

zehnder ZRP radiant panels

zehnder



Introduction

Zehnder have a clear objective: to supply products which are simple to select, realistically priced, quick to install and will give years of trouble free service.

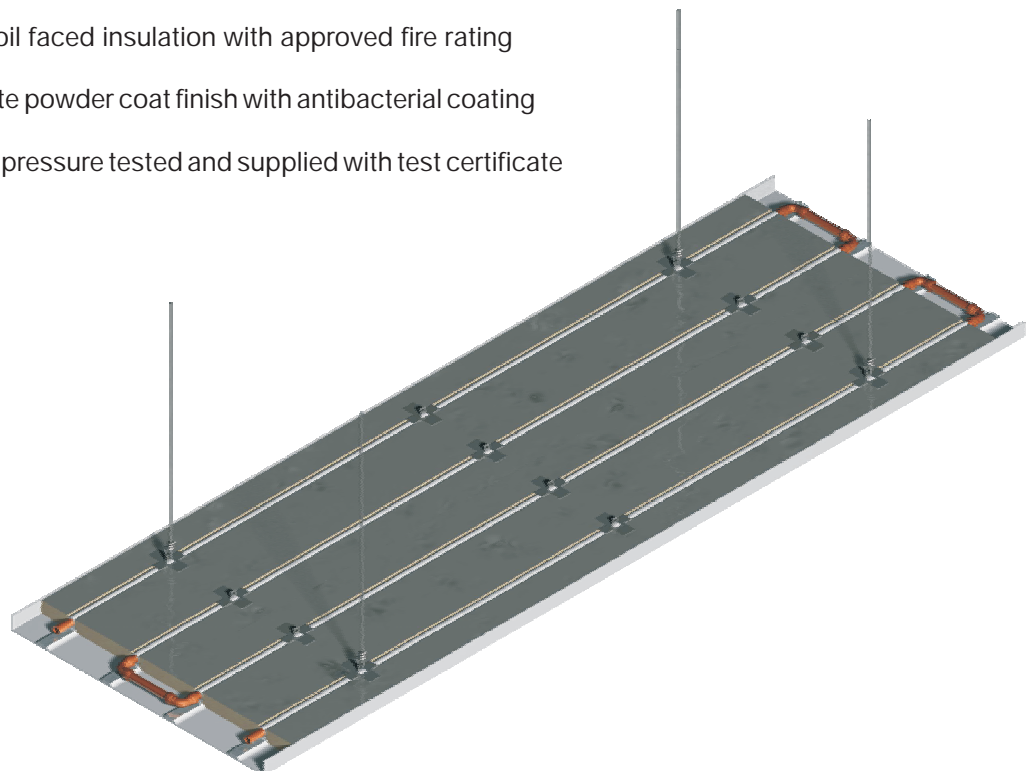
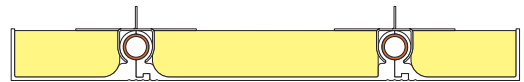
Our combination of technical expertise and practical know-how means that we can offer a comprehensive radiant panel supply service - from instruction on radiant theory and CIBSE guidelines to on site support and training. At Zehnder we pride ourselves on responding to customer needs and because of this we now offer the following:

- Modular product sizes to match standard ceiling grids (no tile cutting required)
- Outputs given to both EN 14037 and EN 442
- Complete technical support and training, including an approved CPD presentation
- Competitive pricing for commercial project work
- Manufactured in the UK - fast delivery to site to aid tight programme requirements
- "Buffer" stock of panels can be held in warehouse for quick call off if required
- Supplier support at all stages including site attendance

Zehnder Radiant Panels - ZRP

Key Features:

- Tested to BS EN 14037
- 15mm OD copper tubing with soldered connections
- Non-fibrous, foil faced insulation with approved fire rating
- RAL 9010 white powder coat finish with antibacterial coating
- Closed panels pressure tested and supplied with test certificate





Application

Zehnder Radiant Panels are suitable for a wide variety of commercial applications including, hospitals and educational facilities. Mounted at high level they eliminate the need for low surface temperatures whilst also providing excellent comfort conditions.

Compact and unobtrusive in design they are available in a range of styles, which can be integrated perfectly into any installation.

Style T - for ceiling grid installation. Can also be used in a sealed plasterboard ceiling when combined with an access panel.

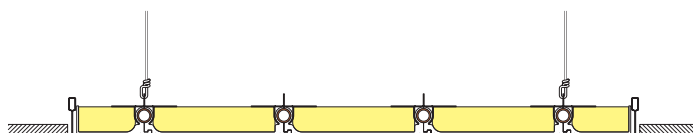
Style F - for free-hanging installation.

Style W - for wall mounted installation.

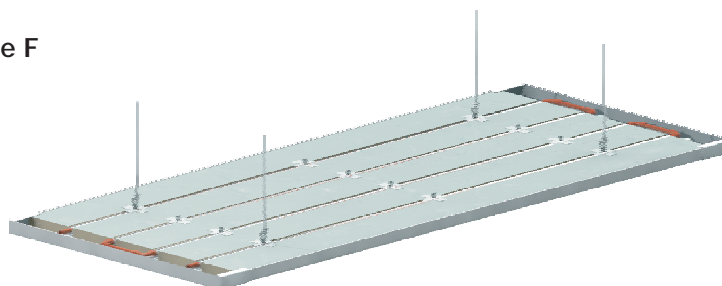
Style P - for mounting in sealed plasterboard ceilings without the need for an access panel. Can be supplied with curved (PC) or straight side (PR) profile.



Style T



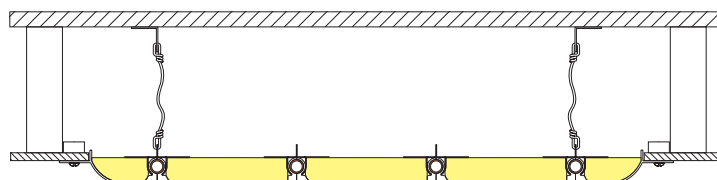
Style F



Style W



Style P



Panel Sizes

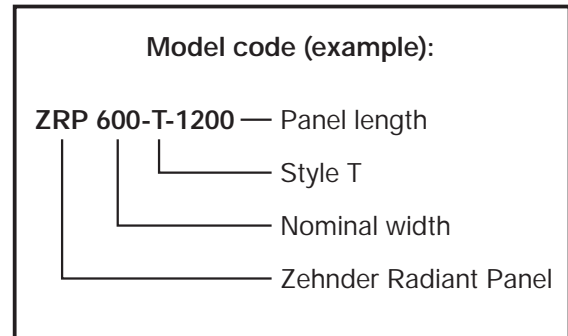
Zehnder radiant panels are constructed from 150mm wide extruded aluminium planks, interlocked together to make the required width combinations.

Panels are available in 5 modular lengths

600mm, 1200mm, 1800mm, 2400mm, 3000mm

which can be linked together to make longer runs.

Bespoke sizes can also be provided where necessary.



Panel Outputs

ZRP outputs have been tested to BS EN 14037 which is the dedicated standard for radiant ceiling panels. Prior to the introduction of this standard, UK panels were tested to EN 442 and as these outputs are still widely used by some suppliers we have shown both sets in the table below. The difference in outputs between the two is due to the way the panels are tested and not due to any change in panel performance.

Table 1

Nominal Width mm	Testing Standard	Nominal Length mm				
		600	1200	1800	2400	3000
300	EN 14037	104	208	311	415	519
	EN 442	104	207	311	414	518
450	EN 14037	142	284	425	567	709
	EN 442	155	311	466	621	776
600	EN 14037	180	360	539	719	899
	EN 442	207	414	621	828	1035
750	EN 14037	219	439	658	878	1097
	EN 442	259	518	776	1035	1294
900	EN 14037	259	518	777	1036	1295
	EN 442	311	621	932	1242	1553

Table 1 shows panel outputs in Watts at $\Delta T=55K$. For other ΔT values multiply the output in Table 1 by the correction factors given in Table 2.

Table 2

ΔT	Correction Factor EN 14037	Correction Factor EN 442
38	0.651	0.646
40	0.691	0.687
42	0.731	0.727
44	0.771	0.769
46	0.812	0.810
48	0.854	0.852
50	0.895	0.894
52	0.937	0.934
54	0.979	0.979
55	1.000	1.000
56	1.021	1.021
58	1.064	1.065
60	1.106	1.108
62	1.149	1.152
64	1.193	1.196
66	1.236	1.240
68	1.280	1.284
70	1.324	1.329

Operating Specification

Operating Pressure: 4.6 bar

Max. Operating Temperature: 90° C

Installation

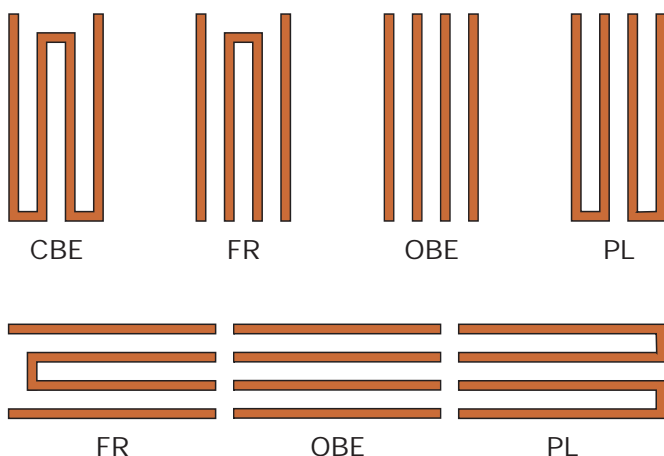
When it comes to installation, our experience shows that the ceiling or mechanical services contractor can fit the panels themselves, thereby allowing much greater control and flexibility on site as well as reducing costs.

Fixing Panels installed in T-bar grids, plasterboard ceilings or free-hanging will require support wires (not supplied). Wall-mounted panels are supplied with all necessary mounting brackets.

Weight Panels have a working weight of 15.2 kg/m².

Connections 15mm horizontal male ends for connection to the heating mains (flexible push fit connectors are recommended for easy installation)

Interconnectors Panels can be joined together to make longer lengths (couplings will be required - not supplied). Cover strips are provided to hide the join.



Interconnection of an FR module and an PL module will create a complete panel. The OBE module is used to lengthen the assembly.

Actual panel dimensions are sized to fit standard T-bar ceiling grids

<u>Nominal width</u>	<u>Actual width</u>
300mm	294.4mm
450mm	444.4mm
600mm	594.4mm
750mm	744.4mm
900mm	894.4mm

<u>Nominal length</u>	<u>Actual length</u>
600mm	592mm
1200mm	1192mm
1800mm	1792mm
2400mm	2392mm
3000mm	2992mm

Product Specification

Radiant panels shall be supplied by Zehnder Ltd, Watchmoor Point, Camberley, Surrey, GU15 3AD. The style, sizes and quantities shall be as detailed in the schedule or as shown on the drawings. The constructional features shall comply to the specification detailed below.

Casing Panels shall be manufactured from 2mm thick high-grade aluminium alloy (6063 T6) extrusion to BS EN 755-9:2001. Panels shall comprise of 150mm wide, aluminium extruded planks interlocked by a patented jointing arrangement to ensure total encapsulation of copper waterway.

Panel supports, casing joiners and ancillary items to be manufactured from 1.2mm electro-zinc plated mild steel and coated in polyester powder paint.

Waterways Manufactured from 15mm OD copper to BS EN 1057.

Insulation 30mm low density rigid polyisocyanurate (PIR) foam board with a tri-laminate foil facing on each side. Surface spread of flame BS 476 Part 7 Class 1. Reaction to fire EN 13501-1:2002 Class D/S2/d0.

Finish All visible faces shall have a powder coat finish to RAL 9010 (30% matt), with antibacterial coating.

Packaging Each panel shall be delivered in a purpose-made box, clearly marked with the model reference and complete with fitting instructions.

