



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

Powai, Mumbai - 400076

Technical Specifications for Optical Table with Vibration Isolation

RFx No. 610000700 (Reference No. 1000016242)

- i) Optical Table, Hybrid Damped SmartTable, 1500 x 2400 mm, 203 mm Thick, M6 Active Damping 2 IQ active dampers
Structural Damping Range 80-550 Hz
Tuned Damping 2 Narrowband Precision Tuned Dampers
Broadband Damping Constrained layer core, damped working surface and composite edge finish Width 1500 mm
Length 2400 mm
Thickness 203 mm
Working Surface 4.8 mm thick 400 series ferromagnetic stainless steel
Surface Flatness ± 0.1 mm over 600 mm square
Mounting Holes M6
Mounting Hole Pattern 25 mm grid
Mounting Hole Borders 12.5 mm
Hole Sealing Type Easy clean conical cup, 19 mm deep, non-corrosive high impact reinforced composite material
Bottom Skin Material 4.8 mm thick carbon steel
Core Design Trussed honeycomb, vertically bonded closed cell construction, 0.25 mm steel sheet materials, 0.76 mm triple core interface
Vibration Monitor Range 10-820 Hz
Computer Interface USB
I/O BNC output with sensitivity of 30V/(mm/s); Frequency range of 18-820V, Measurement range of 0-0.16mm/s
Power Requirements 100-240 VAC; 1.5A, 50/60Hz
Weight 482 kg
Crated Weight 603 kg
- ii) Vibration Isolator Set, Four 28 in. S-2000A Pneumatic Isolators
Isolator Height 28 in. (711.2 mm)
Load Capacity per Isolator 2000 lb (907 kg)
Number of Isolators 4
Tie Bar Flange No
Float Height Indicator Yes

Self Centering Yes
Settling Time 1.5 s
Leveling Accuracy ± 0.010 in. (0.254 mm)
Height Adjustment +1.3 in. (33 mm)
Horizontal Isolation, Resonance 1.5 Hz
Horizontal Amplification at Resonance 9 dB
Horizontal Isolation, 5 Hz 85%
Horizontal Isolation, 10 Hz 95%
Vertical Isolation, Resonance 1 Hz
Vertical Amplification at Resonance 10 dB
Vertical Isolation, 5 Hz 94%
Vertical Isolation, 10 Hz 98%
Maximum Air Pressure 85 psi (586 kPa)
Horizontal Damping Oil
Crated Weight 270 lb (123 kg)
All accessories to float table like Leveling valve, tubes, connectors, mounting clamps etc. is included
Clean Room Class 10,000 compatible

iii) Air Compressor, Low Noise, 1.0 Liter Capacity, 220 VAC MODEL: ACWS-02

Type Air Compressor
Width 13 in.
Length 8 in.
Height 14 in.
Weight 16 kg
Flow Rate at 20-80 psi 0.70 CFM
Maximum Air Pressure 116 psi
Tank Capacity 1.0 liters
Operating Sound Level at 1 ft. 30 dB
Release Valve Sound Level 62 dB
All required hardware such as safety valve, gauges, outlet cocks, fittings and drain, high-grade air filter/regulator should be included.

Warranty : 1 year from the date of installation