

DFMA FORM 2B	EVALUATION OF UTILIZED DFMA ASPECTS - COMPONENT ORIENTED ANALYSIS		
Component:		Page: 2/____	Date: _____
Document number:		Written by: _____	Approved by: _____
B. Component oriented analysis (Repeat questions 1...17 for each component of the assembly)			
Guidelines: Questions 2, 4 and 5 try to minimize, questions 1, 3 and 6 try to maximize and questions 7...17 try to fix if possible			
Questions	Answer	Score	Evaluation criteria
1. How many functions are performed by the component?			> 2 = + 1 point ≤ 2 = - 1 point
2. How many manufacturing stages are required?			> 1 = - 1 point ≤ 1 = + 1 point
3. How many different assembly directions or assembly positions are acceptable?			≥ 2 = + 1 point < 2 = - 1 point
4. How many pre-treatment stages are required during the manufacturing?			> 0 = - 1 point = 0 = + 1 point
5. How many post-treatment stages are required during the manufacturing?			> 0 = - 1 point = 0 = + 1 point
6. How many manufacturing stages can be regarded as modular ones?			> 2 = + 1 point ≤ 2 = - 1 point
7. Are the detailed manufacturing process oriented guidelines obeyed to ensure easy manufacturing?	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
8. Is there enough space for tools, jigs and the robot griper? Can the griper catch the component easily?	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
9. Is it possible to manufacture the component only by using standardized tools and tooling?	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
10. Are proper tooling allowances utilized? How much? _____	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
11. Does the selected material match properly with the selected manufacturing process? Material: _____ Process: _____	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
12. Are general tolerances utilized? Tolerance grade: _____	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
13. Are there any means to compensate the possible (summarized) manufacturing errors? Which one: _____	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
14. Is there an evident risk that the component might tackle with any other component during the assembly?	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = - 1 point NO = + 1 point
15. Is parametric design utilized during the design?	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
16. Are the ergonomic aspects of the component taken into consideration?	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
17. Are the tolerances and surface requirements of the component balanced with each other?	<input type="checkbox"/> YES <input type="checkbox"/> NO		YES = + 1 point NO = - 1 point
Scores of the component's DFMA analysis	$\Sigma_{\text{component 1}} =$		
Collect scores from each analyzed components	$\Sigma_{\text{components}} = \Sigma_{\text{comp 1}} + \Sigma_{\text{comp 2}} + \dots + \Sigma_{\text{comp N}} =$		
Summarize total DFMA scores (incl. scores from DFMA FORM 2A)	$\Sigma_{\text{assembly}} = \Sigma_{\text{overall}} + \Sigma_{\text{components}} =$		