

HENCO pipe solutions



Pegler Yorkshire

Technical Submittal

HENCO pipe solutions is a System comprising of a metal-polymer composite Pipe and Press Fittings. The Pipe is available in eight discrete sizes and a number of lengths and configurations. The Press Fittings are provided in many configurations and are optimised for use with the pipe. Used together they provide practical solutions across a wide range of applications. The system is rated to operate between -20°C and 95°C at 10bar.

Metal-Polymer Composite Pipe

Henco Pipe has inner and outer layers of Cross Linked Polyethylene (PE-X) bonded with EVOH adhesive, to a mid layer of aluminium. The aluminium is butt welded to give a consistent and even wall thickness. The aluminium layer prevents oxygen ingress and gives the pipe *'bend and stay'* characteristics. The external surface of the pipe is opaque white.



Pipe is supplied in Straight lengths and Coils. Pre-insulated and Pipe-in-Pipe (Conduit) coils are also available.

| OD | Wall | Weight Kg/m | 3m | 5m | Coil (m) | Pipe-In-Pipe | Pre-Insulated Coils | | |
|----|------|----------------|----|----|--------------|--------------|---------------------|---------------------|--------------|
| | | | | | | Red or Blue | 6mm Red or Blue | 10mm Red or Blue | 13mm Blue |
| 14 | 2.0 | 0.108 | | | 50,100 | 25, 50, 100 | 100 | 50 | |
| 16 | 2.0 | 0.125 | ✓ | ✓ | 50, 100, 200 | 25, 50, 100 | 100 | 50 | 50 |
| 20 | 2.0 | 0.147 | ✓ | ✓ | 100 | 25, 50 | 50 | 50 | 50 |
| 26 | 3.0 | 0.261 | ✓ | ✓ | 50 | 50 | 25, 50 | 25 | 50 |
| 32 | 3.0 | 0.390 | ✓ | ✓ | 50 | 25 | 25 | 25 | 25 |
| 40 | 3.5 | 0.528 | ✓ | ✓ | | | | | |
| 50 | 4.0 | 0.766 | ✓ | ✓ | | | | | |
| 63 | 4.5 | 1.155 | ✓ | ✓ | | | | | |

Press Fittings

Two ranges of Press Fittings are included in HENCO pipe solutions: PVDF Press and BRASS Press.

PVDF Press fittings have black, polyvinylidene flouride injection moulded bodies fitted with stainless steel press sleeves. Insertion depth window, tool alignment bead and leak before press¹ features are provided to assist the installer.



¹ Leak Before Press on fittings 14-32mm

BRASS Press fittings have tin plated, brass bodies fitted with a stainless steel press sleeve. Insertion depth window and Visu-Control System² features assist the installer.



Both fitting ranges use EPDM O Rings to guarantee long term sealing performance.

In addition to the conventional configurations of plumbing fittings, HENCO pipe solutions also includes modular Manifolds with and without individual isolation valves.

HENCO pipe solutions extends into other Pegler Yorkshire product ranges; a number of PEGLER commercial valves are available with HENCO Press fit connections.

Accessories and Tools

HENCO pipe solutions contains adapter fittings that allow HENCO Pipe to be connected to Copper Pipe Systems and into Compression Joints.

Pipe End Preparation tools, for use by hand or with electric drills, feature in the range along with tools to help pipe handling, bending and cutting.

Applications and Performance

HENCO pipe solutions is suitable for use with Hot and Cold Potable Water Services, Low and High Temperature Heating Systems, Chilled Water and Grey Water. PVDF, BRASS and PEX have a wide range of chemical resistance and other applications may be considered.

All fittings are suitable for all applications.

| PIPE | Min Temp | Max Temp | Max Operating Pressure | Nominal Working Life ³ | Linear Expansion | Thermal Conductivity | Surface Roughness | Oxygen Diffusion |
|---------|----------|----------|------------------------|-----------------------------------|------------------|----------------------|-------------------|------------------|
| Ø mm | °C | | bar | years | mm/mK | W/mK | µ | mg/l |
| 14 - 63 | -20 | 95 | 10 | 50 | 0.025 | 0.43 | 7 | 0 |

System efficiency can be maximised by using continuous pipe runs wherever possible, minimising the number of joints and forming swept bends rather than fitting elbows. HENCO pipe can achieve a minimum bend radius of 3 x Pipe OD⁴.

A comprehensive set of technical data for HENCO pipe solutions is available in printed and electronic form, covering System Design, Pressure Loss, Thermal Expansion, Heat Loss and Insulation, Pipe Protection, Installation Techniques and Best Practice.

http://www.pegleryorkshire.co.uk/MEDIA/Downloads/CC_001/05406269_Henco_March_11.pdf

² Visu Control Collar deforms as the fitting is pressed

³ ISO/DIS 9080 - Determination of long-term hydrostatic strength of thermoplastics materials in pipe form by extrapolation

⁴ Pipe sizes 14-26mm. Internal bending spring must be used

Installation

Pipe end preparation is a critical factor in successful and problem free installation. All HENCO Pipe must be **calibrated** and **chamfered** after cutting and before use in a HENCO Press fitting.

Pegler Yorkshire recommends the use of calibration tools fitted to electric drills for large numbers of joints.

Consideration must be given to the dynamic loads experienced by the pipework during service and suitable features should be incorporated to allow for expansion and contraction. All pipe runs must be adequately protected, insulated, supported and secured.

Although very robust, HENCO pipe and fittings must be installed in a professional manner and protected from unnecessary damage prior to and during installation.

System Testing

Pegler Yorkshire recommends that all HENCO pipe solutions installations are hydraulically tested as part of their commissioning. In larger scale installations discrete sections of pipe work should be tested and signed off as work progresses.

Third Party Approvals and Quality Systems

HENCO pipe solutions has WRAS Approval in the UK and holds more than 25 national approvals in other countries.

It is manufactured in an ISO 9001 Quality Management System and is sold with a 30 Year Product Guarantee.

In all situations HENCO pipe solutions must comply fully with Pegler Yorkshire Installation Instructions.