

# V - SERIES

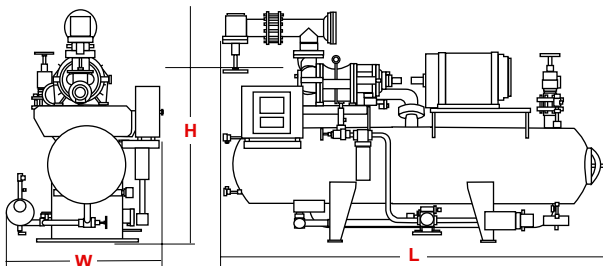
SCREW COMPRESSOR PACKAGES

**MYCOM**



**MAYEKAWA**

## ■ SPECIFICATIONS



| MODEL#   | CFM Dspl. | R-717 (See NOTE 1) |           | DIMENSIONS |     |    | WEIGHT |
|----------|-----------|--------------------|-----------|------------|-----|----|--------|
|          |           | Cap-TR             | Power-BHP | L          | H   | W  |        |
| 160 VSD  | 294       | 109                | 122       | 121        | 74  | 44 | 4300   |
| 160 VMD  | 367       | 136                | 147       | 122        | 74  | 44 | 4500   |
| 160 VLD  | 441       | 164                | 174       | 124        | 74  | 44 | 4800   |
| 200 VSD  | 574       | 216                | 236       | 141        | 83  | 52 | 6700   |
| 200 VMD  | 718       | 272                | 287       | 143        | 83  | 52 | 6900   |
| 200 VLD  | 859       | 328                | 340       | 151        | 90  | 57 | 8300   |
| 250 VSD  | 1120      | 426                | 446       | 159        | 98  | 59 | 10500  |
| 250 VMD  | 1400      | 538                | 551       | 184        | 107 | 65 | 14400  |
| 250 VLD  | 1670      | 643                | 658       | 190        | 107 | 65 | 15200  |
| 250 VLLD | 1980      | 762                | 779       | 199        | 110 | 65 | 16200  |
| 320 VSD  | 2250      | 862                | 899       | 206        | 124 | 72 | 20200  |
| 320 VMD  | 2800      | 1075               | 1111      | 226        | 127 | 79 | 25600  |
| 320 VLD  | 3350      | 1291               | 1303      | 226        | 127 | 79 | 27300  |
| 400 SUD  | 4590      |                    |           |            |     |    |        |
| 400 MUD  | 5700      |                    |           |            |     |    |        |
| 400 LUD  | 6890      |                    |           |            |     |    |        |
| 400 LLUD | 8120      |                    |           |            |     |    |        |

PLEASE CONSULT YOUR NEAREST MYCOM OFFICE.

## ■ OPTIONS

### REFRIGERANTS

- Halocarbon refrigerant applications

### ECONOMIZER

- Shell and tube economizer including all controls.
- Economizer or Side Load control valve station with back pressure regulator.

### OIL FILTERS

- Dual oil filters and pumps

### OIL CHARGING

- Mycom synthetic lubricant MYCOLD AB-68.
- Oil charge valve with 20 mesh strainer.

### OIL COOLER

- PHE oil cooler
- Stainless steel tubes in oil cooler
- Air cooled oil cooler
- Glycol oil cooling system

### OIL SEPARATOR

- Vertical oil separator
- 350 Psig DWP oil separator
- Short length unit for trailer mounting

### ARRANGEMENT

- Low temperature suction valve train (below -50°F)
- Dual screw compressor arrangement
- Remote control panel
- PLC control panel

## ■ V SERIES COMPRESSOR FEATURES

### RANGE

Models from 160mm (249 CFM) to 400mm (8120 CFM)

### HOUSING

Low porosity Cast Iron, ANSI/ASHRAE STD. 15, hydraulically tested at 470 Psig after assembly

### BEARING

Radial bearings are steel backed babbitted sleeve type. Thrust bearings are angular contact ball bearings with oversized balanced piston.

### ROTOR PROFILE

Mycom "O" profile reduces the rotor interlobe gas blow-by and improves sealing oil film on rotor surface by use of a circular arc profile rather than the conventional sealing edge.

### VARIABLE V<sub>i</sub>

The internal volume ratio (V<sub>i</sub>) may be manually adjusted from 2.6 to 5.8 (2.2 to 5.0 as an option) to provide the lowest power consumption for any given application.

### CAPACITY CONTROL

A hydraulically operated slide valve regulates the compressor capacity from 30% to 100% of full load with improved part load performance.

## ■ V SERIES UNIT FEATURES

### LUBRICATION SYSTEM

Force feed lube system with a full time pump for bearing lubrication and capacity control actuation. Oil injection for cooling and sealing is accomplished without the use of the oil pump, except for low pressure differential conditions.

### OIL SEPARATOR

Horizontal, three stage oil separation system with serviceable coalescing type elements in the final stage. Designed, fabricated and tested to ASME Sct. VIII for 300 Psig DWP. Each unit is supplied with ASME pressure relief valves rated per ANSI/ASHRAE 15.

### OIL PUMP

Mycom double helical, direct drive, screw oil pump with integral pressure regulator for reliable, efficient and quiet operation.

### Notes:

1. Rating basis: R-717, 3550 RPM, thermosiphon oil cooling, +20 F (-6.7 C) evaporating temperature, 95 F (35 C) condensing temperature, 10 F (5.5 C) liquid subcooling and 0 F suction superheat. 0 Psi pressure drop, without use of the economizer port.
2. Physical data based on oil separator, suction valve train and discharge valve train designed for operation at -50 F < T<sub>evap</sub> < +20 F and 85 F < T<sub>cond</sub> < 105 F
3. Each compressor is available with a shorter rotor (89%) to meet with smaller capacity and less breaker horse power. The model becomes a V\*DS which will have a capacity of 89% of a standard compressor in the same frame size. \*Consult factory with specific rating.
4. Consult factory for liquid injection ratings and dimensions
5. All information is subject to change until final unit design is completed for a given application and specs.

### OIL FILTRATION

The filter prior to the oil pump is a cleanable, 300 mesh, stainless steel strainer. The pumped oil filter protecting the compressor bearings is a 20 micron replaceable cartridge filter.

### OIL COOLING

Three methods are available as standard: thermosiphon, water cooled and liquid injection. Other cooling methods are available as an option.

### OIL TEMPERATURE CONTROL

Thermosiphon and water cooled units include a self actuated oil temperature control valve. Liquid injection units include an electric control valve actuated by the Mycom MYPRO CP-IV panel to control discharge temperature across the entire operating range.

### SUCTION STRAINER

100 MESH, 3 layer design for protection against collapsing, self cleaning, cone type.

### CONTROL PANEL

Mycom MYPRO CP-IV, NEMA 4, UL listed control panel with graphical color display, user friendly keypad and RS-485 communication port for use with MODBUS ASCII or RTU protocol.

### ECONOMIZER

Factory mounted economizer with all controls or just the economizer control valve station are available options.

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