



caring for the environment



Absorption heat pumps powered by natural gas and renewable energy, gas absorption chillers, trivalent integrated outdoor packages and condensing boilers



Gas unit heaters, combined heating systems with boiler and air handler unit, gas convectors and evaporative coolers

PRODUCT GUIDE

21 reasons for choosing
Robur heating and cooling systems

ROBUR

Mission

Robur is dedicated to dynamic progression in research, development and promotion of safe, environmentally-friendly, and energy-efficient products, through the commitment and caring of its employees and partners

Vision

Robur turns THE LOVE FOR BEAUTY AND WELL-MADE THINGS into innovative heating and cooling systems that are especially designed and developed to answer the specific needs of Man

7 pillars

Sharing values
Training
Quality
Innovation
Service
Social responsibility
Testimony

The right choice can make the difference

A responsible purchase behaviour may have a great influence on our way of life.

Consider that a product consumes tons of oil during its whole life cycle, generating pollution that the forest cannot rebalance.

That's why, when choosing a good, we take a great responsibility.

Even the choice for the heating system may have a big impact.

To all who choose responsibly, Robur offers high efficiency heating systems with low environmental impact, and moreover concepts, data and facts to spread the culture of energy efficiency and environmental protection.

Benito Guerra - Robur Chairman

Robur awards and certifications

- 1995** - ISO 9001 Certification
- 2000** - First Prize Italian Quality Award
- 2001** - ISO 9001:2000 (Vision 2000): Robur is the first certified company in Europe in HVAC sector
- 2003** - Special Prize Winner of European Quality Award
 - The reversible Gas Absorption Heat Pump wins the Technological Innovation Award
- 2004** - Benito Guerra, chairman of Robur, receives the nomination as finalist in the "Quality of life" category of the National Businessman of the Year Award by Ernst&Young
- 2005** - ISO 14001: 2004 Certification
 - CSA Certification (USA)
- 2006** - Honorable mention at AHR Expo Innovation Award sponsored by American Society of Heating, Refrigerating and Air-Conditioning Engineers - ASHRAE (USA)
- 2007** - Gas Absorption Heat Pumps are mentioned as best product category by the "Impresa Ambiente" Prize, while the company receives the special mention in Enterprise Prize for Innovation promoted by Confindustria - Italian Industry Association
- 2008** - Robur Test Laboratories are accredited by California Energy Commission - CEC (USA)
 - Gas Absorption Heat Pump performances are tested by VDE and DVGW-Forschungsstelle (Germany)
- 2009** - Robur receives the special mention in the category Energy Efficiency Development-Prize 2009 by the Foundation Sustainable Development and Ecomondo
- 2011** - Gas Absorption Heat Pump technology is supported by European Commission under the EU's Seventh Framework Programme for Research and Technological Development
- 2012** - Gas Absorption Heat Pump performances are tested by the Engler-Bunte-Institut-EBI of the Karlsruher Institute of Technologie-KIT (Germany)
- 2013** - Gas Absorption Heat Pump performances are tested by the Cetiat Laboratory in Lyon-EN ISO 17025 (France)

Air is enough...

for heating, domestic hot water production and cooling

A CHOICE SMARTER
than solar systems



Gitié Trivalent integrated
outdoor package

with absorption heat pump powered by
natural gas and air-source renewable energy

NEW 2014

Gitié is the perfect blend of two winning technologies: the air-source absorption heat pump and the condensing boiler, both powered by natural gas.

Gitié can provide up to **3 services**:

- high-efficiency **heating**;
- **hot water production** up to 80 ° C;
- **cooling** with low electric consumption.

Advantages

- Gitié, **integrated, pre-assembled and custom-made in the manufacturing plant, is a fully plug-'n-play system.**

This can facilitate correct installation, avoiding the complexity of the integration on field of solar thermal systems.

- Gitié is a cost-effective solution, using air-source renewable energy replacing a “boiler + solar system”.

For each kW of natural gas equivalent used, Gitié adds 0.5 kW of free air-source renewable energy available 24-hours-a-day.

- Gitié has a **seasonal average heating efficiency of 158%⁽¹⁾**.

- Gitié capital cost is convenient and it provides **up to 40% of running cost savings** if compared with similar solutions.

⁽¹⁾ G.U.E. - Gas Utilization Efficiency - equivalent to COP 4.13 considering an energy conversion factor of 2.5.



Applications

- Ideal for residential, industrial, commercial and hospitality facilities.
- Suitable for both new and existing buildings as it's for fitting in heating systems with low temperature (radiant heating or fan coils) or high temperature (radiators) distribution systems.
- Outdoor installation.

Models

- **Gitie AHAY** - Integrated outdoor package comprising of:
 - air-source gas absorption heat pump;
 - condensing boiler.



- **Gitie ARAY** - Trivalent integrated outdoor package comprising of:
 - air-source reversible gas absorption heat pump;
 - condensing boiler.



- **Gitie ACAY** - Trivalent integrated outdoor package comprising of:
 - gas absorption chiller;
 - condensing boiler.



Versions

- Available in standard and low-noise versions, 2 or 4 pipes versions, with or without circulators.

		AHAY	ARAY	ACAY
HEATING MODE ⁽¹⁾				
Heating capacity – gas absorption heat pump (A7/W50)	kW	38.3	--	--
G.U.E. gas absorption heat pump (A7/W50) ⁽²⁾	%	152	--	--
Heating capacity reversible gas absorption heat pump (A7/W35)	kW	--	37.8	--
G.U.E. reversible gas absorption heat pump (A7/W35) ⁽³⁾	%	--	150	--
Heating capacity – condensing boiler (water 80/60 °C)	kW	34.4	34.4	34.4
Efficiency – condensing boiler (50/30 °C)	%	104.6	104.6	104.6
Temperature heating/DHW				
max outlet water	°C	65/80	60/80	80/80
max inlet water	°C	55/70	50/70	70/70
Outdoor operating temperature (dry bulb)				
max	°C	40	45	45
min	°C	-15	-20	-20
COOLING MODE				
Cooling capacity (A35/W7)	kW	--	16.9	17.2
Minimum outlet water temperature	°C	--	3	3
Inlet water temperature max/min	°C	--	45/6	45/6
Outdoor operating temperature (dry bulb)				
max	°C	--	45	45
min	°C	--	0	0

⁽¹⁾ Nominal conditions according to EN 12309-2.

⁽²⁾ Equivalent to COP 3.8 considering an energy conversion factor of 2.5.

⁽³⁾ Equivalent to COP 3.75 considering an energy conversion factor of 2.5.

Absorption heat pump powered by natural gas + renewable energy

GAHP

What is it?

The absorption heat pump powered by natural gas + renewable energy is the **perfect blend of the two most common heating technologies**: the condensing boiler and the electric heat pump.



ADVANTAGES
Condensing boiler

- Natural gas powered
- DHW supply
- Only 1/10 of electric consumption in comparison to electric heat pumps

ADVANTAGES
Electric heat pump

- Use of renewable source energy with efficiency over 100%
- Cooling mode also available



MINUS
Condensing boiler

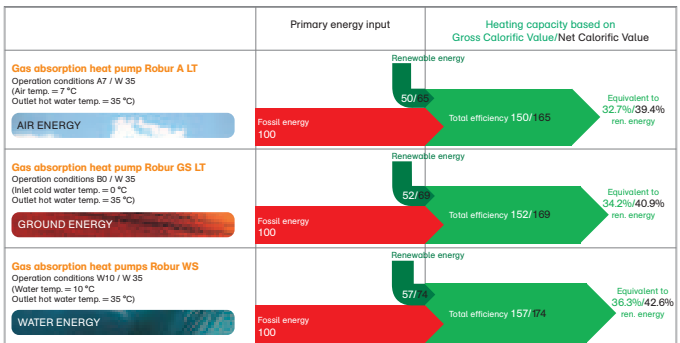
- No use of renewable energy
- Efficiency lower than 100%

MINUS
Electric heat pump

- High electric consumption
- Use of HFC refrigerants
- Limited operational range



Efficiency and use of renewable energy in GAHP - Gas Absorption Heat Pumps



6 reasons for choosing GAHP - Gas Absorption Heat Pumps

Robur GAHPs are **ENVIRONMENTALLY FRIENDLY** using natural gas + renewable energy ⁽¹⁾

- For each kW of natural gas equivalent used, every unit adds 0.5 kW of free renewable energy.
- 9,436⁽²⁾ GAHPs already installed save every year 15,098 TOE (Tons of Oil Equivalent) and the emissions of 39,613 Tons of CO₂, which is the amount of CO₂ emitted by 18,872 green cars or absorbed by 5,631,898 trees.
- Using a natural refrigerant with GWP (Global Warming Potential) = 0, the GAHP technology is the best solution to the problem of global warming.

Robur GAHPs **SAVE MONEY AND ENERGY**

- GAHP technology can provide heating cost savings up to 40% if compared to the best condensing boilers.

Robur GAHPs **INCREASE PROPERTY VALUE**

GAHPs are the most profitable investment to increase the value of the building. The heating system can be improved with a minor investment increasing the energy rating of the building.

ROBUR GAHPs are **THE PERFECT SOLUTION** for both new and existing systems, because they can be combined with condensing or regular existing boilers as well as solar systems.

ROBUR GAHPs **ARE TESTED AND CERTIFIED**

The performances have been tested and certified by EBI, DVGW Forschungsstelle and VDE (Germany), Cetiat (France), California Energy Commission (USA), ENEA and RSE (Italy).

⁽¹⁾ GAHPs, using up to 40% renewable energy (air, water, ground), are recognized by RES (Renewable Energy Source) Directive

⁽²⁾ Updated to 15th March 2014.



The Gas Absorption Heat Pump technology is supported by European Commission under the EU's Seventh Framework Programme for Research and Technological Development.



High efficiency heating and domestic hot water production.

Modulating and condensing absorption heat pump powered by natural gas + air-source renewable energy

GAHP-A

Advantages

- Up to 40% of cost savings compared with the best boilers with heating efficiency higher than 165%⁽¹⁾.
- Increases the total efficiency of the heating system when it is combined with boilers with a lower efficiency.
- It is eligible with incentive programs in several countries.

Applications

- Ideal for space heating where natural gas consumption is high.
- Outdoor installation.

Versions

- HT: optimized for high temperature hot water production (for retrofitted radiator systems).
- LT: optimized for low temperature water production (new systems with low temperature terminals like fan coils or radiant floor).
- Available as standard or low noise version. Heat pumps can also be combined with other heating and/or cooling units.

⁽¹⁾ G.U.E. - Gas Utilization Efficiency - equivalent to COP 4.13 on energy conversion factor of 2.5.

			GAHP-A HT	GAHP-A LT
Working point A7/W35	G.U.E.	%	--	165
	heating capacity	kW	--	from 41.7
Working point A7/W50	G.U.E.	%	152	--
	heating capacity	kW	from 38.3	--
Outlet water max temperature		°C	65	55
Inlet water max temperature		°C	55	45
Outdoor operating temperature	max	°C	40	40
	min	°C	-15	-15



High efficiency heating and cooling with low electric energy consumption, using natural gas.

Reversible absorption heat pump powered by natural gas + air-source renewable energy

GAHP-AR

Advantages

- Up to 30% of cost savings compared with the best boilers with a heating efficiency higher than 150%⁽¹⁾.
- Very low electric consumption if compared with traditional electric systems thanks to the use of natural gas.
- It is eligible with incentive programs in several countries.
- 100% use of natural refrigerant.

Applications

- Ideal for space heating and cooling to decrease the natural gas consumption or where the electricity availability is limited.
- Outdoor installation.

Versions

- Available as standard or low noise version. Heat pumps can also be combined with other heating and/or cooling units.

⁽¹⁾ G.U.E. - Gas Utilization Efficiency - equivalent to COP 3.75 on energy conversion factor of 2.5.

Working point A7/W35	G.U.E.	%	150
	heating capacity	from 37.8 kW	
Working point A35/W7	cooling capacity	from 16.9 kW	
	max in heating	°C	60
Outlet water temperature	min in cooling	°C	3
	max in heating	°C	50
Inlet water temperature	min in heating	°C	20
	max in cooling	°C	45
Outdoor operating temperature	min in heating	°C	-20



High efficiency heating and domestic hot water production using ground-source renewable energy. Modulating and condensing absorption heat pump powered by natural gas + ground-source renewable energy GAHP-GS

Advantages

- Up to 40% of cost savings compared with the best boilers with heating efficiency higher than 169%⁽¹⁾.
- Geothermal loop installation costs reduction by up to 50%.
- Very low electric consumption if compared with traditional electric systems thanks to the use of natural gas.
- It is eligible with incentive programs in several countries.

Applications

- Ideal for space heating to decrease the natural gas consumption.
- Indoor or outdoor installation.

Versions

- HT: optimized for high temperature hot water production (for retrofitted radiator systems).
- LT: optimized for low temperature water production (new systems with low temperature terminals like fan coils or radiant floor).
- Available in link configuration.

⁽¹⁾ G.U.E. - Gas Utilization Efficiency - equivalent to COP 4.23 on energy conversion factor of 2.5.

			GAHP-GS HT	GAHP-GS LT
Working point B0/W35	G.U.E.	%	--	169
	heating capacity	kW	--	from 42.6
	capacity from ren. source	kW	--	from 17.0
Working point B0/W50	G.U.E.	%	149	--
	heating capacity	kW	from 37.6	--
	capacity from ren. source	kW	from 12.6	--
Outlet water temperature max		°C	65	55
Inlet water temperature max		°C	55	45



High efficiency simultaneous hot and cold water usage. Heating, cooling and domestic hot water production using water-source renewable energy. Modulating and condensing absorption heat pump powered by natural gas + water-source renewable energy
GAHP-WS

Advantages

- Up to 40% of cost savings compared with the best boilers with heating efficiency higher than 174%⁽¹⁾.
- Efficiency higher than 244%⁽²⁾ during simultaneous hot and cold water usage.
- Very low electric consumption if compared with traditional electric systems thanks to the use of natural gas.
- It is eligible with incentive programs in several countries.

Applications

- Ideal when simultaneous hot and cold water usage is required (hospitals, application processes, hotels, swimming pools, etc).
- Ideal for cooling, heating and DHW production.
- Indoor and outdoor installation.

Versions

- Available in link configuration.

⁽¹⁾ G.U.E. - Gas Utilization Efficiency - equivalent to COP 4.35 on energy conversion factor of 2.5.

⁽²⁾ G.U.E. - Gas Utilization Efficiency - equivalent to COP 6.10 on energy conversion factor of 2.5.

Working point W10/W35	G.U.E.	%	174
	G.U.E. overall efficiency ⁽²⁾	%	244
	heating capacity	from 43.9 kW	
	capacity from ren.	from 17.6 kW	
Max outlet water temperature in heating	°C	65	
Max Inlet water temperature in heating	°C	55	

⁽²⁾ In case of simultaneous usage of hot and cold water.



Cooling and simultaneous free domestic hot water production up to 75 °C.

Absorption chiller-heater powered by natural gas with heat recovery

GA ACF-HR

Advantages

- For each kW of natural gas equivalent used, every unit adds 0.8 kW of renewable energy for domestic hot water production with a total efficiency higher than 180%.
- Saving up to 86% of electric energy consumption compared with a traditional electric system, thanks to the use of natural gas.
- 100% use of natural refrigerant.

Applications

- Ideal for hotel, sport and wellness facilities.
- Ideal for post-heating circuits with air handling unit.
- Outdoor installation.

Applications

- Available as standard or low noise version. The unit can also be combined with other heating and/or cooling units.

Heating capacity with heat recovery for free in cooling operation		up to 32.0 kW	
Cooling capacity with heat recovery		from 17.93 kW	
Nominal water flow heat recovery		up to 1.0 m ³ /h	
Water inlet temperature	max	°C	45
	min	°C	6
Hot water inlet temperature	max recovery	°C	75
	min recovery	°C	10
Outdoor operating temperature	max	°C	45
	min	°C	0



Cooling with low electric energy consumption. Absorption chiller powered by natural gas GA ACF

Advantages

- Electricity savings up to 86% if compared with a traditional electric system thanks to the use of natural gas.
- 100% use of natural refrigerant.
- Low maintenance operation, since no electric compressors are installed.

Applications

- Ideal for space cooling where the electricity availability is limited.
- Outdoor installation.

Versions

- Available as standard or low noise version. The units can also be combined with other heating and/or cooling units.

Special Versions

- TK Version: for process applications.
- HT Version: for high temperature climate.
- LB Version: for process applications where negative water temperatures are required.

		ACF	ACF TK	ACF HT	ACF LB
Nominal cooling capacity	kW	17.72	17.72	17.12	13.30
Minimum outlet water temperature	°C	3	3	5	-10
Outdoor operating temperature	max	°C 45	°C 45	°C 50	°C 45
	min	°C 0	°C -12	°C 0	°C 0



Heating and hot water production up to 80 °C.
 Ideal for integrating Robur gas absorption solutions.

Condensing boiler (★ ★ ★ ★)

for outdoor installation

AY Condensing

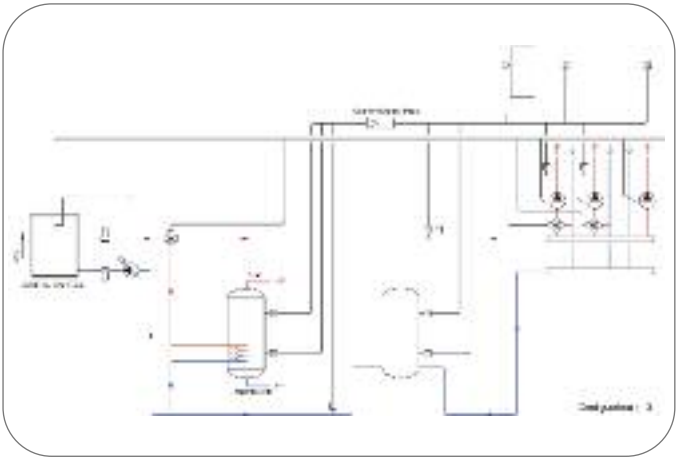
Advantages

- Ideal integration to:
 - cover the heating peak demand;
 - integrate DHW production.

Versions

- Available in link configuration.

Nominal heating capacity		from 34.4 kW	
Efficiency	100% load (80 °C - 60 °C)	%	98.6
	100% load (50 °C - 30 °C)	%	104.6
Outlet water temperature max		°C	80
Outdoor operating temperature	max	°C	45
	min	°C	-20



High efficiency heating, cooling and domestic hot water production.

Complete system with components

E³

Advantages

- Supplied with the main system components:
 - generation system: absorption heat pumps powered by natural gas and renewable energy;
 - distribution system: high efficiency modulating pumps;
 - control system: Comfort Control Panel managing the whole generation and distribution systems.
- Available in 13 predesigned configurations to meet every installation requirements.
- It is eligible with incentive programs in several countries.

Versions

- E³ A: system including one or more absorption heat pumps powered by natural gas and air-source renewable energy (GAHP-A p. 9).
- E³ GS: system including one or more absorption heat pumps powered by natural gas and ground-source renewable energy (GAHP-GS p. 11).
- E³ WS: system including one or more absorption heat pumps powered by natural gas and water-source renewable energy (GAHP-WS p. 12).



Wall mounted air handler unit. Indoor air handler unit CL

Advantages

- 2-speed ventilation.
- Adaptable air flow through the front grid with individually adjustable fins.

Applications

- Ideal for supermarkets, showrooms, workshops, industrial buildings, factory buildings, medium large spaces, requiring winter heating.
- Can be connected to other Robur hot water production units and any other hydronic heating system.

Heating capacity (water 80/70 °C, air 15 °C, max speed)	kW	43.18
Air flow max/min	m ³ /h	4,000/2,850
Nominal electric power	kW	0.25



Heating with the best cost-benefit ratio.

Condensing and modulating wall mounted gas fired unit heater Gas Unit Heater G

Advantages

- Up to 25% of cost savings thanks to high efficiency higher than 105%.
- 30 minutes is all that it needs to warm up even the largest spaces.
- High comfort thanks to the perfect modulation of the heating output and ventilation.

Applications

- For heating industrial buildings, workshops and commercial buildings.
- Indoor installation.

Standard equipment

- Digital chronothermostat with control functions.
- Natural gas - LPG conversion kit.
- Condensate siphon.

			G 30	G 45	G 60	G 100
Heat output	max	kW	29.2	43.3	56.2	90.2
	min	kW	15.8	15.6	20.2	33.5
Efficiency	max	%	105.3	104.3	104.6	105.7
	min	%	97.3	96.5	97.0	97.0
Air flow ⁽¹⁾	max speed	m ³ /h	2,700	4,000	5,350	8,250
	min speed	m ³ /h	2,300	2,340	3,310	5,200
Temperature rise		K	31.1	31.8	30.8	32.1
Air inlet pipe diameter		mm	80	80	80	80
Exhaust air pipe diameter		mm	80	80	80	80

⁽¹⁾ At 20 °C - 1013 mbar.



Heating with the best comfort thanks to the continuous modulation of the heating output and ventilation.

Modulating wall mounted gas fired unit heater

Gas Unit Heater K

Advantages

- High seasonal efficiency for greater energy savings: up to 96% efficiency when modulating heat output.
- Reduced on-off, thus enhancing the average efficiency of the unit.
- Reduced size and weight.

Applications

- For heating industrial buildings, workshops and commercial buildings.
- Indoor installation.

Standard equipment

- Digital chronothermostat with regulation and control functions.
- Natural gas - LPG conversion kit.

			K 32	K 45	K 60	K 100
Heat output	max	kW	29.6	41.6	55.2	92.0
	min	kW	17.7	25.8	33.0	53.9
Efficiency	max	%	92.5	92.5	92.0	92.0
	min	%	95.0	95.5	95.6	96.2
Air flow ⁽¹⁾	max speed	m ³ /h	2,700	4,000	5,350	8,250
	min speed	m ³ /h	2,300	2,600	3,670	5,775
Temperature rise	max speed	K	31.0	30.8	30.6	33.0
	min speed	K	29.9	29.4	26.7	27.7
Air inlet pipe diameter		mm	80	80	80	80
Exhaust air pipe diameter		mm	80	80	80	80

⁽¹⁾ At 20 °C - 1013 mbar.



Efficient and cost-effective heating system.
 Wall mounted gas fired unit heater
 available also with centrifugal fan
Gas Unit Heater F and F C

Advantages

- Heating efficiency of 91% under every operation condition.
- With low NOx emissions.
- Available in wall mounted or in vertical downflow.

Standard equipment

- Remote control box with lock-out light, reset switch and summer/winter switch.
- Natural gas - LPG conversion kit.
- Flange duct connection (F C).

Applications

- For heating industrial buildings, workshops and commercial buildings.
- Gas unit heater F C with duct system is ideal for heating several rooms with a single unit.
- Indoor installation.



		F1 21	F1 31	F1 41	F1 51	F1 21C	F1 41C	F1 51C
Heat output	kW	21.0	28.0	33.8	44.0	21.0	33.8	44.0
Efficiency	%	91	91	91	91	91	91	91
Air flow ⁽¹⁾								
with free inlet	m ³ /h	2,120	2,860	4,180	5,100	2,500	3,500	4,000
at max pressure drop	m ³ /h	--	--	--	--	2,000	2,600	2,800
Max available pressure head	Pa	--	--	--	--	110	120	180
Temperature rise	K	31.1	30.7	29.5	31.0	24.9	28.7	32.7
Air inlet pipe diameter	mm	80	80	80	80	80	80	80
Exhaust air pipe diameter	mm	80	80	80	80	80	80	80

⁽¹⁾ At 20 °C - 1013 mbar.



Efficient and cost-effective heating system.
 Wall mounted gas fired unit heater
 for small spaces
Gas Unit Heater B 15

Advantages

- Heating efficiency of 92%
- With low NOx emissions.
- Easy installation: the heater, equipped with its own bracket, can be installed in horizontal, inclined or vertical position according to the requirements.
- Low sound pressure.

Applications

- For heating small medium workshops and factories.
- Indoor installation.

Standard equipment

- Remote control box with lock-out light, reset switch and summer/winter switch.



Heat output	kW	13.8
Efficiency	%	92.0
Air flow ⁽¹⁾	m ³ /h	2,170
Temperature rise	K	18.2
Air inlet pipe diameter	mm	80
Exhaust air pipe diameter	mm	80

⁽¹⁾ At 20 °C - 1013 mbar.



Cost-effective heating system.

Wall mounted gas fired unit heater available also with centrifugal fan Gas Unit Heater M and M C

Advantages

- 30 minutes only to heat even the largest room. The Robur heat exchanger allows a more homogeneous temperature on exchanger surfaces with optimal distribution.
- Independent installation, it can be easily increased and moved.

Applications

- For heating industrial buildings, workshops and commercial buildings.
- Gas unit heater M C with duct system is ideal for heating several rooms with a single unit.
- Indoor installation.

Standard equipment

- Remote control box with lock-out light and reset.

		M 20	M 25	M 30	M 35	M 40	M 50	M 60
Heat output	kW	18.3	25.5	30.7	37.4	42.5	50.7	63.8
Efficiency	%	88.8	88.5	88.2	88.6	88.2	88.5	88.0
Air flow	m ³ /h	2,630	2,800	4,100	3,900	4,530	5,200	7,140
Temperature rise	K	32.0	32.0	30.3	32.6	33.6	32.0	30.5
Air inlet pipe diameter	mm	130	130	130	130	130	130	130
Exhaust air pipe diameter	mm	110	110	110	110	110	110	110

		M 20C	M 30C	M 60C
Heat output	kW	18.3	30.7	63.8
Efficiency	%	88.8	88.2	88.0
Air flow	with free outlet	m ³ /h		
	at max pressure drop	m ³ /h		
Max available pressure head	Pa	110	110	110
Temperature rise	with free outlet	K		
	at max pressure drop	K		
Air inlet pipe diameter	mm	130	130	130
Exhaust air pipe diameter	mm	110	110	110



Condensing heating system.

Combined heating systems with outdoor gas fired condensing boiler (★ ★ ★ ★) and indoor air handler unit

Caldaria 35, 55.1 and 100.1 Condensing

Advantages

- Low energy consumption thanks to the high efficiency - up to 108% - of the condensing technology.
- It is supplied with the main system components: boiler, air handler units, control and regulation systems, facilitating the installation.
- High system flexibility for easy integration with the heating system, thanks to the modularity of the units.

Applications

- For heating spaces where indoor installation is not permitted by norm (textile factories, wood and paper processing and storage, varnishing, public and commercial spaces, etc).

Versions

- Caldaria 35 Condensing:
1 boiler + 1 air handler unit.
- Caldaria 55.1 Condensing:
1 boiler + 2 air handler units.
- Caldaria 100.1 Condensing:
1 boiler + 3 air handler units.
- Available in natural gas or LPG fired versions (Caldaria 100.1 only in natural gas fired version available).

OUTDOOR BOILER

			35	55.1	100.1
Heating capacity (water 80/60 °C)	100%	kW	30.9	53.8	97.0
	min	kW	9.3	11.6	24.5
Heating capacity (water 50/30 °C)		kW	34.1	58.7	106.3
Heating efficiency	water 80/60 °C	%	98.0	97.8	97.0
	water 50/30 °C	%	108.1	106.8	106.3
Exhaust air pipe diameter		mm	50	80	100

INDOOR AIR HANDLER UNIT

Air flow	max	m ³ /h	4,000
	min	m ³ /h	1,450
Temperature rise		°C	21.5



Condensing heating solution.

Outdoor gas fired
condensing boiler (★ ★ ★ ★)

Caldaria 35, 75 and 100 Condensing

Advantages

- Low energy consumption thanks to the high efficiency - up to 108% - of the condensing technology.
- 3 distribution circuits management: high or low temperature and domestic hot water production.
- Operation also with climate curve.

Applications

- For heating (and domestic hot water production with remote buffer) spaces where indoor installation is required.

Standard equipment

- Outdoor temperature probe (for 75 and 100 Condensing).
- Natural gas - LPG conversion kit.
- Wall brackets.

			35	75	100
Heating capacity 100% load	water 80/60 °C	kW	30.9	65.6	88.3
	water 60/40 °C	kW	32.8	72.1	95.4
	water 50/30 °C	kW	34.1	73.2	96.8
Efficiency 100%	water 80/60 °C	%	98.0	97.0	98.2
	water av. T. 50 °C (60/40 °C)	%	106.7	106.6	106.1
	water 50/30 °C	%	108.1	108.3	107.7
Efficiency 30%	water 80/60 °C	%	98.8	99.4	98.7
	water av. T. 50 °C (60/40 °C)	%	106.4	106.4	106.6
	water 50/30 °C	%	108.6	108.6	108.7
Exhaust air pipe diameter		nr./mm	1/50	2/50	2/50



Cost-effective heating system.
 Combined heating system with
 outdoor gas fired boiler (★ ★ ★)
 and indoor air handler unit
Caldaria Uno SuperStar

Advantages

- High system flexibility and independent installation. It can be easily increased and moved, thanks to the modularity of the units.
- Easy to install thanks to the arrangement for electric connection boiler - air handler unit - remote control.

Applications

- For heating spaces where indoor installation is not permitted by norm (textile factories, wood and paper processing and storage, varnishing, public and commercial spaces, etc).

Standard equipment

- Digital remote control with regulation and control functions.
- 5 m connection cable boiler - air handler unit.
- 3,5 m connection cable boiler - air handler unit.
- Wall brackets.

OUTDOOR BOILER

Heating capacity	nominal	kW	32.6
	min	kW	9.4
Nominal efficiency		%	93.7
Exhaust air pipe diameter		mm	80

INDOOR AIR HANDLER UNIT

Air flow	max	m ³ /h	4,000
	min	m ³ /h	2,850
Max temperature rise		°C	23



Integrating space heating. Ideal for occasional use, refurbishment and holiday homes.

Independent gas fired convectors

Calorio M, Supercromo and TS 2000 Series

Advantages

- Independent and modular system that allows different rooms to be heated to different temperatures, optimizing the heating by autonomously regulating the temperature of each single zone.
- Quick to install with no need for hydraulic connections nor exhaust air pipes. Just one 50 mm hole through the wall for a coaxial pipe is needed.

- TS 2000 model does not require electric supply.

Applications

- Ideal for integrating space heating, also for occasional use, refurbishment and holiday homes (holiday homes, offices, dressing rooms, factories, canteens, shops, restaurants and show rooms).

CALORIO M

Modulating independent gas fired convector


Advantages

- Homogeneous temperature, comfort and energy saving, thanks to the modulation of the heat output and ventilation.
- Low heat stratification thanks to the regular and continuous operation.
- Easy to use programmable thermostat with backlight as a simple interface.
- Quick to install thanks to the easy installation of the support bracket and the position of the gas and electric connections (external of the cover).

- Customize your comfort with exclusive accessories: food warmer and towel warmer.



Chose the gas fired convector meeting your needs!

	Calorio M	Supercromo	TS2000
Heat output	Automatic modulation to keep constant temperature	ON-OFF switch according to set temperature 8002: Manual modulation to keep constant temperature	ON-OFF switch according to set temperature
Programming and temperature regulation	Manual or programmed through electronic backlit user interface (management of 3 temperature levels and days/hour/°C programming)	Manual or with digital time switch (day/hour programming)	Manual
Indoor ventilation	Automatic modulation	ON-OFF switch	--
Accessories for perfect comfort	YES (towel warmer, food warmer) 	--	--
Electric supply	YES	YES	Not required
Colors	White (RAL 9003)	White (RAL 9003)	White (RAL 9003)

CALORIO M

			42M	52M
Heat input	nominal	W	3,620	5,230
	reduced	W	2,510	3,600
Heat output	nominal	W	3,260	4,710
	reduced	W	2,260	3,180
Pipe diameter	air/exhaust	mm	49/35	49/35
Size	length	mm	553	553
	height	mm	715	715
	depth	mm	215	215

SUPERCROMO and TS 2000

			3001	3002	TS 2000
Heat input	nominal	W	2,580	2,580	1,970
	reduced	W	--	--	1,335
Heat output	nominal	W	2,320	2,320	1,690
	reduced	W	--	--	1,120
Pipe diameter	air/exhaust	mm	49/35	49/35	100/60
Size	length	mm	478	478	478
	height	mm	577	577	577
	depth	mm	173	173	173



Natural and simple cooling medium large spaces.

Natural evaporative cooler

AD 14

Advantages

- Low energy consumption: the management cost is less than 2 € per day.
- Modular and adaptable system. Each unit can operate independently or can be integrated with other units, even afterwards.
- No specialized maintenance. The only maintenance needed is the cleaning of the filters of the evaporative pads.
- Available in down (supplied as standard), side or top discharge versions.

Applications

- Industrial buildings and warehouses.
- Commercial buildings, shops and showrooms.
- Fitness centres.

Max air flow rate		m ³ /h	14,000
Ducting connection (down discharge)		mm	645x645
Electric power	axial fan	kW	1.5
	circulation pump	kW	0.05
Weight	without water	kg	55
	with water	kg	92



For preventing cold air to enter into industrial and commercial buildings where doors are frequently opened.

Air barrier with centrifugal fan R4S

Advantages

- No need for water supply.
- Installing several units, all door widths can be covered.
- Equipped with speed fan, for regulating air flow according to installation height.

Applications

- Factories with large frequently opened doors.
- Building neighbouring aisles and non heated areas.

Air flow	m ³ /h	3,200
Operating wattage	kW	1.0
Weight	kg	46

The value of the experience



Carrefour, 11 points of sale - Italy



Boscolo Etoile Academy - Italy



Residential building in Rome - Italy



Municipality of Milan - Italy



School "Follador" - Italy



Bayer manufacturing plant - Italy



Certosa di Pavia - Italy



RAI - Italy



Administrative Centre - Belgium



Slupsk Technological Incubator - Poland



NY Department of Sanitation - USA



Château Talbot - France



Pixel Building - Australia



Residential district "Benny Farm" - Canada



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