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INERT GAS GLOVEBOX WORKSTATION



myMBRAUN App



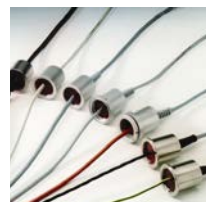
- Compact design with integrated inert gas purifier unit
- Stainless steel modular enclosure with polycarbonate window
- Removal of oxygen and moisture, <1 ppm
- PLC - MBRAUN controller with large color touch panel
- Simultaneous purification and regeneration with DP version
- Large antechamber with sliding tray
- Closed loop recirculation
- Negative and positive pressure operation
- Foot pedal switch for temporary pressure adjustment
- ECO Mode operation feature available
- Live remote 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 |
| 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 (incl. 1 power cord Type B 6 Outlet power strip) |
| Dust filter | HEPA H13 in/out |
| Shelves | 3 modular shelves rear side or hanging (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

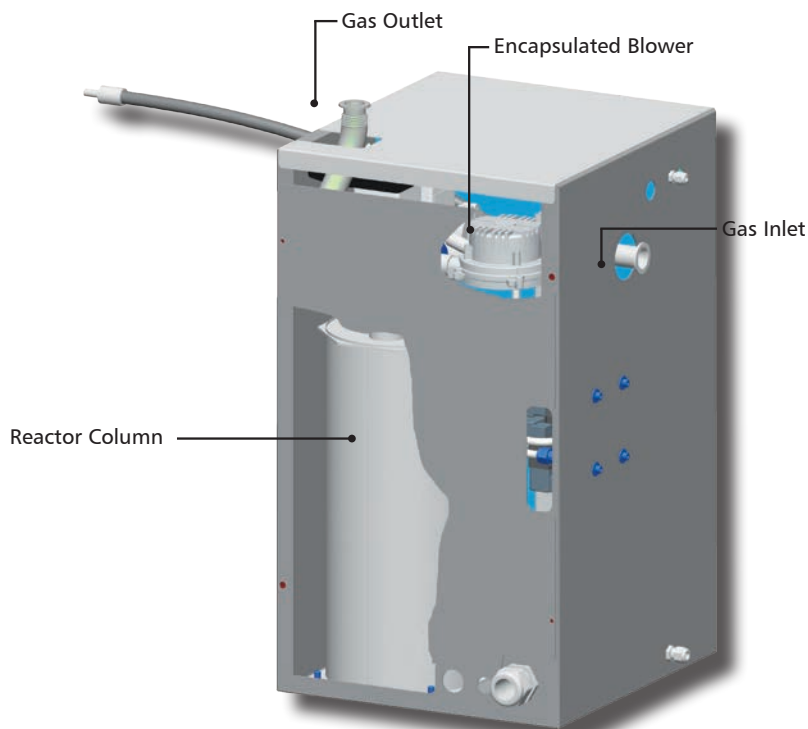
| |
|--|
| Time controlled antechamber operation |
| Round large main antechambers |
| Round mini antechambers (side or bottom mounted) |
| Rectangular square antechamber |
| L-shaped square antechamber |
| Round T-shaped antechamber |
| Square T-shaped antechamber... |

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GAS PURIFIER UNIT



PLC - MBRAUN 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 2 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 | 20 l |
| (H ₂ O) Moisture | 900 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)* | Variable speed up to 22 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 |

Mode operation

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

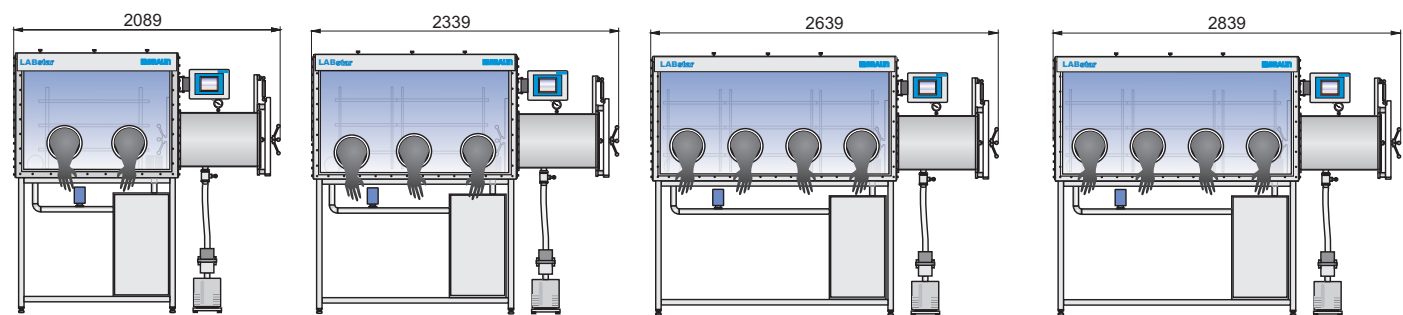
OPTIONAL

| |
|---|
| Moisture and oxygen analyzer |
| ECO Mode |
| myMBRAUN App |
| Solvent vapor removal |
| Dry pump upgrade |
| Box purge function |
| Antechamber automatic (time controlled) |
| Freezer |

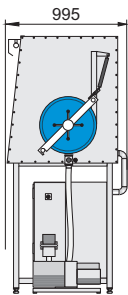
*Technical note: Depending upon operating conditions

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SIZES AND CONFIGURATION



| GLOVEBOX VOLUMES | |
|---------------------|---------------|
| | Depth: 780 mm |
| Box length: 1250 mm | 0.8 m³ |
| Box length: 1500 mm | 1.0 m³ |
| Box length: 1800 mm | 1.3 m³ |
| Box length: 2000 mm | 1.4 m³ |



| 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 2-5 %, optional H2>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 | | | |

M. Braun Inertgas-Systeme GmbH (Headquarters)
Dieselstr. 31 • D-85748 Garching • Germany
Phone: +49 89 32669-0 • Fax: +49 89 32669-105
E-Mail: info@mbraun.de
Commercial Register: District court Munich, HRB 51084
VATIN: DE129406284

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
Web: www.mbraunchina.com

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