

Turbomachinery & Process Solutions



Technical Proposal - Budgetary

Customer: ENI

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1. Proposal Highlights

This section defines the basis of BAKER HUGHES technical offer for the supply of Mechanical Drive train(s) complete with relevant auxiliaries.

During the development of this technical offer, we have made the greatest effort to match your requirements, exploiting the experience that BAKER HUGHES has gained in the Electrical Motor Mechanical Drive market studying the best technical solutions to:

- Ensure delivery time for the plant.;
- · Optimize the operating conditions of the plant regarding both its reliability and performances;
- · Maximize the overall efficiency;
- · Minimize the life cycle costs;
- Ensure the greatest operating flexibility.

Our proposal has been prepared in response to your application requirements and has selected the following BAKER HUGHES products to meet your needs:

No. 2 2HE/1-1 Reciprocating Compressors train(s)

Each of the proposed units consists of:

Reciprocating Compressor

Auxiliaries and BoP equipment.

The mechanical design of proposed units relies on several years of BH experience in providing reliable equipment, for continuous operation under their design prescriptions.

The Motocompressor package will be engineered, manufactured and tested at BAKER HUGHES workshops, under the supervision and the responsibility of one Project Manager, who will act as a single contact for the Client.

BAKER HUGHES engineers and QC specialists will monitor the whole production cycle of these items with scheduled inspections, to ensure that all the design, manufacturing, procedures specified, NDT controls and any other requirement of ISO 9001-2000 are met.

All testing activities supplied will be carried out in Florence or Massa workshops and Electric Motor sub-suppliers workshops, as applicable.



2. Scope of Supply & Exclusions

Main Item Description

2.1 Compressor

Reciprocating compressor 2HE/1-1 equipped with DOUBLE compartment distance piece and cylinders with lubrication system LUBE type. The compressor is suitable for installation On Foundation

2.2 Driver

Electric motor Induction type with power of 1600 Kw, 16 poles, 370 rpm, suitable for installation On Foundation

2.3 Lube Oil System

Frame lube oil system, one each unit, according to API Std. 618 including:

Oil reservoir in the compressor sump

The main oil pump is driven by the compressor shaft

The auxiliary oil pump is driven by an electric motor

Single shell & tube cooler

Duplex oil filter

Piping, valves, and instrumentation

The oil system is assembled on Separated Console Skid

2.4 Cylinder Lubrication System

Cylinder / Packing lubrication system with mechanical lubricator driven by Compressor shaft and equipped with stainless steel piping, level sight glass and electric heater (if required)

2.5 Cooling System

No.1 system common for all units, assembled on console, including cooling water heat exchanger (shell and tube type) and two water pumps driven by an electric motor

2.6 Process Gas System

Process gas system is complete of the following equipment (vessel designed according to ASME VIII div.1):

Each stage, Suction Pulsation Suppression in Stainless Stell material and each Discharge Pulsation Suppression in Carbon Steel material



2.7 Instrumentation & Control

Local instrumentation, wired up to junction boxes

2.8 Spare Parts

Pre-commissioning and start-up spare parts

2.9 Miscellania

One set of special tools

Foundation bolts

Flywheel

Flexible Coupling

Pneumatic barring device

Standard BAKER HUGHES NP export shipment packing

Standard painting according to BAKER HUGHES NP painting specification

Instruction manual for maintenance and operation

Certifications, calculations and job documentation

2.10 Test

Factory tests, inspection and certification according to BAKER HUGHES Quality Control Books

Mechanical running test

Functional test of Lube oil system

2.11 Exclusions

Equipment and service not listed in the scope of supply are the responsibility of the Purchaser.



3. Budget Compressor Datasheet