

Celsius® S355NH

The widest capability with the best availability

The Tata Steel range of Celsius® S355NH true hot finished structural hollow sections is the benchmark in the UK market due to the unique combination of the ultimate performance of a fully normalized hollow section, but also the widest range of sizes.



Performance benefits

Unlike some other hollow sections compliant with EN 10210, Celsius® S355NH is fully normalized and so benefits from the full benefits of this product type, including:

- No residual stresses
- Outstanding dimensional stability
- Excellent weldability
- Superior ductility
- Tight corner profile

This combination of benefits makes the Celsius® range the default structural hollow section for all types of structures. The excellent fatigue resistance is also particularly important in many mechanical applications.

The widest range

The dimensional range offered by Tata Steel in Celsius® S355NH is the most extensive and comprehensive of any manufacturer.

- Square from 40x40x3.2mm to 400x400x16mm
- Rectangular from 50x30x3.2mm to 500x300x16mm
- Circular from 42.4x3.2mm to 508x16mm
- Elliptical from 300x150x8mm to 500x250x16mm

In addition to the most common sizes, we are able to manufacture several sizes which are less commonly used within this range too.

Our usual manufacturing uses standard steel gauges: 3.2, 3.6, 4.0, 5.0, 6.3, 8.0, 12.5 and 16.0mm

But due to our integrated supply chain and extensive experience, we are also able to offer intermediate gauges to special order: 2.6, 2.9, 4.5, 5.6, 7.1, 11.0, 14.2mm

The best availability

At Tata Steel, we have been supplying Celsius® true hot finished hollow sections into the UK market for over 40 years, so we have built excellent, long-standing relationships with the key routes to market. We supply Celsius® to all the major stockholders, giving a full spread of availability throughout the UK.

Our Celsius® range includes over 650 unique sizes of hollow section, but not all of these will be held in stock by the supply chain. In order to assist engineers to specify the most available sizes, we have categorized our Celsius® range into three categories:

Category 1 sizes will be regularly available in stock from the leading stockholders in the UK.

Category 2 sizes are regularly supplied to major UK stockholders, but with less regular re-stocking. These sizes are likely to be in stock or available on a short lead-time.

Category 3 sizes are less frequently used, but can be rolled to order, subject to a longer lead-time and minimum quantity.

There are 167 section sizes of Celsius® S355NH in category 1, accounting for over 93% of everything used in the UK market. Together with an additional 52 sizes in category 2, this covers most demand. But to support the ultimate efficiency in design, we offer a wide range beyond this in category 3, subject to minimum order size and lead-time requirements.

Through our excellent supply-chain partnerships Celsius® S355NH from Tata Steel enjoys unrivalled availability within the UK market.

Celsius® S355NH size availability categories

Square hollow sections (SHS)

mm	3.2	3.6	4.0	5.0	6.3	8.0	10.0	12.5	16.0
40/40	Green	Grey	Green	Green	Grey				
50/50	Green		Blue	Green	Green	Grey			
60/60	Grey		Green	Green	Green	Blue			
70/70	Grey	Blue	Grey	Green	Green	Blue	Grey		
80/80	Grey	Green		Green	Green	Green	Grey		
90/90		Green	Grey	Green	Green	Green	Green		
100/100		Grey	Blue	Green	Green	Green	Green		
120/120			Grey	Green	Green	Green	Green	Green	
140/140				Green	Green	Green	Green	Green	Grey
150/150				Green	Green	Green	Green	Green	Grey
160/160				Blue	Green	Green	Green	Grey	Grey
180/180					Green	Green	Green	Green	Green
200/200					Green	Green	Green	Green	Green
250/250					Grey	Green	Green	Green	Green
300/300						Grey	Green	Green	Green
350/350							Grey	Green	Green
400/400								Green	Green

Circular hollow sections (CHS)

mm	3.2	3.6	4.0	5.0	6.3	8.0	10.0	12.5	16.0
42.4	Green	Grey	Blue	Grey					
48.3	Blue	Grey	Green	Green	Grey				
60.3	Blue	Grey	Grey	Green	Grey	Grey			
76.1	Blue	Grey		Green	Grey	Grey			
88.9	Blue	Grey	Blue	Green	Green	Grey	Grey		
114.3		Green	Grey	Green	Green	Grey	Grey		
139.7		Grey	Grey	Green	Green	Green			
168.3				Green	Green	Green	Green	Blue	
193.7				Green	Green	Green	Green	Green	Grey
219.1				Green	Green	Green	Green	Green	Green
244.5				Grey	Grey	Grey	Blue	Green	Green
273.0				Grey	Green	Green	Green	Green	Green
323.9				Grey	Blue	Green	Green	Green	Green
355.6					Grey	Grey	Blue	Blue	Blue
406.4							Green	Blue	Green
457.0							Green	Blue	Green
508.0							Green	Blue	Green

Technical Support

Tata Steel provide unrivalled expert support for the Celsius® range, including:

- www.tatasteelbluebook.com – the definitive guide to using Celsius® hollow sections in structures
- Software to assist in design of joints using Celsius® hollow sections
- Firesoft – the definitive tool for designing concrete filled columns for fire resistance



Download the Celsius® hollow section design app.

For the ultimate peace-of-mind, always specify Celsius® S355NH

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Rectangular hollow sections (RHS)

mm	3.2	3.6	4.0	5.0	6.3	8.0	10.0	12.5	16.0
50/30	Green	Grey	Grey	Blue	Grey				
60/40	Blue	Grey	Green	Blue	Grey	Grey			
80/40	Blue	Grey	Green	Green	Blue	Blue			
90/50	Grey	Blue	Grey	Green	Green	Grey	Grey		
100/50	Green	Grey	Grey	Green	Green	Blue	Grey		
100/60	Grey	Blue	Grey	Green	Green	Blue	Grey		
120/60		Blue	Grey	Green	Green	Green	Grey		
120/80		Grey	Grey	Green	Green	Green	Green		
150/100			Grey	Green	Green	Green	Green	Green	
160/80				Green	Green	Green	Green	Grey	
200/100			Grey	Green	Green	Green	Green	Green	Grey
200/120				Blue	Green	Green	Green	Blue	Blue
200/150				Grey	Green	Green	Green	Green	Blue
250/100				Grey	Green	Blue	Green	Blue	Grey
250/150				Grey	Green	Green	Green	Green	Green
300/100				Grey	Green	Green	Green	Grey	Green
300/200				Grey	Green	Green	Green	Green	Green
350/150				Grey	Blue	Grey	Blue	Blue	Blue
350/250					Grey	Grey	Blue	Blue	Blue
400/200					Grey	Green	Green	Green	Green
400/300						Grey	Grey	Blue	Grey
450/250						Green	Green	Green	Green
500/200						Grey	Blue	Grey	Blue
500/300						Grey	Green	Green	Green

Elliptical hollow sections (EHS)

mm	8	10	12.5	16
300/150	Grey	Grey	Grey	Grey
400/200	Grey	Grey	Grey	Grey
500/250	Grey	Grey	Grey	Grey

www.tatasteelconstruction.com

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