



Pipeline Internal Preservation Emitter

Technical Data Sheet_Rev1_Oct2019



PRODUCT DESCRIPTION

Pipeline Internal Preservation Emitter is a novel device to deploy Volatile Corrosion Inhibitor (VCI) protection to the internal Corrosion Resistant Alloy (CRA) or bare blasted carbon steel surface, of a closed end capped/plugged steel pipe, bend piece or vessel via vapour deposition

PIPE VCI DISC is directly mounted to the pipe end cap/plug on each end of the pipe. The device has internal segments for even distribution of VCI powder when mounted vertically and a breathable membrane through which the VCI vapours are released, permeating the pipe volume and forming a molecular layer on the internal surfaces, whilst ensuring the VCI powder remains contained within the device.

FEATURES

- Safe and sturdy construction for ease of use and handling.
- No residual contamination of caked-on VCI powder on pipe internal surface.
- Economical installation, no specialist equipment or manpower required.
- Simple installation; prime the area (3M Tape Primer 94 recommended), peel the backing and adhere the device to the end cap.
- 3M VHB adhesive pads used to ensure reliable and secure adhesion method.
- Install a PIPE VCI DISC to both ends of the pipe for full dosing and to promote even vapour dispersal, i.e. two devices per pipe.
- Recommended applications:
 - Ideally suited for temporary storage passivation and protection of speciality CRA steels.
 - Suitable to provide temporary storage protection of internal bare blasted carbon steel, delaying the onset of surface oxidation.
- 3 standard device sizes to cater for pipes ranging from 4" – 20" (larger sizes catered for with multiple devices or design of customised device)



PIPELINE Internal Preservation Emitter

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Volatile Corrosion Inhibitor DISC

INSTALLATION AND USE

Internal pipe surface to be clean, dry and free of contaminants prior to installation. Install PIPE VCI DISC after the final factory process before stockpiling and in conjunction with installation of final end caps/end plugs. As far as is practical, limit the exposure of the VCI to the open atmosphere as the VCI vapour will dissipate with time.

Ensure the end cap/end plug surface is clean and free of contaminants. Use of 3M Tape Primer 94 is recommended for bonding to PE or PP surfaces. 3M adhesive pad bonds on contact pressure, providing immediate handling strength. Apply firm pressure to promote good initial bonding.

If during stockpile inspections a pipe end is opened, the protective VCI layer will be replenished by re-dispersion of the contained VCI vapour. However if opened for long periods or both ends are opened allowing the VCI vapour to dissipate, replace the PIPE VCI DISC's on both end caps/plugs before re-closing the pipe for continued storage.

VCI layer formed by vapour dispersion onto the bare metal surface does not need removal or cleaning before further processing or operational use.

SIZE SELECTION

Recommended dosage of VCI powder 300g/m³. Conservative figure based on outdoor pipe storage, tropical climate and end cap having small breather holes (not air tight).

PIPE VCI DISC size (Dia*h)	Pipe OD and WT assumption	*Estimated Pipe Vol.	VCI Quantity 300g/m ³	VCI Quantity per DISC (2 per pipe)
Small (85mm*24mm)	4.5" x 10mm	0.085 m ³	25 g	13 g
	6.625" x 10mm	0.21 m ³	63 g	32 g
Medium (140mm*37mm)	8.625" x 10mm	0.38 m ³	114 g	57 g
	10.75" x 15mm	0.57 m ³	170 g	85 g
	12.75" x 15mm	0.83 m ³	248 g	124 g
Large (180mm*47mm)	14" x 15mm	1.02 m ³	305 g	153 g
	16" x 20mm	1.28 m ³	385 g	193 g
	18" x 20mm	1.67 m ³	500 g	250 g
	20" x 20mm	2.10 m ³	630 g	315 g

*Estimated pipe volume for 12.2m pipe length

PACKAGING AND STORAGE

PIPE VCI DISC devices are individually packed in sealed bags and boxed. Store in a cool, dry location. Avoid exposure to direct sunlight. Open the individual sealed bag immediately prior to use. DO NOT OPEN OR PIERCE THE BREATHABLE MEMBRANE.

INFORMATION AND SALES

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