

Corus International Projects

Aluminium Smelting

Steel consumables



Corus is one of the world's leading steel suppliers, providing steel products and services to customers worldwide. Corus was formed in 1999 by the merger of British Steel and Koninklijke Hoogovens.

Corus employs around 50,000 people worldwide with the capacity to produce 21 million tonnes of steel a year.

Corus International Projects is the specialist, supply chain management team with annual sales of 7.5 million tonnes of steel and a worldwide network of offices. We currently operate out of 70 offices in 49 countries and have developed a wide range of strategic alliances with third-party mills around the world to supplement Corus' in-house manufacturing capacity. These integrated relationships are with companies that have audited quality systems, consequently all products are covered by the Corus guarantee. This sourcing capability ensures a strong offering that covers a broad range of products and budgets.

The steel industry has been inextricably linked with the aluminium industry for many years, due to the high volumes of steel required in the smelting of aluminium. Steel Plates and Sections are vital in building the Pot Shells, Superstructure and Power Plant elements of a smelter with large quantities of grades such as S235JO, S235J2G3, P355GH, S235JO+AL and S275JR.

There are also two key consumable applications for solid carbon steel bars in the aluminium smelting industry:

Cathode or collector bars – these conduct the current away from the smelting pot. Square or rectangular in shape, the sizes of these bars are determined by the technology in operation. As such, Corus International Projects offers a range of sizes:

Shape	Sizes
Square	122mm
	130mm
	140mm
Rectangular	160mm x 100mm
	180mm x 140mm
	190mm x 150mm
	160mm x 100mm

Steel grades supplied are varied and include:

Steel Grade	Max. Carbon Content	Resistivity* (%)	Reduction in Resistivity (%)
S235/St37-2	0.20%	16.9	Base
SAE 1008	0.10%	14.6	14
SAE 1006	0.08%	14.2	16
New ULC	0.01%	12.1	28

Resistivity* has been calculated at +20°C and is expressed in $\mu\Omega\cdot\text{cm}$ (Micro Ohm centimetres).

These grades can be supplied according to DIN, EN or ASTM standards as applicable.

Other shapes and grades are available, as required.

Anode Bars (sometimes called transverse bars) – these are used to manufacture anode stem brackets which support the anode rods in the smelting pot. Again, sizes are determined by the technology in operation, however, they tend to be in two parts:

A round bar for the stubs –

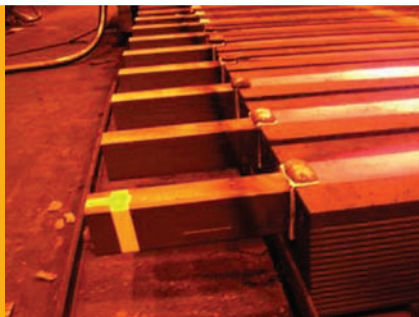
Sizes
Diameter range 125mm – 180mm

A rectangular bar for the frame –

Sizes
Typically 130mm x 90mm

Steel grades supplied are mild steel carbon grades, such as: S235JR and S275JR according to EN 10025.

Other shapes and grades are available, as required.



“ For all of your consumable and structural steel requirements, please contact Corus International Projects”

Corus International Projects
 897 Silbury Boulevard
 Milton Keynes
 MK9 3XJ
 United Kingdom
 T: +44 (0)1908 508 250
 F: +44 (0)1908 508 258
 Email: projects@corusgroup.com
www.corusinternational.com