



أسم المختبر : طرق تصنيع I

Exp. No.1 (Surface Roughness Measurement)

Instrument , Materials and Accessories:

- 1 .Flat ,hollow and cylindrical samples.
2. Standard sample (for calibration)
- 3 .Surface-finish measuring instrument.

Exp. No.2 (Effect of solidification mode on the shrinkage morphology)

Instrument , Materials and Accessories:

1. Hexachloroethane, (C_2Cl_6) tablets (degassing of aluminum)
2. Sawing blade
- 3 .Cleaning fluxing (KCl-NaCl-NaF)
- 4 .A binary alloys of pure Al, Al-7%Si and Al-12%Si was selected to study
- 5 .Curable furnace
- 6 .A thermometer with thermocouple type chromel-alumel(K- Type)
- 7 .Green sand
- 8 .Dray and cope

Exp. No.3 (Roughness of Turned Surface)

Instrument , Materials and Accessories:

- 1.lathe complete with cylindrical steel work piece approximately 300 in length and 76mm in diameter.
- 2.carbide cutting tool.
- 3.surface finish measuring instrument.

Exp. No.4 (Tool wear in turning operations)

Instrument , Materials and Accessories:

1. Engine lathe
- 2 .Lathe tool with disposable carbide insert(steel-cutting grade)
- 3 .Cylindrical work piece of iron approximately 600mm long and 76mm in diameter
- 4 .Tool makers microscope or low –powder metallurgical microscope with a
Calibrated eye piece.
5. stop watch.