

# Welding of Stainless Steel

- ✓ BS 5950
- ✓ BS 5135
- ✓ BS 1011
- ✓ BS EN ISO 17633:2006
- ✓ SCI Design Principles
- ✓ Butt & Fillet Welds



## Design and Best Practice

All Arc welding is carried out in accordance with BS 5135 and designed in line with the recommendations of BS 5950 using welding consumables that comply with the requirements of BS EN ISO 17633:2006.

The welding consumables and procedures used shall be such that the yield strength and the tensile strength of deposited weld metal shall be not less than the respective minimum values for the parent metal being welded, except where specified or designed as appropriate.

Fusion faces and the surrounding surfaces shall be free from heavy scale, moisture, oil, paint or any other substance which might affect the quality of the weld or impede the progress of welding.

Where the fillet welds are symmetrically disposed the total capacity of the two welds may be taken as equal to the capacity of the parent metal provided that the sum of the throat sizes is not less than the connected plate thickness.

## Technical Data - BS EN ISO 17633:2006

The proof and tensile strength of welds in austenitic stainless steels are generally similar to, or greater than, those of the parent metal. Ductility may be slightly reduced but remains excellent. Post weld heat treatment (PWHT), therefore, is not usually necessary.

For further information or technical assistance please contact the ACS Technical Department on 0844 850 0860 or email [technical@acsstainless.co.uk](mailto:technical@acsstainless.co.uk)

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