



**Brymec**   
Built for Tomorrow



**Brymec Cast Iron  
Drainage System**

# Introducing the Brymec Cast Iron Tube and Fittings Range

Brymec's high-quality cast-iron tube and fittings range offers a solution for soil, waste, and rainwater drainage.

The Brymec lightweight, dry jointed tubework system is, BBA certified, Kitemark certified and compliant with BS EN 877 which is the European standard for cast iron tubes and fittings.

The full range consists of socketless cast iron tube and fittings jointed with either ductile iron or stainless steel rubber lined couplings.

Incorporating the benefits high performance materials along with the ease of use, installation and maintenance cast iron drainage is popular for projects including hospitals and healthcare, commercial, offices, education buildings, and industrial projects.

The full range consists of socketless cast iron tube and fittings (from 50mm up to 300mm)



# Contents

<b>Cast Iron Quality</b>	<b>04</b>	<b>System Considerations</b>	<b>28</b>
<b>Features and Benefits</b>	<b>05</b>	<b>Preparing and Cutting Tubes</b>	<b>28</b>
<b>Why Cast Iron Drainage?</b>	<b>06</b>	<b>Fitting Cast Iron Couplings</b>	<b>29</b>
<b>Coating Technology</b>	<b>07</b>	<b>Fitting Rapid Stainless Couplings</b>	<b>30</b>
<b>Acoustic Performance</b>	<b>08</b>	<b>EPDM Konfix and Pushfit Adaptors and Manifold Grommets</b>	<b>30</b>
<b>Reaction to Fire</b>	<b>09</b>	<b>General Installation</b>	<b>30</b>
<b>Third Party Testing and Approvals</b>	<b>09</b>	<b>Wall and Floor Penetrations</b>	<b>32</b>
<b>Certificates include</b>	<b>10</b>	<b>Embedment in Concrete</b>	<b>32</b>
<b>Tube Marking</b>	<b>10</b>	<b>Access Fittings</b>	<b>32</b>
<b>Cast Iron Drainage Pipe and Fittings</b>	<b>11</b>	<b>System Flow and Venting</b>	<b>33</b>
<b>Brymec Cast Iron CIS Fittings</b>	<b>15</b>	<b>Testing Procedure</b>	<b>34</b>
<b>Brymec Cast Iron CIS Access Fittings</b>	<b>22</b>	<b>Terms of Business</b>	<b>34</b>
<b>Frequently Asked Questions</b>	<b>27</b>	<b>Quality Policy</b>	<b>36</b>
		<b>Ethical Global Procurement Policy</b>	<b>37</b>

# Cast Iron Quality

## Brymec Product Quality

The Brymec Cast Iron range is backed and proven through independent third party testing and accreditation to the BS EN 877 standard.

Our Cast Iron range has been carefully designed and selected to meet the highest quality standards. Products undergo stringent testing in compliance with our ISO 9001:2015 Quality Management System.

## Durability and Mechanical Strength

The system has an expected lifetime of 70+ years - based on a standard design for gravity waste drainage. All systems must be installed and operated within the designed product standard of BS EN 877 and be subject to regular inspection and maintenance schedule.



## Brymec warranty

We offer a 10-year warranty across our soil and waste range.



# Features and Benefits

- Highly fire resistant - Cast Iron has non-combustible rating (A2) for BS EN 1350-1
- Long lasting – An expected life span of over 70 years and 100% recyclable
- Exceptional acoustic performance  
– The performance of the Brymec cast iron range is exceptional. Tested in accordance with BS EN 14366: 2004
- Quick installation time – Simple jointing method, no specialist tooling or training required
- Low maintenance – With epoxy coatings the full range requires minimal maintenance over the course of its lifetime.
- High strength – Cast iron by nature is a highly robust and strong material ensuring protection from damage caused by handling or vandalism



# Why Cast Iron Drainage?

Since 1982, the lightweight cast iron socketless tube system has completely replaced the socket drainage tube. A tried-and-tested tube material, easy to handle fittings and reliable couplings provide for a space-saving, fail-safe and durable tube system that fully meets the high demands of today's quality of living standards and state of the art technical building requirements. At the same time, it fulfils many critical safety requirements' such as sound insulation and fireproofing. Due to the high level of quality in CIS systems, these cast iron tubes are used for the most important sections of tube systems in a building's drainage system (downtubes, collecting tubes and internal rainwater draintubes).

## **The following standards and regulations are relevant to Brymec CIS products:**

BS EN 877 | Cast iron tubes and fittings, their joints and accessories for the evacuation of water from building. Requirements, test methods and quality assurance.

DIN 19522 | Complementary standard to BS EN 877. This standard mainly includes details about design and layout measures of tubes and fittings.

RAL-GZ 698 | RAL quality label demanding a notably extended test range and stricter requirements on quality, which goes far beyond the requirements of BS EN 877.

CE Label | Declaration of conformity according to the European Directive for construction products (89/106/EEC).

BS EN 1561 | Standard for founding of products made from grey cast iron with lamellar graphite.

The Brymec CIS system is produced in Europe and cast in a partner foundry equipped with state of the art machinery. This enables production in an efficient and environmentally friendly way. The quality of our products is extremely important to us. Therefore, we take the opportunity to continuously monitor all production steps to constantly improve production processes. Hence, for very complex geometric shapes of cast iron parts a state-of the art 3-D measuring system is used during on-going product development and for carrying out inspection of the products.

All fittings and tube are fully foundry marked and batch coded for full traceability and quality control.

# Coating Technology

Fittings are supplied with a high quality, reddish brown epoxy resin coating. This paint is applied as a dip coating with fully cross-linked epoxy resin coating uniform on inside and outside of the piece. This is then heat-treated, forming a compound between fitting and the coating which is of extra high strength, providing the piece with thermal and chemical resistance that goes far beyond the stringent requirements of BS EN 877.

On the outside, Tubes are coated with a reddish brown 40µm thick base coating in accordance with BS EN 877 that can be repainted with any standard colour varnish or finish commercially available. On the inner side, the bore is sprayed with a completely cross-linked, ochre-coloured epoxy material (120µm), protecting the tube from aggressive domestic effluents.

Resistance to effluent and temperature:

Resistance	to 23°C	to 50°C	to 80°C	Quality
pH0				
pH1 (except for organic acids)				
pH2 (except for organic acids)	Green	Blue	Blue	<p>The quality of the inside coating is decisive for the durability of the drainage system. Increasingly aggressive domestic sewage water brings about high demands on the inside coating.</p> <p>Brymec BS EN 877 tube and fittings cover a wide range of usage in evacuation of water in buildings.</p>
Limescale dissolving agents	Green	Blue		
Cleaning agents	Green	Blue		
Detergents	Green	Blue	Blue	
Disinfectants	Green	Blue	Blue	
Stain remover	Green	Blue	Blue	
Oxidants	Green	Blue	Blue	
Water, salts	Green	Blue	Blue	
Drain cleaner	Green	Blue	Blue	
Solvents	Green	Blue		
pH12	Green	Blue	Blue	
pH13	Blue	Blue	Blue	

For domestic facilities and discontinuous use.

Key:

- Green - compatibility tested according to EN 877
- Blue - intermittent use acceptable
- White - not tested and prohibited for use in this system

# Acoustic Performance

Due to the high density of cast iron and the buffer effect of the rubber lining in the couplings, sound transmission is reduced to a minimum so that the system is a grant for silent drainage. This provides the basis for general well-being in both, homes and offices, where required by law.

During simulated installation testing in lab, the system proved to be best choice to fulfil the provisions of sound protection using standard products without any additional, costly measures.

CIS in combination with:	Flow of water (litres per second)			
	0,5	1,0	2,0	4,0
Unlined pipe clamp	Sound level in the ground floor (behind the wall - "GF rear") in [db(A)]			
	21	26	31	36
Insulated pipe clamp	Sound level in the ground floor (behind the wall - "GF rear") in [db(A)]			
	16	20	25	30
Unlined Pipe Clamp + Noise Insulating Fixing Point	Sound level in the ground floor (behind the wall - "GF rear") in [db(A)]			
	<10	<10	12	15

# Reaction to Fire

Preventive fire protection is the generic term for all preventive measures taken to inhibit or limit fire outbreak, spreading of fire or the effects of fire. Constructional measures are varied, especially for public buildings where people gather, and they already start with the selection of materials and components. As set forth in BS EN 877, the Austrian Research Institute for Chemistry and Technology tested components of our cast-iron CIS drainage system according to EN 13823 (reaction to fire tests for building products) by means of the SBI-test (Single Burning Item Test) and according to EN ISO 1716 (Determination of the heat of combustion) by means of an oxygen bomb calorimeter and it confirmed the classification of A2 according to EN 13501.

- Non-flammable (fire protection class A2 acc. to EN 13501)
- No smoke spreads through the system
- No flaming droplets or particles due to high heat generated

This offers simplified installation and cost savings in fire stopping measures against plastic waste systems. Whilst delivering peace of mind to building owners of system longevity in the most crucial of circumstances.

## Third Party Testing and Approvals

In addition to our own extensive internal quality control and assurance processes for the Brymec cast iron drainage system, components have also undergone rigorous external testing and certification under recognised independent 3rd party test laboratories to receive further quality certification. Each certifying body have specific rigorous requirements to be met for both the initial testing and certification, and the ongoing auditing of factory, process and distribution to ensure ongoing compliance.

# Certificates include

**BBA** - BBA Agrément Certificate is a mark of excellence based on rigorous national and European standards that validate a construction product's specialist formulation, capability and uniqueness.

**Kitemark** - Exclusive to BSI, the Kitemark is a quality mark that shows a product or service meets the applicable and appropriate British, European, international other recognised standard for quality, safety, performance and trust.

**GEG** - RAL quality label demanding a notably extended test range and stricter requirements on quality, which goes far beyond the requirements of BS EN 877.

## Tube Marking

Brymec cast iron drainage tubes are produced by centrifugal casting process, followed by internal grinding, pressure testing, and finishing before labelling with full traceability;



# Cast Iron Drainage Pipe and Fittings

## Cast Iron Socketless Drainage Tube

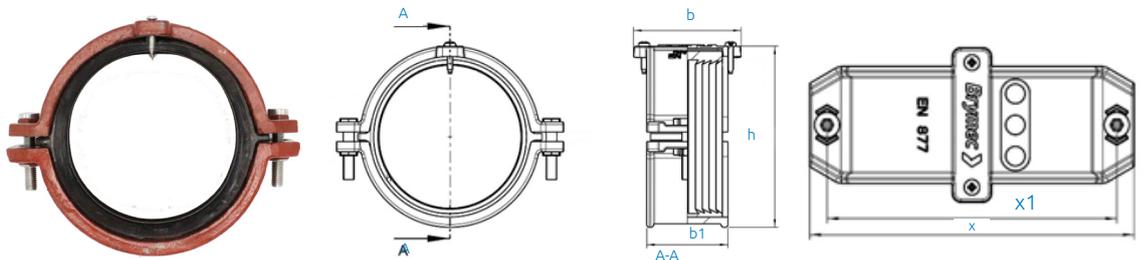
Certified to BS EN 877, BBA certified (certificate 20/5795) & BSI Kitemark certified (certificate KM 737383).  
 Brymec cast iron tube oxide red/brown external coating with fully cross-linked epoxy ochre internal coating.  
 Manufactured from grey cast iron according to EN 1561 to a minimum material grade of EN-GJL-150.  
 Double spigot socketless tubes for use with couplings at any length.



STOCK NO	Nominal Diameter (mm)	External Diameter		Wall Thickness		Insertion Length (mm)	Weight (Kg)	
		OD (mm)	Tolerance	(mm)	Tolerance		Empty	Full
52000	50 x 3m	58	+2 / - 1	3.5	-0.5	30	13.00	19.20
52001	70 x 3m	78	+2 / - 1	3.5	-0.5	35	17.70	29.70
52002	100 x 3m	110	+2 / - 2	3.5	-0.5	40	25.50	50.10
52004	150 x 3m	160	+2 / - 2	4.0	-0.5	50	42.60	96.60
52005	200 x 3m	210	+2.5 / - 2.5	5.0	-1.0	60	69.90	163.50

## Ductile Iron Coupler

Two part Coupling with EPDM rubber Pressure rated up to 0.5 Bar (unrestrained), 5 Bar (restrained)  
 Universal coupling for all tubes and fittings incorporating electrical continuity screws  
 Cast Ductile Iron and flexible rubber aid integrity of acoustic performance of the system



STOCK NO	Nominal Diameter (mm)	h (mm)	x (mm)	x1 (mm)	b (mm)	b1 (mm)	Fastener Tool	Weight (Kg)
52006	50	80	111	93	70	50	6mm Hex 20Nm	0.65
52007	70	107	132	115	70	50		0.83
52008	100	133	168	150	80	60		1.19
52009	150	183	230	215	90	71		1.87
52010	200	239	278	256	102	82		3.85

## Rapid Stainless Coupler

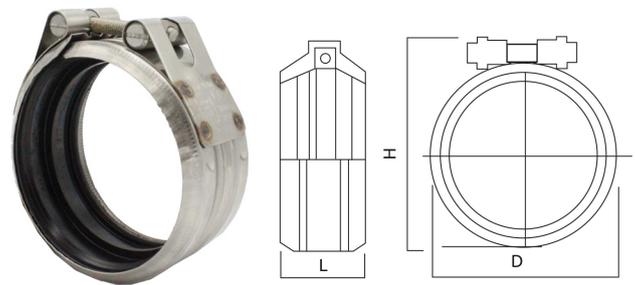
Ready to use single piece coupling for rapid installation.

(With single screw  $\leq 100\text{mm}$ ).

Coupling provides electrical continuity through its radial grip

Stainless shell and screw for high corrosion resistance in aggressive environment

Pressure rated up to 0.5 Bar  $\leq 200\text{mm}$



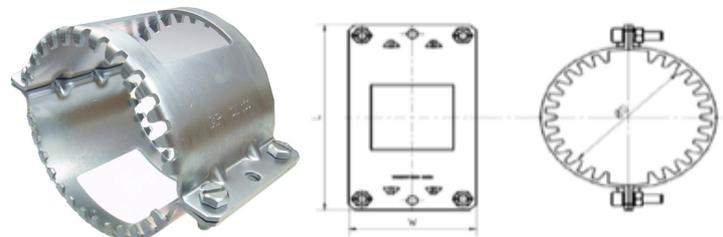
STOCK NO	Nominal Diameter (mm)	Clamping Dia. (mm)	Tightening Torque (Nm)	Fastener Tool	Fixing Screws	x (mm)	h (mm)	b (mm)	Weight (Kg)
52017	50	58	13 - 15	6mm Hex	1	80	70	40	0.13
52018	70	78	13 - 15		1	100	90	40	0.15
52019	100	110	13 - 15	8mm Hex	1	135	125	46	0.19
52021	150	160	13 - 15		2	187	172	55	0.32
52022	200	210	13 - 15		2	244	227	70	0.67

## Combi Grip High Pressure Overclamp

Used in conjunction with the Rapid Coupler to provide axial restraint

Use in pressure tubes applications, or those in risk areas subject to backwater

The combined fixing allows pressure rated up to 10 Bar



STOCK NO	Nominal Diameter (mm)	Clamping Diameter (mm)	Tightening Torque (Nm)	Fastener Tool	L (mm)	W (mm)	Axial Restraint (Bar)	Weight (Kg)
52023	50	58	12-14	6mm Hex	110	72	$\leq 10$	0.59
52024	70	78	12-14		130	72	$\leq 10$	0.72
52025	100	110	32-35	8mm Hex	160	87	$\leq 10$	1.14
52027	150	160	45-49		210	98	$\leq 5$	1.65
52028	200	210	In Abutment	10mm Hex	270	113	$\leq 5$	2.00

## Duo Electro Coupler

Ready to use single piece Coupling with EPDM rubber

A fixing screw each side of the joint gives excellent joint tolerance

Stainless shell totally encloses gasket and incorporates continuity spur link

Pressure rated up to 0.5 Bar (unrestrained), 5 Bar (restrained)



STOCK NO	Nominal Diameter (mm)	Clamping Dia. (mm)	Fastener Tool	Fixing Screws	H (mm)	A (mm)	B (mm)	Weight (Kg)
42011	50	58	5mm Hex 7 - 9 Nm	2	85	73	57	0.15
42012	70	78		2	105	95	57	0.20
42013	100	110		2	139	125	57	0.25
42015	150	160		2	190	176	70	0.41
42016	200	210		4	260	225	70	0.52

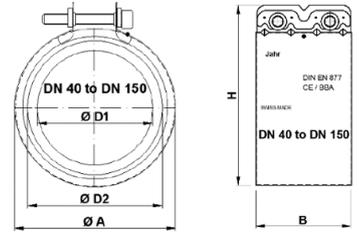
## Adaptor Coupling (CIS Soil to Other)

Ready to use single piece Coupling with EPDM rubber

A fixing screw each side of the joint gives excellent joint tolerance

Allows for quick connection of CIS tube and fittings directly to other systems such as PVC, HDPE

Pressure rated up to 0.5 Bar

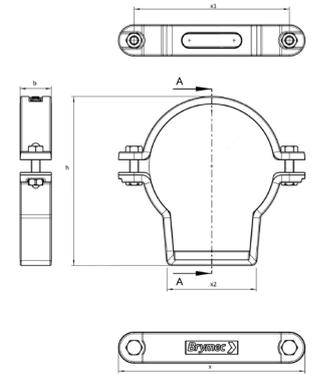


STOCK NO	Nominal Diameter (mm)	Clamping Dia. (mm)	Clamping Range D1 (mm)	Fastener Tool	Fixing Screws	H (mm)	A (mm)	B (mm)	Weight (Kg)
52011	50	58	56 – 62	5mm Hex 7 - 9 Nm	2	85	73	57	0.15
52012	70	78	77 – 80		2	105	93	57	0.2
42029	70	78	84 - 88		2	120	104	57	0.2
52013	100	110	108 – 113		2	139	126	57	0.25
42030	100	110	116 - 119		2	148	132	70	0.29
42031	150	160	166 - 170		4	215	175	70	0.41

## Ductile Iron Bracket

Heavy Duty Cast Iron Bracket helps eliminate vibration and noise

Slotted fixing hole for easy lateral adjustment

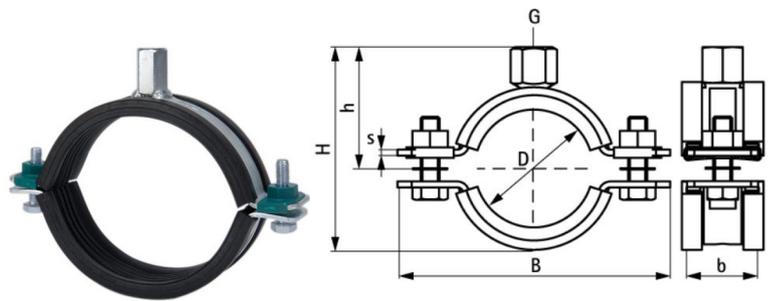


STOCK NO	Nominal Diameter (mm)	h (mm)	x (mm)	x1 (mm)	x2 (mm)	b (mm)	Fastener Tool	Weight (Kg)
52032	50	99	115	87	49	27	13mm Socket	0.43
52033	70	120	135	107	59	27		0.53
52034	100	153	167	139	80	28		0.66
52035	150	202	215	185	85	32		0.97
52036	200	264	266	239	105	32		1.48

## Noise Insulating Fixing Point



STOCK NO	Nominal Diameter (mm)	h (mm)	x (mm)	Description
52016	M10	60	40	Acoustic Damper for vertical or suspended brackets

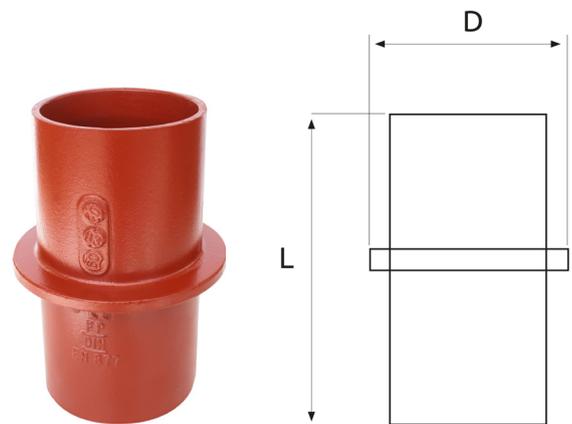


### Heavy Duty Insulated Acoustic Tube Clamp

STOCK NO	Nominal Diameter (mm)	D (mm)	G (mm)	B (mm)	H (mm)	h (mm)	b x s (mm)	F a,z (N)
42037	50	57 - 64	M8/M10	129	99	57	30 x 2.5	1500
42038	70	77-85	M10/M12	152	130	78	30 x 3.0	2300
42039	100	108 - 116	M10/M12	182	160	93	30 x 3.0	2300
42041	150	159 - 168	M10/M12	254	223	124	38 x 4.0	3800
42042	200	203 - 213	M10/M12	299	267	146	38 x 4.0	3800

### Standtube Downtube Support

Anchor tube used to provide a adequate fixed support at base of stack  
Used in conjunction with bearing ring or standtube support console

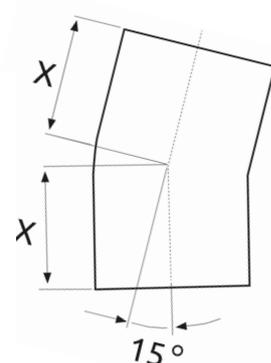


STOCK NO	Nominal Diameter (mm)	L (mm)	D (mm)	Weight (Kg)
52201	50	200	87	1.30
52202	70	200	106	1.80
52203	100	200	145	2.70
52205	150	200	195	4.00
52206	200	200	245	5.90

# Brymec Cast Iron CIS Fittings

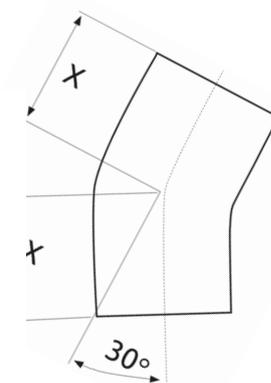
Comprehensive range of fittings to BS EN 877, fully dipped epoxy coating  
 Manufactured from grey cast iron according to EN 1561 to a minimum  
 material grade of EN-GJL-150

## 15° Bend Cast Iron Fitting

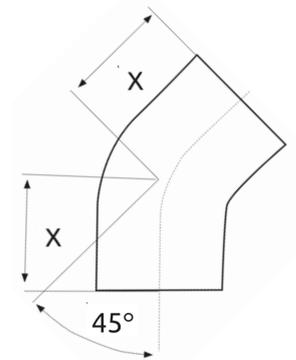


STOCK NO	Nominal Diameter (mm)	X (mm)	Weight (Kg)
52049	100	50	1.00
52051	150	65	2.60
52052	200	80	4.60

## 30° Bend Cast Iron Fitting

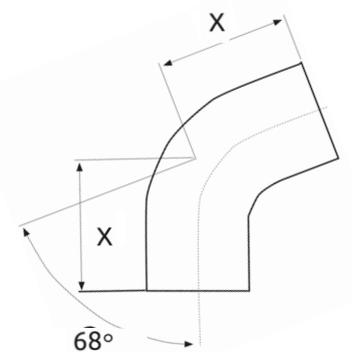


STOCK NO	Nominal Diameter (mm)	X (mm)	Weight (Kg)
52053	50	45	0.50
52054	70	50	0.70
52055	100	60	1.30
52057	150	80	3.00
52058	200	95	5.40



### 45° Bend Cast Iron Fitting

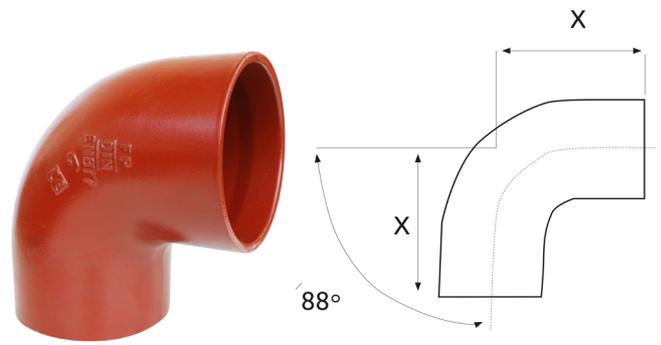
STOCK NO	Nominal Diameter (mm)	X(mm)	Weight (Kg)
52059	50	50	0.50
52060	70	60	0.90
52061	100	70	1.60
52063	150	90	3.50
52064	200	110	5.70



### 68° Bend Cast Iron Fitting

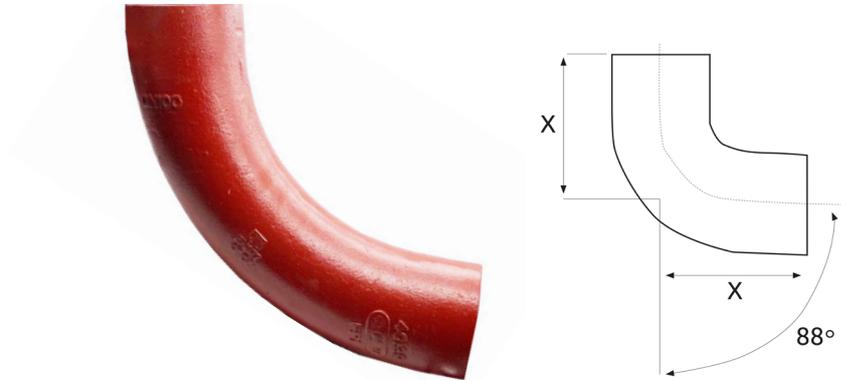
STOCK NO	Nominal Diameter (mm)	X(mm)	Weight (Kg)
52065	50	65	0.70
52066	70	75	1.10
52067	100	90	1.90
52069	150	120	4.10
52070	200	145	7.70

### 88° Bend Cast Iron Fitting



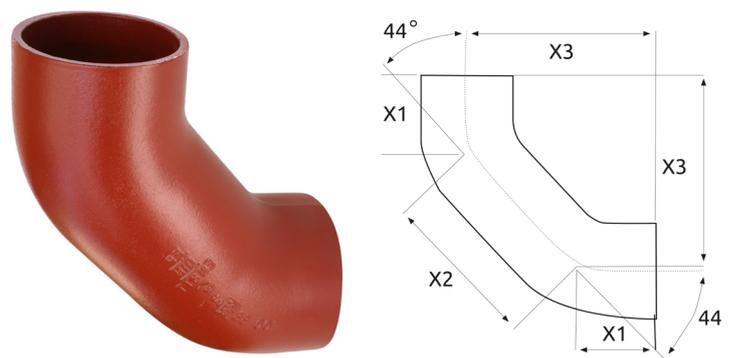
STOCK NO	Nominal Diameter (mm)	X (mm)	Weight (Kg)
52071	50	75	0.70
52072	70	90	1.20
52073	100	110	2.10
52075	150	145	4.30
52076	200	180	8.80

### Swept Radius Bends 88°

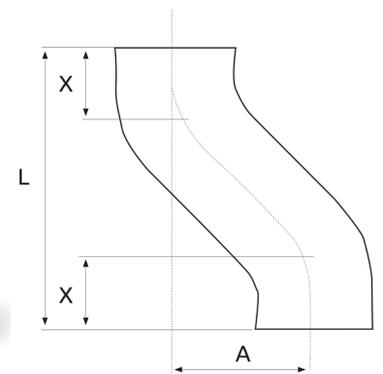


STOCK NO	Nominal Diameter (mm)	X (mm)	Weight (Kg)
52077	100	285	5.04
52078	150	260	7.00

### Short Double Radius Bend 88°

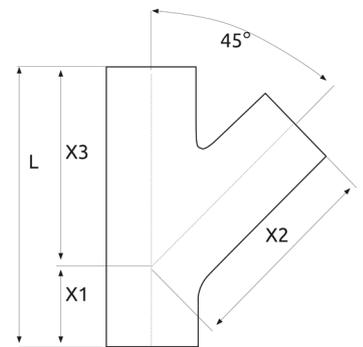


STOCK NO	Nominal Diameter (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52079	50	50	100	121	1.00
52080	70	60	120	145	1.80
52081	100	70	140	170	3.20
52083	150	90	180	219	6.20



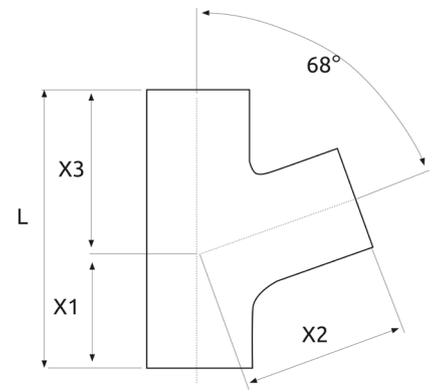
### Offset Cast Iron Fitting

STOCK NO	Nominal Diameter (mm)	A (mm)	Weight (Kg)
52084	100	65	2.50
52085	100	130	3.40
52086	100	200	4.40



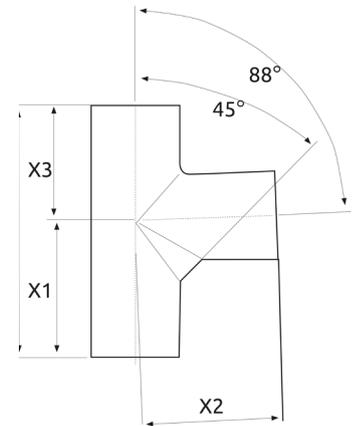
### 45° Single Branch Tee

STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52087	50	185	50	135	135	1.40
52088	70	215	55	160	160	2.10
52089	100	275	70	205	205	4.40
52091	150	355	90	265	265	8.30
52092	200	455	115	340	340	17.20
52093	70 x 50	190	40	150	150	1.60
52094	100 x 50	200	35	165	165	2.30
52095	100 x 70	235	50	185	185	3.00
52099	150 x 70	245	30	215	215	5.30
52100	150 x 100	295	55	240	240	6.50
52103	200 x 100	305	40	265	265	10.00
52105	200 x 150	375	75	300	300	13.30



### 68° Single Branch Tee

STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52106	50	135	55	80	80	0.90
52107	70	170	70	100	100	1.20
52108	100	215	85	130	130	2.90
52110	70 x 50	145	55	90	90	1.00
52111	100 x 50	155	55	110	100	1.90
52112	100 x 70	180	70	120	110	2.40

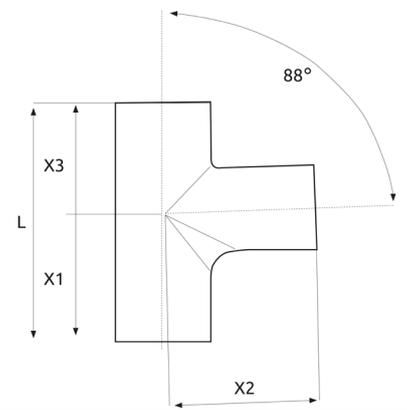


### 88° Single Branch Tee

STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52118	50	145	79	80	66	1.10
52119	70	155	97	90	72	1.70
52120	100	220	115	115	105	2.90
52122	150	300	158	155	142	6.90
52123	70 x 50	155	83	90	72	1.30
52124	100 x 50	170	94	105	76	2.10
52125	100 x 70	190	102	110	88	2.40
52117	150 x 50	200	100	140	100	4.40
52129	150 x 100	245	130	145	115	4.70

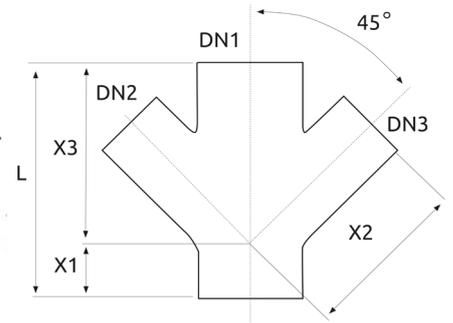
### 88° Swept Single Branch Tee

Swept branches optimise flow where inlet connects to WC's



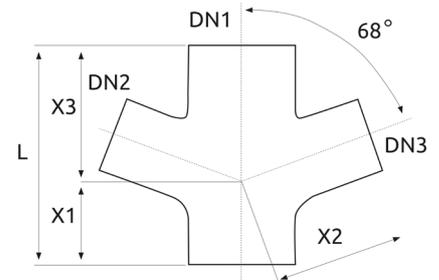
STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52207	100	275	170	150	105	4.03

### 45° Double Branch Tee

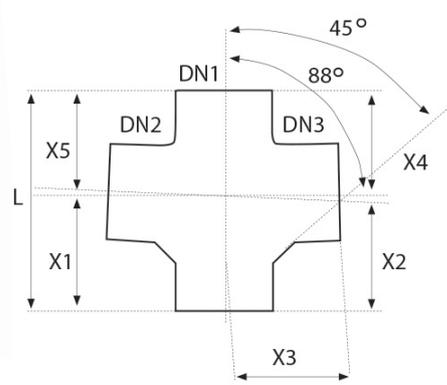


STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52131	100	215	70	130	130	3.80
52132	150 x 100 x 100	300	60	240	240	6.60

### 68° Double Branch Tee

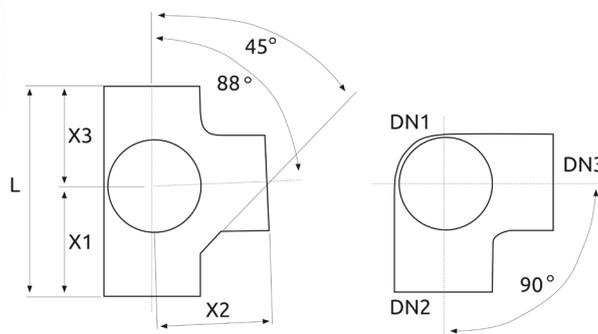


STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52133	100	215	85	130	130	3.60



### 88° Double Branch Tee

STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52134	100 x 50 x 50	180	100	80	105	2.20
52135	100 x 70 x 70	190	102	88	110	3.00
52136	100	230	120	120	120	3.90
52137	150 x 100 x 100	245	130	115	145	7.10



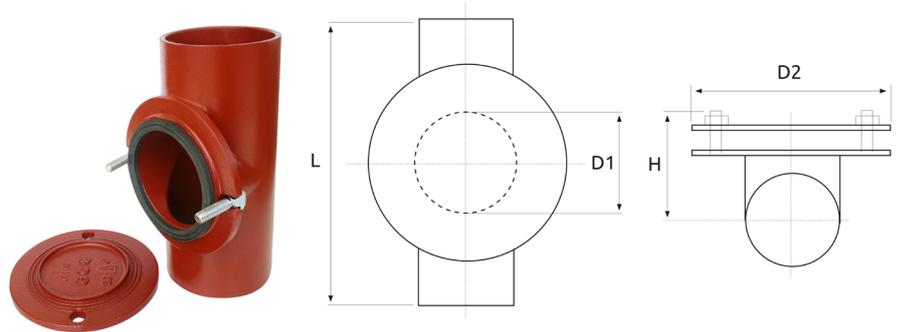
### 88° Corner Branch Tee

STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52140	100 x 70 x 70	190	102	110	88	2.70
52139	100	220	115	120	105	3.75
52142	150 x 100 x 100	245	130	130	145	6.10

# Brymec Cast Iron CIS Access Fittings

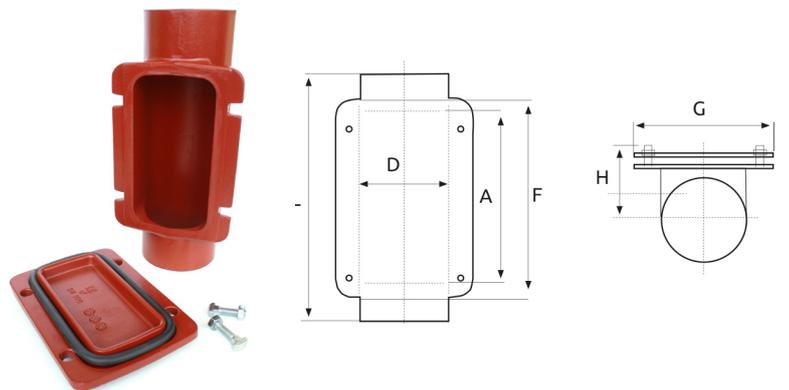
A range of fittings where access or inspection is required.

(Also available are tool-free access tubes)



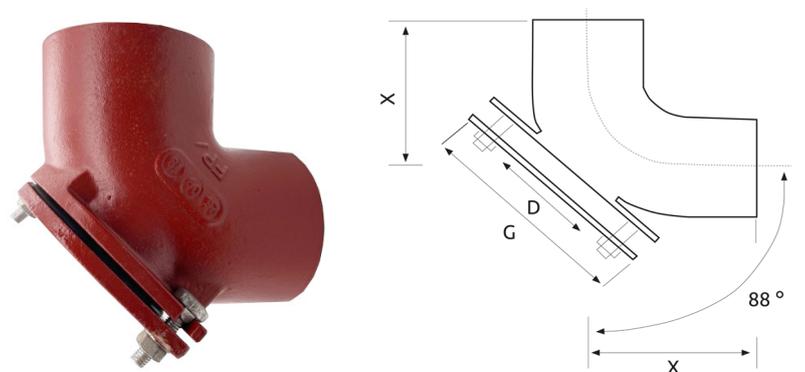
## Access Tube (Round Door)

STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52143	50	190	59	53	105	2.30
52144	70	210	69	73	125	2.78
52145	100	260	84	104	159	4.80



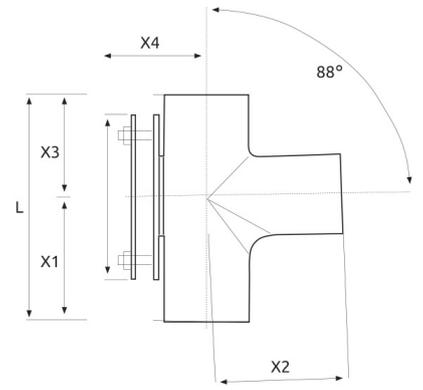
## Access Tube (Rectangular Door)

STOCK NO	Nominal Dia. (mm)	L (mm)	H (mm)	A (mm)	F (mm)	G (mm)	d (mm)	Weight (Kg)
52146	100	340	83	200	230	160	100	7.30
52148	150	395	112	250	280	215	150	12.75
52149	200	465	137	300	330	265	200	25.20



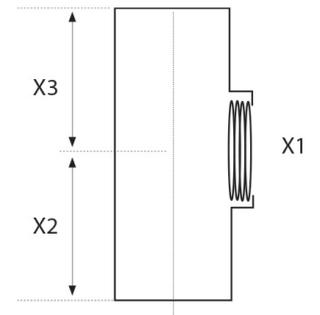
## 88° Access Bend

STOCK NO	Nominal Dia. (mm)	X (mm)	G (mm)	d (mm)	Weight (Kg)
52150	100	115	125	100	2.87
52152	150	145	215	150	6.10



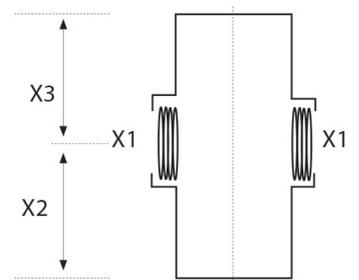
### 88° Single Branch Tee with Access

STOCK NO	Nominal Dia. (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	X4 (mm)	Weight (Kg)
52153	100	275	160	150	115	80	4.10



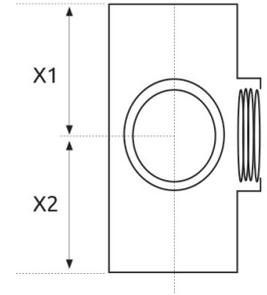
### Single Boss Tube

STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52154	50	150	2"	75	75	0.90
52155	70	150	2"	75	75	1.60
52156	100	150	2"	75	75	2.00
52159	150	175	2"	88	104	3.60



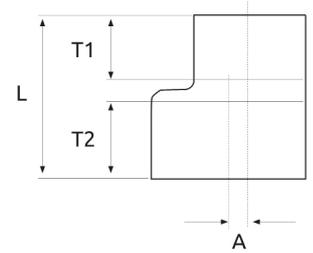
### Double Boss Tube

STOCK NO	Nominal Diameter (mm)	L (mm)	X1 (mm)	X2 (mm)	X3 (mm)	Weight (Kg)
52157	100	150	2"	75	75	2.20
52160	150	175	2"	88	88	3.80



### Corner Boss Tube

STOCK NO	Nominal Diameter (mm)	L (mm)	Outlet (BSP)	X1 (mm)	X2 (mm)	Weight (Kg)
52158	100	150	2"	75	75	2.20



### Eccentric Reducer

STOCK NO	Nominal Diameter (mm)	L (mm)	Outlet (BSP)	X1 (mm)	X2 (mm)	Weight (Kg)
52161	70 x 50	75	10	35	30	0.70
52162	100 x 50	80	25	40	30	0.90
52163	100 x 70	85	16	40	35	0.90
52167	150 x 50	95	51	50	30	2.00
52168	150 x 70	100	41	50	35	2.20
52169	150 x 100	105	25	50	40	2.40
52171	200 x 100	115	50	60	40	4.10
52173	200 x 150	125	25	60	50	4.30

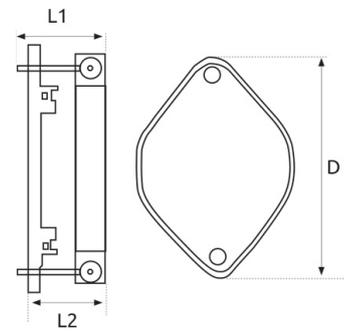


### End Cap

STOCK NO	Nominal Diameter (mm)	L (mm)	Weight (Kg)
52174	50	30	0.30
52175	70	35	0.40
52176	100	40	0.75
52178	150	50	1.70
52179	200	60	3.10

## Plug End Cap c/w fixing clip

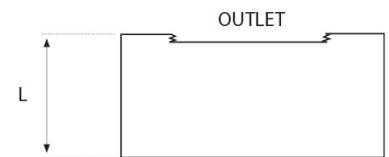
End Cap with easy access for inspection



STOCK NO	Nominal Diameter (mm)	L1 (mm)	L2 (mm)	D (mm)	Weight (Kg)
52180	100	86	60	175	1.27
52182	150	86	60	205	2.23

## Tapped End Cap - BSP threaded

End Cap with BSP tap to accept Male Iron from copper or PVC tubework

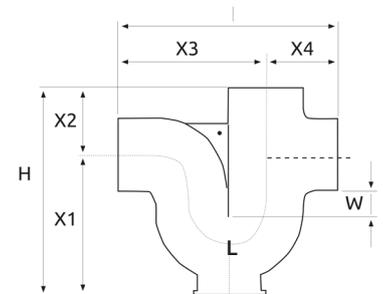


STOCK NO	Nominal Dia. (mm)	L (mm)	Outlet (BSP)	Weight (Kg)
52184	50	30	1 1/2"	0.25
52185	70	35	2"	0.32
52186	100	40	2"	0.72

## Branch Trap

Branch trap supplied with cap so can be used for vertical or horizontal inlet

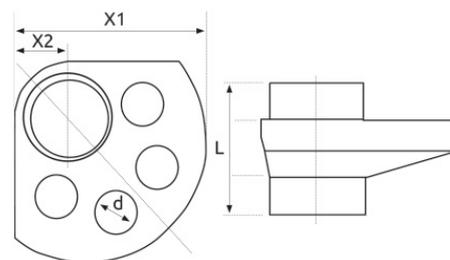
With sump access for cleaing / inspection



STOCK NO	Nominal Dia. (mm)	L (mm)	H (mm)	X1 (mm)	X2 (mm)	X3 (mm)	X4 (mm)	W (mm)	Weight (Kg)
52189	50	190	250	182	68	122	68	60	2.90
52190	70	265	293	200	93	172	93	60	5.80
52191	100	326	392	282	110	215	110	100	9.50
52193	150	470	493	248	145	325	145	100	21.80
52194	200	600	420	420	180	400	200	100	38.40

## Manifold c/w waste adaptors

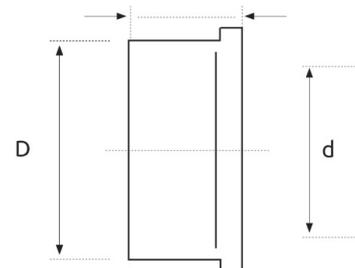
Manifold with multiple waste connections



STOCK NO	Nominal Dia. (mm)	L (mm)	X1 (mm)	X2 (mm)	d (mm)	Weight (Kg)
52195	100	165	235	175	4 X 32/40/50	3.93
52196	150	185	270	180	3 X 32/40/50	5.20

## Pushfit Adaptor to solvent waste - Rubber

Insert for 50mm tube or fitting to accept copper or PVC waste tube

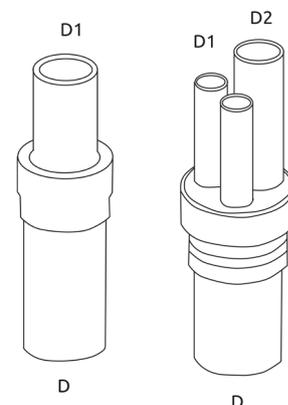


STOCK NO	Nominal Dia. (mm)	d (mm)	Weight (Kg)
51811	50	36 - 40	0.03
42198	50	41 - 44	0.02

## Multi Waste Adaptor

Flexible adaptor to provide simple transitions between CIS to other tubework

Multiple entry adaptor for vertical discharge from up to three waste connections



STOCK NO	Nominal Dia. (mm)	d1 (mm)	d2 (mm)	Tightening Torque (Nm)	Weight (Kg)
52197	50	40 - 56	n/a	6	0.12
52198	70	56 - 75	n/a	6	0.17
52199	100	100 - 110	n/a	6	0.30
42199	100	32 - 40 (x2)	40 - 56	6	0.50

# Frequently Asked Questions

## Q. Is this suitable for External use?

The primer applied to CIS tube is for pre-installation protection. If used externally or in any other environment than protected dry ambient the system should be coated with suitable paint to provide anti-corrosion for the ambient conditions it will withstand. Please ensure the preparation and application guidelines for the coating used are followed. Also, stainless couplings, heavy duty support brackets and other accessories should also be used as suitable for the application.

## Q. Can Brymec Cast Iron Drainage be used with other cast iron systems?

Products with the same DN in accordance with BS EN 877 can be connected together. Introduction of products from other supply within a system should be consistent from wherever the change is made (not mixed and matched) and will impact our ability to uphold system warranty.

## Q. What adapters do you provide for PVC Soil and Waste?

Brymec provide a range of adaptors and fittings that allow for connection of other systems including PVC, ABS, HDPE into the cast iron discharge system. We will be glad to assist with recommendations for best solution.



## Q. Can you support with standard rubber lined clips?

Clips and fasteners should be appropriate and able to suitably support the system and its expected loads. Lined or unlined clips can be used as preferred by the client to meet the required performance of the system.

## Q. What is DN and DE – how do I check sizes of the Brymec Cast Iron system?

Nominal dimension (DN) is an indirect reference to the internal bore of the tubework system. External Diameter (DE) is the actual outside diameter of the tubework system. See dimensions shown for all tube sizes on Page 10.

## Q. Safety in case of Fire?

The understanding of BS EN 877 is to consider products in their end use conditions as assembled. Internal coatings are not relevant as they are not exposed to fire (a very low quantity of smoke is possible but will go outside building through stack vents). Gaskets of joints are not relevant either as in the end use conditions they are not exposed to fire and represent a very low quantity of organic material. BS EN 877 products evaluated under EN 1366-3 when exposed to fire will maintain their functional characteristics and integrity for several hours (ie their walls will remain impervious to flames and gases and there will be no fracture, collapse or significant deformation. The integrity of connections through walls and ceilings is maintained.

## Q. What if sizes I require are not listed?

Larger sizes (250mm & 300mm) are available please call or email [sales@brymec.com](mailto:sales@brymec.com).

# System Considerations

For proper functioning of drainage systems the following general requirements have to be fulfilled:

1. Wastewater has to be discharged smoothly providing quiet operation.
2. Self-cleansing properties of the drainage system have to be maximised, but provision made to allow any blockage to be cleared.
3. Evacuation of the maximum wastewater volume to be expected has to be guaranteed.
4. Pressure fluctuations have to be inhibited as they could cause seal water to be drawn out from the traps or cause backflow into tubes or sanitary equipment.
5. The required venting capacity of the drainage system has to be ensured by taking proper venting measures and by partial filling of the tubes.
6. Resistance of the tubes and fittings against effects of the sewage.
7. Drainage systems have to provide sufficient measures to be water tight and gas-tight under working pressure. It has to be guaranteed that tube systems in buildings do not allow foul air or bad odours to spread in the building.

As a basic condition, conventional drainage using gravity flow lines requires a sufficient filling level and a mid-range flow rate in order to ensure suspended particles and deposited matter to be properly transported and flushed out. The proper hydraulic functioning is given if the flow in partially filled tubes is unchanging and steady.

System design should be under the guidance of public health engineer and according to local building regulations. This include BS EN 12056-2:2000:- Gravity drainage systems inside buildings; sanitary tubework, layout and calculation for wastewater systems in residential, commercial and industrial buildings.

Brymec Cast Iron tubes, fittings and coupling systems are produced and inspected according to BS EN 877:1999+A1:2006:- Cast iron tubes and fittings, their joints and accessories for the evacuation of water from buildings.

## Preparing and Cutting Tubes

Socketless cast iron tubes are delivered with a length of 3m to be cut at any length directly as needed to complete the installation. Before installation work begins, ensure the tube is clean and dry.. Ensure there are no cracks or obvious damage on the tube length and especially ends that would indicate mishandling and potential unseen damage.

The cut must be perpendicular to the tube length, smooth, clean and even. If necessary the cut face should be deburred to ensure a correct seal for the coupling. A clamping jig will be needed to ensure that the cut is truly perpendicular by establishing the positioning and clamping of the tube.

The following tools are suggestions of common cutting methods:

- Bandsaw, Circular chop saw, Mechanical hacksaw: Transportable electrical saws with clamping jig ensure a nearly perfect perpendicular cut.
- Angle grinder: An angle grinder with a cutting disc for cast iron should only be used in conjunction with a suitable clamping jig.
- Rotary tube cutter: The tube cutter has the clamping guide integrated in the tool and allows a fast, clean and perpendicular cut. Note - There is the risk of damage to the tube due to high pressures caused by worn cutting discs and excessive feed rates.

**SAFETY NOTE:**

- Appropriate protective clothing must be worn whilst working!
- The relevant safety regulations must be obeyed within a suitable working environment!
- Saw blades and cutting wheels must be changed regularly!
- Carefully handling required - cut edges will be sharp and may be very hot!
- Ensure adequate support and handling is available for all activities, tubes can be weighty!

## Fitting Cast Iron Couplings

The traditional two part coupling is supplied complete with EPDM gasket, fastenings and earth continuity screws.

- Step 1.** Slacken the fastening bolt(s) and on one side remove the bolt and nut set completely. Screw back the continuity screws to their fullest extent within the shell.
- Step 2.** Insert the gasket onto the first tube/fitting, till it reaches the centre rib stop. Next, bring the second fitting/tube inline and insert into the opposite end of gasket, till it also abuts the centre stop. Ensure the fittings are square and then support the joint.
- Step 3.** Clip the two shells of the coupling over the gasket, with the external profiles of the rubber snug into the joint either side. Ensure the shells are centred axially over the gasket and the electrical continuity screws will not foul on the rubber. Hand tighten the fastening bolts.
- Step 4.** Continue to tighten the bolts, a few rotations each side in turn until fully tightened. Use battery screwdriver or ratchet, with suitable hexagon socket key ensuring the correct torque is achieved. There should be equal gap between the shells on both sides – do not tighten to clamp the shells completely or exceed the recommended fastening torque!
- Step 5.** Screw home the two electrical continuity screws – battery screwdriver can be used on low torque setting. Ensure these are sufficiently inserted by a final firm tightening with hand screwdriver.

# Fitting Rapid Stainless Couplings

The Rapid coupling offers fast and simplistic installation. Its single piece stainless shell fully encloses the EPDM gasket, providing superior protection and provides integral electrical continuity provision.

- Step 1.** If needed, the fastening bolt can be loosened to allow the coupling to be pushed onto the first tube/fitting, till it reaches the centre rib stop
- Step 2.** Next, bring the second fitting/tube inline and insert into the opposite end of gasket, till it also abuts the centre stop. Ensure the fittings are square and then support the joint.
- Step 3.** Tighten the bolt(s) until fully tightened. Use battery screwdriver or ratchet, with suitable hexagon socket key ensuring the correct torque is achieved. Once tightened, the edges of the shell will secure into the coating of the tube/fitting and provide suitable electrical continuity.

## EPDM Konfix and Pushfit Adaptors and Manifold Grommets

To use either Konfix or the Manifold adaptors, the inlet entry will need cut open – use the markings in the rubber suitable to the size of tube to be inserted.

For any of the rubber fittings, lubricate the inlet tube before inserting into the adaptor. If necessary, the connection tube must be fixed in order to prevent from slipping due to internal pressure.

## General Installation

The tubes are cut to length as required on site. Tubes and fittings are given support and axial restraint using suitable tube clamps and couplings.

**Support Centres & Fixing Sizes:** As a general rule - tubes that exceed a length of 2m should be fixed twice, whereas the maximum distance between 2 clamps should be 2m. As a general rule, fixings before or after each coupling should not be further away than 0.75m and not be closer than 0.10 m. We recommend using brackets & fasteners with thread size as follows; Tubes DN 50 - 100 min. M10, DN125 – 150 with M12, and DN200+ min M16. Rainwater tubes and wastewater tubes under pressure (e.g. for wastewater lifting systems) should be fastened with brackets with threaded fasteners the next size up. In all instances the supported weight should be within manufacturers guidance for the bracketry and fixings used, and the support of the overall system able to be adequately borne by the building structural elements in according with building design loads.

**Vertical Tube Support:** Clamps and fixings used for vertical tube support should give spacing off the supporting structure of 30 - 70mm. In buildings with 5 storeys or more, downtubes of DN100 or larger should be secured against sinking by means of a downtube support, fixed at the lowest point (1 storey = 2.5m span between floor to ceiling). Additionally, further downtube supports should be fitted at every subsequent fifth storey for sizes up to DN100, every third storey for DN125 & 150, and every second storey for DN200+.

**Horizontal Tube Support:** Horizontal tubes have to be adequately fastened at all turns and branches. Where horizontal tubes are secured using threaded rods, the maximum length of rod for a single boss bracket should be 750mm. For longer drops two rods should be used with split band clip. Fixed point braces are necessary if tubes are longer than 10m and drop rods >100mm length are used. The fixed-point should be installed every 10 to 15 m. Where there is extended length fixings (>500mm) and especially with tubes DN150+, a fixed support frame of steel channel to minimise drops should be considered to ensure adequate support for tube and fittings. As a general rule a gradient to provide self-cleaning action under normal discharge conditions is 1 in 40 for DN100 tubes, and 1 in 60 for 150mm tube. If a gradient of 1 in 10 or greater exists, this needs to be calculated as a downtube.

**Couplers & Grips:** Drainage tubes are planned as unpressurized gravity flow lines. However, this does not exclude the tube to be under pressure as operating conditions occur. Also, drainage and ventilation tubes are subject to possible interactions between the tubes and their environment and they have to be permanently leak-tight against internal and external pressure of between 0 and 0.5 bar. To sustain this pressure, those tube parts subject to longitudinal movement must be fixed along the longitudinal axis, properly supported and secured. Special care in coupling & support should be used whenever interior pressure exceeding 0.5 bar may arise in the drainage tubes, such as in; Rainwater tubes, Tubes in the backwater area, Wastewater tubes which run through more than one basement without further outlet, Pressure tubes at wastewater pumps. The required resistance of the tube and fitting connections to longitudinal forces is can be further extended by installing the additional grips clamps (internal pressure load up to 10 bar possible) at the joints.

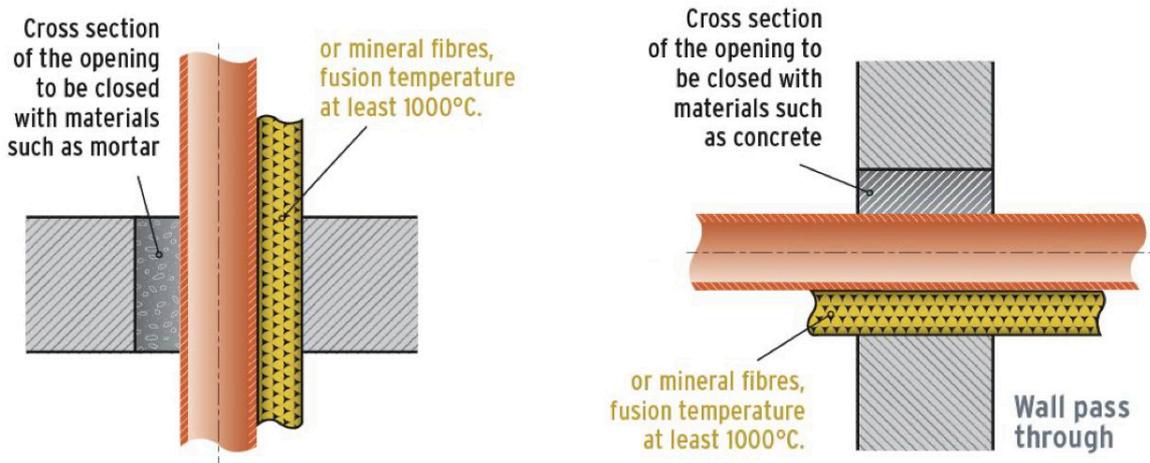
- For wastewater tubes with a pressure up to 0.5 bar in the backwater area size DN50 - DN200 using either Ductile Iron or Rapid Coupling, no additional measures are required. For DN250 and larger, Rapid Couplings have to be secured at turns with their corresponding grip collars.
- For wastewater tubes with a higher pressure than 0.5 bar in the backwater area all couplings are to be secured with the corresponding grip collars.

Rainwater tubes inside the building have to withstand the pressure caused by clogging. In vertical gravity flow tubes for rainwater drainage that are open at the top, the water column cannot exert axial forces as long as the tubes are secured against possible sideways movements. Therefore, either the Ductile Iron or Rapid Coupling may be used. However, deflections or turns must be secured with grip collars. As a backflow to the upper building edge due to clogging is very unlikely, grip collars to secure tubes are to be used only below the backwater level.

Where non-friction-fitted connections are subject to possible internal pressure or pressure developing during operation, these tubes must be provided with suitable fixing support along their length and at each turns/side branch, to secure the axes from slipping apart and separating. This especially applies when using couplings & adaptors to other wastewater tubes.

# Wall and Floor Penetrations

In general, any openings must be kept as small as possible. The opening remaining after installation of the tube must be closed with non-flammable building material. We recommend mineral fibres (with a fusion temperature of  $> 1000^{\circ}\text{C}$ ) to pack joints and, if needed remaining opening closed with cement mortar or concrete. Entirely enclosing the tube with cement mortar or concrete could cause noise to be transmitted to the wall or ceiling and, therefore, is not recommended. If any fire stopping device is used, ensure it can accommodate thermal movement. Where tubes have to pass through walls and floors, being subject to particular requirements with regard to fire resistance, special measures may have to be taken in accordance with national and regional requirements.



## Embedment in Concrete

As cast iron tubes and fittings have nearly the same expansion coefficient than concrete, these tubes can be embedded in concrete without any problems. Before embedding the tubelines, tubework installation should be fully completed and sufficiently secured against movement by fixing with brackets or other support trestles in combination with couplings and clamps. Ensure sufficient access points for cleaning and maintenance are provided. Sections to be encased should be tested and approved, and any damage to external coatings made good. Tube should be filled with water before being concrete is poured until it has solidified.

## Access Fittings

Access fittings are essential – from initial system testing, to ongoing system inspection, maintenance and cleaning. For vertical downtubes, access points should be minimum every 3rd floor, and before the bend to horizontal.

Most systems will be installed with stack access on each floor. On horizontal tubes, access points should be at each change in direction, and at the end of each main branch run. In extended tube runs, access points should be at least every 20m.

# System Flow and Venting

There are so many considerations involved in system flow and ventilation design calculations, that it is not possible to properly cover these here, so we will only briefly outline the main points.

- Primary Ventilation – venting via a single main stack tube. The most basic system.
- Direct secondary venting with a parallel stack connected to the main downtube at each storey. Often suited to system with short branch runs. Evacuation is notably higher than primary vented system.
- Indirect secondary venting using vent tubes and stacks connected to branch tubes. Especially suited to system with horizontal branches serving multiple inlets.

Secondary vent tubes may be connected back to the main stock tube or have their own vent to atmosphere. The secondary vent system can also use other tube materials. Refer to your specific system design and sizing for vent tubework. It should be noted that in no case should tubework reduce in size in the direction of flow. Also, in order to guarantee proper ventilation of the main stack downtube, the tube has to be sized according to the volume of water collected at the lowest point.

Hence, the whole downtube has to be sized according to this value and it must not be reduced at the head of the stack.

It is recommended to use 88.5° entry branches when connecting horizontal tubes to downtubes, as 45° entry branches could cause a hydraulic closure within the stacktube; which, as a consequence, could lead to a self-suction of connected odour traps. Furthermore, all Brymec 88.5° branches are designed with an integral access angle of 45°, giving optimum hydraulic conditions and allowing 30% more load than a square branch.

To reduce the noise level caused by the impact of the flow of wastewater when arriving at the deflection or base of stack, changes of direction should use radius bends or two bends of 45°. Downtubes with length greater than 22m should use two bends of 45° with 250mm separation. Where a deflection is inevitable in the stack tube, there is need of stub stacks, or other scenarios for example multi-level rainwater stacks – it must be ensured that suitable bypass or other suitable configuration is considered within the design to ensure proper system performance.

# Testing Procedure

This page provides information on standard testing methods for waste and rainwater drainage. Ensuring that the pipework is properly secured is extremely important, and inspections and tests should be made during the installation of the discharge system as the work progresses. All work should be tested and free from defects before it is finally enclosed. Any specific project test requirements should be followed.

## Testing with air:

An air test is normally carried out as laid out within BS EN 12056-2:2000 to confirm that all pipes and fittings are airtight. This should normally be completed in one operation, but for larger systems it is recommended to ensure access points are installed in appropriate positions so testing in sections can also be completed. Seal all open vents and connection to sewer with suitable test bungs, then use hand pump and manometer to pressurise and test. Ensure all bungs are removed before system operation!

## Testing with smoke:

It is not recommended to carry out a smoke test on cast iron pipework systems due to detrimental effect or embrittlement on any plastic components & rubber gaskets.

## Leak detection:

A soapy water solution test can be applied to the pipes and joints. Leaks can then be detected by the formation of bubbles

## Testing with water:

It is not necessary to apply a water test to the whole of the drainage system. The part of the system at risk is that below the lowest sanitary appliance and this can be tested using a test plug in the lower end of the pipe and filling the pipe with water up to the flood level of the lowest sanitary appliance.



# 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 Goods 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.

# 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 and diversity
- Anti-bribery and 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](http://www.ethicaltrade.org).





