

INSTALLATION AND ERECTION MANUAL

SECTION 1 - PREFACE AND GENERAL INFORMATION

SECTION 2 - DESCRIPTION OF THE INSTALLATION AREA

SECTION 3 - INSTRUCTION FOR RECEPTION, HANDLING, TRANSPORTATION, STORAGE AND PRESERVATION OF MATERIALS

SECTION 4 - ERECTION INSTRUCTIONS

- 4.1 Preparation of the installation area
- 4.2 Assembling and levelling instruction
- 4.3 Instruments, tools and utilities for erection activities
- 4.4 Sequences and procedures for equipment installation
- 4.5 Piping installation
- 4.6 Electrical and pneumatic installation

SECTION 5 - PRE-COMMISSIONING AND COMMISSIONING

- 5.1 Instructions for pre-commissioning
- 5.2 Instructions for commissioning
- 5.3 Check list
- 5.4 Precommissioning and commissioning for flat bottom LOX / LIN tanks
- 5.5 Cold test

SECTION 6 - SAFETY RULES

SECTION 7 - DOCUMENTATION

- 7.1 Process, instrument and valves documentation (P.&I. Diagram, Equipment P.&I. Diagrams, Technical list for valves and instrumentation, Instrument data sheet, Instrument technical list, Sample gas cylinder list)
- 7.2 Foundation drawings (General foundation drawing, Equipment foundation drawings, Equipment foundation drawings from supplier)

7.3 Mechanical drawings (Equipment assembly and installation drawings, Equipment assembly drawings from supplier, Overall plant and piping installation drawings, Overall plant drawings, Cooling water piping/supports installation drawings, Process gas piping/supports installation drawings, Shipment documentation, Equipment shipping drawings, Equipment shipping instruction included in manufacturer manuals)

7.4 Specification for mechanical equipment and piping erection and plant commissioning

7.5 Electrical/instrumental drawings (Electrical and instrumental equipment drawings included in the electrical equipment manual, Electrical/ pneumatic installation drawings included in the electrical installation manual, Electrical/Pneumatic equipment drawings from supplier)

7.6 Mechanical equipment manuals supplied separately

7.7 Electric & Control system manuals

7.8 SIAD MI Standard