

Spruce Options

TANK FARM

PRODUCT HANDLING AND STORAGE SOLUTION

Cosmodyne Packaged Plants offers a liquid storage, pumping and cylinder filling solutions. The innovative, skid-mounted system is engineered for the safe and efficient storage of liquid Oxygen and liquid Nitrogen in low pressure horizontal tanks. The package facilitates remote process monitoring, automatic pump cool-down and loss of prime protection, inventory control, liquid pump transfer to road tankers, high pressure pumping and vaporization for cylinder filling, as well as off specification liquid disposal.

Efficient, versatile, moveable, safe, cost- effective

- Safe shipping and rapid deployment / relocation
- Ships in standard 45 foot high-cube containers
- Eliminates expensive on-site engineering and labor
- Interface skid provides product piping insulation with flexible product connections
- Single point electrical connection
- Single point control connection
- Lighting included
- Remote dial in for: problem solving quality control and production trending
- IP55 dual door waterproof enclosures
- PLC automatic cool down and loss of prime detection for all pumps
- VFD control for the transfer pumps
- Rigorous testing at the point of manufacture
- Flawless and rapid commissioning in challenging or remote locations
- Independent control from main ASU plant PLC HMI
- Each Tank has a touch-screen HMI
- Safety as a priority, the system includes all safety systems
- Easy access for equipment maintenance
- The Oxygen pumps are fitted with Stainless Steel 6mm blast shields
- The tanks utilize gravity filling with vapor return lines to minimize transfer and flash losses

Customizable Scope:

- An interface skid to tie all components together, for one or two tanks , transfer pumping skid, highpressure pump, HP vaporizer for cylinder filling and a dump vaporizer
- **25 /50 /75/100** m³ vacuum + perlite insulated horizontal type storage tank designed to ASME sec. VIII div. I Ed.2010 with “U” stamp certification. PED as a option
- ACD transfer pumps with VFD controls for road tanker or VIE filling. ACD P2K cylinder-filling pump for cylinder filling features a vertical pump with a dual wrist-pin bearing design, allowing higher rod loading and greater drive-end life. Vacuum jacket at cold end minimizes the losses
- Customizable Vaporisers for Customer pipeline backup or HP Cylinder filling requirements
- A state-of-the-art Siemens PLC Control System with HMI touch-screen Electrical and PLC panels
- Tank has a pressure build-up coil to allow for pressure decants from the tank if necessary
- A Variable Frequency Drives for transport pumps
- Insulated Pump suction lines with aluminum weather-proof jacketing
- Independent liquid feed lines are provided to all pumps, facilitating separate operation of the Transfer pump and Cylinder Filling pump
- Interface between the plant PLC and the tank PLC system so that both systems can be viewed from either location
- The PLC includes the automatic cool down protection, loss of prime on both pumps as well as the tank level and pressure indication
- HMI screen incorporates a sun shield for easy viewing in bright environments
- The design includes safe disposal of liquid from safety and vent valves
- Easy access for equipment maintenance