



PRECISION MAINTENANCE SKILLS 3

PUMPS | SEALS OPERATIONS
TROUBLESHOOTING
PRECISION REPAIR

(3 Days)

Pump Hydraulics, Mechanical Seals, Troubleshooting & Operations/Installation

COURSE DESCRIPTION

Our nationally renowned pump & seal instructor, with years of field, expertise, field troubleshooting (for some of the largest pump and seal companies in the world), will reveal essential maintenance and troubleshooting techniques that have either been overlooked or never taught in the first place.

In our years of applying precision maintenance techniques along with this course to pumps, we have learned to EXPECT pumps and seals to run trouble free without the replacement of expensive mechanical seals or bearings, until such time as the impeller, casing, or wear rings wear out and “pump won’t pump.” This is a direct result of improved pump performance and extended MTBF brought about by craft mechanics that have learned how to –

“Do it Once, Do it Right!”

Our course is aided greatly using a large (6 ft. tall) portable pump/hydraulic training simulator, complete with clear tanks, valves, piping, and a running Goulds pump with a clear casing for dynamic demonstration. It has as many gauges as a small aircraft and even has “shaft movement” visibility (using a strobe light) at different operating conditions. Student will “see” the effects of improper pump operation and learn how to avoid inducing parasitic defects back into the system only to cause increased downtime and rework.

Precision Maintenance Skills 3 uses additional training aids such as:

- A cut-away pump
- Hydraulic simulator
- Real pump parts
- 800# pipe strain simulator
- Seals
- Real casings & impellers.

Using these aids we take the students through the fine details of correct and precise pump rebuilds, repairs, impeller adjustments, bearings, packings, and mechanical seals. We demonstrate one common repair that can save thousands \$\$ in unnecessary thrown away pump parts each year.

Upon completion of this course, participants will know how to operate & troubleshoot pumps. Even more importantly, they will understand how pumps should run trouble free for 100,000 hours instead of the 10,000 to 30,000 hrs. and driving up repetitive maintenance costs.

TOPICS COVERED

- Opening and closing various valves to create real life in field and plant conditions.
- Troubleshooting & corrections to operate pumps on their pump curve.
- De-“mystifying” Pump Curves so the average mechanic/supervisor can troubleshoot.
- Proper starting and stopping procedures with proper flows.
- Troubleshoot and correct common field problems that most people “guess wrong.”
- Packing, sealing, and gland water issues corrected.
- Vibration issues understood and solved.
- Water hammer issues.
- Other common pump problems and solutions.
- Vital Rebuild/Repair Techniques.



(888) 233-9777

info@HendrixPM.com

www.HendrixPrecisionMaintenance.com

Pump Hydraulics, Operations, Troubleshooting, Sealing and Repair for Operations & Maintenance Supervision, Crafts and Engineers



As outstanding maintenance craftsman, supervisor and troubleshooter, Charlie Beale said after his first Hendrix pump class: **“I’ve been maintaining pumps for 40 years and I just learned more in the last 2 days than my entire career.”**

