Subsea 7 has been successfully designing, fabricating and installing Pipeline Bundles since 1980. This product neatly incorporates all structures, valve work, pipelines and control systems necessary to operate a field in one single product, delivering considerable value and potential cost savings for a wide range of applications.

**Key benefits:**

- Offers integration of subsea processing functions in a compact and cost effective manner
- Pipeline Bundles reduce pipeline corridor and system testing widths to a minimum, avoiding unnecessary congestion and opening up future developments
- Carrier pipes provide a corrosion-free environment, reducing the need for individual corrosion coating of flowlines
- By assembling processing units into an overall system and completing onshore testing and commissioning the entire system significantly reduces installation and commissioning risks
- Applicable for High Temperature Applications (to 220°C) negating the need for global buckling mitigation measures
The Subsea 7 Pipeline Bundle product integrates the required flowlines and control systems necessary for any subsea development, and assembles them within a steel carrier pipe. Attached at each end of the Pipeline Bundle are the towhead structures, incorporating equipment and valves, designed specifically to meet the field requirements. The system, which has been fully function tested onshore, is then launched and transported to its offshore location using the Controlled Depth Tow Method (CDTM).

**Delivery Method**

The CDTM was developed by Subsea 7 and involves the transportation of a Pipeline Bundle configuration suspended between two tow vessels. Upon arrival at a field, the Pipeline Bundle is manoeuvred into final location, the carrier pipe and towhead are then flooded to lower the Pipeline Bundle to the seabed and stabilise it in its final location.

**Bundle Components**

A subsea Pipeline Bundle can incorporate a combination of features, including:

- Active heating of product lines
- Corrosion resistant alloy materials
- Carbon steel pipe with CRA or plastic liners
- Manifold systems integral to the flowlines
- Heat transfer between adjacent pipes
- Hydraulic control tubing within Pipeline Bundles, direct to manifold
- Electrical control signal and power cables

**Range of Subsea Applications**

Pipeline Bundles have the unique ability to be utilised in a number of applications offering flexibility of subsea field design, including where:

- Seabed areas are congested
- Challenging seabed conditions e.g. boulders, existing structures
- Products are high pressure/high temperature and contain sour gas
- Subsea processing elements included in towheads

**A Track Record of Successful Pipeline Bundles Delivery**

Subsea 7 has a strong track record of successful Pipeline Bundle design, fabrication and installation.

1980 - First Pipeline Bundle project completed for ConocoPhillips Murchison field
1996 - First Pipeline Bundles installed in Australia for Esso's Bream & Tuna Fields
2001 - Eight Pipeline Bundles installed for Elf Exploration Angola Girassol Field at 1400m
2011 - Longest ever Pipeline Bundle tie-back at 27.1km utilising four bundle systems interconnected for BP's Andrew field
2013 - Largest bundle to date – 56.4inch carrier for Elf Exploration UK Limited's West Franklin field and highest temperature & pressure at 160°C/604bar
2014 - Largest ever Pipeline Bundle towhead for BG’s Knarr field lead towhead manifold 550te, and deepest installation by CDTM at 410m

For further information contact

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