

AD 537:

Web resistance

The Blue Book contains values of web resistance, for various stiff bearing lengths, s_s . During the work to prepare for the “Generation 2” changes, it has become clear that one limitation in BS EN 1993-1-5:2006 was not observed in the original calculations. This omission means that for smaller beams, some web resistance values are not correct at longer stiff bearing lengths. This AD explains the omission and advises on the work around.

Clause 6.3(1) of BS EN 1993-1-5:2006 limits

the maximum length of stiff bearing, s_s to be no larger than the depth between flanges, h_w . This limit was not observed when the tabulated values were calculated.

As an example, consider a $203 \times 133 \times 25$ UB. The depth between flanges, h_w is $203.2 - 2 \times 7.8 = 187.6$ mm. The stiff bearing length, s_s should have been limited to this maximum value – but the calculated resistances use the tabulated values including lengths between 200mm and 350mm. The effect of the omission varies with beam size, weight

and steel grade. Only beams of 356 serial size depth and smaller are affected, since for deeper sections, $h_w > 350$ mm.

For cases when s_s exceeds h_w , it is conservative to use the values when $s_s \leq h_w$. For the 203 UB example, the tabulated resistances for $s_s = 150$ mm, being less than 187.6mm, will be conservative.

Contact: David Brown
Telephone: 01344 636555
Email: advisory@steel-sci.com

New and revised codes and standards

From BSI Updates January 2025

BS EN PUBLICATIONS

BS EN 17632-2:2024

Building information modelling (BIM). Semantic modelling and linking (SML). Domain-specific modelling patterns.

NEW WORK STARTED

EN 18162

Building Information Modelling (BIM). Digital twins applied to the built environment. Concept and definitions.

NATOEN 1998-1-1

Eurocode 8. Design of structures for earthquake resistance. General rules and seismic action.

NATOEN 1998-5

Eurocode 8. Design of structures for earthquake resistance. Geotechnical aspects, foundations, retaining and underground structures.

EN 13135

Cranes. Safety. Design. Requirements for equipment.

EN 13586

Cranes. Access.

EN ISO 23279

Non-destructive testing of welds. Ultrasonic testing. Characterisation of discontinuities in welds.

ISO 12480-5

Cranes. Safe use. Bridge and gantry cranes.

CEN/TR WI 00127447

Report on installation scenarios, available test methods and national legislation to be considered for the fire performance classification of roof systems with above roof mounted PV modules.

ISO/IEC 30194

Internet of things (IoT) and digital twin. Best practices for use case projects.

BRITISH STANDARDS REVIEWED AND CONFIRMED

BS EN ISO 9000:2015

Quality management systems. Fundamentals and vocabulary.

BRITISH STANDARDS WITHDRAWN

PD ISO/TS 12720:2014

Sustainability in buildings and civil engineering works. Guidelines on the application of the general principles in ISO 15392.
superseded by PD ISO/TS 12720:2024

BS 9991:2015

Fire safety in the design, management and use of residential buildings. Code of practice.
superseded by BS 9991:2024

BS EN ISO 4628-3:2016

Paints and varnishes. Evaluation of degradation of coatings. Designation of quantity and size of defects, and of intensity of uniform changes in appearance. Assessment of degree of rusting.
superseded by BS EN ISO 4628-3:2024

CEN EUROPEAN STANDARDS

EN 18001:2024

Curtain walling. Environmental product declarations. Product category rules for curtain walling.

DRAFT BRITISH STANDARDS FOR PUBLIC COMMENT

24/30485321 DC

NA to BS EN 1999-1-2 UK National Annex to Eurocode 9. Design of aluminium structures. Structural fire design.

24/30487282 DC

BS EN ISO 29481-1 Building information models. Information delivery manual. Methodology and format.

PUBLISHED DOCUMENTS

PD ISO/TS 12720:2024

Sustainability in buildings and civil engineering works. Guidelines on the application of the general principles in ISO 15392.
supersedes PD ISO/TS 12720:2014

BS 9991:2024

Fire safety in the design, management and use of residential buildings. Code of practice.
supersedes BS 9991:2015