PSI Model C Cross-Linked Epoxy Coated Metallic Steel Casing Spacer/Isolator Specification

Factory made casing spacers/isolators of the following description shall be installed on any carrier pipe passing through a pipe casing or tunnel. They are designed to support and protect the carrier pipe, and electrically isolate the carrier pipe from the casing.

Epoxy Coated Steel Casing Spacers/Isolators with risers shall be Model C8-GN2 for pipes up to 24 inch diameters and Model C12-GN2 for larger pipe sizes as manufactured by GPT, Houston, TX., or Engineer approved equal, provided and installed where shown on drawings and in accordance with these specifications. Alternate considerations shall be submitted to Engineer 14 days prior to bid opening for consideration of other manufacturers of casing spacers. The spacer insulator “system” shall be designed and fabricated for the specific project and application for which they are furnished.

The casing spacer/isolator system manufacturer must have a current ISO 9001:2008 Registered Quality Assurance Program.

Cross-Linked Epoxy Coated Steel Casing Spacer/Isolator Specification

A. **Band** - shall have a minimum 14 gauge steel band. Bands shall be two segments, 8-inch wide for Model C8-GN2 and 12-inch wide for Model C12-GN2. For carrier pipes 42-inch diameter and larger, bands shall be three or more segments. Band, risers and connecting studs shall be welded and grit blasted at the factory before the application of a heat fused fluidized bed thermos set cross-linked Epoxy coating of between 10-16 mils thickness.

B. **Steel Risers** – Steel minimum 10 gauge thickness shall be fabricated to support the carrier pipe and its liquid load. Risers shall be sized to position the carrier pipe in the casing, support all loads and provide proper contact for the isolation function.

C. **Liner** - The casing spacers/isolators shall have a flexible PVC liner of 0.09 inch thickness with a Durometer "A" 85-90 hardness and a min. 58,000 volt dielectric strength.

D. **Runners** - The runners shall be of high pressure molded Glass Reinforced Nylon with a minimum compressive strength of 18,000 psi, 2-inch in width and a minimum of 8 inches long (11-inch for S12-GN2). Polyethylene runners are not an acceptable alternative. The runners shall be attached to the band or riser by 3/8 inch welded stainless steel studs and lock nuts which shall be recessed far below the wearing surface on the runner. The recess shall be filled with a corrosion inhibiting filler.

E. **Hardware** - The band section shall be bolted together plated steel studs, nuts and washers. Hardware shall be 5/16-inch for pipes up to 42-inch diameter and 3/8-inch for carrier pipes 42-inch and larger.

Quality Assurance

Each spacer/isolator shall be manufactured at a facility that has a Registered ISO 9001:2008 Quality Management System. Copy of current ISO 9001:2008 Registration shall be provided with material submittal.

Considerations

The above specification is considered sufficient for most pipe sizes and types up to 36-inches and casing lengths up to 300 feet. For larger size pipes or longer or unusual casings, please contact Pipeline Seal and Insulator, Inc.

End Seal Specification

After insertion of the carrier pipe in the casing, the ends of the casing shall be closed by installing a PSI Model "C", “Model “W”, Model "S" or Model "FW" casing end seal as manufactured by GPT, Houston, TX.