Wear damage from abrasion, erosion and corrosion is a major cost to an operation as it results in machine downtime (\$), lost productivity (\$), and extensive maintenance costs (\$). The causes of wear damage are complex as every industry, operation and machine have unique wear challenges. For over 30 years our worldwide customers: designers, engineers, project managers, purchasing, production and maintenance departments and contractors have relied on Cast Steel Products (CSP) to deliver proven innovative engineered, cost effective and market leading wear solutions to specific wear challenges. CSP has the right wear solutions for you!

Using proprietary alloys and metals CSP Innovative Engineered Wear Products and Solutions have for over 30 years delivered to our customers market leading:

- Longer wear life
- ► Reduced downtime
- Cost effective
- ► Improved equipment life
- Less maintenance and inspections
- Easy to fit
- ► Flexibility: CSP Wear Products and Solutions are innovatively designed for attachment in the field as required, or they can be pre-attached to equipment.
- Adaptability: CSP Wear Products and Solutions are available in a wide range of dimensions and can be adapted to suit a wide range of operating conditions.

OUR LAMINATED WEAR PLATES

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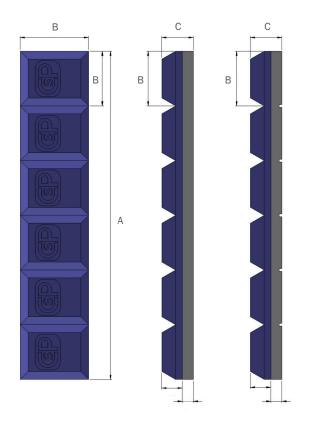
Chocky Bar	9 !	5
Ollocky Dal		_

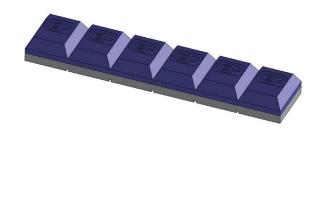
Wear	Buttons	6	3
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Wear Donuts 7

Standard Wear Bars 8

- Microledges
- Rock Box Liners 10
- Skid Bars 11
- Shaped Wear Bars 12
- Wafer Strips 13
- Grizzly Bars 14
- Elbow Wear Bars 15





* Please indicate the version of each item, Notched vs Non-Notched when ordering

CHOCKY BARS LAMINATED WEAR PLATES

CSP Wear Chocky Bars are available in a wide range of sizes to fit all of your unique applications and are an inexpensive, effective protection alternative to expensive, labour intensive, hard facing welding methods. Easy to use, cut and shape over contoured surfaces. There is also no pre-heating or post heating required when welding CSP Wear Chocky Bars into place.

Applications: wide and varied, ranging from wear protection on buckets for loaders, excavators, draglines machines, pump housings, impellors, chute/hopper linings to hammer tips for recycling industry and Slurry pipes and bends.

ITEM NO. *	SIZE		DIMENSION (MM)				
ITEM NO. "	(MM)	A	В	C	D	(KG)	
511025	240x25x23	240	25	15	23	0.90	
511040	240x40x23	240	40	15	23	1.50	
511050	240x50x23	240	50	15	23	1.90	
511065	240x65x23	240	65	15	23	2.50	
511080	240x80x23	240	80	15	23	3.20	
511090	240x90x23	240	90	15	23	3.50	
511100	240x100x23	240	100	15	23	3.90	
511130	240x130x23	240	130	15	23	5.40	
511150	240x150x23	240	150	15	23	6.00	







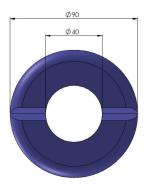


WEAR BUTTONS LAMINATED WEAR PLATES

CSP Wear Buttons are the perfect alternative to expensive, labor intensive hard facing or the need to cut wear strips from full sheets of wear plate. The unique profile of the CSP Wear Button deflects material and is Ideal for smaller and restrictive areas requiring wear resistant material.

Applications: Bucket and shovel protection, tooth adapter protection, and bucket side wall protection.

	SIZE		N.W.			
ITEM NO.	(MM)	A	В	C	D	(KG)
512060	Ø60x27	60	27	17	10	0.70
512075	Ø75x27	75	27	17	10	0.80
512090	Ø90x27	90	27	17	10	1.40
512110	Ø110x32	110	32	20	12	2.10
512115	Ø115x32	115	32	20	12	2.50
512150	∅150x41	150	41	25	16	5.70







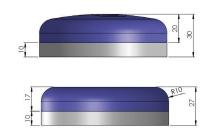
WEAR DONUTS LAMINATED WEAR PLATES

CSP Wear Donuts are designed with any layout pattern to suit customers particular wear area, providing maximum protection and security while minimizing the effects of heavy impact. CSP Wear Donuts can be made to different sizes as required.

Applications: Variety of buckets, loaders, excavators, earth moving equipment, draglines and bolt protection etc.

ITEM NO.	SIZE		1	DIMENSION(MM)		
HEM NO.	(MM)	A	В	C	D	E
513075	Ø75x25	75	25	17	8	25
513100A	Ø100x25	100	25	17	8	50
513100B	Ø100x32	100	32	24	8	70
513130	Ø130x23	130	23	15	8	80
513148	Ø148x35	148	35	25	10	108







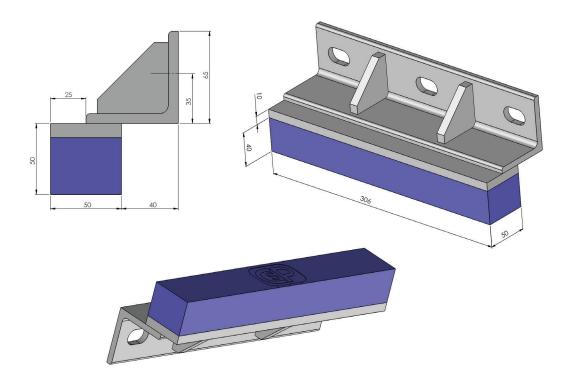
STANDARD WEAR BARS

LAMINATED WEAR PLATES

CSP Standard Wear Bars offers cost effective solutions to wear problems and provide the ability to change out only worn sections rather than replacing whole sheets or plates. CSP Standard Wear Bars are available in a variety of sizes and thicknesses and offer superior wear life when compared to conventional alloys.

Applications: Construction and Ground Engaging equipment.

ITEM NO	SIZE			DIMENSION(MM)	
ITEM NO.	(MM)	A	В	С	D	E
514200A	200x25x25	200	25	15	10	25
514200B	200x75x75	200	75	63	12	75
514300A	300x25x25	300	25	15	10	25
514153	153x38x33	153	38	25	8	33
514300B	300x38x33	300	38	25	8	33
514203	203x50x20	203	50	12	8	20
514254	254x50x20	254	50	12	8	20
514190A	190x50x30	190	50	20	10	30
51465	65x50x50	65	50	38	12	50
514115	115x50x50	115	50	38	12	50
514127	127x50x50	127	50	38	12	50
514150A	150x50x50	150	50	40	10	50
514190B	190x50x50	190	50	40	10	50
514210	210x50x50	210	50	38	12	50
514230	230x50x50	230	50	38	12	50
514294	294x50x50	294	50	40	10	50
514300C	300x50x50	300	50	40	10	50
514300D	300x150x60	300	150	48	12	60
514432	432x50x50	432	50	38	12	50
514459	459x38x31	459	38	25	6	31
514600	600x50x50	600	50	38	12	50
514250	250x60x20	250	60	12	8	20
514150B	150x75x39	150	75	29	10	39
514150C	150x75x50	150	75	40	10	50
514150D	150x75x60	150	75	50	10	60
514241	241x100x58	241	100	38	20	58



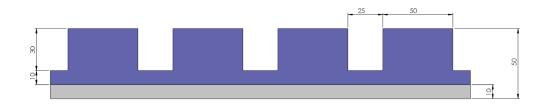
MICROLEDGES

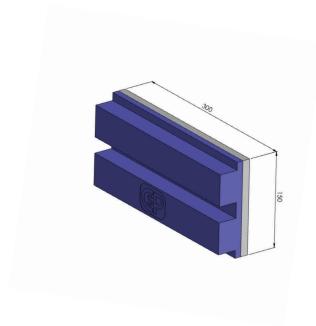
LAMINATED WEAR PLATES

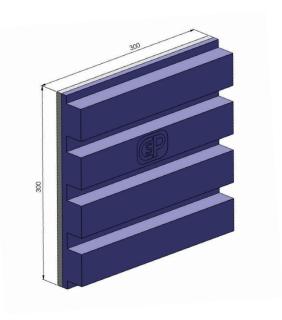
CSP Microledges are light weight & easily installed and are designed to reduce the weight of liners for bins, hoppers, and chutes required for a specific installation. Each installation requires a layout and pattern specific to the customer's needs.

Applications: Designed specifically for chutes, bins, transfer points & hoppers, crusher main frame liners and Slurry pipes and bends.

ITEM NO.	SIZE		DIMENSION(MM)			
HEM NO.	(MM)	A	В	С	D	(KG)
515115	115x50	115	50	40	10	3.20
515127	127x50	127	50	38	12	3.60
515150	150x50	150	50	40	10	4.20
515190	190x50	190	50	38	12	5.50
515210	210x50	210	50	38	12	6.00
515230	230x50	230	50	38	12	6.60
515432	432x50	432	50	38	12	12.50







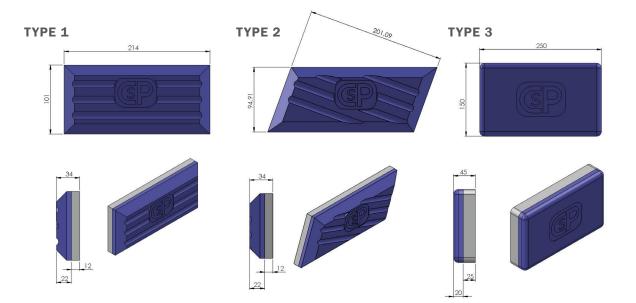
ROCK BOX LINERS

LAMINATED WEAR PLATES

CSP Rock Box liners are made from high chrome white iron and mild steel backing plate and are used to create a rock-box effect on fixed plant applications such as chutes, impact walls and hoppers. CSP Rock Box Liners offers a very cost effective, extremely long wear life alternative.

Applications: Typical applications include for the mining, steel, Re-cycling, OEM, aggregate and other Heavy Industries.

ITEM NO.	SIZE		DIMENSION(MM)					
(MM)	(MM)	A	В	C	D	E		
519300A	300x300x50	300	300	30	10	10		
519300B	300x148x50	300	148	30	10	10		
519148A	148x452x50	148	452	30	10	10		
519148B	148x300x50	148	300	30	10	10		



SKID BARS

LAMINATED WEAR PLATES

CSP Skid Bars are geometrically designed to increase wear life and extend service life. The radius corners reduce direct impact, while the steel backing plate allows for heavy welding to overcome major shear forces. Available in various shapes & sizes which allow for custom applications.

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Applications: Resist wear in Buckets, Haul Trucks & Fixed plant Applications or operations subject to gouging abrasion under extreme loads.

TYPE 1



ITEM NO.	SIZE		DIMENSION(MM)				
HEM NO.	(MM)	A	В	C	D		
521214	214x101x34	214	101	22	12		
521302	302x101x34	302	101	22	12		
521154	154x101x34	154	101	22	12		
521279	279x75x34	297	75	22	12		

TYPE 2

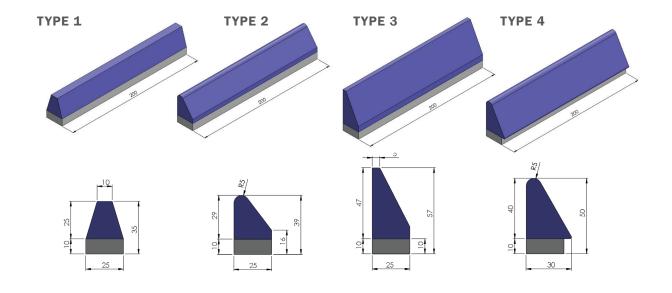


ITEM NO.	SIZE		DIMENS	ON(MM)	
HEM NO.	(MM)	A	В	C	D
522214	214x101x34	214	101	22	12
522214R	214x101x34	214	101	22	12
522302	302x101x34	302	V	22	12
522302R	302x75x34	302	75	22	12
522154	154x101x34	154	101	22	12
522154R	154x75x34	154	75	22	12

TYPE 3



ITEM NO	SIZE	DIMENSION(MM)				
ITEM NO.	(MM)	A	В	C	D	
523250A	250x150x45	250	150	20	25	
523200	200x150x45	200	150	20	25	
523250B	250x250x45	250	250	20	25	



SHAPED WEAR BARS

LAMINATED WEAR PLATES

CSP Shaped Wear Bars are designed for prevention of gouging wear and thus allow buckets and equipment to run longer requiring far less down time for maintenance. Shaped Wear Bars are available in different shapes to suit specific applications.

Applications: Excavator Bucket wear.

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TYPE 1	ITEM NO.	SIZE	DIMENSION(MM)			
	TIEM NO.	(MM)	A	В	C	D
	531200	200x13x30	200	13	20	10
	531244	244x10x35	244	10	25	10
	531202	202x10x35	202	10	25	10
TYPE 2	ITEM NO.	SIZE	DIMENSION(MM)			
	HEM NO.	(MM)	A	В	C	D
	532275	275x5x29	275	5	21	8
TYPE 3	ITEM NO.	SIZE	DIMENSION(MM)			
	HEWING.	(MM)	A	В	C	D
	533150	150x10x70	150	10	60	10
	533200	200x25x59	200	3	47	12
	533400	400x25x59	400	3	47	12
TYPE 4	ITEM NO.	SIZE		DIMENS	ION(MM)	
	TI ZIM ICOI	(MM)	A	В	C	D
	534125	125x10x90	125	10	80	10
	534200	200x25x50	200	10	38	12

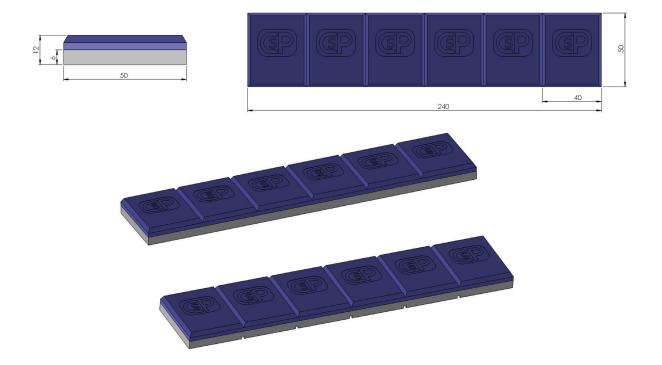
400x25x50

534400

400

10

38



WAFER STRIPS LAMINATED WEAR PLATES

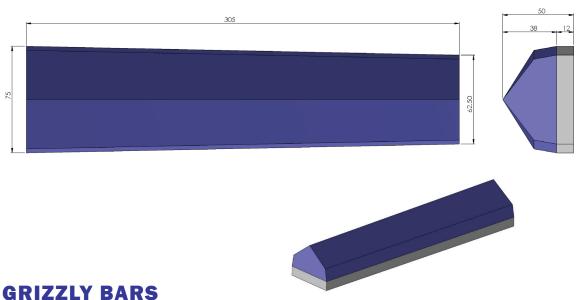
CSP Wafer Strips are metallurgically bonded to a weldable, impact resistant backing plate. CSP Wafer Strips are easy to use and install. They can be bent, cut and formed to suit different surfaces. The grades and sizes of CSP Wafer Strips can also be customized as per the customer's

specific need. These benefits lead to

significant increases in wear life when compared to standard AR plates, Less downtime and maintenance on worn parts.

Applications: Ranging from specific wear protection on buckets for loaders, excavators and draglines machines, or for weld-on hammer tips for the re-cycling industry, or chute linings and rock box edges, directional drill heads, foundation drilling, raise bore drilling, fan blade liners and road planer skids and pick protectors.

ITEM NO.	SIZE	DIMENSION(MM)				N.W.
HEM NO.	(MM)	A	В	C	D	(KG)
524025	240x25x12	240	25	6	6	0.60
524040	240x40x12	240	40	6	6	0.90
524050	240x50x12	240	50	6	6	1.20
524065	240x65x12	240	65	6	6	1.60



LAMINATED WEAR PLATES

CSP Grizzly Bars are exceptionally resistant to impact and abrasion. They combine the very high wear resistant qualities of a high chrome cast iron with the weldable and high impact toughness of mild steel.

The peaked profile improves efficiency, ensuring all material passes over the screen slits

Applications: Crushing and screening industries.

TYPE 1

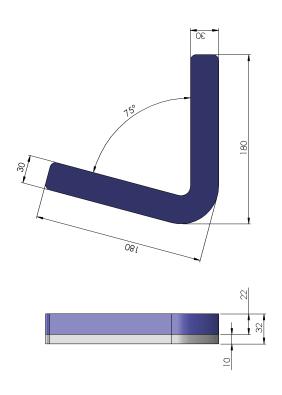


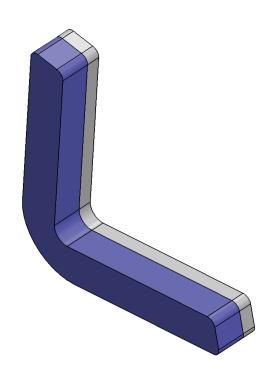
ITEM NO.	SIZE	DI	DIMENSION(MM)			
HEM NO.	(MM)	A	В	C	(KG)	
541105	150x137.5	305	150	137.5	13.60	
541137.5	137.5x125	305	137.5	125	12.50	
541125	125x112.5	305	125	112.5	11.20	
541112.5	112.5x100	305	112.5	100	10.00	
541100	100x87.5	305	100	87.5	8.80	
541087.5	87.5x75	305	87.5	75	7.50	
541075	75x62.5	305	75	62.5	6.30	
541062.5	62.5x50	305	62.5	50	5.10	

TYPE 2



ITEM NO.	SIZE	DI	DIMENSION(MM)				
IIEM NO.	(MM)	A	В	C	(KG)		
542150	150x141	305	150	141	13.80		
542141	141x131	305	141	131	12.90		
542131	131x122	305	131	122	11.90		
542122	122x113	305	122	113	11.10		
542113	113x103	305	113	103	10.10		
542103	103x94	305	103	94	9.20		
542094	94x84	305	94	84	8.30		
542084	84x75	305	84	75	7.40		





ELBOW WEAR BARS

LAMINATED WEAR PLATES

CSP Elbow wear bars have a special shape wear-resisting layer to stand up to the toughest impact and wear abrasion. They are easy to install and can provide easier option to cutting various plates to protect wearing areas.

Applications: Ideal for buckets, rock boxes, truck bodies, chutes etc.

ITEM NO.	SIZE (MM)	DIMENSION(MM)				
		A	В	C	D	E
525120	120x120x28	120	30	18	10	10
525180	180x180x32	180	40	22	10	10