

FLOWING EXPERTISE

BALANCING FAN-COIL SYSTEMS

THE EXPERIENCE YOU KNOW

 **CALEFFI**
Hydronic Solutions

SMART DESIGN

We design solutions that guarantee outstanding performance and lower energy requirements by up to 22 %, ensuring the comfort of the user and safeguarding the environment when applied correctly within the system design.

Balancing is an essential procedure in the design of new systems and in retrofitting work, where the introduction of modern generators, circulators and advanced controls help to reduce waste by up to 22 % and guarantee comfort for the user while safeguarding the environment when applied correctly within the design.

FIND OUT MORE



SOLUTIONS FOR EVERY DESIGN-BASED REQUIREMENT

Every design is unique and requires suitable solutions.

Fan-coil systems, although they all seem similar, may differ in the various characteristics specified during the design phase, such as:

- the type of distribution (two-way or three-way),
- the distribution diagram (T-branching or manifolds),
- control of these machines (ON/OFF or modulating).

When retrofitting, various factors must be carefully analysed, including the system elements which will remain unchanged.

These elements bring different technical requirements in order to maintain system performance and therefore require suitable solutions.

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TWO-WAY SYSTEM WITH
ON/OFF CONTROL

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DYNAMIC BALANCING
- MULTIPLE USERS
THREE-WAY SYSTEM WITH
ON/OFF OR MODULATING
CONTROL

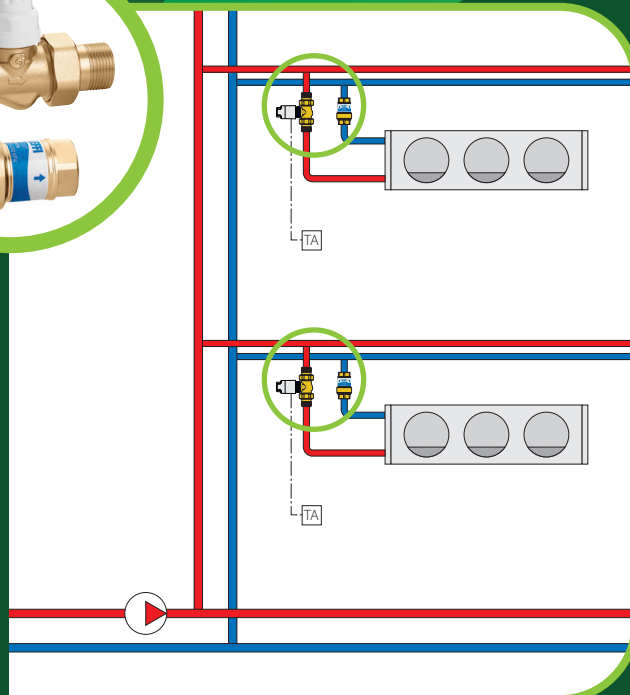
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DYNAMIC BALANCING - SINGLE MACHINE

TWO-WAY SYSTEM WITH ON/OFF CONTROL AUTOFLOW® AUTOMATIC FLOW RATE REGULATORS

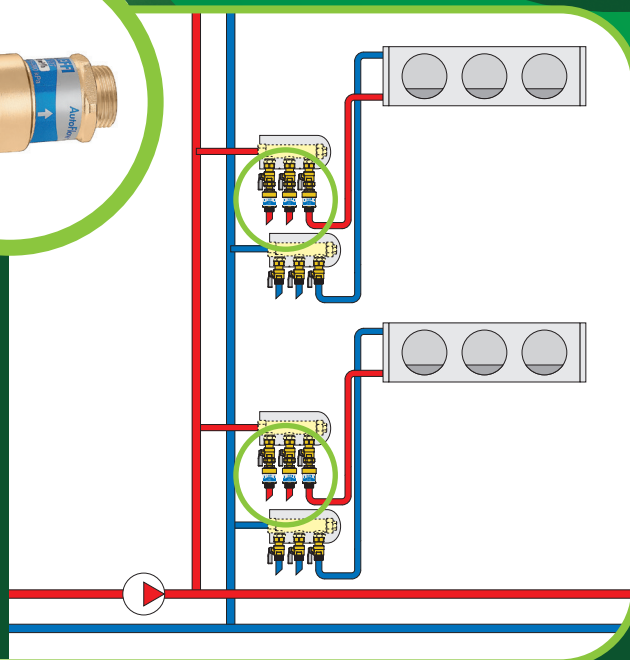
127 AUTOFLOW® Installation on T BRANCHING

- Application: residential and commercial
- Sizes: 1/2" to 2"
- Constant flow rate (despite variable Δp)
- Fixed flow rates available: 20 l/h to 11.000 l/h
- Plug&Play
- Factory-calibrated
- Compatible with any control valve



127 AUTOFLOW® Installation on dedicated manifold

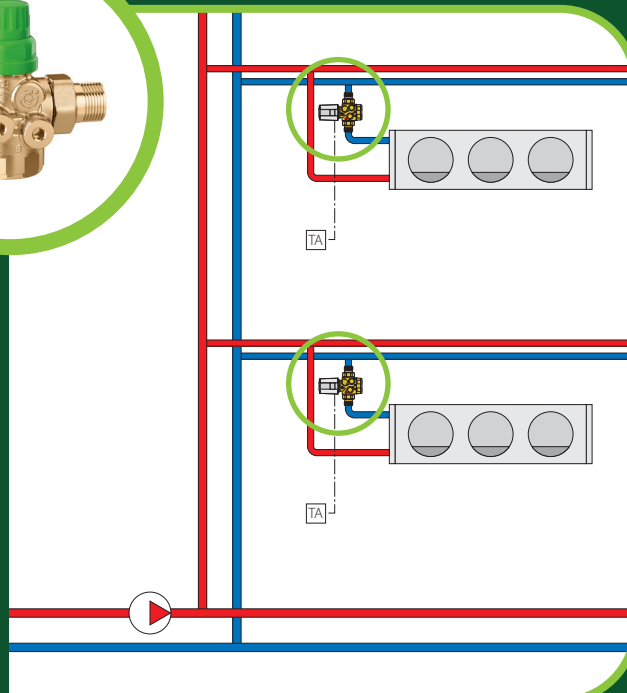
- Application: residential and commercial
- Size: 3/4"
- Constant flow rate (despite variable Δp)
- Fixed flow rates available: 120 l/h to 1.200 l/h
- Plug&Play
- Factory-calibrated
- Compatible with any manifold with 3/4" flat seat outlets



PRESSURE INDEPENDENT CONTROL VALVES (PICV)

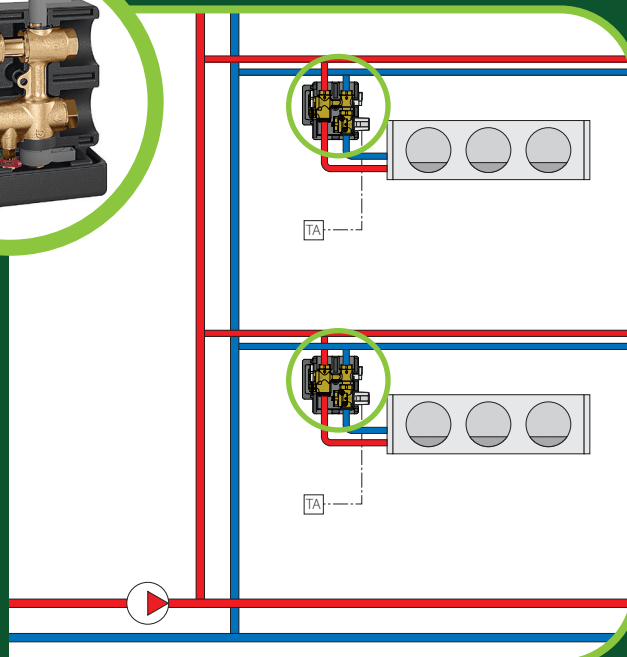
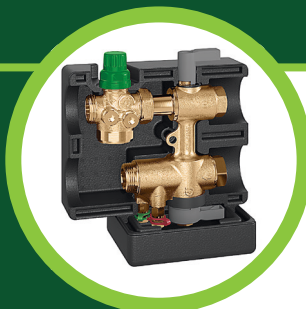
145 FLOWMATIC® Stand-alone installation

- **Application:** residential and commercial
- **Sizes:** 1/2" to 1 1/4"
- **Constant flow rate** (despite variable Δp)
- **Fixed flow rates available:** 20 l/h to 3.700 l/h
- **Presettable from 0 to 100 % of the nominal flow rate**
- **Can be motorised:** zone and balancing valve in a single device
- **Compatible with any thermostat**



149 Connection and regulation unit

- **Application:** residential and commercial
- **Sizes:** 1/2" to 1"
- **Constant flow rate** (despite variable Δp)
- **Flow rates:** 20 l/h to 3.700 l/h
- **Presettable from 0 to 100 % of the nominal flow rate**
- **Can be motorised:** zone and balancing valve in a single device
- **Compatible with any thermostat**
- **Inspectable strainer**
- **Pair of shut-off valves with by-pass function**
- **Fixed orifice system for flow rate control**
- **Insulation that leaves easy access to the device**

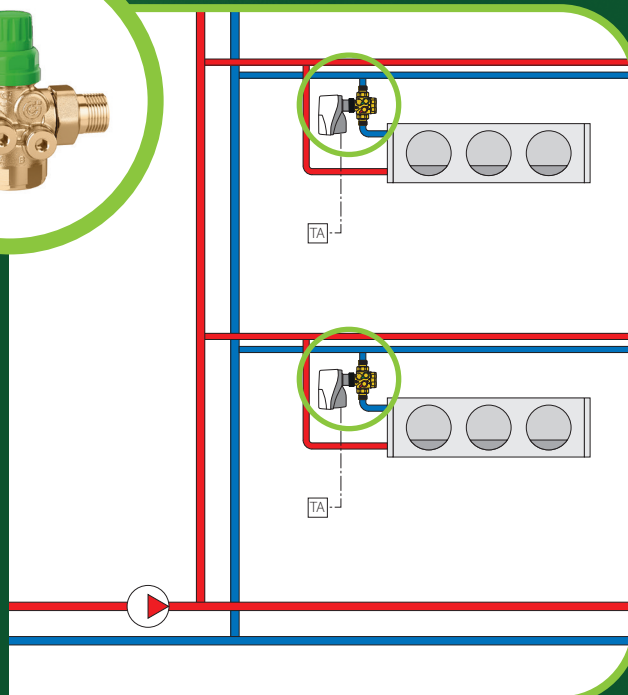


DYNAMIC BALANCING - SINGLE MACHINE

TWO-WAY SYSTEM WITH MODULATING CONTROL PRESSURE INDEPENDENT CONTROL VALVES (PICV)

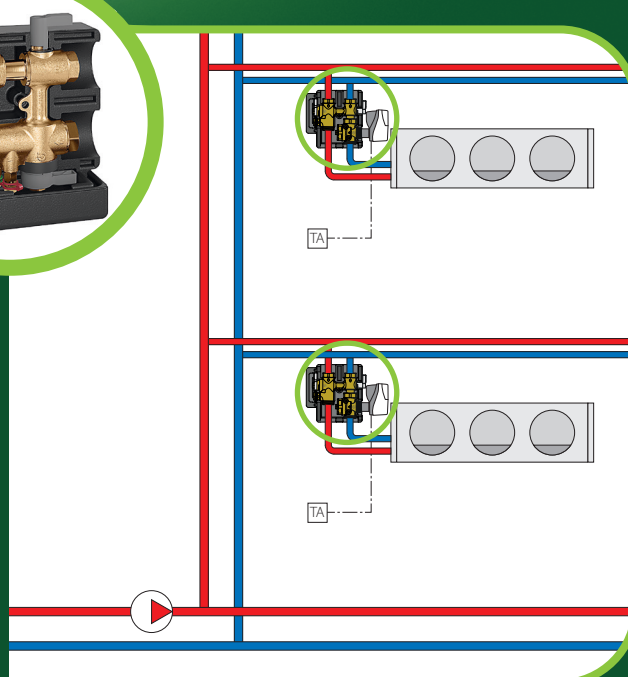
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- **Fixed flow rates available:** 20 l/h to 3.700 l/h
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- **Compatible with any 0-10 V thermostat and BMS setups**



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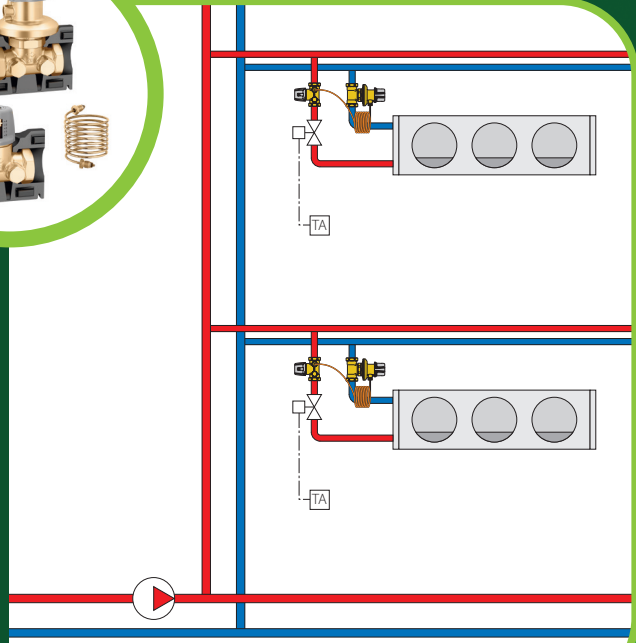
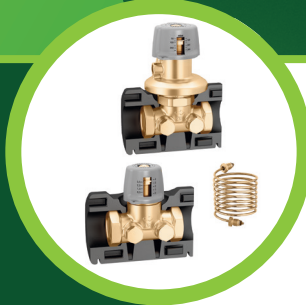


DIFFERENTIAL PRESSURE REGULATING VALVE (DPCV)

140 + 142

Installation on T branching

- **Application:** residential and commercial
- **Sizes:** 1/2" to 2"
- **Δp constant at various flow rates**
- **Δp :** 50 to 300 mbar or 250 to 600 mbar
- **Allows balancing of systems with modulating valves already installed (RETROFIT)**



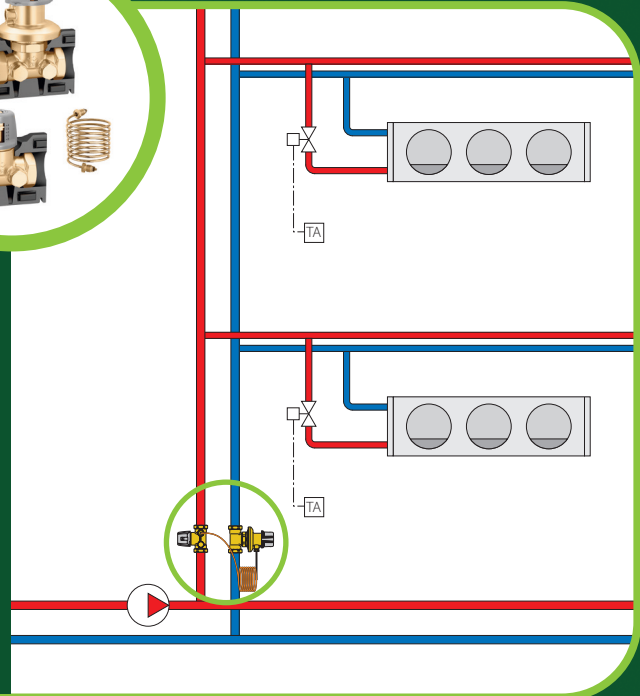
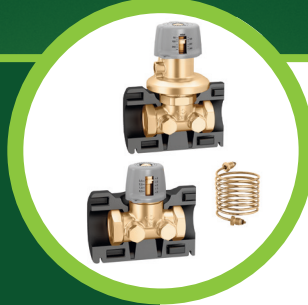
DYNAMIC BALANCING - MULTIPLE USERS

TWO-WAY SYSTEM WITH MODULATING CONTROL DIFFERENTIAL PRESSURE REGULATING VALVE (DPCV)

140 + 142

Installation on multiple users

- **Application:** residential and commercial
- **Sizes:** 1/2" to 2"
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- **Δp :** 50 to 300 mbar or 250 to 600 mbar
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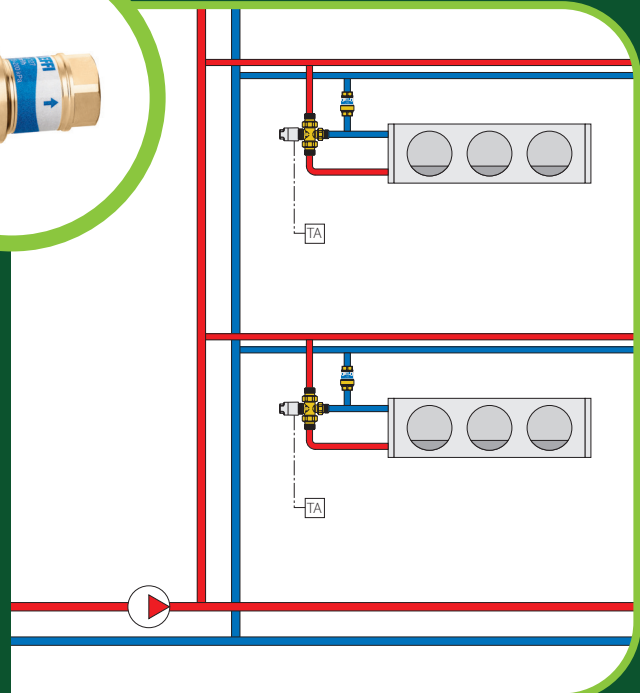
DYNAMIC BALANCING - SINGLE MACHINE

THREE-WAY SYSTEM WITH ON/OFF OR MODULATING CONTROL AUTOFLOW® AUTOMATIC FLOW RATE REGULATORS

127 AUTOFLOW®

Installation on T branching

- **Application:** residential and commercial
- **Sizes:** 1/2" to 2"
- **Constant flow rate** (despite variable Δp)
- **Fixed flow rates available:** 20 l/h to 11.000 l/h
- **Plug&Play**
- **Factory-calibrated**
- **Compatible with any control valve**
- **Allows balancing of systems with three-way valves already installed (RETROFIT)**

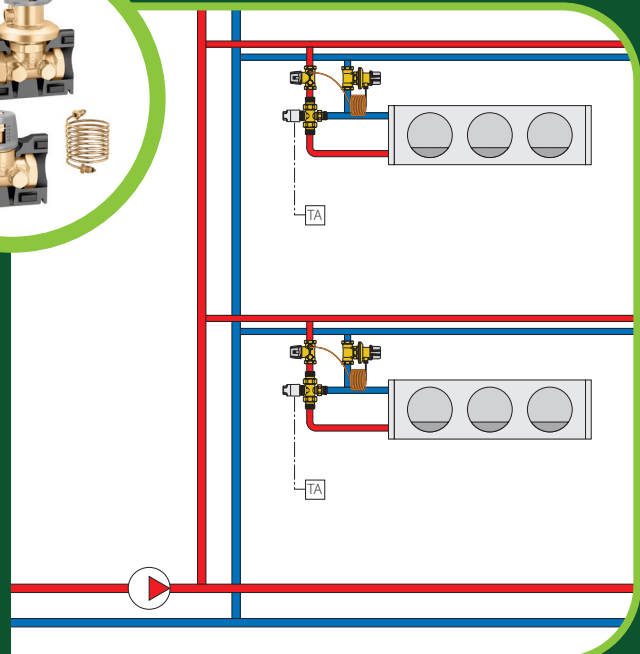


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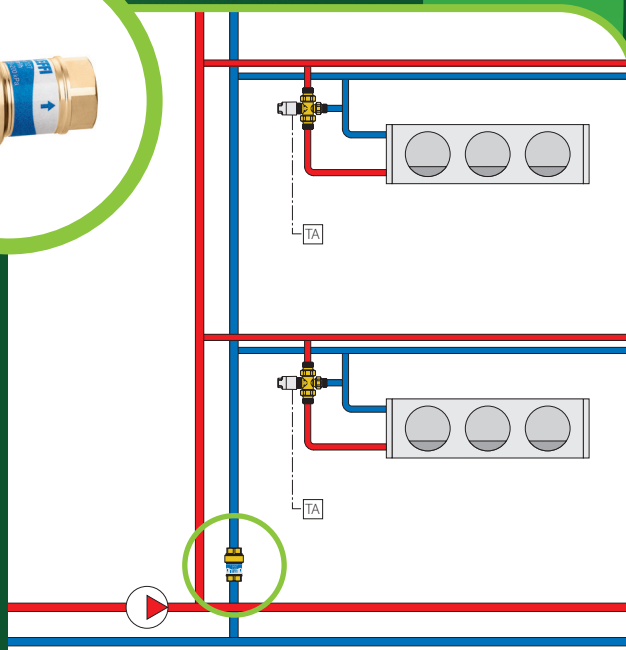
DYNAMIC BALANCING - MULTIPLE USERS

THREE-WAY SYSTEM WITH ON/OFF OR MODULATING CONTROL AUTOFLOW® AUTOMATIC FLOW RATE REGULATORS

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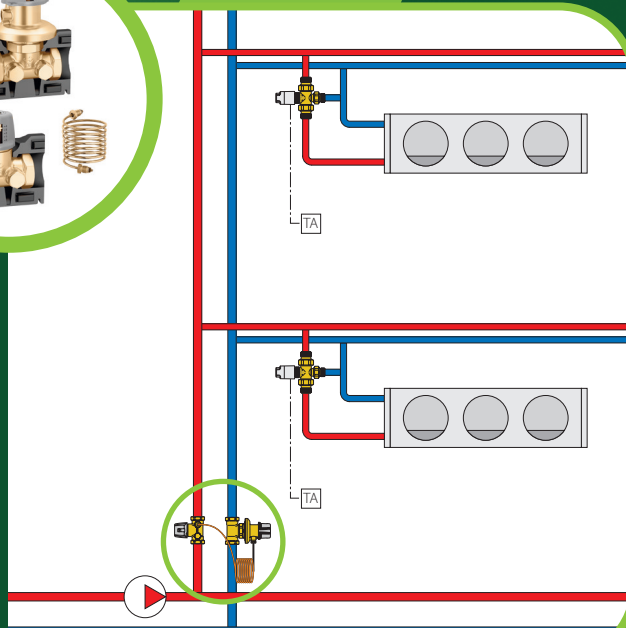


DIFFERENTIAL PRESSURE REGULATING VALVE (DPCV)

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Installation on multiple users

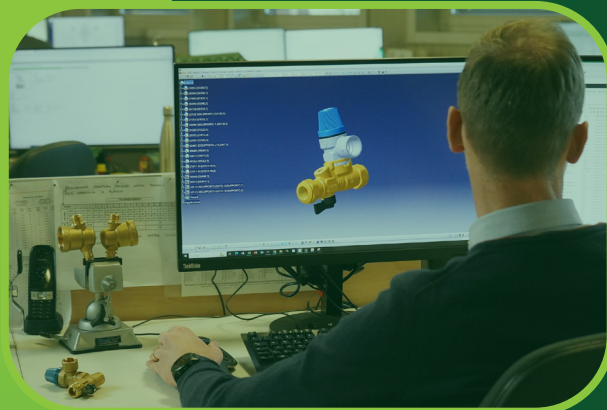
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OUR PRODUCTION PROCESS

RESEARCH & DEVELOPMENT

We design and test products in-house, in our **CUBOROSSO Study and Research Centre** (net zero building). The actual laboratory data forms the basis of our technical documentation.



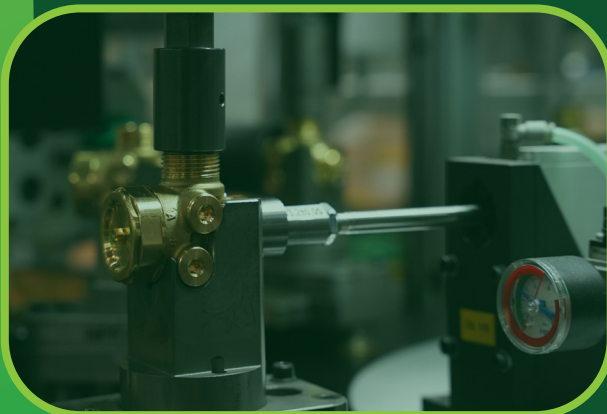
100 % MADE IN ITALY

Our premises are all located in Northern Italy, within a 10 km radius. Brass and technopolymer are processed in accordance with the highest quality standards.



THE PERFECT FLOW

No detail is overlooked; every product is tested in our premises to guarantee premium quality and “Made in Caleffi” results.



DISTRIBUTION AND SUPPORT

We invest in logistics so that we can handle, on average, over 80,000 orders every year. An example of this investment would be our **MAV (Automated Vertical Warehouse)** and the new **MAC (Automated Compactable Warehouse)**. Control of the supply chain extends beyond our premises and is completed with a comprehensive pre- and post-sales support service.



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