

**Subject: Safety Advisory – Festo Injection Valves on Fishertech Injected Metal Assembly (‘IMA’) Equipment.**

Fishertech has received one report of molten zinc alloy which was, apparently, inadvertently ejected from the nozzle of an IMA machine assembled with a Festo brand valve stack which has been in use for many years. An unintentional occurrence will create a risk of personal injury to operators and other in the vicinity of a machine during operation.

The affected IMA Equipment have Serial Numbers from 2000-1560 to 2001-1606 and from 15004678G1 to 15005288G1. This equipment was manufactured by a predecessor of the company after August 2000 and before August 2008.

Our investigation of this incident concluded that pressurized air, exhausted from the actuators, entered the injection valve circuit causing the injection plunger to move unintentionally. As a result, molten zinc alloy was then ejected. This IMA Equipment was assembled using Festo brand valve stacks, a photo of which is included in Appendix I attached. The company has reviewed the incident with Festo, and after engineering analysis, the conclusion is that the exhaust system is properly designed in such a way that, under proper and intended use, the exhausted air should not have sufficient pressure to activate the injection plunger, and that a physical barrier should not be required.

However, in response to the possibility that such an event could recur, Festo has developed an add-on which will, when installed, insert a physical barrier to prevent exhausted air from entering the injection valve circuit. A description of the Festo add-on, with purchase and installation information, is set out in Appendix II. Fishertech recommends that users of this IMA equipment purchase and install the Festo add-on.

Fishertech reminds users of IMA Equipment that the equipment needs to be maintained in good condition to operate properly and safely. The equipment has proven to be extremely reliable and durable, but anything unusual in machine operation or performance needs to be investigated.