

HARDMETALS



Agriculture

Catalogue AG020

Hard Metals Australia is proudly accredited with the following ISO certifications:

ISO 9001: 2015 Quality Management Standard

ISO 14001: 2015 Environmental Management System Standard

ISO 45001: 2018 Health and Safety Management System

CONTENTS

About Us.....	1
Stock Codes	2
Tillage Tools.....	4
About Our Tools.....	5
For Keech.....	6
For Janke	10
Knife Points	11
For Conservapak.....	12
Replacement Tynes.....	14
Deep Ripping.....	16
Bolt-ons	18
Furrowers	20
Flexifit Adapters.....	21
Flexifit Points	22
Flexifit Sweeps	23
Accessories	24
About Accessories.....	25
Fasteners	25
Weld-on Blocks	26
Adapters	27
Other Services.....	28
About Services	29
Specials.....	30
Additional Carbide Tiling.....	30
Reworks	30
New Products.....	30
OEM Castings	31

Catalogues in the 020 Series

- » **Agriculture (AG020)**
- » **Drilling**
- » **Construction**
- » **Wearparts**





ABOUT US

It was in the early 20th century that tungsten carbide began to make a huge impact on the industrial world. An incredibly versatile material, it's been used in light bulb filaments, cutting tools, armour piercing ammunition, and jet engines.

The early 1980s saw this wonder material being used heavily in the Australian mining industry. After working with the material there, some key people saw the opportunity to extend tungsten carbide into the agricultural industry. Farmer Bill Staughton, agricultural innovator Barry McFarlane, and entrepreneur Ron Ainge began experimenting with the idea of tungsten carbide protection on tillage tools.

Most tillage tools on the market today are now tungsten carbide protected. An

Australian innovation in this field, it is now used around the world.

Hard Metals Australia, founded by Ron Ainge in 1982, is now one of the biggest tungsten carbide distributors in Australia. As a manufacturer of wear parts and ground engaging tools for a variety of industries, we have a wealth of experience to draw from in designing exceptional tungsten carbide protected products. It is with this experience that we share our Wearparts product line with our customers.



STOCK CODES

Code	Description
0	Phase Out Product May have remaining stock
1	Stocked Product Generally available immediately
2	Prototype Product No performance guarantee
3	Seasonally Stocked Product May require minimum order
4	[Deprecated]
5	Subassembly Product May not be for sale to end users
6	New Product Stock Code status unconfirmed
7	OEM or Client Product Not for general end user sale
8	Non-Stocked Product Minimum order required
9	Special Product Check with our sales team

Stock codes detail the availability of products.
Each product in this catalogue has a code.
All codes are subject to change over time and are shown
only as a guide.



TILLAGE TOOLS



ABOUT OUR TOOLS

Hard Metals Australia has a rich history of designing and manufacturing after market wear-resistant tillage tools.

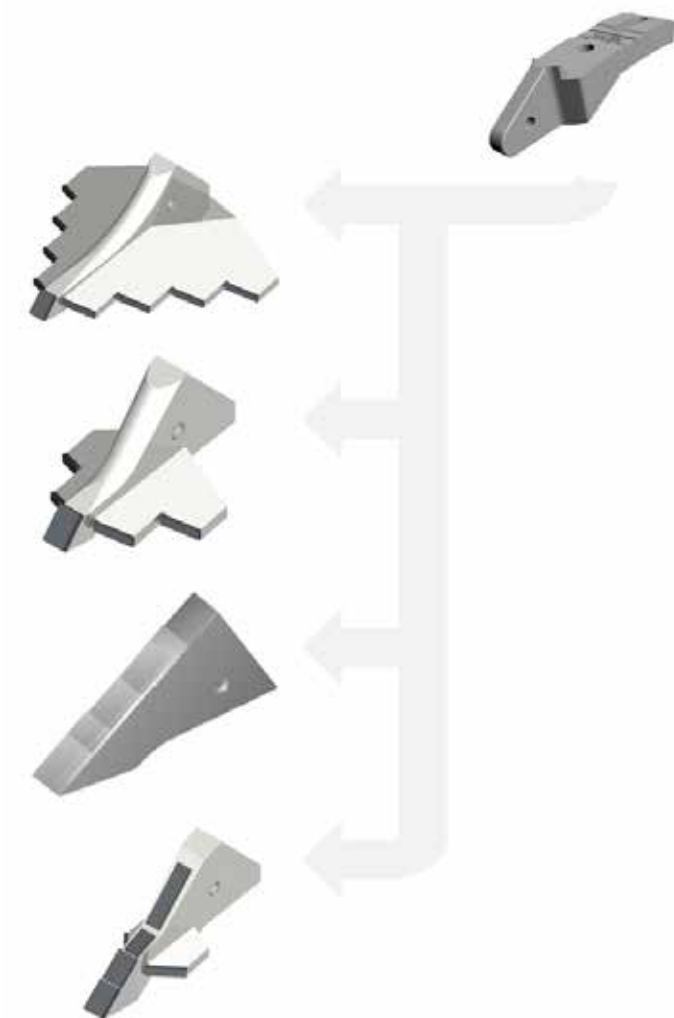
Our WearMaster range consists of long lasting tillage attachments for most popular farming machines in the Australian market. If you can't find a standard product suitable for your machine, see our 'Specials' section of this catalogue for even more options.



Our FlexiFit range works on an adapter designed for changeout speed and ease of use. Our adapters bolt on to most machines, and any point in the range fits the adapter with a simple roll-pin.

Laboratory testing has shown tungsten carbide has over 50 times the wear life of hardened steel. Our design engineers, often in consultation with in-the-field farmers, identify the weak areas of tillage tools and strategically add tungsten carbide. This keeps points affordable and drastically increases tool lifetime.

Drawings in this catalogue use **red** to represent tungsten carbide tiling. All measurements are in millimetres.

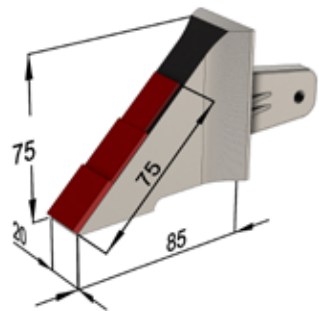


FOR KEECH

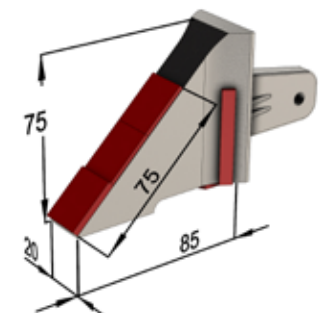
Product	Description	Stock Code		Weight
				
WM1048	Wide direct drill	1	8	710 G
WM1048-XP	Wide direct drill - Extra protection	3	8	720 G
WM1048-XXP	Wide direct drill - Heavy full protection	3	8	770 G
WM1048R	Rockbreaker wide direct drill	8	8	690 G
WM1048R-XXP	Rockbreaker wide direct drill - Heavy full protection	3	8	730 G

Product	Description	Stock Code		Weight
				
WM1080	Spear point	1	8	440 G
WM1080-XP	Spear point - Full protection	8	8	450 G
WM1080-XXP	Spear point - Heavy full protection	8	8	480 G

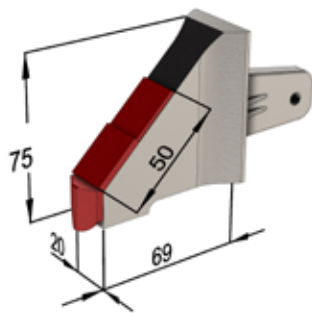
TILLAGE TOOLS - For Keech



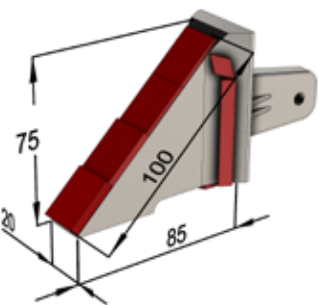
WM1048



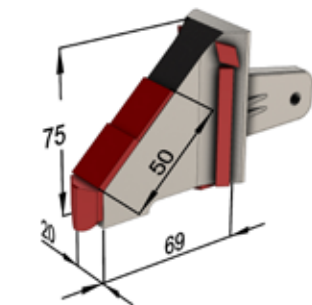
WM1048-XP



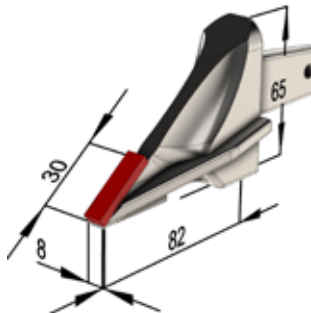
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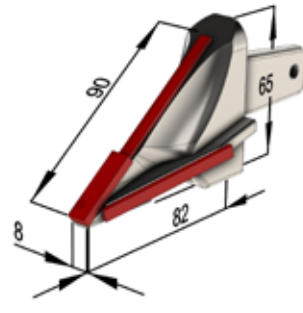
WM1048-XXP



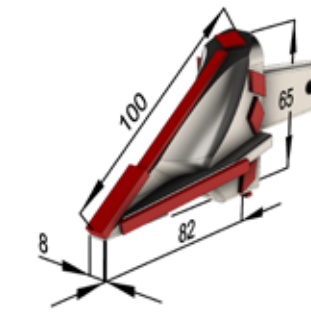
WM1048R-XXP



WM1080



WM1080-XP



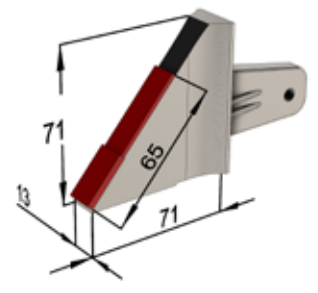
WM1080-XXP



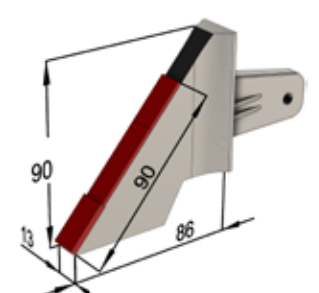
For Keech - TILLAGE TOOLS



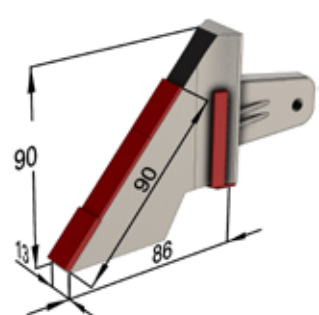
Product	Description	Stock Code		Weight
				
WM1049	71mm short direct drill	3	8	430 G
WM1050	90mm regular direct drill	1	8	500 G
WM1050-XP	90mm regular direct drill with extra protection	3	8	520 G
WM1050-XXP	90mm regular direct drill with heavy protection	8	8	550 G



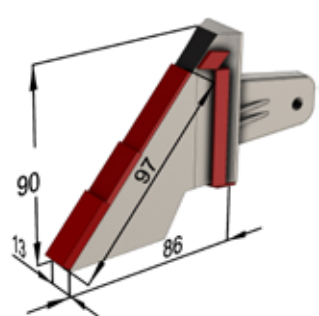
WM1049



WM1050



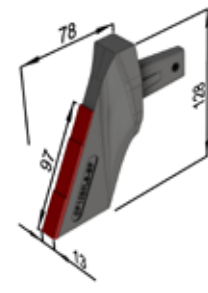
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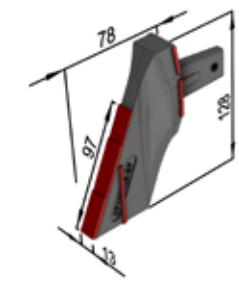
WM1050-XXP



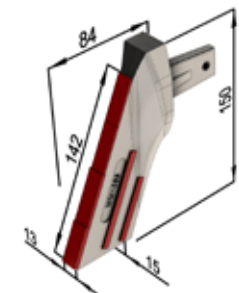
Product	Description	Stock Code		Weight
				
WM1051	128mm direct drill	1	8	830 G
WM1051-XP	128mm direct drill with side protection	3	8	840 G
WM1053-S	150mm long direct drill with side protection	6	8	910 G
WM1053	163mm extra long direct drill with side protection	6	8	1.04 KG
WM1054	Forward angled direct drill	3	8	710 G
WM1054-XP	Forward angled direct drill with side protection	8	8	720 G
WM1052	Winged seeder	3	8	740 G



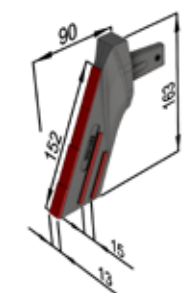
WM1051



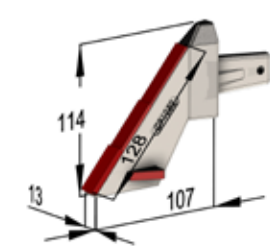
WM1051-XP



WM1053-S



WM1053



WM1052

WM1054

WM1054-XP

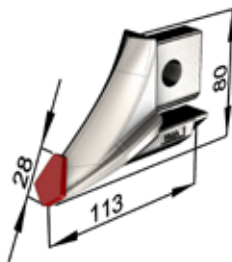
FOR JANKE

KNIFE POINTS

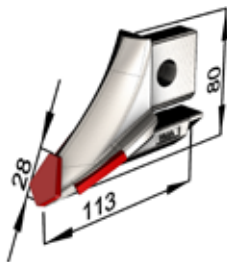
Product	Description	Stock Code		Weight
				
WM1088 & WM1088-N	Arrow head point	1	8	710 G
WM1088-N-XP	Arrow head point - Side protection	3	8	720 G
WM1088-N-XXP	Arrow head point - Full protection	3	8	750 G
WM1088-XP12	12mm wide arrow head with heavy nose	8	8	900 G
WM1088-XP19	19mm wide arrow head with long heavy nose	8	8	1.20 KG

Product	Description	Stock Code		Weight
				
WM1057	Short knife point for Flexicoil	8	8	870 G
WM1058	Knife point for Flexicoil	1	8	1.00 KG
WM1082	Spear point for Gyrat	1	8	300 G
WM1082-XP	Spear point for Gyrat with extra protection	3	8	360 G
WM1104	Slimwedge knock-on knife point for McCoy	1	8	1.45 KG
WM1090	Slimwedge knock-on winged seeder for McCoy	1	8	1.53 KG

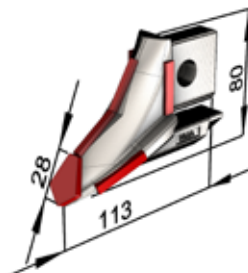
Tillage Tools - For Janke



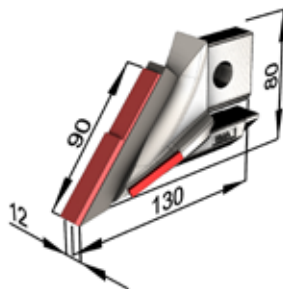
WM1088 | WM1088-N



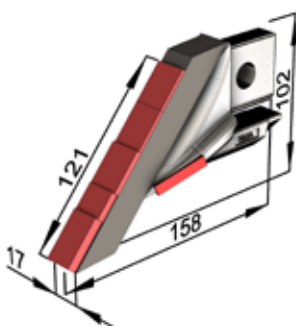
WM1088-N-XP



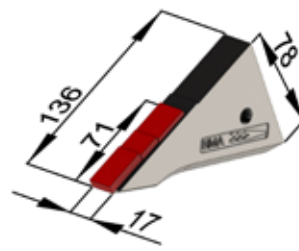
WM1088-N-XXP



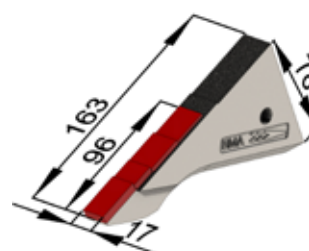
WM1088-XP12



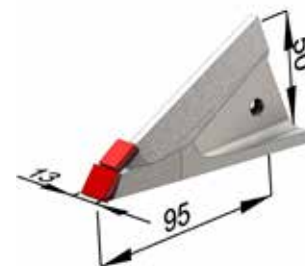
WM1088-XP19



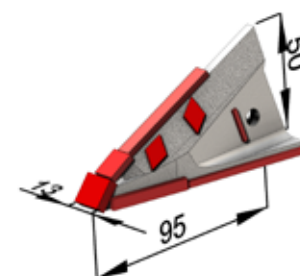
WM1057



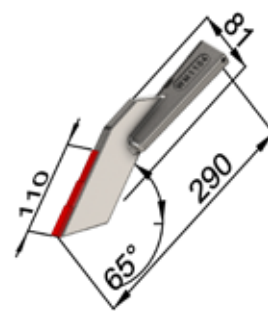
WM1058



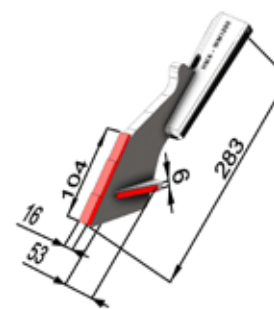
WM1082



WM1082-XP



WM1104



WM1090

Knife Points - Tillage Tools

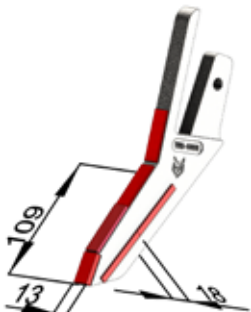


FOR CONSERVAPAK

Product	Description	Stock Code		Weight
				
WM1095	Replacement for Conservapak	6	8	910 G
WM1095-XP	Replacement for Conservapak with side protection	6	8	930 G
WM1096	Deep angle replacement for Conservapak	6	8	980 G



WM1095



WM1095-XP



WM1096



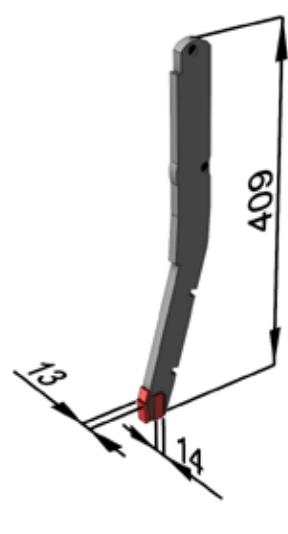
Tillage Tools - For Conservapak

For Conservapak - Tillage Tools

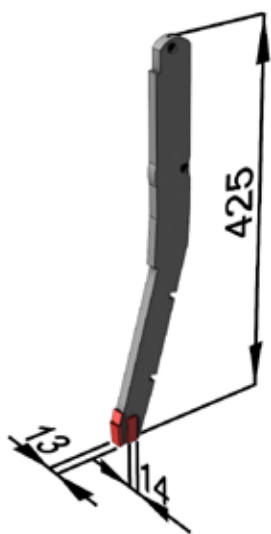


REPLACEMENT TYNES

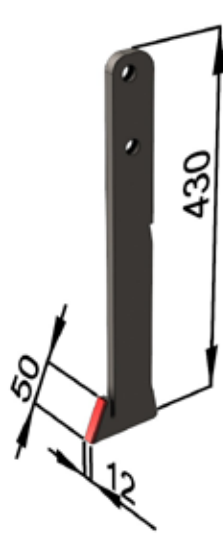
Product	Description	Stock Code		Weight
				
SH-SKNF409	Tyne for Seedhawk	6	8	1.60 KG
SH-SKNF425	Extended tyne for Seedhawk	6	8	1.70 KG
SH-FKNF430	Flat-foot tyne for Seedhawk	6	8	1.70 KG
SH-FKNF540	Boot tyne for Seedhawk	6	8	2.00 KG
MC2-430XP	Tyne for Morris	6	8	1.90 KG



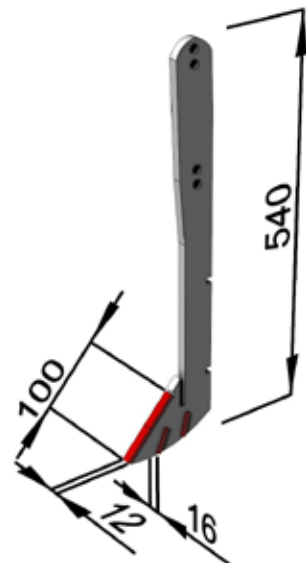
SH-SKNF409



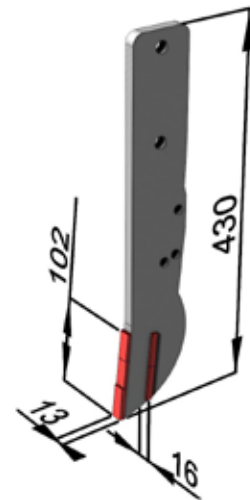
SH-SKNF425



SH-FKNF430



SH-FKNF540



MC2-430XP



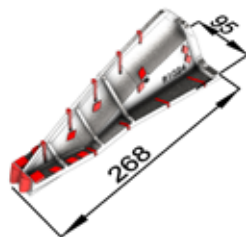
DEEP RIPPING

Product	Description	Stock Code		Weight
				
R1024	Boot for Yeomans	1	8	2.87 KG
R1024-XP	Boot for Yeomans- Rockbreaking full protection	3	8	2.90 KG

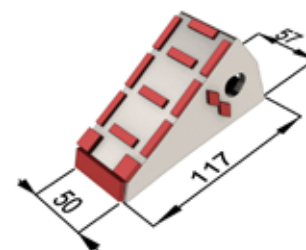
Product	Description	Stock Code		Weight
				
R1010	Boot with pin protection	3	8	920 G
R1012	Long boot with pin protection	3	8	1.43 KG
R1014	Boot for Agrowplow	3	8	1.50 KG
R1016	Protected adapter for Gessner	1	8	1.33 KG
R1018	Replaceable wear tip for R1016	1	8	750 G
R1022	Wide connection ripper boot	8	8	1.88 KG



R1024



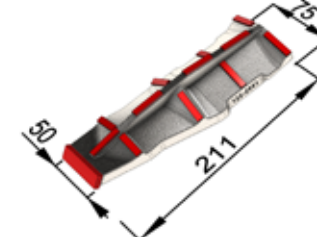
R1024-XP



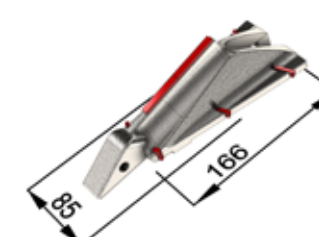
R1010



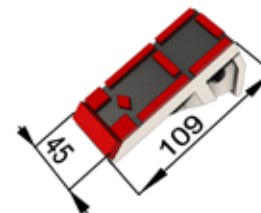
R1012



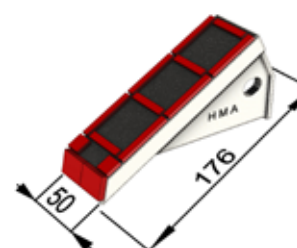
R1014



R1016



R1018



R1022

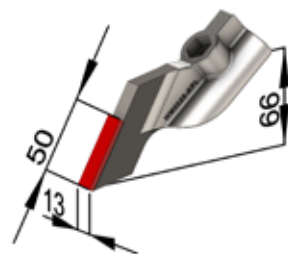


BOLT-ONS

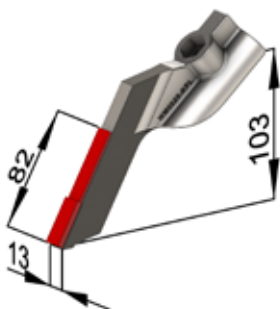
Product	Description	Stock Code		Weight
				
WM0020-KP	Single-Bolt direct drill	6	8	500 G
WM0020-KPL	Single-Bolt direct drill	6	8	610 G
WM2086	Single-Bolt winged seeder	3	8	1.10 KG
WM2088	Double-Bolt winged seeder	1	8	2.75 KG
WM2024	Single-Bolt knife point	1	8	960 G
WM1101	Double-Bolt short knife point	8	8	1.15 KG
WM1102	Double-Bolt knife point	1	8	1.36 KG
WM1102-XP	Double-Bolt knife point - Extra protection	3	8	1.50 KG

Product	Description	Stock Code		Weight
				
WM1084	Baker boot	1	8	930 G
WM1084-XP	Baker boot - Extra protection	3	8	950 G
WM1084-XXP	Baker boot - Heavy protection	3	8	980 G
WM1002	Double-Bolt reversible chisel 2 1/4" centre	3	8	1.86 KG
WM1004	Double-Bolt reversible chisel 3" centre	3	8	1.91 KG

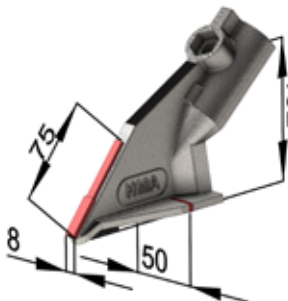
Tillage Tools - Bolt-Ons



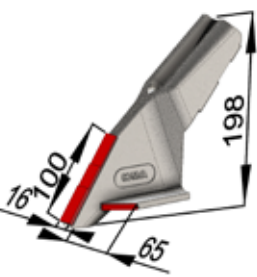
WM0020-KP



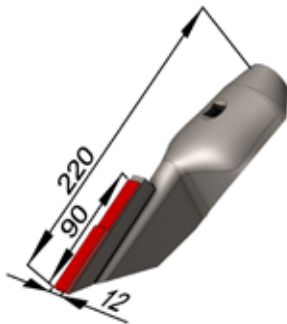
WM0020-KPL



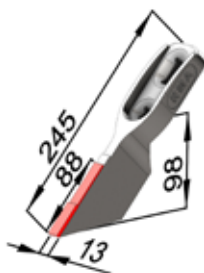
WM2086



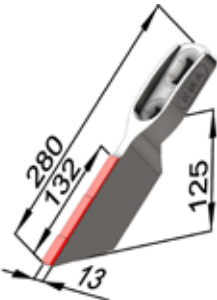
WM2088



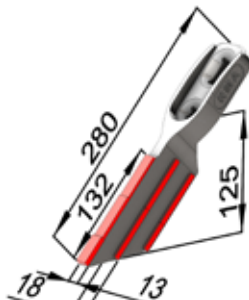
WM2024



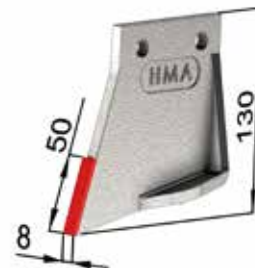
WM1101



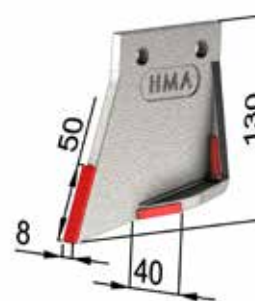
WM1102



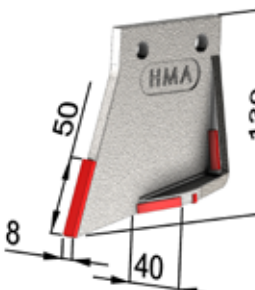
WM1102-XP



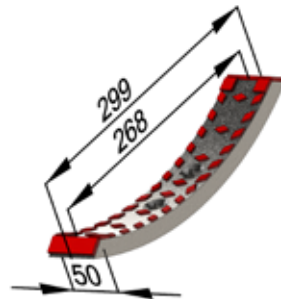
WM1084



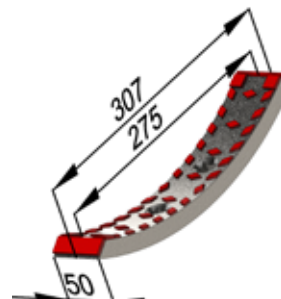
WM1084-XP



WM1084-XXP



WM1002

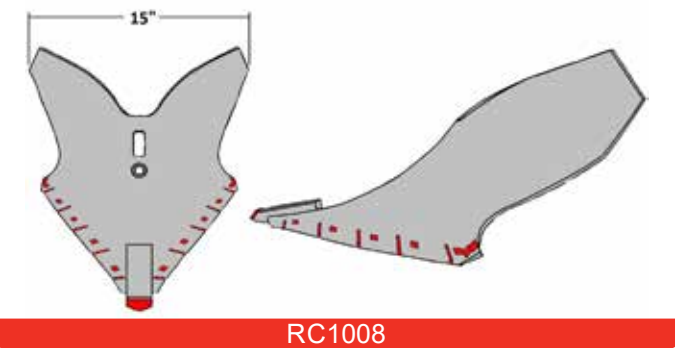


WM1004

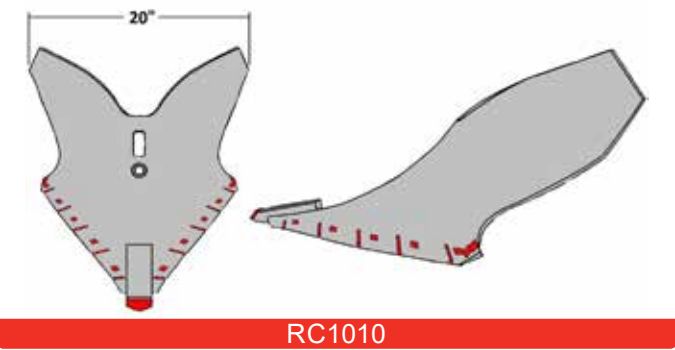
Bolt-Ons - Tillage Tools

FURROWERS

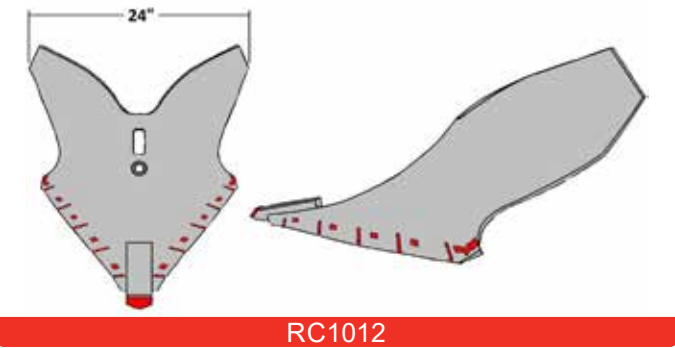
Product	Description	Stock Code		Weight
				
RC1008	15" heavy duty furrower	8	8	-
RC1010	20" heavy duty furrower	8	8	-
RC1012	24" heavy duty furrower	8	8	-
RC1014	18" Alabama sweep with nose protection	8	8	5.10 KG
RC1020	24" Alabama sweep with nose protection	8	8	5.60 KG



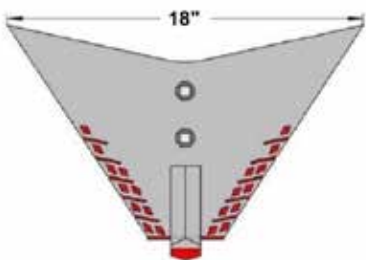
RC1008



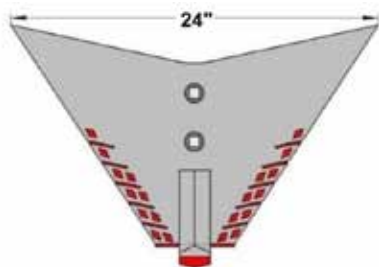
RC1010



RC1012



RC1014

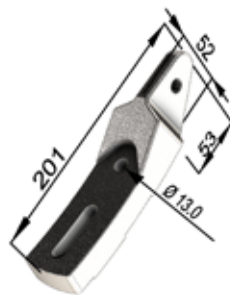


RC1020

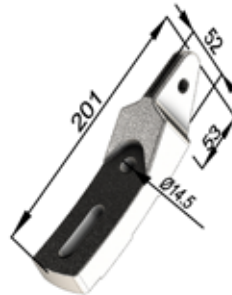
FLEXIFIT ADAPTERS

Product	Description	Stock Code		Weight
				
FF1000	Bolt-on adapter	1	8	1.13 KG
FF1000-14.5	Bolt-on adapter for 9/16" bolt	8	8	1.13 KG
FF1000-SW	Knock-on slimwedge adapter	1	8	970 G
FF1000P	FlexiFit pin punch	1	8	220 G

FlexiFit adapters are provided at half price when bought together with a FlexiFit point.



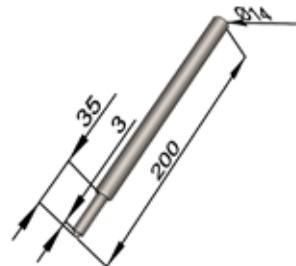
FF1000



FF1000-14.5



FF1000-SW



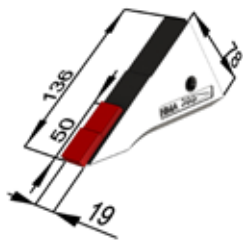
FF1000P

FLEXIFIT POINTS

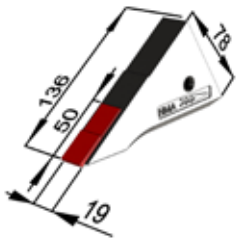
FLEXIFIT SWEEPS

TILLAGE TOOLS - FlexiFit Points

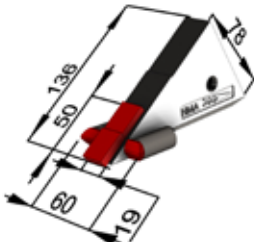
Product	Description	 		Weight
FF1055	Short knife point	3	8	920 G
FF1055E	Short knife point - Economy carbide	8	8	880 G
FF1055W	Short knife point with wings	8	8	1.05 KG
FF1056	Knife point	1	8	1.06 KG
FF1056-XP	Knife point with side protection	8	8	1.10 KG
FF1056W	Knife point with wings	8	8	1.18 KG
FF1056W-XP	Knife point with wings and side protection	8	8	1.23 KG
FF1056R	Rockbreaker knife point	3	8	920 G
FF1034	Angled knife point	1	8	840 G
FF1034W	Angled knife point with wings	8	8	960 G
FF1003	Seeder point with wings	1	8	700 G
FF1003L	Long seeder point with wings	1	8	800 G



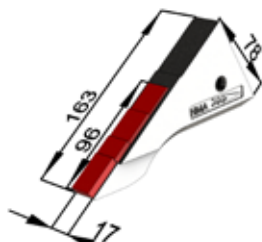
FF1055



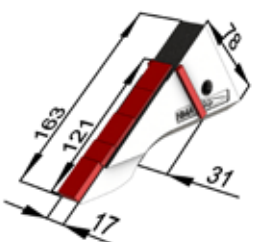
FF1055E



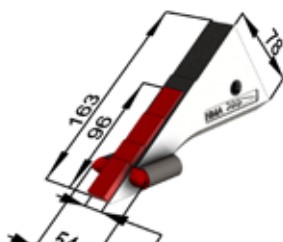
FF1055W



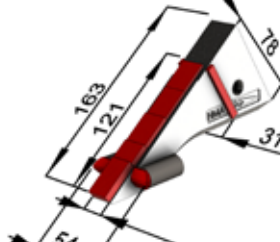
FF1056



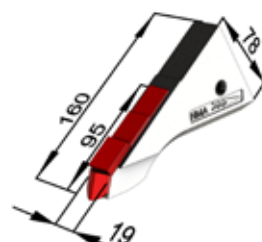
FF1056-XP



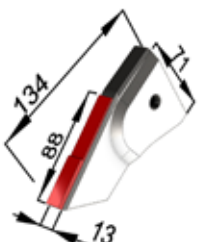
FF1056W



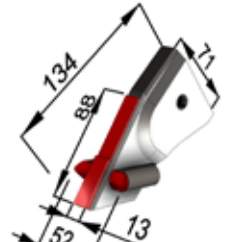
FF1056W-XP



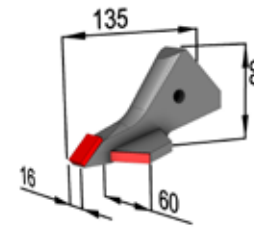
FF1056R



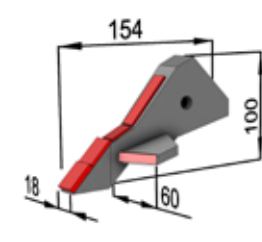
FF1034



FF1034W

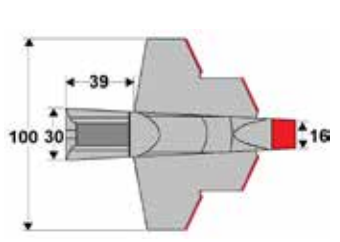


FF1003

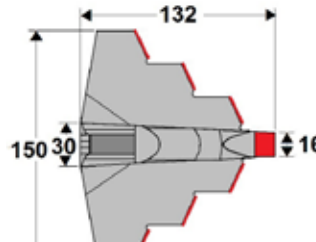


FF1003L

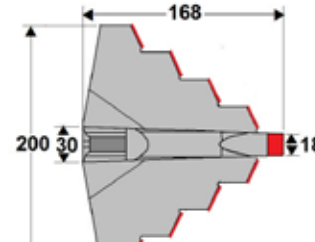
Product	Description	 		Weight
FF1004	4" Sweep	3	8	820 G
FF1006	6" Sweep	3	8	1.26 KG
FF1008	8" Sweep	3	8	1.79 KG
FF1009	9" Sweep	3	8	2.15 KG
FF1010	10" Sweep	3	8	2.64 KG
FF1011	11" Sweep	3	8	3.27 KG
FF1012	12" Sweep	3	8	4.20 KG
FF1014	14" Sweep	3	8	4.25 KG



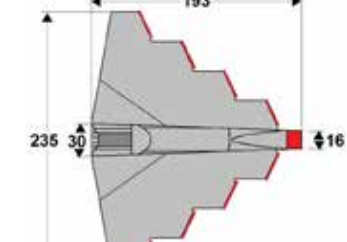
FF1004



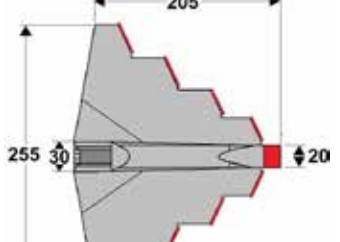
FF1006



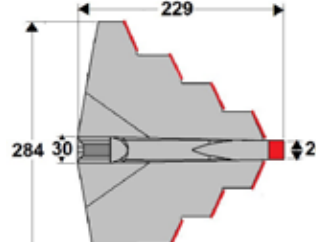
FF1008



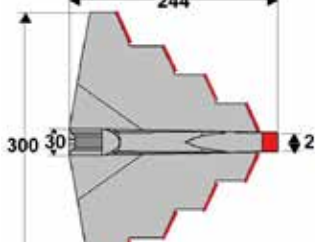
FF1009



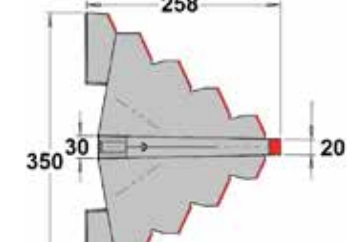
FF1010



FF1011



FF1012



FF1014



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FlexiFit Sweeps - TILLAGE TOOLS

ACCESSORIES

ABOUT ACCESSORIES

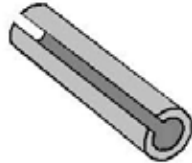
Many of our WearMaster products feature weld-on blocks to substantially change their shape and add heavy protection against impact and wear. Weld-on blocks are available for purchase so you can do it yourself if you already own points that need additional coverage. These come in a range of sizes and feature a heavy duty steel-alloy base with strategic tungsten carbide protection. They are designed to be easy to weld with setups that many farmers already own. Generously preheat both your part and the weld on block before welding for best results.

Required fasteners are included with product purchase. Additional fasteners can be purchased if needed.

FASTENERS

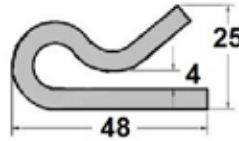
Product	Description	Stock Code		Weight
				
RP6.4X32	Roll pin to suit WM1082	1	8	5 G
RP6.4X41	Roll pin to suit R1024	1	8	6 G
RP7.9X25.4	Roll pin to suit WM1058	1	8	6 G
RP9.5X32	Roll pin to suit FlexiFit	1	8	11 G
RP9.5X44.5	Roll pin to suit R1016 - R1018	1	8	16 G
WM-KRC	R Clip for Keech style points	1	8	13 G
WM1088-P	Pin for WM1088	1	8	13 G
WM1088-B	Bush for WM1088	1	8	3 G

Required fasteners are included with product purchase. Additional fasteners can be purchased if needed.

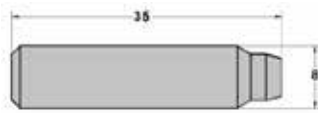


Roll Pin

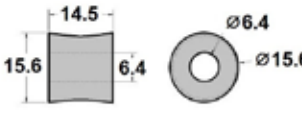
RP ---



WM-KRC



WM1088-P



WM1088-B

WELD-ON BLOCKS

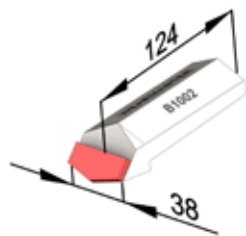
ADAPTERS

Accessories - Weld-On Blocks

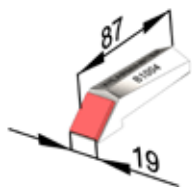
Adapters - Accessories

Product	Description	 		Weight
B1002	Nose block suitable for 12" sweeps and scarifiers	1	8	470 G
B1004	Nose block suitable for 10" sweeps and scarifiers	1	8	180 G
B1006	Nose block with long face protection	1	8	160 G
B1008	Bar with rock-breaker tip	8	8	100 G
B1014	Nose block with half face protection	9	8	200 G
B1022	Nose block for points	1	8	100 G
B1026	Nose block for small sweeps and scarifiers	3	8	170 G
B1028	Nose block for medium sweeps and scarifiers	1	8	350 G
B1032	Nose block with heavy long face protection	8	8	480 G
B1034	Sidebar with rock-breaker tip, good for wings	1	8	60 G
B1012L B1012R	Left and Right wing protection for sweeps	0	8	40 G

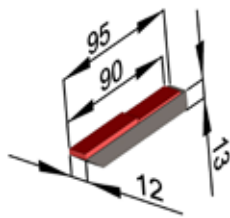
Product	Description	 		Weight
FF1000	FlexiFit Bolt-on adapter	1	8	1.13 KG
FF1000-14.5	FlexiFit Bolt-on adapter for 9/16" bolt	8	8	1.13 KG
FF1000-SW	FlexiFit Knock-on slimwedge adapter	1	8	970 G
FF1000P	FlexiFit pin punch	1	8	220 G
WM-KWA	Weld-on adapter for Keech style points	1	8	340 G
WM-KBA	Bolt-on adapter for Keech style points	1	8	1.44 KG
WM0020	Bolt-on adapter for Gyrat style points	3	8	410 G



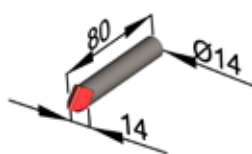
B1002



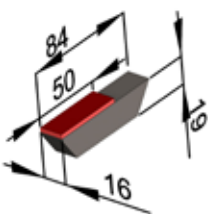
B1004



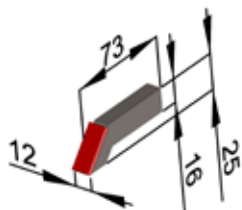
B1006



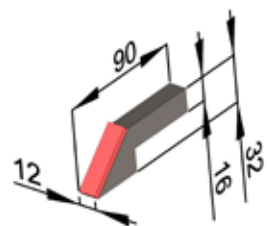
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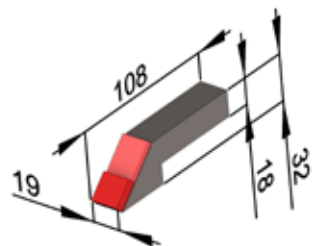
B1014



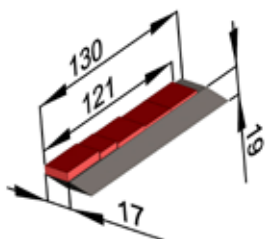
B1022



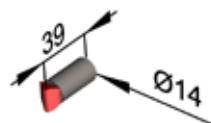
B1026



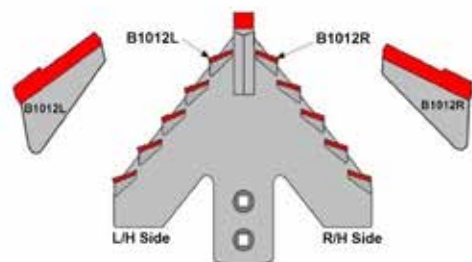
B1028



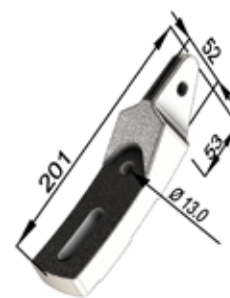
B1032



B1034



B1012L | B1012R



FF1000



FF1000-14.5



FF1000-SW



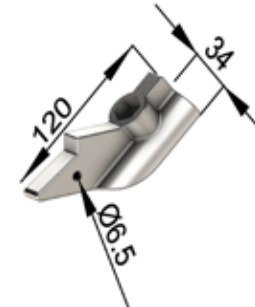
FF1000P



WM-KWA

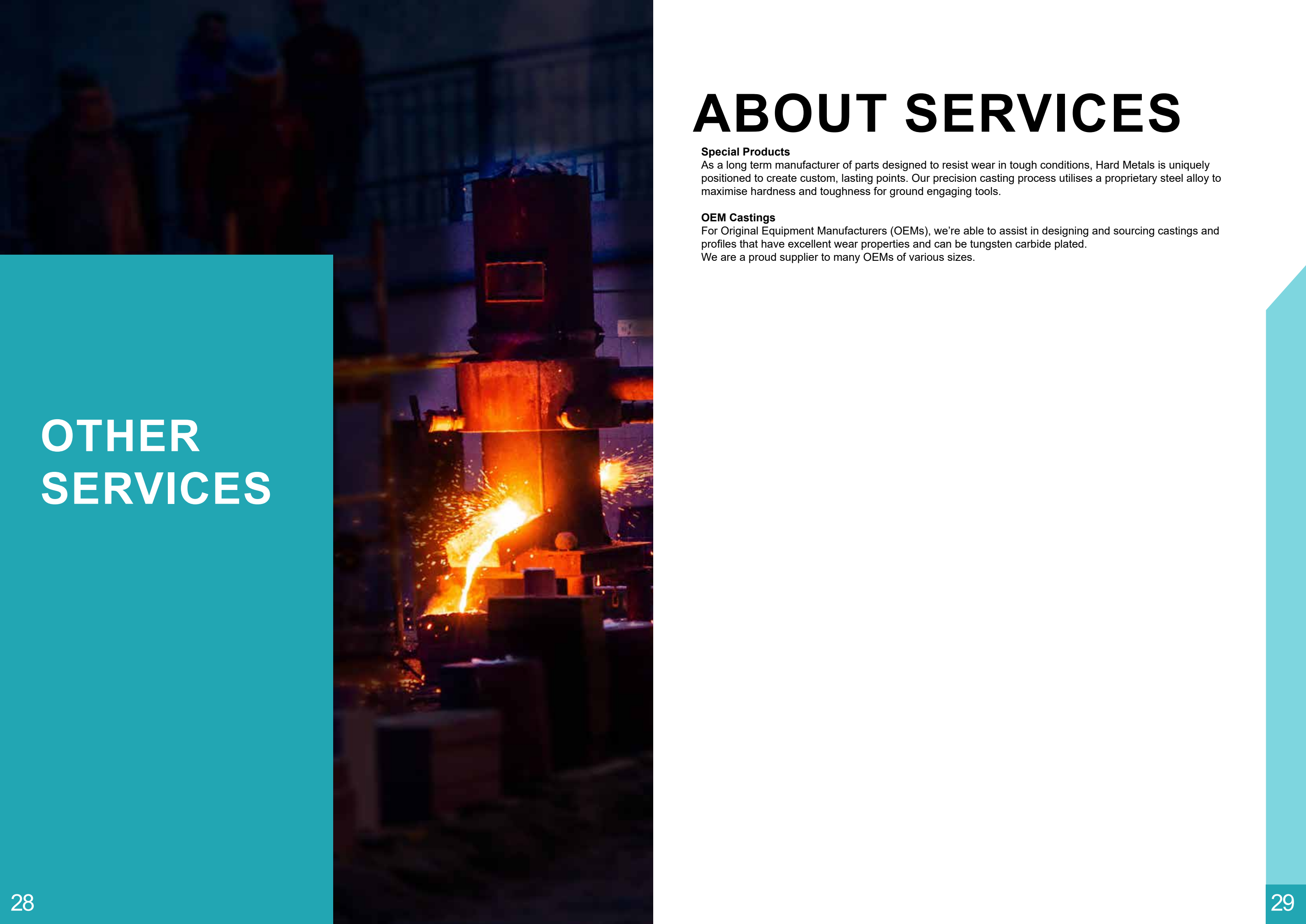


WM-KBA



WM0020



The background of the entire page is a dark, industrial scene. In the center, there is a large, glowing orange molten metal being poured or processed, with bright sparks flying out. In the upper left, several people are visible in silhouette, working in the facility. The overall atmosphere is one of intense industrial activity.

OTHER SERVICES

ABOUT SERVICES

Special Products

As a long term manufacturer of parts designed to resist wear in tough conditions, Hard Metals is uniquely positioned to create custom, lasting points. Our precision casting process utilises a proprietary steel alloy to maximise hardness and toughness for ground engaging tools.

OEM Castings

For Original Equipment Manufacturers (OEMs), we're able to assist in designing and sourcing castings and profiles that have excellent wear properties and can be tungsten carbide plated. We are a proud supplier to many OEMs of various sizes.

SPECIALS

Additional Carbide Tiling

Our clients occasionally find that base products they've bought from their suppliers don't perform as well as they should. If you're finding problem wear areas on any steel alloy product, we can add significant protection with tungsten carbide tiling. We have a huge range of tungsten carbide sizes and shapes that can fit any product. Our experienced workshop staff ensure optimal adhesion for strong, durable protection.

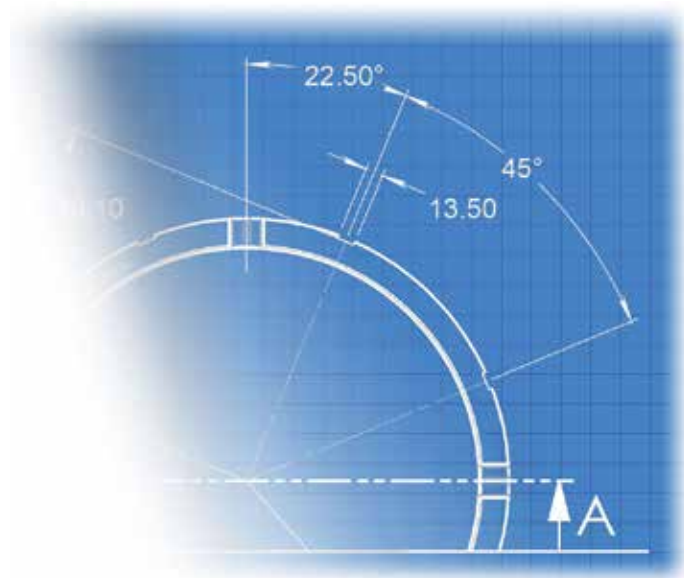
Reworks

Our workshop is equipped with a large machine shop containing manual and CNC machines, as well as a weld bay, part dressing room, and dedicated brazing stations.

Occasionally clients need to modify their existing tooling for upcoming projects. We're able to quickly rework bulk items in whatever ways you need. With a strong team of technical staff, we can assist in ensuring modifications are correct the first time so you can keep working.

New Products

Hard Metals has experience with the full scope of engineering Agricultural tools for people with unique problems or OEM distributors. We've brought designs from first thought all the way through to final product for many clients.



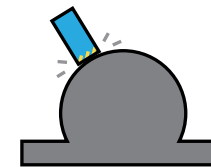
OEM CASTINGS

We can reliably source bulk castings in a range of materials. Hard Metals uses a proprietary steel alloy similar to what is used on digging teeth in the excavation industry. It is designed to resist wear in Agricultural applications that is also available to our customers.

Typically, parts are made using a lost wax casting process outlined below. Part tolerance and part finish can be tightened or loosened from CT-5 to CT-9 depending on the required performance and economy.

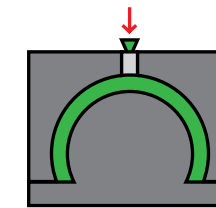
1. TOOLING

A high precision inverted version of the part is CNC machined.



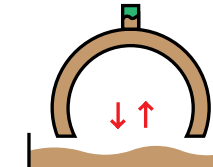
2. WAX INJECTION

The inverted part is filled with a special wax. This is a high quality wax version of your finished product.



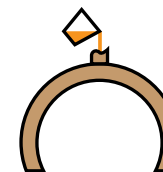
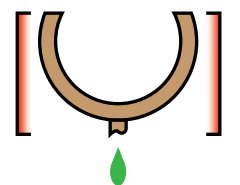
3. SHELL COATING

The wax is dipped in several layers of liquid ceramic coating then left to dry.



4. DEWAX

Wax is melted and pulled away, leaving just the ceramic shell behind.



Molten steel alloy is poured into the ceramic shell and left to set.

5. POURING



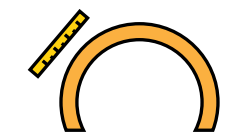
The ceramic is broken from the hardened steel part.

6. SHELL REMOVAL



The part is cleaned up and surface treated or heat treated as required.

7. FINISH



Technical staff assess the part to ensure the quality of the finish and dimensional accuracy.

8. QUALITY ASSURANCE





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