

Project Examples

Please note: Welded fabrications are produced by our own welders working to BS EN ISO 15614-1 approved Welding Procedures when required.

3490mm diameter Sinter Waste Gas Impeller



Liners supplied, fitted and seal welded

Hard Surfaced Impeller Wear Plates, complete supply

Since the 1970s we have manufactured hundreds of sets of liners of many types. They are manufactured from carbon steel base material, and hard surfaced with Tungsten Carbide [Grade WRST or Grade HD1] or Chromium Carbide [Grade HD2].

Aerofoil Fan Blade Nose Liners with integral Centreplate Liners

513mm long, fully hard surfaced with Grade WRST sintered Tungsten Carbide



Aerofoil Fan Blade Nose Liners with integral Centreplate Liners

230mm long, fully hard surfaced with Grade WRST sintered Tungsten Carbide



3981mm diameter “Rotorique” Impeller Blades & Liners

Hard surfaced with Tungsten Carbide on the main wear areas, and Chromium Carbide on all other areas.





Integral Bolts

Our unique integral countersunk bolts are inserted into the plate before hard surfacing. Our “HD” process [also unique] does not adversely affect the physical properties of the bolt. Plate shrinkage is relatively minor, and is predictable. These factors enable us to produce replacement sets of wear plates which will fit the original holes in the structure of the impeller [or other machine] without difficulty, when in due course it requires refurbishment.



2100mm diameter Exhaust Impeller



Liners supplied, fitted and seal welded

Bucket Wheel Liners for Bulk Ore Terminal, complete supply

Part of an order for nine bucket sets of liners, hard surfaced with 4mm thick Grade HD2 Chromium Carbide deposit, with M12 integral bolts. To be fitted to a large Bucket Wheel.

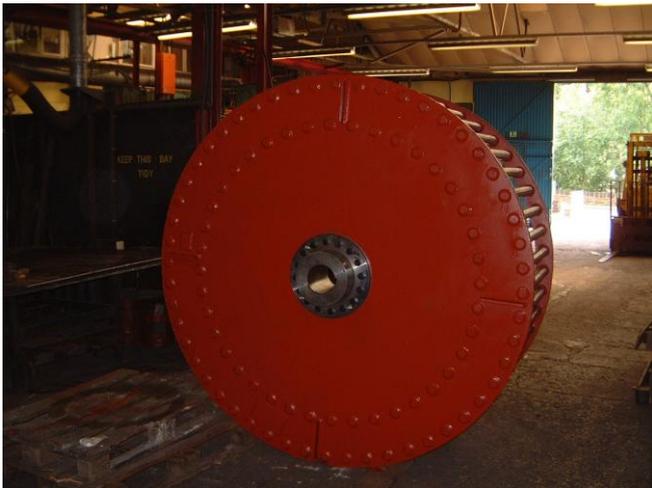
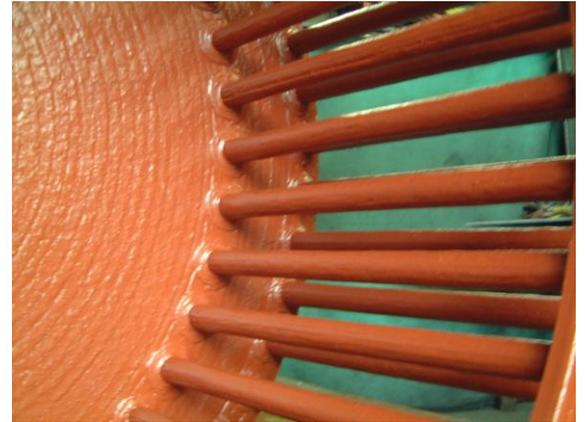


General Purpose Wear Tiles, complete supply

Many shapes and sizes. Square tiles from 10mm thick mild steel base material + 10mm Chromium Carbide are shown, 150mm x 150mm, 228mm x 228mm and 300mm x 300mm, which are supplied with or without integral bolts.



Cage Mills for Copper Concentrate [India], complete supply including Shafts



These 2 metre diameter Cage Mills require full coverage 5mm thick Chromium Carbide on the 25mm thick Backplate and Front Rings, and the 40mm diameter bars. Dynamically balanced.

Operational speed: 250 RPM. Weight: 2,030 kg.

Disintegrator Assembly



The 750mm diameter RQT 701 Rotor and Shaft was supplied complete, dynamically balanced, and assembled into the free issue casing.

Operational speed: 1,390 RPM. Rotor weight: 150 kg.

Other sizes of blade for Disintegrators up to 1800mm diameter, from Stainless Steel and RQT 701, with and without hard surfaced tips have also been supplied. All are ground on the faces, and some types are ground all over to 100% clean-up with fine tolerances

Dredger Cutter Ladder Wear Plates

This 3000mm diameter x 1470mm long assembly of wear plates [Front Disc, Cylindrical Liner, Conical Wear Plate Segments and Outer Cylindrical Wear Plates] consists of 15mm thick carbon steel base material, hard surfaced with 10mm thick Grade WRST sintered Tungsten Carbide deposit.

Wear Plate assembly weight: 2,470 kg.

Fitted to D'Artagnan, [one of the world's largest Cutter Suction Dredgers].



Sinter Plant 2-Roll Crusher Shells, complete supply



Base material: Carbon steel, 30mm thick shell with 60mm thick fabricated hexagonal bore ribs, three per shell. Shell hard surfaced with 10mm thick Grade WRST sintered Tungsten Carbide. 40 teeth per shell, hard surfaced with 8mm thick Grade WRST sintered Tungsten Carbide deposit.

1196mm diameter x 563mm long each. Weight: 972 kg each.



Sinter Breakers, complete supply

Carbon Steel castings 2000mm diameter x 300mm thick, fully hard surfaced all over [except on the hub faces] with Chromium Carbide, 4mm thick on low-wear areas, 6mm and 8mm thick on medium and higher wear areas, and 12mm thick at the arm tips.

Weight: 1,190 kg each.

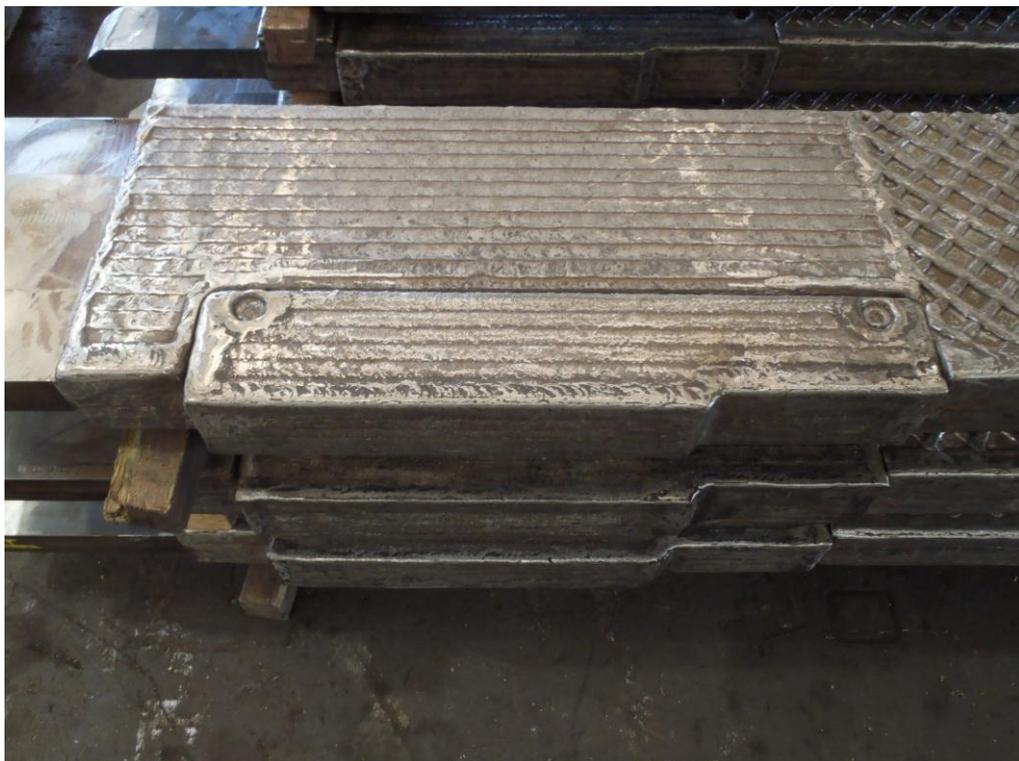


Hard surfaced Sinter Breaker Grizzly Bars

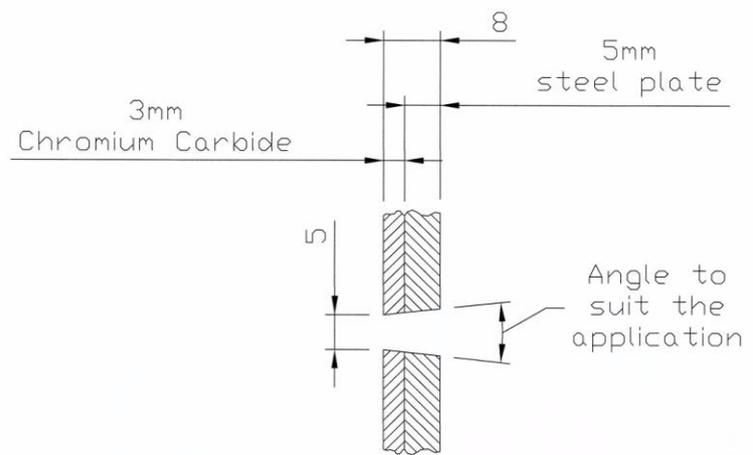


New Grizzly Bars with replaceable Inserts, hard surfaced with our impact resistant, heat resistant Grade WRST/Ni sintered Tungsten Carbide deposit, 5mm and 10mm thick. Our hard surfaced inserts have now replaced the previous “cast-in carbide” Sandvik type, thanks to our inserts’ superior cost effectiveness. They also provide better protection to the sides of the Grizzly Bars below the inserts.

Dimensions: 3160mm x 400mm x 100mm. Weight: 1,039 kg.

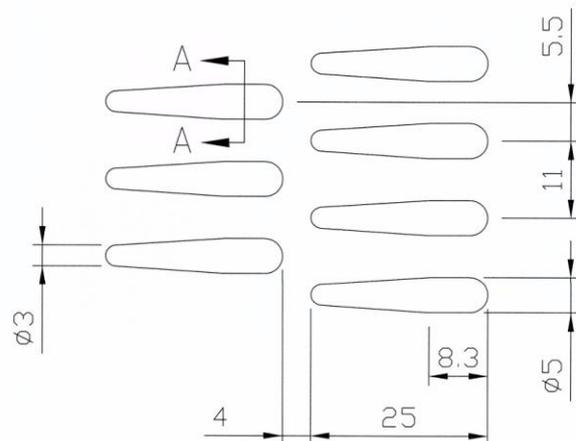


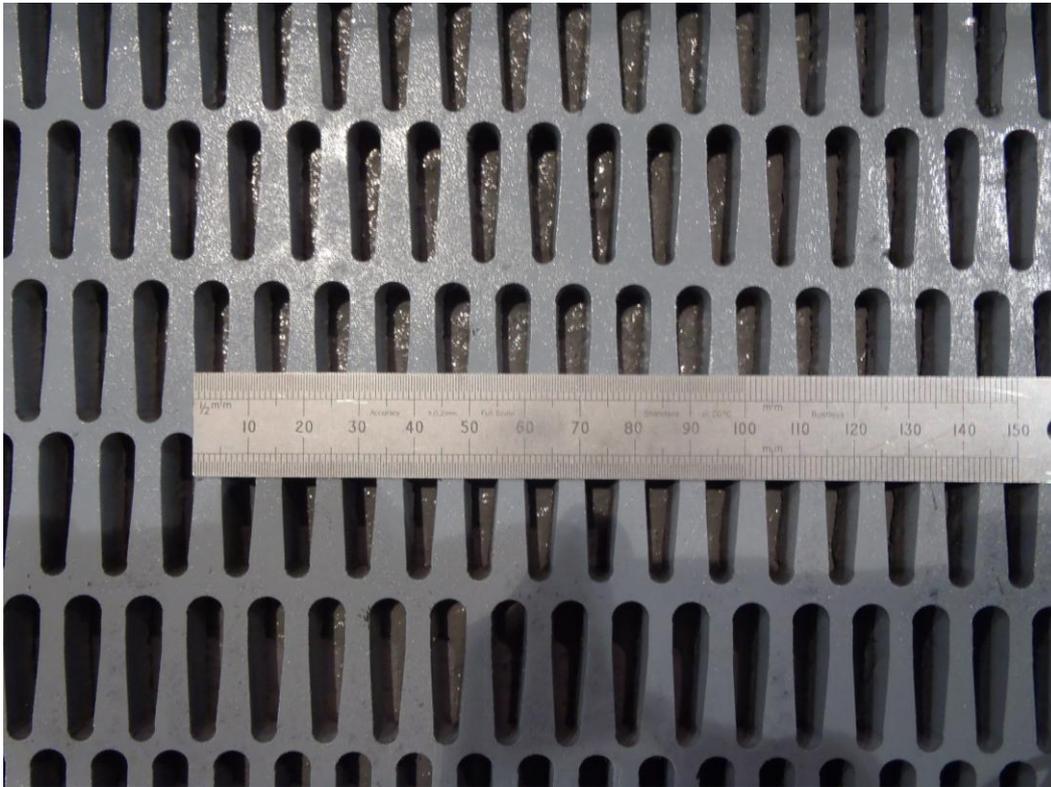
Hard Surfaced Fines Screen with anti-blind slots, complete supply



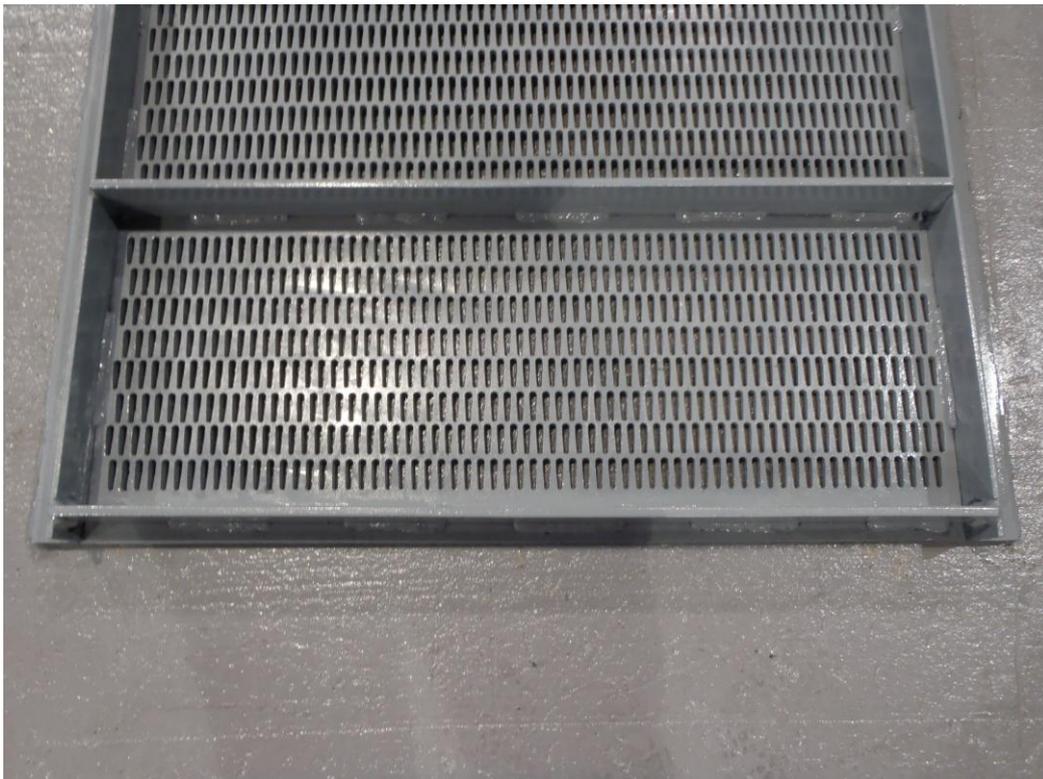
“TSF” Anti-blind Slots

Section A-A





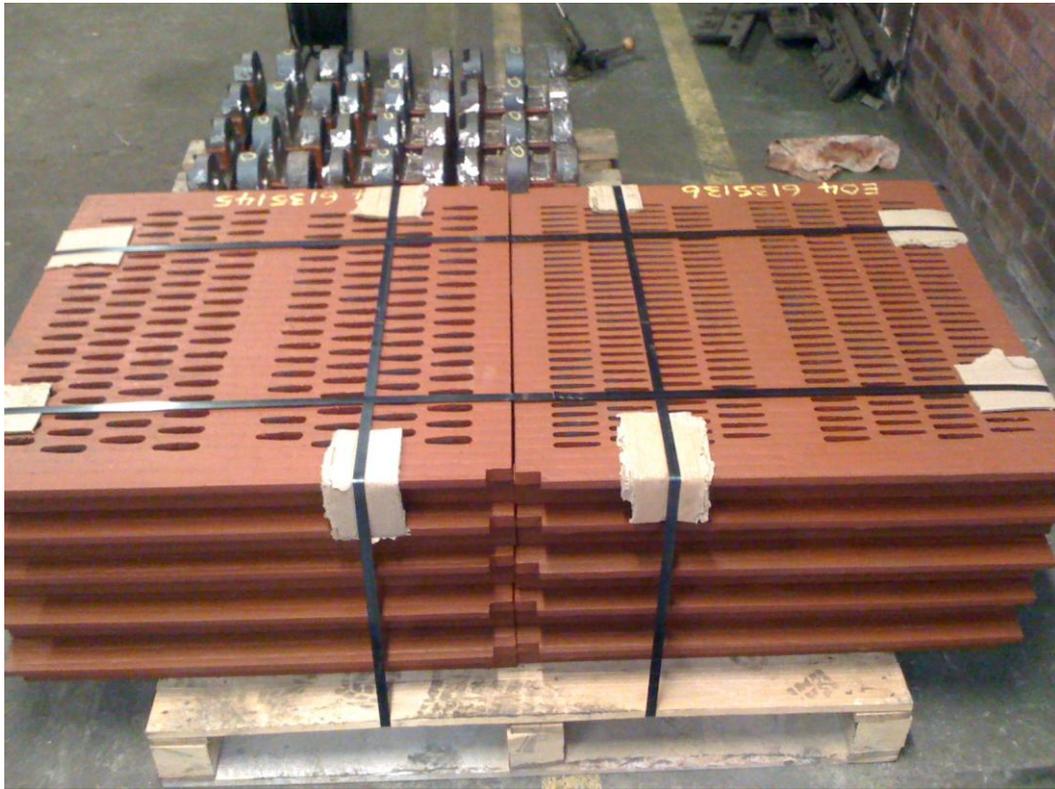
Underside of Screen



Screens 1425mm x 819mm x 5mm thick carbon steel, hard surfaced with 3mm thick Grade HD2 Chromium Carbide deposit. 2,580 slots per screen, 5mm to 3mm diameter. The slot edges are not “square” but angled, making the slot wider on the bottom face than on the top face, to provide anti-blind properties. Extremely successful in eliminating screen blockages and providing long service life.

Hard Surfaced Screens, complete supply

Several types. The items shown are manufactured from 10mm thick carbon steel base material, hard surfaced with 5mm thick Chromium Carbide [painted red], and 5mm thick carbon steel base material, hard surfaced with 3mm thick Chromium Carbide [un-painted].



Hard Surfaced Rollers, complete supply

Many types of Transport Roller and Guide Roller, hard surfaced with Grade HD2 Chromium Carbide, 5mm thick and ground on the OD to 100% clean-up. Diameters to date between 40mm and 450mm.

242mm diameter



150mm diameter

and

260mm diameter



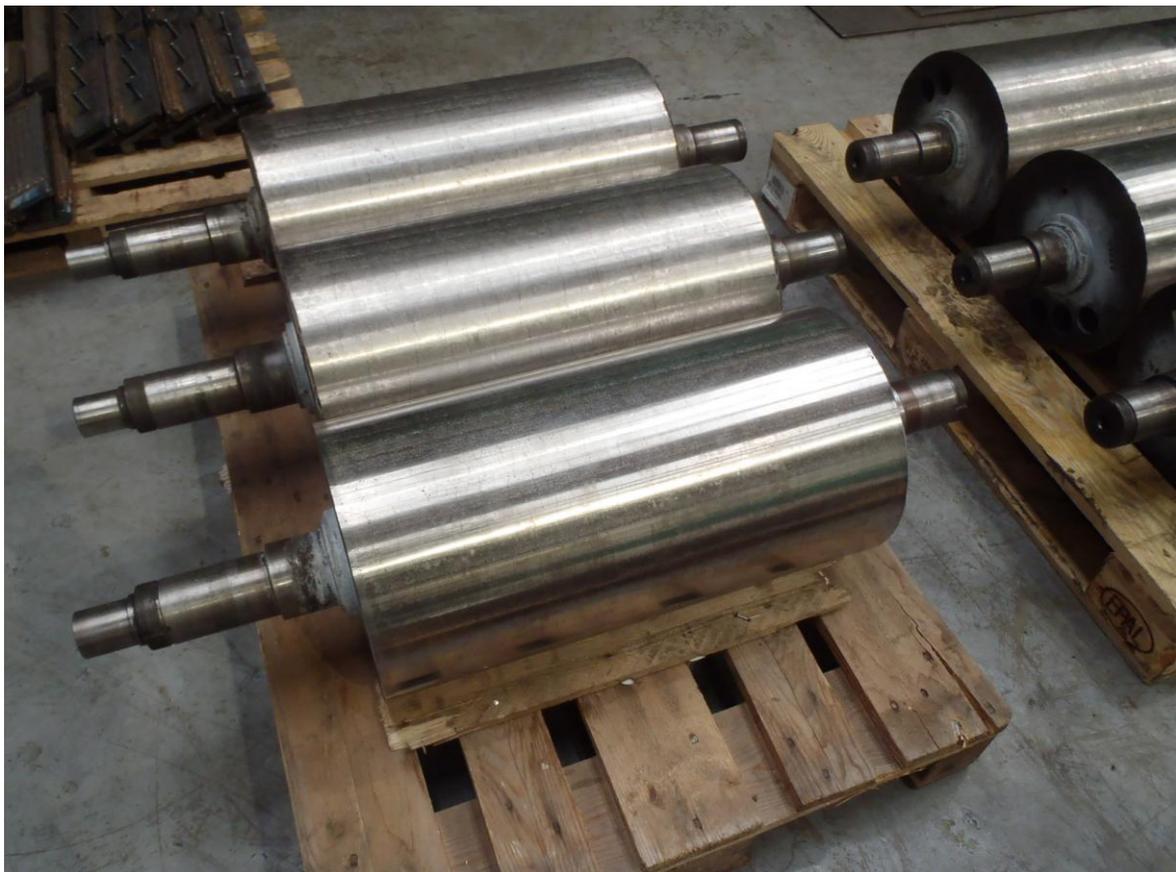
40mm diameter





250mm / 270mm diameter "Diabolo" shape, solid construction

310mm diameter, parallel shape, tubular construction



Rail Weld Stripper Tools



Tools for several profiles of rail, used to strip-off the excess weld metal immediately after the automated butt welding of lengths of rail during the manufacture of Long Rail.

The cutting edge is hard surfaced with a Stellite type deposit, and manufactured to fine tolerances.

Hard Surfaced Clero Crusher Grid and Hammers, complete supply

Hard surfaced with Grade MD2 Chromium Carbide, 3mm thick on the Grids and 6mm thick on the Hammers.



Conveyor Scrapers, complete supply

Many types, with sintered Tungsten Carbide working edge, secured by brazing or by adhesive bonding.



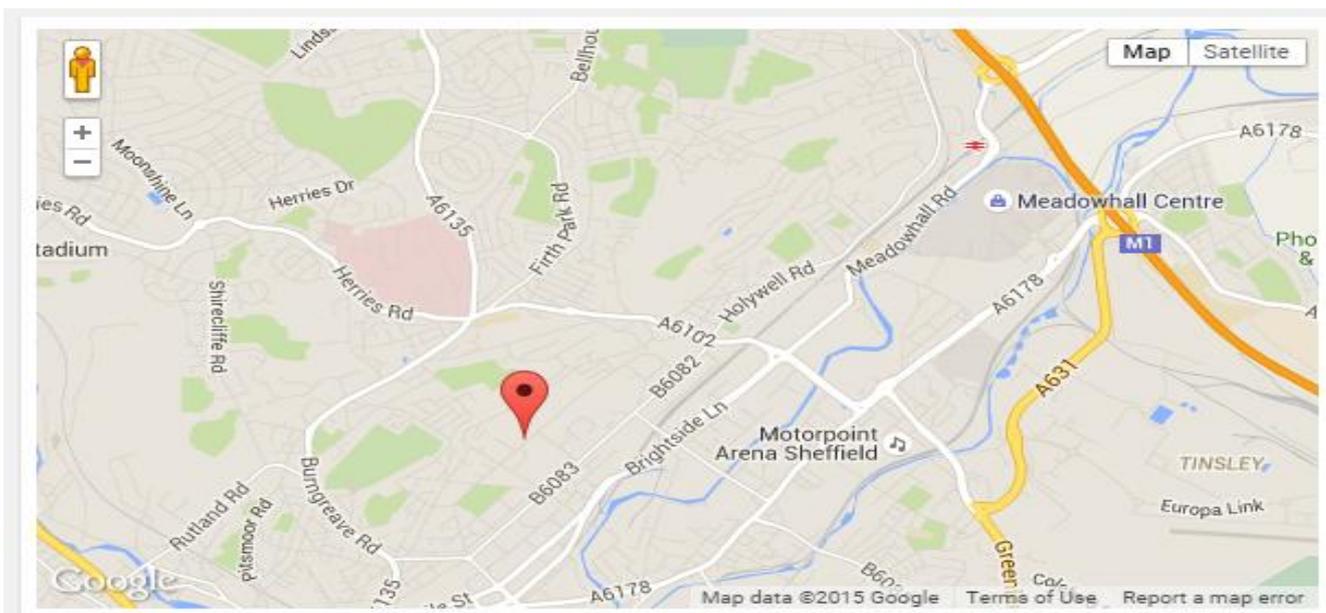
What's new?

- After our re-location in July 2015, we're in close proximity to the M1 motorway [Junction 34], with excellent transport links.
- We now have a larger assembly area, and room for expansion.
- Much greater lifting capacity, [was 5 tonne, now 20 tonne maximum lift].
- We have close links with high quality grinding and machining facilities, for example turning up to 5 metres length, 8 tonne limit.

We are also able to offer:

- Dynamic balancing, up to 2.4 metres diameter, 15 tonne limit.
- Heat Treatment up to 4.8 metres x 3.6 metres x 1.5 metres, 20 tonne limit.





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