

MATTEI ROTARY VANE AIR COMPRESSOR DATA SHEET - VARIABLE FREQUENCY DRIVE

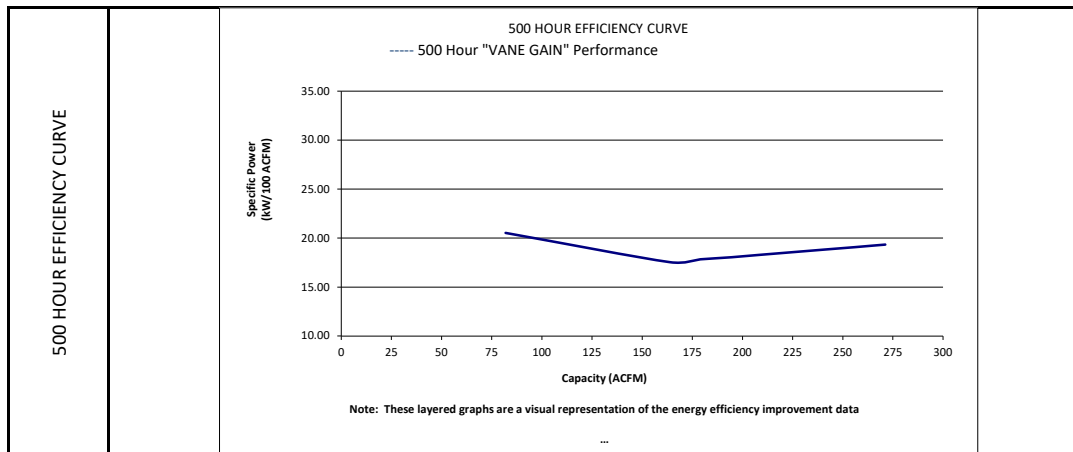
Model Number:	RVD 45i @500h			Date:	20-Nov-2023
Cooling Media:	Air-cooled ☒	Water-cooled ☐	Oil Injection ☒		
Inlet Control Scheme:	Load/No Load ☐	Modulation ☐	Inverter ☒		
Starting System:	Full Voltage ☐	Star-Delta ☐	Soft-Start ☒		

PERFORMANCE SPECIFICATIONS: SPEED, POWER, PRESSURE

Compression Module Rotational Speed	900 ÷ 1800	rpm
Nominal Drive Motor Rotational Speed	900 ÷ 1800	rpm
Drive Motor Nominal Rating	60	hp
Drive Motor Nominal Efficiency	95.0	percent
Maximum Working Pressure	145	psig ^c
Rated Operating Pressure	116	psig ^b
Fan Motor Nominal Rating (if applicable)	2.18	hp
Fan Motor Nominal Efficiency	N/A	percent

"VANE GAIN" SUSTAINABLE IMPROVEMENT PERFORMANCE (500 Hours)

500 HOUR EFFICIENCY	Input Power (kW)	Inverter Range ^e	Capacity (acfm) ^{a,d}	Isentropic Efficiency ^f	Specific Power (kW/100 acfm) ^d
	52.43	Max	271.2	74.61	19.33
	48.83		256.0	75.62	19.07
	41.83		225.3	77.69	18.57
	35.12		194.6	79.93	18.05
	31.91		179.0	80.92	17.83
	28.75	Min	163.9	82.23	17.54
	16.83	Reduced Capacity Performance ^g	82.0	70.26	20.53
	Total Package Input Power at Zero Flow ^{c,d}		4.90		kW



NOTES:

- Measured at the discharge terminal point of the compressor package in accordance with ISO 1217, Annex E; ACFM is actual cubic feet per minute at inlet conditions.
- The operating pressure at which the Capacity and Electrical Consumption were measured for this data sheet. No Load Power. In accordance with ISO 1217, Annex E, if measurement of no load power equals less than 1%, manufacturer may state "not significant" or "0" on the test report.
- Tolerance is specified in ISO 1217, Annex E, as shown in table below:
- NOTE: The terms "power" and "energy" are synonymous for purposes of this document.
- Superior energy efficiency at flows below Min Capacity in leveraging Load/No load operation and air system storage.
- Isentropic Efficiency: real performance at flow and pressure as a percent compared to an ideal compression process.
- Performance at reduced capacity is akin to typical inverter controlled rotary screw compressors at 20-25% speed.

