

ecoCOOL

Your comfort cooling solution

Pre-insulated piping system



Who we are

Connections for life

GF Piping Systems is the leading flow solutions provider across the world. We enable the safe and sustainable transport of fluids. Our business is driven by maintaining industry-leading sustainability levels, innovating through digitally enabled solutions, and investing in a culture built on performance, learning, and caring.

Your partner for modern plastic piping systems

The plastic piping systems from GF Piping Systems are non-corrosive and do not need replacing throughout the system's entire service life. Therefore, they contribute to the increased reliability of the system while lowering maintenance costs and staff requirements. They are excellently suited for applications involving potable and sewage water, coolants, acids, leaches, and other chemicals, as well as abrasive compounds.

GF Piping Systems, founded more than 200 years ago in Switzerland, supports its customers both in the initial switch from metal to plastic and in retrofits – across all project phases. They benefit from more than 60 years of experience in plastic systems and application knowledge from 100 countries. With Specialized Solutions, GF Piping Systems supports the design and installation of state-of-the-art plastic piping systems, so that owners and planners can concentrate on their daily business without interruption. GF Piping Systems is present every step of the way, from the design phase all the way through to installation and maintenance.

Strong regional footprint

GF Piping Systems has been present in the Southeast Asian market since 1994, when the first office in the region was registered in Singapore. Today, with seven offices in five countries, production facilities in Malaysia and Indonesia, and numerous regional partners across Southeast Asia, GF Piping Systems is committed to the region and ensures competent customer support and technical on-site training.



-  Sales / Representative office
-  Production facility
-  Distributors



Pre-insulated piping system

When it comes to efficient cooling, using the right piping system is key. Essential criteria are the ease of installation, no down time for maintenance, light weight and minimal energy loss at its peak operational conditions.



With ecoCOOL, you will benefit from:

1. Excellent fire resistance

Its galvanised iron jacketing is compliant with BS 476 part 6 and part 7 as per British Standard, resulting in class 0 fire rating and meeting the requirement of buildings fire safety regulations.

2. Corrosion-free carrier pipe

HDPE (High-density polyethylene) carrier pipes reduce corrosion risk to zero and are longer lasting than metal alternatives. No incrustation and tuberculation ensure the same flow rate throughout their lifespan, guaranteeing that the energy required to pump fluids through the system does not increase as the pipeline ages.

3. Lower heat transfer rate and improved energy efficiency

HDPE carrier pipes' thermal conductivity [λ (K) 0.38 W/MK] is 200 times lower than Carbon Steel [λ (K) 76 W/MK]. Besides that, the Polyurethane insulating material with very low thermal conductivity rate is the ideal insulation material for maintaining lower heat transfer rate. The overall pre-insulated system ensures an efficient cooling performance.

4. Superior chemical resistance

The superior resistance of HDPE to various chemicals, makes it ideal for fluid piping systems. Whether potable or process water, coolants, acids and other chemicals, HDPE carrier pipes excellently withstand all chemical and mechanical loads.

5. Faster & easier installation

Pre-insulated pipes & fittings, electrofusion jointing and lighter materials eliminate the need for traditional insulation. It results in easier installation with less manpower needed.

6. 60% weight reduction

HDPE's weight advantage over conventional steel systems, helps reducing the need for structural steel supports, concrete for plinths and riser walls. The project costs can be further reduced by minimized carnage and heavy lifting on site.

System integrity & fire resistance

With ecoCOOL, GF Piping Systems offers a unique solution including pre-insulated and fire resistant pipes and fittings. The portfolio is rounded off by handy installation tools and our electrofusion machine MSA 2.1.

Fire safety is crucial for occupants and equipment in buildings. ecoCOOL has a layer of galvanized steel sheet protecting the insulation layer and carrier pipe from the exposure to fire. Complying with British Standard BS 476 part 6 and part 7, ecoCOOL piping system is able to meet Class 0 fire rating.

System properties

ecoCOOL		
Materials	Medium pipe	PE100
	Insulation	PU foam, Closed cell
	Outer jacket	Spiral seam steel
Dimensions		d32 mm (DN25) to d160 mm (DN150)
Connection technology		Electrofusion
Nominal pressure	16 bar, SDR 11	d32 DN25 - d160 DN150
Insulation	Thermal conductivity at 20°C	≤ 0,022 W/mK
	Density	≥ 55 kg/m³
	Foam cell size	max. Ø 0,5mm
Temperature	Medium	> 5°C - < 50°C
Weight (without medium)		
Environment	Resistance	Moisture and vapor-tight
Standards	EN ISO 15494	Plastic piping systems for industrial applications - Metric series
	ISO 7	Fittings
Fire classification	BS 476 part 6 & part 7	Class 0

* All three materials are firmly bonded together.

Walraven firestop

ecoCOOL pipes are tested and certified with Walraven, Pacifyre® AWM II Fire Collar that are meant to be used for sealing of insulated or non-insulated flammable pipes and multi-layer pipes. Able to withstand the impact of fire for a minimum of 120 minutes according to BS 476-6-20 testing procedures.

Fixation

For securing against dislocation during installation with appropriate clamping tool.

Pre-insulated pipes

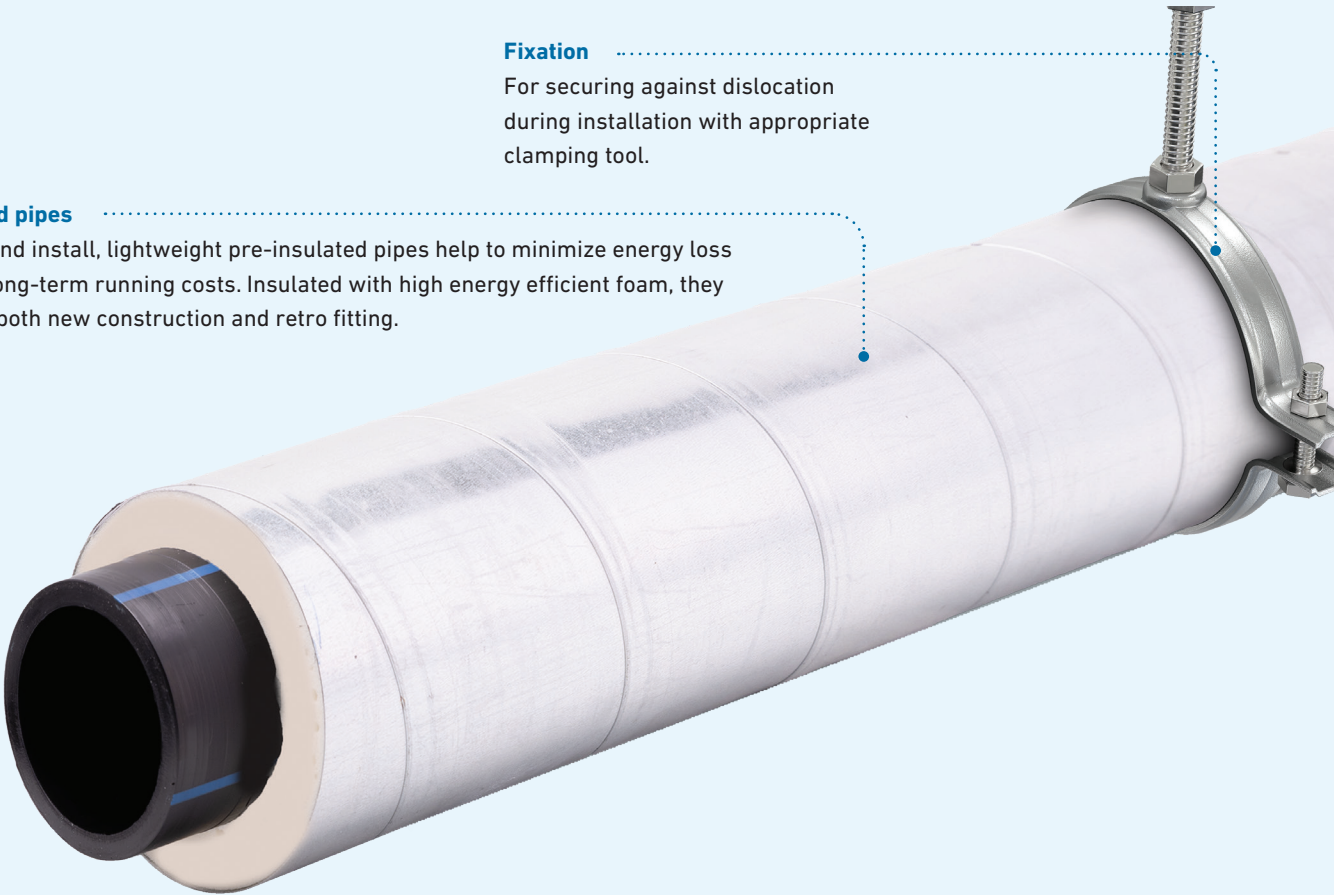
Easy to join and install, lightweight pre-insulated pipes help to minimize energy loss and reduce long-term running costs. Insulated with high energy efficient foam, they are ideal for both new construction and retro fitting.

Welding Indicator

For indication of a successful weld and haptic inspection after the welding process.

Pre-insulated fitting

For fast and easy installation thanks to pre-insulation. No manual post-insulation required.



Simplified installation

The benefits of ecoCOOL is the simplified and fast installation by electrofusion, yet meeting the building fire safety requirements. The jointing technology completes quality jointing within seconds.

In electrofusion, wires built into the fitting are locally heated through electric current, which causes the melting and fusion of the surrounding material. This joining technology ensures a secure and reliable connection. In combination with a pre-insulated fitting with sealing lip, continuous insulation is also guaranteed. Once the components are assembled and

secured against dislocation, the installation can be connected to the electrofusion unit. From there, the unit takes over and gives step-by-step instructions on the process. The fusion itself only takes seconds, and the welding indicator indicates its success. All welding data is stored on the welding device and is available for documenting the project.



Cutting tool

GF Piping System ensures straight cut of pipe can be achieved precisely by introducing the use of professional pipe cutting power tools. It is effective, safe and easy to use.

Double Clamp with universal link

Recommended for the installation of ecoCOOL. The clamping allows installation without tension and avoids movement during fusion and cooling time.



Peeling tool

Rotary peeler for reliable pipe preparation prior to electrofusion. The adjustable basic tool is suitable for holding dimensional pipe inserts from d32 mm to d160 mm.

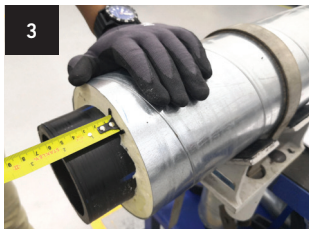
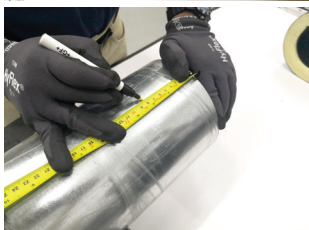
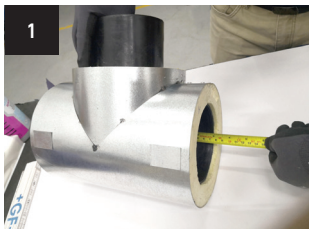
MSA 2.1

Simple to operate and featuring a robust aluminium housing, the MSA 2.1 electrofusion units control the entire welding process taking into account energy output compensation. Electrofusion report download possible in PDF format.



Insert - Clamp - Weld - Done!

The jointing of the ecoCOOL system is simple and fast. The procedure takes just a few minutes. GF Piping Systems provides professional training to ecoCOOL installers. A certified installer can install the system faster than a conventional post-insulated system. GF Piping Systems MSA fusion devices ensure the quality of the joints.



1. Measure

Measure insertion depth of the electrofusion fitting, then mark the insertion length onto insulated pipe.

2. Cut

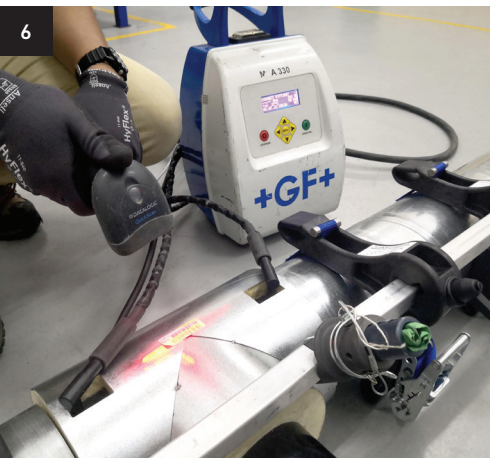
Remove galvanized steel jacketing and insulation foam layer.

3. Peel

Check the correct pipe insertion length. Then use peeling tools to remove oxidation layer on PE pipes.

4. Clean

Use lint-free cloth and PE cleaning solution to clean fusion area on both pipe and fitting.



5. Clamp

Join the pipes and fitting correctly, then use pipe clamp to hold pipes and fitting securely in place.

6. Scan

Follow electrofusion procedure, connect electrofusion machine connector pins onto fitting. Scan barcode on the fitting using machine's scanner to perform electrofusion process. Do not move the pipes during the process until it is completely cooled off.

7. Fix

Use pipe bracket to secure ecoCOOL onto installation location.



ecoCOOL

Highly efficient

ecoCOOL leads the way when it comes to energy efficiency. From extrusion of the pipe to cooling operation applications, everything indicates that it consumes less energy than a steel pipe.

Construction growth rates are leading among Asia and the trend continues. Demand for buildings' cooling and energy consumption is on the rise due to hot climate conditions.

GF Piping Systems' mission is to show our commitment to sustainability by supporting our customers' success with innovative, energy-saving solutions making the collective global CO2 footprint more sustainable.

ecoCOOL helps to reduce the environmental impact of your cooling system

Compared to steel piping system, ecoCOOL is considerably more environmentally friendly. For example: a metal piping system requires more frequent piping replacement once incrustation and tuberculation condition causing blockage to the carrier pipe. Thus increases long-term ownership cost as well as creates waste that are mostly non-recyclable.

ecoCOOL environmental benefits

- Saves energy compared to traditional cooling systems, drastically reducing operating costs and CO2 emissions.
- Non-corrosive PE100 carrier pipes and fittings, leading to additionally saved resources related to maintenance, repairs and replacements.
- Helps achieve relevant green building declarations.
- Strict quality management (ISO 9001) and health and safety management (ISO 45001) during production.

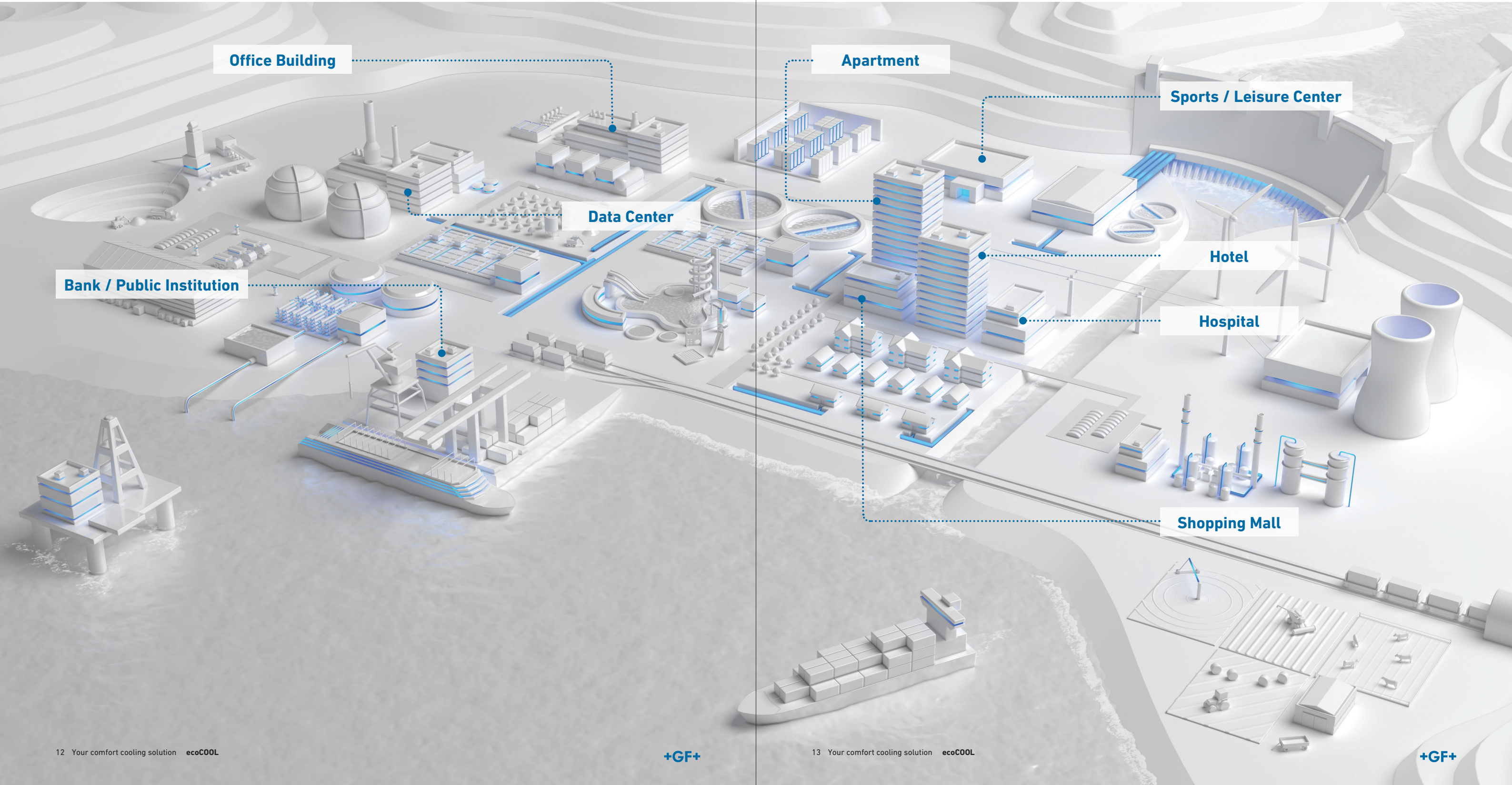
GF Piping Systems is certified according to ISO 14001 for its environmental management system.



Applications

Whether in office buildings, hotels, hospitals, residential homes or shopping malls; air conditioning plays an essential role in most aspects of everyday life, particularly in Southeast Asia.

The ecoCOOL portfolio is the perfect choice for efficient and sustainable cooling system applications in buildings.



Office Building

Apartment

Sports / Leisure Center

Bank / Public Institution

Data Center

Hotel

Hospital

Shopping Mall

One partner from planning to commissioning

With Specialized Solutions, GF Piping Systems supports the design and installation of state of the art plastic piping systems, so that owners and planners can concentrate on their daily business without interruption. GF Piping Systems is present every step of the way, from providing planning support on new projects to testing the condition of old systems.

More information at
gfps.com/specialized-solutions



Custom Product Design and Prefabrication

Having your individual needs and application in focus, our customizing teams forge the solution that fits you best, developing custom-made parts to complete systems or special solutions produced in small series, individual consulting and off-site prefabrication. Through our global network of flexible locations, we offer a wide range of comprehensive solutions. Tailored innovation, inspired by you.



Digital Libraries

The libraries cover three key areas for designing, creating, and maintaining a project: Building Information Modeling, the Plant Design Software, and the CAD Library helping you reduce costs and construction times while ensuring design accuracy and integrity. Reduce time and effort while ensuring design accuracy and integrity.



Engineering

Increase the efficiency of your project with tailor-made analysis packages from GF Piping Systems. Minimize project risks by diminishing incorrect calculations or wrong material selection. Rely on GF's experience in fast project implementation and choose our durable, safe, and reliable piping systems delivery. Established knowledge, guiding you through.

Next steps

In this brochure, you have received the most important information and technical details. But nothing replaces a personal conversation with an expert from GF Piping Systems. It is all about your needs and how we can support you in your daily business challenges. If you have not already done so, make an appointment today.

Find your local contact on the back cover of this brochure or visit our GF Piping Systems website, where you will find specialized contact persons in your area. You will also find additional information on our products, including technical datasheets, operating instructions, and relevant certificates and approvals.

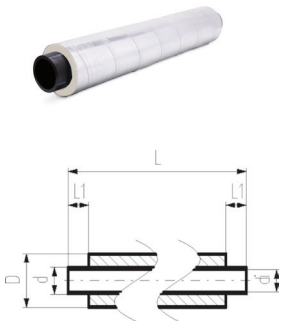
More information at
gfps.com/ecocool

Product range

ecoCOOL

Product Name	Page
ecoCOOL Pre-insulated pipes	17
ecoCOOL Pre-insulated electrofusion elbow 90°	18
ecoCOOL Pre-insulated electrofusion elbow 45°	18
ecoCOOL Pre-insulated electrofusion coupler	19
ecoCOOL Pre-insulated electrofusion equal tee	19
ecoCOOL Pre-insulated electrofusion reducer	20
ecoCOOL Sealing strip	20
ecoCOOL Insulation for welding indicator	20
ELGEF Plus End cap PE100 ELGEF Plus End cap PE100	21
ELGEF Plus Transition adaptor PE/brass (CW617N) Male thread	21
ELGEF Plus Transition adaptor PE/brass (CW617N) Female thread	21
ELGEF Plus Transition adaptor PE/brass Loose nut (CW617N)	22
ELGEF Plus Transition adaptor PE/steel (stainless 1.4305) Male thread	22
ELGEF Plus Transition adaptor PE/steel (stainless 1.4305) Female thread	22
Profile Flange Gasket, metric EPDM/FKM	22
Backing flange PP-Steel metric for butt fusion system metric	23
ELGEF Plus Flange adaptor PE100 SDR11 Combined jointing face: flat and serrated	24
Blanking Flanges PE100	25
MSA 2.1 Automatic Electrofusion Unit with protocols retrieval	26
Tangit KS Cleaner	26
Pipe end peeler RSE multi	26
Peeling tool PT 2	27
Peeling tool RTC	27
Double clamp	27
Double clamp with universal link	28
V-block	28
Tee adaptor	28

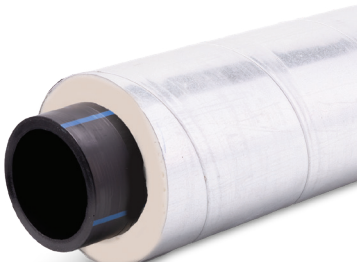
ecoCOOL Pipes

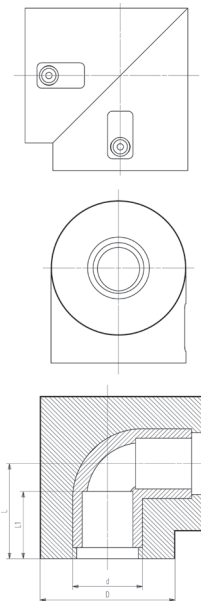


ecoCOOL Pre-insulated pipes

- Model:**
- Pre-insulated pipe PE100 SDR11, metric
 - Insulation made from 55kg/m³ Polyurethane foam
 - Galvanised Steel Jacketing
 - With free ends for electrofusion

d/D (mm)	Code	DN (mm)	PN (bar)	SDR	di (mm)	L (mm)	L1 (mm)
32 / 80	300 205 222	25	16	11	26.0	5800	150
40 / 90	300 205 223	32	16	11	32.6	5800	150
50 / 100	300 205 224	40	16	11	40.8	5800	150
63 / 115	300 205 225	50	16	11	51.4	5800	150
75 / 125	300 205 226	65	16	11	61.4	5800	150
90 / 140	300 205 227	80	16	11	73.6	5800	150
110 / 160	300 205 228	100	16	11	90.0	5800	150
125 / 180	300 205 229	100	16	11	102.2	5800	150
140 / 200	300 205 230	150	16	11	114.6	5800	150
160 / 210	300 205 231	150	16	11	130.8	5800	150

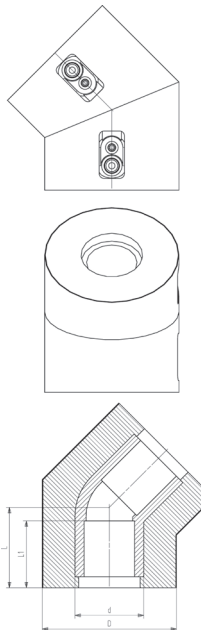
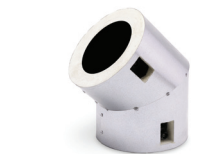




ecoCOOL Pre-insulated electrofusion elbow 90°

- Model:**
- Pre-insulated electrofusion Elbow 90° PE100 SDR11, metric
 - Insulation made from Polyurethane foam
 - Galvanised Steel Jacketing
 - Designed to operate with an international standard and safe voltage 39.5V
 - 4mm pin connectors
 - Limited path fusion indicators

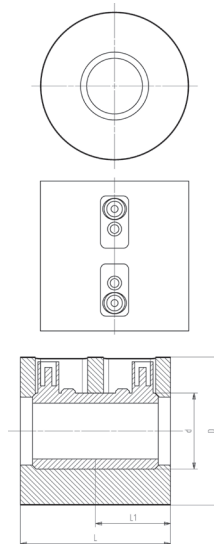
d/D (mm)	Code	PN (bar)	SDR	L (mm)	L1 (mm)
32 / 90	300 200 200	16	11	60	43
40 / 106	300 200 201	16	11	69	46
50 / 112	300 200 202	16	11	78	50
63 / 127	300 200 203	16	11	88	55
75 / 140	300 200 204	16	11	101	61
90 / 160	300 200 205	16	11	129	69
110 / 185	300 200 206	16	11	154	79
125 / 203	300 200 207	16	11	162	84
160 / 253	300 200 209	16	11	198	99



ecoCOOL Pre-insulated electrofusion elbow 45°

- Model:**
- Pre-insulated electrofusion Elbow 45° PE100 SDR11, metric
 - Insulation made from Polyurethane foam
 - Galvanised Steel Jacketing
 - Designed to operate with an international standard and safe voltage 39.5V
 - 4mm pin connectors
 - Limited path fusion indicators

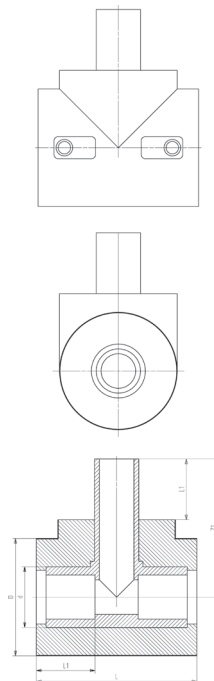
d/D (mm)	Code	PN (bar)	SDR	L (mm)	L1 (mm)
32 / 90	300 200 220	16	11	51	43
40 / 106	300 200 221	16	11	57	46
50 / 112	300 200 222	16	11	63	50
63 / 127	300 200 223	16	11	70	55
75 / 140	300 200 224	16	11	78	61
90 / 160	300 200 225	16	11	98	69
110 / 185	300 200 226	16	11	119	79
125 / 203	300 200 227	16	11	126	84
160 / 253	300 200 229	16	11	142	99



ecoCOOL Pre-insulated electrofusion coupler

- Model:**
- Pre-insulated electrofusion Coupler PE100 SDR11, metric
 - Insulation made from Polyurethane foam
 - Galvanised Steel Jacketing
 - Designed to operate with an international standard and safe voltage 39.5V
 - 4mm pin connectors
 - Limited path fusion indicators

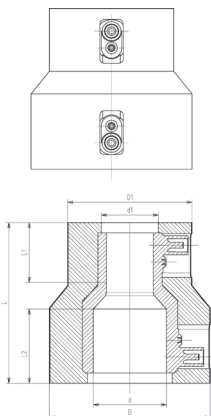
d/D (mm)	Code	PN (bar)	SDR	L (mm)	L1 (mm)
32 / 90	300 200 260	16	11	86	42
40 / 106	300 200 261	16	11	94	46
50 / 112	300 200 262	16	11	102	50
63 / 127	300 200 263	16	11	110	54
75 / 140	300 200 264	16	11	124	61
90 / 160	300 200 265	16	11	139	69
110 / 185	300 200 266	16	11	159	79
125 / 203	300 200 267	16	11	170	84
140 / 225	300 200 268	16	11	180	89
160 / 253	300 200 269	16	11	194	96



ecoCOOL Pre-insulated electrofusion equal tee

- Model:**
- Pre-insulated electrofusion Tee equal PE100 SDR11, metric
 - Insulation made from Polyurethane foam
 - Galvanised Steel Jacketing
 - Designed to operate with an international standard and safe voltage 39.5V
 - 4mm pin connectors
 - Limited path fusion indicators

d/D (mm)	Code	PN (bar)	SDR	L (mm)	L1 (mm)	Z1 (mm)
32 / 90	300 200 240	16	11	116	41	100
40 / 106	300 200 241	16	11	133	46	114
50 / 112	300 200 242	16	11	149	49	126
63 / 127	300 200 243	16	11	165	53	150
75 / 140	300 200 244	16	11	192	61	143
90 / 160	300 200 245	16	11	219	69	161
110 / 185	300 200 246	16	11	269	79	184
125 / 203	300 200 247	16	11	290	85	207
160 / 253	300 200 249	16	11	330	99	206



ecoCOOL Pre-insulated electrofusion reducer

Model:

- Pre-insulated electrofusion Reducer PE100 SDR11, metric
- Insulation made from Polyurethane foam
- Galvanised Steel Jacketing
- Designed to operate with an international standard and safe voltage 39.5V
- 4mm pin connectors
- Limited path fusion indicators

d/D (mm)	d1/D1 (mm)	Code	PN (bar)	SDR	L (mm)	L1 (mm)	L2 (mm)
40 / 106	32 / 90	300 200 280	16	11	102	40	46
50 / 112	32 / 90	300 200 281	16	11	110	42	50
50 / 112	40 / 106	300 200 282	16	11	110	46	50
63 / 127	32 / 90	300 200 283	16	11	119	42	55
63 / 127	40 / 106	300 200 284	16	11	119	46	55
63 / 127	50 / 112	300 200 285	16	11	119	50	55
90 / 160	63 / 127	300 200 286	16	11	060	54	70
110 / 185	63 / 127	300 200 287	16	11	198	65	78
110 / 185	90 / 160	300 200 288	16	11	187	70	80
125 / 203	90 / 160	300 200 291	16	11	194	68	86
160 / 253	90 / 160	300 200 292	16	11	241	79	97
160 / 253	110 / 185	300 200 293	16	11	240	78	97



ecoCOOL Sealing strip

Model:

- For sealing between pipe and fitting

d/D (mm)	Code	Weight (kg)
32	300 203 145	0.012
40	300 203 146	0.012
50	300 203 147	0.012
63	300 203 148	0.012
75	300 203 149	0.012
90	300 203 150	0.012
110	300 203 151	0.012
125	300 203 152	0.012
160	300 203 154	0.012

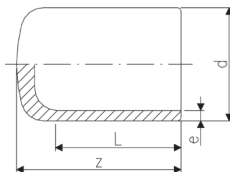


ecoCOOL Insulation for welding indicator

Model:

- For sealing of fitting after welding

Code	Weight (kg)
300 203 155	0.01
300 203 156	0.01



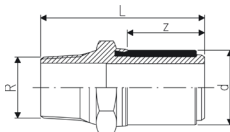
ELGEF Plus End cap PE100

- Long spigot version
- 10 bar Gas / 16 bar Water

Note:

* Fabricated fitting made from pipe

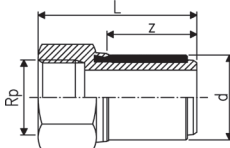
d (mm)	Code	Weight (kg)	z (mm)	L (mm)	e (mm)
32	753 961 008	0.020	54	54	3.0
40	753 961 009	0.033	57	57	3.7
50	753 961 010	0.054	63	63	4.6
63	753 961 011	0.086	65	65	5.8
75	753 961 012	0.146	80	72	6.8
* 90	753 961 013	0.240	90	81	8.2
* 110	753 961 014	0.373	98	86	10.0
* 125	753 961 015	0.546	105	92	11.4
* 140	753 961 016	0.727	136	92	12.7
* 160	753 961 017	1.034	120	102	14.6



ELGEF Plus Transition adaptor PE/brass (CW617N) Male thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Only for ELGEF Plus Couplers and Fittings

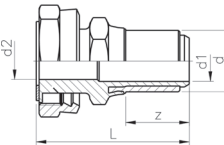
d (mm)	R (inch)	Code	Weight (kg)	L (mm)	z (mm)
32	1	720 920 708	0.257	80	35
32	1 ¼	720 920 718	0.370	82	35
32	1 ½	720 920 728	0.437	82	35
40	1	720 920 719	0.358	84	39
40	1 ¼	720 920 709	0.405	86	39
40	1 ½	720 920 729	0.454	86	39
50	1	720 920 720	0.505	88	43
50	1 ¼	720 920 730	0.539	90	43
50	1 ½	720 920 710	0.514	90	43
63	1 ¼	720 920 721	0.739	94	47
63	1 ½	720 920 731	0.709	94	47
63	2	720 920 711	0.762	98	47



ELGEF Plus Transition adaptor PE/brass (CW617N) Female thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Only for ELGEF Plus Couplers and Fittings

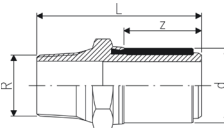
d (mm)	Rp (inch)	Code	Weight (kg)	L (mm)	z (mm)
32	1	720 920 208	0.246	71	35
40	1 ¼	720 920 209	0.386	77	39
50	1 ½	720 920 210	0.520	81	43
63	1	720 920 221	0.780	83	47
63	1 ¼	720 920 231	1.062	85	47
63	1 ½	720 920 241	0.740	85	47
63	2	720 920 211	0.729	89	47



ELGEF Plus Transition adaptor PE/brass Loose nut (CW617N)

- PE 100 SDR 11 (ISO S5)
- 16 bar Water
- Only for ELGEF Plus Couplers and Fittings
- Incl. flat gasket for water applications (KTW / WRAS approved)

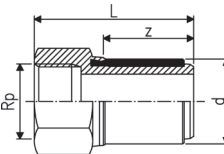
d	G	Code	Weight	d2	L	z
(mm)	(inch)		(kg)	(mm)	(mm)	(mm)
32	1	720 920 008	0.235	20	72	34
32	1 ¼	720 920 018	0.356	22	76	34
50	1 ½	720 920 010	0.584	29	87	42
63	1	720 920 021	0.804	20	87	46
63	2	720 920 011	1.018	36	95	46



ELGEF Plus Transition adaptor PE/steel (stainless 1.4305) Male thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Only for ELGEF Plus Couplers and Fittings

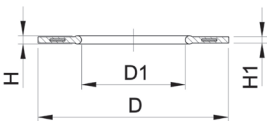
d	R	Code	Weight	L	z
(mm)	(inch)		(kg)	(mm)	(mm)
32	1	724 920 708	0.244	80	35
40	1 ¼	724 920 709	0.380	86	39
40	1 ½	724 920 719	0.446	86	39
50	1 ½	724 920 710	0.478	90	43
63	1 ½	724 920 721	0.653	98	47
63	2	724 920 711	0.722	98	47



ELGEF Plus Transition adaptor PE/steel (stainless 1.4305) Female thread

- PE 100 SDR 11 (ISO S5)
- 10 bar Gas / 16 bar Water
- Only for ELGEF Plus Couplers and Fittings

d	Rp	Code	Weight	L	z
(mm)	(inch)		(kg)	(mm)	(mm)
32	1	724 920 208	0.237	71	35
40	1 ¼	724 920 209	0.373	77	39
50	1 ½	724 920 210	0.527	81	43
63	2	724 920 211	0.733	89	47



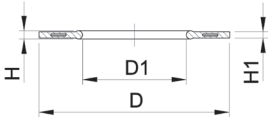
Profile Flange Gasket, metric EPDM/FKM

Model:

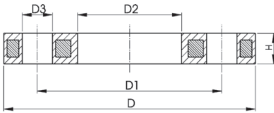
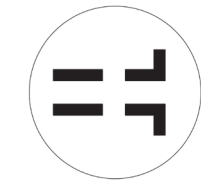
- For all metric GF Flange Adaptors
- Hardness: 70° shore **EPDM**, 75° shore **FKM**
- EPDM: approved acc. to DVGW Water W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- material steel insert: carbon steel
- Rubber-steel body combined with rubber profile cord ring up to d630
- Rubber-steel body ideal for big dimensions (d710 - d1000)

di FA are the suitable inner diameters of flanges adaptors

d	PN	DN	Code	D	D1	di FA	H	H1
(mm)	(bar)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)
32	16	25	748 440 708	71	28	18 - 28	4	3
40	16	32	748 440 709	82	40	30 - 40	4	3
50	16	40	748 440 710	92	46	36 - 46	4	3
63	16	50	748 440 711	107	58	48 - 58	5	4



d	PN	DN	Code	D	D1	di FA	H	H1
(mm)	(bar)	(mm)		(mm)	(mm)	(mm)	(mm)	(mm)
75	16	65	748 440 712	127	69	59 - 69	5	4
90	16	80	748 440 713	142	84	73 - 84	5	4
110	16	100	748 440 714	162	104	94 - 104	6	5
140	16	125	748 440 716	192	137	127 - 137	6	5



Backing flange PP-Steel metric for butt fusion system metric

Model:

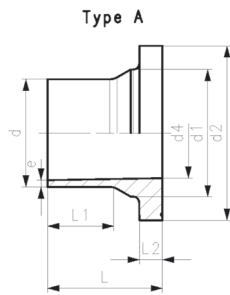
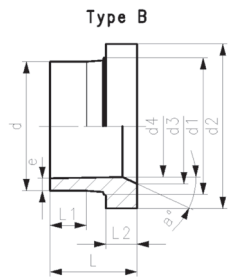
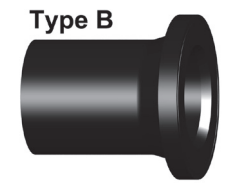
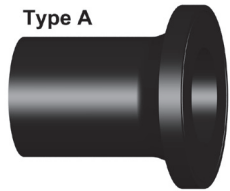
- Material: PP (30% glass-fibre reinforced) with steel ring
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Bolt circle PN 10

AL: number of holes

¹⁾ Suitable for socket -and butt fusion systems

²⁾ Combined version, bolt circle metric - ANSI

d	DN	Code	Weight	D	D1	D2	D3	H max.	AL	SC
(mm)	(mm)		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)		
1	32	25	727 700 208	0.429	115	85	42	14	16	4 M12
1	40	32	727 700 209	0.621	140	100	51	18	16	4 M12
1	63	50	727 700 211	0.900	165	125	78	18	20	4 M12
1	75	65	727 700 212	1.110	185	145	92	18	20	4 M12
	90	80	727 700 313	1.390	200	160	108	18	20	8 M12
	110	100	727 700 314	1.407	220	180	128	18	20	8 M12
	125	100	727 700 315	1.408	220	180	135	18	20	8 M12
	140	125	727 700 716	2.318	250	210	158	18	24	8 M12



ELGEF Plus Flange adaptor PE100 SDR11 Combined jointing face: flat and serrated

Model:

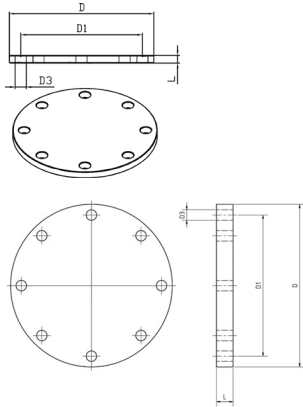
- Long spigot
- Material: PE100
- For IR, butt- and electro fusion
- Suitable for flange connections to metric (from d110 also to ANSI/ASME B16.5)
- Gasket d20-d630: Profile flange gasket NBR No. 45 44 07, EPDM No. 48 44 07
- Gasket d710-d1000: flat gasket EPDM No. 48 40 03
- Type A without chamfer, Type B with chamfer
- 10 bar Gas / 16 bar Water
- Up to d315, suitable for butterfly valve type 567/578. Above use ecoFIT adaptor for butterfly valves SDR11 (d355-d1200)

* Not suitable for butterfly valves

**installation support through moulded ribs

d	DN	FM	Code	Weight
(mm)	(mm)			(kg)
32	25	IR	753 800 008	0.056
40	32	IR	753 800 009	0.081
50	40	IR	753 800 010	0.119
63	50	IR	753 800 011	0.187
75	65	IR	753 800 012	0.314
90	80	IR	753 800 013	0.471
110	100	IR	753 800 014	0.718
125	100	IR	753 800 015	0.883
140	125	IR	753 800 016	1.348
160	150	IR	753 800 017	1.718

d1	d2	d3	d4	L	L1	L2	e	Type
(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
40	68		26	91.5	61.0	10	3.0	A
50	78		32	94.5	61.5	11	3.7	A
61	88		40	90.0	62.0	12	4.6	A
75	102		51	98.0	69.0	14	5.8	A
89	122	66	61	125.0	89.0	16	6.8	B
105	138	78	73	140.0	103.0	17	8.2	B
125	158	100	90	160.0	114.0	18	10.0	B
132	158	114	102	170.0	125.0	25	11.4	B
155	188	127	114	200.0	147.0	25	12.7	B
175	212	151	130	200.0	147.0	25	14.6	B



Blanking Flanges PE100

Model:

- Made out of sheet material
- Bolt circle PN 10

d	PN	DN	Code	Weight	AL	D	L	D1	D3
(mm)	(bar)	(mm)		(kg)		(mm)	(mm)	(mm)	(mm)
63	2.5	50	700 647 886	0.362	4	165	15	125	18
75	2.5	65	700 647 887	0.487	4	185	15	145	18
90	2.5	80	700 647 888	0.544	8	200	15	160	18
110	2.5	100	700 647 889	0.643	8	220	15	180	18
125	2.5	100	700 647 890	0.658	8	220	15	180	18
140	2.5	125	700 647 891	0.842	8	250	15	210	18
160	2.5	150	700 647 892	1.200	8	285	20	240	22



MSA 2.1 Automatic Electrofusion Unit with protocols retrieval

The MSA 2.1 automatic electro fusion unit combines light weight and high efficiency, thanks to its inverter technology and furthermore provides fusion documentation in PDF. The unit is extremely fast and simple, with three basic operations required to operator: connect, scan, start the fusion. It is robust, safe and ergonomic.

All is meant to simplify the job: the barcode scanner, for long distance reading, the cooling system to joint in series, the icon system, to keep the interaction between user and machine intuitive. The entire welding process is controlled and regulated with energy output compensation depending on ambient temperature and the indication of cooling time.

The internal Bluetooth Low Energy device offers the possibility to enter data, monitor the fusion from remote and collect the data recorded via wireless with consumer smartphones, to send them to the headquarter even in real time.

The unit has 1000 protocols permanently stored in the internal memory. The user can copy the fusion reports in an USB stick to print them out in PDF format.

Scope of delivery includes: transport box, angle adapters (4.0 mm and 4.7 mm), operating instructions, START/STOP badge and USB memory stick with PC applications.

Technical Data:

- Operating temperature: -20°C to +50°C
- Mains voltage and frequency: 230V (190V - 265V), 50-60Hz
- Fusion voltage: 8-42 V (48 V)
- Fusion data input mode: bar code, manual
- Fusion current: 90 A (max)
- Suggested power generators: 3.5 kVA
- USB Port: Type A
- Protection factor: Class 1 / IP 65
- Mains cable: 4 m / Fusion cable: 4 m
- Weight: ca. 11.9 kg
- Display: Graphical LCD, adjustable contrast
- Independent from languages

Type	Code	Weight (kg)
Barcode scanner, transport case, mini Welding Book	790 156 003	19.500
Barcode scanner, transport case, mini Welding Book, Swiss plug	790 156 006	11.900
Barcode scanner, transport case, mini Welding Book, 8m fusion cable	790 156 010	12.900



Tangit KS Cleaner

- Special cleaner for plastic fusion connections in the material of PE, PP, PB, PVDF, ECTFE and PVC-U
- Suitable for Tangit Rapid. Must not be used for solvent cementing
- DVGW approved
- DW 5290 BR 0464

Size	Code	Weight (kg)
1 liter	799 298 023	0.872



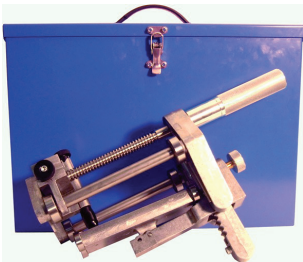
Pipe end peeler RSE multi

- **Rotary peeler for reliable pipe preparation prior to electrofusion**
- The adjustable basic tool is suitable for holding dimensional pipe inserts from d20 to d75 mm.
- Applicable on pipe ends and spigot ends of fittings
- Applicable for straight and coiled pipes
- Applicable for metric pipes according to EN12201 und EN1555
- Applicable on pipe material: PE100RC, PE100, PE-Xa, PP
- Operation: manual or with cordless screwdriver
- Maximum peeling length = 75mm
- Peeling blade as reversing knife with 2 cutting edges
- Scope of delivery either without or with the pipe inserts specified in the description
- Supplementary pipe inserts to be ordered separately

d (mm)	Description	Code	Weight (kg)	SDR	e (mm)	L (mm)	B (mm)	H (mm)
	Basic tool + box	799 300 350	0.58			280	95	98
	Basic tool + case	799 300 351	1.45			391	304	134
	Basic tool+case+d32+d63	799 300 352	1.88	11		391	304	134

table continued on the next page

d (mm)	Description	Code	Weight (kg)	SDR	e (mm)	L (mm)	B (mm)	H (mm)
	Basic tool+case +d32+d40+d50+d63	799 300 353	2.18	11		391	304	134
32	Insert RSE	799 300 358	0.10	11	3.0	50	30	30
40	Insert RSE	799 300 359	0.10	11	3.7	50	40	40
50	Insert RSE	799 300 360	0.20	11	4.6	60	50	50
50	Insert RSE	799 300 370	0.20	17	3.0	60	50	50
63	Insert RSE	799 300 361	0.33	11	5.8	60	60	60
63	Insert RSE	799 300 371	0.33	17	3.8	60	60	60
75	Insert RSE	799 300 362	0.47	11	6.8	60	70	70
75	Insert RSE	799 300 372	0.47	17	4.5	60	70	70
	Blade RSE	799 300 347	0.01			7	7	3
	Handle RSE	790 308 450	0.08			60	50	50
	Case RSE multi	790 308 312	0.87			391	304	134



Peeling tool PT 2

- Scope of delivery: 1 tool (size 1, 2 or 3) in a metal carrying case.
- The rotating Peeling Tools PT 2 are suitable for preparing pipe ends (when installing Electrofusion couplers and fittings). The tool ensures a constant peeling quality on the complete peeling surface and is suitable for PE80, PE100 and PEX pipes.

d-d (mm)	Code	Weight (kg)
63 - 250	799 300 752	7.500
110 - 400	799 300 755	9.900
110 - 500	799 300 756	3.900



Peeling tool RTC

- **Rotary peeler for reliable pipe preparation prior to electrofusion**
- Applicable on pipe ends and spigot ends of fittings
- **Scope of delivery 315:** 1 Scraper arm, 1 Self-centering chuck base, 1 Aluminium transport case
- **Scope of delivery 710:** 1 Scraper arm, 1 Self-centering chuck base, 2 Aluminium transport case

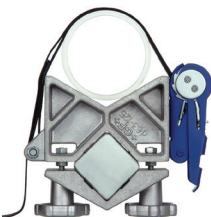
d-d (mm)	Code	Weight (kg)
75 - 315	799 150 423	9.616
355 - 710	799 300 757	31.400



Double clamp

- The user-friendly Double Clamps are suitable for coupler connections. They are quickly and easily put into position and prevent pullout and pipe movements during the fusion time and cooling time.
- Scope of delivery: 1 tool consisting of 1 beam (compact), 2 V-clamps complete with ratchet and belt.

d-d (mm)	Code	Weight (kg)
63 - 125	799 301 484	3.506
110 - 225	799 301 486	7.918
225 - 500	799 301 488	14.735





- Recommended for the installation of fittings ELGEF Plus and ecoFIT d40 - 200 and d160 - 630mm
- Recommended for the installation of fittings COOL-FIT d32/D75 - d140/D200 and d160/D250 - d450/D630
- The clamping allows installation without tension and avoids movement during fusion and cooling time
- The centrally located adjustable universal link allows installation of electrofusion couplers, elbows and reducers
- Works above, below and alongside the joint
- Adaptor for use with Tee-pieces available (see accessories)

d	d1	Code	Weight
(mm)	(mm)		(kg)
40	200	799 301 490	4.200
160	630	799 301 496	14.100



- Suitable for clamping tool (799301495)

d	d1	Code	Weight	Description	L	B	H
(mm)	(mm)		(kg)		(mm)	(mm)	(mm)
40	200	799 301 492	1.000	V-block complete	290	230	65
160	630	799 301 498	3.200	V-block complete	660	430	90



- Suitable for clamping tool (799301495)

d	d1	Code	Weight	Description	L	B	H
(mm)	(mm)		(kg)		(mm)	(mm)	(mm)
40	200	799 301 491	0.610	Tee adaptor	600	50	40
160	630	799 301 497	3.500	Tee adaptor	1070	75	60

Notes:

Local support around the world

Visit our webpage to get in touch with your local specialist:
www.gfps.com/our-locations



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