



*Energy*  
**SAVERS**  
LOW-H<sub>2</sub>O

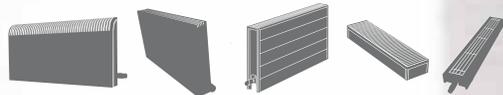


**jaga**

**MINI CANAL DBE**

300% higher heating output  
For condensing boilers, heat pumps  
and solar energy systems.

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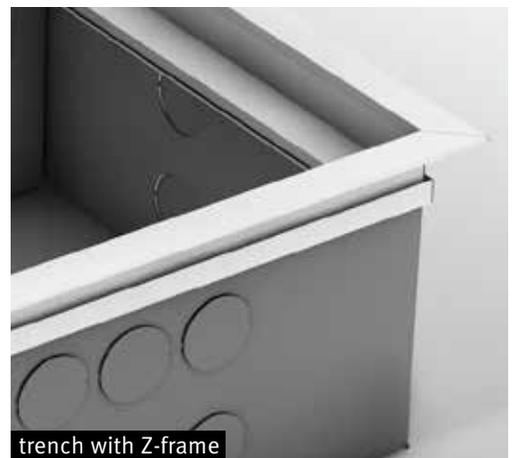
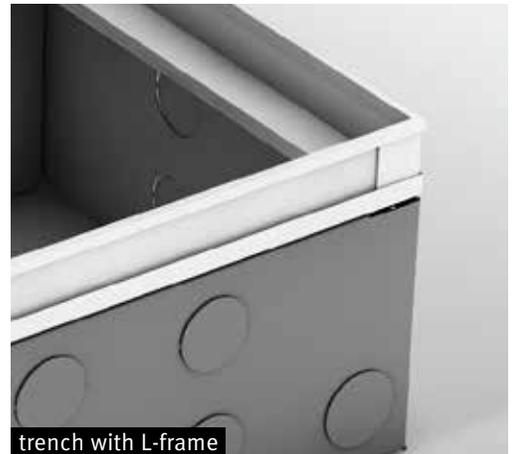


## 300% HIGHER HEATING OUTPUT: MAXIMUM EFFICIENCY WITH LOW WATER TEMPERATURE SYSTEMS

Heat pumps, solar energy systems and even modern modulating condensing boilers work most efficiently at lower water flow temperatures, often as low as 95°F (35°C), and so normally need much larger heat emitters. No problem for Mini Canal DBE as it can deliver more than 3 times the output of a conventional trench heating solution. Mini Canal DBE not only delivers the same output as much bigger alternative solutions, but does it 5 times faster!

## WARM POWER, MINIMUM RECESS DEPTH

Minimum recess depth, maximum heat. That is why it is the perfect solution for multiple storeys or floating floors. Mini Canal DBE is delivered ready-to-mount. Hidden under the grille is an ultra fast Low-H<sub>2</sub>O fin tube element with Dynamic Boost Effect (DBE system). Powerful enough to serve as a primary heat source. Mini Canal DBE is available in lengths from 43" (110 cm) to 122" (310 cm).

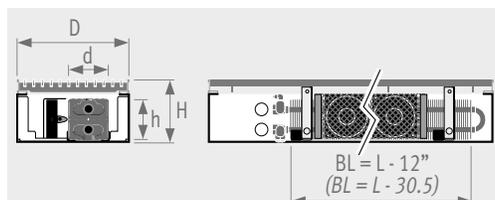


### DIMENSIONS OUTPUT

H	Type	d	h	D	BTU/foot
5 <sup>45</sup> / <sub>64</sub>	10	4	4	10	1500
(14.5)		(10)	(10)	(26)	
	15	6	4	13.5	2000
		(15)	(10)	(34)	
	20	8	4	16.5	2500
		(20)	(10)	(42)	

Note: dimensions in "( )" are shown in centimeters.

Calculated average output in BTU/h foot with 65°F (18.3°C) entering air and 1 GPM flow rate. Mean water temperature of 160°F (71.1°C).

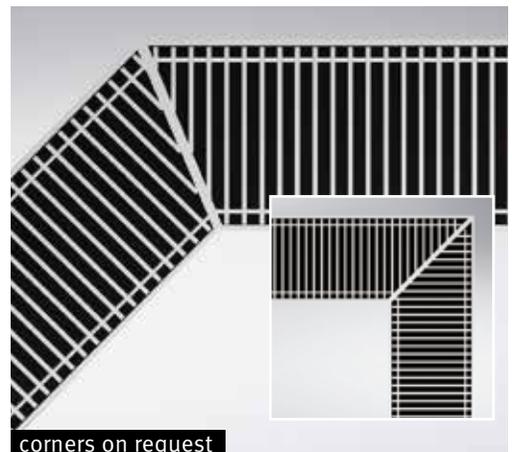


#### Example output calculation

Output H 5.5" - D 13.5" - L 114.2"

H (14.5) - D (34) - L (290)

$$2000 \text{ BTU/h} \times \frac{(114.2" - 12")}{12"} = 17033 \text{ BTU/h}$$



## MINI CANAL DBE COMPOSITION

### L-frame or Z-frame

in anodized aluminum, color to match the grille.

**Cover strip** in black rubber (option). Makes the bottom side of the frame invisible and avoids contact noises.

### Grille

a wide range of design types and colors in anodized aluminum or various wood finishes.

### DBE-units

### Low-H<sub>2</sub>O fin tube element

made of copper and aluminum, made "invisible" by a dark grey dust repellent lacquer (RAL 7024).

### Air vent

### Mini trench

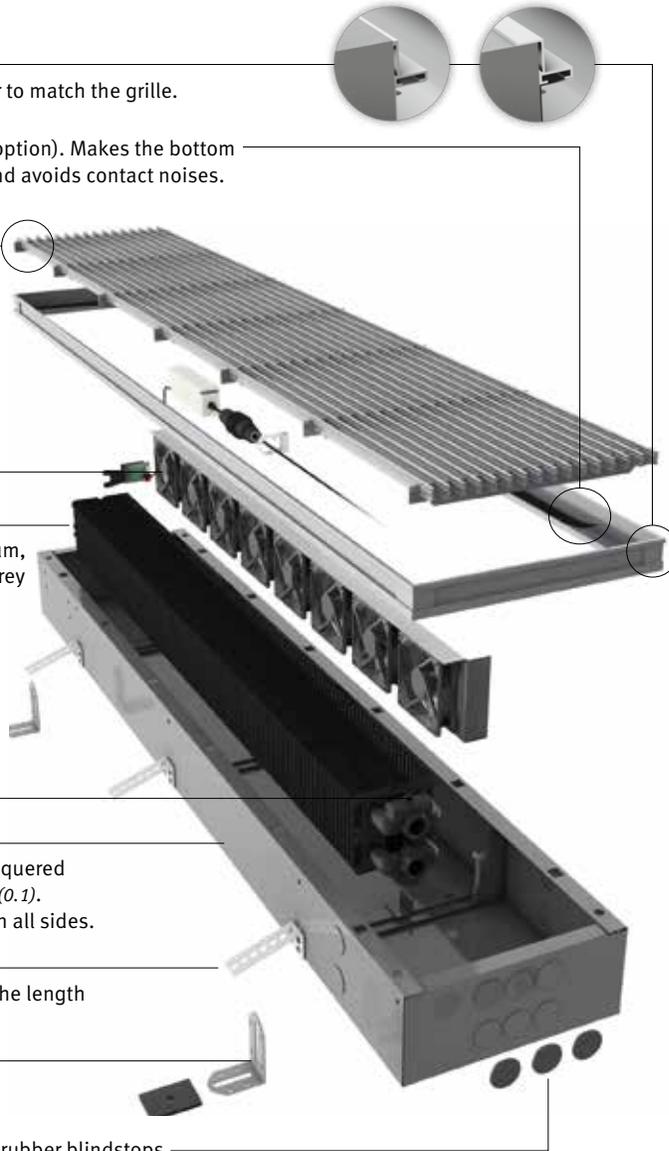
galvanized and dark grey lacquered steel plate; thickness 0.04" (0.1). With connection openings on all sides.

### Anchorage elements

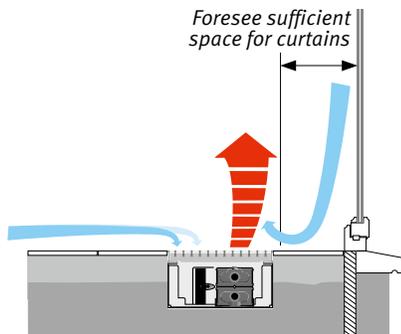
number in accordance with the length

### Height control (option)

**Connection openings** with 3 rubber blindstops



## OPERATING PRINCIPLE



### Even comfort temperature

The downward cold air flow associated with glazed facades often causes discomfort. Mini Canal ensures a warm air curtain: the cold air layer from the glass and the cooler return air on the floor are drawn in, heated and mixed with the warmer upper air so a balanced and even comfort temperature is achieved.

## CONNECTIONS

There are several ways to connect the fin tube element, f.e.

- with electric zone valves 24 VDC on the central collector. Temperature control via room thermostat (no valve in the trench).
- with manual valve in the trench.
- with thermostatic valve in the trench: use a connection set with remote controlled thermostatic head. Control is simple and the thermostat will provide better measurement of the ambient temperature.

# THE MOST POWERFUL HEAT EMITTERS, NOW WITH DBE



### What is DBE?

DBE Dynamic Boost Effect is especially developed for the Low-H<sub>2</sub>O radiators to increase power 2 to 3 times.

### Why use DBE?

- The extra heating power is usable in 2 ways:
- to install a smaller set: either because there is not much space or for aesthetic reasons
  - to use a lower water temperature: conversion to condensing HR boiler or heat pump without having to install larger radiators for that purpose.
  - Low-H<sub>2</sub>O radiators operate with DBE in an effective way, even at water temperature of 80°F (35°C)!

### How does DBE work?

DBE continuously measures the temperature and works entirely autonomously. The system will automatically switch to comfort mode to provide heat far more quickly any time there is a demand for heat.

### Significant energy savings

The most efficient and modern fin tube element, that complies with actual AND future building standards and technologies.

### For all low temperature hydronic systems

Perfectly suited for condensing boilers, heat pumps and solar systems.

**The perfect partner for radiant heating** for improved temperature control and energy efficiency.

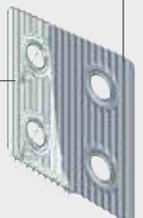
### 1/8" NPTF airvent connection

Brass collectors with 1/2" NPTF connections

With dirt-repellent and dust-proof lacquer in graphite grey

Up to 16 parallel copper tubes for the best heat emission

55 Corrugated aluminum fins per foot for super heat-output at low water temperatures



# OVERVIEW GRILLES

## DESIGNO ROLL-UP WOODEN GRILLES

Merbau natural **DMN** Oak natural **DON** Beech natural **DBN**  
 Designo Merbau Natural Designo Oak Natural Designo Beech Natural



Roll-up natural or varnished grille with natural color anodized aluminum distance pieces. Frame in natural colored anodized aluminum.

Merbau varnished **DMV** Oak varnished **DOV** Beech varnished **DBV**  
 Designo Merbau Varnished Designo Oak Varnished Designo Beech Varnished



## DESIGNO RIGID ALUMINUM GRILLES

Natural colored **DNA** Black **DBL** Dark brown **DDB** Brass colored **DBR** Lacquered **COLOR/DNC**  
 Designo NATural Designo BLack Designo Dark Brown Designo BRass Designo stiff Natural Color



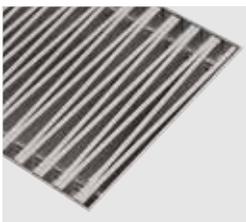
Rigid anodized aluminum grille. Frame in the same color.



32 colors

## ACCORDION ROLL-UP ALUMINUM GRILLE

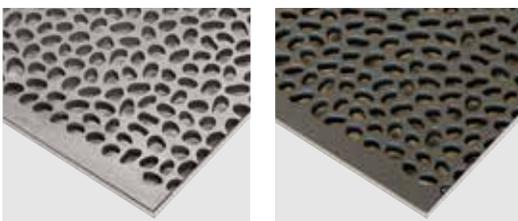
Natural colored **ANA**  
 Accordion NATural



Rollable anodized aluminum grille exists of slightly curved slats, with transparent spacers. The frame is made of the same material as the grille.  
 Correction factor output 0.75.

## PEBBLES RIGID ALUMINUM GRILLE

Natural **PNC/026** Sandblast grey **PNC/028**  
 Pebbles Natural Color Pebbles Natural Color



Rigid grille made of cast aluminum. The pebbles is available as "grille tiles" of 19.5" (50 cm) long and a thickness of 19.7" (1 cm). To customise the length, the end tile will be made on size with a minimal length of 8" (20 cm).  
 Correction factor output 0.85.