

Appendix-I

Sr. No.	Name of the item with Specification	Qty.
1.	<p><u>Aerodynamics trainer:</u></p> <p>Specifications:</p> <p>1. Radial fan</p> <ul style="list-style-type: none"> • Power consumption: 0.5kW or less • Max volumetric flow rate: approx. 15m³/min • nozzle exit cross-section: 50x100mm or similar • max. flow velocity at the nozzle exit: 40m/s <p>2. Measuring ranges</p> <ul style="list-style-type: none"> • temperature: 1x 0...60°C • manometer: <ul style="list-style-type: none"> ○ 16x 0...370mmWC, resolution: max. 1Pa (or similar) ○ inclination: 1:1, 1:2, 1:5, 1:10 (or similar) <p>3. Preferred power consumption: 230V, 50Hz, 1Phase</p> <p>4. Dimensions: LxWxH: 1880x800x1900mm; Weight: approx. 220kg</p>	01 Unit.
2.	<p><u>Required Accessories:</u></p> <p>A. Experimental unit for Boundary Layer (with following or similar specifications)</p> <p>(a) Pitot tube: diameter: 0.7mm movable: 0.35...50mm</p> <p>(b) Plate, movable: 0...250mm LxW: 260x55mm, thickness: 5mm chamfer: 30° smooth surface: 25µm rough surface: 400µm</p> <p>(c) 2 side bodies, removable inclination: 1:12,5</p> <p>(d) Dimensions: LxWxH: 220x130x300mm; Weight: approx. 4kg</p> <p>B. Experimental unit for Drag Forces</p> <p>(a) Pitot tube diameter: 1,1mm horizontal adjustment: 50...0...50mm</p> <p>(b) Measuring section: cross-section 50x100mm</p> <p>(c) Angle scale: ±40°</p> <p>(d) Weights: 1x10g, 1x40g</p> <p>(e) Drag body plate: LxW: 45x15mm, thickness: 1mm cylinder: DxH: 15x45mm aerofoil model: LxWxH: 100x15x45mm</p> <p>(f) Dimensions: LxWxH: 320x250x200mm; Weight: approx. 2kg</p>	01 Unit.

	<p>C. Experimental unit for Bernoulli's Principle</p> <p>(a) Pitotstatic tube d=2mm movable: 0...290mm</p> <p>(b) Dimensions: LxWxH: 240x140x420mm; Weight: approx. 4kg</p> <p>D. Experimental unit for Free Jets</p> <p>(a) Pipe socket, plastic inner diameter: 54mm</p> <p>(b) Pitot tube, sliding horizontal: ±150mm vertical: 0...700mm inner diameter: 2mm</p> <p>(c) Dimensions: LxWxH: 720x380x940mm; Weight: approx. 7kg</p>	
3.	<p><u>Gas turbine jet engine test rig:</u></p> <p>Specifications:</p> <p>1. Jet engine</p> <ul style="list-style-type: none"> • max. thrust: 80N at 120000min⁻¹ • speed range 35000...120000min⁻¹ • fuel consumption: max. 22L/h (full load) • exhaust gas temperature: 610°C • sound level at 1m distance: max. 130dB(A) <p>2. Fuel: kerosene or petroleum + turbine oil</p> <p>3. Starting system: electric starter</p> <p>4. 1 tank for fuel: 5L</p> <p>5. Measuring ranges</p> <ul style="list-style-type: none"> • differential pressure: 0...150mbar • pressure: 0...2,5bar (combustion chamber) • temperature: 2x 0...1200°C / 1x 0...400°C • speed: 0...120000min⁻¹ • consumption: 0...25L/h (fuel) • force: 0...±200N <p>6. Dimensions: LxWxH: 1230x800x1330mm; Weight: approx. 112kg</p>	01 Unit