





Introduction to Brymec	4
Environmental Model	
Brymec Stainless Steel Press System Introduction	6
Key Features and Advantages	8
Technical Information	
Certification	
Technical Data & Applications	
Stainless Steel Tubes	12
Design Considerations	
Corrosion	14
Connecting with other materials	
Linear Pipe Expansion	15
Installation Design Considerations	18
Spacing Requirements when Pressing	
Support Centres	
Compatible Tooling	
Testing Procedures	24
Flushing	<u>26</u>
Product Range	
Installation	
Installation Procedure	40
Brymec Training Programme	42
Brymec Technical Support	43
Warranty	44
General Information	46

# Introducing Brymec >

Our philosophy has always been to provide the ultimate convenience and peace of mind to our clients. This also includes ensuring that you have the best possible products to select from.

By investing in innovation, we have been able to engineer our own range of products, all manufactured to our exacting specifications to deliver quality solutions for the Building Services Industry.

Every one of our Brymec products is manufactured to the highest quality standards possible and are backed up by our in-house technical support, robust quality controls and industry-leading guarantees.

Our innovative approach simplifies your supply chain, giving you direct access to the manufacturer. This gives you greater control and confidence in Brymec being the right partner for you.

With almost 50 years of experience, we understand the challenges you face and the solutions you require.

This complete understanding of industry products and systems enable us to collaborate with you more effectively and efficiently, to deliver a more comprehensive range of products that are specific to your needs.







# Our 3 Step Approach to an Environmentally Friendly Build...

Brymec cuts down the movement of products, which cuts the impact to the environment

This helps our customers reduce their carbon footprint of the products they buy from us

#### **Traditional Model**

- Manufacturer
- 2 European Distribution
- 3 UK Distribution

- 4 Merchant Central
  Distribution
- 5 Branches
- 6 Construction Site

#### **Our Environmentally Friendly Business Model**



# Brymec Stainless Steel Press System

The use of Press Fit for a quicker and improved method for pipework connection started over 50 years ago and has greatly increased to assist the industry to reduce time, cost and carbon footprint. There have been further developments over the year such as the addition of Stainless Steel ranges.

### Benefits of Brymec Press Fit – the Five S's

There are many benefits in using Brymec Stainless Steel Press Fit connections for a quick and permanent joint:

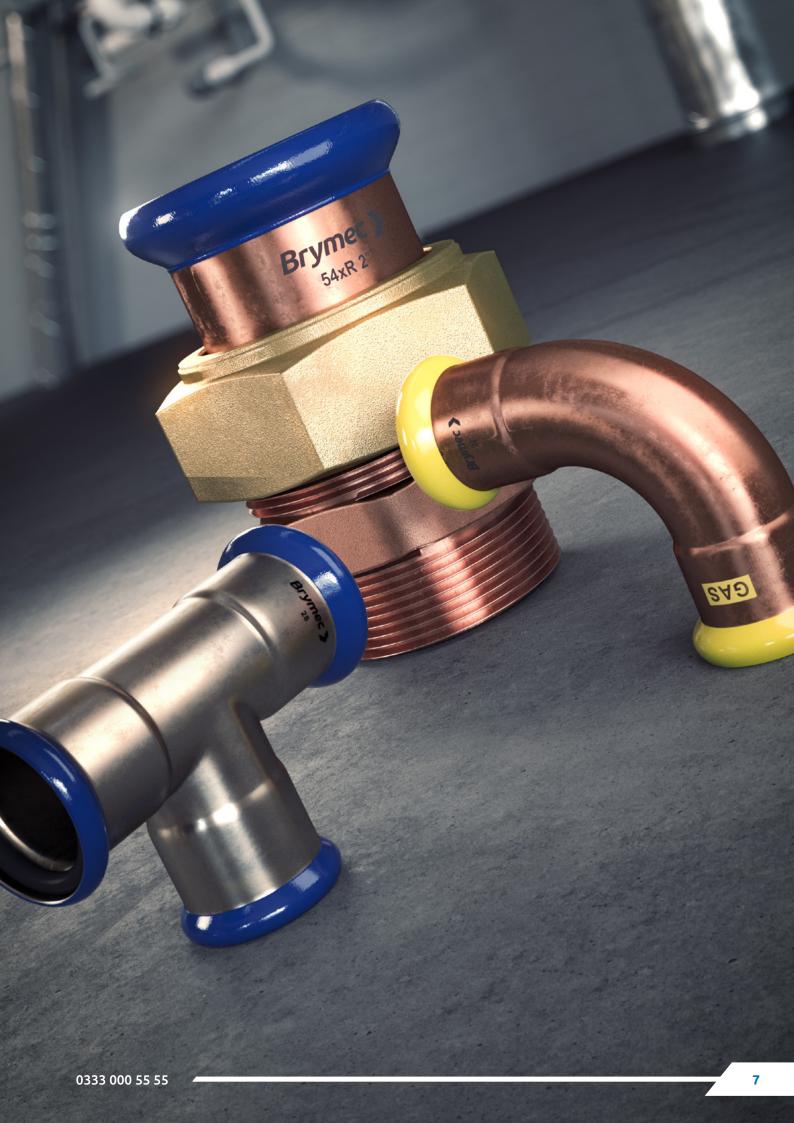
- Speed of installation
- Simplicity of planning and installing a project
- Safety no risk of fire, fire risk or fire watch times
- Solder Free no need for consumables such as Solder, Flux, Brazing Rods, heat mats, rags, gas
- **Savings** due to efficiency

We have used our knowledge of what Engineers, Designers and Installers require to make sure that the Brymec Stainless Steel Press system has the unique features that will make a difference to your project.

The Stainless Steel Press System is an important part of the full range of Brymec Press Fit Products, which includes Copper Press Fit and Copper Gas Press Fit in all sizes from 15mm up to 108mm.

This tried and proven range has been engineered utilising our many years of product excellence and design to provide utmost confidence in the quality, security and ease of install with our system.

As well as market leading Quality Control and ability to deliver a project in a way that reduces time and cost, we have several unique features which give ultimate satisfaction. Our track record of successful projects range from vital fast track projects to use on some of the most prestigious buildings in the UK, and are evidence that the Brymec Press System is the product of choice.



# Key Features and Advantages

### The Brymec Stainless Steel Press System has several key advantages including unique products and designs.

With our product the combination of features and unique details is designed to provide the user with the easiest and most reliable installation. This is coupled with best practice standards from the start of manufacture to the completion of a project.



### 100% LEAK PATH DETECTION

This feature allows a fitting to have a slight leak that is visible under initial pressure to clearly identify if the fitting has not been crimped. The uniquely designed EPDM O-ring allows the medium to seep past the seal prior to being crimped. Once crimped a leak proof seal is created.



#### **VISUAL CRIMP INDICATOR**

The visual crimp indicator provides a clear visual confirmation if a fitting has been crimped or not.

Each gasket housing has a blue indicator ring which peels off once the fitting has been crimped.

These two features above proved certainty that unpressed fittings will be identified.



#### **CORROSION RESISTANCE**

Due to the use of top quality 316L stainless steel to standard EN1088, this range has ultimate corrosion resistance. The inner surface of our fittings are decontaminated and manufactured to standard EN 10312

Superior corrosion resistance can be seen in the above image where 316L stainless steel on the left is compared to low carbon steel on the right.



#### **DURABILITY**

The excellent mechanical strength properties and low rate of thermal expansion give robustness and durability, making it ideal for external applications.

# Technical Information



Brymec Stainless Steel Press fittings are independently tested and comply with the requirements of Water Regulations Advisory Scheme (WRAS), WRAS approval number 1812106.

This means that the fittings are of an appropriate quality and standard as defined in The Water Supply (Water Fittings) Regulations 1999, The Water Supply (Water Fittings) (Scotland) Byelaws 2014, The Water Supply (Water Fittings) Regulations (Northern Ireland) 2009 and all other applicable WRAS requirements. The fittings also have DVGW approval.





### Technical Data & Applications

Application	Comment	Pressure	Temp. (°C)
Hot and Cold	Vented or unvented pressurised systems	10 Bar	95
potable water	supplying cold or hot water for drinking or sanitary applications	16 Bar	25
Fire Services –	Capable of handling the required test pressure 17	10 Bar	95
Fire Sprinkler & Hose Reel	Bar or 1.5 times the design pressure as specified (uk standard)	16 Bar	25
Pump circulated HW systems	Compliant with EN12828	10 Bar	110
Chilled Water Systems	See below for details	16 Bar	-20 - 120
Compressed Air Systems	Compressed air classes 1-4 consistent with ISO 8573-1, max oil content <25g/m³	10 Bar	Up to 25
Industrial and process	Treated, softened, partially de-ionized water with a	10 Bar	95
water/Reverse Osmosis	pH of 6.5 ≤ pH 6.5 ≤ 9.5	16 Bar	25

#### Brymec WRAS Stainless Steel Press System for Chilled / Process circulating systems

- For chilled systems (normally operating circal 0-12°C), medium must be aqueous based (water/glycol mix). In any case operating temperature should be higher than the freezing temperature of the medium. The Brymec Stainless Steel press system is not suitable if medium is expected to freeze at any point in the system – it must always be liquid.
- In all joints observe correct industry procedures, including tube preparation, marking, fixing/support and pressing.
- Installation to comply with the requirements of BS5970:2012 code of practice for the thermal insulation of pipe work – it is essential clean and dry pipework and fittings are enclosed within snug fitting insulation of uniform thickness and continuous integrity of vapour

- barrier is maintained. This should include suitable thermal insulating pipe support blocks with longitudinal and butt joints taped or glued throughout to ensure the continuous integrity of vapour barrier between block and lagging.
- There is no yellow brass within the wetted parts of the system, so no issues with dezincification that can occur with this material. (Yellow brass including Duplex & basic Copper Alloy parts.)

Working temperature for the system is within -20°C to 120°C at a maximum working pressure of 16 Bar. Fittings are made from 316L grade stainless steel to standard EN10088 with Ethylene-propylene diene monomer (EDPM) O-ring with a Shore hardness of 70.

# Stainless Steel Tube

Our Welded stainless steel tubes are made from AISI 316L grade stainless steel. They are manufactured in accordance with the EN 10312 standard. This meets the 1.4404/1.4301 AISI 316L/AISI 304 standard under UNE EN 10088 and EN 10.217-7. The tubes comply with DVGW W541 specifications and are WRAS approved.

Stock Code (3m)	OD x Wall Thickness (mm)	Weight (Kg/m)	Water Capacity (l/m)	Max Tube pressure (Bar)	Max Fitting Pressure (Bar)
39300	15 x 0.6	0.216	0.133	88	40
39301	22 x 0.7	0.322	0.302	70	40
39302	28 x 0.8	0.479	0.514	63	40
39303	35 x 1.0	0.685	0.804	63	25
39304	42 x 1.1	1.027	1.194	63	25
39305	54 x 1.2	1.587	2.042	49	25
39306	76.1 x 1.5	2.802	4.082	40	16
39359	88.9 x 2	4.286	5.661	49	16
39307	108 x 2	5.223	8.494	40	16





# Design Considerations



#### **Internal Corrosion Resistance:**

When oxygenated water comes into contact with stainless steel, a passive protective layer of chromic oxide is formed. This layer greatly restricts corrosion occurring in the system providing a high level of durability and hygiene.

However high chloride levels may cause this passive layer to breakdown allowing perforation corrosion to take place. In the use of AISI 316 stainless steel material, the content of watersoluble chloride ions must not exceed 250mg/l. It is important to note that PTFE sealing tapes that contains water-soluble chloride ions are not suitable for sealing stainless steel threaded connections.

#### **External Corrosion Resistance:**

Protection against external corrosion is not usually required due to the inherent properties of AISI 316L stainless steel. However if the stainless steel pipework comes into contact with building materials or insulating materials that contain chlorides, external protection is necessary.

External Corrosion can be caused by the following conditions:

- Building or lagging materials containing chlorides are in contact with Stainless Steel pipework carrying hot water (≥ 50°C)
- If the stainless steel pipework comes into contact with salt water (brine) which has a high chloride content or chlorine gas.
- If stainless steel pipework carrying hot water comes into contact with moisture, evaporation can give rise to chloride enrichment

If the stainless steel pipework is liable to be affected by any of these conditions then appropriate measures need to be taken to avoid any risk of corrosion. An anti-corrosion layer can be applied to the pipework as protection. This must be an impervious, thick and durable material such as a plastic protective coating, or anti-corrosion tape. Closed cell lagging materials can also be an effective measure, providing all seams have been sealed properly and are watertight.

### Connecting with other materials

Stainless steel can be combined with other non-ferrous metals such as red brass or copper without bi-metallic (contact) corrosion occurring regardless of the direction of flow. However carbon steel or galvanized steel pipes must not be directly connected to stainless steel pipework as this will cause contact corrosion.

The two different materials must be separated by at least 50mm with a non-ferrous material such as brass. The direction of flow is also an important consideration if the installation will consist of galvanized or carbon steel and stainless steel pipework. The flow should go from galvanized or carbon steel to stainless steel only.

### Linear Pipe Expansion

Changes in temperature cause pipework systems to expand and contract to different degrees depending on the temperature and material differences. It is of key importance that this thermal movement is considered when designing and installing pipework systems. Fixing pipework too rigidly, can restrict the natural expansion that comes from thermal fluctuations, causing mechanical stress and tension and compromise the integrity of joints.

The heat expansion co-efficient of 316L Stainless Steel can be calculated with the below formula:

#### $\Delta L = L * \alpha * \Delta T$

#### Whereby:

 $\Delta L$ = total extension in mm. L= length of the pipe in m.  $\Delta T$  = Temperature fluctuation in °K.  $\alpha$  = Linear expansion coefficient ( $\alpha$  = 0.0165 mm/m for 316L Stainless Tube).

The following table can be used to calculate the thermal extension of 316L Stainless Steel Tube:

	Change	in Lengt	h ΔL (mm)	) for 316L	Stainless	with tem	perature	differenc	e Δt °C	
Pipe Length (m)	Δt=10°	Δt=20°	Δt=30°	Δt=40°	Δt=50°	Δt=60°	Δt=70°	Δt=80°	Δt=90°	Δt=100°
1	0.17	0.33	0.50	0.66	0.83	0.99	1.16	1.32	1.49	1.65
2	0.33	0.66	0.99	1.32	1.65	1.98	2.31	2.64	2.97	3.30
3	0.50	0.99	1.49	1.98	2.48	2.97	3.47	3.96	4.46	4.95
4	0.66	1.32	1.98	2.64	3.30	3.96	4.62	5.28	5.94	6.60
5	0.83	1.65	2.48	3.30	4.13	4.95	5.78	6.60	7.43	8.25
6	0.99	1.98	2.97	3.96	4.95	5.94	6.93	7.92	8.91	9.90
7	1.16	2.31	3.47	4.62	5.78	6.93	8.09	9.24	10.40	11.55
8	1.32	2.64	3.96	5.28	6.60	7.92	9.24	10.56	11.88	13.20
9	1.49	2.97	4.46	5.94	7.43	8.91	10.40	11.88	13.37	14.85
10	1.65	3.30	4.95	6.60	8.25	9.90	11.55	13.20	14.85	16.50
15	2.48	4.95	7.43	9.90	12.38	14.85	17.33	19.80	22.28	24.75
20	3.30	6.60	9.90	13.20	16.50	19.80	23.10	26.40	29.70	33.00

# The basic principle is that there must always be adequate capacity for expansion between two fixed points.

The inherent elasticity of the pipework can often be used to compensate for expansion, however wherever there is a change in pipework direction it is necessary to arrange pipe clamps to provide sufficiently flexible pipe limbs.

If the pipework installation is buried or concealed, it is important that thermal expansion is not impeded, by encapsulating the pipes with elastic chloride-free material of sufficient thickness.

If sufficient compensation for thermal expansion is not accommodated within the natural pipe routing the following measures can be taken:

- Expansion equalization joints (expansion bends)
- > Fixed and Sliding points
- > Expansion compensators

#### **Expansion equalization Joints**

There are three types of expansion equalization joints that can be used. These are U-shaped, Z-shaped or T-shaped. The formula for which these are calculated is as follows:

#### $Ld = k \times \sqrt{OD \times \Delta l}$

**Bd** = expansion compensation length (mm)

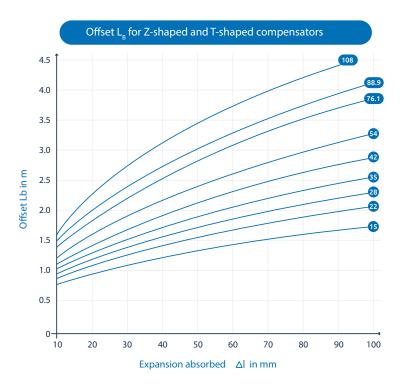
**k** = material constant – 0.0165 mm/m

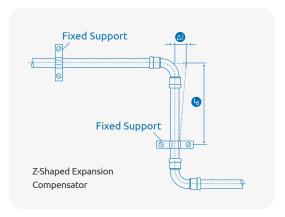
**OD** = outside diameter of the tube (mm)

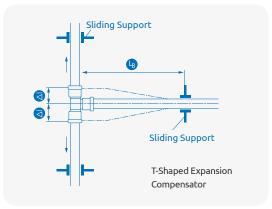
Δl = linear expansion that needs to be compensated (mm)

16

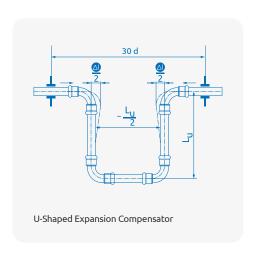
#### Z-Shaped or T-Shaped equalization joints:





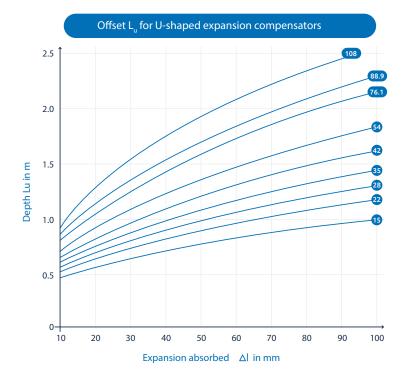


#### U-Shaped equalization joints:



#### **Formula**

$$L_U = 0.033 \cdot \sqrt{OD \cdot \Delta I}$$
 (m)  
(OD and  $\Delta I$  in mm)





### Installation Considerations

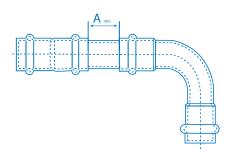
#### Spacing between fittings:

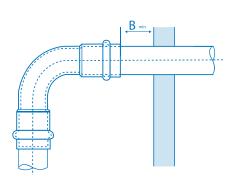
A minimum separation between fitting installation needs to occur to ensure the press forming does not possibly compromise either joint during installation.

Also ensure enough spacing is maintained between fittings and building fabric or system components allow unhindered access for the pressing tool for correct joint completion.

If required, consider pre-fabrication of pipe & fittings as a section which can be subsequently pressed in to the system at more suitable points. The concentricity of stainless steel tube wall thickness in the pipework can also affect the fittings integrity to seal when they are installed too close together, or too close to any pipe bending radii.

It is required that pipe is concentric and straight for the expected joint position and the entire minimum spacing separation distance as indicated in the table below for Brymec press fittings by size of the fitting. This distance must be applied between any fittings as a minimum from fitting edge to fitting edge. This design requirement needs to be conformant to have warranty coverage on all Brymec press fittings.

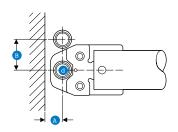


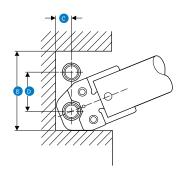


Minimum distances				
Outside pipe diameter mm	Minimum di	stance (mm)		
Outside pipe diameter min	A min	B min		
15	10	35		
22	10	35		
28	10	35		
35	10	35		
42	20	35		
54	20	35		
76.1	30	75		
88.9	30	75		
108	30	75		

### Spacing Requirements when Pressing

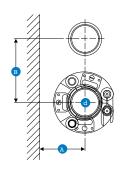
Space requirements when pressing with pressing jaws for mounting on a smooth wall, in corners and in ducts

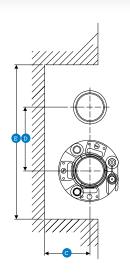




d (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
15	20	56	20	75	131
22	20	65	31	80	150
28	25	75	31	80	150
35	30	75	31	80	170

Space requirements when pressing with pressing sling for mounting on a smooth wall, in corners and in ducts





d (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
42	75	115	75	115	265
54	85	120	85	120	290
76.1	110	140	110	140	350
88.9	120	150	120	150	390
108	140	170	140	170	450

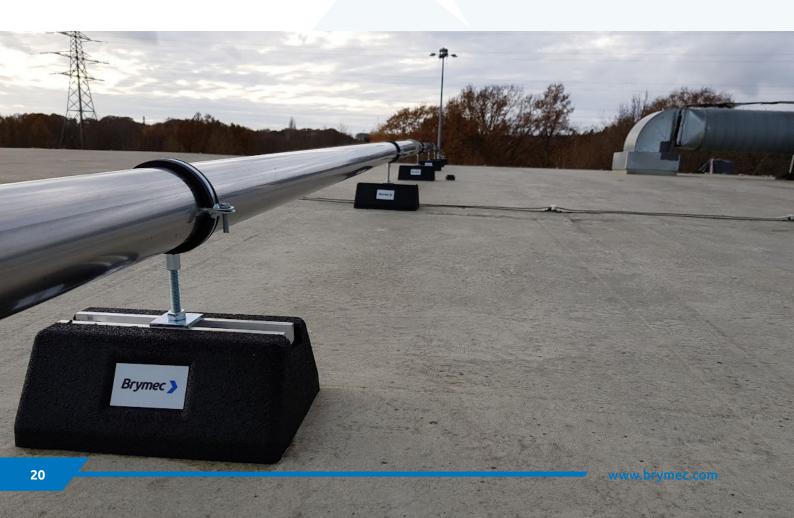


### Support Centres

Pipes must be connected directly to buildings using standard commercial clamps and may not be connected to other pipes. Clamps with a rubber lining must be used so that they cannot transfer any structure-borne sound. The clamp spacing is shown in the following table.

### Maximum spacing of support brackets for 316L Stainless Steel

Size (mm)	Horizontal Pitch	Vertical Pitch
15	1.8m	2.0m
22	2.0m	3.0m
28	2.2m	3.0m
35	2.7m	3.0m
42	3.0m	3.6m
54	3.0m	3.6m
76.1	3.0m	3.6m
88.9	3.6m	4.5m
108	3.6m	4.5m





# **Compatible Press Tools**

15-35mm Compact Machines			
Manufacturer	Press Machine	Press Jaws	Jaw Profile
Rothenberger	Romax Compact TT	Rothenberger Compact	М
REMS	Mini Press ACC	Rems Mini	М
Novopress	ACO103	NovoPress - PB1	М
Hilti	NPR 19-A/Nuron NPR 19-22	NPR PM M Jaw	М
Ridgid	RP 240/241/219	Compact Series M-Jaws	М
WII	MAP215	SBM	
Klauke	MAP219	SBMX	М
A ACL	M12 HPT	J12 Jaws	
Milwaukee	M18 HPT	J18 Jaws	М

15-54mm Standard Machines				
Manufacturer	Press Machine	Press Jaws	Jaw Profile	
Rothenberger	Romax 3000/4000/AC ECO	Rothenberger Standard Jaws (15-35mm)	М	
Rottielibergei	ROMAX 3000/4000/AC ECO	Rothenberger Standard Collars (42&54mm) + ZBS1 Adaptor	IVI	
REMS	Power-Press ACC/Akku-Press	REMS Standard Tongs (15-35mm)	M	
KEIVIS	ACC/Power-Press XL ACC	REMS Standard Press Rings (42&54mm) + Z2 Adaptor	141	
Nevenses	ACO202/FCO202	NovoPress - PB2 Jaw (15-35mm)	М	
Novopress	ACO203/ECO203	NovoPress - ZB202 Sling (42&54mm) + ZB203 Adaptor	IVI	
Hilti	NDD 22 A /Nurses NDD 22 22	NPR PS M Jaw (15-35mm)		
HILLI	NPR 32-A/Nuron NPR 32-22	NPR PR M Press Ring (42&54mm) + NPR PA 2 Adaptor	M	
		Ridgid Standard M-Profile Jaws (15-35mm)		
Ridgid	RP 350/351/352-XL	Ridgid Standard M-Profile Rings (42&54mm) + 69908 Actuator	М	
Klauke	1140 222 /422	SB Standard Jaws (15-35mm)	М	
Klauke	UAP 332/432	SSK M Pressing Chain (42&54mm) + SBKQC Adaptor	IVI	
Milwaukee	M18 HPT	J18 (15-35mm)	М	
Millmankee	MIRULI	RJ18 Ring (42&54mm) + RJA-1 Adaptor	IVI	

76.1, 88.9 & 108mm Standard Machines				
Manufacturer	Press Machine	Press Jaws	Jaw Profile	
REMS	Akku-Press XL	PR-3S Pressing Rings + Z7 Adaptor (Only one press on 108mm fittings)	М	
KEIVIS	Power-Press XL ACC	PR-3S Pressing Rings + Z6 Adaptor (Only one press on 108mm fittings)	ΙVΙ	
Novopress	ACO203XL	S330 Sling – 76.1-108mm + ZB221 Adaptor (108mm 1st Press)/ZB222 (108mm 2nd Press)	М	
Hilti	NPR 32-A Pistol-Grip/Nuron NPR 32 XL-22	NPR PR M Press Ring (76.1-108mm) + NPR PA3 Adaptor (76-108mm 1st Press)/NPR PA4 Adaptor (108mm 2nd Press)	М	
Ridgid	RP 352-XL	32 kN-XL Press Ring M (76.1-108mm) + 32 kN-XL Actuator. (Only one press on 108mm fittings)	М	
Klauke	UAP1001120	BP HP Pressing Chain (76.1-108mm)	М	



# Testing Procedures

The design of the Brymec stainless steel press fittings allows for water and/or air to pass the sealing element if a joint is unpressed. This allows unpressed joints to be identified when testing the system using the approved procedure below.

Once the fitting is pressed, the O-ring is compressed, and joint seal completed, creating a leak free permanent joint. Also the coloured plastic foil ring will be destroyed during the press cycle, so pressed fittings are visibly defined from unpressed fittings.

Final testing of the system should be done in accordance with BESA TR/6 Guide to Good Practice - Site Pressure Testing of Pipework and BS EN 806.

#### The pressure test should consist of two steps:

- A leak test to ensure joint integrity and to confirm that fittings are correctly crimped
- A tightness test which checks the system for strength

There are some important steps that need to be taken before any test is conducted.

- Air vents need to be installed at all high points in the system to allow the removal of air when the system is being filled. These need to be closed off for a pressure test. The low points of the system need to have drain valves fitted.
- Any open ends on the system being tested need to be sealed off and any valves at the extremity of the areas being tested need to be closed
- > Valves within the section being tested must be open
- Check the test gauge being used has been calibrated. A calibration certificate should be provided with the gauge being used.

There two main types of pressure test that can be used. These are a Hydraulic test (water pressure test) or a Pneumatic Test (Air test or Nitrogen Pressure Test). The pneumatic test should be conducted first to ensure joint integrity. Once this test is passed a Hydraulic test needs to be done to check the system for strength. The following are recommendations only of how to conduct an initial pneumatic test followed by a hydraulic test.

#### Pneumatic Pressure Testing:

- Connect the compressor with hoses, shut off valves and calibrated pressure gauge at the lowest point of the system.
- Ensure all air release valve at the high point in the system are closed off.
- A low pressure test at maximum 0.5 bar should be conducted initially to identify any unpressed fittings.
- Inspect each joint with a proprietary leak check liquid/spray for any visual signs of leakage.
- Slowly increase the pressure in 0.1 bar increments until the pressure reaches the required test pressure of 0.5 bar.
- The test pressure of 0.5 bar is to be maintained/pumped for a minimum time period of 30 minutes.
- If the pressure is maintained for one hour without any leakages or drop in pressure, the test is passed.
- If there are any uncrimped fittings identified these will need to be crimped, ensuring that the tube is inserted correctly. Any leaking fittings need to be replaced.

#### Hydraulic Pressure Testing:

- Commence slowing filling the system and visually inspect the pipework being tested for leaks as the system water circulates.
- As the system fills, air needs to be released from all the high points to ensure the system fills completely with water. Once free of air the high level air release valves need to be closed off, and any circulation pump should be turned off.
- Connect a hand pump, valves and pressure gauge at the lowest point of the system.
- Using the hand pump, start increasing the pressure in the system in 0.5 bar increments until the required test pressure is reached.
- The required test pressure should be 1.5 times the normal working pressure of the system.
- Once the required pressure is reached, isolate the hand pump and wait 30 minutes to allow the system to settle
- As the system settles there may be a drop in pressure. If the pressure drops but there are no obvious leaks, open the valve and increase the pressure again using the hand pump.
- Once the required test pressure is reached, it needs to be left for an hour. Continually check the pipework for any leaks during this period.
- If the pressure is maintained for one hour without any visible leakages or drop in pressure, the test is considered to be passed.
- If there are any leaking fittings identified these will need to be replaced.

For the general systems that are carrying water and have metal pipework BESA TR/6 notes for testing pressure and time:

"For all Metal Pipework Systems\*, a test pressure of at least 1.5 times the maximum working pressure of the system shall be applied.

If the test pressure holds steady for one hour, the system is deemed to be satisfactory"

BESA - Guide to Good Practice - TR/6

\*excluding fire systems and compressed air as these will be covered under local codes and regulations.

# Flushing

Although a Press Fit installation is the cleanest method of connecting stainless steel pipework, an industry requirement is to flush a completed system to remove any particles or debris that could potentially cause blockages or be detrimental to successful cleaning and water treatment processes. This will ensure that any risk of contamination or risk of corrosion is minimised.

For the best possible results from flushing, the system should be carefully designed with sufficient venting capability, protection of damage to equipment by bypassing where required, and adequate drainage points. Flushing should be carried out in a planned manner and different systems eg Hot and Cold should be flushed individually using the correct velocities for the largest diameter pipe to ensure that most of the debris is removed by the flow. If there is a requirement for chemical cleansing then please check with Brymec to confirm compatibility.

Guidance can be obtained in BSRIA Guide BG-29/2021 Pre-Commissioning Cleaning of Pipework Systems 6th Edition.



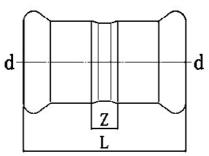




# Coupling

STOCK NO.	D	L.	z
29439	15	48	8
29440	22	50	8
29441	28	54	8
29442	35	62	10
29443	42	71	11
29444	54	83	13
29445	76	141	35
29446	89	162	42
29447	108	194	44

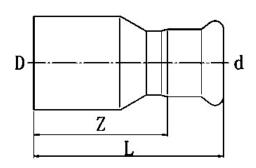




# Fitting Reducer

STOCK NO.	D	d.	L	z
29459	22	15	62	42
29460	28	15	63	43
29461	28	22	66	45
29462	35	22	68	47
29463	35	28	76	53
29464	42	22	84	63
29465	42	28	82	59
29466	42	35	80	54
29467	54	28	98	75
29468	54	35	96	70
29469	54	42	102	72
29470	76	54	145	110
29471	89	54	147	112
29472	89	76	161	108
29473	108	54	162	127
29474	108	76	176	123
29475	108	89	203	143

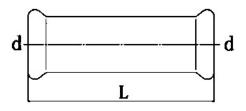




# Slip Coupling

STOCK NO.	d	L
29448	15	67
29449	22	73
29450	28	83
29451	35	98
29452	42	115
29453	54	138
29454	76	229
29455	89	263
29456	108	313

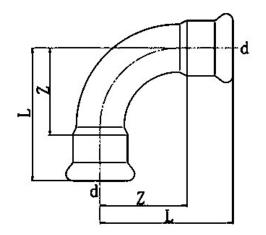




## FxF90° Bend

STOCK NO.	d	L	z
29317	15	43	23
29318	22	53	32
29319	28	64	41
29320	35	78	52
29321	42	90	60
29322	54	110	75
29323	76	157	104
29324	89	178	118
29325	108	215	140

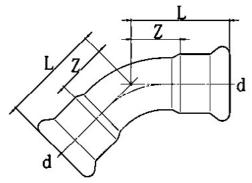




# FxF45° Bend

STOCK NO.	d	L.	z
29346	15	32	12
29347	22	38	18
29348	28	42	22
29349	35	52	28
29350	42	60	30
29351	54	72	37
29353	76	102	49
29354	89	115	55
29355	108	142	67



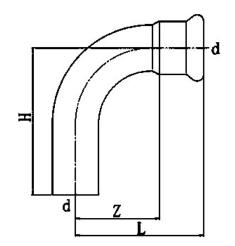




### M x F 90° Bend

STOCK NO.	d	L	Н	Z
29308	15	43	49	23
29309	22	53	57	32
29310	28	64	71	41
29311	35	78	90	52
29312	42	90	102	60
29313	54	110	122	75
29314	76	157	173	104
29315	89	178	199	118
29316	108	215	235	140

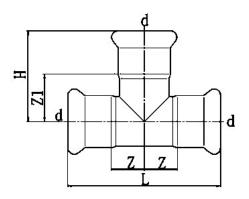




# **Equal Tee**

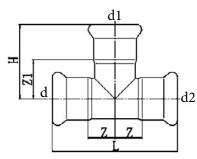
STOCK NO.	d	L	н	z	Z1
29376	15	66	39	13	19
29377	22	74	44	16	23
29378	28	84	52	19	29
29379	35	100	57	27	31
29380	42	114	66	27	36
29381	54	138	77	34	42
29382	76	230	111	62	58
29383	89	260	128	70	68
29384	108	310	156	75	81





# > Reducing Tee





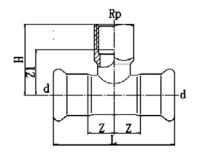
STOCK NO	d	d1	d2	L	Z	н	Z1
29385	22	15	15				
29386	22	15	22	74	16	42	22
29387	28	15	28	84	19	45	25
29388	28	22	22				
29389	28	22	28	84	19	47	26
29390	35	15	35	100	24	49	29
29391	35	22	35	100	24	51	30
29392	35	28	35	100	24	56	33
29393	42	22	42	114	27	55	34
29394	42	28	42	114	27	60	37
29395	42	35	42	114	27	61	34
29396	54	22	54	138	34	61	40
29397	54	28	54	138	34	66	43
29398	54	35	54	138	34	67	40
29399	54	42	54	138	34	72	38
29400	76	22	76	230	62	71	50
29401	76	28	76	230	62	76	53
29402	76	35	76	230	62	77	50
29403	76	42	76	230	62	82	48
29404	76	54	76	230	62	87	53
29405	89	22	89	260	70	78	58
29406	89	28	89	260	70	83	61
29407	89	35	89	260	70	84	58
29408	89	42	89	260	70	89	58
29409	89	54	89	260	70	94	63
29410	89	76	89	260	70	118	69
29411	108	22	108	310	80	90	73
29412	108	28	108	310	80	95	76
29413	108	35	108	310	80	96	69
29414	108	42	108	310	80	101	67
29415	108	54	108	310	80	106	71
29416	108	76	108	310	80	130	77
29417	108	89	108	310	80	140	80



## > Female Branch **Reducing Tee**



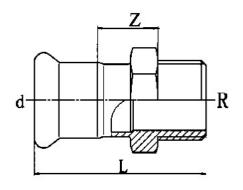
STOCK NO	d	Rp	L	н	z	Z1
29418	15	1/2"	66	38	13	24
29419	22	1/2"	74	42	16	28
29420	22	3/4"	74	45	16	30
29421	28	1/2"	84	45	19	31
29422	28	3/4"	84	47	19	32
29423	28	1"	84	52	19	36
29424	35	1/2"	100	49	24	34
29425	35	3/4"	100	51	24	36
29426	35	1 1/4"	100	57	24	37
29427	42	1/2"	114	53	27	39
29428	42	3/4"	114	54	27	39
29429	42	1 1/2"	114	60	27	40
29430	54	1/2"	138	58	34	44
29431	54	3/4"	138	60	34	45
29432	54	2"	138	78	34	54
29433	76	3/4"	230	70	62	55
29434	76	2"	230	88	62	64
29435	89	3/4"	260	78	70	62
29436	89	2"	260	96	70	71
29437	108	3/4"	310	86	80	71
29438	108	2"	310	104	80	79



### Male Adaptor

STOCK NO	d	R	L	Z
29477	15	1/2"	54	19
29478	15	3/4"	58	20
29479	22	1/2"	56	20
29480	22	3/4"	60	23
29481	22	1"	63	23
29482	28	3/4"	65	25
29483	28	1"	68	26
29484	35	1"	69	24
29485	35	1 1/4"	71	24
29486	42	1 1/2"	76	28
29487	54	2"	90	28
29488	76	2 1/2"	120	35
29489	89	3"	132	37
29490	108	4"	157	42



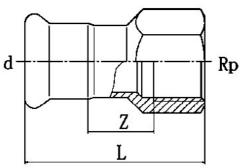




### > Female Adaptor

STOCK NO	d (mm)	Rp (mm)	L (mm)	Z (mm)
29491	15	1/2"	55	20
29492	15	3/4"	59	21
29493	22	1/2"	58	24
29494	22	3/4"	61	25
29495	22	1"	66	26
29496	28	3/4"	65	26
29497	28	1"	70	28
29498	35	1 1/4"	72	25
29499	42	1 1/2"	77	26
29500	54	2"	94	34



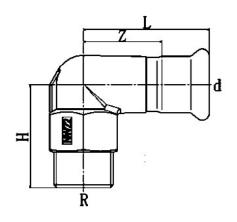




### Male 90° Elbow



STOCK NO	d	R	L	н	z
29370	15	1/2"	55	37	35
29371	22	3/4"	61	46	39
29372	28	1"	68	54	45
29373	35	1 1/4"	76	63	50
29374	42	1 1/2"	84	67	54
29375	54	2"	94	77	59

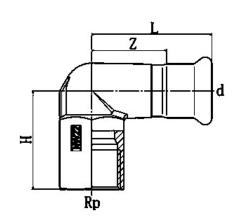




### > Female 90° Elbow

STOCK NO	d	Rp	L	н	z
29362	15	1/2"	55	37	35
29363	22	3/4"	61	46	39
29366	28	1"	68	54	45
29369	35	1 1/4"	76	63	50

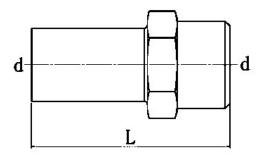




## Plug-In Male Adaptor



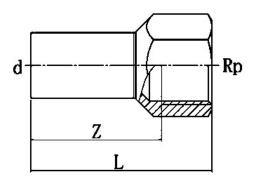
STOCK NO	d	R	L
29259	15	1/2"	52
29260	22	1/2"	55
29261	22	3/4"	59
29262	28	1"	66



### Plug-In Female Adaptor



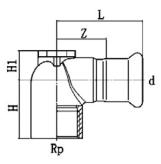
STOCK NO	d	Rp	L	z
29245	15	1/2"	55	40
29246	22	1/2"	58	43
29247	22	3/4"	60	43
29248	28	3/4"	63	46



# Female Backplate Elbow

<b>STOCK NO</b>	d (Pipe Diameter)	Rp	L.	н	H1	z
29531	15	1/2"	50	30	13	30
29532	22	3/4"	55	34	17	34

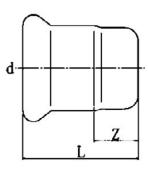




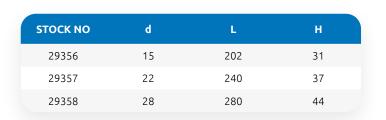
# End Cap

STOCK NO	d (Pipe Diameter)	L	z
29533	15	34	14
29534	22	39	18
29535	28	48	25
29536	35	51	25
29537	42	59	29
29538	54	67	32

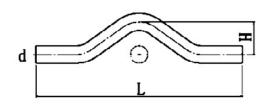




# > Full Crossover



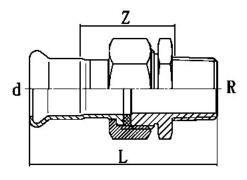




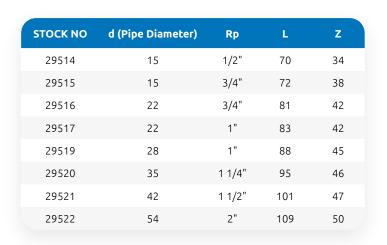


STOCK NO	d (Pipe Diameter)	R	L	z
29523	15	1/2"	73	33
29524	15	3/4"	76	37
29525	22	3/4"	82	43
29526	28	1"	93	49
29527	35	1 1/4"	102	52
29528	42	1 1/2"	107	53
29529	54	2"	118	55

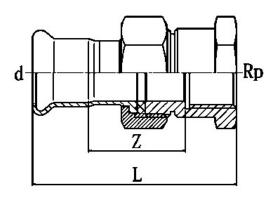




# Female Union Flat Sealing



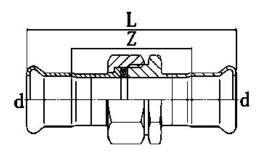




# Union Flat Sealing

STOCK NO	d	1.0	z
29508	15	89	49
29509	22	99	57
29510	28	112	66
29511	35	119	67
29512	42	128	68
29513	54	141	71

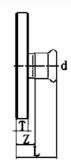


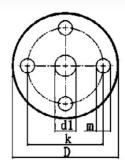


# > PN10/16 Crimping Flange

STOCK NO d (Pipe Diamet	<b>D</b> 95	<b>k</b> 65	L	T	m	d1	z	No. of bolt holes
29548 15	95	65						
		03	43	11	14	12	23	4
29549 22	105	75	47	12	14	20	26	4
29550 28	115	85	54	14	14	25	31	4
29551 35	140	100	62	15	18	32	36	4
29552 42	150	110	70	16	18	40	40	4
29553 54	165	125	84	18	18	50	49	4
29554 76	185	145	129	18	18	65	76	4
29555 89	200	160	148	20	18	80	88	8
29556 108	220	180	173	20	18	100	98	8







# Installation Procedure



Step 1: Cut the tube

Use an appropriate rotary tube cutter to ensure a clean square cut.

**Note**: It is important that the tube is cut completely square, the end of the tube (outside) should be clean and free from any scratches or damage such as dents or deformity.



Step 2: Remove burrs

Make sure that the internal and external tube end is completely free from burrs or sharp edges by using a file or deburring tool.



Step 3: Inspect the fitting

Before inserting the tube, remove the dust cap and check O-Rings for correct placement, that they are free of damage, dirt or debris. We recommend the fittings are retained in packaging up to the point of use wherever possible.



# Step 4: Marking insertion depth on tube

All cut and deburred tube ends for insertion into the fitting require an insertion depth mark to be applied to the tube prior to insertion into the fitting. The mark will be applied by using a depth gauge ensuring the tube fits comfortably within the right socket and using a marker pen to the required length. The mark will ensure the tube is inserted correctly into the fitting prior to press.



# Step 5: Tube insertion

The tube should be inserted parallel into the fitting coupling ensuring no damage is caused to the 'O' ring, ensuring the insertion mark is visible at the end of the fitting next to the fitting coupling end.



# Step 6: Press tool selection

The tool to be used should be conformant, lubricated and maintained within its manufacturers service requirement. The correct jaw type and size should be selected and inspected to ensure it is clean and free from defects and contamination.

**Note**: Only approved tooling may be used on Brymec Press fittings. Refer to Approved Tooling Table on pages 22 & 23



# Step 7: Pressing the joint

The jaw / sling should be placed over the fitting, aligned square and positioned to ensure jaw profile will press both the shoulder and O-ring. When all requirements are correct, the tool should be activated to press the joint. The tool should complete the full cycle and the jaw ends should fully close on completion. If the tool does not complete the full cycle during operation the fitting should be cut out and replaced with new fitting. No fitting should be pressed more than once. Please ensure any other manufacturers' documented requirements are met for your respective tool.



# Step 8: Joint Completion

The fitting should be inspected after pressing to ensure the correct press has been performed and no cracking or over deforming has occurred. The pipe insertion mark should be checked and be at the fitting edge, to ensure it has not moved.

Any remains of the plastic foil ring can be removed so the fitting is left clean and visible as a completed joint.

# Insertion marking length by size

Tube Size	Marking Insertion Depth
15mm	20mm
22mm	21mm
28mm	23mm
35mm	26mm
42mm	30mm
54mm	35mm
76.1mm	53mm
88.9mm	60mm
108mm	75mm

# Brymec Training Programme

As part of our commitment to providing the highest standards of installation for each project we have developed and optimised the Stainless Steel Press Training Programme

This free of charge training package ensure that every aspect of press installation is covered from start to finish. This always proved popular and enjoyable, and includes the following:

- Training in our Academy Training Centre
- Or On-Site Training
- Brymec 8 Step Press Installation Training
- Practical Demonstration by experienced Installation Trainers
- Comprehensive Assessment of each Trainee
- Certification for all Trainees who successfully complete the training, valid for 3 years
- Record of all Training Certificates

We recommend wherever possible that the Training is conducted in our Academy. As well as fantastic facilities, it has the added benefits of viewing our state-of-the-art facilities and Laboratory and meeting members of the Technical Team. It also provides the opportunity to inspect other many other contributing products such as Press Fit Valves and Support and Fixing items.

If On-Site training is required that can also be supported by our experienced trainers who will be happy to share great general good practice tips in addition to specific product training.

Please contact our sales team to request this; sales@brymec.com

### WHY TRAINING IS NEEDED

Key reasons for training are:

- To ensure best practice installations
- To give uniformity of quality standards
- To save speed and cost on site
- To ensure the correct tooling is selected
- To prevent errors
- To validate our 25 Year Warranty





# Brymec Technical Support

We recognise the importance of having top quality support from the manufacturer throughout every phase of the construction process, so we are here to provide assurance, technical support and assistance to safeguard your project.

Our Technical Team can assist you from Preconstruction right through to Post Contract and make sure that our attention to detail will be an asset for you.

# **Key Areas of Support**

### **Specification**

To ensure that our products suit the application in the best possible way we can offer advice or assistance at this stage

# **Project Support**

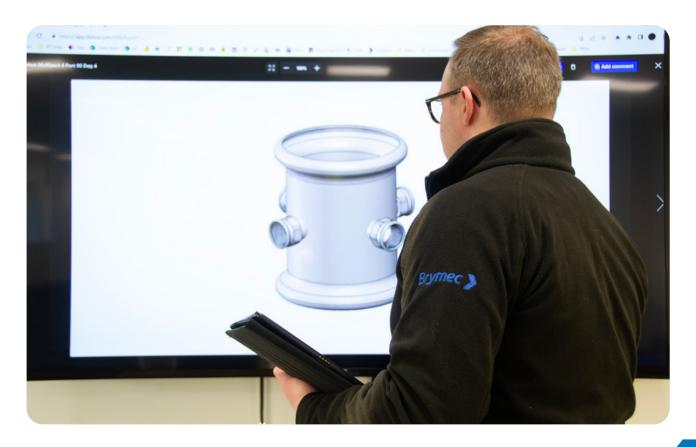
This includes our excellent installation training, site attendance visits, verification and testing when required. Our Technical Laboratory provides quick results from all testing and analysis.

### **Post Contract**

We can assist with full details for O & M Building Manuals, project information and records.

In-House Laboratory/Testing Facility

We have a purpose build laboratory to test our products to ensure they are of the utmost quality for your projects.



# Warranty On Brymec Stainless Steel Fittings

At Brymec we place a huge emphasis on the quality of our range of branded products. To back this up, when using the Brymec stainless steel press system with our 316L stainless steel tube Brymec will provide warranty for the same period of the stainless steel tube being used, up to a maximum of 30 years.

This is a maximum 30-year guarantee against faults caused by defective manufacturing of Brymec stainless steel press fittings.

For full traceability all fittings are etched or stamped with unique branding and fitting size.

# For the warranty to apply

# 1. Training

In order for the warranty to be valid each individual using the Brymec stainless steel press system should be trained by an appropriate Brymec trainer. Upon successful completion of training, a certificate will be issued.

To arrange training please call 0333 000 55 55 or email sales@brymec.com

# 2. Tooling

Approved tools within manufacturer's service requirements, that are well maintained and used as per manufacturer's detailed requirements.

## 3. Tube

Tube must be Brymec 316L Stainless Steel Tube.

### 4. Environment

Brymec press must be installed in a suitable environment and be used for the correct application.

# 5. Installation

All Brymec press fittings to be installed in accordance with the Brymec press installation guidelines, and BS EN 806. All commissioning paperwork must be retained, including for extension / addition to any previously tested part of the system.

To view the full warranty terms and conditions visit **brymec.com/warranty** 





# > 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

46 www.brymec.com

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.

www.brymec.com



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.



