# Best Practices for Vacuum Pump Operation



# IT IS CRITICAL TO OBSERVE PROPER SHUT DOWN PROCEDURE TO AVOID THE POTENTIAL OF SYSTEM CONTAMINATION, LOSS OF VACUUM OR DAMAGE TO THE PUMP DUE TO LOW OIL START UP

Make sure the vacuum pump is in good, safe working order prior to starting the job.

Verify the oil level in the pump and that the oil is not contaminated. The oil acts as a filter and will take on contaminants if used to evacuate a dirty or wet system. Contaminated oil will not perform properly. A good micron gauge is required to achieve a good evacuation.

Don't hook up to a system with residual pressure or ever use a vacuum pump to recover or transfer material.

## **START UP**

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- Verify the oil level in the pump and that the oil is not contaminated. The oil acts as a filter and will take on contaminants if used to evacuate a dirty or wet system. Contaminated oil will not perform properly.
- A good micron gauge is required to achieve a good evacuation.
- Don't hook up to a system with residual pressure or ever use a vacuum pump to recover or transfer material.

#### **HOOK UP**

- Always try to connect the pump as closely to the system and with the largest I.D. hose as possible. Use a suitable shut off valve at or near the pump even if servicing through a manifold.
- Use a core removal tool if possible.
- Always connect the micron gauge to the part of the system where you need the desired vacuum level always on the system and not on the pump.

#### PROPER VACUUM PUMP SHUT DOWN

• IT IS CRITICAL TO OBSERVE PROPER SHUT DOWN PROCEDURE TO AVOID THE POTEN-TIAL OF SYSTEM CONTAMINATION, LOSS OF VACUUM OR DAMAGE TO THE PUMP DUE TO LOW OIL.

- AFTER THE EVACUATION IS ACHIEVED, ISOLATE THE SYSTEM AT YOUR MANIFOLD THEN PERFORM THE FOLLOWING SHUT DOWN IN ORDER:
  - 1. DO NOT SHUT THE PUMP OFF UNDER VACUUM
  - 2. ENSURE THE VACUUM PUMP IS ISOLATED FROM THE SYSTEM
  - 3. BREAK THE VACUUM AT THE PUMP BY LOOSENING THE HOSE CONNECTOR – PUMP WILL CHANGE SOUND AS VACUUM IS BROKEN
  - 4. SHUT THE PUMP OFF AFTER 3-5 SECONDS AND DISCONNECT IT FROM THE SYSTEM
  - 5. CONTINUE WITH SERVICE



Micron sensor close coupled to system

Core removal tool:

P/N 18975 - 1/4" P/N 18985 - 5/16"



Figure 2

## VACUUM PUMP SHUT DOWN PROCEDURE



1. Isolate the vacuum pump by closing the valve.



2. Break the vacuum at the pump by loosening the hose connector - the pump will change sound as the vacuum is broken.



3. Shut the pump off after 3 - 5 seconds and disconnect it from the system.

Phone: (800)769-8370 or (952)943-1333 e-mail: custserv@yellowjacket.com www.yellowjacket.com



Ritchie Engineering Co., Inc. YELLOW JACKET Products Division 10950 Hampshire Avenue South Bloomington, MN 55438-2623 USA

Isolation ball valve:

P/N 93843 - 1/4" P/N 93827 - 5/16" P/N 93846 - 3/8"