



STEM for inclusive Schools

WP2 – Activities

Worksheet – Specific Cutting Force

Engineering (August 2024)

„Dunărea de Jos” University of Galați

Project Title: STEM for inclusive Schools

Acronym: STEMInSCH

Reference number: KA220-NW-23-30-151162

Project partners:

- P1 University Paderborn (UPB), DE
- P2 Universitatea Dunarea de Jos din Galati (UDG), RO
- P3 Scoala Gimnaziala Nr. 7 Galati, RO
- P4 Siec Badawcza Lukasiewicz - Instytut Technologii Eksploatacji, PL
- P5 Inovatif ve Girisimci Toplum Dernegi, TR
- P6 Sucessos Criativos, Lda, PT



Worksheet for the Activity:

Specific Cutting Force

name of the activity

Task description: Students will learn how to calculate the specific cutting force.

Time to finish the task: 2 hours

Supplies:



Oxford pendulum.

Samples from different materials (bronze, aluminum, etc.).

Method:



Calculation of the specific chipping force based on the energy consumed to detach chips of known thickness.



Instructions:

1. The concept of specific cutting force is presented.
2. The influence of cutting regime parameters is presented.
3. The influence of tool geometric parameters is presented.
4. The Oxford pendulum is presented.
5. The working method is demonstrated.

Your Group name:



Write the names of your group members in the box:





Graphics and Tables:



Fill in the table 1:

Nr. Crt .	a	Alfa_ 0	Alfa_0_ra d	Alf a	Alfa med	Alfa_m rad	G	L	b	l	pz
1		28°									
2											
3											
4											