

**CRYSTEEL MFG. INC. HYCO CYLINDER
TROUBLE SHOOTING GUIDE (CYLINDER LEAKS EXTERNALLY)**

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This document describes the steps to take to diagnose a warranty problem if the customer says that the cylinder leaks externally.

What to do if the customer says: *The cylinder leaks externally*

- The first thing to determine is where the leak is originating.
- Check the cylinder ports and fittings. There could be a leak due to a loose fitting. Tighten if necessary.
- Check the air bleed valve, if the cylinder is equipped with one. Tighten the valve cap to make sure the valve is fully closed. If oil is leaking from around the base of the valve, tighten the valve body to seal off the NPTF threads. Care should be taken not to over tighten the valve, causing the valve body to break off.
- Check each sleeve stage for oil leaking from under the wiper. If this is the case, the main oil seal has somehow been damaged or the stage has been over-pressurized. There is no adjustment possible.
 1. Look at the sleeve surfaces to determine if there are any scratches or dents that may have damaged the internal oil seal. Determining the condition of the sleeve surfaces will help decide if the cylinder can be repaired or needs to be replaced.
 2. Check to see what pressure rating the system is running at. The system pressure may be or was too high and caused the cylinder to swell in the seal area. The swelled area will be too large for the main seal to seal off. The cylinder will have to be replaced.
- Check any cylinder welds for oil leakage. If there are any leaking welds, replace the cylinder.