

# SPECIFICATIONS

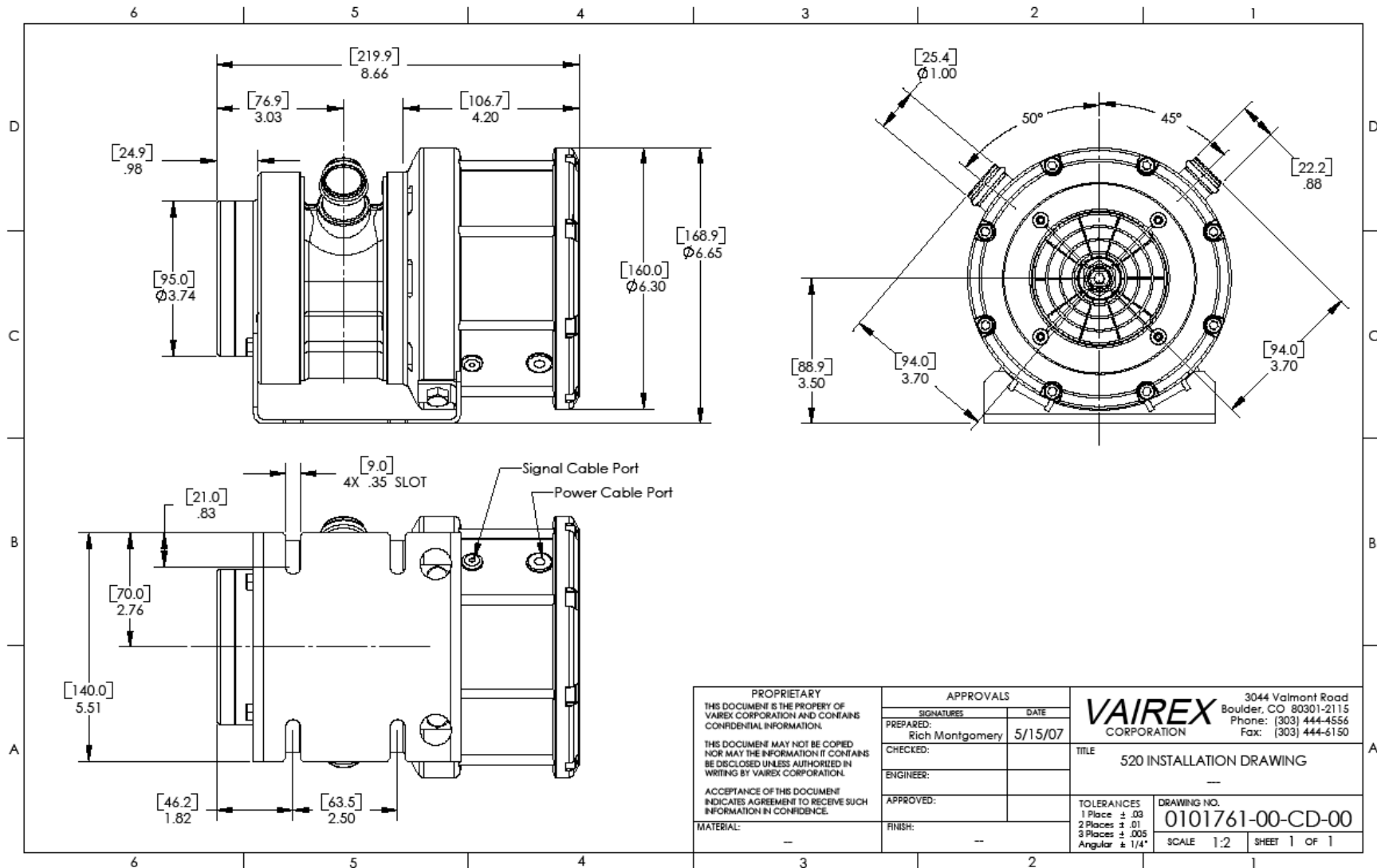
## Description:

The Model VV-0520.08 INT Air Delivery System incorporates *VAIREX* proprietary dry-vane technology. The Air Delivery System consists of a *VAIREX* vane pump, integrated brushless dc motor, motor speed controller, inlet air filter with replaceable paper element, and inlet noise suppressor.

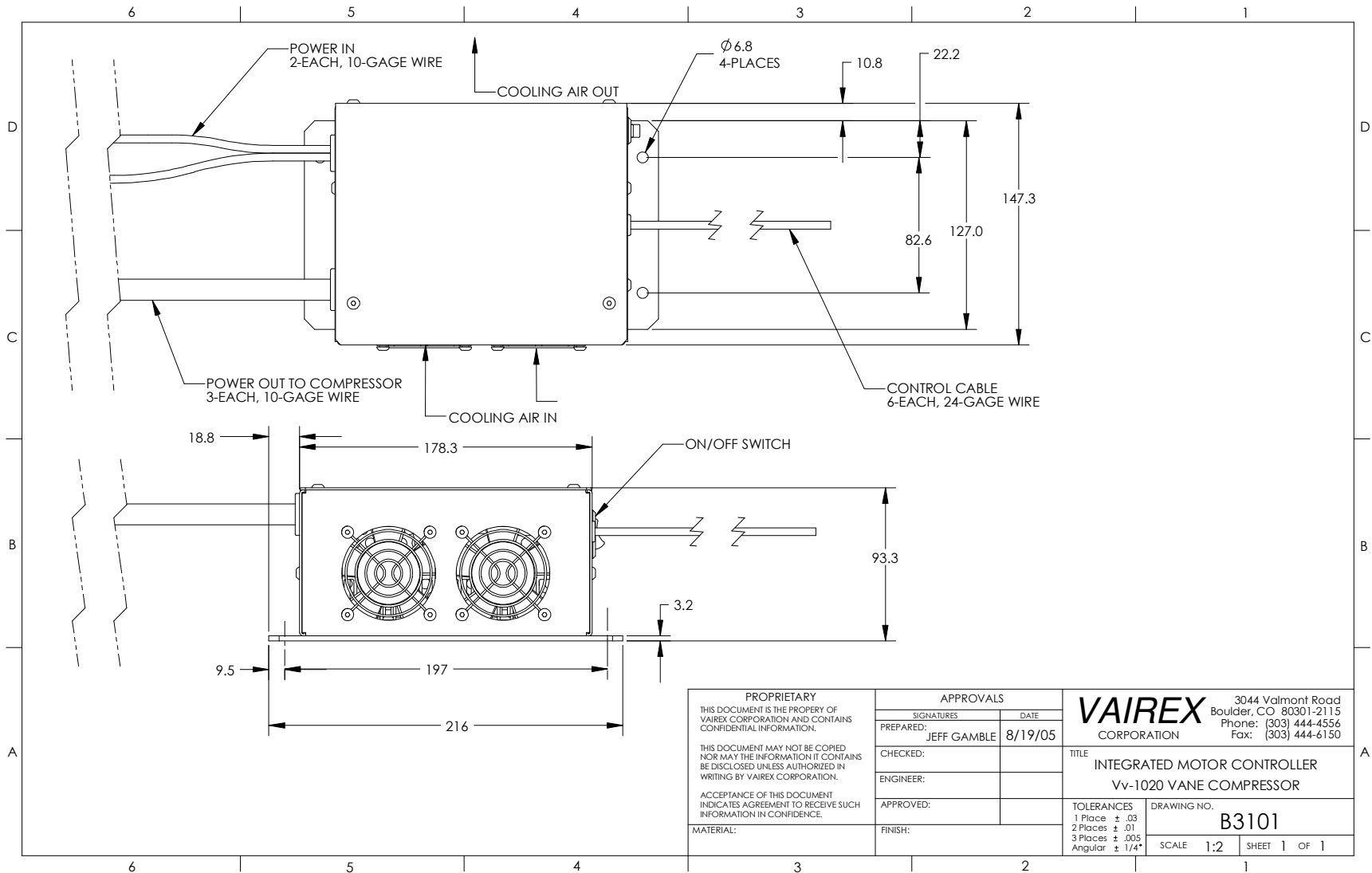
<u>Specifications</u>				
System type: <i>VAIREX</i> model VV-0520.08 INT dry, fixed vane				
Outputs: 1) pressurized air.				
<u>Output ratings</u>	<u>Min</u>	<u>Max</u>	<u>Peak <sup>(1)</sup></u>	<u>Units</u>
Output 1, Pressure <sup>(2)</sup>	1.1	2.0 (@5g/s)	2.2	ratio
Output 1 Mass Flow <sup>(3)</sup>	0.2	10 (@1.1 P/p)	12	grams/sec
Noise, Acoustic <sup>(12)</sup>		<80		dB A
Output temperature delta	0	90		°C
Compressor Speed <sup>(4)</sup>	0	4500	5000	RPM
Motor Speed <sup>(4)</sup>	0	4000	4500	RPM
<u>Inputs</u>				
Control voltage <sup>(5)</sup>	0	5		Volts DC
Atmospheric Air <sup>(6)</sup>				
Inlet pressure range	80	110		kPa absolute
Inlet temperature	0	40		°C
Inlet humidity <sup>(7)</sup>	0	100		% R.H.
Voltage range <sup>(11)</sup>	20	56	60	Volts DC
Current range <sup>(8)</sup>	0	42	45	Amps
<u>Precision</u>				
Speed control precision	2.5	2.5		+/- %
<u>System Parameters</u>				
Total power consumption	0	1200 <sup>(9)</sup>	2000	watts
Total volume (Pump/Motor)		4.7		liters
Total volume (Controller)		2.5		liters
Total weight (Pump/Motor)		9.6		kg
Total weight (Controller)		1.6		kg
<u>Maintenance interval</u>				
	500	1000		Hours <sup>(10)</sup>

**Notes:**

- 1) Air Delivery System is limited in peak parameters for 30 seconds operation, not more than once per hour.
- 2) The output shall be capable of achieving a pressure ratio of the specified value. Pressure from the air delivery system shall be controlled by the downstream backpressure provided by the customer's device. Peak output pressure shall be limited to 110% of maximum operating pressure.
- 3) Flows at output 1 are standardized for 25 °C inlet temperature, 100 kPa inlet pressure.
- 4) Compressor speed may be limited by max motor speed.
- 5) 0.0 – 5.0 volts analog input.
- 6) Ambient supply of air shall be free of particulate matter greater than 20 microns in size.
- 7) Non-condensing. No un-evaporated water (liquid) may be injected or otherwise introduced into the pump inlet.
- 8) Max operational line amperage is contingent on applied voltage (i.e. @ 20 volts I<sub>max</sub> ~42 amps (max current), @ 48 volts I<sub>max</sub> ~25 amps (max power))
- 9) Max operating power is contingent on applied voltage (i.e. @ 24 volts I<sub>max</sub> ~37.5 amps = 900 Watts, @ 48 volts I<sub>max</sub> ~25 amps = 1200 Watts)
- 10) Duration at 100% Duty Cycle (2500 rpm, 2.0 pressure ratio).
- 11) Other Voltage Ranges and Control Input formats available on request.
- 12) With inlet and outlet noise suppression.



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	SIGNATURES	DATE	<b>VAIREX</b> CORPORATION  TITLE 520 INSTALLATION DRAWING  DRAWING NO. <b>0101761-00-CD-00</b>  TOLERANCES 1 Place ± .03 2 Places ± .01 3 Places ± .005 Angular ± 1/4°	
	PREPARED: Rich Montgomery	5/15/07		
	CHECKED:			
ENGINEER:		SCALE 1:2	SHEET 1 OF 1	
APPROVED:				
FINISH:	--			



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	SIGNATURES	DATE	
	PREPARED: JEFF GAMBLE	8/19/05	
	CHECKED:		
ENGINEER:		TITLE	<p>INTEGRATED MOTOR CONTROLLER Vv-1020 VANE COMPRESSOR</p>
APPROVED:		TOLERANCES	
FINISH:		1 Place ± .03 2 Places ± .01 3 Places ± .005 Angular ± 1/4°	DRAWING NO.
			<b>B3101</b>
			SCALE 1:2 SHEET 1 OF 1