

STAINLESS STEEL WELDING CHAMBER



- TIG welding in pure argon
- No additional gas protection necessary
- Simple welding of complicated structures
- Low gas consumption
- Ready for welding within 10 ppm oxygen in about 10 minutes
- Easy manual operation
- Bench top system
- Robust and sturdy construction for every day use
- Mobile, can be carried to different work places
- Side door ø250 mm

STAINLESS STEEL WELDING CHAMBER

BASIC EQUIPMENT

- Stainless steel welding chamber with box wide window made of safety glass. No contamination through poly carbonates
- Fast start up. Oxygen level blow 10 ppm within about 10 minutes with a purge flow of 300 l/min
- Gas consumption: About 3 m³ for start up, after that 10 litres per minute are sufficient
- Welding eye protection window can be moved to desired position. Can be opened for better visibility
- Side door with a diameter of 250 mm
- Lighting (more than 1000 Lux) of complete work space for good visibility
 Manual control of purge flow with flow meter for precise adjustment of gas usage
- Standard Butyl rubber gloves for easy handling
- Gas outlet and additional pressure safety valve for safe operation
 Removable, insulated connection board for integration of different feedthroughs for power, gas, water and ground if necessary
- Standard connection for existing oxygen sensor. No new sensor must be purchased
- * Depending upon operating conditions.



Side wall with connection board

Side wall with connection board

- Connection Board is equipped with standard welding feedthroughs like DINSE or bulkhead fittings. Others
- Board can be removed for integration of additional feedthroughs.



Welding box with opened eye protection

TECHNICAL DATA	
Material	Stainless steel (US 304, 1.4301)
Inside surface	Brushed finish Ra $< 1\mu m$
Outside surface	Coated, white (RAL 9003)
Window	Safety glass
Glove ports	POM, 220 mm diameter, O-ring sealed
Gloves	Butyl, thickness 0,4 mm
Inside Dimensions:	
Length	870 mm
Depth	470 mm
Height front	280 mm
Height back	530 mm
Volume	190 l
Dimensions for transport	1070 x 620 x 690 mm (W x D x H)
Weight	60 kg

STAINLESS STEEL WELDING CHAMBER

EASY OPERATION EXPLAINED IN 15 SHORT STEPS*:

- 1. Plug in the cable for light and turn on light.
- 2. Connect the gas outlet with an exhaust or put it outside the building.
- 3. Connect your welding equipment to the connection board on the left side.
- 4. Connect your oxygen monitor to the back side**
- 5. Connect welding argon grade 4.6 or better to the flow meter on the right side.
- 6. Load welding good through door and close it.
- 7. Open regulation valve on top left side.
- 8. Open red regulation valve at flow meter.
- 9. Start purging with desired flow rate. Regulate flow rate with flow meter. With 300l/min you will reach below 10ppm in about 10 minutes.
- 10. Get a cup of tea or coffee.
- 11. Reduce flow rate between 10 30 l/min.
- 12. Start welding.
- 13. When done, turn off gas flow with red regulation valve at flow meter.
- 14. Open door and take your welding good.
- 15. Turn off light to safe electric energy!
- * For details please refer to the user manual.
- ** If necessary you can order a new oxygen sensor with MBraun.
- *** Depending upon operating conditions.



Side wall with door closed

Side wall with door

- Manual door with one hand operation.
- Manual shut off valve.
- Flow regulation with manual flow control in the range from 10 to 300 l/min.



OPTIONS

PURGE ANTECHAMBER

To reduce the gas consumption order a purge antechamber. Only one initial purge of the welding box is necessary. Afterwards only a low stand by purge flow rate is required. The antechamber can be purged to a level < 10ppm within 4 minutes.

Dimensions: Diameter 250mm,length 500mm.

Doors: Inside and outside door, manually operated, left and right possible.

MB-10-G GAS PURIFICATION SYSTEM

Standard gas purification system for removing oxygen and moisture out of glove box systems.

High purity with oxygen and moisture below 1ppm. After initial setup no argon gas is necessary for maintaining the box atmosphere.

PLC M. Braun controlled with touch panel.

Automatic regeneration sequence for the purifier.

STAINLESS STEEL WELDING CHAMBER

TIG WELDING APPLICATIONS:

- · Two workstations for simultaneous TIG welding
- Specially sized antechambers (800x800x1000mm) for big parts
- High performance vacuum pumps for fast antechamber evacuation
- High performance gas purification O2 and H2O concentration below 1ppm (i.e. argon grade 6.0 or better)
- · Rotation table inside the glove box for easy positioning
- · Cooling unit in ceiling for convenient work temperature

LASER WELDING APPLICATIONS:

- · Integrated laser welding glove box including laser and positioning system
- · State of the art solid state laser
- Picture recognition for automated positioning
- Automated robot handling
- · Bake out antechamber for drying the products before welding
- Special features for safe laser operation





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

14 Marin Way • Stratham, NH • 03885 • USA
Phone: +1 (603) 773 9333 • Fax: +1 (603) 773 0008
Web: www.mbraunusa.com
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 E-Mail: info@mbraunchina.com

M. BRAUN ENGINEERING COMPETENCE

With 40 years of engineering experience and world-class core technology, we develop and produce individual, customer-specific large-scale plants. Discover the possibilities: www.mbraun.com