

### **Eurocode 3: Design of steel structures**

The scope of BS EN 1993 is wider than most of the other design Eurocodes because of the diversity of steel structures. Therefore this Eurocode covers both bolted and welded joints, and the possible slenderness of construction.

The real differences when compared to existing British Standards are that the Eurocode brings new methods into the scope. For example, the design of semi-rigid joints in buildings is explained, and more advanced methods of design for cold-formed steelwork are included. The rules for shell and for the design of piles, sheet piling and silos are new, and rules for stainless steel appear for the first time.

BS EN 1993 covers common rules, fire design, bridges, buildings, tanks, silos, pipelined piling, crane supported structures, chimneys, towers and masts etc.

#### **The specific parts, and the relevant withdrawn British Standards, are:**

- BS EN 1993-1-1- General rules and rules for buildings. Replaces BS 449-2, BS 5400-3 and BS 5950-1
- BS EN 1993-1-2- General rules. Structural fire design. Replaces BS 5950-8
- BS EN 1993-1-3- General rules. Supplementary rules for cold-formed members and sheeting. Replaces BS 5950-5, BS 5950-6 and BS 5950-9
- BS EN 1993-1-4- General rules. Supplementary rules for stainless steels
- BS EN 1993-1-5- Plated structural elements. Replaces BS 449-2, BS 5400-3 and BS 5950-1
- BS EN 1993-1-6- Strength and stability of shell structures
- BS EN 1993-1-7- Plated structures subject to out of plane loading
- BS EN 1993-1-8- Design of joints. Replaces BS 449-2, BS 4604-1, BS 4604-2, BS 5400-3 and BS 5950-1
- BS EN 1993-1-9- Fatigue. Replaces BS 5400-10 and BS 7608
- BS EN 1993-1-10- Material toughness and through-thickness properties. Replaces BS 449-2, BS 5400-3 and BS 5950-1
- BS EN 1993-1-11- Design of structures with tension components
- BS EN 1993-1-12- Additional rules for the extension of EN 1993 up to steel grades S 700
- BS EN 1993-2- Steel bridges. Replaces BS 5400-3
- BS EN 1993-3-1- Towers, masts and chimneys. Towers and masts  
Replaces BS 8100-1, BS 8100-2, BS 8100-3 and BS 8100-4
- BS EN 1993-3-2- Towers, masts and chimneys. Chimneys. Replaces BS 4076
- BS EN 1993-4-1- Silos.
- BS EN 1993-4-2- Tanks
- BS EN 1993-4-3- Pipelines
- BS EN 1993-5- Piling. Replaces BS 449-2 and BS 5950-1
- BS EN 1993-6- Crane supporting structures. Replaces BS 2853, BS 449-2 and BS 5950-1