



## SDI Review Form 1.6

### **PART 1:**

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| Journal Name:            | <a href="#">British Journal of Applied Science &amp; Technology</a>                            |
| Manuscript Number:       | MS: 2012/BJAST/1982                                                                            |
| Title of the Manuscript: | DESIGN AND CONSTRUCTION OF A CUTTING FLUID TWO-WAY/MULTI-FEEDING DEVICE FOR TURNING OPERATION. |

**General guideline: Reviewers are requested to follow these guidelines during review:** *(Note: Title of different sections as proposed below may differ in case of review paper / case reports)*

- Introduction *(Is the problem/objective of this study original, important and well defined?)*
- Materials & methods *(Kindly comment on the suitability of the methods. Sufficient details of the methods should be provided to allow peers to evaluate and/or replicate the work)*
- Results & discussion *(Kindly comment on: 1. Are the data well controlled and robust? 2. Authors should provide relevant references during discussion. 3. Discussion and conclusions should be based on actual facts and figures. Biased claims should be pointed out. 4. Are statistical analyses must for this paper? If yes, have sufficient and appropriate statistical analyses been carried out?)*
- Conclusion *(Is the conclusion supported by the data, discussed inside the manuscript? Conclusions should not be biased and should be based on the data, presented inside the manuscript only)*
- Are all the references cited relevant, adequate? Are there any other suitable current references authors need to cite?
- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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### **PART 2:** Review Comments

|                                            | Reviewer's comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part and write here 'Corrected'/ if not agreed, give suitable justifications)                                                                                                        |
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| <b><u>COMPULSORY REVISION</u></b> comments | <p><b>1. INTRODUCTION:</b> The main idea of the paper is to evaluate the two-way/multi-feeding application. It is interesting, well defined and original; in fact there are only a few publications about this subject in the literature.</p> <p><b>2. MATERIAL &amp; METHODS:</b> The multi feeding mechanism is over described. The section <b>DEVICE COMPONENT DESCRIPTION</b> should be removed or presented as appendix and only few details from this section should be added in <b>MATERIALS AND METHODS</b>. How the device was manufactured is not important and don't need to be described. The most important aspects of the mechanism are the holes diameter of the nozzles and their angular position.</p> <p><b>Concerning the roughness, tool wear and temperature:</b> There are no information about how the measurements were obtained, as well as the repeatability and reproducibility of the measurements.</p> <p><b>Which were the nozzles used in the two-way feeding?</b><br/>Line 117 the experiments were conducted with "angle of CF feeding = 30°". Is that the angle used for the one way application? Which was the angle used for two-way application?</p> <p><b>A schematic drawing would help on understanding</b></p> | <p>The device is not over described as the emphasis is on the device itself.</p> <p>Corrected</p> <p>Corrected</p> <p>It is the angle for two-way application of CF. The one-way application has no angle. i.e. it uses the vertical (first) nozzle.</p> <p>Corrected</p> |



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|  | <p>the feeding mechanisms.</p> <p><b>There is no data about the flow (l/min) of lubricant used in the one-way and two-way applications.</b></p> <p><b>3. RESULTS &amp; DISCUSSION: How were the results obtained and processed. Which was the repeatability and reproducibility of the measurements?</b></p> <p><b>There are very few references. The references are all in the introduction and not well placed. For example in lines 49 and 50: "... Some other machine tools possess a multi-CF feeding mechanism. Example of such machine tools is the milling machine [3-4]." The texts of references 3 and 4 are mostly related to Safety and Health practices, which are not referenced in Yakubu's work.</b></p> <p><b>There are no references in the discussion to sustain the obtained results and the data presented is not robust enough.</b></p> <p><b>The discussion is very poor. The author just assumed that two-way feeding is better based in the obtained data, however he did not take into account many significant operating conditions. The better results can be due to the application angle of the CF, or just due to the larger amount of CF used in the two-way feeding tests. The results have to be better analysed.</b></p> <p><b>4. CONCLUSION: As described before the conclusions are not supported by the data, once there is no information enough about how the data were obtained. Besides, there is no references supporting the results.</b></p> | <p>It is true. However, it is the same quantity of CF used for both methods.</p> <p>This has already been explained under the subheading "Testing of Device".</p> <p>Corrected</p> <p>I don't agree. The safety and health practice mentioned here is related to the use of CF.</p> <p>Corrected</p> <p>The Focus of this paper is mainly on the design and its construction and not the application of two-way CF. The result of testing the device was only to justify/verify that the two-way CF feeding mechanism is better.</p> <p>The angle of application may have influenced the results.</p> <p>However, for the fact that it is the same quantity of CF used for both devices and yet the result two-way application was better, is enough evidence of its superiority</p> |
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|                                         | <p><b>5. ARE ALL THE REFERENCES CITED RELEVANT? Few references. They are not all relevant and more references are needed to support the author's findings.</b></p> | <p>over one-way application. Obtained data were adequate</p> <p>Corrected</p> <p>The references are all relevant. The references were few, because there are virtually no literature materials on this subject as the reviewer rightly noted in beginning. However, additional references have been included.</p> |
| <b><u>Minor</u></b> REVISION comments   | English can be improved.                                                                                                                                           |                                                                                                                                                                                                                                                                                                                   |
| <b><u>Optional/General</u></b> comments |                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                   |