

Brymec Heavy Duty Steel Press Technical Specification



System Overview

Heavy Duty Steel Press is a high performance, labour saving fitting system that is ideal for use with steel tube for pressure purposes - one of the most trusted pipe materials used in the construction industry. Connections are made using carefully designed and flow optimised press fittings including strong threaded adaptors to recognised international standards, or by flange adaptors.

Suitable for use in commercial and industrial applications, capable of supplying high pressure heating and cooling services as well as the safe transportation of water for fire defence.

The Brymec Heavy Duty Steel Press system covers sizes from ½" to 2", typically combined with standard nominal pipe lengths available at 3.25m. The comprehensive range of fittings provides you with freedom to design the optimum system to suit the needs of your project.

Brymec Heavy Duty Steel Press is ideally suited for use on high pressure systems or where the environment requires the utmost levels of strength, corrosion resistance, and durability for the installation

The Heavy Duty Steel Press System is connected using approved and calibrated press tools, and reduces labour cost, increases Fire Safety and improves efficiency on all projects.

Technical Information

Brymec Heavy Duty Steel Press Fittings Technical Information	
Dimensions to suit NB Pipes	½", ¾", 1", 1 1/4", 1 ½", 2"
Body Material	SPHC carbon steel, as specified in JIS G3131-2010
Grip Ring Material	402 Grade high-strength Stainless Steel
O-Ring Material	Ethylene Propylene Diene Monomer Rubber
O-Ring Hardness	Shore Hardness 77 +/- 5 Shore A
O-Ring Protector	Chrome coated copper
Thread Standard - Connectors	BS EN 10266-1
Flat Sealing Gasket Material	Ethylene Propylene Diene Monomer Rubber
Surface Finish	Zinc nickel alloy plating
Joint Security Features	Leak Path Detection and Press Indicator Film

Brymec Thick Walled, Welded Carbon Steel Tubes Technical Information						
Inch (")	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
DN (mm)	15mm	20mm	25mm	32mm	40mm	50mm
OD (mm)	21.3	26.9	33.7	42.4	48.3	60.3
Nominal Wall Thickness - mm	3.2	3.2	4.0	4.0	4.0	4.5
Internal Diameter - mm	14.9	20.5	25.7	34.4	40.3	51.3
Pipe Weight - Kg/m	1.4	1.9	2.9	3.8	4.4	6.2
Water Volume - L/m	0.17	0.33	0.52	0.93	1.28	2.07
Pipe Weight With Water - Kg/m	1.57	2.23	3.42	4.73	5.68	8.27
Max. Operating Pressure	See table of Operating Conditions overleaf					
Operating Temperatures	Low -10°C, and temperature applications up to 120°C when used in conjunction with Heavy Duty Press Fittings - see table of Operating Conditions overleaf					
Thermal Expansion Coefficient	0.012 mm (m*K)					
Thermal Conductivity	50 W/(m*K) @ 20°C					
Internal Roughness	0.045mm					
Pipe Material	P235GH (1.0345) to BS EN 10217-2 - Welded steel tubes for pressure purposes.					
Pipe Reaction To Fire	A1 to BS EN 13501-1					
Pipe Identification Markings	Markings as required by BS EN 10217 Part 2: 2019					
Manufacturing Standard	BS EN 10217 Part 2: 2019 - BS EN 10255, hot-finished welded					
Approvals	CE Mark to Pressure Equipment (Safety) Regulations:2016 GB, Compliant to PED EN10217-2 and CPR EN10255					

Operating Conditions

Brymec Heavy Duty Steel Press Operating Conditions			
Application	Comments	Max. Pressure	Max. Temp.
Heating - LTHW & MTHW	For space heating and / or low to medium temperature processes and heat networks	16 Bar	120°C
Chilled water (CHW) and cooling	For use in space cooling and cooling processes	16 Bar	-15°C - 18°C
Harvested Rainwater (HRW)	For services applications that do not require potable water	16 Bar	7°C - 20°C
Compressed Air	To class 1 -3 to ISO 8753-1	16 Bar	7°C - 50°C
Fire Defence	Water based dry and wet risers and sprinkler systems	16 Bar	5°C - 25°C

The above applications are typical industry conditions of use.
Please refer to Brymec Technical for any applications other than those mentioned in the above table.

Warranty

Brymec Heavy Duty Steel Press Fittings are covered by a comprehensive 20 year warranty. Please refer to the Brymec terms and conditions for full details.



Installation and Tooling

For manufacturer's warranties to apply, all products must be installed to Brymec's latest installation instructions.

Protection from Freezing

If risk of damage from freezing, a suitable anti-freeze additive must be used which should be suitable for use with P235GH steel and Carbon Steel.

Protection from Corrosion

Brymec steel tubes are externally coated with durable red protective paint which has been specifically developed to provide enhanced corrosion resistance and protection during handling. It is advised that this protective surface is re-instated if it becomes damaged due to manual handling.

Sealing of Thread Connections

Where suitable for the application, for sealing of the threaded connections we recommend the use of Brymec Ultra Tight sealing thread - to BS EN 751-2 Sealing Materials for Metallic Threaded Joints in Contact with 1st, 2nd and 3rd Family Gases and Hot Water Part 2: Non-Hardening Jointing Compounds.

Equipotential Bonding

Where required, Brymec Heavy Steel Press systems should be bonded in line with the requirements of the current edition of the IEE wiring regulations BS 7671: 2018.

Manufacturer details

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Certification



Cert. 288342018



Cert. 459902024



Cert. 1313072