

Scope		Metallic materials – Tensile testing			
Group		Team No.		Date	
Team members					
Comments					

1. Principle

The test involves straining a test piece by tensile force to determine the mechanical properties of the steel material. The test should be performed in accordance with the standard EN ISO 6892-1

2. Basic data

Designation of the test piece:

Type of the material:

Type of the piece:

3. Shape and the dimensions of the specimen

Determination of the original cross-sectional area of the parallel length

Measurement No.	Cross-section diameter [mm]	Cross-sectional area [mm ²]
1		
2		
3		
Original cross-sectional area of the parallel length S_0 [mm ²]:		

Original diameter of the parallel length of a circular test piece d_0 [mm]:

Original gauge length L_0 [mm]:

4. The values measured after fracture the specimen

Diameter of the gauge after fracture d_u [mm]:

Final gauge length after fracture L_u [mm]:

5. Determined values

Minimum cross-sectional area after fracture S_u [mm²]:

The force corresponding to the upper yield point F_{eH} [N]:

The force corresponding to the lower yield point F_{eL} [N]:

Maximum force F_m [N]:

6. Test results

Upper yield strength R_{eH}

Lower yield strength R_{eL}

Tensile strength R_m

Percentage elongation after fracture $A_{11,3}$

Percentage reduction of area Z

7. Modulus of elasticity E