



02

**PIPELINES, HOT
BENDS
& CLADDING**

**PROCUREMENT
OPPORTUNITIES**

PIPELINE

THE FOLLOWING 7 PRODUCT GROUPS WITHIN PIPELINES OFFER LOCAL MANUFACTURING POTENTIAL

**Seamless Line
Pipe**

Grout Bags

**Hot Induction
Bends**

PIGS

**CRA Cladded/Lined
Pipes**

Barred Tees

**Concrete
Mattresses**

SEAMLESS LINE PIPES

Overview



Opportunity

- No existing manufacturers within the UAE
- Substantial forecasted demand in ADNOC Pipeline Projects



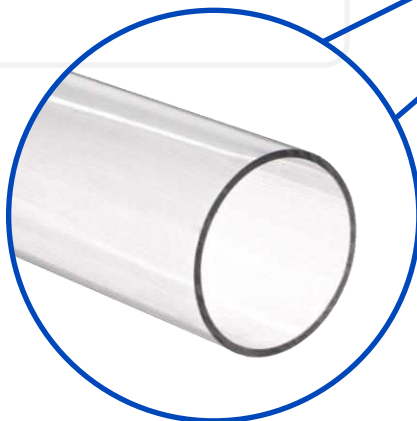
Applications

- Oil, Gas, Water and Utilities Pipelines
- Onshore / Offshore
- Sweet / Sour Service
- Pipe size range from NPS 3 inch up to 16 inch



ADNOC Standards / Specifications Requirements

- ADNOC Specification for Linepipe
- API Specification 5L
- API 5L Monogram Certification



CRA CLADDED/LINED PIPES

Overview



Opportunity

- Limited number of local manufacturers
- Growing demand in ADNOC Pipeline Projects



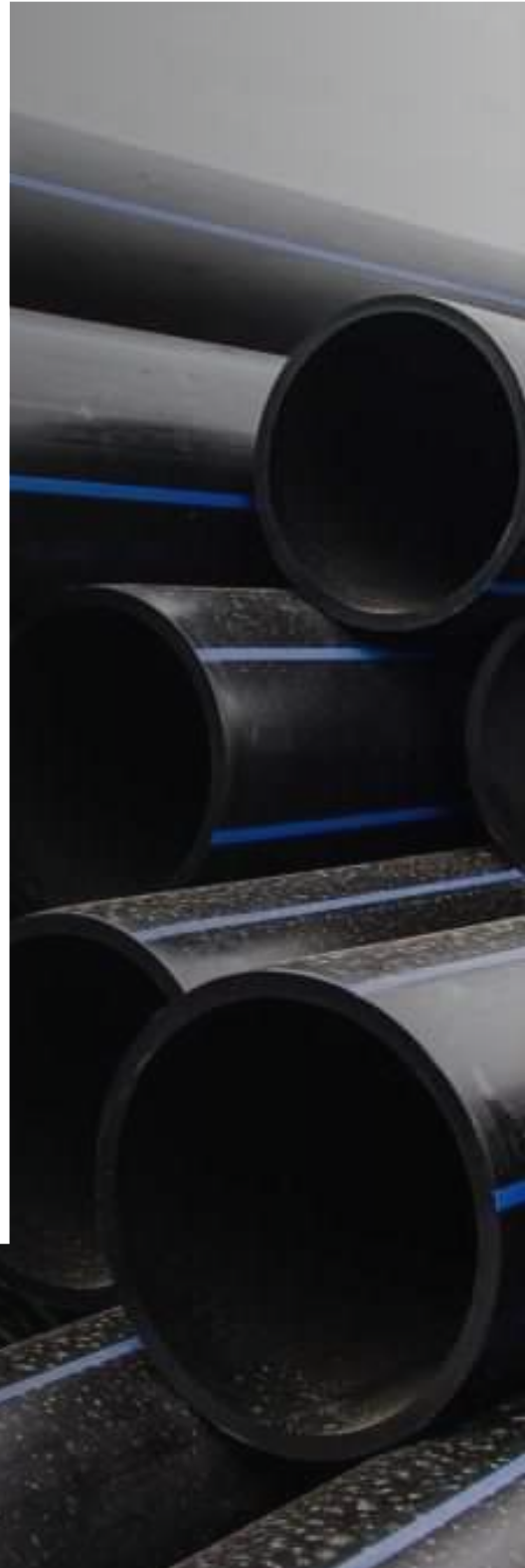
Applications

- Oil and Gas Pipelines (Sour Service)
- Onshore and Offshore
- Mechanically Lined Pipe (MLP) for NPS up to 24 inch
- Hot Roll Bonded (HRB) Clad Pipe for NPS 26 inch and above



ADNOC Standards / Specifications Requirements

- ADNOC CRA Clad and Lined Steel Pipe Specification
- API Specification 5LD
- API 5LD Monogram Certification



HOT INDUCTION BENDS

Overview



Opportunity

- Limited local manufacturing within UAE
- Key component in ADNOC Pipeline Projects



Applications

- Oil, Gas and Water Pipelines
- Onshore / Offshore
- Sweet / Sour Service
- Bend size range from NPS 3 inch up to 56 inch



ADNOC Standards / Specifications Requirements

- ADNOC Hot Induction Bend Specification
- ISO 15590-1



BARRED TEES

Overview



Opportunity

- No existing manufacturers within the UAE
- Key component in ADNOC Pipeline Projects



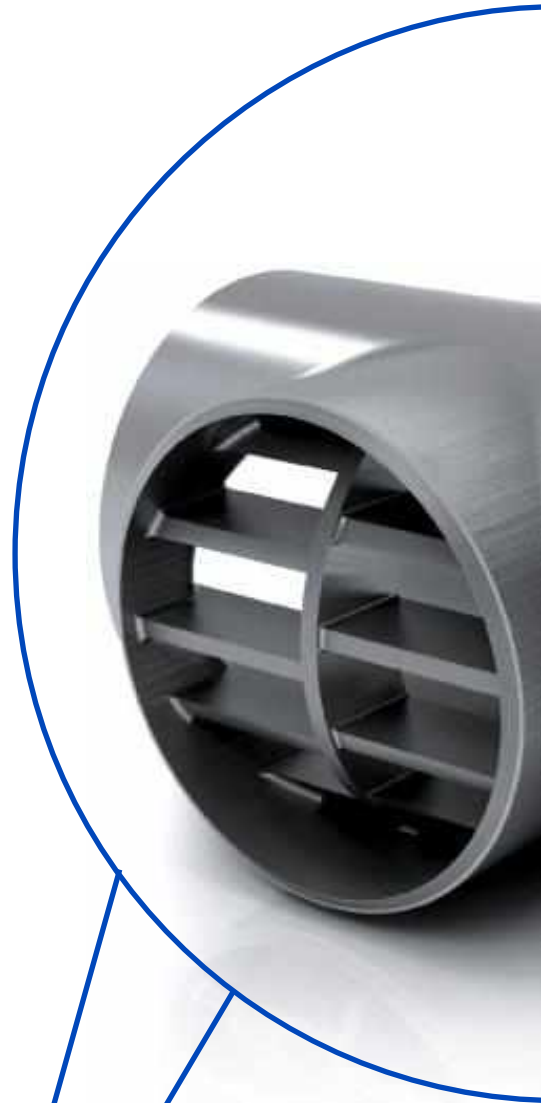
Applications

- Oil, Gas and Water Pipelines
- Onshore / Offshore
- Sweet / Sour Service
- Tee size range from NPS 4 inch up to 56 inch



ADNOC Standards / Specifications Requirements

- ADNOC Pipeline Pigging Tees Specification
- ASME B16.9 and MSS SP-75



CONCRETE MATTRESSES

Overview



Opportunity

- Limited local manufacturing within UAE
- Key component in ADNOC for new and existing subsea pipelines and cables
- Simple manufacturing using concrete blocks and polypropylene ropes



Applications

- Standard stock sizes
- Bespoke concrete mattresses (custom designs)



ADNOC Standards / Specifications Requirements

- ASTM and BS for Concrete



GROUT BAGS

Overview



Opportunity

- Limited local manufacturing within UAE
- Key component in ADNOC for new and existing subsea pipelines
- Simple manufacturing using synthetic fiber fabric (woven polypropylene fabric or equivalent)



Applications

- Standard stock grout bags
- Bespoke grout bags (custom designs)



PIGS

Overview



Opportunity

- Limited local manufacturing within UAE
- High demand for integrity management of existing ADNOC Pipelines
- Wide range of pig types required for cleaning, liquid displacement, isolation, inspection etc.



Applications

- Oil, Gas and Water Pipelines
- Upstream / Downstream



Types of Pigs

- Foam pigs
- Spherical pigs
- Solid cast pigs
- Mandrel pigs
- Intelligent pigs

