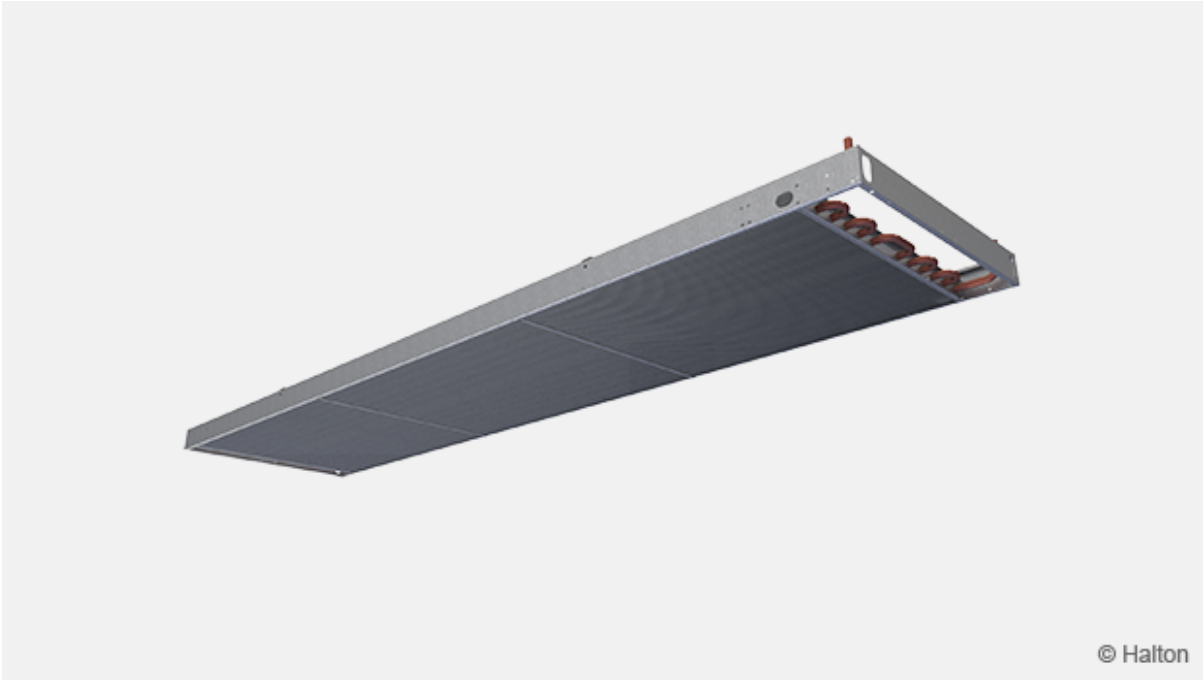
CPT 用于横向送风的方形送风装置

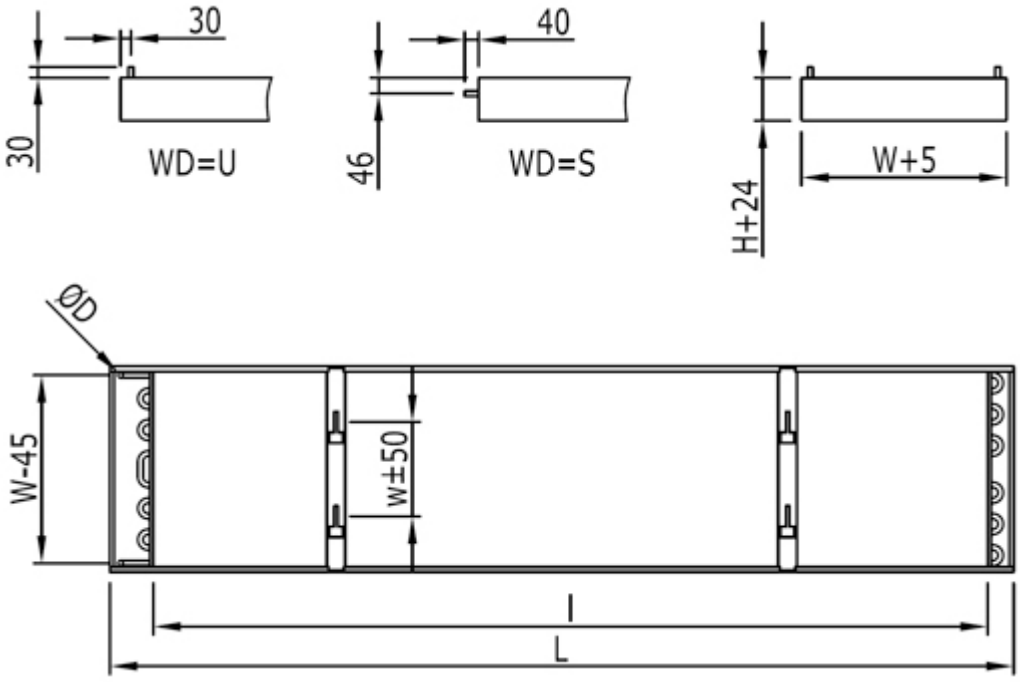


概览

- 安装在吊顶上的被动式冷梁
- 安装在网眼或穿孔吊顶的上方
- 工作状态安静
- 无运动部件
- 对于要求高冷负荷、低度负荷和低通风的空间而言，是最佳选择
- 对于要求高品质环境条件和独立房间控制的各种建筑而言，是理想选择
- 典型应用环境：办公室、会议室和零售商店
- 装置的三种不同高度可满足不同的制冷能力要求

  Halton专注于提供定制产品以满足项目的特殊要求。可提供特殊尺寸和不同种类的集成设计方案。

Dimensions and weight



WD = Location of pipe connections

U Front end
S On top

W	H	w	L	l (without valves)	l (with valves)
315	100	136	1200-5000	L-200	L-300
450	100	204	1200-5000	L-200	L-300
585	100	271	1200-5000	L-200	L-300
315	200	136	1200-5000	L-200	L-300
450	200	204	1200-5000	L-200	L-300
585	200	271	1200-5000	L-200	L-300
315	300	136	1200-5000	L-200	L-300
450	300	204	1200-5000	L-200	L-300
585	300	271	1200-5000	L-200	L-300

A coil with 1 loop has a connection pipe ØD 15 mm and 2 loops has a connection pipe ØD 22 mm.

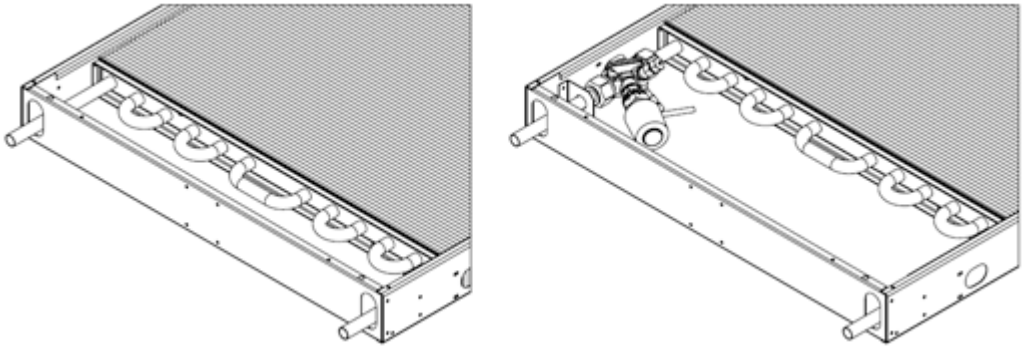


Fig.1. Optionality factory-fitted valve

Weights kg/m (including water)

Width (mm)	Heigth (100-300)
315	8,3 (8,5)
450	10.8 (11.9)
585	12.7 (14.1)

Due to fabric skirts the weight difference between different heights is not remarcable.

Material

Part	Material	Note
Side panels	Sheet metal	Unpainted
Cooling pipes	Copper	Diameter 15 mm
Cooling fins	Aluminium	
Skirt textile	Fireproof polyester	Fulfils PES FR

Accessories

Accessory	Code	Note
Pipe connection, straight in the end	WD=S	
Pipe connection, at the top	WD=U	
Factory-fitted control valve	CV =	See Product Code page

Other options by requesting Halton customer service.

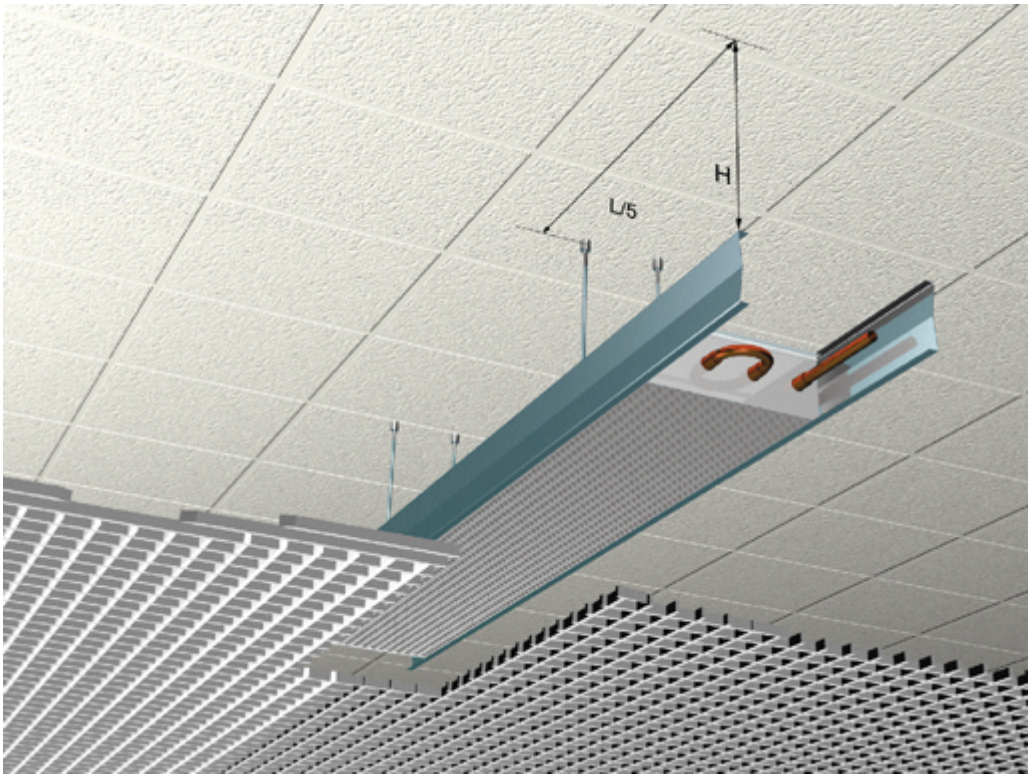
Function

The beam operates by natural convection, removing the heat load from the room and replacing it with a cooling airflow. The convective airflow (output) increases or decreases in proportion with the heat load within the occupied zone, securing an optimal thermal comfort.

Varying sensible cooling output requirements are met by regulating the flow of chilled water through the beam heat exchanger. This is controlled by a combination of room thermostat and water valve. Operating at elevated chilled water temperatures (to avoid latent cooling), the opportunities for free-cooling are significant.

Halton CPT can be supplied with skirts where are 3 different heights to meet cooling capacity requirements.

Installation



The chilled beam Halton CPT is installed above an open grid or perforated ceiling.
In order to ensure effective convection, the beam should be mounted at a minimum distance from the ceiling equal to 0.25 x the width of the beam, when installed away from wall surfaces, or 0.5 x beam width when installed close to partition walls.

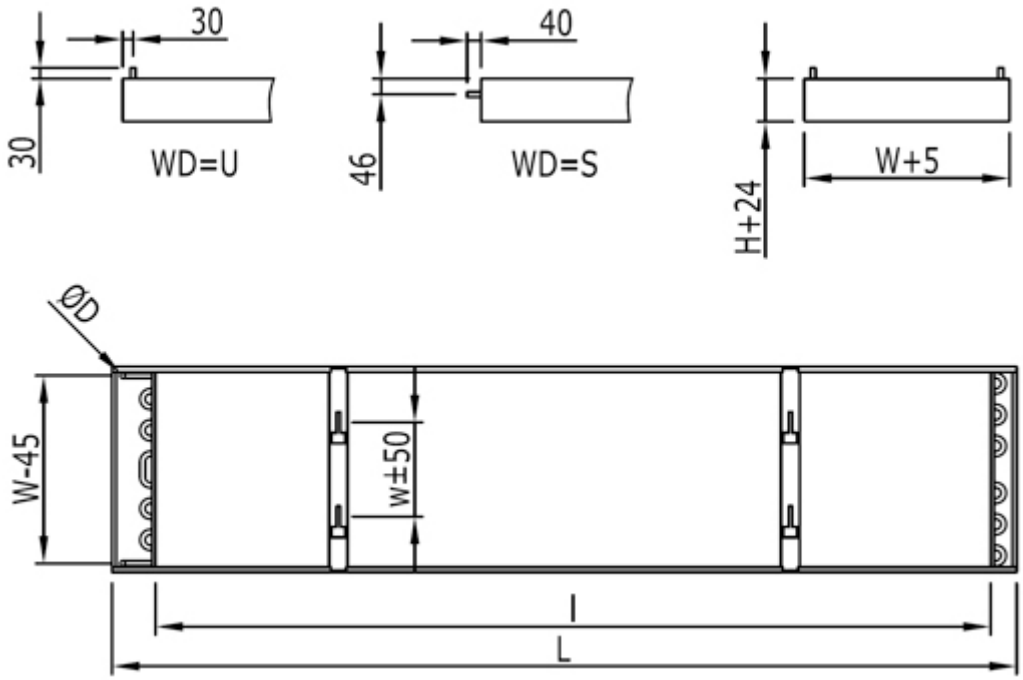
Each chilled beam is fixed to the ceiling with expansion anchors and threaded drop rods (not included in the delivery). Four assembly brackets are fixed one fifth of the unit length (L/5) away from the end of the beam. There will be six assembly brackets with beam length ³ 3500.

The exact positions of the brackets are adjusted according to the rod position.
The chilled beam position can be easily adjusted both horizontally and vertically. Assembly

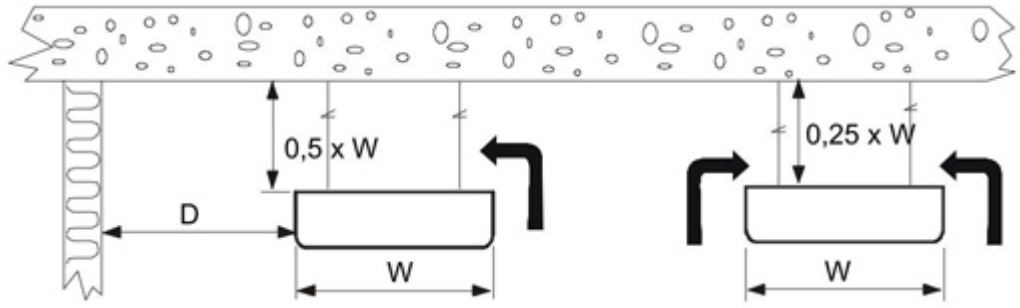
brackets are supplied as standard in the package.

The contractor shall supply threaded rods and expansion anchors.

Distance between suspension rods



Distance from the ceiling



D = distance wall; up to 1 x W

Adjustment

Commissioning of the chilled beam system is carried out following standard practice:

- Fill up and flush the main pipelines
- Fill up and vent the beam circuits
- Adjust the flow water temperature set point
- Adjust the water flow rates with the balancing valves for all main pipelines
- Adjust the water flow rates in all chilled beams to correct values.

Servicing

The Halton CPT chilled beam requires little maintenance.

It may be necessary to clean the cooling coils in every three to five years, depending on room conditions and air quality. The cooling coils can normally be cleaned using a vacuum cleaner.

Specification

Output/capacity	90 – 550 W/m
Length	1000, +100, .., 5000 mm
Width	315, 450 and 585 mm

The heat exchanger is constructed from aluminium fins and copper pipes with a nominal outside diameter of 15 mm.

The maximum chilled water pipe work operating pressure is 1.0 MPa. All joints are fully soldered and factory pressure tested.

Order Code

CPT-L-W-NW-H;CO-WD-CV-ZT

L = Length
1200,+100,..., 5000

W = Width
315, 450, 585

NW = Number of water loops
1, 2

H = Height
100, 200, 300

Other Options and Accessories

CO = Colour

N	No painting
B	Black (RAL 9005, 20%)

WD = Location of pipe connection

S	Front end
U	On top

CV = Control valve

N	No
A1	Adjust. kv value, factory mounted, no actuator
A3	Adjust. kv value, factory mounted, 24-V actuator
A5	Adjust. kv value, factory mounted, 230-V actuator
A7	Constant-flow-mounted, no actuator
A9	Constant-flow-mounted, 24-V actuator
A11	Constant-flow-mounted, 230-V actuator

ZT = Tailored product

N	No
Y	Yes

Code example

CPT-2200-585-1-100, CO=N, WD=S, CV=N, ZT=N