



PURLUBE™ Oil Conditioning System

Product Specification Sheet

PERFORMANCE:

The system shall be designed to remove free, emulsified, and dissolved water from ISO VG 32 through 460 lube (2600 SUS 100° F), turbine or hydraulic oils (mineral/synthetic) down to 100 WPPM or less. Viscous oils may require preheating in a non-operating system.

FILTER:

The filter housing shall be Type 300 series stainless steel, and includes an external pressure relief valve, drain valve, and filter element with a beta 7[c]=1000 (1910-3006) which will achieve an ISO cleanliness level of 13/10.

HEATER:

12 KW circulation type with Incolloy sheathing on the 12 watts/in² heating elements to prevent oil carbonization; installed in a Type 300 Series stainless steel tubular housing with 300 lb. ANSI flanged connection to provide access for inspection and replacement; oil drain valve; orifice in drain line to permit egress of free water accumulation in the heater housing, and pressure switch to over-ride heater operation until oil flow is established. On shut down heater de-energizes 2 minutes before pump shuts down.

300 LB Flange Design not required. Must be able to withstand 300 PSI at 180 degrees Fahrenheit.

PUMPS:

Double spur gear type for oil suction and discharge, both pumps in a single casing, and each protected by an external pressure relief valve.
Process flow rate is 180 gallons per hour (680 l/hr).

MOTOR:

1.5 Hp, Frame 145TC, 1725 RPM, totally enclosed, fan-cooled, C-face.
MOTOR REQUIREMENTS DETERMINED BY PUMP SPECIFICATIONS

JET MIXER:

Dual, high capacity, proprietary design for drawing ambient air into the system and mixing it with the wet oil stream; includes air filter/breather protection.



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- SEPARATION TANK:** Type 300 Series stainless steel, proprietary design which promotes vapor separation from the oil and prevents condensed vapors from re-contaminating the oil; includes plugged low-point drain connection and bolted access door for level controller and tank clean-out.
- WASTE MANAGEMENT:** Oil Mist Eliminator rated at 1 micron installed on the vapor vent to minimize oil mist in the water vapor exhaust.
- INSTRUMENTS:** Pressure gauges located downstream of the inlet pump and downstream of the filter to indicate filter cartridge change pressure, and downstream of the outlet pump with read-outs in PSIG/bar g, all panel-mounted.
- ALARMS:** The high temperature alarm provides local annunciation if a high oil heater temperature is exists. When a high temperature condition is detected the oil heater is de-energized. Operator intervention is required to restart heater operation
- PIPING:** Type 300 Series stainless steel tubing with Swagelok high-pressure compression steel fittings.
- ELECTRICAL:** Meets latest edition of the U.S. National Electrical Code, Class I, Division I, Group C/D (Hazardous Duty) local control panel for disconnect switch, motor start/stop switch, heater control and indication is managed using a type K thermocouple (TE 1)) and a PID control (TIC), heater "on" indicator light, motor starter with thermal overload protection, heater contactor, 110 volt control transformer, fuses, and terminal blocks; wiring in galvanized steel conduit. Controls are IEC rated.
- ACCESSORIES:**
- Inlet oil sight flow indicator
 - 20 mesh Y-strainer for inlet pump protection
 - Inlet sample/air bleed valve
 - Pressure check valve to prevent reservoir draining through the purifier when shut down
 - Mechanical, float-actuated level control valve



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- SUPPLY POWER:** A -460 volt, 60 Hz, 3 phase, 110 volt controls, minimum 20 amp
B -380 volt, 60 Hz, 3 phase, 110 volt controls, minimum 20 amp
D -575 volt, 60 Hz, 3 phase, 110 volt controls, minimum 20 amp
E -380 volt, 50 Hz, 3 phase, 110 volt controls, minimum 20 amp
K -415 volt, 50 Hz, 3 phase, 110 volt controls, minimum 20 amp
- MATERIALS:** Colfax Corporation shall select the materials of construction, including seal materials, for typical oil service. It shall be the responsibility of the purchaser to confirm suitability of these materials. The primary material of construction for oil-wetted parts is Type 300 Series stainless steel except for the pumps. Sealing material is Viton.
- TESTING:** The unit shall be functionally tested for a minimum of two (2) hours to ensure that all components of the system function properly, mechanically and electrically, at the rated flow of 180 gallons per hour (680 l/hr). Definition of all routine shop tests shall be at the sole discretion of and shall be borne by COLFAX.
- CRATING:** The unit shall be suitably crated for shipment according to COLFAX standard domestic or export crating procedure.
- WEIGHT & DIMENSIONS:** Operating weight of the complete system shall be approximately:
- | | |
|--------------------------------|-------------|
| BL & FL - 1,100 lbs. (500 kgs) | 22" x 30" |
| PB - 1500 lbs. (680 kgs) | 32" x 79" |
| TR - 2100 lbs. (950 kgs) | 5' x 8' bed |
- DOCUMENTS:** Included in the price of the unit are one (1) Operating and Maintenance Manual with Process & Instrumentation Diagram, Wiring Diagram, General Assembly drawings, and spare parts recommendations. Other documents shall be available at additional cost.