MONOLITHIC INSULATION JOINTS

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 fiberglass 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

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

#### STANDARD DESIGN CONSTRUCTION

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#### CUSTOMER SPECIFICATION DESIGN

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

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**Installation**

**Hydrostatic Test**

1.5 Times the Design Pressure

1.5 to 5 KV @ 1 minute AC 50÷60 Hz (Special 20 KV @ 1 minute AC 50÷60 Hz)

> 100 MΩ @ 1000 Volt DC  (Special > 100 G Ω @ 5000 Volt DC)

WA-WB-WC: MT & UT, Bevel Ends MT According to ASME V

**NDE Test**

**Welds**

**Certification**

**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.

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**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.