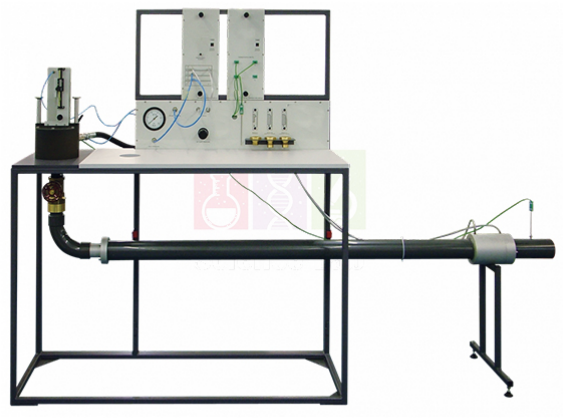
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Product Name :

Laval Nozzle Pressure Apparatus

Product Code :

SLE/EA/06



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Description :

Laval Nozzle Pressure Apparatus (Product Code: SLE/EA/06) is a floor-standing compressed-air test rig used to study the thermodynamics and fluid mechanics of adiabatic air expansion through subsonic and supersonic nozzles in engineering laboratories. It comes with three interchangeable, polished brass nozzles — convergent, convergent-divergent (Laval) and convergent-parallel — and a stainless-steel probe on a vertical traverse that maps pressure along the nozzle axis. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer, at its own factory in Ambala, India.

Specifications

Parameter	Detail
Nozzles	Three interchangeable, profiled and polished brass nozzles with mimics: convergent, convergent-divergent (Laval) and convergent-parallel
Air circuit	Compressed air passes a pressure regulator and isolating valve; flow settles along a horizontal pipe, passes an orifice and exits to atmosphere
Mass flow	Determined by students from the pressures around the orifice
Instrumentation	Digital temperature and pressure displays for key points around the apparatus
Chest pressure	Also shown on an analogue gauge
Inlet pressure	Pressure regulator maintains upstream pressure, with an analogue reference gauge
Axial probe	Stainless-steel probe on a manually adjustable vertical traverse; digital indicator shows probe position in the nozzle
Frame	Floor-standing; holds a pressure chest with removable lid and nozzle traverse mechanism, a worktop and an instrument frame
Dimensions	Length 2900 mm x depth 600 mm x height 1730 mm
Weight	123 kg
Product code	SLE/EA/06
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Laval Nozzle Apparatus Used For?

The rig lets students watch compressible flow theory happen. With the convergent nozzle they find that mass flow stops rising once the throat chokes; with the convergent-divergent Laval nozzle they see pressure keep falling past the throat as the flow becomes supersonic; and with the convergent-parallel nozzle they compare what happens when the passage does not widen. Trave tor, gives

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