



Introduction

Monolithic insulation joints are used for permanently limiting the flow of electrical currents and electrically isolating pipe sections in pipes and piping systems.

Effective management of cathodic protection programs results from the use of these highly reliable substitutes for flanged insulating systems. Other benefits include protection against earthing currents at domestic and industrial premises, isolation of pipeline cathodic protection system, and to ensure that cathodic protection or stray currents do not cause increased corrosion. The Monolithic insulation joints are designed to meet and satisfy very high pressure services up to 20,000 psi. Upon request, we can supply Monolithic insulation joints according to your specifications.

Characteristics

- eliminates short circuits
- eliminates field assembly
- eliminates maintenance
- inexpensive
- coated both internally and externally
- 100% electrically tested
- completely weld inspected
- manufactured in accordance to ISO 9001:2000 specifications

Specifications

- Monolithic insulation joints are boltless and completely factor assembled in accordance to the appropriate requirements of ASME, ASTM, API, DIN and BS
- Insulation material is a thermosetting fibreglass epoxy material. NEMA G10/11.
- Sealing system by two Standard “O” ring seals.
- Interior and exterior is coated with and epoxy, thickness of 150 micron.
 - Dielectric Resistance @ 5 KV
 - Isolation Resistance > 50 MOhm
- Design According to ANSI/ASME B31.3/4/8
- Dimens. ASME VIII Div.I

Max. loads

Standard Total Design Load 50 % Pipe SMYS
Special Total Design Load 75 % Pipe SMYS
Special Total Design Load 95 % Pipe SMYS
Special Total Design Load 100 % Pipe SMYS

STANDARD DESIGN CONSTRUCTION									CUSTOMER SPECIFICATION DESIGN
Class 150			Class 300			Class 600			
DN	Wtk	Length	DN	Wtk	Length	DN	Wtk	Length	
2	3.9	350	2	3.9	350	2	3.9	350	
3	4.8	350	3	5.5	350	3	5.5	350	
4	4.8	350	4	6.0	400	4	6.0	400	
6	5.6	400	6	7.1	500	6	7.1	500	
8	6.4	400	8	8.2	500	8	8.2	500	
10	6.4	400	10	9.3	600	10	9.3	600	
12	6.4	450	12	10.3	600	12	10.3	600	
14	7.9	450	14	12.7	600	14	12.7	600	
16	9.5	500	16	12.7	700	16	12.7	700	
18	9.5	500	18	12.7	700	18	12.7	700	
20	9.5	600	20	12.7	800	20	12.7	800	
24	12.7	600	24	14.3	800	24	14.3	800	
30	12.7	800	30	15.9	1000	30	15.9	1000	
36	14.3	900	36	19.1	1100	36	19.1	1100	
48	15.9	1000	48	20.6	1200	48	20.6	1200	

- Size
- Materials
- Wall Thickness
- Fluid
- Type of installation
- Design Pressure
- Design Temperature
- Corrosion Allowance
- Dielectric Resistance
- Electric Insulation
- Design Loads
- Design Life
- Testing
- Coating

Waranty exclusion

In view of the variety of different installation and operation conditions as well as application and process engineering options, the information given in this datasheet can only provide approximate guidance and cannot be used as basis for warranty claims.

INSTALLATION	ABOVEGROUND / UNDERGROUND
HYDROSTATIC TEST	1.5 Times the Design Pressure
DIELECTRIC TEST	1.5 to 5 kV @ 1 minute AC 50÷60 Hz (Special 20 kV @ 1 minute AC 50÷60 Hz)
ELECTRIC INSULATION TEST	> 100 MΩ @ 1000 Volt DC (Special > 100 G Ω @ 5000 Volt DC)
NDE TEST	WA-WB-WC: MT & UT, Bevel Ends MT According to ASME V
WELDS	WA-WB-WC: According To ASME IX
CERTIFICATION	EN 10204 - 3.1 (EN 10204 - 3.2 if request)
APPLICATION	Suitable for flow media such as natural gas, crude oil, kerosene, gasoline, propane, butane, coal gas, ethylene, nitrogen and drinking water - Media such as sour gas and oxygen require special material and design. Standard versions up to maximum + 80°C constant temperature - Special versions for district heating pipelines up to +150°C.