

***Heating Cabinets  
(Standard-types)***

***ConThermo-Box***

# Heating Cabinet "ConThermo-Box" - variable standard solution - for heating drums and containers

ConThermo-Boxes are standardised heating cabinets based on an element construction of self-supporting wall- and roof elements.

Based on this specific construction a serial manufacturing is possible to comply with the high requests and demands of the industry.

The basic model can be designed by several versions and equipment variations or combinations of these. Electronic temperature control and forced air circulation are obligatory.

The combination of serial manufactured basic construction and individual equipment variations results in a favourable cost effectiveness.

ConThermo-Boxes are mainly used for drums and containers. But they are also suitable for other fields of application, like:

- drying of powder and granulate, etc.
- tempering of metal parts
- curing of rubber and plastic parts
- etc.

ConThermo-Box for 2 x 200 l Drums

**2-Drums-System**



ConThermo-Box for 4 x 200 l Drums or 1 x 1000 l Container

**4-Drums-System**



ConThermo-Box for 8 x 200 l Drums or 2 x 1000 l Containers

**8-Drums-System**



1 Chemistry-Palette  
for 2 x 200 l Drums



1 x 1000 l Container (e.g. IBC)



<b>Technical Data: ConThermo-Box</b>						
<b>Design</b>	<b>Electric ConThermo-Box CBE...</b>			<b>Steam ConThermo-Box CBD...</b>		
<b>Heating</b>	screw-in heating elements of stainless steel, AISI 321 (1.4541) within the air duct of the reverse side			Spiral ribbed pipe heating register of carbon steel -black condition within the air duct of the reverse side		
<b>Energy</b>	electricity			steam / hot water (thermal oil on request!)		
<b>Temperature Control</b>	- self optimizing digital temp. Controller (°C/°F) - temperature range selectable (up to 230°C) - digital indication for set point and actual temp. value - temperature measurement by Pt100 - temperature cut-off (adjustable) 50 - 300°C - completely and ready wired for easy connection			- temperature controller (self operated) - thermostat adjustable by scale 0 ... 4 for temperature range 50 - 120°C or 70 - 150°C or others (on request!) - analogue thermometer for actual inside temperature indication: 0 - 120°C or 0 - 200°C		
<b>Controls</b>	terminal box - incl. all necessary control devices main connection 3 x 400 V/50 Hz			Fan controlled by motor protection switch IP 54 incl. signal lamps for "operation" and "fault" main connection 3 x 400 V/50 Hz		
<b>Painting</b>	2-component-varnish ruby-red (RAL 3003) - other colours also possible without additional cost					
<b>Construction</b>	- self supporting wall- and roof elements / profile framework for the roof area - cabinet on 4 feet of 100 mm height - steel sheets galvanized - insulated base construction (location area) load capacity 1200 kg - insulation 80 mm mineral wool - also bottom - insulated door with bolt door lock (openable also from inside) and silicone profile door sealing - solid door handels, consisting of plastic/alu, black, temperature- and weather resistant					
<b>Type</b>	<b>2-Drums-Sys. CBE2...</b>	<b>4-Drums-Sys. CBE4...</b>	<b>8-Drums-Sys. CBE8...</b>	<b>2-Drums-Sys. CBD2...</b>	<b>4-Drums-Sys. CBD4...</b>	<b>8-Drums-Sys. CBD8...</b>
<b>Size</b>	2 x 200 l Drums	4 x 200 l Drums or 1 x 1000 l Container	8 x 200 l Drums or 2 x 1000 l Containers	2 x 200 l Drums	4 x 200 l Drums or 1 x 1000 l Container	8 x 200 l Drums or 2 x 1000 l Containers
<b>Capacity</b>	8 kW	12 kW	24 kW	-	-	-
<b>Heat Surface</b>	-	-	-	25 m <sup>2</sup>	40 m <sup>2</sup>	70 m <sup>2</sup>
<b>Air-Circulation</b>	1 fan 0,55 kW 1900 m <sup>3</sup> /h at 289 Pa	1 fan 0,55 kW 1900 m <sup>3</sup> /h at 289 Pa	2 fans, each 0,55 kW 1900 m <sup>3</sup> /h at 289 Pa	1 fan 0,55 kW 1900 m <sup>3</sup> /h at 289 Pa	1 fan 0,55 kW 1900 m <sup>3</sup> /h at 289 Pa	2 fans, each 0,55 kW 1900 m <sup>3</sup> /h at 289 Pa
<b>Dimensions</b>	w x d x h (mm)	w x d x h (mm)	w x d x h (mm)	w x d x h (mm)	w x d x h (mm)	w x d x h (mm)
<b>Interior</b>	ca. 1400 x 1000 x 1600	1400 x 1370 x 1600	2800 x 1370 x 1600	1400 x 1000 x 1600	1400 x 1370 x 1600	2800 x 1370 x 1600
<b>Exterior</b> plus Attachements	ca. 1570 x 1280 x 2025	1570 x 1650 x 2025	3140 x 1650 x 2025	1570 x 1280 x 2025	1570 x 1650 x 2025	3140 x 1650 x 2025
<b>Exterior</b> incl. Attachements	ca. 1730 x 1370 x 2315	1730 x 1740 x 2315	3390 x 1740 x 2315	1730 x 1370 x 2315	1730 x 1740 x 2315	3390 x 1740 x 2315
<b>Weight</b>	ca. 550 kg	750 kg	1450 kg	640 kg	840 kg	1550 kg

<b>Options: ConThermo-Box</b>	
<b>A Interior Equipment</b>	
<b>A1 Roller Tracks</b>	2 (4-drums-system) or 4 (8-drums-system) roller tracks side by side Roller track frame to be put on and fixed on the cabinet floor
<b>A2 Collection Trays</b>	According to (German) law of environmental protection (WHG§19). Capacity 205 ltr. With removable steel grid and ca. 100 mm height feet usable for forklift truck, carbon steel (3 mm thick), galvanized Dimensions (w x d x h) 1290 x 1211 x 250 mm Load capacity 1200 kg Guiding bars to place the tray at right position
<b>A3 Roller Tracks + Collecting Tray</b>	Description as per option A1 and A2 Roller track frame construction to be put on top of the collecting tray
<b>B Exterior Equipment</b>	
<b>B1 Moisture Protection</b>	Additional silicone sealant of the outer sheets (e.g. for erection outdoors - under shelter)
<b>B2 Weather Roofing</b>	Weather roof covering cabinet top approx. 300 mm to all cabinet sides - provided with 4 screwed-on feet
<b>C Electric ConThermo-Box</b>	
<b>C1 Electronic Timer</b>	LCD-indication / placed within the front sheet of the terminal box display guided operating instructions adjustable programme for daily and weekly application 4 years guaranteed standby
<b>C2 Temperature Recorder</b>	Within the front sheet of the terminal box (temperature recorder) (detailed technical description on request!)
<b>C3 Safety Temperature Limiter</b>	Electronic version for higher safety level (DIN 3440) - within the terminal box
<b>C4 Electric Flame Proof Design</b>	for zones 1 + 2 (T2 = 300°C / T3 = 200°C / T4 = 135°C) (Technical details on request!)
<b>C5 Solid-State-Relays</b>	Solid-State-Relay (SSR) as zero-voltage switch within the power circuit of the heating are favourable compared to common contactors - by: - higher frequency of operation (= temperature exactness) - no flash-wear of contacts - long-life (= Reliability) > 10 <sup>9</sup> switching
<b>D Steam ConThermo-Box</b>	
<b>D1 Safety Temperature Limiter</b>	According to DIN 3440, self operated limit value 40 - 95°C or 70 - 120°C (special ranges on request!)
<b>D2 Temp. Controller (self operated) with separate setpoint adjustment</b>	with °C-scale/°F-scale ranges 20 - 120°C or 50 - 150°C (special ranges on request!)
<b>D3 Steam Flame Proof Design</b>	for zones 1 + 2 (T2 = 300°C / T3 = 200°C / T4 = 135°C) fan and motor protection switch flameproof design
<b>D4 Electronic Steam Controller</b>	Control-valve and actuator-unit, electron. digital controller
<b>D5 Thermal-Oil Design</b>	Also electronic controller for thermal-oil operation available - on request!