

# Judgement Guide CNC Milling

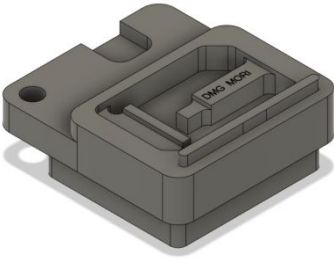
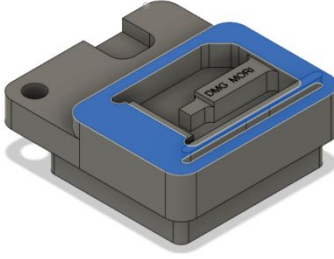
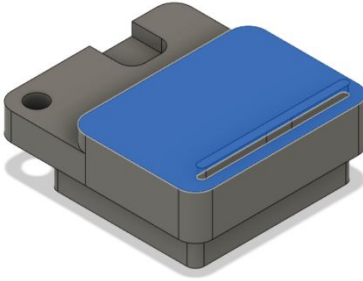
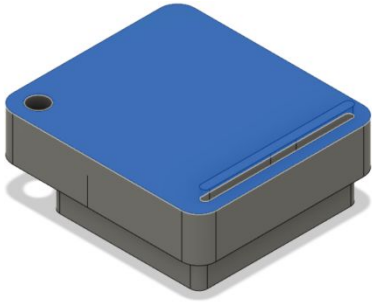


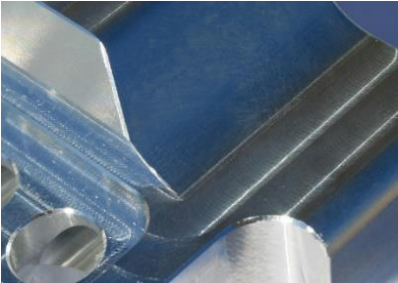
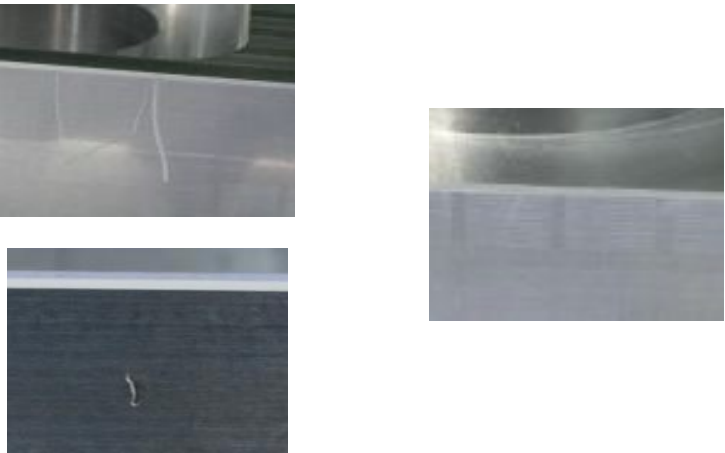
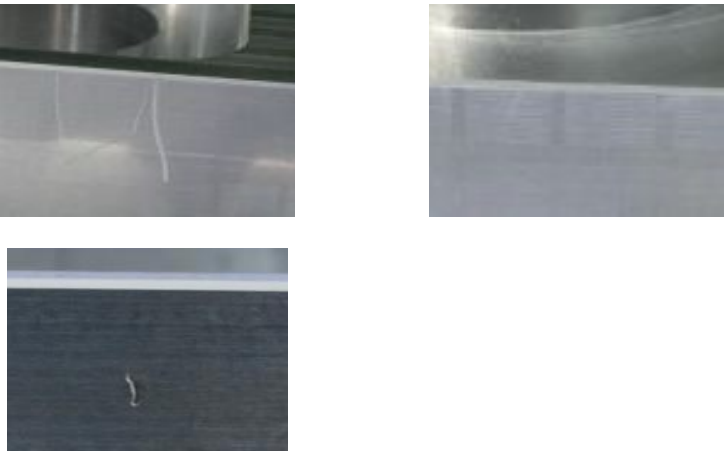
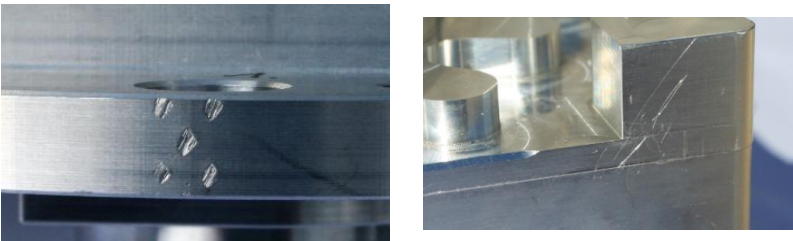
Created by Adam Youens


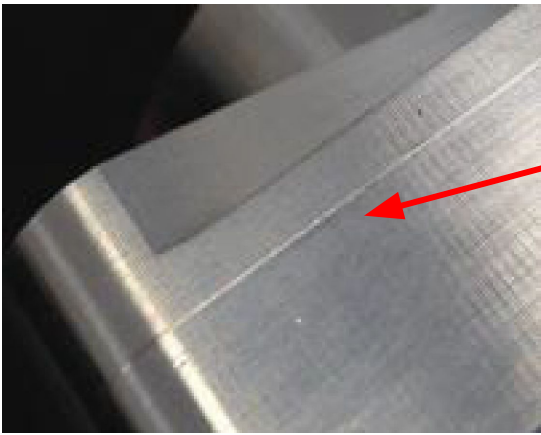

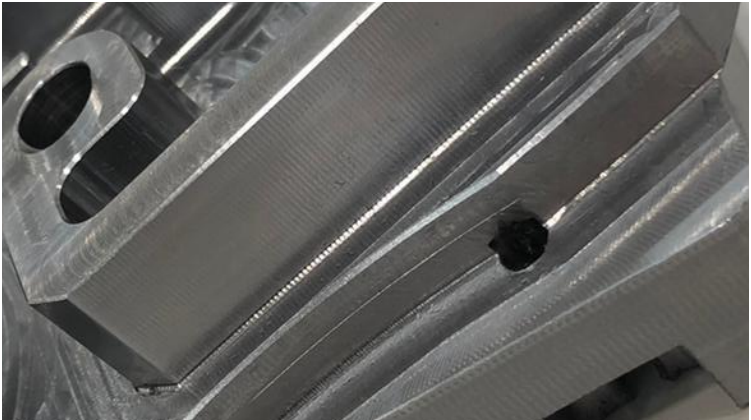
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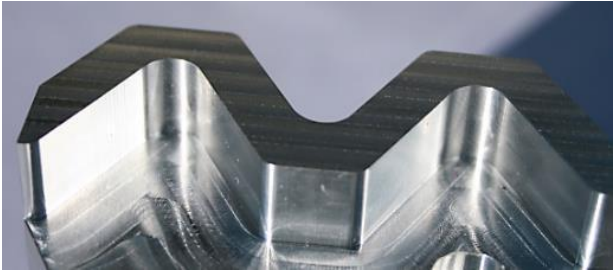
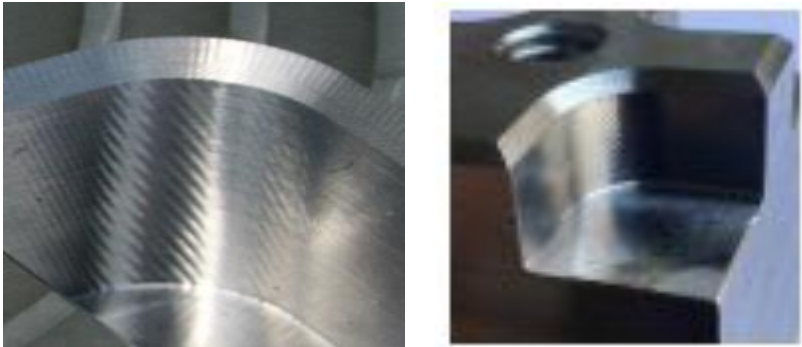

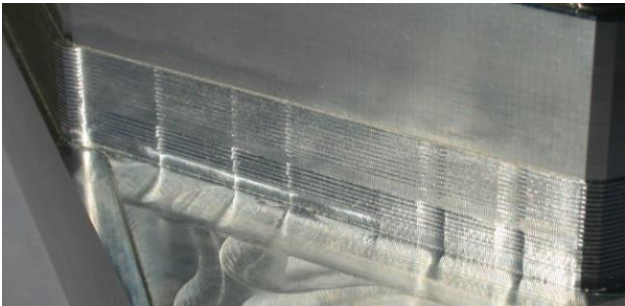
# Contents

Conformity to drawing	3
Handling Damage	4
Mismatch	5
Chatter Marks	6
Collision, Contour Damage and Lead in/out	7
Deburring by machine	8
Deburring by hand	9

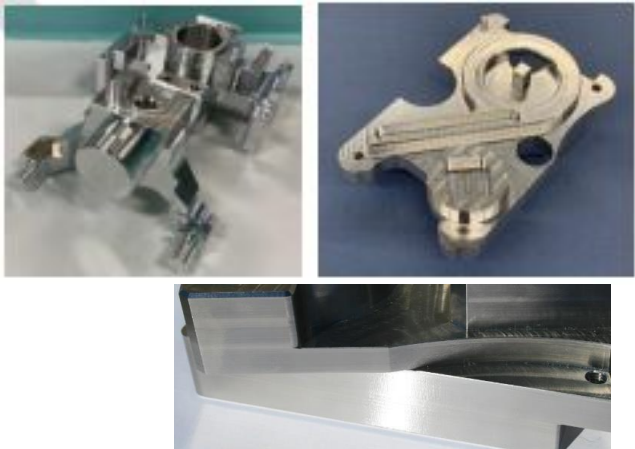
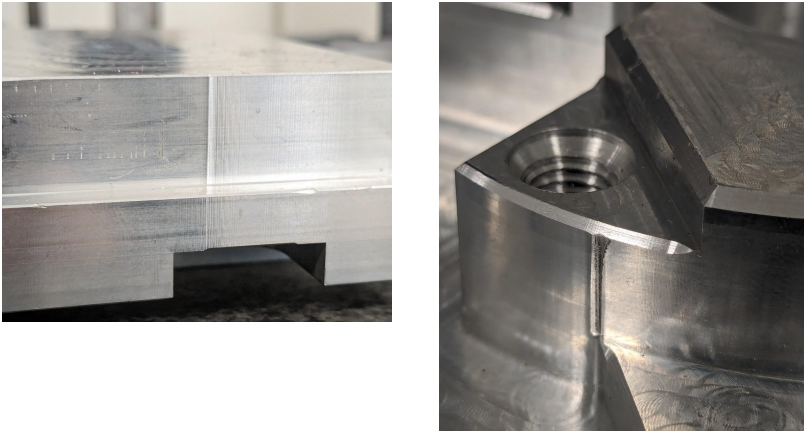
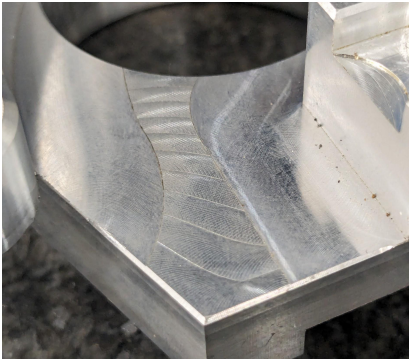
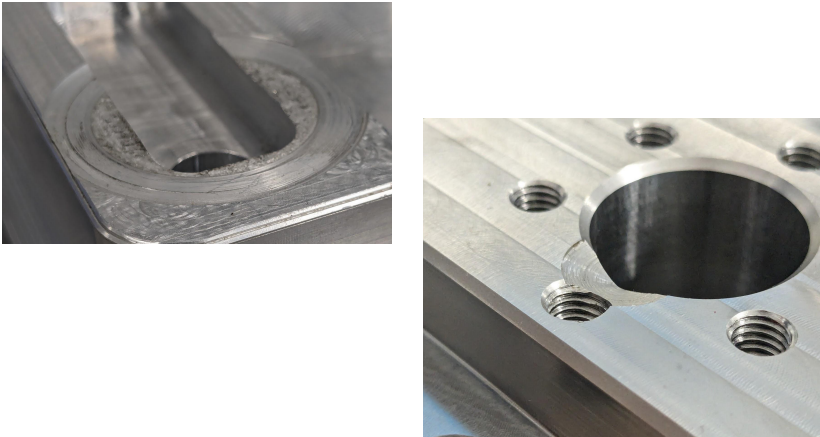
Score	Conformity to drawing Missing features and / or sides not completed	
3	Excellence! - No feature missing All features visually correct	
2	Good Minor features missing / visually incorrect Example Minor features: Threaded / Reamed Holes Chamfers Small slots (<10mm width)	
1	A few Minor features missing or visually incorrect and/or 1 major feature missing. Example Major feature: Large Boss / Pocket / Slot (>10mm Width / Diameter)	
0	Incomplete component: Majority of features missing from one side or more	


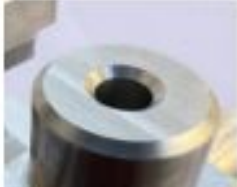

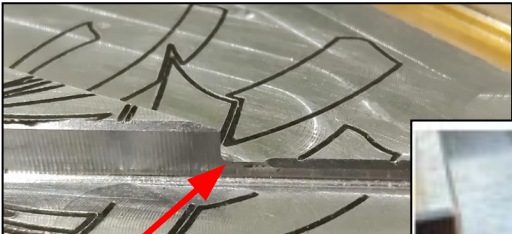

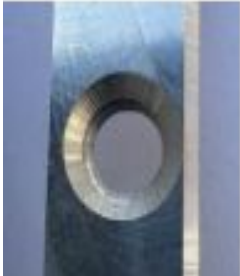
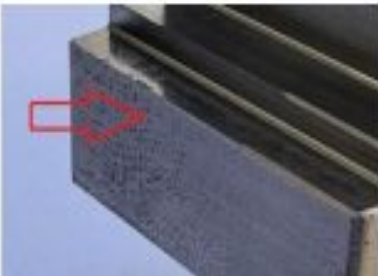





Score	<div>Handling Damage</div> <div>Damage from mishandling of parts, swarf impact marks, vice marks, scratches from handling, dropping or hand tools. Damage NOT caused by machine cutting tools and / or measuring equipment.</div>	
3	Excellence! No damage to part	
2	Minor damage from the following: vice marks, scratches, swarf impact. Very few instances	
1	Minor damage, but multiple instances of the following: vice marks, scratches, swarf impact	
0	Major damage: vice marks, scratches, swarf impact	

Score	<div>Mismatch</div> <div>Mismatch from different set-ups or sides of machining. Tooling mismatches etc</div>	
3	Excellence! No mismatch on the component	
2	Good Slight discrepancy, can be felt by hand ( <b>Not</b> Vice mark)	
1	easily visible step in component	
0	component not machined in the correct orientation and /or major step	



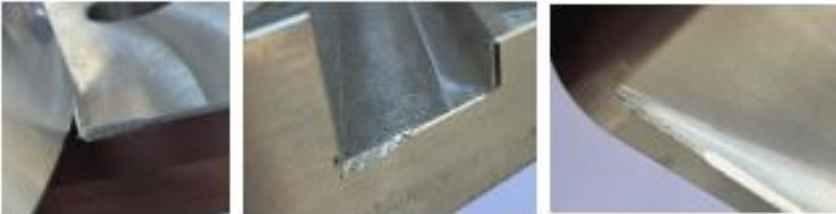
Score	<p style="text-align: center;"><b>Chatter Marks</b></p> <p style="text-align: center;">Marks from vibration of tool or workpiece</p>	
3	<p>Excellence!</p> <p>No visible marks from cutters in radiuses and lines. All edges and radiuses look the same as contouring.</p>	
2	<p>Slight Incidents of chatter marks</p> <p>(One incident of chatter includes the whole features, Eg. A pocket may have 4 corners with chatter = 1 incident)</p>	
1	<p>Multiple incidents of visible chatter marks per side</p>	
0	<p>Serious chatter marks per side. Chatter is evident in many features on the part</p>	



Score	<p style="color: red; text-align: center;"><b>Collision, Contour Damage and Lead in/out</b></p> <p>Damage from tools, tool holders, wrong toolpaths and lead in / lead out marks</p>	
<b>3</b>	<p>Excellence! The module is visually excellent. No marks from the lead-in – lead-out process. No crash marks or contour damage. All features are finished with a finishing strategy (No evidence of roughing toolpaths evident)</p>	
<b>2</b>	<p>Good - No collision marks from tools or arbours. Some minor evidence of tools leading in/out, stall marks etc</p>	
<b>1</b>	<p>Visual damage from cutting tools or arbours. Any area showing evidence of roughing toolpaths that have not been finished Major evidence of tools leading in/out, stall marks etc</p>	
<b>0</b>	<p>Evidence of collision with cutting tools or arbours. Damage must be evident to touch</p>	

Score	<div>Deburring by machine</div> <div>All areas where in machine deburring is possible, judgement of quality including proximity to edges</div>	
3	<div>Excellence!</div> <div>Complete deburring, as close to broken edges as possible with the supplied chamfer tool</div>	<div></div> <div></div> <div></div>
2	<div>Good</div> <div>Could be closer to broken edges using the supplied tool.</div> <div>Very few edges missing</div>	<div></div> <div></div>
1	<div>Some / Multiple edges missing. Chamfers not present on multiple sides.</div>	<div></div> <div></div> <div></div>
0	<div>Not attempted/ Majority missing</div>	<div></div> <div></div> <div></div> <div></div>



Score	<div>Deburring by hand</div> <div>All edges on part are deburred and blend well to machine deburring</div>	
3	<div>Excellence!</div> <div>All edges within the defined limit, hand deburring is hard to distinguish from machine chamfers</div> <div>No sharp edges evident on part</div>	
2	<div>Good</div> <div>All edges complete but easily distinguished from machine deburring. Some edges even though deburred feel rough. Could be closer to edges.</div>	
1	<div>Some edges missing, but no major burrs. The chamfering by hand is clearly different in size / angle and quality.</div>	
0	<div>Not attempted/ Majority missing. Major burrs evident</div>	