STANDARD GLOVEBOX WORKSTATIONS
LABstar WORKSTATION

The LABstar workstation is a ready to operate high quality glovebox system that meets your specific application requirements. The LABstar features an intelligent micro controller with color touch screen monitor, large main antechamber, adjustable shelving, and vacuum pump. Other standard features include a manual box purge valve, high vacuum feedthroughs, and an automatic regenerable oxygen and moisture single reactor column inert gas purification system that purifies the glovebox atmosphere to levels of less than 1 ppm oxygen and moisture. Optional ECO mode operation is available November 2013!

UNIlab PLUS WORKSTATION

The UNIlab PLUS workstation is the next step up from the LABstar workstation in the MBRAUN standard glovebox line. The UNIlab PLUS is a ready to operate high quality glovebox system that features a large main antechamber, vacuum pump, and an intelligent micro controller with a large color touch screen monitor. Other features include a manual box purge valve, integrated high vacuum feedthroughs, and an automatic regenerable oxygen and moisture inert gas purification systems with single or double reactor column purification of the glovebox atmosphere to levels of less than 1 ppm oxygen and moisture. Optional ECO mode operation is available.

UNIlab PRO WORKSTATION

The UNIlab PRO workstation offers additional features compared to the UNIlab PLUS workstation. Features include a ready to operate high quality modular glovebox with a large main antechamber, vacuum pump, and an intelligent micro controller with large color touch screen monitor. Other standard features of the UNIlab Pro include a manual box purge valve, integrated high vacuum feedthroughs, and an automatic regenerable oxygen and moisture inert gas purification systems with single or double reactor column purification of the glovebox atmosphere to levels of less than 1 ppm oxygen and moisture. Optional ECO mode operation is available.

LABmaster PRO WORKSTATION

The LABmaster PRO workstation offers additional features and benefits compared to the UNIlab and LABstar workstations. The LABmaster is the top of the line modular workstation featuring a modular workspace, large main antechamber, vacuum pump, and a PLC controller with large color touch screen monitor. Other features include an automated box purge valve, high vacuum feedthroughs, and an automatic regenerable oxygen and moisture gas purification systems with single or double reactor column purification of the glovebox atmosphere to levels of less than 1 ppm oxygen and moisture. Optional ECO mode operation is available.
LABstar Standard Features:
• Intelligent micro controller
• Color touch screen monitor
• Large main antechamber
• Three glovebox sizes available
• Vacuum pump
• Automatic regeneration H₂O/O₂ single column inert gas purifier
• Integrated high vacuum feedthroughs
• Stainless steel adjustable shelving
• Stainless steel piping

UNIlab PLUS Standard Features:
• Intelligent micro controller
• Color touch screen monitor
• Large main antechamber
• Three glovebox sizes available
• Vacuum pump
• Automatic regeneration H₂O/O₂ single (SP) (optional double (DP) column inert gas purifier)
• Manual box purge valve
• Integrated high vacuum feedthroughs
• Stainless steel adjustable shelving
• Stainless steel piping

UNIlab PRO Standard Features:
• A variety of modular glovebox sizes available
• Intelligent micro controller
• Color touch screen monitor
• Large main antechamber
• Vacuum pump
• Automatic regeneration H₂O/O₂ single (SP) (optional double (DP) column inert gas purifier)
• Manual box purge valve
• Integrated high vacuum feedthroughs
• Stainless steel adjustable shelving
• Stainless steel piping

LABmaster PRO Standard Features:
• A variety of modular glovebox sizes available
• PLC controller with color touch screen monitor
• Large main antechamber
• Vacuum pump
• Automatic regeneration H₂O/O₂ single (SP) (optional double (DP) column inert gas purifier)
• Heat Exchanger
• Sensors
• Automated box purge valve
• Integrated high vacuum feedthroughs
• Stainless steel adjustable shelving
• Stainless steel piping

*UNIlab PRO glovebox workstation pictured with optional features

*LABstar glovebox workstation pictured with optional features

*UNIlab PLUS glovebox workstation pictured with optional features

*LABmaster PRO glovebox workstation pictured with optional features

GLOVEBOX CONFIGURATIONS MAY VARY
**MBRAUN GLOVEBOX WORKSTATIONS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>MBRAUN GLOVEBOX WORKSTATIONS</th>
<th>LABstar Pro Workstation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes (Internal Workspace)</td>
<td>1200 mm (L) x 780 mm (D) x 920 mm (H)</td>
<td>1450 mm (L) x 780 mm (D) x 920 mm (H)</td>
</tr>
<tr>
<td>Controller</td>
<td>Intelligent Micro Controller w/ 7&quot; Color Touch Screen Monitor</td>
<td>(1) Gas Inlet, (1) Gas Outlet, Class H13</td>
</tr>
<tr>
<td>Dust Filter (0.3 μm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation</td>
<td>Closed Loop Recirculation</td>
<td></td>
</tr>
<tr>
<td>Gloves</td>
<td>(1) Butyl .4 mm Thick</td>
<td></td>
</tr>
<tr>
<td>Glove Port (Oval Ports Available)</td>
<td>POM 220 mm Diameter</td>
<td></td>
</tr>
<tr>
<td>Box Light</td>
<td>Fluorescent Front Mounted Lamp</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel Shelving</td>
<td>(3) 1000 mm Length x 220 mm Depth</td>
<td></td>
</tr>
<tr>
<td>Feedthroughs</td>
<td>DN 40 KF Ports and Electrical Ports</td>
<td></td>
</tr>
<tr>
<td>Leak Rate (Oxygen method according to ISO 10648-2)</td>
<td>(&lt;0.05 vol%h Typical (Class 1))</td>
<td></td>
</tr>
</tbody>
</table>

**Large Antechamber**

<table>
<thead>
<tr>
<th>Feature</th>
<th>MBRAUN GLOVEBOX WORKSTATIONS</th>
<th>LABstar Pro Workstation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Cylindrical w/ Stainless Steel Sliding Tray</td>
<td></td>
</tr>
<tr>
<td>Size (Inside Dimensions)</td>
<td>390 mm Diameter x 600 mm Length</td>
<td></td>
</tr>
<tr>
<td>Evacuation &amp; Refill</td>
<td>Manual Operation</td>
<td></td>
</tr>
<tr>
<td>Leak Rate</td>
<td>&lt;10⁻⁶ mbar l/s</td>
<td></td>
</tr>
</tbody>
</table>

**Inert Gas Purification**

<table>
<thead>
<tr>
<th>Feature</th>
<th>MBRAUN GLOVEBOX WORKSTATIONS</th>
<th>LABstar Pro Workstation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inert Gas Purification</td>
<td>Single Column Gas Purifier Unit</td>
<td></td>
</tr>
<tr>
<td>Attainable Purity</td>
<td>H₂O &lt; 1 ppm, O₂ &lt; 1 ppm</td>
<td></td>
</tr>
<tr>
<td>Vacuum Pump (Dry Pump Available)</td>
<td>10 cfm Rotary Vane Pump (12 m³/h)</td>
<td></td>
</tr>
<tr>
<td>Regeneration</td>
<td>Auto Regeneration</td>
<td></td>
</tr>
<tr>
<td>Capacity Per Reactor</td>
<td>(5) 14 l O₂ Removal &amp; 700 g H₂O Removal</td>
<td></td>
</tr>
<tr>
<td>Box Pressure</td>
<td>Automatic Box Pressure Control w/ Foot Switch (+15 mbar, -15 mbar)</td>
<td></td>
</tr>
<tr>
<td>Flow Rate</td>
<td>up to 22 m³/h</td>
<td></td>
</tr>
<tr>
<td>Piping</td>
<td>Stainless Steel 1.4301 (US Type 304)</td>
<td></td>
</tr>
</tbody>
</table>

**Optional Features**

<table>
<thead>
<tr>
<th>Feature</th>
<th>MBRAUN GLOVEBOX WORKSTATIONS</th>
<th>LABstar Pro Workstation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freezer or Box Cooling</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>Oxygen, Moisture, and Solvent Sensors</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>Solvent Vapor Removal (Internal and External)</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>Regenerable Solvent Vapor Removal</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Double Purifier (DP) Reactor Columns</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>ECO Mode Operation</td>
<td>Available</td>
<td>Available November 2013!</td>
</tr>
<tr>
<td>Mini Antechamber</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>Timed Control Antechamber Purge</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>Fully Automatic Antechamber Purge</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Automatic Antechamber Doors</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Antechamber Door Interlock</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Auto Box Purge Valve</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>Recirculation Chiller</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Heat Exchanger</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>(2) Box Operation</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Data Logging</td>
<td>Available</td>
<td></td>
</tr>
</tbody>
</table>

(1) A variety of gloves (Hypalon, Neoprene and Butyl) and thickness sizes are available upon request. (2) Double sided gloveboxes include 2 hanging shelves. Additional shelving options are available. (3) <0.05 vol%h at negative pressure. (4) Butyl .4 mm Thick. (5) Technical Note: Dependent upon operating condition. For details refer to http://www.mbraun.com/knowledge center.
### UNlab PLUS Workstation
- **Dimensions:**
  - Lengths: 1200 mm, 1500 mm, 1800 mm, 2000 mm
  - Depths: 780 mm, 1000 mm, 1200 mm
  - Height: 900 mm
- **Available Options:**
  - Intelligent Micro Controller w/ 7” Color Touch Screen Monitor
  - Closed Loop Recirculation
  - POM 220 mm Diameter
  - Fluorescent Front Mounted Lamp
  - Manual Operation
  - Single Purifier (SP) / Double Purifier (DP)
  - H₂O < 1 ppm, O₂ < 1 ppm
  - 10 cfm Rotary Vane Pump (12 m³/h)
- **Auto Regeneration w/ Auto Restart Feature:**
  - 36 l O₂ Removal & 1300 g H₂O Removal
  - Automatic Box Pressure Control w/ Foot Switch (+15 mbar, -15 mbar)
- **Stainless Steel:**
  - Stainless Steel 1.4301 (US Type 304)

### UNlab PRO Workstation
- **Dimensions:**
  - Lengths: 1250 mm, 1500 mm, 1800 mm, 2000 mm
  - Depths: 780 mm, 1000 mm, 1200 mm
  - Height: 900 mm
- **Available Options:**
  - Intelligent Micro Controller w/ 7” Color Touch Screen Monitor
  - Closed Loop Recirculation
  - POM 220 mm Diameter
  - Fluorescent Front Mounted Lamp
  - Manual Operation
  - Single Purifier (SP) / Double Purifier (DP)
  - H₂O < 1 ppm, O₂ < 1 ppm
  - 10 cfm Rotary Vane Pump (12 m³/h)
- **Auto Regeneration w/ Auto Restart Feature:**
  - 36 l O₂ Removal & 1300 g H₂O Removal
  - Automatic Box Pressure Control w/ Foot Switch (+15 mbar, -15 mbar)
- **Stainless Steel:**
  - Stainless Steel 1.4301 (US Type 304)

### LABmaster PRO Workstation
- **Dimensions:**
  - Lengths: 1250 mm, 1500 mm, 1800 mm, 2000 mm
  - Depths: 780 mm, 1000 mm, 1200 mm
  - Height: 900 mm
- **Available Options:**
  - PLC Controller w/ 7” Color Touch Screen Monitor
  - Closed Loop Recirculation
  - POM 220 mm Diameter
  - Fluorescent Front Mounted Lamp
  - Manual & Optional Push Button
  - Single Purifier (SP) / Double Purifier (DP)
  - H₂O < 1 ppm, O₂ < 1 ppm
  - 10 cfm Rotary Vane Pump (12 m³/h)
- **Auto Regeneration w/ Auto Restart Feature:**
  - 36 l O₂ Removal & 1300 g H₂O Removal
  - Automatic Box Pressure Control w/ Foot Switch (+15 mbar, -15 mbar)
- **Stainless Steel:**
  - Stainless Steel 1.4301 (US Type 304)

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1. Technical Note: Basic and Pro modules with the same customization options are available.
2. Available: Electrically heated, or use a separate heater.
3. Stainless Steel: Modular Sizes
4. Available: 400 mm (L) x 220 mm (D) x 1300 mm (H)
5. Not Available: 1200 mm (L) x 780 mm (D) x 1950 mm (H)

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*Note: *Details for various components and specifications are available on the company's website. For technical specifications, visit [http://www.mbraun.com/knowledge_center](http://www.mbraun.com/knowledge_center)
**LABstar WORKSTATION**

Weight = 400 kg / 600 kg

**UNIlab PLUS WORKSTATION**

Weight = 400 kg / 600 kg

**UNIlab PRO MODULAR WORKSTATION**

Weight = 400 kg / 600 kg

**LABmaster PRO MODULAR WORKSTATION**

Weight = 400 kg / 600 kg

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1200 mm (L) x 780 mm (D) x 920 mm (H) | 1450 mm (L) x 780 mm (D) x 920 mm (H) | 1950 mm (L) x 780 mm (D) x 920 mm (H)

1200 mm (L) x 780 mm (D) x 920 mm (H) | 1450 mm (L) x 780 mm (D) x 920 mm (H) | 1950 mm (L) x 780 mm (D) x 920 mm (H)

1250 mm (L) x 780 mm (D) x 900 mm (H) | 1500 mm (L) x 780 mm (D) x 900 mm (H) | 1800 mm (L) x 780 mm (D) x 900 mm (H)

1250 mm (L) x 780 mm (D) x 900 mm (H) | 1500 mm (L) x 780 mm (D) x 900 mm (H) | 1800 mm (L) x 780 mm (D) x 900 mm (H)
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