

Pneumatic Test Rig

VACCUM SYSTEM



Aircrafts have varying atmospheric pressure conditions as altitude differs. We can create different altitude conditions inside a closed chamber by means of a vacuum pump and set of modulating and flow control valves. This Test Rig was designed for the ground testing of Aerospace Units. The test unit (UUT) will be placed between two chambers one of which is simulating cabin and other is simulating altitude chamber.

VACCUUM TEST RIG SPECIFICATIONS

Sl. No.	System	Specification
1	Working media	Compressed Air, Nitrogen Enriched Air
2	No. of supply lines	Two set of pressure lines; One line to supply air to UUT & Other line to modulate the flow (in Kg/min) values
3	Flow rate	Up to 20 kg/min
4	Power Supply	220-240VAC at 50-60Hz Frequency
5	Operating Pressure	Up to 12 Bar(g) from HAL provided air source
6	Ambient Temperature range	Normal Atmospheric Temperature
7	Flow meter	Digital Indication, Direct Inline Measurement
8	Pressure Relief Valve	Automatic pressure relief valve, Required to automatically relieve the pressure if valve upstream line pressure exceed the set value @ 2 Bar (The value is settable)
9	Vacuum Chamber assembly	MOC: Stainless Steel
10	Pipes and Fittings	MOC: Stainless Steel; ANSI B 16.5 CLASS #150
10	On/Off Valves	2/2 way, Bi stable, inline installation
11	Modulating Control Valves	Line installation with accessories, Control from Operating Panel
12	Pressure Transmitters	0-4 Bar(Abs) Range and 0-16 Bar(g) Range
13	Differential Pressure Transmitter	Measuring differential pressure range: up to 500mbar
14	Manometers	Water filled and Mercury filled. For Vacuum and Normal Pressure measuring applications
15	Vacuum Pump With Motor and VFD	30 HP Pump and motor. 3-Phase Squirrel Cage Motor 415 VD, 50 Hz, 42 A Supply