



Bay 8, 1820 – 30th Avenue NE
Calgary, Alberta T2E 7M5
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CV20 Engine Driven Vane VRU Compressor Specifications

Compressor

➤ Type	Dry Vane Compressor
➤ Model	Ro-Flo 4CCB (formerly AC)
➤ Suction P	3-5 kPag
➤ Discharge P	230 kPag
➤ Drive	Direct by driveshaft from Engine
➤ Power	10 HP at 1.4 Se3M3 / day
➤ Max Flow	1.8 Se3m ³ / day
➤ Inlet Temp	51C°
➤ Case Cooling	Heat exchanger

Driver

➤ Type	Natural gas fueled
➤ Model	GM 3000
➤ Usable horsepower	20 HP @ 1800 rpm available to compressor
➤ Cylinders	4
➤ Displacement	180 cubic inch
➤ Compression ratio	9.25
➤ Aspiration	Natural
➤ Ignition	Electronic distributor
➤ Radiator	Finned tube
➤ Oil level maintainer	Murphy LM 2000
➤ Oil conditioning system	Luberfiner
➤ Oil day tank	3 gallons
➤ Coolant day tank	1 gallons
➤ Fuel gas scrubber	Parker 20 micron coalescing filter
➤ Silencer	Mac - whisper quiet operation
➤ Governor	Woodward electronic
➤ Gas Composition	We have examined the gas composition. The power of the driver has been derated based on the high CO2 content.

Drive System

- Driveshaft Driveshaft from flywheel to Compressor input shaft

Gas Cooling System

- After Cooler Type Bar and Plate After Cooler
- Model Global CX16
- Rating 245 psi @ 400 °F
- CRN AB, BC, SK
- Discharge Temp 10C above ambient
- Pre Cooler type Finned Tube

Capacity Control

- Turn Down 100%
- Low pressure recycle 0.0– 1.8 Se³m³ / day
- Manual Engine Speed control 0.6 – 1.8 S e³m³ / day

Controls and Instrumentation

Shutdowns

- Low suction pressure (2”H₂O)
- High compressor discharge temperature
- High scrubber fluid level
- Low compressor lube oil level
- Low engine oil pressure
- Low engine oil level
- High engine coolant temperature
- ESD
- Gas Detection Micro Watt Millennium Basic

Indicators

- Annunciator - Murphy TTDJ
- Engine rpm
- Hour meter
- Engine oil pressure
- Engine fuel pressure
- Suction pressure
- Discharge pressure
- Compressor discharge temperature
- Scrubber level
- Engine oil level
- Engine oil day tank level
- Engine glycol level
- Fuel gas filter level
- Engine vacuum pressure
- Engine glycol temperature

Inlet/Outlet

- Inlet flange 2" npt
- Outlet flange 1" npt
- Inlet valve Mara 2" FP ball valve
- Discharge check Balon 1" swing

Scrubber And Water Disposal

- Inlet scrubber 16" diameter, Vertical cw mesh pad
- Corrosion allowance 1/8"
- Sight glass Glass 10" viewing length
- Level control Kenco 106 pneumatic
- Pump NG powered 1/2" Diaphragm Wilden PX1
- Discharge Scrubber 10" dia Vertical
- Design Code ASME SectVIII CRN AB, BC, SK
- Auto Drain

Piping

- Process piping SA-106B threaded piping
- Other piping SA-106B threaded spools
- Flare header Header for PSV's, and auto blow down

All process valves accessible from access doors for easy adjustment, service & replacement

All process valves unioned or flanged for easy replacement

Enclosure

- Dimensions Length 10', width 56", height 51"
- Floor Drip tray c/w drains
- Service doors 2 - engine, 2 - compressor – gas strut balanced, locking
- Cooling Air Intake Standard Bug Screens and Winter front Accessories
- Roof vents Built-in roof vents for cooling and ventilation
- Finish Powder coat
- Sound proofing & Insulation Frequency specific open flexible polyester polyurethane foam c/w metallized, polyester film, 2" thick, 250-500 HZ

Trailer

- | | |
|------------------------|--|
| ➤ Portability | Towable by ½ ton pickup |
| ➤ Dimensions | Deck 10' x 56", overall 13'2" x 6'5" |
| ➤ Tongue weight | 400 lbs |
| ➤ Axle rating | 6000 lbs |
| ➤ Tires | Goodyear ST225/75 R15D |
| ➤ Leveling | 4 leveling posts |
| ➤ Trailer jack | Tongue |
| ➤ Trailer brakes | Electric |
| ➤ Weight | 3000 lbs |
| ➤ Sub Floor Insulation | R15 |
| ➤ Construction | Rectangular HSS tube cruciform (resists flexing while moving, eliminates tendency of screwed piping to loosen) |

Miscellaneous

- All inspection and fill points accessible from outside
- Easy access to all service points
- Designed to be readily moved and or replaced for major overhauls or servicing
- All service points reachable at ground level
- All fluid level indicators easily viewable from outside
- Heaters, Scottcan natural gas heaters, One 12" x 24" 12000 BTU/Hr, One 12" x 12" 6000 BTU/Hr

Compliance

- Power and process in separate compartments, process Class I, Div II, power GP
- CSA or Intertek approved
- Fugitive emission study

Options

- Compartment temperature control via temperature control of dampers
- Fire Loop