turning ideas into solutions

UNIlab plus sp/dp

INERT GAS GLOVEBOX WORKSTATION

ECO

- 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

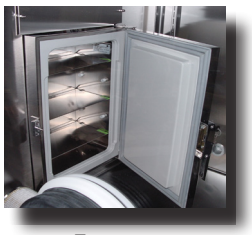
INERTGAS TECHNOLOGY

BR05/V3 Spread by JS © M. Braun Inertgas-Systeme GmbH • Subject to be changed without notice!

www.mbraun.com

UNIlab plus sp/dp

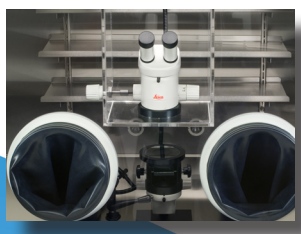
Gloveboxes and accessories



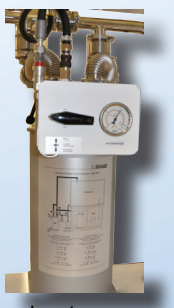
Freezer

Feedthroughs

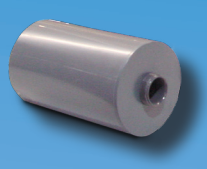
Oxygen, moisture, and solvent sensor



Microscopes



External solvent vapor removal



Internal solvent vapor removal

Mini-antechamber

Additional accessories available

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 < 1µm
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 (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:

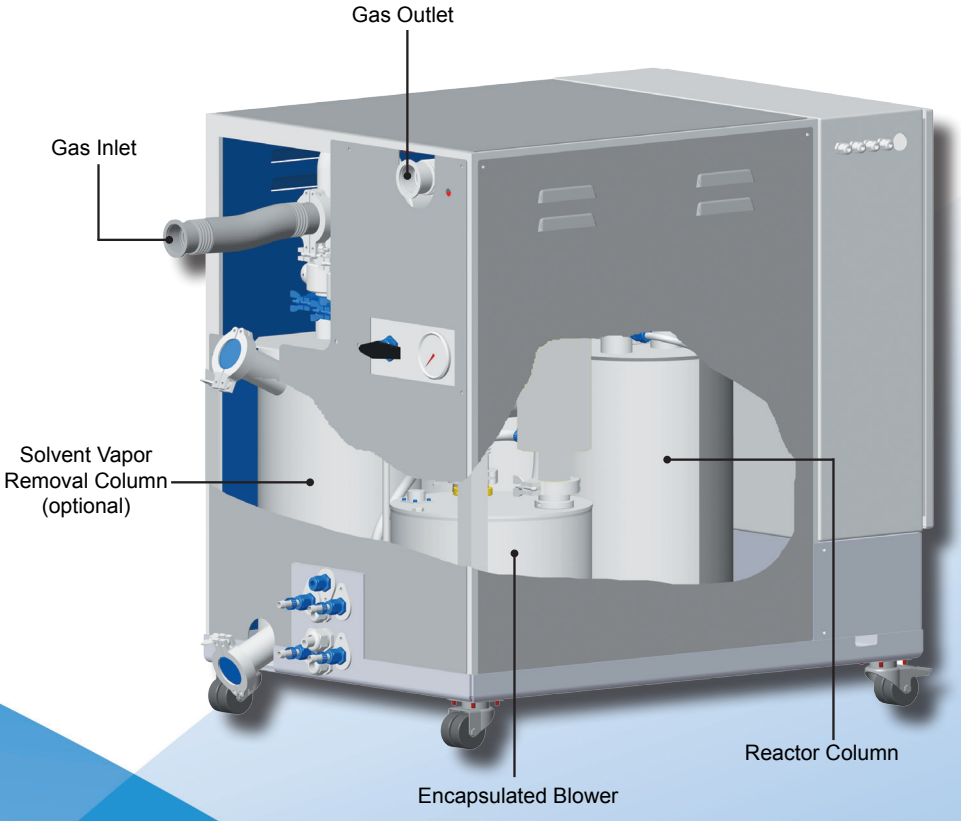
Type	Cylindrical
Material	Stainless steel
Dimensions	390 x 600 mm (D x L)
Inside surface	Brushed finish
Outside surface	Coated, white (RAL 9003)
Leak rate	< 10E-5 mbar l/s
Sliding tray	Stainless steel
Dimensions of sliding tray	575 x 290 mm (L x W)
Doors	Aluminum , anodized, thickness 10 mm
Door lock	Door closing mechanism with spindle handle for one hand operation
Pressure gauge	Analog display
Vaccum / 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...*

UNIlab plus sp/dp

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 m³
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*	
(O2) Oxygen	36 l
(H2O) 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 (± 15mbar)
Vacuum pump*	Rotary vane pump with 17 m³/h (10 CFM)
Blower (50 Hz / 60 Hz)*	Frequency controlled up to 88 m³/h
Main and side piping	Stainless steel 1.4301 (SUS 304)
Main and control valves	Electro-pneumatic
Regeneration gas	N2/H2 mix. or Ar/H2 mix. (H2 2-10 %)
Working gas	Nitrogen, Argon or Helium
Size	820 mm x 600 mm x 847,5 mm (L x W x H)
Optional feature	Moisture and oxygen analyzer
Optional feature	ECO Mode
Optional feature	Solvent vapor removal
Optional feature	Regenerable solvent vapor removal
Optional feature w/ MBRAUN glovebox	Recirculation chiller for optimal working environment (RCC)
Optional feature w/ MBRAUN glovebox	Integrated heat exchanger
Optional feature w/ MBRAUN glovebox	Dry pump upgrade
Optional feature w/ MBRAUN glovebox	Automatic box purge unit
Optional feature w/ MBRAUN glovebox	Antechamber automatic (time controlled or pressure controlled)
Optional feature w/ MBRAUN glovebox	Freezer or box cooling

ECO Mode operation

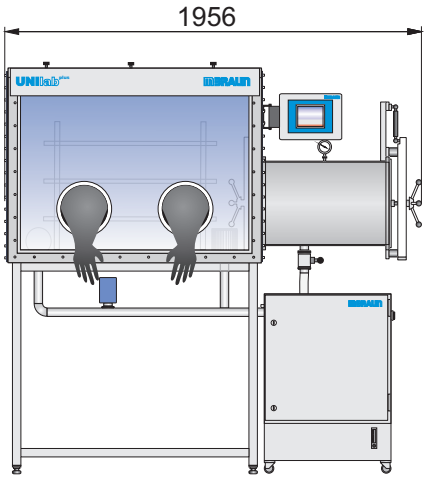
The ECO mode option is designed to reduce noise emission and reduce power consumption up to 90%*.

*Technical note: Depending upon operating conditions

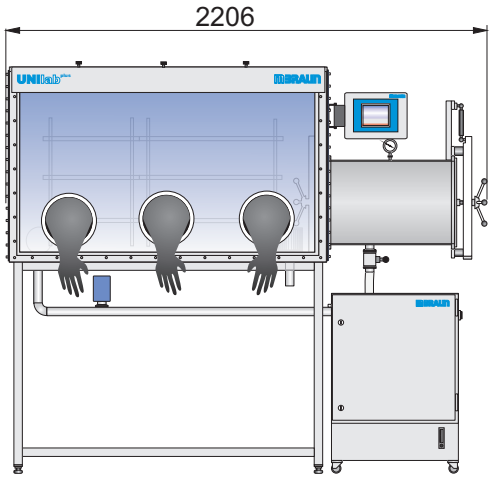
UNIlab plus sp/dp

Sizes and configuration

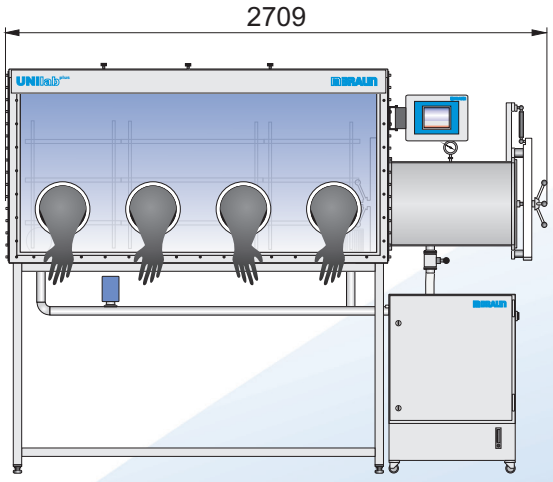
Dimensions in mm



Weight: 410 kg



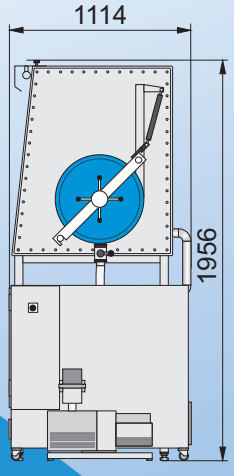
Weight: 440 kg



Weight: 535 kg

VOLUMES:

Box length: 1200 mm.....0,8 m³
Box length: 1450 mm.....1,0 m³
Box length: 1950 mm.....1,3 m³



Side view

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	N2/H2 mix. or Ar/H2 mix. (H2 2-10 %)	0.3 - 0.4 bars	10-20 l/min	Swagelok Ø 10 mm
Regeneration gas exhaust	Flexible hose, 9 x 3mm			
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, 16 A or 100 V/50-60 Hz, 18.5 A

M. Braun Inertgas-Systeme GmbH (Headquarters)
Dieselstr. 31 • D-85748 Garching • Germany
Phone: +49 89 32669-0 • Fax: +49 89 32669-105 • E-Mail Sales: info@mbraun.de • E-Mail Service: service@mbraun.de

M. Braun Incorporated
14 Marin Way • Stratham, NH • 03885 • USA
Phone: +1 (603) 773 9333 • Fax: +1 (603) 773 0008 • E-Mail Sales: info@mbraunusa.com
E-Mail Service: service@mbraunusa.com

M. Braun Inertgas Systems (Shanghai) Co., LTD
Ground floor of building #1 • No. 145 Jintang Road • Tangzhen, Pudong, Shanghai • 201201 • P.R.China
Phone: + 86 21 5032 02 57 • Fax: + 86 21 5032 02 29 • E-Mail: info@mbraunchina.com