

# Stationary hotbox, type HBs

Oil- and gas heated, without pump.

Enormous heating capacity is possible by parallel connection of several self-sufficient working boilers. These are very solid aggregates with integrated burner, able to heat up water under pressure quickly to the adjusted temperature on the thermostat immediately.

## Plug & Spray:

Simply connect with water, electricity, fuel as well as the chimney and the required hot water is at your disposal.

## Outstanding features:

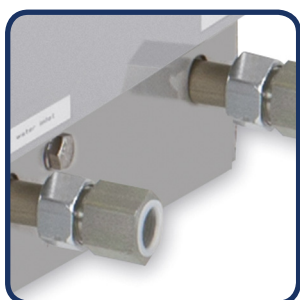
- No loss caused by stand still due to storage of hot water in the burner.
- Reliable, solid edition.
- Easy handling.
- No pre-heating time.
- There is no need for transportation of hot water by the pump.
- High degree of efficiency and thus low fuel consumption. (Compared with modern boiler systems).
- Design tested burner.
- Easy to maintain.

## Application areas:

- General cleaning: vehicle workshops, fuel stations, wash facilities, washing bays, forwarding companies, airports
- Hygiene: abattoirs, meat production, milk factories, breweries, bottling rooms for water and juices, fast food industry.
- Availability of hot water in manufacturing plants: for example degreasing facilities.

## Description:

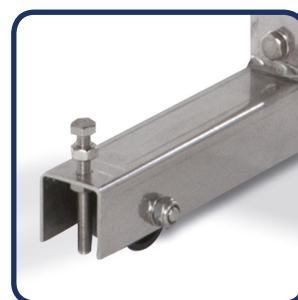
- Most of the supporting basic parts consist of solid stainless steel sheet profiles.
- The mounting plate is made of stainless steel and has a high durability.
- Available in standard configuration or different variants.
- Easy maintainance by removeable stainless steel paneling and good accessibility to all relevant parts.
- Boiler BR1000, BR1000 Eco Plus and BR1000G are exclusively used in the hot boxes.
- Application: In accordance to the required capacity 3 boilers can be operated parallelly. Each burner has got an independent safety and control system which are installed all in one switch box.
- Fast assembly time. The machines are wired and piped completely. In standard they are made from galvanised steel Ermeto pipes (AISI 304 available upon request).
- After the installation just connect the water inlet and outlet, electricity, fuel, chimney and probably the air intake.
- Furthermore the characteristics correspond to our standard boilers.



Water connection



Switch box HBs2



Fixable rolls



Air intake connecting piece

## Sectioning

Stationary hotbox, 110 / 230V, oil- and gas heated, type HBs

Pos.	Description
1	Chimney
2	Boiler 1
3	Chimney 2
4	Boiler 2
5	Gas inlet
6	Safety control 2
7	Water outlet
8	Air intake connecting piece
9	Air intake conduit
10	Safety control 1
11	Switch box

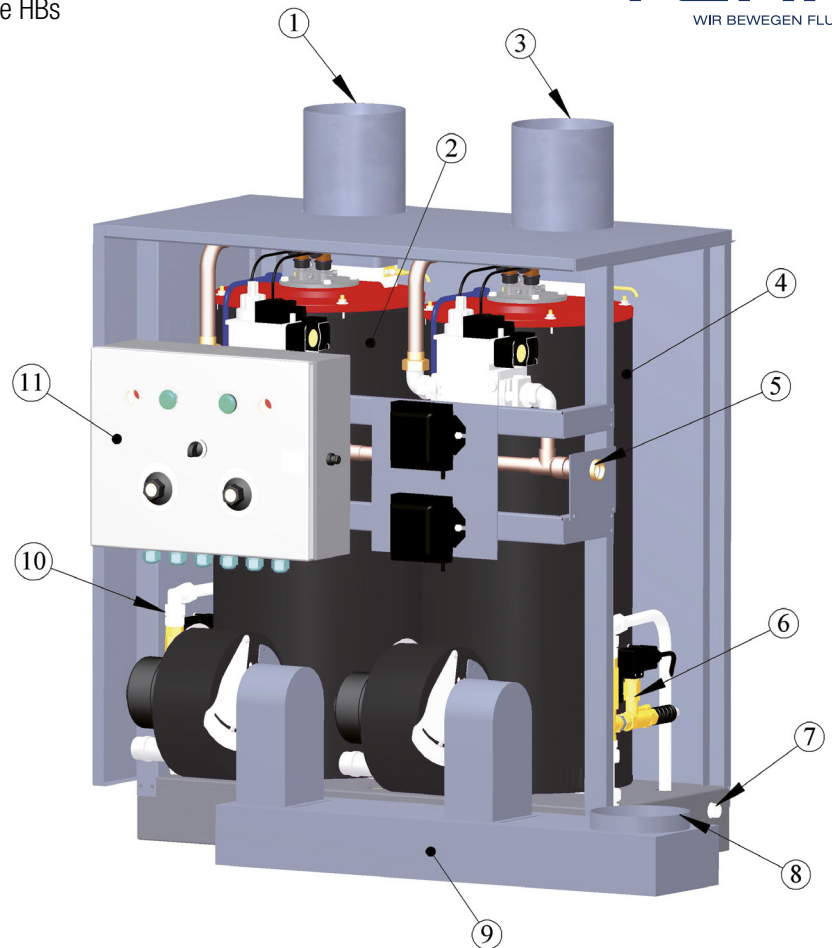
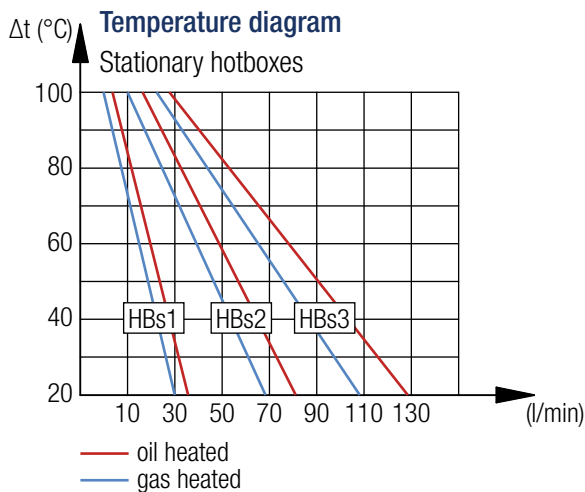


Figure of the basic version type HBs2, gas heated, without mounting units. (Wall console or stand) Side coating and cover are not shown. The air intake conduit with the air intake connecting piece is on choice. The gas specific switch and safety elements will be exchanged against oil specific ones for the oil operated machine.



The diagram shows achievable water temperatures with 10 bar oil pressure, respectively the maximum gas efficiency. With pleasure we will assist you when calculating your individual requirements.

### Technical details of the boiler

You will find further information about the used pressure flow heater on page 4-5.

### Attention DC!

You have to provide 28A at 12V or 14A at 24V for each boiler. Otherwise the battery will deflate.

### Range of efficiency

Type	HBs1 (1 boiler)		HBs2 (2 boiler)		HBs3 (3 boiler)	
	Oil	Gas	Oil	Gas	Oil	Gas
Heating capacity [kW]	80	68	160	136	240	204
min. volume flow [l/min]	13	10	26	20	39	30
max. volume flow [l/min]**	20	17	40	34	60	51
min. water temp. [°C]	60	60	60	60	60	60
max. water temp. [°C]	95	95	95	95	95	95

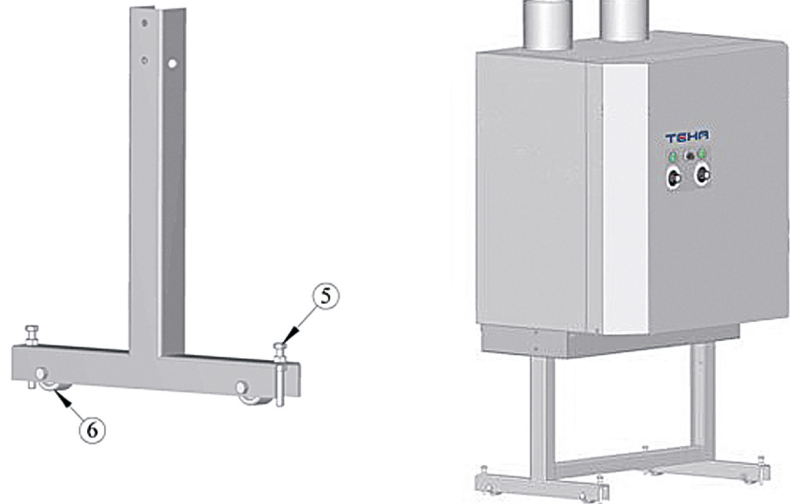
\*\* If the value exceeds the maximum volume flow, problems with the condensation may occur.

## Possibilities of mounting, hotbox type HBs

The installation of the facilities is flexible and extremely easy due to a well thought-out mounting system.

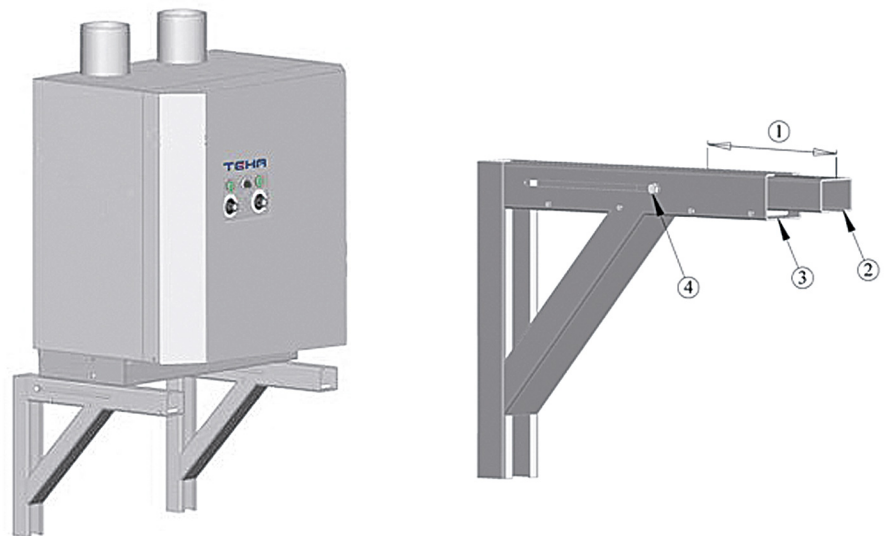
### Floor mounting

Two stands allow the mounting on the floor. Rolls (6) underneath the bracket stands simplify the movement. The height can be adjusted by screws (5) to a complete stop.



### Wall mounting

A telescope bracket allows a direct mounting to the wall. Guide rolls (3) simplify the movement (1) of the arms (2). A locking device screw (4) fixes the telescope arm. Easy maintenance is possible without removing the complete chimney. Wall bracket hotbox



### Pressure range:

#### 1. High pressure range, 20 – 500 bar

Applicable for connection to a high pressure pump. Thus the combination becomes a fully functioning hot high pressure cleaner. (ATTENTION: only combined with 3/8" – heating coils!)

#### 2. Low pressure range, 4 – 20 bar

Applicable for connection to a water pipe or to a corresponding centrifugal pump. Thus a powerful flow heater is at your disposal. Minimum flow pressure 4 bar. (ATTENTION: combined only with 1/2" – heating coils MP10400965)

### Hotbox-variations:

Aus den folgenden Tabellen können Sie sich eine Variante, passend für Ihren Bedarf, nach folgenden Kriterien zusammenstellen:

- |  |  |
|--|--|
| 1. Capacity requirements and water quantity: | See table temperature.   |
| 2. Pressure range:                           | 4-500 bar  |
| 3. Equipment of boiler:                      | Heating coil made from steel or stainless steel.<br>Covers steel, galvanized or stainless steel. |
| 4. Electrical equipment:                     | 230V 50 Hz or 110V 50 Hz or 12V DC or 24V DC.  |
| 5. Way of mounting:                          | Wall or ground mounting with and without bracket.  |
| 6. Air intake:                               | From inside the installation room or outside?  |
| 7. Cover:                                    | With or without stainless steel cover?   |

## Gross price list, Hotbox- variations type HBs, oil and gas heated, 230V 50 Hz

Basic (without cover, without outside air intake, without exhaust gas collector, without mounting elements, incl. chimney adapter diameter 180mm).

### High pressure range

#### Steel heating coil ST

Hotbox type	300bar - 3/8"				500bar - 3/8"			
	Oil		Gas		Oil		Gas	
	Art. Nr.		Art. Nr.		Art. Nr.		Art. Nr.	
HBs1	V10470002		V10470002-G		V10470005		V10470005-G	
HBs2	V10470003		V10470003-G		V10470006		V10470006-G	
HBs3	V10470004		V10470004-G		V10470007		V10470007-G	

#### Stainless steel heating coil 1.4301\*

Hotbox type	300bar - 3/8"				500bar - 3/8"			
	Oil		Gas		Oil		Gas	
	Art. Nr.		Art. Nr.		Art. Nr.		Art. Nr.	
HBs1	V10470008		V10470008-G		V10470011		V10470011-G	
HBs2	V10470009		V10470009-G		V10470012		V10470012-G	
HBs3	V10470010		V10470010-G		V10470013		V10470013-G	

\* Used materials in stainless steel version: heating coils 1.4301, galvanized Ermetor tubes, valves and switches made of brass. Stainless steel below the console upon request available.

### Low pressure range

#### Steel heating coil ST

Hotbox type	200bar - 1/2"			
	Oil		Gas	
	Art. Nr.		Art. Nr.	
HBs1	V10470014		V10470014-G	
HBs2	V10470015		V10470015-G	
HBs3	V10470016		V10470016-G	

#### Stainless steel heating coil 1.4301\*

Hotbox type	200bar - 1/2"			
	Oil		Gas	
	Art. Nr.		Art. Nr.	
HBs1	V10470017		V10470017-G	
HBs2	V10470018		V10470018-G	
HBs3	V10470019		V10470019-G	

\* Used materials in stainless steel version: heating coils 1.4301, galvanized Ermetor tubes, valves and switches made of brass. Stainless steel below the console upon request available.

### Surcharges for specific equipment

The following surcharges have to be added to the basic types.

Description / Type	HBs1	HBs2	HBs3
Cover stainless steel 1.4301	B10470002	B10470006	B10470010
Outside air intake stainless steel 1.4301	B10470003	B10470007	B10470011
Stand (pair) stainless steel 1.4301	B10470004	B10470008	B10470012
Telescope console (pair) stainless steel 1.4301	B10470005	B10470005	B10470005
Oil inner- and outer casing stainless steel 1.4301	M10470001	M10470001	M10470001
Gas inner- and outer casing stainless steel 1.4301	M10470001-1	M10470001-1	M10470001-1
Diffusor (Tuningset)	B10400320	B10400320	B10400320
Biodiesel version (oil pre-heater)	B10400326-1	B10400326-1	B10400326-1
Low pressure version (press. switch, valve)	MP10400965	MP10400965	MP10400965
Digital thermostat + PTC sensor	MP10400972-2	MP10400972-2	MP10400972-2

## Gross price list, Hotbox-variations type HBs, oil heated, 12V (direct current)

Basic type (without cover, without outside air intake, without exhaust gas collector, without mounting elements)

### High pressure range

#### Steel heating coil ST

Hotbox Type	300bar - 3/8"		500bar - 3/8"	
	Art. Nr.		Art. Nr.	
HBs1	V11470002		V11470005	
HBs2	V11470003		V11470006	
HBs3	V11470004		V11470007	

#### Stainless steel heating coil 1.4301\*

Hotbox Type	300bar - 3/8"		500bar - 3/8"	
	Art. Nr.		Art. Nr.	
HBs1	V11470008		V11470011	
HBs2	V11470009		V11470012	
HBs3	V11470010		V11470013	

\* Used material in stainless steel version: heating coils 1.4301, galvanized Ermetor tubes, valves and switches made of brass.

### Low pressure range

#### Steel heating coil ST

Hotbox Type	200bar - 1/2"	
	Art. Nr.	
HBs1	V11470014	
HBs2	V11470015	
HBs3	V11470016	

#### Stainless steel heating coil 1.4301\*

Hotbox Type	200bar - 1/2"	
	Art. Nr.	
HBs1	V11470017	
HBs2	V11470018	
HBs3	V11470019	

\* Used material in stainless steel version: heating coils 1.4301, galvanized Ermetor tubes, valves and switches made of brass.

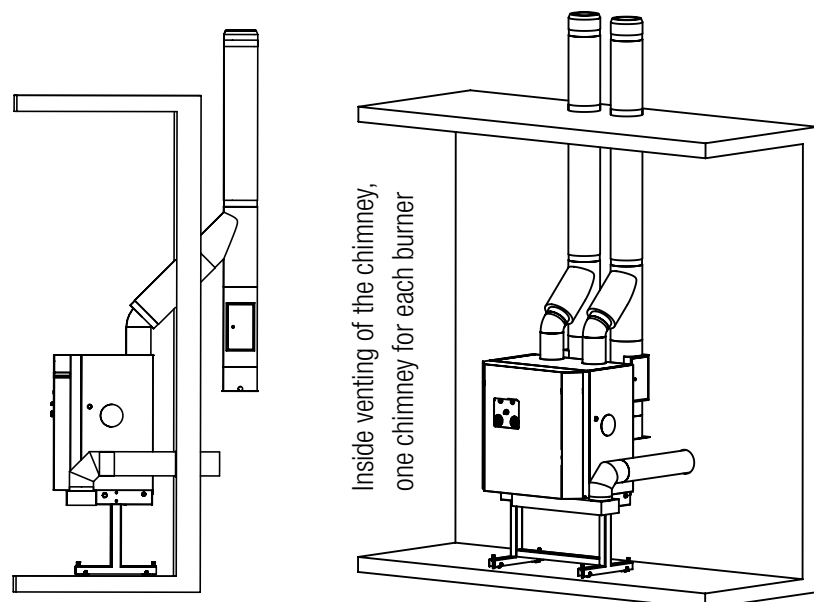
### Surcharges for specific equipment

The following surcharges have to be added to the basic types.

Description / Type	HBs1	HBs2	HBs3
Outside air intake stainless steel 1.4301	B10470003	B10470007	B10470011
You will find more variations on the previous page in the table at the bottom.			

### Examples for chimney- and additional air venting

Each country has got its own national direction for the exhaust gas extraction. We recommend applying to the responsible authorities (chimney sweeper) for the exact directions before mounting.



Dimensions:

Type	b [mm]	C [mm]	d1 [mm]
HBs1	535	140	125
HBs2	826	180	160
HBs3	1275	230	200