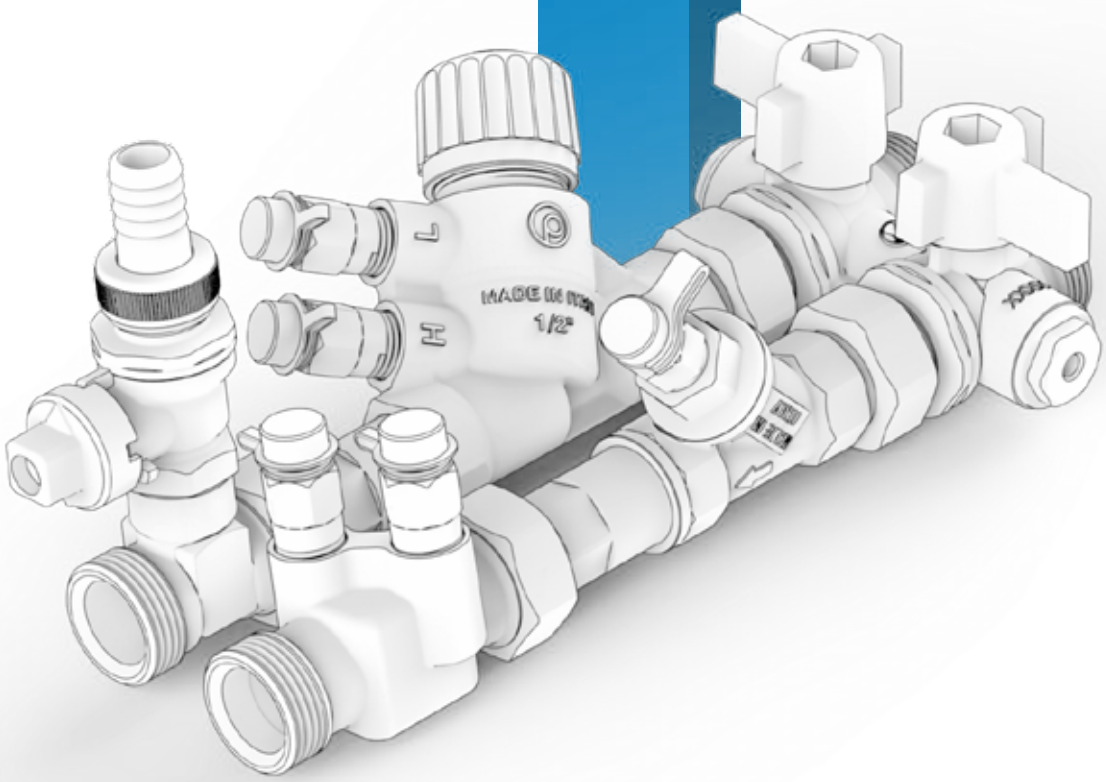
HVAC Catalogue 2024



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Manufacturer Partner

PETTINAROLI UK

HVAC Catalogue
United Kingdom & Ireland
2024

PETTINAROLI
UK

CHAPTER INDEX

HYDRONIC
kits

VORTEX 4

Pettinaroli's versatile range of **valve assemblies for fan coils, chilled beams and other hydronic terminal units** offers significant **benefits over standard products** - for consultants, contractors, commissioning engineers and building operators / owners.

The valve assembly is a **modular approach** to meeting the flushing, flow balancing, isolation, and temperature control requirements of each terminal unit.

Pettinaroli's pre-fabricated valve assemblies ensure that **everything required** for a successful connection is **supplied in one package**. Furthermore, off-site assembly and testing **reduces site time and virtually eliminates costly failures**.

Units are available in manual/automatic/pressure independent characterised control valves, offering **different levels of functionality to meet the needs and budgets of each project**, whilst sharing the high quality that is synonymous with the Pettinaroli name.

BENEFITS

√ **CONNECTING KIT** FOR TERMINAL UNITS (fan-coils, chilled beams and air handling units)

√ **REDUCED ON-SITE LABOUR TIME**

√ **100% FACTORY QUALITY TESTED** FOR MINIMUM LEAKEAGE RISK

√ **100% MADE IN ITALY** WITH PATENTED TECHNOLOGY

√ **FLEXIBLE AND BESPOKEN** CONFIGURATION (automatic, manual balancing)

√ **NO FLUSHING THRU CONTROL VALVE** (100% safe)

FEATURES

√ **AVAILABLE** IN **BG 29** AND **COMPACT** VARIETIES

√ **DIRT RESISTANT** PIC VALVE AS STANDARD

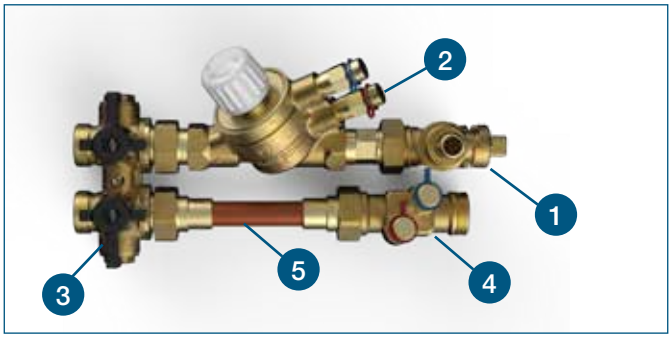
√ **HIGHEST KVS** AND **LOWEST RESISTANCE FLUSHING BYPASS** ON THE UK MARKET AS STANDARD

√ COMPONENTS DESIGN FOR **OPTIMAL MAINTENANCE, CHANGEABLE** AND **REUSABILITY**

√ FEATURES A **FULL BORE DRAIN** TO ENSURE **HIGH FLUSHING VELOCITY** AS STANDARD

√ **ADDITIONAL OPTIONS AVAILABLE** (AIR VENT, STRAINERS ETC)

VORTEX 4 Compact



1. Full Bore Drain for maximum flush velocity

2. Dirt resistant PICV designed for dirty water system, with a cleanable cartridge

3. High Kvs Flushing Bypass for improved system efficiency

4. On site cleanable Venturi Metering Station allows for easy maintenance

5. Copper pipe with Tee and Bypass at similar free area as the pipe diameter

DESIGNERS & SPECIFIERS

Fewer components for each project.
Flexibility in the type of pipe specified.
Choice of valve location, close coupled with terminal unit, or mounted in pipework.

INSTALLERS

Everything required for a successful connection assembly to a terminal unit is **supplied in one package**.
Fewer components to be ordered for each project.
Each unit can be **tagged and individually identified** to each terminal unit.
The unit may be orientated in the **horizontal or vertical** plane on site.
Euroconus connections allow various pipe types and diameters to be used for the runs connecting terminal units.

COMMISSIONING & MAINTENANCE

All valves required for commissioning of the terminal unit are **in one location**.
Insulation boxes (available on request) can be opened and re-sealed in seconds with no damage to pipe lagging.
Automatic balancing valves reduce commissioning time to flushing and verification.
Pressure independent valves offer **full authority temperature control and maximum flow rate limiting**.

FLUSHING OF MAIN PIPE LINE

FORWARD FLUSHING

FULL CLOSE

READY FOR COMMISSIONING

VX4 D 1 R C L A 0

VALVE SET OPTIONS
0 - Standard
D - Double drain & Y strainer
E - Double drain
G - Added test points, double drain & Y strainer
I - Added test points, double drain, AAV & Y strainer
J - Double drain, strainer & AAV
K - AV & Strainer
M - Manual air vent
P - Double drain & additional test point
Q - Double drain & manual AV
S - Y strainer

VENTURI SIZE
0 - No Venturi
A - 3 mm
B - 4.25 mm
C - 6 mm
D - 7.5 mm
E - 9 mm
F - 10.5 mm

UNIT HANDLING
L - Left
R - Right
H - Horizontal left (Handles upwards)
K - Horizontal right (Handles upwards)
M - Horizontal left (Handles downwards)
N - Horizontal right (Handles downwards)

SERVICE TYPE
C - Cooling (Blue)
H - Heating (Red)

VALVE SET CONFIGURATION
R - PICV in return, TICV on opposite leg
F - PICV in flow, TICV on opposite leg
A - PICV in return, TICV after
B - PICV in return, TICV before

VALVE LINE SIZE AND FLOW TYPE
1 - VL.04
2 - L.04
3 - H.04
4 - L.06
5 - H.06

VALVE TYPE
B - 91 PICV
D - 92 PICV

40 MM VX4 UNIT

VORTEX 4
Compact Series

VORTEX 4
29 Series

VX4 Compact

Pettinaroli VX Compact series assemblies include a Vortex 40mm flushing bypass, Dynasty dirt-resistant PICV, a full bore 10mm drain and a venturi flow measurement device mounted in the return.

VX4DR-S

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The set also comes with a Strainer and a venturi flow measurement device mounted in the flow and 3/4" Euroconus mains and terminal end connections as standard. Multiple handings are available.

Ø"		Code
1/2" (0,008 - 0,032 l/s)	1	VX4D1RxxAS
1/2" (0,033 - 0,063 l/s)	1	VX4D2RxxBS
1/2" (0,064 - 0,121 l/s)	1	VX4D2RxxCS
1/2" (0,122 - 0,144 l/s)	1	VX4D3RxxDS
3/4" (0,193 - 0,249 l/s)	1	VX4D4RxxES
3/4" (0,250 - 0,377 l/s)	1	VX4D5RxxFS

VX4DR-0

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he set also comes with a venturi flow measurement device mounted in the flow and 3/4" Euroconus mains and terminal end connections as standard. Multiple handings are available.

Ø"		Code
1/2" (0,008 - 0,032 l/s)	1	VX4D1RxxA0
1/2" (0,033 - 0,063 l/s)	1	VX4D2RxxB0
1/2" (0,064 - 0,121 l/s)	1	VX4D2RxxC0
1/2" (0,122 - 0,144 l/s)	1	VX4D3RxxD0
3/4" (0,193 - 0,249 l/s)	1	VX4D4RxxE0
3/4" (0,250 - 0,377 l/s)	1	VX4D5RxxF0

VX4 29

Pettinaroli VX 29 Series valve set. The valve set includes a Vortex 4 40mm flushing by-pass, which features the highest flushing Kvs currently available on a bypass of this type, the Dynasty dirty water resistant PICV (available in both 1/2" or 3/4" for high and low flow rates), venturi flow measurement device and a full bore 10mm flushing drain mounted in the return.

VX4DB-S

The set also comes with a strainer mounted in the flow leg to balance optimum flushing velocity and strainer protection. 3/4" Euroconus mains and terminal end connections as standard. Multiple handings are available.

Ø"		Code
1/2" (0,008 - 0,032 l/s)	1	VX4D1BxxAS
1/2" (0,033 - 0,063 l/s)	1	VX4D2BxxBS
1/2" (0,064 - 0,121 l/s)	1	VX4D2BxxCS
1/2" (0,122 - 0,144 l/s)	1	VX4D3BxxDS
3/4" (0,193 - 0,249 l/s)	1	VX4D4BxxES
3/4" (0,250 - 0,377 l/s)	1	VX4D5BxxFS

VX4DB-0

Flow leg is left completely clear to enable optimum flushing velocities. 3/4" Euroconus mains and terminal end connections as standard. Multiple handings are available.

Ø"		Code
1/2" (0,008 - 0,032 l/s)	1	VX4D1BxxA0
1/2" (0,033 - 0,063 l/s)	1	VX4D2BxxB0
1/2" (0,064 - 0,121 l/s)	1	VX4D2BxxC0
1/2" (0,122 - 0,144 l/s)	1	VX4D3BxxD0
3/4" (0,193 - 0,249 l/s)	1	VX4D4BxxE0
3/4" (0,250 - 0,377 l/s)	1	VX4D5BxxF0

VX ePIV Series VORTEX 4

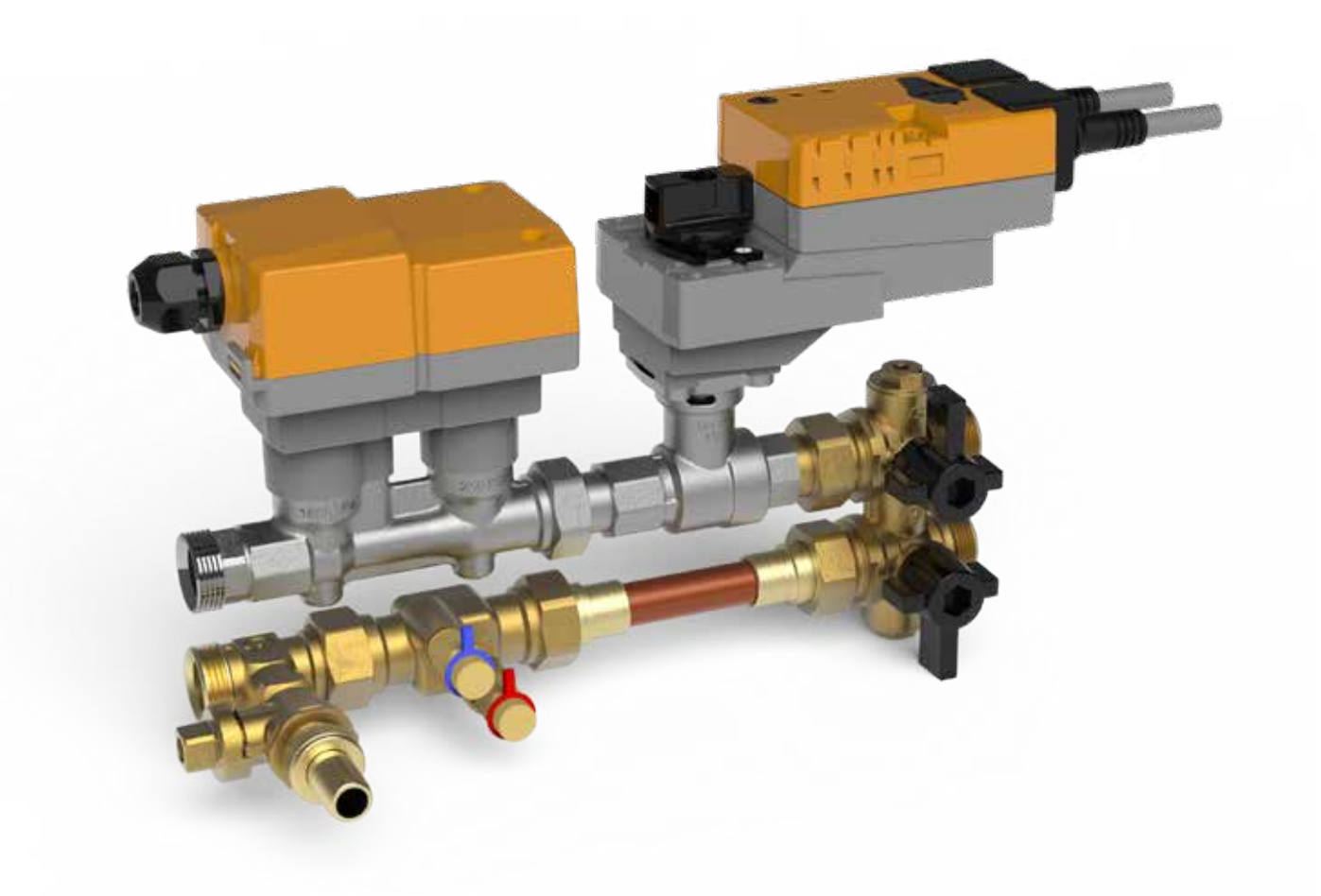
Pettinaroli's versatile range of **valve assemblies for fan coils, chilled beams and other hydronic terminal units** offers significant **benefits over standard products** - for consultants, contractors, commissioning engineers and building operators / owners.

The valve assembly is a **modular approach** to meeting the flushing, flow balancing, isolation, and temperature control requirements of each terminal unit.

Pettinaroli's prefabricated valve assemblies **ensure that everything required** for a successful connection is **supplied in one package**.

Furthermore, **off-site assembly and testing reduces site time** and virtually eliminates costly failures.

Units combine the **high quality of Pettinaroli brass valves and fittings** with the reliability and **performance of the Belimo ePIV**.



√ **CONNECTING KIT FOR TERMINAL UNITS (FAN-COILS, CHILLED BEAMS AND AIR HANDLING UNITS)**

√ REDUCED ON-SITE LABOUR TIME

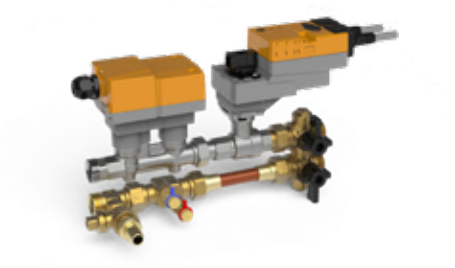
√ 100% FACTORY QUALITY TESTED FOR MINIMUM LEAKEAGE RISK

√ MADE WITH ITALIAN PATENTED TECHNOLOGY

√ FLEXIBLE AND BESPOKE CONFIGURATION (Strainers, Air vents Etc)

Pettinaroli VX Epiv Series valve sets include a Vortex 4 40mm flushing by-pass, which features the highest flushing Kvs currently available on a by-pass of this type. 3/4" Euroconus mains and terminal end connections as standard. Multiple handings are available.

VX ePIV



Includes a return mounted Belimo EPIV (available in both 1/2" or 3/4" for high and low flow rates) with MP-Bus BACnet actuator. A venturi flow measurement device and full bore 10mm flushing drain are mounted in the flow leg.

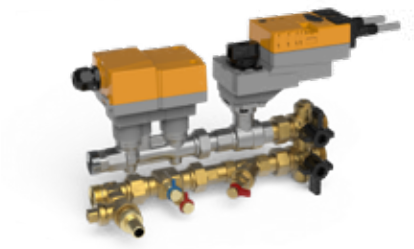
Ø"		Code
1/2" (3mm Venturi)	1	VX4E4RxxA0
1/2" (4.25mm Venturi)	1	VX4E4RxxB0
1/2" (6mm Venturi)	1	VX4E4RxxC0
1/2" (7.5mm Venturi)	1	VX4E4RxxD0
1/2" (9mm Venturi)	1	VX4E4RxxE0
1/2" (10.5mm Venturi)	1	VX4E4RxxF0
3/4" (7.5mm Venturi)	1	VX4E6RxxD0
3/4" (9mm Venturi)	1	VX4E6RxxE0
3/4" (10.5mm Venturi)	1	VX4E6RxxF0

VX ePIV D

Includes a Belimo EPIV (available in both 1/2" or 3/4" for high and low flow rates) with MP-Bus BACnet actuator and full bore 10mm flushing drain Mounted on the return. A venturi flow measurement device, strainer and second flushing drain are mounted in the flow leg.

Ø"		Code
1/2" (3mm Venturi)	1	VX4E4RxxAD
1/2" (4.25mm Venturi)	1	VX4E4RxxBD
1/2" (6mm Venturi)	1	VX4E4RxxCD
1/2" (7.5mm Venturi)	1	VX4E4RxxDD
1/2" (9mm Venturi)	1	VX4E4RxxED
1/2" (10.5mm Venturi)	1	VX4E4RxxFD
3/4" (7.5mm Venturi)	1	VX4E6RxxDD
3/4" (9mm Venturi)	1	VX4E6RxxED
3/4" (10.5mm Venturi)	1	VX4E6RxxFD

VX ePIV S



Includes a return mounted Belimo EPIV (available in both 1/2" or 3/4" for high and low flow rates) with MP-Bus BACnet actuator. A venturi flow measurement device, strainer and full bore 10mm flushing drain are mounted in the flow leg.

Ø"		Code
1/2" (3mm Venturi)	1	VX4E4RxxAS
1/2" (4.25mm Venturi)	1	VX4E4RxxBS
1/2" (6mm Venturi)	1	VX4E4RxxCS
1/2" (7.5mm Venturi)	1	VX4E4RxxDS
1/2" (9mm Venturi)	1	VX4E4RxxES
1/2" (10.5mm Venturi)	1	VX4E4RxxFS
3/4" (7.5mm Venturi)	1	VX4E6RxxDS
3/4" (9mm Venturi)	1	VX4E6RxxES
3/4" (10.5mm Venturi)	1	VX4E6RxxFS

0X Series

Pettinaroli's versatile range of **valve assemblies for fan coils, chilled beams and other hydronic terminal units** offers significant **benefits over standard products** - for consultants, contractors, commissioning engineers and building operators / owners.

The valve assembly is a **modular approach** to meeting the flushing, flow balancing, isolation, and temperature control requirements of each terminal unit.

Pettinaroli's pre-fabricated valve assemblies ensure that **everything required** for a successful connection is **supplied in one package**. Furthermore, off-site assembly and testing **reduces site time and virtually eliminates costly failures**.

Units are available in manual/automatic/pressure independent characterised control valves, offering **different levels of functionality to meet the needs and budgets of each project**, whilst sharing the high quality that is synonymous with the Pettinaroli name.

TYPICAL TECHNICAL SPECIFICATIONS

√ **CONNECTING KIT** FOR TERMINAL UNITS (fan-coils, chilled beams and air handling units)

√ **REDUCED ON-SITE LABOUR TIME**

√ **100% FACTORY QUALITY TESTED** FOR MINIMUM LEAKEAGE RISK

√ **100% MADE IN ITALY** WITH PATENTED TECHNOLOGY

√ **FLEXIBLE AND BESPOKEN** CONFIGURATION (automatic, manual balancing)

√ **NO FLUSHING THRU CONTROL VALVE** (100% safe)

Pettinaroli 0X4 Rapid Series Xterminator, compact valve assembly with EVOPICV short stroke valve, (either 1/2" or 3/4" depending on flow rate). Features a 40 mm centre to centre flushing by-pass (flow & return Isolation).

EVOPICV RAPID

0X4BR

Includes an EVOPICV balancing and control valve and flushing drain mounted in the return leg. With venturi flow measurement device in the flow leg. Mains and terminal connections are 3/4" Euroconus for use with fitting kits supplied separately. Multiple handings available (Left, right or horizontal) red or blue handles to denote heating or cooling.

Ø"		Code
1/2" (0,008 - 0,032 l/s)	1	0X4B1RxxA0
1/2" (0,033 - 0,063 l/s)	1	0X4B2RxxB0
1/2" (0,064 - 0,121 l/s)	1	0X4B2RxxC0
1/2" (0,122 - 0,144 l/s)	1	0X4B3RxxD0
3/4" (0,193 - 0,249 l/s)	1	0X4B4RxxE0
3/4" (0,250 - 0,377 l/s)	1	0X4B5RxxF0

EVOPICV RAPID S

0X4BRS

Strainer

Includes an EVOPICV balancing and control valve and flushing drain mounted in the return leg. With venturi flow measurement device and strainer in the flow leg. Mains and terminal connections are 3/4" Euroconus for use with fitting kits supplied separately. Multiple handings available (Left, right or horizontal) red or blue handles to denote heating or cooling.

Ø"		Code
1/2" (0,008 - 0,032 l/s)	1	0X4B1RxxAS
1/2" (0,033 - 0,063 l/s)	1	0X4B2RxxBS
1/2" (0,064 - 0,121 l/s)	1	0X4B2RxxCS
1/2" (0,122 - 0,144 l/s)	1	0X4B3RxxDS
3/4" (0,193 - 0,249 l/s)	1	0X4B4RxxES
3/4" (0,250 - 0,377 l/s)	1	0X4B5RxxFS

0X 4 B 1 R C L A 0

VALVE SET OPTIONS
0 - Standard
A - Automatic Air Vent
B - Assembly In Box
C - Aav & Y Strainer
D - Double Drain & Y Strainer
E - Double Drain
G - Added Test Points, Double Drain & Y Strainer
H - Added Test Points, Double Drain & Filterball
I - Added Test Points, Double Drain, Aav & Y Strainer
J - Double Drain, Strainer & Aav
K - Av & Y Strainer
M - Manual Air Vent
N - Drain In Return & Filterball In Flow
P - Double Drain & Additional Testpoint
Q - Double Drain & Manual Av
R - Drain In Return
S - Y Strainer
T - Av & Additional Test Points
U - Single Drain On Opposite Leg To Picv
W - Strainer & Drain On Flow, Picv On Return, No Metering Station

VENTURI SIZE
0 - No Venturi
A - 3mm
B - 4.25mm
C - 6mm
D - 7.5mm
E - 9mm
F - 10.5mm

UNIT HANDLING
L - Left
R - Right
H - Hor. Left
K - Hor. Right
0 - Not Handed

SERVICE TYPE
C - Cooling (Blue)
H - Heating (Red)

VALVE SET CONFIGURATION
R - PICV in return, TICV on opposite leg
F - PICV in flow, TICV on opposite leg
A - PICV in return, TICV after
B - PICV in return, TICV before

VALVE LINE SIZE AND FLOW TYPE
1 - VL.04
2 - L.04
3 - H.04
4 - L.06
5 - H.06

VALVE TYPE
B - 91
X - 91X
D - 92
M - DRV

BYPASS SIZE
40 MM

0X UNIT

70 mm CENTRES

Pettinaroli UK 0X7 Series Xterminator compact terminal valve assembly. Features a 70 mm centre to centre by-pass. Flow & return Isolation Valves. 93 series EVOPICV short stroke control valve & flushing drain mounted in the return.

0X7CR

Includes a Terminator venturi flow measurement device mounted in the flow. As standard the unit features 1" BSP female coil side connection & 1 1/8" male flat face mains side suitable for use with our fitting kit ranges detailed seperately.

Ø"		Code
1" (0,0611 - 0,55 l/s)	1	0X7C1RxG0

0X7CRF

Includes a Filterball and venturi flow measurement device mounted in the flow. As standard the unit features 1" BSP female coil side connection & 1 1/8" male flat face mains side suitable for use with our fitting kit ranges detailed seperately.

Ø"		Code
1" (0,0611 - 0,55 l/s)	1	0X7C1RxGF

80 mm CENTRES

Pettinaroli UK 0X8 Series Xterminator compact terminal valve assembly. Features a 80 mm centre to centre by-pass. Flow & return Isolation Valves. 93 series EVOPICV short stroke control valve & flushing drain mounted in the return.

0X8CR

Unit features 1" BSP female coil side connection & 1 1/8" male flat face mains side suitable for use with our fitting kit ranges detailed seperately.

Ø"		Code
1" (0,0611 - 0,55 l/s)	1	0X8C1R00J0
1 1/4" (0,075 - 0,675 l/s)	1	0X8C2R00I0
1 1/4" (0,0833 - 0,833 l/s)	1	0X8C3R00K0

0X 7 B 5 R C 0 A F

VALVE SET OPTIONS
0 - Standard
A - Automatic Air Vent
B - Assembly In Box
C - Aav & Y Strainer
D - Double Drain & Y Strainer
E - Double Drain
F - Filterball
G - Added Test Points, Double Drain & Y Strainer
H - Added Test Points, Double Drain & Filterball
I - Added Test Points, Double Drain, Aav & Y Strainer
J - Double Drain, Strainer & Aav
K - Av & Y Strainer
L - Levelled
M - Manual Air Vent
N - Drain In Return & Filterball In Flow
P - Double Drain & Additional Testpoint
Q - Double Drain & Manual Av
R - Drain In Return
T - Av & Additional Test Points
U - Single Drain On Opposite Leg To Picv
W - Strainer & Drain On Flow, Picv On Return, No Metering

VENTURI SIZE
0 - No Venturi
A - 3mm
B - 4.25mm
C - 6mm
D - 7.5mm
E - 9mm
F - 10.5mm
G - 12mm
H - 10mm
I - 14.5mm
J - 13mm
K - 19mm
L - 15mm
M - 22mm
N - 18mm
O - 31mm

UNIT HANDLING
L - Left
R - Right
H - Hor. Left
K - Hor. Right
0 - Not Handed

SERVICE TYPE
C - Cooling (Blue)
H - Heating (Red)

VALVE SET CONFIGURATION
R - PICV in return, TICV on opposite leg
F - PICV in flow, TICV on opposite leg
A - PICV in return, TICV after
B - PICV in return, TICV before

VALVE LINE SIZE AND FLOW TYPE
1 - VL.04
2 - L.04
3 - H.04
4 - L.06
5 - H.06
6 - L.08
7 - H.08
8 - H.10
9 - H.12

VALVE TYPE
B - 91
X - 91X
D - 92
M - DRV
C - 93

BYPASS SIZE
70 MM
80 MM

0X UNIT

XLX Series

XLX PRODUCT DETAILS

The **XLX** series has been developed in several years of on-field experience finding solutions for customers dealing with **Air Handling Units valve assemblies** and related insulation issues.

The **XLX** includes a PEB83 PICV valve and Terminator Commissioning valve and can be supplied as a valve set only, or mounted in a **single coated metal enclosure.** The assembly can also include a flushing by-pass and is becoming the definitive answer for all AHU's insulation necessities.

The **powder coated sheet metal enclosure** provides protection for the valves as well as the actuator and its wiring.
The insulating case is designed to physically **protect the valve assembly serving an Air Handling Unit (AHU)** that is generally located on the roof of a building.
Piping and valve supports and electrical junction box are **provided mounted** inside the unit.
The **removable access panel** also provides a proper gateway for commissioning and long-term maintenance.

AHU APPLICATIONS

Because of their roof installation, AHUs are exposed to weathering, so they are designed to protect the critical components within the unit, ensuring electrical and moving parts are protected.

Round pipework and valve assemblies to the unit are not covered by the structure, so they need to be lagged and protected on site by skilled insulation teams. More critical components such as **Actuators and Test Points** are protected and wrapped likewise.

But this type of coverage, even when is professionally installed, can deteriorate over time.

Moreover it may need to be accessed to perform maintenance procedures and it not adequately reinstalled this could compromise its weather proofing and insulation function.

Pettinaroli UK perfected and simplifyed the whole process producing a **long-term reliable solution** to access and maintain AHU valve assemblies after the project is completed.

The **XLX** mounted in a metal box provides **protection from the weather, while giving a wide and manageable accesses** to test points and actuators.

AHU FEATURES & BENEFITS

√ AIR HANDLING UNIT VALVE ASSEMBLY AND PROTECTIVE COVER **'ALL BOXED UP'**
√ **LONG-TERM PROTECTION** THANKS TO THE POWDER COATED SHEET METAL ENCLOSURE
√ **REMOVABLE ACCESS PANEL** FOR EASED COMMISSIONING AND MAINTENANCE
√ POSSIBILITY FOR **BESPOKE DEVELOPMENT**

XLX

1 1/2" - 2" AHU Xterminator. Flow Mounted Filterball with Test Points. Return Mounted 83 Series PICV, commissioning set, air vent and drain. Pre-assembled and tested delivered on support strutting or similar to meet your design needs. Designs can be adapted to meet bespoke centre to centre distances and incorporate components to meet the project needs. All weather cases available for external mounting positions.

Ø"		Code
1 1/2"	1	XLXAxCA0Vx0
2"	1	XLXAxDA0Vx0

XT1694 - XT1694G

Prefabricated Commissioning Solution with flushing by-pass, linear dirt resistant PICV PEB92 1 ½" and Filterball shut off valve with integrated strainer.
The kit is ready to be install and provides all components required for commissioning and operation of the terminal unit (FCU - AHU).
100% factory tested against leakage. Fully maintainable PICV with test points for commissioning and system optimization. Filterball valve with blowout proof stem, triple sealing technology and adjustable packing gland. Stainless steel filter FM28. Very easy to inspect and maintain. Soft thermal insulation available, if included the product part number becomes XT1694G.

Ø"		Code
1" x 2500 l/h	1	XLXD1AR0x01
1" x 3300 l/h	1	XLXD2AR0x01
1 1/4" x 5200 l/h	1	XLXD2BR0x01
1 1/2" x 9000 l/h	1	XLXD2CR0x01

XT1695 - XT1695G

Prefabricated Commissioning Solution with flushing bypass, linear dirt resistant PICV PEB92 1 ½", Filterball shut off valve with integrated strainer, drain valve, air vent and additional test point.
The kit is ready to be install and provides all components required for commissioning and operation of the terminal unit (FCU - AHU).
100% factory tested against leakage. Fully maintainable PICV with test points for commissioning and system optimization.Filterball valve with blowout prof stem, triple sealing technology and adjustable packing gland. Stainless steel filter FM28. Very easy to inspect and maintain. Soft thermal insulation available, if included the product part number becomes XT1695G.

Ø"		Code
1" x 2500 l/h	1	XLXD1AR0x02
1" x 3300 l/h	1	XLXD2AR0x02
1 1/4" x 5200 l/h	1	XLXD2BR0x02
1 1/2" x 9000 l/h	1	XLXD2CR0x02

XT2070

Prefabricated Commissioning Solution with flushing by-pass, equal percentage rotary PICV 83 and Filterball® shut off valve with integrated strainer.
The kit is fully assembled except for the PICV, which has to be installed by the end user, and provides all components required for commissioning and operation of the AHU.
100% factory tested against leakage. The PICV is equipped with test points for commissioning and system optimization.
Filterball® valve with blowout prof stem, triple sealing technology and adjustable packing gland. Stainless steel filter FM28. Very easy to inspect and maintain.

Ø”		Code
2" x 11000 l/h	1	XLXA1DR0x01
2" x 18000 l/h	1	XLXA2DR0x01

XT2071

Prefabricated Commissioning Solution with flushing by-pass, equal percentage rotary PICV 83, Filterball® shut off valve with integrated strainer, drain valve, air vent and additional test point.
The kit is fully assembled except for the PICV, which has to be installed by the end user, and provides all components required for commissioning and operation of the AHU.
100% factory tested against leakage. The PICV is equipped with test points for commissioning and system optimization.
Filterball® valve with blowout prof stem, triple sealing technology and adjustable packing gland. Stainless steel filter FM28. Very easy to inspect and maintain.

Ø”		Code
2" x 11000 l/h	1	XLXA1DR0x02
2" x 18000 l/h	1	XLXA2DR0x02

DIVERSIFLOW Manifold Series

PRODUCT DETAILS

Pettinaroli UK Diversiflow® manifold system houses all of the valves required for a group of terminal units in a **single, insulated box.**

This provides easy and convenient access for the commissioning and maintenance of a number (typically up to six) of chilled beams or fan coil units. Inside the box are all the isolating, manual or automatic balancing valves or pressure independent control valves, strainers (Filterball®), drains and **everything you require to control the flow to the terminal unit.**

Diversiflow® manifolds are designed to serve multiple terminal units, which results in **significant commissioning time saving.** All terminal units can be adjusted and mantained by accessing the single manifold/insulated box.

FEATURES & BENEFITS

A centrally located, multi terminal manifold unit provides **significant benefits** when compared with the conventional approach of installing individual valve sets at each terminal unit.

- √ MULTIPLE TERMINALS CAN BE SERVED FROM ONE MANIFOLD
- √ ALL UNITS ARE CUSTOM BUILT TO YOUR SPECIFICATIONS
- √ MANIFOLD UNITS CAN BE SUPPLIED BOXED AND PRE-INSULATED, READY FOR CONNECTION IN LIGHTWEIGHT BOXES OR STEEL ENCLOSURES
- √ ALL CONNECTIONS ON THE MANIFOLD UNITS CAN BE EXTERNAL, ELIMINATING THE NEED TO ACCESS INTERNAL COMPONENTS AND DISTURB THE INSULATION
- √ SUITABLE FOR CONSTANT OR VARIABLE FLOW SYSTEMS (DEPENDENT UPON THE CONTROL VALVES SPECIFIED)
- √ A FULL-BORE FLUSHING BY-PASS IS INCORPORATED IN THE DESIGN, WHICH ALLOWS THE MANIFOLD TO BE FLUSHED FULLY IN ACCORDANCE WITH THE RECOMMENDED VELOCITIES AS STATED IN CIBSE COMMISSIONING CODE W: WATER DISTRIBUTION SYSTEMS
- √ COPPER TAILS TO EACH CONNECTION ALLOW FOR USE OF PEM COPPER TO PEXAL FITTINGS FOR USE WITH MULTI-LAYER PIPE
- √ ALL UNITS ARE PRE-ASSEMBLED AND PRE-TESTED
- √ ORDERING AND INSTALLATION IS SIMPLIFIED
- √ REDUCED COMMISSIONING TIME
- √ FULL BORE FLUSHING BY-PASSES SAVES TIME DURING THE CLEANING AND FLUSHING
- √ SUPER-FAST PUSH FIT CONNECTIONS CAN BE UTILISED
- √ EXCELLENT THERMAL INSULATION
- √ SPARE CONNECTIONS CAN BE INCORPORATED TO FACILITATE CHANGES AND ADDITIONS TO THE UNITS IN THE SYSTEM

PRODUCT RANGE

Pettinaroli UK Diversiflow® manifolds are part of the Prefabricated product range.

There are currently **4 types of these multiple valves sets** available:

√ Small Linear
√ Large Linear
√ Small Side Entry
√ Large Bi-Lateral

Each one has numerous great features:

√ Light weight boxes as an option
√ Optimal insulation materials depending on the enclosure design
√ Easy to change box
√ Central location for isolation and measurement
√ New terminals can be easily added to the manifold
√ Large bore flushing of mains
√ Individual flushing of each Terminal Device
√ Ideal solutions for radiant panels or chilled beams
√ Controlled zones - one control/manifold or each individual terminal controlled
√ Individual isolation and venturi flow measurement
√ Individual flushing of each Terminal Device

QUALITY WARRANTED

All Pettinaroli UK manifolds are assembled using quality components and pretested under **ISO 9000 quality assurance systems** at our factory in Birmingham.

This gives you the added warranty that **any potential leakages are detected and eliminated before the unit is delivered to site.**

DYNAMIC BALANCING
Pressure Independent Control Valves

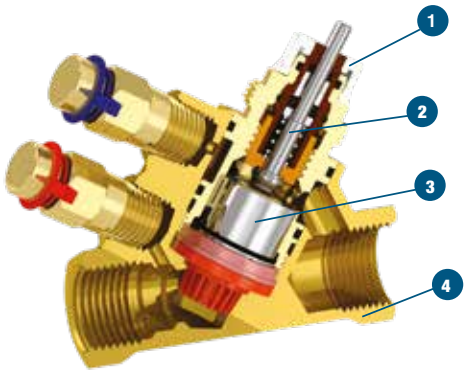
DYNASTY

The new **Dynasty** range of **PICV** has been designed to give all the advantages of the existing PICV valve range with the added benefit of **operating in heavily contaminated water**.
The valve has a **Linear characteristic** and it has also been **designed to allow the internals to be removed, clean and replaced** without effecting the performance of the valve.

Patented

PATENT
IT1428884
US9910447 B2
EP3067772 B1

TECHNICAL SPECIFICATIONS



	Material list
Pre-setting knob (1)	ABS + PC
Regulating valve (2)	Hight performance polymer, stainless steel
Cartridge with diaphragm (3)	Hight performance polymer, WMQ silicon, stainless steel, HNBR
Body (4)	Corrosion resistant brass CW602N
O-rings	EPDM-x

√ **INTERNAL PRESETTING** with stroke reduction of the control valve

√ **ACCESSIBLE** cartridge for easy manteinance

01

Remove the handwheel or the actuator. default setting: pos. 9

02

Turn the selector to the target position to set the flow rate

FEATURES & BENEFITS

√ **COMPACT** DESIGN
√ **LINEAR** CHARACTERISTIC
√ **DIRT-FREE** CARTRIDGE
√ **THERMOELECTRIC** AND **ELECTROMECHANIC ACTUATORS** AVAILABLE
√ **EASY MAINTENANCE**
√ **EXTREMELY LOW** MINIMUM PRESSURE REQUIRED FOR START-UP

Dynasty PICV - Externally Adjustable 1/2 - 2” PICV with Linear Characteristic with removable cartridge. DZR Body.

PEB92 DYNASTY

Includes test points and female BSP Connections. Maximum Flow rate of 9000 l/h.

PATENT IT1428884
US9910447 B2
EP3067772 B1

Ø”		Code
1/2” x 150 l/h	1	PEB92VL.04
1/2” x 450 l/h	1	PEB92L.04
1/2” x 850 l/h	1	PEB92H.04
3/4” x 1000 l/h	1	PEB92L.06
3/4” x 1850 l/h	1	PEB92H.06
1” x 2500 l/h	1	PEB92L.08
1” x 3300 l/h	1	PEB92H.08
1 1/4” x 5200 l/h	1	PEB92H.10
1 1/2” x 9000 l/h	1	PEB92H.12

PEB92_X DYNASTY

Female BSP Connections. Maximum Flow rate of 9000 l/h.

PATENT IT1428884
US9910447 B2
EP3067772 B1

Ø”		Code
1/2” x 150 l/h	1	PEB92VL.04.X
1/2” x 450 l/h	1	PEB92L.04.X
1/2” x 850 l/h	1	PEB92H.04.X
3/4” x 1000 l/h	1	PEB92L.06.X
3/4” x 1850 l/h	1	PEB92H.06.X
1” x 2500 l/h	1	PEB92L.08.X
1” x 3300 l/h	1	PEB92H.08.X
1 1/4” x 5200 l/h	1	PEB92H.10.X
1 1/2” x 9000 l/h	1	PEB92H.12.X

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NBS Source
Manufacturer Partner

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	600 kPa / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	2500 kPa / 25 bar
Stroke 1/2” - 3/4”	3 mm
Stroke 1” - 1 1/4”	6 mm

	PEB92VL.04 PEB92VL.04.X	PEB92L.04 PEB92L.04.X	PEB92H.04 PEB92H.04.X	PEB92L.06 PEB92L.06.X	PEB92H.06 PEB92H.06.X	PEB92L.08 PEB92L.08.X	PEB92H.08 PEB92H.08.X	PEB92H.10 PEB92H.10.X	PEB92H.12 PEB92H.12.X
Flow rate max.	150 l/h 0,042 l/s	450 l/h 0,125 l/s	850 l/h 0,236 l/s	1000 l/h 0,278 l/s	1850 l/h 0,514 l/s	2500 l/h 0,694 l/s	3300 l/h 0,917 l/s	5200 l/h 1,44 l/s	9000 l/h 2,50 l/s
Start-up max	25 kPa 0,25 bar	35 kPa 0,35 bar	25 kPa 0,25 bar	30 kPa 0,30 bar	35 kPa 0,35 bar	30 kPa 0,30 bar	30 kPa 0,30 bar	35 kPA 0,35 bar	40 kPA 0,40 bar
Connections	Rp 1/2” F EN 10226-1	Rp 1/2” F EN 10226-1	Rp 1/2” F EN 10226-1	Rp 3/4” F EN 10226-1	Rp 3/4” F EN 10226-1	Rp 1” union F EN 10226-1	Rp 1” union F EN 10226-1	Rc 1 1/4” union F EN 10226-1	Rp 1 1/2” F EN 10226-1

PEB92VL-PEB92L 1/2”

PEB92H 1/2”

PEB92L-PEB92H 3/4”

PEB92L-PEB92H 1” PEB92H 1 1/4”

PEB92H 1 1/2”

PEB92X/2

PEB92X/2 DYNASTY

Dynasty PICV - Externally Adjustable 1/2 - 1" PICV with Linear Characteristic with removable cartridge and test points. DZR body with Male Connections.
Maximum Flow rate of 1850 l/h.

PATENT IT1428884
US9910447 B2
EP3067772 B1

Ø"		Code
1/2" x 150 l/h	1	PEB92XVL/2.04
1/2" x 450 l/h	1	PEB92XL/2.04
3/4" x 150 l/h	1	PEB92XVL/2.06
3/4" x 450 l/h	1	PEB92XL/2.06
1" x 1000 l/h	1	PEB92XL/2.08
1" x 1850 l/h	1	PEB92XH/2.08

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	600 kPa / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	2500 kPa / 25 bar
Stroke	3 mm

	PEB92XVL/2.04	PEB92XL/2.04	PEB92XVL/2.06	PEB92XL/2.06	PEB92XL/2.08	PEB92XH/2.08
Flow rate max.	150 l/h 0,042 l/s	450 l/h 0,125 l/s	150 l/h 0,042 l/s	450 l/h 0,125 l/s	1000 l/h 0,278 l/s	1850 l/h 0,514 l/s
Start-up max	25 kPa 0,25 bar	35 kPa 0,35 bar	25 kPa 0,25 bar	35 kPa 0,35 bar	30 kPa 0,30 bar	35 kPa 0,35 bar
Connections	G 1/2" M ISO 228-1	G 1/2" M ISO 228-1	G 3/4" M ISO 228-1	G 3/4" M ISO 228-1	G 1" M ISO 228-1	G 1" M ISO 228-1

EvoPICV

Pressure Independent Control Valve

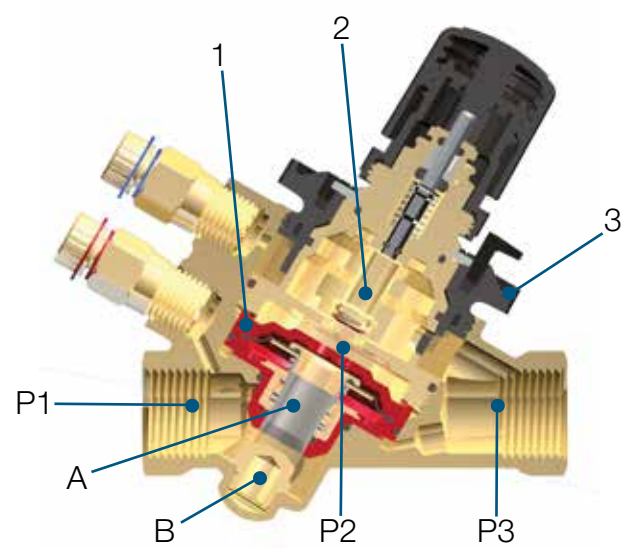
The **EvoPICV** Pressure Independent Control Valve "PICV" is a combined constant flow limiter and full stroke, full authority equal percentage temperature control valve.
The **EvoPICV** is suitable for use in variable and constant temperature systems and may be used as a constant flow limiter in constant volume systems (without an actuator head) or as a true PICV in variable volume systems.

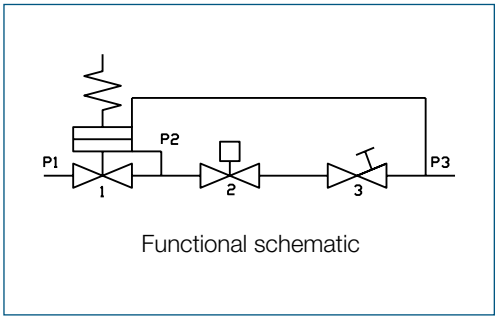
OPERATING PRINCIPLES

EvoPICV valve is made up of three main parts:
1. differential pressure regulator
2. regulating valve for flow adjustment
3. flow pre-setting knob

DIFFERENTIAL PRESSURE REGULATOR

The differential pressure regulator is the heart of the pressure independent control valve. By keeping a constant differential pressure across the valve seats constant flow and full authority temperature control can be achieved.
Incoming pressure P1 is transmitted to the top face of the diaphragm, outgoing pressure P3 is transmitted to the underside of this same diaphragm. A constant effective differential pressure is maintained between P2 and P3. As P1 increases relative to P3 it acts on the diaphragm closing the shutter (A) against a seat (B) thereby lowering the effective differential pressure. As P1 decreases relative to P3 the diaphragm acts to open the shutter (A) from the seat (B) thus increasing the effective differential pressure. The diaphragm acts against a spring in order to balance the pressure control and stop the diaphragm oscillating.





Functional schematic

REGULATION VALVE

Water flow through a valve varies as a function of the area of passage and the pressure differential across that valve. Due to the incorporation of the differential pressure regulator the differential pressure across the valve seats P2 – P3 is constant meaning that flow is now only a function of area of passage.
Setting any flow rate value and maintaining it is also possible. The regulation valve presents an equal percentage characteristic.

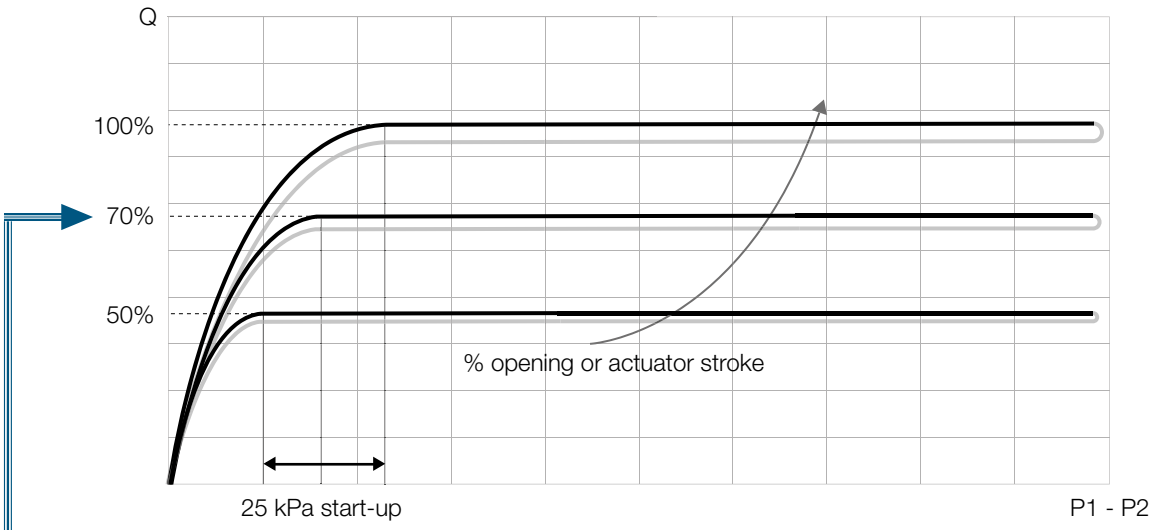
ADJUSTMENT KNOB

The maximum value of the flow can be preset, limiting the outlet section of the control valve, using the graduated adjustment knob.
The percentage value, indicated on the scale, matches the maximum flow rate percentage. This value can be changed turning the adjustment knob until it reaches the selected position (matching the percentage indicated on the scale). A locking mechanism stops the valve set values from being changed inadvertently.

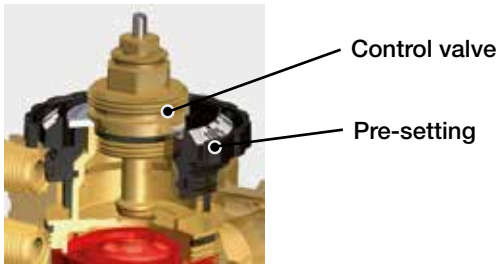
A PICV replaces a traditional control valve on a terminal unit (FCU, CB, AHU). It limits flow rate irrespective of pressure and offers the possibility to modulate the flow rate (according to room temperature) by using a proportional thermostat or BMS system.

Dynamic curve

Provides constant flow at any pump head

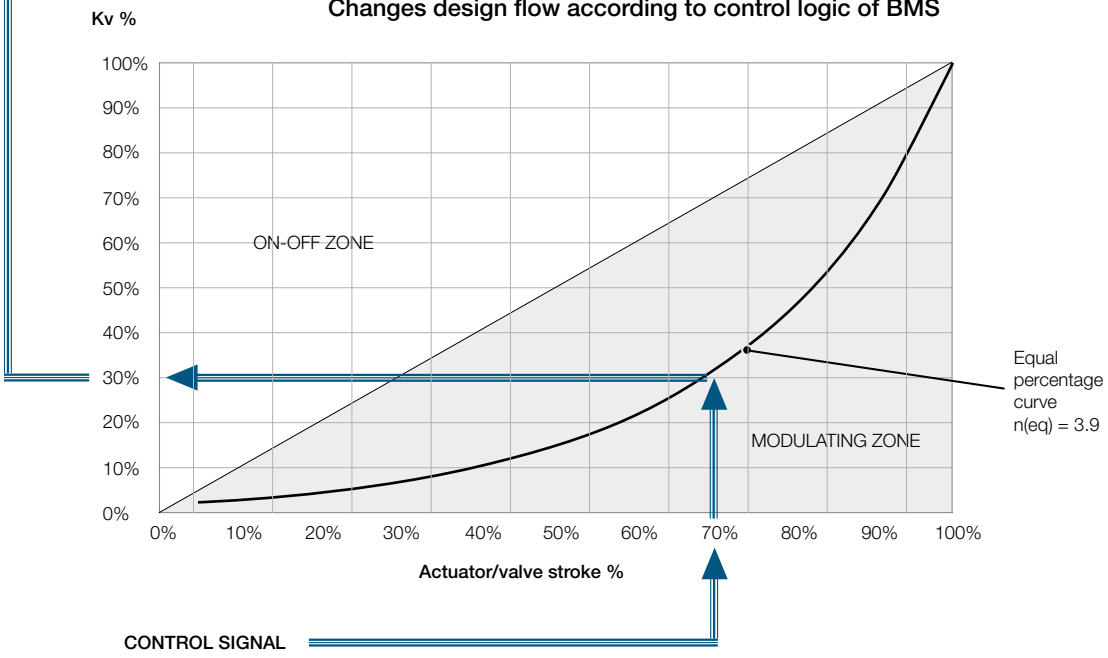


The dynamic curve can be initially limited using a graduated pre-setting device; then the flow can be further adjusted by means of the control valve, which is positioned by the actuator.



Control curve

Changes design flow according to control logic of BMS



PEB91 EvoPICV

EVOPIC PICV - Externally Adjustable 1/2 - 1" PICV with Equal Percentage Characteristic and test points. DZR body with Female BSP Connections. Maximum Flow rate of 1500 l/h.

PATENT IT271811
EP 2488994
US8989140

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	600 kPa / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	2500 kPa / 25 bar
Stroke	3 mm

Ø"		Code
1/2" x 150 l/h	1	PEB91VL.04
1/2" x 600 l/h	1	PEB91L.04
1/2" x 780 l/h	1	PEB91H.04
3/4" x 1000 l/h	1	PEB91L.06
3/4" x 1500 l/h	1	PEB91H.06
1" x 1500 l/h	1	PEB91L.08

	PEB91VL.04 ½"	PEB91L.04 ½"	PEB91H.04 ½"	PEB91L.06 ¾"	PEB91H.06 ¾"	PEB91H.08 1"
Flow rate max.	150 l/h 0,042 l/s	600 l/h 0,167 l/s	780 l/h 0,217 l/s	1000 l/h 0,278 l/s	1500 l/h 0,417 l/s	1500 l/h 0,417 l/s
Start-up max	20 kPa 0,20 bar	25 kPa 0,25 bar	35 kPa 0,35 bar	30 kPa 0,30 bar	35 kPa 0,35 bar	35 kPa 0,35 bar
Connections	Rp ½" F EN 10226-1	Rp ½" F EN 10226-1	Rp ½" F EN 10226-1	Rp ¾" F EN 10226-1	Rp ¾" F EN 10226-1	Rp 1" union F EN 10226-1

MANUAL FLOW SETTING DEVICE

FLOW RATE

Flow rate can be adjusted without taking actuator off the valve.

AVAILABLE WITHOUT PRESSURE PORTS

91_1 and 91X series available without pressure port.

PEB91X EvoPICV

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	600 kPa / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	2500 kPa / 25 bar
Stroke	3 mm

EVOPIC PICV - Externally Adjustable 1/2" PICV with Equal Percentage Characteristic. Brass body with Female BSP Connections.
Maximum Flow rate of 900 l/h.

PATENT IT271811
EP 2488994
US8989140

Ø"		Code
1/2" x 150 l/h	1	PEB91XVL.04
1/2" x 600 l/h	1	PEB91XL.04
1/2" x 900 l/h	1	PEB91XH.04

	PEB91XVL.04 ½"	PEB91XL.04 ½"	PEB91XH.04 ½"
Flow rate max.	150 l/h 0,042 l/s	600 l/h 0,167 l/s	900 l/h 0,250 l/s
Start-up max	20 kPa 0,20 bar	25 kPa 0,25 bar	30 kPa 0,30 bar
Connections	Rp ½" F EN 10226-1	Rp ½" F EN 10226-1	Rp ½" F EN 10226-1

PEB91X/2 EvoPICV

EVOPIC PICV - Externally Adjustable 1/2 - 3/4" PICV with Equal Percentage Characteristic. Brass body with Male BSP Connections.
Maximum Flow rate of 900 l/h.

PATENT IT271811
EP 2488994
US8989140

Ø"		Code
1/2" x 150 l/h	1	PEB91X/2VL.04
1/2" x 600 l/h	1	PEB91X/2L.04
3/4" x 600 l/h	1	PEB91X/2L.06
3/4" x 900 l/h	1	PEB91X/2H.06

	PEB91X/2VL.04 ½"	PEB91X/2L.04 ½"	PEB91X/2L.06 ¾"	PEB91X/2H.06 ¾"
Flow rate max.	150 l/h 0,042 l/s	600 l/h 0,167 l/s	600 l/h 0,167 l/s	900 l/h 0,250 l/s
Start-up max	20 kPa 0,20 bar	25 kPa 0,25 bar	25 kPa 0,25 bar	30 kPa 0,30 bar
Connections	G 1/2" M EN 10226-1	G 1/2" M EN 10226-1	G 3/4" M EN 10226-1	G 3/4" M EN 10226-1

PEB93 EvoPICV

EVOPIC PICV - Externally Adjustable 3/4 - 1 1/4" PICV with Equal Percentage Characteristic and test points. DZR body with Female Union BSP Connections. Maximum Flow rate of 3000 l/h.

PATENT IT271811
EP 2488994
US8989140

Ø"		Code
1" x 2200 l/h	1	PEB93L.08
1" x 2700 l/h	1	PEB93H.08
1 1/4" x 2700 l/h	1	PEB93L.10
1 1/4" x 3000 l/h	1	PEB93H.10

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	600 kPa / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	2500 kPa / 25 bar
Stroke	6 mm

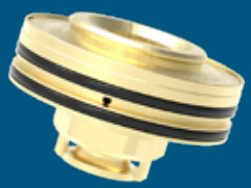
	PEB93L.08 1"	PEB93H.08 1"	PEB93L.10 1 1/4"	PEB93H.10 1 1/4"
Flow rate max.	2200 l/h 0,611 l/s	2700 l/h 0,750 l/s	2700 l/h 0,750 l/s	3000 l/h 0,833 l/s
Start-up max	**25 kPa** 0,25 bar	**30 kPa** 0,30 bar	**30 kPa** 0,30 bar	**35 kPa** 0,35 bar
Connections	Rc 1" union F EN 10226-1	Rc 1" union F EN 10226-1	Rc 1 1/4" union F EN 10226-1	Rc 1 1/4" union F EN 10226-1

REMOVABLE DIAPHRAGM

Removable diaphragm for flushing, maintanance and trouble shooting

DIAPHRAGM

Diaphragm made in one solid piece, resulting in easier handling and maintainance.



AVAILABLE WITHOUT PRESSURE PORTS

93_1 series available without pressure port.

EvoPICVR

Rotary Pressure Independent Control Valve

PE81

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	400 kPa / 4 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	2500 kPa / 25 bar
Stroke	90°

EvoPICVR - Rotary Pressure Independent Control Valve with test points 1/2" - 3/4". DZR Body with Female BSP Connections.
Max Flow 1150 l/h.

Ø"		Code
1/2" x 360 l/h	1	PE81VL.04
1/2" x 700 l/h	1	PE81L.04
1/2" x 1000 l/h	1	PE81H.04
3/4" x 780 l/h	1	PE81L.06
3/4" x 1150 l/h	1	PE81H.06

	PE81VL.04 ½"	PE81L.04 ½"	PE81H.04 ½"	PE81L.06 ¾"	PE81H.06 ¾"
Flow rate max.	360 l/h 0,100 l/s	700 l/h 0,194 l/s	1000 l/h 0,278 l/s	780 l/h 0,217 l/s	1150 l/h 0,319 l/s
Start-up max	20 kPa 0,20 bar	20 kPa 0,20 bar	20 kPa 0,20 bar	25 kPa 0,25 bar	25 kPa 0,25 bar

PE83

EvoPICVR - Rotary Pressure Independent Control Valve with test points 3/4" - 1 1/4". DZR Body with Female Union BSP Connections.
Max Flow 4000 l/h.

Ø"		Code
3/4" x 2200 l/h	1	PE83L.06
1" x 2700 l/h	1	PE83H.08
1 1/4" x 3000 l/h	1	PE83L.10
1 1/4" x 4000 l/h	1	PE83H.10

	PE83L.06 3/4"	PE83H.08 1"	PE83L.10 1 1/4"	PE83H.10 1 1/4"
Flow rate max.	2200 l/h 0,611 l/s	2700 l/h 0,750 l/s	3000 l/h 0,833 l/s	4000 l/h 1,111 l/s
Start-up max	30 kPa 0,30 bar	30 kPa 0,30 bar	30 kPa 0,30 bar	3 0 kPa 0,30 bar

PE83S

Find us on

NBS Source
Manufacturer Partner

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	600 kPa / 6 bar
Temperature	-10 ÷ 120 °C
Working pressure max.	1600 kPa / 16 bar
Stroke	90°

EvoPICVR - Rotary Pressure independent Control Valve with Test Points.
Ductile Iron Body 1 1/4" - 2" with Female BSP Union Connections.
Supplied with manual flow setting device.
Maximum Flow 18,000 l/h

PATENT EP 2.841.853.B1
US9383033B2 - IT277258

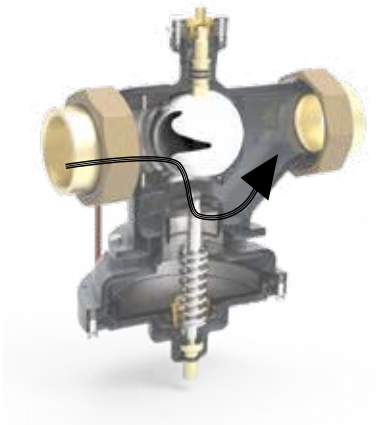
Ø"		Code
1 1/4" DN40 x 6000 l/h	1	PE83SHN.10
1 1/2" DN40 x 6000 l/h	1	PE83SLN.12
1 1/2" DN40 x 9000 l/h	1	PE83SHN.12
2" DN40 x 11000 l/h	1	PE83SLN.16
2" DN50 x 18000 l/h	1	PE83SHN.16

	PE83SHN.10 1 1/4" DN40	PE83SLN.12 1 1/2" DN40	PE83SHN.12 1 1/2" DN40	PE83SLN.16 2" DN40	PE83SHN.16 2" DN50
Flow rate max.	6000 l/h 1,67 l/s	6000 l/h 1,67 l/s	9000 l/h 2,5 l/s	11000 l/h 3,06 l/s	18000 l/h 5,00 l/s
Start-up max	30 kPa 0,30 bar	30 kPa 0,30 bar	35 kPa 0,35 bar	40 kPa 0,40 bar	35 kPa 0,35 bar
Connections	Rc 1 1/4" union F EN 10226-1	Rc 1 1/2" union F EN 10226-1	Rc 1 1/2" union F EN 10226-1	Rc 2" union F EN 10226-1	Rc 2" union F EN 10226-1

INTEGRATED FLUSHING MODE

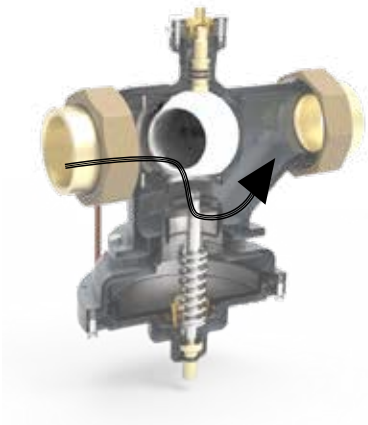
OPERATION MODE

Control valve fully open, controlling the flow through profiled ball and a 90° rotating actuator.



FLUSHING MODE

Control valve rotated by 180°, profiled opening outside flow path. The valve has now full port passage, allowing twice maximum flow, for proper flushing and cleaning.



MANUAL FLOW SETTING DEVICE

CHARACTERISED PROFILE

Solid and reliable characterised control ball valve. Full port profile.

PE94F

Find us on

NBS Source
Manufacturer Partner

Pettinaroli 94F EvoPICV Pressure independent balancing and control valve series.
Features flanged connections and is available in sizes from DN50 to DN150.

Ø”		Code
2” DN50 x 20000 l/h	1	PE94FH.50
2 1/2” DN65 x 30000 l/h	1	PE94FH.65
4” DN100 x 55000 l/h	1	PE94FL.100
5” DN125 x 90000 l/h	1	PE94FL.125
5” DN125 x 120000 l/h	1	PE94FH.125
6” DN150 x 90000 l/h	1	PE94FL.150
6” DN150 x 150000 l/h	1	PE94FH.150

General technical specifications	
Accuracy 0 ÷ 1 bar	± 5%
ΔP max.	600 kPa/ 6 bar from 2” to 6”
Temperature	-10 ÷ 120 °C
Working pressure max.	1600 kPa / 16 bar

	PE94FH.50 2”	PE94FH.65 2 1/2”	PE94FL.100 4”	PE94FL.125 5”	PE94FH.125 5”	PE94FL.150 6”	PE94FH.150 6”
Flow rate max.	20000 l/h 5,56 l/s	30000 l/h 8,33 l/s	55000 l/h 15,28 l/s	90000 l/h 25 l/s	120000 l/h 33,33 l/s	90000 l/h 25 l/s	150000 l/h 41,67 l/s
Start-up max	40 kPa 0,40 bar	30 kPa 0,30 bar	30 kPa 0,30 bar	35 kPa 0,35 bar	35 kPa 0,35 bar	35 kPa 0,35 bar	50 kPa 0,50 bar
Connections	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2	Flanged EN 1092-2

SMART ACTUATOR

Flow rate can be easily set from the on-board user interface.
Compatible with most used control signals:
Proportional (current or voltage control)
3 point floating
ON/OFF
0(2) - 10 V , 0(4) – 20 mA position feedback signal for a total remote management.
Manual override
Fail safe with optional battery

STATIC BALANCING
Manual Balancing Valve

TERMINATOR®

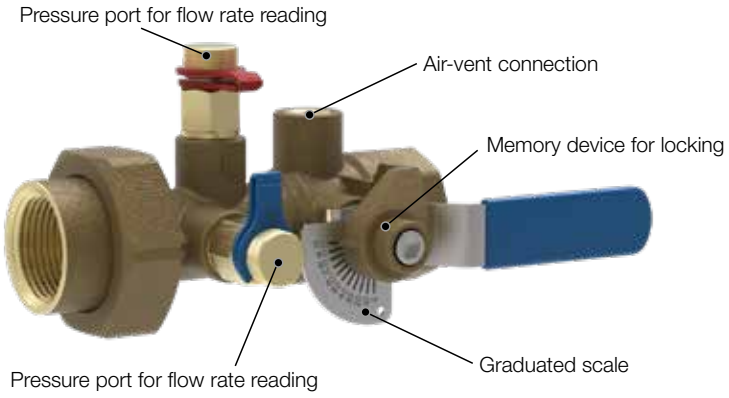
COMMISSIONING

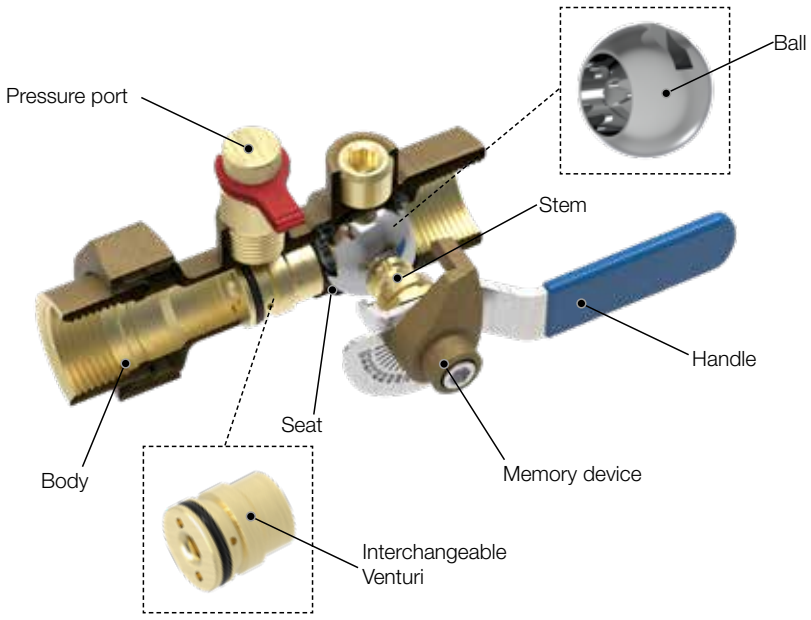
Our **Terminator** is a patented **static balancing valve** with a quarter turn ball and one of its major benefits, apart from having 100% complete shut-off, is the ability to adapt its different components with the possibility of **regulating different flow rates with the same valve body**. Once the valve is set, the required flow rate can be adjusted by moving the hand lever.

The design flow rate should be measured with the Venturi and the digital pressure gauge. Correctly set the pressure gauge indicating the valve type, size and Venturi. Note that the valve has a reduced ball passage. Once the flow rate is set, turn and lock the memory device to the desired percentage.

INTERCHANGEABLE VENTURI

Our **Terminator** range of static balancing valves incorporates a **special patented technology** that allows **flow measurement under all conditions**. The venturi size can be changed so that the ΔP taken from the orifice can always be adjusted for the most accurate calibration possible.





TCV *TERMINATOR*

General technical specifications	
T Min:	- 10 °C
T Max:	+ 120 °C
Maximum working pressure	2500 kPa / 25 bar
Stroke	6 mm
Fluid allowed	Water / Water+glycol 50%
Connections	ISO228

Ø"		Code
1/2" - 3 mm venturi	1	TCV9004.03
1/2" - 4 mm venturi	1	TCV9004.04
1/2" - 6 mm venturi	1	TCV9004.06
1/2" - 7 mm venturi	1	TCV9004.07
1/2" - 9 mm venturi	1	TCV9004.09
1/2" - 10 mm venturi	1	TCV9004.10
1/2" - 12 mm venturi	1	TCV9004.12

Ø"		Code
3/4" - 3 mm venturi	1	TCV9006.03
3/4" - 4 mm venturi	1	TCV9006.04
3/4" - 6 mm venturi	1	TCV9006.06
3/4" - 7 mm venturi	1	TCV9006.07
3/4" - 9 mm venturi	1	TCV9006.09
3/4" - 10 mm venturi	1	TCV9006.10
3/4" - 12 mm venturi	1	TCV9006.12

Ø"		Code
1" - 10 mm venturi	1	TCV9008.10
1" - 14 mm venturi	1	TCV9008.14

Ø"		Code
1 1/4" - 13 mm venturi	1	TCV9010.13
1 1/4" - 19 mm venturi	1	TCV9010.19

Ø"		Code
1 1/2" - 15 mm venturi	1	TCV9012.15
1 1/2" - 22 mm venturi	1	TCV9012.22

Ø"		Code
2" - 18 mm venturi	1	TCV9016.18
2" - 31 mm venturi	1	TCV9016.31

TCVO

Terminator union replacement O Ring

To fit		Code
1/2" & 3/4" art. TCV9004 & TCV9006	1	TCVO20
1" art. TCV9008	1	TCVO25
1 1/4" art. TCV9010	1	TCVO32
1 1/2" art. TCV9012	1	TCVO40
2" art. TCV9016	1	TCVO50

SB1N *TERMINATOR®*

Variable orifice static balancing valve for HVAC (heating and cooling). Through this valve the pre-setting and flow balancing in branch segments or in the general circuit can be carried out.

Ø"		Code
DN 65	1	
DN 80	1	
DN 100	1	
DN 125	1	
DN 150	1	3715041200C
DN 200	1	
DN 250	1	
DN 300	1	

General technical specifications	
T Min: DN65 - DN80 - DN100 - DN125 - DN150 - DN200	- 10 °C
T Min: DN250 - DN300	- 10 °C
T Max: DN65 - DN80 - DN100 - DN125 - DN150 - DN200	+ 120 °C
T Max: DN250 - DN300	+ 110 °C
P Max:	16 bar/232,06 psi
Flanges:	EN1092-2 PN16
Allowed fluids:	Water, water with glycol (maximum concentration 50%)

SETTING

Valve position can be read from the graduated scales which show the basic setting (number of complete turns) and the fine setting (1/10 of turn). Intermediate positions can be adjusted continuously. Pre-setting position can be retrieved by the mean of an adjustable travel stop.
For sizes up to DN150, the adjustment handwheel has a lobe structure (fig. a); from DN200 it is a spoked handwheel (fig. b).

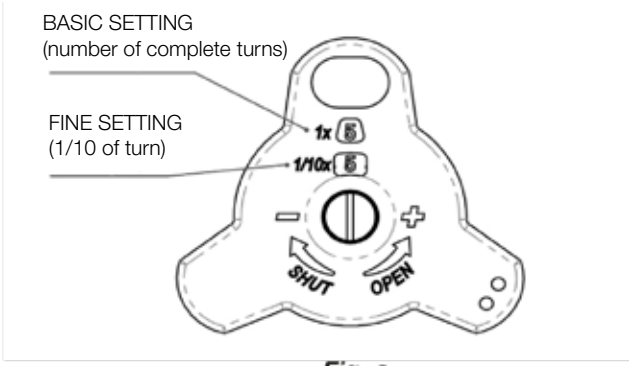


Fig. a

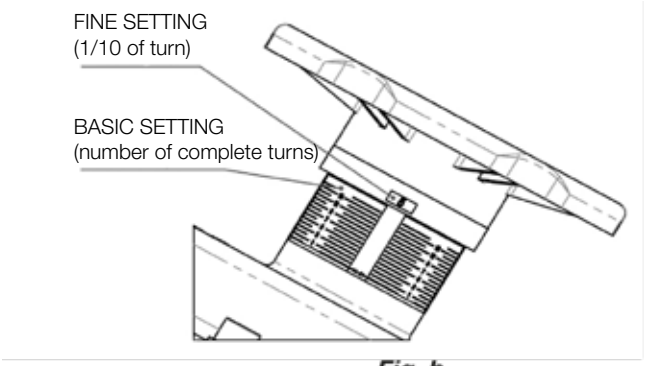


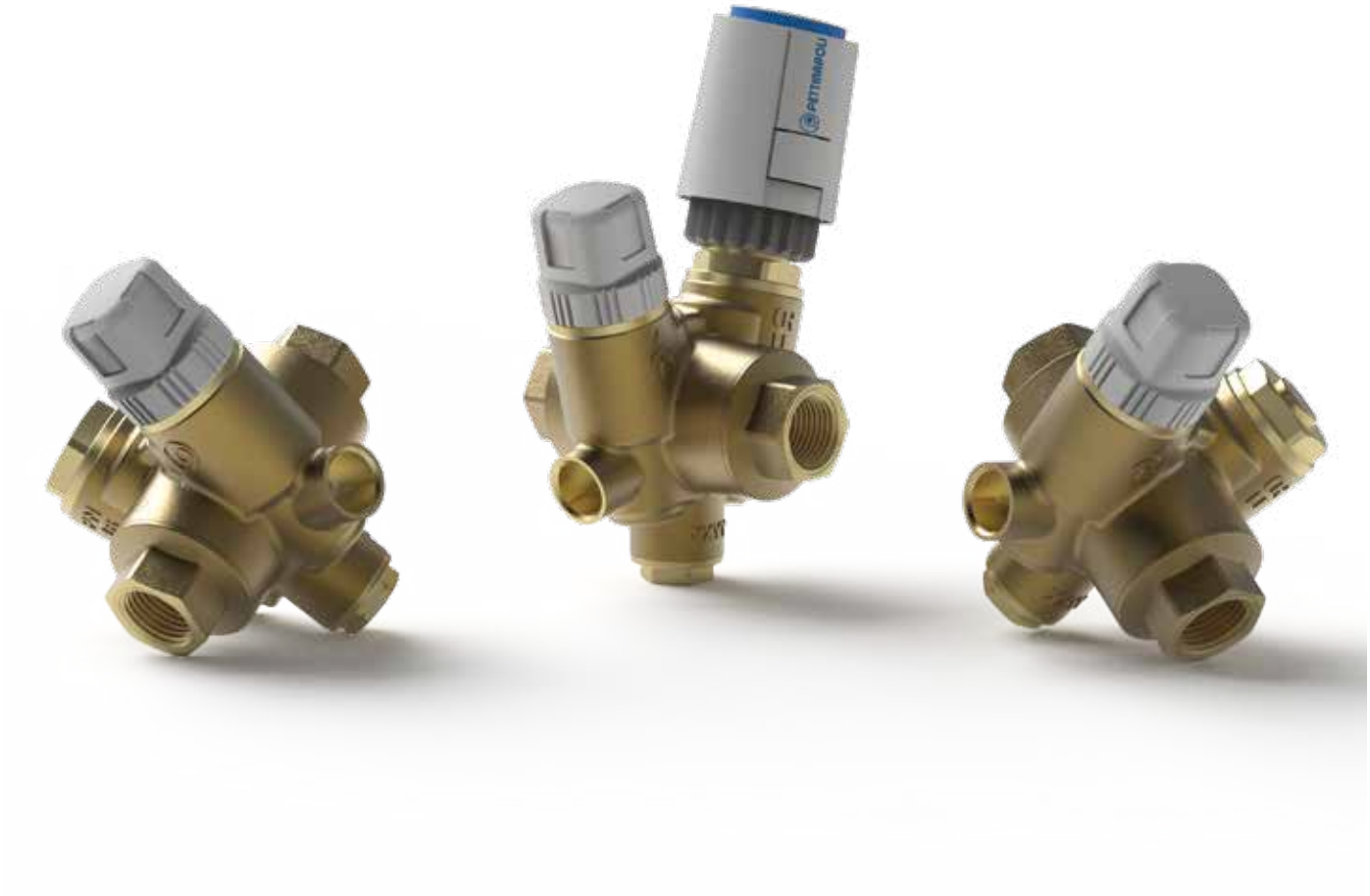
Fig. b

THERMOSTATIC BALANCING

Domestic Hot Water Recirculation Valve

TBV

Thermostatic Balancing Valve



TBV PLUS
Thermostatic Balancing Valve

TBV ULTRA
Thermostatic Balancing Valve

For use in domestic hot water recirculation systems.

Ensures equal balance and temperature in all sections of the pipeline

Designed to house a sensor for remote temperature control

TBV PLUS is equipped with anti-legionella thermal disinfection function through a second thermostatic cartridge

TBV ULTRA is equipped with an actuator-controlled disinfection function

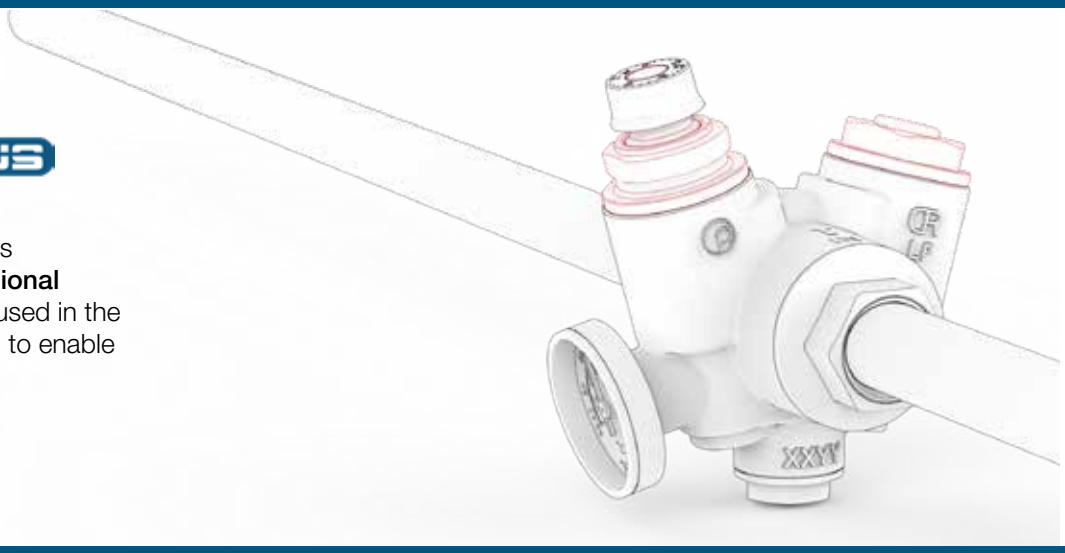
Material	Nominal	Adjustment	Disinfection
antidezincification	pressure	range	Temperature
low-lead brass	16 bar	35 - 60°C	70°C

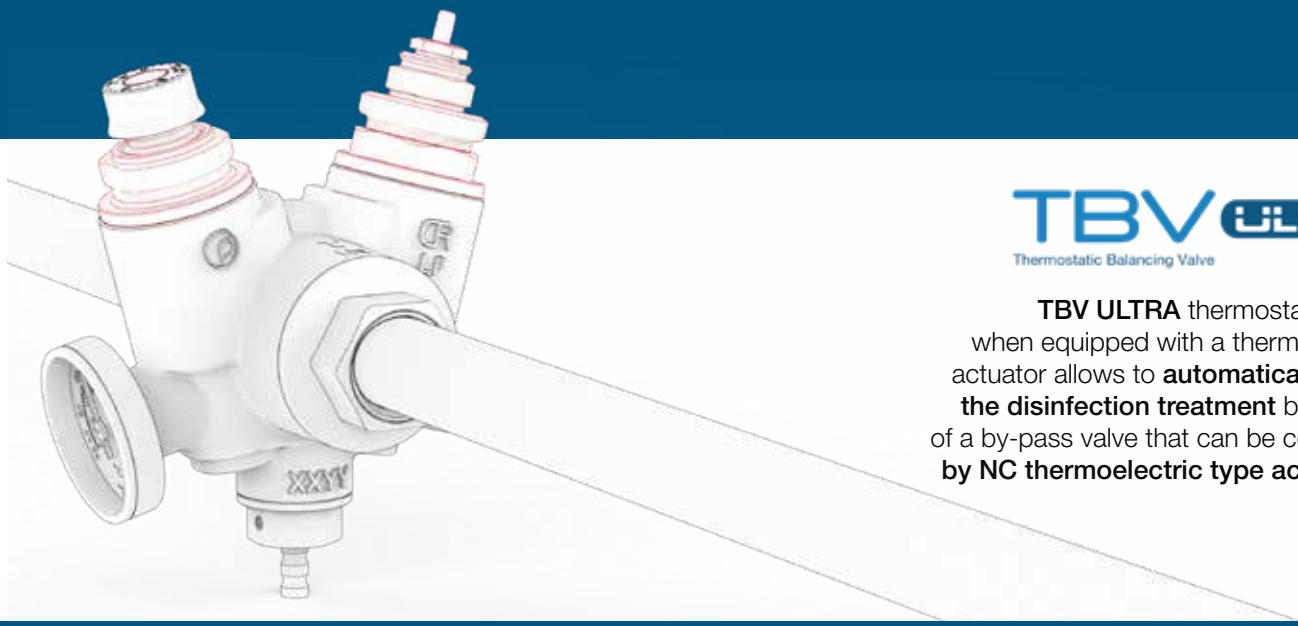
WORKING PRINCIPLE

The presence of a temperature-sensitive sensor enables automatic balancing of the flow in the recirculation system, ensuring equal hot water flow at the desired temperature to all distribution columns.

TBV PLUS
Thermostatic Balancing Valve

TBV PLUS balancing valves are equipped with an **additional thermostatic element**, housed in the second chamber, designed to enable the **disinfection process**.

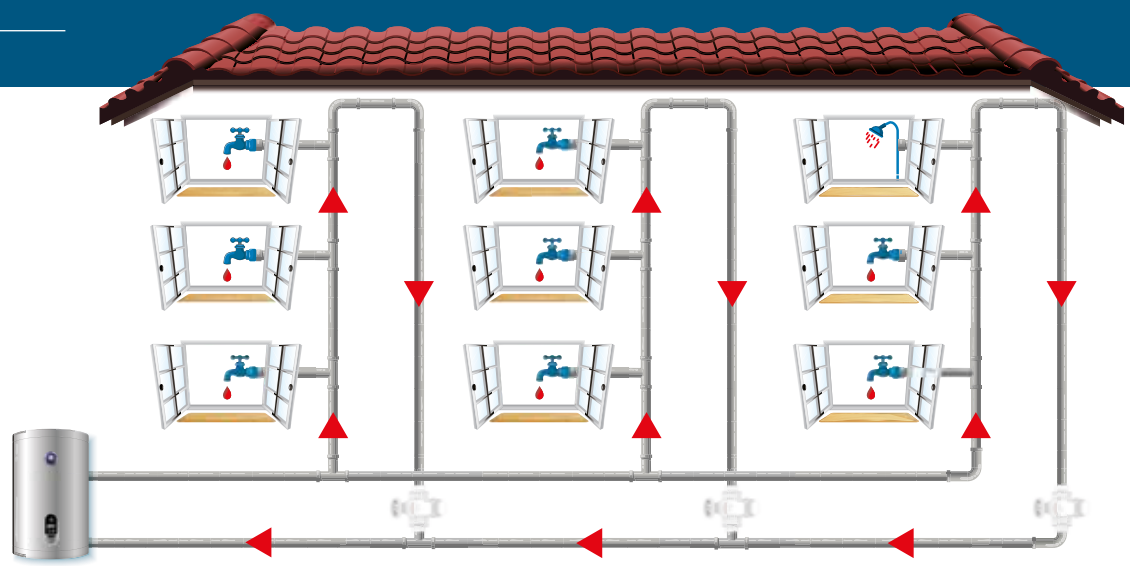




TBV ULTRA
Thermostatic Balancing Valve

TBV ULTRA thermostatic valve when equipped with a thermoelectric actuator allows to **automatically drive the disinfection treatment** by means of a by-pass valve that can be controlled **by NC thermoelectric type actuators**.

APPLICATION SCHEME



TBV PLUS
Thermostatic Balancing Valve

PE.TB30.F

Find us on NBS Source Manufacturer Partner

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass conform to European (UBA-List & 4 MS) and USA (NSF) standard requirements. Equipped with Thermal element for automatic anti legionella treatment.
Female x Female connections.

Ø"		Code
1/2" F x 1/2" F	1	PE.TBV30.F04
3/4" F x 3/4" F	1	PE.TBV30.F06

PE.TB30.M

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass conform to European (UBA-List & 4 MS) and USA (NSF) standard requirements. Equipped with Thermal element for automatic anti legionella treatment.
Male x Male connections.

Ø"		Code
3/4" M x 3/4" M	1	PE.TBV30.M06

TBV ULTRA
Thermostatic Balancing Valve

PE.TB50.F

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass conform to European (UBA-List & 4 MS) and USA (NSF) standard requirements. Equipped with Antilegionella Disinfection device by thermoelectrical actuator.
Female x Female connections.

Ø"		Code
1/2" F x 1/2" F	1	PE.TBV50.F04
3/4" F x 3/4" F	1	PE.TBV50.F06

PE.TB50.M

Adjustable thermal balancing valve for sanitary hot water recirculation systems, made by lead free corrosion resistant brass conform to European (UBA-List & 4 MS) and USA (NSF) standard requirements. Equipped with Antilegionella Disinfection device by thermoelectrical actuator.
Male x Male connections.

Ø"		Code
3/4" M x 3/4" M	1	PE.TBV50.M06

T39P/80

Thermometer 0-80°C

		Code
	1	

OTB02

Reduction 1⁄2 "M x (M10x1) to install a probe for remote monitoring of the water temperature.

		Code
1/2" M x M10 F	1	

FLOW MEASUREMENT

Domestic Hot Water Recirculation Valve

FMV5104

Flow measurement valve, includes venturi flow measurement device and full bore isolation valve.
1/2" Female BSP ends.

Ø"	Code
3 mm venturi	FMV5104.03
4 mm venturi	FMV5104.04
6 mm venturi	FMV5104.06
7 mm venturi	FMV5104.07
9 mm venturi	FMV5104.09
10 mm venturi	FMV5104.10

FMV5106

Flow measurement valve, includes venturi flow measurement device and full bore isolation valve.
3/4" Female BSP ends.

Ø"	Code
3 mm venturi	FMV5106.03
4 mm venturi	FMV5106.04
6 mm venturi	FMV5106.06
7 mm venturi	FMV5106.07
9 mm venturi	FMV5106.09
10 mm venturi	FMV5106.10

FMV5108

Flow measurement valve, includes venturi flow measurement device and full bore isolation valve.
1" Female BSP ends.

Ø"	Code
10 mm venturi	FMV5108.10
14 mm venturi	FMV5108.14

FMV5110

Flow measurement valve, includes venturi flow measurement device and full bore isolation valve.
1 1/4" Female BSP ends.

Ø"	Code
13 mm venturi	FMV5110.13
19 mm venturi	FMV5110.19

ZONE VALVES

Valves for Terminal Unit

PE662

2-way control valve for fan coils for heating and cooling applications. As zone valve, its use is restricted by the working max differential pressure which limits the working flow rate range. Axial movement for flow rate control of terminal units.
Normally Open valve.
Male connections: fibre gaskets are suggested.

Ø"		Code
1/2" DN10 - Kv 0.63	1	PE662.04-0.6
1/2" DN10 - Kv 1.0	1	PE662.04-1.0
1/2" DN10 - Kv 1.6	1	PE662.04-1.6
3/4" DN15 - Kv 2.5	1	PE662.06-2.5
1" DN20 - Kv 4.2	1	PE662.08-4.2

PE663

3-way control valve for fan coils for heating and cooling applications. As zone valve, its use is restricted by the working max differential pressure which limits the working flow rate range. Axial movement for flow rate control of terminal units.
Flexible installation direction (mixing and diverting configuration) to match every needs.
Normally Open valve: in standard position, the by-pass line is closed.
Male connections: fibre gaskets are suggested.

Ø"		Code
1/2" DN10 - Kv 1.6	1	PE663.04-1.6
3/4" DN15 - Kv 2.5	1	PE663.06-2.5
1" DN20 - Kv 4.2	1	PE663.08-4.2

PE664

3-way control valve with in-built by-pass for fan coils. For heating and cooling applications. As zone valve, its use is restricted by the working max differential pressure which limits the working flow rate range. Axial movement for flow rate control of terminal units. Flexible installation direction (mixing and diverting configuration) to match every needs.
Normally Open valve: in standard position, the by-pass line is closed.
Male connections: fibre gaskets are suggested.

Ø"		Code
1/2" DN10 - Kv 1.0	1	PE664.04-1.0
1/2" DN10 - Kv 1.6	1	PE664.04-1.6
3/4" DN15 - Kv 2.5	1	PE664.06-2.5
1" DN20 - Kv 4.2	1	PE664.08-4.2

EvoSix

1 **ONE PRODUCT**
25 different kv configurations
All interchangeable discs included

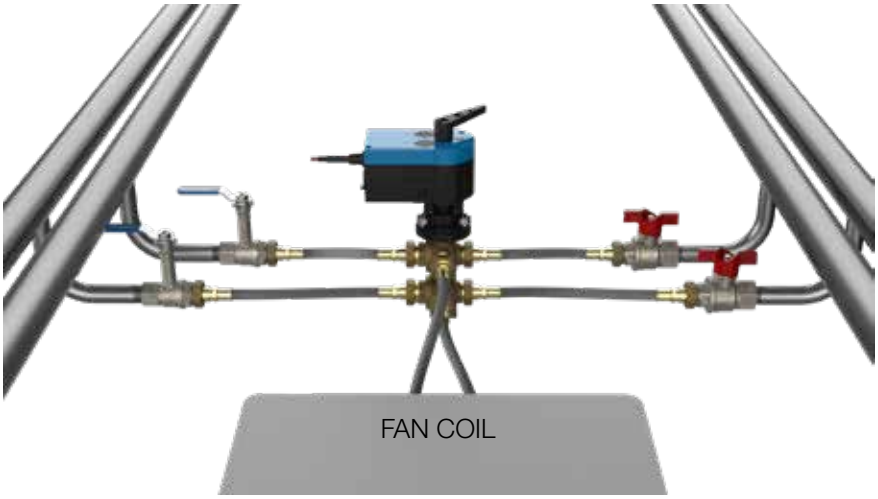
2 **DOUBLE**
fixing system
Directly on the valve or through 063ZA bracket

3 **3/4"**
Sphero conical
Direct connection with flexible hoses

4 **QUICK ACTUATOR**
assembly
With M63 bayonet ring

APPLICATION FIELD

Pettinaroli's **six-way valve (PE63 series)** was designed keeping in mind our **decade-long experience in big HVAC projects all over Europe**. Four-pipe systems are increasingly more common and managing them automatically is technically and practically difficult. This gave our engineers the input to design a **compact and functional solution** like our Pettinaroli 63/2S six-way ballvalve.



KV VALUES SELECTION

In order to simplify the logistic and the installation on site, **the valve is supplied with the maximum Kv**, or flow rate, configuration on both sides. Through our experience on the field, we know that heating and cooling flow rates are different because they are related to the project's ΔT. Very often, the heating flow rate is smaller than the cooling one whose ΔT is lower. Hence the choice to give a **standard kit together with the valve**: this kit includes 4 couples of interchangeable discs made of PSU.
The final user can select the suitable Kv for each side by changing the disc. **The kit is in the valve box**.
The Kv value is written on the internal side of every disc. The installer, following the designer's guidelines, picks the suitable discs out for both sides. This expedient ensures **high flexibility and practicality**.

PE63/2S

Six-way ballvalve for HVAC 4 pipes applications to automatically carry out the winter-summer changeover or, if needed, the control of radiant ceilings, fan coils and chilled beams.
CR: Corrosion resistant

CONNECTIONS: G ¾"M cone 60° BS5200 (for sphero conical fittings)

Ø"		Code
3/4" DN15 - Kv 1.25	1	PEB63/2S.04
3/4" DN20 - Kv 2.8	1	PEB63/2S.06
3/4" DN20 HF - Kv 4.0	1	PEB63/2S.08

PE63

Six-way ballvalve for HVAC 4 pipes applications to automatically carry out the winter-summer changeover or, if needed, the control of radiant ceilings, fan coils and chilled beams.
CR: Corrosion resistant

CONNECTIONS: G ½" F - G ¾" F

Ø"		Code
1/2" DN15 - Kv 1.25	1	PEB63.04
3/4" DN20 - Kv 2.8	1	PEB63.06
3/4" DN20 HF - Kv 4.0	1	PEB63.08

PE63/2F

Six-way ballvalve for HVAC 4 pipes applications to automatically carry out the winter-summer changeover or, if needed, the control of radiant ceilings, fan coils and chilled beams.
CR: Corrosion resistant

CONNECTIONS: G ¾"M flat end

Ø"		Code
3/4" DN15 - Kv 1.25	1	PEB63/2F.04
3/4" DN20 - Kv 2.8	1	PEB63/2F.06
3/4" DN20 HF - Kv 4.0	1	PEB63/2F.08

PE63/2E

Six-way ballvalve for HVAC 4 pipes applications to automatically carry out the winter-summer changeover or, if needed, the control of radiant ceilings, fan coils and chilled beams.
CR: Corrosion resistant

CONNECTIONS: G ¾"M E – ¾"x18mm
Available fittings: 3015 - 3015SCR

Ø"		Code
3/4" DN15 - Kv 1.25	1	PEB63/2E.04
3/4" DN20 - Kv 2.8	1	PEB63/2E.06
3/4" DN20 HF - Kv 4.0	1	PEB63/2E.08

General technical specifications			
Water temperature	-10 °C +120°C	**Total operation angle**	90°
Nominal pressure	16 bar	**First side operation angle**	0 – 32°
Kv DN15	1.25 – 1 – 0.65 – 0.4 – 0.25	**"Dead zone" operation angle**	32° – 58°
Kv DN20	2.8 – 2.1 – 1.6 – 1 – 0.7	**Second side operation angle**	58° – 90°
Kv DN20 HF	4.0 - 2.5	**Max differential pressure**	2 bar

PEM63

Electric actuator 24V with proportional control mode (0-10V) or 2/3 points for six-way ballvalves (item 63/2S). It enables the automatic winter-summer change-over.

Ø”		Code
24V (0-10) - 2/3 points	1	

General technical specifications	
Supply voltage	24VAC ±20% – 50 – 60Hz 24VCC -10% ÷ +20%
Max power consumption	4.9 W – 8.7 VA
Running time	120 s / 60 s
Angle of rotation	0° – 90°
Torque	8 Nm (120 s e 60 s)

PE063GI

Insulating case for DN15 or DN20.

Ø”		Code
DN15	1	
DN20	1	

PE091SOS

Two-nole wrench for Kv discs’ management.

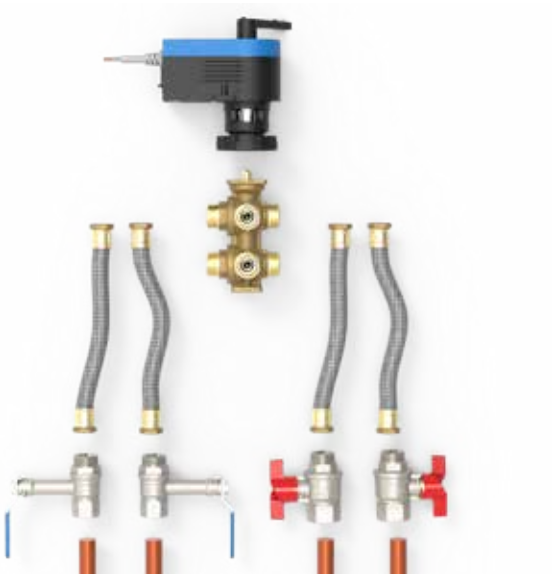
		Code
	1	

PE063ZA

Fastening angle with two buttonholes on the vertical side. The valve can be fixed on the horizontal part using the specific holes: suitable M4 screws are included in the angle packing.

		Code
	1	

PE63/2S APPLICATION DIAGRAM



EVOFLEX

All the flexible options available for this type of solution are listed in detail in the dedicated section.

PLANT ROOM VALVES

Shut-off Butterfly Valves

BF1SE

Shut-off LUG butterfly valve for HVAC (heating and cooling), water treatment and distribution (no drinking water). Ductile iron body. Integrated support ISO 5211 for actuators assembling. Lever included.

Ø"		Code
DN 40 - Kv 79	1	
DN 50 - Kv 99	1	
DN 65 - Kv 169	1	
DN 80 - Kv 261	1	3708041000C
DN 100 - Kv 518	1	3710041000C
DN 125 - Kv 883	1	
DN 150 - Kv 1364	1	3715041000C
DN 200 - Kv 2708	1	3720041000C

The manual control is always included from the factory in all measurements

BF2SE

Shut-off butterfly valve with body type WAFER for HVAC (heating and cooling), water treatment and water distribution (no drinking water).
Body made of ductile iron, central disc made of stainless steel and with sleeve made in EPDM. Alignment holes for mounting between flanges EN 1092 (PN6, PN10, PN16) and ANSI B16.5 (#150). Connection of the operating device (lever included) via integrated ISO 5211 support.

Ø"		Code
DN 40 - Kv 79	1	
DN 50 - Kv 99	1	
DN 65 - Kv 108	1	
DN 80 - Kv 261	1	
DN 100 - Kv 518	1	
DN 125 - Kv 883	1	
DN 150 - Kv 1364	1	
DN 200 - Kv 2716	1	
DN 250 - Kv 4611	1	
DN 300 - Kv 7124	1	

The manual override is always included from the factory in all sizes except the DN300 model.

General technical characteristics	
Nominal pressure	16 bar / 232,06 psi
Fluid type	Water / Water+glycol 30%
T Mln	- 10 °C
T Max	+ 120 *C

OBF1G

Gear box available as an accessory. Available for BF1SE / BF2SE valves

Ø"		Code
DN 40 - DN 65	1	
DN 80 - DN 100	1	9208041000C
DN 125 - DN 150	1	9215041000C
DN 200	1	9220041000C

DIRT AND AIR SEPARATION

FilterBall, Magnetic dirty separator and Y strainer

FILTERBALL

WHAT IS THE FILTERBALL ?

The Pettinaroli **FilterBall** valve is a **WRAS** approved **shut-off ball valve**, housing an interchangeable cylindrical **strainer**, easy to inspect and change during maintenance operations.

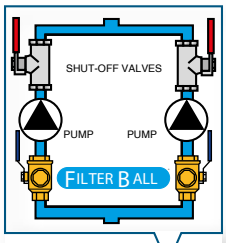
A simple valve therefore has **two important functions**:

- the **perfect sealing** of the ball valves
- the **careful filtration** of the liquid, and this is its great reliability protecting all the components of the plant

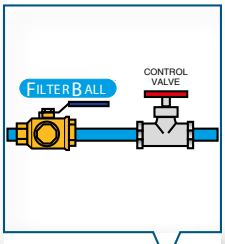
Compared to the traditional use of two components, apart from the obvious **advantage in terms of cost, installation and space**, the **FilterBall** valve means **much lower pressure losses**, which practically match those of the single filter.

WRAS APPROVED PRODUCT

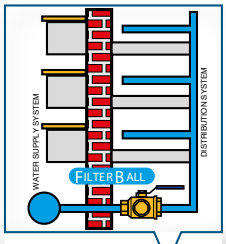
MAIN USES



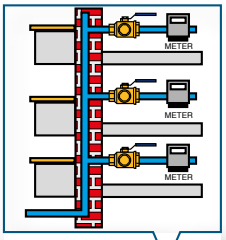
1. Before the circulation pumps in heating, air conditioning and autoclave systems



2. Before the control valves to protect their operation

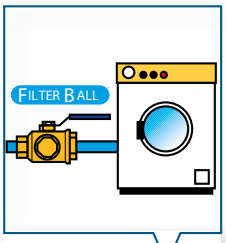


3. On the inlet pipes of the water supply system in buildings

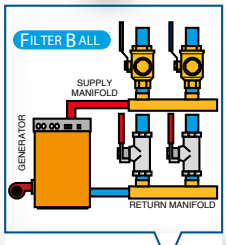


4. On the inlet pipes of the water supply system of each apartment, to protect the meter and taps (to avoid abrasions and malfunctions due to sand and debris)

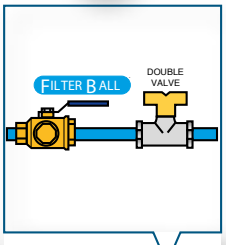
1 2 3 4



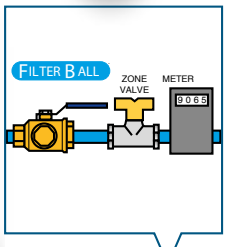
5. On the power supply pipes of household appliances



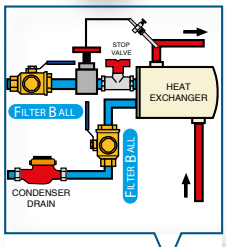
6. At the exit of the boiler or on the distribution pipes, for better cleaning of the entire system



7.Before the check valves, to protect their sealing characteristics



8. At the entrance of each zone, in systems equipped with a meter, to protect its mechanisms



9. Before the heat exchanger and the condenser to protect their delicate mechanisms from any particles suspended in water.

5 6 7 8 9

TECHNICAL SPECIFICATION

Ballvalve with integrated strainer easy to inspect and clean made of **corrosion resistant brass** alloy CW602N, **threaded ends**.

Stem with **triple safety** (2-O-Rings, PTFE ring), fitted from inside to prevent tampering extraction or bursting.

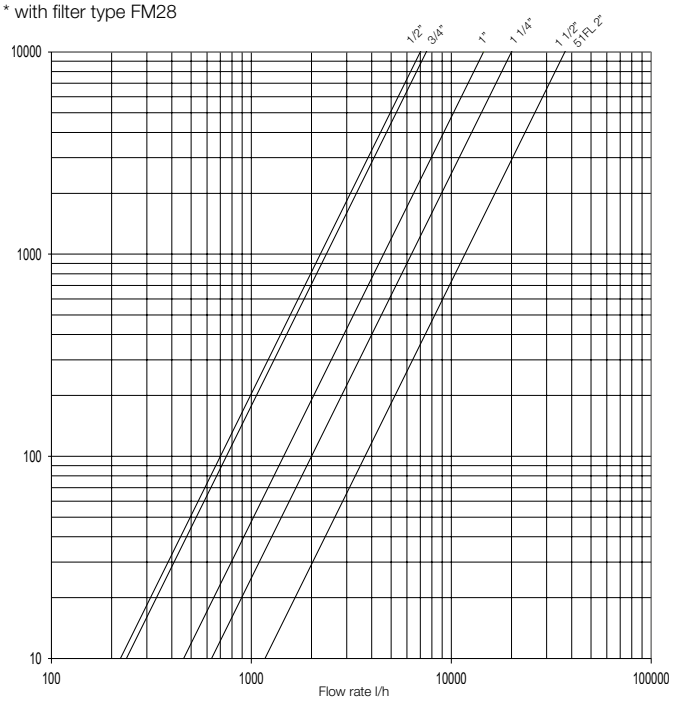
Double tightening in the joint between body and end-connection.

Movable stuffing box.

Solid spheres are made using diamond tools and chromium plated to the required thickness.

PRESSURE DROP DIAGRAM

* with filter type FM28

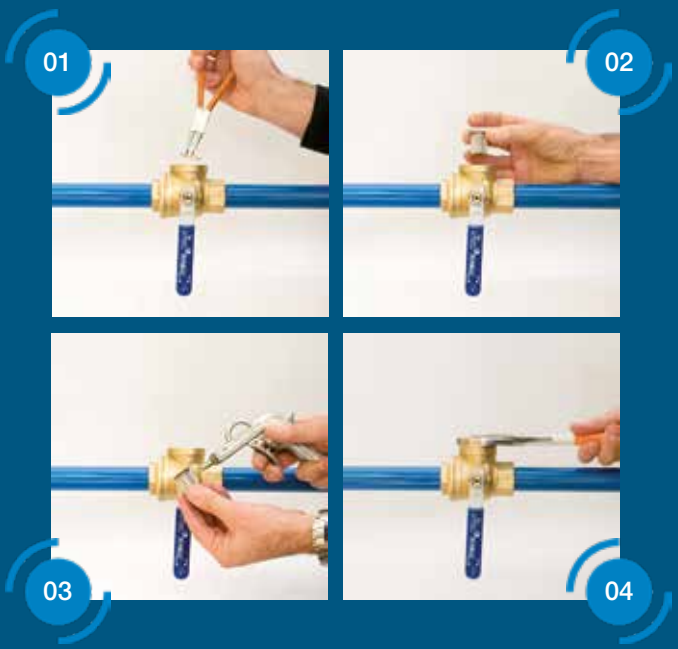


Working pressure and temperature
16 bar - 100°C (250 psi - 210°F - non shock)
10 bar - 150°C (150 psi - 300°F - non shock)

EASY INSPECTION AND CLEANING

FILTERBALL series allow the strainer to be cleaned with a few simple steps (figure on the side):

1- Unscrew the cap and remove the strainer block ring
2- Remove the strainer
3- Remove the collected impurities
4- Restore the components in their seat



FB51

FilterBall combined quarter turn isolation valve and strainer.
DZR body, 700 micron strainer.
Female BSP / Female BSP

Ø"		Code/Codice
1/2"	16/4	FB5104L
3/4"	16/4	FB5106L
1"	12/3	FB5108
1 1/4"	8/4	FB5110
1 1/2"	4/2	FB5112
2"	2	FB5116L

170

Bronze 'Y' Pattern filter, stainless steel strainer basket.
Female BSP / Female BSP

Ø"		Code/Codice
1/2"	100/10	PE170.04
3/4"	60/6	PE170.06
1"	50/5	PE170.08
1 1/4"	20/2	PE170.10
1 1/2"	16/2	PE170.12
2"	12/2	PE170.16
2 1/2"	2	PE170.80
3"	2	PE170.100

050

Stainless steel filter for Art. FB51

800 micron strainer		Code
1/2" and 3/4" original design FilterBall	16/4	050FC04
1/2" and 3/4" new design FilterBall	16/4	050FC04L
1"	12/3	050FC08
1 1/4"	8/4	050FC10
1 1/2"	4/2	050FC12
2"	2	050FC16

700 micron strainer		Code
1/2" and 3/4" original design FilterBall	16/4	050F04
1/2" and 3/4" new design FilterBall	16/4	050F04L
1"	12/3	050F08
1 1/4"	8/4	050F10
1 1/2"	4/2	050F12
2"	2	050F16

300 micron strainer		Code
1/2" and 3/4" original design FilterBall	16/4	050FF04
1/2" and 3/4" new design FilterBall	16/4	050FF04L
1"	12/3	050FF08
1 1/4"	8/4	050FF10
1 1/2"	4/2	050FF12
2"	2	050FF16

180 micron strainer		Code
1/2" and 3/4" original design FilterBall	16/4	050VF04
1/2" and 3/4" new design FilterBall	16/4	050VF04L
1"	12/3	050VF08
2"	2	050VF16

FB51/E

FilterBall combined quarter turn isolation valve and strainer.
DZR body, 700 micron strainer, fitted with extension handle.
Female BSP / Female BSP

Ø"	Code
1/2"	FB5104L/E
3/4"	FB5106L/E
1"	FB5108/E
1 1/4"	FB5110/E
1 1/2"	FB5112/E
2"	FB5116L/E

FBC

FilterBall Basket Circlip

To fit	Code
FB5104 (Original Design)	FBC04
FB5106 (Original Design)	FBC06
FB5104L & FB5106L (New Designs)	FBC06L
FB5108 (1")	FBC08
FB5110 (11/4")	FBC10
FB5112 (11/2")	FBC12
FB5116 (2")	**FBC16**

FBO

FilterBall Inspection Cap O Ring

To fit	Code
FB5104 & FB5106 (Original Design)	FBO04
FB5104L	FBO04L
FB5106L	FBO06L
FB5108	FBO08
FB5110	FBO010
FB51012	FBO12
FB51016	**FBO16**

054H/

FilterBall metal extension handle

To fit	Code
FB5104L & FB5106L (1/2" & 3/4" New Designs)	054H/2
FB5104 & FB5106 (Original Designs) & FB5108 (1")	054H/3
FB5110 (1 1/4") and FB5112 (1 1/2")	054H/4
FB5116 (2")	054H/5

052T

FilterBall plastic extension T handle. Supplied with red and blue inserts

To fit	Code
FB5104L (1/2" New Design)	052T2
FB5106L (3/4" New Design)	052T3
FB5108 (1")	052T4

051FL

Standard FilterBall Lever handle, blue

To fit	Code
FB5104 & FB5106 (1/2" & 3/4" Original Design) and FB5108 (1")	051FL120
FB5110 (11/4") & FB5112 (11/2")	051FL150
FB5116 (2")	051FL200

EvoMAGic

MAGNETIC DIRT SEPARATOR FILTER

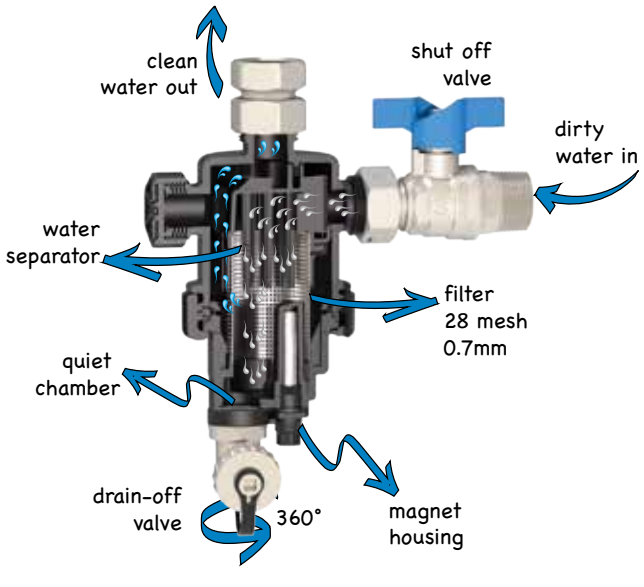
HIGH-PERFORMANCE WATER FILTRATION

01 The dirty water flows through the shut off valve into the **body filter**

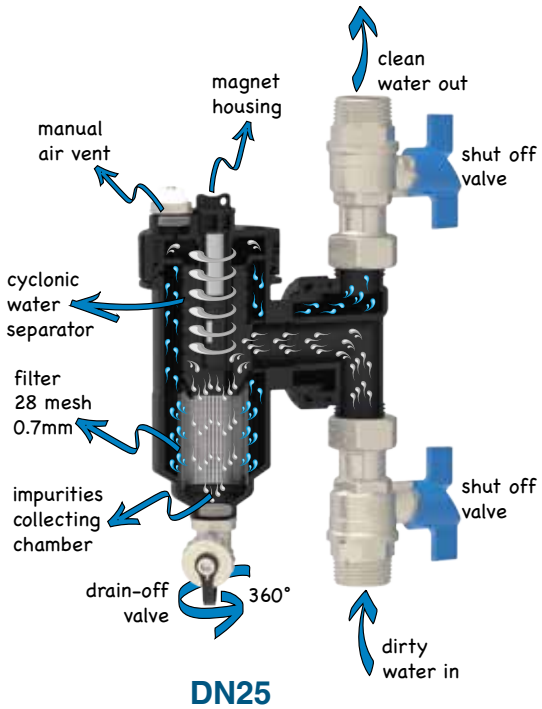
02 Magnetic metallic debris are **attracted by the hi-power magnets**

03 Other impurities are blocked by the **28 mesh (0,7 mm) filter**

04 Clean water reaches the boiler ensuring its **constant protection and correct operation**



DN20



DN25

PE.102V

Magnetic dirt separator filter for vertical installation.

Ø"		Code
DN20 Vertical	1	PE.102V

PE.102H

Magnetic dirt separator filter for horizontal installation.

Ø"		Code
DN20 Horizontal	1	PE.102H

PE.K102V.06

Magnetic dirt separator filter for vertical installation.
Features: with M 3/4" ball valve and F 3/4" joint

Ø"		Code
DN20 Vertical - 3/4" M x 3/4" H	1	PE.K102V.06

PE.K102H.06

Magnetic dirt separator filter for horizontal installation.
Features: with M 3/4" ball valve and F 3/4" joint

Ø"		Code
DN20 Horizontal - 3/4" M x 3/4" H	1	PE.K102H.06

PE.K102V-2.06

Magnetic dirt separator filter for vertical installation.
Features: with 2 x M 3/4" ball valves

Ø"		Code
DN20 Vertical - 3/4" M x 3/4" M	1	PE.K102V-2.06

PE.K102H-2.06

Magnetic dirt separator filter for horizontal installation.
Features: with 2 x M 3/4" ball valves

Ø"		Code
DN20 Horizontal - 3/4" M x 3/4" M	1	PE.K102H-2.06

Description	DN	PN (max)	T° (max)	Kvs
102V - K102V/1 - K102V/2 Vertical 90° flow direction	20	4 bar	90 °C	5,5
102V - K102V/1 - K102V/2 Vertical linear flow direction	20	4 bar	90 °C	6,0
102H - K102H/1 - K102H/2 Horizontal	20	4 bar	90 °C	6,0

PE.103.08

XL

Magnetic dirt separator filter with 360° rotating fitting

Ø”		Code
DN25	1	PE.103.08

PE.K103-2.08

XL

Magnetic dirt separator filter with 360° rotating fitting.
Features: with M 1” ball valves

Ø”		Code
DN25 - 1” M x 1” M	1	PE.K103-2.08

Description	DN	PN (max)	T° (max)	Kvs
103 360° swivelling	25	4 bar	90 °C	10
K103/2 360° swivelling	25	4 bar	90 °C	8

PLUMBING & HEATING

Ball Valves, Check Valves
Isolation Valves

PETTINAROLI BALL VALVE

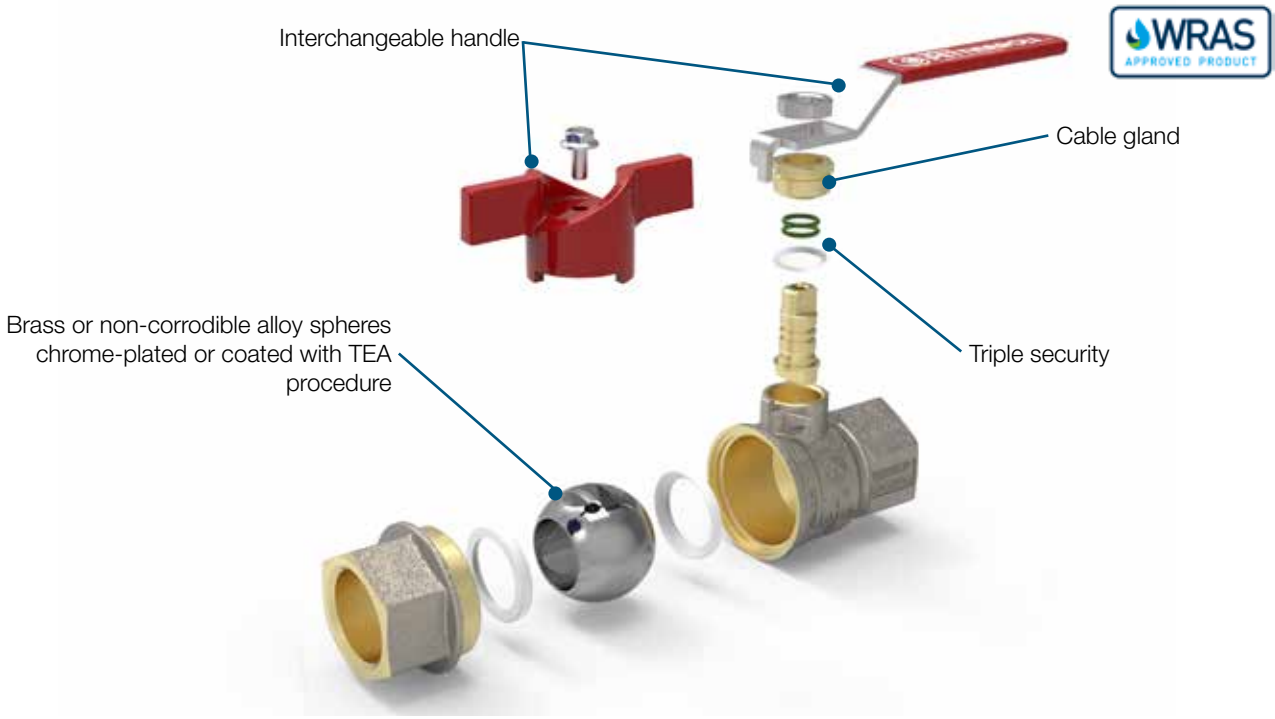
All Pettinaroli ball valves are **full port** and with the stem mounted inside the body, preventing handling errors and **avoiding extraction or expulsion by explosion.**

Triple Safety in the body: the existence of a PTFE gasket and two O-rings in green fluoroelastomer (FKM) give an absolute guarantee of perfect valve tightness.

Component interchangeability: all internal components and accessories (aluminum or steel handles, shaft extensions, opening and closing maneuver reduction devices) have been designed in such a way that they can be interchanged between all models.

Balls: Brass or non-corrodible alloy balls are diamond tooled and **chrome plated or TEA coated**.

Cable gland: presence of a **sealed and immovable** cable gland with a seal **resistant to high temperature** and with excellent mechanical resistance.



51CE

F x F end "Extra Compact" full port ball valve with red steel lever.
Conform to EN 13828

Ø"		Code	PN
1/2"	96/24	3701515980C	28
3/4"	48/12	3702015980C	28
1"	48/8	3702515980C	28
1 1/4"	30/5	3703215980C	20
1 1/2"	24/3	3704015980C	20
2"	16/2	3705015980C	20

51CEB

F x F end "Extra Compact" full port ball valve with blue steel lever.
Conform to EN 13828

Ø"		Code	PN
1/2"	96/24	3701518980C	28
3/4"	48/12	3702018980C	28
1"	48/8	3702518980C	28
1 1/4"	30/5	3703218980C	20
1 1/2"	24/3	3704018980C	20
2"	16/2	3705018980C	20

51CE/1R

F x M end “Extra Compact” full port ball valve with red steel lever.
Conform to EN 13828

Ø”		Code	PN
1/2”	80/20	3701518010C	28
3/4”	48/12	3702018010C	28
1”	48/8	3702518010C	28

51CE/1B

F x M end “Extra Compact” full port ball valve with blue steel lever.
Conform to EN 13828

Ø”		Code	PN
1/2”	80/20		28
3/4”	48/12		28
1”	48/8		28

51CE/2

M x M end “Extra Compact” full port ball valve with red steel lever.
Conform to EN 13828

Ø”		Code	PN
1/2”	72/18	3701518100C	28
3/4”	48/12	3702018100C	28
1”	48/8	3702518100C	28
1 1/4”	16/4	3703218100C	20

51CE/2B

M x M end “Extra Compact” full port ball valve with blue steel lever.
Conform to EN 13828

Ø”		Code	PN
1/2”	72/18		28
3/4”	48/12		28
1”	48/8		28

51CE/3

F x union end “Extra Compact” full port ball valve with red steel lever.
Conform to EN 13828

Ø”		Code	PN
1/2” x 1/2”	72/12	3701525130C	28
3/4” x 3/4”	48/8	3702025130C	28
1” x 1”	30/5	3702525130C	28
1 1/4” x 1 1/4”	18/3	3703225130C	20

51CE/3B

F x union end “Extra Compact” full port ball valve with blue steel lever.
Conform to EN 13828

Ø”		Code	PN
1/2” x 1/2”	72/12		28
3/4” x 3/4”	48/8		28
1” x 1”	30/5		28
1 1/4” x 1 1/4”	18/3		20

52CE

F x F end “Extra Compact” full port ball valve with red butterfly lever.
Conform to EN 13828

Ø”		Code	PN
1/2”	80/20	3701515990C	28
3/4”	48/12	3702015990C	28
1”	36/9	3702515990C	28
1 1/4”	24/6	3703215990C	20

52CEB

F x F end “Extra Compact” full port ball valve with blue butterfly lever.
Conform to EN 13828

Ø”		Code	PN
1/2”	80/20	3701518990C	28
3/4”	48/12	3702018990C	28
1”	36/9	3702518990C	28
1 1/4”	24/6	3703218990C	20

52CE/1

F x M end “Extra Compact” full port ball valve with red butterfly lever.
Conform to EN 13828

Ø”		Code	PN
1/2”	96/24	3701518080C	28
3/4”	48/12	3702018080C	28
1”	36/9	3702518080C	28

52CE/1B

F x M end “Extra Compact” full port ball valve with blue butterfly lever.
Conform to EN 13828

Ø”		Code	PN
1/2”	96/24	3701518350C	28
3/4”	48/12	3702015880C	28
1”	36/9	3702518350C	28

52CE/2

M x M end “Extra Compact” full port ball valve with red butterfly lever.
Conform to EN 13828

Ø”		Code	PN
1/2”	72/18	3701518110C	28
3/4”	48/12	3702018110C	28
1”	36/9	3702518110C	28

52CE/3

F x union end “Extra Compact” full port ball valve with red butterfly lever.
Conform to EN 13828

Ø”		Code	PN
1/2” x 1/2”	72/12	3701525120C	28
3/4” x 3/4”	48/8	3702025120C	28
1” x 1”	30/5	3702525120C	28
1 1/4” x 1 1/4”	16/4	3703225120C	20

51

Certified::
WRAS from 1/2" to 2"
FM from 1/2" to 2"
VD from 1/2" to 2"

F x F heavy duty full-flow ball valve. Nickel plated.
Reversible red steel handle.
Conform to EN 13828

Ø"		Code	PN
1/4"	120/12	3700715050C	42
3/8"	120/12	3701015050C	42
1/2"	120/12	3701515050C	42
3/4"	48/12	3702015050C	42
1"	36/6	3702515050C	35
1 1/4"	24/4	3703215050C	35
1 1/2"	16/2	3704015050C	35
2"	12/2	3705015050C	35
2 1/2"	3	3707015050C	28
3"	2	3708015050C	28
4"	1	3710015050C	28

51BLU

Conform:
WRAS from 1/2" to 2"
FM from 1/2" to 2"
VD from 1/2" to 2"

F x F heavy duty full-flow ball valve. Nickel plated.
Reversible blue steel handle.
Conform to EN 13828

Ø"		Code	PN
1/4"	120/12	3700715770C	42
3/8"	120/12	3701015770C	42
1/2"	120/12	3701518960C	42
3/4"	48/12	3702015960C	42
1"	36/6	3702515960C	35
1 1/4"	24/4	3703215960C	35
1 1/2"	16/2	3704015960C	35
2"	12/2	3705015960C	35
2 1/2"	3	3707015770C	28
3"	2	3708015770C	28
4"	1	3710015770C	28

51/1

Certified:
FM from 1/2" to 2""

F x M heavy duty full-flow ball valve. Nickel plated.
Reversible red steel handle.
Conform to EN 13828

Ø"		Code	PN
1/4"	120/12	3700715060C	42
3/8"	120/12	3701015060C	42
1/2"	120/12	3701515060C	42
3/4"	60/10	3702015060C	42
1"	36/6	3702515060C	35
1 1/4"	24/4	3703215060C	35
1 1/2"	16/2	3704015060C	35
2"	12/2	3705015060C	35

51/1B

Conform:
FM from 1/2" to 2"

F x M heavy duty full-flow ball valve. Nickel plated.
Reversible blue steel handle.
Conform to EN 13828

Ø"		Code	PN
1/4"	120/12	3700715970C	42
3/8"	120/12	3701015970C	42
1/2"	120/12	3701515970C	42
3/4"	60/10	3702015970C	42
1"	36/6	3702515970C	35
1 1/4"	24/4	3703215970C	35
1 1/2"	16/2	3704015970C	35
2"	12/2	3705015970C	35

51CSR

Nickel plated F x F full-flow ball valve, with thread ¼" drain off which can be installed on both the valve sides. Unused exit is plugged by the supplied cap.
Red steel handle. Conform to EN 13828

Ø"		Code	PN
1/2"	72/12	3701518320C	28
3/4"	60/10	3702018320C	28
1"	36/6	3702518320C	28
1 1/4"	20/5	3703218320C	20
1 1/2"	16/2	3704018320C	20

51CSB

Nickel plated F x F full-flow ball valve, with thread ¼" drain off which can be installed on both the valve sides. Unused exit is plugged by the supplied cap.
Blue steel handle. Conform to EN 13828

Ø"		Code	PN
1/2"	72/12	3701518480C	28
3/4"	60/10	3702018480C	28
1"	36/6	3702518480C	28
1 1/4"	20/5	3703218480C	20
1 1/2"	16/2		20

52CSR

Nickel plated extra compact F x F full-flow ball valve, with ¼" drain which can be installed on both the valve sides. Unused exit is plugged by the supplied cap.
Red butterfly handle. Conform to EN 13828

Ø"		Code	PN
1/2"	96/12	3701518310C	28
3/4"	60/10	3702018310C	28
1"	36/6	3702518310C	28
1 1/4"	20/5	3703218310C	20

52CSB

Nickel plated extra compact F x F full-flow ball valve, with ¼" drain which can be installed on both the valve sides. Unused exit is plugged by the supplied cap.
Blue butterfly handle. Conform to EN 13828

Ø"		Code	PN
1/2"	96/12		28
3/4"	60/10		28
1"	36/6		28
1 1/4"	20/5		20

59ROS

F x F heavy duty full-flow angle ballvalve.
Red butterfly handle.
Conform to EN 13828

Ø"		Code	PN
1/2"	64/16	3701515330C	16
3/4"	40/10	3702015330C	16
1"	32/8	3702515330C	16

59/1ROS

F x M heavy duty full-flow angle ballvalve.
Red butterfly handle.
Conform to EN 13828

Ø"		Code	PN
1/2"	64/16	3701515340C	16
3/4"	40/10	3702015340C	16
1"	24/6	3702515340C	16

59/2

M x M heavy duty full-flow angle ballvalve.
Red butterfly handle.
Conform to EN 13828

Ø"		Code	PN
1/2"	64/16	3701515350C	16
3/4"	40/10	3702015350C	16
1"	24/6	3702515350C	16

59/9ROS

F x F heavy duty full-flow angle ballvalve.
Red butterfly handle.
Conform to EN 13828

Ø"		Code	PN
1/2"	64/16	3701515360C	16
3/4"	40/10	3702015360C	16
1"	24/6	3702515360C	16

52CET

F x F "Extra Compact" full-flow ball valve with extended plastic lever.
Conform to EN 13828

Ø"		Code	PN
1/2"	80/20	3701525050C	42
3/4"	48/12	3702025050C	42
1"	36/9	3702525050C	35
1 1/4"	24/6	3703225050C	35

52CETI

F x F "Extra Compact" full-flow ball valve with extended insulated T-Handle with Adjustable Memory Stop and transparent Sleeve.

Ø"		Code	PN
1 1/2"	1	3704015180C	20
2"	1	3705015180C	20

53

F x F heavy duty full-flow ball valve with reducer (gear handle).
Conform to EN 13828

Ø"		Code	PN
1/4"	80/10	3700715150C	42
3/8"	80/10	3701015150C	42
1/2"	64/8	3701515150C	42
3/4"	56/7	3702015150C	42
1"	36/6	3702515150C	35
1 1/4"	12/6	3703215150C	35
1 1/2"	8/4	3704015150C	35
2"	4/2	3705015150C	35

53/1

F x M heavy duty full-flow ball valve with reducer (gear handle).
Conform to EN 13828

Ø"		Code	PN
1/2"	64/8	3701515160C	42
3/4"	56/7	3702015160C	42
1"	30/5	3702515160C	35
1 1/4"	12/6	3703215160C	35
1 1/2"	8/4	3704015160C	35
2"	4/2	3705015160C	35

53/2

M x M heavy duty full-flow ball valve with reducer (gear handle).
Conform to EN 13828

Ø"		Code	PN
1/2"	64/8	3701515170C	42
3/4"	56/7	3702015170C	42
1"	30/5	3702515170C	35
1 1/4"	12/6	3703215170C	35
1 1/2"	8/4	3704015170C	35
2"	4/2	3705015170C	35

FM51

Filtermate Isolation valve, Quarter turn ball valve DZR.
Blue Lever Handle (plastic T handle art. FM5104/T).
Female BSP / Female BSP

Ø”	Code
1/2”	FM5104/T
3/4”	FM5106
1”	FM5108
1 1/4”	FM5110
1 1/2”	FM5112
2”	FM5116

FM51/E

Filtermate Isolation valve, Quarter turn ball valve DZR.
Supplied fitted with metal extension lever handle.
Female BSP / Female BSP

Ø”	Code
1/2”	FM5104/E
3/4”	FM5106/E
1”	FM5108/E
1 1/4”	FM5110/E
1 1/2”	FM5112/E
2”	FM5116/E

051FM

Filtermate replacement blue lever handle.

To fit	Code
1/2”	051FML75
3/4”	051FML95
1” & 1 1/4”	051FML120
1 1/2” & 2”	051FML150

054H/

Filtermate metal extension handle.

To fit	Code
1/2” art. FM5104/T	054H/1
3/4” art. FM5106	054H/2
1” & 1 1/4” art. FM5108 & FM5110	054H/3
1 1/2” & 2” art. FM5112 & FM5116	054H/4

052T

Filtermate plastic extension T Handle, s upplied with red and blue inserts

To fit	Code
1/2” & 3/4” art. FM5104/T & FM5106	052T2
1” & 1 1/4” art. FM5110 & FM5108	052T3

184G0

Brass swing check valve F x F rubber disc.

Ø"		Code	PN
1/2"	100/10	1601521000C	10
3/4"	60/6	1602021000C	10
1"	50/5	1602521000C	10
1 1/4"	40/4	1603221000C	10
1 1/2"	24/3	1604021000C	10
2"	10/1	1605021000C	10
2 1/2"	4/2	1607021000C	6
3"	4	1608021000C	6
4"	2	1610021000C	6

184M0

Brass swing check valve F x F metal disc.

Ø"		Code	PN
1/2"	100/10	1601522000C	10
3/4"	60/6	1602022000C	10
1"	50/5	1602522000C	10
1 1/4"	40/4	1603222000C	10
1 1/2"	24/3	1604022000C	10
2"	10/1	1605022000C	10
2 1/2"	4/2	1607022000C	6
3"	4	1608022000C	6
4"	2	1610022000C	6

188

Horizontal and vertical brass non return valve "Glory" type.

Ø"		Code	PN
3/8"	160/16	1801010010C	
1/2"	160/16	1801510010C	
3/4"	100/10	1802010010C	
1"	40/4	1802510010C	
1 1/4"	20/2	1803210010C	
1 1/2"	20/2	1804010010C	
2"	10/1	1805010010C	
2 1/2"	15	1807010010C	
3"	12	1808010010C	
4"	5	1810010010C	

500

F x F union end pressure reducer with pressure compensation system. For cold water (max 50°C). Yellow finish.

Ø"		Code	PN
1/2"	20/1	3501520000C	25
3/4"	10/1	3502020000C	25
1"	10/1	3502520000C	25
1 1/4"	6/1	3503220000C	25
1 1/2"	6/1	3504020000C	25
2"	4/1	3505020000C	25

175GLO

Brass gate valve F x F.

Ø"		Code	PN
1/2"	60/6	4901510000C	16
3/4"	50/5	4902010000C	16
1"	50/5	4902510000C	16
1 1/4"	32/4	4903210000C	16
1 1/2"	16/2	4904010000C	16
2"	16/2	4905010000C	16

175C

Brass gate valve F x F.

Ø"		Code	PN
2 1/2"	4	5207010000C	16
3"	6	5208010000C	16
4"	2	5210030000C	16

209

F (free nut) x F angle ballvalve for water meter. Anti-legionella ball with additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Red butterfly handle. Nickel plated.

Ø"		Code	PN
DN15 - 3/4"x 1/2"	48/12	3701518900C	16
DN15 - 3/4"x 3/4"	48/12	3702018900C	16

209B

F (free nut) x F angle ballvalve for water meter. Anti-legionella ball with additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Blue butterfly handle. Nickel plated.

Ø"		Code	PN
DN15 - 3/4"x 1/2"	48/12	3701518240C	16
DN15 - 3/4"x 3/4"	48/12	3702018240C	16

209/1

F (free nut) x M angle ballvalve for water meter. Anti-legionella ball with additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Red butterfly handle. Nickel plated.

Ø"		Code	PN
DN15 - 3/4"x 1/2"	80/8	3701518890C	16
DN15 - 3/4"x 3/4"	48/12	3702018370C	16

209/1B

F (free nut) x M angle ballvalve for water meter. Anti-legionella ball with additional bore on the bottom to avoid water stagnation in the space between the ball and the body.
Blue butterfly handle. Nickel plated.

Ø"		Code	PN
DN15 - 3/4"x 1/2"	80/8	3701518240C	16
DN15 - 3/4"x 3/4"	48/12	3702018240C	16

376

F x F chrome planted mini ballvalve.
Black lever. Conform to EN 13828

Ø"		Code	PN
1/8"	200/20	2900315320C	10
1/4"	200/20	2900715320C	10
3/8"	200/20	2901015320C	10
1/2"	200/20	2901515320C	10
3/4"	150/15	2902015320C	10

377

F x M chrome planted mini ballvalve.
Black lever. Conform to EN 13828

Ø"		Code	PN
1/8"	200/20	2900315340C	10
1/4"	200/20	2900715340C	10
3/8"	200/20	2901015340C	10
1/2" x 12 mm	200/20	2901515340C	10
1/2" x 15 mm	200/20	2901515400C	10
3/4"	150/15	2902015240C	10

378

M x M chrome planted mini ballvalve.
Black lever. Conform to EN 13828

Ø"		Code	PN
1/4"	200/20	2900715360C	10
3/8"	200/20	2901015360C	10
1/2" x 15 mm	200/20	2901515360C	10

296N

Hose union ball bibcock normal type with red steel lever.
Nickel plated. Conform to EN 13828

Ø"		Code	PN
1/2"	40/10	3401518010C	16
3/4"	20/5	3402015800C	16
1"	16/4	3402525800C	16

ACTUATORS

Motorised and Thermal Actuators

EA-M-3P (24V)

EVOPICV Actuator, Motorised, 3 Point 24v AC, 6mm maximum stroke, 120Nm closing force. Includes adapter ring and cable. Actuator Drive speed is 13sec/mm for PEB91 (1/2" and 3/4") set drive time to 39 seconds, set re-sync time to 90sec.

V		Code
3 point - 24V AC - 6 mm - 1,5 m cable	1	EA-M-3P-1-3-1
3 point - 24V AC - 6 mm - 3 m cable	1	EA-M-3P-1-3-3
3 point - 24V AC - 6 mm - 5 m cable	1	EA-M-3P-1-3-5
3 point - 24V AC - 6 mm - 7 m cable	1	EA-M-3P-1-3-7
3 point - 24V AC - 6 mm - 10 m cable	1	EA-M-3P-1-3-10

EA-M-3P (230V)

EvoPICV Actuator, Motorised, 3 Point 230v AC, 6mm maximum stroke, 120Nm force. Includes adapter ring and cable. Actuator Drive Speed is 13 sec/mm for PEB91 (1/2" and 3/4") set controller drive time to 78 sec, set re-sync time to 90sec.

V		Code
3 point - 230V - 6 mm - 1,5 m cable	1	EA-M-3P-2-3-1

EA-M-PR (24V - 6mm Stroke)

EVOPICV Proportional Actuator, Factory set to 0-10v modulating (24v), 6mm Stroke. Field configurable input signal (0-10v, 0-5v, 2-10v, 4-20mA), Action direction, actuator characteristic and stroke length. 120Nm closing force and 8sec/mm speed. Supplied with Cable and adapter ring. As supplied stroke suits 1" and 1 1/4" EvoPICV valves.

V		Code/Codice
0-10V - 6 mm - 1,5 m cable	1	EA-M-PR-1-6-1
0-10V - 6 mm - 3 m cable	1	EA-M-PR-1-6-3
0-10V - 6 mm - 5 m cable	1	EA-M-PR-1-6-5
0-10V - 6 mm - 7 m cable	1	EA-M-PR-1-6-7

EA-M-PR (24V - 3mm Stroke)

EVOPICV Proportional Actuator, Factory set to 0-10v modulating (24v), 3.2mm Stroke. Field configurable input signal (0-10v, 0-5v, 2-10v, 4-20mA), Action direction, actuator characteristic and stroke length. 120Nm closing force and 8 sec/mm speed. Supplied with Cable and adapter ring. As supplied stroke suits 1/2" and 3/4" EvoPICV valves.

V		Code
0-10V - 3.2 mm - 1,5 m cable	1	EA-M-PR-1-3-1
0-10V - 3.2 mm - 3 m cable	1	EA-M-PR-1-3-3
0-10V - 3.2 mm - 5 m cable	1	EA-M-PR-1-3-5
0-10V - 3.2 mm - 7 m cable	1	EA-M-PR-1-3-7

EA-M-PR (24V - 4.3mm Stroke)

4 Port Valve Proportional Actuator, Factory set to 0-10v modulating (24v), 4.3mm Stroke. Field configurable input signal (0-10v, 0-5v, 2-10v, 4-20mA), Action direction, actuator characteristic and stroke length. 120Nm closing force and 8sec/mm speed. Supplied with Cable.

V		Code
0-10V - 4.3 mm - 1,5 m cable	1	EA-M-PR-1-4-1
0-10V - 4.3 mm - 3 m cable	1	EA-M-PR-1-4-3
0-10V - 4.3 mm - 5 m cable	1	EA-M-PR-1-4-5
0-10V - 4.3 mm - 7 m cable	1	EA-M-PR-1-4-7

EA-M-PRS (24V - Auto Stroke)

EVOPICV and Dynasty Valve Actuator. 0-10v modulating (24v), automatic stroke detection with feedback signal. Field configurable input signal (0-10v, 0-5v, 2-10v, 4-20mA), Action direction, actuator characteristic and stroke length. 120Nm closing force and 8sec/mm speed. Supplied with 1.5m Cable and adapter ring.

V		Code
0-10V - 1,5 m cable	1	EA-M-PRS-1-3-1

EA-M-PR-1-A-2

Dynasty Proportional Motorised Actuator, Factory set to 0-10v modulating (24v), Self Stroke adapting Field configurable input signal (0-10v, 0-5v, 2-10v, 4-20mA), Action direction, actuator characteristic 120Nm closing force and 8sec/mm speed. Supplied with Cable and adapter ring. As suppplied suits for Dynasty valve from 1/2" to 1" 1/2

V		Code
24V - self stroke - 2 m cable	1	EA-M-PR-1-A-2

EA-T-0M (230V - 4mm Stroke)

EVOPIC Actuator , Thermo-Electric, On Off, 230v, 4mm Stroke, 1m Cable, 100Nm Closing Force. Includes Adapter Ring. 3 Min Run Time. Normally closed (Energise to Raise Stem) with first open function.

V		Code
230V - 4 mm - 1 m cable	1	EA-T-OM-2-4-1

EA-T-0M (24V - 4mm Stroke)

EVOPIC Actuator , Thermo-Electric, On Off, 24v, 4mm Stroke, 1m Cable, 100Nm Closing Force. Includes Adapter Ring. 3 Min Run Time. Normally closed (Energise to Raise Stem) with first open function.

V		Code/Codice
24V - 4 mm - 1 m cable	1	EA-T-OM-1-4-1

JCVA-9310-HGA

Proportional Actuator with Adjustable Start and Span 35 Sec Rotation Time, AC/DC 24V 50/60Hz 0-10v Direct/On-Off/Raise Lower

V		Code
AC/DC 24V	1	JCVA-9310-HGA-1

JCVA-7480

Extension cable to fit EA-M-PR-1-3-1 actuator (non fitted)

Length		Code
10 meters	1	JCVA-7480-CAB11
3 meters	1	JCVA-7480-CAB31
5 meters	1	JCVA-7480-CAB51

JCVA-7482

Extension cable to fit EA-M-3P-1-3-1 actuator (non fitted)

Length		Code
7 meters	1	JCVA-7482-CAB71
3 meters	1	JCVA-7482-CAB31
5 meters	1	JCVA-7482-CAB51

ACCESSORIES
for plumbing and heating

PEB091IHV

Ø”		Code
1/2” - 3/4”	1	
1”	1	

PEB091ICV

Ø”		Code
1/2” - 3/4”	1	
1”	1	

PEB091XIHV

Ø”		Code
1/2” - 3/4”	1	

PEB091XICV

Ø”		Code
1/2” - 3/4”	1	

PEB092IHV

Ø”		Code
1/2”(92VL - 92L)	1	
1/2”-3/4”(92H) - 3/4”(92L)	1	

PEB092ICV

Ø”		Code
1/2”(92VL - 92L)	1	
1/2”-3/4”(92H) - 3/4”(92L)	1	

PEB083IHV

Ø”		Code
1 1/4” - 1 1/2” - 2” DN40	1	
2” DN50	1	

PEB093IHV

Ø”		Code
3/4” - 1” - 1 1/4”	1	

EvoFLEX

CONNECTIONS	SIZE	DN13	DN15	DN19	DN25	DN32
M	3/8”	√				
	1/2”	√	√			
	3/4”	√	√	√		
	1”			√	√	
	1 1/4”					√
UC	3/4”		√			
UP	1/2”	√	√			
	3/4”	√	√	√		
	1”				√	
	1 1/4”					√
UM	1/2”	√	√			
	3/4”	√	√	√		
	1”				√	
UF	1”			√		
US	3/4”	√	√	√		
	1”			√	√	
GF	JG 10		√			
	JG 12	√	√			
	JG 15	√	√			
GFC	JG 10	√				
	JG 15		√			
GM	JG 12	√				
	JG 15		√			

Codification of flexible hoses	
FX	Flexible
X	Left connection
Y	Right connection
Z	Thermal insulation

FX - X - Y - Z

FX **X** **Y** **Z**

I = Thermal insulation

M = Male
US = Union female cone 60°
UC = Union female cone 60° elbow
UP = Union female flat end
GF = Push female
GM = Push male
UM = Union male
UF = Union female

M = Male
US = Union female cone 60°
UP = Union female flat end
GF = Push female
GFC = Push female elbow
GM = Push male
UM = Union male
UF = Union female

FX = Flexible hoses

PE-FXMUM

Flexible hose Male by Union by Male.
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXMUMI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXUPUS

Flexible hose Union Female (flat) by Union Female (cone 60°- BS5200).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXUPUSI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXMUP

Flexible hose Male by Union Female (flat).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXMUPI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXUSUS

Flexible hose Union Female (cone 60°- BS5200) by Union Female (cone 60°- BS5200).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXUSUSI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXMUS

Flexible hose Male by Union Female (cone 60°- BS5200).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXMUSI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXMM

Flexible hose Male by Male.
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXMMI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXUPUP

Flexible hose Union Female (flat) by Union Female (flat).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXUPUPI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXMUF

Flexible hose Male by Union by Female.
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXMUFI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXUSGF

Flexible hose Union Female (cone 60°- BS5200) by push Female (JG).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXUSGFI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXMGF

Flexible hose Male by push Female (JG).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXMGFI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXUPGM

Flexible hose Union Female (Flat) by push Male (JG).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXUPGMI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXUSGM

Flexible hose Union Female (cone 60°- BS5200) by push Male (JG).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXUSGMI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXUPGF

Flexible hose Union Female (Flat) by push Female (JG).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXUPGFI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXGFGF

Flexible hose push Female (JG) by push Female (JG).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXGFGFI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXMGM

Flexible hose Male by push Male (JG).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXMGMI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXGMGM

Flexible hose push Male (JG) by push Male (JG).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXGMGMI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXMGFC

Flexible hose Male by push Male elbow 90°
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXMGFCI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXGFGM

Flexible hose push Female (JG) by push Male (JG).
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXGFGMI
With thermal insulation (thick. 9-13-19 mm on demand)

PE-FXUSUC

Flexible hose Union Female (cone 60° BS5200) by Union Female (cone 60° BS5200) elbow 90°
DN 13 -15 Length
min 200 - max 2000 mm
DN 19 -25 Length
min 250 - max 2000 mm
FXUSUCI
With thermal insulation (thick. 9-13-19 mm on demand)

PE091CV

Control valve for the whole 91 series

Ø”		Code/Codice
150 l/h	1	PE091CV.150
600 l/h	1	PE091CV.600
780 l/h	1	PE091CV.780
1000 l/h	1	PE091CV.1000
1500 l/h	1	PE091CV.1500

PE092CV

Differential pressure regulator and flow pre-setting for 92 series.

Ø”		Code/Codice
1/2” - 150 l/h - 92 Series	1	PE092.04.150
1/2” - 450 l/h - 92 Series	1	PE092.04.450
1/2” - 850 l/h - 92 Series	1	PE092.04.850
3/4” - 1000 l/h - 92 Series	1	PE092.06.1000
3/4” - 1850 l/h - 92 Series	1	PE092.06.1850
1” - 2500 l/h - 92 Series	1	PE092.08.2500
1” - 3300 l/h - 92 Series	1	PE092.08.3300

PE093CV

Control valve for the whole 93 series

Ø”		Code/Codice
2200 l/h	1	PE093CV.2200
2700 l/h	1	PE093CV.2700
3000 l/h	1	PE093CV.3000

TP.D

Optional Extra to convert full bore drain to an extra test point, can be permanantly fitted or used by commissioning engineer to use on different valve assemblies.

Ø”		Code
1/2” drain size	1	TP.D.04
3/4” drain size	1	TP.D.06

VENT

3/8” Manual Air Vent

Ø”		Code
		VENT04

PE696

3/8” Automatic Air Vent

Ø”		Code
		PE696TM.03

PE0760W

Black Pin Protection cap for PEB91 and 93 Series.

		Code
	1	8203505060C

PE092

White Pin protection cap for Dynasty Valve 92 series

Ø”		Code
1/2” - 3/4”	1	
1”	1	

OR-14.0-178-E

Replacement O Ring for all Euroconus fitting kits.

		Code
		OR-14.0-178-E

BXTWASH

Replacement flat faced washer for 80mm bypass union.

		Code
		BXTWASH

FK-M

Fitting Kit, pair of parallel BSP male screwed adapter to suit euroconus fittings on Pettinaroli UK assemblies range. Also suitable for EvoSix 6 way vale series

Ø”		Code
1/2” male BSP to 3/4” union. (Parallel thread)	1	FK-M04G
1/2” male BSP to 3/4” union. (Tapered thread)	1	FK-M04R
3/4” male BSP to 3/4” union. (Parallel thread)	1	FK-M06G

FK-F

Fitting Kit, pair of DN15 BSP Female screwed adapters to suit euroconus fittings on Pettinaroli UK assemblies range. Also suitable for EvoSix 6 way vale series

Ø”		Code
1/2” female BSP to 3/4” union. (Parallel thread)	1	FK-F04G
3/4” female BSP to 3/4” union. (Parallel thread)	1	FK-F06G

FK-CS

Fitting Kit, pair of copper capillary solder fittings to suit euroconus fittings on Pettinaroli UK assemblies range. Also suitable for EvoSix 6 way vale series

Ø”		Code
15 mm x 3/4” union	1	FK-CS15
22 mm x 3/4” union	1	FK-CS22

FK-CS.100

Copper capillary solder with 100mm copper length pre-soldered in place, to 3/4” union.

Ø”		Code
solder fittings 15mm - 100mm copper ends	1	FK-CS15.100
solder fittings 22mm - 100mm copper ends	1	FK-CS22.100

XTEFK

XTE Fitting Kit , for XTEB4 70 mm and 80 mm Bypass (1 1/8” TCV)

Ø”		Code/Codice
80 mm bypass		
1/2” Female BSP. flate face washer - Pair	1	XTEFK-4B4
3/4” Female BSP. flate face washer - Pair	1	XTEFK-4B6
1” Female BSP. flate face washer - Pair	1	XTEFK-4B8
70 mm bypass		
1/2” Female BSP. green O Ring - Pair	1	XTEFK-7B4
3/4” Female BSP. green O Ring - Pair	1	XTEFK-7B4
1” Female BSP. green O Ring - Pair	1	XTEFK-7B4

XTEFK-4B

XTE Fitting Kit , for XTEB4 80 mm Bypass (1 1/8” TCV)

Ø”		Code/Codice
1/2” BSP. flate face washer - Pair	1	XTEFK-4B5
3/4” Female BSP. flate face washer - Pair	1	XTEFK-4B7

FK-FUA

Fitting Kit pair of 3/4" adapter rings to convert eurocunus fitting to flate face union. Includes rubber washer.

Ø"		Code
3/4" Eurocone to 3/4" flat face male adaptor	1	FK-FUA

FK-CC15

Fitting Kit , Pair of copper compression fittings 15mm to suit eurocunus fittings onto Pettinaroli UK Xterminator.

Ø"		Code
15mm Copper compression fitting to 3/4" union	1	FK-CC15

4 PORT

HMP-4PJN

4 port motorised valve with 0.4kv-2.5kv, supplied loose with union connections to attach directly to Pettinaroli UK Xterminator valve assembly. Supplied with pair of capillary solder fittings for connection to coil side. Designed for levelled assemblies.

Ø"		Code
15mm capillary solder fittings - 0,4 Kv	1	HMP-4PJN-0.4KIT
15mm capillary solder fittings - 0,6 kv	1	HMP-4PJN-0.6KIT
15mm capillary solder fittings - 1,0 Kv	1	HMP-4PJN-1.0KIT
15mm capillary solder fittings - 1,6 kv	1	HMP-4PJN-1.6KIT
15mm capillary solder fittings - 2,5 Kv	1	HMP-4PJN-2.5KIT
22mm capillary solder fittings - 2,5 Kv	1	HMP-4PJN+2.5KIT
22mm capillary solder fittings - 4,0 Kv	1	HMP-4PJN+4.0KIT

HMP-4PJN.LL

4 port motorised valve with 0.4kv-2.5kv for offset strainer Xterminator assemblies. Supplied attached to Pettinaroli UK Xterminator valve assembly with union connections. Supplied with pair of capillary solder fittings for connection to coil side. Designed for non levelled assemblies.

Ø"		Code
15mm capillary solder fittings - 0,4 Kv	1	HMP-4PJN-0.4KIT.LL
15mm capillary solder fittings - 0,6 kv	1	HMP-4PJN-0.6KIT.LL
15mm capillary solder fittings - 1,0 Kv	1	HMP-4PJN-1.0KIT.LL
15mm capillary solder fittings - 1,6 kv	1	HMP-4PJN-1.6KIT.LL
15mm capillary solder fittings - 2,5 Kv	1	HMP-4PJN-2.5KIT.LL
22mm capillary solder fittings - 2,5 Kv	1	HMP-4PJN+2.5KIT.LL
22mm capillary solder fittings - 4,0 Kv	1	HMP-4PJN+4.0KIT.LL

PRODUCT CODES INDEX

PETTINAROLI
UK

THE HOME OF **HYDRONIC BALANCING**

PETTINAROLI UK

As specialist solution providers for the balancing, controlling and metering of water distribution systems in the **HVAC industry**, Pettinaroli UK is dedicated to creating and supplying innovative and efficient products that meet the rapidly changing needs of buildings and users alike.

With solutions ranging from valve distribution to the design and supply of complex bespoke manifolds, we have the products, **knowledge and passion** to meet our customers' requirements.

At Pettinaroli UK we bring together bright ideas, **innovative concepts** and intelligent valves to achieve first class solutions that provide customers with product excellence, and a future proofed, fully supported system.

Pettinaroli UK is part of the multinational **Pettinaroli Group**. Leading manufacturers in the HVAC industry, renowned for quality, integrity and innovation. **Founded in 1938** by two brothers Pettinaroli Group is nowadays a multinational company spanning four continents.

The products are **manufactured in Italy** and distributed via the group's companies in the US, France, Switzerland, Denmark, UK and more than 60 countries all over the world.

FULFILLING SOLUTIONS THROUGH KNOWLEDGE

With combined expertise across a broad range of areas, our knowledgeable and highly skilled team works closely with customers. We are dedicated to supporting them at all stages of their project, from the initial design concept to installation and commissioning, ensuring that all their needs are met. We bring together attention to detail and a clear focus on efficiency to make sure that the correct product is specified at all times.

Finding a solution fully meeting customer requirements

Optimising building efficiency by reducing commissioning time and annual running costs

CERTIFICATIONS

We are proud to have **ISO 9001 quality standard certification** and are dedicated to providing the highest level in customer service and a continuous drive for product development.
Furthermore **our company is a member of BSRIA and CIBSE**, and actively promotes and supports energy saving initiatives such as **BREEAM**.
By working with Pettinaroli UK, you are entering into a relationship where **quality and service will be assured at all times.**

FS514077

QUALITY

Highest quality level is a mandatory target at Pettinaroli UK. To keep this maximum standard level we take the testing of our products very seriously. **Any article undergo a severe in-factory testing procedure** to make sure it fits all functional requirements. **Constant internal quality inspection procedures**, warrants that any product that reach the customer is free from any defect and ready for installation. For this reason every supply is **defects free** and this practically translates into a **substantial saving of time and money on the construction site.**

KEY POINTS

Our vast experience and strong knowledge base allows us to **provide products that fulfil our customer's requirements**, ensuring they get the best solutions for their projects. We pride ourselves on **being an innovator**, creating products and solutions that work with the ever changing environment.

Skilled and experienced team of engineers
Research & Development
Tested quality & certifications

Bespoke solutions for each project
NO on-site delays ensuring deadlines are met

Greater building energy effieciency Reduced running costs Eased operation and manteinance

linitial design concept
Project development

In-factory products assembling and testing
Streamlined and precise installation

Service, support & Training

WE BELIEVE IN EDUCATION

We are committed in the organisation of training and teaching sessions, particularly focused on introducing to our customers how our systems and products are developed and work. We dedicate ourselves to ensuring that our clients and partners have a full understanding of our systems and products so we run comprehensive training courses, catering for all different levels of understanding. Contact us today for information on how our training could help you.

CPD
CIBSE APPROVED
UNTIL 2023

CUSTOMER SUPPORT

We offer technical support and design input at every stage of a project from pre-design to commissioning and handover. Our service and support team consists of highly skilled technical sales engineers who have a wealth of experience in design, installation and commissioning. We support designers and help them select and specify the best products for the application. From challenging water distribution problems to advice about various pipe layouts and configurations, our team has the expertise and experience to assist in making informed decisions with customers on the best solutions available. Our innovative products offer future proofed solutions that cover the life time requirements of the building, avoiding some of the problems associated with initial start-up and commissioning.

ECO-SUSTAINABLE ITALIAN FACTORY

Sustainability means **environmental**, social and ethical performance and is an essential factor in today's business. Here are some data that summarise our **constant commitment towards an increasing ecosustainability.**

SILVER 2022 ecovadis Sustainability Rating

100%
Emission-free
for internal transport
of material

100%
Use of packaging
in **recyclable**
materials

85%
Domestic hot water
produced by
solar panels

50%
Electricity
produced by
photovoltaic panels

Kwh produced
450,000
Kwh/year

Trees preserved
1,850
trees/year

CO2 avoided
280,000 T
CO2/year

Plastic bottle saved
10.000
plastic bottle/year

PETTINAROLI UK ACADEMY

THE ACADEMY PROGRAM

The Academy has been designed to further **the education of young and trained Engineers**, from those who are just starting in the industry, to those with more experience who would like **to increase their skills**.

To help **the understanding of PICCV valves** and the many applications in **water distribution systems**. Pettinaroli UK have developed **a series of 'Hands on' practical courses** that allow the attending delegate to carry out several exercises, as would be required on site, **to experience and gain knowledge of the design, installation, flushing and commission of terminal units.**

Customise your learning experience through the access to exclusive training delivered through a wide variety of modalities according to your needs

ABOUT THE ACADEMY COURSES AND CPD ACCREDITATION

The **course programme** offered by **Pettinaroli UK Academy** includes both **face-to-face and remotely** accessible courses. The duration of the various didactic modules varies from one-day, to half-day, up to one-hour courses, according to the complexity of the topics covered. Courses may also include a **practical training** useful to test and concretely apply the theoretical notions learned. As a **CIBSE accredited company**, Pettinaroli UK is qualified to deliver courses valid for CPD training credits. The **Chartered Institution of Building Services Engineers (CIBSE)** is the professional body that backs up the community of **building services engineers**, investing in education and research and supporting the professionals involved in the buiding environment. **All CIBSE members** are required to undertake **continuing professional development (CPD)** in order that they keep up to date with the latest technical information and maintain their professional competence. **Pettinaroli UK courses give access to CPD credits** as they are reviewed and assessed by CIBSE that ensures the technical contents are of a **high standard** and offer **valuable professional training** to delegates.

MAKING **WATER DISTRIBUTION SYSTEMS** WORK

OFFERED SERVICES

Access to courses allows you to benefit from a number of useful services to maximise the learning experience and make participation immersive and enjoyable

Facility

Face-to-face courses are held at **Pettinaroli UK's headquarter** in the Riverside Industrial Estate in Birmingham. The venue is provided with **digitally-equipped classrooms** and all the necessary **tools** to carry out tests and along with **course materials** and documentation in hard copy and digital formats.

Teaching materials

Each course will be backed up by training materials specially designed **to ease learning**. Pettinaroli UK are introducing **'One Page Information sheets'** as an easy method of keeping and accessing useful technical information **either in the office or on site**. This concept has also been applied to the Pettinaroli product range.

Practical demonstration rigs

Courses with a **practical section** are delivered using specifically designed **practical demonstration rigs** that recreate the dynamics of operating an working **hydronic system**. In this way, theoretical notions can be immediately checked and **put into practice**, facilitating an easier and better understanding.

Accomodations

If required, accommodation (including meals) is available to book at **local affiliated venues** for the duration of any Pettinaroli UK Academy training courses. Further details of the services available are available upon request.

FRATELLI PETTINAROLI SPA

The **mechanical workshop** manufactures and equip the production with all the tools necessary. In Pettinaroli not only the products, but also any tooling is designed and manufactured in-house.

Equipment produced and tools / year:
1.000 - 2.000 pcs

Machinery equipment / year:
Over 10.000 pcs

The **turnery department**, made for brass processing from rod or forged bodies, includes single-spindle, multi-spindle and CNC machines, capable of working with traditional and lead-free brass.

Machined brass rod:
Traditional **CW614** & **CW617**
CW602 corrosion resistant
Lead-free **CW510** & **CW511**

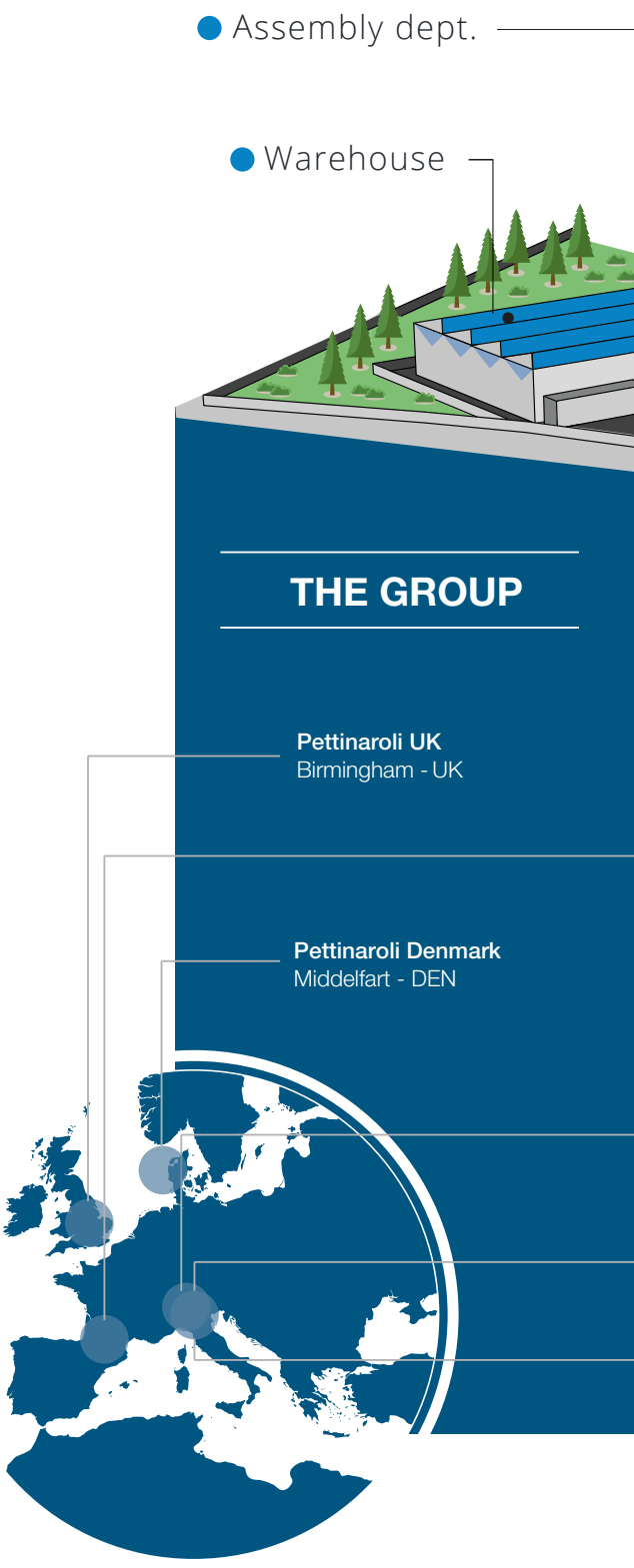
Lathe machines:
Mechanical **multi-spindle**
Electronic **single-spindle**
Transfer machines
CNC machines

The **assembly department** employs more than 75 workers equipped with automatic machines for the mounting of manifolds, radiator valves and ball valves plus a specific area dedicated to the assembly and testing of PICV valves and commissioning kits.

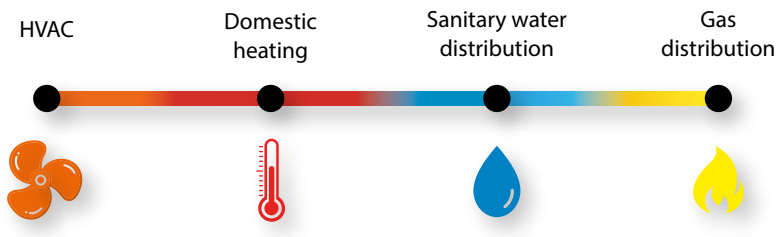
Material movement capacity / day:
Over 300.000 pcs

Production capacity / day:
70.000 complete products

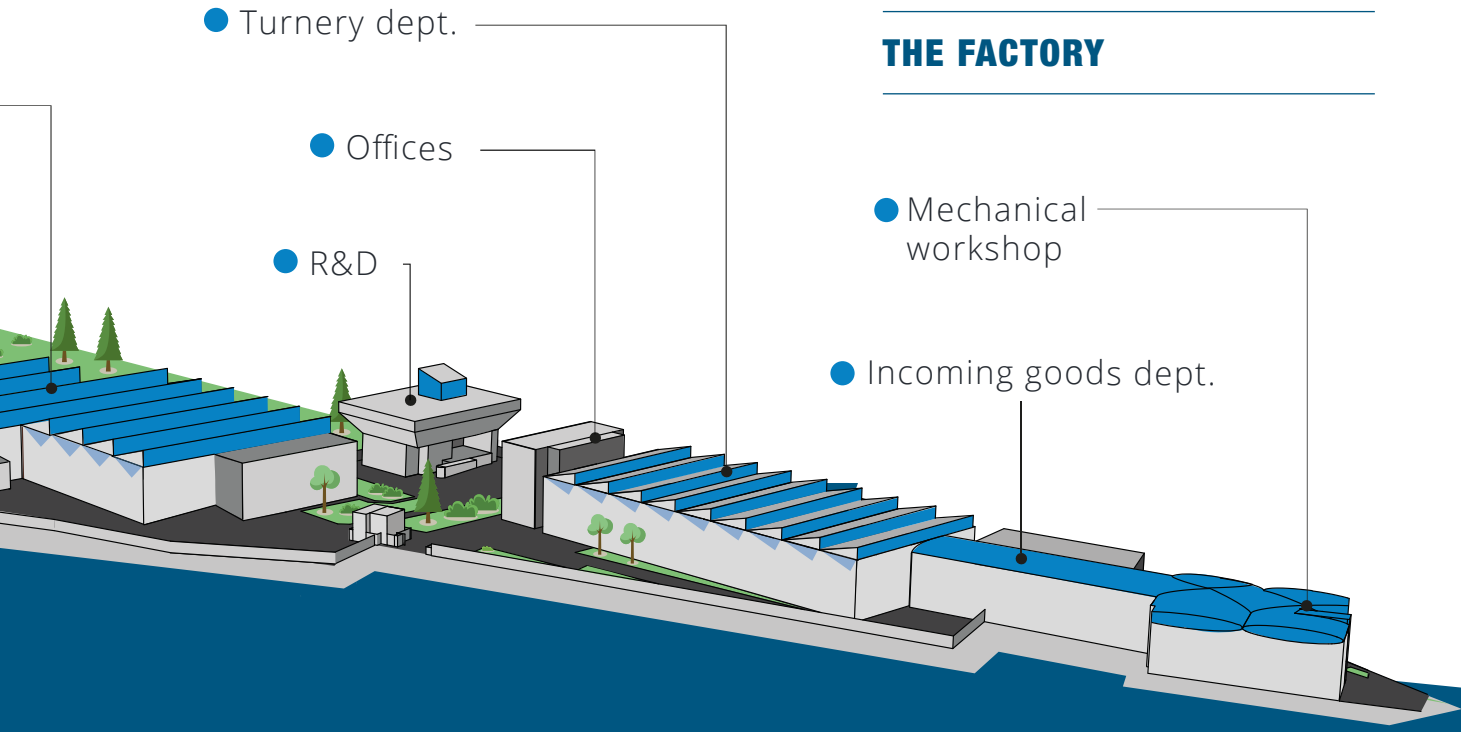
Handling of material with forklifts / day:
Over 400



BUSINESS AREAS



THE FACTORY



Pettinaroli France
Carmaux - FRA

Jomar Group
Warren - USA

Hydronic Components
HCi
Warren - USA

Pettinaroli Suisse
Montreux - SUI

TSM Galvanocromo
Gozzano - ITA

FRATELLI PETTINAROLI SPA
San Maurizio d'Opaglio - ITA

Pettinaroli Middle East
Dubai - UAE

+ 20.000.000
Finished products

+ 90.000.000
Handling operations

+ 7.000
Shipped pallets

+ 150
Shipped containers

PETTINAROLI GROUP

Jomar Group
Warren - USA

Hydronic Components HCI
Warren - USA

Pettinaroli Denmark
Middelfart - DEN

Pettinaroli UK
Birmingham - UK

TSM Galvanocromo
Gozzano - ITA

FRATELLI PETTINAROLI
S.Maurizio d'Opaglio - ITA

Pettinaroli Suisse
Montreux - SUI

Pettinaroli France
Carmaux - FRA

Pettinaroli Iberica
Barcelona - SPA

Pettinaroli Middle East
Dubai - UAE

Making **your work** every day **easier**

PETTINAROLI UK

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