

Hands-On Centrifugal Pump Maintenance School

Who would benefit from this course?

This one-day course is designed for maintenance personnel who are responsible for repair and troubleshooting of ANSI centrifugal pumps and mechanical seals.

What are the objectives of the course?

Participants in this course will learn to:

- Disassemble and reassemble a Gould's 3196 ANSI Process Pump.
- Identify proper settings of mechanical seals, bearings, impellers, shafts, sleeves, and O-rings.
- Identify mechanical seal failure and conduct a root cause analysis.
- See the maintenance advantages of cartridge vs. component seals.
- Analyze impeller and casing wear patterns and provide likely causes.
- Troubleshoot causes of premature bearing failure.
- Know the differences and benefits of labyrinth vs. lip seal designs
- Use precision tools for checking bearing fits, shaft run outs and concentricity.

Course Setting

There will be a (30) minute overview on the basic components of a centrifugal pump and it's function. This will be done in a classroom / shop environment. There will be (8) pump stations with (2) students assigned to each station for maximum hands-on learning. Class will therefore be limited to (16) students.

Total time for the course is (8) hours plus a one-hour lunch. Country breakfast and lunch will be provided.

Instructors

John Peacock, Manager of Pump Service, R.F. MacDonald Co.

Pete Barnhart, Senior Sales Engineer/Branch Manager, John Crane Mechanical Seals