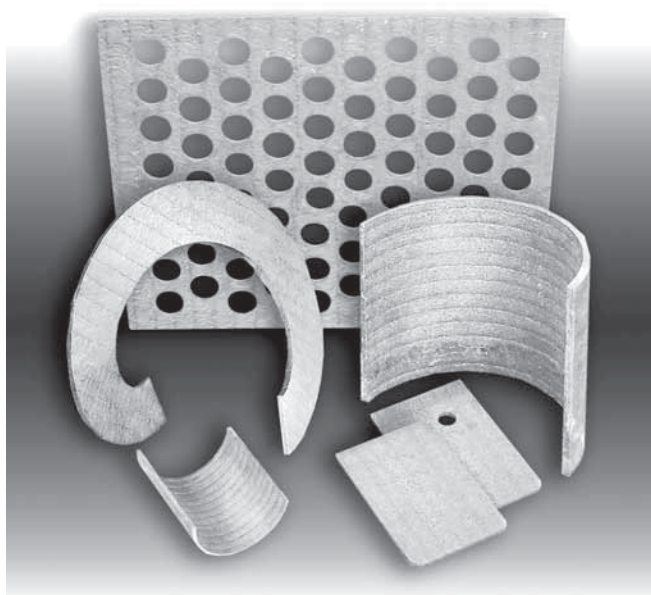


Cost-Effective for Large Surfaces...

Hard Overlay Welding KALMETALL-W of Different Alloys



KALMETALL-W incorporates several hard overlay welded steel systems that consist of a tough basic body and hard overlay welding.

The base metal provides the strength of the system. Depending on the specific application, it is made of standard or special steels.

S 235 JRG 2 is the standard material for operating temperatures up to 350 °C / 662 °F. The standard thickness of the base material is from 5 mm upwards.

Hard overlay welding is the wear protection layer. It consists of a C-Cr-Fe system with primary chromium carbides. It ensures the great hardness of the overlay welding which – depending on the composition of the alloy – may be up to 820 HV.

Standard thickness of overlay welding is 3 to 12 mm, 18 mm at maximum.

Standard sizes of hard-faced metal plates range from 900 x 1,900 mm to 1,900 x 3,900 mm.

The advantages of KALMETALL-W:

- overlay welded metal plates of different qualities, thickness and dimensions
- depending on the alloy of the hardfacing, it is characterized by high resistance to abrasion, high impact strength and high temperature stability
- specially fabricated, customized components are possible
- wide range of application and adaptation to the specific use
- low weight and high economic efficiency is provided when the component has been designed as a self-supporting structure

At Any Rate the Correct Material:

KALMETALL-W is the Optimal Problem Solution for Varying Applications

Various overlay welding alloys are offered. They are selected with due regard to stress resulting from abrasion, impact and temperature.

Kalenborn offers:

- complete lining systems consisting of hard faced metal plates for installation into existing steel structures
- self-supporting fabrications with hardfacing
- combinations of ceramic and metallic systems for wear resistant design of high economic efficiency



Screw conveyors protected with KALMETALL-W 100, up to 2,000 mm diameter, up to 10,000 mm length



Separating cones of cement classifiers made of KALMETALL-W 100 6+4, 3,000 mm diameter

Technical data (reference values)

KALMETALL	Chemical composition of welding material %						Hardness HV	Max. application temp. °C / °F	Resistant against		
	C	Cr	Mo	Nb	B	Fe			abrasion	impact	temp.
W 100	5	30	-	-	-	60	700	350 / 662	xx	x	x
W 143	5	22	-	7	-	60	740	350 / 662	xxx	x	x
W 145	5	21	7	7	-	60	800	750 / 1382	xxx	x	xxx
W 150	5	30	-	-	1	60	820	350 / 662	xxxx	-	x
W 151	5	30	3	-	-	60	700	550 / 1022	xx	x	xx

Typical applications

- bunker lining
- chutes
- concrete mixer lining
- cyclone lining
- fans (linings, fan blades)
- mill lining
- pipes (dust pipes, ash pipes, etc.)
- separator lining
- sieves

Fastening systems

- plug welding
- rear welding to the basic body
- rear welding to a nut with internal thread
- screw-type fastening by stud welding
- screw-type fastening by counter sunk rings
- suspended systems

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The Wear Protection People