altronic
HOERBIGER Engine Solutions

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NOTE: The specifications contained herein are not intended as a substitute for established and accepted engineering practices. Further, they are primarily oriented to gas gathering applications and may not be suitable for other applications.

(When filling out this form electronically, save file with either Company or Application Reference and email)

Your Name:
E-mail address:
Company Name:
Phone # :

Application Reference:
Date of Inquiry:
Quote Request Date:
Requested Delivery:
Quantity of Panels:

Prime Mover

Manufacturer:
Model:
Mfr's OEM controls:

Driven Equipment

Process:
Type:
Mfr:
Model:

Local Environment

- ☐ On shore
- ☐ Off-shore (corrosive atmosphere)
- ☐ H_2S gas
- ☐ CO_2 gas

Climate

- ☐ Temperate
- ☐ Tropical
- ☐ Arctic
- ☐ Desert

Technology Selection

- ☐ Digital annunciator
- ☐ DE-3000
- ☐ Exacta 21
- ☐ Allen-Bradley PLC

Hazardous Area Classification

- ☐ Division 2, Class I, Group C & D
- ☐ Division 1, Class I, Group D
- ☐ Group B (H_2 gas)
- ☐ ATEX Zone 2 (Europe)
- ☐ Panel tag - CSA
- ☐ Panel tag - CSA - ATEX - CE
- ☐ Document submittal package
- ☐ Other - specify

Enclosure Type

- ☐ Front and rear access, fixed insert, window
- ☐ Front access, swing insert, window
- ☐ Insert only (retrofit to existing enclosure)

Enclosure Accessories

- ☐ Fold-down table - laptop PC
- ☐ Gland plate - electrical entrances
- ☐ Reverse mount stand w/cover plate
- ☐ Solid front door (delete window)

Enclosure Material

- ☐ Powder coated carbon steel
  - ☐ Custom color :
- ☐ 304 SS
- ☐ 316 SS

Panel Stand

- ☐ None required
- ☐ Req'd height:

Pnuematic Supply Pressure Available

- ☐ Customer shall furnish clean and dry air/gas.
- ☐ Instrument Air PSIG
- ☐ Instrument Gas PSIG
- ☐ Regulated pressure at source
- ☐ Un-regulated pressure at source
- ☐ Add coalescing filter (liquid aerosols removal w/automatic liquid dump)

Pressure Tubing and Fittings

- ☐ 316 SS, std w.t., welded seam (Altronic standard)
- ☐ 316 SS, std w.t., seamless (Int'l, H_2S, CO_2)
- ☐ 316 SS, XH w.t., seamless (high press, H_2S, CO_2)
- ☐ Tube fittings – plated steel, Swagelok
- ☐ Tube fittings – 316 SS, Swagelok
- ☐ Transducer calibration – 3-way valve
- ☐ Transducer calibration – block valve and bleed valve
- ☐ 1/4" tube connections to skid
- ☐ 3/8" tube connections to skid

Engine Ignition Type

- ☐ Waukesha CEC
- ☐ Wauk ESM (IPM ign module)
- ☐ Cat G3300 w/Altronic V
- ☐ Cat G3400 w/Altronic III
- ☐ Cat G3400 w/DIS
- ☐ Cat G3400LE w/EIS
- ☐ Cat G3500 w/ESM (EIS)
- ☐ Cat G3500 w/ECM-AFRC (EIS)
- ☐ Cat G3500 w/ADEM IV (EIS)
- ☐ Cat G3600 w/ESS (EIS)
- ☐ Cat G3600 w/ADEM IV (EIS)
- ☐ Altronic I
- ☐ Altronic II
- ☐ Altronic III
- ☐ Altronic V
- ☐ Altronic CPU-95
- ☐ Altronic CD-200
- ☐ Altronic CPU-2000
- ☐ Altronic CPU-XL

Fuel Valve Type

- ☐ 690040-1 (2", CD pwr)
- ☐ 690050-1 (2", 24V pwr)
- ☐ Cat-ASCO solenoid (24V)
- ☐ Normal solenoid (24V)
- ☐ Other (specify):
- ☐ M5081-FS-B (2", 24V to hold open)
- ☐ M5081-P (2", pressure to open)
- ☐ M5081-B (2", 24V to close)
- ☐ M5081-C (2", CD ignition to close)
- ☐ M2582-B (1", 24V to close)
- ☐ M2582-C (1", CD ignition to close)

Power Available for Control Panel

- ☐ 24VDC
- ☐ 12VDC
- ☐ 115-220VAC
- ☐ CD Ignition, G lead
- ☐ Local utility electrical grid
- ☐ On-site electrical generator
- ☐ Engine driven alternator
- ☐ Solar panel w/batteries

End Device Discrete Signal Type

- ☐ Normally Open (closed contact to ground at end device – single wire system)
- ☐ Normally Closed (fail safe – open contact at end device – 2-wire system)

Speed Input Signal

- ☐ Magnetic pickup (specify # of ring gear teeth or engine model)
- ☐ CD Ignition, G lead (specify engine model and ignition)
- ☐ Stand-alone hourmeter (Altronic DH-100A)
- ☐ Overspeed (set point =)
- ☐ Underspeed (set point =)

Engine Starting Controls

- ☐ Push to crank – manual pneumatic
- ☐ Push to crank – manual electric
- ☐ One-button (DE-3000 or Exacta 21)
- ☐ Remote start-stop (DE-3000 or Exacta 21)
- ☐ Auto start-stop (DE-3000 or Exacta 21)

Compressor Pre-Lube

- ☐ Manual – BY OTHERS
- ☐ Push to lube – pneumatic
- ☐ Annunciator controlled – DD-40NTV
- ☐ Annunciator controlled – DE-3000

Engine Speed Control – Pneumatic

- ☐ Pneumatic – manual – gauge and regulator
- ☐ Pneumatic – manual and auto – gauges, regulator, and selector
- ☐ Automatic – see SET POINT CONTROL below

Engine Pre/Post-Lube

- ☐ Manual - BY OTHERS
- ☐ Push to lube – pneumatic
- ☐ Annunciator controlled – DD-40NTV
- ☐ Annunciator controlled – DE-3000

Engine Speed Control – Electronic Governor

- ☐ Manual Rated speed signal – potentiometer
- ☐ Idle/Rated – mode selector switch
- ☐ Automatic speed signal – see SET POINT CONTROL below

Emergency Stop Control

- ☐ Local – jumbo red button – side of panel
- ☐ Button bump guard
- ☐ Remote – on location – interposing relay in panel
- ☐ Remote – via communications (NTV, DE, or Exacta 21)

Engine Air-Fuel Ratio Control

- ☐ EPC-50 – rich-burn, single bank only
- ☐ EPC-120 – rich-burn, single or dual bank
- ☐ EPC-100E – rich-burn, single/dual bankv extra features
- ☐ EPC-150 – lean-burn, single/dual bank
- ☐ EPC-200 – fuel-admitted engines only

Set Point Controller

- ☐ DSG-1611DUPS – 1-channel, linear output only
- ☐ DSG-1682DUPS – 1-channel, PID loop
- ☐ DE-1500 – 2-channel, PID loop
- ☐ DE-3000 – 2 or 4-channel, PID loop
- ☐ Exacta 21 – 4-channel, PID loop & linear output

Set Point Control

- ☐ Suction pressure
- ☐ Discharge pressure
- ☐ Engine air manifold
- ☐ Other process
- ☐ Output cascade

Output of Controller

- ☐ Engine speed
  - ☐ I/P (3-15psig)
  - ☐ 4-20mA or 1-5VDC
- ☐ Recycle valve
  - ☐ I/P (3-15psig)
  - ☐ 4-20mA
- ☐ Suction throttling valve
  - ☐ I/P (3-15psig)
  - ☐ 4-20mA
- ☐ Rotary screw – turn valve or slide valve
  (Pulsed load-unload power to solenoids)

Process Valve Control

☐ Suction valve	☐ Manual (AMOT valve)	☐ Automatic – Exacta 21
☐ Discharge valve	☐ Manual (AMOT valve)	☐ Automatic – Exacta 21
☐ Blowdown valve	☐ Manual (AMOT valve)	☐ Automatic – Exacta 21
☐ Bypass valve	☐ Manual (AMOT valve)	☐ Automatic – Exacta 21
☐ Purge valve	☐ Manual (AMOT valve)	☐ Automatic – Exacta 21
☐ Compressor unloader device	☐ Manual (AMOT valve)	☐ Automatic – Exacta 21

Communications Requirements

- ☐ Modbus RTU slave – via RS-485 port
- ☐ Modbus RTU slave – via RS-232 port
- ☐ Ethernet to RS-485 adapter
- ☐ Other – please specify

Remote Data Required

- ☐ First-out fault – channel #
- ☐ Unit Status (stop–run)
- ☐ Engine speed
- ☐ Analog process values
  (temperatures and pressures)

Pressures: (Check the appropriate boxes for required shutdowns and fill in operating pressure)

Points	PROCESS PRESSURE	Operating Pressure (psi)	Low S/D – Class A, B, or C	High S/D – Class A, B, or C	Low-High Alarm	2-1/2" set point gauge	4-1/2" Altronic 45PHL	4-1/2" DSG-1611DUPS	DE-3000 display	Exacta 21 display	electronic – transducer	Calibration valve (test-op)	Pulsation dampening valve	Comments
1	Suction – stage 1				☐		☐	☐	☐	☐	☐		☐	☐	☐	
2	Discharge – stage 1				☐		☐	☐	☐	☐	☐		☐	☐	☐	
3	Suction – stage 2				☐		☐	☐	☐	☐	☐		☐	☐	☐	
4	Discharge – stage 2				☐		☐	☐	☐	☐	☐		☐	☐	☐	
5	Suction – stage 3				☐		☐	☐	☐	☐	☐		☐	☐	☐	
6	Discharge – stage 3				☐		☐	☐	☐	☐	☐		☐	☐	☐	
7	Suction – stage 4				☐		☐	☐	☐	☐	☐		☐	☐	☐	
8	Discharge – stage 4				☐		☐	☐	☐	☐	☐		☐	☐	☐	
9	Engine oil				☐		☐	☐	☐	☐	☐		☐	☐	☐	
10	Compressor oil				☐		☐	☐	☐	☐	☐		☐	☐	☐	
11	Engine jacket water				☐		☐	☐	☐	☐	☐		☐	☐	☐	
12	Auxiliary water				☐		☐	☐	☐	☐	☐		☐	☐	☐	
13	Engine air manifold (left bank)				☐		☐	☐	☐	☐	☐		☐	☐	☐	
14	Engine air manifold (right bank)				☐		☐	☐	☐	☐	☐		☐	☐	☐	
15	Differential – engine oil filter				☐		☐	☐	☐	☐	☐		☐	☐	☐	
16	Differential – compressor oil filter				☐		☐	☐	☐	☐	☐		☐	☐	☐	
17																
18																
19																

Temperature Inputs: (Check the appropriate boxes for required shutdowns and fill in operating data)

Points	PROCESS TEMPERATURE	Operating Temp. (specify)	Units (deg F or deg C)	High S/D set point	Thermocouple – J or K	RTD – 3-wire, 100 ohm	Local mounted device	2-1/2" set point gauge	DPYH series pyrometer	DSM series pyrometer	DE-3000 display	Exacta 21 display	Comments
1	Engine jacket water				☐	☐	☐	☐	☐	☐	☐	☐	
2	Engine air manifold – left bank				☐	☐	☐	☐	☐	☐	☐	☐	
3	Engine air manifold – right bank				☐	☐	☐	☐	☐	☐	☐	☐	
4	Engine oil				☐	☐	☐	☐	☐	☐	☐	☐	
5	Auxiliary water				☐	☐	☐	☐	☐	☐	☐	☐	
6	Compressor suction – stage 1				☐	☐	☐	☐	☐	☐	☐	☐	
7	Compressor suction – stage 2				☐	☐	☐	☐	☐	☐	☐	☐	
8	Compressor suction – stage 3				☐	☐	☐	☐	☐	☐	☐	☐	
9	Compressor discharge – cylinder #1				☐	☐	☐	☐	☐	☐	☐	☐	
10	Compressor discharge – cylinder #2				☐	☐	☐	☐	☐	☐	☐	☐	
11	Compressor discharge – cylinder #3				☐	☐	☐	☐	☐	☐	☐	☐	
12	Compressor discharge – cylinder #4				☐	☐	☐	☐	☐	☐	☐	☐	
13	Compressor oil temperature				☐	☐	☐	☐	☐	☐	☐	☐	
14	Engine exhaust – power cylinders				☐	☐	☐	☐	☐	☐	☐	☐	
15	Engine exhaust – common – left bank				☐	☐	☐	☐	☐	☐	☐	☐	
16	Engine exhaust – common – right bank				☐	☐	☐	☐	☐	☐	☐	☐	
17	Engine bearings main				☐	☐	☐	☐	☐	☐	☐	☐	
18													
19													
20													

Discrete Inputs from Dry Contact Closures: (Check the appropriate boxes for required shutdowns)

Points	DISCRETE INPUTS	Shutdown	Alarm	Class A, B, or C	Comments
1	Low level – engine jacket water	☐	☐	text	
2	Low level – auxiliary water	☐	☐		
3	Low level – engine oil	☐	☐		
4	Low level – compressor oil	☐	☐		
5	Low level – scrubber – stage 1	☐	☐		
6	Low level – scrubber – stage 2	☐	☐		
7	Low level – scrubber – stage 3	☐	☐		
8	High level – scrubber – stage 1	☐	☐		
9	High level – scrubber – stage 2	☐	☐		
10	High level – scrubber – stage 3	☐	☐		
11	High level – scrubber – fuel	☐	☐		
12	High vibration – engine	☐	☐		
13	High vibration – compressor	☐	☐		
14	High vibration – cooler fan #1	☐	☐		
15	High vibration – cooler fan #2	☐	☐		
16	High vibration – from VSM instrument	☐	☐		
17	Detonation – engine – DET-1600 instr.	☐	☐		
18	No flow – cmprs lube monitor – left	☐	☐		
19	No flow – cmprs lube monitor – right	☐	☐		
20	Governor fault – from GOV-10	☐	☐		
21	Ignition fault – from CPU-95/2000	☐	☐		
22	Caterpillar ADEM III shutdown	☐	☐		
23	Waukesha ESM shutdown	☐	☐		
24	Emergency stop – local	☐	☐		
25	Emergency stop – remote	☐	☐		
26	Gas detection – LEL	☐	☐		
27	Fire eye	☐	☐		
28	High level – station filter-separator	☐	☐		
29					
30					
31					

Control/Other Requirements not listed on this form:

List any specific requirements, "Sequence of Operation", or control philosophy.
List any auxiliary equipment or functions needed in control system.