
- PKA floor-standing heaters for indoor installation.
- PKE floor-standing heaters approved for outdoor installation.

From a constructional point of view, PKE heaters are obtained from PKA heaters, applying a protection compartment to the front of the heater, inside which the burner and the relative electrical safety components will be positioned, guaranteeing total protection from atmospheric agents.
The casing of the entire heater, including the burner compartment, in fact, guarantees IP 44 protection from atmospheric agents.
In addition, the heaters are available in the horizontal version.



Vertical and horizontal installation

PKE heater with burner compartment



Installation of the heater in the room with filter and plenum
(1) Air suction filter
(2) Air supply plenum

Outdoor heater installation with ducting

(1) Air suction duct, where recirculation is allowed by legislation
(2) Air suction filter
(3) Air supply duct

ACCESSORIES UPON REQUEST

DISTRIBUTION PLENUM

On request, it can be supplied with plenum for the air distribution and air filter for the ambient purification. The plenum is supplied with bifilar louvers suitable for the use in industrial and commercial buildings.

The accurate design and manufacturing allow to obtain a plenum with louvers assuring high air delivery with strong air throw and reduced pressure losses.

The standard plenum is manufactured with the air throw in three directions: two short sides and one long side. On specific request, it can be supplied with the air throw on two long sides and one short side.

In case of specific needs, Apen Group can design and manufacturate custom plenum.

AIR FILTER

Air filter has been designed and manufactured in modacrylic fibre and can be used for continuous operation up to 80°C. ISO class 50%

Coarse according to ISO 16890 (former G3 EN 779:2012).

Standard air filters can draw air from one side only.

In case of different needs from the standard, for example in the case of horizontal heater installations or in the case of

air intake from underneath , please contact Apen Group for correct dimensioning.

MIXING BOX

Two-way mixing chamber with filters. The mixing box has an anodized aluminum frame and pre-painted metal paneling with glass wool inner insulation.

This accesory allows to mix outside air to be mixed with return air, by passing through filter banks with G3 efficiency. It includes a lid for filter inspection.

It is complete with inspection door for access to filters and can be combined with heaters in vertical or horizontal installation. The regulation dampers must be ordered separately.

SOFT STARTER

A soft starter is supplied as standard on large heaters, while it is available as an accessory on low power three-phase heaters. This system protects fans from excessive stress when motors are started.

SMART X EASY /SMART X WEB

The SMART X remote control (WEB or EASY) carries out the function of a chronothermostat and can be used as a control for a single-zone system at the same temperature.
The chronothermostat is equipped with a monitor from which it is possible to read and set all the parameters of the connected appliances.

It also offers the possibility of remotely controlling up to 3 external temperature probes and managing the appliances in automatic or manual mode, checking burner operation, programming a weekly and annual calendar and managing daily time slots.

INVERTER KIT

Inverter kit is supplied mounted on the heater. Matching an inverter to heaters with three-phase power supply allows to adjust the air flow and the prevalence of the heater itself. Regulation can be done in different ways:

- Manually by regulating the inverter installed on the unit.
- Manually with a three-speed remote selector switch (accesory kit).
- Manually with a remote modulating potentiometer (accesory kit).
- Automatically with a high/low flame regulator (accesory kit) in presence of a two-stage burner.

Automatically by controlling the pressure of the air with a pressure probe (accessory kit). The pressure set-point can be set directly in the inverter or it can be adjusted by means of a high-precision multi-turn potentiometer with remote control (accessory kit).

ACCESSORIES UPON REQUEST

FIRE DAMPER DELIVERY/ INTAKE DUCT

REI120 fire shutter kit, for the delivery and/or for the intake, complete with duct and wired micro-switch to turn off the burner and automatically block the spread of flames in case of fire.

REGULATION DAMPER ON INTAKE

Regulation damper kit with manual control, to adjust the amount of air taken from the indoor environment.

EXTERNAL AIR REGULATION DAMPER

Regulation damper kit, complete with manual control and protection net, to set a partialisation with external air.

BURNER

Ordered units can include the burner on request.

SINGLE-WALL FLUE OUTLET KIT

Single-wall flue outlet kit made of stainless steel complete with 2 meters of straight pipe, tee joint, weather protection cover, condensate collection cap, and bracket for chimney support.

DOUBLE-WALL FLUE OUTLET KIT

Stainless steel double-wall flue outlet kit complete with 2 meters of straight pipe, tee joint, weather protection cover, condensate collection cap, and bracket for chimney support.

FLUE SYSTEMS

The heater is a B23 type appliance, i.e. without a draught switch and equipped with a fan (the burner fan) upstream of the heat exchanger.

The heater can be connected to both flues and chimneys.

TWO-STAGE REGULATOR

High/low flame regulation kit for the burner. It is connected to a room probe or a duct probe.

ROOM THERMOSTAT

Possibility of choosing room thermostats with probe in the air intake compartment.

DISCHARGE SHUTTER

Flue gas discharge shutter kit, complete with fuse, with manual reset.

SIMPLE MAINTENANCE

All maintenance operations are particularly simple and fast and guarantee the maintenance of the heater efficiency.

To access the heat exchanger, simply remove the flue system cover.

The fan can be cleaned with a compressor and a vacuum cleaner. The filters can be regenerated by cleaning with compressed air.

Please note that in ducted installations, you don't need to disassemble ducts to remove and clean the filter.

GUARANTEED SAVINGS

PK heaters guarantee real savings in terms of:

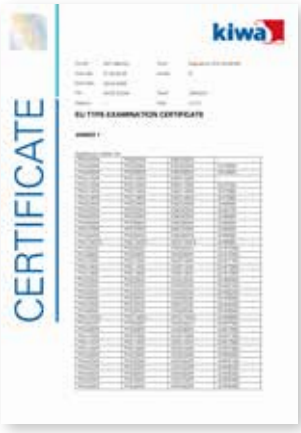
- Installation: if positioned directly in the room to be heated with air distribution through a plenum, the system costs are quite low.
- Operation: high efficiency and quick room heating guarantee efficiency and reduced consumption.
- Management: maintenance operations are quick and easy and certainly not recurrent.

CERTIFIED QUALITY

PK heaters are manufactured in compliance with all applicable standards.

They are certified by Kiwa Gastec according to the 2016/426/EU gas appliances regulation.

Moreover, each heater has been approved to operate with a working range between a minimum and a maximum value.



VERTICAL VERSION PKA FOR INDOOR USE

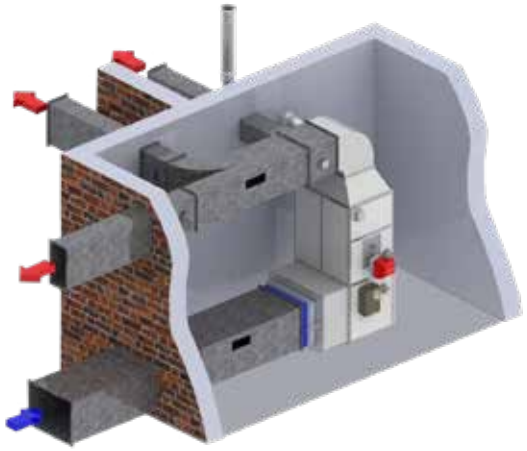
TECHNICAL FEATURES

- Maximum energy efficiency with flame modulation and condensing operation, maximum efficiency 102% and equipped with condensate drain.
- Supporting structure in aluminium.
- Double sandwich panels with glass wool insulation to limit heat loss to the room.
- Combustion chamber, made of AISI 441 stainless steel, characterised by a high exchange surface.
- Flame reversing furnace, with combustion circuit with three flue passes, fully welded.
- High-efficiency, low-carbon stainless steel heat exchanger.
- Fan section, depending on the different capacities of the heater, consisting of one or two centrifugal fans, with low speed rotation and statically and dynamically balanced double intake.
- Suction side complete with grid.
- Motor and fan support base in aluminium.
- The protection degree of the fan motor is IP 54.
- Control panel located outside the heater in compliance with current standards, IP40 degree of protection.
- Fan and safety thermostat (manual reset).
- Limit thermostat for models up to PK 320.
- CE approval in compliance with all applicable regulations.

GAS OPERATION

PK HEATER INSTALLED IN A TECHNICAL COMPARTMENT OR CENTRAL HEATING PLANT, DUCTED

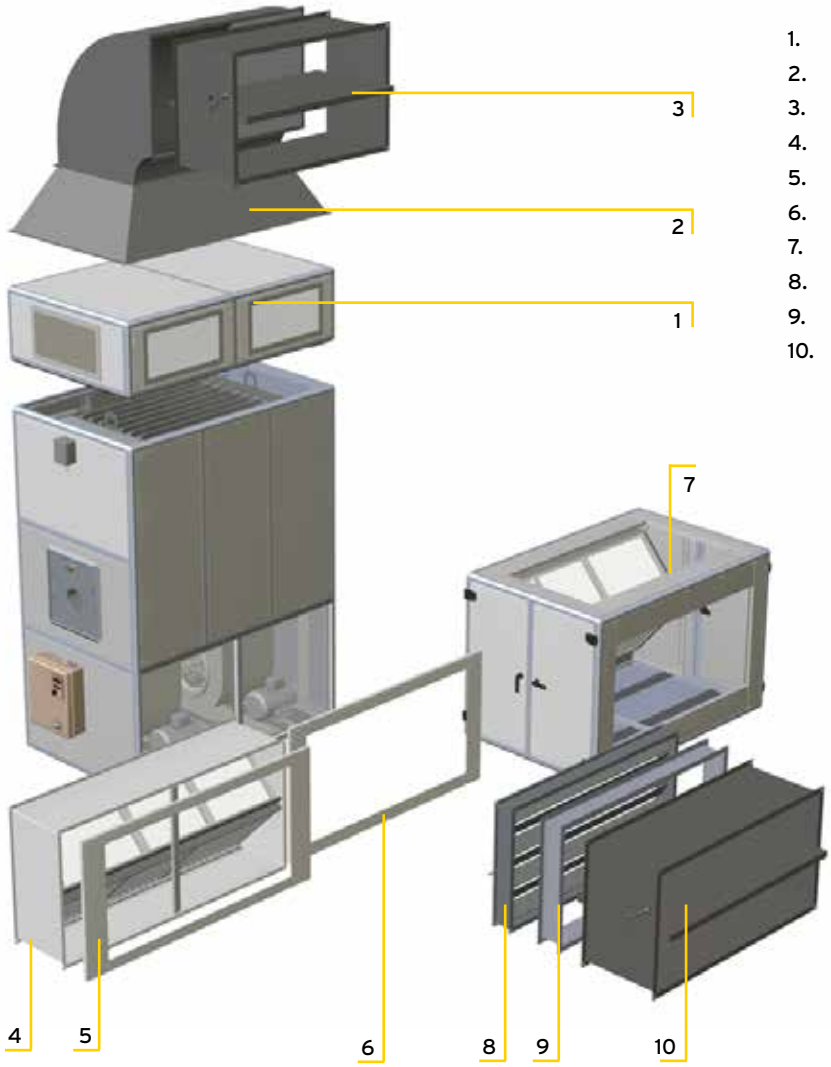
The heater is equipped with several air delivery ducts (heating also different rooms) and air intake duct.



VERTICAL PK HEATER INSTALLATION FOR INDOOR

The heater is equipped with standard diffusion plenum, the air intake is towards the wall and without filters.

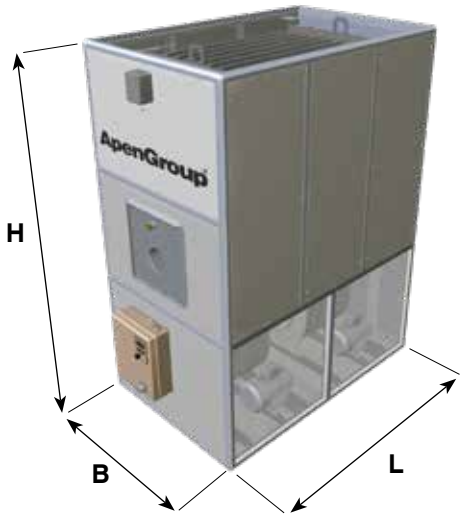
ACCESSORIES



1. Air diffusion plenum
2. Kit of bend and connection for dampers
3. Fireproof damper on delivery
4. Filters
5. Filter to damper connection
6. Heater to damper connection
7. Mixing box
8. Regulating damper
9. Anti-vibration joint
10. Fireproof damper on intake

DIMENSIONS

Model	Dimensions			Chimney diameter	Weight
	L	B	H	Ø	kg
PKA100	1100	800	2020	180	246
PKA140	1330	920	2080	180	320
PKA190	1460	1060	2230	250	382
PKA250	1750	1140	2330	250	506
PKA320	1960	1140	2330	250	574
PKA420	2170	1340	2800	300	902
PKA550	2600	1340	3170	300	1148



Right side standard air intake
(specify in the order if different).

VERTICAL VERSION PKE FOR OUTDOOR USE

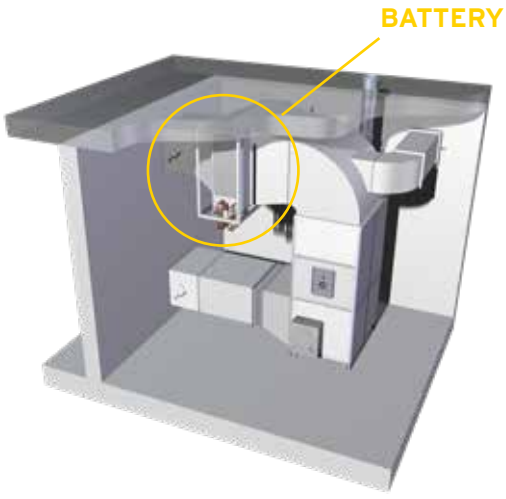
TECHNICAL FEATURES

- Maximum energy efficiency with flame modulation, maximum efficiency 102% and equipped with condensate drain.
- Supporting structure in aluminium.
- Double sandwich panels with glass wool insulation to limit heat loss to the room.
- Combustion chamber, made of AISI 441 stainless steel, characterised by a high exchange surface.
- Flame reversing furnace, with combustion circuit with three flue passes, fully welded.
- High-efficiency, low-carbon stainless steel heat exchanger.
- Fan section, depending on the different capacities of the heater, consisting of one or two centrifugal fans, with low speed rotation and statically and dynamically balanced double intake.
- Suction side complete with grid.
- Motor and fan support base in aluminium.
- The protection degree of the fan motor is IP 54.
- Control panel located outside the heater in compliance with current standards, IP44 degree of protection.
- Fan and safety thermostat (manual reset).
- Limit thermostat for models up to PK 320.
- CE approval in compliance with all applicable regulations.

GAS OPERATION

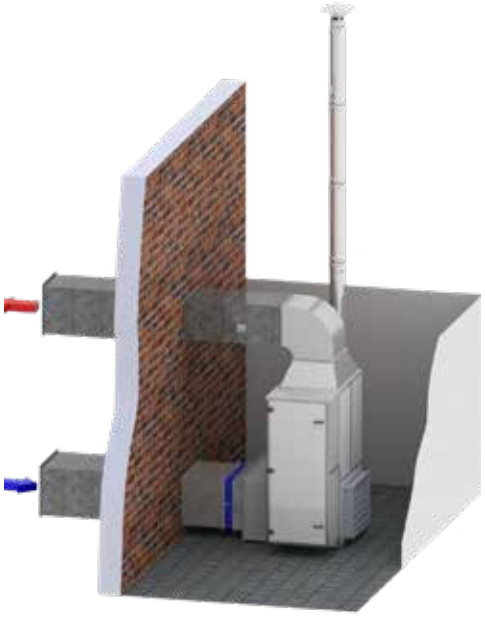
PK HEATER INSTALLED IN A TECHNICAL COMPARTMENT COMBINED WITH A BATTERY FOR AIR CONDITIONING

The heater is equipped with several air delivery ducts (also heating different rooms) and an air intake duct; it is also equipped with a battery for summer air conditioning.

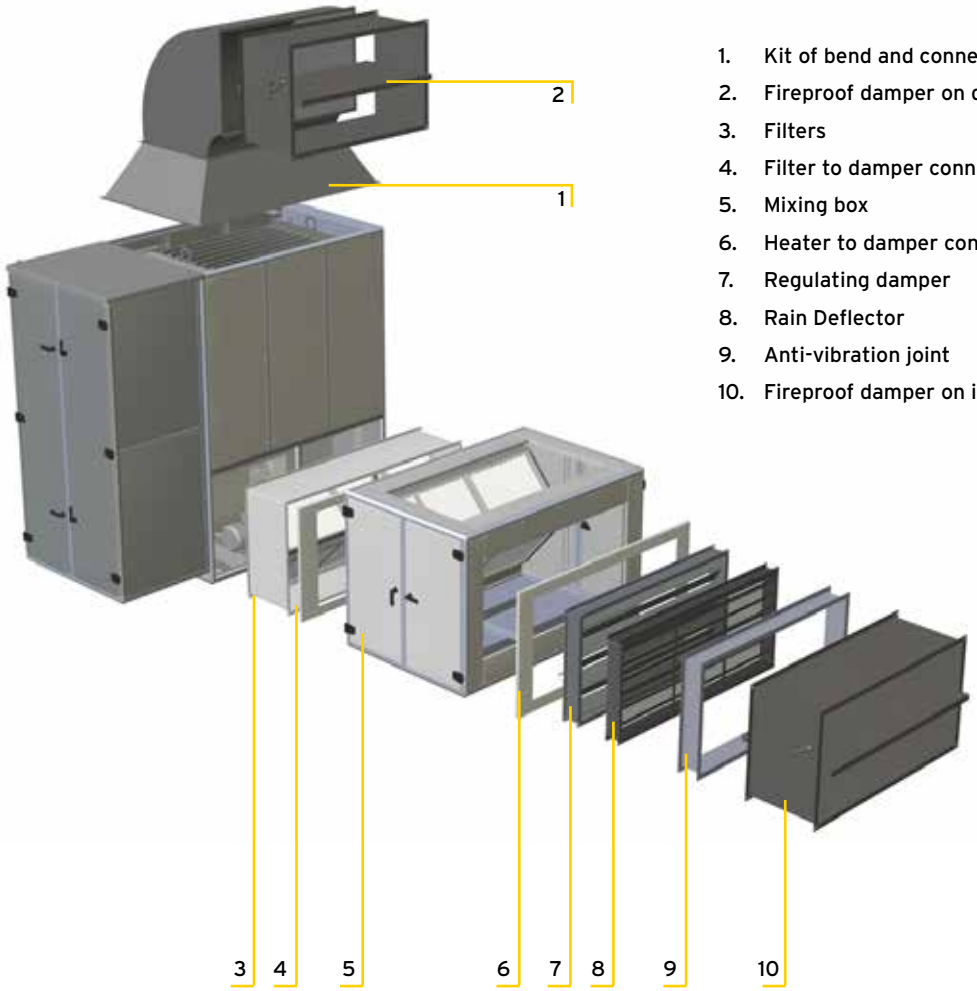


PK HEATER INSTALLED OUTSIDE THE ROOM TO BE HEATED

The heater is installed outside the room to be heated, equipped with a filter and ducts for air supply and intake.

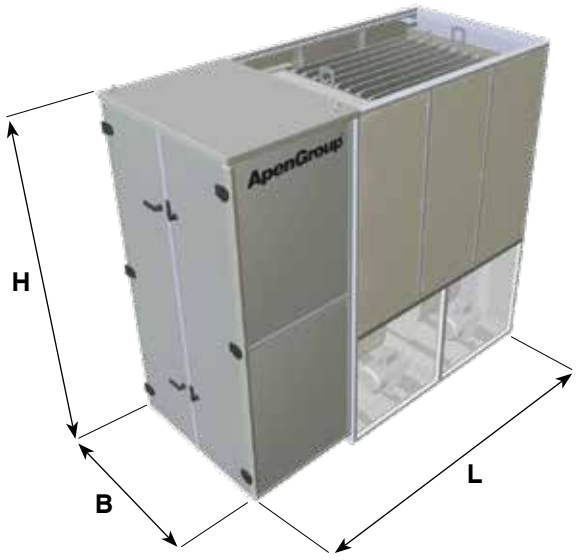


ACCESSORIES



1. Kit of bend and connection for dampers
2. Fireproof damper on delivery
3. Filters
4. Filter to damper connection
5. Mixing box
6. Heater to damper connection
7. Regulating damper
8. Rain Deflector
9. Anti-vibration joint
10. Fireproof damper on intake

DIMENSIONS



Right side standard air intake
(specify in the order if different).

Model	Dimensions			Weight
	L	B	H	kg
PKE100	1600	800	2020	297
PKE140	1930	920	2080	384
PKE190	2190	1060	2230	468
PKE250	2550	1140	2330	603
PKE320	2760	1140	2330	673
PKE420	3020	1340	2800	1027
PKE550	3600	1340	3170	1307

HORIZONTAL VERSION PKA FOR INDOOR USE

TECHNICAL FEATURES

- Maximum energy efficiency with flame modulation, maximum efficiency 102% and equipped with condensate drain.
- Supporting structure in aluminium.
- Double sandwich panels with glass wool insulation to limit heat loss to the room.
- Combustion chamber, made of AISI 441 stainless steel, characterised by a high exchange surface.
- Flame reversing furnace, with combustion circuit with three flue passes, fully welded.
- High-efficiency, low-carbon stainless steel heat exchanger.
- Fan section, depending on the different capacities of the heater, consisting of one or two centrifugal fans, with low speed rotation and statically and dynamically balanced double intake.
- Suction side complete with grid.
- Motor and fan support base in aluminium.
- The protection degree of the fan motor is IP 54.
- Control panel located outside the heater in compliance with current standards, IP40 degree of protection.
- Fan and safety thermostat (manual reset).
- Limit thermostat for models up to PK 320.
- CE approval in compliance with all applicable regulations.

GAS OPERATION

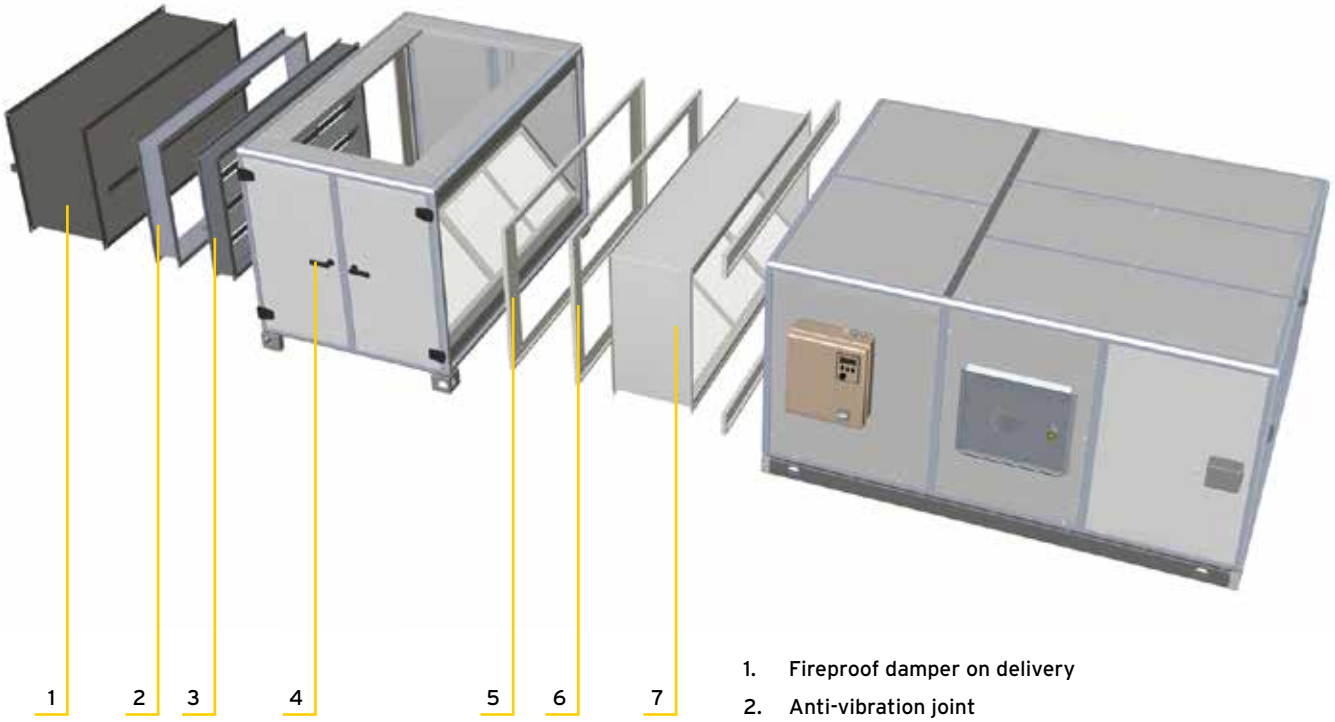
HORIZONTAL VERSION PKE FOR OUTDOOR USE

TECHNICAL FEATURES

- Maximum energy efficiency with flame modulation, maximum efficiency 102% and equipped with condensate drain.
- Supporting structure in aluminium.
- Double sandwich panels with glass wool insulation to limit heat loss to the room.
- Combustion chamber, made of AISI 441 stainless steel, characterised by a high exchange surface.
- Flame reversing furnace, with combustion circuit with three flue passes, fully welded.
- High-efficiency, low-carbon stainless steel heat exchanger.
- Fan section, depending on the different capacities of the heater, consisting of one or two centrifugal fans, with low speed rotation and statically and dynamically balanced double intake.
- Suction side complete with grid.
- Motor and fan support base in aluminium.
- The protection degree of the fan motor is IP 54.
- Control panel located outside the heater in compliance with current standards, IP44 degree of protection.
- Fan and safety thermostat (manual reset).
- Limit thermostat for models up to PK 320.
- CE approval in compliance with all applicable regulations.

GAS OPERATION

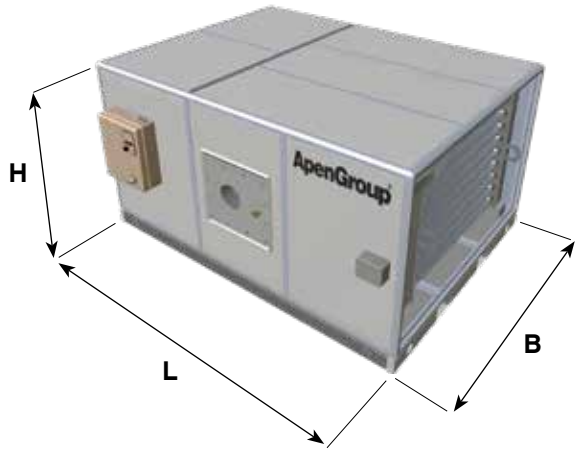
ACCESSORIES FOR HORIZONTAL VERSION PKA FOR INDOOR USE



1. Fireproof damper on delivery
2. Anti-vibration joint
3. Regulating damper
4. Mixing box
5. Heater to damper connection
6. Filter to damper connection
7. Filters and joint

DIMENSIONS

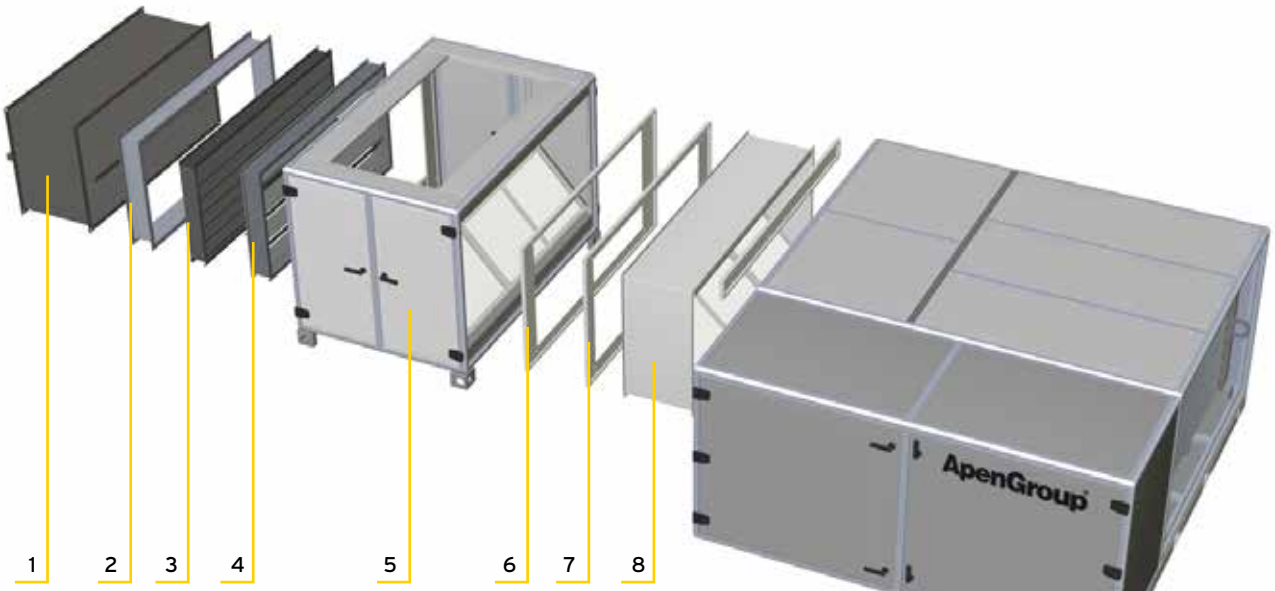
Model	Dimensions			Chimney diameter	Weight
	L	B	H	Ø	kg
PKA100	2020	1100	800	180	246
PKA140	2080	1330	920	180	320
PKA190	2230	1460	1060	250	382
PKA250	2330	1750	1140	250	506
PKA320	2330	1960	1140	250	574
PKA420	2800	2170	1340	300	902
PKA550	3170	2600	1340	300	1148



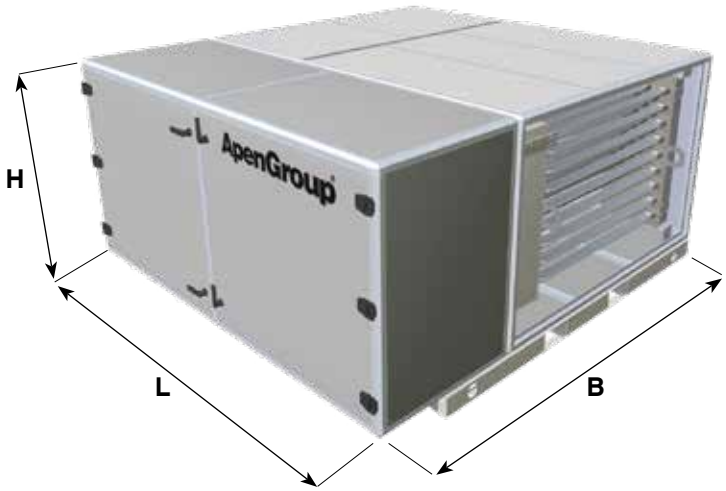
Left side standard air intake
(specify in the order if different).

ACCESSORIES FOR HORIZONTAL VERSION PKE FOR OUTDOOR USE

1. Fireproof damper on delivery
2. Anti-vibration joint
3. Rain Deflector
4. Regulating damper
5. Mixing box
6. Heater to damper connection
7. Filter to damper connection
8. Filters and joint



DIMENSIONS



Model	Dimensions			Weight
	L	B	H	kg
PKE100	2020	1600	800	292
PKE140	2080	1930	920	378
PKE190	2230	2190	1060	460
PKE250	2330	2550	1140	592
PKE320	2330	2760	1140	660
PKE420	2800	3020	1340	1006
PKE550	3170	3600	1340	1284

Left side standard air intake
(specify in the order if different).

THE TECHNICAL DATA OF THE PKA-K AND PKE-K MODELS ARE IDENTICAL

Model			PKA100K		PKA140K		PKA190K		PKA250K	
Type of appliance			B23				B23		B23	
NOx Class			Class 3 with LOW NOx GAS BURNERS (<80 mg/kWh) according to EN676							
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Furnace Heat Input	P_{min}:$P_{ated,h}$	kW	26.5	114	38.0	152.0	48.0	200.0	61.0	270.0
Useful Heat Output		kW	27.1	105.4	38.5	140.8	48.3	182.2	61.6	248.9
Combustion Efficiency (Hi)	η_{pl}: η_{nom}	%	102.4	92.5	101.2	92.6	100.5	92.6	101.0	92.2
Chimney loss - Burner ON (Hi)		%	/	7.5	/	7.4	/	7.4	/	7.8
Chimney loss - Burner OFF		%	< 0.1		< 0.1		<0,1		<0,1	
Casing losses *		%	1.81		1.26		1.16		1.17	
Combustion Chamber pressure		Pa	14	100	15	140	15	130	19	175
Combustion Chamber volume		m^3	0.24		0.37		0.52		0.76	

* Heat loss of the casing must be considered only when heater is installed outdoor or in a thermal station. If the heater is installed into a building, heat is irradiated inside, so losses are zero

Model			PKA320K		PKA420K		PKA550K	
Type of appliance			B23		B23		B23	
NOx Class			CLASS 5 *					
			MIN	MAX	MIN	MAX	MIN	MAX
Furnace Heat Input	P_{min}:$P_{ated,h}$	kW	74.0	347.0	83.0	455.0	95.0	595.0
Useful Heat Output		kW	74.8	319.8	83.8	419.4	96.1	549.1
Combustion Efficiency	η_{pl}: η_{nom}	%	101.0	92.2	101.0	92.2	101.2	92.3
Chimney loss - Burner ON (Hi)		%	/	8.7	/	7.8	/	7.7
Chimney loss - Burner OFF		%	< 0.1		< 0.1		< 0.1	
Casing losses *		%	1.02		1.03		0.97	
Combustion Chamber pressure		Pa	15	225	30	275	40	365
Combustion Chamber volume		m^3	1.06		1.55		1.79	

* Heat loss of the casing must be considered only when heater is installed outdoor or in a thermal station. If the heater is installed into a building, heat is irradiated inside, so losses are zero

APEN GROUP S.p.A.
Via Isonzo, 1 - Pessano con Bornago
20042 (Milan) - Italy
Tel +39 02 95 96 931 Fax +39 02 95 74 27 58
www.apengroup.com apen@apengroup.com

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