

TABLE 5.5: Tools and Techniques for Quality Control and Improvement

QUALITY TOOLS AND TECHNIQUES	PURPOSE																														
Process Flow Chart	<p>To visually display and analyze the steps in a process</p> <p>START</p> <p>STEP 1</p> <p>STEP 2</p> <p>STEP 3</p> <p>STEP 4</p> <p>STEP 5</p> <p>DONE</p> <pre>graph TD; START([START]) --> STEP1[STEP 1]; STEP1 --> STEP2[STEP 2]; STEP2 --> STEP3{STEP 3}; STEP3 -- YES --> 3A[3A]; 3A --> STEP4[STEP 4]; STEP3 -- NO --> 3B[3B]; 3B --> STEP4; STEP4 --> STEP5[STEP 5]; STEP5 --> DONE([DONE]);</pre>																														
Check Sheet	<p>To identify the frequency and timing of problem occurrences</p> <table><tr><th>Defects</th><th>Mon</th><th>Tues</th><th>Wed</th><th>Thurs</th><th>Fri</th></tr><tr><td>Wrong part</td><td>III</td><td>II</td><td></td><td>I</td><td>III</td></tr><tr><td>Wrong dimension</td><td>I</td><td></td><td></td><td>II</td><td>II</td></tr><tr><td>Rusted part</td><td>I</td><td></td><td>I</td><td></td><td>I</td></tr><tr><td>Wrong quantity</td><td>IIII</td><td>II</td><td>I</td><td>I</td><td>III</td></tr></table>	Defects	Mon	Tues	Wed	Thurs	Fri	Wrong part	III	II		I	III	Wrong dimension	I			II	II	Rusted part	I		I		I	Wrong quantity	IIII	II	I	I	III
Defects	Mon	Tues	Wed	Thurs	Fri																										
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Wrong quantity	IIII	II	I	I	III																										
Histogram	<p>To identify the pattern of data distribution, including its frequency and range</p> <table><tr><th>Grade</th><th>Percent</th></tr><tr><td>A</td><td>12%</td></tr><tr><td>B</td><td>29%</td></tr><tr><td>C</td><td>33%</td></tr><tr><td>D</td><td>10%</td></tr><tr><td>E</td><td>16%</td></tr></table>	Grade	Percent	A	12%	B	29%	C	33%	D	10%	E	16%																		
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Pareto Chart	<p>To identify the relatively few, but most critical, causes of problems</p> <table><tr><th>Cause</th><th>Frequency</th></tr><tr><td>6</td><td>10</td></tr><tr><td>5</td><td>8</td></tr><tr><td>4</td><td>6</td></tr><tr><td>3</td><td>4</td></tr><tr><td>2</td><td>3</td></tr><tr><td>1</td><td>2</td></tr><tr><td>0</td><td>1</td></tr></table>	Cause	Frequency	6	10	5	8	4	6	3	4	2	3	1	2	0	1														
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6	10																														
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