

“WELCOME TO YOUR COMFORT ZONE”



Energy Management



Radiant Systems



Water Management



Gas Distribution



Renewable Sources



Hydrogen Systems



Fire Protection

2019 GENERAL OVERVIEW & NEW PRODUCTS

General overview

New products 2019

EN2019 ↻ FEB2019

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Giacomini Group

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The future is our growing source.

80 tons of brass machined every day, production plants covering 130k sq.m., 900 employees, sales for 200 million euro, 80% of export, branches and business partners in 19 countries worldwide: **our numbers tell our story, our partners' satisfaction tells the rest.**








Established in 1951, our company started manufacturing brass components that immediately crossed the borders of an Italian market on the way to reconstruction. The following decade we decided to conquer America. In the 70s, we worked hard to extend our component production to new integrated systems.

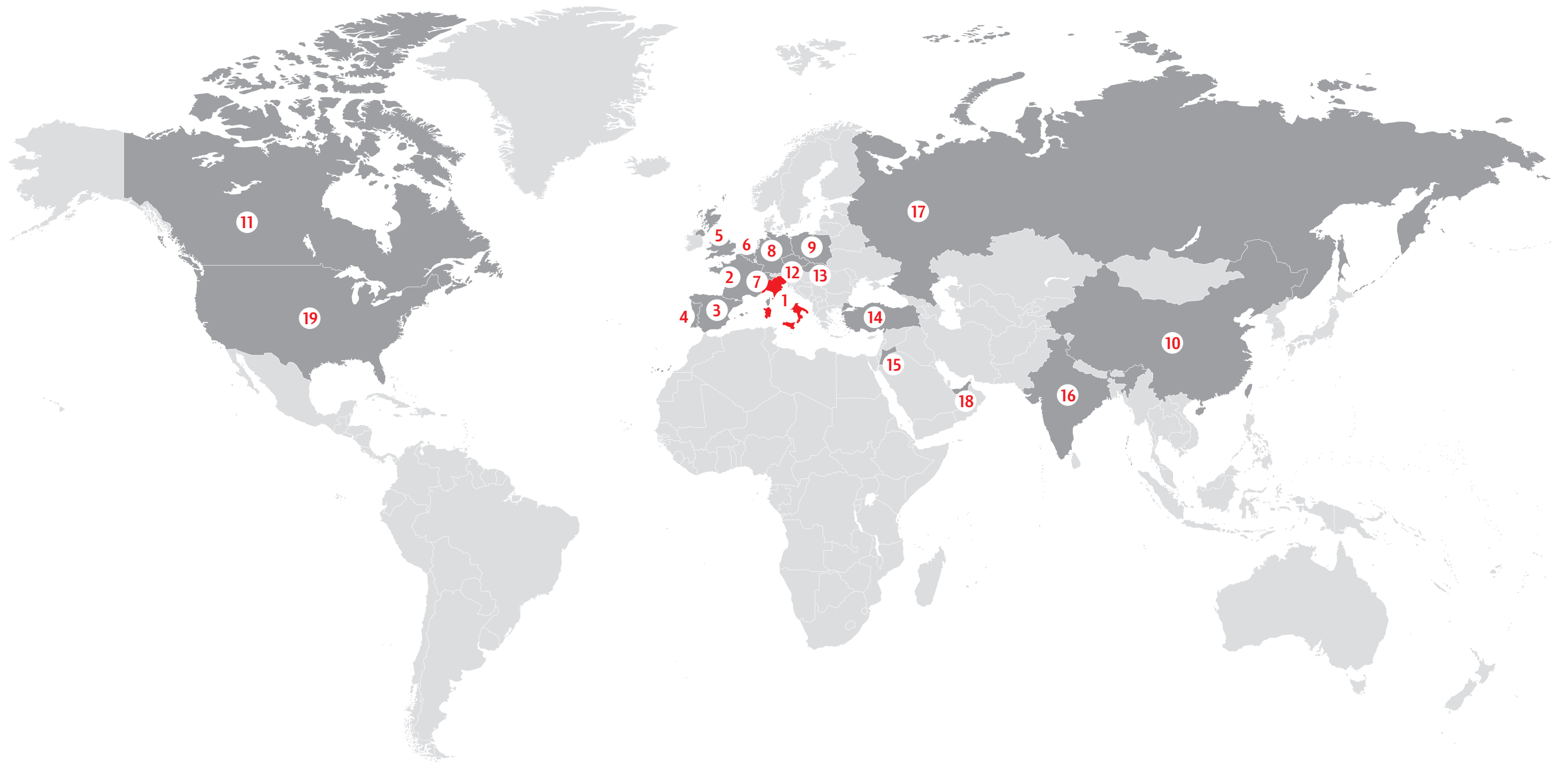
The technological boost of the 80s led us towards automatic thermoregulation systems. In the 90s we undertook a non-stop activity to train the most enterprising installers, distributors and designers.

At the turn of the new century we designed the first heat generator that turns us into true pioneers of the sector with specific solutions for renewable energies. Today we face the sustainability challenge with products that reinterpret the relation between buildings, nature and wellbeing through efficient and comfortable habitats.

In less than 70 years we have worked with almost every form of energy, yet we have left the most powerful run free: future, the life blood that drives us every day towards new goals.

We are where energy is.

	Energy Management	Components for energy consumption optimization and metering, and for hot and cold fluid distribution.
	Radiant Systems	Floor, wall and ceiling radiant air conditioning for residential and use, thermoregulation and air treatment.
	Water Management	Components for drinking water distribution lines, domestic water system devices.
	Gas Distribution	Distribution products and systems for safe and high-performing gas transfer in buildings.
	Renewable Sources	Components dedicated to energy production systems from renewable sources.
	Hydrogen Systems	Innovative and integrated solutions for eco-friendly hydrogen-fueled heating systems.
	Fire Protection	Specialized top-performance components for the fire protection professional sector.



The excellence of Made in Italy for global development.

Branches, representative offices and exclusive partners: Italy (1), France (2), Spain (3), Portugal (4), United Kingdom (5), Belgium (6), Switzerland (7), Germany (8), Poland (9), China (10), Canada (11), Czech Republic (12), Slovakia (13), Turkey (14), Jordan (15), India (16), Russia (17), UAE (18), USA (19)

We are by now one of the world's leading companies for the production of heating, air conditioning and domestic water systems dedicated to the residential, industrial and tertiary sector thanks to our competence, innovation and networking.

**Our passion never stops growing.
Just like our group.**

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**Giacomini Academy, a step to the future.
Training. Innovation. Sharing experiences.**



In-house training for our client's growth. We dedicate great care to the competence and professionalism of our collaborators through a non-stop training process that includes updating sessions, stages, periodical panels of technical analysis. This provides our clients a highly professional and qualified service. **Training for professionals.** We want the Academy to be a point of sharing experiences and exchange of information between our firm and its partners, so as to turn it into a source of mutual growth and encouragement to do better. During our seminars, we analyze technical elements as well as new market trends, modern technologies and law provisions and regulations in force.



**Certified
quality,
cutting-edge
production
system.**



**Training customized for
every single application.**

ENERGY MANAGEMENT

Course describing components for energy consumption optimization. Types of metering (direct and indirect), thermostatic heads, etc.

RADIANT SYSTEMS

The course will analyze basic concepts for thermoregulation of floor and ceiling radiant systems.

WATER MANAGEMENT

Analysis of water distribution systems with PEX/AL/PEX, PEX, PP-R pipes. Products for flow shut-off and regulation, types of fittings.

GAS DISTRIBUTION

Analysis of systems recommended for gas abduction/distribution and shut-off for domestic use.

RENEWABLE SOURCES

Course dedicated to products and systems for renewable energy sources and with low environment impact. Heat pumps, Solar energy, Geothermal energy, Biomasses, etc.

Welcome to your comfort zone.
ISH Frankfurt, hall 9.1, booth E42.



- 1** Main entrance
- 2** Reception
- 3** Bar
- 4** Restaurant
- 5** Academy

- 6** Meeting room 1
- 7** Meeting room 2
- 8** Meeting room 3
- 9** Meeting room 4

- 10** Fire protection products
- 11** HVAC systems for commercial applications
- 12** HVAC systems for residential applications
- 13** Renewable sources / Hydrogen systems
- 14** Components for distribution
- 15** Boiler room components / Large-scale project valves
- 16** Balancing for HVAC systems
- 17** Direct thermal energy metering

Chapter 1

HVAC systems for commercial applications

For buildings of the service sector (offices, hospitals, airports, commercial units, schools), we offer a wide range of complete systems and components to create comfortable and extremely efficient HVAC installations.

Metal radiant ceilings / Metal islands or sails

The metal suspended ceiling, housing installation and service networks, is the main element of the HVAC system offering all the benefits of radiant technology: enhanced comfort and healthier environment, improved energy savings, utmost architectural freedom and complete exploitation of building surfaces and volumes. Available in a wide variety of models, also customizable.

Metal islands or sails complete our radiant range for the service sector guaranteeing greater architectural freedom.

Metal radiant ceiling

◊ GK Ultra series



Sheet-steel system consisting of active and inactive panels, supported by a sturdy support structure structure available for exposed, parallel or crossed installation

- The support structure structure and panels are extremely easy to install for rapid laying

- The plenum is easy to access for quick inspection and maintenance of other installations also with the system running

- Panels are available in multiple dimensions and include TNT for an outstanding sound-proofing performance

- Activation with anodized aluminum thermal diffusers and hydraulic circuit with copper coil

- Output referring to active area: 108 W/m² (Cooling $\Delta T=8$ K, according to EN 14240)

- Output referring to active area: 134 W/m² (Heating $\Delta T=15$ K, according EN 14037)

Metal radiant ceiling

◊ GK Top series



Sheet-steel system consisting of active and inactive panels, supported by a sturdy support structure structure available for exposed, parallel or crossed installation

- Easy to install

- Standard access to plenum also during op-

eration: the panels can be disconnected and positioned vertically by rotating them with the fixed hooks in the special support slots

- Activation with anodized aluminum thermal diffusers and hydraulic circuit with copper coil

Metal sail or island

◉ GK-V Ultra series



Radiant island consisting of a suspension system, containment edge and sheet-steel active panels

- The ideal solution to create 'discontinuous ceiling clouds' interrupting the ceiling line while guaranteeing total architectonic free-

- Output referring to active area: 108 W/m² (Cooling $\Delta T=8$ K, according to EN 14240)

- Output referring to active area: 134 W/m² (Heating $\Delta T=15$ K, according EN 14037)

dom and efficiently covering the air-conditioning zones

- Activation with anodized aluminum thermal diffusers and hydraulic circuit with copper coil
- Panels are available in multiple dimensions and include TNT for an outstanding sound-proofing performance

- Output referring to active area: 108 W/m² (Cooling $\Delta T=8$ K, according to EN 14240)

- Output referring to active area: 134 W/m² (Heating $\Delta T=15$ K, according EN 14037)

Flow-rate regulation for 6-way valve

◉ DX274 - Dynamx



Control device for 4-pipe systems (heating and cooling available simultaneously) with

actuator and electronic flow-rate control pre-assembled on 6-way valve.

- Multiple integrated functions: pressure-independent flow rate regulation (PICV), shut-off, change-over, temperature setting

- Thermal energy metering (only for versions with temperature probes: consumed kWh can be displayed but this data is not valid for MID-complying metering)

- Optional remote control through ModBus and BacNet protocols and simple integration in BMS (Building Management System)

- Wide range of flow rates, greater precision and instant response compared to mechanical control systems

- Enhanced operational conditions thanks to real-time flow-rate data access

- Actuator with optional manual operation to change valve position when no power supply

is available

- Operation with a wide range of differential pressures (no minimum Δp required)

- Integrated system (patented) for overpressure protection

- Possibility to fit the valve on supports using the threaded female hole on the lower part of the valve (1 1/2" M6 hole for DX274, 2 1" M4 holes for DX274)

Fan coil kit

◉ R280K



Compact pre-assembled kit combining components for connection and start-up of HVAC terminal units (fan coils as well as cold beams or ceiling air-conditioning systems) to the main distribution network

- Available with 1/2"F and 3/4"F connections
- It combines a diverting ball valve for unit by-

pass, a full port ball valve with integrated filter, a pressure-independent control valve (PICV), a manual air-vent valve and a drain cock

- Bypassing the terminal unit, the user can efficiently perform initial flushing of the system without damaging the unit as well as periodical maintenance of the terminal without draining the entire system

- Installation requires only 4 connections, thus cutting down start-up times and possible errors

- The kit with PICV enables to set and maintain the terminal unit flow rate when the differential pressure of the main circuit varies

Compact six-way zone valve

◉ R274C

Compact 6-way zone valve with innovative monoblock hydronic distribution cartridge for an outstanding regulation performance.



The 6-way zone valve enables to easily control 4-pipe systems with heating and cooling available simultaneously.

One single motorized valve can replace two motorized valves to easily solve synchronization issues when opening/closing the two

sources.

- Patent pending
- Extremely compact brass body, available in ½" version
- Flat-seat male connections for a wide range of pipe fittings
- Innovative hydronic distribution cartridge to reduce losses of pressure, with the best Kvs on the market
- Overpressure-protection mechanism integrated in the cartridge
- Accurate control of losses of pressure by installation of calibrated washers series P21S
- ISO 5211 F04 connection for electric actuator installation

Chapter 2

HVAC systems for residential applications

The buildings we live in are likely to become environments where light, heating, cooling and water will be used more smartly and with greater awareness.

Every day we invest time and resources to enhance comfort and energy savings through our technological solutions, not just for new buildings but also, and especially, to renovate the valuable architectural heritage.

Plasterboard radiant ceilings

A standard plasterboard ceiling houses active radiant elements of a cutting-edge water-based radiant system, ideal for winter and, more importantly, summer air conditioning, combining wellness to energy savings.

Our wide range of installation solutions are designed to meet every performance or economic requirement in new and renovated residential buildings.

Plasterboard radiant false ceiling

GKC Classic and Super Classic series



Classic active and inactive plasterboard panel system with support structure structure and connection components.

- Plasterboard panel with superior EPS insulation layer
- Hydraulic circuit activation with PEX 8x1 mm plastic coil (50 mm pitch for Classic, 30 mm pitch for Super Classic with enhanced thermal performance)

- Panels provided in three different dimensions (2000x1200, 2000x600 and 1200x600 mm) to properly cover also complex surfaces
- Output referring to Classic active area: 41 W/m² (Cooling $\Delta T=8$ K, according to EN 14240); 68 W/m² (Heating $\Delta T=15$ K, according to EN 14037)
- Output referring to Super Classic active area: 48 W/m² (Cooling $\Delta T=8$ K, according to EN 14240); 77 W/m² (Heating $\Delta T=15$ K, according to EN 14037)
- Optional integration of special panels: fire-resistant with fireproof plasterboard (class A1), waterproof, acoustic (plasterboard double perforated sheet with soundproof middle layer), with spotlight predisposition

Plasterboard radiant false ceiling

GKC Top series

Quick installation system consisting of active and inactive plasterboard panels, support structure structure and connection components.

- Plasterboard high-conductivity graphite sheet and upper EPS thermal insulation layer

- Activation with aluminum diffusers and PEX 8x1 mm plastic coil circuit with 50 mm pitch
- Multilayer 20x2 mm backs to power the panel internal circuit
- Panels provided in various dimensions



(2000x1200, 2000x600, 1200x600 mm and

1200x1000 mm) to properly cover complex surfaces also

- Faster installation (thanks to water column integrated in panel) and optional panel connection from the bottom with preformed notches
- Reduced losses of pressure
- Output referring to active area: 58 W/m² (Cooling $\Delta T=8$ K, according to EN 14240); 90 W/m² (Heating $\Delta T=15$ K, according to EN 14037)

Radiant floors

Reduced energy impact, no stratification, total absence of air currents, no dust movements, noiseless, healthy temperature difference between inside and outside of the building: these are the main benefits of radiant technology, both for winter heating and summer cooling.

We provide a wide range of technical solutions and components to build water-based radiant floor systems in new constructions and renovation projects. Special attention is given to installation thickness, thermal resistances (with graphite-enhanced EPS) and reduction of trampling noise.



- Wet screed radiant system with graphite-enhanced polystyrene foam protrusion panels for a wide range of applications. Multiple thicknesses available for every thermal insulation requirement, suitable versions for diagonal pipe installation also with great soundproofing properties
- Wet radiant screed system with smooth panels, available in EPS or XPS polystyrene foam. Pipes are installed with special locking clips or special pipe-fitting rails

Wide range of versions:

- Compression-resistant XPS (for industrial applications or installations requiring anti-crushing

resistance)

- 0.25 mm aluminum surface layer
- Double density

• Radiant systems for lower thickness, ideal for renovation works requiring very low structures. R979S Spider Panel (European Patent) is a molded three-dimensional grid made of high-resistance polypropylene that enables to secure the pipe and to drown it completely in the screed. It allows for an optimized and even distribution of heat combined to limited thermal inertia



Available in multiple versions and thicknesses:

- with adhesive base for gluing on existing floors (thickness: 22 mm Standard and 15 mm Slim)
- combined to a 6 mm high-density insulation layer (thickness: 28 mm Standard and 21 mm Slim)
- with fitting pins for installation on existing insulation layer (thickness 22mm plus pins, Standard only)
- Extremely flexible PEX-b pipes and PE-RT pipes, both with anti-oxygen barrier, or in PEX-b/AL/PEX-b multilayer



Controlled mechanical ventilation and air treatment for radiant systems

Combined to our radiant systems, we provide machines specifically designed for humidity control in summer, forced air exchange and heat recovery.

Wall mounted and false ceiling fitted dehumidifiers with ecologic refrigerating fluid

◉ KDP – KDS

Monoblock units for air humidity control, compact and quiet, for use with radiant cooling panels in residential installations. In this refrigerating unit, including hydronic

coils fed by the panel refrigerated water, air undergoes a special thermodynamic treatment for heavy dehumidification to prevent condensation. Also available with sensible



power integration.

These machines combine excellent technical performance to an ecologic soul: the refrigerating fluid used in the circuit is **R290 propane**, a natural alternative to traditional refrigerating gases which feature high contents of GWP (Global Warming Potential, the global greenhouse warming potential caused by this gas in the atmosphere). Propane R290 offers efficiency levels not achievable by traditional products offered by other competitors (R32), and is risk-free as opposed to some new refrigerating fluids (e.g. acidity in contact with water).

Heat recovery units

◊ KHR



Wide range of double-flow ventilation units for heat recovery only (series KHR) or heat recovery combined to air treatment of sensible power air dehumidification/integration (series KHRD with thermodynamic treatment and series KHRW with hydronic integration).

- Available in a variety of dimensions to satisfy

a wide range of system requirements for residential applications or small buildings of the service sector (up to 500 m³/h of external exchange air)

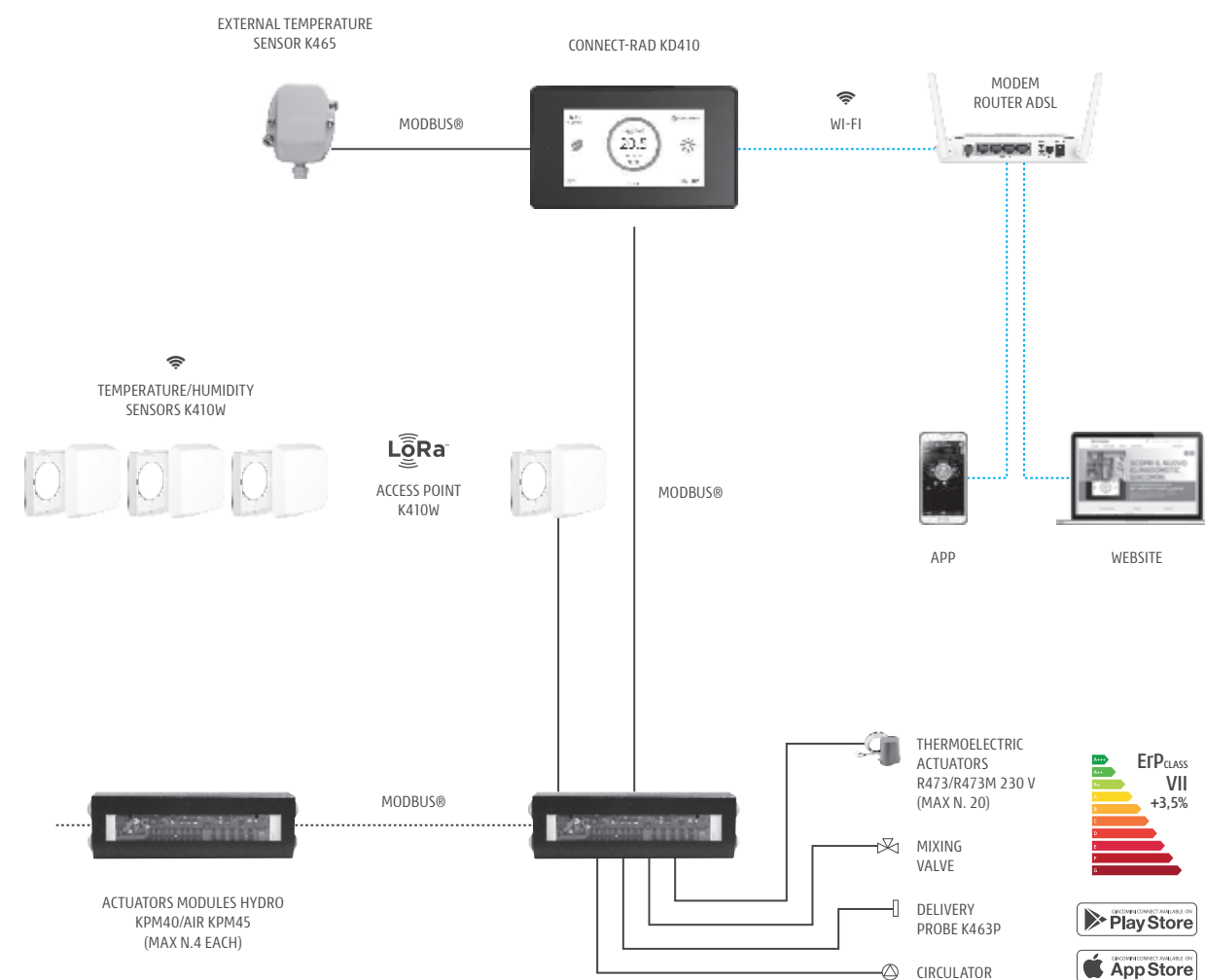
- Duct-type monoblock air treatment unit with horizontal (for suspended ceiling installation) or vertical configuration (floor or wall-mount installation)
- With high-efficiency double-flow air heat recovery unit
- Free-cooling motorized by-pass.
- Remote control panels for config. and control.
- Wide range of components for air distribution (plenum, manifolds, pipes, fittings, distribution openings)

Thermoregulation

We offer innovative thermo-regulation systems for air conditioning system control developed with cutting-edge technologies.

Wireless thermoregulation for radiant systems

◊ KLIMAdomotic



Smart wireless regulation system for radiant panel installations.

- Connect-Rad control unit with graphic color interface and quick-touch setting
- Actuator modules for specific control of the

hydraulic part and air-treatment machines

- "Giacomini Connect" dedicated APP for system remote control
- System equipped with wireless temperature and humidity sensors, external probes

Thermoregulation

◊ Stand-alone



Giacomini's new solution to easily set temperature and humidity of residential radiant systems.

tems. Enhanced comfort and reduction of energy waste thanks to geolocalization.

- Modern and highly-technological touch-screen chronothermostats for flush installation
- They easily control heating and cooling radiant systems as well as integration terminals such as dehumidifiers and fan-coils
- K-Domo dedicated App for simplified system control, also remotely

Thermoregulation

◊ KLIMAbus



Smart thermoregulation devices, networked by wiring – that is the bus – for data exchange with properly encoded messages. The modular bus system controls both basic heating and cooling mixing units and more complex residential and

service installations, with air treatment systems for dehumidification and heat or cold integration.

The extreme flexibility of this system enables to obtain different access profiles and exploit the latest technologies in terms of domotic control. The applications are easy to configure through a selection of guided options for easy installation and startup.

K-Domo dedicated App for simplified system control, also remotely.

Wireless thermoregulation for radiator valves

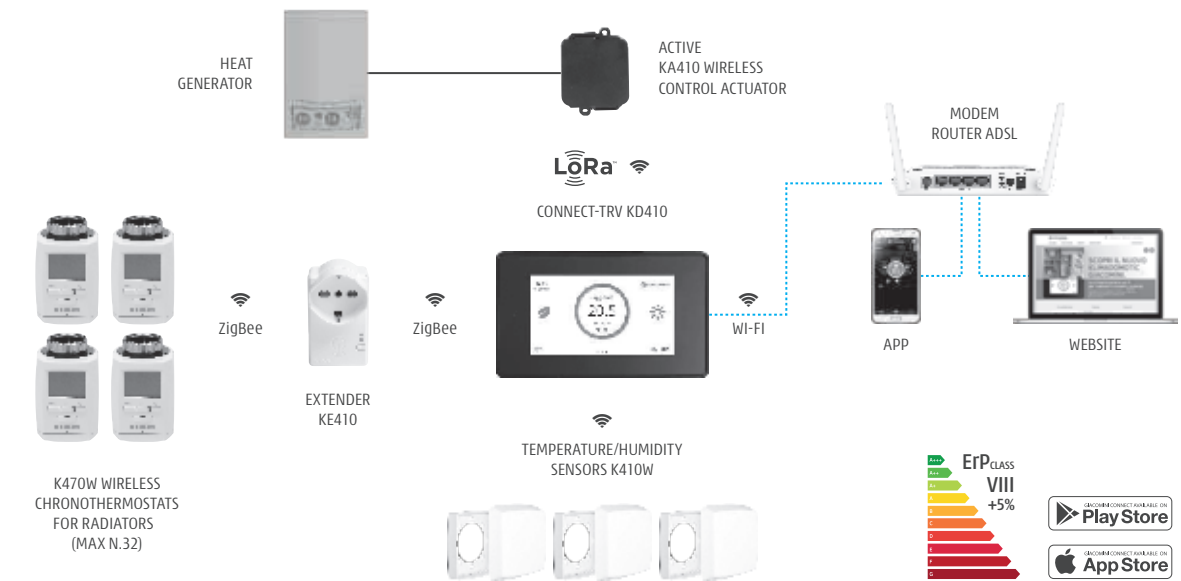
◊ KLIMAdomotic

Smart regulation for thermoregulation systems with thermostatic remote-control valves.

- Connect-Rad control unit with graphic color interface and quick-touch setting
- "Giacomini Connect" dedicated APP for sys-

tem remote control

- Wireless temperature sensors and signal repeaters to complete the system in case of communication failure between the heads and the control unit



Chapter 3

Distribution Line Components

For the distribution of heat-transfer fluids, mostly for residential installations, we manufacture ball valves, pre-assembled manifolds, plastic and metal-plastic pipe fittings ensuring maximum reliability for the entire life cycle of the heating and cooling system.

Fittings and ball valves suitable for gas transfer, where strict compliance to international regulations and safety are essential requirements, complete our range of distribution line components.

Multitong press fittings

RM



Wide range of multitong press fittings for plastic and multilayer pipes to be used in heating/cooling or domestic water systems.

- Wide range of dimensions, including large ones (75 and 90)
- Various types of press tongs available (TH,

H, U)

- Molded-brass bodies with hose connection beveled profile to fit the pipe more easily
- Double sealing (o-ring) complying with EN681-1, suitable for drinking water distribution
- AISI 304 stainless steel compression bushes with special flaring to fit the pipe more easily
- Brass bush-locking ring with opening to make sure the pipe is correctly pushed all the way in
- Insulating separator for pipe connection with aluminum to prevent electrochemical corrosion caused by contact with brass of body/fitting
- WRAS, CSTB, ATG system certification

Gas distribution system for domestic use

Multigas



Multitong fittings RM-G with yellow double sealing o-ring complying with EN 549 and EN682 and suitable for gas and hydrocarbon fluid distribution.

- Specific identification of gas application on bush (yellow stamps and RM gas inscription)
- Same peculiar characteristics of RM multitong fittings for use with water
- Available dimensions: 16x2 mm, 20x2 mm, 26x3 mm and 32x3 mm

Special-brass ball valves for use with drinking water

Special brass



Wide range of special-brass ball valves, specifically required by national regulations for drinking water.

- Brass alloys complying with UBA list for DVGW-certified ball valves
- "CR" dezincification-resistant brass alloys
- "Lead-free" brass alloys (low lead content) for NSF61 approved/complying ball valves

Press-fitting ball valves

Press fittings



Wide range of full port ball valves with press-fitting connections including "leaking before press" o-ring.

- Patented product
- "V", "SA" or "M" profile press fitting
- For use with copper, carbon steel and stainless-steel pipes
- Available diameters: 15 to 54 mm; ½" to 2"
- Additional hole on ball bottom to prevent bacterial proliferation through continuous exchange of water which, during maneuvering operations, settles between the ball and the valve
- Available with extended plastic handle for installation on pipes with thick insulations or with steel lever (for valves with 42 and 54 mm connections)



Gas ball valves EN-331:2015 certified

R700G



EN-331:2015 certified ball valves for first, second and third family gas distribution (EN 437).

- Full port
- Steel lever with yellow plastic coating or aluminum T-handle
- Wide range of profiles and dimensions
- Certification: Class A EN 331:2015 MOP 5 (R730G-A); for high temperatures EN 331:2015 MOP 5 class B 0,1 - 650 °C x 30' (R730G-B)

Gas ball valves for flush installation

G213SP



Gas ball valves suitable for domestic chase gas systems.

- Available in two versions: with horizontal or

bottom connections

- Non-plated brass full port valve with flat-seat male connection
- Containment plastic box, adjustable brackets, flat gaskets, work-site protection
- For use with decoration plates (white or chrome finish)
- Certification EN 331:2015 MOP 5 class B 0,1 - 650 °C x 30'

Valve with integrated filter

◊ R700F-R701F



Full-port ball valve with integrated filter for quick inspection and maintenance of HVAC systems.

- Available with lever (R700F) or T-handle (R701F)
- Female-female connection ($\frac{3}{4}$ " and 1" available soon)
- Reversible steel lever
- Stainless steel filter (500 μ m)

Modular manifolds

◊ R583 series



Brass modular manifolds for complete distribution units.

- Versions with 2, 3 or 4 circuits for total modular freedom of distribution unit

- With synchronized threads for enhanced alignment
- Available versions: with regulation lockshields, without flow meters; with flow meters including fluid regulation/shut-off functions; with special shut-off valves for thermo-electric actuators.

- Main connections 1", adapter connections $\frac{3}{4}$ "E
- Available accessories: insulation shells, automatic air-vent terminal units and drain cock, intermediate fittings with thermometer, shut-off ball valves

Technopolymer pre-assembled manifolds

◊ R553FP



Technopolymer pre-assembled modular manifold.

- Available range: 2 to 12 circuits
- Delivery with flow meters with fluid regulation/shut-off function
- Return with manual shut-off valves for thermo-electric actuators with M30x1,5 mm connection
- With R26gT multifunction valves
- DN32 with $\frac{3}{4}$ "E and base 18 adapter connections

Pre-assembled stainless steel manifolds

◊ R553FS – R553DS



Pre-assembled stainless-steel manifold.

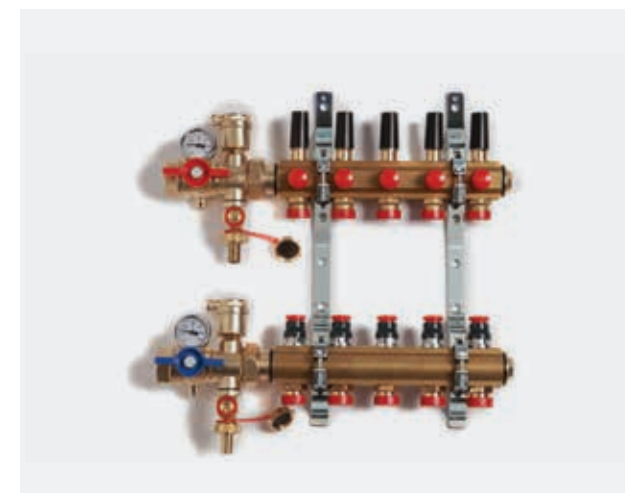
- AISI 304 stainless steel
- Available range: 2 to 12 circuits
- Two available versions: delivery with regula-

tion lockshield, no flow meters; delivery with flow meters including fluid regulation/shut-off function

- Return with manual shut-off valves for thermo-electric actuators with M30x1,5 mm connection
- Including terminal units with drain cock and manual air-vent valve
- Main connections 1", adapter connections $\frac{3}{4}$ "E
- Available accessories: various kits with shut-off valves for primary horizontal/vertical distribution

Pre-assembled manifolds with integrated dynamic balancing

◊ DB series



Pre-assembled units for heating and cooling systems with automatic flow-rate control.

- Available in various materials to meet every

market demand: brass, technopolymer, stainless steel

- Return manifold with thermostatable spacers and continuous regulation system (dynamic) of flow rate within every single circuit
- Delivery manifold with flow meters to set the circuit maximum flow rate and shut-off function
- Based on the version, they may include intermediate or end-piece fittings with various functions (shut-off, temperature reading, drain cock, air vent)

Chapter 4

Boiler Room Components Flanged Valves

Our wide range of boiler room components provides for enhanced control and energy efficiency, high levels of safety, reliability and full compliance with laws and regulations for new applications and extraordinary maintenance.

Pre-assembled relaunching units

◊ R586R



Pre-assembled units for secondary zone control in heating and cooling systems.

- DN25 units available in a variety of versions: direct connection, with mixers, with fixed-point regulation through thermostatic control
- All units include: shut-off ball valves with delivery/return thermometers integrated in knob; check valve; polypropylene foam insulation shell
- Available are modular boiler room manifolds to connect multiple units (2 to 3 zones) including integrated adjustable hydraulic separator

Adjustable magnetic dirt separator

◊ R146C



Cyclone-magnetic dirt separator for separation and elimination of circuit impurities inside hydraulic circuit, equipped with special adjustable fitting.

Superior cleaning action for rapid interventions: impurities are efficiently collected at the filter bottom thanks to the cyclonic separation of particles and the integrated filter. One just needs to stop the circulation pump, open the drain cock, unscrew the magnet from the top and close the tap when running water is clean; screw the magnet back on and restart circulation.

- Patented.
- Special permanent neodymium magnet re-

sistant to high temperatures, enhanced performance (cleaning power increased by 30%).

- Mechanical filtering and cyclonic effect combined to magnetic action triples the cleaning power for an outstanding performance.
- Made with brass with ¾" and 1" flat-seat thread-

Magnetic dirt separator

◉ R146M



Hydraulic-circuit dirt separator.

- Equipped with permanent magnet resist-

ed connections or compression fittings for connection to copper pipe

- The ¾" version is very compact and fit for space-saving under-boiler installations.
- Includes adjustable drain cock
- Optional insulation shell

ant to high temperatures

- Available threaded (brass body, ¾" to 2" female connections) and flanged (steel body, DN50 to DN150 connections)
- Suitable for water and glycol-based solutions
- Drain cock with hose connection included
- The flanged version features insulation in closed-cell foamed polyethylene, resistant to high temperatures

Hydraulic magnetic separator

◉ R146IM



Device for de-coupling of primary circuit flow rate from secondary with additional metal debris separation and de-aeration.

- Brass body and threaded female connections from 1" to 2" or flanged connections (DN50 to DN
- High-potential magnet included
- Equipped with automatic air vent valve, drain cock with hose connection, molded insulation shell made with closed-cell polyethylene foam resistant to high temperature

Y-shaped filters with magnet

◉ R74M



Complete range of Y-shaped filters with special permanent magnet.

- Magnetic element (magnetic candle) fit for application in HVAC systems and drinking water distribution
- Female threaded connections from ½" to 2".
- Inspectionable filter with stainless steel mesh
- Easy cleaning and maintenance

Flanged valves for large installations

◉ R740FL, R59W, R59FL, R55FL, R74FL



Wide range of GG25 flanged cast-iron components for installation of large water distribution systems.

- R740FL Full port ball valve with stainless steel ball (DN40 to DN200)
- R59W "Butterfly" valve with stainless steel disc (DN40 to DN300)
- R59FL "Butterfly lug-type" valve with stainless steel disc (DN40 to DN300)
- R55FL Gate valve (DN50 to DN300)
- R74FL Y filter with stainless steel filtering element (from DN50 to DN300)

Chapter 5

Hydronic system balancing

Our devices for hydronic balancing enable to obtain perfectly balanced systems and provide the correct heating or cooling power, noiseless operation and long-lasting system components.

Valves for radiators, spacers for radiant plates, distribution manifolds with dynamic balancing

DB series

The balancing cartridge limits the flow rate to the preset value with any differential pressure, preventing pressure fluctuations in two-pipe systems which generally occur when setting elements of other users are closing.

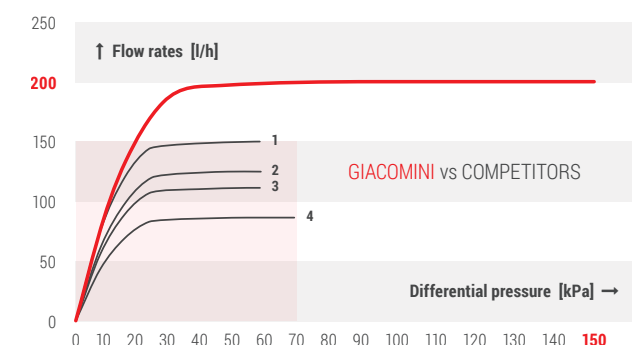
- Patented cartridge with EPDM balancing membrane with controlled deformation
- Effective balancing of hydraulic circuit offering great energy savings benefits and enhanced comfort
- Multifunction: pre-regulation, continuous precision setting, shut-off
- Pre-regulation with graduated scale to limit maximum flow



DB valves with thermostatic option for radiators to accurately control temperature and automatic hydraulic balancing.

Maximum differential pressure at TOP market levels.

- Designed to work up to 150 kPa of maximum differential pressure: this feature makes them fit for a wide range of applications, from small residential units up to large buildings
- With a 150 kPa maximum differential pressure, this valve can replace existing ones without installing a differential pressure controller upstream to the distribution line
- Wide range: connection for iron pipe, adapter connection (available soon), straight, angle and reverse angle versions
- Replacement of maneuvering bonnet with



system on

- They simplify circuit calibration, especially

when renovating complex installations.

- Keymark Certification (in progress)

Automatic flow-rate control valve (PICV)

◊ R206A



Pressure independent flow-rate control valve for use with specific actuators.

- Patent pending
- Enables effective balancing of the hydraulic circuit with enhanced energy savings
- Brass body, ½", ¾" and 1" male thread tail piece connections, preset for probe holder connection
- Setting cartridge with graduated indicator for precise regulation of maximum flow rate
- For use with on/off or proportional actuator (0÷10 V) for automatic flow-rate regulation

Static balancing valve

◊ R206B



Static balancing valve for precise flow rate regulation.

- Also available in compact version
- Standard version: fixed orifice (Venturi meter), Venturi Kv value shown on ABS knob; with or without probe holder for differential pressure meter; "CR" brass body, ½" to 2" female threaded connections and ¼"F drain with cap
- Compact version (R206B-1); variable orifice, no probe holder, brass body, ½" to 1" female threaded connections and ¼"F drain with cap
- Optional opening adjustment with mechanic memory mechanism (pre-setting)

Differential Pressure Control Valve

◊ R206C



Differential pressure control valve to maintain constant pressure.

- Patented
- Selectable double regulation range: "L" 5÷30 kPa; "H" 25÷60 kPa
- ½" to 2" female-female main connections, ¼"F differential pressure gauge connections with caps.
- Dezincification-resistant "CR" brass body

Compact differential pressure control valve

◊ R206C-1



Compact differential pressure control valve to maintain constant pressure.

- Extremely compact dimensions for application in limited spaces and pre-assembled metering modules
- Equipped with flow rate shut-off
- Setting range: 5÷30 kPa.
- Female-female connections (½", ¾" and 1")
- Dezincification-resistant "CR" brass body

Flanged balancing valves for large installations

◊ R206B, R206C, R206A



Flanged valves for balancing of large water distribution systems.

- R206B Cast iron static balancing valve with flanged connections (DN50 to DN300)
- R206C Cast iron differential pressure control valve with flanged connections (DN65 to DN150)
- R206A cast iron dynamic balancing PICV with flanged connections (DN65 to DN150)



Chapter 6

Direct energy metering

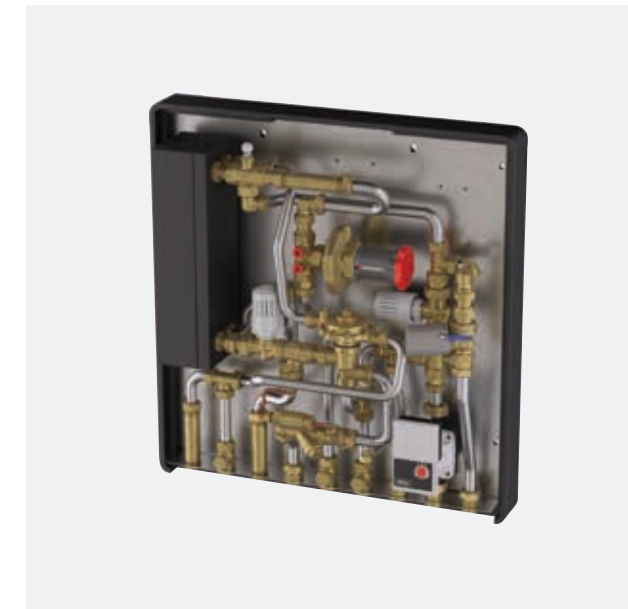
The centralized heating system represents the best solution in new multi-family buildings to enjoy enhanced efficiency of the entire building/installation and limit polluting emissions.

However, single users want to set their own start up times and comfort temperatures in an autonomous way and pay for their actual consumption only while enjoying the benefits of both centralized and stand-alone systems.

This is why we offer an innovative range of modular HIUs, HIUs with electronic regulation and HIUs with “all-in-one” integrated distribution for every project requirement.

Modular HIUs

GE556-5



User HIU for domestic hot water production and heating, with modular configuration for a variety of installation needs.

- Available also in SLIM version with compact dimensions for optional installation in kitchen modules. Module width: Standard 609 mm, compact 485 mm)
- Domestic water exchanger power up to 50 kW
- Fit for installation of thermal energy and domestic water meters

- Including priority valve for domestic hot water production
- Polypropylene foam insulation shell

Optional characteristics:

- Primary top or bottom inlet
- Differential pressure control on primary circuit through specific valve
- Thermostatic control of domestic hot water temperature
- Additional low-temperature heating circuit with thermostatic control (standard version only)
- Flow rate control of high-temperature heating circuit through static balancing valve
- Thermostatic by-pass to maintain domestic water exchanger temperature
- Circulator for recirculation of domestic water circuit
- Varnished metal cover

Electronic HIU with double exchanger

◊ GE556-2



Electronic HIU to control high- or low-temperature heating and instant production of domestic hot water.

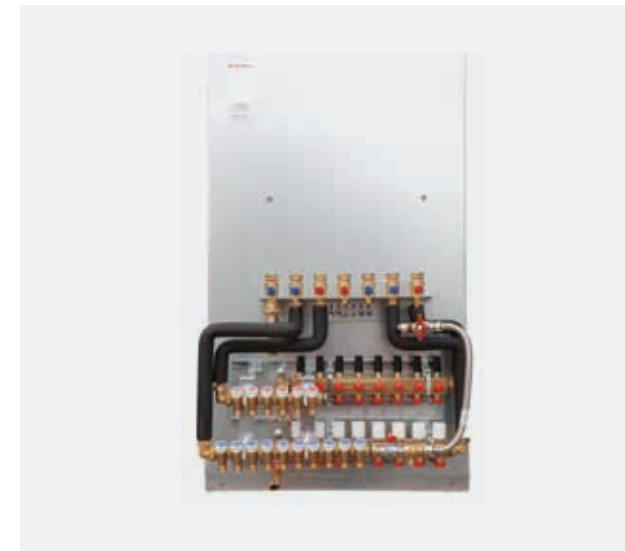
- Including domestic water exchanger for DHW

production and additional exchanger to separate primary circuit from secondary circuit

- Electronic regulation unit for control domestic hot water and heating climatic curve
- Chronothermostat with remote control display
- Provided with energy savings settings (reduction of primary circuit flow rate by limiting the return temperature, insulation of inner pipes)
- Fit for installation of thermal energy and domestic water meters
- Optional remote-control parameters for mobile devices
- Optional energy control with prepaid credit system
- Varnished metal cover

Module with double exchanger HIU and integrated distribution

◊ All-in-one



"All-in-one" module for integration of electronic HIU with radiant and domestic water distribution.

- Control of high- or low-temperature heating and instant production of domestic hot water
- HIU installation frame included with manifolds for radiant and domestic water system

distribution

- Domestic water exchanger power: 58 kW or 67 kW
- Additional exchanger to separate primary circuit from heating secondary circuit
- Electronic regulation unit for domestic hot water and heating climatic curve (through external temperature probe included)
- Chronothermostat with remote control display
- Provided with energy savings settings (reduction of primary circuit flow rate by limiting the return temperature – lower than 25 °C, insulated inner pipes)
- Fit for installation of thermal energy and domestic water meters
- Varnished metal cover

Chapter 7

Renewable source energy

We were born in water, the symbol of life. That is why we have always paid special attention to the environment and have always been driven to develop components and systems based on renewable sources.

Our research and development activities dedicated to hydrogen play a key role for our ultimate goal as well: give birth to a zero-emission cycle for the production of thermal energy.

The “hydrogen project” and “zero impact” comfort

The goal we set for research and development in the hydrogen field is the highest in terms of sustainability: giving birth to a “zero emission” cycle for thermal energy production.

Hydrogen may truly represent the energy vector of the future. Although this element does not feature a native form in nature, its availability is almost unlimited: where there is water, there is hydrogen. In fact, together with oxygen, hydrogen forms the water molecule (H_2O), the most widespread compound on earth. Hydrogen is also the element in nature with the highest energy content per mass unit.

As opposed to fossil fuels, hydrogen is an energy vector with a carbon-free composition. This represents a valuable benefit for energy production: its combustion is totally free of CO_2 emissions, the gas released by the combustion of all energy fossil fuels and the main cause of the greenhouse effect.

Use of electric energy obtained from renewable sources (solar irradiation-photovoltaic field, wind-wind field, water-hydroelectric power plant) enables to exploit water electrolysis to obtain “zero-impact” hydrogen: this “processing” waste, already carbon-free, is pure oxygen.

Electrolysis hydrogen enables to store energy, which is often unused during production. In fact, the produced hydrogen can be stored in various forms and then used to produce electricity through Fuel Cells. The thermal energy is produced by a Fuel Cell only during electric operation.

To produce water heating only, we conceived H2ydroGEM, the catalytic combustor. It is a condensation boiler based on an innovative hydrogen catalytic burner. The burner where the reaction takes place is fed only by hydrogen gas (fuel) and atmospheric air (with comburent oxygen). Inside the reaction duct is a special catalyzing agent which spontaneously combines hydrogen and oxygen into a water molecule in a totally safe way while releasing heat. The heat is then removed by a series of exchangers integrated in the combustor and fed by the system water.

The temperature of the water heated as described above is fit to supply heating and domestic water systems, especially low-temperature radiant systems, as these conditions guarantee the highest output of the combustor and enhanced comfort.

Solenco Powerbox



Energy storage and control system for fully independent gas and electric networks. Based on use of the "hydrogen" energy vector.

Hydronic heat pumps

Giacomini HP heat pumps are high energy efficiency reversible heating/cooling residential systems, powered by electricity only. They are officially acknowledged as one of the main renewable sources as they exploit the unlimited natural energy contained in air.

There are two types available:

HPM air/water monoblock heat pumps

HPC split Combi air/water heat pumps, including a moto-vent external unit and a hydronic module with integrated technical accumulations.

- Available power range: 6 kW to 16 kW
- High-efficiency inverter for accurate control

- Ultra-compact integration of all hydrogen production, storage and use devices
- Overall efficiency of the electric and heating co-generation system up to 97%
- Modular system meeting a variety of power and energy storage needs
- High-efficiency electrolyzer and fuel cell integrated in the same stack to optimize the output and reduce the overall dimensions
- Thermal energy production during electrolysis and energy production through Fuel Cell
- Integration of catalytic combustor for production of additional thermal energy
- Remote-control system with IoT technology

of set point and noiseless performance

- Anti-freezing kit included
- ModBus climatic regulation systems

For Combi:

- Instant production of domestic hot water (fresh water) thanks to the accumulation of technical water for DHW (190 l)
- Integrated technical puffer (40 l) for ideal control
- Integrated components for control of optional solar circuit
- Optional auxiliary kits for domestic hot water integration: with electric resistance or boiler connection



Chapter 8

Fire protection system valves and components

Our products are used worldwide by fire protection professional contractors to offer state-of-the-art systems, time-saving installations and cutting-edge technical solutions.

Fire protection systems featuring our components are present worldwide in civil airports, hotels, hospitals, skyscrapers, malls and, in general, wherever large civil and industrial investments are found.

The most prestigious international regulations (NFPA, UL, FM), in addition to homologations by the most demanding Fire Departments, prove the technological leadership of our solutions for traditional water-based extinguishing systems.

Angle valves for hydrants

◊ A55/A56



- Angle valves for hydrant connection.
- Fit for fire protection hydrant boxes
 - Available with various connections: female-female, female-male, groove-female, groove-male and in kit with Storz and BSIT adapters
 - New design with optimized maneuvering coupling

“Factory-set” pressure reducing valve

◊ A221/A223



- Pressure reducing valves with factory setting.
- Fit for installation of position control sensor
 - Pressure reduction by factory-set regulation mechanism
 - Connections: female-female and groove-groove
 - Angle (A221) and straight (A223) versions available

“Field adjustable” pressure reducing valve

◊ A201/A202/A203/A204



Pressure reducing valve, to be set on-site.

- Fit for installation of position control sensor
- Pressure reduction by regulation mechanism to be set on site

- Connections: female-female, female-male
- Angle (A201, A202) and straight (A203, A204) versions available

“Test and drain” valve

◊ A61



Three-position ball valve for fire protection sprinkler systems, combining test and system drain functions.

- Molded brass, with chrome-plated ball valve and PTFE sealing gaskets
- Wide range available: female-female connections (1", 1-1/4", 1-1/2", 2") and groove-groove connections (1-1/4" and 2")
- Available with various orifices calibrated for testing
- Clear check window included for flow rate inspection

Fire-hose nozzles

◊ A7



Adjustable “fog nozzles” for fire-hoses.

- Available in brass (1-1/2", 2-1/2") or plastic (1-1/2")
- Available with protection rubber ring (bumper)
- UL and FM certified



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