

Function or Process Step	Failure Type	Potential Effect of Failure	Severity	Class	Potential Cause of Failure	Occurrence	Current Design Controls	Detection	RPN	Recommended Action	Responsibility & Target Completion Date	Actions Taken	Severity	Occurrence	Detection	RPN
Switch	Poka-Yoke does not sense part.	Tool Shutdown, improper part detection	5		Loose switch	5	Caromation installed switches are inspected before shipping.	1	25	Tighten switch screw	Customer					
			8		Switch Failure	2	Caromation supplied switches tested before shipping.	3	48	Replace switch	Customer/Vendor					
			8		Dislodged Magnet	1	Magnets are permanently potted into internal design.	7	56	Replace unit	Vendor					
Poka-Yoke Probe	Poka-Yoke does not extend.	Tool Shutdown, improper part detection	8		Broken Spring	1	Springs were designed with infinite life at maximum load.	6	48	Replace spring	Customer					
	Poka-Yoke extends/retracts slowly.	Tool Shutdown, improper part detection, increase cycle time	5		Attached probe on Poka-Yoke causes unit to be overloaded.	3	Maximum suggested weight for probes are provided.	4	60	Redesign probe to be less than maximum weight, order Caromation supplied probes	Customer					
			5		Dirt or contaminates in unit.	2	Units have been designed with tight tolerance, and materials/finishes selected for internal components are highly forgiving for moisture and dust.	5	50	Disassemble unit and clean as needed.	Customer					
Probe	Loose probe.	Tool Shutdown, improper part detection	5		Probe became loose.	1	Caromation supplied probes are assembled with thread locker.	2	10	Tighten probe. Apply thread locker to threads	Customer					
			6		Probe was broken or damaged	2	Probes inspected before shipping. Damage likely to occur post installation.	2	24	Replace probe or Poka-Yoke	Customer					