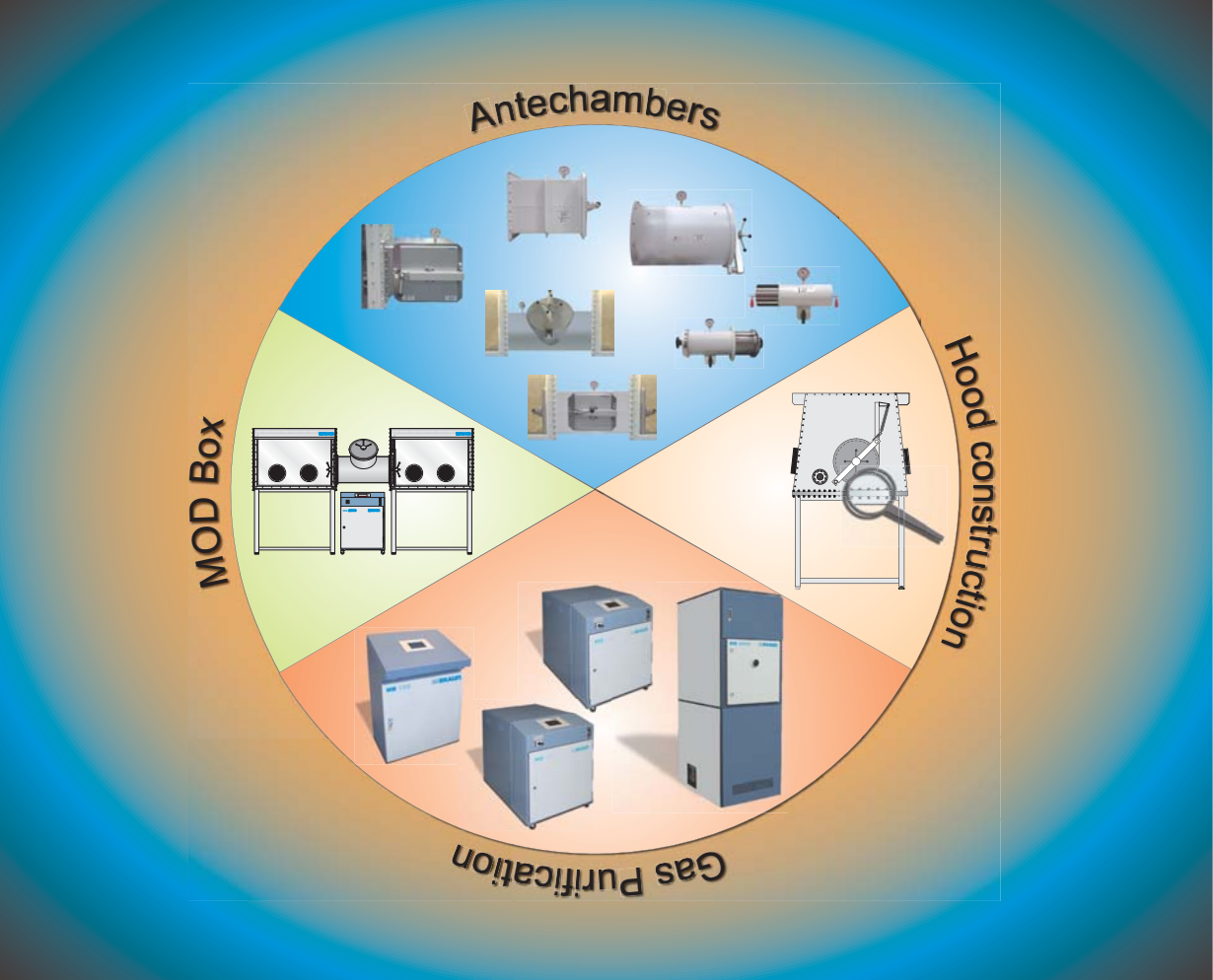




MODULAR BOX SYSTEMS AND GAS PURIFICATION UNITS

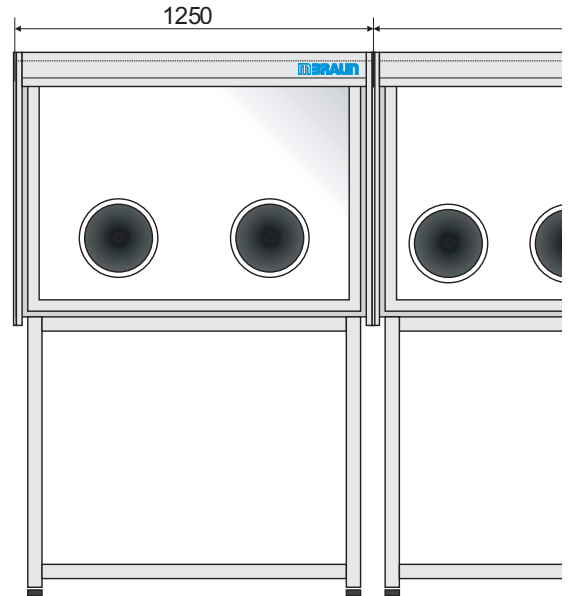
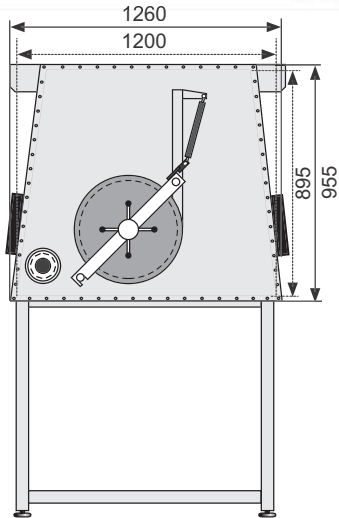
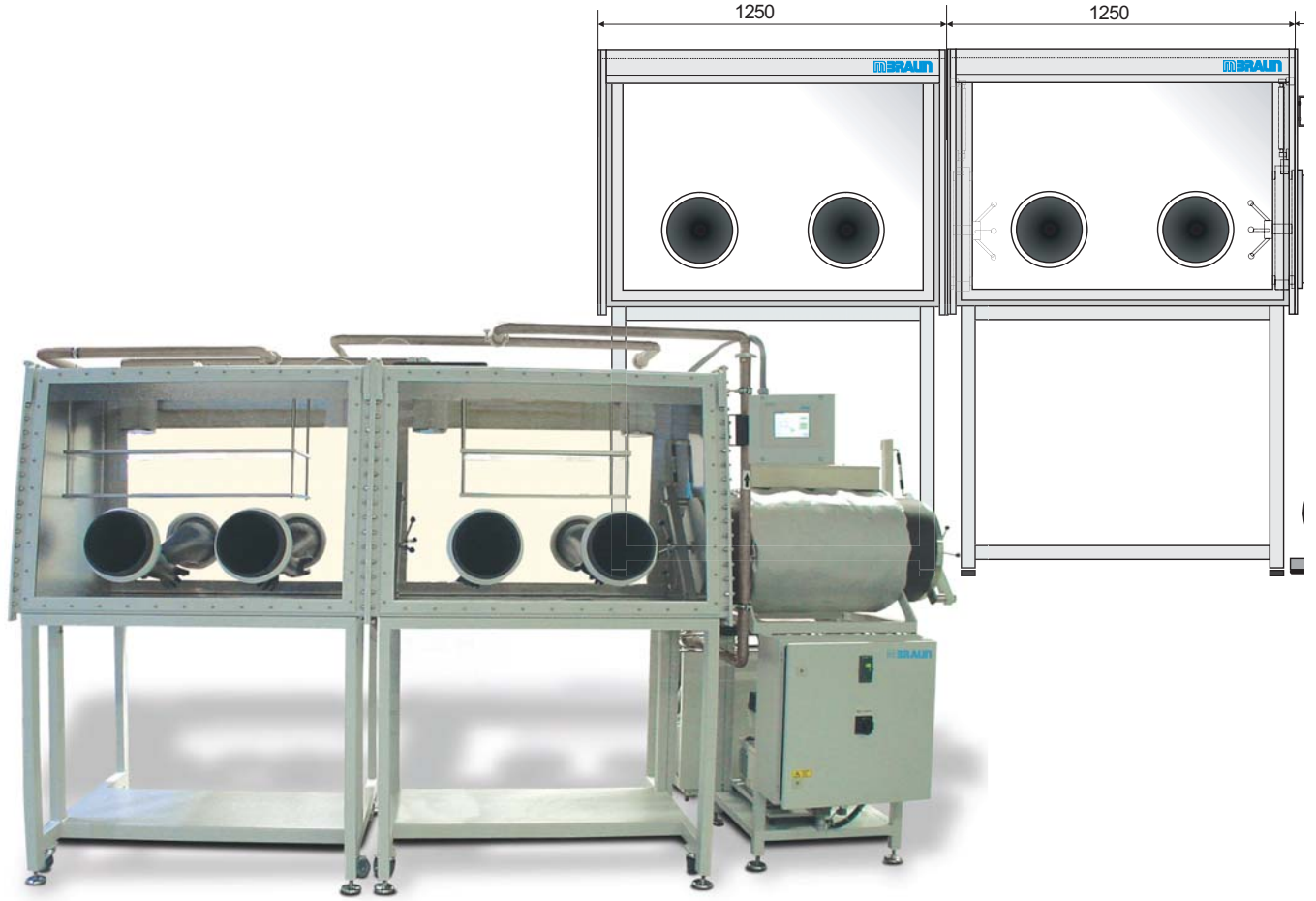
MODULAR BOX SYSTEMS

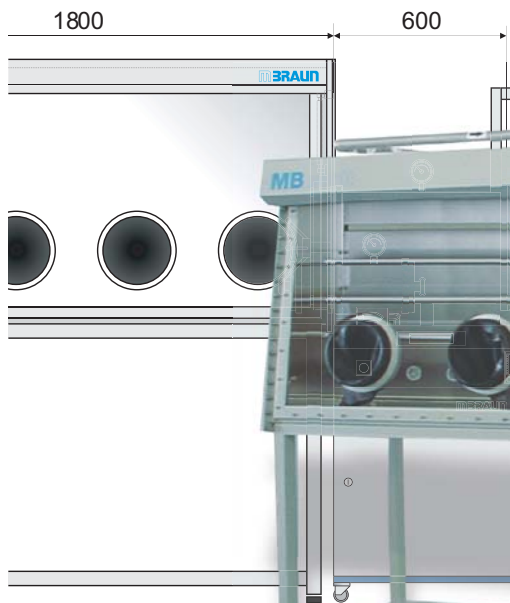
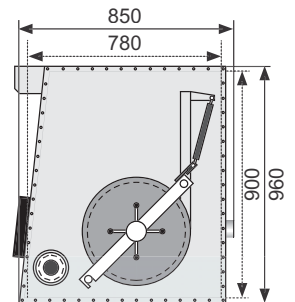
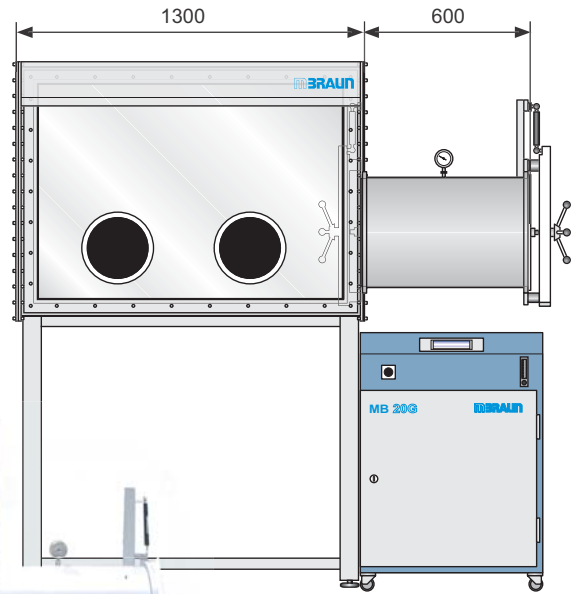
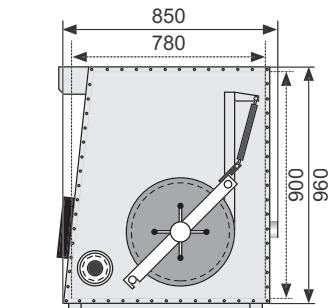
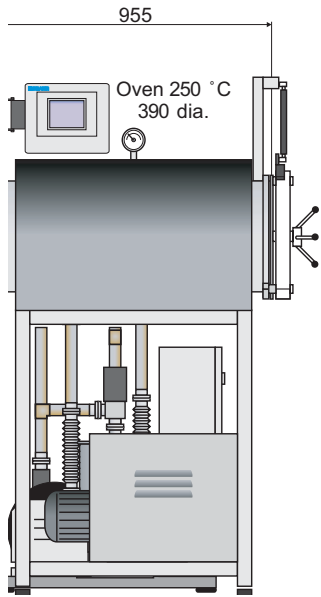


MBRAUN DATA SHEET

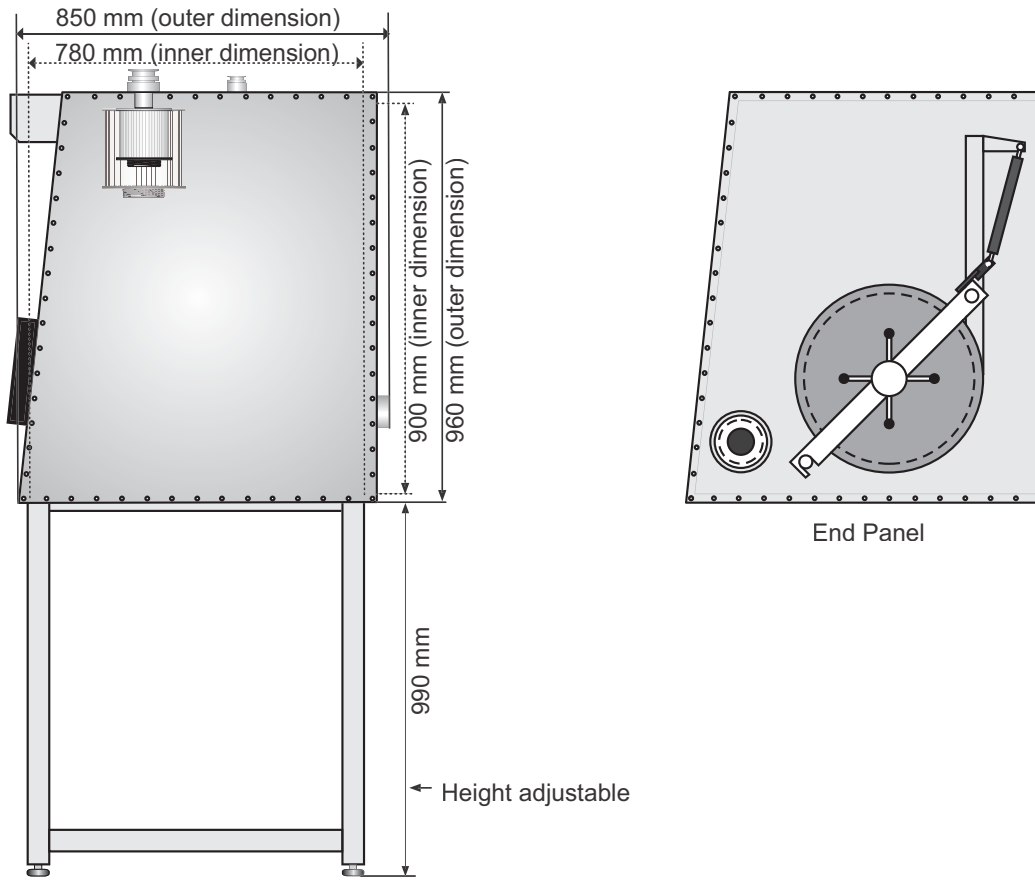
MODULAR BOX SYSTEMS/GAS PURIFICATION

Pictures



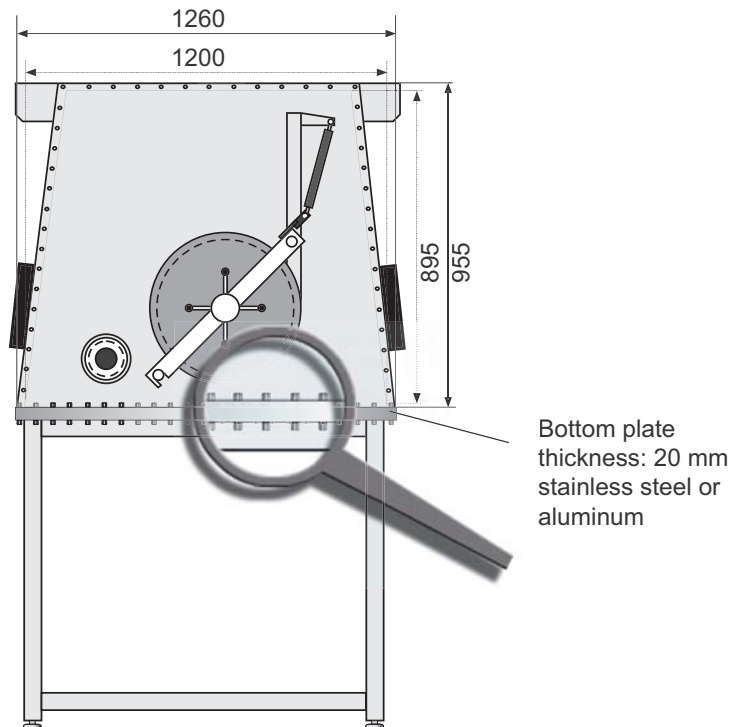


How to indicate dimensions:

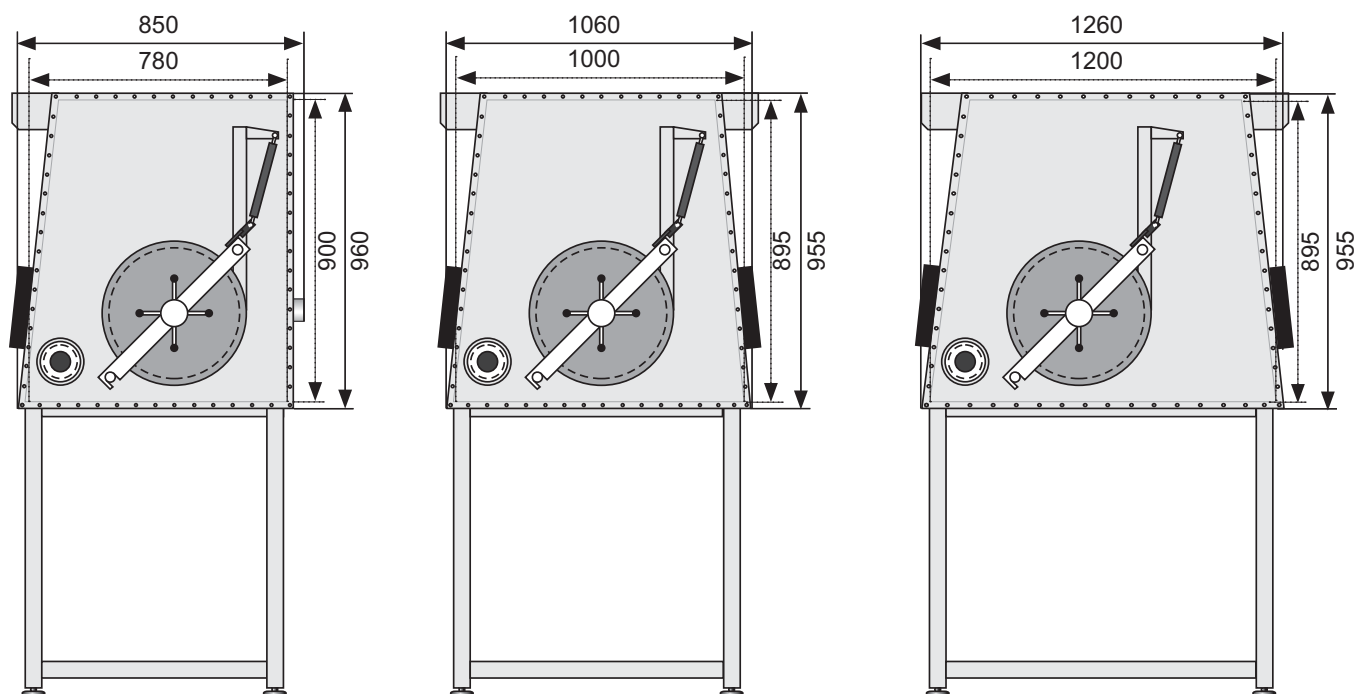
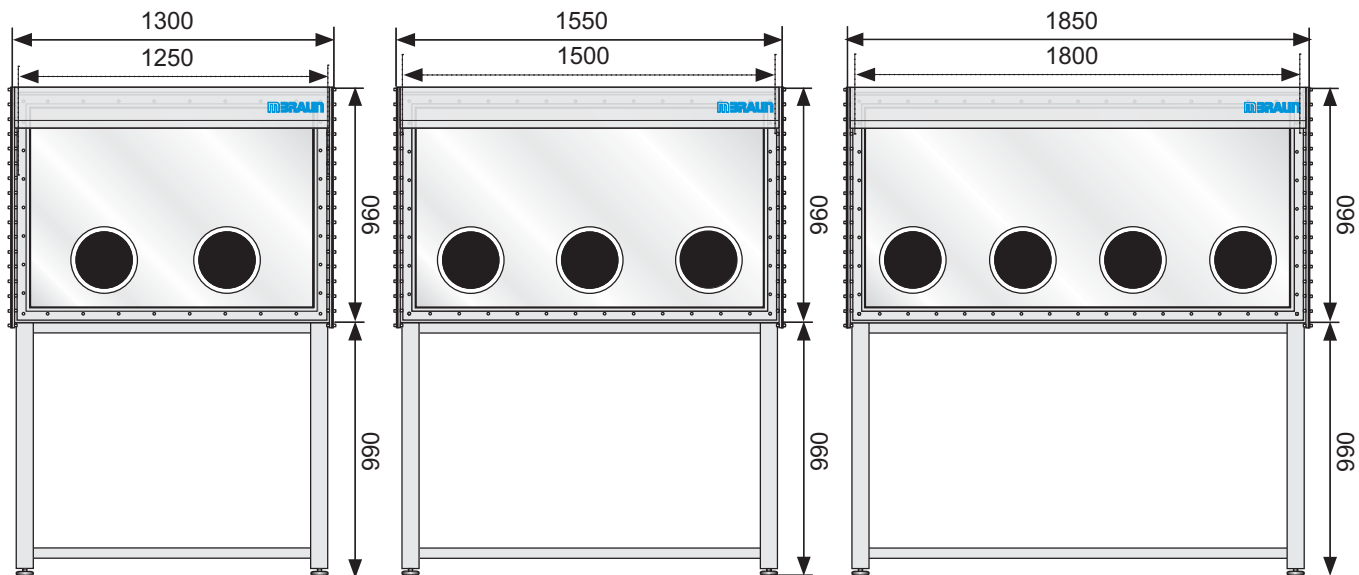


Dimensions

MBRAUN Modular system **MB MOD** with stainless steel or aluminum bottom plate, Hood construction

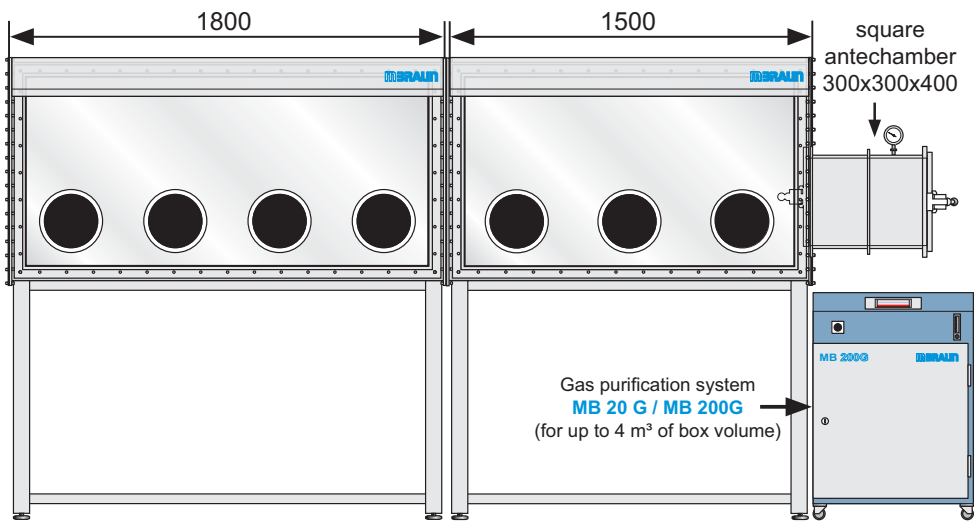
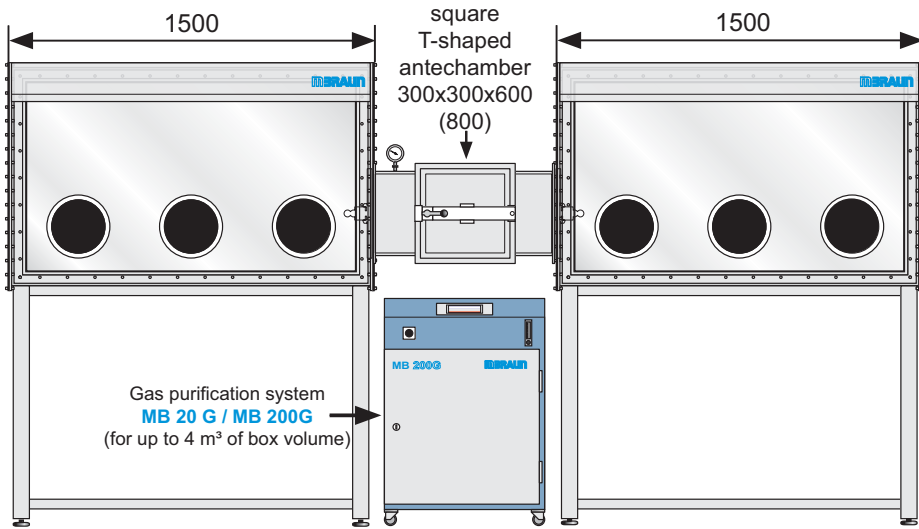
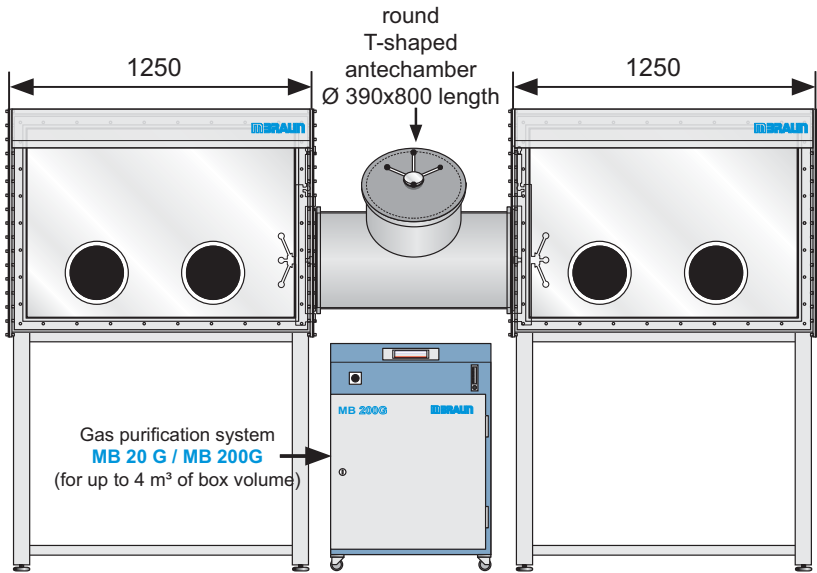


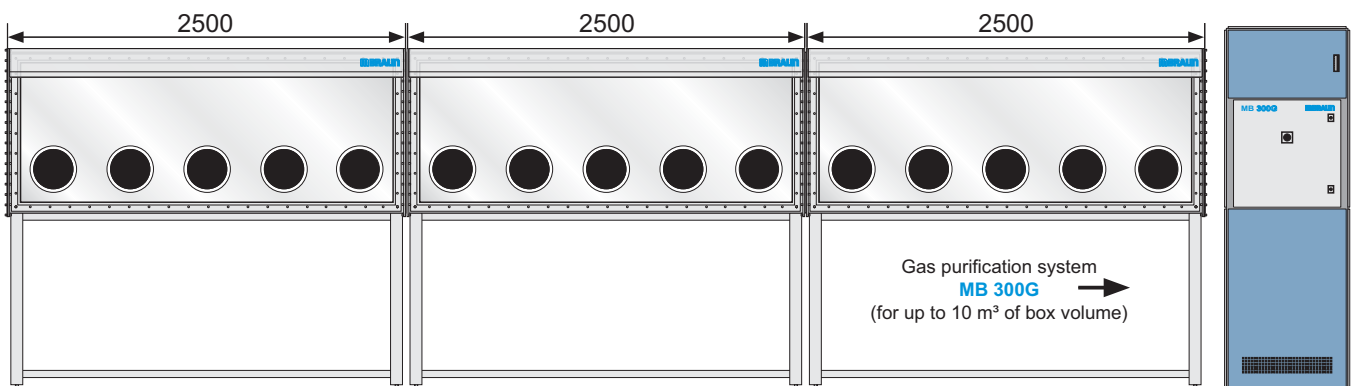
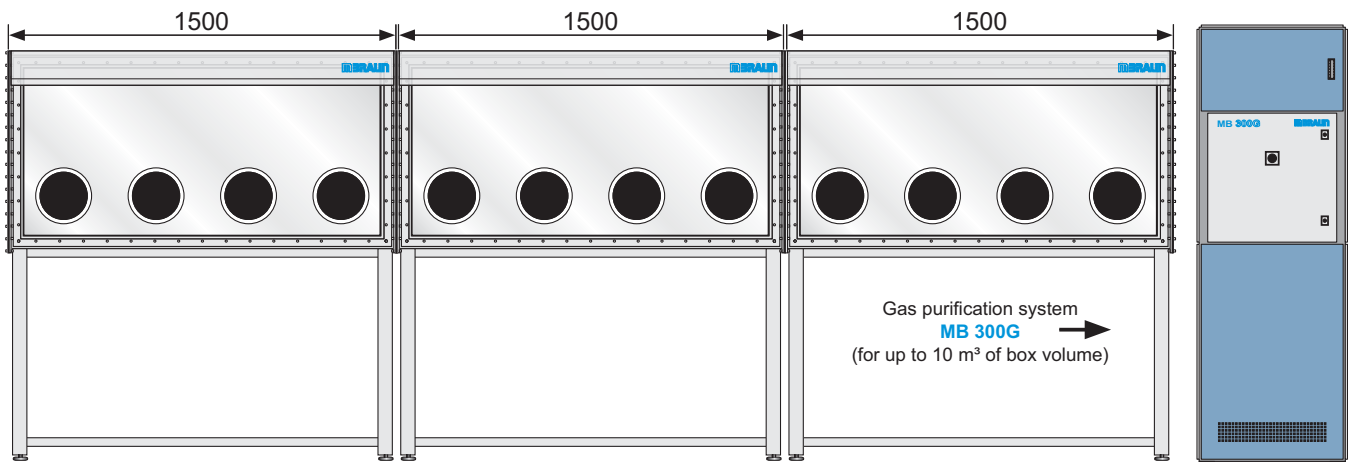
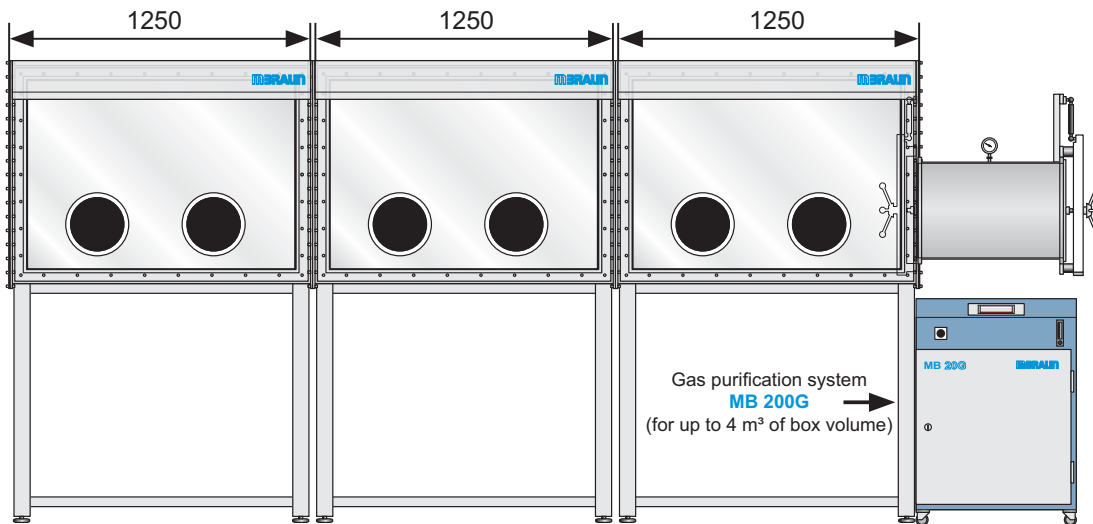
The **MBRAUN** Modular Glovebox System is available in the following dimensions (mm - l/w/h):
(different heights and lengths on request)



Examples configuration with typical gas purification systems:

Examples





Feedthroughs:

Feedthroughs



Feedthrough power



Feedthrough KF 40



Feedthrough measurement signal



Different feedthroughs



Feedthrough BNC



Feedthrough BNC



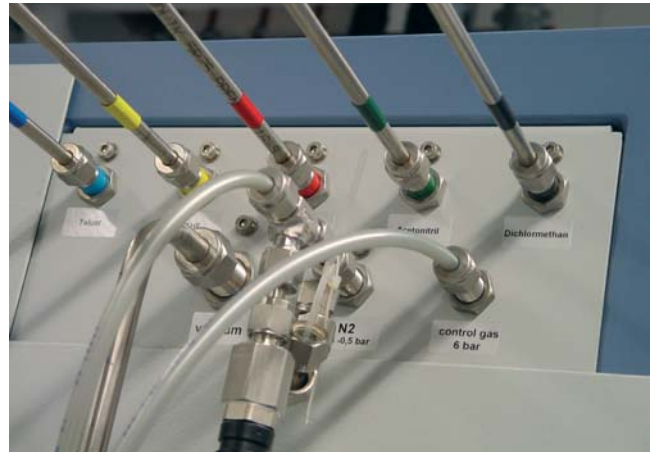
1. Feedthrough multi pin
2. Feedthrough Swagelok
3. Feedthrough HF (plug socket DNC)
4. Feedthrough skintop cable connector



Feedthrough for media (gas, water)



1. Feedthroughs KF 40
2. Feedthroughs BNC
3. Feedthroughs for media (gas, water)



Feedthroughs Swagelok



Different feedthroughs



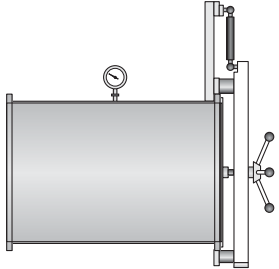
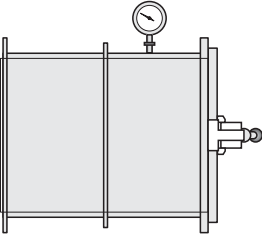
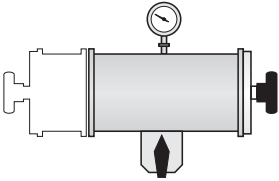
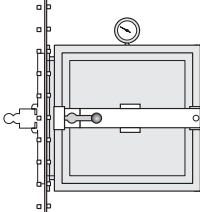
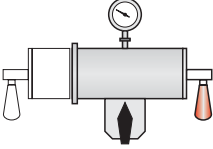
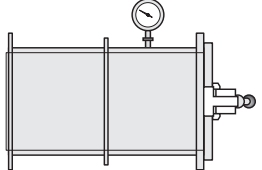
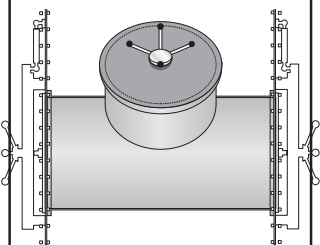
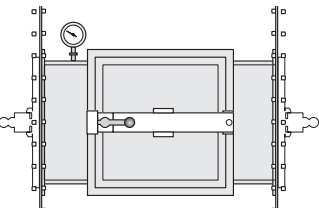
Feedthrough DN 10 with Swagelok handvalve

MBRAUN DATA SHEET

MODULAR BOX SYSTEMS/GAS PURIFICATION

Antechambers / Gas Purification Systems

MBRAUN antechambers for MOD gloveboxes available (specials see special catalog):

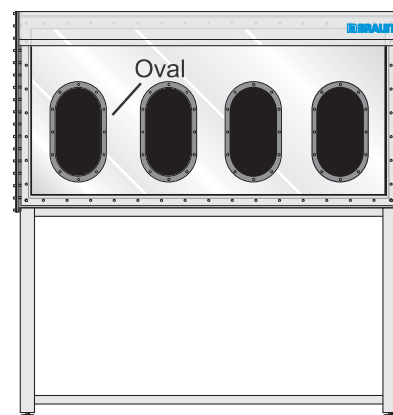
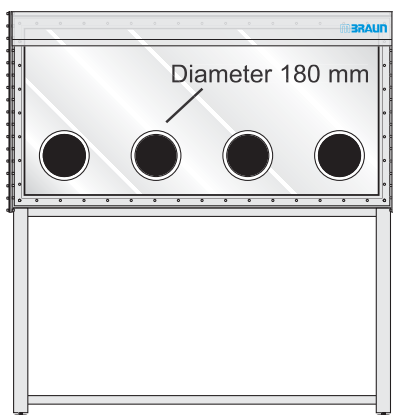
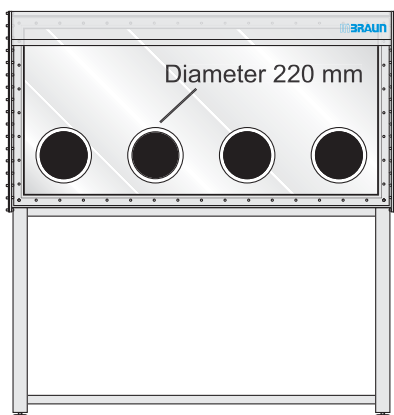
Description		Size	Description		Size
cylindrical volume: 72 l		Ø 390 mm L: 600 mm	square volume: 36 l		W: 300 mm H: 300 mm L: 400 mm
cylindrical volume: 7 l		Ø 150 mm L: 400 mm	square L-shaped volume: 36 l		W: 300 mm H: 300 mm L: 400 mm
cylindrical volume: 2,5 l		Ø 100 mm L: 300 mm	square volume: 16 l		W: 200 mm H: 200 mm L: 400 mm
round T-shaped volume: 75 l/100 l		Ø 390 mm L: 600/ 800 mm	square T-shaped volume: 54 l / 72 l		W: 300 mm H: 300 mm L: 600 mm / 800 mm

MBRAUN Gas Purification Systems



Type	MB 10G	MB 20G	MB 200G	MB 300G
General Data	Size: 980 x 600 x 478 mm (l/w/h) Weight: 80 kg	Size: 1.040 x 600 x 900 mm (l/w/h) Weight: 260 kg	Size: 1.040 x 600 x 900 mm (l/w/h) Weight: 290 kg	Size: 700 x 950 x 2040 mm (w/d/h) Weight: 600 kg
Process	Closed loop gas recirculation			
Gas Purif. System	Removal of H ₂ O and O ₂			
Working Gas	Inert gas: Nitrogen, Argon or Helium			
Attainable Purity	H ₂ O < 1 ppm, O ₂ < 1 ppm			
Purifier	Type: 1 purifier column H ₂ O / O ₂ Capacity: Oxygen removal: 20 l (standard conditions), Moisture removal: 500 g Material: Stainless Steel type 1.4301 (US type 304) Heater: Integrated, 300 W		Type: 2 purifier columns H ₂ O / O ₂ Capacity: Oxygen removal: 30 l (standard conditions), Moisture removal: 1000 g Capacity: Oxygen removal: 90 l (standard conditions), Moisture removal: 2000 g	
Regeneration	The purifier unit is regenerable Procedure: Autom. regen. program (PLC controlled) Regeneration gas: N ₂ /H ₂ mix. (H ₂ 3-5 %) or Ar/H ₂ mix. (H ₂ 3-5 %)			
Circulation Unit	Integrated blower MB BL-8 vacuum-tight, oil-free Flow rate: 20 m ³ /h (60 Hz)	Integrated blower MB BL-1 vacuum-tight, oil-free Flow rate: 84 m ³ /h (50 cfm) at ΔP = 60 mbar (60 Hz)	Integrated blower MB BL-1 vacuum-tight, oil-free Flow rate: 84 m ³ /h (50 cfm) at ΔP = 60 mbar (60 Hz)	Integrated blower MB BL-4 vacuum-tight, oil-free Flow rate: 155 m ³ /h (50 cfm) at ΔP = 80 mbar (50 Hz)
Cooling	Type: Ambient air	Type: Water cooling 2-3 l/min (optional)		Type: Water cooling 5 l/min option: recirculating chiller
	(allows convenient temperature of box atmosphere at elevated ambient temperature)			
Vacuum Pump	Type: Rotary vane pump, oil mist filter, oil recirculation, automatic gas ballast control (dry pump on request) Operation: 17 m ³ /h (10 cfm), dual stage, ultim. vacuum < 3 - 10 ⁻² mbar			Operation: 25 m ³ /h (15 cfm), dual stage, ultim. vacuum < 3- 10 ⁻² mbar (dry pump on request)
Valves	Main valves: Electropneum.valves MB EPV-40 DN 40 Control valves: MB LogicSVB magn. valve system, DN 6/10 (Brass)			Main valves: Electropneum. gate valve DN 63
Piping	Main piping: Copper pipe DN 40 KF-flange system Control pipework: Copper pipe DN 6/10 (Stainless Steel pipe 1.4301 (US type 304) on request)			
Integral Leak Rate	Less than 10 ⁻⁶ mbar l/s			

Glove ports:



Gloves:

Butyl:
0,4 mm / 0,7 mm thickness



Hypalon:
0,4 mm thickness