PRODUCT DATA SHEET

Introduction

A freestanding, multi-purpose, vertical unidirectional flow work station. The ENVIRCO Unimodule M2 Unidirectional Flow Work Station is a self contained system that includes the M2 air supply module, a GO2 support stand, acrylic enclosures, and an isolated table. Although shown in the photo to the right, the sash is not made to be held open. Individual "mix and match" components can be assembled to design a tailor made system that meets even the most demanding specifications.

Vertical Unidirectional Airflow

The M2 air supply module provides an ISO Class 5* (Class 100) environment within the work area, which is defined by the clear acrylic side panels, hinged view screen, and the work surface of the isolated table. The positive pressure† unidirectional airflow provides product protection only. Air from within the cabinet is returned to the room through the 11 in. (279.4 mm) front access opening and the 4 in. (101.6 mm) rear exhaust slot.

Isolated Table

The work deck consists of #304 stainless steel laminated to a 3/4 in. (19.05 mm) plywood sub-deck. The bottom of the work deck is coated with a moisture resistant wood sealer. The deck is joined to a welded, tubular steel stand (finished in polyurethane enamel to match the air module) with leveling feet and neoprene caps provided on each leg.

GO2 Support Stand

The standard 66 in. (1676.4 mm) stand is finished in polyurethane enamel to match the air module. The fully assembled stand comes complete with leveling feet with neoprene caps and standard 3/8 -16 connecting hardware. Foam gasket, field-installed between the stand and air module, provides an airtight seal.

Standard Features

» The Unimodule M2 air module provides an ISO Class 5* environment utilizing an aerosol challenged HEPA filter that complies with the latest IEST Recommended Practices.
» Modular design allows joining of multiple units for layout flexibility.
» Twelve, standard sizes with 26-36 in. (660.4 mm-914.4 mm) deep work areas. Custom sizes available.
» The M2 air module has a welded steel cabinet with a corrosion resistant polyurethane enamel finish.
» Recessed fluorescent lighting provides 150 foot candles (1615 Lux) at the work surface.

» A table with its work surface completely isolated from the Unimodule M2 air module and support stand. This eliminates vibration transfer from the air module to the work surface.
» Egg crate light diffuser protects the HEPA filter while maintaining uniform air velocity within the work area.
» Clear acrylic enclosures ensure complete containment of the clean air within the work area.
» Rugged tubular steel support stand provides basic structural support for the M2 air supply module and acrylic enclosures.
» Quiet operation (65 dBA ± 3).

Mix & Match Components

» CO2 Support Stand with 66 in. (1676.4 mm) overall height.
» Other heights available.
» Perforated Stainless Steel Built-in Work Deck.
» Solid Stainless Steel Built-in Work Deck.
» Stainless Steel Enclosures.

NOTE: Positive pressure unidirectional flow clean benches provide product protection only. Does not protect personnel or the environment from aerosols generated within the work area.

M2 Unimodule shown with optional support stand.

Options

» Chrome Gooseneck with Mixer, Part No. 10336.
» Chrome Gooseneck without Mixer, Part No. 10229.
» Duplex Electrical Outlet, Part No. 10232.
» Lab Service, Part No. 10231.
» PVC Gooseneck Valve, Part No. 10230.
» Power Cord Part No. 33729.
» Stainless Steel Sink, Part No. 10233. (12 in. x 12 in. x 7.5 in.) (304.8 mm x 304.8 mm x 190.5 mm)

Applications

» Analytical Balances.
» Critical Sample Preparation.
» Media Preparation.
» Microscopy Analysis.
» Tissue Culture.
» Component Assembly.
» Inspection Station.
» Material Handling.
» Medical Device Manufacture.
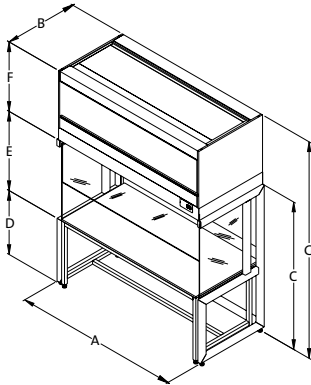» Sterile Filling and Packaging.

Warranty

» Limited 1-year warranty.

Unimodule M2
Unidirectional Flow Clean Bench / Workstation

ENVIRCO
Innovators in clean air technology

■ Dimensional Information

Model No.		MGPI424	MGPI430	MGPI436	MGPI524	MGPI530	MGPI536
Part No.		10670	10671	10672	10673	10674	10675
Dimension Inches (mm)	A	52.24 (1327)	52.24 (1327)	52.24 (1327)	64.24 (1632)	64.24 (1632)	64.24 (1632)
	B	27.50 (699)	33.50 (851)	39.50 (1004)	27.50 (699)	33.50 (851)	39.50 (1004)
	C	66.00 (1677)	66.00 (1677)	66.00 (1677)	66.00 (1677)	66.00 (1677)	66.00 (1677)
	D	34.00 (864)	34.00 (864)	34.00 (864)	34.00 (864)	34.00 (864)	34.00 (864)
	E	32.00 (813)	32.00 (813)	32.00 (813)	32.00 (813)	32.00 (813)	32.00 (813)
	F	31.50 (801)	31.50 (801)	31.50 (801)	31.50 (801)	31.50 (801)	31.50 (801)
	G	97.50 (2477)	97.50 (2477)	97.50 (2477)	97.50 (2477)	97.50 (2477)	97.50 (2477)
BTU / Hr		3500	3500	4262	3570	5930	5930
Avg. CFM @ 90 FPM (m³/hr @ 0.45 m/s)		720 (1224)	900 (1530)	1080 (1836)	900 (1530)	1125 (1913)	1350 (2295)
Power Requirements Amps @ 115 V / 60 Hz		8.9	8.9	10.8	9.1	15.1	15.2
Ship Weight, lbs. (kilograms)		540 (245)	584 (236)	628 (253)	719 (290)	775 (313)	848 (342)
Air Module Weight *		300 (136)	324 (147)	348 (158)	384 (174)	420 (191)	468 (212)
Stand Weight *		140 (64)	150 (68)	160 (73)	220 (100)	230 (104)	240 (109)
Table Weight *		100 (45)	110 (50)	120 (54)	115 (52)	125 (57)	140 (64)

Model No.		MGPI624	MGPI630	MGPI636	MGPI824	MGPI830	MGPI836
Part No.		10676	10677	10678	10679	10680	10681
Dimension Inches (mm)	A	76.24 (1937)	76.24 (1937)	76.24 (1937)	100.24 (2547)	100.24 (2547)	100.24 (2547)
	B	27.50 (699)	33.50 (851)	39.50 (1004)	27.50 (699)	33.50 (851)	39.50 (1004)
	C	66.00 (1677)	66.00 (1677)	66.00 (1677)	66.00 (1677)	66.00 (1677)	66.00 (1677)
	D	34.00 (864)	34.00 (864)	34.00 (864)	34.00 (864)	34.00 (864)	34.00 (864)
	E	32.00 (813)	32.00 (813)	32.00 (813)	32.00 (813)	32.00 (813)	32.00 (813)
	F	31.50 (801)	31.50 (801)	31.50 (801)	31.50 (801)	31.50 (801)	31.50 (801)
	G	97.50 (2477)	97.50 (2477)	97.50 (2477)	97.50 (2477)	97.50 (2477)	97.50 (2477)
BTU / Hr		5970	5970	6080	6080	6080	7390
Avg. CFM @ 90 FPM (m³/hr @ 0.45 m/s)		1080 (1836)	1350 (2295)	1620 (2754)	1440 (2448)	1800 (3060)	2160 (3672)
Power Requirements Amps @ 115 V / 60 Hz		15.2	15.2	15.2	15.5	15.5	18.9
Ship Weight, lbs. (kilograms)		850 (343.06)	923 (372.52)	996 (401.9)	1020 (411.67)	1141 (460.5)	1259 (508.1)
Air Module Weight *		420 (191)	468 (212)	576 (261)	480 (218)	576 (261)	664 (301)
Stand Weight *		300 (136)	310 (141)	320 (145)	380 (172)	390 (177)	400 (181)
Table Weight *		130 (59)	145 (66)	160 (73)	160 (73)	175 (79)	195 (88)

* Sold and shipped separately.

■ Specification

Construction
Welded steel cabinet with exterior finished in corrosion-resistant polyurethane enamel.

Filters
Aluminum Framed High Efficiency Particulate Air (HEPA) type, with a minimum efficiency of 99.99% @ 0.3 micron, aerosol challenged (zero probed).

Prefilters
Disposable - 30% ASHRAE. Standard top-mounted prefilter assembly interchangeable to the front.

Airflow
90 FPM (.45 m/s) ±10 FPM (.05 m/s) average velocity, 6 in. (152.4 mm) from diffuser screen. Uniformity ± 20% of average or better.

Motor/Blower Assembly
Direct drive, continuous duty with sealed-for-life bearings and inherent overload protection. Motor/blower assembly is electronically balanced (dynamically) and mounted on vibration dampening rubber mounts. Motor/blower assembly is designed to provide rated airflow through a 50% increase in initial static pressure.

Electrical
Standard 115V, single phase, 60 Hz with 7/8 in. (22.22 mm) conduit knock-out located on top of the M2 air module. Optional power cord available. Recessed fluorescent lighting fixture provides 100 foot (45.72 m) candles at the work surface. Separate blower and light switches. 220V, 50-60 Hz unit available with transformer. ETL listed.

Speed Controller
Solid state speed control (with RFI suppression) for adjusting airflow velocity.

Acrylic Enclosures
Two fixed side panels are fastened to the GO2 stand. The fixed back panel is 4 in. (102 mm) shorter than the sides and attaches to the stand to form a rear exhaust slot. The 15 in. (391 mm) hinged view screen attaches to the M2 air module during field installation.