

Safety Bulletin 01/13/10

Poly-Flow notified Ultra owners of two instances of Ultra tools catching fire during 2008. As communicated in our Product Safety Notice, we worked closely with internal and external experts to determine the root cause of these fires. Through these efforts we discovered that multiple failures occurred simultaneously, and we have been able to identify the root cause and identify root cause fixes for the Ultra tools.

Root Cause Findings:

- A Failure of a three phase solid state relay powering the water heater.
- Overheating of a 480V water heater.
- Failure of over-temperature thermocouple.
- Operator error. Some alarms were disregarded and some preventative maintenance and inspections were not completed, or if they were completed there was no record confirming the maintenance and inspections had occurred.

Following the root cause determination, Poly-Flow provided immediate guidance to its Ultra customers with safety recommendations. The guidance, listed here, remains an integral part of the maintenance of the Ultra and should continue throughout the life of the tool.

- Verify that all preventative maintenance is up to date on your tool.
- During tool inspections check for signs of heat damage or heat stress of any kind.
- Inspect electrical connections.
- Review and respond to temperature data from your Ultra.
- If possible, perform an infrared scan of the tool during operation to detect potential hot spots.

Poly-Flow then visited many customers to perform safety checks and make improvement suggestions where necessary. In subsequent design revisions and manufacturing projects, Poly-Flow implemented a number of safety upgrades to the Ultra platform which will greatly enhance the tool's safety performance for the future. These changes or upgrades included:

- Safety systems on the tool were upgraded with secondary and tertiary interlocks on all heating elements.

- Tool materials are now over 95% FM4910 fire safe materials and the panels have been changed to a FM4910 fire safe CPVC material which allows for full view into the operating tool.

- The conveyor system was completely redesigned and is now a fire safe and clean room compatible drive. This design has proven to be much more reliable than the orange belt drive you have seen on earlier Ultras.

Please contact our service department (servicesupports@polyflow.com) if you wish to discuss these issues further.



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