

COOL-FIT 2.0

The Revolution for Efficient Cooling



COOL-FIT 2.0

Your Solution for Chilled Water

The efficiency of a cooling plant is defined by the system's Coefficient of Performance (COP), the heat transfer rate at the air cooler and the efficiency of the chilled water piping system. As a contribution to the worldwide initiative to reduce CO₂ emissions and environmental impact, GF Piping Systems brings a revolution to efficient cooling.



The COOL-FIT 2.0 PE100 pipes and fittings are insulated with 22 mm of high energy efficient (HE) foam and protected with a robust jacket. COOL-FIT 2.0 is the corrosion & condensation free solution for the transport of chilled water inside residential and commercial buildings as well as data centres and for process cooling. The smooth inner surface of the PE100 pipe provides a minimum pressure loss while the low thermal conductivity of the insulation ensures reduced energy loss and running costs for a life time. The 3-in-1 construction keeps installation time to a minimum.

+ Building owners

Minimised energy loss

Top quality insulation thickness and density throughout the entire system.

Maintenance free with low running costs

No corrosion, no incrustations or insulation damage
25 years design life-span.

Light weight and versatile – ideal for retrofitting of prestigious buildings

30% less weight than traditional metal systems.

Hard external jacket

Vapour and moisture tight construction, mechanically loadable and bird proof.

Low Pressure Loss

Smooth pipe, roughness factor 0.007 mm and no incrustation.

+ Planners and consultants

Easy to plan

Planning fundamentals, CAD library and BIM compatible.

Accurate planning

One team, one system, one manufacturer.

A system for life

Corrosion & condensation free, moisture and vapour tight, low pressure loss and energy efficient.

State of the art jointing technology

Machine controlled quality.

Low CO₂ footprint

CFC free and recyclable. Zero ODP.

+ General contractors and installers

Build more in less time

3-in-1: pipe, insulation and jacket in one step.

Reliable easy jointing

No hot works for the electrofusion jointing process.

Simple bracketing

The hard external jacket allows for simple, easy to mount and no need for insulated pipe brackets.

Light and easy to handle

Up to d110 no need for lifts or special devices to handle on-site.

Complete compatible system – no extras needed

Insulated pipes, fittings, valves, transition fittings, flexible hoses and brackets.

Off-site pre-fabrication

Reduced on-site labour time.

Application areas



Cooling System Within the Water Cycle

In the modern world an ever growing population lives in cities which are becoming larger and larger. The energy generated by all sorts of devices have raised the need for climate control. It plays a major role in the daily life of modern societies.

Either at home, at work, shopping, travelling or leisure time, environmental temperatures affect satisfaction and productivity.

GF Piping Systems offers its unique and extensive COOL-FIT range of solutions for all these different kinds of cooling requirements. With COOL-FIT 2.0 an additional system for chilled water applications is now available.



1) Airport

2) Office building

3) Data centre

4) Hospital

5) Hotel

6) Apartment

7) Shopping centre

8) Sports centre / leisure centre

9) University

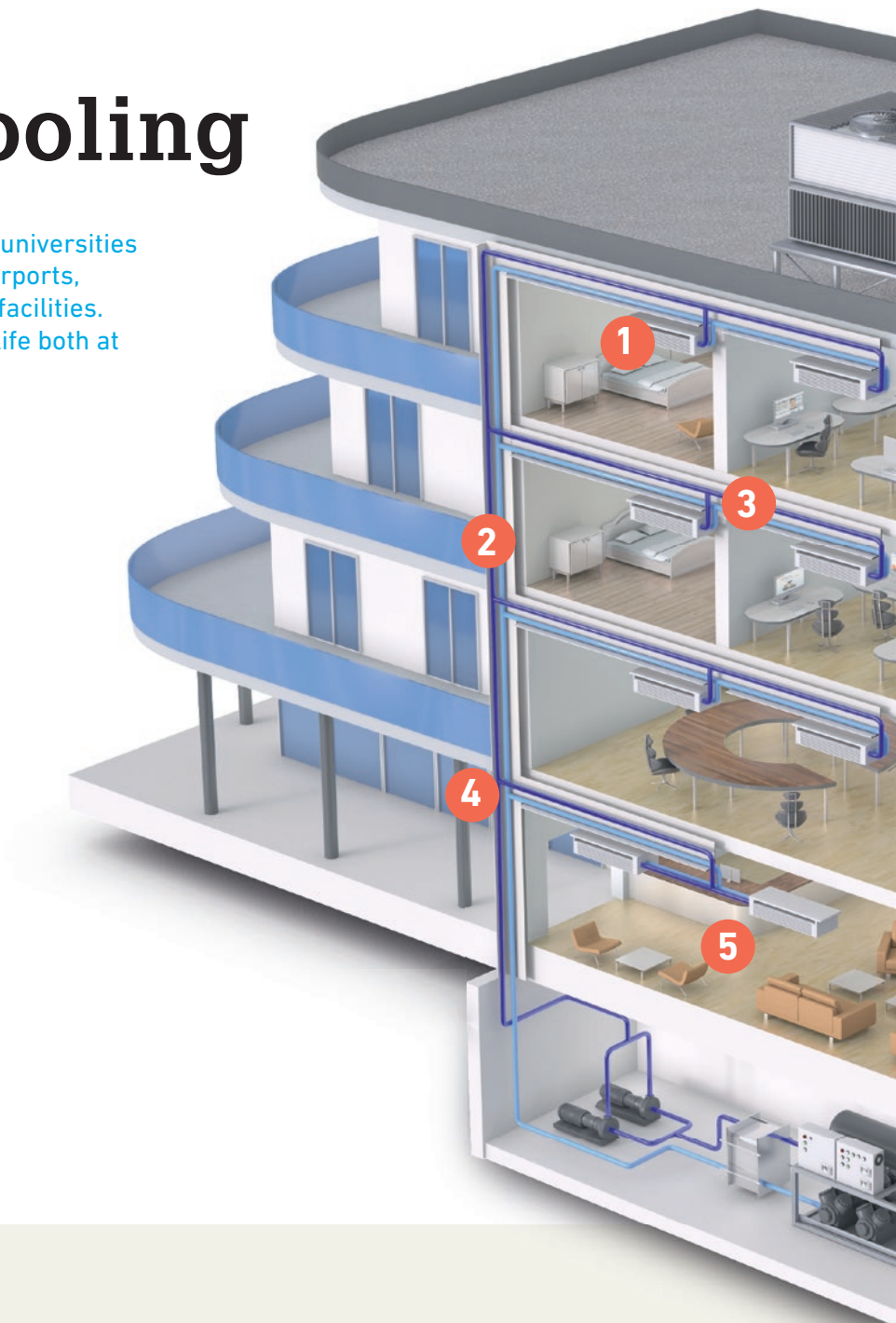
10) Bank / public institutions

Air conditioning

Comfort Cooling

Apartments and office buildings, hotels, universities and schools, banks, shopping centres, airports, cinemas and theatres, sports and event facilities. Air conditioning improves the quality of life both at work, at home and at leisure venues.

The “ready-to-install” COOL-FIT 2.0 is a revolution for efficient cooling.



1) Connection to fan coils

- Insulated valves
- Pre-insulated hoses
- Pre-insulated transitions



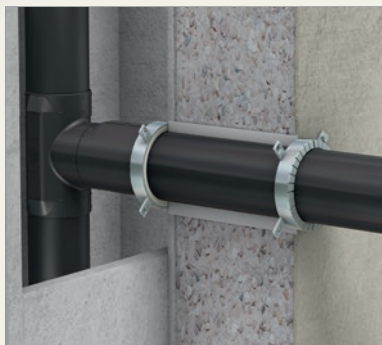
2) Risers

- Large dimension pre-insulated piping
- Insulated expansion/contraction compensator



3) Reduced branches

- Pre-insulated reduced tees
- Pre-insulated transition fittings: ecoFIT, iFIT and traditional metal systems



4) Fire wall penetrations

- Proved and certified solution for COOL-FIT 2.0



5) Highly frequented areas

- COOL-FIT 2.0M with metal jacket provides increased fire classification
- Certified brackets
- Metal jacket for aesthetics



6) Emergency exits

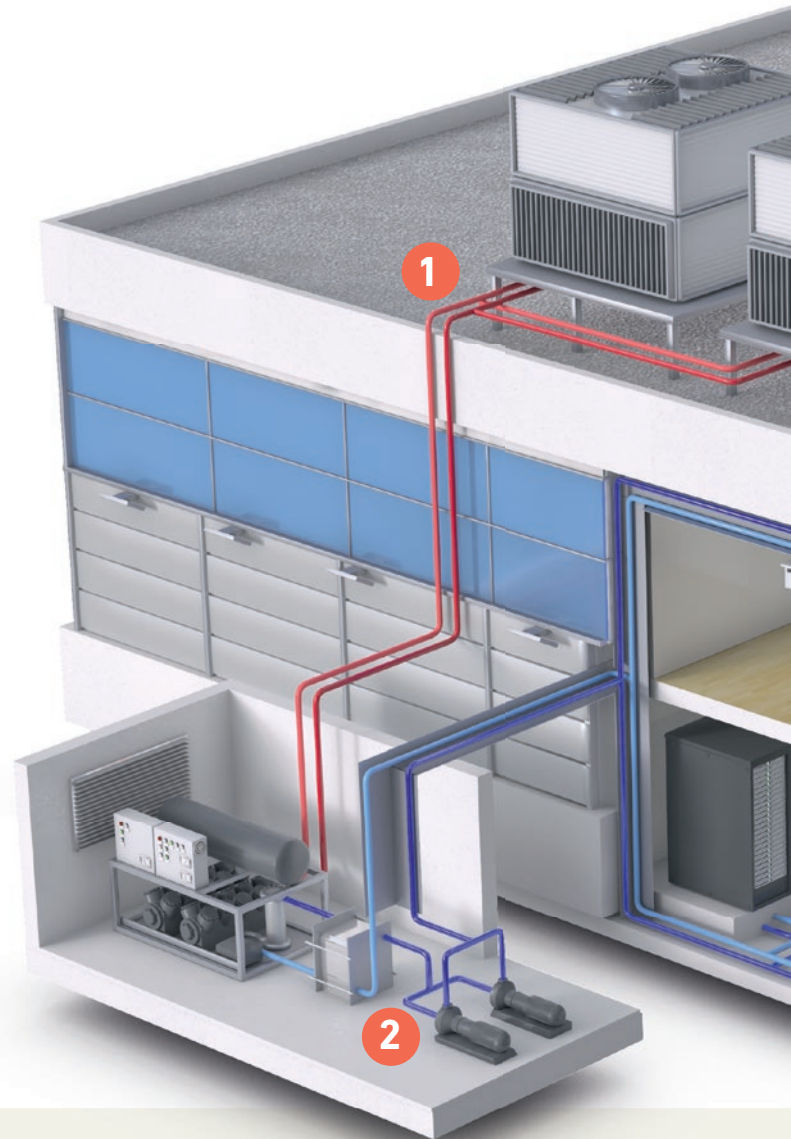
- Certified mineral wool solutions
- Certified brackets

Data centers

Safe Cooling

On average, 70% of data centre power is converted into heat, as announced at the annual Green Data Centre Conference*. COOL-FIT 2.0 is the safe piping solution for an effective and efficient design, supply, installation and management of the cooling systems of a data centre.

The “ready-to-install” COOL-FIT 2.0 is a revolution for efficient cooling.



* Statement at the Green Data Centre Conference, 2014.



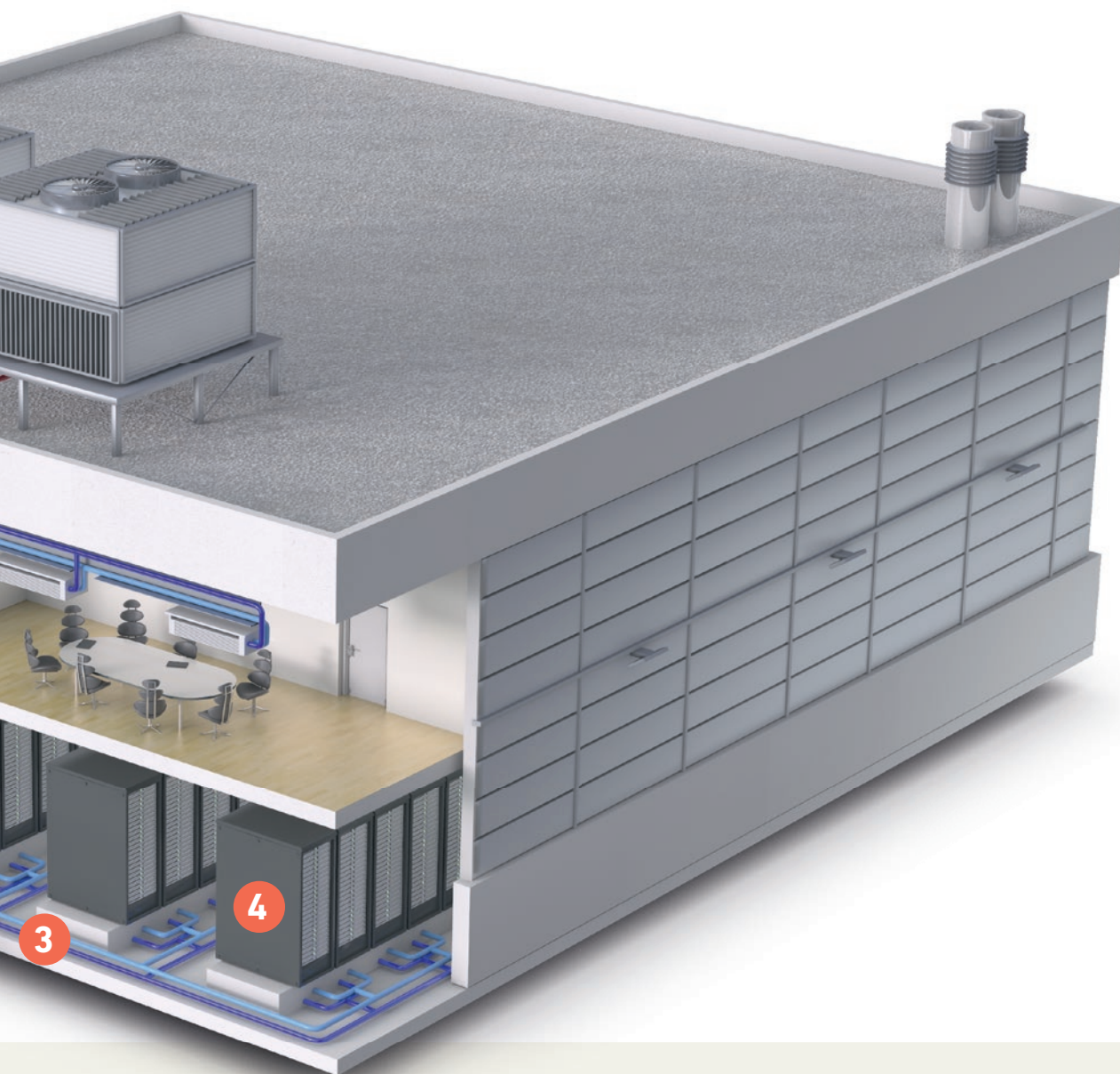
1) Connection to cooling towers

- Pre-insulated transitions to metal grooved systems and standard flanges



2) Pump station

- Pre-insulated compensators for vibration damping



3) Distribution lines

- Expansion/contraction pre-insulated compensator



4) Racks cooling





- Pre-insulated hoses provide simple connection to cooling back panels
- Pre-insulated valves for individual circuit control
- Pre-insulated transitions
- Machine guided welding process with traceability

System overview


More Than a System

All COOL-FIT 2.0 items are pre-insulated. Products which may need to be maintained, such as valves, are delivered with removable insulation.


COOL-FIT 2.0

		d25	d32	d40	d50	d63	d75	d90	d110	d140
	Pipes PN16	–	●	●	●	●	●	●	●	●
	Couplers	–	●	●	●	●	●	●	●	●
	Elbows 90° / 45°	–	●	●	●	●	●	●	●	●
	T-90° equal	–	●	●	●	●	●	●	●	●
	T-90° reduced	–	–	●	●	●	●	●	●	●
	Reducers	–	–	●	●	●	●	●	●	●
	Flexible hoses	●	●	●	●	●	●	●	–	–
	Ball valves	–	●	●	●	●	●	●	–	–
	Butterfly valves	–	–	–	–	–	–	–	●	●
	Transition fittings	–	●	●	●	●	●	●	●	●
	Compensators	–	–	–	–	–	–	–	●	●
	Fixed points	–	●	●	●	●	●	●	●	●

COOL-FIT 2.0 M

	Pipes	–	●	●	●	●	●	●	●	–
	Couplers	–	●	●	●	●	●	●	●	–
	Elbows 90°/45°	–	●	●	●	●	●	●	●	–
	T90° equal	–	●	●	●	●	●	●	●	–

Tools

	Tools	–	●	●	●	●	●	●	●	●
	Fusion machine	–	●	●	●	●	●	●	●	●

+ Compatible systems



ecoFIT PE



iFit

Material properties

Materials*	Media pipe	PE100
	Insulation	GF HE foam, CFC free, closed cell
	Outer jacket	Pipe: HDPE, fitting: GF HE Foam
Dimensions		d32 - d140 (DN25 - DN125)
Joining technology		Electrofusion welding
Pressure rating		16 bar, SDR11
Insulation	Thermal conductivity λ at 20°C	≤ 0.022 W/mK
	Density	≥ 55 kg/m ³
	Foam cell size	max. \varnothing 0.5 mm
	Thickness (Nominal)	22 mm
Temperature	Medium	0° C to +60° C
Weight (without liquid)	Pipe d32	1.14 kg/m
	Pipe d140	9.02 kg/m
Environment	Resistance	Water- and vapour-tight
	Ozone depleting potential	Zero
Standards	EN ISO 15494	Plastics piping systems for industrial applications - Metric series
	ISO 7	Threaded joints
	EN ISO 16135, EN ISO 16138	Industrial valves

* All three materials are permanently jointed to each other.

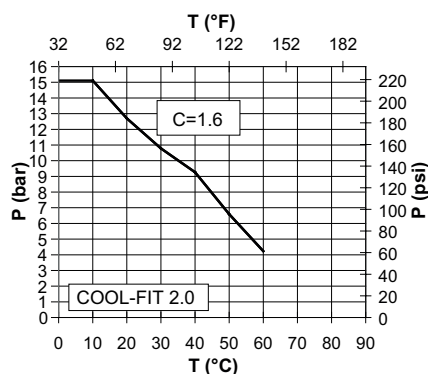
Expansion / contraction

The expansion and contraction of COOL-FIT pipes is depending on the cooling agent- and the ambient temperature and the change of both temperatures in an application. It cannot be described with a static expansion-/contraction factor as done for non insulated pipes.

Use the COOL-FIT Calculation Tool to determine detailed, application specific values.

Pressure / temperature

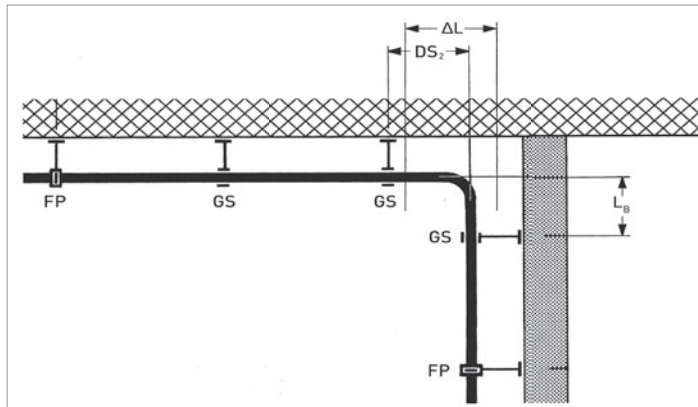
Medium: water



P Medium pressure (bar, psi)
T Medium temperature (°C, °F)

Planning fundamentals COOL-FIT 2.0

Definition of flexible sections COOL-FIT 2.0



Assumption

Ambient temperature:

25 °C constant

Internal temp. of pipe at installation:

25 °C

Assembly situation:

Indoor

Length changes ΔL in [mm] at 20° C liquid temp.

L [m]	25	50	100	150
d32	-6.0	-12.0	-24.0	-36.0
d40	-7.0	-15.0	-29.0	-44.0
d50	-10.0	-19.0	-38.0	-58.0
d63	-10.0	-19.0	-38.0	-58.0
d75	-11.0	-21.0	-43.0	-64.0
d90	-12.0	-24.0	-48.0	-72.0
d110	-13.0	-27.0	-54.0	-81.0
d140	-14.0	-27.0	-55.0	-82.0

Length changes ΔL in [mm] at 15° C liquid temp.

L [m]	25	50	100	150
d32	-12.0	-24.0	-49.0	-73.0
d40	-15.0	-29.0	-58.0	-87.0
d50	-19.0	-38.0	-77.0	-115.0
d63	-19.0	-38.0	-76.0	-115.0
d75	-21.0	-43.0	-85.0	-128.0
d90	-24.0	-48.0	-96.0	-144.0
d110	-27.0	-54.0	-108.0	-161.0
d140	-27.0	-55.0	-109.0	-164.0

Length changes ΔL in [mm] at 10° C liquid temp.

L [m]	25	50	100	150
d32	-18.0	-36.0	-73.0	-109.0
d40	-22.0	-44.0	-87.0	-131.0
d50	-29.0	-58.0	-115.0	-173.0
d63	-29.0	-57.0	-115.0	-172.0
d75	-32.0	-64.0	-128.0	-191.0
d90	-36.0	-72.0	-144.0	-216.0
d110	-40.0	-81.0	-161.0	-242.0
d140	-41.0	-82.0	-164.0	-246.0

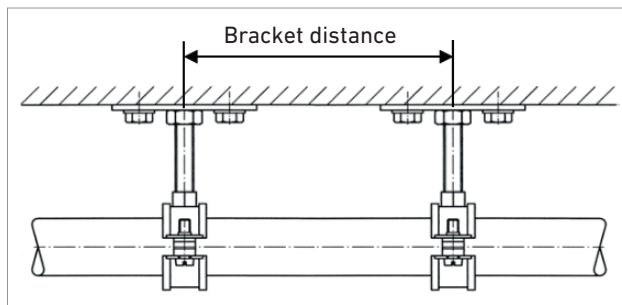
Length changes ΔL in [mm] at 5° C liquid temp.

L [m]	25	50	100	150
d32	-24.0	-49.0	-97.0	-146.0
d40	-29.0	-58.0	-116.0	-175.0
d50	-39.0	-77.0	-154.0	-231.0
d63	-38.0	-76.0	-153.0	-229.0
d75	-43.0	-85.0	-170.0	-255.0
d90	-48.0	-96.0	-192.0	-288.0
d110	-54.0	-108.0	-215.0	-323.0
d140	-55.0	-109.0	-218.0	-327.0

Flexible sections L_B in [cm]

ΔL [mm]	10	20	30	40	50	60	70	80	90	100	150	200	300
d32	71	101	123	142	159	174	188	201	214	225	276	318	390
d40	78	110	135	156	174	191	206	221	234	247	302	349	427
d50	78	110	135	156	174	191	206	221	234	247	302	3490	427
d63	86	122	149	173	193	211	228	244	259	273	334	386	472
d75	92	130	159	184	206	225	243	260	276	291	356	411	503
d90	97	138	169	195	218	238	257	275	292	308	377	435	533
d110	104	147	180	208	233	255	275	294	312	329	403	465	570
d140	116	164	200	233	260	285	308	329	349	368	450	5200	637

Pipe bracket distances



	d32	d40	d50	d63	d75	d90	d110	d140
Bracket distance (m) COOL-FIT 2.0	1.6	1.7	1.7	1.85	1.95	2.0	2.1	2.35

Values are valid independent of the ambient temperature

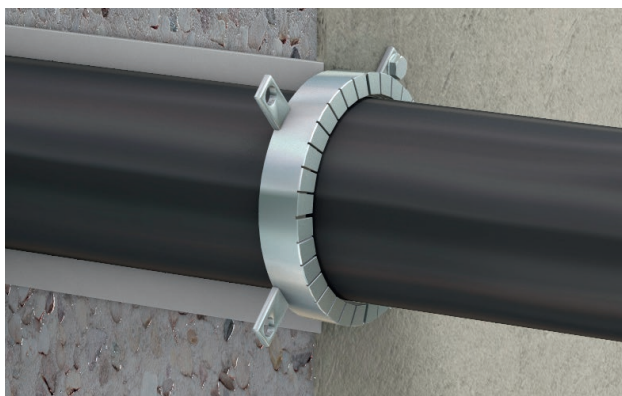
Fire classes according to EN 13501-1 and UK Building regulations

	COOL-FIT 2.0	COOL-FIT 2.0M	COOL-FIT 2.0/Mineral Wool ²⁾
			
EN 13501-1	D _L	B _L	A2 _L
BS 5422:2009 ¹⁾	National Class 3	National Class 0	National Class 0

¹⁾ Test method according to BS 476-6 and BS 476-7

²⁾ Type: Rockwool 800

Wall penetration fire stops



COOL-FIT 2.0 pipes are tested and certified with ROKU® System AWM II of ROLF KUHN GmbH. They withstand the impact of fire, minimum at 120 minutes according to the DIN EN 1363-1 testing procedure.

Chemical resistance to cooling agents

COOL-FIT 2.0 can be used with various types of cooling agents, such as:

- Water
- Organic salt solutions
- Inorganic salt solutions
- Water-Glycol mixtures up to 50%
- Ice slurry

Refer to the GF Planning Fundamentals for more detailed information.

The Easy Connection

The state-of-the-art electrofusion technology is perfect for on-site jointing.

+ Electrofusion with GF Piping Systems

Electrofusion is a safe and reliable way to joint plastic piping systems. The installer needs only to connect the leads to the fitting, scan the bar code and leave the control to the machine.

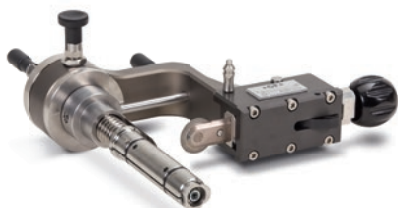
The electrofusion fittings are equipped with integrated resistance wires, which are supplied with electricity during the fusion process. Depending on the ambient temperature, the fusion time is automatically adjusted for the correct distribution of energy, a soft start is applied to minimise the load on the power generator, and fusion is carried out to completion. In case of anomalies, like inadequate input current or fitting wires fault, the machine stops immediately and informs the operator with a specific error message.



MSA electro fusion device

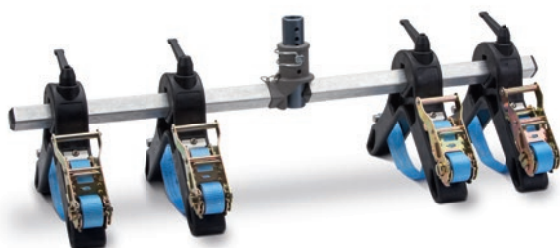
The MSA fusion devices can weld COOL-FIT 2.0 electrofusion fittings up to 3 times faster than welded steel joints. Risks to the surroundings caused by open flames simply do not exist. Fittings recognition through bar code scanning ensures the quality of the joint and due to recorded fusion parameters a high level of quality assurance is provided.

Its low weight of less than 12 kg allows simple handling.



Foam removal tool

COOL-FIT 2.0 pipes are supplied with free ends (non-insulated), ready for assembling and fusion with fittings. If a pipe needs to be cut to the desired length, the foam removal tool helps to remove the foam and outer jacket dust-free and in less than 2 minutes. At the same time it peels the surface of the media pipe in order to prepare it perfectly for the subsequent fusion process.



Pipe installation clamps

During the fusion process forces occur, causing the pipe to move out of the fitting. GF recommends to fix the assembly with COOL-FIT 2.0 installation clamps. They restrain the movement of the pipes and keep their alignment. Their reduced weights (less than 6kg) as well as their compact design allow easy overhead assemblies, even in narrow conditions.

Installation

Insert – Clamp – Weld – Done!

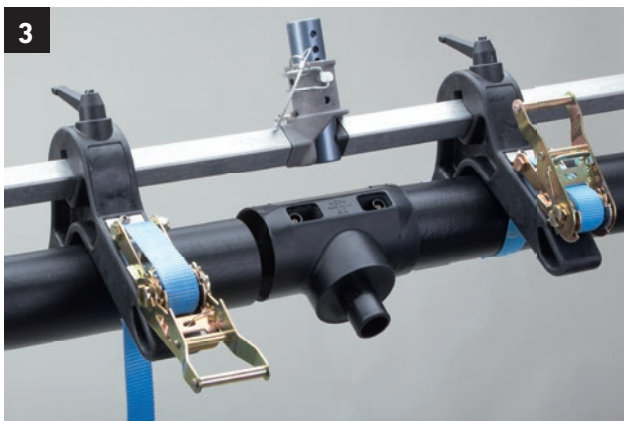
The jointing of COOL-FIT 2.0 pipes fittings and valves is very easy. The procedure takes just a few minutes and the GF MSA fusion devices help to ensure the quality of the joints.



The GF foam removal tool helps to remove the foam and peel the pipe efficiently.



Simply push pipes and fittings together.



Use the GF clamping tool in order to avoid tensions during installation.



MSA welding devices help to ensure high quality jointings.



Check the system with pressure test equipment.

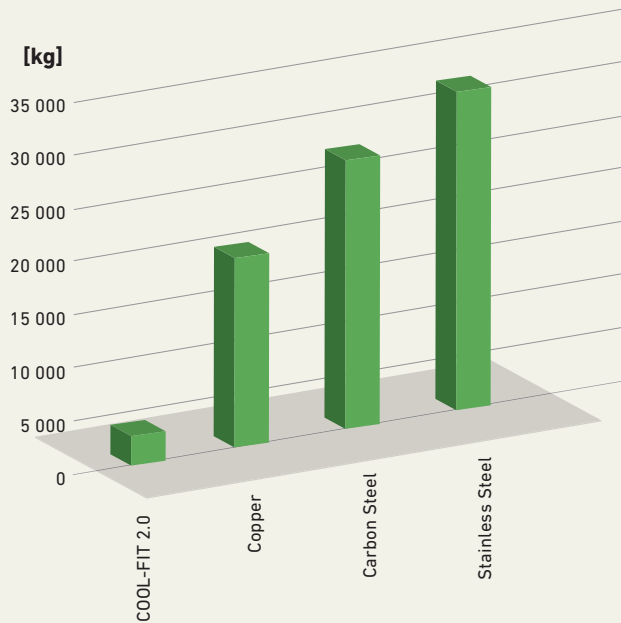


Seal the welding connectors with the attached insulation plugs - done!

Environmental Efficiency

The use of COOL-FIT 2.0 brings significant advantages when compared with traditional post insulated metal systems, particularly when it comes to CO₂ emissions or energy loss.

+ CO₂ emissions



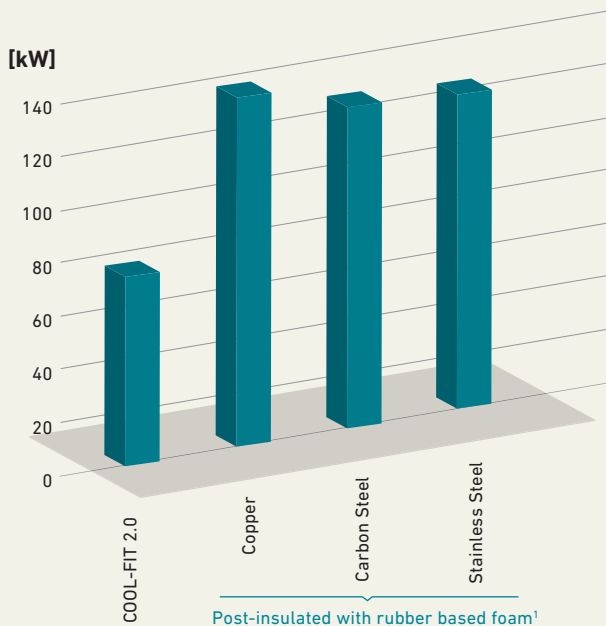
As an example, a 3 storey building with 123 offices, would need a piping system of nearly 3000 metres long to convey chilled water for the air conditioning.

The use of copper for the piping system equates to 17,5 tons of CO₂ equivalent which would be reduced to nearly 5 tons by using COOL-FIT 2.0. This saving is equivalent to a 78 000 km journey with an average car.



12,5 tons
CO₂ saved

+ Total energy loss



Analysing the energy loss on this same installation, COOL-FIT 2.0 is on average 35% more efficient compared to other metal piping systems post-insulated with rubber based foam.

¹ "Life Cycle Analysis Pipes", conducted by the company ESU-services GmbH, Uster/ Switzerland (www.esu-services.ch) on behalf of Georg Fischer Piping Systems in 2008. Report available on www.gfps.com (Pioneering Green Solutions, GF Piping Systems)

The Best Choice

Corrosion and chemical resistant products, systems and complete solutions from GF Piping Systems

GF focuses on three core businesses: GF Piping Systems, GF Automotive and GF Machining Solutions. The industrial corporation founded in 1802 headquarters in Switzerland and operates approximately 121 companies with more than 14 400 employees in 32 countries. GF Piping Systems is a leading supplier of plastic and metal piping systems with global market presence. For the treatment and distribution of water and chemicals, as well as the safe transport of liquids and gases in industry, we have the corresponding jointing technologies, fittings, valves, automation products and pipes in our portfolio.



GF Piping Systems headquarters in Schaffhausen, Switzerland.

+ Global presence

Our global presence ensures customer proximity worldwide. Sales companies in over 28 countries and representatives in another 80 countries provide customer service around the clock. With 48 production sites in Europe, Asia and the USA we are close to our customers and comply with local standards. A modern logistics concept with local distribution centers ensures highest product availability and short delivery times. GF Piping Systems specialists are always close by.

+ Complete solutions provider

Our extensive product range represents a unique form of product and competence bundling. With over 60 000 products, allied with a broad range of services, we offer individual and comprehensive system solutions for a variety of industrial applications. Our automation offering perfectly fits into our complete system approach and is thus an integral part of our portfolio. Having the profitability of the projects in focus, we optimize processes and applications that are integrated into the whole system. Continually setting standards in the market, we directly provide our customers with technological advantages. Due to our worldwide network customers benefit directly from our 50 years+ experience in plastics.

From start to finish, we support our customers as a competent, reliable and experienced partner, actively contributing the know-how of an industrial company that has been successful in the market for over 200 years.

+ Our market segments

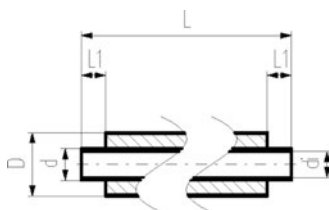
Being a strong implementation partner GF Piping Systems supports its customers in every phase of the project. No matter which processes and applications are planned in the following market segments:

- Building Technology
- Chemical Process Industry
- Energy
- Food & Beverage / Cooling
- Microelectronics
- Marine
- Water & Gas Utilities
- Water Treatment

Product range

COOL-FIT 2.0

COOL-FIT 2.0 Pipes



COOL-FIT 2.0 Pipe

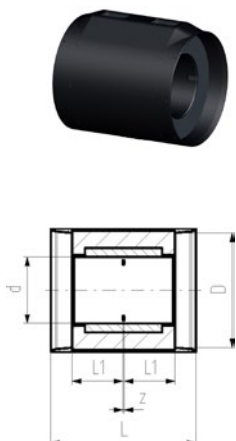
Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Impact resistant. Color: black
- With free end for electrofusion

d/D (mm)	PN (bar)	Code	Weight (kg/m)	di (mm)	L (mm)	L1 (mm)	closest inch (inch)
32/75	16	738 174 108	1.140	26	5000	36	1
40/90	16	738 174 109	1.534	33	5000	40	1 ¼
50/90	16	738 174 110	1.722	41	5000	44	1 ½
63/110	16	738 174 111	2.711	51	5000	48	2
75/125	16	738 174 112	3.405	61	5000	55	2 ½
90/140	16	738 174 113	4.320	74	5000	62	3
110/160	16	738 174 114	5.692	90	5000	72	4
140/200	16	738 174 116	9.021	115	5000	84	5

COOL-FIT 2.0 Fittings

COOL-FIT 2.0 Coupler

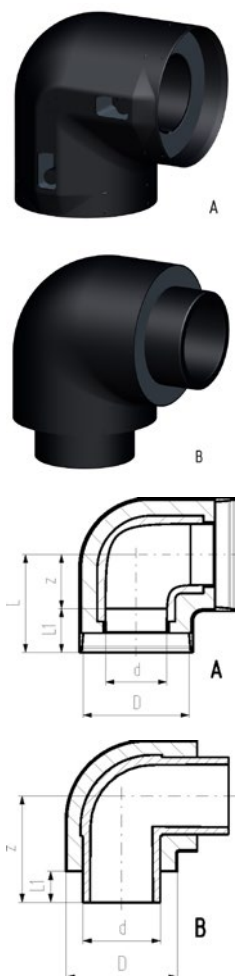


Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Impact resistant. Color: black
- Integrated sealing lip for a water and steam tight sealing

d/D (mm)	PN (bar)	Code	Weight (kg)	L (mm)	L1 (mm)	z (mm)	closest inch (inch)
32/75	16	738 914 108	0.092	115	36	1	1
40/90	16	738 914 109	0.126	121	40	1	1 ¼
50/90	16	738 914 110	0.160	129	44	1	1 ½
63/110	16	738 914 111	0.237	137	48	1	2
75/125	16	738 914 112	0.339	151	55	2	2 ½
90/140	16	738 914 113	0.476	166	62	2	3
110/160	16	738 914 114	0.778	186	72	4	4
140/200	16	738 914 116	1.097	209	84	2	5

COOL-FIT 2.0 Elbow 90°

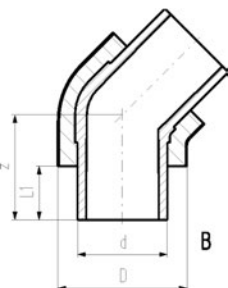
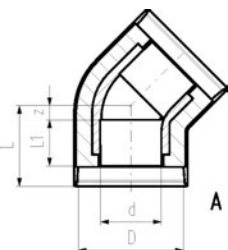


Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Impact resistant. Color: black
- A: Electrofusion Fitting with integrated sealing lip, for a water and vapour tight sealing
- B: Spigot Fitting with free end

d/D (mm)	PN (bar)	Code	Weight (kg)	L (mm)	L1 (mm)	z (mm)	closest inch (inch)	Type
32/75	16	738 104 108	0.127	75	36	18	1	A
40/90	16	738 104 109	0.185	82	40	22	1 ¼	A
50/90	16	738 104 110	0.242	93	44	29	1 ½	A
63/110	16	738 104 111	0.384	101	48	33	2	A
75/125	16	738 104 112	0.510	114	55	39	2 ½	A
90/140	16	738 104 113	0.960	144	62	62	3	A
110/160	16	738 104 114	1.406	168	72	76	4	A
140/200	16	738 104 116	2.690		84	221	5	B

Product range



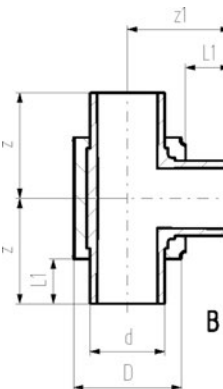
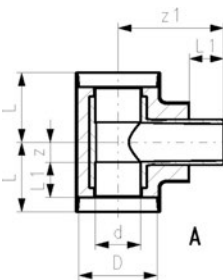
COOL-FIT 2.0 Elbow 45°

Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Impact resistant. Color: black
- A: Electrofusion Fitting with integrated sealing lip, for a water and vapour tight sealing
- B: Spigot Fitting with free end

d/D (mm)	PN (bar)	Code	Weight (kg)	L (mm)	L1 (mm)	z (mm)	closest inch (inch)	Type
32/75	16	738 154 108	0.101	66	36	9	1	A
40/90	16	738 154 109	0.143	70	40	10	1 ¼	A
50/90	16	738 154 110	0.206	76	44	12	1 ½	A
63/110	16	738 154 111	0.307	83	48	15	2	A
75/125	16	738 154 112	0.407	92	55	17	2 ½	A
90/140	16	738 154 113	0.686	111	62	29	3	A
110/160	16	738 154 114	1.123	132	72	40	4	A
140/200	16	738 154 116	1.967		84	164	5	B

Product range



COOL-FIT 2.0 Tee 90° equal

Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Impact resistant. Color: black
- A: Electrofusion Fitting with integrated sealing lip, for a water and vapour tight sealing
- B: Spigot Fitting with free end

d/D (mm)	PN (bar)	Code	Weight (kg)	L (mm)	L1 (mm)	z (mm)	z1 (mm)	closest inch (inch)	Type
32/75	16	738 204 108	0.154	73	36	16	98	1	A
40/90	16	738 204 109	0.230	81	40	21	112	1 ¼	A
50/90	16	738 204 110	0.306	88	44	24	125	1 ½	A
63/110	16	738 204 111	0.492	97	48	29	147	2	A
75/125	16	738 204 112	0.673	110	55	35	140	2 ½	A
90/140	16	738 204 113	1.022	124	62	42	161	3	A
110/160	16	738 204 114	1.751	148	72	56	184	4	A
140/200	16	738 204 116	3.317		84	198	193	5	B

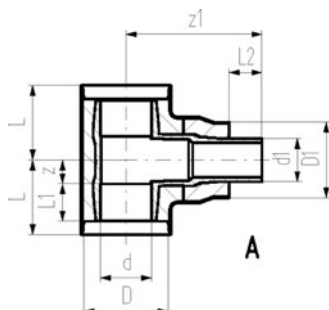
Product range



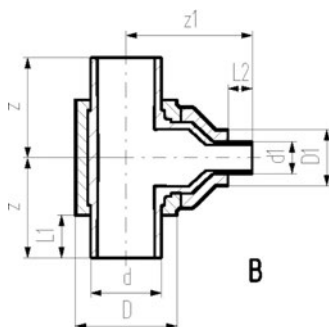
A



B



A



B

COOL-FIT 2.0 Tee 90° reduced

Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Impact resistant. Color: black
- A: Electrofusion Fitting with integrated sealing lip, for a water and vapour tight sealing. Branch with free pipe end.
- B: Spigot Fitting with free end

d/D (mm)	d1/D1 (mm)	PN (bar)	Code	Weight (kg)
75/125	63/110	16	738 204 218	0.746
90/140	63/110	16	738 204 222	1.096
90/140	75/125	16	738 204 223	1.133
110/160	63/110	16	738 204 227	1.746
110/160	75/125	16	738 204 228	1.782
110/160	90/140	16	738 204 229	1.848
140/200	63/110	16	738 204 340	3.441
140/200	75/125	16	738 204 341	3.504
140/200	90/140	16	738 204 342	3.569
140/200	110/160	16	738 204 343	3.620

L (mm)	L1 (mm)	L2 (mm)	z (mm)	z1 (mm)	Closest inch (inch)	Type
110	55	48	35	200	2 ½ - 2	A
124	62	48	42	227	3 - 2	A
124	62	55	42	227	3 - 2 ½	A
148	72	48	56	245	4 - 2	A
148	72	55	56	245	4 - 2 ½	A
148	72	62	56	245	4 - 3	A
	84	48	198	250	5 - 2	B
	84	55	198	262	5 - 2 ½	B
	84	62	198	263	5 - 3	B
	84	72	198	258	5 - 4	B

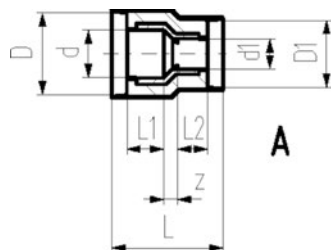
Product range



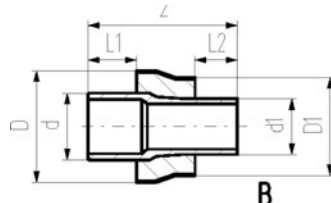
A



B



A



B

COOL-FIT 2.0 Reducer

Model:

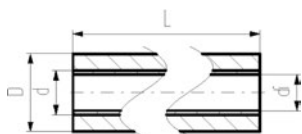
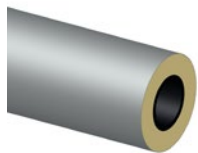
- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Impact resistant. Color: black
- A: Electrofusion Fitting with integrated sealing lip, for a water and vapour tight sealing
- B: Spigot Fitting with free end

d/D (mm)	d1/D1 (mm)	PN (bar)	Code	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	z (mm)	Closest inch (inch)	Type
40/90	32/75	16	738 904 206	0.125	131	40	36	15	1 ½ - 1	A
50/90	32/75	16	738 904 209	0.154	139	44	36	19	1 ½ - 1	A
50/90	40/90	16	738 904 210	0.153	137	44	40	13	1 ½ - 1 ½	A
63/110	32/75	16	738 904 212	0.198	148	48	36	24	2 - 1	A
63/110	40/90	16	738 904 213	0.221	147	48	40	19	2 - 1 ½	A
63/110	50/90	16	738 904 214	0.219	147	48	44	15	2 - 1 ½	A
90/140	63/110	16	738 904 222	0.464	187	62	48	37	3 - 2	A
110/160	90/140	16	738 904 229	0.799	214	72	62	40	4 - 3	A
75/125	63/110	16	738 904 318	0.244		55	48	169	2 ½ - 2	B
90/140	63/110	16	738 904 322	0.360		62	48	190	3 - 2	B
90/140	75/125	16	738 904 323	0.395		62	55	190	3 - 2 ½	B
110/160	63/110	16	738 904 327	0.523		72	48	205	4 - 2	B
110/160	75/125	16	738 904 328	0.553		72	55	205	4 - 2 ½	B
110/160	90/140	16	738 904 329	0.599		84	62	205	4 - 3	B
140/200	63/110	16	738 904 340	0.917		84	48	225	5 - 2	B
140/200	75/125	16	738 904 341	0.997		84	55	237	5 - 2 ½	B
140/200	90/140	16	738 904 342	1.039		84	62	238	5 - 3	B
140/200	110/160	16	738 904 343	1.051		84	72	233	5 - 4	B

Product range

COOL-FIT 2.0M

COOL-FIT 2.0M Pipes



COOL-FIT 2.0M Pipe

Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from PIR
- Outer jacket metal for increased fire classification

d/D (mm)	PN (bar)	Code	Weight (kg/m)	di (mm)	L (mm)	closest inch (inch)
32/75	16	738 174 208	1.312	26	5000	1
40/90	16	738 174 209	1.706	33	5000	1 ¼
50/90	16	738 174 210	1.894	41	5000	1 ½
63/110	16	738 174 211	2.588	51	5000	2
75/125	16	738 174 212	3.518	61	5000	2 ½
90/140	16	738 174 213	4.396	74	5000	3
110/160	16	738 174 214	5.724	90	5000	4

Product range

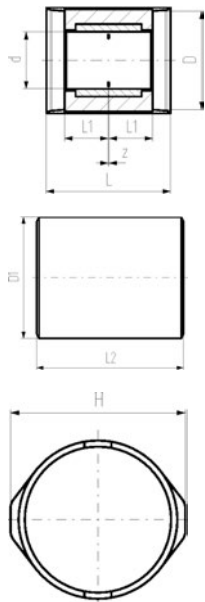
COOL-FIT 2.0M Fittings



COOL-FIT 2.0M Coupler

Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Integrated sealing lip for a water and steam tight sealing
- Including metal half shells and clamps for increased fire classification

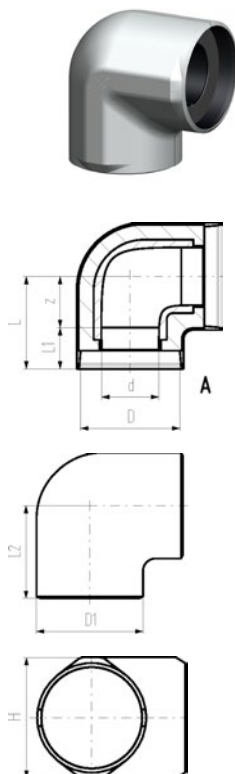


d/D (mm)	PN (bar)	Code	Weight (kg)	L (mm)	L1 (mm)	z (mm)	D1 (mm)	L2 (mm)	H (mm)	closest inch (inch)
32/75	16	738 914 208	0.236	115	36	1	83	120	92	1
40/90	16	738 914 209	0.297	121	40	1	99	126	101	1 ¼
50/90	16	738 914 210	0.340	129	44	1	99	135	113	1 ½
63/110	16	738 914 211	0.457	137	48	1	119	142	130	2
75/125	16	738 914 212	0.599	151	55	2	134	157	146	2 ½
90/140	16	738 914 213	0.776	166	62	2	150	171	161	3
110/160	16	738 914 214	1.139	186	72	2	169	191	187	4

COOL-FIT 2.0M Elbow 90°

Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Integrated sealing lip for a water and steam tight sealing
- Including metal half shells and clamps for increased fire classification



d/D (mm)	PN (bar)	Code	Weight (kg)	L (mm)	L1 (mm)	z (mm)	D1 (mm)	L2 (mm)	H (mm)	closest inch (inch)
32/75	16	738 104 208	0.284	75	36	18	83	78	92	1
40/90	16	738 104 209	0.371	82	40	22	99	84	101	1 ¼
50/90	16	738 104 210	0.442	93	44	29	99	95	113	1 ½
63/110	16	738 104 211	0.634	101	48	33	119	104	130	2
75/125	16	738 104 212	0.808	114	55	39	134	117	146	2 ½
90/140	16	738 104 213	1.337	144	62	62	150	147	161	3
110/160	16	738 104 214	1.789	168	72	76	169	171	187	4

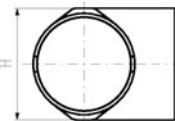
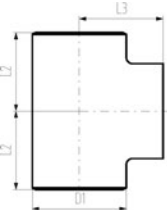
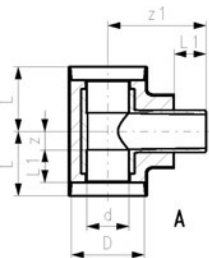
Product range



COOL-FIT 2.0M Tee 90° equal

Model:

- Pre-insulated PE100 SDR11, metric
- Insulation made from GF HE foam
- Integrated sealing lip for a water and steam tight sealing
- Including metal half shells and clamps for increased fire classification



d/D (mm)	PN (bar)	Code	Weight (kg)
32/75	16	738 204 408	0.319
40/90	16	738 204 409	0.430
50/90	16	738 204 410	0.525
63/110	16	738 204 411	0.767
75/125	16	738 204 412	0.990
90/140	16	738 204 413	1.400
110/160	16	738 204 414	2.235

L (mm)	L1 (mm)	z (mm)	z1 (mm)	D1 (mm)	L2 (mm)	L3 (mm)	H (mm)	closest inch (inch)
73	36	17	98	83	75	69	92	1
81	40	21	112	99	83	79	101	1 ¼
88	44	24	125	99	90	88	113	1 ½
97	48	29	147	119	99	106	130	2
110	55	35	140	134	112	92	146	2 ½
123	62	41	161	150	126	106	161	3
132	72	56	184	169	150	119	187	4

Product range

Complementary Products

Transition fittings / flange connections



- Transition fittings and flange connections
- All items provided with insulation
- Female, male threads, Victaulic and iFIT transitions
- Transitions to stainless steel, brass and ABS

Flexible hoses



- High flexibility
- All items provided with insulation
- d25 - d90 mm
- Male / female transition fittings in stainless steel or plastic
- Standard and individual length available
- Robust „bird proof“ outer skin

Valves



- Ball valves d32 - d90 mm, butterfly valves d110 mm / d140 mm
- All items provided with insulation
- Manual and electrically actuated versions available
- Vapour tight insulation
- Robust protection shell

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