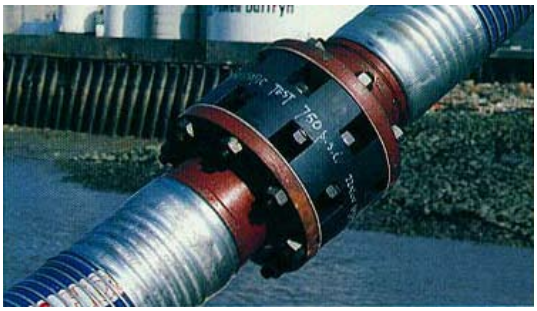
INSULATING FLANGE



Spool-Type Insulating Flange: A different principle of an insulation joint is to use a spool of insulating material bolted between the two hose flanges.

Advantages: The main advantage of this type of insulating flange is that the minimum resistive path is in the order of one inch. The flange is very simply a one-piece item and the method of fixing is foolproof. Tests carried out on this flange show very high electrical resistance and, during a flow test when a flow rate of 4.7 metres/sec using kerosene was achieved, there was no indication of any electrostatic build-up whatsoever.

Construction: The material of construction is cast nylon, machined to suit the relevant flange sizes and early test indications of this type of insulating flange show that it possesses all the required properties of a properly fitted standard insulating gasket set, with the additional advantage of being more easily fitted and more readily inspected and tested.

Conductivity: There is no doubt that the undesirable electrical currents that occur in ships' product-transfer hoses can be controlled by inserting an insulating flange between two lengths of conductive hose. The spool-type flange has the definite advantage of simpler fitting and greater resistive path, and the very high resistance of this flange has not produced dangerous electrostatic fields under test conditions.

Material	- Nylatron GSM
Tensile Strength at 23°C	- 11,000 to 14,000 PSI (7,750 to 9,850 kg/cm2)
Mod. of Elastity at 23°C	- 350,000 to 450,000 PSI (246,000 to 316,000 kg/cm2)
Flexural Strength at 23°C	- 15,000 to 15,800 PSI (10,500 to 11,200 kg/cm2)
Coefficient of Linear Expansion	- 100 x 10-6mm/mm°C/105 x 10-5 in/in°F
Melting Point	- 220°C/428°F
Flammability	- Self-extinguishing
Electrical Resistivity	- 1012 ohm/cm
Electrical Field Generation	- None

Bolting Dimensions conform to ASA 150 lb. Resistant to: most common solvents, lubricants, hydrocarbons, esters, ketones, and aqueous solutions of acids and alkalies at pH5 to pH11.

Nom. Pipe Diameter inches	BCD #Hole x Dia Flange OD	Length Test PSI Long Stress
4	7-1/2 16 x 750 9	4-3/4 750 600
6	9-1/2 16 x 7/8 11	5-5/8 750 1,121
8	11-3/4 16 x 7/8 13-1/2	5-5/8 750 1,333

Nom. Pipe Diameter inches	BCD #Hole x Dia Flange OD	Length Test PSI Long Stress
10	14-1/4 24 x 1 16	6 750 1,408
12	17 24 x 1 19	6 750 1,273
14	18-3/4 24 x 1-1/8 21	6-1/2 750 1,656
16	21-1/4 32 x 1-1/8 23-1/2	6-1/2 750 1,608