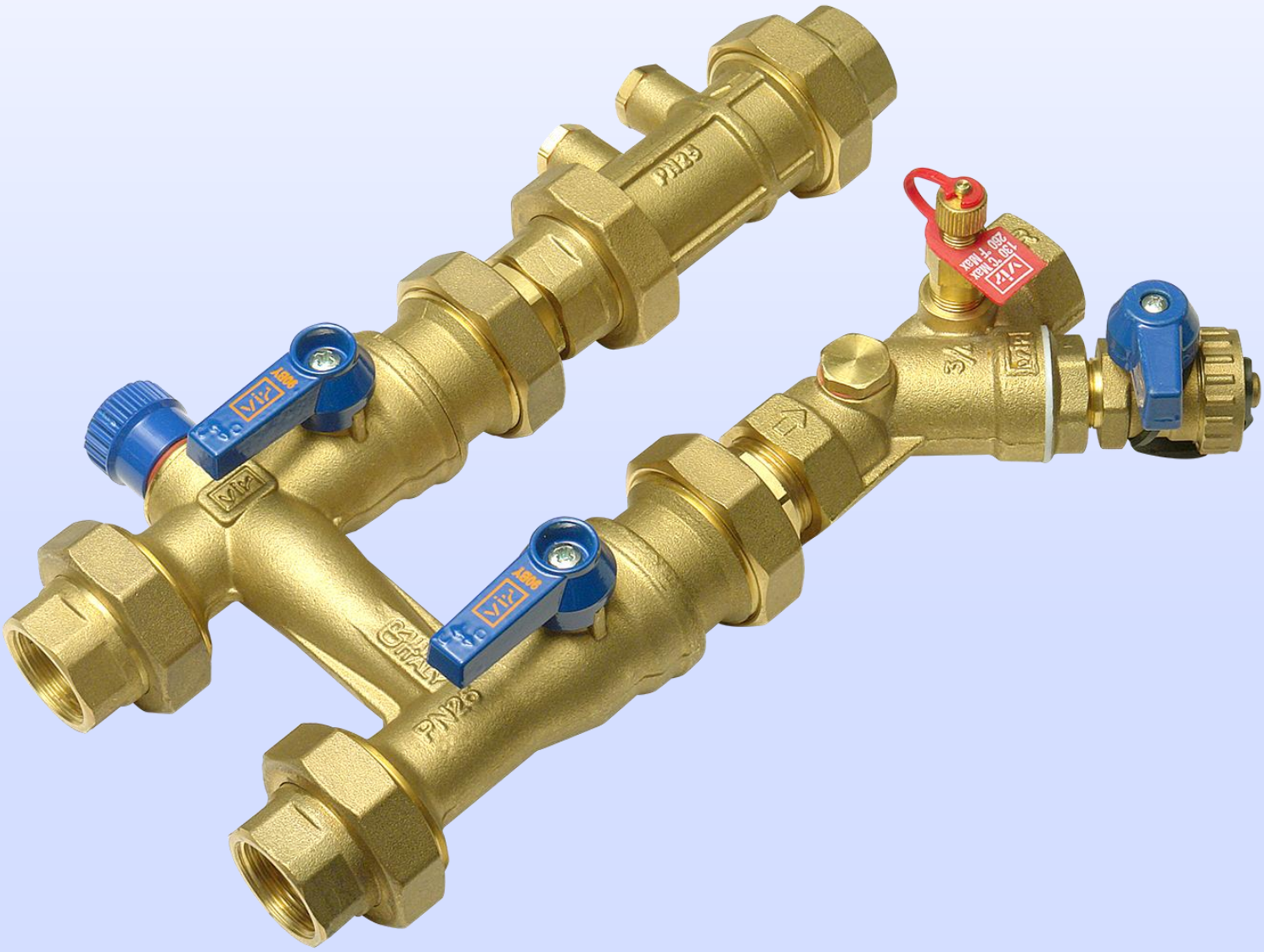
EZCONNECT



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CONNECTION KITS FOR TERMINAL UNITS

Description and benefits

EZCONNECT is the flexible solution developed by VIR for easy installation and maintenance of HVAC terminal units such as fan coils, heat exchangers and so on.

Each kit is pre-assembled and tested by VIR in order to ensure a successful connection, reduce the on-site assembly operations and prevent failures.

Main features:

✓ simplified installation and maintenance of the terminal unit, allowing its cleaning and/or disassembling while the rest of the system is working;

✓ independent flow regulation of each terminal unit, by mean of the VIR static and automatic balancing valves;

✓ different possible configurations for system flushing, depending on commission requirements;

✓reliable design, material selection and certified quality control system.

EZCONNECT is the outcome of VIR experience in designing and manufacturing of HVAC component.
By-pass valve and Pressure Independent Control Valve (PICV) are patented product, specifically designed for this kind of application.

In order to supply the most reliable solution for HVAC application, the components of the kits are made on DZR (dezincification resistant) materials for preventing stress corrosion cracking.

PICV valve 9705

PATENTED

By-pass valve 90BY

PATENTED

Functional Schemes

Before starting the terminal unit, it is advised to flush the system (Scheme 1) in order to remove impurities and debris which could affect the correct functioning of the unit.

EZCONNECT allows to easily perform this function by opening the by-pass and closing both of the isolating valves. The same configuration can be used for unit's maintenance.

In the terminal unit's normal operating conditions (Scheme 2) the by-pass is closed and both the isolating ball valves are open. A strainer is placed on the delivery side in order to protect the unit from residual debris and a balancing valve (e.g. Pressure Independent Control Valve) is placed on the return side, in order to regulate the flow though the hydraulic circuit.

Additional functions can be performed by mean of a drain valve installed on the strainer and a test point with drain (Fig. 9315) installed on the high-pressure side of the balancing valve.

With the same configuration of the system flushing, EZCONNECT allows the terminal unit cleaning as well (Scheme 3).

The terminal unit can be flushed together with the delivery circuit (Scheme 4) by closing the by-pass, opening the ball valve on the delivery and closing the ball valve on the return.

The terminal unit can be also flushed together with the return circuit (Scheme 5) by opening the by-pass, the ball valve on the delivery and closing the ball valve on the return.

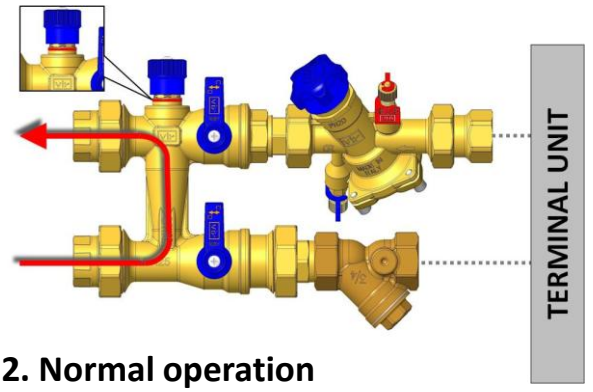
The flow rate shall be maintained within reasonable limits, due to the reverse flow trough the by-pass, and the upstream of the delivery circuit shall be closed in order to avoid the backflow.

In both unit cleaning and direct / reverse flushing, the balancing valve must be closed in order to reduce the possibility of any debris going into the valve. Alternatively, a ball valve between the balancing valve and an upstream drain valve could be used for greater confidence.

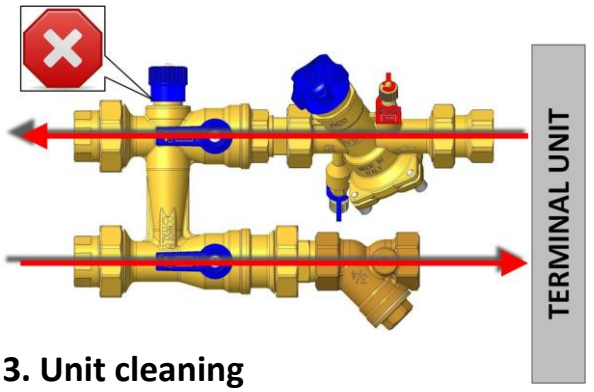
Size	H [mm]	PICV Flow rate	PICV min ΔP
DN 15-L	40	28 ÷ 140 l/h	20 ÷ 28 kPa (*)
DN 15	40	108 ÷ 540 l/h	24 ÷ 36 kPa (*)
DN 20	80	224 ÷ 1120 l/h	24 ÷ 36 kPa (*)
DN 25	80	432 ÷ 2160 l/h	24 ÷ 36 kPa (*)

H [mm]: distance between delivery and return connections.
(*) depending on setting

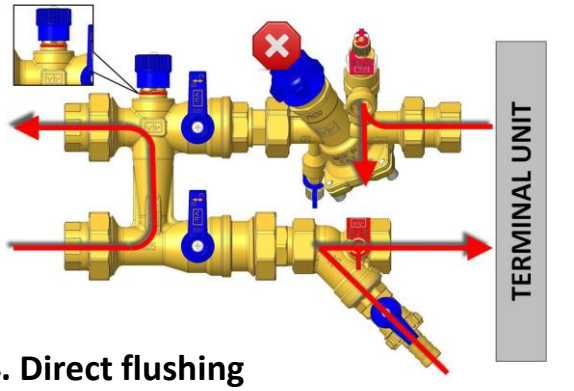
1. System flushing



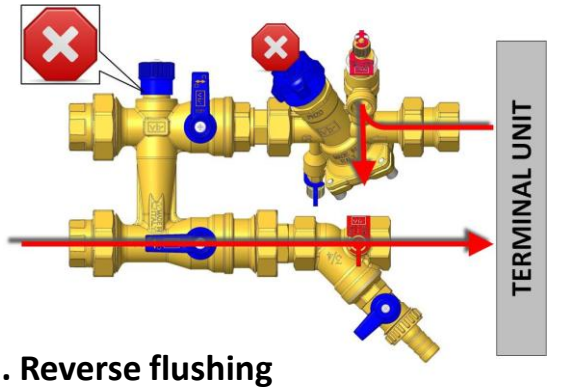
2. Normal operation



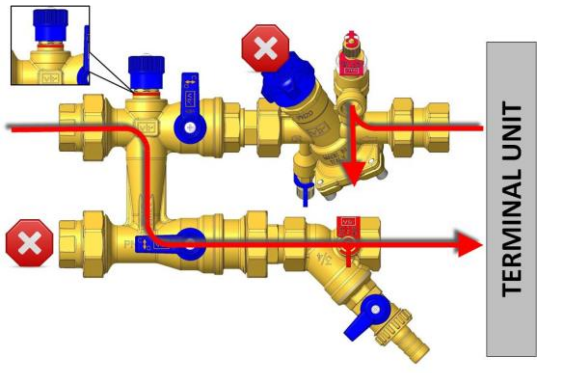
3. Unit cleaning



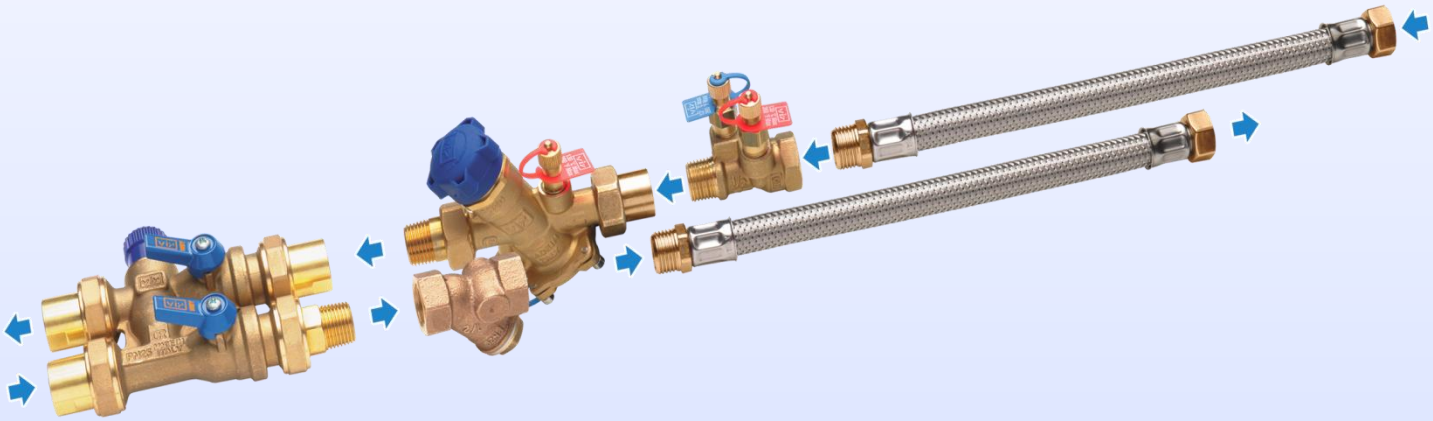
4. Direct flushing



5. Reverse flushing



For specific commission requirements VIR staff is able to provide commercial information and technical support. In fact, EZCONNECT offers a very flexible configuration method, thanks to a wide range of control valves, static and automatic balancing valves, strainers, flow meters, drain valves and flexible hoses.



Insulation boxes made in crosslinked expanded polyethylene (PE) with closed cells are available for both heating and cooling applications.

VIR Valvoindustria Ing. Rizzio S.p.A.

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