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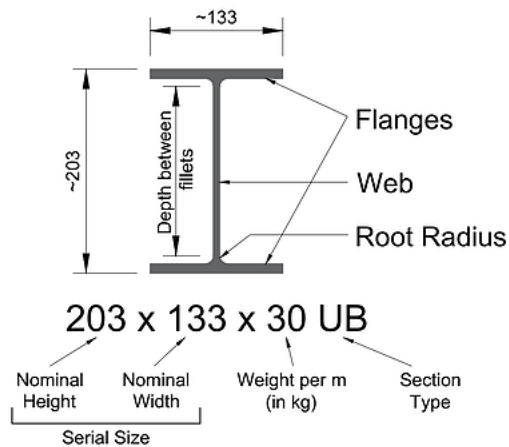
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UC, UB, PFC, SHS, CHS... Understanding Steel Beam References

Updated: Nov 22, 2019

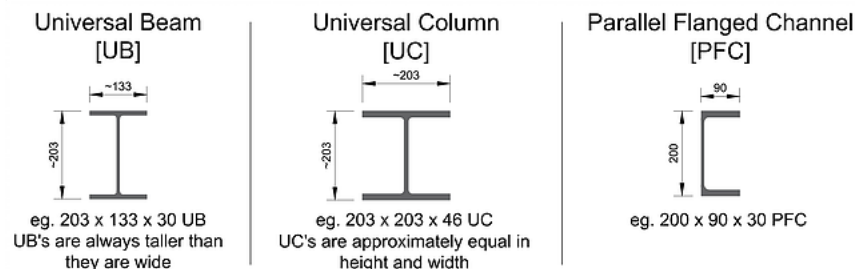
Having trouble understanding steel beam references on construction drawings? We explain what all those numbers and acronyms mean.

1. 'Open' Steel Sections



Common Open Sections:

(Universal Beam [UB] Universal Column [UC] and Parallel Flanged Channel [PFC])



Nominal Size vs. Actual size of open sections

For each nominal serial size there are a range of sections with different thickness of flanges and web. This allows engineers to specify the most efficient beam possible. These variants of the same serial size are distinguished by their weight per meter. The table below shows 3

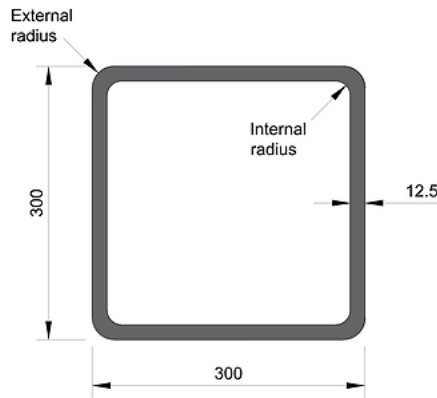
152 x 152 x 37 UC	152.4	152.2	6.8	123.6
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The different weight beams have slightly different overall dimensions. The manufacturing rolling process means the internal distance between top and bottom flange remains constant, so the thicker flanges of the heavier versions result in a slightly taller section.

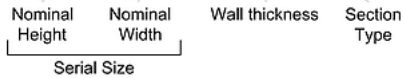
When a project has sections of the same serial size but different weights these small differences need to be considered to ensure consistent levels and fit are achieved.

PFC's only have 1 weight per serial size, and as such they match their listed dimensions exactly.

2. 'Closed' Hollow Sections



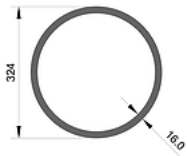
300 x 300 x 12.5 SHS



Common Closed Sections:

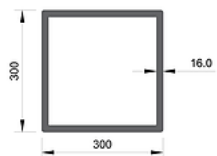
(Circular Hollow Section [CHS], Square Hollow Section [SHS], Rectangular Hollow Section [RHS])

Circular Hollow Section [CHS]



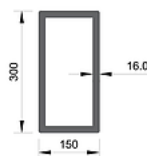
eg. 324 x 16.0 CHS

Square Hollow Section [SHS]



eg. 300 x 300 x 16.0 SHS

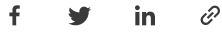
Rectangular Hollow Section [RHS]



eg. 300 x 150 x 16.0 SHS

Similar to UB's and UC's, hollow sections are available in a range of sizes for each serial size, however they are differentiated by wall

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