

Brymec Multi-layer Press-fit System 2023

Introducing Brymec Multi-layer Press-fit System

The Brymec Multi-Layer Press-Fit system combines the advantages of metal and plastic pipework systems.

The system is based on a high quality WRAS approved multi layer composite pipe, with an intermediate aluminium layer which provides rigidity and a total barrier to oxygen and UV light. The high quality brass fittings offer robustness and durability.

Applications for this commercial system include:

- Potable water
- Hot & cold water
- Chilled water & heating systems
- Air conditioning hybrid systems (HVRF)

From commercial risers and loor distribution systems, domestic and room distribution, to pre-fabricated construction, the Multi-Layer Press-Fit system has many benefits over traditional systems for the installer and end user.



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Features and Benefits

Multi jaw compatibility

Suitable for H, TH and U profiles.

System integrity

Commercial quality, solid brass fittings for strength and robustness.

O-rings

Each fitting has 2 or more O-rings giving an outstanding seal. Pipe inserts are not needed.

Durability and mechanical strength

The system has an expected lifetime of 50 years - based on a standard design for water supply of 20°C at 10 bar max. All systems must be installed and operated within the designed product standards - max pressure 10 bar and max temperature 95°C.

Flexibility and shape stability

The combination of crosslinked polyethylene and aluminium maintains flexibility, allowing the pipe to be bent manually up to the 32 mm diameter pipe and mechanically for larger diameter pipe.

Once installed the pipe maintains bend stability and reduced 'snap back' requiring 40% less mounting clips when compared with plastic pipes such as PB and PE-RT. This also makes the MLCP pipe an ideal choice for modular units and for pre-fab buildings such as mobile homes.

Thermal expansion

Thermal expansion is 8 times lower than that of plastic pipes and closer to that of metal pipes. A 50m MLCP pipe subjected to a 50°C temperature difference will expand by 60mm in contrast to PEX pipe that expands by 500mm, and PB at 375mm.

Thermal conductivity

The thermal conductivity of the pipe is 0.45 W/m°K, approximately 860 times lower than that of copper, which helps to reduce temperature loss and also means insulation thickness can be less than that used with copper systems.

Fast installation

The flexible and formable pipe allows for a fast installation process with reduced fittings. Pre insulated coils also offer time saving and great finished aesthetics.

Lightweight

Multi-Layer pipe is extremely lightweight compared to metal pipes: the weight is 1/3 compared to that of a corresponding copper pipe and 1/10 compared to that of a corresponding steel pipe.

Features and Benefits

Resistance to corrosion

Highly resistant to corrosion and scale allowing consistent long-term performance.

Acoustic insulation

MLCP is elastic and absorbs vibrations offering excellent acoustic performance.

Hygiene

Non-toxic materials are used for the pipes and fittings and the system is WRAS approved for potable water distribution.

Oxygen & light barrier

The overlap welded aluminium layer represents a permanent diffusion resistance and light barrier - avoiding the two main causes of algae formation and corrosion in plastic pipes.

Brymec warranty

Pipework - 25 Years . Fittings - 5 Years. System Warranty - 25 Years.



Further information

Larger sizes are available, please contact us for advice regarding further sizes etc

Pre-Insulated Coiled Pipe



STOCK NO	SIZE	DESCRIPTION
50983	16mm x 50m	WRAS multi-layer pipe with 13mm RED insulation
50984	16mm x 50m	WRAS multi-layer pipe with 13mm BLUE insulation
50987	20mm x 50m	WRAS multi-layer pipe with 13mm RED insulation
50988	20mm x 50m	WRAS multi-layer pipe with 13mm BLUE insulation
50985	25mm x 50m	WRAS multi-layer pipe with 13mm RED insulation
50986	25mm x 50m	WRAS multi-layer pipe with 13mm BLUE insulation
50991	32mm x 25m	WRAS multi-layer pipe with 13mm GREY insulation



APPROVED PRODUCT

STOCK NO	SIZE	LENGTH
51000	16mm	100m
51002	20mm	100m
51001	25mm	50m
51004	32mm	50m

Straight Pipe



WRAS

STOCK NO	SIZE	LENGTH
51006	16mm	5m
51007	20mm	5m
51005	25mm	5m
51009	32mm	5m





90° Elbows

WRAS



STOCK NO	SIZE
51019	16mm
51020	20mm
51018	25mm
51022	32mm

STOCK NO	SIZE
51044	16mm
51045	20mm
51043	25mm
51047	32mm

Reducing Couplers



APPROVED PRODUCT

STOCK NO	SIZE
51028	20 x 16mm
51040	25 x 16mm
51038	25 x 20mm
51031	32 x 16mm
51032	32 x 20mm
51039	32 x 25mm

Male Iron Couplers





STOCK NO	SIZE
51081	16mm x 1/2"
51083	20mm x 1/2"
51084	20mm x 3/4"
51082	25mm x 3/4"
51085	25mm x 1"
51088	32mm x 1"

Male Iron Elbows

WRAS

WRAS



	_
STOCK NO	SIZE
51096	16mm x 1/2"
51098	20mm x 3/4"
51099	25mm x 1"

Female Iron Elbows



Female Iron Couplers



VVRAD
APPROVED PRODUCT

STOCK NO	SIZE
51067	16mm x 1/2"
51069	20mm x 1/2"
51070	20mm x 3/4"
51095	25mm x 3/4"
51068	25mm x 1"
51073	32mm x 1"

APPROVED PRODUCT	
STOCK NO	SIZE
51108	16mm x 1/2"
51107	20mm x 1/2"
51109	20mm x 3/4"
51105	25mm x 3/4"
51106	25mm x 1"



WRAS



STOCK NO	SIZE
51058	16mm
51059	20mm
51042	25mm
51061	32mm

Reducing Tees

WRAS



	-
STOCK NO	SIZE (END X END X CENTRE)
51121	20 x 20 x 16mm
51124	25 x 25 x 16mm
51125	25 x 25 x 20mm
51129	32 x 32 x 20mm
51130	32 x 32 x 25mm
51140	16 x 16 x 20mm
51137	20 x 20 x 25mm
51142	20 x 16 x 16mm
51147	25 x 20 x 20mm



Chrome Radiator Pipe

WRAS

Reaming Tools



STOCK NO	SIZE
51176	16mm Crimp Elbow to 15 x 50mm
51177	16mm Crimp Elbow to 15 x 300mm

Female Iron Tees



APPROVED PRODUCT

STOCK NO	SIZE
51155	16mm x 1/2"
51156	20mm x 1/2"
51157	25mm x 3/4"

Backplate Elbows

WRAS



APPROVED PRODUCT	
STOCK NO	SIZE
51171	16mm x 1/2"
51173	20mm x 3/4"

STOCK NO	SIZE
51194	16mm
51195	20mm
51189	25mm
51196	26mm
51197	32mm

Distribution Manifolds

Hot and cold water manifold which allows the distribution of water around a property. A distribution manifold allows the isolation of an individual appliance or outlet at one central location.

Brass Manifold with 3/4" Outlet

WRAS



Aluminium Slide Rail & Brackets



STOCK NO	SIZE
50955	3/4" 2 Port c/w zone iso. valves
50956	3/4" 3 Port c/w zone iso. valves
50957	3/4" 4 Port c/w zone iso. valves
50958	1" 2 Port c/w zone iso. valves
50959	1" 3 Port c/w zone iso. valves
50960	1" 4 Port c/w zone iso. valves
50965	3/4" Blanking plug
50966	1" Blanking plug

STOCK NO	SIZE
50967	200mm Single rail
50968	400mm Double rail
50969	3/4" Brackets (Pair)
50970	1" Brackets (Pair)

3/4" Eurocone Outlet Adaptor



WRAS

STOCK NO	SIZE
50961	15mm Copper pipe
50962	15mm Polybutylene PB
50963	16mm Multilayer MLCP
50964	20mm Multilayer MLCP

Technical Specifications - Fittings

DESCRIPTION	MATERIAL / STANDARD
Body Material	CW617N/CW602N
Plastic Collet Material	PE
Crimping Sleeve Material	SS304
O Ring Material	EPDM
WRAS Approved	Yes
EN Standard	EN ISO 21003-3
Press Profile	U/H/TH
Maximum Pressure	10 bar
Working Pressure PSI / Bar	8 bar
Maximum Temperature °C	95°C
Working Temperature °C	80°C
Thread Standard	ISO 228, ISO 7

The Torque Resistance of Thread

Thread Size	1/4'	3/8'	1/2'	3/4'	1'	1 1/4'
Torque Nm	20	35	75	100	125	160

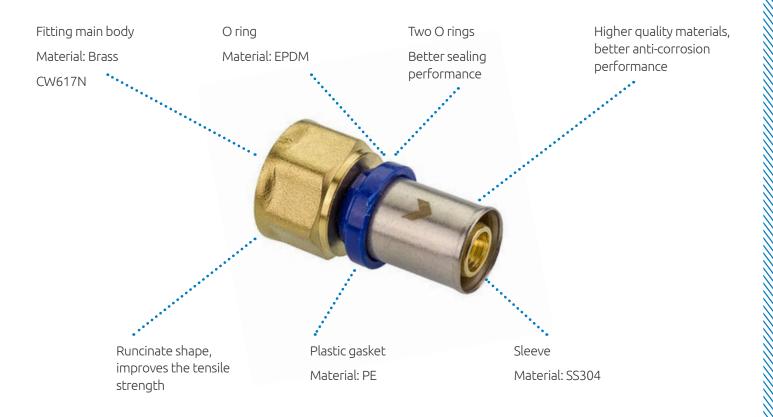
Technical Specifications - Pipe

DESCRIPTION	MATERIALS/STANDARD
Material	Crosslinked polyethylene internal layer PE-Xb, internal bonding layer, intermediate aluminium layer, external bonding layer, crosslinked polyethylene external layer PE-Xb
Colour	White
Dimensions	16 to 32mm
Application	Hot and cold potable water distribution, convector and radiator heating systems, radiant heating and cooling systems, industrial installations.
Fittings	Brymec Multi-Layer Press Fit
Minimum Operating Temperature ¹	-20C
Maximum temperature ²	+95C , EN ISO 21003-1
Maximum Pressure	+ 10 bar , EN ISO 21003-1
Density at 23C	> 0.950 g/cm3 (crosslinked polyethylene)
Softening Temperature	135°C
Thermal Expansion Coefficient	0.025 mm/m·K
Thermal Conductivity	0.45 W/m·K
Internal Roughness	0.007 mm
Oxygen Permeability	0 mg/l
UV Resistance	Must be suitably protected with UV-resistant cover
Modulous of Elasticity - 7200 MPa	Density - 0.926 - 0.959 g/cm3
Reaction to fire	C-s2,d0, EN 13501-1

1. At any rate above the freezing temperature of the transported fluid.

2. For more details see the "Fields of Application" section.

Structure and Advantages



- Can be pressed with U/H/TH profiles.
- Two O rings on the fittings, which makes better sealing performance.
- The stainless-steel sleeve is made of high quality SS304 material, which has anti-corrosion performance of up to 10 grades and long service life.

Fields of Application

The conditions of use of the MLCP are shown in the technical data tables outlined on page 11; however, according to the international standard EN ISO 21003-1 there are classes of application or fields of use that need to be ascertained by performing laboratory tests in combination with the design pressure pD chosen by the producer which can be 4, 6, 8, 10 bar. These application fields are given in the table below. MLCP is certified for three classes of application for pressures up to 10 bar. Table application fields and operating conditions in compliance with EN ISO 21003-1 maximum.

Application Fields	Operating Temperature T _p	Duration of T _D	Maximum operating temp T _{max}	Duration of T _{max}	Malfunctioning temperature	Duration of T _{mal}	Typical application
	(c)	(Years)	(c)	(Years)	(c)	(Hours)	
1a	60	49	80	1	95	100	Domestic hot water (60°C)
2a	70	49	80	1	95	100	Domestic hot water (70°C)

Where more than one design temperature and associated time appears for any class, they should be aggregated. This will give a cumulative result of time over the temperature profiles, as in class 5.

					, -		
	20	14					
	+	+					
5a	60	25	90	1	100	100	Heating Systems
	+	+					
	80	10					

Pipe Range Technical Data

The Brymec MLCP range - produced in plain pipe 16mm to 32mm diameters, in straight lengths and coils with up to 13mm insulation for pipe sizes 16 to 32mm.

Pipe dimensions	MLCP pipe in coils	MLCP pipe in straight length	MLCP with insulating sheath
16 x 2.0	100m	5m	50m (red or blue)
20 x 2.0	100m	5m	50m (red or blue)
25 x 2.5	50m	5m	50m (red or blue)
32 x 3.0	50m	5m	25m (grey)

MLCP Features

MLCP without insulation is suitable for a multitude of applications and if necessary, can be suitably installed once building construction has been completed.

External Diameter	16mm	20mm	25mm	32mm
Thickness	2mm	2mm	2.50mm	3mm
Internal diameter	12mm	16mm	20mm	26mm
Water volume	0.113 l/m	0.201 l/m	0.314 l/m	0.531 l/m
Weight	113 g/m	153 g/m	146 g/m	235 g/m
Weight with water	226 g/m	357 g/m	465 g/m	854 g/m
Operating temp	0 - 80°C	0 - 80°C	0 - 80°C	0 - 80°C
Maximum operating temp	95°C	95°C	95°C	95°C
Maximum operating pressure	10 bar	10 bar	10 bar	10 bar
Thermal expansion coefficient	0.025 mm/m.k	0.025 mm/m.k	0.025 mm/m.k	0.025 mm/m.k
Thermal conductivity	0.45 W/m.K	0.45 W/m.K	0.45 W/m.K	0.45 W/m.K
Internal roughness	0.007mm	0.007mm	0.007mm	0.007mm
Oxygen permeability	0 mg/l	0 mg/l	0 mg/l	0 mg/l

Multi-Layer Insulated Pipe Features

MLCP that is covered in the factory with thermal insulation sleeves is suitable in all applications that require a certain degree of insulation against condensation and against energy loss. Tough external foil increases mechanical protection of insulation and colour cooling of hot and cold pipes.

See below table for insulated MLCP features:

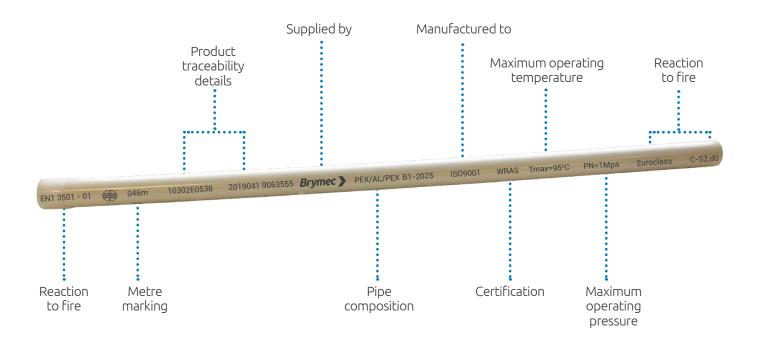
Pipe	Insulation thickness	External diameter of insulated pipe
16 x 2	13mm	42mm
20 x 2	13mm	46mm
25 x 2.5	13mm	51mm
32 x 3	10mm	52mm

The features of the material used for the production of the insulating sheath are indicated in the table below.

Features	Unit	Value
Material		Low density closed cell polyethylene
Density	(g/cm3)	0.03
Thermal Conductivity	(W/m.k)	0.04
Traction Resistance	(N/mm2)	
Ultimate Elongation	(%)	125
Water Absorption	(mg/cm2)	0.01
Fire Classification	EN 13501-1:2018	B _L -s1, d0

Marking

The marking of MLCP contains all the information required by current regulations as well as all the necessary information, for full product traceability.



	Pipe 16x2 20x2)x2	25x2.5		32x3			
Q		V	i	v	i	v	i	v	i
L/S	m3/h								
0.02	0.072	0.171	65.3						
0.03	0.108	0.257	134.0	0.155	40.2				
0.04	0.144	0.342	223.2	0.207	66.9	0.130	22.1		
0.05	0.180	0.428	331.7	0.258	99.4	0.162	32.9		
0.06	0.216	0.513	458.2	0.31	137.4	0.195	45.4		
0.07	0.252	0.599	602.4	0.362	180.7	0.227	59.6	0.139	18.6
0.08	0.288	0.684	763.4	0.413	229.1	0.260	75.6	0.159	23.4
0.09	0.324	0.770	940.9	0.465	282.2	0.292	93.3	0.179	28.9
0.10	0.360	0.855	1134.3	0.517	340.3	0.325	112.4	0.199	34.9
0.12	0.432	1.027	1567.3	0.620	470.1	0.390	155.3	0.239	48.2
0.14	0.504	1.198	2060.3	0.723	617.9	0.455	204.1	0.278	63.3
0.16	0.576	1.369	2610.9	0.826	783.1	0.520	258.7	0.318	80.2
0.18	0.648	1.54	3217.7	0.930	965.2	0.585	318.9	0.358	98.9
0.20	0.720	1.711	3879.1	1.033	1163.6	0.650	384.4	0.398	119.3
0.25	0.900	2.139	5762.9	1.291	1728.6	0.812	571	0.497	177.2
0.30	1.080	2.566	7963.6	1.550	2388.7	0.974	788.0	0.597	244.8
0.35	1.280	2.994	10488.2	1.808	3139.9	1.137	1037.3	0.696	321.8
0.40	1.440			2.066	3979.3	1.299	1314.4	0.796	407.9
0.45	1.620			2.324	4904.0	1.461	1619.9	0.895	502.6
0.50	1.800			2.583	5911.9	1.624	1952.8	0.995	606.0
0.55	1.980			2.841	7001.0	1.786	2312.5	1.094	717.6
0.60	2.180			3.100	8169.4	1.949	2698.6	1.193	837.4
0.65	2.340					2.111	3110.3	1.293	965.1
0.70	2.520					2.273	3547.4	1.392	1100.7
0.75	2.700					2.436	4009.2	1.492	1244.1
0.80	2.880					2.598	4623.4	1.591	1394.9
0.85	3.060					2.761	5005.9	1.691	1553.3
0.90	3.240					2.923	5540.1	1.790	1719.2
0.95	3.420					3.085	6097.9	1.890	1892.2
1.00	3.600							1.989	2072.5
1.10	3.960							2.188	2454.2
1.20	4.320							2.387	2863.8
1.30	4.680							2.686	3300.8
1.40	5.040							2.785	3764.5
1.50	5.400							2.984	4254.6
1.60	5.760							3.183	4770.7

Table Continuous pressure losses for conveyance of water at 10 C (V=m/s, i=Pa/m

Р	ipe	16	ix2	20)x2	25	25x2.5		2x3
	Q	v	i	v	i	v	i	v	i
L/S	m3/h								
0.02	0.072	0.171	51.0						
0.03	0.108	0.257	104.7	0.155	31.4				
0.04	0.144	0.342	174.4	0.207	52.3	0.130	17.3		
0.05	0.180	0.428	259.2	0.258	77.7	0.162	25.7		
0.06	0.216	0.513	358.1	0.31	107.4	0.195	35.5		
0.07	0.252	0.599	470.8	0.362	141.2	0.227	46.6	0.139	14.5
0.08	0.288	0.684	596.6	0.413	179.0	0.260	59.1	0.159	18.3
0.09	0.324	0.770	735.3	0.465	220.5	0.292	72.9	0.179	22.6
0.10	0.360	0.855	886.4	0.517	265.9	0.325	87.8	0.199	27.3
0.12	0.432	1.027	1224.8	0.620	367.4	0.390	121.4	0.239	37.7
0.14	0.504	1.198	1610.1	0.723	482.9	0.455	159.5	0.278	49.5
0.16	0.576	1.369	2040.4	0.826	612.0	0.520	202.2	0.318	62.7
0.18	0.648	1.54	2514.6	0.930	754.3	0.585	249.2	0.358	77.3
0.20	0.720	1.711	3031.4	1.033	909.3	0.650	300.4	0.398	93.2
0.25	0.900	2.139	4503.6	1.291	1350.9	0.812	446.2	0.497	138.5
0.30	1.080	2.566	6223.4	1.550	1866.7	0.974	616.6	0.597	191.3
0.35	1.280	2.994	8180.7	1.808	2453.8	1.137	810.6	0.696	251.5
0.40	1.440			2.066	3109.7	1.299	1027.2	0.796	318.8
0.45	1.620			2.324	3832.4	1.461	1265.9	0.895	392.8
0.50	1.800			2.583	4620	1.624	1526.1	0.995	473.6
0.55	1.980			2.841	5471.1	1.786	1807.2	1.094	560.8
0.60	2.180			3.100	6384.2	1.949	2108.9	1.193	654.4
0.65	2.340					2.111	2430.6	1.293	754.2
0.70	2.520					2.273	2772.2	1.392	860.2
0.75	2.700					2.436	3133.1	1.492	972.2
0.80	2.880					2.598	3613.1	1.591	1090.1
0.85	3.060					2.761	3912	1.691	1213.9
0.90	3.240					2.923	4329.5	1.790	1343.5
0.95	3.420					3.085	4765.4	1.890	1478.7
1.00	3.600							1.989	1619.6
1.10	3.960							2.188	1917.9
1.20	4.320							2.387	2238
1.30	4.680							2.686	2579.5
1.40	5.040							2.785	2941.9
1.50	5.400							2.984	3324.9
1.60	5.760							3.183	3728.2

Table Continuous pressure losses for conveyance of water at 60 C (V=m/s, i=Pa/m

Design Considerations

Pipe length changes are caused by heating and cooling. The coefficient of expansion of MLCP is 0.025mm/mk, the thermal expansion resulting from the mode of operation must be considered in the design of the pipe layout. The temperature difference and pipe length play a decisive role in thermal expansion. For all installation variants, the thermal expansion of Brymec pipes must be considered. There should be suitable provision for free movement of pipe, in between clipping points, change of direction, fittings, or penetrations; to allow for expansion and contraction. Also consider the same for pipes intended for concealed installation or installation in screed.

Installation Instructions



Step 1. 1 Pipe cutting

Check the pipe is clean, undamaged and free from scratches. Cut the pipe with a suitable and sharp pipe cutter using a slight rotation action to reduce pipe deformation.



Step 2. Rounding and bevelling

Round and bevel the full circumference of the pipe ends with the corresponding reamer, as shown in the figure:



Step 3. Inserting

Carefully insert the prepared pipe until it is fully visible through the inspection windows.



Step 4. Pressing

Open the pressing tool, install the jaw properly and place the fittings in the jaw. Complete a full press cycle until the jaw is completely closed and zero gap between the jaws, as shown in the figure.

Testing Procedure

It is essential that a full system check takes place upon completion of an installation. Before carrying out any test you must ensure that all pipe and fittings are installed correctly.

We suggest a test of 2 bar for 10 minutes followed by 10 bar for 10 minutes. Any products that are not manufactured by Brymec and are unable to withstand the test pressures should be disconnected during the test and capped off using the Brymec end stop cap.

It should be noted that testing should be carried out using cold water not exceeding 23°C.

Pressure testing is NOT a substitute for making sure pipe and fittings are correctly installed. For details on how to make a good joint please refer to the installation guide.

Frequently Asked Questions

Q. What are the pipe bending radius and what diameter pipe can you bend up to.

All pipe sizes from 16 - 32mm can be bent. The minimum bend radius is 5 times the pipe diameter. For example 16mm pipe = 80mm minimum bend radius. If you accidently kink or flatten the pipe when attempting to bend it, you must discard and replace the pipe.

Q. What fire rating/bs approvals on the insulation

Please see information tables on page 16.

Q. Fire rating on the pipe?

Please see information tables on page 12.

Q. Can I use the same jaws as I do for copper press?

No, you must use a U, H, or TH profile press jaw on Brymec fittings.

Q. Can the pipe be buried in concrete

Pipe can be buried in concrete if it is adequately protected by appropriate pipe insulation and/or a covering that allows thermal expansion and movement of the pipe.

Q. Can it be used for compressed air

Yes the Brymec MLCP system is suitable for compressed air.

Q. Can it be installed outside without protection

No. The pipe may be installed outside as long as it is fully protected by insulation and/or a covering to provide UV protection and shield from abrasion. For costal areas or potentially extreme environments please seek further clarification.

Q. Whats the thermal expansion and do you have to allow for this in system

Please see information tables on page 12.

Quality Policy

Brymec Ltd (the 'Organisation') aims to provide defect free products and services to its customer on time and within budget.

The Organisation operates a Quality Management System that has gained BS EN ISO 9001 : 2015 certification, including aspects specific to the stockholding and supply of mechanical, plumbing and air conditioning products and services.

This gives us a platform to guarantee a structured approach to our continuous improvement cycle, and ensure we continue to meet and exceed the following key goals:

- Excellence of service to our customers, delivering on site, in full, on time; in the relentless pursuit of total customer satisfaction.
- Offering quality products and systems. We work with worldwide manufacturing plants (in line with our social and ethical policy) to source the best products for the UK market. We ensure that the products are fit for purpose and comply with the relevant approvals and standards. We also research and develop innovative solutions which will add value to our customers, developers and end users.
- To motivate, engage and continuously develop our team by providing training, coaching, knowledge sharing and investment to ensure their absolute competence.
- To continue to invest in technology, working to understand customers' needs and streamline their buying processes to maximise efficiencies via modern technology.

This quality policy is endorsed and regularly reviewed by our Senior Management Team, and its scope is communicated to all Brymec employees via our website and other appropriate methods.

Our vision is to become an essential and indispensable supplier to the Building Services Contractor by providing excellence of service, quality products and continually investing in technology.

In order to achieve our vision, we ensure Brymec is an organisation where people love to work, upholding our core values of excellence, courage and collaboration to actively engage our team in contributing towards providing the highest level of customer satisfaction.

Luke Reiner Managing Director

Ethical Global Procurement Policy

ETHICAL POLICY - SOURCING

At Brymec we recognise the importance of credibility, integrity and trustworthiness in our success as a business. We are committed to upholding high ethical standards in all our operations, everywhere in the world. We believe in the principles of honesty, fairness, and respect for individual and community freedoms. The ethics of our UK operations are demonstrated through responsible:

- Business processes
- Corporate governance
- Custom and practice
- Quality management
- Safe working practices
- Corporate social responsibility
- Facility management
- Equality & diversity
- Anti-bribery & corruption
- Employee care

The Ethical Trading Initiative Code forms the basis of this policy.

Additionally, as we expand our network of suppliers to source products globally, it is increasingly necessary to ensure that the organisations that we undertake business with also meet our expectations of standards of supply.

As a minimum Brymec Ltd expects its supply partners to comply with all local laws and regulations and to respect internationally recognised human and labour rights as well as international initiatives for climate change.

In particular we require that suppliers ensure:

- Working hours and remuneration are reasonable and meet the required local wage and working time laws.
- Working conditions are safe and hygienic.
- No discrimination is practised.
- Employment is freely chosen.
- Children are not employed, and local minimum age rules are in place.
- Freedom of Association and the right to collective bargaining are respected.
- No improper advantage, including the payment of bribes.
- Packaging and waste are subject to recycling and safe disposal guidelines.
- That all sourcing of materials and manufacturing processes are subject to sustainability and renewability rules.

Brymec carry out initial assessments and, on agreeing terms of business, provide the criteria against which the company has been measured by way of regulating ongoing requirements.

Brymec then carry out periodic on-site audits to ensure that compliance is maintained.

Brymec will work with its suppliers to guide and advise them in maintaining and improving required levels of environmental standards.

The Brymec Sourcing Director has responsibility for this policy and will report to the management meetings on any issues arising.

A copy of the full Ethical trading initiative can be found at **www.ethicaltrade.org.**

Terms of Business

1. BACKGROUND

- 1.1 These Terms apply to the Contract between Brymec and the Customer for the sale of Brymec Products. Any other terms, whether implied by custom or practice, or which the Customer may seek to include, are specifically excluded.
- 1.2 Capitalised words (such as 'Contract'), have a specific meaning which is set out in 10 below.

2. CONTRACT TO BUY PRODUCTS

- 2.1 The Products are described on Brymec's website and in its catalogue. Specifications for Products are subject to change, in which case, Brymec will endeavour to supply an equivalent or suitable alternative.
- 2.2 When the Customer wishes to place an order for Products, it will provide a purchase order to Brymec. If Brymec accepts such order, it will issue an Order Acceptance to the Customer, at which point the Contract shall come into existence.
- 2.3 The Customer is responsible for ensuring that the details in the Order Acceptance are complete and accurate.

3. DELIVERY

- 3.1 Each delivery of the Products will be accompanied by a delivery note that shows the date of the Order Acceptance, the relevant Brymec reference number, and the type and quantity of the Products.
- 3.2 Brymec shall deliver the Products to the Delivery Location at any time after Brymec notifies the Customer that the Products are ready.
- 3.3 Delivery is completed on the completion of unloading of the Products at the Delivery Location (and, if applicable, Signed For.)
- 3.4 Customer must notify any issues of non-delivery, discrepancy or damage to Brymec within 2 business days of Delivery (see further 4.2 below).
- 3.5 Any dates quoted for delivery are approximate only, and the time of delivery is not of the essence. Brymec shall use all reasonable commercial efforts to meet any specific delivery dates. However, Brymec will not be liable for any delay in delivery of the Products.
- 3.6 If Brymec fails or is unable to deliver the Products for any reason (except for an Unforeseen Event), its liability shall be limited to the costs and expenses incurred by the Customer in obtaining replacement Products of similar description and quality in the cheapest market available, less the price of the Products. Brymec shall have no liability for any failure to deliver the Products to the extent that such failure is caused by an Unforeseen Event, or the Customer's failure to provide Brymec with adequate delivery instructions or any other instructions that are relevant to the supply of the Products.
- 3.7 Brymec may deliver the Products by instalments, which shall be invoiced and paid for separately. Any delay in delivery or defect in an instalment shall not entitle the Customer to cancel any other instalment.

4. QUALITY

- 4.1 Brymec warrants that, on delivery, the Products shall conform in all material respects with their description and any applicable Specification. For products sold by weight, or in the manufacturer's packaging, Brymec may supply quantities of up to 5% more or less than the amount ordered.
- 4.2 Subject to 4.3 and 4.4 below, if i) the Customer gives notice in writing to Brymec within 2 business days of delivery that the Products do not

comply with the Specification, and ii) Brymec is given a reasonable opportunity to examine such Products, and iii) the Customer returns such Products to Brymec's place of business at the Customer's cost, Brymec shall, at its option, replace the defective Products or refund the price of the defective Products in full.

- 4.3 Brymec shall not be liable for the Products' failure to comply with the warranty set out in clause 4.1 if: i) the Customer makes any further use of such Products after giving notice under 4.2 above; ii) the defect arises because the Customer failed to follow good trade practice or instructions as to the storage, commissioning, installation or use of the Products; or iii) the Customer alters or attempts to repair such Products.
- 4.4 Brymec may accept Product returned to it no later than 10 business days after the date of Delivery for credit or exchange, provided that the correct delivery details are provided. In this case, Brymec may make a charge for handling and restocking equal to 25% of the price of the returned Products.
- 4.5 Non-stock Products purchased by Brymec at the Customer's request are non-returnable and non-refundable.
- 4.6 Other than as set out above, Brymec shall have no liability to the Customer in respect of the Products' failure to comply with the warranty set out in clause 4.1.

5. TITLE AND RISK

- 5.1 The risk in the Products shall pass to the Customer on completion of delivery.
- 5.2 Title to the Products shall not pass to the Customer until the earlier of: i) Brymec receives payment in full for the Products; and ii) the Customer resells the Products, in which case title to the Products shall pass to the Customer at the time specified in 5.4 below.
- 5.3 Until title to the Products has passed to the Customer, the Customer shall store the Products separately from all other products held by the Customer so that they remain readily identifiable as Brymec's property, maintain the Products in satisfactory condition, and keep them insured against all risks for their full price from the date of delivery.
- 5.4 The Customer may use or resell the Products before Brymec receives payment for the Products, in which case it does so as principal and not as Brymec's agent, and title to the Products shall pass from Brymec to the Customer immediately before the time at which such reuse or resale by the Customer occurs.

6. PRICE AND PAYMENT

- 6.1 The price of the Products shall be the price set out in the Order Acceptance issued by Brymec. Brymec may, by giving notice to the Customer at any time up to delivery, increase the price of the Products to reflect any increase in the cost of the Products that is due to i) any factor beyond Brymec's control (including foreign exchange fluctuations, increases in taxes and duties, and increases in labour, materials and other manufacturing costs), or ii) any request by the Customer to change the delivery date(s), quantities or types of Products ordered, or the Specification.
- 6.2 The price of the Products excludes amounts in respect of value added tax (VAT), which the Customer shall additionally be liable to pay.
- 6.3 Unless otherwise stated on the Order Acceptance, Brymec shall be responsible for the cost of insurance and transport of the Products to the Delivery Location.

- 6.4 Brymec may invoice the Customer for the Products on or at any time after the Products have been despatched.
- 6.5 Unless otherwise stated in the Order Acceptance, the Customer shall pay the invoice in full and in cleared funds by the end of the month following the month the invoice was dated to the bank account nominated by Brymec. Time for payment is of the essence.
- 6.6 The Customer must raise any invoice queries with Brymec by email to creditcontrol@brymec.com within 28 days of the invoice date. Brymec will endeavour to respond within 2 business days and to propose a resolution to the Customer within 3 working days. The Customer must communicate any non-acceptance of such resolution to Brymec within 3 business days, failing which the relevant invoice remains payable according to these Terms.
- 6.7 If the Customer fails to make any payment due to Brymec under the Contract by the due date for payment, then Brymec shall be entitled to charge interest on the overdue amount at the rate of 4.0% per annum above the base rate from time to time of the Bank of England. Such interest shall accrue on a daily basis from the due date until actual payment of the overdue amount, whether before or after judgment. The Customer shall pay the interest together with the overdue amount.
- 6.8 The Customer shall pay all amounts due under the Contract in full without any set-off, counterclaim or deduction. Brymec may set off any amount owing to it by the Customer against any amount payable by Brymec to the Customer.

7. LIMITATION OF LIABILITY AND INSURANCE

- 7.1 Nothing in these Terms shall limit or exclude Brymec's liability for: (i) death or personal injury caused by its negligence; ii) fraud or fraudulent misrepresentation; iii) breach of the terms implied by section 12 of the Sale of Products Act 1979; or defective products under the Consumer Protection Act 1987.
- 7.2 Subject to 7.1 above, Brymec shall under no circumstances whatsoever be liable to the Customer, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, for any loss of profit, or any indirect or consequential loss arising under or in connection with the Contract; and
- 7.3 Brymec has obtained insurance cover in respect of its own legal liability for individual claims not exceeding £1,000,000 per claim. Therefore Brymec's total liability to the Customer in respect of all other losses arising under or in connection with the Contract, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, shall in no circumstances exceed £1,000,000, and the Customer is responsible for making its own arrangements for the insurance of any excess loss.

8. UNFORESEEN EVENTS

8.1 Neither party shall be in breach of this Contract nor liable for delay in performing, or failure to perform, any of its obligations under this Contract if such delay or failure results from an Unforeseen Event. If the period of delay or non-performance continues for three months, the party not affected may terminate this Contract by giving one month's written notice to the affected party.

9. GENERAL

9.1 Assignment. The Customer may not assign, transfer, mortgage, charge, subcontract or deal in any other manner with any or all of its rights or obligations under the Contract without Brymec's prior written consent.

- 9.2 Confidentiality. Each party undertakes that it shall not at any time during this agreement, and for a period of 5 years after termination of this agreement, disclose to any person any confidential information concerning the business, affairs, customers, clients or suppliers of the other party, except as permitted by this paragraph. Each party may disclose the other party's confidential information: (i) to its employees, officers, representatives or advisers who need to know such information for the purposes of carrying out its obligations under or in connection with the Contract; and (ii) as may be required by law. No party shall use any other party's confidential information for any purpose other than to exercise its rights and perform its obligations under or in connection with this agreement.
- 9.3 Entire agreement. This Contract constitutes the entire agreement between the parties and supersedes and extinguishes all previous agreements and understandings between them, whether written or oral, relating to its subject matter. Each party agrees that it shall have no remedies in respect of any statement, representation, assurance or warranty (whether made innocently or negligently) that is not set out in this agreement.
- 9.4 Variation. No variation of this Contract shall be effective unless it is in writing and signed by the parties (or their authorised representatives).
- 9.5 Third party rights. No one other than a party to this Contract shall have any right to enforce any of its terms.
- 9.6 Law and jurisdiction. The Contract, and any dispute or claim arising out of or in connection with it shall be governed by and construed in accordance with the law of England and Wales. Each party agrees that the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim arising out of or in connection with this Contract.

10. DEFINITIONS:

- 10.1 **Brymec:** Brymec Limited, whose registered office is at Unit C, Redlands, Coulsdon, Surrey, CR5 2HT.
- 10.2 Terms: the terms set out in this document.
- 10.3 **Contract:** the contract between Brymec and the Customer for the sale and purchase of the Products in accordance with these Terms.
- 10.4 **Customer:** the business or person who purchases the Products from Brymec.
- 10.5 **Delivery Location:** the location for delivery of the Products set out in the Order Acceptance, or such other location as the parties may agree.
- 10.6 **Order Acceptance:** a form issued by Brymec in response to a Customer's order for Products, specifying Product details, quantities, prices and costs of transportation.
- 10.7 **Products:** the products (or any part of them) set out in the Order Acceptance.
- 10.8 **Signed For:** a Customer requirement stated in the Order Acceptance that a delivery of Product must be signed for at the Delivery Location.
- 10.9 **Specification:** any specification for the Products set out on Brymec's website or in its catalogue.
- 10.10 **Unforeseen Event:** an event or circumstance beyond a party's reasonable control.

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www.Brymec.com