

# LBT



## CAST IRON COLUMNS RADIATOR

LBT radiators represent the tradition of cast iron radiators with its timeless and elegant design. LBT radiators are the fruit of more than 50 years of experience in manufacturing cast iron radiators of BIASI, the leading company in the heating systems.

### QUALITY

The LBT radiators made of cast iron, a material with a high resistance to corrosion which guarantees unlimited duration through time. LBT column radiators guarantee maximum reliability because cast with EN GJL 200 UNI – EN 1561 cast iron, are mechanically worked with precise tolerances and tested twice at a pressure of 10 bar for a working pressure of up to 6 bar. The control of the leakage is made twice, firstly on the single element and subsequently on the whole, in a way to guarantee the accuracy of both gaskets and assembly.

LBT radiators have a double guarantee:

- Production quality is ensured by CSQ. This Institute certifies that Biasi S.p.A. has initiated and uses a quality system in accordance with the DIN EN ISO 9001 Standard.
- The tests for determining the output are carried out by approved laboratories to ensure maximum measuring precision and in accordance with the current UNI-EN 442 norm.

### PAINTING

LBT are supplied in a standard version pre-painted white and treated to resist atmospheric agents.

In the bianco plus version the radiators are first dip painted and the sprayed (RAL 9003) to finish. Both layers of paint are baked at 150°C.

The excellent quality of the finishing is protected by shrink wrap that covers each unit.

### INSTALLATION INSTRUCTIONS

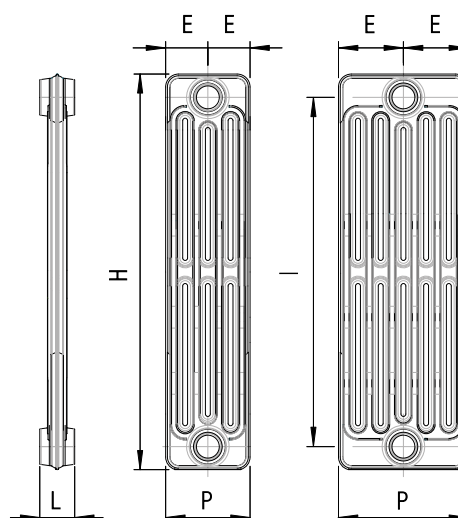
LBT radiators can be installed in heating system that are supplied with water at a temperature of up to 100°C and are ideal for being used with low temperature systems, thanks to the great property of thermal inertia of the cast iron.

To obtain maximum thermal emission, install the radiator as follows:

- From 2.5 to 5 cm away from the wall
- 12 cm above ground
- If positioned in niches, keep 10 cm free on top.

It's necessary to have a correct functioning:

- To treat the water used in the system with an inhibitor to reduce the formation of deposits
- Apply automatic by-pass to the heating system
- Avoid partial system emptying
- Avoid complete closure of the radiator water entry and exit valves



## TECHNICAL SPECIFICATIONS

Model	Dimensions (mm)					Water content element litres	Weight (10 elements assembly) kg	Nominal thermal input (element)		Coefficient $n$
	Height H	Distance between hubs I	Depth P	Width of hub L	Position of hub E			Watt	kcal/h	
<b>2 columns</b>										
<b>LBT 2/880</b>	880	800	70	60	35,0	0,52	50,7	78,6	67,6	1,324
<b>4 columns</b>										
<b>LBT 4/580</b>	580	500	146	60	73,0	0,71	62,7	94,5	81,3	1,318
<b>LBT 4/680</b>	680	600	146	60	73,0	0,83	71,7	108,0	92,9	1,325
<b>LBT 4/880</b>	880	800	146	60	73,0	0,99	92,7	135,0	116,1	1,358
<b>6 columns</b>										
<b>LBT 6/430</b>	430	350	225	60	112,5	0,81	74,7	105,0	90,3	1,372
<b>LBT 6/580</b>	580	500	225	60	112,5	0,99	97,7	123,0	105,8	1,378
<b>LBT 6/680</b>	680	600	225	60	112,5	1,16	110,7	135,0	116,1	1,382
<b>LBT 6/880</b>	880	800	225	60	112,5	1,43	136,7	192,0	165,1	1,354
<b>9 columns</b>										
<b>LBT 9/300</b>	300	220	340	60	170,0	0,95	80,7	111,0	95,5	1,362

Efficiency, according to UNI EN 442, is calculated with these values: inlet temp. = 75°C – outlet temp. 65°C – average temp. = 70°C – ambient temp. = 20°C. –  $\Delta t = 50^\circ\text{C}$

## THERMAL INPUT WITH A $\Delta t$ OTHER THAN $50^\circ\text{C}$

$\Delta t$ (°C)	LBT 2/880 (W)	LBT 4/580 (W)	LBT 4/680 (W)	LBT 4/880 (W)	LBT 6/430 (W)	LBT 6/580 (W)	LBT 6/680 (W)	LBT 6/880 (W)	LBT 9/300 (W)
40	58,5	70,4	80,4	99,7	77,3	90,5	99,2	141,9	81,9
42	62,4	75,1	85,7	106,5	82,7	96,7	106,1	151,6	87,5
44	66,4	79,9	91,2	113,5	88,1	103,1	113,1	161,5	93,3
46	70,4	84,7	96,7	120,5	93,7	109,7	120,3	171,5	99,1
48	74,5	89,6	102,3	127,7	99,3	116,3	127,6	181,7	105,0
<b>50</b>	<b>78,6</b>	<b>94,5</b>	<b>108,0</b>	<b>135,0</b>	<b>105,0</b>	<b>123,0</b>	<b>135,0</b>	<b>192,0</b>	<b>111,0</b>
52	82,8	99,5	113,8	142,4	110,8	129,8	142,5	202,5	117,1
54	87,0	104,6	119,6	149,9	116,7	136,8	150,1	213,1	123,3
56	91,3	109,7	125,5	157,5	122,7	143,8	157,9	223,8	129,5
58	95,7	114,9	131,5	165,1	128,7	150,0	165,7	234,7	135,9
60	100,1	120,2	137,5	172,9	134,8	158,1	173,7	245,8	142,3

Characteristic equation for calculating input at  $\Delta t$  other than  $50^\circ\text{C}$ ,  $Q = Q_n(\Delta t/50)^n$ , whereby:  $Q_n$  = Thermal performance  $\Delta t 50^\circ\text{C}$  -  $\Delta t$  = required Delta -  $n$  = Characteristic coefficient

This catalogue replaces the previous one

Biasi S.p.A constantly aims to improve its products and reserves the right to amend the data in this catalogue at any time and without forewarning.