

# ISO<sup>pro</sup> ADVANCED

CONTAINMENT ISOLATOR



- End user protection (OEL < 1.0  $\mu\text{g}/\text{m}^3/8\text{h}$ )
- Manually adjusted air exchange rate
- HEPA filtration
- Magnehelic pressure gauges
- Outside illumination above window
- Stand with castors for easy mobility
- Leveling feet for required positioning
- All stainless steel construction 1.4404 (316L)
- Laminated safety glass
- Ergonomically designed oval ports
- Integrated material transfer chamber
- Meets GMP requirements

# ISO<sup>pro</sup> ADVANCED

## FUNCTIONS AND SPECIFICATIONS



### FUNCTION

The isolator operates in a constant relative negative pressure. Negative pressure is generated by a built in blower positioned after the outlet filter. The blower is frequency controlled and regulates the pressure to -200 Pa with an air exchange rate up to > 15 times/h. The air exchange rate can be reduced by adjusting the manual valve at the air inlet side. The frequency controlled blower will automatically increase its speed in case of a defective glove or leak. This function allows optimal operator protection under all circumstances and provides the required air speed across a glove port opening during a breach.

### Design Specification

#### Isolator inside dimensions:

Inside lengths:	1194 mm
Inside depth:	594 mm
Inside height:	925 mm

#### Transfer chamber inside dimensions:

Inside lengths:	414 mm
Inside depth:	351 mm
Inside height:	300 mm

#### Door opening:

300 mm x 300 mm

#### Isolator outside dimensions including transfer chamber and stand:

Inside lengths:	2150 mm
Inside depth:	705 mm
Inside height:	2560 mm

### Pressure Measuring

- Pressure indication by Magnehelic gauge
- Pressure regulation by analogue pressure sensor
- Pressure line protection by a 0.2  $\mu\text{m}$  (8  $\mu\text{in}$ ) filter

### Stand (pedestal)

Stainless steel 1.4301 (304) with four wheels for the transport and leveling feet for the positioning

### ISOLATOR

Body	Stainless steel 1.4404 (316L) with radius and ball corners for optimal cleaning
Window Frame	Stainless steel 1.4301 (304) screw on design
Window	Laminated safety glass on EPDM gasket with FDA certificate
Window Gasket	EPDM with FDA certificate
Glove-ports	230 x 320 mm Oval HDPE glove port with FDA certificate
Gloves	EPDM with FDA certificate
Inlet Filter	HEPA H13 screw type filter with manual shut off valve for seamless operation during filter change
Outlet Filter	HEPA H13 PUSH/PUSH double filter system
Exhaust	The air outlet is located on top of the isolator cover housing with an outside connection to an existing HVAC system
Shelving	Two level storage shelves made of stainless steel 1.4404 (316L)
Drain	Stainless steel 1.4404 (316L) positioned in the isolator floor

### Surface Specification

#### Inside surface:

Ra < 0.8  $\mu\text{m}$  (32  $\mu\text{in}$ ) welding areas passivated and polished Ra < 1.0  $\mu\text{m}$  (39  $\mu\text{in}$ )

#### Outside surface:

Ra < 1.2  $\mu\text{m}$  (47  $\mu\text{in}$ )

Isolator body and transfer chamber with radius ball corners

# ISO<sup>pro</sup> ADVANCED

## FUNCTIONS AND SPECIFICATIONS



H13 Air inlet HEPA filtration



Blower with speed control including PUSH/PUSH filtration & manual adjustment of the air exchange rate



Oval glove ports made of HDPE with tension ring and Orings



Integrated transfer chamber w/ radius ball corners for optimal cleaning



Internal Components
<b>Electrical Feedthrough:</b>
Cable feedthrough with cable (1 m inside) on/off switch
<b>Feedthrough:</b>
Three stainless steel 1.4404 (316L) flanges TC ISO DN 40 in the back wall with blind covers (outside) and Teflon plugs
<b>Illumination:</b>
>500 Lux intensity (working area)
<b>Cleaning:</b>
Customer specific

Electrical Data
<b>Voltage:</b>
115 V / 15 A
<b>Frequency:</b>
60 Hz
<b>Enclosure Protection Class:</b>
IP40

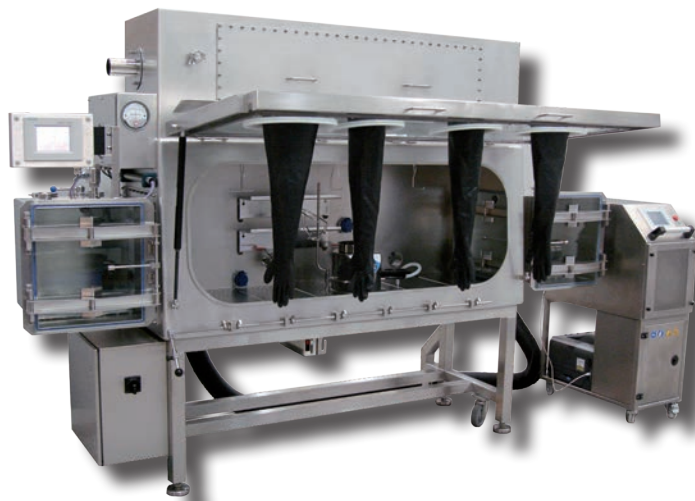
Transfer Chamber
<b>Body:</b>
Stainless steel 1.4404 (316) with radius ball corners for optimal cleaning
<b>Doors:</b>
Transparent acrylic with stainless steel hinges and manual closing mechanism
<b>Inlet filter:</b>
HEPA H13 filter

Options
• Wash In Place (WIP Equipment)
• Clean in Place (CIP Equipment)
• Hinged Window
• Alpha/Beta Systems (RTP)
• Bag-in Bag-out Port
• IQ / OQ Available

\*Technical note: Depending upon operating conditions

# ISO<sup>pro</sup> ADVANCED

CUSTOMIZED SYSTEMS



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](mailto: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](mailto:info@mbraunusa.com)  
E-Mail Service: [service@mbraunusa.com](mailto: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](mailto:info@mbraunchina.com)

## M. BRAUN ENGINEERING COMPETENCE

With 40 years of engineering  
experience and world-class  
core technology, we develop  
and produce individual, custo-  
mer-specific large-scale plants.  
Discover the possibilities:  
[www.mbraun.com](http://www.mbraun.com)