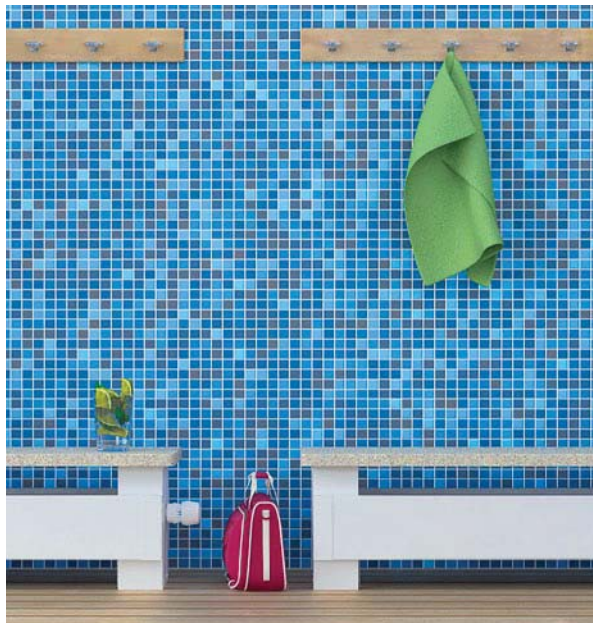




THE SENSOTHERM **HBD**
HEATING BENCHES WITH SEAT

**Senso
therm**
heat with style



[Sensotherm HBD • HBBB

SENSOTHEM HEATING BENCHES WITH SEAT natural convection

For heating and rest? Yes. Just sit back, rest, relax or just wait. For benches with the top seat made of solid oak, beech or of artificial stone, a load is no problem. This proven clever combination of design, performance and utility features will be appreciated when implemented in residential development and public spaces.



Natural convection heating benches with seat Sensotherm HBD • HBBD

The Sensotherm HBD was designed for premises intended for relaxation. The bench is fitted with a covering seat that can withstand static load without problems and is also suitable to sit on. Attention, the covering seat must be ordered separately. The seats are positioned on the convector and fixed to the convector structure. The Sensotherm HBD convector can be installed for example in halls or winter gardens. For use in pool areas we recommend the order is placed for complete stainless steel finish – so called pool adaptation.

- natural convection convectors
- wide range of types and designs offered
- easy to clean and maintain

Standard delivery contains

- steel sheet plating, coated in colour shade RAL 9010 – white
- Al/Cu heat exchanger with low water content, air vent and uniquely shaped fins for higher heat output
- the set is packed in durable packaging and contains installation instructions

Specification

bench element height (mm)	290
widths (mm)	260
lengths (mm)	1 000, 1 200, 1 400, 1 600, 1 800, 2 000
length of bench with seat (mm)	1 060, 1 260, 1 460, 1 660, 1 860, 2 060
outputs (W)	from 1369 to 2 902
max. working pressure	12 Bar
max. working temperature	110 °C
max. surface temperature	40 °C
connecting thread	inner G 1/2"
connection method	recommended bottom connection, side
design of the covering seat	stone imitation (Terrazzo); wood - beech, oak

Standard Version (HBD) • steel sheet plating, coated in colour shade RAL 9010 – white

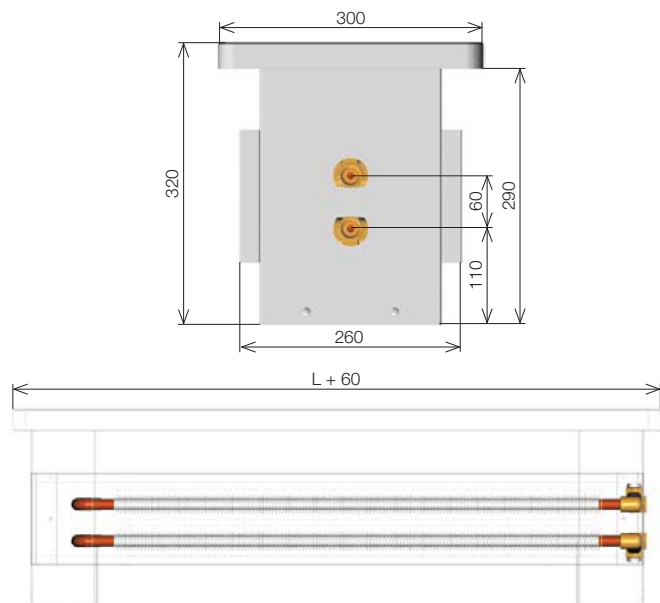
InPool Version (HBBD) • steel sheet plating, stainless steel AISI 316 coated in colour shade RAL 9010 – white, suitable for humid environment

Selectable specification

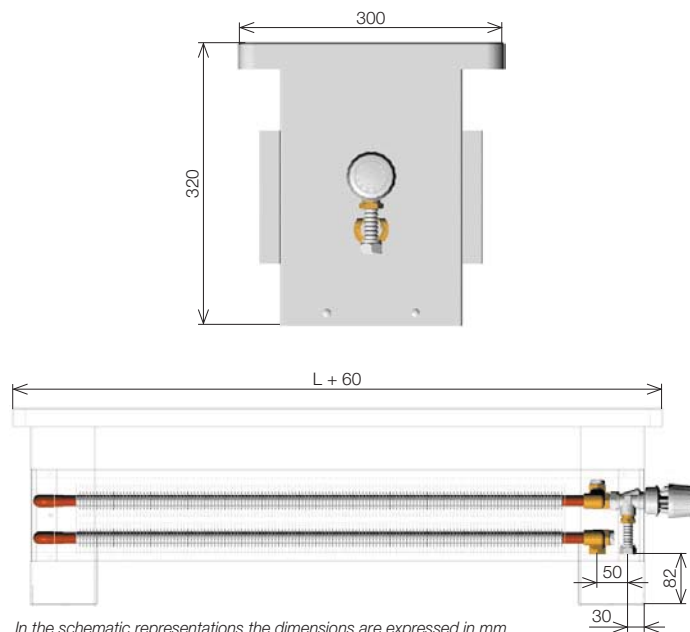
- covering seat – Terazzo stone imitation, beech, oak wood
- if more than 5 pieces are ordered, another colour shade may be ordered from the RAL range of colours, at an additional cost
- stainless steel design suitable for humid environments such as swimming pools, for which the radiator is made of stainless steel AISI 316 and coated in colour shade RAL 9010
- in pool areas the bench must be fitted with stone seat (Terrazzo)

Elements' sections

Side connection



Bottom connection



Heating outputs

Heat outputs (W) at 75/65/20 °C ($\Delta t=50$) and 65/55/20 °C ($\Delta t=40$) / EN 442

Height (mm)	Width (mm)	Δt	Length L (mm)					
			1000	1200	1400	1600	1800	2000
320	260	$\Delta t 50$	1369	1675	1982	2289	2596	2902
		$\Delta t 40$	1009	1236	1462	1688	1915	2140

Correction factor k_t for a variant temperature difference Δt (K)

Δt (K)	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
k_t	0.248	0.267	0.287	0.306	0.326	0.347	0.367	0.389	0.410	0.432	0.453	0.476	0.498	0.521	0.544	0.567

Δt (K)	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
k_t	0.591	0.615	0.639	0.663	0.688	0.713	0.738	0.763	0.788	0.814	0.840	0.866	0.892	0.919	0.946	0.973

Δt (K)	50	51	52	53	54	55	56	57	58	59	60
k_t	1.000	1.027	1.055	1.083	1.111	1.139	1.167	1.196	1.224	1.253	1.282

Weights and volumes of water of the heating benches and seats

Casing

Type	100
kg/linear meter	11.9
l/1 linear meter	1.6

Seat

Type	Terrazzo	wood
kg/linear meter	27	8

The listed weights are without packaging.

Cover seat design versions



terrazzo



oak



beech

Caution: There is a rule for Terrazzo seat that for the dimensions of HBD benches of 140, 160, 180 and 200 cm two shorter seats per bench are used for reasons of weight and dimensions. The seats are made of natural materials and therefore minor deviations in the colour design cannot be eliminated. The supplier cannot fully guarantee the presented colours and accept no claims due to possible colour deviations. The seats are fixed against movement.

Heating benches installation Sensotherm HBD • HBBD

Installation practice

We recommend fixing the element to the floor using a fastening anchor that is inside the side seat (leg). Once positioned on the convector the seats are fixed on the sides against unwanted movement. You will find more detailed information in the installation instructions. The elements are supplied assembled.

HBBD

Convectors intended for use at pools must be kept clean and regularly washed with clean water. It is also necessary to fit the pool area benches with stone seats (Terrazzo) only. More about the service and warranty conditions are obtainable from Sensotherm.

Ordering codes Heating benches HBD • HBBD

	Sensotherm HBD bench convector with seat Sensotherm HBBD pool bench convector with seat	length
Standard	white steel/unpainted exchanger	HBD _____
InPool	stainless steel* white/unpainted exchanger **	HBBD _____

* humid environment stainless steel AISI 316

** custom-made design

ORDERING CODE: HBD length (cm), seat for HBD length (cm) – terrazzo, beech, oak.

Example: HBD 160 = Sensotherm HBD convector bench, length 160 cm.

The seat must be ordered separately! The standard version enables side or bottom connection to the heating system; there is no need to specify this in the order.



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