



SERVICES

SYSTEMS

COMPONENTS

GIACOMINI PRODUCTS AND SYSTEMS

2017 - OVERVIEW AND NEW PRODUCTS





Giacomini, an international Group constantly expanding.

A turnover of €190 million, 80% of which on export markets, 3 Italian production plants, 18 international organizations (affiliates, partners and representative offices), more than 900 employees, 70 tons of brass machined daily.

These numbers are the key figures that make our group one of today's world leaders in the production of heating, conditioning and sanitary water distribution components and systems for the residential, industrial and commercial sectors.

Made-in-Italy products for every need.

Our production covers various sectors of the plumbing industry and we have broken it down into the Business Areas below:



ENERGY MANAGEMENT

Components for optimization of energy consumptions and metering, distribution of hot and cold fluids.



RADIANT SYSTEM

Radiant floor and wall conditioning, false ceilings for residential and commercial use, thermoregulation and air treatment.



WATER MANAGEMENT

Components for sanitary water distribution lines and system devices.



GAS DISTRIBUTION

Distribution products and systems for safe and performing gas transfers.



RENEWABLE SOURCES

Components for energy production systems from renewable sources.



FIRE PROTECTION

Specialized performing components for the professional fire-prevention sector.



BRANCHES, REPRESENTATIVE OFFICES AND EXCLUSIVE PARTNERS

- | | | | | |
|------------|---------------|-------------|------------------|------------|
| ① ITALY | ⑤ ENGLAND | ⑨ POLAND | ⑬ CANADA | ⑰ JORDANIA |
| ② FRANCE | ⑥ BELGIUM | ⑩ CHINA | ⑭ CZECH REPUBLIC | ⑱ INDIA |
| ③ SPAIN | ⑦ SWITZERLAND | ⑪ BRAZIL | ⑮ SLOVAKIA | ⑲ RUSSIA |
| ④ PORTUGAL | ⑧ GERMANY | ⑫ ARGENTINA | ⑯ TURKEY | |

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Novara - ITALY

PLASTICS DIVISION

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**GIACOMINI UNİVAL TESİSAT ARMATÜRLERİ
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DIRECT ENERGY METERING

To guarantee greater efficiency of the building/installation system and reduction of polluting emissions, centralized thermal systems are the best choice for new residents constructions. However, every user wants to control autonomously activation times and comfort temperatures and pay only for actual consumptions, while enjoying the benefits of both centralized and autonomous systems.

To satisfy such needs, we designed an innovative range of modular satellites, electronic control satellites and modules for any type of project requirement.

GE556-5

MODULAR SATELLITES

Satellite for sanitary hot water and heating production with modular configuration for multiple installation needs.

- > Sanitary exchanger power up to 49 kW.
- > Preset for installation of thermal energy meter and sanitary water meter.
- > Priority valve for production of sanitary hot water.
- > Insulation through polypropylene foam shell.

Optional features:

- > Lower or upper primary inlet.
- > Differential pressure control on primary circuit through a specific valve.
- > Sanitary hot water temperature control through thermostatic device.
- > Additional low temperature heating circuit with thermostatic control.
- > Flow control of high temperature heating circuit through static balancing valve.
- > Thermostatic by-pass to maintain the sanitary exchanger temperature.
- > Recirculation circulator for sanitary circuit.
- > Varnished metal sheet.

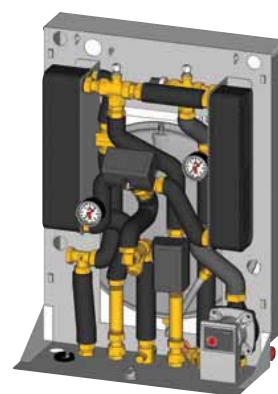


GE556-2

ELECTRONIC SATELLITE WITH DOUBLE EXCHANGER

Electronic satellite for high or low temperature control and instantaneous production of sanitary hot water.

- > Sanitary exchanger power 58 kW or 67 kW.
- > Second exchanger to separate the primary circuit from the heating secondary circuit.
- > Electronic unit for regulation of sanitary hot water and heating climatic curve (through external temperature probe included).
- > Room chronothermostat with display for remote control.
- > Specific energy saving features (reduction of primary flow by limiting the return temperature – lower than 25 °C, insulated internal pipes).
- > Preset for installation of thermal energy meter and sanitary water meter.
- > Possibility of remote control of the parameters through mobile devices.

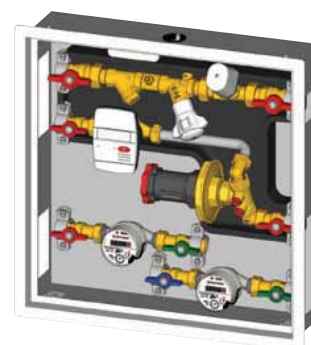


GE555-4

MODULE WITH DIFFERENTIAL PRESSURE CONTROL

Module for centralized heating and/or cooling systems.

- > Differential pressure control valve included.
- > Pre-regulation of max. flow
- > Preset for installation of thermal energy meter and sanitary water meter units.
- > Zone valve with electrothermal control.
- > Insulation shell.



GE555-6

FAN COIL METERING MODULE

Metering module for the control of 4-pipe system (heating and cooling simultaneously available).

- > Integrated six-way valve.
- > Dynamic balancing valve.
- > Ultrasonic energy meter included.
- > Insulation included.

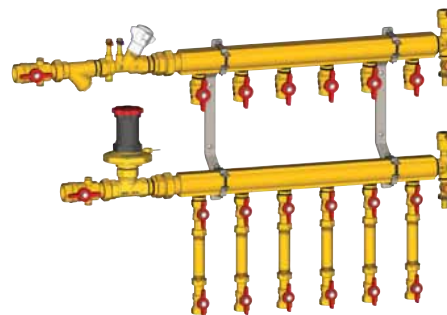


GE553

MANIFOLD METERING MODULE

Multiuser modules for block of flats heating and cooling, available in multiple versions for every installation need.

- > R206B static balancing valve and R206C differential pressure regulators on primary circuit. Static balancing option of the secondary circuits with R206B-1 valves.
- > Preset for installation of energy meters.
- > Distribution manifolds for multiple outlets, with automatic air venting, drain tap.
- > Filter and interception valves included.

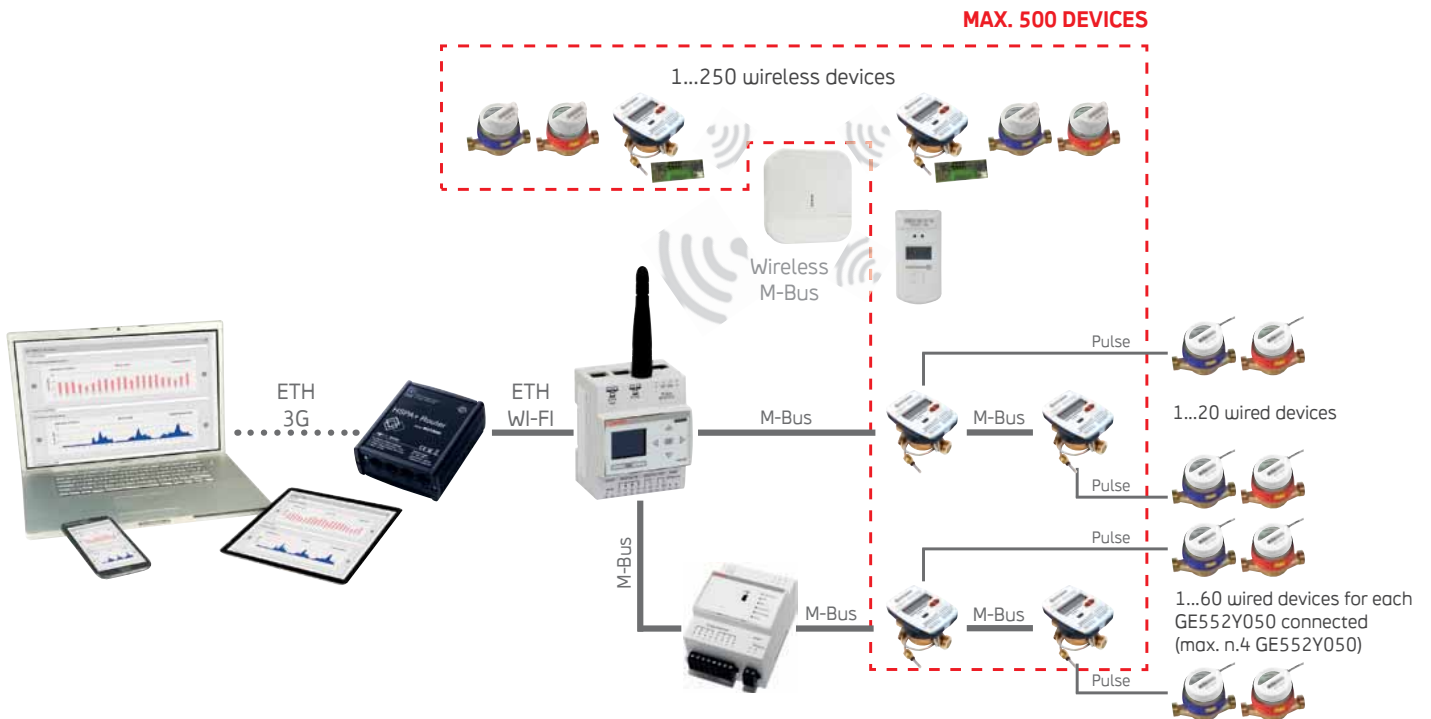


GE552-4

BUS AND M-BUS WIRELESS CENTRALIZATION

New modular system for data centralization to control energy metering values recorded by both cable and wireless devices.

- > Enables to simultaneously control cable and wireless devices up to 500 units.
- > The M-Bus/M-Bus Wireless (GE552Y052) datalogger with integrated web server provides for commissioning, data search and consultation directly from the device display.
- > Remote connection control and visualization of all data by desktop or mobile device (tablet, smartphone).
- > Planning of periodical reports and alarm control.



COMPONENTS FOR RADIATORS AND INDIRECT METERING

We are internationally acknowledged as specialists in the production of valves, lockshield valves, thermostatic heads and all other accessories contributing to the operation of any type of heating source.

We can easily equip all radiator types, both for new installations and energy requalification works.

In addition to valve bodies for every requirement, our “radiator system” range includes various types of thermostatic controls (manual heads and stand-alone regulation chronothermostats, remote control wireless chronothermostats) and heat cost allocators.

GE700

HEAT COST ALLOCATOR

Radio heat cost allocator for thermal consumptions capture in centralized installations (two-pipe or single-pipe systems) with OMS standard.

- > Operation with 2 temperature sensors.
- > Available also with remote sensor.
- > Optical interface for programming and reading through a special configuration key.
- > 6-figure display for direct reading.
- > Standard 10-year life lithium battery.
- > Consumption reading in centralized (with the new Wireless M-Bus platform) or local mode (Walk-by through mobile terminal for use by special operators).



KLIMAdomotic

FOR RADIATOR VALVES

Smart thermoregulation system with wireless radio-controlled valves.

- > Connect-TRV control unit with graphic color interface, and easy configuration through touch display.
- > “Giacomini Connect” dedicated APP for remote control.
- > Wireless temperature sensors and signal repeaters available to complete the system in case of communication failure between heads and control unit.



R469

HIGH ENERGY EFFICIENCY THERMOSTATIC HEAD

Low-inertia thermostatic head with fluid sensor.

- > Available in two versions: R469 with CLIP CLAP quick-connect system for Giacomini “VT” valve bodies; R469H with M30x1,5 mm connection for Giacomini “VTL” valve bodies.
- > Great performance in terms of hysteresis and water temperature influence: complies with Certita RT2012 directive with VT 0,2 “VariationTemporelle” for R469H.
- > Class A Energy efficiency (TELL) for R469H with efficiency index 0,25.
- > “Shut-off” function.
- > Limit ring to lock or partialize opening and/or closing.
- > “Braille” numbering to enable setting by partially sighted and/or blind users.
- > KEYMARK certification.



R387L/R388L

SPECIAL VALVES FOR CONVECTOR PLATES

Valves for convector plates, that is for special heat sources with both connections from the bottom and an internal section, not visible from the outside, conveying the delivery flow to the upper integrated thermostatic group.

- > Available in either straight (for floor derivations) or angle version (wall derivations).
- > Flat seat connections with gaskets, including self-sealing adapters for 1/2" F plates or 3/4" M Eurocone connections.
- > Pipe connection with 3/4" Eurocone adapters or base 18.



PTG SERIES

VALVES WITH THERMOSTATIC OPTION AND PRESET REGULATION

Valves with thermostatic option and preset regulation, provided with a maneuvering bonnet which, based on the set position, determines a specific section of passage for the fluid, thus generating the requested pressure losses within the hydraulic circuit.

- > Efficient balancing of the hydraulic circuit together with great energy saving.
- > The bonnet can be replaced without draining the system thanks to a special valve.
- > Available with iron connection (angled and straight) and adapter connection (angled, straight, reverse angled).
- > Compatible with all Giacomini thermostatic heads.



DB SERIES

VALVES WITH THERMOSTATIC OPTION AND DYNAMIC BALANCING

Radiator valves with thermostatic option for an accurate temperature control and automatic hydraulic balancing. The valve limits the flow to the preset value independently of any differential pressure, thus eliminating pressure fluctuations in a 2-pipe systems when the valves of other users are closing.

- > Efficient balancing of the hydraulic circuit with great energy saving and comfort increase.
- > Preset, uninterrupted accurate regulation, interception functions.
- > Pre-regulation with graduated scale to limit max. flow.
- > Replacement of maneuvering bonnet during system operation.
- > Keymark certification (pending).



BOILER ROOM COMPONENTS

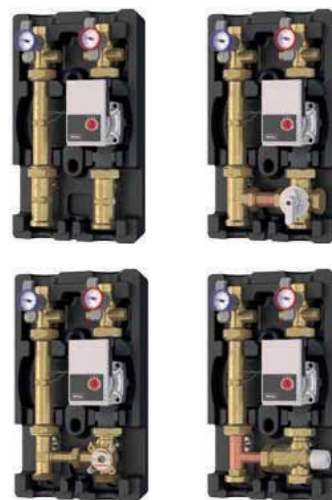
Our wide range of boiler room components guarantees ideal control and energy efficiency, high safety, reliability and full compliance with the law and standard provisions, both in new applications and for extraordinary maintenance activities.

R586R

RELAUNCHING PREASSEMBLED GROUPS

Preassembled groups to control the secondary zone in heating and cooling systems.

- > DN25 groups available in multiple versions: direct connection, with mixing valves, with fixed point regulation through thermostatic control.
- > All groups include: ball interception valves with delivery/return thermometers integrated in the knob; check valve; polypropylene foam insulating shell.
- > Availability of modular boiler room manifolds for connection of multiple groups (2 and 3 zones) with integrated adjustable hydraulic separator.



R297

MOTORIZED MIXING VALVES

Complete range of sector motorized mixing valves.

- > Available in threaded (brass body, female connections from 3/4" to 2") and flanged version (cast iron body from DN50 to DN125).
- > Equal percentage regulation feature.
- > Low maneuvering torques.
- > Motorized with K275 actuators, available in two versions: with integrated temperature regulator (to control the flow temperature of heating systems in stand-alone mode); with 0-10 V proportional control for climatic regulation systems.



R146C

ADJUSTABLE MAGNETIC DIRT SEPARATOR

Cyclonic magnetic dirt separator to separate and eliminate impurities inside the hydraulic circuit, special adjustable fitting included.

- > *Patent pending.*
- > Special permanent magnet resistant to high temperatures.
- > Cyclonic mechanical filtering system, in addition to the magnetic action, guaranteeing three times the cleanness for an ideal performance.
- > Brass, 3/4" and 1" flat seat male threaded connections.
- > The 3/4" version is specifically compact, ideal for under-boiler applications with reduced dimensions.
- > Includes adjustable drain tap.



R146M

MAGNETIC DIRT SEPARATOR

Dirt separator to separate and remove impurities from the hydraulic circuit.

- > Equipped with special permanent magnet resistant to high temperatures.
- > Available in threaded (brass body, female connections from 3/4" to 2") and flanged version (steel body, connections from DN50 to DN150).
- > Suitable for use with water and glycol-based solutions.
- > Includes drain tap with hose connection.
- > The flanged version includes closed-cell polyethylene foam insulation.

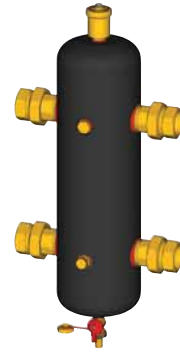


R146IM

MAGNETIC HYDRAULIC DIRT SEPARATOR

Device to disconnect the primary circulator flow from the secondary, with additional metal debris separation and de-aeration.

- > Steel body with female threaded connections from 1" to 2".
- > High-potential magnet.
- > Includes automatic air vent valve, drain tap with hose connection, preshaped insulation shell made of closed-cell polyethylene foam.



R74M

Y-SHAPED FILTERS WITH MAGNET

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

- > Magnetic element (magnetic candle) for use in air conditioning circuits and drinking water distribution systems.
- > Female threaded connections from 1/2" up to 2".
- > Filter that can be inspected, with stainless steel basket.
- > Extremely easiness of service and clean.



R150M

AUTOMATIC FILLING GROUP

Automatic filling group for closed circuit heating/cooling systems.

- > Pre-adjustment knob to set the required pressure before installation. Compensated seat for high regulation precision ($\pm 0,2$ bar).
- > Regulation range: 0,3÷4 bar (factory calibration: 1,5 bar).
- > Available with or without gauge. Connections: 1/2" M inlet with tail piece, 1/2" F outlet.
- > Passage sections optimized for fast system filling.
- > Cartridge (replaceable) with stainless steel control rod and anti-limestone function. Stainless steel filter (replaceable) and integrated check valve.
- > Shut-off valve.



R153M/MK, R153P AND R153C

PRESSURE REDUCER WITH PREREGULATION

Automatic valve to reduce and stabilize pressure in distribution pipes based on a preset value.

- > Available in different versions: piston (R153P), compact piston (R153C) and diaphragm (R153M, R153MK).
- > Female threaded connections (R153P, R153C and R153M) or with male connections (R153MK).
- > Maximum working pressure (PN): 25 bar (R153P and R153M) or 16 bar (R153C).
- > Outlet pressure regulation range: 1.5 to 7 bar (diaphragm); 1 ÷ 5.5 bar (piston). Preset testing: 3 bar.
- > Brass body "CR" for diaphragm versions.
- > Compensated seat for high precision setting.



CIRCUIT BALANCING AND ZONE CONTROL

Our hydronic balancing devices enable to obtain perfectly balanced systems that can ensure the correct heating and cooling power to the user, quiet operation, long-lasting main system components. The control of the different zones of the air conditioning system is easy with our motorized valves, among which the innovative 6-way zone valve stands out.

R206AM

AUTOMATIC FLOW REGULATION VALVE

Flow regulation valve independent from pressure, for use with special actuators.

- > Efficient balancing of the hydraulic circuit with great energy saving.
- > Brass body with 1/2" and 3/4" female-female threaded connections and arrangement for probe-holder connection.
- > Polymer cartridge, replaceable, including double indicator (1 to 5 scale and 1 to 9 decimal division) for accurate regulation of max. flow.
- > For use with on/off actuator or proportional actuator (0÷10 V) for automatic flow regulation.



R206B

STATIC BALANCING VALVE

Static balancing valve for accurate flow regulation.

- > Available in compact or standard version.
- > Standard version: fixed orifice (Venturi meter), with Venturi Kv value marked on the ABS knob; with or without probe holder for differential pressure gauge; "CR" brass body, 1/2" to 2" female threaded connections and 1/4"F drain with cap.
- > Compact version: variable orifice; no probe holder; brass body, 1/2" to 5" female threaded connections 1/4"F drain with cap.
- > Adjustable opening through mechanical memory mechanism (presetting).



R206C

DIFFERENTIAL PRESSURE CONTROL VALVE

Differential pressure control valve to maintain a constant pressure with any flow.

- > *Patent pending.*
- > Double selectable regulation range: "L" 5÷30 kPa; "H" 25÷60 kPa.
- > Female-female main connections, 1/4" differential gauge connections with caps.
- > "CR" dezincification resistant brass body.
- > 1000 mm capillary for connection to flow adjustment valve in the circuit.



R274N

6-WAY ZONE VALVE

The 6-way zone valve can easily control 4-pipe systems with heating/cooling available contemporarily.

One single motorized valve can thus replace two motorized valves and simply solve the complication of their synchronization for opening/closing of the two sources.

- > Brass body (also "CR"), available in 1/2" and 1" versions.
- > Flat seat tail piece connections for a wide range of pipe fittings.
- > Limited losses of pressure with the best Kv available on the market.
- > Overpressure protection mechanism.
- > Accurate control of pressure losses by installing the P21S calibrated washers.
- > For use with K274-2 electric actuator with manual function, CE and UL certified.
- > Appropriate insulation shell available.



DYNAMX

FLOW CONTROL FOR 6-WAY VALVE

Dynamic flow control device for 6-way zone valves.

- > Combines multiple functions: flow control (also independently from pressure, PICV), interception, change-over, temperature regulation.
- > Electronic control not subjected to mechanical limits (extremely reduced Δp operations).
- > Integrated flow meter for an accurate control of the set-point.
- > Setting of the set-point through 0-10 V control signal or ModBus.



DISTRIBUTION LINE COMPONENTS

We manufacture brass components (fittings and adapters for any type of installation, simple and preassembled manifolds, ball valves and taps), plastic pipes (PEX, PE-RT, PB e PP-R) and metal-plastic (PEX-b/Al/PEX-b multilayer) pipes for the distribution of heating fluids, ensuring the utmost reliability for the entire life cycle of heating and cooling systems. In addition, we provide gas distribution components for which strict compliance with international standards, reliability and safety are essential requisites. Fittings and ball valves suitable for gas transfer complete our range of distribution components mainly for the residential sector.

GX

EXPANSION PEX DISTRIBUTION SYSTEM

Distribution system made with PEX-b pipes and brass fittings with expansion plastic ring seal.

- > For sanitary distribution, traditional and radiant heating and cooling systems.
- > Seal guaranteed by the shape memory of the plastic components and the special profile of the fittings.
- > High PEX-b (PN10) or low (PN6) thickness pipes, in coils and bars.
- > System featuring reduced losses of pressure (total passage).
- > Wide range of fittings and assembly tools.
- > Aenor system certification according to ISO 15875.



RM

MULTITONGS PRESS FITTINGS

Wide range of multitongs press fittings for plastic and multilayer pipes, for use with distribution heating/cooling or sanitary systems.

- > Wide range of dimensions, up to large sizes 40, 50 and 63.
- > Pressing with various types of tongs (TH, H, U).
- > Molded brass body with hose connection profile properly beveled to ease pipe insertion.
- > Double seal ring (O-ring) complying with EN681-1, suitable for drinking water distribution.
- > AISI 304 stainless steel compression bushes with special flaring to ease pipe insertion.
- > Brass bush lock ring with openings to visually control correct insertion of the pipe.
- > Insulating separator for connection of multilayer pipes with aluminum to prevent electrochemical corrosive phenomena caused by contact with the brass of the body-fitting.
- > WRAS and CSTB system certification.



R690 AND R694

MINI BALL VALVES

Brass mini ball valves.

- > For sanitary and thermal systems.
- > Black handle with colored plate (at choice) for system customization (red, blue, green).
- > Available in MF, FF versions, 3/8" and 1/2" sizes.





MULTIGAS

DOMESTIC GAS DISTRIBUTION SYSTEM

System certified for indoor installation of gas transfer lines made with PEX-b/AL/PEX-b (G999) metal-plastic multilayer pipes and a complete range of multitongs press fittings (RM-G) and other accessories.

- > Multilayer pipe available in sizes commonly used for residential installations: 16x2, 20x2, 26x3 e 32x3.
- > Pipe available also with yellow corrugated sleeve for anti-crushing and anti-UV protection.
- > RM-G multitongs fittings with double yellow seal O-ring complying with EN 549 and EN682, suitable for gas and liquid hydrocarbon distribution.
- > AISI 304 stainless steel fitting compression bushes, with special flaring to ease pipe insertion and specific marking for gas use (writing and yellow ink mark).
- > System completed by built-in gas interception valves and plastic shells for fitting housing.
- > KIWA system certification according to UNI 11344.



700 SERIES

BALL VALVES FOR GAS USE

Ball valves for gas use with EN-331:2015 certification.

- > Wide range of versions (straight and angled, with lever or T-handle) and dimensions.
- > Full port.
- > Steel lever with yellow plasticized coating or with aluminum T-handle.
- > EN 331:2015 certified MOP 5 class B 0,1 - 650 °C x 30'



PRESS SERIES

BALL VALVES WITH PRESS CONNECTIONS

Wide range of ball valves with full port, press connections and “leaking before press” O-rings.

- > *Patent pending.*
- > “V”, “SA” or “M” pressing profiles.
- > Suitable for copper, carbon steel and stainless steel pipes.
- > Available diameters: 15, 18, 22, 28, 35, 42 and 54 mm.
- > Additional hole on the ball bottom to prevent formation of bacterial colonies through constant exchange of water depositing between the ball and the valve body during operational maneuvering.
- > Available with plastic extended handle for installation on pipes with very thick insulation or with steel lever (for valves with 42 and 54 mm connections).



SPECIAL BRASS SERIES

SPECIAL BRASS BALL VALVES FOR USE IN DRINKING WATER SYSTEMS

Wide range of ball valves made with special brasses specifically provided for by national standards for the distribution of water intended to human consumption.

- > Brass alloys complying with UBA list for DVGW certified ball valves.
- > “CR” anti-dezincification brass alloys.
- > Lead-free brass alloys with low lead content for ball valves approved and/or complying with NSF61.



PREASSEMBLED MANIFOLD DB SERIES

MANIFOLD WITH DYNAMIC BALANCING

Preassembled group for heating and cooling systems with automatic flow control.

- > Stainless steel return manifold with M30x1,5 inserts with thermostatic option and uninterrupted regulation (dynamic) of the flow inside each circuit.
- > Stainless steel flow manifold with flowmeters to set the max. flow in the circuit and shut-off function.
- > 3/4" Eurocone connections for adapter.
- > Terminals with drain tap and air vent.



METAL RADIANT CEILINGS

Our range of metal false-ceilings, including various aesthetic and customizable solutions, enable to realize comfortable and extremely efficient air conditioning systems thanks to their high output and low thermal inertia. The ideal solution for commercial buildings (offices, hospitals, airports, commercial areas, school buildings) where the false-ceiling, housing the installations and service networks above becomes the main element of the air conditioning system, conveying all benefits of radiant technology: high levels of comfort and environment healthiness, energy saving, total architectural freedom and valorization of the building surfaces and volumes. radiante: elevato comfort e salubrità ambientale, consistente risparmio energetico, massima libertà architettonica e valorizzazione delle superfici e dei volumi dell'edificio.

GK SERIES

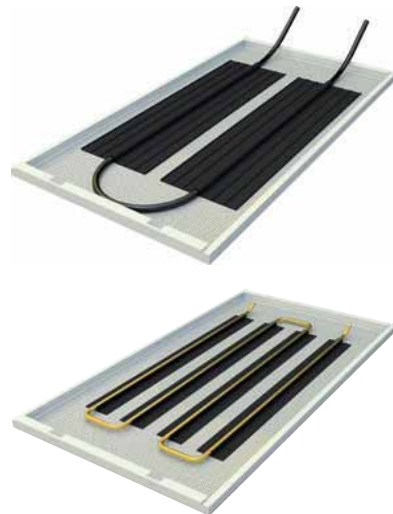
METAL RADIANT FALSE-CEILING

System with steel sheets made of active and inactive panels supported by exposed parallel and cross-pattern structures.

The panels can be disconnected and installed vertically by rotating them with the fixed hooks in the special support slots to open the false-ceiling and access the plenum for inspection or maintenance of other systems, also during operation.

The two different activations can satisfy various requirements of thermal output:

- > Type C, with anodized aluminum thermal diffusers and hydraulic circuit with copper coil.
- > Type A, with anodized aluminum thermal diffusers and hydraulic circuit with PB pipe with anti-oxygen barrier.



PLASTERBOARD RADIANT CEILINGS

The traditional plasterboard false-ceiling conceals active radiant elements of an innovative water radiant system, ideal for winter and summer air conditioning and combining wellness to energy saving.

We offer various installation solutions to satisfy any performance and economical need in residential buildings, new and renovated, and in other civil sectors (offices and professional studies, commercial areas, hospitality structures, school classrooms).

GKC V.2.0 SERIES

AVAILABLE SOON

PLASTERBOARD RADIANT FALSE-CEILING

System composed of 10-mm active and inactive plasterboard panels, support structure and connection components.

- > Plasterboard sheet made with an aluminum sheet as anti-steam barrier and an upper EPS insulation layer.
- > Activation including an aluminum sheet and a hydraulic circuit made through copper coil or PEX-b/Al/PEX-b multilayer, 16 mm diameter.
- > Panels with three different modules (600x1200, 1200x1200 and 1200x1800 mm) to adequately cover also complex geometry areas.



RADIANT FLOORS

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

We provide a wide range of technical solutions and components to design and build water-based radiant floor systems in new constructions and renovation projects.

- > System for screen-based radiant concrete with polystyrene foam protuberance panels for a wide range of applications. Various available thicknesses for any thermal insulation requirement, versions suitable also for diagonal pipe installation with great sound insulation properties.



- > System for screen-based radiant concrete with smooth panels available in polystyrene foam, polyurethane or eco-friendly materials (wood fiber or cork). The pipes are installed with special locking clips or pipe-fitting rails.



- > Radiant systems for reduced thicknesses, ideal for renovation works when extremely low structures are required. Available in two versions: R979S protuberance panels (see detail); fiber plaster sheets with milled grooves for pipe installation.



- > Dry system with limited total thickness, ideal for applications where the structures cannot bear the weight of traditional concrete. The polystyrene foam preformed panels, pre-fitted with an aluminum heat transfer sheet to guarantee a great thermal output, are the basic element of the system. Galvanized steel sheets, for double layer installation and suitable for any type of final coating, guarantee mechanical consistency and an even load distribution.



- > Pipes, fittings and pipe accessories. Extremely flexible PEX-b pipes, and PE-RT pipes, both with anti-oxygen barrier, or PEX-b/Al/PEX-b multilayer pipes. Useful accessories such as bend supports, unrollers, clips and fitting devices complete our range to make installation the easiest possible.



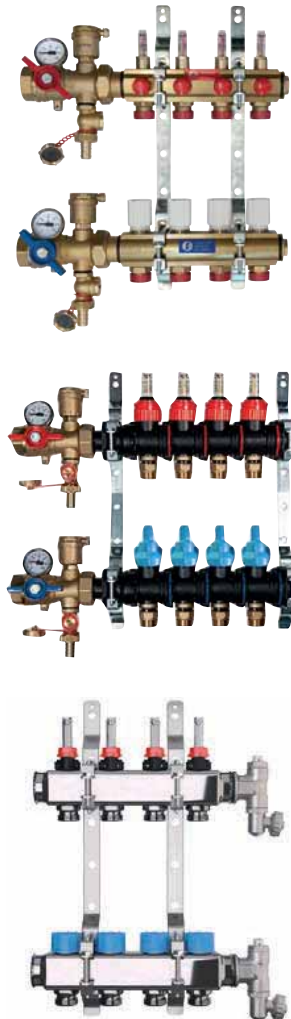
DISTRIBUTION PREASSEMBLED GROUPS

We offer a wide range of hydraulic products to provide every single circuit with the flow required for a state-of-the-art operation: from single components to build distribution and mixing groups, based on the most diverse installation situations, to convenient preassembled and pre-wired manifolds for an easy, complete and time-saving installation.

The manifolds can be installed in special metal cabinets with variable thickness for easy setting and maintenance of the system.

In addition to brass, which has always been our basic raw material, our range is completed by preassembled distribution manifolds made with technopolymer and stainless steel, to satisfy any project and commercial requirement.

- > Brass preassembled manifold with flow meters and multifunction valves.
- > Technopolymer preassembled manifold with flow meters and multifunction valves.
- > Stainless steel preassembled manifold with flow meters, air vent terminals and drain tap.



THERMOREGULATION

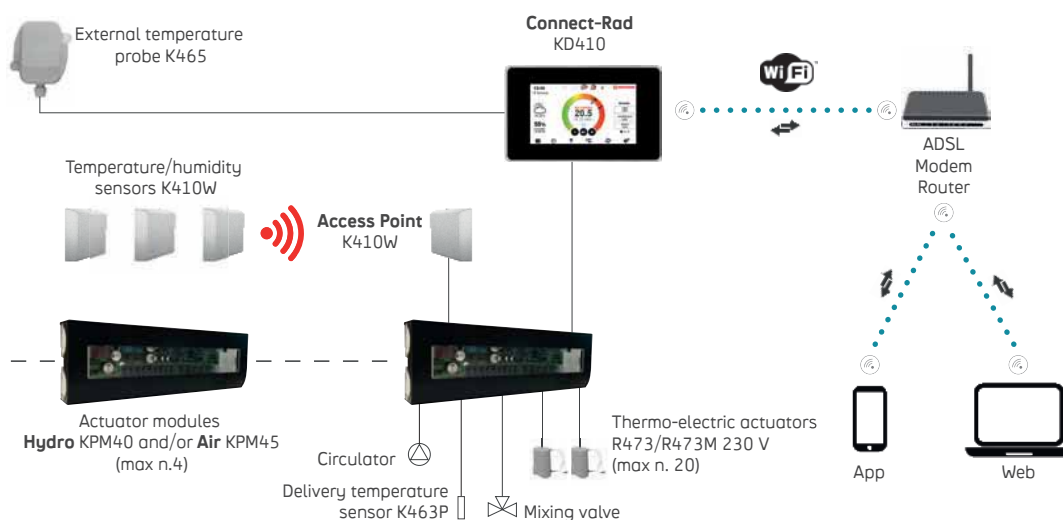
We offer cutting-edge thermoregulation systems for climatic regulation of heating and cooling radiant systems, developed based on the most advanced technologies.

KLIMAdomotic

FOR RADIANT SYSTEMS

Smart regulation system for radiant panel systems.

- > Connect-Rad control unit with graphic color interface and easy configuration with touch controls.
- > Actuator modules specific for control of the hydraulic part and air treatment machines.
- > “Giacomini Connect” dedicated APP for remote control of the system.
- > Wireless temperature and humidity sensors and signal repeaters to complete the system in case of communication failure between heads and control unit.



STAND-ALONE THERMOREGULATION

Chronothermostat and room thermostats featuring a modern and technologic look, provided for both exposed and built-in installation. They easily control heating and cooling radiant systems and may also control integration terminals such as dehumidifiers and fan-coils.



KLIMAbus THERMOREGULATION

Smart thermoregulation devices, networked by wiring – that is the bus – for data exchanging with properly encoded messages. The modular bus system can control both basic heating and cooling mixing groups and more complex residential and commercial installations, with air treatment systems for dehumidification, cold integration, air exchange and controlled mechanical ventilation.

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



RADIANT SYSTEM AIR TREATMENT

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

KDP – KDS

WALL-MOUNT AND FALSE-CEILING DEHUMIDIFIERS WITH ECOLOGIC REFRIGERATING FLUID

Monoblock units for air humidity control, compact and quiet, for use with cooling radiant 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. Available also with sensible power integration and primary air treatment.

These machines combine a maximized efficiency to an ecologic soul: in fact, the refrigerating fluid used by the refrigerating circuit is **R290 propane**, a natural alternative to traditional refrigerating gases which feature high contents of GWP (Global Warming Potential, that is the global greenhouse warming potential caused by the gas in the atmosphere).



KV

DUCT-TYPE MACHINE FOR CONTROLLED MECHANICAL VENTILATION

Duct-type monoblock air treatment unit for false-ceiling, floor (above slab) or wall-mount installation.

- > Available in three sizes to satisfy a wide range of installation requirements: 160 m³/h, 300 m³/h and 500 m³/h.
- > High efficiency double-flow air heat recovery unit.
- > Polystyrene foam thermal insulation, ideal soundproofing on delivery side.
- > Motorized by-pass for *free-cooling*.
- > Remote control panel for operational parameter setting.



THE “ZERO-IMPACT HYDROGEN” AND AIR CONDITIONING PROJECT

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.

Why hydrogen

Hydrogen may represent the energy vector of the future. Although this element is not present in nature loose, 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. In addition, hydrogen is the element with the highest energy content per mass unit in nature.

As opposed to fossil fuels, hydrogen is an energy vector with a carbon-free composition. This represents a great 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.

Hydrogen production and storage

By using renewable source electric energy (solar-photovoltaic field irradiation, wind-wind power field, water-hydroelectric power plant) water electrolysis can be exploited to obtain “zero-impact” hydrogen: the waste of this “process”, already carbon-free, is pure oxygen.

Electrolysis hydrogen enables to store energy, which is often not used 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 the electric operation phase. To produce water heating only, we conceived H_2 hydroGEM.

H₂ydroGEM

CATALYTIC COMBUSTOR

Condensation boiler based on an innovative hydrogen catalytic burner. The burner where the reaction takes place is fed simply by gaseous hydrogen (the fuel) and atmospheric air (with the combusive oxygen). Inside the reaction duct is a special catalyzing agent which spontaneously combines hydrogen and oxygen, in a totally safe way, into a water molecule, 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 perfect to supply thermo-sanitary systems, especially low-temperature radiant systems: in fact, these conditions guarantee the highest output of the combustor and the best user comfort.

- > New design with renovated electronic control system.
- > Modularity suitable for cascade-pattern applications.
- > Possible application in Powerbox.



XPANDER

ORC GENERATOR OF ELECTRIC ENERGY FROM THERMAL SOURCES

A system which recovers the heat dispersed by a thermal source and converts it into electric energy.

This system is based on the OrganicRankineCycle (ORC) which uses a refrigerating fluid optimized for the specific operational conditions. The fluid characteristics enable to exploit small enthalpic increases at medium-low temperatures (ex. 15 °C÷70 °C). Xpander may be applied to heat sources such as: geothermal energy, heat recovery from solar-thermal panels or PVT, heat recovery from industrial processes, biomass cogeneration systems. It perfectly integrates with the Powerbox system, enhancing its overall efficiency.





POWERBOX

Energy storage and control system to allow independency from gas and electric networks. Based on use of the “hydrogen” energy vector.

- > Ultra-compact integration of all hydrogen production, storage and use devices.
- > Total efficiency of the energy and heat cogeneration system up to 97%.
- > System modularity to satisfy various requirements of energy power and storage.
- > High efficiency electrolyzer and Fuel Cell integrated in the same stack to optimize the output and reduce overall dimensions.
- > Thermal energy production during the electrolysis phases and energy production through Fuel Cell.
- > Integration of the catalytic combustor for additional thermal energy production.
- > Remote control of the system with IoT technology.





HYDRONIC HEAT PUMPS

Giacomini HP heat pumps are reversible heating/cooling residential systems with high energy efficiency and supply only by electric power. 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 Monoblock air/water heat pumps

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

- > Power range: from 6 kW to 16 kW.
- > High efficiency inverter for accurate control of the set point and quiet operation.
- > Anti-freeze kit included.
- > Controllable through ModBus climatic regulation systems.

For the Combi versions:

- > Instantaneous sanitary hot water production (fresh water) thanks to the accumulation of technical water for SHW (HPC and HPCS).
- > Optional technical puffer (40 l) for an ideal operation control (HPCS).
- > Integrated components for the control of possible solar circuit (HPCS).
- > Optional kit with electrical resistances.





FIRE PREVENTION SYSTEM VALVES AND COMPONENTS

Our devices are used worldwide by professional contractors specialized in fire prevention systems to offer state-of-the-art systems, time-saving installation and cutting-edge technical solutions.

Fire prevention 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 standards (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.

A55/A56

HYDRANT ANGLED VALVES

Angled valves for hydrant connection.

- > For use with specific hydrant cabinets.
- > Available with various connections: female- female, female-male, groove- female, groove-male and in kit with Storz and BSIT adapters.
- > Available also in H version (rated pressure 500 PSI).
- > Wide range of finishes for the brass body: brass finishing, chrome-plated, polished chrome-plated.



A155/A156

PRESSURE LIMIT ANGLED VALVES

Angled valves for hydrant connection, with pressure limit during the flow.

- > Pressure limited by flow reducing mechanism adjustable during *commissioning*.
- > Optional regulation *over-ride* when max. flow is required.
- > For use in specific hydrant cabinets.
- > Available with female-female and female-male connections and with kit of Storz and BSIT adapters.
- > Available also in S version with “hydrolator”.
- > Wide range of finishes for the brass body: brass, chrome-plated, polished chrome-plated.



A221/A223

“FACTORY-SET” PRESSURE REDUCING VALVE

Factory-set pressure reducing valve.

- > Position control sensor.
- > Pressure limited by factory-set regulation mechanism.
- > Available with various connections: female-female and groove-groove.
- > Available in angled (A221) and straight (A223) version.



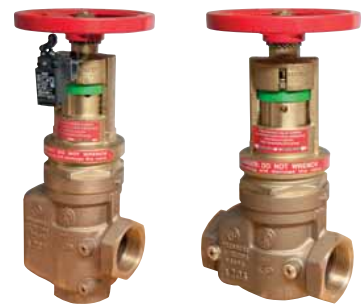


A201/A203

"FIELD-ADJUSTABLE" PRESSURE REDUCING VALVE

Field-adjustable pressure reducing valve.

- > Available with position control sensor.
- > Pressure limited by factory-set regulation mechanism.
- > Available with various connections: female-female and groove-groove.
- > Available in angled (A201) and straight (A203) versions.



A61

"TEST AND DRAIN" VALVE

3-position ball valve for fire-prevention sprinkler systems: it combines system testing and draining functions.

- > Molded brass with chrome-plated valve and PTFE seal gaskets.
- > Available with female-female connections (1", 1-1/4", 2" and, coming soon, 1-1/2") and with groove-groove connections (1-1/4" and 2").
- > Available with various orifices calibrated for testing.
- > Control clear window for flow inspection.

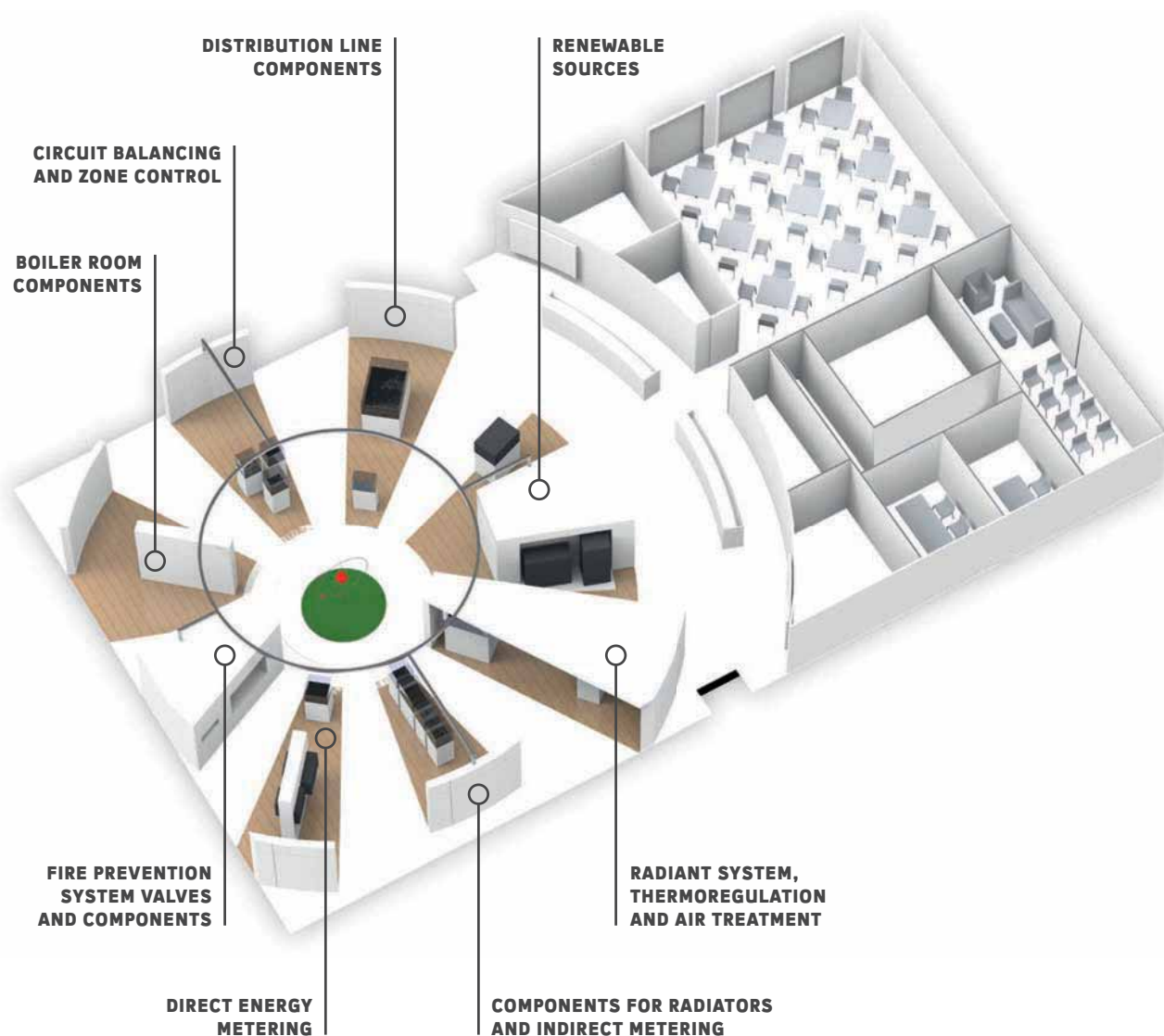


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Our stand at ISH 2017

Exhibition hall 10.1, Booth C06



For more technical and sale details, visit our website internet www.giacomini.com



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