

## REVIEW OF MASTER'S THESIS

First name and surname: **Sakthi Sai Thamizhchelvan**

Master's thesis topic: **Design of the suction table for plasma and oxy-fuel CNC cutting machine**

The presented master's thesis is in the range of 60 pages. The thesis has 9 annexes (CD, drawings). The author divided the work into 10 main chapters.

The main aim of this master's thesis was to provide an optimal solution for the company VANAD in extraction of the fumes and smoke for their plasma an oxy-fuel CNC cutting machine.

### **Theoretical part**

Here is a description of three VANAD CNC machines for which the tables are designed. The author conducted a survey of existing possible solutions for fumes and smoke extraction. Found options are compared. Furthermore, the author focuses only on suction tables. The author carried out a market survey of existing suction tables. Text of the theoretical part is supplemented by a number of photos and figures. There are a number of references to literature. The author demonstrated the ability to analyze obtained information and to process it clearly.

### **Practical part**

This section describes the individual parts of the suction table and their assembly. The author describes the design of the flap control mechanism. The text is completed with images from CAD software, but there are no references in the text to these pictures. Some of the images are repeated several times. In this part, I lack structural analysis using FEM.

### **Questions:**

- 1) Did you do a patent survey? Is the proposed solution patent-protected by someone else?
- 2) Company VANAD is satisfied with the proposed solution? Will it be made according to your design?

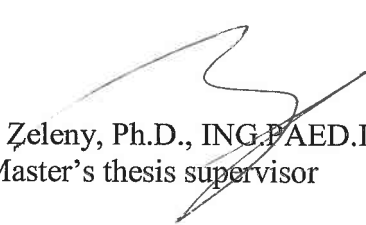
Overall, the work is comprehensible and clear. The author fulfilled the requirements of the thesis.

Master's thesis meets the requirements for granting the academic title Ing.

I recommend master's thesis for defence.

Liberec 8. 6. 2017

Ing. Petr Zeleny, Ph.D., ING PAED.IGIP  
Master's thesis supervisor



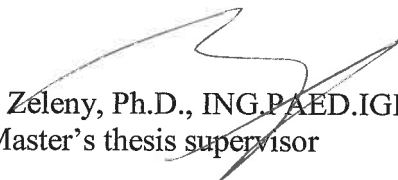
**ASSESSMENT PROPOSED BY THE SUPERVISOR OF MASTER'S  
THESIS**

Master's thesis of **Sakthi Sai Thamizhchelvan**

on topic: **Design of the suction table for plasma and oxy-fuel CNC cutting machine**

I propose to evaluate the grade **- Very good -**

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Ing. Petr Zeleny, Ph.D., ING.PAED.IGIP  
Master's thesis supervisor