

Europe Asia Pipeline Company LTD.

Pig Launcher and Receiver

Specification

31.10.2024

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1. GENERAL

This specification covers the design, fabrication, testing, painting and supply of PIG launcher and receiver for Europe Asia Pipeline Company Ltd. ("EAPC").

2. SCOPE OF SUPPLY

The scope of supply shall include the following:

- One (1) 18" PIG launcher designed and manufactured in accordance with ASME 31.4.
- One (1) 16" PIG receiver designed and manufactured in accordance with ASME 31.4.

3. DESIGN & MANUFACTURING REQUIREMENTS

3.1 Process and Site Conditions

- Fluid : Sour Crude Oil.
- Temperature : -5°C to 60°C.
- Design Pressure : 80 bar.
- Environmental Relative Humidity : up to 90%.
- Special Conditions : Sandstorms and dust.

3.2 Standards of Compliance

- ASME B31.4.
- API 1104.
- ASME B16.5.
- ASME B16.9.

3.3 General and Characteristics:

- The manufacturer will design and manufacture the PIG Receiving & Launching Traps so that they are suitable for working with smart PIGs under the working conditions defined in this specification and the attached drawings.

- The closures that will be installed in the traps will be the type of 'TDW D2000 Quick-actuating' only.
- Attached to this document are General Arrangement Drawings detailing the required dimensions. There may be slight changes in dimensions according to the summary between the manufacturer and EAPC company about the final configuration before production.
- Lifting lugs will be installed on each trap.
- Before production, the manufacturer will send the production drawings, WPS's and painting procedure for the EAPC company approval.
- The unit shall be supplied completely assembled – ready for installation.
- The Launcher & Receiver will be welded (By EAPC) to API 5L-X52 Pipe in the site.

3.4 **Welding:**

- The manufacturer shall prepare Welding Procedures Specifications (WPS) and Procedure Qualification Records (PQR) for all required welding processes.
- The welders who will perform the work will be qualified according to the WPS's.
- All welds will test according to ASME 31.4 and API1104.

4. **TESTING**

- The pressure test and other examination processes will be in accordance with the standard ASME 31.4.
- The manufacturer shall furnish details of the testing procedures he intends to follow.

5. PAINING

5.1 All surfaces of the launcher and receiver (except for the doors painted by TDW) will be painted with anti-corrosive and UV protection epoxy paint according to the manufacturer's specifications to meet site conditions as specified in para. 3.1.

5.2 Paint RAL No: 9010.

6. MARKING

The Launcher and receiver shall have permanent marking by means of a stainless-steel nameplate. The nameplate shall contain the following data:

- Manufacturer Name.
- Size.
- Serial Number.
- Design Code.
- Weight.
- Design Pressure.
- Design Temperature.
- Test Pressure.

7. MECHANICAL GUARANTEE

Vendor will guarantee that the equipment furnished is free from faults in design, workmanship and materials, and is of sufficient size and design to satisfactorily fulfill the operating conditions specified.

Should any defect in design, materials, workmanship or operating characteristics develop during the first year of operation (but not over twenty-four (24) months from the date of shipment), the Vendor will make all necessary or desirable alternations, repairs and replacements of said defective equipment, free of charge and shall also pay transportation involved of the above mentioned to and from the plant.

If the defect or functional failure cannot be corrected, the Vendor agrees to replace promptly, free of charge, the faulty equipment.

8. DOCUMENTATION

The following documents are to be sent in English:

With bid:

- General Arrangement drawings with overall dimensions.
- Material Specification.

With Order:

- Design Calculation.
- Installation, Operating and Maintenance Instruction/manuals, including full parts list.
- General Arrangement drawings with part list and dimension of Legs needed for installation in site.
- P&ID.
- Coating/plating certification.
- Welding documents: WPS's, Weld Map, NDE Procedure.
- Hydrotest Procedure.
- Closures Data Sheets, drawings and Parts list.
- Eur1 certificate or US Certificate of Origin will be required with the goods

9. BILL OF QUANTITIES

<i>Item Ref</i>	<i>Item</i>	<i>Size</i>	<i>Qty</i>
1.	PIG Launcher 18"	16" 600#	1
2.	PIG Receiver 16"	18" 600#	1