



ACTING GLOBAL
WELDING LOCAL

**Crusher equipment -
WA solutions for crushers
maintenance and repair**



Welding
Alloys
Group



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A worldwide presence



Our expertise:

In the past 40 years Welding Alloys has developed extensive expertise in the repair and maintenance of components subject to wear in the cement production line.

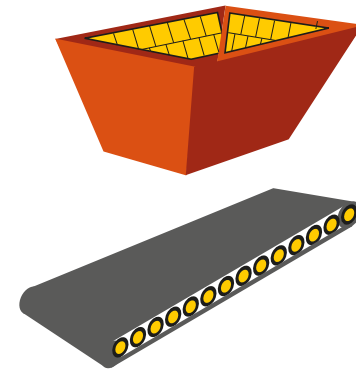
The development of dedicated products to tackle specific problem areas, has allowed the Welding Alloys team to master and optimise solutions no matter what type of equipment is used. WA solutions present the customer with:

- **Extended components' lifetime**
- **Improved crusher efficiency**
- **Stable finished product granulometry**



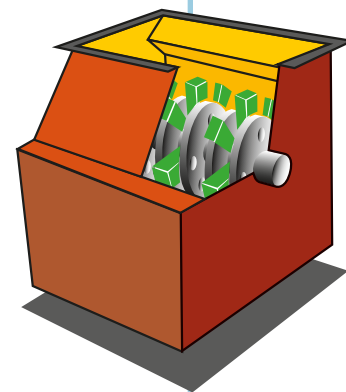
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Crusher type and WA solutions

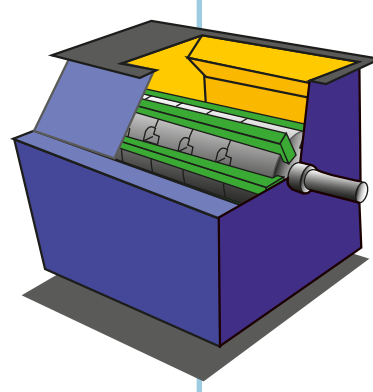


INLET

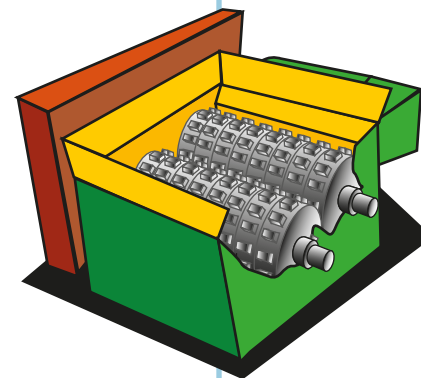
Feeding system - Crusher entry	
WA solutions	
Hardplate Tuffplate	
In-situ	✓
Workshop	✓



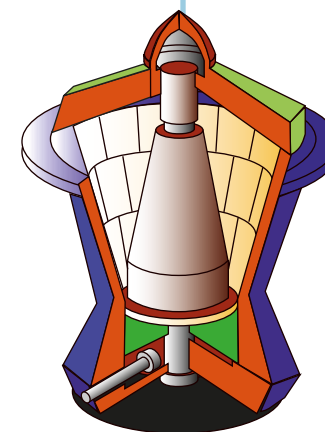
Hammer crusher	
WA solutions	
Disc: Hardfacing	
In-situ	✓
Workshop	✓
Hammer: 3-D Carb Impact plates: 3-D Carb	
In-situ	
Workshop	✓



Blowbar crusher	
WA solutions	
Rotor: Hardfacing	
In-situ	✓
Workshop	✓
Hammer: 3-D Carb Impact plates: 3-D Carb	
In-situ	
Workshop	✓

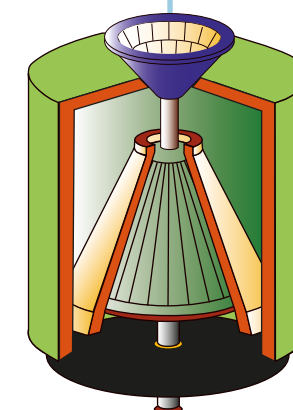


Roller crusher	
WA solutions	
Teeth: Hardfacing Roller: Hardfacing	
In-situ	✓
Workshop	✓



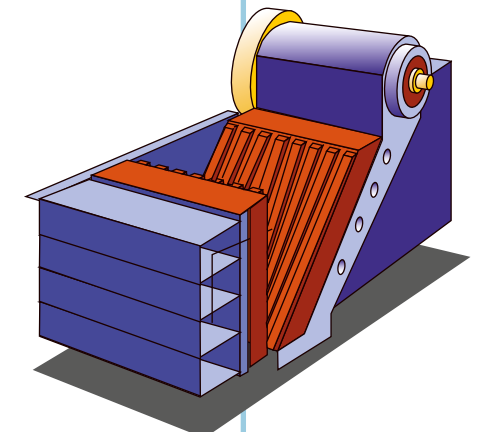
Gyratory crusher	
WA solutions	
Mantle: Hardfacing Concave liners: Hardfacing	
In-situ	✓ *
Workshop	✓

* according to size



Cone crusher	
WA solutions	
Mantle: Hardfacing Concave liners: Hardfacing	
In-situ	✓ *
Workshop	✓

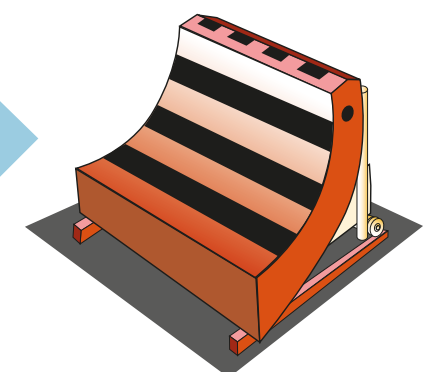
* according to size



Jaw crusher	
WA solutions	
Impact plates: 3-D Carb	
In-situ	✓
Workshop	✓

Outlet				
	Grates	Sieves	Chute	Anvils
WA solutions				
	3-D Carb	Hardplate	Tuffplates	3-D Carb
In-situ		✓	✓	
Workshop	✓	✓	✓	✓

OUTLET



WA Wear plates

Hardplate™

Heavy duty composite wear plates:

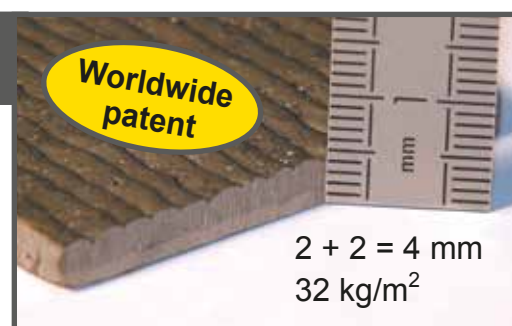
- Base metal and coating thicknesses selected according to the application
- Choice of several coating types
- Preferred solution for maintenance



Hardlite™

Ultra-thin composite wear plates - less than 5mm

- Specially adapted for applications where weight is restricted
- More adaptable, lighter and harder
- Advantageous for moving parts



Tuffplate™

Impact resistant wear plates

- Designed for applications susceptible to a combination of wear and impact
- Ideal solution for material transfer and transportation areas



Our range of plates including Hardplate, Hardlite and Tuffplate are available in standard dimensions or made to measure, in the widest range of thicknesses.

WA 3-DCarb

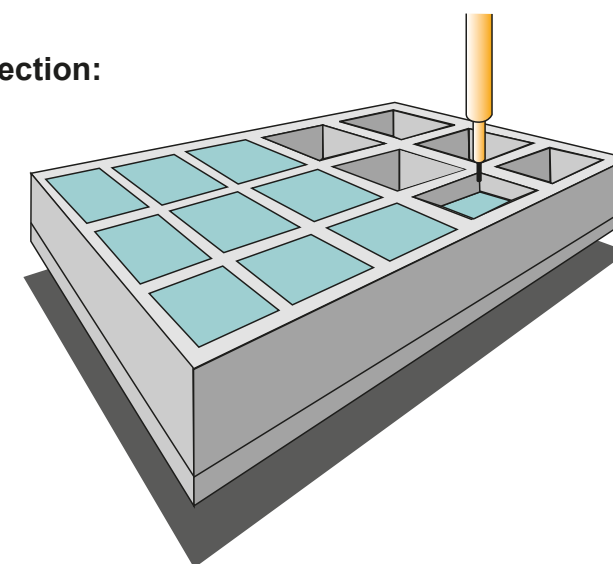
Wear protection

A proven technology to substantially increase the service life of critical parts:

- Wear resistant blocks produced by automated flood welding
- Reinforced components as a result of the increased volume of wear resistant material and innovative geometry
- Even wear resistance

Benefits compared to traditional wear protection:

- Increased productivity
- Fewer and shorter production stoppages
- Significant reduction in the cost of spare parts
- Elimination of intermediate and hazardous maintenance operations
- Extended lifetime, by at least 3 times



WA Hardfacing

Welding Alloys has developed a unique knowledge of crusher equipment and has designed a specific range of cored wires with wear characteristics to optimise the crushers' performance, reducing maintenance costs.

Hardfacing by arc welding is a surfacing operation using a cored wire to extend the service life of specific components. This is carried out pre-emptively on new components or as part of a maintenance programme on worn parts.

The result of significant savings in machine downtime and production costs has meant that this process has been frequently adopted by cement manufacturer worldwide. For each type of components there is a Welding Alloys cored welding wire to provide wear resistance.

Additionally, WA manufactures custom-designed modular welding equipment, including semi-automatic wire feeders, portable automated machines for in-situ work and fully automated machines including component manipulation with robotic controls.

The complete solution WA is able to provide, allows our customer to benefit from the most innovative applications of protection against wear.

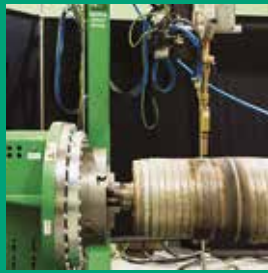


Our Technical 'Spark' Solves Your Industrial Challenges



WA Consumables

The go-to provider
of advanced welding
consumables



WA Machines

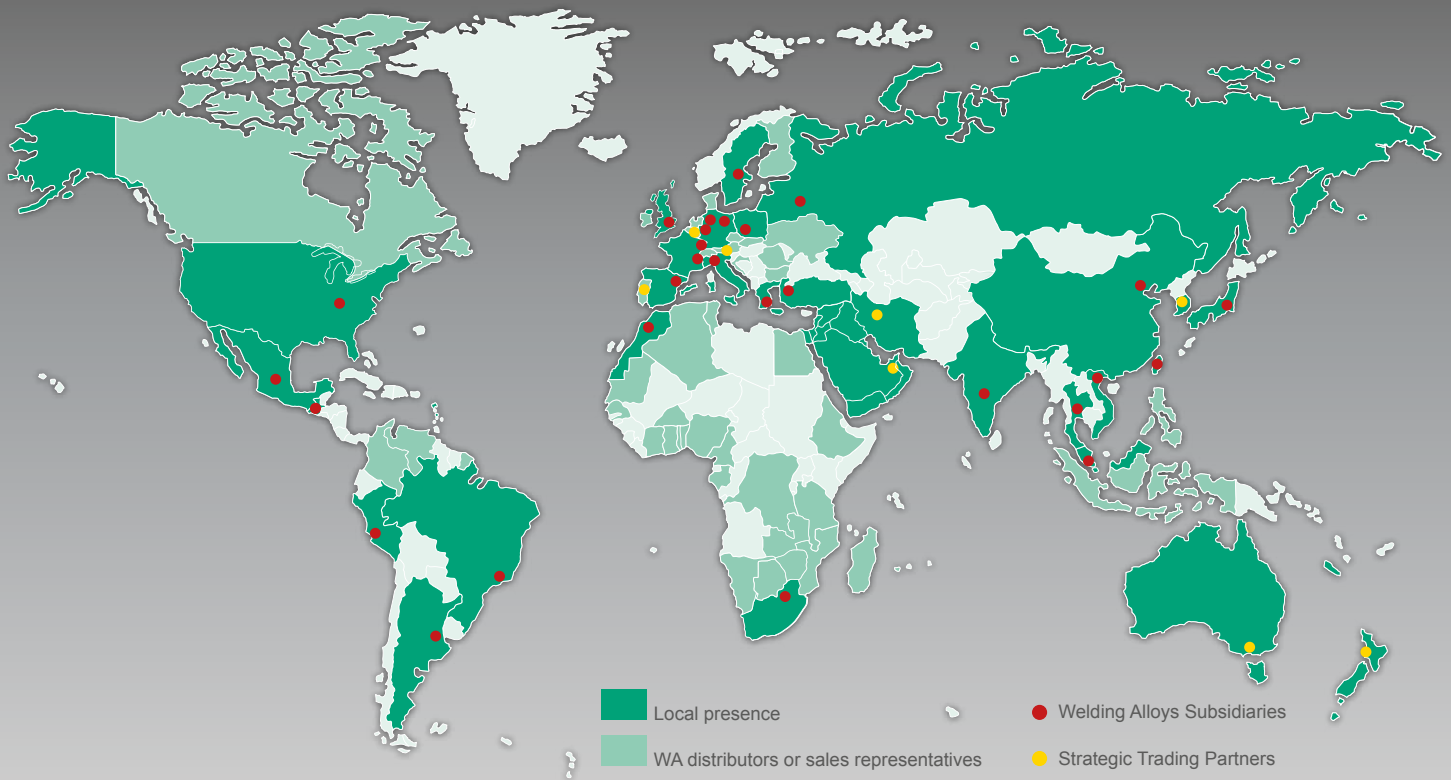
The go-to provider
of automated equipment
for wear protection



WA Integra™

The go-to provider
of engineered wear
protection solutions

A worldwide presence



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