



# Pre-Insulated Piping System

*Engineering the Next Era of Excellence*

## Our Expertise & Partnership

Blue Sapphire Insuline Pvt. Ltd., Ahmedabad, Gujarat is a Joint Venture Partner with Socotherm, Americas & worldwide technological leader specialized in the application of anti-corrosion, weight and thermal insulation coatings on steel pipes for onshore and offshore operations.

## Manufacturing Capability



**Largest**  
Pre-Insulated Pipe  
Manufacturing Company  
in India.



**Capacity**  
15 mm to 2000 mm  
(0.5-80 inch) diameter  
pipe.



**Production**  
up to 1.8 Km / day



**Methods:**  
Spray, Injection &  
Contiline.



**Materials:**  
Outer Casing HDPE,  
Metal (Aluminium, GI &  
SS), PRP with core pipe of  
Mild Steel, Stainless Steel  
and PP.



**Coating:**  
FBE Coating system &  
3 Layer Polyethylene  
coating (3LPE) system



**Inhouse**  
Electrofusion Field-Joint  
kit Manufacturing.



**Inhouse Labs:**  
stress analyses, thermal  
conductivity and other  
parameters as per EN  
253 Specs.



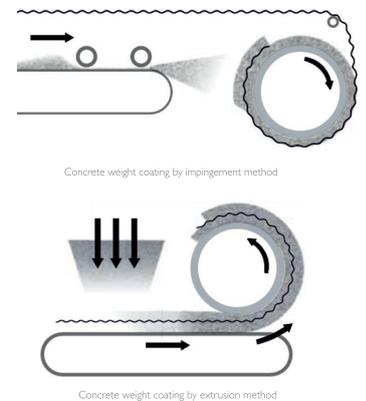
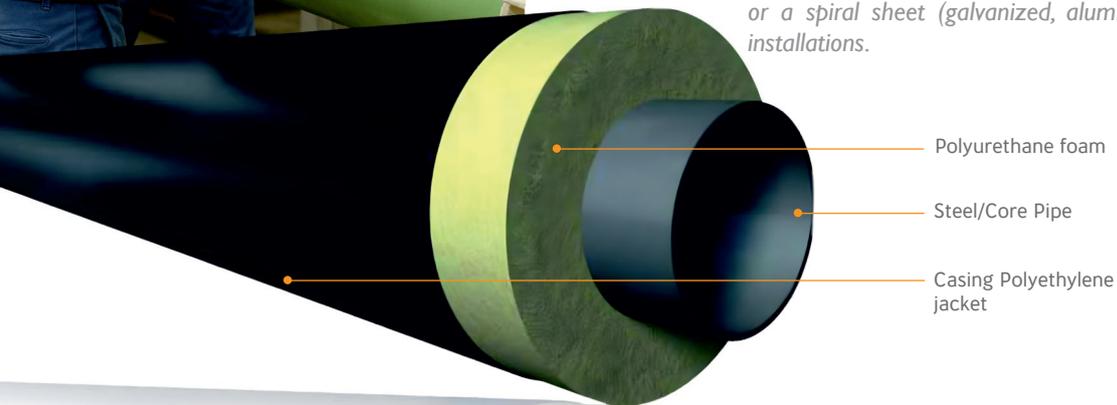


# Bluethermpipe®

Polyurethane foam with polyethylene jacket thermal coating insulation system.

Bluethermpipe® is the most advanced solution in the construction of extended underground or above ground pipe networks for the distribution of hot and cold fluids. Therefore, it is frequently used for central district heating or cooling networks. Bluethermpipe® is a broad range of thermal insulation coating products based on polyurethane foam, including rigid and flexible solutions. As per these features, it may be applied on steel, galvanized steel, stainless steel, copper, PEX (crosslinked polyethylene) or other materials.

*Due to its quick, economical and easy Bluethermpipe® coated pipes reduce the costs derived from the traditional installation systems by avoiding expensive concrete tunnels and further operations for waterproof results and sealing. The outer jacket can be both in high density polyethylene, for underground installations, or a spiral sheet (galvanized, aluminum or stainless steel), for above ground installations.*



## BLUE cryo pipe

Blue cryo pipe is a thermal insulation system for Cryogenic pipelines to maintain a constant operating temperature down to -210°C for the complete lifetime of the system - 30 years. Typical applications would be e.g. LNG, LPG, Ethane, Oxygen and Nitrogen.

- Pipe diameter 0.5" to 80"
- Stainless Steel inner pipe
- PUR density 60-85 kg/m<sup>3</sup> and thickness 50 - 200 mm
- HDPE casing (PE80 or PE100) 4 mm to 20 mm
- Surface Heat Gain <25 W/m<sup>2</sup>
- Lambda value (@ 10°C) 0.026 W/mK
- Fire protection is available as an option
- Fibre Optic Detection system embedded in the insulation is available as an option
- Compatible welded or shrinkable field joints are available
- Bends, spools and specialty fittings can be manufactured



A: Steel pipe  
B: PUR Foam  
C: HDPE Casing  
D: Fire Protection  
E: Pipe Support  
F: Fiber Optic Surveillance System

*Usually, the thermal insulation is obtained applying polyurethane foam on a steel pipe previously coated with anti-corrosive epoxy powder\*. The polyurethane foam is sprayed directly into the annular cavity between the steel pipe and the outer jacket which is supported thereon by polypropylene spacers. This technique ensures a thermal conductivity between 0.024 and 0.027 W/m°C for the final product. For temperatures higher than 148°C, a first layer of Perlite / Calcium silicate is applied prior to the polyurethane foam injection.*

*The production is made according to European Standards EN 253, 448, 488, 489 and also as per the specific project requirements. Besides, it may be applied on elbows, tees, valves and all other fittings. Complementarily, Bluethermpipe® may be installed along with an electronic surveillance system for the detection and localization of moisture or leaks in the pipeline.*

*\* Unless, as per technical specification, anti-corrosive epoxy powder was not required*



# Bluesapphire Insuline – Products & Services

## Onshore



### Full end-to-end thermal solutions

- Above / Below Ground
- Diffusion Barrier
- Moisture surveillance
- Leak detection
- Heat Tracing
- Custom Coating
- Field Joints Solutions

## Offshore



### Thermal Insulation reinvented

- Shallow Water
- Deep / Ultra-Deep Water
- Custom Coating
- Field Joint Solutions

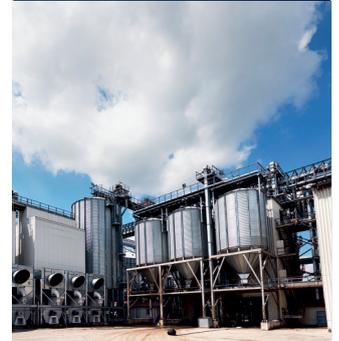
## LNG



### LNG & Cryogenic Systems

- Cryogenic Pipes - LNG/LPG
- Fire Retardant Solutions
- Custom coating
- Field Joints Solutions

## Downstream



### Heat & Cold Insulation

- Chemical Plants
- Refineries, Nuclear
- Anti-Freezing Lines
- FLNG/FPSO
- Custom coating
- Field Joints Solutions

## Our Other Products:



## Coatings & Services

### External Coatings



- Anticorrosion
- Thermal Insulation
- Wet Insulation Coatings
- Concrete Weight Coating
- White Tubing
- ERFV

### Internal Coatings



- Inner-liner
- PE liners
- Combined solutions

### Services



- Field joints
- Welding
- Full scale tests
- Spools coating
- Polyethylene pipes
- Sleeves
- Technical support

### Engineering

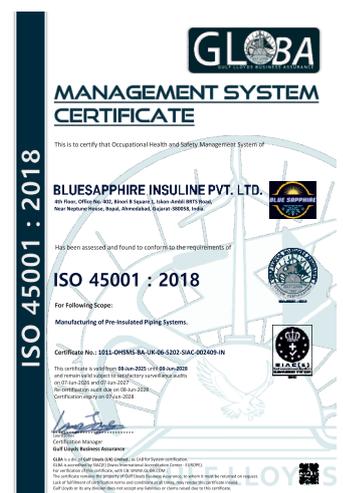
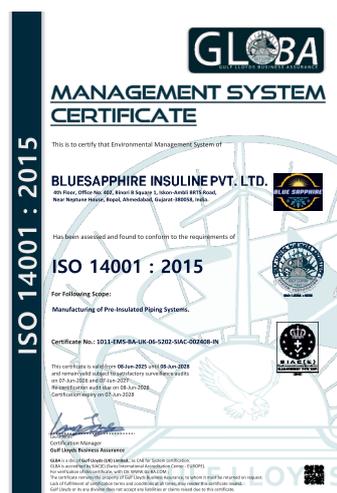


- Proprietary Engineering to design, project and start up new Coating application plants
- Mob./Demob. Relocation of coating facilities

# Polyurethane Foam Insulation System Major Projects

CLIENT/ OWNER	LENGTH (meter)	SIZE (Inches)	PROJECT
Total Austral	83,000	4-16	Aguada Pichana Project
Agip Lybia	20,000	6-8	A 100 Field
Total Austral	15,000	8	Argo Oil Project
Astra	13,000	6	Manantiales Behr
Consolidated Contractors	84,000	16	Sabiya Power Station
Karachaganak Siderca	62,000	6	Karachaganak Project
Capsa	5,000	6	Aqua de Cajon Yacimiento Diadema
Joannou & Paraskevaides (overseas) Ltd	262,300	4-6-12-16	Insulation wells- Faregh Field – Libya
Sipetrol Argentina	15,600	10	CAM2A SUR Project
Astra-YPF	4,200	6	-
Saipem / Agip North Africa	24,500	8"	Bahr Essalam (NC-41)
Tecpetrol	9,000	3-6	Los Bastos Oilfield
Total Austral	23,000	4-6	-
Sinopec	1.500	6	-
Pecom Energia	34.000	6	-
YPF	550,000	6-10	Multiple
EPP Composites , India	620	14	Airport
IOCL	8,000	24	LPG

## QHSE Certifications



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