

CASE STUDY

↳ Foundry Shake Out Screens

SHAKE OUT SUCCESS IN THE FOUNDRY INDUSTRY



↳ Steel specialists Abraservice UK, one of Europe’s largest specialist steel processors and stockholders of abrasion resistant and high yield steel, have shown the Foundry industry how the use of CREUSABRO 4800 wear resistant steel for shake out screens can be extremely cost effective.

“CREUSABRO 4800 is a wear resistant steel that combines extreme resistance to abrasion with a high level of toughness. The impact CREUSABRO 4800 has had in this market is impressive, but then so is the product!”

↳ Nick Taylor, Abraservice UK
Business Development Manager

The benefits of recycling foundry sand has long been understood, both from an environmental and financial point of view. However, processing and breaking down sand moulds to extract the castings to then start the recycling procedure puts great stress on the vibrating shake out screens.

Mild steel does not offer the level of wear resistance needed for such a severe application typically lasting just 2 weeks before repairs are necessary, whereas foundries need to achieve a working life of 8 weeks, excluding downtime, for the lifespan to be cost effective.

The process sees 2 sets of screens in use, a set of top screens take the impact of each 400 kg sand mould being dropped onto them, to initially break the mould into large pieces. Vibration then breaks the larger pieces leaving the bottom set of screens to break the sand down further, with additional vibration but at a much more abrasive level.

The Abraservice UK solution was simple, to supply a wear resistant product. Both sets of screens were manufactured by Abraservice UK in CREUSABRO 4800, which combines extreme resistance to abrasion with a high level of toughness. The results; the bottom screens were in service for 6 months and the top screens are still in place 9 months on.

↳ **Key Technical Data, CREUSABRO 4800**

Wear resistant steel that combines resistance to abrasion together with a high level of toughness.

Applications	Cement plants, quarry, mining and earthy moving equipment, block moulds, screen, steel production and recycling plants and vehicles.							
Hardness	340 HB-400 HB as supplied							
Composition	C	S	P	Mn	Ni	Cr	Mo	Ti
	≤ 0.20	≤ 0.05	≤ 0.018	≤ 1.60	≤ 0.20	≤ 1.90	≤ 0.40	≤ 0.20
Thickness	3-40mm							

contact Abraservice UK for full technical data sheet.

↳ **Benefits, CREUSABRO 4800**

- Excellent wear resistant properties
- Optimum combinatio of wear resistance to abrasion together with a high level of toughness
- Ability to work harden offers an increased wearlife of up to 50 % versus conventional 400 HB materials
- Suitable for applications in steel component production for recycling plants and vehicles

↳ **Processing Facilities**

- CAD/CAM Profiling
- Perforating
- Plasma Profiling
- Forming
- Laser Profiling
- Drilling and Countersinking
- Oxy-gas Profiling
- Bevelling
- DXF Compatible
- Welded Fabrications

↳ **Contact**

- A.** Arley Road, Saltley, Birmingham B8 1BB, United Kingdom
- T.** +44 121 326 3100
- F.** +44 121 326 3105
- E.** a.uk@abraservice.com
- W.** www.abraservice.com/uk/