FMEA - Failure Mode and Effects Analysis

Detection (D) Ranking Chart - FMEA

Opportunity For Detection	Criteria: Likelihood of Detection by Process Control	Rank	Likelihood of Detection
No Detection Opportunity	No current process control; Cannot detect or is not analyzed	10	All Impossible
Not Likely to Detect at any Stage	Failure Mode and/or Error (Cause) is not easily detected (e.g., random audits)	9	Very Remote
Problem Detection Post Processing	Failure Mode detection post-processing by operator through visual/tactile/audible means	8	Remote
Problem Detection at Source	Failure Mode detection in-station by operator through visual/tactile/audible means or post-processing through use of attribute gauging (go/no-go, manual torque check/clicker wrench, etc.)	7	Very Low
Problem Detection Post Processing	Failure Mode detection post-processing by operator through use of variable gauging or in-station by operator through use of attribute gauging (go/no-go, manual torque check/clicker wrench, etc.)	6	Low
Problem Detection at Source	Failure Mode or Error (Cause) detection in-station by operator through use of variable gauging or by automated controls in-station that will detect discrepant part and notify operator (light, buzzer, etc.). Gauging performed on setup and first-piece check (for set-up causes only)	5	Moderate
Problem Detection Post Processing	Failure Mode detection post-processing by automated controls that will detect discrepant part and lock part to prevent further processing	4	Moderately High
Problem Detection at Source	Failure Mode detection in-station by automated controls that will detect discrepant part and automatically lock part in station to prevent further processing	3	High
Error Detection and/or Problem Prevention	Error (cause) detection in-station by automated controls that will detect error and prevent discrepant part from being made	2	Very High
Detection Not Applicable; Error Prevention	Error (cause) prevention as a result of fixture design, machine design or part design. Discrepant parts cannot be made because item has been error-proofed by process/product design	1	Almost Certain