One tube, endless applications

PLT-CSST pliable corrugated tubing systems in stainless steel

EUROTIS
Creating solutions

PLT-CSST pliable corrugated tubing systems in stainless steel

Eurotis systems are based on PLT-CSST corrugated and pliable **stainless steel AISI 304 and AISI 316L tubes**, combined with specially designed brass fittings to facilitate installation and ensure maximum tightness.
The special structure of the tube, resistant to pressure and deformation, allows to **realize every kind of shape** without support of specific bending tools.

-70%

INSTALLATION TIME

With Eurotis systems you save up to 70 percent of installation time and reduce costs.
Manual bending, limited use of fittings, and no welding simplify installation and save on installation time. This results in significant reductions in overall costs, making the process more efficient and economical.

Features of PLT-CSST tubes

One tube, endless applications

PLT-CSST pliable corrugated tubes are suitable for a variety of needs: plumbing and heating systems, solar thermal systems, industrial systems, gas systems and heat pump systems.

Hand-bendable

Eurotis tube can also be shaped manually in larger diameters to fit various plant configurations without the need of complex joints or welds.

Safety

The PLT-CSST is designed to meet strict safety standards and is resistant to temperature variations and mechanical stress, reducing the risk of failure or leakage.

Eco-friendly

Stainless steel is one of the most eco-friendly materials in the world. Recyclability, hygiene, and corrosion resistance are just some of the characteristics that make it a champion of environmental sustainability and circular economy.

High resistance to pressure and corrosion

AISI 304 and AISI 316L stainless steel is known for its exceptional resistance to corrosion and high pressures, making it ideal for use in wet environments, such as plumbing systems and termini, and for applications where superior durability is needed.

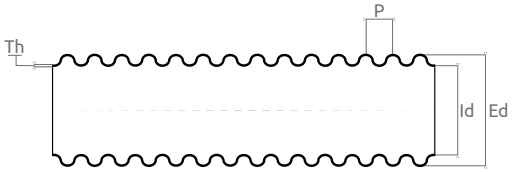
Lightness

PLT-CSST tube is lighter than other materials such as copper or traditional steel tubes, which simplifies transportation and installation.

Reduced pressure drops

The special structure of the tube gives maximum efficiency in bending, does not ovalise, deform or reduce the inner diameter, excluding any additional pressure drop.

Dimensions of AISI 304 and AISI 316L austenitic stainless steel PLT-CSST tubes



Id: Internal diameter
Ed: External diamter
S: Thickness
P: Pitch

DN	For tube		Thread connection	Id	Ed	Th	P	Inner lineic surface	Outer lineic surface	Lineic volume
	AISI 304	AISI 316L								
10	•	•	3/8"	9.3 mm	12.2 mm	0.25 mm	4.0 mm	0.0407 m2/m	0.0429 m2/m	0.0089 l/m
12		•	1/2"	12.0 mm	15.8 mm	0.3 mm	5.0 mm	0.0540 m2/m	0.0568 m2/m	0.150 l/m
12	•		1/2"	13.2 mm	16.8 mm	0.3 mm	5.1 mm	0.0565 m2/m	0.0591 m2/m	0.173 l/m
15	•	•	3/4"	15.8 mm	20.0 mm	0.3 mm	5.5 mm	0.0702 m2/m	0.0730 m2/m	0.248 l/m
20	•	•	1"	19.7 mm	25.0 mm	0.3 mm	6.4 mm	0.0912 m2/m	0.0942 m2/m	0.383 l/m
25	•	•	1 1/4"	26.5 mm	33.0 mm	0.3 mm	7.1 mm	0.1313 m2/m	0.1345 m2/m	0.700 l/m
32	•	•	1 1/2"	33.0 mm	41.0 mm	0.35 mm	7.6 mm	0.1757 m2/m	0.1799 m2/m	1.046 l/m
40	•	•	2"	40.0 mm	47.7 mm	0.35 mm	8.8 mm	0.1885 m2/m	0.1922 m2/m	1.492 l/m
50	•	•	2 1/2"	51.0 mm	61.0 mm	0.4 mm	9.4 mm	0.2700 m2/m	0.2750 m2/m	2.415 l/m

from DN10 to DN50

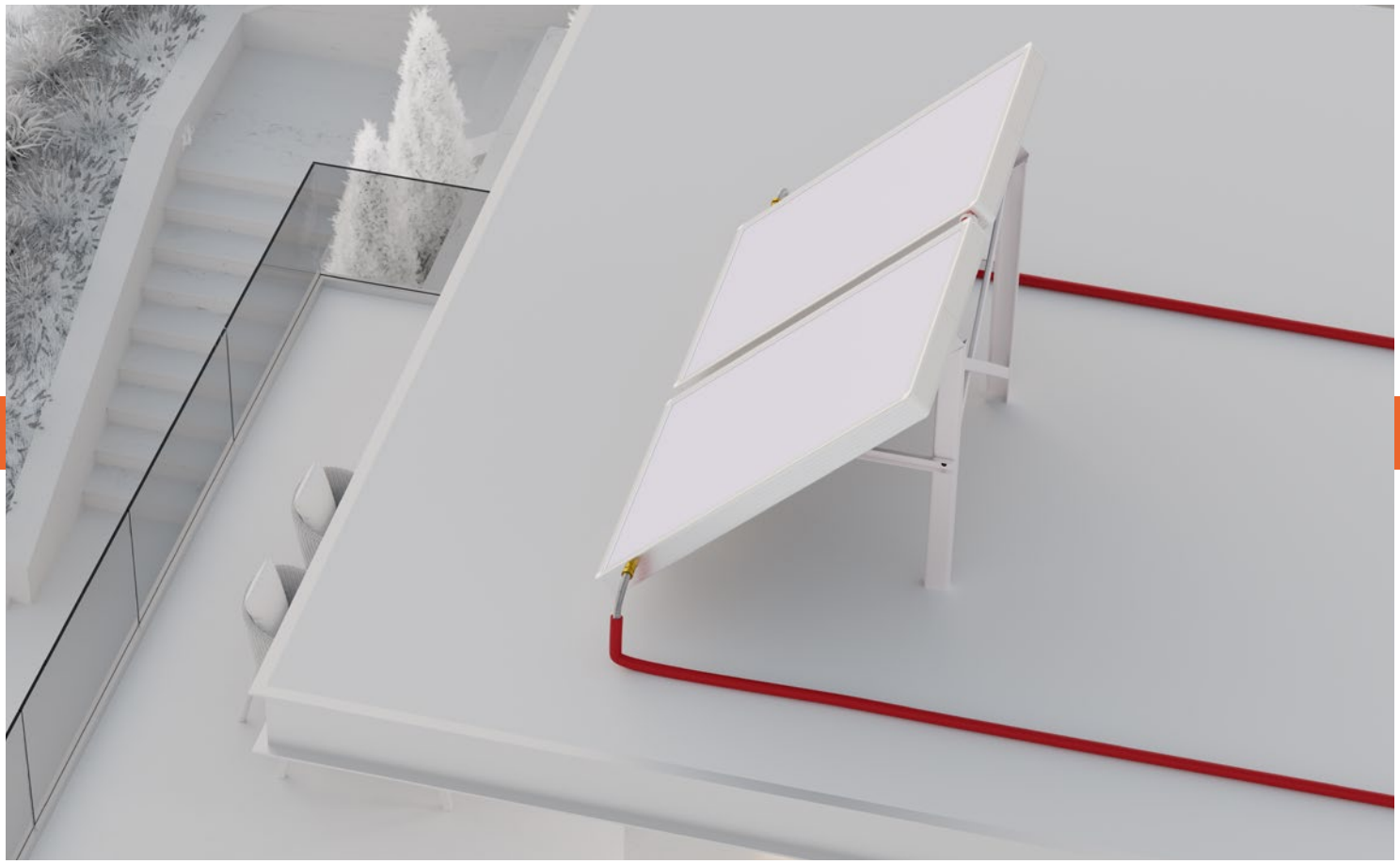
EUROwater

Corrugated stainless steel tubes in AISI 304 and AISI 316L for plumbing and sanitary water distribution. AISI 304 tubes can be coated with EPE insulation for heating installations.

Features PLT-CSST tubes for plumbing and heating systems

Maximum working temperature*	Minimum working temperature*	Thermal conductivity	Fire reaction class
95 °C (continuous)	-40 °C	0.039 W/m K (at 40 °C)	UNI 9177: cl. 1 DIN 4102: cl. B2

* Value referred to the type of insulation material.



from DN15 to DN25

EUROsolar

Corrugated stainless steel tubes in AISI 304 with thermal insulation coating for solar installations. They are equipped with films highly protective against UV rays and mechanical wear. This coating gives them considerable resistance to water vapor diffusion, thus ensuring the integrity of their thermal insulation performance. The maximum continuous operating temperature is 150 °C.

Features PLT-CSST tube for solar thermal systems

Maximum working temperature*	Minimum working temperature*	Thermal conductivity
150 °C (continuous) 175 °C (short peak temperature)	-50 °C	0.030 W/mK

* Value referred to the type of insulation material.

from DN12 to DN50

EUROgas

Corrugated stainless steel tubes in AISI 316L with LPDE coating conform to EN 15266 standard for gas installations. Available from DN12 to DN50, they comply with EN 15266 and are suitable for city, natural (methane) and LPG gas. PLT-CSST tube EUROGAS AISI 316L is also available in a version lined with "stellar coating".

Features PLT-CSST tubes for gas systems

MOP operative pressure*	Maximum working temperature
0.5 bar*	60 °C (continuous)

*Check the national laws / normative for the working pressure of the gas plant.

from DN20 to DN32

EUROklima

Corrugated stainless steel tubes in AISI 304 specially designed for heat pump systems. EUROKLIMA tubes are available from DN20 to DN32 and feature a special 13 mm closed-cell foam insulation with excellent protection against UV radiation and mechanical wear.

Features PLT-CSST tubes for heating pumps and hydronic connections

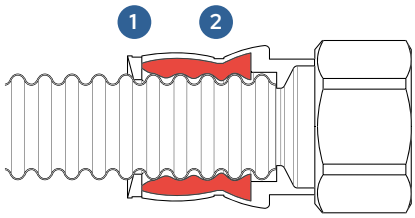
Maximum working temperature*	Minimum working temperature*	Thermal conductivity	Fire reaction class
150 °C	-45 °C	0,042 W/m K (at 40 °C) EN ISO 8497	EN 13501-1E DIN 4102:B2

* Value referred to the type of insulation material.

from DN12 to DN32

Press fitting system ePRESS Technology

The press fitting system combines the best traditions of reliability, formability and safety of Eurotis PLT-CSST tubes with the practicality and speed of installation of the ePRESS technology.



Mechanical seal: the 1st point deforms the entry of the fitting where there is a "tooth" which, after pressing, blocks the tube inserting itself between twocorrugation thus preventing the tube from slipping out. Hydraulic seal: the 2nd point deforms the gasket permitting its penetration inside the PLT-CSST tube corrugations and guaranteeing a safe and durable tightness.

The pressing technique has been entirely designed by Eurotis

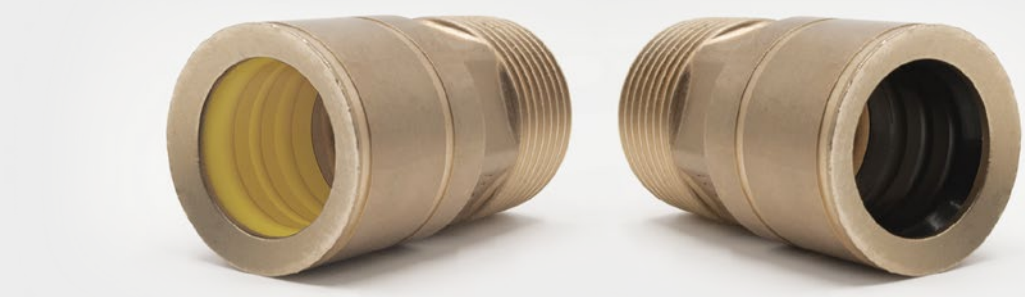
The pressing takes place through the "E" profile Eurotis jaw, which allows a controlled fitting and gasket deformation, ensuring the seal. Moreover, thanks to the special "saddle" the correct positioning of the fitting is guaranteed and pressing is extremely simple and immediate, reducing the possibility of errors during installation.

Maximum tightness

With ePRESS Technology, the joint is installed by compressing the fitting onto the tube, ensuring maximum tightness. This process ensures a permanent joint and maximum safety for all types of installations.

Resistant and reliable gaskets

All ePRESS Technology fittings are made in brass. Eurotis proposes a complete range of fittings with specific gaskets: yellow HNBR gasket, compliant with standard EN 682 for gas and black in EPDM-PEROX suitable to carry drinking water and resistant at continuous operating temperatures of up to 150°C.



PRESS Technology

EUROTIS PATENT EUROTIS

PLT-CSST TUBE
0.3 mm thickness

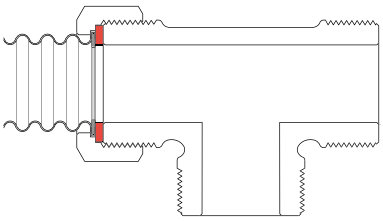
PATENTED JAW
compatible with 32kN pressing machines (no mini)

BRASS FITTINGS

from DN10 to DN50

Flanging system

The flanging system is the most widely used in the plumbing sector and is the system that, thanks to Eurotis, has made PLT-CSST tube history.



Mechanical seal: takes place by compression of the last two corrugations of the PLT-CSST tube, this procedure creates a flat stop called a flange. Hydraulic seal: ensured by flat gasket.

One system for each type of plant

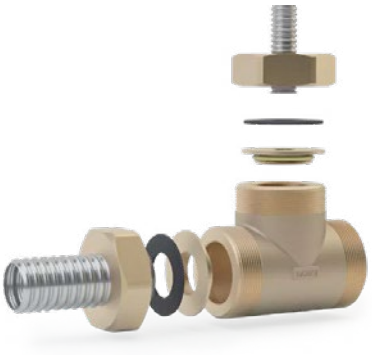
The system initially designed for PLT-CSST tubes from DN10 to DN25 has been subject to further development in recent years, resulting in its XL version. This latest one is for tubes of larger diameters DN32 (1" 1/2), DN40 (2") and DN50 (2" 1/2) and retains the same quality standards and features that have always distinguished it. The flanging system thus allows installers to avail themselves of a single connection system for every installation, from the smallest to the largest.

Mechanical and hydraulic tightness guaranteed

The mechanical tube/fitting seal is ensured by the high resistance of the flange, due to the 0.30 mm tube minimum thickness and to the compression of the last two corrugations.The hydraulic seal is guaranteed by different types of flat gaskets: KLINGERSIL and EPDM for water and NBR for gas. Moreover, the system nuts are built with a special seat, which enhances their hold.

Practical and fast reductions thanks to new patented adapter

With the new Eurotis patented adapters, it is possible to reduce the diameter of fittings, saving time and installation costs. The adapters are available in all diameters DN 32 (1" 1/2), DN 40 (2") e DN 50 (2" 1/2) and can be applied to any type of Eurotis XL flange fitting.



Perfect flanges with Eurotis tools

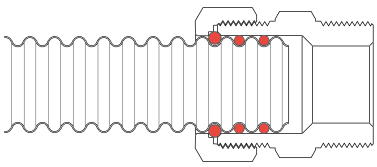
To flange the PLT-CSST tubes, Eurotis provides the installer with ADAPTOR (from DN10 to DN25) e XL ADAPTOR (from DN32 to DN50). Patented by Eurotis, they are semi-automatic flanging tools compatible with major standard pressing machines.
To perform the flanging of PLT-CSST small diameters tubes, Eurotis also provides the installer with 2 pieces of tools:
• manual (from DN10 to DN25);
• automatic (from DN10 to DN25).

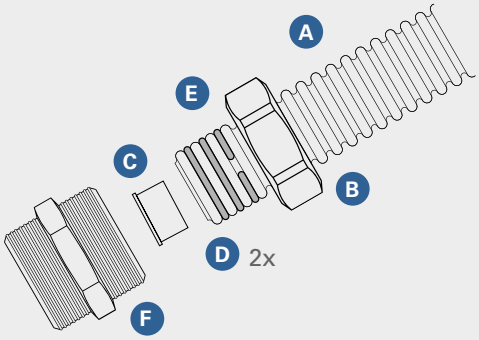
ADAPTOR
XL ADAPTOR

from DN12 to DN50

Double O-ring system

The double O-rig system has been studied to guarantee a processing without dedicated equipment in a simple and intuitive way.
The special corrugation of the PLT-CSST allows the insertion of two O-rings inside the first two grooves of the hose (hydraulic seal) and in the third groove a metal ring (mechanical seal).
The hydraulic seal is guaranteed for the application of gas from two O-rings in NBR according to EN 682, while for water applications it is solar powered with an O-ring in EPDM and a second O-ring in FKM. The FKM gasket is renowned for its resistance to high temperatures, while the EPDM gasket for high performance in the hydraulic seal The double O-ring system has been designed and built for tubes ranging from DN 12 to DN 50.





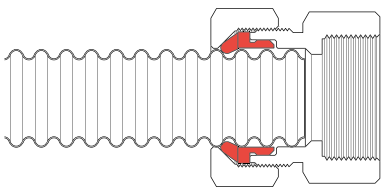
Steps for using the fittings double O-ring

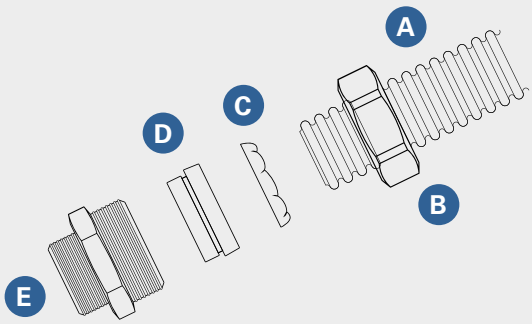
Using the fittings with tightness through double O-ring, the installer shall use the protective cap supplied with the fittings to avoid the damage of the O-rings during their placement on the PLT-CSST tube:
1. Tighten the nipple (F) on the terminal to be joined using a suitable sealant conform to the EN 751 standard to assure the tightness;
2. Insert the nut (B) into the tube (A);
3. Insert the protective cup (C);
4. Insert two O-ring (D) in the first and second corrugation of the CSST tube (A);
5. Remove the protective cup (C;
6. Insert the brass ring (E) in the third corrugation of the PLT-CSST tube (A) and tighten it with pliers without deform the tube;
7. Insert the PLT-CSST tube (A) in the nipple (F);
8. Screw the nut (B) on the nipple (F).

from DN12 to DN15

Fast connection system

Even the quick-fit system does not require dedicated equipment for assembly and is also easy to understand.
The mechanical seal is ensured by the compression of a special plastic ring inside the corrugation. The conforming seal ensures the hydraulic seal. The fast coupling system is only available for water and solar. The water version is equipped with a silicone gasket, while the solar version has a FKM gasket.



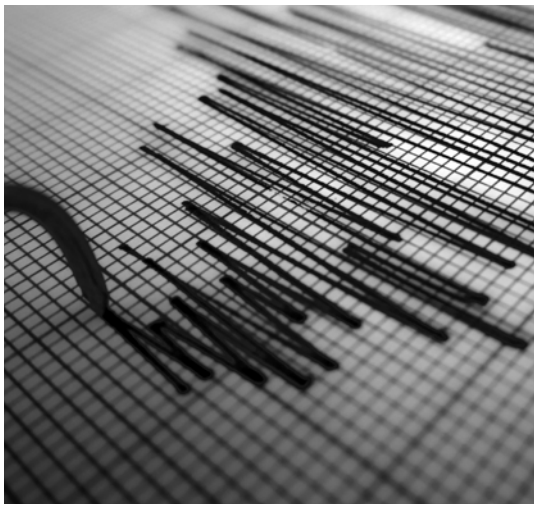


Steps for using the fittings fast connection system

1. Tighten the nipple (E) on the terminal to be joined using a suitable sealant conform to the EN 751 standard to assure the tightness;
2. Insert into the nut (B) PLT-CSST tube (A);
3. Insert the ring (C) on the PLT-CSST tube (A);
4. Place the gasket (D) on the fitting (E);
5. Insert the PLT-CSST tube (A) into the fitting (E);
6. Tighten the nut (B) to the fitting (E) using a torque wrench.

Quality and safety

Each system presented and produced in Eurotis is tested within our **qualified company laboratories** or at **national and international certification institutes.**
We have the most sophisticated testing products: from pressure tests, to temperature and tensile tests, to material testing.
In addition to our dedication to creating safe systems, we promote compliance with applicable regulations. Not only do we test our products and ensure their compliance, but we disseminate regulatory knowledge throughout our distribution network. In addition, all levels of the company contribute to the implementation and continuous improvement of our quality management system, which is certified according to ISO 9001.
As required by law, all our systems made with PLT-CSST tubes comply with EN 10028-7 (water) EN 15266 (gas) and are certified by the most prestigious international institutes such as: KIWA, DVGW, GAS.BE and SVGW.



Seismically tested piping

PLT-CSST Eurotis tubing systems have fully passed all seismic tests carried out at CESI's specialized ISMES-DIVEN LAP laboratories and have confirmed the reliability of the systems, both as a whole and as individual components (tubes, fittings, etc.), even under extreme conditions, such as a devastating earthquake of magnitude 8 on the Richter scale.


EUROTIS

About us

We have been operating in the plumbing sector for over twenty years. We are known all over the world for the production of PLT-CSST corrugated tube with high resistance to pressure and deformation.
Over the years we have evolved a competence and experience to become **an international reference point in the development of plumbing, heating, solar and gas systems.** From qualified manufacturers to specialists, we are now able to predict the needs of customers and satisfy them by creating highly performing and safe solutions. This is why our pay-off is Creating solutions.
The entry in 2016 into the Dall'Era Valerio Industrial Group, leader in the production of nuts, fittings and components in brass, has raised our production standards. We have increased the quality of our water, solar and gas systems, already able to stand out on the market due to the strong innovative component.

EUROTIS
Creating solutions

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