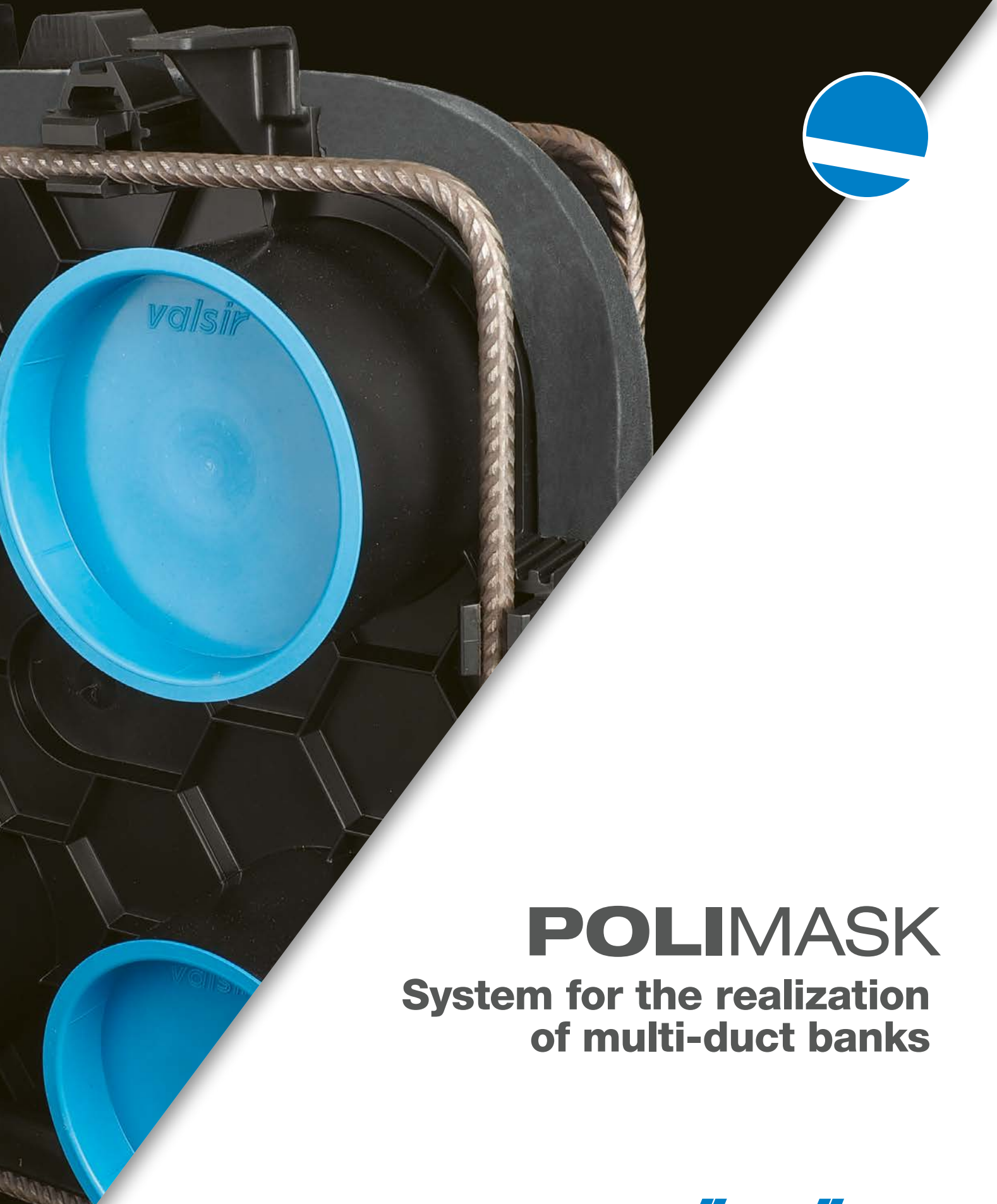


POLIMASK

System for the realization of multi-duct banks

MADE IN ITALY

valsir®

QUALITY FOR PLUMBING


Inspection chamber
Multi-duct banks made of a bundle of cast concrete pipes

POLIMASK

Valsir and the revolution in the field of multi-duct banks

In construction, multi-duct banks are composed of bundled PPEcoforte® pipes - typically with diameters of 110 mm or 160 mm - designed for routing electrical cables and optical fibres.

This structure is generally buried or, in most cases, cast into a concrete formwork.

Multi-duct banks can contain a limited number of pipes, but can also feature systems that incorporate dozens of pipes.



MADE IN ITALY

MULTI-DUCT BANK: THE PROBLEMS TODAY

The inspection chamber is previously cast using polystyrene inserts which, once removed, create the crossing windows.



The pipes are laid by aligning them with suitable saddles and inserted inside the crossing windows.



The gaps left in the crossing windows are then closed by casting concrete and the pipes are finally completely lined.



With the current solutions, the water tightness between the pipe and the chamber wall cannot be guaranteed.



Pipes often do not have sufficient mechanical strength to withstand the weight and temperature of the concrete during installation.



This causes water to accumulate in the inspection chambers, and this is favoured the latter are laid at ground water level.



THE TECHNICAL SOLUTION BY VALSIR: POLIMASK™!

Adaptable

Polimask™ adapts to various wall reinforcement spacings.



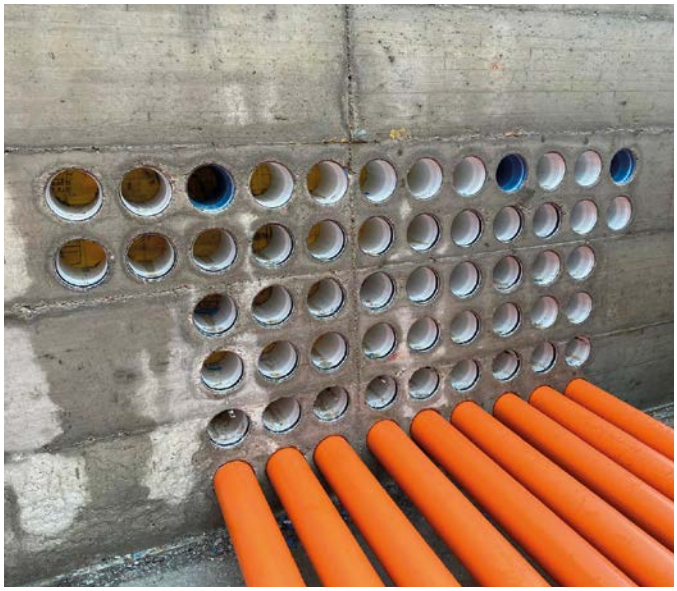
Security

Once installed, Polimask™ is completely enclosed within the wall, regardless of variations in wall thickness.



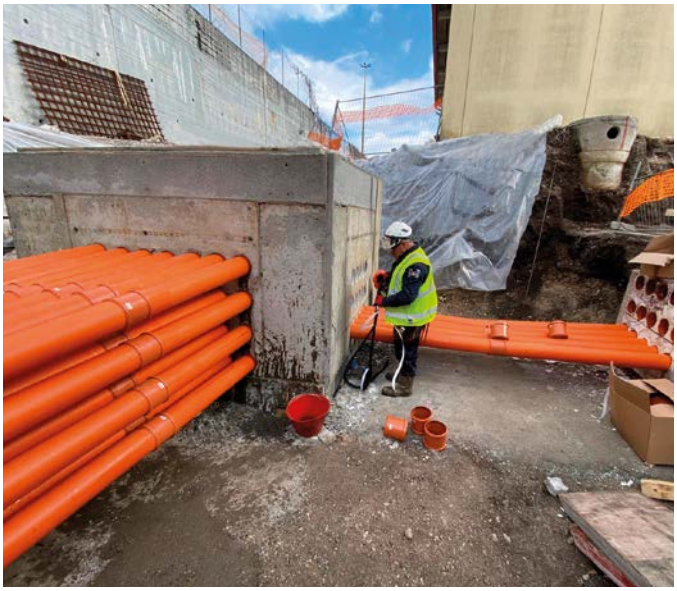
Flexibility

It is possible to create masks of various shapes to facilitate customised installations based on specific requirements.



Versatile

Suitable for multi-duct banks of various sizes and connections.



THE POLIMASK™ SYSTEM BY VALSIR

Polimask™: a revolution in the construction industry

Polimask™ by Valsir is an exclusive, patented system specifically developed for the manufacturing and production of inspection chambers.

Polimask™ 110 and Polimask™ 160 consist of:
- A polypropylene mask.
- Double steel frame.
- Protective caps.
- A waterstop seal (to be purchased separately).

Polypropylene mask guarantees the alignment of the pipes and acts as a barrier while laying the concrete.

Double steel frame for anchoring the mask to the reinforcement of the inspection chamber.



Protective caps to keep the connection area with the sockets clean.

Waterstop gasket ensures water tightness between concrete and mask or between mask and mask in multiple systems.
Not supplied by Valsir.

Centring elements and side hooks

The centring elements and side hooks are engineered to align and securely hold multiple Polimask™ units together, enabling the construction of larger inspection chambers. The Polimask™ 110 and 160 can be easily connected, ensuring that the Polimask™ 160 is positioned at the bottom for greater stability and security.



THE ADVANTAGES

Quick and easy to install: pipe passages, pipe alignment and hydraulic sealing are carried out in a single step during the construction of the chamber.

Double water tightness guaranteed between the mask and the pipes by means of double o-ring stub pipes.

Multiple installation: several masks can be assembled together very easily.

Great adaptability: Polimask™ 110 is suitable for wall thicknesses between 150 mm and 370 mm, while Polimask™ 160 is designed for wall thicknesses ranging from 150 mm to 580 mm.

Pipe laying calibrated pitch to favour the complete distribution of the concrete and the elimination of air, favouring the mask covering using the 50 mm vibrator.

Integrated **protection caps** guarantee cleanliness and absence of debris in the areas connecting to the pipes.

Guaranteed **water tightness** between mask and chamber and mask and mask thanks to the waterstop gasket made of hydro-expandable material.





SIMPLE INSTALLATION STEPS

Apply the waterstop gasket to the perimeter of the Polimask™, wrapped in a suitable containment net.



Positioning of the Polimask™ inside the thickness of the inspection chamber and consecutive anchoring of the same to the reinforcement.



Concrete casting (type 425 S5 RCK35) and simultaneous vibration to improve compaction and filling.



Final result.



LAYING POLIMASK™ 110

Wall installation with thickness up to 150 mm

Sockets with a maximum length of 150 mm are required, and can be **installed after casting** the inspection chamber.





Wall installation with thickness up to 220 mm

Sockets with a maximum length of 220 mm are required, and must be **installed before casting** the inspection chamber.





Wall installation with thickness up to 250 mm

Sockets with a maximum length of 250 mm are required, and must be **installed before casting** the inspection chamber.





Wall installation with thickness up to 300 mm

Sockets with a maximum length of 300 mm are required, and must be **installed before casting** the inspection chamber.





Wall installation with thickness up to 370 mm

Sockets with a maximum length of 370 mm are required, and must be **installed before casting** the inspection chamber.





LAYING POLIMASK™ 160

Wall installation with thickness up to 150 mm

Sockets with a maximum length of 150 mm are required, and can be **installed after casting** the inspection chamber.





Wall installation with thickness ranging from 250 mm to 580 mm

Sockets with a length of up to 580 mm are required, and must be **installed before casting** the inspection chamber.









PIPE POSITIONING AND ALIGNMENT

Valsir has developed an innovative saddle to ensure optimal pipe positioning and alignment.

Like the Polimask™, the saddle is designed to ensure proper concrete distribution and air elimination, allowing the use of vibrators with diameters of up to 50 mm.

Equipped with hooks and support bases, the saddle allows for the safe and efficient connection of multiple units, streamlining the construction of extensive multi-duct banks assemblies.

Available for 110 mm and 160 mm pipes.



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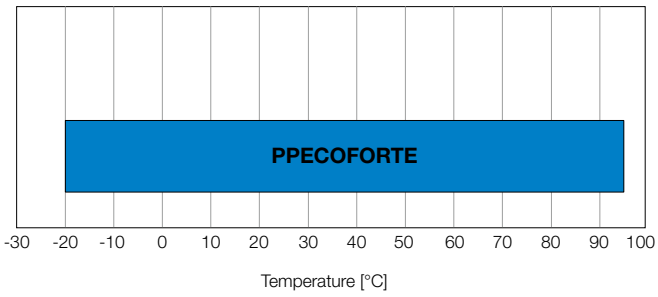
PPECOFORTE®

PPEcoforte® is a triple-layer pipe coupling system, with fittings and accessories with a single industrialised wall, manufactured and patented by Valsir.

PPEcoforte® is manufactured in accordance with EN 13476 standards and can be used for low and high temperature drainage systems, drainage networks and for rainwater outside buildings used for civil and industrial purposes, hospitals and hotels.

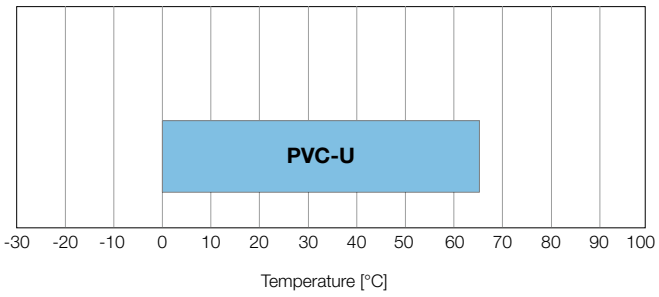


Temperature behaviour PPEcoforte®



The PPEcoforte® system has a thermal resistance ranging from -20°C to +95°C.

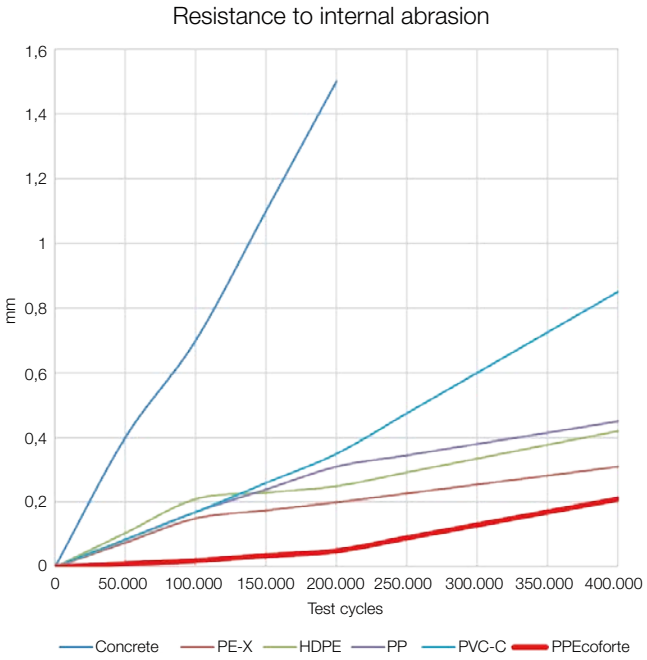
Temperature behaviour PVC-U



PVC pipes have a temperature resistance up to a maximum of +65°C.
Under 0°C PVC systems become very fragile.

Abrasion resistance second UNI EN ISO 7662

- It consists of abrasion cycles of up to 400,000 cycles.
- The mm of material removed from the surface are measured.
- The abrasion resistance of PPEcoforte® is the best compared to all other systems.
- After 400,000 cycles it is 0.22 mm.



O-ring seal

- Gasket stability during pipe joining operations.
- Easy insertion thanks to the design and pre-lubrication of the gasket.
- Perfect water tightness once installed in compliance with UNI EN 1277 at a pressure up to 0.5 bar.
- Ability to absorb ground movements or vibrations even after installation (caused by static, hydrostatic and dynamic loads).





CUSTOMER SERVICE

Technical support

Valsir provides complete support during design and on site, thanks to a high-level technical department that consists of a team of engineers with international experience that are capable of providing solutions to all installation needs.





Valsir Academy

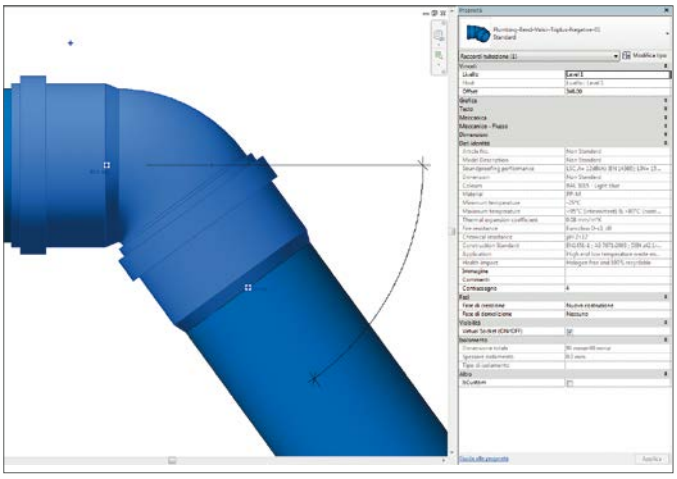
Valsir has an important training facility - **Valsir Academy** - dedicated to clients, distributors, plumbers and planners that provides perfectly equipped courses, both theoretical and practical on the use and the design of plumbing and heating systems. Courses are provided both inside the training facility and on customers' premises.

VALSIR IS BIM-READY

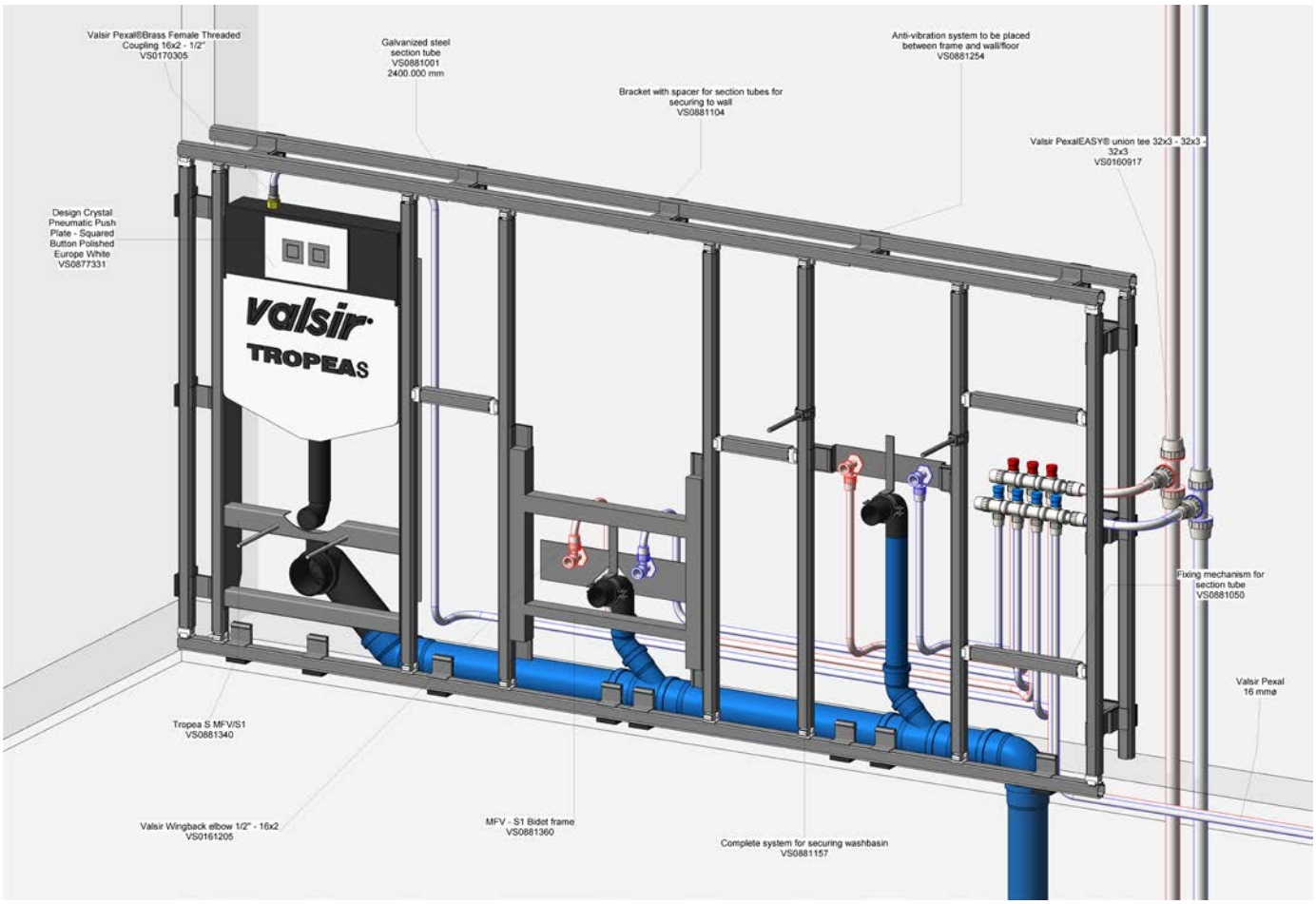
Valsir has adopted the BIM philosophy, the modelling process that allows to improve planning, design, construction and management of buildings, aligning with the industry transition to digital building modelling.

A “BIM-oriented” design offers outstanding competitive advantages: more efficiency and productivity, less errors, less downtime, less costs, greater interoperability, maximum information sharing, more timely and consistent project control.

Valsir captures the essence of this system with a set of Revit models and applications designed for quick and easy use.



www.valsir.it/u/revit



QUALITY AND ENVIRONMENT

Quality



The constant commitment of Valsir in the production of high-quality products is demonstrated by over **350 product approvals** obtained worldwide from the most stringent certification bodies (data updated to 01/05/2025), by a Quality Management System (QMS) certified in accordance with the **UNI EN ISO 9001:2015** standard, and by the Energy Management System (EMS) certified according to the **UNI EN ISO 50001:2018** standard.
Valsir S.p.A. has further demonstrated its environmental commitment by obtaining **ISO 14001:2015** certification.
Since 2019, an innovative facility has been in operation, which, integrated with the already installed photovoltaic park, produces over 30% of the electricity required for Valsir's manufacturing plants. This is a trigeneration system powered by methane gas, capable of producing electricity, steam, and cooling energy.

Sustainability

Efficient processes and reliable products are no longer the only criteria for evaluating the quality of a company's operations. Today, an equally decisive factor is the ability of the company and its management to design and implement production processes that are environmentally sustainable.

Valsir has launched a Corporate Social Responsibility (CSR) project, which includes the creation of a Sustainability Report. This report gathers information and data on the company's daily commitment in the social, economic, and environmental fields.



Download
www.valsir.it/u/sostenibilita-en

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TRAPS

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DRAINAGE SYSTEMS

HRV SYSTEM

ACADEMY

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GROUP SILMAR

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QUALITY FOR PLUMBING



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