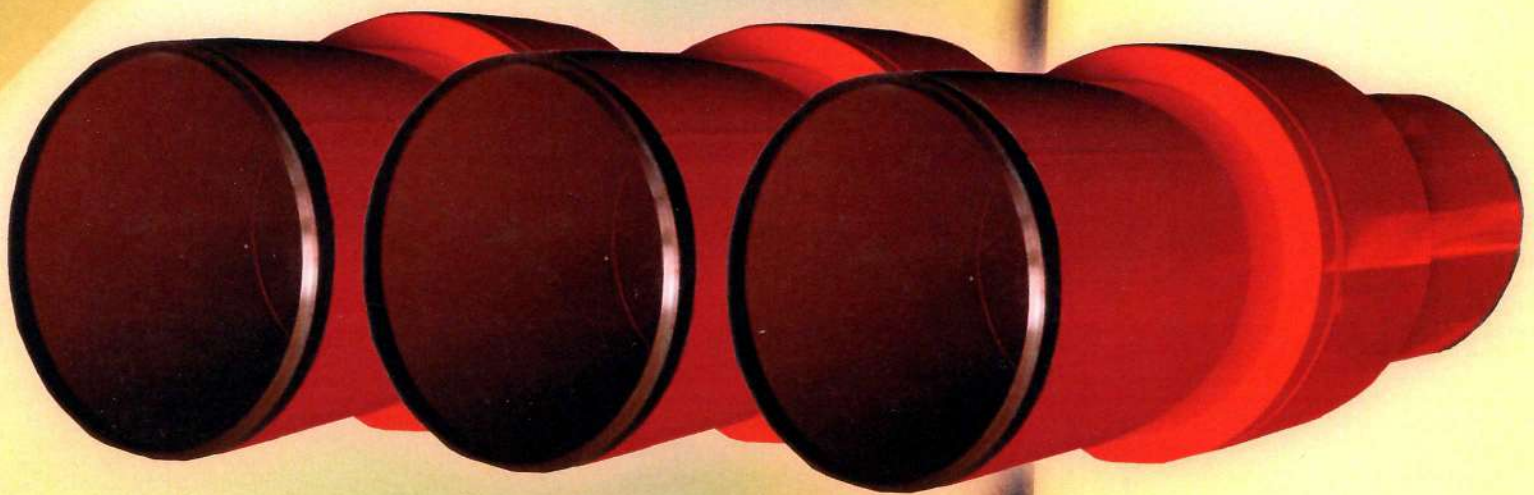


ALFA
Engineering GROUP



MONOLITHIC ISOLATION JOINTS



FOR ONSHORE AND OFFSHORE PROJECTS

ANSI 150 - 300 - 400 - 600 - 900 - 1500 - 2500 - API 10000

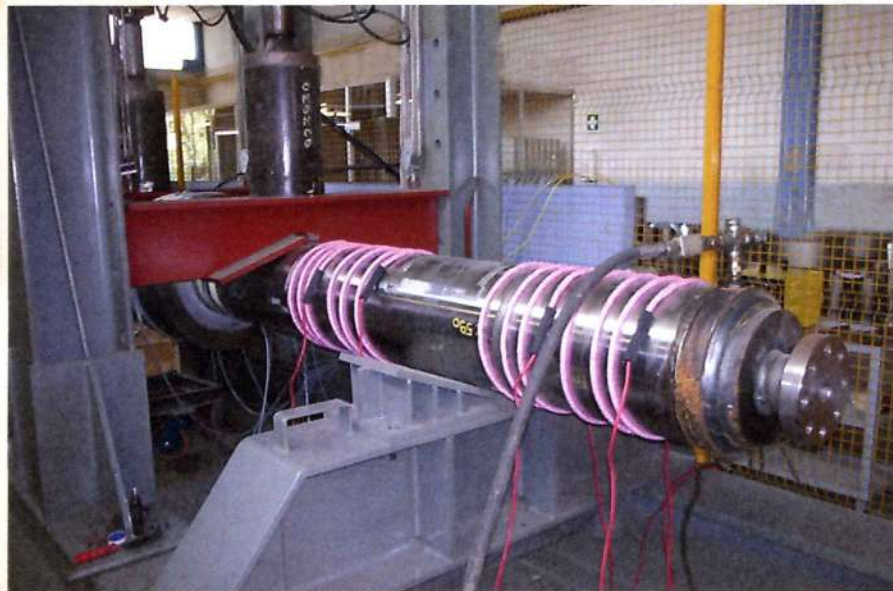
ALFA Engineering is a worldwide manufacturer and distributor of high quality monolithic isolation joints for the petrochemical industry. Wherever you find pipeline and gas distribution system you will also find a wide array of reliable **ALFA Engineering** products.

The correct location of **ALFA Engineering** monolithic isolation joints may result in savings in the overall cost of corrosion control systems.

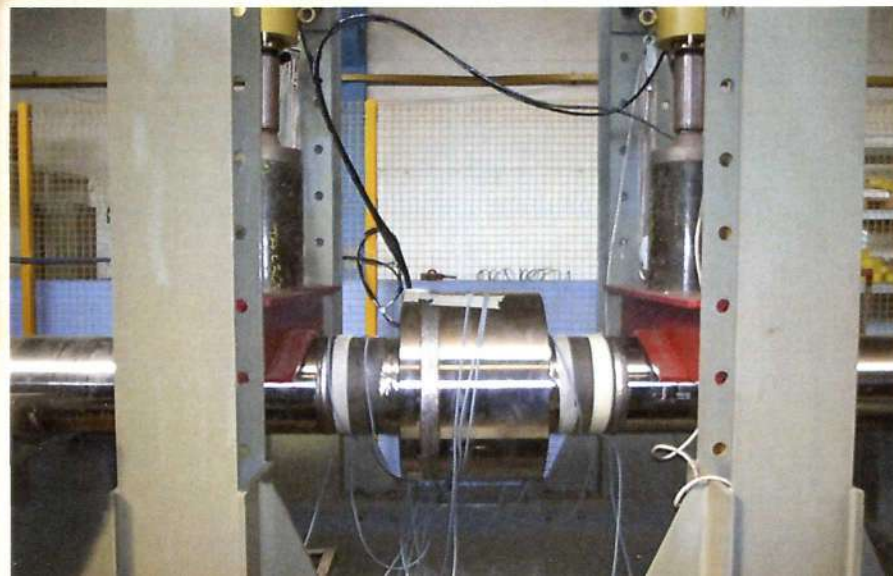
QUALITY ASSURANCE

ALFA Engineering operate a Quality Assurance System in accordance with the requirements of UNI EN ISO 9001:2000. This ensure close control over all stages of production and manufacture.

ALFA Engineering staff and personnel take pride in producing top quality products and are very proud of the reputation **ALFA Engineering** has within the Petrochemical Industry as a qualified and Quality oriented Company.



Prototype joint \varnothing 14" ANSI 1500 subject to combined thermal-pressure-bend test (ADCO Thamama Gas Gathering)



FOR ONSHORE PROJECTS

To limit the spread and hence the cost of cathodic protection to those pipes that need to be effectively and economically protected by the main cathodic protection system.

To electrically "split up" long pipelines into distinctive cathodic protection system.

To isolate a pipeline and top ensure that cathodic protection or stray electricity currents do not cause increased corrosion.

To provide protection against earthing currents at domestic and industrial premises where the PME system is in use.

FOR OFFSHORE PROJECTS

In riser pipes and offshore structures to isolate the pipeline cathodic protection system.

At field "tie-ins".

DESIGN & MATERIAL CODES

ASME - ANSI - ASTM - BS - UNI - DIN

SIZE RANGE

From 1/2" to 100"

ELECTRIC CHARACTERISTICS

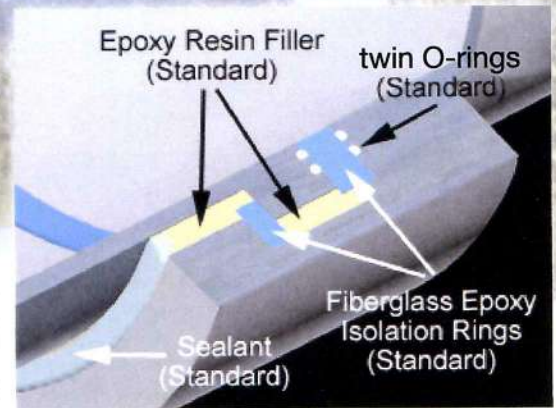
Electric Insulation Resistance >200 M Ω

DEMANDING APPLICATIONS








Making dependable isolation joints with dependable seals for safety-critical and extreme applications goes beyond excellence in design and manufacturing. It also means a deep commitment to Quality.

ALFA Engineering, as a major isolation joints manufacturer, have access to substantial application data and a wealth of experience over untold period. Our practical know-how in using very complex and secure methods is supported by finite element analysis to combine experience and technology at the same time.

The most extreme environments demand a strong commitment in finding the best sealing solution. **ALFA Engineering** is committed to meet the challenges for very demanding applications and services for high pressures or hard vacuum, nonetheless the challenge against corrosive chemical and very low temperature in-line services.



MAIN ELASTOMER MATERIALS USED IN THE CONSTRUCTION OF INSULATION JOINTS

Designation	Material	Recommended application	Not Recommended for:	Design Temperature
NBR	Nitrile Butadiene Rubber Nitrile (Buna-N)	General purpose sealing Petroleum oils and fluids Natural Gas Cold water	Halogenated Hydrocarbons (Carbon Tetrachloride, Trichlorethylene) Nitro Hydrocarbons (Nitrobenzene, Aniline) Phosphate Ester Hydraulic Fluids (Skydrol, Fyrquel, Pydraul) Ketones (MEK, Acetone) Strong Acids Ozone Automotive Brake Fluid	 -40°C to +110°C
FPM	Fluorocarbon	Petroleum Oils Wet Gas (Sour) Di ester Based Lubricants Silicate Ester Base Lubricants Silicone Fluids and Greases Halogenated Hydrocarbons (Carbon Tetrachloride, Trichloro - Ethylene) Selected Phosphate Ester Fluids Acids	Ketones Skydrol fluids Amines, Anhydrous Ammonia Hot hydrofluoric or Chlorosulfonic Acids	 -20°C to +200°C
FKM - (GFLT)	Tetrafluoroethylene (Anti Decompression)	Petroleum Oils Wet Gas (Sour) Di ester Based Lubricants Silicate Ester Base Lubricants Silicone Fluids and Greases Halogenated Hydrocarbons (Carbon Tetrachloride, Trichloro - Ethylene) Selected Phosphate Ester Fluids Acids	Ketones Skydrol fluids Amines, Anhydrous Ammonia Hot hydrofluoric or Chlorosulfonic Acids	 -50°C to +200°C
FEP-O-SEAL (MVQ - SIL)	Teflon® Virgin (PTFE) F.E.P. ENCAPSULATED O-RINGS SILICONE (Anti Decompression)	Chemical Processing and Production Oil Extraction (on shore and off shore) Petrochemical Refining Pharmaceutical Production Food and Drink Processing Automotive Components Aerospace Engineering	Dynamic use where high speeds and poor finishes are encountered. Where the housing design requires excessive stretch or collapse of the O-ring during installation.	 -60°C to +204°C
FEP-O-SEAL (FPM)	Teflon® Virgin (PTFE) F.E.P. ENCAPSULATED O-RINGS VITON® (Anti Decompression)	Chemical Processing and Production Oil Extraction (on shore and off shore) Petrochemical Refining Pharmaceutical Production Food and Drink Processing Automotive Components Aerospace Engineering	Dynamic use where high speeds and poor finishes are encountered. Where the housing design requires excessive stretch or collapse of the O-ring during installation.	 -20°C to +204°C
ENERSEAL	Teflon® Virgin (PTFE) (Anti Decompression)	Chemical Processing and Production Oil Extraction (on shore and off shore) Petrochemical Refining Pharmaceutical Production Food and Drink Processing Automotive Components Aerospace Engineering	Dynamic use where high speeds and poor finishes are encountered. Where the housing design requires excessive stretch or collapse of the O-ring during installation.	 -195°C to +270°C
	KALREZ® Du Pont & Dow Elastomers	Chemical Processing and Production Oil Extraction (on shore and off shore) Petrochemical Refining Pharmaceutical Production Food and Drink Processing Automotive Components	Dynamic use where high speeds and poor finishes are encountered. Where the housing design requires excessive stretch or collapse of the O-ring during	

ALFA Engineering **GROUP**



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CLOSURES

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SCHOOL CAN HAVE MY FUTURE

