



# *Merriott*

## Smart Radiant Panel



## What does Merriott stand for?

Our bespoke heating and cooling solutions are the better choice for commercial applications across the UK and Ireland.

Merriott offers a diverse and versatile range of designer heating solutions.

Whether they are building consultants, architects or designers, our customers can tailor our bespoke range of products to satisfy their specification requirements.

We have invested in world-class production facilities and manufacture products of the very highest standard - backed by revolutionary technology, rigorous testing and stringent quality control.

As a company, we have an unwavering commitment to innovation and sustainability, pioneering products that lead the way in design, performance and energy efficiency.

Underpinning all of this is our relationship with our customers: ensuring they can rely on best-in-class service and support, from specification right through to delivery.

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# Range Overview

## Smart radiant panels

Merriott Smart radiant panels are constructed of aluminium extrusions with six-pass copper waterways, meaning they are quick to respond and lightweight to install, yet robust in design whilst achieving market-leading output.

Manufactured in the UK, the Merriott Smart radiant panel is designed for suspended grid ceiling applications and can be used in both standard and micro-tee ceiling grid systems.

### OUTPUTS

All Merriott Smart radiant panels have been manufactured and tested in accordance with EN14037-2.

### FINISH

Merriott Smart radiant panels are powder paint coated in RAL 9016 (white), paint with a 60% gloss proportion. Emissivity of external painted surface is 0.89.

### PACKAGING

Merriott Smart radiant panels are individually packaged with cardboard protection and are delivered on pallets to site, with individual radiant panel reference numbers included to ensure straightforward handling on delivery.

### CONNECTIONS

The Merriott Smart radiant panel has 10mm OD copper tube waterways, with same end flow and return connections.

Flexible connections between panels and for connection from distribution are available, refer to page 11.

### TESTING

The test pressure is 10 Bar giving a maximum operating pressure of 7.7 Bar.

### MATERIALS

Merriott Smart radiant panel is constructed of 2mm thick aluminium extrusions, with 10mm OD copper tube waterways and 40mm thick grade A2 insulation (in compliance with EN 13501-1).

### MOUNTING

Suitable for either suspended ceiling grid systems (standard and micro tee ceiling systems), plasterboard ceilings through the installation of an additional mounting frame, or can be mounted free hanging from the ceiling structure.

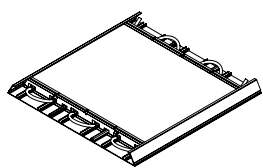
### WARRANTY

The Merriott **SMART** range of Radiant Panels is guaranteed for a period of five years with regards to defective materials and workmanship. In order for the warranty to be valid, designers and installers must observe and adhere to BS EN 12828:2003, "Heating systems in buildings – design for water based heating systems" and installers must adhere to BS EN 14336:2004 "Heating system in buildings – installation and commissioning of water based heating systems.

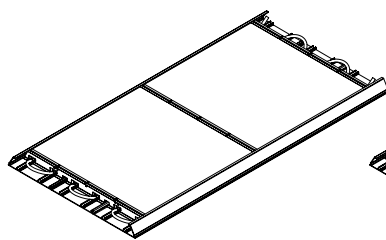
In addition Merriott recommends that designers and installers observe and adhere to the British Standard code of practice for the treatment of water in domestic hot water central heating systems and BS 7593:2006. Merriott recommends the use of corrosion inhibitor for all applications, failure to observe this may result in the invalidation of warranty.

## Range Options

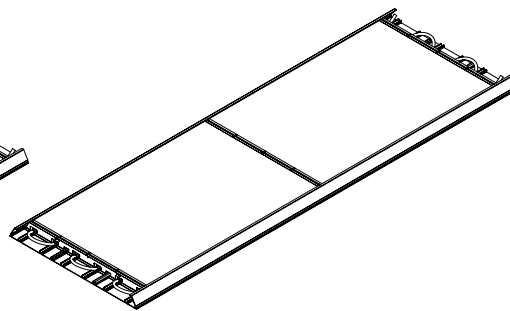
- Width: 597mm (nominal width 600mm)
- Lengths: 600mm, 1200mm, 1800mm, 2400mm, 3000mm



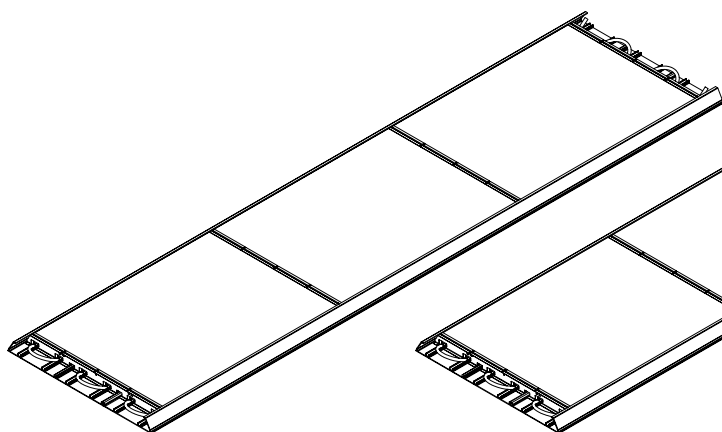
600mm x 600mm



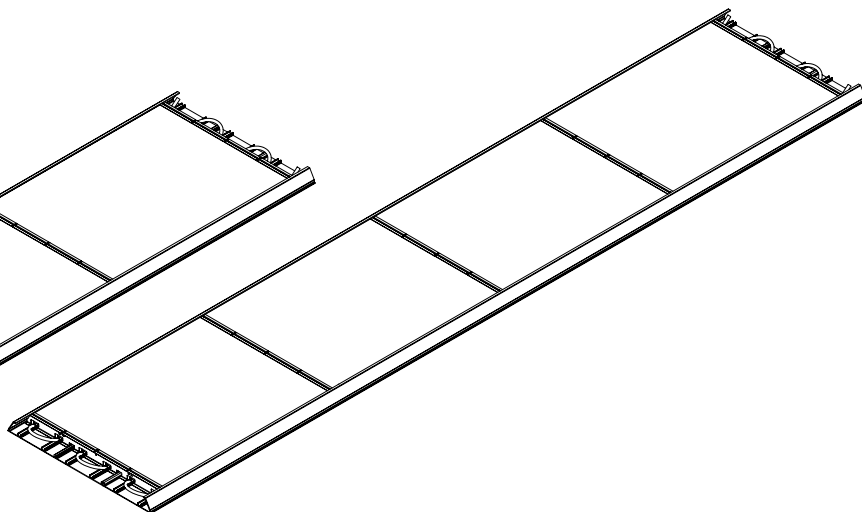
600mm x 1200mm



600mm x 1800mm



600mm x 2400mm

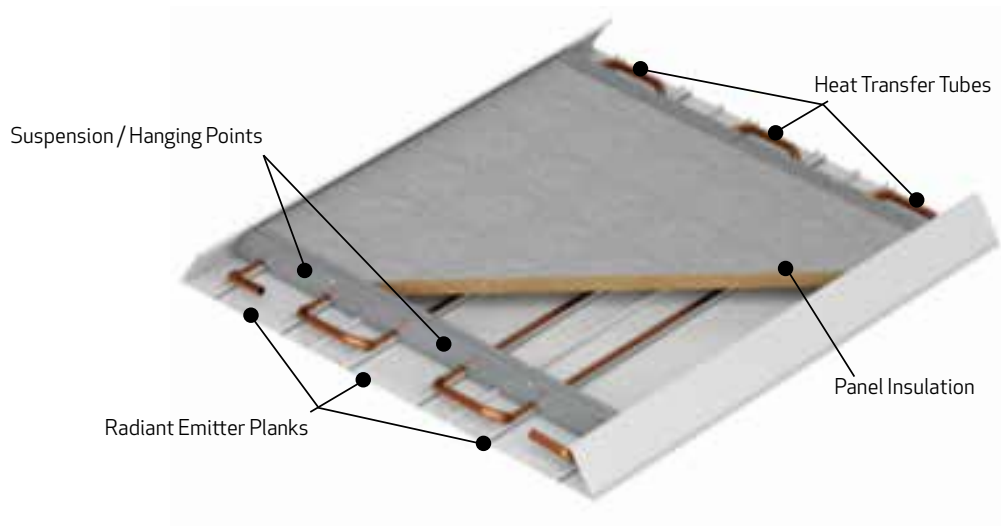


600mm x 3000mm

# Product Features

Fascia edge profile designed to sit on the T bar without obstruction from any adjacent frame cross member.

- Can be installed into micro T system ceilings
- Class-leading output
- Available in 5 lengths which allows for flexibility of installation
- Standard 600mm (nominal) width that can be used in micro-tee ceiling grid systems
- Manufactured in the UK from high grade aluminium guaranteeing quick response times
- Available for 3 ceiling types: ceiling grids, free hanging and plasterboard
- High edge profile and interlocking suspension brace system reduces deflection
- The copper waterways are pressed into the unique pipe carrier reshaping the copper to offer an increased thermal transfer, which leads to increased output and quicker response times
- 10mm waterways assist in achieving turbulent flow on small panels with minimal flow rates



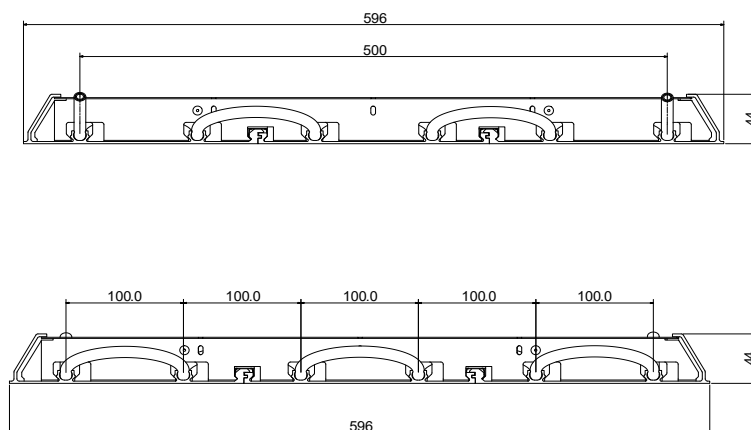
# Technical Specification

- 10mm OD high-specification soft copper; pressed into oval pipe carrier whilst re-shaping the copper; ensuring increased thermal transfer and increased system efficiency
- 2mm thick high-grade aluminium extrusion manufactured to EN775-9, offering a low-weight to high-strength ratio and quick response times
- Six pass, one-piece copper meander manufactured in accordance with EN12449, providing a high performance whilst providing re-assurance from potential leaks
- Reinforced, open-ended flow and return connections as standard, suitable for compression or push fit connections
- Outputs are tested in accordance with EN14037 Part 2, certified by the University of Stuttgart
- Non-combustible, foil faced mineral wool roll insulation to BS EN 13501-1 Reaction to Fire rating A2-S1
- Each panel individually packaged in cardboard and shipped on pallets for protection in transit and delivery
- Max operating temperature 90°C
- Max test pressure 10 bar
- Max operating pressure 7.7 bar
- Flexible steel braided connection hoses available on request
- Suspension Hanging wires available on request

## WEIGHTS AND WATER CONTENT

Nominal size		Weight incl water content (kgs)	Water Content (litres)	Hangers Installed
Height (mm)	Length (mm)			
600	600	4.07	0.56	4
600	1200	8.14	1.12	4
600	1800	12.2	1.68	4
600	2400	16.28	2.24	6
600	3000	20.34	2.80	6

## CROSS SECTION DIMENSIONS



# Heat Outputs

Output (Watts)					
'n'	1.18	1.18	1.18	1.18	1.18
Size	600x600	600x1200	600x1800	600x2400	600x3000
$\Delta T$					
10	29	58	86	115	144
11	32	65	97	129	162
12	36	72	108	143	180
13	39	79	118	158	197
14	43	86	129	172	215
15	46	93	140	186	233
16	50	101	151	201	252
17	54	108	162	216	271
18	57	116	174	232	289
19	61	123	185	247	308
20	65	131	196	262	327
21	69	139	208	278	347
22	73	147	220	294	367
23	77	155	232	310	387
24	81	163	244	326	407
25	85	171	256	342	427
26	89	179	268	358	448
27	93	187	281	375	468
28	98	196	293	391	489
29	102	204	306	408	509
30	106	212	318	424	530
31	110	221	331	441	551
32	114	229	344	458	572
33	119	238	356	475	594
34	123	246	369	492	615
35	127	255	382	509	636
36	131	264	395	527	658
37	136	272	408	544	680
38	140	281	421	562	702
39	145	289	434	579	724
40	149	298	447	597	746
41	153	307	460	615	768
42	158	316	474	633	791
43	162	325	487	651	813
44	167	334	501	669	836
45	171	343	514	687	858
46	175	352	528	705	881
47	180	361	542	723	904
48	184	371	555	742	926
49	189	380	569	760	949
50	194	389	583	778	972
51	199	398	597	797	995
52	203	408	611	815	1018
53	208	417	625	834	1042
54	212	427	639	852	1065
55	217	436	653	871	1088

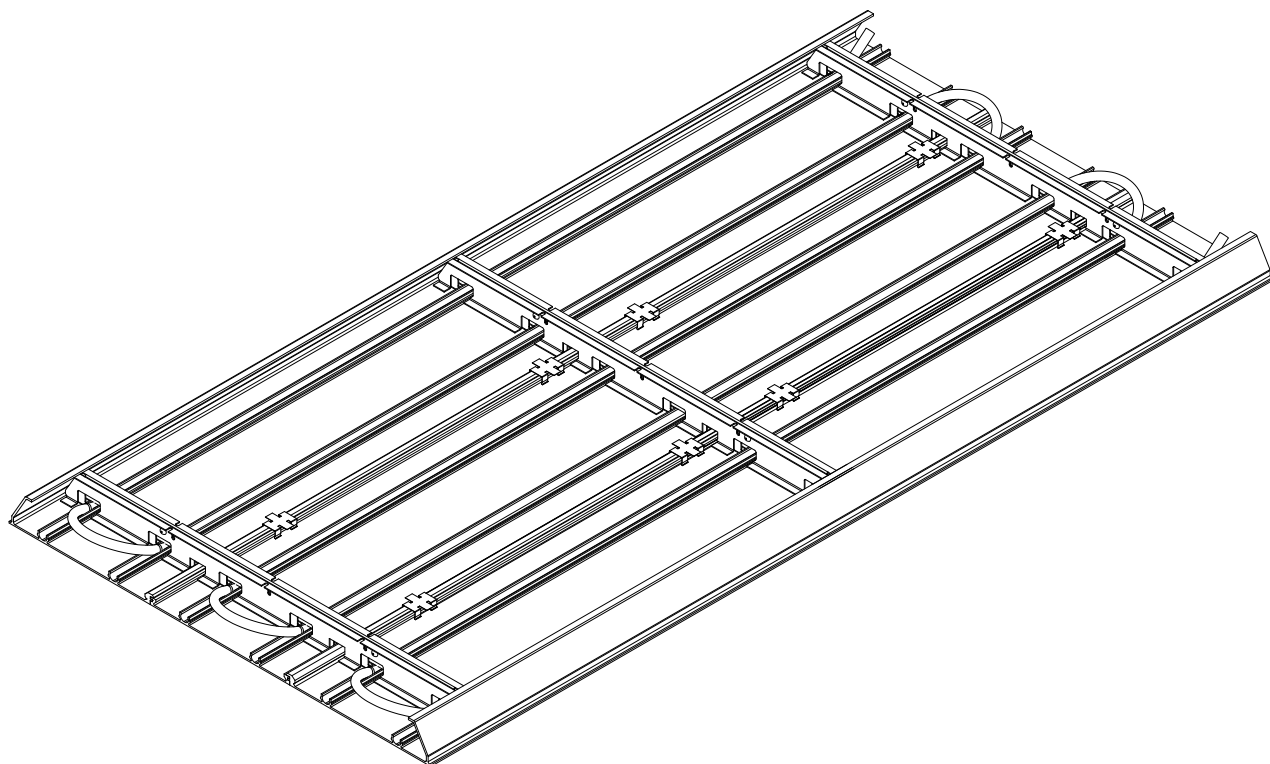
**NOTE:**

All outputs are in accordance with EN14037-2 certification.

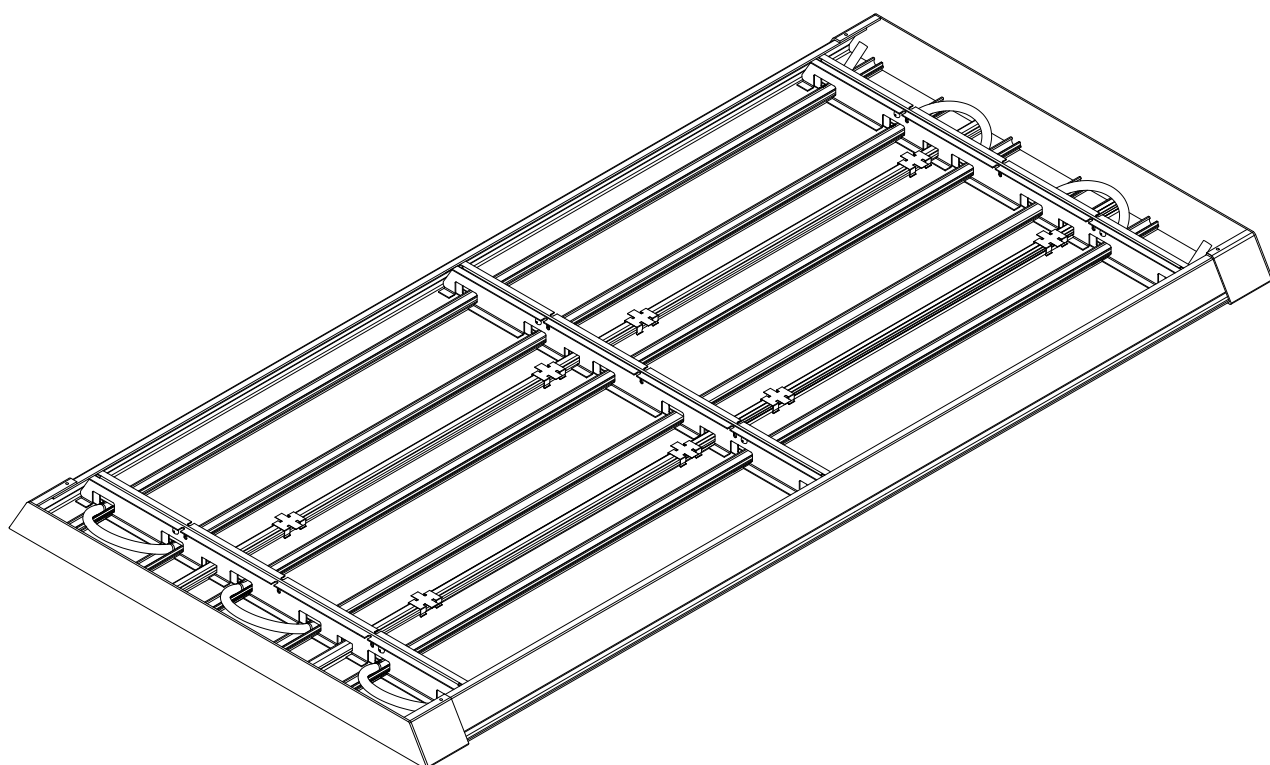


# Applications

## CEILING GRID

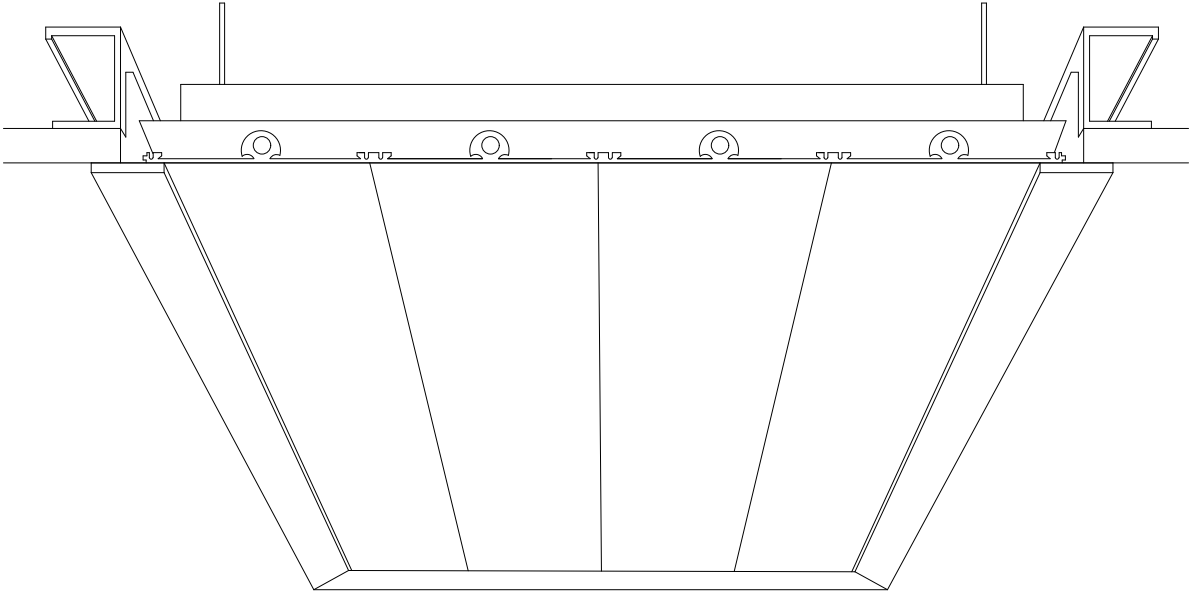


## FREE HANGING



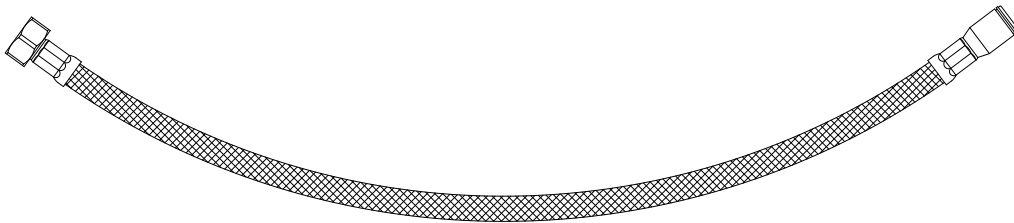
# Applications

## PLASTERBOARD

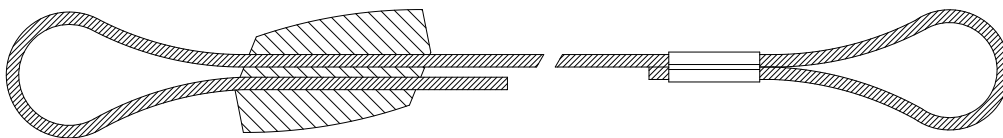


## ACCESSORIES

Flexible hoses



Gripple Wire

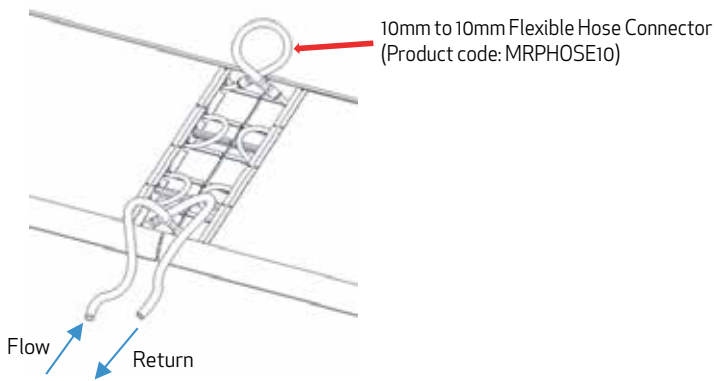
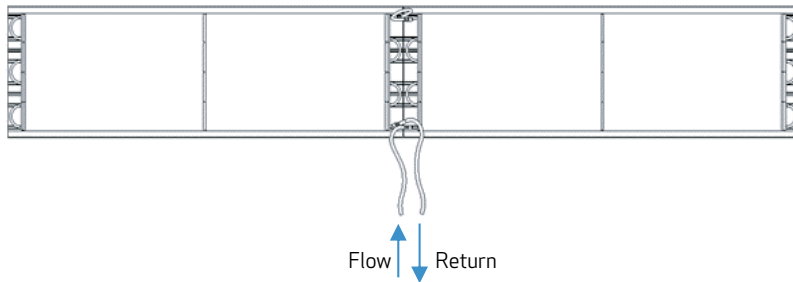


# Panels Connected in Series

Panels can be connected up to 6m in length at  $\Delta T$  50.

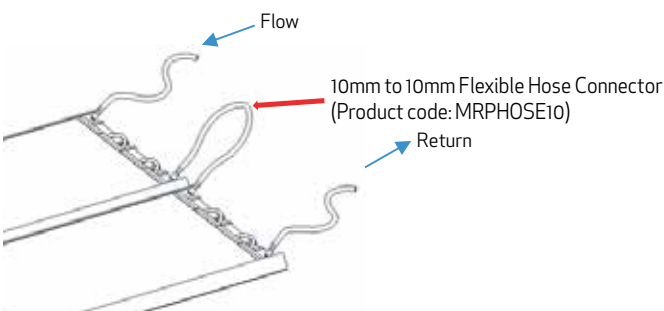
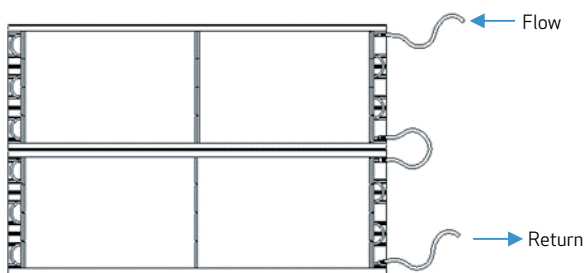
For all other connection requirements and possibilities, please contact the Merriott Sales Office.

## EXAMPLE OPTION A: TWO 2400MM PANELS CONNECTED IN SERIES.



## EXAMPLE OPTION B: TWO 2400MM PANELS CONNECTED IN SERIES (SIDE BY SIDE)

Temperature intensity must be considered when using this option, please contact Merriott Sales Office for further information.



#### Merriott UK & Ireland

Purmo Group (UK) Ltd  
Eastern Avenue, Team Valley  
Gateshead, Tyne & Wear, NE11 0PG  
0330 0415 472  
[sales@merriottuk.com](mailto:sales@merriottuk.com) / [sales@merriott.ie](mailto:sales@merriott.ie)  
[www.merriottuk.com](http://www.merriottuk.com)

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