
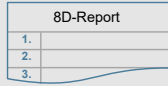

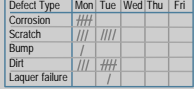
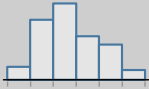
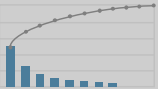

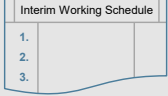
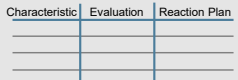


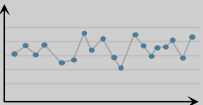
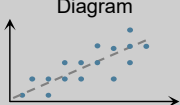



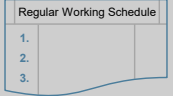
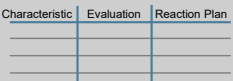


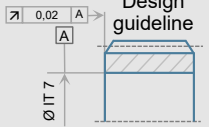


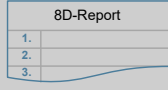


# 8D-Roadmap

Discipline	Main Tasks	Tools	Results																								
Discipline 1: Establish the team 	– Establish the problem solving team (incl. team leader)	8D-Report 	– Problem solving team is established																								
Discipline 2: Describe the problem 	– Record, completely describe and differentiate the problem	Inspection Chart  Histogram  Pareto-Diagram 	– Problem is clearly described and differentiated																								
Discipline 3: Take interim actions 	– Remove defective parts from circulation – Take actions to ensure ability to supply	Interim Working Schedule  Interim Control Plan 	– Problem is isolated from the customer (internal/external)																								
Discipline 4: Analyse the root causes 	– Identify possible causes – Determine and describe cause and effect relationships	Cause & Effect-Diagram  Time Series Plot  Correlation Diagram 	– Root causes of the problem are identified																								
Discipline 5: Determine corrective actions (incl. verification) 	– Develop, assess and select potential corrective actions – Test selected corrective actions and prove effectiveness	FMEA <table border="1" data-bbox="1041 869 1272 960"> <thead> <tr> <th>S</th> <th>O</th> <th>D</th> <th>RPN</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>8</td> <td>3</td> <td>216</td> <td>name/wkX</td> </tr> <tr> <td>9</td> <td>2</td> <td>2</td> <td>(36)</td> <td>name/wkX</td> </tr> </tbody> </table> Design Verification Plan & Report <table border="1" data-bbox="1310 869 1563 960"> <thead> <tr> <th>function</th> <th>plan</th> <th>result</th> </tr> </thead> <tbody> <tr> <td>FU 1</td> <td>Test 01</td> <td>✓</td> </tr> <tr> <td>FU 2</td> <td>Test 02</td> <td>✓</td> </tr> </tbody> </table> Process Capability Study 	S	O	D	RPN	Action	9	8	3	216	name/wkX	9	2	2	(36)	name/wkX	function	plan	result	FU 1	Test 01	✓	FU 2	Test 02	✓	– Effectiveness of corrective actions is proven
S	O	D	RPN	Action																							
9	8	3	216	name/wkX																							
9	2	2	(36)	name/wkX																							
function	plan	result																									
FU 1	Test 01	✓																									
FU 2	Test 02	✓																									
Discipline 6: Implement corrective actions 	– Implement corrective actions within the organisational structure – Suspend interim actions	Working Schedule  Control Plan  Training Plan 	– Corrective actions are sustainably implemented in the organisation																								
Discipline 7: Take preventive actions 	– Make the lessons learned available for other existing products/processes – Make the lessons learned available for future products/processes	Design guideline  Audit Checklist <table border="1" data-bbox="1339 1177 1505 1273"> <thead> <tr> <th rowspan="2">Item</th> <th colspan="2">compliance?</th> </tr> <tr> <th>yes</th> <th>no</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> FMEA-Software / FMEA-Database 	Item	compliance?		yes	no				– Lessons learned are used also for other products/processes																
Item	compliance?																										
	yes	no																									
Discipline 8: Close the problem solving process 	– Review the successful implementation of agreed actions and complete the problem solving process	8D-Report 	– Problem Solving Process is formally closed																								