

UNIlab^{plus}

INERT GAS GLOVEBOX WORKSTATION



- Stainless steel enclosure with polycarbonate window
- Removal of oxygen and moisture, <1 ppm
- PLC - M. Braun controller with large color touch panel
- Simultaneous purification and regeneration with DP version
- Closed loop recirculation
- Negative and/or positive pressure operation
- Large antechamber with sliding tray
- Foot pedal switch for temporary pressure adjustment
- ECO Mode operation feature available
- 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	Side panels bolted on the box body
Material	Stainless steel (US 304, 1.4301)
Inside lengths	1200 / 1450 / 1950 mm
Inside depth	780 mm
Inside height	920 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	Fluorescent lamp
Feedthroughs	2 / 3 / 4 DN40KF flanges (depending on box length)
Electrical feedthrough	1
Dust filter	HEPA H13 in/out
Shelves	3 modular shelves rear side (length: depending on box length)

OPTIONAL

Cold well
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	Manual operation via hand valves
Valves	Hand valves (DN40 vacuum line / DN8 refill line)

OPTIONAL

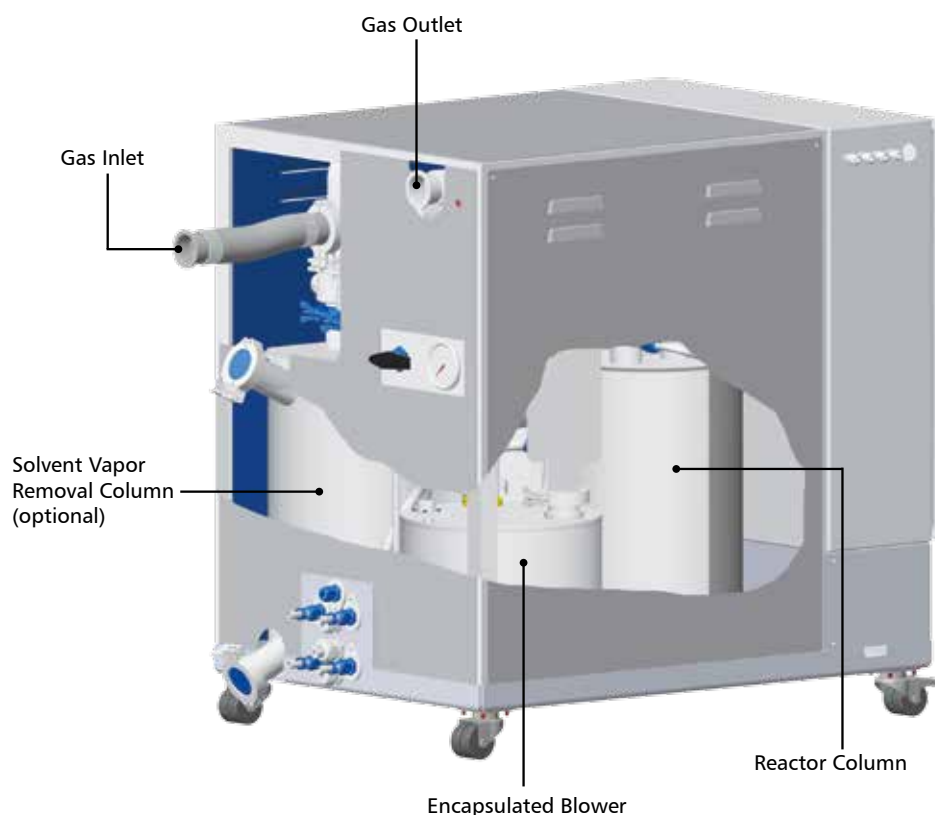
Time controlled antechamber operation
Round large main antechambers
Round mini antechambers (side or bottom mounted)
Rectangular square antechamber
L-shaped square antechamber
Round T-shaped antechamber
Square T-shaped antechamber...

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GAS PURIFIER UNIT



PLC - M. Braun controller with large color touch screen



GAS PURIFIER UNIT TECHNICAL DATA	
Operation principle	Closed loop recirculation
Attainable purity level	Moisture < 1 ppm, Oxygen < 1 ppm
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 - M. Braun
Display	Large color touch panel
Box pressure control	Automatic pressure control with foot switch (\pm 15mbar)
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 2-10 %)
Working gas	Nitrogen, Argon or Helium
Size	820 x 600 x 848 mm (L x W x H)



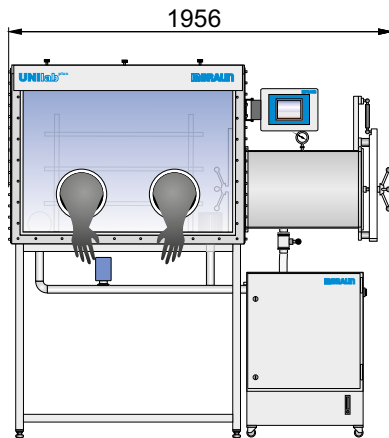
ECO Mode operation

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

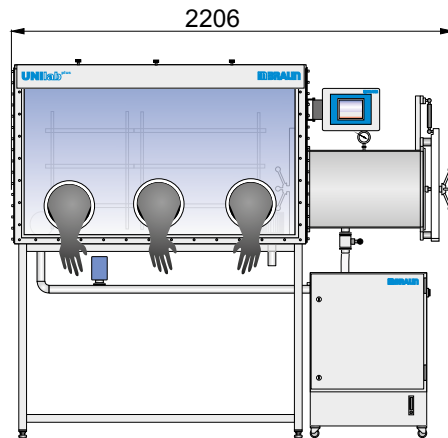
OPTIONAL
Moisture and oxygen analyzer
ECO Mode
Solvent vapor removal
Regenerable solvent vapor removal
Recirculation chiller for optimal working environment (RCC)
Integrated heat exchanger
Dry pump upgrade
Automatic box purge unit
Antechamber automatic (time controlled or pressure controlled)
Freezer or box cooling

*Technical note: Depending upon operating conditions

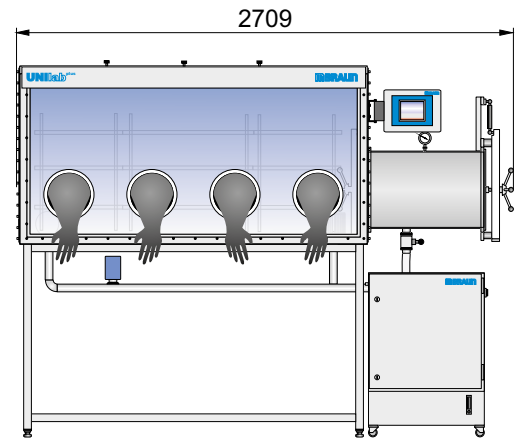
SIZES AND CONFIGURATION



Weight: 410 kg



Weight: 440 kg



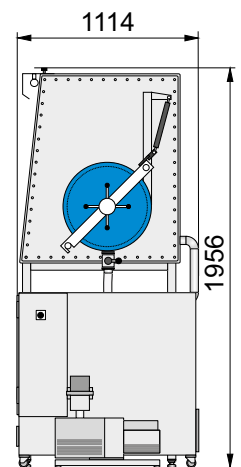
Weight: 535 kg

GLOVEBOX VOLUMES

Box length: 1200 mm	0.8 m ³
Box length: 1450 mm	1.0 m ³
Box length: 1950 mm	1.3 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 2-10 %)	0.3 - 0.5 bars	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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