

# iTherm® Flat Distributor

## TECHNICAL DATA SHEET

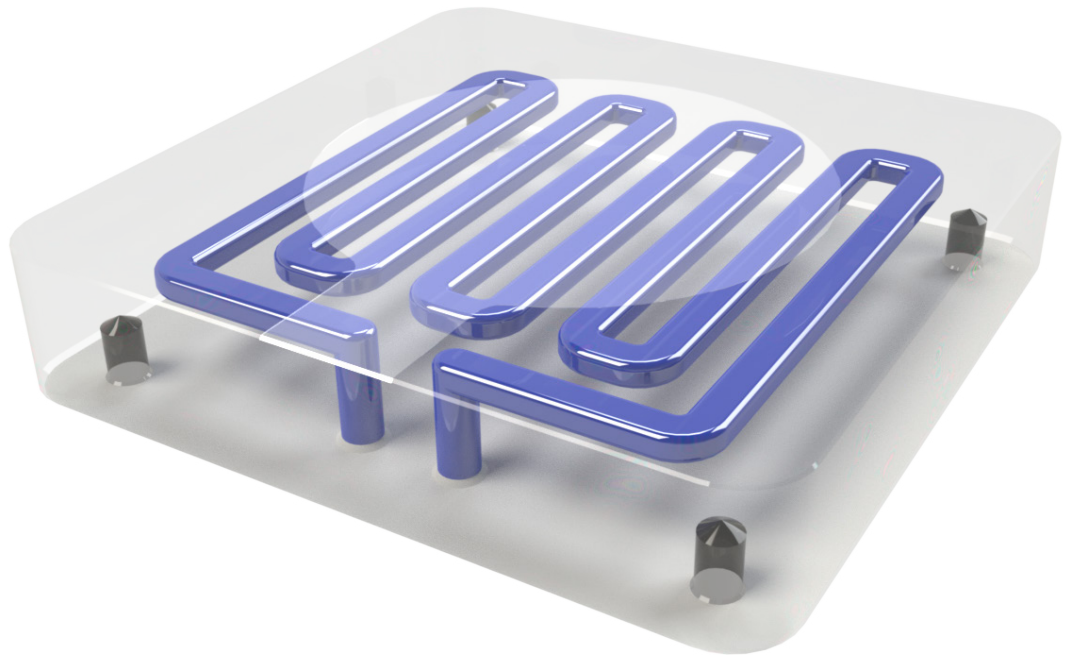
### 1 DESCRIPTION

iTherm® Flat Distributor is produced using tool steel forged or rolled blocks and HTS propriatery additive manufacturing technology.

It is a single body component with equal mechanical properties as tool steel monoblock.

Cooling channels can be freely designed according to cooling/heating requirements of the product, not by limitations of using conventional drilling method.

It is highly customizable to specific customer requirements.



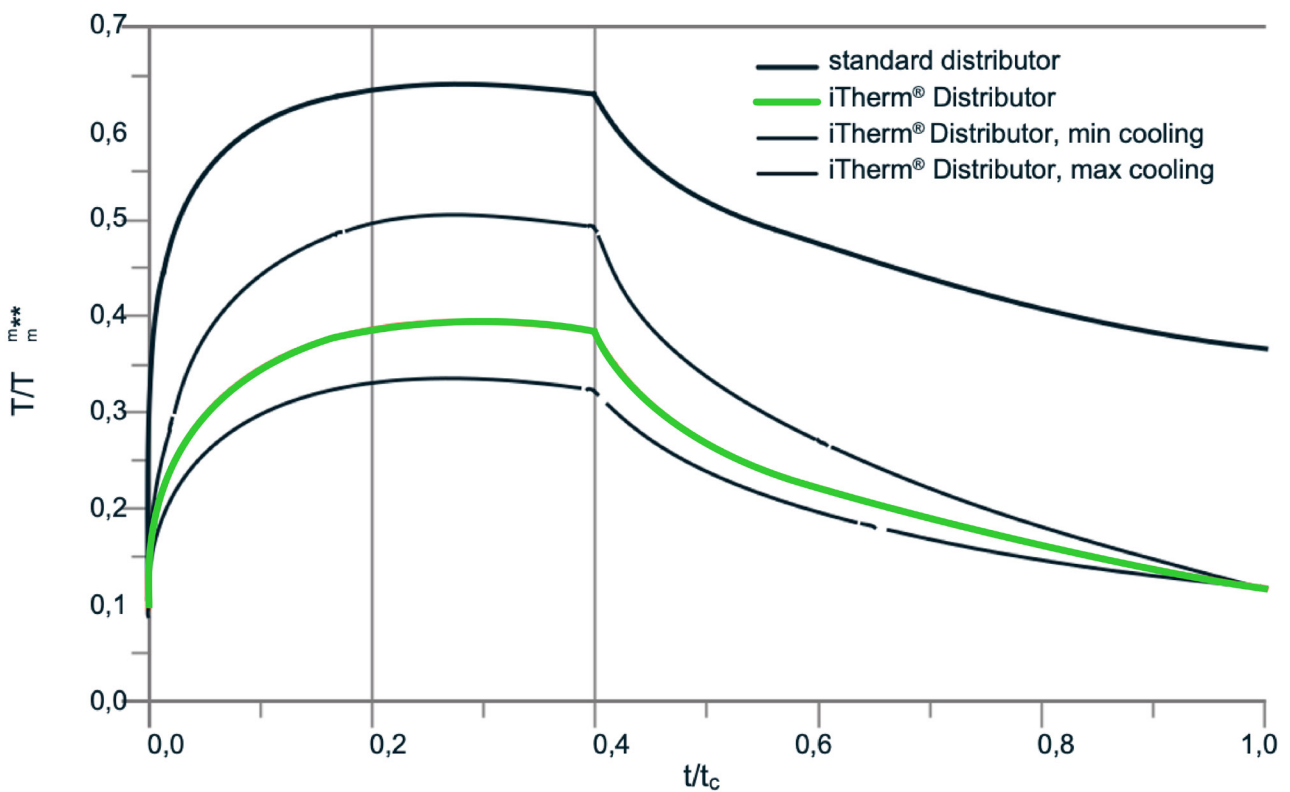
### 2 MAIN ADVANTAGES

- More freedom designing cooling channels
- More uniform heat distribution on working surface
- Faster biscuit solidification
- Cycle time reduction

# iTherm® Flat Distributor

## 3 PERFORMANCE COMPARISON (conventional vs. iTherm®)

iTherm® Distributor is the optimal solution for stable process operation, and reduction of cycle time in HPDC.

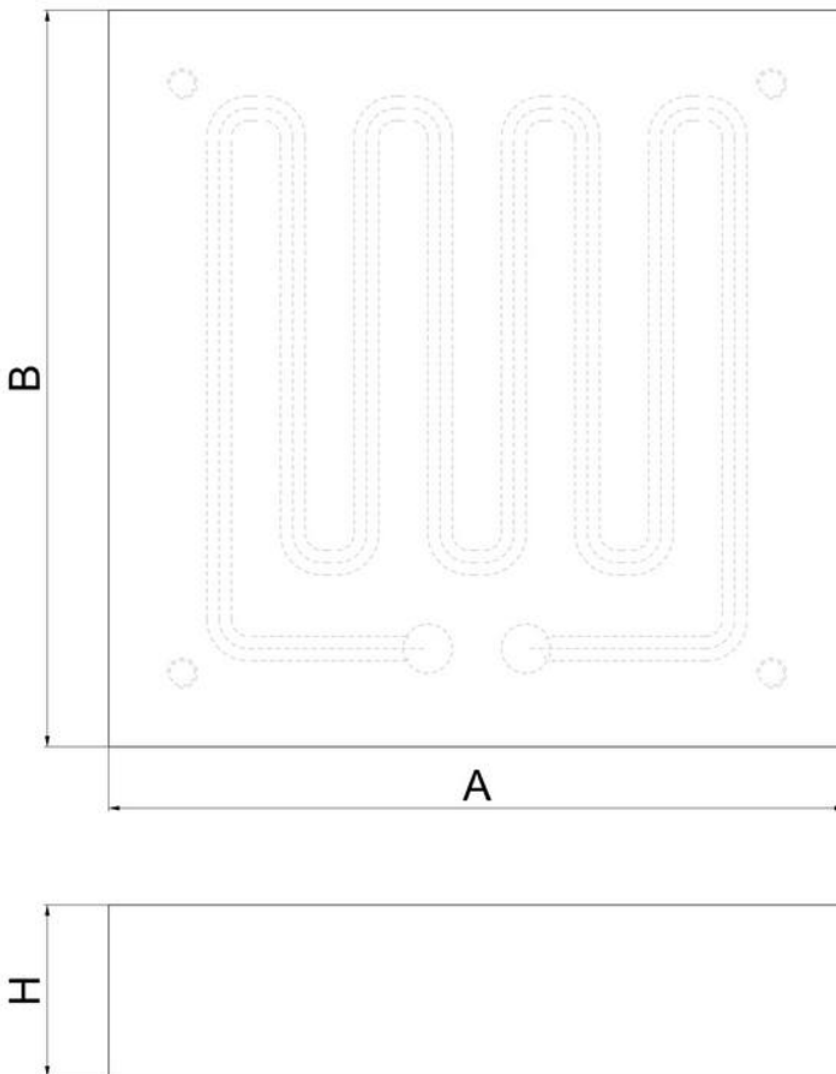


\*\*  $T/T_{min}$  is iTherm® Distributor surface temperature normalized with temperature of molten aluminium

# iTherm® Flat Distributor

## TECHNICAL SPECIFICATIONS

### 1 GENERAL DIMENSIONS



Dimension	Limits
A	100 - 400
B	100 - 400
H	30 - 130

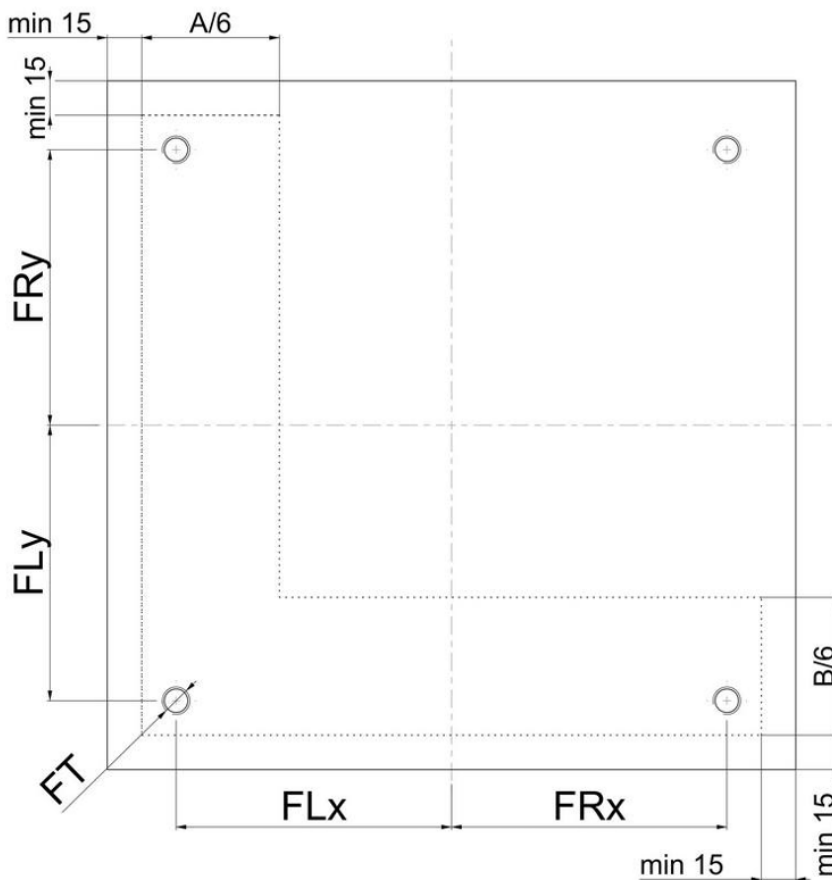
All dimensions are in mm

# iTherm® Flat Distributor

## TECHNICAL SPECIFICATIONS

### 1 CONNECTION HOLES (BOTTOM)

Connection holes can be positioned on bottom of distributor or on side of distributor. Both options are limited depending on dimensions of distributor. Limits are shown below.



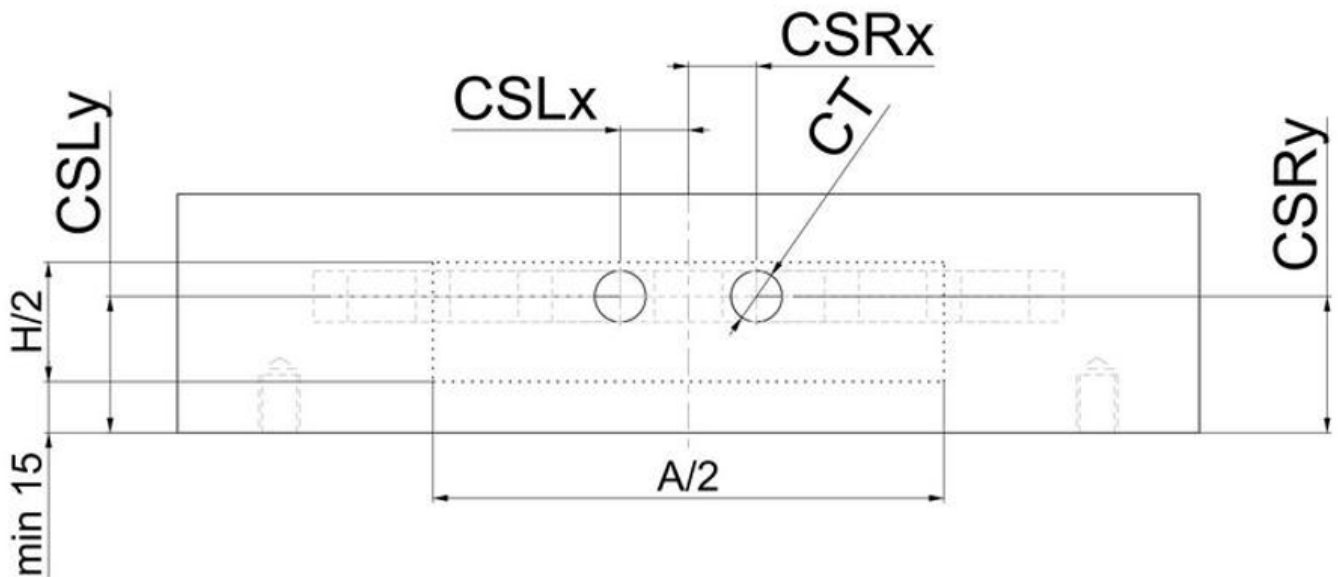
Dimension	Limits
<b>CBLx</b>	0-A/4
<b>CBRx</b>	0-A/4
<b>CBLy</b>	15-(15+B/6)
<b>CBRy</b>	15-(15+B/6)
<b>CT</b>	1/4 NPT, 3/8 NPT, 1/2 NPT, 5/8 NPT, G1/4, G3/8, G1/2, G5/8

All dimensions are in mm

# iTherm® Flat Distributor

## TECHNICAL SPECIFICATIONS

### 2 CONNECTION HOLES (SIDE)



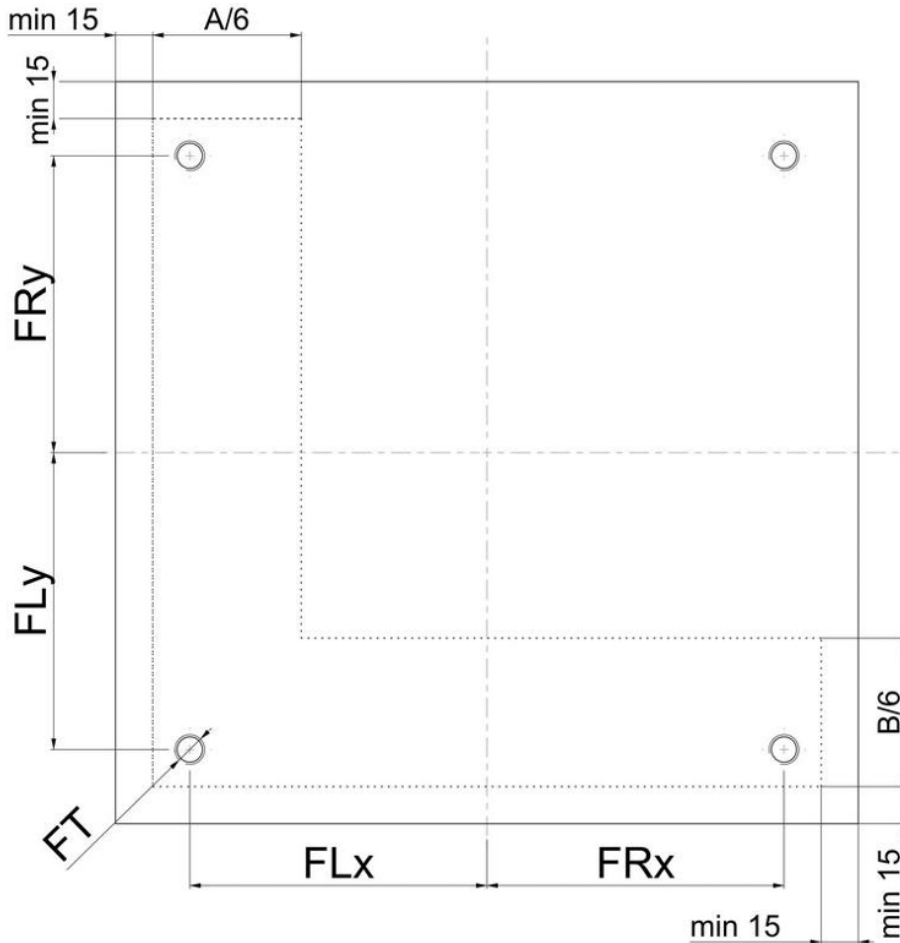
Dimension	Limits
CSLx	0-A/4
CSRx	0-A/4
CSLy	15-(15+H/2)
CSRy	15-(15+H/2)
CT	1/4 NPT, 3/8 NPT, 1/2 NPT, 5/8 NPT, G1/4, G3/8, G1/2, G5/8

All dimensions are in mm

# iTherm® Flat Distributor

## TECHNICAL SPECIFICATIONS

### 3 FIXING HOLES



Dimension	Limits
FLx	0 - (A/2 - 15)
FRx	0 - (A/2 - 15)
FLy	(A-15-A/6) - (A - 15)
FRy	(A-15-A/6) - (A - 15)
FT	M10, M12, M14, M16, M18, M20, ¼ -20 UNC, 3/8-16 UNC, 5/8 - 11 UNC, ¾ - 10 UNC
FZ	0 - H/2

All dimensions are in mm

# iTherm® Flat Distributor

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## 4 MATERIAL

- iTherm® Flat Distributors are made using forged or rolled tool steel blocks produced in EU.
- Most often used grades are 1.2343/H11, 1.2344/H13, 1.2367, Uddeholm Dievar.
- Based on specific customer need, other steel grades can be used.

## 5 DELIVERY CONDITIONS

- HEAT TREATED
- HARDNESS between 42 and 48 HRC
- MACHINED TO FINAL DIMENSION
- NITRIDED

# iTherm® Flat Distributor

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Do you need a slightly different  
design or component?

We got you covered.

Contact our die casting professionals and we will do our best to match your requirements. You can count on us to support you through each step of performance improvement.

[sales@hts-ic.com](mailto:sales@hts-ic.com)