



Gerpex / Gerpex RA pipes Gerpex LBP / Gerpex press fittings

Distribution system for thermo-sanitary systems
with multilayer pipes and brass fittings



EMMETI

The new factory for Multilayer pipe

The 9th of January on 2009 Emmeti opened, in Fontanafredda (PN) loc. Le Forcate, the PE-Xb/Al/PE-Xb and PE-RT/Al/PE-RT multilayer pipe factory. The two production lines, the crosslinking chamber, the coating line, the automatic packaging, the raw-material warehouse and the Laboratory, are housed within a 10,000 m² facility.

The laboratory, equipped with the most modern devices for product analysis and checks, ensures maximum reliability and safety of the finished product and its compliance with the latest standards.

The production capacity of the plant, once up to speed, is 36,000,000 metres per year.

By means of this factory, in addition to the facility in Ponte S. Marco (BS), with the production of press and compression fittings, means that Emmeti is placed on the European market among the few companies able to offer its own complete multilayer system.





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KIWA certificate according UNI EN ISO 21003

System consisting of Gerpex and Gerpex RA multilayer pipes and Gerpex press fittings



CERTIFICATE



Numero KIP-058541/09
Emesso 12.01.2021
Rapporto 110901256

Sostituisce KIP-058541/08
Prima emissione 24.10.2010
Contratto K15-01
Pagina 1 di 1

CERTIFICATO DI PRODOTTO KIWA-UNI

PRODUCT CERTIFICATE KIWA-UNI

Kiwa Cermet Italia dichiara che i prodotti
Kiwa Cermet Italia hereby declare that the products

Sistemi multistrato per il trasporto di acqua calda e fredda all'interno degli edifici
Multilayer piping systems for hot and cold water installation inside buildings

Marchio del sistema/System Trade mark:
composto da/made of:
Tubo multistrato/Multilayer pipe:
Raccordi/Fittings:

EMMETI GERPEX
EMMETI GERPEX
EMMETI GERPEX

Model	Type and nominal dm and wall thickness	Layers Material	Application class/Pressur	Fittings
GERPEX RA	M- Pipe 16x2,0 Al0,2	PE-Xb/Al/PE-Xb	2 and 5/10 bar	Brass press fittings profile B, TH
GERPEX	M- Pipe 16x2,0 Al0,3	PE-Xb/Al/PE-Xb	2 and 5/10 bar	Brass press fittings profile B, TH
GERPEX RA	M- Pipe 20x2,0 Al0,25	PE-Xb/Al/PE-Xb	2 and 5/10 bar	Brass press fittings profile B, TH
GERPEX	M- Pipe 20x2,0 Al0,4	PE-Xb/Al/PE-Xb	2 and 5/10 bar	Brass press fittings profile B, TH
GERPEX RA	M- Pipe 26x3,0 Al 0,3	PE-Xb/Al/PE-Xb	2 and 5/10 bar	Brass press fittings profile B, TH
GERPEX	M- Pipe 26x3,0 Al 0,5	PE-Xb/Al/PE-Xb	2 and 5/10 bar	Brass press fittings profile B, TH
GERPEX RA	M- Pipe 32x3,0 Al 0,4	PE-Xb/Al/PE-Xb	2 and 5/10 bar	Brass press fittings profile B, TH
GERPEX	M- Pipe 32x3,0 Al 0,6	PE-Xb/Al/PE-Xb	2 and 5/10 bar	Brass press fittings profile B, TH
GERPEX	M- Pipe 75x5 Al 1,35	PE-Xb/Al/PE-Xb	2 and 5/10 bar	Brass press fittings profile TH

Sistema Costruito da/System Manufactured by:

Emmeti S.p.a.
Via Zorutti 36/a - 33074 - Fontanafredda (PN)

In base ai test di tipo nonché alle ispezioni periodiche condotte da Kiwa sono ritenuti conformi ai requisiti del **Documento Tecnico Ki - 0410 Rev. 12, Annex K15 Rev. 01** basato sulla normativa

UNI EN ISO 21003-5:2009
D.M. 174: 2004

e quindi marcati **Kiwa-UNI**. La validità di questo certificato è soggetta al risultato positivo delle sorveglianze periodiche.

Based upon type tests and on Kiwa's periodic factory inspections the products are considered in compliance with the requirement of Technical Document Ki - 0410, Rev. 12, Annex K15 Rev. 01, based on the standard

UNI EN ISO 21003-5:2009
D.M. 174: 2004

and consequentially marked Kiwa-UNI. The validity of this certificate is subject to the positive result of periodic surveillance visits

Il presente certificato viene rilasciato in accordo al Regolamento Kiwa Cermet Italia per la Certificazione di prodotto ed è composto da 1 pagina. *This certificate is issued in accordance with the Kiwa Cermet Italia regulations for Product Certification and consists of 1 page*

Chief Operating Officer
Giampiero Belcredi

Firmato digitalmente da: BELCREDI GIAMPIERO
Data: 18/01/2021 17:36:01

Kiwa Cermet Italia S.p.A.
Società con socio unico, soggetta all'attività di direzione e coordinamento di Kiwa Italia Holding Srl
Via Cadriano, 23
40057 Granarolo dell'Emilia (BO)
Unità secondaria
Via Treviso 32/34
31020 San Vendemiano (TV)
Tel +39 0438 411755
Fax +39 0438 22428
E-mail: info@kiwacermet.it
www.kiwa.it
www.kiwacermet.it



IT-TD-Ki0410







PRD N° 069B

System consisting of Gerpex and Gerpex RA pipes and Gerpex press fittings:

kiwa sizes: Ø16, Ø20, Ø26, Ø32, Ø75

DVGW W534 certificate

System consisting of Gerpex and Gerpex RA multilayer pipes and Gerpex press fittings

		 CERT
DVGW type examination certificate DVGW-Baumusterprüfzertifikat		DW-8501BN0004 <small>Registration Number Registriernummer</small>
Field of Application <i>Anwendungsbereich</i>	products of water supply <i>Produkte der Wasserversorgung</i>	
Owner of Certificate <i>Zertifikatinhaber</i>	EMMETI S.p.A. Via Brigata Osoppo, 166, I-33074 Vigonovo di Fontafredda (PN)	
Distributor <i>Vertreiber</i>	EMMETI S.p.A. Via Brigata Osoppo, 166, I-33074 Vigonovo di Fontafredda (PN)	
Product Category <i>Produktart</i>	installation systems and system joints: drinking water installation system (8501)	
Product Description <i>Produktbezeichnung</i>	drinking water installation system consisting of compressing connectors made of metal and multilayer pipes PE-Xb/Al/PE-Xb respectively PE-Xb/Al/PE-HD	
Model <i>Modell</i>	GERPEX; GERPEX RA	
Test Reports <i>Prüfberichte</i>	supplement test: V154/17 from 26.05.2017 (IMA) supplement test: B748/15.1A from 20.09.2016 (IMA) type testing: B004/14.2 from 12.05.2015 (IMA) supplement test: B092/13.2 from 17.12.2013 (IMA) mechanical test: B270/12 from 13.09.2012 (IMA) type testing: B272/10.1 from 04.10.2011 (IMA)	
Test Basis <i>Prüfgrundlagen</i>	DVGW W 534-(P) (01.07.2015) DVGW CERT ZP 8500 (01.01.2017) UBA ELASTOM (16.03.2016) DVGW W 270 (01.11.2007)	
<small>7028/04/AUC</small> Date of Expiry / File No. <i>Ablaufdatum / Aktenzeichen</i>	10.06.2022 / 17-0160-WNV	
09.06.2017 GI A-1/2 <small>Date, Issued by, Sheet, Head of Certification Body Datum, Bearbeiter, Blatt, Leiter der Zertifizierungsstelle</small>	  <small>Deutsche Akkreditierungsstelle D-ZE-16028-01-05</small>	<small>DVGW CERT GmbH Zertifizierungsstelle Josef-Wimmer-Str. 1-3 53123 Bonn Tel. +49 228 91 88 - 888 Fax +49 228 91 88 - 993 www.dvgw-cert.com info@dvgw-cert.com</small>
<small>DVGW CERT GmbH ist von der DAKkS nach DIN EN ISO/IEC 17065:2013 akkreditierte Stelle für die Zertifizierung von Produkten der Energie- und Wasserversorgung.</small>		

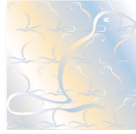
System consisting of Gerpex and Gerpex RA pipes and Gerpex press fittings:



sizes: Ø16, Ø20, Ø26, Ø32

KIWA certificate according UNI EN ISO 21003

System consisting of Gerpex RA multilayer pipes and Gerpex LBP press fittings



Numero KIP-098340/02
Emesso 12.01.2021
Rapporto 100901265

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Prima emissione 22.03.2018
Contratto K15-01
Pagina 1 di 1

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Multilayer piping systems for hot and cold water installation inside buildings

Marchio del sistema/System Trade mark:
composto da/made of:
Tubo multistrato/Multilayer Pipe:
Raccordi/Fittings:

Gerpex LBP

GERPEX RA/ALPERT
GERPEX LBP

DN and wall thickness	Layers Material	Application Class	Pressure	Fittings
16x2,0 Al0,2	PE-Xb/Al/PE-Xb	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
20x2,0 Al0,25	PE-Xb/Al/PE-Xb	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
26x3,0 Al 0,3	PE-Xb/Al/PE-Xb	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
32x3,0 Al 0,4	PE-Xb/Al/PE-Xb	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
16x2,0 Al 0,2	PE-RT/Al/PE-RT	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F
20x2,0 Al 0,25	PE-RT/Al/PE-RT	2 and 5	10 bar	Brass press fittings LBP profile B, TH, U, H, F

Sistema Costruito da/System Manufactured by:

Emmeti S.p.a.
33074 - Fontanafredda (PN)

In base ai test di tipo nonché alle ispezioni periodiche condotte da Kiwa sono ritenuti conformi ai requisiti del Documento Tecnico Ki-0410 Rev. 12, Annex K15 Rev. 01, basato sulla normativa

UNI EN ISO 21003-5:2009
D.M. 174:2004

e quindi marcati Kiwa-UNI. La validità di questo certificato è soggetta al risultato positivo delle sorveglianze periodiche.

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Chief Operating Officer
Giampiero Belcredi

Firmato digitalmente da: BELCREDI GIAMPIERO
Data: 18/01/2021 17:35:44



IT-TD-Ki0410



PRD N° 0698

CERTIFICATE





Kiwa Cermet Italia S.p.A.
Società con socio unico, soggetta
all'attività di direzione e coordinamento
di Kiwa Italia Holding Srl
Via Cadriano, 23
40057 Granarolo dell'Emilia (BO)
Unità secondaria
Via Treviso 32/34
31020 San Vendemiano (TV)
Tel +39 0438 411755
Fax +39 0439 22423
E-mail: info@kiwacermet.it
www.kiwa.it
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System consisting of Gerpex RA pipes and Gerpex LBP press fittings:

kiwa sizes: Ø16, Ø20, Ø26, Ø32

DVGW W534 certificate

System consisting of Gerpex RA multilayer pipes and Gerpex LBP press fittings

	
	CERT
DVGW type examination certificate	
DVGW-Baumusterprüfzertifikat	
	DW-8501CS0372 Registration Number Registriernummer
Field of Application <i>Anwendungsbereich</i>	products of water supply <i>Produkte der Wasserversorgung</i>
Owner of Certificate <i>Zertifikatinhaber</i>	EMMETI S.p.A. Via Brigata Osoppo, 166, I-33074 Vigonovo di Fontafredda (PN)
Distributor <i>Vertreiber</i>	EMMETI S.p.A. Via Brigata Osoppo, 166, I-33074 Vigonovo di Fontafredda (PN)
Product Category <i>Produktart</i>	installation systems and system joints: drinking water installation system (8501)
Product Description <i>Produktbezeichnung</i>	drinking water installation system consisting of compression connectors made of brass, leak before pressed (type M-MV) and multilayer pipes made of PE-RT/AL/PE-RT and PE-Xb/AL/PE-Xb
Model <i>Modell</i>	Gerpex LBP
Test Reports <i>Prüfberichte</i>	type testing: V183/17 from 11.10.2017 (IMA)
Test Basis <i>Prüfgrundlagen</i>	DVGW W 534-(P) (01.07.2015) DVGW CERT ZP 8500 (09.03.2017) UBA METALLE (15.03.2017) UBA ELASTOM (16.03.2016) DVGW W 270 (01.11.2007)
Date of Expiry / File No. <i>Ablaufdatum / Aktenzeichen</i>	11.10.2022 / 17-0525-WNE
07.11.2017 Fk A-1/2 Date, Issued by, Sheet, Head of Certification Body <i>Datum, Bearbeiter, Blatt, Leiter der Zertifizierungsstelle</i>	
DVGW CERT GmbH is an accredited body by DAkkS according to DIN EN ISO/IEC 17065:2013 for certification of products for energy and water supply industry.	
DVGW CERT GmbH ist von der DAkkS nach DIN EN ISO/IEC 17065:2013 akkreditierte Stelle für die Zertifizierung von Produkten der Energie- und Wasserversorgung.	Deutsche Akkreditierungsstelle D-ZE-16028-01-05
	DVGW CERT GmbH Zertifizierungsstelle Josef-Wirmer-Str. 1-3 53123 Bonn Tel. +49 228 91 88 - 888* Fax +49 228 91 88 - 993 www.dvgw-cert.com info@dvgw-cert.com

System consisting of Gerpex RA pipes and Gerpex LBP press fittings:



sizes: Ø16, Ø20, Ø26, Ø32

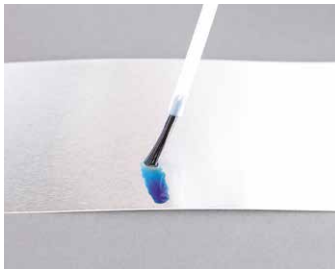
Quality controls

The whole manufacturing process of Emmeti multilayer pipe is subject to strict controls carried out before, during and after production from the raw materials through to the finished product.

The production department and analytical laboratory, carry out checks including the following:



MFI (Melt Flow Index)
Verify compliance of the polymer raw materials to be used.



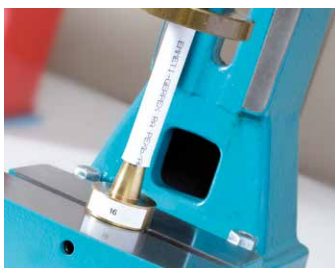
INK Test
Ensure that the strip of aluminium is clean.



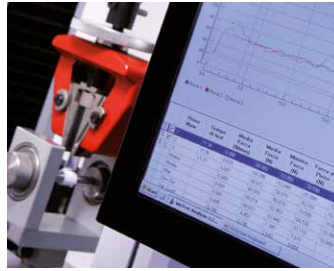
Dimensional control in production
Automatic computerised control of pipe dimensions.



Ball Test
To ensure that there are no occlusions or deformations on the inside of the pipe by using compressed air to pass a ball through the pipe.



Enlargement Test
Test performed both in production and in the laboratory to verify the quality of welds and the adhesion of individual layers.



Peeling
Test resistance to delamination between the inner layer and the aluminium.



Verify degree of bonding (cross-linking)
Verification performed in the laboratory to check the correct level (%) of cross-linking.



Resistance to internal pressure
Test resistance to a specific internal pressure at 95 °C; the pressure value is chosen as a function of the type of pipe (maximum diameter, aluminium thickness) and the duration of the test (22h, 165h, 1000h), by referring to the relative regression curves.



Thermal cycles
Test on a system consisting of the pipe and fittings and subjected to 5000 temperature cycles (20 to 95 °C) of 30 minutes each with a pressure of 10 bar.



Pressure cycles
Test on a system consisting of the pipe and fittings and subjected to 10000 pressure cycles (from 1 to 30 bar) at 23 °C with a frequency of 0.5 Hz.



Alternating bending Test
Vibration test on a system consisting of pipe and fittings which is subjected to 330 alternating bending cycles with an internal pressure of 15 bar at room temperature.

Fields of application

Gerpex is the modern and efficient Emmeti system used to build heating and sanitary systems with multilayer pipes, made from cross-linked polyethylene (PEX) and aluminium, and special fittings.

The fittings are available in two different versions: press-fittings and screw-fittings. The wide range of fittings and the various fastening options make the Gerpex System a complete and highly reliable product.

The Gerpex System is suitable for:

- Hot water heating systems
- Chilled water conditioning systems
- Water / sanitary systems
- Compressed air systems (*)

(*) An adequate filtering system has to be in place to avoid contact between compressor lubricant oil and O-rings included into the fittings.

For the transport of other fluids, please contact our Technical Support service for the suitable checks.



The advantages of a complete system

Greater resistance to high temperatures

Resistance to temperatures up to a maximum of 95 °C.

Greater resistance to pressure

Resistance to pressures up to a maximum of 10 bar, at a temperature of 70 °C, for 50 years.

Contained linear expansion

The linear expansion in relation to a variation in temperature is comparable with that of copper.

Thermal insulation

The system is available with an insulating coating which meets the following fire safety standards: Class B_L-s2, d0 (EN 13501-1).

Low pressure drops

The smooth surface of the pipe prevents limescale deposits and promotes the smooth flow of fluid thus considerably reducing pressure drops across the system.

A higher water flow rate is attainable

The pipe has considerable resistance to mechanical erosion from solid particles that the water normally carries with it.

Resistance to crushing and abrasion

This is due to the resistance of the aluminium layer and of the layers of PE-X used in the pipe's construction.

Impermeability to oxygen

The aluminium layer makes the Gerpex pipe impermeable to gasses and therefore to oxygen that would cause corrosion of the system's metal components.

Resistance to external chemical agents

Gerpex pipes embedded in walls or buried under flooring can be, due to their qualities, placed in "acidic" and "alkali" environments.

Complete resistance to electrochemical corrosion

This characteristic is obtained thanks to the materials used in the pipe construction and the fittings special dielectric element.

Reduced weight and rapid installation

Thanks to its low specific weight and the ability to bend easily, the Gerpex System is extremely easy to install. Once bent into the desired position, the pipe remains in that position in the same way a metallic pipe would do. Connecting pipe fittings is quick and simple giving it a significant advantage over using traditional jointing methods.

Features

of the Gerpex System



Avoiding electrical voltage

Multilayer Gerpex pipes are made with a combination of aluminium and cross-linked polyethylene. Both the inner and outer pipes wrap around the aluminium pipe, effectively sealing it. This design eliminates any direct electrical contact with the metal part of the pipe.

In addition, at each joint, the Gerpex multilayer pipes are isolated from the joint fitting by means of a plastic ring.

This ensures that no direct current flow can be generated and avoids induced electrical voltage across the pipe system.

Chemical resistance

The chemical characteristics PE-X make the Gerpex pipe system resistant to of the following substances:

- Plaster, concrete, mortar and cement
- Disinfectants and cleaning agents according to DVGW technical sheet W291 and DIN 2000
- All natural materials containing drinking water according to DIN 2000
- Anti corrosives according to DIN 1988 part 4

Multilayer Gerpex pipes must be protected from substances such as bitumen, grease, solvents and mineral oils.

For compatibility with other chemical compounds, reference should be made to the ISO/TR 10358:1993 tables.

Gerpex LBP and Gerpex pipe fittings must be protected with an appropriate coating if used in environments exposed to the danger of corrosion such as being laid in continuous flooring, in spaces with permanent humidity, in the presence of aggressive gases or concealed in direct contact with cement mortar or binders of lime.

O-ring seals (in EPDM) are not compatible with petroleum products and therefore the use of lubricants derived from petroleum is prohibited. The Gerpex system can be used with water and glycol mixtures to reach temperatures down to -10 °C.

Heat insulation

The hot water distribution networks for domestic use or heating, must be insulated in compliance with current legislation.

The Gerpex pipes pre-insulated with a sheath can be used in these systems for the distribution of cold or refrigerated water (air conditioning systems), preventing the risk of condensate (after verification in compliance with the UNI EN ISO 12241-2002 Standard).

Resistance to UV rays

The Gerpex multilayer pipes must be protected from exposure to direct sunlight.

They therefore must be covered during transport or storage, if they do not have the original packaging.

The Gerpex pipes laid freely without protective pipes must be protected from prolonged exposure to solar rays (several months) by a covering.

The UV protection function of the Gerpex pipes can only be performed by the insulating layer (insulated Gerpex), by opaque sheets or by wrapping them in dark materials

No hygiene risks

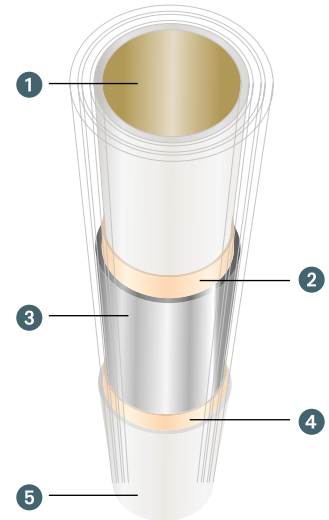
The Gerpex multilayer pipes are approved for use in installations with drinking water.

The lack of hygiene risks, meaning suitability for hot and cold drinking water, has been certified in compliance with the KTW Directives by the DVGW research institute and is subject to constant external control.

The use of the Gerpex system in sanitary systems is guaranteed by the certificates of suitability for drinking water in compliance with current legislation.

The Gerpex multilayer pipes contribute considerably to preventing the proliferation of legionella, thanks to the smooth surface of the internal pipe in PE-X, which does not promote deposits.

Gerpex multilayer pipe



Construction

Multilayer pipe for plumbing systems made of composite material through a technologically advanced process with which a PE-Xb (cross linked polyethylene) pipe is combined to an aluminium core (minimum thickness 0.3 mm) welded on top, coated on the outside with another layer of PE-Xb. Gerpex pipes combine the processing and durability advantages of a plastic pipe with the sturdiness and dimensional stability to temperature and pressure of a metal pipe.

- 1 Cross-linked polyethylene inner pipe (PE-Xb)
- 2 Bonding layer connecting the inner pipe to the aluminium pipe
- 3 Butt-welded aluminium pipe, thickness min 0.3 mm
- 4 Bonding layer connecting the outer pipe to the aluminium pipe
- 5 Cross-linked polyethylene outer pipe (PE-Xb)

The range

Gerpex pipe is available in rolls with diameters of DN 16, 20, 26, 32 and in bars DN 16, 20, 26, 32, 40, 50, 63 and 75. The pipe on rolls is also available preinsulated with closed cell expanded polyethylene sheath, cross-link coating.

Dimensional data

Gerpex pipe external Ø	mm	16	20	26	32	40	50	63	75
Gerpex pipe internal Ø	mm	12	16	20	26	33	42	54	65
Overall thickness	mm	2	2	3	3	3.5	4	4.5	5
Aluminium sheet thickness	mm	0.30	0.40	0.50	0.60	0.85	1.00	1.20	1.35
Weight (1)	Kg/m	0.13	0.15	0.28 (0.30)	0.38 (0.41)	0.58	0.88	1.32	1.6
Water content	l/m	0.11	0.20	0.31	0.53	0.85	1.38	2.29	3.32
Insulation thickness (2)	mm	6	6/9	9	9	-	-	-	-
Packs nude pipe (roll)	m	100	100/200	50	50	-	-	-	-
Packs nude pipe (bars L = 4 m)	m	96*	96*	40*	28*	20	20	12	12
Pack insulated pipe (roll)	m	50/100	50	50	25	-	-	-	-

(1) Bare pipe; in brackets the values for the pipe in bars
* packaged in rigid protective pipe

(2) For insulated pipes only

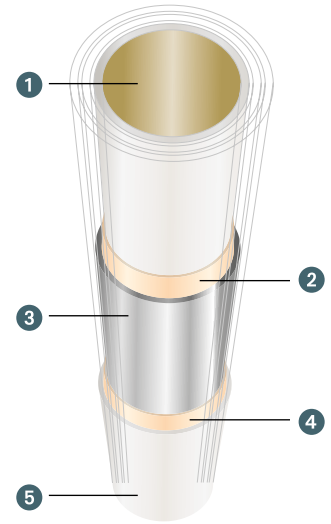
Technical data Gerpex pipe

Classes of application (UNI ISO 21003 - see table "Classification of the conditions of use"): 2/10 bar, 5/10 bar
Maximum operating conditions for 50 years:
- Design temperature $T_D = 70^\circ\text{C}$
- Design pressure $p_D = 10$ bar
Maximum temperature for short periods: 95°C
Coefficient of linear expansion: $0.026\text{ mm/m }^\circ\text{C}$
Thermal conductivity: $0.45\text{ W/m }^\circ\text{C}$
Minimum radius of bending: $5 \times \text{Ø pipe}$
Surface roughness of internal pipe: $7\text{ }\mu\text{m}$
Fire reaction class: E_L (EN 13501-1)

Technical data of insulating sheath

Material: Closed-cell expanded polyethylene, covered with a film in extruded LD-PE.
Thermal conductivity (at 40°C): $\leq 0.040\text{ W/mK}$ (UNI EN ISO 8497).
Fire reaction class: $B_L - s2, d0$ (EN 13501-1).
Thickness of covering: Compliant with attachment B- TAB 1 of Italian Presidential Decree 412/93 for pipes that run within structures that do not face onto the exterior, nor onto heated rooms.

Gerpex RA multilayer pipe



Construction

Multilayer pipe for plumbing systems made of composite material through a technologically advanced process with which a PE-Xb (cross linked polyethylene) pipe is combined to an aluminium core (minimum thickness 0.2 mm) welded on top, coated on the outside with another layer of PE-Xb.

Gerpex RA pipes combine the processing and durability advantages of a plastic pipe with the sturdiness and dimensional stability to temperature and pressure of a metal pipe.

- 1 Cross-linked polyethylene inner pipe (PE-Xb)
- 2 Bonding layer connecting the inner pipe to the aluminium pipe
- 3 Butt-welded aluminium pipe, thickness min 0.2 mm
- 4 Bonding layer connecting the outer pipe to the aluminium pipe
- 5 Cross-linked polyethylene outer pipe (PE-Xb)

The range

Gerpex RA pipe is available in rolls with diameters of DN 14, 16, 18, 20, 26, 32 and in bars DN 16, 20, 26 and 32.

The pipe on rolls is also available pre-insulated with closed cell expanded polyethylene sheath, cross-link coating.

Dimensional data

Gerpex RA pipe external Ø	mm	14	16	18	20	26	32	63	75
Gerpex RA pipe internal Ø	mm	10	12	14	16	20	26	54	65
Overall thickness	mm	2	2	2	2	3	3	4.5	5
Aluminium sheet thickness	mm	0.20	0.20	0.20	0.25	0.30	0.40	1.20	1.35
Weight (1)	Kg/m	0.85	0.10	0.12	0.13	0.26	0.33	1.32	1.6
Water content	l/m	0.08	0.11	0.15	0.20	0.31	0.53	2.29	3.32
Insulation thickness (2)	mm	6	6/10	6	6/9/13	9/13	9/13	-	-
Packs nude pipe (roll)	m	100	100/200/500	100	100/200	50	50	-	-
Packs nude pipe (bars L = 4 m)	m	-	96*	-	96*	40*	40*	12	12
Pack insulated pipe (roll)	m	50/100	50/100	50/100	50	25/50	25/50	-	-

(1) Bare pipe; in brackets the values for the pipe in bars
* packaged in rigid protective pipe

(2) For insulated pipes only

Technical data Gerpex RA pipe

Classes of application (UNI ISO 21003 - see table "Classification of the conditions of use"): 2/10 bar, 5/10 bar

Maximum operating conditions for 50 years:

- Design temperature $T_D = 70^\circ\text{C}$

- Design pressure $p_D = 10$ bar

Maximum temperature for short periods: 95°C

Coefficient of linear expansion: $0.026\text{ mm/m }^\circ\text{C}$

Thermal conductivity: $0.45\text{ W/m }^\circ\text{C}$

Minimum radius of bending: $5 \times \text{Ø Pipe}$

Surface roughness of internal pipe: $7\text{ }\mu\text{m}$

Fire reaction class: E_L (EN 13501-1)

Technical data of insulating sheath

Material: Closed-cell expanded polyethylene, covered with a film in extruded LD-PE.

Thermal conductivity (at 40°C): $\leq 0.040\text{ W/mK}$ (UNI EN ISO 8497).

Fire reaction class: $B_L - s2, d0$ (EN 13501-1).

Thickness of covering: Compliant with attachment B- TAB 1 of Italian Presidential Decree 412/93 for pipes that run within structures that do not face onto the exterior, nor onto heated rooms.

Classification of the conditions of use (UNI EN ISO 21003-1)

Application class	Design temperature T_D (°C)	Time ^b at T_D (years)	T_{max} (°C)	Time at T_{max} (years)	T_{mat} (°C)	Time at T_{mat} (hours)	Field of application
1 ^a	60	49	80	1	95	100	Hot water (60 °C)
2 ^a	70	49	80	1	95	100	Hot water (70 °C)
4 ^b	20	2.5	70	2.5	100	100	Underfloor heating and low temperature radiators
	+						
	40	20					
5 ^b	+	14	90	1	100	100	High temperature radiators
	60	25					
	+	10					
	80						




Note:

T_D Design temperature
 T_{max} Max design temperature for short periods
 T_{mat} Malfunctioning temperature

a) A Country can choose both class 1 or class 2 to comply with its national legislation.

b) When more than one design temperature is present in a class with the relative duration over time, the "+" symbol indicates that it is necessary to make a sum. For example, the design temperature profile for 50 years for class 5 should be read as follows: 20 °C for 14 years, followed by 60 °C for 25 years, 80 °C for 10 years, 90 °C for 1 year and 100 °C for 100 h.

Marking example of Gerpex RA pipe DN 16x2

EMMETI  GERPEX RA PEXb/AL/PEXb 16x2 Tmax=95°C DVGW DW8501BN0004 - DW8501CS0372 **kiwa**  KIP-058541 KIP-098340 UNI EN ISO 21003 Class 2/10 bar, 5/10 bar  MLP 020/01 NF EN ISO 21003 Class 2/10 bar, 4/10 bar, 5/6 bar Made in Italy hh:mm gg/mm/aa lotto mtr m

Key

EMMETI-GERPEX RA	Trade name pipe
PEXb/AL/PEXb	Internal layer pipe in PE-Xb, intermediate layer in aluminum, external layer pipe in PE-Xb
16x2	External diameter and pipe wall thickness, expressed in millimeters (nominal dimensions)
Tmax=95°C	Max. temperature for short periods
DVGW	Reference to German certification body DVGW
DW8501BN0004	N° certification according to German technical regulation DVGW W534 - Gerpex system
DW8501CS0372	N° certification according to German technical regulation DVGW W534 - Gerpex LBP system
KIWA UNI	KIWA UNI certification
KIP-058541	N° certification according to technical standard UNI EN ISO 21003 - Gerpex system
KIP-098340	N° certification according to technical standard UNI EN ISO 21003 - Gerpex LBP system
UNI EN ISO 21003	Reference technical standard for KIWA certification
Class 2/10 bar, 5/10 bar	Application classes in accordance with UNI EN ISO 21003
NF	Reference to French certification body AFNOR
MLP 020/01	Reference to the certificate holder according to technical standard NF EN ISO 21003
NF EN ISO 21003	Reference technical standard for AFNOR certification
Class 2/10 bar, 4/10 bar, 5/6 bar	Application classes in accordance with NF EN ISO 21003
Made in Italy	Pipe made in Italy
14:28	Time of manufacturing
14/04/14	Date of manufacturing
4M111052	Production batch
100 m	Progressive roll length

Certification and quality

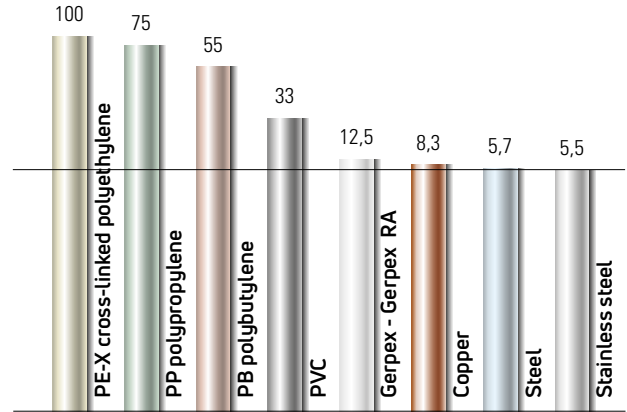
The features and performance of Gerpex and Gerpex RA pipe are verified and certified by numerous quality marks and international standards.

In particular, Gerpex and Gerpex RA pipes have obtained the DVGW certificate of quality regarding the prestigious German institution Technical Regulation W542, as well as KIWA in accordance with UNI EN ISO 21003.

Drinking water

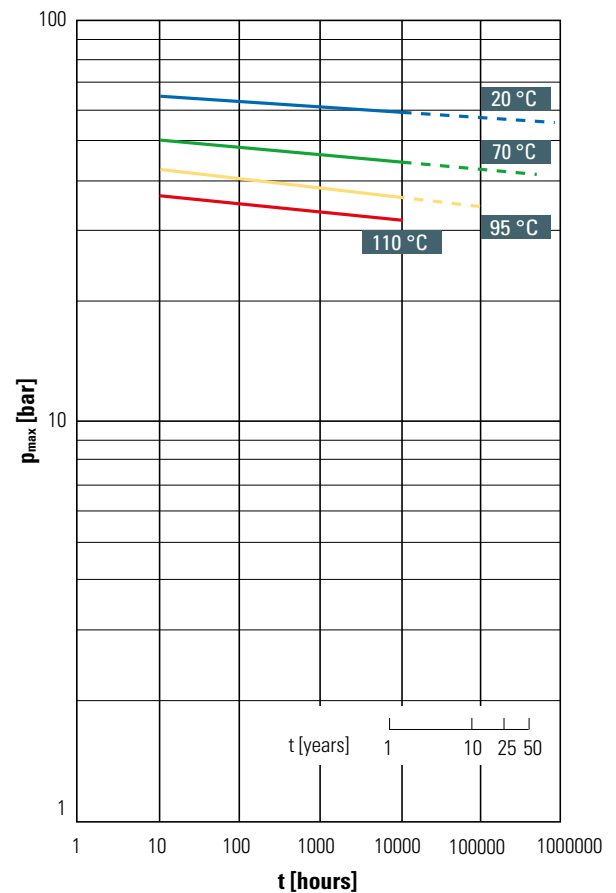
The use of Gerpex and Gerpex RA systems in sanitary systems is guaranteed by the certificate of suitability for drinking water according to the current national legislation in force (Italian Ministerial Decree 174 of the Ministry of Health) as well as compliance with the requirements by the German institute KTW.

Linear thermal expansion for 10 m pipes of different materials with $\Delta T 50\text{ }^\circ\text{C}$ (values expressed in mm)



Regression curves

Gerpex - Gerpex RA pipe (Ø16 x 2)



Regression curves reading example

The maximum pressure (p_{max}) for a duration of 50 years at a certain temperature is identified by intersecting the straight line (vertical) pertaining to the 50 years with the straight line (coloured) pertaining to the temperature.

Note the expected operating pressure (p_{es}), the safety coefficient will be equal to $Ks = p_{max} / p_{es}$.

Bonding (Cross-linking)

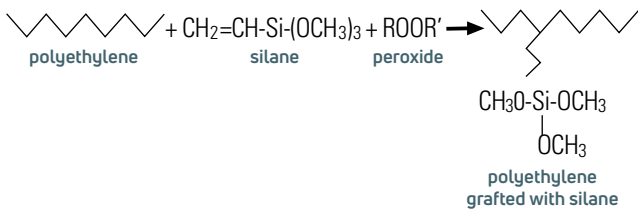
Bonding or cross-linking is the process by which the polyethylene improves its chemical/mechanical characteristics following the formation of bonds between the polymer chains.

There are 4 different bonding methods:

Bonding Type	Designation	Percentage	Test Method
Peroxide	PE-Xa	≥ 70%	EN 579
Silane	PE-Xb	≥ 65%	EN 579
Electron Beam Welding	PE-Xc	≥ 60%	EN 579
Azo	PE-Xd	≥ 60%	EN 579

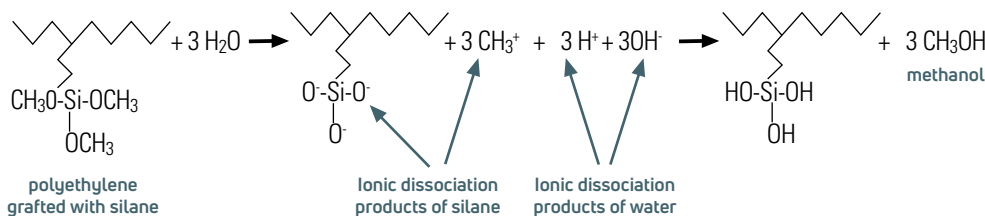
The bonded polyethylene used in Gerpex and Gerpex RA multilayer pipes is of the PE-Xb type and is obtained with the silane method.

In this process, high-density grafted polyethylene is used i.e. a silane additive is used with a small amount of peroxide being added to act as an initiator.

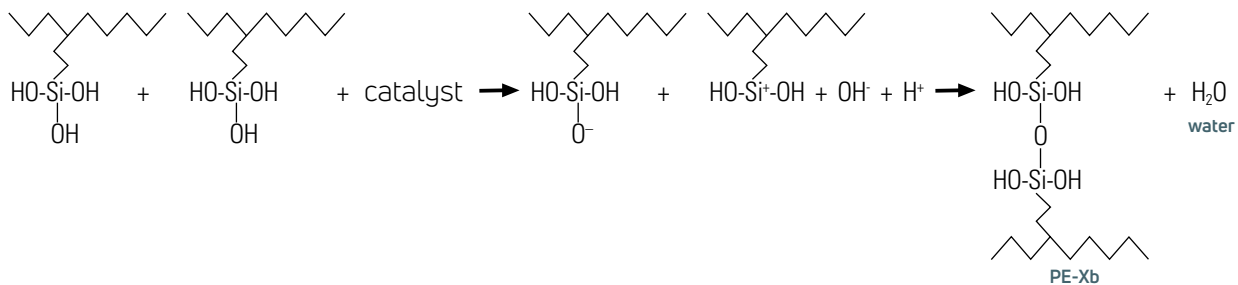


The process begins with a combined extrusion of grafted polyethylene granules and a catalyst (max 5 %). Subsequently, the cross-linking mechanism is activated by placing the pipe in contact with water at high temperature (or steam).

In the first phase, the water acts as reagent (hydrolysis) and methanol is produced.



In the second and last phase, water is produced (condensation) as a result of reactions triggered by the catalyst.



This therefore creates intermolecular bridges inside the material that improves the characteristics of the pipe in terms of:

- Resistance over time to temperature and pressure;
- Resistance to corrosion;
- Chemical resistance;
- The ability to use the pipe with both high and low temperatures.

Press fittings

Gerpex LBP



Features

Gerpex LBP, the new press fitting for multilayer pipe by Emmeti, has been developed to guarantee a water loss, in case of non-pressing, and a quick and safe pipe-fitting junction, when pressed correctly with the specific equipment.

The special fitting profile and the use of the double o-ring guarantees a perfect and lasting hydraulic and mechanical seal, and compatibility with 5 different pressing profiles (TH, B, U, H, F).

The LBP function (Leak Before Pressed) allows the operator to easily identify any unpressed fittings during the system leak test, thus avoiding possible damage.



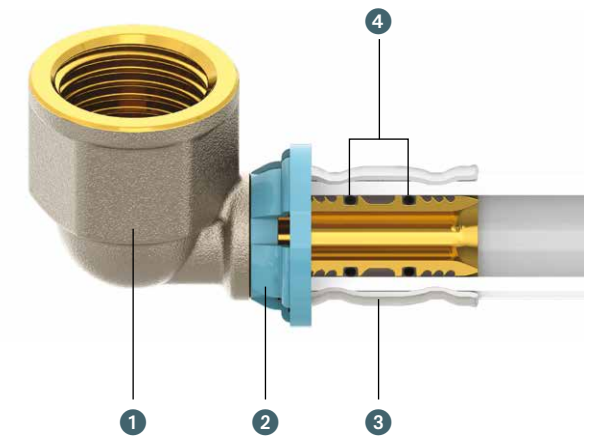
Construction details

The stainless steel sleeve is connected to the fitting along with the light blue plastic ring.

Each sleeve has the indication of the diameter.

The plastic ring has four important functions:

- prevents electric contact between the layer of aluminium of the pipe and the brass body of the fitting, thus preventing the risk of possible corrosion;
- it allows the installer to check, via the sight holes, that the pipe has been inserted fully into the fitting;
- it guides the correct positioning of the jaws around the sleeve;
- fixes the sleeve to the fitting.



- 1 Body in brass CW617N - DW (UNI EN 1264 and 12165)
Threads: UNI EN ISO 228-1, UNI EN 10226
- 2 Nylon sleeve ring, dielectric
- 3 AISI 304 stainless steel sleeve
- 4 EPDM dual o-ring



Compatible pressing profiles

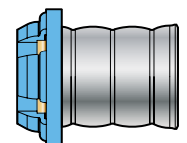
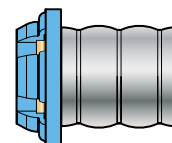
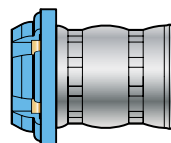
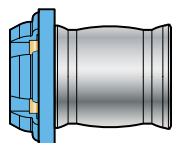
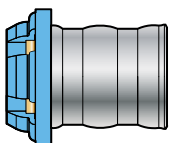
TH - KSP 11

B - KSP 1

F - KSP 2

H - KSP 7

U - KSP 5



		SIZE			
		16	20	26	32
PROFILES	TH	✓	✓	✓	✓
	B	✓	✓	✓	✓
	F	✓	✓	✓	✓
	H	✓	✓	✓	✓
	U	✓	✓	✓	✓

Press fittings

Gerpex

Features

Gerpex Emmeti press-fittings have been designed to be installed using the radial pressing technique.

This type of joint has become increasingly more popular due to its extremely simple and quick installation, along with the high level of temperature and pressure resistance.

The jaw, specific for every diameter of fittings, compresses a stainless steel sleeve, which secures the pipe onto the core of the fitting. The hydraulic and mechanical sealing is guaranteed by the special profile of the fitting and the double O-ring.

After pressing, the fitting produces a joint with maximum stability and duration, which makes it particularly suitable in embedded installations.



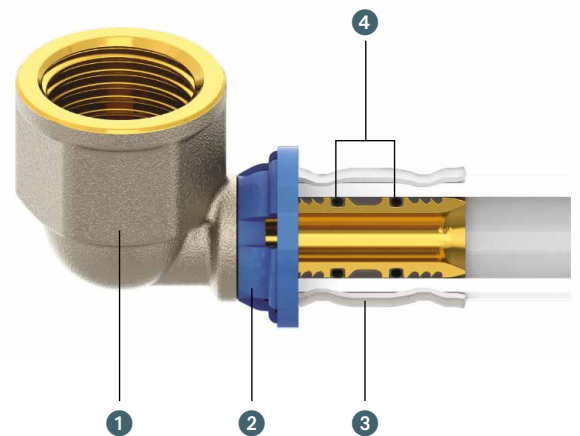
Construction details

The stainless steel sleeve is connected to the fitting along with the blue plastic ring.

Each sleeve has the indication of the diameter.

The plastic ring has four important functions:

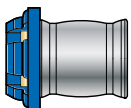
- prevents electric contact between the layer of aluminium of the pipe and the brass body of the fitting, thus preventing the risk of possible corrosion;
- it allows the installer to check, via the sight holes, that the pipe has been inserted fully into the fitting;
- it guides the correct positioning of the jaws around the sleeve;
- fixes the sleeve to the fitting.



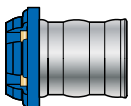
- 1 Body in brass CW617N - DW (UNI EN 12164 and 12165)
Threads: UNI EN ISO 228-1, UNI EN 10226
- 2 Nylon sleeve ring
- 3 AISI 304 stainless steel sleeve annealed
- 4 EPDM dual o-ring

Compatible pressing profiles

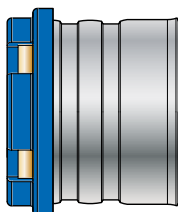
B - KSP 1
Sizes 16÷32



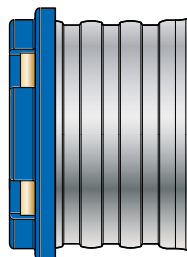
TH - KSP 11
Sizes 16÷32



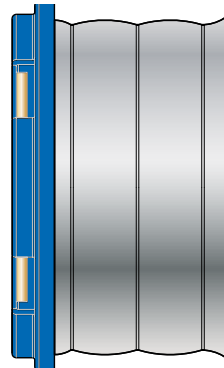
TH - KSP 11
Size 40



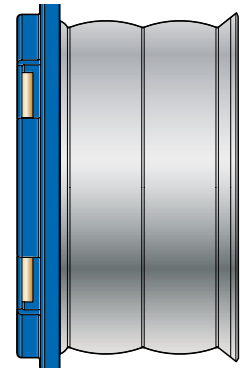
TH - KSP 11
Sizes 50 and 63



TH - KSP 11
Size 75



F - KSP 2
Size 75



PROFILES	SIZE								
	16	20	26	32	40	50	63	75	
B	✓	✓	✓	✓					
TH	✓	✓	✓	✓	✓	✓	✓	✓	
F								✓	

Fittings to be tightened

[PATENT PENDING]

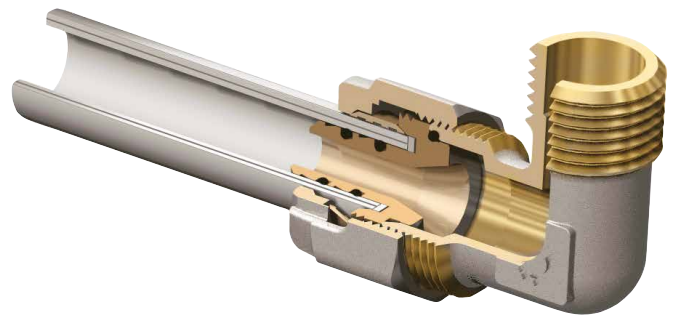
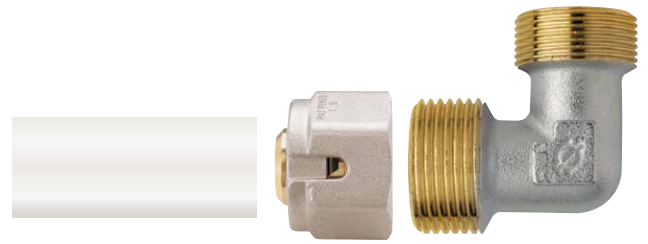
Features

The use of fittings to be tightened makes easier the installation of the Gerpex multilayer system, and moreover it requires very few tools.

The 24x19 thread allows the use of a single type of fittings in combination to four seals with different sizes, thus rationalising stocks.

The hydraulic seal is ensured by means of the system with three O-rings and a pipe-shaped toothed ogive.

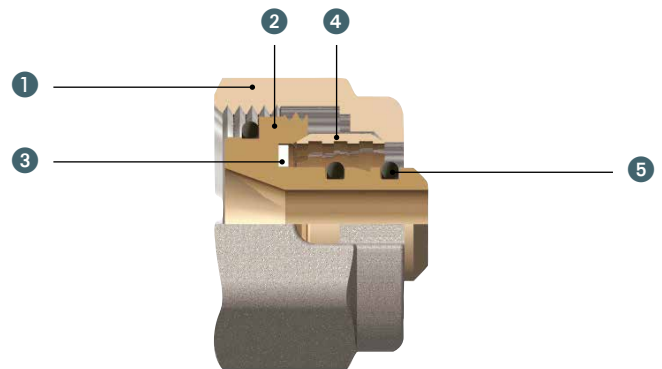
All the fittings are equipped with a special PTFE ring that electrically isolates the pipe aluminium layer from the brass fitting.



Construction details

The single body seal is supplied with its components (nut, ogive, adaptor) already assembled and ready for insertion into the pipe. The opening on the nut makes it possible to verify if the fitting has been inserted all the way down to the seat point.

- 1 Nut in brass CW617N (UNI EN 12165)
- 2 Adapter in brass CW614N (UNI EN 12164)
- 3 Washer in PTFE
- 4 Serrated hose-clamp in brass CW614N (UNI EN 12164)
- 5 O-Ring seals in EPDM



The range

For Gerpex pipe DN 14, 16, 18, 20: seal and fittings with 24x19 thread, compatible with all products Emmeti of thermal line.

For Gerpex pipe DN 26: seal and fittings with 32x1.5 thread.

The range

Gerpex bare pipe in coils



Size	Mts. pack
16 x 2	100
20 x 2	100 / 200
26 x 3	50
32 x 3	50

Gerpex RA bare pipe in coils



Size	Mts. pack
14 x 2	100
16 x 2	100 / 200 / 500
18 x 2	100
20 x 2	100 / 200
26 x 3	50
32 x 3	50

Gerpex pre-insulated pipe in coils

Closed cell cross-linked polyethylene insulating sheath, coated.
Insulating thermal conductivity at 40 °C: ≤ 0.040 W/m °C



Size	Insulation thickness	Mts. pack
16 x 2	6 mm*	50/100
20 x 2	6 mm	50
20 x 2	9 mm*	50
26 x 3	9 mm*	50
32 x 3	9 mm*	25

Gerpex RA pre-insulated pipe in coils

Closed cell cross-linked polyethylene insulating sheath, coated.
Insulating thermal conductivity at 40 °C: ≤ 0.040 W/m °C



Size	Insulation thickness	Mts. pack
14 x 2	6 mm*	100
16 x 2	6 mm*	50/100
18 x 2	6 mm	100
20 x 2	6 mm	50
20 x 2	9 mm*	50
26 x 3	9 mm*	50
32 x 3	9 mm*	25

Gerpex bare pipe in bars

4 mt bars



Size	Mts. pack
16 x 2	96
20 x 2	96
26 x 3	40
32 x 3	28
40 x 3.5	20
50 x 4	20
63 x 4.5	12
75 x 5	12

Gerpex RA pre-insulated pipe in coils

Closed cell cross-linked polyethylene insulating sheath, coated.
Insulating thermal conductivity at 40 °C: ≤ 0.040 W/m °C



Size	Insulation thickness	Mts. pack
16 x 2	10 mm*	50
20 x 2	13 mm*	50
26 x 3	13 mm*	25
32 x 3	13 mm*	25

* Compliant with Italian Presidential Decree 412/93 for pipes that run within structures that do not face onto the exterior, nor onto heated rooms.

Gerpex RA pre-insulated pipe in coils

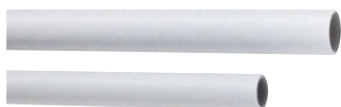
Closed cell cross-linked polyethylene insulating sheath, coated.
Insulating thermal conductivity at 40 °C: ≤ 0.040 W/m °C



Size	Insulation thickness	Mts. pack
16 x 2 red	6 mm*	100
16 x 2 blue	6 mm*	100
20 x 2 red	6 mm	50
20 x 2 blue	6 mm	50
26 x 3 red	9 mm	50
26 x 3 blue	9 mm	50
32 x 3 red	9 mm	50
32 x 3 blue	9 mm	50

Gerpex RA bare pipe in bars

4 mt bars



Size	Mts. pack
16 x 2	96
20 x 2	96
26 x 3	40
32 x 3	40

Galvanised steel phono-insulating pipe clamp collar

20x1.5 mm metal plate, M8/10 nut



Size (mm)	Size (inch)	Pcs. pack
15-19	3/8"	10
21-23	1/2"	10
26-28	3/4"	10
32-35	1"	10
40-43	1 1/4"	5
48-56	1 1/2"	5
63-67	-	5
74-80	2 1/2"	5

Joint screw with rawlplug

Ø 10 x 60 plug

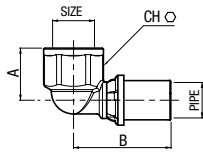


Size	Pcs. pack
Ø 8 x 90	10

* Compliant with Italian Presidential Decree 412/93 for pipes that run within structures that do not face onto the exterior, nor onto heated rooms.

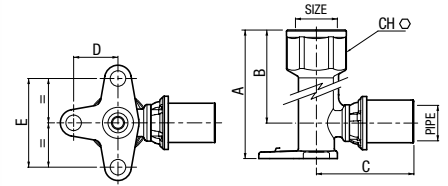
Gerpex LBP press fittings

Female connecting elbow LBP



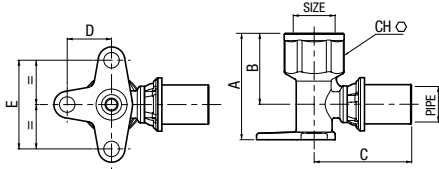
Size	Pipe	A mm	B mm	Ch mm
16 x Rp1/2"	16x2	23.5	44	24
20 x Rp1/2"	20x2	23.5	44	24
20 x Rp3/4"	20x2	28	48	30
26 x Rp3/4"	26x3	28	52.5	30
32 x Rp1"	32x3	33	56.5	38

Long Female elbow LBP with flange



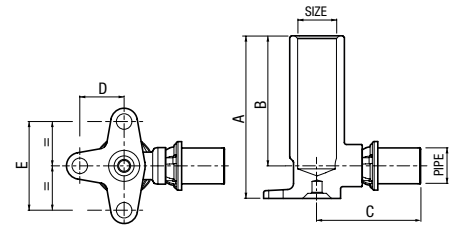
Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm
16 x Rp1/2"	16x2	68	52	44	20	40	24
20 x Rp1/2"	20x2	68	52	44	20	40	24

Female elbow LBP with flange



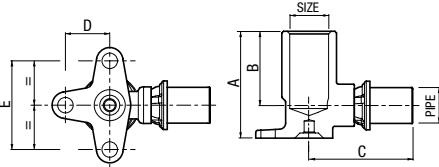
Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm
16 x Rp1/2"	16x2	48	32	44	20	40	24
20 x Rp1/2"	20x2	48	32	44	20	40	24
20 x Rp3/4"	20x2	56	37	48	20	40	30
26 x Rp3/4"	26x3	56	37	52.5	20	40	30

Long Female elbow LBP H 78 mm with flange



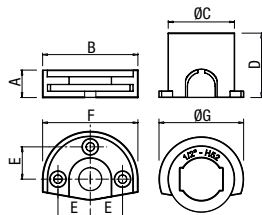
Size	Pipe	A mm	B mm	C mm	D mm	E mm
16 x Rp1/2"	16x2	78	62	51	20	40
20 x Rp1/2"	20x2	78	62	51	20	40

Female elbow LBP H 52 mm with flange



Size	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm
16 x Rp1/2"	16x2	52	36	51	20	40	24
20 x Rp1/2"	20x2	52	36	51	20	40	24

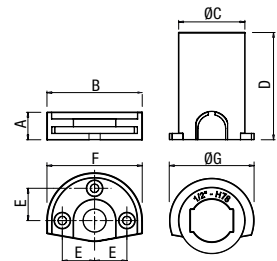
Soundproofing shell for LBP female elbow H 52 mm with flange, including screw kit



Size	A mm	B mm	ØC mm	D mm	E mm	F mm	ØG mm
-	17	59	41	42	20	59	52.4

Single model for H 52

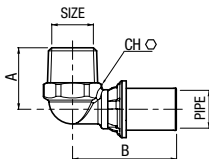
Soundproofing shell for LBP female elbow H 78 mm with flange, including screw kit



Size	A mm	B mm	ØC mm	D mm	E mm	F mm	ØG mm
-	17	59	41	68	20	59	52.4

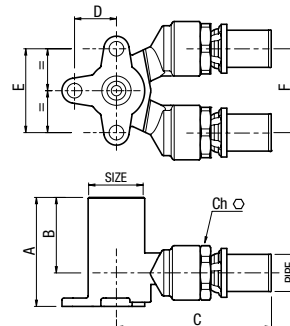
Single model for H 78

Male connecting elbow LBP



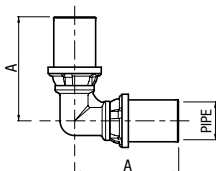
Size	Pipe	A mm	B mm	Ch mm
16 x R1/2"	16x2	26	44	22
20 x R1/2"	20x2	26	44	22
20 x R3/4"	20x2	31.5	48	27
26 x R3/4"	26x3	31.5	52.5	27
26 x R1"	26x3	38	56.5	34
32 x R1"	32x3	38	56.5	34

Female double elbow LBP H 52 mm with flange



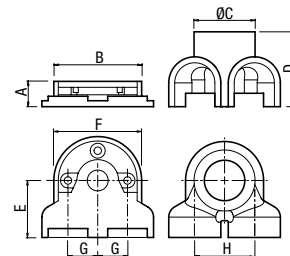
Size	Pipe	A mm	B mm	C mm	D mm	E mm	F mm	Ch mm
16 x Rp1/2"	16x2	52	36	74	20	40	40	24
20 x Rp1/2"	20x2	52	36	74	20	40	40	28

Intermediate elbow LBP



Size	Pipe	A mm
16 x 16	16x2	41.7
20 x 20	20x2	43.7
26 x 26	26x3	51.2
32 x 32	32x3	54.2

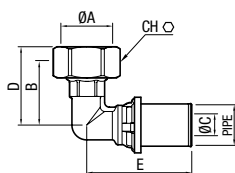
Soundproofing shell for LBP double female elbow H 52 mm with flange, including screw kit



Size	A mm	B mm	ØC mm	D mm	E mm	F mm	G mm	H mm
-	17	75	41	51	39	59	20	40

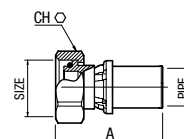
Double model for H 52

Elbow LBP with female swivel nut, flat seal



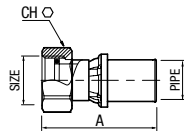
Size	Pipe	A mm	B mm	ØC mm	D mm	E mm	Ch mm
16 x G1/2"	16	1/2"	26	7	32.8	44	25
20 x G3/4"	20	3/4"	30	10.5	34.5	47	30

Straight LBP with female swivel nut, o-ring seal



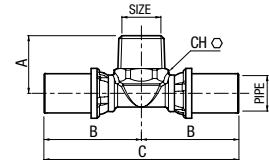
Size	Pipe	A mm	Ch mm
Ø 16 - 24x19	O-ring	16x2	45.5
Ø 20 - 24x19	O-ring	20x2	45.5
Ø 16 - Eurocone G3/4"	O-ring	16x2	46
Ø 20 - Eurocone G3/4"	O-ring	20x2	46

Straight LBP with female swivel nut, flat seal



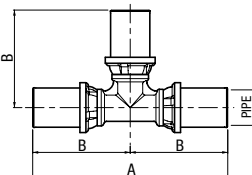
Size	Pipe	A mm	Ch mm
16 x G3/8"	16x2	49.5	19
16 x G1/2"	16x2	49.5	25
16 x G3/4"	16x2	49.5	30
20 x G1/2"	20x2	49.5	25
20 x G3/4"	20x2	49.5	30
26 x G3/4"	26x3	49.5	30
26 x G1"	26x3	59	37
32 x G1"	32x3	59	37

Intermediate Tee joint LBP with male branch



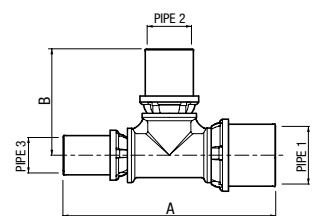
Size	Pipe	A mm	B mm	C mm	Ch mm
16 x R1/2" x 16	16x2	26	44	88	22
20 x R1/2" x 20	20x2	26	44	88	22
20 x R3/4" x 20	20x2	31.5	48	96	27
26 x R3/4" x 26	26x3	31.5	52.5	105	27

Intermediate Tee joint LBP



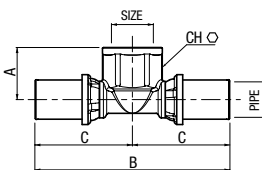
Size	Pipe	A mm	B mm
16 x 16 x 16	16x2	83.3	41.7
20 x 20 x 20	20x2	87.3	43.7
26 x 26 x 26	26x3	102.3	51.2
32 x 32 x 32	32x3	108.3	54.2

Intermediate reducing Tee joint LBP



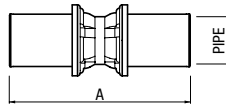
Size	Pipe 1	Pipe 2	Pipe 3	A mm	B mm
16 x 20 x 16	16x2	20x2	16x2	87.3	43.7
20 x 16 x 16	20x2	16x2	16x2	87.3	43.7
20 x 16 x 20	20x2	16x2	20x2	87.3	43.7
20 x 20 x 16	20x2	20x2	16x2	87.3	43.7
20 x 26 x 20	20x2	26x3	20x2	93.3	51.2
20 x 32 x 20	20x2	32x3	20x2	101.3	54.2
26 x 16 x 20	26x3	16x2	20x2	97.8	46.7
26 x 16 x 26	26x3	16x2	26x3	102.3	46.7
26 x 20 x 16	26x3	20x2	16x2	97.8	46.7
26 x 20 x 20	26x3	20x2	20x2	97.8	46.7
26 x 20 x 26	26x3	20x2	26x3	102.3	46.7
26 x 26 x 16	26x3	26x3	16x2	97.8	51.2
26 x 26 x 20	26x3	26x3	20x2	97.8	51.2
26 x 32 x 26	26x3	32x3	26x3	108.3	54.2
32 x 16 x 32	32x3	16x2	32x3	108.3	50.7
32 x 20 x 20	32x3	20x2	20x2	103.8	49.7
32 x 20 x 26	32x3	20x2	26x3	108.3	50.7
32 x 20 x 32	32x3	20x2	32x3	108.3	50.7
32 x 26 x 20	32x3	26x3	20x2	103.8	54.2
32 x 26 x 26	32x3	26x3	26x3	108.3	54.2
32 x 26 x 32	32x3	26x3	32x3	108.3	54.2
32 x 32 x 16	32x3	32x3	16x2	104.8	54.2
32 x 32 x 20	32x3	32x3	20x2	103.8	54.2
32 x 32 x 26	32x3	32x3	26x3	108.3	54.2

Intermediate Tee joint LBP with female branch



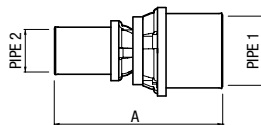
Size	Pipe	A mm	B mm	C mm	Ch mm
16 x Rp1/2" x 16	16x2	23.5	88	44	24
16 x Rp3/4" x 16	16x2	23.5	96	44	24
20 x Rp1/2" x 20	20x2	23.5	88	44	24
20 x Rp3/4" x 20	20x2	28	96	48	30
26 x Rp1/2" x 26	26x3	26.5	105	52.5	27
26 x Rp3/4" x 26	26x3	28	113	56.5	34
32 x Rp3/4" x 32	32x3	31	113	56.5	34
32 x Rp1" x 32	32x3	33	113	56.5	38

Straight intermediate union joint LBP



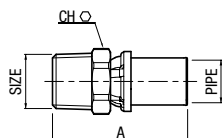
Size	Pipe	A mm
16 x 16	16x2	61
20 x 20	20x2	61
26 x 26	26x3	70
32 x 32	32x3	70

Straight intermediate reducing union joint LBP



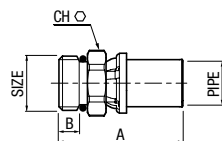
Size	Pipe 1	Pipe 2	A mm
20 x 16	20x2	16x2	61
26 x 16	26x3	16x2	65.5
26 x 20	26x3	20x2	65.5
32 x 16	32x3	16x2	65.5
32 x 20	32x3	20x2	65.5
32 x 26	32x3	26x3	70

Straight male union joint LBP



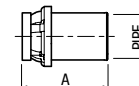
Size	Pipe	A mm	Ch mm
16 x R1/2"	16x2	50.8	22
16 x R3/4"	16x2	54.5	27
20 x R1/2"	20x2	50.8	22
20 x R3/4"	20x2	54.5	27
26 x R3/4"	26x3	59	27
26 x R1"	26x3	64	34
32 x R1"	32x3	64	34
32 x R1 1/4"	32x3	70	46

Straight male union joint LBP with o-ring



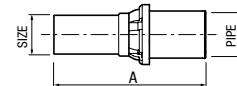
Size	Pipe	A mm	B mm	Ch mm
16 x G1/2"	16x2	43.5	6.5	24
20 x G1/2"	20x2	43.5	6.5	28

Plug LBP



Size	Pipe	A mm
16 x 2	16x2	31
20 x 2	20x2	31
26 x 3	26x3	36.5
32 x 3	32x3	36.5

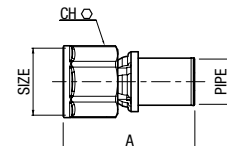
Adapter LBP copper/multi-layer



Ø Multilayer - Ø Copper	Pipe	A mm
16 x 2 - 15	16x2	53
20 x 2 - 18	20x2	54
20 x 2 - 22	20x2	62
26 x 3 - 22	26x3	66.5
32 x 3 - 28	32x3	68.5

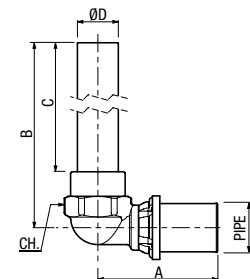
Compatibility with copper and bronze press fittings with V profile (KSP4)

Straight female union joint LBP



Size	Pipe	A mm	Ch mm
16 x Rp1/2"	16x2	49.5	24
20 x Rp1/2"	20x2	49.5	24
20 x Rp3/4"	20x2	52	30
26 x Rp3/4"	26x3	56.5	30
26 x Rp1"	26x3	60.5	38
32 x Rp1"	32x3	60.5	38

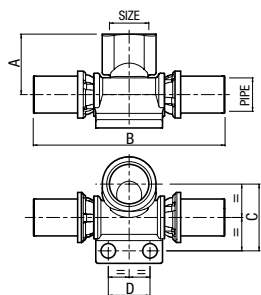
Right-angle elbow with copper pipe, chromed



Size	Pipe	A mm	B mm	C mm	ØD mm	Ch mm
16 x DN 15	16	44	165	144.5	15	22

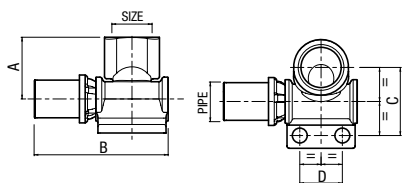
Not suitable for sanitary installations

Offset female Tee joint LBP



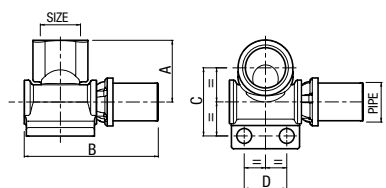
Size	Pipe	A mm	B mm	C mm	D mm
16 x Rp1/2" x 16	16x2	29	94	32	20
20 x Rp1/2" x 20	20x2	29	94	32	20

Right terminal LBP



Size	Pipe	A mm	B mm	C mm	D mm
16 x Rp1/2"	16x2	29	65	32	20
20 x Rp1/2"	20x2	29	65	32	20

Left terminal LBP



Size	Pipe	A mm	B mm	C mm	D mm
16 x Rp1/2"	16x2	29	65	32	20
20 x Rp1/2"	20x2	29	65	32	20

Bracket for axially offset Tee



Built-in galvanized bracket for flanged elbows



Takeoffs: 80-100-153 mm
Takeoff 153 mm for fixing flanged elbow in 4 point.

Built-in galvanized bracket for flanged elbows



Takeoffs: 80-100-153 mm

Galvanised bracket for flanged elbow



Takeoff 153 mm

Plug for circuit test with o-ring



Size

G1/2" (blue or red)

G3/4" (blue or red)

Leakage test plug for multi-layer pipe



Size

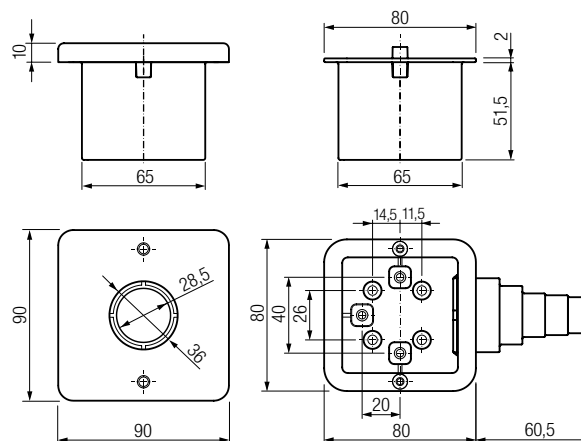
16 x 2

20 x 2

Complete with 1/2" F fitting for release valve (provided standard)

Built-in box for flanged elbows

Flush-mounting Box ❶ for the installation of Gerpex LBP flanged elbow joints, complete with a non-sealing lid ❷ and adaptable extension ❸.

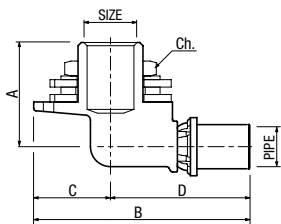
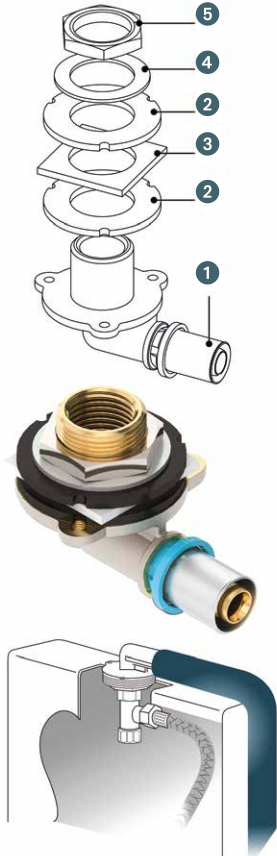


Elbow fitting for flush-mounted toilet flush boxes

Operating temperature: 0 °C ÷ 95 °C
 Operating pressure: 10 bar

Composition

- ① Male square fitting
- ② NBR Seal
- ③ Polypropylene square plate (PP)
- ④ Galvanised steel washer (Fe P13 EU11)
- ⑤ Brass hex locknut Ch. 32 (EN 12164 CW617N)



Size	Pipe	A mm	B mm	C mm	D mm	Ch mm
16 x 1/2"	16x2	42	87	31	56	22

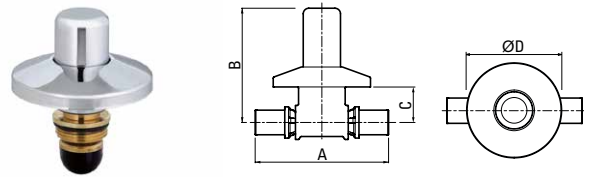
Body valve for built-in valve Gerpex LBP



Size

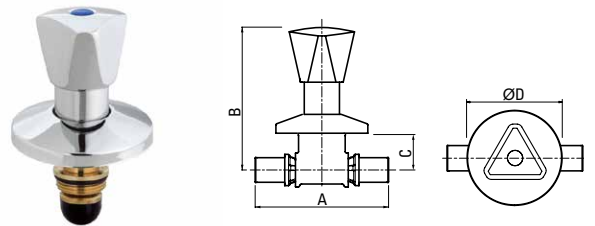
16 x Rp3/4"
20 x Rp3/4"
26 x Rp3/4"

Screw group 3/4" for built-in valve Gerpex LBP



Size	A mm	B mm	C mm	ØD mm
G3/4"	96	min 83.5÷max 100	min 35÷max 70	70

Cap shutter 3/4" with handle for built-in valve Gerpex LBP



Size	A mm	B mm	C mm	ØD mm
G3/4"	96	108	min 35÷max 50	70

Extended 3/4" screw (+20 mm) for screw group for built-in valve Gerpex LBP

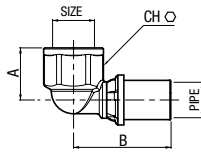


Size

G3/4" for built-in valve body
G3/4" for cap shutter with handle

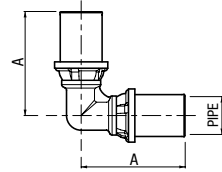
Gerpex press fittings

Female connecting elbow



Size	Profile	Pipe	A mm	B mm	Ch mm
16 x Rp1/2"	B (KSP1)/TH (KSP11)	16x2	23.5	44	24
18 x Rp1/2"	B (KSP1)	18x2	19.5	44.5	24
20 x Rp1/2"	B (KSP1)/TH (KSP11)	20x2	23.5	44	24
20 x Rp3/4"	B (KSP1)/TH (KSP11)	20x2	28	48	30
26 x Rp3/4"	B (KSP1)/TH (KSP11)	26x3	28	48	30
32 x Rp1"	B (KSP1)/TH (KSP11)	32x3	33	53	38

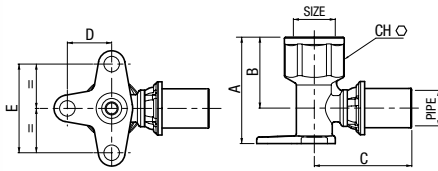
Intermediate elbow



Size	Profile	Pipe	A mm
16 x 16	B (KSP1)/TH (KSP11)	16x2	41.7
18 x 18	B (KSP1)	18x2	43.5
20 x 20	B (KSP1)/TH (KSP11)	20x2	43.7
26 x 26	B (KSP1)/TH (KSP11)	26x3	46.7
32 x 32	B (KSP1)/TH (KSP11)	32x3	50.7
40 x 40	TH (KSP11)	40x3.5	66
50 x 50	TH (KSP11)	50x4	74.5
63 x 63	TH (KSP11)	63x4.5	82
75 x 75	TH (KSP11) (1)	75x5	100.5

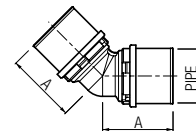
(1) 75x5 derivation also compatible with F profile (KSP2)

Female elbow with flange



Size	Profile	Pipe	A mm	B mm	C mm	D mm	E mm	CH mm
16 x Rp1/2"	B (KSP1)/TH (KSP11)	16x2	48	32	44	20	40	24
16 x Rp1/2"	B (KSP1)/TH (KSP11)	16x2	68	52	44	20	40	24
18 x Rp1/2"	B (KSP1)	18x2	52.5	36.5	43	20	24	24
20 x Rp1/2"	B (KSP1)/TH (KSP11)	20x2	48	32	44	20	40	24
20 x Rp1/2"	B (KSP1)/TH (KSP11)	20x2	68	52	44	20	40	24
20 x Rp3/4"	B (KSP1)/TH (KSP11)	20x2	56	37	48	20	40	30
26 x Rp3/4"	B (KSP1)/TH (KSP11)	26x3	56	37	48	20	40	30

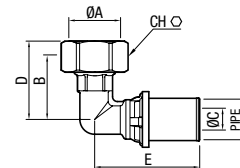
Intermediate elbow 45°



Size	Profile	Pipe	A mm
40 x 40	TH (KSP11)	40x3.5	54
50 x 50	TH (KSP11)	50x4	59.5
63 x 63	TH (KSP11)	63x4.5	63
75 x 75	TH (KSP11) (1)	75x5	75.5

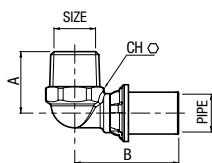
(1) 75x5 derivation also compatible with F profile (KSP2)

Elbow with female swivel joint, flat seal



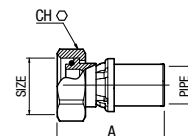
Size	Profile	Pipe	A mm	B mm	C mm	D mm	E mm	Ch mm
16 x G1/2"	B (KSP1)/TH (KSP11)	16x2	1/2"	26	6.6	32.8	44	25
20 x G3/4"	B (KSP1)/TH (KSP11)	20x2	3/4"	28	10	34.5	47	30

Male connecting elbow



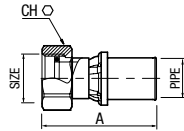
Size	Profile	Pipe	A mm	B mm	CH mm
16 x R1/2"	B (KSP1)/TH (KSP11)	16x2	26	44	22
18 x R1/2"	B (KSP1)	18x2	26	42.5	22
20 x R1/2"	B (KSP1)/TH (KSP11)	20x2	26	44	22
20 x R3/4"	B (KSP1)/TH (KSP11)	20x2	31.5	48	27
26 x R3/4"	B (KSP1)/TH (KSP11)	26x3	31.5	48	27
32 x R1"	B (KSP1)/TH (KSP11)	32x3	38	53	34
40 x R1"1/4	TH (KSP11)	40x3.5	44	69.5	46
50 x R1"1/2	TH (KSP11)	50x4	49	75.5	52
63 x R2"	TH (KSP11)	63x4.5	61	81	65

Straight with female swivel nut, O-ring seal



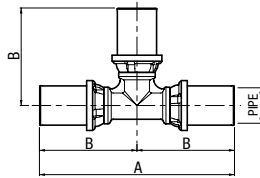
Size	Profile	Pipe	A mm	CH mm
Ø 16 - 24x19	B (KSP1)/TH (KSP11)	16x2	45.5	27
Ø 20 - 24x19	B (KSP1)/TH (KSP11)	20x2	45.5	27
Ø 16 - Eurocono G3/4"	B (KSP1)/TH (KSP11)	16x2	45.5	30
Ø 20 - Eurocono G3/4"	B (KSP1)/TH (KSP11)	20x2	45.5	30

Straight with female swivel nut, flat seal



Size	Profile	Pipe	A mm	CH mm
16 x G3/8"	B (KSP1)/TH (KSP11)	16x2	48.7	19
16 x G1/2"	B (KSP1)/TH (KSP11)	16x2	49.5	25
16 x G3/4"	B (KSP1)/TH (KSP11)	16x2	49.5	30
20 x G1/2"	B (KSP1)/TH (KSP11)	20x2	49.5	25
20 x G3/4"	B (KSP1)/TH (KSP11)	20x2	49.5	30
26 x G3/4"	B (KSP1)/TH (KSP11)	26x3	49.5	30
26 x G1"	B (KSP1)/TH (KSP11)	26x3	54.5	37
32 x G1"	B (KSP1)/TH (KSP11)	32x3	54.5	37
32 x G1"1/4	B (KSP1)/TH (KSP11)	32x3	59.5	46
40 x G1"1/2	TH (KSP11)	40x3.5	70	52
50 x G2"	TH (KSP11)	50x4	78	64
63 x G2"1/2	TH (KSP11)	63x4.5	91	80

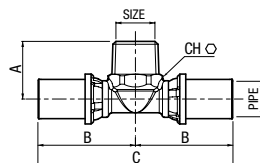
Intermediate Tee joint



Size	Profile	Pipe	A mm	B mm
16 x 16 x 16	B (KSP1)/TH (KSP11)	16x2	83.3	41.7
18 x 18 x 18	B (KSP1)/TH (KSP11)	18x2	85	42.5
20 x 20 x 20	B (KSP1)/TH (KSP11)	20x2	87.3	43.7
26 x 26 x 26	B (KSP1)/TH (KSP11)	26x3	93.3	46.7
32 x 32 x 32	B (KSP1)/TH (KSP11)	32x3	101.3	50.7
40 x 40 x 40	TH (KSP11)	40x3.5	132	66
50 x 50 x 50	TH (KSP11)	50x4	149	74.5
63 x 63 x 63	TH (KSP11)	63x4.5	164	82
75 x 75 x 75	TH (KSP11) (1)	75x5	201	100.5

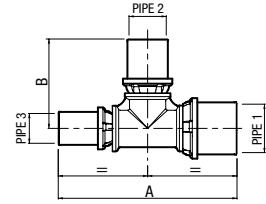
(1) 75x5 derivation also compatible with F profile (KSP2)

Intermediate Tee joint with male branch



Size	Profile	Pipe	A mm	B mm	C mm	CH mm
16 x R1/2" x 16	B (KSP1)/TH (KSP11)	16x2	26	44	88	22
20 x R1/2" x 20	B (KSP1)/TH (KSP11)	20x2	26	44	88	22
20 x R3/4" x 20	B (KSP1)/TH (KSP11)	20x2	31.5	48	96	27
26 x R3/4" x 26	B (KSP1)/TH (KSP11)	26x3	31.5	48	96	27

Intermediate reducing Tee joint



Size	Profile	Pipe 1	Pipe 2	Pipe 3	A mm	B mm
16 x 20 x 16	B (KSP1)/TH (KSP11)	16x2	20x2	16x2	87.3	43.7
18 x 26 x 18	B (KSP1) (1)	18x2	26x3	18x2	105	52.5
20 x 16 x 16	B (KSP1)/TH (KSP11)	20x2	16x2	16x2	87.3	43.7
20 x 16 x 20	B (KSP1)/TH (KSP11)	20x2	16x2	20x2	87.3	43.7
20 x 20 x 16	B (KSP1)/TH (KSP11)	20x2	20x2	16x2	87.3	43.7
20 x 26 x 20	B (KSP1)/TH (KSP11)	20x2	26x3	20x2	93.3	46.7
20 x 32 x 20	B (KSP1)/TH (KSP11)	20x2	32x3	20x2	101.3	50.7
26 x 16 x 20	B (KSP1)/TH (KSP11)	26x3	16x2	20x2	93.3	46.7
26 x 16 x 26	B (KSP1)/TH (KSP11)	26x3	16x2	26x3	93.3	46.7
26 x 20 x 16	B (KSP1)/TH (KSP11)	26x3	20x2	16x2	93.3	46.7
26 x 20 x 20	B (KSP1)/TH (KSP11)	26x3	20x2	20x2	93.3	46.7
26 x 20 x 26	B (KSP1)/TH (KSP11)	26x3	20x2	26x3	93.3	46.7
26 x 26 x 16	B (KSP1)/TH (KSP11)	26x3	26x3	16x2	93.3	46.7
26 x 26 x 20	B (KSP1)/TH (KSP11)	26x3	26x3	20x2	93.3	46.7
26 x 32 x 26	B (KSP1)/TH (KSP11)	26x3	32x3	26x3	101.3	50.7
32 x 16 x 32	B (KSP1)/TH (KSP11)	32x3	16x2	32x3	101.3	50.7
32 x 20 x 20	B (KSP1)/TH (KSP11)	32x3	20x2	20x2	101.3	50.7
32 x 20 x 26	B (KSP1)/TH (KSP11)	32x3	20x2	26x3	101.3	50.7
32 x 20 x 32	B (KSP1)/TH (KSP11)	32x3	20x2	32x3	101.3	50.7
32 x 26 x 20	B (KSP1)/TH (KSP11)	32x3	26x3	20x2	101.3	50.7
32 x 26 x 26	B (KSP1)/TH (KSP11)	32x3	26x3	26x3	101.3	50.7
32 x 26 x 32	B (KSP1)/TH (KSP11)	32x3	26x3	32x3	101.3	50.7
32 x 32 x 16	B (KSP1)/TH (KSP11)	32x3	32x3	16x2	101.3	50.7
32 x 32 x 20	B (KSP1)/TH (KSP11)	32x3	32x3	20x2	101.3	50.7
32 x 32 x 26	B (KSP1)/TH (KSP11)	32x3	32x3	26x3	101.3	50.7
40 x 26 x 32	TH (KSP11) (2)/(3)	40x3.5	26x3	32x3	124.5	57.5
40 x 26 x 40	TH (KSP11) (2)	40x3.5	26x3	40x3.5	132	57.5
40 x 32 x 32	TH (KSP11) (2)	40x3.5	32x3	32x3	124.5	58.5
40 x 32 x 40	TH (KSP11) (2)	40x3.5	32x3	40x3.5	132	66
40 x 40 x 32	TH (KSP11) (2)	40x3.5	40x3.5	32x3	124.5	66
50 x 26 x 50	TH (KSP11) (2)	50x4	26x3	50x4	149	64
50 x 32 x 50	TH (KSP11) (2)	50x4	32x3	50x4	149	63.5
50 x 40 x 40	TH (KSP11)	50x4	40x3.5	40x3.5	149	74.5
50 x 40 x 50	TH (KSP11)	50x4	40x3.5	50x4	149	72.5
50 x 50 x 32	TH (KSP11) (2)	50x4	50x4	32x3	139.5	74.5
50 x 50 x 40	TH (KSP11)	50x4	50x4	40x3.5	149	74
63 x 50 x 63	TH (KSP11)	63x4.5	50x4	63x4.5	164	82
75 x 40 x 75	TH (KSP11) (4)	75x5	40x3.5	75x5	201	91
75 x 50 x 75	TH (KSP11) (4)	75x5	50x4	75x5	201	91

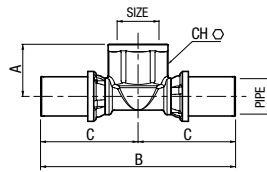
(1) 26x3 derivation: compatible with TH profile (KSP11)

(2) 26x3 derivation: compatible with B profile (KSP1)

(3) 32x3 derivation: compatible with B profile (KSP1)

(4) 75x5 derivation: compatible with F profile (KSP2)

Intermediate Tee joint with female branch

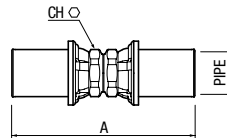


Size	Profile	Pipe	A mm	B mm	C mm	CH mm
16 x Rp1/2" x 16	B (KSP1)/TH (KSP11)	16x2	23.5	88	44	24
16 x Rp3/4" x 16	B (KSP1)/TH (KSP11)	16x2	28	96	48	30
20 x Rp1/2" x 20	B (KSP1)/TH (KSP11)	20x2	23.5	88	44	24
20 x Rp3/4" x 20	B (KSP1)/TH (KSP11)	20x2	28	96	48	30
26 x Rp1/2" x 20	B (KSP1)/TH (KSP11)	26x3	21.5	93	48	24
26 x Rp1/2" x 26	B (KSP1)/TH (KSP11)	26x3	21.5	96	48	24
26 x Rp3/4" x 26	B (KSP1)/TH (KSP11)	26x3	28	96	48	30
32 x Rp3/4" x 32	B (KSP1)/TH (KSP11)	32x3	33	106	53	38
32 x Rp1" x 32	B (KSP1)/TH (KSP11)	32x3	33	106	53	38

40 x Rp3/4" x 40	TH (KSP11)	40x3.5	35.5	130	65	38
40 x Rp1" x 40	TH (KSP11)	40x3.5	39	130	65	38
40 x Rp1"1/4 x 40	TH (KSP11)	40x3.5	48.5	140	71.5	47
50 x Rp3/4" x 50	TH (KSP11)	50x4	40	133	66.5	38
50 x Rp1" x 50	TH (KSP11)	50x4	41	133	66.5	38
50 x Rp1"1/4 x 50	TH (KSP11)	50x4	48.5	143	71.5	47
63 x Rp1" x 63	TH (KSP11)	63x4.5	46.5	143	71.5	47
63 x Rp1"1/4 x 63	TH (KSP11)	63x4.5	48.5	143	71.5	47
75 x Rp1" x 75	TH (KSP11) (1)	75x5	56	201	100.5	-

(1) 75x5 derivation also compatible with F profile (KSP2)

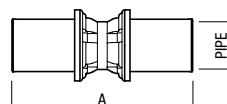
Straight intermediate union joint



Size	Profile	Pipe	A mm	CH mm
14 x 14	B (KSP1)	14x2	67	15
18 x 18	B (KSP1)	18x2	67	-
40 x 40	TH (KSP11)	40x3.5	95	40
50 x 50	TH (KSP11)	50x4	101	48
63 x 63	TH (KSP11)	63x4.5	103	60
75 x 75	TH (KSP11) (1)	75x5	116	78

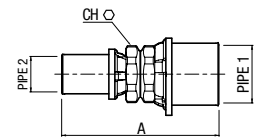
(1) 75x5 derivation also compatible with F profile (KSP2)

Straight intermediate union joint



Size	Profile	Pipe	A mm
16 x 16	B (KSP1)/TH (KSP11)	16x2	61
20 x 20	B (KSP1)/TH (KSP11)	20x2	61
26 x 26	B (KSP1)/TH (KSP11)	26x3	61
32 x 32	B (KSP1)/TH (KSP11)	32x3	63

Straight intermediate reducing union joint



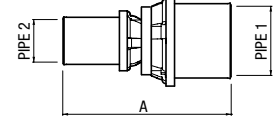
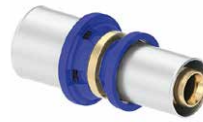
Size	Profile	Pipe 1	Pipe 2	A mm	CH mm
40 x 26	TH (KSP11) (1)	40x3.5	26x3	86.5	40
40 x 32	TH (KSP11) (2)	40x3.5	32x3	86	40
50 x 32	TH (KSP11) (2)	50x4	32x3	91.5	48
50 x 40	TH (KSP11)	50x4	40x3	99	48
63 x 40	TH (KSP11)	63x4.5	40x3	101	60
63 x 50	TH (KSP11)	63x4.5	50x4	103	60
75 x 40	TH (KSP11) (3)	75x5	40x3	105.5	58
75 x 50	TH (KSP11) (3)	75x5	50x4	108	58
75 x 63	TH (KSP11) (3)	75x5	63x4.5	107.8	58

(1) 26x3 derivation: compatible with B profile (KSP1)

(2) 32x3 derivation: compatible with B profile (KSP1)

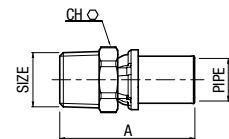
(3) 75x5 derivation: compatible with F profile (KSP2)

Straight intermediate reducing union joint



Size	Profile	Pipe 1	Pipe 2	A mm
20 x 16	B (KSP1)/TH (KSP11)	20x2	16x2	61
26 x 16	B (KSP1)/TH (KSP11)	26x3	16x2	61
26 x 20	B (KSP1)/TH (KSP11)	26x3	20x2	61
32 x 16	B (KSP1)/TH (KSP11)	32x3	16x2	62
32 x 20	B (KSP1)/TH (KSP11)	32x3	20x2	62
32 x 26	B (KSP1)/TH (KSP11)	32x3	26x3	62

Straight male union joint

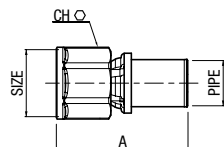


Size	Profile	Pipe	A mm	CH mm
14 x R1/2"	B (KSP1)	14x2	53.5	22
16 x R1/2"	B (KSP1)/TH (KSP11)	16x2	50.8	22
18 x R1/2"	B (KSP1)	18x2	53.5	22
20 x R1/2"	B (KSP1)/TH (KSP11)	20x2	50.8	22
20 x R3/4"	B (KSP1)/TH (KSP11)	20x2	54.5	27
26 x R3/4"	B (KSP1)/TH (KSP11)	26x3	54.5	27
26 x R1"	B (KSP1)/TH (KSP11)	26x3	59.5	34
32 x R1"	B (KSP1)/TH (KSP11)	32x3	60.5	34
32 x R1"1/4	B (KSP1)/TH (KSP11)	32x3	66.5	46

40 x R1"	TH (KSP11)	40x3.5	71.5	46
40 x R1"1/4	TH (KSP11)	40x3.5	74	46
50 x R1"1/2	TH (KSP11)	50x4	77	52
63 x R2"	TH (KSP11)	63x4.5	82.2	65
75 x R2"1/2	TH (KSP11) (1)	75x5	95.7	78

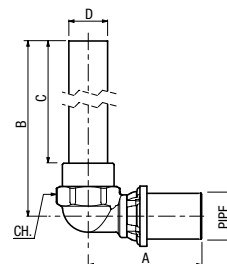
(1) 75x5 derivation also compatible with F profile (KSP2)

Straight female union joint



Size	Profile	Pipe	A mm	CH mm
16 x Rp1/2"	B (KSP1)/TH (KSP11)	16x2	49.5	24
18 x Rp1/2"	B (KSP1)	18x2	47.5	24
20 x Rp1/2"	B (KSP1)/TH (KSP11)	20x2	49.5	24
20 x Rp3/4"	B (KSP1)/TH (KSP11)	20x2	52	30
26 x Rp3/4"	B (KSP1)/TH (KSP11)	26x3	52	30
26 x Rp1"	B (KSP1)/TH (KSP11)	26x3	56	38
32 x Rp1"	B (KSP1)/TH (KSP11)	32x3	57	38

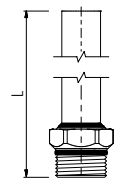
Elbow fitting with chromed copper pipe



Size	Profile	Pipe	A mm	B mm	C mm	D mm	CH mm
16 x Ø 15	B (KSP1)/TH (KSP11)	16x2	44	165	145	Ø 15	22

Not suitable for sanitary installations

Chromed copper pipe



Size	L mm
Ø 15 x G1/2" M	175

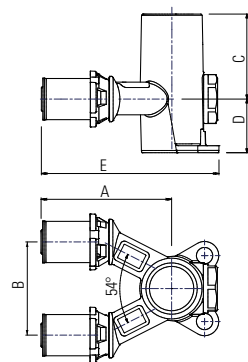
Not suitable for sanitary installations

Built-in galvanized bracket for flanged elbows



Takeoffs: 80-100-153 mm
Takeoff 153 mm for fixing flanged elbow in 4 point.

Female double elbow with flange



Size	Profile	A mm	B mm	C mm	D mm	E mm
16 x Rp1/2"	B (KSP1)/TH (KSP11)	56	40	36.5	23	76
20 x Rp1/2"	B (KSP1)/TH (KSP11)	56	40	36.5	23	76

Built-in galvanized bracket for flanged elbows



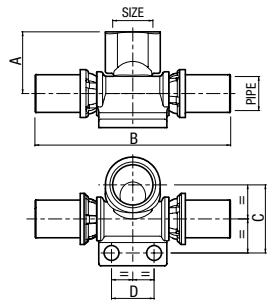
Takeoffs: 80-100-153 mm

Galvanised bracket for flanged elbow



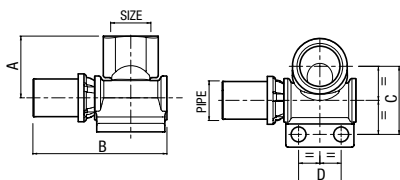
Takeoff 153 mm

Offset female Tee joint



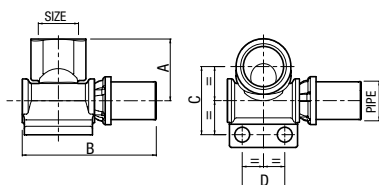
Size	Profile	Pipe	SIZE			
			A mm	B mm	C mm	D mm
16 x Rp1/2" x 16	B (KSP1)/TH (KSP11)	16x2	29	92	32	20
20 x Rp1/2" x 20	B (KSP1)/TH (KSP11)	20x2	29	92	32	20

Right terminal



Size	Profile	Pipe	SIZE			
			A mm	B mm	C mm	D mm
16 x Rp1/2"	B (KSP1)/TH (KSP11)	16x2	29	63	32	20
20 x Rp1/2"	B (KSP1)/TH (KSP11)	20x2	29	63	32	20

Left terminal



Size	Profile	Pipe	SIZE			
			A mm	B mm	C mm	D mm
16 x Rp1/2"	B (KSP1)/TH (KSP11)	16x2	29	63	32	20
20 x Rp1/2"	B (KSP1)/TH (KSP11)	20x2	29	63	32	20

Bracket for axially offset Tee



Plug for circuit test with o-ring



Size

G1/2" (blue or red)

G3/4" (blue or red)

Leakage test plug for multi-layer pipe



Size

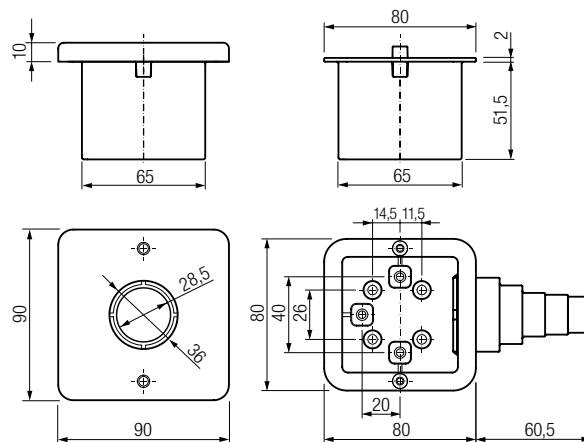
16 x 2

20 x 2

Complete with 1/2" F fitting for release valve (provided standard)

Built-in box for flanged elbows

Flush-mounting Box ① for the installation of Gerpex flanged elbow joints, complete with a non-sealing lid ② and adaptable extension ③.

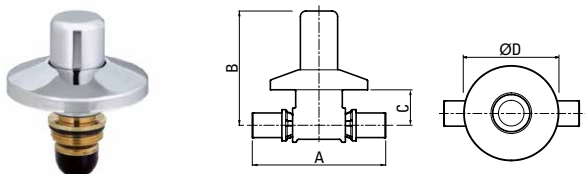


Body valve for built-in valve Gerpex



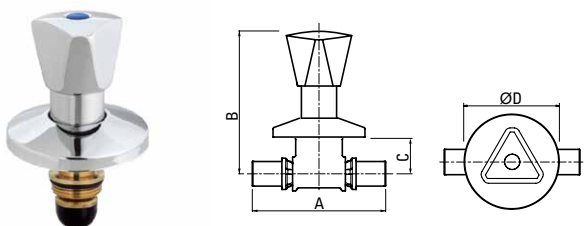
Size	Profile
16 x Rp3/4"	B (KSP1)/TH (KSP1)
18 x Rp3/4"	B (KSP1)
20 x Rp3/4"	B (KSP1)/TH (KSP1)
26 x Rp3/4"	B (KSP1)/TH (KSP1)

Screw group 3/4" for built-in valve Gerpex



Size	A mm	B mm	C mm	ØD mm
G3/4"	96	min 83.5÷max 100	min 35÷max 70	70

Cap shutter 3/4" with handle for built-in valve Gerpex



Size	A mm	B mm	C mm	ØD mm
G3/4"	96	108	min 35÷max 50	70

Extended 3/4" screw (+20 mm) for screw group for built-in valve Gerpex



Size
G3/4" for built-in valve body
G3/4" for cap shutter with handle

Screw seals

Monoblocco fitting 24x19 for multi-layer pipe, nickel-plated



Size	Thread
12 x 1.6	24x19
14 x 2	24x19
16 x 2	24x19
16 x 2.25	24x19
18 x 2	24x19
20 x 2	24x19
20 x 2.5	24x19
26 x 3	M32x1.5

Monoblocco fitting 3/4" Eurocone for multi-layer pipe, nickel-plated



Size	Thread
16 x 2	3/4" Eurocono
20 x 2	3/4" Eurocono

Pair of clamp fittings for multilayer pipe



Size	Thread
32x3	1" M with O-ring
32x3	1" F

Body in nickel-plated brass UNI EN 12165 CW617N
Thread G (UNI EN ISO 228-1) / Nut spanner 46 mm

Fitting Female 24x19 - Male M32x1.5



Size

F 24x19 - M 32x1.5

Complete with O-Ring and adapter female side

Straight Male fitting 1/2" - M32x1.5



Size

M 1/2" - M 32x1.5

Complete with O-Ring

Polygonal spanner, open type CH 27 - 30



Spanner for tightening derivations CH 27 usable for pipes up to DN 18



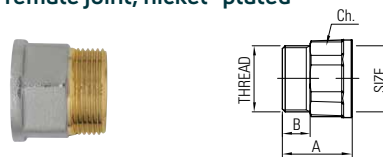
CH 38 spanner for multilayer Monoblocco fittings 26x3



To be used for the tightening of the Monoblocco fittings for multi-layer pipe 26x3 on the branches of manifolds with takeoff of 50 mm

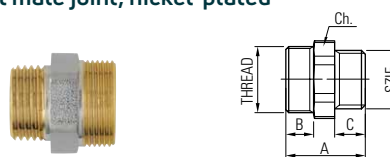
Fittings to be tightened

Straight female joint, nickel-plated



Size	Thread	A mm	B mm	CH mm
Rp1/2"	24x19	25	10	25
Rp3/4"	24x19	27	10	31
Rp3/4"	M32x1.5	27	10	34
Rp1"	M32x1.5	28.5	10	38

Straight male joint, nickel-plated



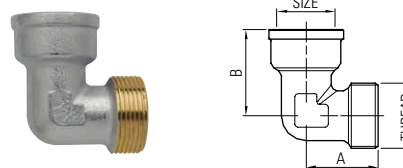
Size	Thread	A mm	B mm	C mm	CH mm
R1/2"	24x19	28.5	10	11	25
R3/4"	24x19	29.5	10	12	31
R3/4"	M32x1.5	30	10	12	34
R1"	M32x1.5	31.5	10	13.5	34

Straight joint double jointed nickel-plated



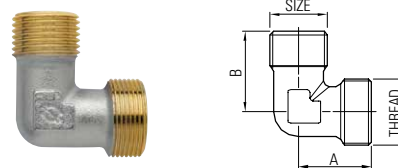
Size	A mm	B mm	C mm	CH mm
24x19	27.5	10	10	25
M32x1.5	28	10	10	34

Female elbow joint nickel-plated



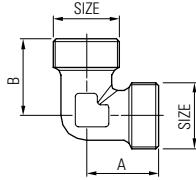
Size	Thread	A mm	B mm
Rp1/2"	24x19	26	31
Rp3/4"	24x19	29	33.5
Rp3/4"	M32x1.5	31	35
Rp1"	M32x1.5	33	38.5

Male elbow joint nickel-plated



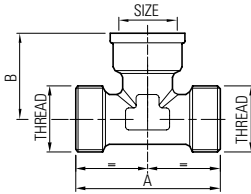
Size	Thread	A mm	B mm
R1/2"	24x19	26	29
R3/4"	24x19	29	31
R3/4"	M32x1.5	31	32
R1"	M32x1.5	33	35

Double-jointed elbow nickel-plated



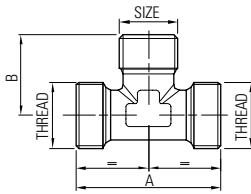
Size	A mm	B mm
24x19	26	27.5
M32x1.5	31	31.5

TEE-joint female nickel-plated



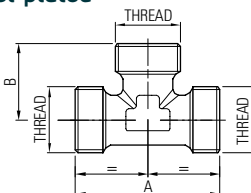
Size	Thread	A mm	B mm
Rp1/2"	24x19	52	31
Rp3/4"	24x19	58	33.5

TEE-joint male nickel-plated



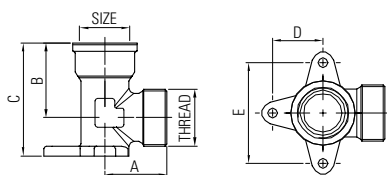
Size	Thread	A mm	B mm
R1/2"	24x19	52	29
R3/4"	24x19	58	31

TEE-joint three-piece nickel-plated



Size	Thread	A mm	B mm
20x20x20	24x19	52	27.5

Elbow joint female with flange nickel-plated



Size	Thread	A mm	B mm	C mm	D mm	E mm
Rp1/2"	24x19	26	31	47	21	42

Galvanized bracket for flanged elbow



Tooling



Manual pressing machine MP 22

360° rotating head
Telescopic arms, extensible 200 mm
Instrument weight: approximately 3 kg
Instrument length: 560 - 760 mm
Thrust force: 32 kN
Press fittings: from DN 14 to DN 32

Dies for manual pressing machine



Size	Profile
16 x 2	TH (KSP11)
20 x 2	TH (KSP11)
26 x 3	TH (KSP11)
32 x 3	TH (KSP11)



230 V powered pressing machine SPM32 for Gerpex jaws from DN 14 to DN 75

Weight including adapter: 4.3 kg
230 V adapter weight: 670 g
Dimensions (LxHxS): 390x310x95 mm
Feed force: min. 32 kN
Power supply: 230 V, 50 Hz
Max loading: 30 A
Adapter voltage output: 14.4 V
Pressing time: from 4 to 7 s (depending on DN)
Operation temperature range: -20 °C÷+40 °C
360° rotating head
Automatic piston retraction
USB connection for remote diagnosis
Optical malfunction report and working state indicator
Complete with metal case, 230 V adapter, USB cable, analysis software.



14.4 V battery powered pressing machine SPM32 for Gerpex jaws from DN 14 to DN 75

Weight including accumulator: 4.1 kg
Dimensions (LxHxS): 390x310x95 mm
Feed force: min. 32 kN
Power supply: 14.4 V
Battery charger: 230 V, 50 Hz
Battery capacity: 2.6 Ah
Charging time: 45 min approx.
Pressing performance: approx. 235 (DN20)
Pressing time: from 4 to 7 s (depending on DN)
Operation temperature range: -20 °C÷+40 °C
360° rotating head
Automatic piston retraction
USB connection for remote diagnosis
Optical malfunction report and working state indicator
Complete with metal case, 14.4 V lithium-ion battery (Li-Ion), battery charger, USB cable, analysis software.



Spare battery 14.4 V for SMP32 pressing machine

Lithium-ion battery (Li-Ion)
Weight: 500 g - Battery power: 2.6 Ah
Allows battery power to the SPM32 230 V pressing machine, replacing the 230 V adapter.



Ø 75
TH (KSP11)

Gerpex jaws

Size	Profile
75	TH (KSP11)



Battery charger 14.4 V for SPM32 pressing machine



SPM19 battery pressing machine 18V for Gerpex insert holder jaw from DN 16 to DN 32

Weight (battery included): 2.3 kg
Dimensions (LxHxS): 371x100x74 mm
Feed force: min 19 kN
Power supply: 18 V DC
Battery power: 230 V, 50 Hz
Battery capacity: 2.0 Ah
Charging time: 30 minutes aprox.
Pressing time: from 3 to 4 s (depending on the nominal width)
Operation temperature range: -10 °C ÷ 40 °C
Sound level: 75 dB(A) in 1 m distance
Vibrations: < 2.5 m/s² (real value pondered by the acceleration)
360° rotating head
Automatic piston retraction
USB connection for remote diagnosis
Optical malfunction report and working state indicator
Complete with metal case, 18 V lithium-ion (Li-Ion) battery, battery charger, USB cable and analysis software.



230 V adapter for SPM32 pressing machine

Allows power supply to the SPM32 pressing machine, directly at 230 V, replacing the 14.4 V battery



Case for jaws



Ø 14 e Ø 18
B (KSP1)

Gerpex jaws

Size	Profile
14 x 2	B (KSP1)
16 x 2	TH (KSP11)
18 x 2	B (KSP1)
20 x 2	TH (KSP11)
26 x 3	TH (KSP11)
32 x 3	TH (KSP11)



Gerpex insert holder jaw for SPM19 pressing machine



Ø 16 - Ø 20 - Ø 26 - Ø 32
TH (KSP11)

Dies for insert holder jaw for SPM19 pressing machine



Size	Profile
16 x 2	TH (KSP11)
20 x 2	TH (KSP11)
26 x 3	TH (KSP11)
32 x 3	TH (KSP11)



Ø 40 - Ø 50
TH (KSP11)

40 x 3.5	TH (KSP11)
50 x 4	TH (KSP11)
63 x 4.5	TH (KSP11)



Ø 63
TH (KSP11)



Battery 18 V for SPM19 pressing machine

Battery Lithium-Ion (Li-ion)
Battery power: 2.0 Ah
Weight: 430 g



Battery charger 18 V for SPM19 pressing machine



230 V adapter for SPM19 pressing machine

Allows power supply to the SPM19 pressing machine, directly at 230 V, replacing the 18 V battery



Shear for multi-layer pipe

Size
Ø 14 ÷ 26

Ø 26 ÷ 40



Shear for Gerpex

Size
Ø 14 ÷ 32



Pipe cutter for Gerpex

Size
Ø 14 ÷ 32



Pipe cutter for Gerpex

Size
Ø 6 ÷ 75

Flarer and calibrator



Size

Ø 14

Ø 16

Ø 18

Ø 20

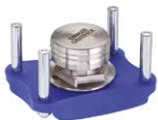
Ø 26



Ø 16 - 20 - 26



Ø 32



Ø 40

Ø 50



Ø 63



Ø 75



Internal spring for bending pipe

Size

Ø 16 L=500 mm

Ø 18 L=500 mm

Ø 20 L=500 mm

Ø 26 L=1000 mm



External spring for bending pipe

Size

Ø 16 L=500 mm

Ø 20 L=500 mm



Hydraulic bending machine for Gerpex pipe

Size

Ø 26 ÷ 32

Complete with case, forms and shapes
Ø 26 ÷ 32



Forms and shapes for hydraulic bending machines

Size

Ø 16

Ø 20

System installation

All installation operations must be carried out at temperatures above -10 °C and below 45 °C to avoid any possible damage to the materials.

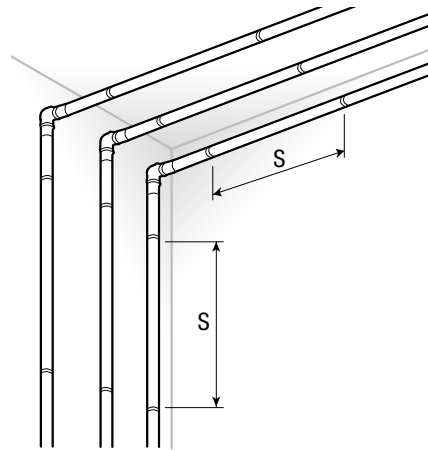
In case of temperatures below 0 °C, store the materials (pipes and fittings) at a higher temperature before use.

Surface mounted installation

In surface mounted installations, in false ceilings, in the gaps of dry wall systems (e.g. plasterboard) and in shafts, the pipes must be adequately secured with suitable collars placed at a distance of no more than a certain value that depends on the size of the pipe.

Maximum distance "S" for bracketing surface mounted pipes (see following figure):

Pipe dimension	Maximum distance (S) for bracketing [cm]
14 x 2	100
16 x 2	100
18 x 2	125
20 x 2	125
26 x 3	150
32 x 3	200
40 x 3.5	200
50 x 4	250
63 x 4.5	250
75 x 5	250

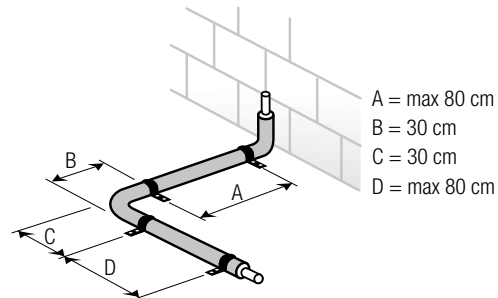


Surface embedded installation

In surface embedded installations, the pipes must be suitably secured with ties and there must be a minimum distance between them of 80 cm on straight lengths, and placed 30 cm before and after each bend. For this type of installation it is preferable to lay insulated pipe that has a foam sheath covering or pass the pipe through flexible tubing.

Press fittings: in laying concealed piping, the press fittings must be protected from corrosion that can result from contact with chemicals contained in plasters and mortars.

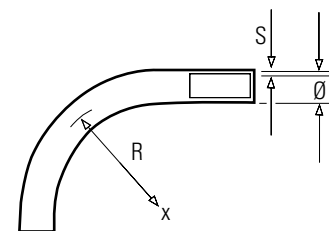
It is possible to use boxing, adhesive tapes specifically adapted for such applications, or coverings in an expanded plastic material that has been adequately sealed.



Minimum radius of bend

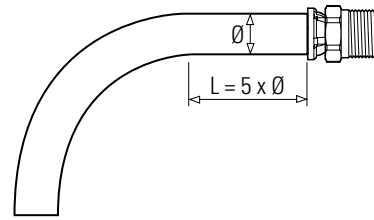
The bending of pipes must be carried out in accordance with the minimum values provided by the following table.

Pipe dimension (Ø x S)	Minimum radius of bend R	Minimum radius of bend R with spring pipe bender	Minimum radius of bend R with hydraulic bender
14 x 2	5 x Ø	3 x Ø	
16 x 2	5 x Ø	3 x Ø	
18 x 2	5 x Ø	3 x Ø	
20 x 2	5 x Ø	3 x Ø	
26 x 3	8 x Ø	4 x Ø	4 x Ø
32 x 3			4 x Ø
40 x 3.5			4 x Ø
50 x 4			4 x Ø
63 x 4.5			4.5 x Ø
75 x 5			5 x Ø



It is preferable to use elbow unions to form curves on pipes with a diameter greater than 26 mm.

When bending the pipe you must also avoid putting pressure on the unions already installed and the distance between a union and the beginning of the bend must be greater than $5 \times \varnothing$, where \varnothing is the external diameter of the pipe.



Thermal expansion

During the installation phase, pay particular attention to thermal expansion that can particularly affect multilayer pipes. The elongation a pipe undergoes as a result of a variation in temperature can be calculated with the following formula:

$$\Delta L = \alpha \times L \times \Delta T$$

where:

α is the coefficient of linear expansion, equal to 0.026 mm / m K for multilayer metal-plastic pipes;

L is the initial length of the pipe (m);

ΔT is the temperature difference (K).

Example:

Length of pipe: 12 m

Temperature difference: 50 K

$$\Delta L = 0.026 \times 12 \times 50 = 15.6 \text{ mm}$$

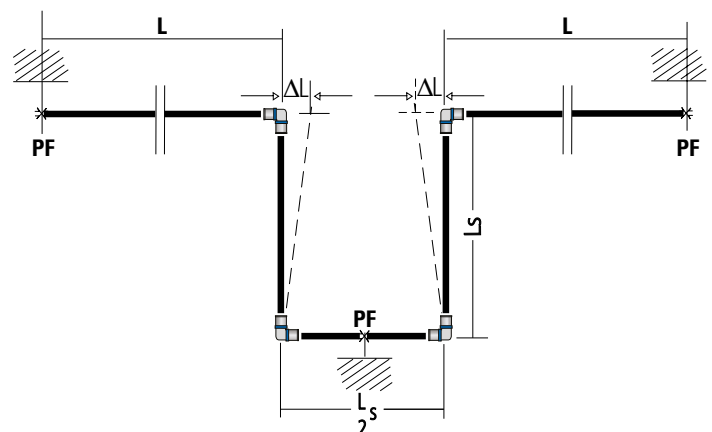
ΔT	10	20	30	40	50	60	70
L	ΔL						
0.1	0.026	0.052	0.078	0.104	0.130	0.156	0.182
0.2	0.052	0.104	0.156	0.208	0.260	0.312	0.364
0.3	0.078	0.156	0.234	0.312	0.390	0.468	0.546
0.4	0.104	0.208	0.312	0.416	0.520	0.624	0.728
0.5	0.130	0.260	0.390	0.520	0.650	0.780	0.910
0.6	0.156	0.312	0.468	0.624	0.780	0.936	1.092
0.7	0.182	0.364	0.546	0.728	0.910	1.092	1.274
0.8	0.208	0.416	0.624	0.832	1.040	1.248	1.456
0.9	0.234	0.468	0.702	0.936	1.170	1.404	1.638
1.0	0.260	0.520	0.780	1.040	1.300	1.560	1.820
2.0	0.520	1.040	1.560	2.080	2.600	3.120	3.640
3.0	0.780	1.560	2.340	3.120	3.900	4.680	5.460
4.0	1.040	2.080	3.120	4.160	5.200	6.240	7.280
5.0	1.300	2.600	3.900	5.200	6.500	7.800	9.100
6.0	1.560	3.120	4.680	6.240	7.800	9.360	10.920
7.0	1.820	3.640	5.460	7.280	9.100	10.920	12.740
8.0	2.080	4.160	6.240	8.320	10.400	12.480	14.560
9.0	2.340	4.680	7.020	9.360	11.700	14.040	16.380
10.0	2.600	5.200	7.800	10.400	13.000	15.600	18.200

L = Length (m)

ΔT = Temperature difference (K)

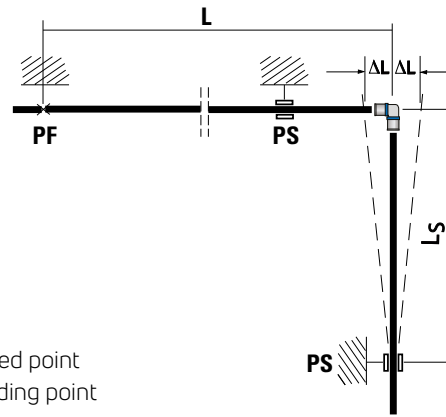
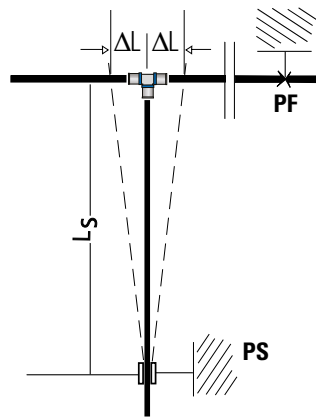
ΔL = Longitudinal expansion (mm)

In surface mounted installations or installations in false ceilings and shafts, longitudinal thermal expansion can be compensated for through careful arrangement of fixed and sliding brackets (points), depending on the type of installation, thus providing suitable thermal expansion compensators.



PF: Fixed point

PS: Sliding point



PF: Fixed point
PS: Sliding point

Where:

$$L_s = C \times \sqrt{(\varnothing \times \Delta L)}$$

L_s = Length of compensator (mm)

\varnothing = External diameter of pipe (mm)

C = Material constant

(for multilayer metal-plastic pipes $C=33$)

With

$\Delta L = 15.6$ mm (previous example),

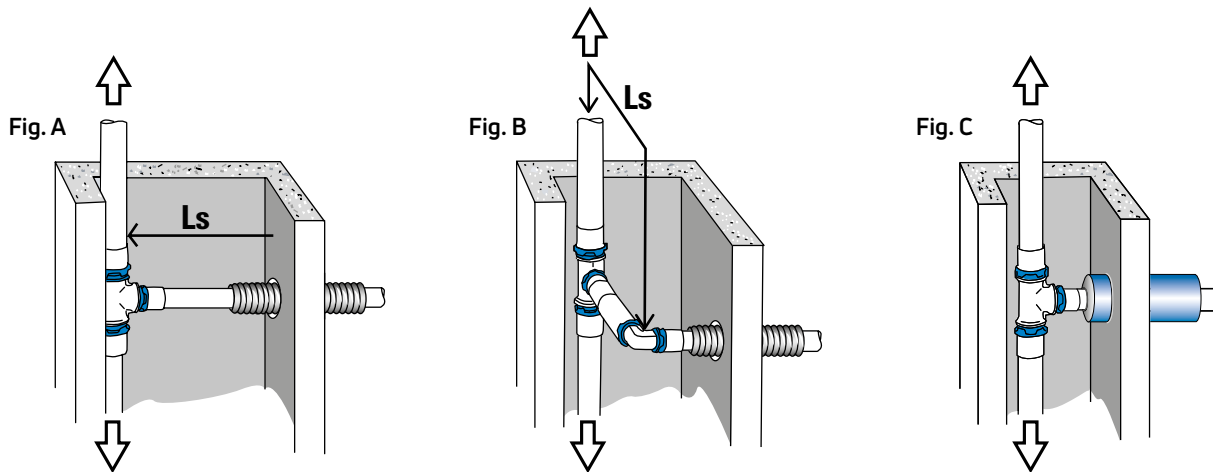
$\varnothing = 26$ mm

the result will be:

$$L_s = 33 \times \sqrt{26 \times 15.6} = 665 \text{ mm}$$

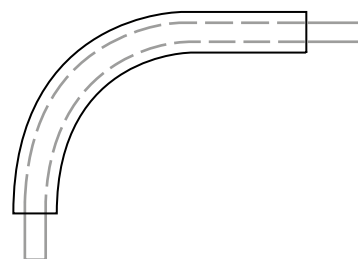
In order to guarantee the free movement of pipes in an installation inside a vertical shaft with horizontal branches, the branches must have a minimum free length L_s and the passage through the side wall of the shaft should be free and the pipe protected with a sheath (Fig. A and B).

In case the size of the shaft doesn't allow for a compensator of length L_s , the hole in the side wall should be increased in size and at the same time the pipe should be protected with an insulating sheath of thickness $S \geq 1.5 \times \Delta L$ (Fig. C).



Where pipes are concealed or embedded in screed (laid in the floor), thermal expansion can be compensated for by creating an insulated curve at least every 10m (for example with an insulating foam sheath or by passing the pipe through flexible tubing).

Note: where the pipes are being used in radiant circuits (spiral or serpentine for underfloor heating/cooling), these guidelines do not apply!



System testing

The test must be carried out once the system is completed with the installation of the pipes and fittings, before walling the concealed parts definitely.

The system can be tested with potable, clean and filtered water, or compressed air, without oil.

Compressed air is suitable in particularly low temperatures, when there lies the risk of ice formation, and in potable water distribution systems, if too much time may elapse between the test and actual use, with consequent hygienic risks due to the presence of stagnant water inside the pipes.

Testing with water:

The test is carried out in two steps – leak test and hydraulic test – using pressure gauges with 0.1 bar resolution. In case of a difference in temperature > 10 K between the filling water and ambient temperature, the test must be carried out at least 30 minutes after filling.

Automatic venting and drainage systems must be closed properly to prevent compromising the test. The hydraulic test follows the leak test, if the latter is successful.

The **leak test** is carried out by filling the system with water, keeping it at a pressure between 1 and 6.5 bar and visually checking each fitting and joint to detect any leak and/or unpressed fitting and/or joints that are not implemented correctly.

Warning! The Gerpex fittings do not have the Leak Before Pressed function, whereas the Gerpex LBP fittings do. This function allows unpressed fittings to be visually identified through water leaks that occur within a pressure range of 1 and 6.5 bar and is guaranteed and certified for Gerpex LBP fittings in combination with the Emmeti Gerpex RA and Emmeti Alpert pipes, using Emmeti Gerpex equipment).

The **hydraulic test for sanitary installations** is carried out according to EN 806-4, with a test pressure of 11 bar (1.1 x MDP), which is to be maintained for at least 30 minutes.

MDP= Maximum Design Pressure = 10 bar

The **hydraulic test for heating systems** is carried out according to EN 14336, with a test pressure of 1.3 x Operating Pressure, and in any case between 4 and 6 bar, which is to be maintained for at least 120 minutes.

Details are found in the two regulations.

Testing with air:

The test is carried out in two steps – leak test and load test – using pressure gauges with a 1 mbar resolution and an appropriate method of detection (e.g. soapy water). The load test follows the leak test, if the latter is successful.

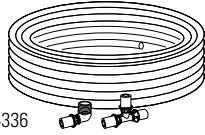
The **leak test** is carried out by filling the system with compressed air at a pressure between 110 and 150 mbar, which is to be maintained for at least 30 minutes, for volumes of up to 100 litres. In the case of greater volumes, the test duration must be increased by 10 minutes for every additional 100 litres.

The **load test** is carried out by filling the system with compressed air at a pressure of 3 bar (up to dimension 50x4) or 1 bar (for dimensions $\geq 63 \times 4.5$), which is to be maintained for at least 30 minutes in the case of volumes of up to 100 litres. In the case of greater volumes, the test duration must be increased by 10 minutes for every additional 100 litres.

At the end of the test, the installer must fill and provide the customer with the relevant report, which can be downloaded from the following link:



https://efrdoc.com/PP_Gerpex



GERPEX/GERPEX LBP SYSTEM
Report – Water pressure test according EN 14336
Heating water installations

1. Project data

1.1 Project _____
 1.2 Building _____
 1.3 Address _____
 1.4 Customer _____
 1.5 Installer _____
 1.6 Date of installation _____
 1.7 Pipes and fittings dimensions
 14x2 16x2 18x2 20x2 26x3
 32x3 40x3.5 50x4 63x4.5 75x5
 1.8 Working pressure _____ bar

2. Leak test

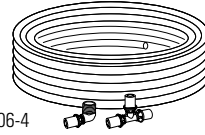
2.1 Test pressure (1=6.5 bar) _____ bar
 2.2 Ambient temperature _____ °C
 2.3 Water temperature _____ °C
 2.4 Δ temperature (ambient-water)* _____ °C
 2.5 Entire installation visually checked
 2.6 Installation free of leaks
 2.7 Pressure at the end of test _____ bar

* for Δ > 10 K, test has to be carried out after 30 min. from filling.

3. Pressure test

3.1 Test pressure (=1.3 x Working pressure) TP** _____ bar
 3.2 Time of test at TP (minimum 120 minutes) _____ min
 3.3 Installation free of leaks
 3.4 Pressure at the end of test _____ bar

** min. 4 to max. 6 bar.



GERPEX/GERPEX LBP SYSTEM
Report – Water pressure test according EN 806-4
Hot and cold plumbing water installations

1. Project data

1.1 Project _____
 1.2 Building _____
 1.3 Address _____
 1.4 Customer _____
 1.5 Installer _____
 1.6 Date of installation _____
 1.7 Pipes and fittings dimensions
 14x2 16x2 18x2 20x2 26x3
 32x3 40x3.5 50x4 63x4.5 75x5
 1.8 Maximum design pressure (MDP) _____ bar

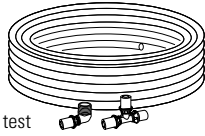
2. Leak test

2.1 Test pressure (1=6.5 bar) _____ bar
 2.2 Ambient temperature _____ °C
 2.3 Water temperature _____ °C
 2.4 Δ temperature (ambient-water)* _____ °C
 2.5 Entire installation visually checked
 2.6 Installation free of leaks
 2.7 Pressure at the end of test _____ bar

* for Δ > 10K, test has to be carried out after 30 min. from filling.

3. Pressure test

3.1 Test pressure (=1.1 x MDP) TP _____ bar
 3.2 Time of test at TP (minimum 30 minutes) _____ min
 3.3 Installation free of leaks
 3.4 Pressure at the end of test _____ bar



GERPEX/GERPEX LBP SYSTEM
Report – compressed air or inert gas pressure test
Hot and cold plumbing / Heating water installations

1. Project data

1.1 Project _____
 1.2 Building _____
 1.3 Address _____
 1.4 Customer _____
 1.5 Installer _____
 1.6 Date of installation _____
 1.7 Pipes and fittings dimensions
 14x2 16x2 18x2 20x2 26x3
 32x3 40x3.5 50x4 63x4.5 75x5

2. Leak test

2.1 Test pressure (110=150 mbar) _____ mbar
 2.2 Time of test* _____ min
 2.3 Entire installation visually checked
 2.4 Installation free of leaks
 2.5 Pressure at the end of test _____ bar

* Min. 30 minutes; for V > 100 l, 10 additional minutes for each additional 100 l.

3. Load test

3.1 Test pressure TP** _____ bar
 3.2 Time of test at TP *** _____ min
 3.3 Installation free of leaks
 3.4 Pressure at the end of test _____ bar

** 3 bar ≤ 50x4, 1 bar ≥ 63x4.5.

*** Min. 30 minutes; for V > 100 l, 10 additional minutes for each additional 100 l.

Fittings mounting



Gerpex and Gerpex LBP press fittings system

Cutting

Cut the multilayer pipe with a pipe cutter or shears, verifying that the cut is perpendicular to the pipe axis.



Fig. A



Fig. B

Calibration - Flaring

Calibrate the cut end using the relevant calibrator, which calibrates and flares the cut end of the pipe (Fig. C). The operation is essential, as it determines the correct internal diameter of the pipe and creates the rounded end that eases introduction of the fitting.



Fig. C

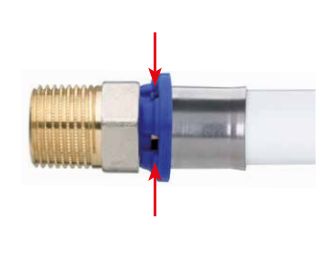


Fig. D

Insertion the fitting

Insert the fitting into the pipe fully home; the openings on the plastic ring allows verification of correct positioning (Fig. D).

Pressing

Place the jaws around the sleeve (Fig. E) by aligning the collar of the plastic ring with the groove of the jaws (Fig. F). Start the hydraulic press-fitting tool until it clicks, signalling the completion of the press-fitting operation (Fig. G). The operation must be done carefully so that the pipes are kept free of any tension. Once the fitting has been pressed, avoid placing the joint under any tension.



Fig. E

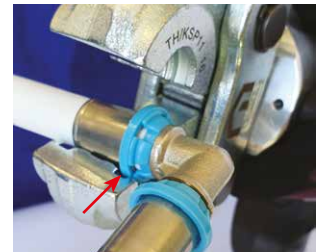


Fig. F

Completion of pressing

Remove the pressing device and open the jaws again.



Fig. G

Screw compression fittings system

Cutting

Cut the multilayer pipe with a pipe cutter or shears, verifying that the cut is perpendicular to the pipe axis.



Fig. A



Fig. B

Calibration - Flaring

Calibrate the cut end using the relevant calibrator, which calibrates and flares the cut end of the pipe.

The operation is essential, as it determines the correct internal diameter of the pipe and creates the rounded end that eases introduction of the fitting.



Fig. C

Inserting the fitting

Insert the pipe into the Monoblocco fitting, checking correct introduction through the slot in the nut (Fig. D), or by unscrewing the components of the Monoblocco fitting (Fig. E).



Fig. D



Fig. E

Screwing

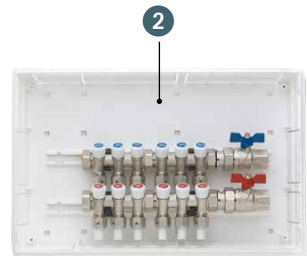
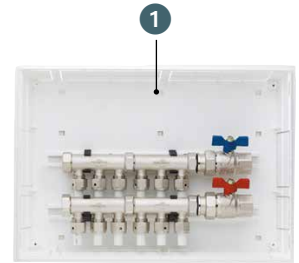
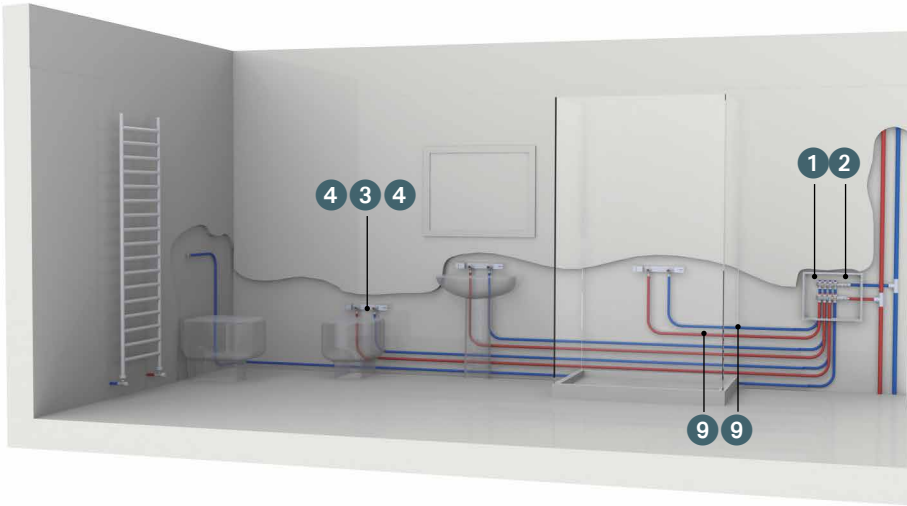
Screw the nut and tighten using a hex wrench, without using excessive force (Fig. F).



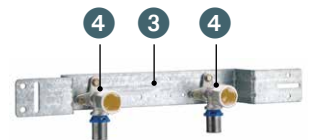
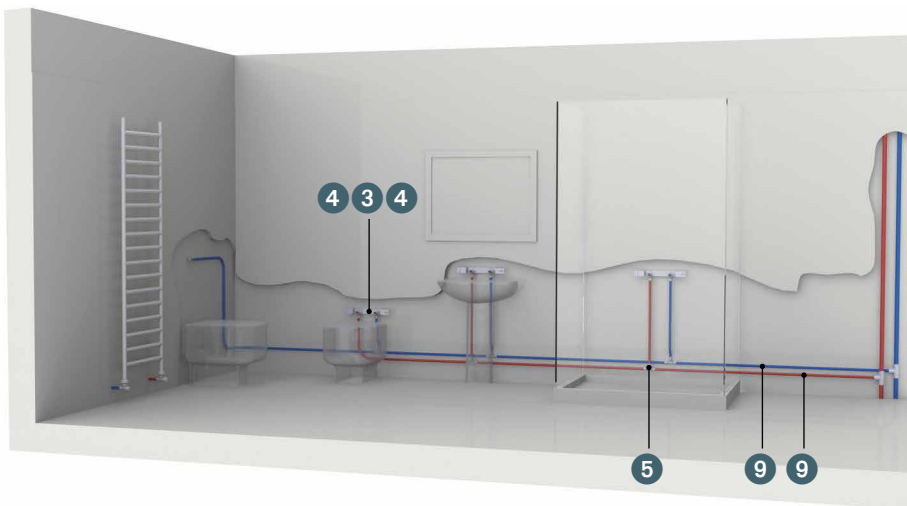
Fig. F

Examples of installation

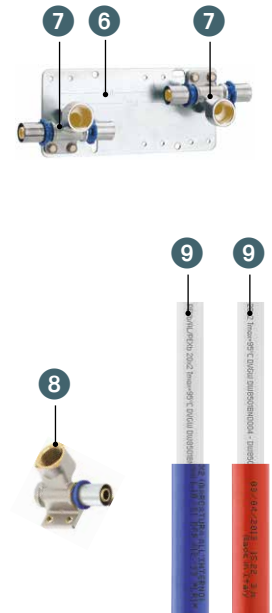
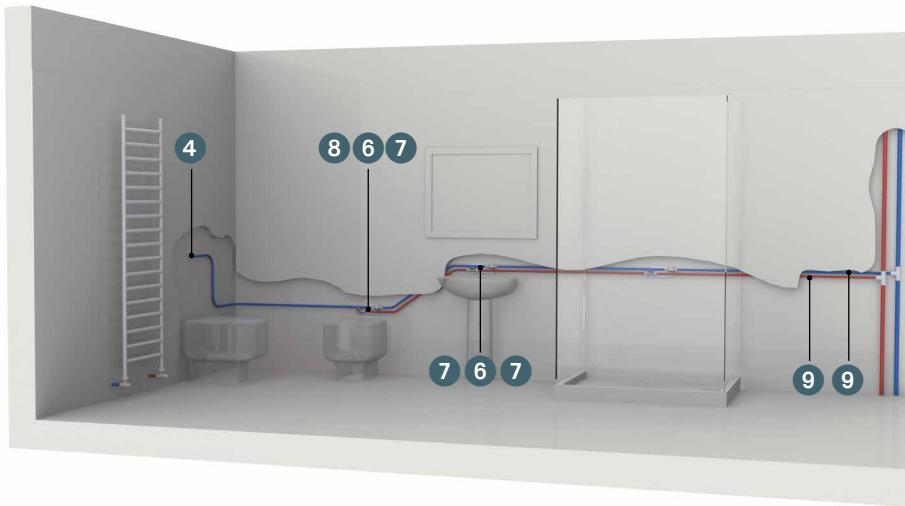
Distribution with Manifold



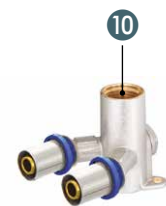
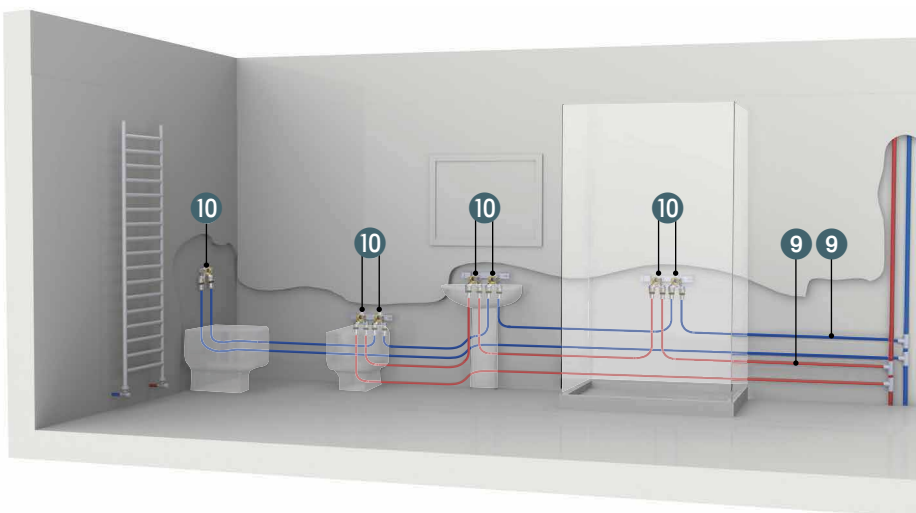
Distribution with Tee fitting



Series distribution in wall



Ring distribution



Distributed pressure drops

Gerpex/Gerpex RA - water at 10 °C

DN 14x2		
G (l/h)	V (m/s)	Dp/m (Pa/m)
110	0.39	323
115	0.41	350
120	0.42	377
125	0.44	405
130	0.46	433
135	0.48	463
140	0.50	493
145	0.51	525
150	0.53	557
155	0.55	590
160	0.57	623
165	0.58	658
170	0.60	693
175	0.62	729
180	0.64	766
185	0.65	803
190	0.67	842
195	0.69	881
200	0.71	921
205	0.73	962
210	0.74	1003
215	0.76	1045
220	0.78	1088
225	0.80	1132
230	0.81	1176
235	0.83	1221
240	0.85	1267
245	0.87	1314
250	0.88	1361
255	0.90	1409
260	0.92	1458
265	0.94	1507
270	0.95	1557
275	0.97	1608
280	0.99	1659
285	1.01	1712
290	1.03	1764
295	1.04	1818
300	1.06	1872
305	1.08	1927
310	1.10	1983
315	1.11	2039
320	1.13	2096
325	1.15	2154
330	1.17	2212
335	1.18	2271
340	1.20	2331
345	1.22	2391
350	1.24	2452
355	1.26	2514
360	1.27	2576

DN 16x2		
G (l/h)	V (m/s)	Dp/m (Pa/m)
120	0.29	158
130	0.32	182
140	0.34	208
150	0.37	234
160	0.39	262
170	0.42	291
180	0.44	322
190	0.47	354
200	0.49	387
210	0.52	422
220	0.54	458
230	0.56	495
240	0.59	533
250	0.61	572
260	0.64	613
270	0.66	655
280	0.69	698
290	0.71	742
300	0.74	788
310	0.76	834
320	0.79	882
330	0.81	930
340	0.84	980
350	0.86	1031
360	0.88	1084
370	0.91	1137
380	0.93	1191
390	0.96	1246
400	0.98	1303
410	1.01	1360
420	1.03	1419
430	1.06	1479
440	1.08	1539
450	1.11	1601
460	1.13	1664
470	1.15	1728
480	1.18	1793
490	1.20	1858
500	1.23	1925
510	1.25	1993
520	1.28	2062
530	1.30	2132
540	1.33	2203
550	1.35	2275
560	1.38	2348
570	1.40	2422
580	1.42	2496
590	1.45	2572
600	1.47	2649
610	1.50	2727
620	1.52	2805

DN 18x2		
G (l/h)	V (m/s)	Dp/m (Pa/m)
140	0.25	100
155	0.28	119
170	0.31	140
185	0.33	163
200	0.36	186
215	0.39	211
230	0.42	238
245	0.44	266
260	0.47	295
275	0.50	325
290	0.52	357
305	0.55	390
320	0.58	424
335	0.60	459
350	0.63	496
365	0.66	534
380	0.69	573
395	0.71	613
410	0.74	654
425	0.77	697
440	0.79	740
455	0.82	785
470	0.85	831
485	0.88	878
500	0.90	926
515	0.93	975
530	0.96	1025
545	0.98	1076
560	1.01	1129
575	1.04	1182
590	1.06	1237
605	1.09	1292
620	1.12	1349
635	1.15	1407
650	1.17	1465
665	1.20	1525
680	1.23	1586
695	1.25	1647
710	1.28	1710
725	1.31	1774
740	1.34	1838
755	1.36	1904
770	1.39	1971
785	1.42	2039
800	1.44	2107
815	1.47	2177
830	1.50	2247
845	1.52	2319
860	1.55	2392
875	1.58	2465
890	1.61	2539

DN 20x2		
G (l/h)	V (m/s)	Dp/m (Pa/m)
150	0.21	60
170	0.23	74
190	0.26	90
210	0.29	108
230	0.32	126
250	0.35	146
270	0.37	167
290	0.40	189
310	0.43	213
330	0.46	237
350	0.48	263
370	0.51	290
390	0.54	318
410	0.57	347
430	0.59	377
450	0.62	408
470	0.65	441
490	0.68	474
510	0.70	508
530	0.73	544
550	0.76	580
570	0.79	617
590	0.82	656
610	0.84	695
630	0.87	736
650	0.90	777
670	0.93	819
690	0.95	863
710	0.98	907
730	1.01	952
750	1.04	998
770	1.06	1045
790	1.09	1093
810	1.12	1142
830	1.15	1192
850	1.17	1243
870	1.20	1294
890	1.23	1347
910	1.26	1400
930	1.28	1454
950	1.31	1510
970	1.34	1566
990	1.37	1623
1010	1.40	1680
1030	1.42	1739
1050	1.45	1799
1070	1.48	1859
1090	1.51	1920
1110	1.53	1982
1130	1.56	2045
1150	1.59	2109

NOTE: 1 bar = 0.1 N/mm² = 100 kPa = 10 m c.a.

Gerpex/Gerpex RA - water at 10 °C

DN 26x3		
G (l/h)	V (m/s)	Dp/m (Pa/m)
400	0.35	115
440	0.39	136
480	0.42	158
520	0.46	182
560	0.50	207
600	0.53	234
640	0.57	262
680	0.60	291
720	0.64	322
760	0.67	354
800	0.71	387
840	0.74	422
880	0.78	457
920	0.81	494
960	0.85	533
1000	0.88	572
1040	0.92	613
1080	0.95	655
1120	0.99	698
1160	1.03	742
1200	1.06	787
1240	1.10	834
1280	1.13	881
1320	1.17	930
1360	1.20	980
1400	1.24	1031
1440	1.27	1083
1480	1.31	1136
1520	1.34	1191
1560	1.38	1246
1600	1.41	1302
1640	1.45	1360
1680	1.49	1418
1720	1.52	1478
1760	1.56	1539
1800	1.59	1600
1840	1.63	1663
1880	1.66	1727
1920	1.70	1792
1960	1.73	1858
2000	1.77	1925
2040	1.80	1992
2080	1.84	2061
2120	1.87	2131
2160	1.91	2202
2200	1.95	2274
2240	1.98	2347
2280	2.02	2421
2320	2.05	2495
2360	2.09	2571
2400	2.12	2648

DN 32x3		
G (l/h)	V (m/s)	Dp/m (Pa/m)
800	0.42	111
860	0.45	126
920	0.48	142
980	0.51	159
1040	0.54	176
1100	0.58	194
1160	0.61	213
1220	0.64	233
1280	0.67	253
1340	0.70	275
1400	0.73	296
1460	0.76	319
1520	0.80	342
1580	0.83	366
1640	0.86	391
1700	0.89	416
1760	0.92	443
1820	0.95	469
1880	0.98	497
1940	1.01	525
2000	1.05	553
2060	1.08	583
2120	1.11	613
2180	1.14	644
2240	1.17	675
2300	1.20	707
2360	1.23	739
2420	1.27	773
2480	1.30	806
2540	1.33	841
2600	1.36	876
2660	1.39	912
2720	1.42	948
2780	1.45	985
2840	1.49	1022
2900	1.52	1060
2960	1.55	1099
3020	1.58	1138
3080	1.61	1178
3140	1.64	1219
3200	1.67	1260
3260	1.71	1301
3320	1.74	1344
3380	1.77	1386
3440	1.80	1430
3500	1.83	1474
3560	1.86	1518
3620	1.89	1563
3680	1.93	1609
3740	1.96	1655
3800	1.99	1702

DN 40x3.5		
G (l/h)	V (m/s)	Dp/m (Pa/m)
1000	0.32	53
1100	0.36	63
1200	0.39	73
1300	0.42	84
1400	0.45	96
1500	0.49	108
1600	0.52	121
1700	0.55	134
1800	0.58	148
1900	0.62	163
2000	0.65	178
2100	0.68	194
2200	0.71	211
2300	0.75	228
2400	0.78	245
2500	0.81	264
2600	0.84	282
2700	0.88	302
2800	0.91	321
2900	0.94	342
3000	0.97	363
3100	1.01	384
3200	1.04	406
3300	1.07	428
3400	1.10	451
3500	1.14	475
3600	1.17	499
3700	1.20	523
3800	1.23	548
3900	1.27	574
4000	1.30	600
4100	1.33	626
4200	1.36	653
4300	1.40	681
4400	1.43	709
4500	1.46	737
4600	1.49	766
4700	1.53	796
4800	1.56	825
4900	1.59	856
5000	1.62	886
5100	1.66	918
5200	1.69	949
5300	1.72	982
5400	1.75	1014
5500	1.79	1047
5600	1.82	1081
5700	1.85	1115
5800	1.88	1149
5900	1.92	1184
6000	1.95	1220

Gerpex/Gerpex RA - water at 10 °C

DN 50x4		
G (l/h)	V (m/s)	Dp/m (Pa/m)
2000	0.40	57
2200	0.44	67
2400	0.48	78
2600	0.52	90
2800	0.56	102
3000	0.60	115
3200	0.64	129
3400	0.68	144
3600	0.72	159
3800	0.76	174
4000	0.80	191
4200	0.84	208
4400	0.88	225
4600	0.92	244
4800	0.96	263
5000	1.00	282
5200	1.04	302
5400	1.08	323
5600	1.12	344
5800	1.16	366
6000	1.20	388
6200	1.24	411
6400	1.28	434
6600	1.32	458
6800	1.36	483
7000	1.40	508
7200	1.44	534
7400	1.48	560
7600	1.52	587
7800	1.56	614
8000	1.60	642
8200	1.64	670
8400	1.68	699
8600	1.72	728
8800	1.76	758
9000	1.80	789
9200	1.84	820
9400	1.88	851
9600	1.92	883
9800	1.96	915
10000	2.00	948
10200	2.05	982
10400	2.09	1016
10600	2.13	1050
10800	2.17	1085
11000	2.21	1121
11200	2.25	1156
11400	2.29	1193
11600	2.33	1230
11800	2.37	1267
11950	2.40	1295

DN 63x4.5		
G (l/h)	V (m/s)	Dp/m (Pa/m)
3000	0.36	35
3500	0.42	46
4000	0.49	58
4500	0.55	71
5000	0.61	85
5500	0.67	101
6000	0.73	118
6500	0.79	135
7000	0.85	154
7500	0.91	174
8000	0.97	195
8500	1.03	216
9000	1.09	239
9500	1.15	263
10000	1.21	287
10500	1.27	313
11000	1.33	340
11500	1.39	367
12000	1.46	395
12500	1.52	425
13000	1.58	455
13500	1.64	486
14000	1.70	518
14500	1.76	551
15000	1.82	584
15500	1.88	619
16000	1.94	654
16500	2.00	690
17000	2.06	727
17500	2.12	765
18000	2.18	804
18500	2.24	844
19000	2.30	884
19500	2.37	925
20000	2.43	967
20500	2.49	1010
21000	2.55	1053
21500	2.61	1097
22000	2.67	1142
22500	2.73	1188
23000	2.79	1235
23500	2.85	1282
24000	2.91	1330
24500	2.97	1379
25000	3.03	1429
25500	3.09	1479
26000	3.15	1530
26500	3.21	1582
27000	3.27	1635
27500	3.34	1688
28000	3.40	1742

DN 75x5		
G (l/h)	V (m/s)	Dp/m (Pa/m)
5000	0.42	35
5500	0.46	42
6000	0.50	49
6500	0.54	56
7000	0.59	64
7500	0.63	72
8000	0.67	81
8500	0.71	90
9000	0.75	99
9500	0.80	109
10000	0.84	119
10500	0.88	130
11000	0.92	141
11500	0.96	152
12000	1.00	164
12500	1.05	176
13000	1.09	189
13500	1.13	201
14000	1.17	215
14500	1.21	228
15000	1.26	242
15500	1.30	257
16000	1.34	271
16500	1.38	286
17000	1.42	302
17500	1.46	317
18000	1.51	333
18500	1.55	350
19000	1.59	366
19500	1.63	383
20000	1.67	401
20500	1.72	418
21000	1.76	436
21500	1.80	455
22000	1.84	473
22500	1.88	492
23000	1.93	512
23500	1.97	531
24000	2.01	551
24500	2.05	572
25000	2.09	592
25500	2.13	613
26000	2.18	634
26500	2.22	656
27000	2.26	678
27500	2.30	700
28000	2.34	722
28500	2.39	745
29000	2.43	768
29500	2.47	791
30000	2.51	815

Gerpex/Gerpex RA - water at 50 °C

DN 14x2			DN 16x2			DN 18x2			DN 20x2		
G (L/h)	V (m/s)	Dp/m (Pa/m)	G (L/h)	V (m/s)	Dp/m (Pa/m)	G (L/h)	V (m/s)	Dp/m (Pa/m)	G (L/h)	V (m/s)	Dp/m (Pa/m)
110	0.39	257	120	0.29	126	140	0.25	79	150	0.21	47
115	0.41	278	130	0.32	145	155	0.28	95	170	0.23	59
120	0.42	299	140	0.34	165	170	0.31	111	190	0.26	72
125	0.44	321	150	0.37	186	185	0.33	129	210	0.29	85
130	0.46	344	160	0.39	208	200	0.36	148	230	0.32	100
135	0.48	368	170	0.42	231	215	0.39	168	250	0.35	116
140	0.50	392	180	0.44	256	230	0.42	189	270	0.37	133
145	0.51	417	190	0.47	281	245	0.44	211	290	0.40	150
150	0.53	442	200	0.49	308	260	0.47	234	310	0.43	169
155	0.55	468	210	0.52	335	275	0.50	258	330	0.46	188
160	0.57	495	220	0.54	363	290	0.52	283	350	0.48	209
165	0.58	522	230	0.56	393	305	0.55	309	370	0.51	230
170	0.60	550	240	0.59	423	320	0.58	337	390	0.54	252
175	0.62	579	250	0.61	454	335	0.60	365	410	0.57	275
180	0.64	608	260	0.64	487	350	0.63	394	430	0.59	299
185	0.65	638	270	0.66	520	365	0.66	424	450	0.62	324
190	0.67	668	280	0.69	554	380	0.69	455	470	0.65	350
195	0.69	700	290	0.71	589	395	0.71	487	490	0.68	376
200	0.71	731	300	0.74	625	410	0.74	519	510	0.70	404
205	0.73	764	310	0.76	662	425	0.77	553	530	0.73	432
210	0.74	796	320	0.79	700	440	0.79	588	550	0.76	461
215	0.76	830	330	0.81	739	455	0.82	623	570	0.79	490
220	0.78	864	340	0.84	778	470	0.85	660	590	0.82	521
225	0.80	899	350	0.86	819	485	0.88	697	610	0.84	552
230	0.81	934	360	0.88	860	500	0.90	735	630	0.87	584
235	0.83	970	370	0.91	903	515	0.93	774	650	0.90	617
240	0.85	1006	380	0.93	946	530	0.96	814	670	0.93	651
245	0.87	1043	390	0.96	990	545	0.98	855	690	0.95	685
250	0.88	1081	400	0.98	1035	560	1.01	896	710	0.98	720
255	0.90	1119	410	1.01	1080	575	1.04	939	730	1.01	756
260	0.92	1157	420	1.03	1127	590	1.06	982	750	1.04	793
265	0.94	1197	430	1.06	1174	605	1.09	1026	770	1.06	830
270	0.95	1236	440	1.08	1222	620	1.12	1071	790	1.09	868
275	0.97	1277	450	1.11	1271	635	1.15	1117	810	1.12	907
280	0.99	1318	460	1.13	1321	650	1.17	1163	830	1.15	946
285	1.01	1359	470	1.15	1372	665	1.20	1211	850	1.17	987
290	1.03	1401	480	1.18	1423	680	1.23	1259	870	1.20	1028
295	1.04	1444	490	1.20	1476	695	1.25	1308	890	1.23	1069
300	1.06	1487	500	1.23	1529	710	1.28	1358	910	1.26	1112
305	1.08	1530	510	1.25	1583	725	1.31	1408	930	1.28	1155
310	1.10	1574	520	1.28	1637	740	1.34	1460	950	1.31	1199
315	1.11	1619	530	1.30	1693	755	1.36	1512	970	1.34	1243
320	1.13	1664	540	1.33	1749	770	1.39	1565	990	1.37	1288
325	1.15	1710	550	1.35	1806	785	1.42	1619	1010	1.40	1334
330	1.17	1756	560	1.38	1864	800	1.44	1673	1030	1.42	1381
335	1.18	1803	570	1.40	1923	815	1.47	1728	1050	1.45	1428
340	1.20	1851	580	1.42	1982	830	1.50	1785	1070	1.48	1476
345	1.22	1899	590	1.45	2042	845	1.52	1841	1090	1.51	1525
350	1.24	1947	600	1.47	2103	860	1.55	1899	1110	1.53	1574
355	1.26	1996	610	1.50	2165	875	1.58	1957	1130	1.56	1624
360	1.27	2045	620	1.52	2227	890	1.61	2016	1150	1.59	1675

Gerpex/Gerpex RA - water at 50 °C

DN 26x3		
G (l/h)	V (m/s)	Dp/m (Pa/m)
400	0.35	91
440	0.39	108
480	0.42	126
520	0.46	145
560	0.50	165
600	0.53	186
640	0.57	208
680	0.60	231
720	0.64	256
760	0.67	281
800	0.71	307
840	0.74	335
880	0.78	363
920	0.81	393
960	0.85	423
1000	0.88	454
1040	0.92	487
1080	0.95	520
1120	0.99	554
1160	1.03	589
1200	1.06	625
1240	1.10	662
1280	1.13	700
1320	1.17	739
1360	1.20	778
1400	1.24	819
1440	1.27	860
1480	1.31	902
1520	1.34	945
1560	1.38	989
1600	1.41	1034
1640	1.45	1080
1680	1.49	1126
1720	1.52	1174
1760	1.56	1222
1800	1.59	1271
1840	1.63	1321
1880	1.66	1371
1920	1.70	1423
1960	1.73	1475
2000	1.77	1528
2040	1.80	1582
2080	1.84	1637
2120	1.87	1692
2160	1.91	1748
2200	1.95	1805
2240	1.98	1863
2280	2.02	1922
2320	2.05	1981
2360	2.09	2041
2400	2.12	2102

DN 32x3		
G (l/h)	V (m/s)	Dp/m (Pa/m)
800	0.42	88
860	0.45	100
920	0.48	113
980	0.51	126
1040	0.54	140
1100	0.58	154
1160	0.61	169
1220	0.64	185
1280	0.67	201
1340	0.70	218
1400	0.73	235
1460	0.76	253
1520	0.80	272
1580	0.83	291
1640	0.86	311
1700	0.89	331
1760	0.92	351
1820	0.95	373
1880	0.98	394
1940	1.01	417
2000	1.05	439
2060	1.08	463
2120	1.11	487
2180	1.14	511
2240	1.17	536
2300	1.20	561
2360	1.23	587
2420	1.27	613
2480	1.30	640
2540	1.33	668
2600	1.36	696
2660	1.39	724
2720	1.42	753
2780	1.45	782
2840	1.49	812
2900	1.52	842
2960	1.55	873
3020	1.58	904
3080	1.61	936
3140	1.64	968
3200	1.67	1000
3260	1.71	1033
3320	1.74	1067
3380	1.77	1101
3440	1.80	1135
3500	1.83	1170
3560	1.86	1205
3620	1.89	1241
3680	1.93	1277
3740	1.96	1314
3800	1.99	1351

DN 40x3.5		
G (l/h)	V (m/s)	Dp/m (Pa/m)
1000	0.32	42
1100	0.36	50
1200	0.39	58
1300	0.42	67
1400	0.45	76
1500	0.49	86
1600	0.52	96
1700	0.55	107
1800	0.58	118
1900	0.62	129
2000	0.65	142
2100	0.68	154
2200	0.71	167
2300	0.75	181
2400	0.78	195
2500	0.81	209
2600	0.84	224
2700	0.88	239
2800	0.91	255
2900	0.94	271
3000	0.97	288
3100	1.01	305
3200	1.04	322
3300	1.07	340
3400	1.10	358
3500	1.14	377
3600	1.17	396
3700	1.20	416
3800	1.23	435
3900	1.27	456
4000	1.30	476
4100	1.33	497
4200	1.36	519
4300	1.40	541
4400	1.43	563
4500	1.46	585
4600	1.49	608
4700	1.53	632
4800	1.56	655
4900	1.59	679
5000	1.62	704
5100	1.66	729
5200	1.69	754
5300	1.72	779
5400	1.75	805
5500	1.79	832
5600	1.82	858
5700	1.85	885
5800	1.88	913
5900	1.92	940
6000	1.95	968

Gerpex/Gerpex RA - water at 50 °C

DN 50x4		
G (l/h)	V (m/s)	Dp/m (Pa/m)
2000	0.40	45
2200	0.44	53
2400	0.48	62
2600	0.52	71
2800	0.56	81
3000	0.60	92
3200	0.64	103
3400	0.68	114
3600	0.72	126
3800	0.76	138
4000	0.80	152
4200	0.84	165
4400	0.88	179
4600	0.92	193
4800	0.96	208
5000	1.00	224
5200	1.04	240
5400	1.08	256
5600	1.12	273
5800	1.16	290
6000	1.20	308
6200	1.24	326
6400	1.28	345
6600	1.32	364
6800	1.36	383
7000	1.40	403
7200	1.44	424
7400	1.48	445
7600	1.52	466
7800	1.56	487
8000	1.60	510
8200	1.64	532
8400	1.68	555
8600	1.72	578
8800	1.76	602
9000	1.80	626
9200	1.84	651
9400	1.88	676
9600	1.92	701
9800	1.96	727
10000	2.00	753
10200	2.05	780
10400	2.09	807
10600	2.13	834
10800	2.17	862
11000	2.21	890
11200	2.25	918
11400	2.29	947
11600	2.33	976
11800	2.37	1006
12000	2.41	1036

DN 63x4.5		
G (l/h)	V (m/s)	Dp/m (Pa/m)
3000	0.36	28
3500	0.42	36
4000	0.49	46
4500	0.55	56
5000	0.61	68
5500	0.67	80
6000	0.73	93
6500	0.79	107
7000	0.85	122
7500	0.91	138
8000	0.97	154
8500	1.03	172
9000	1.09	190
9500	1.15	209
10000	1.21	228
10500	1.27	249
11000	1.33	270
11500	1.39	291
12000	1.46	314
12500	1.52	337
13000	1.58	361
13500	1.64	386
14000	1.70	411
14500	1.76	437
15000	1.82	464
15500	1.88	491
16000	1.94	519
16500	2.00	548
17000	2.06	578
17500	2.12	608
18000	2.18	638
18500	2.24	670
19000	2.30	702
19500	2.37	734
20000	2.43	768
20500	2.49	802
21000	2.55	836
21500	2.61	871
22000	2.67	907
22500	2.73	943
23000	2.79	980
23500	2.85	1018
24000	2.91	1056
24500	2.97	1095
25000	3.03	1134
25500	3.09	1174
26000	3.15	1215
26500	3.21	1256
27000	3.27	1298
27500	3.34	1340
28000	3.40	1383

DN 75x5		
G (l/h)	V (m/s)	Dp/m (Pa/m)
5000	0.42	28
5500	0.46	33
6000	0.50	39
6500	0.54	45
7000	0.59	51
7500	0.63	57
8000	0.67	64
8500	0.71	71
9000	0.75	79
9500	0.80	86
10000	0.84	95
10500	0.88	103
11000	0.92	112
11500	0.96	121
12000	1.00	130
12500	1.05	140
13000	1.09	150
13500	1.13	160
14000	1.17	170
14500	1.21	181
15000	1.26	192
15500	1.30	204
16000	1.34	215
16500	1.38	227
17000	1.42	239
17500	1.46	252
18000	1.51	265
18500	1.55	278
19000	1.59	291
19500	1.63	304
20000	1.67	318
20500	1.72	332
21000	1.76	347
21500	1.80	361
22000	1.84	376
22500	1.88	391
23000	1.93	406
23500	1.97	422
24000	2.01	438
24500	2.05	454
25000	2.09	470
25500	2.13	487
26000	2.18	504
26500	2.22	521
27000	2.26	538
27500	2.30	556
28000	2.34	573
28500	2.39	591
29000	2.43	610
29500	2.47	628
30000	2.51	647

Gerpex/Gerpex RA - water at 80 °C

DN 14x2			DN 16x2			DN 18x2			DN 20x2		
G (l/h)	V (m/s)	Dp/m (Pa/m)	G (l/h)	V (m/s)	Dp/m (Pa/m)	G (l/h)	V (m/s)	Dp/m (Pa/m)	G (l/h)	V (m/s)	Dp/m (Pa/m)
110	0.39	239	120	0.29	117	140	0.25	74	150	0.21	44
115	0.41	259	130	0.32	135	155	0.28	88	170	0.23	55
120	0.42	279	140	0.34	154	170	0.31	104	190	0.26	67
125	0.44	299	150	0.37	173	185	0.33	120	210	0.29	80
130	0.46	321	160	0.39	194	200	0.36	138	230	0.32	93
135	0.48	343	170	0.42	216	215	0.39	156	250	0.35	108
140	0.50	365	180	0.44	238	230	0.42	176	270	0.37	124
145	0.51	388	190	0.47	262	245	0.44	197	290	0.40	140
150	0.53	412	200	0.49	287	260	0.47	218	310	0.43	157
155	0.55	436	210	0.52	312	275	0.50	241	330	0.46	176
160	0.57	461	220	0.54	339	290	0.52	264	350	0.48	195
165	0.58	487	230	0.56	366	305	0.55	288	370	0.51	215
170	0.60	513	240	0.59	394	320	0.58	314	390	0.54	235
175	0.62	540	250	0.61	424	335	0.60	340	410	0.57	257
180	0.64	567	260	0.64	454	350	0.63	367	430	0.59	279
185	0.65	595	270	0.66	485	365	0.66	395	450	0.62	302
190	0.67	623	280	0.69	517	380	0.69	424	470	0.65	326
195	0.69	652	290	0.71	549	395	0.71	454	490	0.68	351
200	0.71	682	300	0.74	583	410	0.74	484	510	0.70	376
205	0.73	712	310	0.76	617	425	0.77	516	530	0.73	402
210	0.74	742	320	0.79	653	440	0.79	548	550	0.76	429
215	0.76	774	330	0.81	689	455	0.82	581	570	0.79	457
220	0.78	805	340	0.84	726	470	0.85	615	590	0.82	485
225	0.80	838	350	0.86	763	485	0.88	650	610	0.84	515
230	0.81	870	360	0.88	802	500	0.90	685	630	0.87	544
235	0.83	904	370	0.91	841	515	0.93	722	650	0.90	575
240	0.85	938	380	0.93	881	530	0.96	759	670	0.93	606
245	0.87	972	390	0.96	922	545	0.98	797	690	0.95	638
250	0.88	1007	400	0.98	964	560	1.01	835	710	0.98	671
255	0.90	1043	410	1.01	1007	575	1.04	875	730	1.01	705
260	0.92	1079	420	1.03	1050	590	1.06	915	750	1.04	739
265	0.94	1115	430	1.06	1094	605	1.09	956	770	1.06	774
270	0.95	1152	440	1.08	1139	620	1.12	998	790	1.09	809
275	0.97	1190	450	1.11	1185	635	1.15	1041	810	1.12	845
280	0.99	1228	460	1.13	1231	650	1.17	1084	830	1.15	882
285	1.01	1267	470	1.15	1279	665	1.20	1129	850	1.17	920
290	1.03	1306	480	1.18	1327	680	1.23	1174	870	1.20	958
295	1.04	1346	490	1.20	1375	695	1.25	1219	890	1.23	997
300	1.06	1386	500	1.23	1425	710	1.28	1266	910	1.26	1036
305	1.08	1426	510	1.25	1475	725	1.31	1313	930	1.28	1076
310	1.10	1468	520	1.28	1526	740	1.34	1361	950	1.31	1117
315	1.11	1509	530	1.30	1578	755	1.36	1409	970	1.34	1159
320	1.13	1551	540	1.33	1630	770	1.39	1459	990	1.37	1201
325	1.15	1594	550	1.35	1684	785	1.42	1509	1010	1.40	1244
330	1.17	1637	560	1.38	1737	800	1.44	1560	1030	1.42	1287
335	1.18	1681	570	1.40	1792	815	1.47	1611	1050	1.45	1331
340	1.20	1725	580	1.42	1848	830	1.50	1663	1070	1.48	1376
345	1.22	1770	590	1.45	1904	845	1.52	1716	1090	1.51	1421
350	1.24	1815	600	1.47	1960	860	1.55	1770	1110	1.53	1467
355	1.26	1860	610	1.50	2018	875	1.58	1824	1130	1.56	1514
360	1.27	1906	620	1.52	2076	890	1.61	1879	1150	1.59	1561

Gerpex/Gerpex RA - water at 80 °C

DN 26x3		
G (l/h)	V (m/s)	Dp/m (Pa/m)
400	0.35	85
440	0.39	101
480	0.42	117
520	0.46	135
560	0.50	154
600	0.53	173
640	0.57	194
680	0.60	216
720	0.64	238
760	0.67	262
800	0.71	287
840	0.74	312
880	0.78	339
920	0.81	366
960	0.85	394
1000	0.88	423
1040	0.92	454
1080	0.95	485
1120	0.99	516
1160	1.03	549
1200	1.06	583
1240	1.10	617
1280	1.13	652
1320	1.17	688
1360	1.20	725
1400	1.24	763
1440	1.27	802
1480	1.31	841
1520	1.34	881
1560	1.38	922
1600	1.41	964
1640	1.45	1006
1680	1.49	1050
1720	1.52	1094
1760	1.56	1139
1800	1.59	1185
1840	1.63	1231
1880	1.66	1278
1920	1.70	1326
1960	1.73	1375
2000	1.77	1424
2040	1.80	1475
2080	1.84	1526
2120	1.87	1577
2160	1.91	1630
2200	1.95	1683
2240	1.98	1737
2280	2.02	1791
2320	2.05	1847
2360	2.09	1903
2400	2.12	1960

DN 32x3		
G (l/h)	V (m/s)	Dp/m (Pa/m)
800	0.42	82
860	0.45	94
920	0.48	105
980	0.51	118
1040	0.54	130
1100	0.58	144
1160	0.61	158
1220	0.64	172
1280	0.67	188
1340	0.70	203
1400	0.73	219
1460	0.76	236
1520	0.80	253
1580	0.83	271
1640	0.86	289
1700	0.89	308
1760	0.92	328
1820	0.95	347
1880	0.98	368
1940	1.01	388
2000	1.05	410
2060	1.08	431
2120	1.11	454
2180	1.14	476
2240	1.17	499
2300	1.20	523
2360	1.23	547
2420	1.27	572
2480	1.30	597
2540	1.33	622
2600	1.36	648
2660	1.39	675
2720	1.42	702
2780	1.45	729
2840	1.49	757
2900	1.52	785
2960	1.55	813
3020	1.58	843
3080	1.61	872
3140	1.64	902
3200	1.67	932
3260	1.71	963
3320	1.74	994
3380	1.77	1026
3440	1.80	1058
3500	1.83	1091
3560	1.86	1124
3620	1.89	1157
3680	1.93	1191
3740	1.96	1225
3800	1.99	1260

DN 40x3.5		
G (l/h)	V (m/s)	Dp/m (Pa/m)
1000	0.32	39
1100	0.36	46
1200	0.39	54
1300	0.42	62
1400	0.45	71
1500	0.49	80
1600	0.52	89
1700	0.55	99
1800	0.58	110
1900	0.62	121
2000	0.65	132
2100	0.68	144
2200	0.71	156
2300	0.75	169
2400	0.78	182
2500	0.81	195
2600	0.84	209
2700	0.88	223
2800	0.91	238
2900	0.94	253
3000	0.97	268
3100	1.01	284
3200	1.04	300
3300	1.07	317
3400	1.10	334
3500	1.14	351
3600	1.17	369
3700	1.20	387
3800	1.23	406
3900	1.27	425
4000	1.30	444
4100	1.33	464
4200	1.36	484
4300	1.40	504
4400	1.43	525
4500	1.46	546
4600	1.49	567
4700	1.53	589
4800	1.56	611
4900	1.59	633
5000	1.62	656
5100	1.66	679
5200	1.69	703
5300	1.72	727
5400	1.75	751
5500	1.79	775
5600	1.82	800
5700	1.85	825
5800	1.88	851
5900	1.92	877
6000	1.95	903

Gerpex/Gerpex RA - water at 80 °C

DN 50x4		
G (l/h)	V (m/s)	Dp/m (Pa/m)
2000	0.40	42
2200	0.44	50
2400	0.48	58
2600	0.52	66
2800	0.56	76
3000	0.60	85
3200	0.64	96
3400	0.68	106
3600	0.72	117
3800	0.76	129
4000	0.80	141
4200	0.84	154
4400	0.88	167
4600	0.92	180
4800	0.96	194
5000	1.00	209
5200	1.04	223
5400	1.08	239
5600	1.12	254
5800	1.16	271
6000	1.20	287
6200	1.24	304
6400	1.28	321
6600	1.32	339
6800	1.36	357
7000	1.40	376
7200	1.44	395
7400	1.48	414
7600	1.52	434
7800	1.56	454
8000	1.60	475
8200	1.64	496
8400	1.68	517
8600	1.72	539
8800	1.76	561
9000	1.80	584
9200	1.84	607
9400	1.88	630
9600	1.92	653
9800	1.96	678
10000	2.00	702
10200	2.05	727
10400	2.09	752
10600	2.13	777
10800	2.17	803
11000	2.21	829
11200	2.25	856
11400	2.29	883
11600	2.33	910
11800	2.37	938
12000	2.41	966

DN 63x4.5		
G (l/h)	V (m/s)	Dp/m (Pa/m)
3000	0.36	26
3500	0.42	34
4000	0.49	43
4500	0.55	53
5000	0.61	63
5500	0.67	75
6000	0.73	87
6500	0.79	100
7000	0.85	114
7500	0.91	129
8000	0.97	144
8500	1.03	160
9000	1.09	177
9500	1.15	194
10000	1.21	213
10500	1.27	232
11000	1.33	251
11500	1.39	272
12000	1.46	293
12500	1.52	314
13000	1.58	337
13500	1.64	360
14000	1.70	383
14500	1.76	408
15000	1.82	433
15500	1.88	458
16000	1.94	484
16500	2.00	511
17000	2.06	538
17500	2.12	566
18000	2.18	595
18500	2.24	624
19000	2.30	654
19500	2.37	685
20000	2.43	716
20500	2.49	747
21000	2.55	779
21500	2.61	812
22000	2.67	845
22500	2.73	879
23000	2.79	914
23500	2.85	949
24000	2.91	984
24500	2.97	1021
25000	3.03	1057
25500	3.09	1095
26000	3.15	1132
26500	3.21	1171
27000	3.27	1210
27500	3.34	1249
28000	3.40	1289

DN 75x5		
G (l/h)	V (m/s)	Dp/m (Pa/m)
5000	0.42	26
5500	0.46	31
6000	0.50	36
6500	0.54	41
7000	0.59	47
7500	0.63	53
8000	0.67	60
8500	0.71	66
9000	0.75	73
9500	0.80	81
10000	0.84	88
10500	0.88	96
11000	0.92	104
11500	0.96	113
12000	1.00	121
12500	1.05	130
13000	1.09	140
13500	1.13	149
14000	1.17	159
14500	1.21	169
15000	1.26	179
15500	1.30	190
16000	1.34	201
16500	1.38	212
17000	1.42	223
17500	1.46	235
18000	1.51	247
18500	1.55	259
19000	1.59	271
19500	1.63	284
20000	1.67	297
20500	1.72	310
21000	1.76	323
21500	1.80	337
22000	1.84	350
22500	1.88	364
23000	1.93	379
23500	1.97	393
24000	2.01	408
24500	2.05	423
25000	2.09	438
25500	2.13	454
26000	2.18	469
26500	2.22	485
27000	2.26	501
27500	2.30	518
28000	2.34	534
28500	2.39	551
29000	2.43	568
29500	2.47	586
30000	2.51	603

Fittings pressure drops

Fittings localised pressure drops can be obtained with the following formula, known loss coefficients ξ of the single figures:

$$\Delta p = \xi \rho v^2 / 2$$

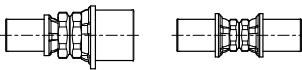
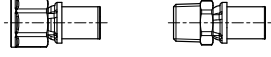
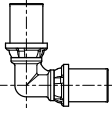
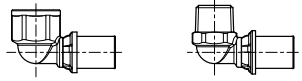
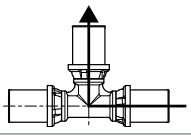
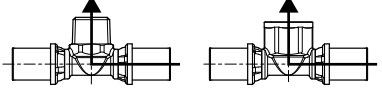
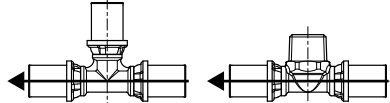
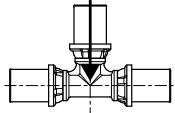
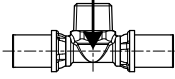
Δp = pressure drop (Pa = 0.01 mbar)

ξ = loss coefficient

ρ = fluid density [kg/m³]

Water temperature [°C]	ρ [kg/m ³]
20	998.2
40	992.2
60	998.3
80	971.8

v = speed of the fluid (m/s)

Figure	ξ
	1.8
	1.6
	2.4
	2.2
	2.4
	2.2
	1.8
	3.2
	3.0



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EMMETI S.p.A. Unipersonale

Via Brigata Osoppo, 166
33074 Vigonovo frazione di Fontanafredda (PN) - Italia
Tel. 0434.567911
Fax 0434.567901
www.emmeti.com
info@emmeti.com

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