

HEP_vO®

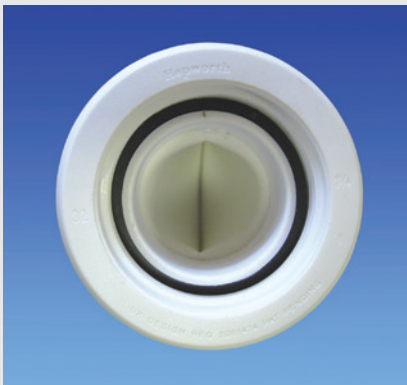
Product and installation manual

Self-Sealing Waste Valve



Introduction to HepvO®

HepvO® is a unique self-sealing waste valve that prevents the escape of foul sewer air from waste discharge systems, and actively maintains the pressure equilibrium in soil and waste installations. As a dry sealing valve, HepvO® utilises a purpose designed membrane to create an airtight seal between the living space and the drainage system. The self-sealing valve opens under the water pressure of an appliance emptying, and closes to form a tight seal after the appliance has discharged under normal atmospheric conditions.



Benefits

The HepvO® dry self-sealing valve offers a number of benefits for both the professional installer and end user of the product. In addition, HepvO® offers considerable benefits for the system designer. See the System Design section of this document for further information.

- ⦿ The HepvO® valve promotes hygiene, particularly where an appliance is infrequently used.
- ⦿ HepvO® differs from conventional traps, which can dry out or hold water which can become stagnant causing the emission of smells and enhancing bacterial growth – see Figure 1 below.
- ⦿ HepvO® actively eliminates negative pressure within the waste system by opening and allowing in fresh air until a state of equilibrium with atmosphere is reached. It subsequently closes to reseal the waste system and prevent foul air release. This means the venting of the waste system is improved and it is no longer necessary to fit an air admittance valve.
- ⦿ The HepvO® valve results in enhanced plumbing design and system efficiency. Unlike water seal traps, HepvO® is not affected by siphonage and will therefore not allow the escape of foul air into the living space from drain or sewer. The compact design and different installation options make HepvO® a very effective space-saving device.
- ⦿ HepvO® allows discharge water to pass easily through, regardless of the volume.
- ⦿ HepvO® allows the placement of a greater number of appliances together on fewer discharge pipes without compromising the performance of the sanitary discharge system.
- ⦿ HepvO® operates silently and is not subject to “gurgling” noises typically associated with siphonage and indicative of a breach in the water seal barrier. Independent tests confirm that HepvO® performs silently when subjected to a range of abnormal pressures.

Suspended matter in water eg. soap scum/grease/saliva/etc.

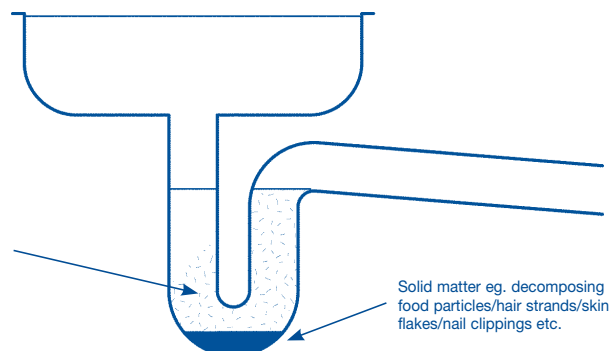


Figure 1. Water held in conventional traps can become stagnant.

Installation

HepvO® should be installed in accordance with the instructions given here.

Orientation

When fixed horizontally to an appliance outlet or to a sloping pipe HepvO® must be installed with the ribs underneath – see Figure 8. This prevents standing water and provides a continuous fall when used in combination with the HepvO adapter.

HepvO® inlet

The inlet is provided with a screwed cap and sealing ring, designed to connect to waste fittings conforming to BS EN 274, or to a HepvO® inlet adaptor.

Joining

Offer up the HepvO® inlet to the threaded tail of the appliance waste outlet or HepvO® knuckle or running adaptor, and tighten the threaded cap sufficiently hand-tight to provide a water-tight seal (check that the cap screws on square and does not 'cross-thread'). When the screwed cap is tight, the HepvO® body is secure.



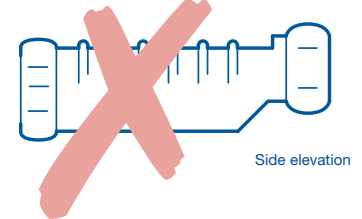
Flow



RIGHT



WRONG



When installed horizontally the ribs must be at the bottom to ensure correct operation.

HepvO® outlet

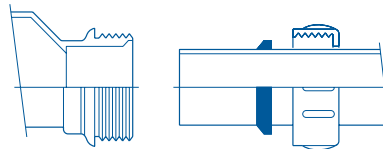
The outlet is provided with a universal compression connection which is designed for use with (1) 'UK Metric' 32 or 40mm waste pipes to BS EN 1451 Part 1 (or equivalent) or (2) 'DN Metric' 32 or 40 mm waste pipes.

Joining

1. Cut the pipe to length, allowing for the full compression socket depth (using an appropriate pipe cutter, such as a Hepworth ratchet pipe cutter).

Figure 9. HepvO® outlet connection.

Cap nut and sealing cone on pipe end ready for insertion of pipe into compression socket.



2. Remove any 'swarf' from the end of the plastic pipe. Ream the copper pipe end to remove any 'burr', and file if necessary to remove any external sharp edges. Mark the socket depth on the pipe, and check that the pipe section to be jointed is free of any surface damage which may affect the joint seal.

3. Unscrew the cap from the HepvO® outlet, and slide the cap and rubber seal onto the pipe – see Figure 9.

4. Insert the pipe end fully into the socket.

5. Slide the rubber seal and screwed cap up against the face of the socket, and tighten the cap sufficiently hand-tight (check that the cap is square to the body and does not 'cross-thread').



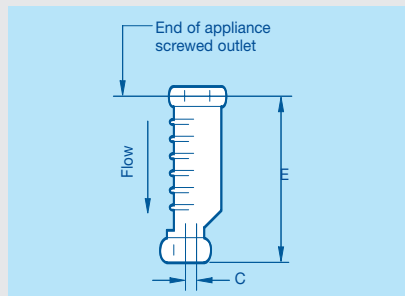
Product detail

The HepvO® valve and knuckle adaptors are available in sizes 32 mm and 40 mm. The HepvO® tundish adaptor kit comprises a 32 mm HepvO® valve and tundish adaptor. A 87.5° knuckle adaptor should be used with the HepvO® valve for horizontal applications, and an in-line adapter when installed the HepvO® in a pipe run. All items are manufactured from white polypropylene. Dimensional data for the HepvO® is shown in Figure 13 below.

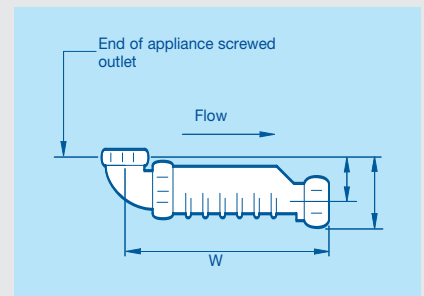
HepvO® dimensional data

Figure 13. Principle dimensions (mm).

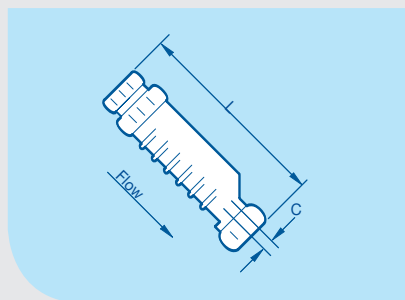
SIZE	C	E	L	W	Z	H
32 mm	8	171	208	211	40	70
40 mm	5	171	208	213	40	73



a) Fixed vertically directly to appliance outlet



c) Fixed horizontally to appliance outlet using knuckle adaptor (available separately)



b) Fixed on a pipe at any sloping angle using an in-line adapter (available separately)

Notes:

1. Dimensions are nominal and may vary slightly due to compression of the rubber seals.
2. When fixed to a pipe, it is recommended that HepvO® should remain accessible.

System	Inlet Pipe Size (Nominal)	Inlet OD Pipe Size (actual)	Valve Part No	Angled Adapter	In-Line Adapter	Threaded Valve Inlet	Valve Outlet
DN Metric	32 mm	32.0-32.4	BV1/M WH	BV11 WH	BV3/M WH	1 1/4"	DN 32 mm Pipe