



## MAINTENANCE INSTRUCTIONS

### RVP12-RVP110

### DRY SCREW VACUUM PUMPS

#### 1.1 Introduction

- 1.1.1 These instructions offer tips about the proper care and maintenance to ensure the best performance and longest life for your RVP rotary vane pump.
- 1.1.2 Please refer to the full Installation and Operation manual included with your pump for more information.

#### 1.2 Oil

- 1.2.1 Oil Level should be between the upper and lower level lines on the sight glass when the pump is running.
- 1.2.2 Oil should be mostly clear and transparent. The oil will appear foamy while the pump is in operation. Oil that looks dark or dirty should be changed. If the pump is continuously operated with contaminated oil, the performance of the pump will be decreased, and the pump life will be shortened.
- 1.2.3 Change the oil regularly, at least monthly. Severe-duty (high-gas loads, high temperature operation, volatile or condensable process liquids/vapors) use requires more frequent oil changes.
- 1.2.4 For best results with pump performance and longevity, oil should be changed as soon as it starts to become discolored from new condition.
- 1.2.5 If the oil is severely contaminated, fill with fresh oil and run the pump for 30 minutes under no load to clean the pump interior. Drain the oil and then repeat this operation as required, depending on the degree of oil contamination. Note: Flushing fluid is available as an economical alternative to reduce the amount of oil needed, please contact Highvac for more information.
- 1.2.6 Do not run the pump with low oil levels. Do not overfill the oil reservoirs.
- 1.2.7 Continuous operation at high pressures will cause excessive oil loss as oil vapor exits through the exhaust port. The oil level should be checked very frequently under these operating conditions.

#### 1.3 Inlet Screen

- 1.3.1 Check the condition of the inlet screen at each oil change.
- 1.3.2 Clean the inlet screen as needed. Replace if it can't be cleaned.
- 1.3.3 A clogged inlet screen will reduce the performance of the pump and may shorten the pump life.

#### 1.4 Exterior Cleaning

- 1.4.1 The vent slots in the pump body should be kept clean and free of obstructions to prevent overheating of the pump.
- 1.4.2 The motor fan cover should always be installed and kept clean to ensure proper and

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efficient cooling for the motor.

## 1.5 Troubleshooting

- 1.5.1 The pump will not start or is overramping
  - a. *Does the motor click or hum when power is turned on?*
    - i. *The pump is most likely seized (See section 3)*
  - b. *The motor makes no noise when power is turned on.*
    - i. *Verify the breaker is turned on and power is being supplied to the pump.*
- 1.5.2 Pump turns on, but operates poorly (Low RPM, Sluggish to start, bad vacuum)
  - a. *Check exhaust for blockage.*
  - b. *Make sure the pump has the correct voltage going to it.*
  - c. *Pump has bad vacuum.*
    - i. *Isolate the pump with a vacuum gauge on the inlet.*
    - ii. *If base pressure is reached then leak check fore line and chamber.*
    - iii. *Give the pump burps of air from atmosphere by placing your hand over the inlet of the pump turn it on and quickly remove your hand put it back on the pump a few times. Then stop the pump, and recheck with a vacuum gauge.*
- 1.5.3 Pump is seized
  - a. *Pour ½ cup of warm oil in the inlet wait a minute and bump the on off switch a few times*
  - b. *Try warming up the pump with a space heater and bump the on/off switch a few times trying not to make the breaker trip.*
  - c. *If you can get the pump unseized and starts working again. Then change the oil and start back up. Make sure to increase the time before oil changes.*
  - d. *If you cannot get it unseized then call Highvac and make sure to increase the frequency in the future of oil changes.*