
PRODUCT SPECIFICATION – VULCATHENE SYSTEM

Common Arrangement of Works Systems (CAWS) – Applicable to R14.

MATCHED SYSTEM

The integrity of the Vulcathene Chemical Waste System and the manufacturer's warranties may be compromised if materials from various manufacturers are installed as one system. The system shall, therefore, be manufactured by a single supplier to ensure that a uniform continuity of quality and chemical resistance is maintained throughout.

MATERIAL

Pipes and fittings to be manufactured from black co-polymer polypropylene.

All pipe to carry 4 x violet stripes to identify the pipe as potentially carrying acid and other chemical waste (according to BS 1710).

All fittings to be injection moulded using virgin material.

QUALITY

Pipes and fittings to be manufactured in an environment which operates a Quality Assurance System assessed to ISO 9001.

STANDARDS

The system shall be manufactured to conform with the requirements of British Board of Agreement (BBA) certificate number 92/2805.

METHOD OF JOINTING

The Vulcathene system offers a choice of mechanical or welded joints, the Vulcathene pipe being common to both methods.

Mechanical – the mechanical system incorporates an olive located in a groove cut into the outer wall of the pipe by means of a Vulcathene grooving tool. This method of jointing is often specified for use under work-benches where its demountability offers ease of maintenance.

Enfusion – the Enfusion system provides a permanent electrofusion welded joint, ideal for use in ceiling voids, vertical stacks and underground pipework.

DESIGN & INSTALLATION SPECIFICATION

The installation shall be carried out by competent persons. The contractor shall be required to provide technical documentation relating to the Vulcathene pipework manufacturers recommended Design and Installation procedures, and will have been trained with regards to the correct procedure.

Specific attention shall be paid to the following:

Traps – All traps should be of the anti-siphon type. The anti-siphon trap with a borosilicate glass based should be used when particularly strong chemical solutions are to be conveyed.

Pipe Fall – Horizontal waste runs should be installed to provide a natural fall to the vertical stack. Such a fall is dictated to some extent by the particular installation. 2° is an 'ideal' fall but in any event it should never be less than 1°.

Pipe Support – Vulcathene pipe does not require continuous support when used for horizontal runs in ambient room temperatures; Vulcathene pipe clips should be fixed at the following recommended centres:

Nominal Size	38mm	51mm	76mm	102mm	152mm
Fixing Centre	1.22m	1.37m	1.52m	1.83m	1.83m

Horizontal pipe runs, where sustained temperatures in excess of 40°C (104°F) are expected, should have continuous support using lightweight galvanised metal channel.

Vertical pipes, regardless of size, should be fixed at 1.5m centres using Vulcathene pipe clips which retain the pipe securely whilst, at the same time, allowing lateral movement of the pipe caused by fluctuations in thermal conditions.

When 76mm or 102mm pipe is installed in vertical runs of some length, however, thermal movement may cause considerable strain. In such conditions metal straps should be used to retain the pipe. Where pipework is to be suspended the use of metal hangers is recommended.

System Ventilation - Vulcathene Air Admittance Valves should be installed where stacks are to be terminated inside the building. Air Admittance valves prevent the release of foul air whilst admitting air under conditions of reduced pressure in discharge pipes.

Fire Protection - Vulcathene pipes which pass through fire rated walls and floors should be fire protected with Unicollar intumescent fire protection collars.

Repair (Clamp) Saddles - To enable easy connection of new branch pipes to existing Vulcathene stacks use Vulcathene clamp saddles.

Thermal Expansion – To overcome the problem of expansion and contraction of pipework brought about by changing temperatures, Vulcathene Thermal Stress Relief Units (SRU) can be installed.

When an SRU is installed care should be taken in the fixing of the pipe to ensure an accurate linear 'thrust and pull' movement. Any form of pipe clip used, therefore, should not grip the pipe tightly, but should allow the pipe to slide freely without any tendency to buckle. The housing of the SRU, however, should always be firmly anchored, allowing the sliding member to accept all movement.

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System Testing – The system should be inspected for leaks in accordance with BS EN 12056. Air should be pumped into the system, one floor at a time, through a branch of a tee until a pressure equal to 38mm water gauge is achieved. The inlet valve should then be closed and the system should maintain the pressure for a minimum of three minutes.

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