

UltraGRID®

Ceiling Systems



UltraGRID®

A unique ceiling grid system solution



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UltraSTEEL®

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UltraGRID®

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Utilising Hadley Group's patented UltraSTEEL® process, Hadley UltraGRID® exposed ceiling grid systems offer distinct performance advantages over all other ceiling grid systems, underpinned by extensive technical and design support from Hadley Group's in-house structural experts.

Suitable for installation in most office, retail, showroom, public and private sector environments UltraGRID® systems can accommodate a variety of lay-in ceiling tiles.

The unique advantages of UltraGRID®

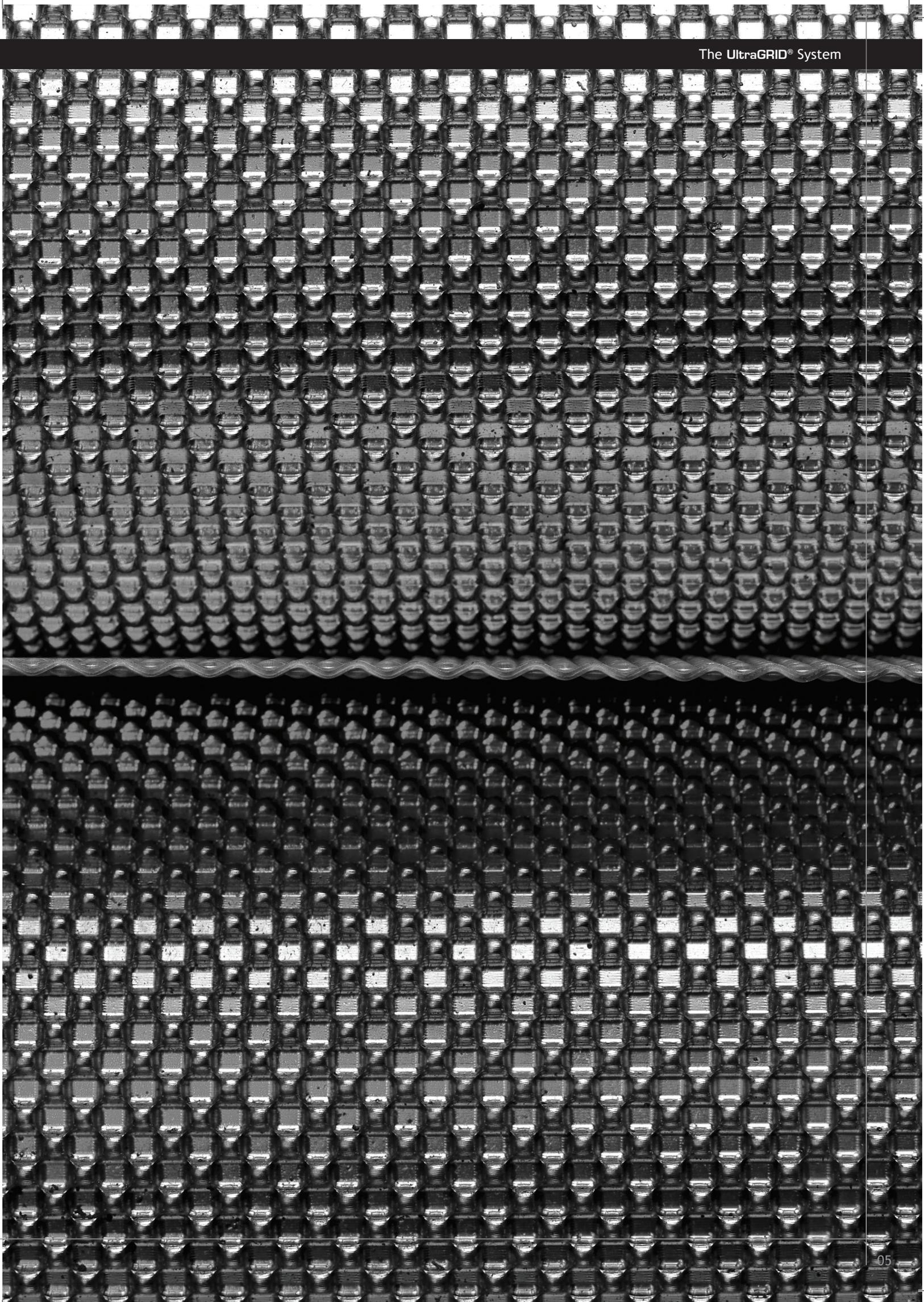
Setting UltraGRID® aside as unique are the numerous performance advantages delivered as a result of the UltraSTEEL® process, a technological breakthrough, which is added to UltraGRID® as part of the manufacturing process.

The UltraSTEEL® process effectively doubles the thickness of the raw material, thereby optimising the performance of UltraGRID® ceiling systems in a number of ways;



- Reduces the need to use heavier gauge materials thereby saving up to 20% on raw materials, increasing cost-effectiveness
- Greater load carrying performance and tensile strength
- Increases resistance to buckling and compression
- By achieving strength without the weight of a heavier gauge, UltraGRID® is easier to handle which is especially useful when working at height
- UltraSTEEL® products have proven, superior, fire resistance
- The dimpled surface of UltraGRID® also reduces noise transmission through ceilings
- Screw retention is also improved as each screw is in contact with a material thickness greater than the nominal gauge of the steel
- After loading UltraGRID® also has a greater memory and spring tension with a 31% reduction in permanent deformation compared to the same gauge steel without the UltraSTEEL® process





The UltraGRID® System

Aesthetically pleasing with clean, strong lines, UltraGRID® is also compatible with all types of services including light fittings, air conditioning units and sprinkler systems therefore can be specified with confidence.

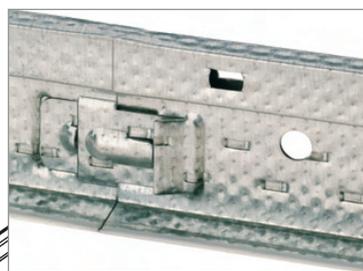
Structural performance

Performance is governed by the limit of deflection criteria, recommended in ASTM C635; Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings. Accommodation of light fittings requires extra hangers at corners.

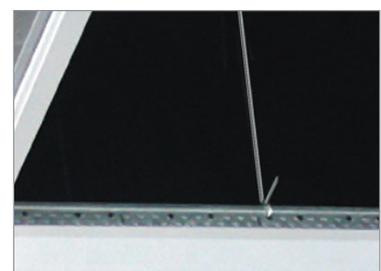
Adjustable Hanger



Main Tee End Connection



Galvanised Suspension Wire



Cross Tee to Main Tee Connection



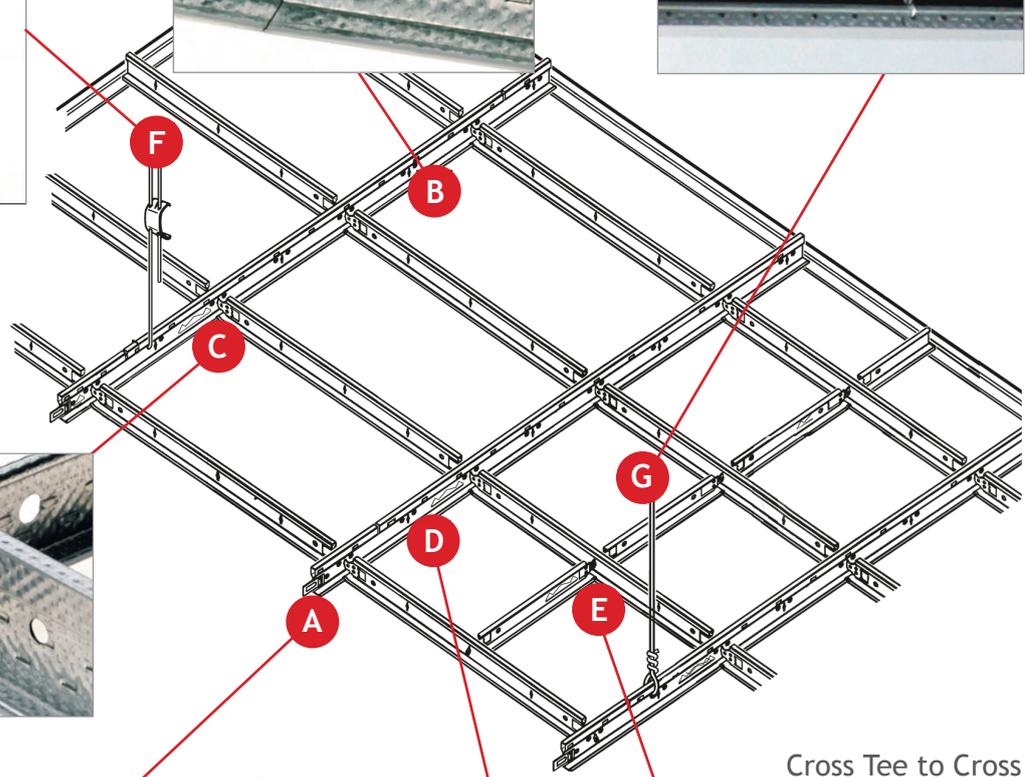
Main Tee End Connector



Fire Expansion Joint

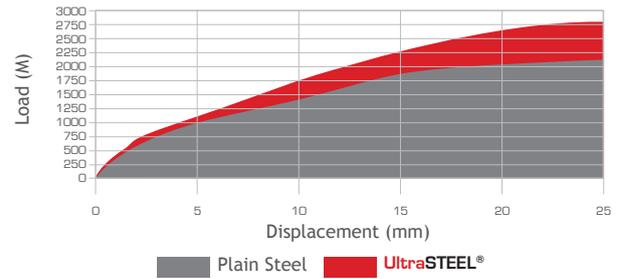


Cross Tee to Cross Tee Connection



Load carrying performance

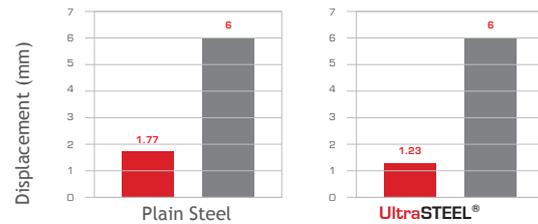
This graph illustrates the load carrying performance of two identically dimensioned products, one produced using the UltraSTEEL® process in a reduced gauge and one plain. The UltraSTEEL® product not only carries a higher load, but is also stiffer.



Improved memory and spring tension characteristics

Sections manufactured using the UltraSTEEL® process have a greater ability to return to their original form after loading.

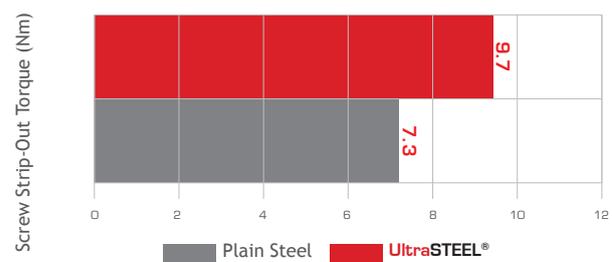
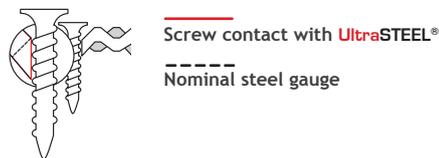
■ Permanent Deformation ■ Deformation



A comparison between two samples from the same original coil indicates a 31% reduction in permanent deformation.

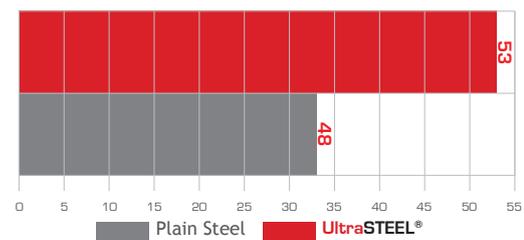
Enhanced screw retention

The UltraSTEEL® cross-section ensures that every screw is in contact with a material thickness greater than the nominal gauge of the steel, resulting in a significant increase in the torque required to strip-out the screw.



Reduced noise transmission

The dimpled surface can reduce the transmission of noise.



Improved fire test performance

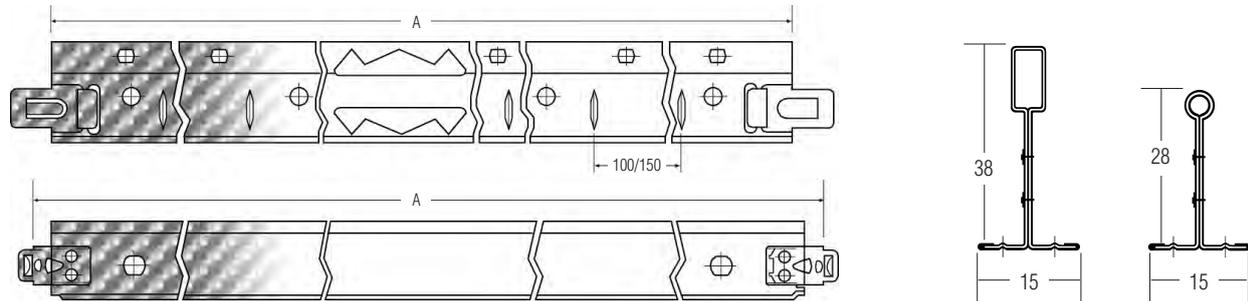
Fire test performance in a stud wall application shows that UltraSTEEL® performs significantly better in both stability, integrity and insulation.

Fire Resistance

All fire resistance tests conducted upon UltraGRID™ ceiling profiles involve a loaded steel beam in accordance with BS476: Part23: 1987 Clause 5.



UltraGRID® 3815 Metric System



Component	(A) Length (mm)	Quantity. Per Box	Kg Per Box	Metres. Per Box
Main Tee	3600	30	28	108
Cross Tee	500	120	12	60
Cross Tee	600	120	15	72
Cross Tee	1000	120	26	120
Cross Tee	1200	120	29	144
Wall Angle	3600	40	23	144
Shadow Angle	3800	30	22	108

Ceiling grid load carrying information

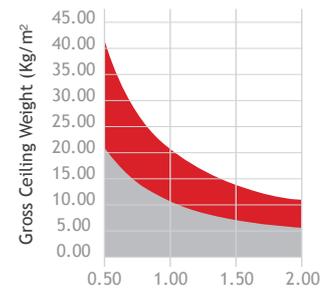
Maximum Gross Ceiling Weight

Once hanger spacings have been established calculate the maximum ceiling weight for the Main Tee from the graph, and the Cross Tee from the chart.

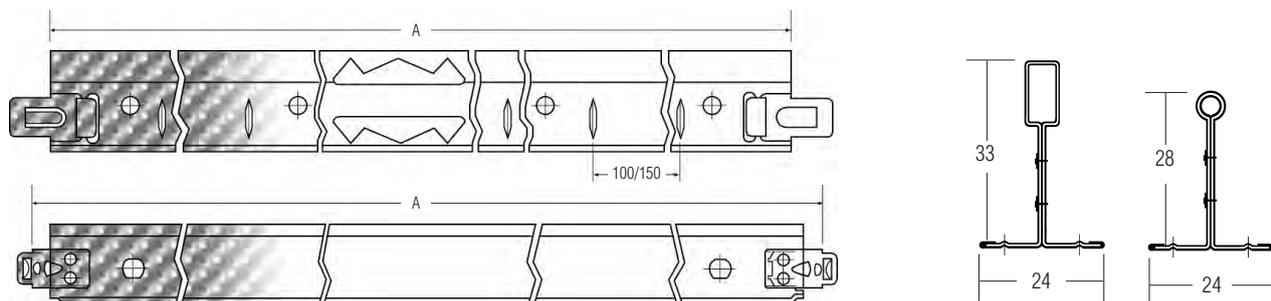
The maximum gross ceiling weight allowable is the lower of the two values.

Cross Tee Lengths	Spacing Metres	
	0.6	1.2
600mm	27Kgs	19Kgs
1200mm	7Kgs	3.3Kgs

	0.6 metre centres
	1.2 metre centres

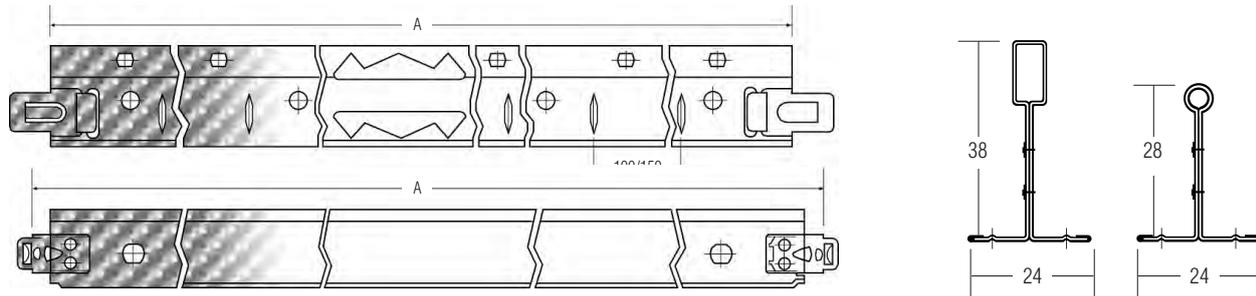


UltraGRID® 3324 Metric System



Component	(A) Length (mm)	Quantity. Per Box	Kg Per Box	Metres. Per Box
Main Tee	3600	25	25	90
Cross Tee	500	75	9	37.5
Cross Tee	600	75	11	45
Cross Tee	1000	75	18	75
Cross Tee	1200	75	23	90
Wall Angle	3600	40	23	144
Shadow Angle	3600	30	23	108

UltraGRID® 3824 Metric System



Component	(A) Length (mm)	Quantity. Per Box	Kg Per Box	Metres. Per Box
Main Tee	3600	25	28	90
Cross Tee	500	75	9	37.5
Cross Tee	600	75	11	45
Cross Tee	1000	75	18	75
Cross Tee	1200	75	23	90
Wall Angle	3600	40	23	144
Shadow Angle	3600	30	23	108

Ceiling grid load carrying information

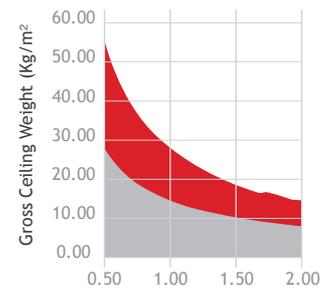
Maximum Gross Ceiling Weight

Once hanger spacings have been established calculate the maximum ceiling weight for the Main Tee from the graph, and the Cross Tee from the chart.

The maximum gross ceiling weight allowable is the lower of the two values.

Cross Tee Lengths	Spacing Metres	
	0.6	1.2
600mm	46Kgs	33Kgs
1200mm	11.3Kgs	5.4Kgs

	0.6 metre centres
	1.2 metre centres



Ceiling grid load carrying information

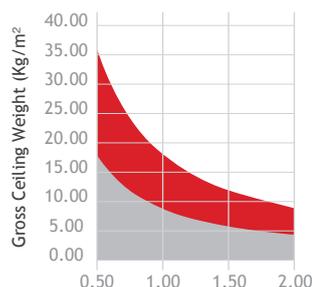
Maximum Gross Ceiling Weight

Once hanger spacings have been established calculate the maximum ceiling weight for the Main Tee from the graph, and the Cross Tee from the chart.

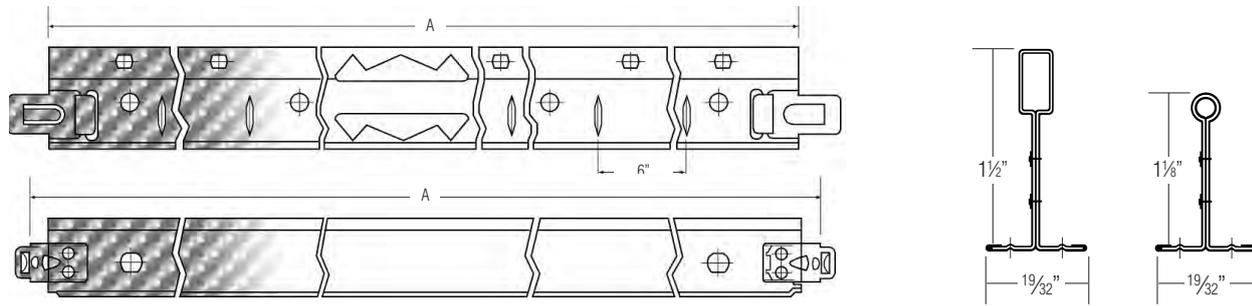
The maximum gross ceiling weight allowable is the lower of the two values.

Cross Tee Lengths	Spacing Metres	
	0.6	1.2
600mm	46Kgs	33Kgs
1200mm	11.3Kgs	5.4Kgs

	0.6 metre centres
	1.2 metre centres



UltraGRID® 3815 Imperial System



Component	(A) Length (feet)	Quantity. Per Box	lbs Per Box	Feet. Per Box
Main Tee	12	30	61	360
Cross Tee	-	-	-	-
Cross Tee	2	120	33	240
Cross Tee	-	-	-	-
Cross Tee	4	120	64	480
Wall Angle	12	40	51	480
Shadow Angle	12	30	49	360

Ceiling grid load carrying information

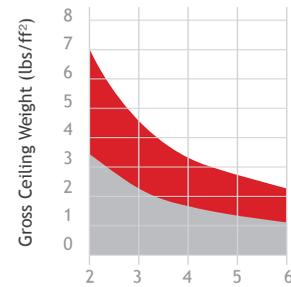
Maximum Gross Ceiling Weight

Once hanger spacings have been established calculate the maximum ceiling weight for the Main Tee from the graph, and the Cross Tee from the chart.

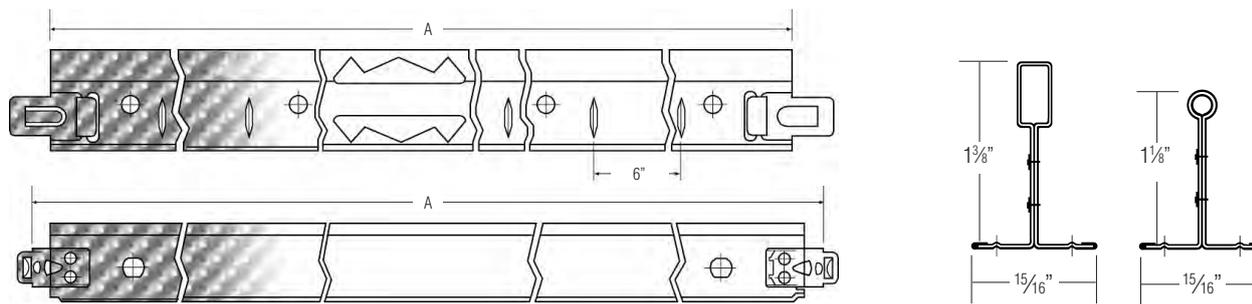
The maximum gross ceiling weight allowable is the lower of the two values.

Cross Tee Lengths	Spacing Metres	
	2'	4'
24"	59.5lbs	42lbs
48"	15.4lbs	7.3lbs

	2 feet centres
	4 feet centres

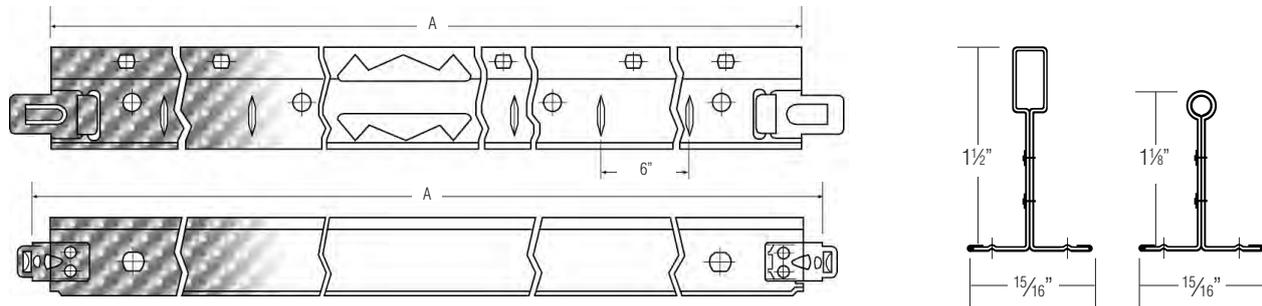


UltraGRID® 3324 Imperial System



Component	(A) Length (feet)	Quantity. Per Box	lbs Per Box	Feet. Per Box
Main Tee	12	25	55	300
Cross Tee	-	-	-	-
Cross Tee	2	75	24	150
Cross Tee	-	-	-	-
Cross Tee	4	75	51	300
Wall Angle	12	40	51	480
Shadow Angle	12	30	49	360

UltraGRID® 3824 Imperial System



Component	(A) Length (feet)	Quantity. Per Box	lbs Per Box	Feet. Per Box
Main Tee	12	25	62	300
Cross Tee	-	-	-	-
Cross Tee	2	75	24	150
Cross Tee	-	-	-	-
Cross Tee	4	75	51	300
Wall Angle	12	40	51	480
Shadow Angle	12	30	49	360

Ceiling grid load carrying information

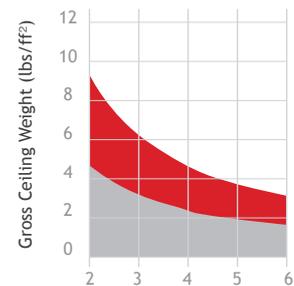
Maximum Gross Ceiling Weight

Once hanger spacings have been established calculate the maximum ceiling weight for the Main Tee from the graph, and the Cross Tee from the chart.

The maximum gross ceiling weight allowable is the lower of the two values.

Cross Tee Lengths	Spacing Metres	
	2'	4'
24"	101lbs	73lbs
48"	25lbs	11.9lbs

	2 feet centres
	4 feet centres



Ceiling grid load carrying information

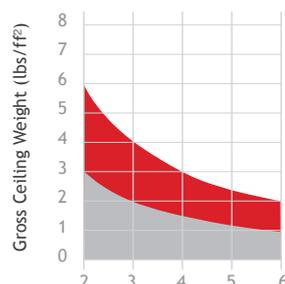
Maximum Gross Ceiling Weight

Once hanger spacings have been established calculate the maximum ceiling weight for the Main Tee from the graph, and the Cross Tee from the chart.

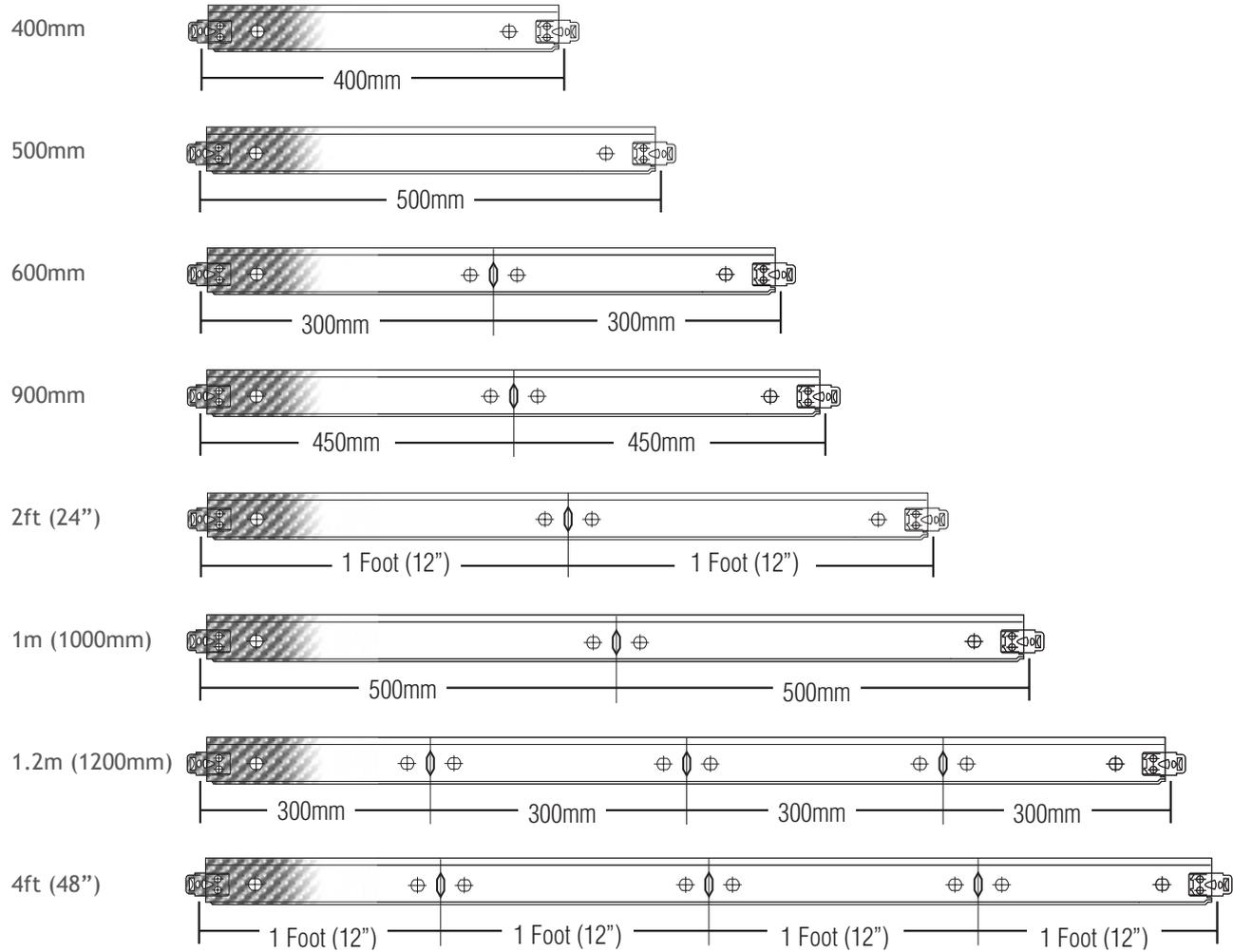
The maximum gross ceiling weight allowable is the lower of the two values.

Cross Tee Lengths	Spacing Metres	
	2'	4'
24"	101lbs	73lbs
48"	25lbs	11.9lbs

	2 feet centres
	4 feet centres

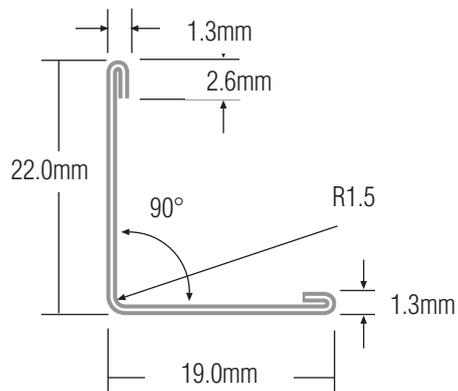


UltraGRID® Slot Detail

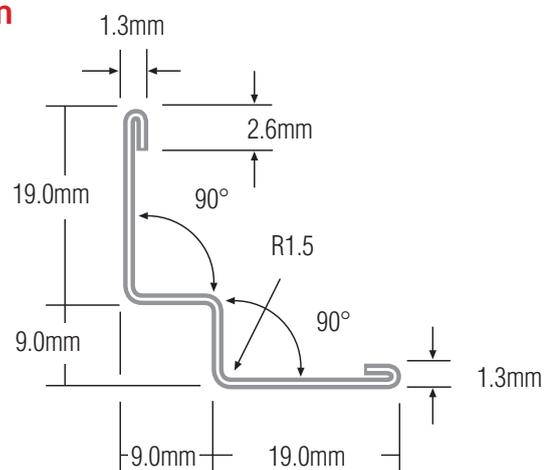


Angle & Trim

Wall Angle



Trim





Recommended UltraGRID® Dimensions

The recommended UltraGRID dimensions, in accordance with ASTM C635, have been stated below. Test procedures and deflection limits for a direct hung, light duty system have been used to declare recommended grid layouts relative to the metal

grid profiles only. Capacities of tiles and ancillary components not supplied by Hadley Industries should be recommended by relevant suppliers. All testing has been carried out at Hadley Industries, research and product development department.

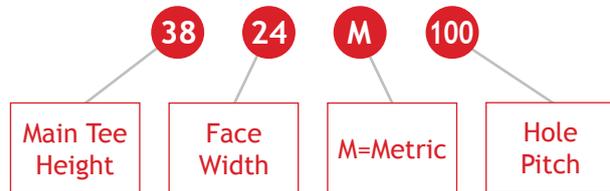
Main Tee Profile Dimension [Height X Width]	Hanger Spacing	Main Tee Spacing	Cross Tee Spacing	Load at Limiting Deflection	Test Result in Accordance with ASTM C635
	mm	mm	mm	N	
Hadley UltraGRID® 38X24	1800	1200	1200	68	pass
	1800	1200	600	65	pass
	1800	600	1200	69	pass
	1800	600	600	69	pass
	1200	1200	1200	116	pass
	1200	1200	600	116	pass
	1200	600	1200	116	pass
	1200	600	600	124	pass
Hadley UltraGRID® 38X15	1800	1200	1200	60	pass
	1800	1200	600	55	pass
	1800	600	1200	65	pass
	1800	600	600	64	pass
	1200	1200	600	103	pass
	1200	600	600	100	pass
Hadley UltraGRID® 33X24	1800	1200	1200	43	pass
	1800	1200	600	51	pass
	1800	600	1200	53	pass
	1800	600	600	52	pass

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companies can accept no liability and this information should be checked by a qualified structural engineer before use.

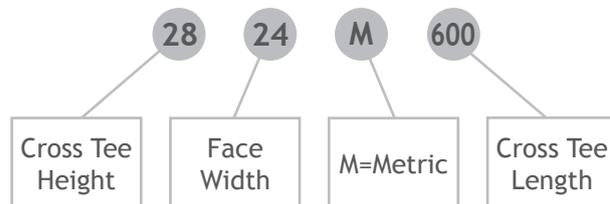
Product Ordering References

Example Main Tee 3824M100



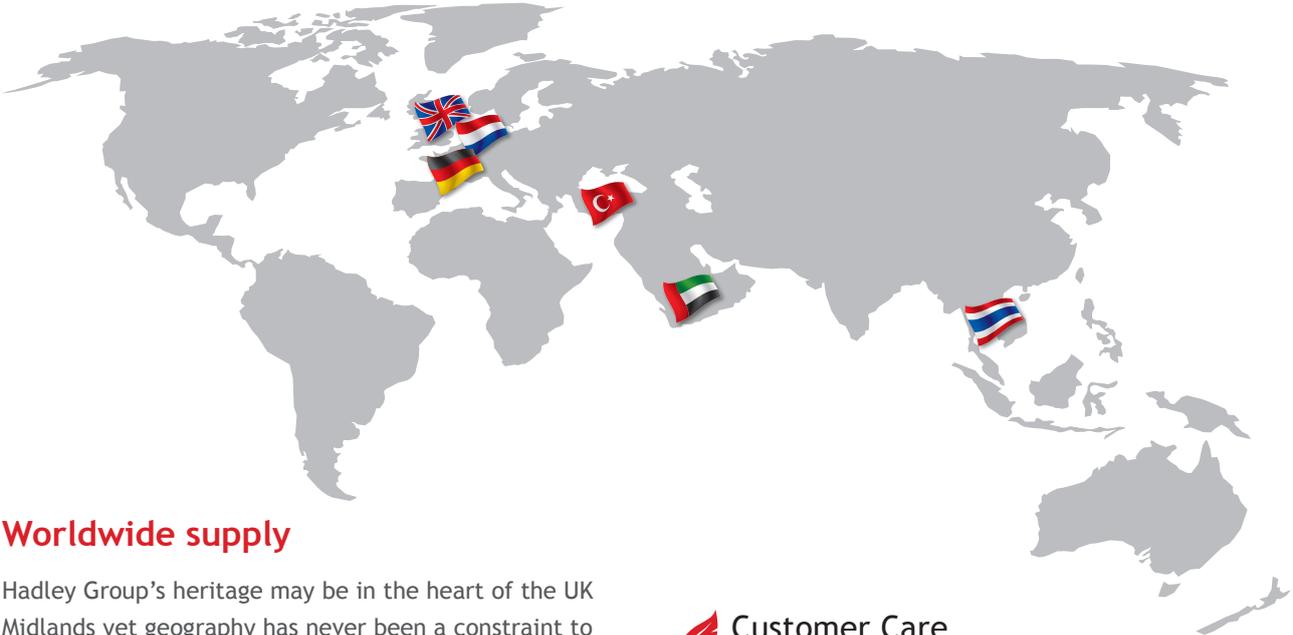
Main Tee	
Metric	Imperial
3815 M 100	3815 I 6
3815 M 150	-
3824 M 100	3824 I 6
3824 M 150	-
3324 M 100	3324 I 6
3324 M100	3324 I 6
3324 M 150	-

Example Cross Tee 2824M600



Cross Tee	
Cross Tee	Imperial
2824 M 400	2824 I 24
2824 M 500	2824 I 48
2824 M 600	-
2824 M 900	-
2824 M 1000	-
2824 M 1200	-
2815 M 400	2815 I 24
2815 M 500	2815 I 48
2815 M 600	-
2815 M 900	-
2815 M 1000	-
2815 M 1200	-

8 Manufacturing Centres Worldwide



Worldwide supply

Hadley Group’s heritage may be in the heart of the UK Midlands yet geography has never been a constraint to our growth and globalisation.

Today, with eight manufacturing centres serving contracts and licence agreements on five continents and in 36 countries, we are firmly ‘on the map’ - a truly international business, in every way with an unerring focus on practical ingenuity.

With dedicated teams strategically based where economic development is moving forwards, we have the capability to innovate; meeting local and bespoke needs within almost every sector, from construction (steel framing and profiles), shop fitting and vehicle sections to agricultural products, fencing and PVCu windows and doors.

Customer Care

At Hadley we have shaped our business around adding value for our customers; understanding their diverse needs and, through local expertise, market insight and manufacturing capabilities, delivering beyond expectation.

Reach

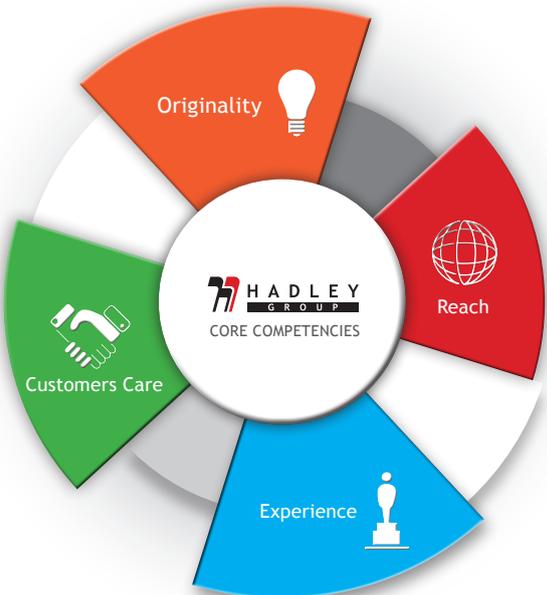
Hadley Group is the UK’s largest manufacturer of cold rolled metal profiles with 46 dedicated rolling mills and a global reach spanning five continents. Today, with seven manufacturing centres serving contracts and licence agreements on five continents and in 36 countries, Hadley Group is a truly international business in every way with an unerring focus on practical ingenuity.

Originality

Hadley Group Technology is the largest in-house cold roll forming technology academy in the UK. Hadley Group is protected from imitation via intellectual property rights to 145 of its products and processes assuring the integrity of our portfolio. Amongst these is **UltraSTEEL®** which has a global patent, with 1 billion metres produced annually both in house and under licence.

Experience

Our industrial heritage spans 50 years. Our loyal and skilled workforce understands how to create long term, positive relationships with customers who trust Hadley Group to advise, innovate, manufacture and deliver.



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