



**DUAL SKID CHEMICAL CLEANING SKID**

20 bbls Stainless Steel Tank with heating coil  
 Transport Dimension L: 20ft x W: 8ft x H: 7ft  
 Tare Weight 18,500 lbs (8409kg)  
 Max Pump Rate 1200 gpm (82 psi)  
 Vertical Travel 1800 mm  
 316 Stainless Manifold & Piping  
 4 x3 Mission Magnum Pumps  
 Insulated Piping work for High Temperatures  
 Calibrated site tube & flow measuring devices



**ELECTRIC STEAM BOILER PACKAGE**

Model FB 500 L 1 FULTON  
 1740 lbs /Hr Steam Generation  
 Transport Dimension L: 12ft x W: 7ft x H: 8ft



**FRAC STORAGE TANKS**

Transport Dimension; L: 45ft; H: 8 ft; H: 10ft  
 Max Storage capacity – 21000 gals  
 Lined Internal for mild acids and brines  
 Certified EN12079 lift frame for Offshore & Marine application



**HELIUM LEAK DETECTION EQUIPMENT**

PHD 4 Model 969-4600 /Model 969 -4640  
 Varian PHD 4 Portable Helium Detector



**NITROGEN UNITS**

NOV Hydra Rig -HRSK180NF- Hazardous areas-DNV2.7-3 180K  
 Detroit Diesel 60 Series Pneumatic Start  
 Max Flow Rate – 180,000 scfh  
 Max Operating Pressure – 10,000 psi  
 Boost Pump Motor – Parker  
 Boost Hydraulic Pump – Rexroth  
 Pyroban Spark Arrestor  
 Nitrogen Pump – Hydra Rig Duncan NP 200 1.625”  
 Nitrogen Unit #5 is Sound Proof-- 80 db from side and above ground



**Pumping Division**

1-5 Princess Margaret Street  
 San Fernando  
 Trinidad & Tobago W.I.

Phone: (868) 652-6512  
 Fax: (868) 657-1563

TESL provides not just a Nitrogen /Process & Pipeline Service, but an overall N2PPS engineering service. We provide the client pre-job and post-job analysis in an effort to continuously improve our service and results for our customers. Our TTC Chemical Testing Lab design and customize treatment solution to provide the customer with the most suitable formulation details: chemicals concentration and special additives.

We make sure that the customer has the optimum job design analysis before and during job execution to ensure optimum end results. With over 10 years and more Nitrogen & PPS operational experience, TESL has been extremely successful in all applications of N2 PPS Services.

#### TYPES OF SERVICES

- Nitrogen Pumping
- Nitrogen Leak Testing
- Equipment Rental
- Pipeline Services
- Chemical Cleaning Services
- Front End Engineer & Project Management
- Process Services

#### Nitrogen Applications

- Purging –Catalyst Handling & Change out
- Purging –Gas Freeing & LEL reduction
- Unloading a well with nitrogen
- Nitrogen Helium Leak Testing
- Nitrified Acid with coil Tubing
- Pipeline Inerting & Packing
- Vessel & Process System Drying
- Accumulator Charging & Testing

#### Pipeline Services Application

- Pipeline Flooding
- Hydro testing
- Pipeline Pigging & Gauging
- Pipeline Decommissioning
- Nitrogen packing
- Pipeline Dewatering & Drying
- Project Management & Engineering

#### Chemical Cleaning Services

- Citrosol Process
- Chemical Injection
- Hydrocarbon Removal & Decontamination
- Lab Design & Testing Services

#### Process Services

- Ultra High Vessel Washing
- Pump & Storage Tank Rental
- Vacuum Testing
- Lab Design & Testing Services

#### CHEMICAL CLEANING

- = Most common Chemical Cleaning operation performed
  - Waste Heat Boiler
  - Process Exchanger
  - Heat Recovery Generators
  - Tube Bundles
  - Process Piping

#### NITROGEN SERVICES

- = Most common Nitrogen operation performed
  - Gas freeing LPG Vessel
  - Purging offshore top side production facility
  - Helium Leak testing –onshore and offshore top side
  - Purging for pyrophoric catalyst loading /unloading
  - Membrane purging & Pigging of pipelines



#### HP TRIPLEX PUMP UNIT

DNV 2.7-1, Zone 2, DD TWS600s SPM FLUID  
 Detroit Diesel 8v92TA 480 BHP@2100rpm  
 Transmission - Allison Model HT 750 5 speed  
 Zone 11 Kit - Pyroban 3GP Lite  
 SPM Relief Valve  
 Operating Pressure & Volume - 10,300 psig max, 337US gpm



#### ORION DATA ACQUISITION SYSTEM

Highly efficient and accurate Data Acquisition system providing real time data

Rugged and compact design specifically for oilfield use

Job data can be downloaded to flash memory cards and can be converted to Microsoft Excel

An Electronic Memory Unit (EMU) provides backup storage in the event of PC failure or as primary storage if you wish to run the system (blind) without a PC

The channels being displayed can be easily changed according to the nature of the job. The display can also be modified to display real time graphs and analog gauge displays