

AES Group, Inc.

Sales · Construction · Service

- AES-Dekker Laboratory Vacuum System Model AES-VMXVFD0303KA3-40-FS
 - (3) Dekker Titan single stage 20HP liquid ring vacuum pump skids.
 - 100 SCFM @ 20" HG VAC (Each Vacuum Pump)
 - System Components Include:
 - (3) TEFC Electric motors, 230/460 Volt, 3 Phase, Premium Efficiency.
 - (3) Flexible Couplings
 - (3) Patented DX5 Discharge Separator-Reservoirs with 5 Stage Air/Oil Separation, Including Coalescing Filter.
 - (3) Seal Fluid Isolation Valves
 - (3) Y-Strainers
 - (3) Service Liquid Solenoid Valves, 24VDC.
 - (3) Separator Drain Valves
 - (3) Separator Sight Level Gauges
 - (3) Temperature RTD for Discharge Temperature Indication and High Temperature Protection.
 - (3) High/Low Oil Level Switches
 - (3) Air-Cooled, Heat Exchanger Packages with Main Motor Driven Fan and Fan Guard.
 - (3) Inlet Check Valves
 - Inlet Manifold Including:
 - (3) Inlet Isolation Valves
 - (3) Inlet Flex Connectors
 - Manifold Piping
 - Discharge Manifold Including:
 - (3) Individual Pump Drip Legs
 - (3) Discharge Check Valves
 - (3) Discharge Flex Connectors
 - Manifold Piping
 - (3) Sets of Hydraulic Hose Seal Fluid Line.
 - (3) Vacuum Relief Valves
 - Vacuum Receiver
 - (1) Vertical Vacuum Receiver 240 Gallon.
 - (1) Receiver Sight Level Gauge
 - (1) Receiver Drain Valve
 - (1) Receiver Isolation Valve
 - Electrical: Three (3) Simplex VFD Medical NFPA99, 460V, 3-phase, 60Hz, NEMA 4X, UL-Listed Control Panels and three (3) VFD drives to mount external to the control panels.
Each Simplex NEMA 4X Medical control panel includes:
 - (1) - Aluminum NEMA 4X Enclosure
 - (2) - Class CC Fuses/Fuse holders for Incoming 460V Power
 - (1) - 2-Phase 460VAC to 24VDC Power Supply
 - (1) - Door-Mount PLC. HMI with Color Touch Screen
 - (1) - PLC RS-485 MODBUS RTU Port for PLC to VFD Communications
 - (1) - PLC CANbus Port for PLC-to-PLC Communications

- (1) - PLC RS-485 or Ethernet Port for Customer Communications via MODBUS RTU or MODBUS TCP*
 - (2) - Dry Contact, Form-C Relays. One for Lag Alarm and one for All-Alarm (General Fault)
 - (1) - Audible Annunciator for Audible Alarm Notifications
 - (1) - Alarm Silence Button (on PLC/HMI)
 - (1) - Alarm Reset Button (on PLC/HMI)
 - (1) - Individual Alarm Indication (on PLC/HMI)
 - (1) - Alarm Logging (on PLC/HMI)
 - (1) - Pump Run Hour Meter (on PLC/HMI)
 - (1) - Graphical (Current & Historical) Trending of Critical Operating Values (on PLC/HMI)
 - (1) - Graphical Display(s) Detailing System State and Performance (on PLC/HMI)
 - (1) - Logging of Operating Values and Control Input Changes (on PLC/HMI)
 - (1) - Staggered Start to Prevent Combined Inrush Current (When Linked Panels/Multiple Pumps are Used)
 - Lead/Lag Alternation and Pump Runtime Equalization (When Linked Panels/Multiple Pumps are Used)
- * Customer choice of serial or Ethernet (MODBUS RTU or MODBUS TCP)