

iDROSET® The Watts range of static balancing valves

Comfort in balancing at a hotel in Rome

Case Study





AIM

Hydronic balancing of heating and air conditioning systems

• WHO

- Agenzia Ecoclima
- STUDIO ELAN design studio, Rome

• WHAT

Renovation of a hotel and its heating and plumbing systems

• HOW

iDROSET® CF Series balancing valves

• WHERE

Hotel Stazione Vaticana
Via Aurelia, 12 - Rome

• WHEN

2020

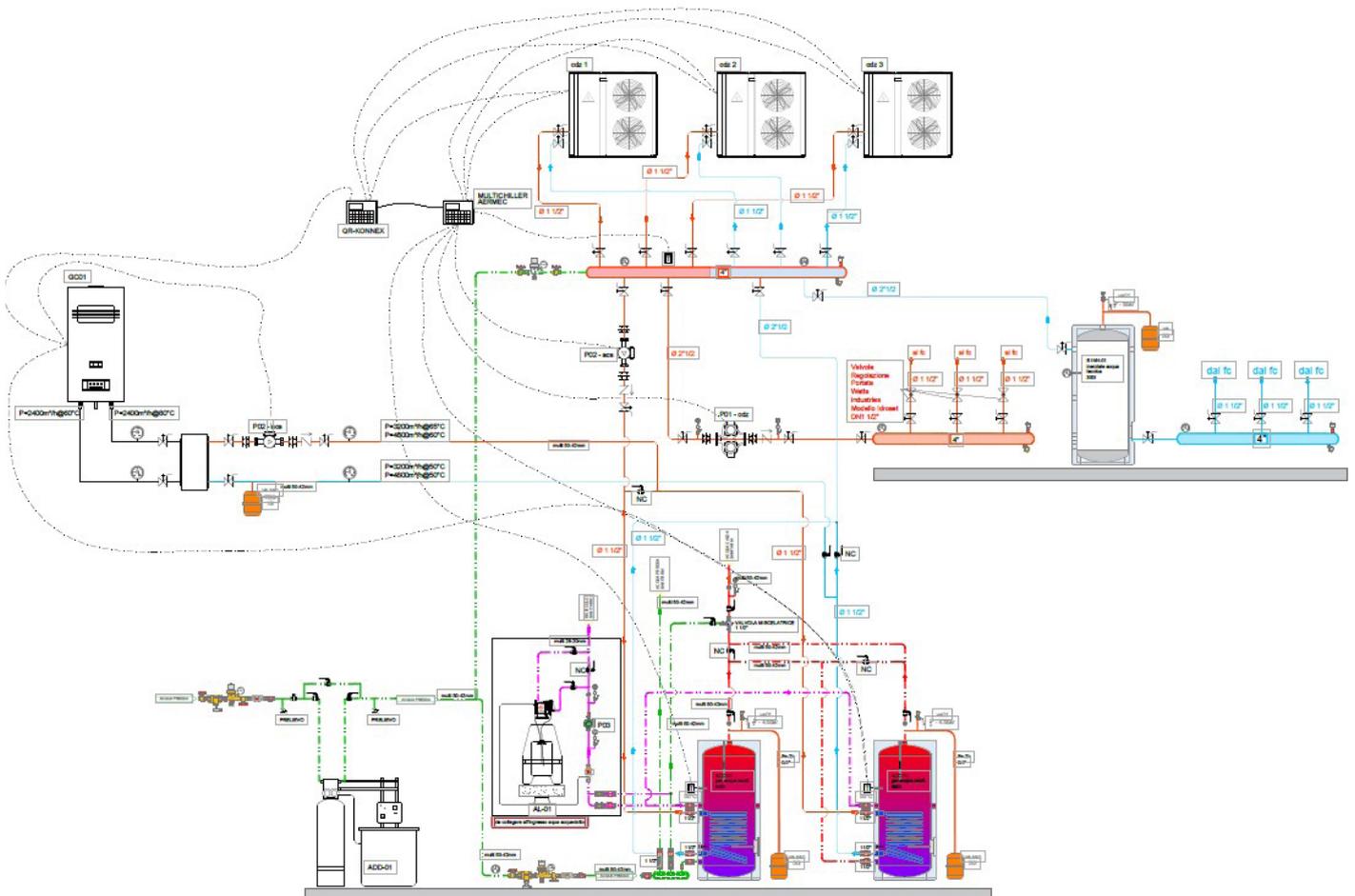
In the field of products and technologies for HVAC applications for heating, cooling of domestic and commercial systems, and domestic hot and cold water distribution systems, Watts offers designers and installers the **iDROSET® range of static balancing valves**. They incorporate a patented technology for **accurately setting and instantly reading the flow rate** required by the design, without using external reading instruments, thus facilitating installation and simplifying system management.



Towards energy saving

The **hydronic balancing** of heating and air conditioning systems makes a major contribution **to energy saving**. "The need to modulate energy output to match actual requirements is a decisive factor that we have to focus on more and more these days," explains **Andrea Gentile**, the engineer who, alongside the staff from his HVAC firm in Rome, took care of the renovation of a large hotel in the centre of the capital, a stone's throw from the Vatican.

"Part of the **renovation work** involved the **hotel's room heating and cooling system**, where, in line with the Client's wishes, the hydronic systems were left unchanged, while the other systems were replaced. We therefore took care of the **balancing of the hydronic system**, operating with fan coils, by fitting Idroset static balancing valves to modulate the flow to the required rate. More specifically, although we did not have full knowledge of the routing of the supply network to the terminals, we decided to build the system upstream of the terminals on the basis of floor-by-floor distribution, in other words with each branch off the flow manifold supplying a single floor (see system layout diagram on next page). We therefore used the number of terminals in operation for each floor and the water flow rate in heating and cooling mode from each terminal as the basis for determining the flow rate for each floor. **By opting to use iDROSET® valves, we were able to modulate the flow rate for each floor in real time**, thus ensuring correct system balancing. Upstream of the flow manifold, we obviously fitted a **pump with inverter control** capable of delivering the overall flow rate with the necessary pressure head."



System layout diagram

Instant reading

iDROSET® valves proved to be the ideal solution for rapid balancing of the circuits mainly because, as reported by the installer, they enable you to check the flow rate in real time. The advantage of this product at the installation stage lies in its ability to **read the water flow rate instantly** and check it against the design values.

The Watts range includes the new **iDROSET® CF Series valve, which achieves these goals easily and quickly.**

The Series has a high degree of flow rangeability and the widest operating range on the market. The threaded balancing valves feature modern design and a brass and composite body with a special insert incorporating a **patented WATTS technology**. The flow rate can be set and changed by simply turning the handwheel. This system makes it possible to **read the flow rate instantly without using special instruments.**



iDROSET® CF Series valve

Benefits for everyone

This innovative approach **optimises the work of the designer and installer alike**, and offers immediate benefits in terms of **comfort** and **energy saving**, while also enhancing the **efficiency** of the control system. The valve has a wealth of features that help cut **installation times by 80%**.

Andrea Gentile is well aware of this, and uses Watts products because they give him the technical means to **develop simple, economical but effective solutions**.



About us

Watts is an American multinational and one of the world's biggest manufacturers of plumbing and heating products and components. Established in 1874, it is based in North Andover (USA) and listed on the New York Stock Exchange. It has one administrative site, two production facilities and two research centres in Italy. Thanks to its know-how, reliability, professional ethics and attention to health, safety and the environment, Watts contributes to technological research in the sector, with a continuous focus on energy saving, safety and quality of life.

For further information, visit www.wattswater.eu and cloud.wattswater.eu

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