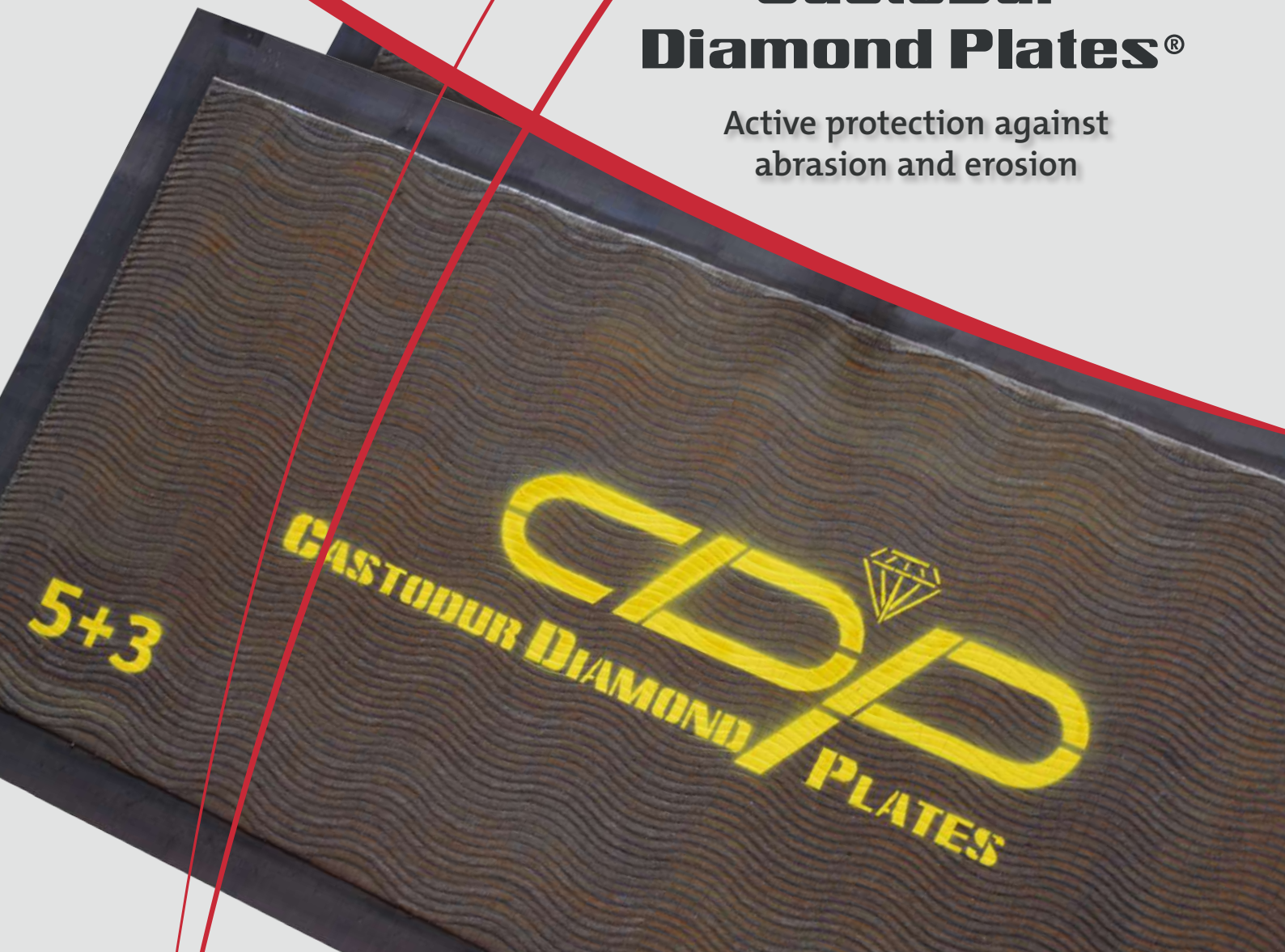




CastoDur Diamond Plates®

Active protection against
abrasion and erosion

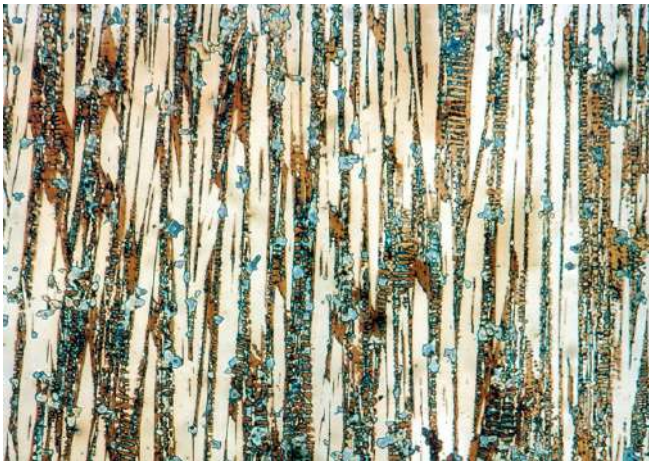


- Reduce maintenance costs by service life cycles extension of protected surfaces
- Easy protection of large surfaces – simple assembling, optimal weight
- Premium quality thanks to modern material science and high-tech controlled production process

CastoDur Diamond Plates

The CastoDur Diamond Plates® (CDP®) are composite materials fabricated by arc welding, vacuum fusion or laser powder coating. An easy-to-weld steel plate is overlaid with abrasion and erosion resistant alloys. Regardless of production method, CDP® plates are distinguished by high quality and uniform properties of entire surface.

CastoDur Diamond Plates® (CDP®) provide the basis for a comprehensive, particularly cost-effective wear protection system.



Microstructure of wearplate with densely packed, regular hard phases in tough matrix for better wear resistance.

Presence of ultra-hard phases (1500 – 3000 HV) anchored in a tough matrix, guarantee extended wear plates life. Their hardness is typically 2-3 times higher than the most abrasive media used in industrial processes.



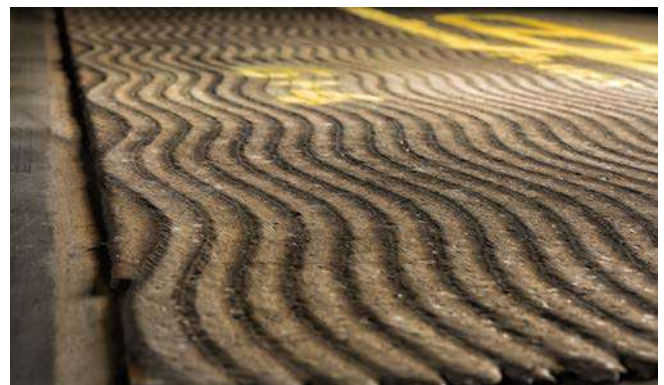
Castolin CDP® wearplate production plant.

CDP® production is supported by an extensive research program. Production units use the latest robotized manufacturing technologies and vacuum fusion techniques to ensure the highest degree of process stability, regularity of anti-wear characteristics and surface finish.

Types of CastoDur Diamond Plates®

Standard or XuperWave S Plates – Steel plates are welded by flux cored filler wires; wear plates are available with straight beads (standard) or with the exclusive XuperWave S bead pattern. Unique XuperWave S weld beads geometry provide additional protection in severe erosive environment.

CDP® Powder Plates are produced by overlaying an easy-to-weld steel plate with a metal powder alloy fused in a vacuum oven. The main advan-



Weld beads of CDP® XuperWave S

tage of these products is the 100% dilution free, smooth overlay which provides maximum protection even with just a few millimeters of deposit thickness.

LaserClad Plates – are distinguished by very low

dilution and high content of Tungsten Carbides (60%) which keeps the intrinsic wear-properties unaltered. The low weight of LC8 allows important mass reduction from moving parts reduces mechanical stress and decreases frequency of maintenance.



Powder coated CDP®. Visible lack of dilution.

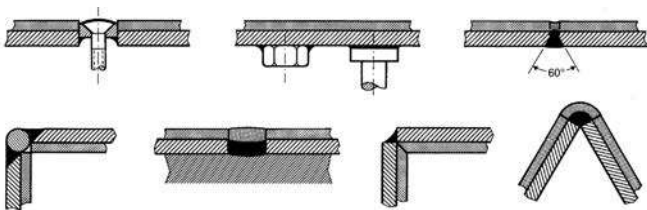


Surface of laser clad LC8

CDP® Plates are flat and standard metal sheets that can be cut, formed and joined to adapt to different shapes easily. Standard cutting techniques – e.g. plasma arc, water jet or laser – can be applied. The final products may be linings or machine elements working in conditions of intensive abrasion and erosion.

Joining and installation

You determine the way in which you use CDP® – to line your basic construction or as a self-supporting CDP® structure. You can use CDP® composites in various ways: retrofitting CDP® with screws, rivets or spot welding. We also supply panels cut in accordance with your specifications, ready for installation.



	Electrode	Cored wire	Solid wire
Joining consumables	Castolin 6666	EnDOtec DO*266 S	CastoMag 45203
	Castolin XHD-646	EnDOtec DO*02	CastoMag 45252
	Castolin 2222 XN	EnDOtec DO*622 S	CastoMag 45554 S
Hardfacing consumables	Castolin N 5006	EnDOtec DO*31	
	Castolin XHD-6710	EnDOtec DO*11	

Welding consumables for CDP® joining and weld protection

Application



Crusher rotor



Cyclon cone



Concrete mixer

Assortment of CDP® plates

TYPE	Thickness of metal base (mm)	Thickness of coating (mm)	Surface coating (mm)	Designation	Application	Important
CDP® XuperWave S	5	3	2740 x 1230 mm	4666 DXWs 0503	Extreme abrasion and erosion, working temperature up to 450°C	Hardfacing can be made on stainless, heat-resistant and other metal base; 8 – 10 mm thick coating on request
	6	4		4666 DXWs 0604		
	8	4		4666 DXWs 0804		
	8	5		4666 DXWs 0805		
	10	5		4666 DXWs 1005		
	15	5		4666 DXWs 1505		
CDP® 4666	5	3	2740 x 1220 mm	4666 DP 0503	Abrasion and erosion combined with little impact, working temperature up to 450°C	
	6	4		4666 DP 0604		
	8	4		4666 DP 0804		
	8	5		4666 DP 0805		
	10	5		4666 DP 1005		
	15	5		4666 DP 1505		
CDP® 4624	5	3	2740 x 1220 mm	4624 DP 0503	Abrasion combined with moderate impact, working temperature up to 250°C	
	6	4		4624 DP 0604		
	8	4		4624 DP 0804		
	8	5		4624 DP 0805		
	10	5		4624 DP 1005		
	15	5		4601 DP 1505		
CDP® 4623i	10	5	2740 x 1220 mm	4623 DP 1005	Abrasion combined with extreme impact, working temperature up to 150°C	
	12	7		4623 DP 1207		
	15	5		4623 DP 1505		
CDP® 3952	6	4	2740 x 1220 mm	3952 DP 0604	Abrasion and erosion, working temperature up to 600°C	Custom production
	8	4		3952 DP 0804		
	8	5		3952 DP 0805		
	10	5		3952 DP 1005		
	15	5		3952 DP 1505		
CDP® 112	2	1	1200 x 800 mm	112 DP 0201	Abrasion and erosion, working temperature up to 600°C.	Coating can be made on stainless steel
	4	2		112 DP 0402		
CDP® 496	4	2	1200 x 800 mm	496 DP 0402	Abrasion and adhesion – very low coefficient of friction	Coating can be made on stainless steel
LC8	3	1	980 x 980 mm, 980 x 1960 mm	–	Extreme erosion and abrasion	–
	4	1,5				

