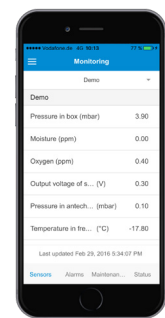


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INERT GAS GLOVEBOX WORKSTATION



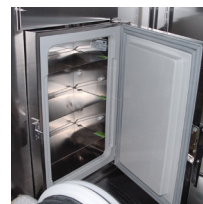
myMBRAUN App



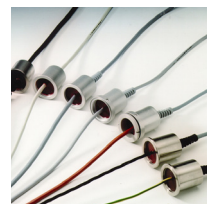
- Compact design with integrated purifier unit
- Stainless steel enclosure with polycarbonate window
- Modular box design for easy extension
- Oxygen, moisture sensors and purge function included
- Removal of oxygen and moisture, <1 ppm
- PLC controlled with Siemens color touch panel
- Simultaneous purification and regeneration with DP version
- Closed loop recirculation
- Negative and/or positive pressure operation
- ECO Mode operation feature available
- Live monitoring of your glovebox data with myMBRAUN Application
- Optional control and safety features available

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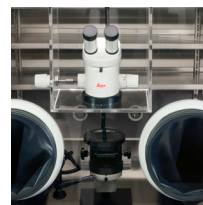
GLOVEBOXES AND ACCESSORIES



Freezer



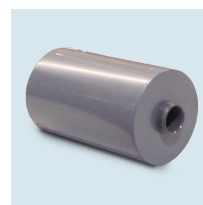
Feedthroughs



Microscopes



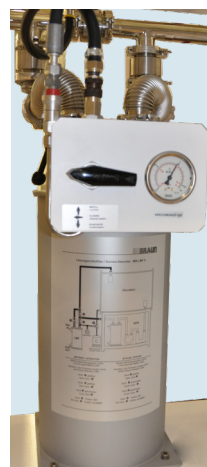
Oxygen, moisture and solvent sensor



Internal solvent vapor removal



Mini-antechamber



External solvent vapor removal, regenerable

GLOVEBOX TECHNICAL DATA

Type of construction	Modular box with screwed in flanged side panels
Material	Stainless steel (US 304, 1.4301)
Inside lengths	1250 / 1500 / 1800 / 2000 mm
Inside depth	Single sided: 780mm, Double sided: 1000 or 1200 mm
Inside height	900 mm
Leak rate	< 0.05 Vol%/h
Inside surface	Brushed finish Ra 1.2 µm
Outside surface	Coated, white (RAL 9003)
Window	Scratch resistant polycarbonate window
Glove ports	POM, 220 mm diameter, O-ring sealed
Gloves	Butyl, thickness 0.4 mm
Light	LED lamp
Feedthroughs	4 / 5 DN40KF flanges (depending on the box depth)
Electrical feedthrough	1
Dust filter	HEPA H13 in/out
Shelves	3 modular shelves rear side or hanged (length: depending on box length)

OPTIONAL

Safety glass window
Large choice of feedthroughs for signals, gas, liquids
A variety of gloves (Hypalon, Neoprene and Butyl) and thickness sizes are available
Specific shelves and storage arrangements....

MAIN ANTECHAMBER TECHNICAL DATA

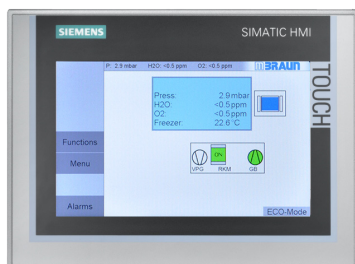
Type	Cylindrical
Material	Stainless steel
Dimensions	390 x 600 mm (D x L)
Inside surface	Brushed finish
Outside surface	Coated, white (RAL 9003)
Leak rate	< 10E-4 mbar l/s
Sliding tray	Stainless steel
Dimensions of sliding tray	575 x 290 mm (L x W)
Doors	Aluminum, anodized, thickness 10 mm
Door lock	Door closing mechanism with spindle handle for one hand operation
Pressure gauge	Analog display
Vacuum / Refill process	PLC operated
Valves	Electro-pneum. valve DN40, evacuation line PLC-controlled, solenoid valve DN10 refill line PLC-controlled

OPTIONAL

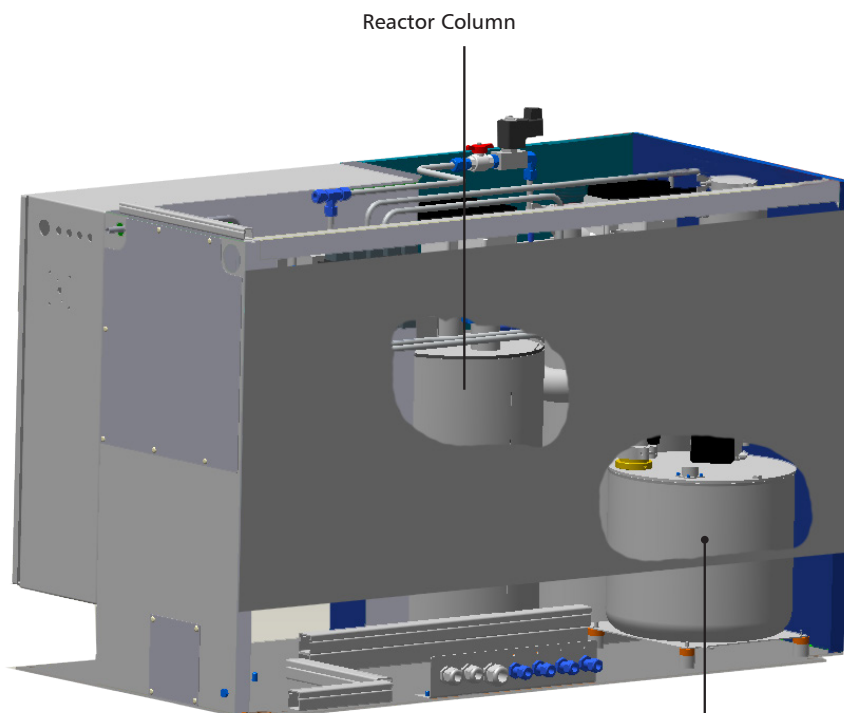
Antechamber automatic pressure controlled
Round mini antechambers (side or bottom mounted)
Rectangular square antechamber
L-shaped square antechamber
Round T-shaped antechamber
Square T-shaped antechamber...

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GAS PURIFIER UNIT



PLC - M. Braun controller with large color touch screen



Encapsulated Blower

GAS PURIFIER UNIT TECHNICAL DATA

Operation principle	Closed loop recirculation
Attainable purity level	Moisture <math>< 1\text{ ppm}</math>, Oxygen <math>< 1\text{ ppm}</math>
Recommended enclosure volume	Up to 5 m ³
Number of purification lines per purifier	1 for sp / 2 for dp
Number of reactor columns per line	1
Number of reactor columns per purifier	1 for sp / 2 for dp
Reactor capacity per purification line*	
(O ₂) Oxygen	36 l
(H ₂ O) Moisture	1350 g
Regeneration	Automatic regeneration sequence
Control unit	PLC - Siemens
Display	Large color touch panel
Box pressure control	Automatic pressure control with foot switch ($\pm 15\text{ mbar}$)
Vacuum pump*	Rotary vane pump with 17 m ³ /h (10 CFM)
Blower (50 Hz / 60 Hz)*	Frequency controlled up to 88 m ³ /h
Main and side piping	Stainless steel 1.4301 (SUS 304)
Main and control valves	Electro-pneumatic
Regeneration gas	N ₂ /H ₂ mix. or Ar/H ₂ mix. (H ₂ 2-5 %, optional H ₂ >5%)
Working gas	Nitrogen, Argon or Helium
Heat exchanger	Included
Size	1176 x 525 x 720 mm (L x W x H)
Sensors included	Moisture and oxygen analyzer
Purge function	200 l/min, included

ECO Mode operation

The ECO mode option is designed to reduce noise emission and reduce power consumption up to 90%*.

OPTIONAL

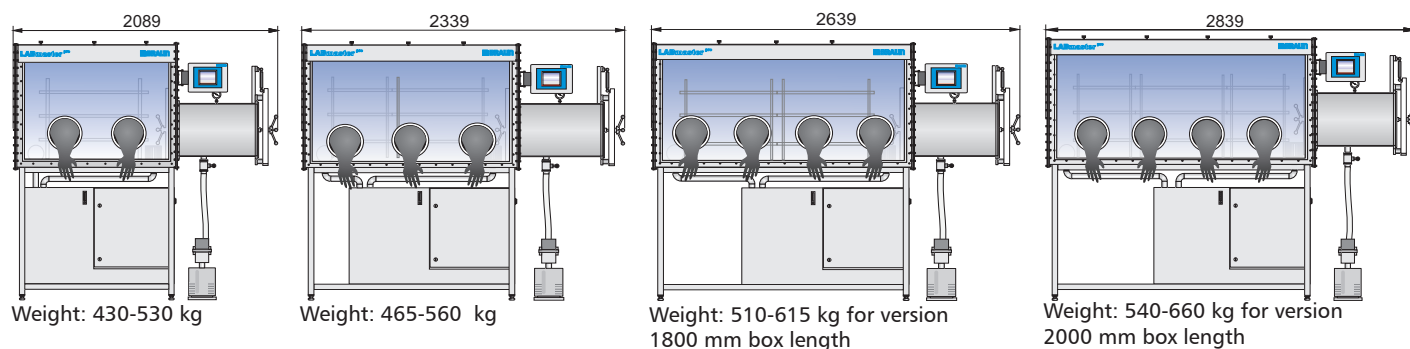
ECO Mode
myMBRAUN App
Solvent vapor removal
Regenerable solvent vapor removal
2-box operation
Recirculation chiller for optimal working environment (RCC)
Dry pump upgrade
Antechamber automatic pressure controlled
Freezer and box cooling

*Technical note: Depending upon operating conditions

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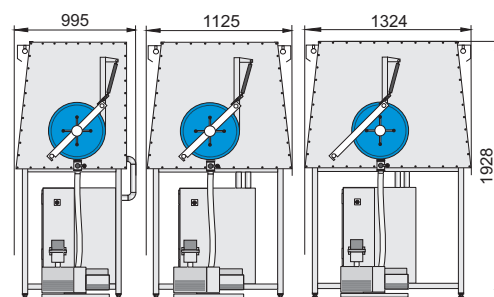
Dimensions in mm

SIZES AND CONFIGURATION



GLOVEBOX VOLUMES

	Depth: 780 mm	Depth: 1000 mm	Depth: 1200 mm
Box length: 1250 mm	0.8 m ³	1.1 m ³	1.3 m ³
Box length: 1500 mm	1.0 m ³	1.3 m ³	1.6 m ³
Box length: 1800 mm	1.3 m ³	1.6 m ³	1.9 m ³
Box length: 2000 mm	1.4 m ³	1.8 m ³	2.1 m ³



UTILITIES

	Medium (or type)	Pressure	Flow rate	Connection
Working gas	Nitrogen, Argon or Helium	6 bars	250 l/min	Swagelok Ø 10 mm
Regeneration gas	N ₂ /H ₂ mix. or Ar/H ₂ mix. (H ₂ 2-5 %, optional H ₂ >5%)	0.3 - 0.4 bar	15-20 l/min	Swagelok Ø 10 mm
Regeneration gas exhaust	Flexible hose, 9 x 3 mm			
Vacuum pump exhaust	Depressurized flexible hose, diameter not less than 25 mm (to be supplied by customer)			
Electrical power (FLA) for dp version	230 V/50-60 Hz, 8 A or 115 V/50-60 Hz, 16 A or 100 V/50-60 Hz, 18.5 A			

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