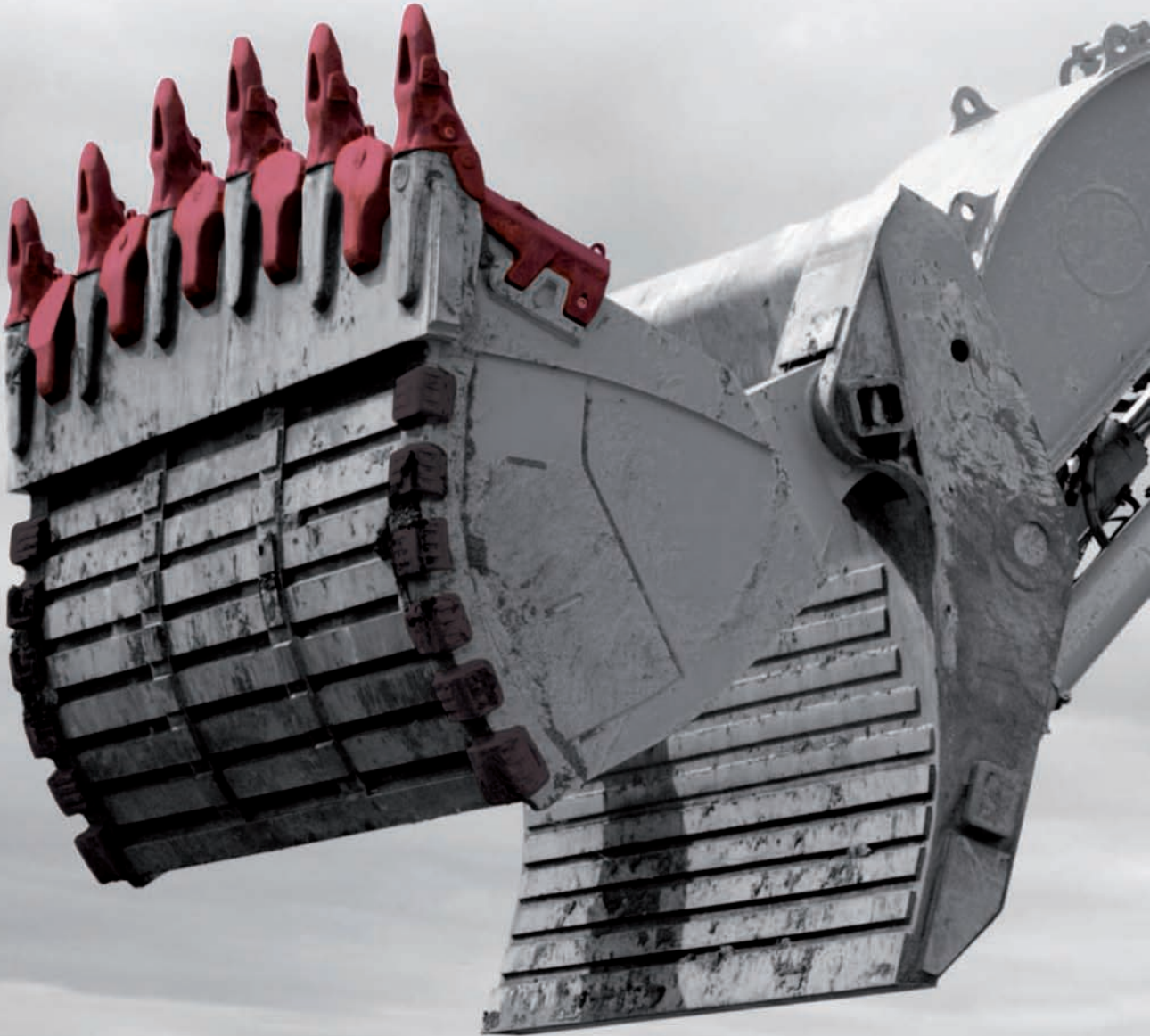


MINING



MTG

No limits innovation



www.creightonrock.com

www.mtg.es



Objective

To offer products and services that maximize the activity and productivity of the machines, providing profitability, reliable and safe bucket protection systems for the mines.



Proven reliability

Since 2005 MTG offers reliable and safe hammerless retention systems. Hammerless locking systems provide an excellent retention, minimizing the loss of teeth and offering the maximum safety to prevent operational breakages.



Safety

MTG provides comprehensive bucket protection systems, with entirely hammerless systems, which prevent accidents that may be caused by hammering or flying metal particles. Using MTG products is synonymous with safety, quick and easy replacement of teeth, adapters and shrouds.



Reducing costs

MTG products have been designed to guarantee an efficient wearing of all parts and are manufactured using the highest quality steel. This combination of design and raw materials have resulted in a longer wear life of the parts, thus maximizing the operating time of the machines and generating an important reduction in the cost per ton of extracted material.



Personalized team of technical engineers

A specialized team of technical engineers at GET supervise, record and analyze all the data obtained from the wear process. This information will help the technical team recommend changing some of the wear parts and find the most suitable design based on the ground and working conditions.



No limits innovation

EXAMPLES OF ELECTRIC ROPE SHOVELS

P&H* 2800

CAT*7395 (BE395)

CAT* 7495 (BE495)
P&H*4100



EXAMPLES OF EXCAVATORS



100 - 120 TON

CAT*6015
RH*40
EX*1200 - 6
PC*1250



170 - 200 TON

CAT*6018
RH*90
EX*1900 - 6
PC*2000



280 - 350 TON

CAT*6030
RH*120
EX*2600 - 6
HITACHI EX* 3600



EXAMPLES OF LOADERS



95 - 110 TON

CAT*992
WA*800
WA*900
L* - 950



130 - 145 TON

CAT*993
L* - 1150



180 - 220 TON

CAT*994
WA*1200
L* - 1350



240 - 250 TON

L* - 1850



EXAMPLES OF BULLDOZERS

SIZE 45

CATERPILLAR*
- D8T
KOMATSU*
- D155AX - 5B

SIZE 50

CATERPILLAR*
- D10R
KOMATSU*
- D375A - 5

SIZE 55

CATERPILLAR*
- D11N
KOMATSU*
- D475A - 5



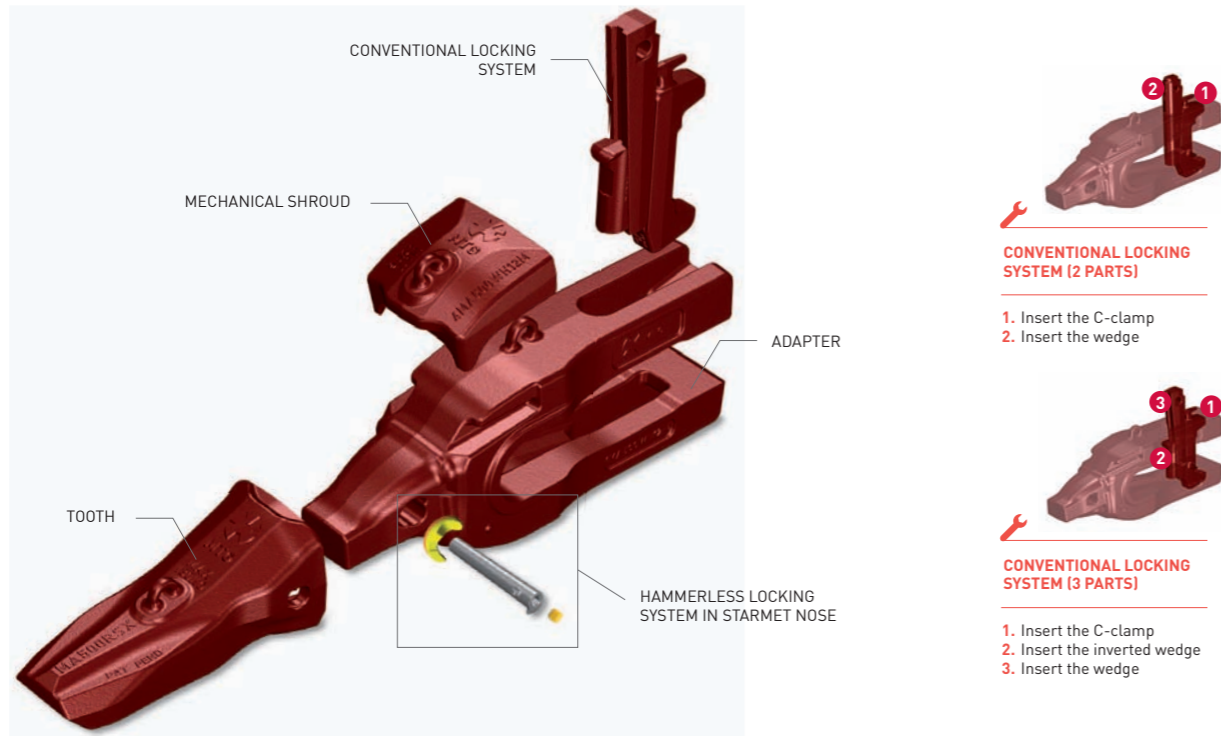
SYSTEMS FOR MINING





MTG SYSTEMS STARMET ROPE SHOVELS

Teeth, adapters and shrouds for electric rope shovels. Wear parts with mechanical locking system to equip the most widely used lip fitting configurations for electric rope shovels.



Teeth and adapters with conventional mechanical shrouds that offer a complete and optimized protection for the bucket. MTG is expanding the StarMet range by adding the Whisler and Berkeley adapters and shrouds for electric rope shovels. It also offers specifically designed teeth for this type of mining machinery. Wear parts for heavy machines provide:



- **Adapters.** Electric shovel adapters have been designed with the StarMet tooth-and-adapter fitting system and a conventional two or three-part lip locking system. This will not require a modification of the bucket lip in order to install the hammerless locking system on the MTG adapter.
- **Mechanical shrouds (wear cap).** The adapter allows the use of wear caps where necessary. Two wear cap designs for different soil abrasion levels and types of application.
- **Teeth.** They all incorporate the MTGtwist hammerless locking solution. Specific tooth design with advanced self-sharpening, offering the perfect balance between penetration and resistance to abrasion. More robust teeth with more wear material that increase bucket productivity in this type of machine.
- **Shrouds.** The wing and blade shrouds, in combination with a conventional mechanical locking system, offer full bucket protection. The robust design extends the wear life of the bucket and its productivity.
- **Templates.** MTG offers all the templates required for checking the condition of the lip and reconstruct it if necessary, ensuring a proper installation of the adapters and shrouds. This will extend the life of the bucket and prevent incidents from occurring when the bucket is being operated. The StarMet Rope Shovel products present a mechanical locking system and allow the most common lip configurations to be equipped on the most common electric rope shovels **P&H* 4100, CAT* 7495HR, CAT* 7495 BI, CAT* 7495 BII, CAT* 7395 BI, CAT*7395 BII.**

INCREASE BUCKET PRODUCTIVITY AND WEAR LIFE

TOTAL AND OPTIMIZED PROTECTION FOR THE BUCKET





RANGE OF TEETH, ADAPTERS AND MECHANICAL SHROUDS



RS

RS Tooth



RSX

RSX Tooth



WH12

Whisler StarMet 12 adapter



M

"Slim" mechanical shroud for RS adapters



MX

"Heavy" mechanical shroud for RS adapters

RANGE OF SHROUDS



BC

Central shrouds

For bucket configurations on machines CAT* 7495 HR, CAT* 7495 BI/BII, CAT* 7395 BI/BII.



LR

Lower right wing shroud

For bucket configurations on machines CAT* 7495 HR, CAT* 7495 BI/BII, CAT* 7395 BI/BII.



LL

Lower left wing shroud

For bucket configurations on machines CAT* 7495 HR, CAT* 7495 BI/BII, CAT* 7395 BI/BII.



UR

Upper right wing shroud

For bucket configurations on machines CAT* 7495 HR, CAT* 7495 BI/BII, CAT* 7395 BI/BII.



UL

Upper left wing shroud

For bucket configurations on machines CAT* 7495 HR, CAT* 7495 BI/BII, CAT* 7395 BI/BII.



U

Upper wing shroud

For bucket configurations on machines CAT* 7495 HR, CAT* 7495 BI/BII, CAT* 7395 BI/BII, P&H* 4100 and P&H*2800.



C

Central shrouds

For bucket configurations on machines P&H* 4100 and P&H*2800.



LR

Lower right wing shroud

For bucket configurations on machines P&H* 4100 and P&H*2800.



LL

Lower left wing shroud

For bucket configurations on machines P&H* 4100 and P&H*2800.



U

Upper wing shroud

Top shroud for bucket configurations P&H*2800.

ACCESSORIES



PR

Tooth locking system (pin + retainer)



R

Tooth retention system



Extraction Tool



CL

Conventional C-clamp adapter



W1

Conventional wedge adapter



W2

Reinforced conventional wedge adapter



IW

3 part inverted wedge

TESTIMONIALS

Maximum productivity for electric rope shovels



Machine: BUCYRUS* 495 BII
Terrain: Copper mine with medium-high level of impact and a high level of abrasion.
Location: Gällivare, Sweden.



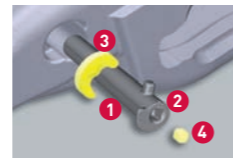
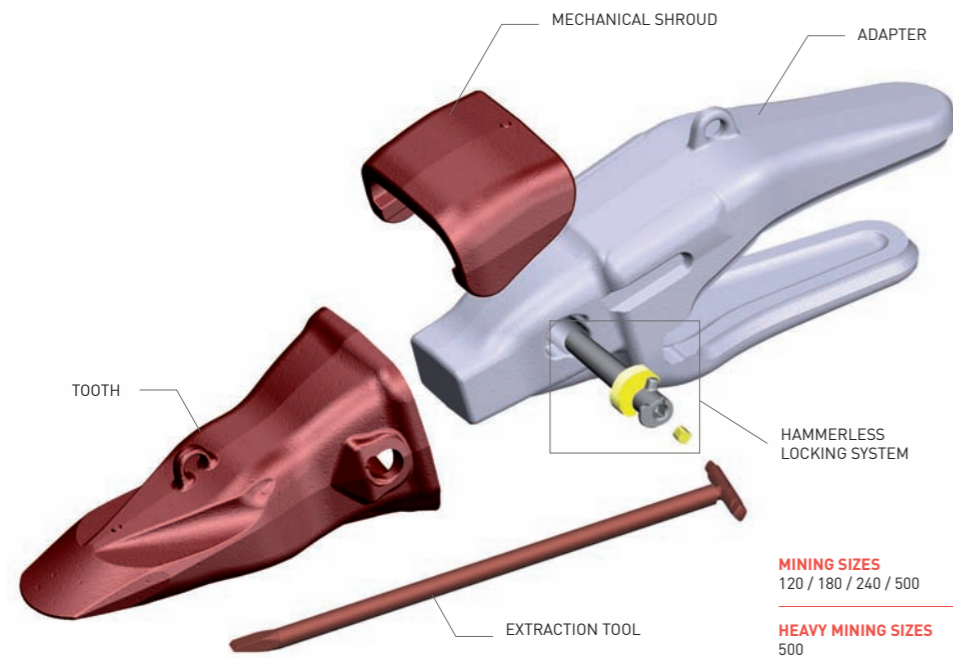
Results: Optimum operation during the test period. **





MTG SYSTEMS STARMET

Hammerless tooth-adapter system for mining that offers optimized, robust and resistant designs for excavators and loaders.



LATERAL LOCKING SYSTEM

1. Hammerless conical pin for an easier extraction.
2. Standard shaped square hole.
3. MTGtwist retainer made of Elastomet and polyurethane.
4. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.

Increased Safety

MTG Systems StarMet includes the MTGtwist adapter locking solution, which provides:

- Safety. There is no chance of accidents being caused by flying metal particles.
- Comfort. Less effort is required when replacing teeth as compared to when a hammer is used.
- Ease of use. Only one operator is needed to replace the tooth.
- Greater safety in the locking device. Tested system that offers an excellent retention and prevents tooth loss. MTGtwist hammerless locking system

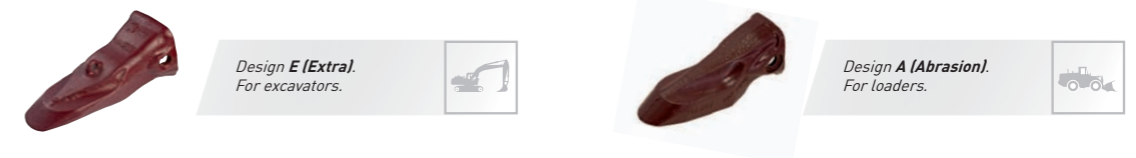
Longer wear life

- Teeth. Optimized design with better penetration, self-sharpening and higher ratio of wear material.
- Adapters. Designed to protect the weld and the legs from the lower and lateral wear and tear, increasing the wear life of the adapter.
- Fitting systems. Designed to provide an optimal distribution of the forces, thus obtaining the maximum resistance and robustness.
- Locking system. Reuse of the pin. In normal working conditions, the pin can be reused at least twice.

Greater savings and productivity

- Teeth. The penetrating design of the tooth increases the machine's productivity.
- Adapters. The optimized design and its long wear life reduces the amount and length of stops, generating savings in maintenance downtimes.
- MTGtwist locking system. The MTGtwist hammerless locking solution facilitates the assembly and disassembly, reducing your machine's downtime.
- Wear parts manufactured using MTG Steels. They last longer and break less.

The MTG Systems StarMet system offers optimum tooth designs for excavators and loaders depending on the type of application.



NEW MTG SYSTEMS STARMET CAST CORNER ADAPTER

New MTG Systems StarMet Cast Corner adapter for Heavy Duty applications. Initially available in sizes 240 and 500, offering:

- Reinforcement in the top area to reduce the critical points of force concentration in the welding area. Increased bucket resistance and wear life.
- Extra wear material in the outer area that increases the bucket side protection.
- It has been **satisfactorily tested in diamond mines and gold mines in working conditions** with a high degree of abrasion and impact.



NEW MTG SYSTEMS STARMET WEAR BOTTOM LEG SHROUD























Wear bottom leg shroud, especially designed to extend the wear life of the adapter in abrasive applications. Available in StarMet adapter sizes 120, 180 and 500 (240 in development) and provides the following features:

- **Protects** the bottom leg of the adapter and its welded area.
- **Specific welding area** that allows easy and quick assembling with minimum heat damage to the adapter.
- **Reduces machinery downtimes** related to G.E.T.





RANGE OF TEETH, ADAPTERS AND SHROUDS

 E Extra	 EX Extra X	 U Universal	 P Penetration	 V Vector	 W Double vector
 CX Chisel	 I Impact	 A Abrasion	 AX Abrasion X	 D Delta	 H Heavy
 WN Weld-on nose	 WC Central	 WRD WLD Delta	 WC/M Central with mechanical shroud	 WRD/M WLD/M Delta with mechanical shroud	
 WS Lateral Straddle	 CC Lateral Cast Corner	 HD Wear bottom leg shroud	 M Mechanical shroud	 MS Mechanical shroud Straddle and Cast Corner	

ACCESSORIES

 MTGtwist locking system	 Extraction Tool
--	--

TESTIMONIALS

Improves adapter wear life



Machine: Excavator
Terrain: Gneissic granite. Hard rock with a medium level of abrasion.
Location: France.



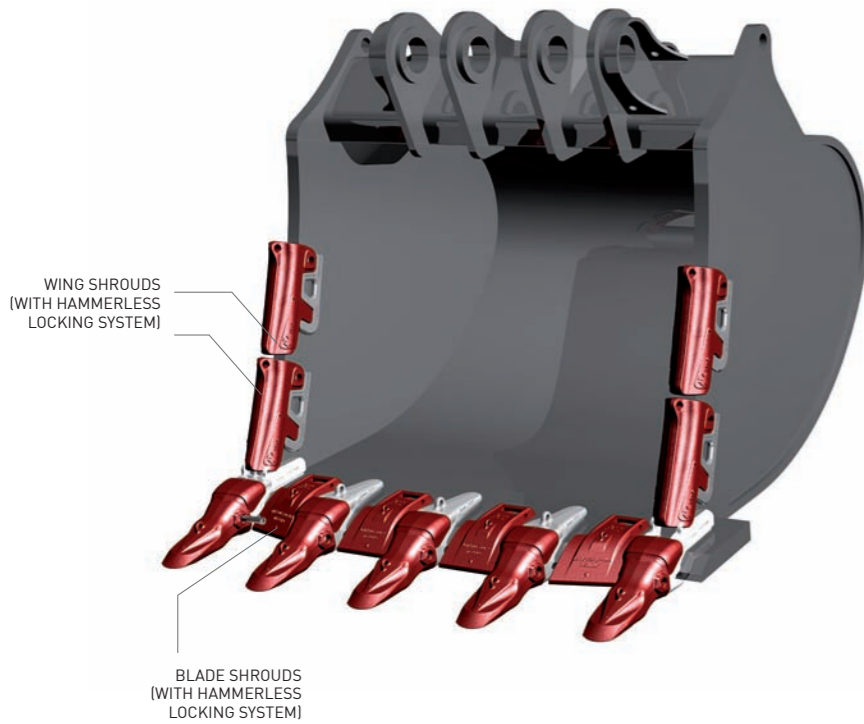
Results: The wear life of wear parts increased considerably and the new MTG Systems StarMet wear bottom leg shroud reduced the maintenance periods and the risk of accidents. **





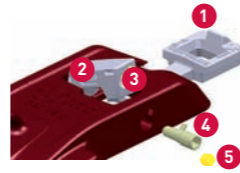
MTG SYSTEMS PROMET

Innovative hammerless locking system for complete bucket protection. Includes the new range of wing and blade shrouds.



PROMET LATERAL LOCKING SYSTEM

1. Wing shroud.
2. Weld-on base for stabilization (one on each side).
3. MTGtwist retainer made of Elastomet and polyurethane.
4. MTGtwist hammerless pin.
5. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.



PROMET BLADE LOCKING SYSTEM

1. Weld-on base (only one required.).
2. Mechanical locking block.
3. MTGtwist retainer made of Elastomet and polyurethane.
4. MTGtwist hammerless pin.
5. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.

MTG Systems ProMet offers shrouds for loader and excavator buckets and blades, offering:

- Safety: the fact that no hammer is required prevents accidents while assembling that may be caused by flying metal particles.
- Comfort: less effort is required than with traditional systems with a hammer.
- Easier and faster: changing the elements of the system can be completed much easier and more quickly.
- Excellent retention: the pin retention system always keeps the pin in its initial position, completely preventing losing the pins.

Wing shrouds

- The wing shrouds feature an extremely robust design which is ideal for heavy duty applications and especially resistant in very abrasive soils.
- With the new MTGtwist hammerless locking system, optimal locking is ensured on the most aggressive of applications while providing the highest possible operator safety.

Blade shrouds

- The design of the blade shrouds has been customized, for the purpose of offering up to 30% more wear material as compared to the equivalent model on the market.
- Reduces the exposure of the blade to impacts and abrasions, increasing the wear life of the bucket.
- The front of the shroud contains between 10% and 20 % more steel.
- The fitting system only requires welding a base for each shroud, thus making installation easy and quick while reducing machine downtimes.



Wing shrouds.
For heavy mining.



Blade shrouds.
For loaders.



Blade shrouds.
For excavators.



THE BEST PROTECTION SYSTEMS FOR BUCKETS

DESIGN RECOMMENDED FOR HEAVY DUTY APPLICATIONS

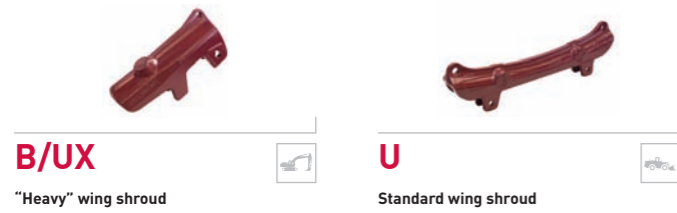




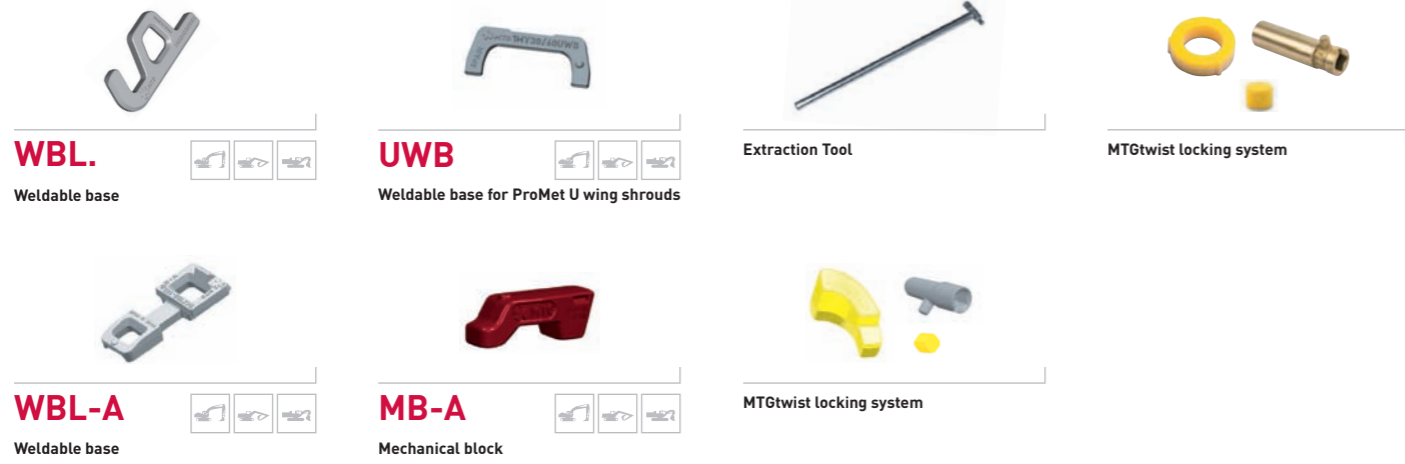
RANGE OF BLADE SHROUDS



RANGE OF WING SHROUDS



ACCESSORIES



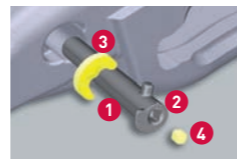
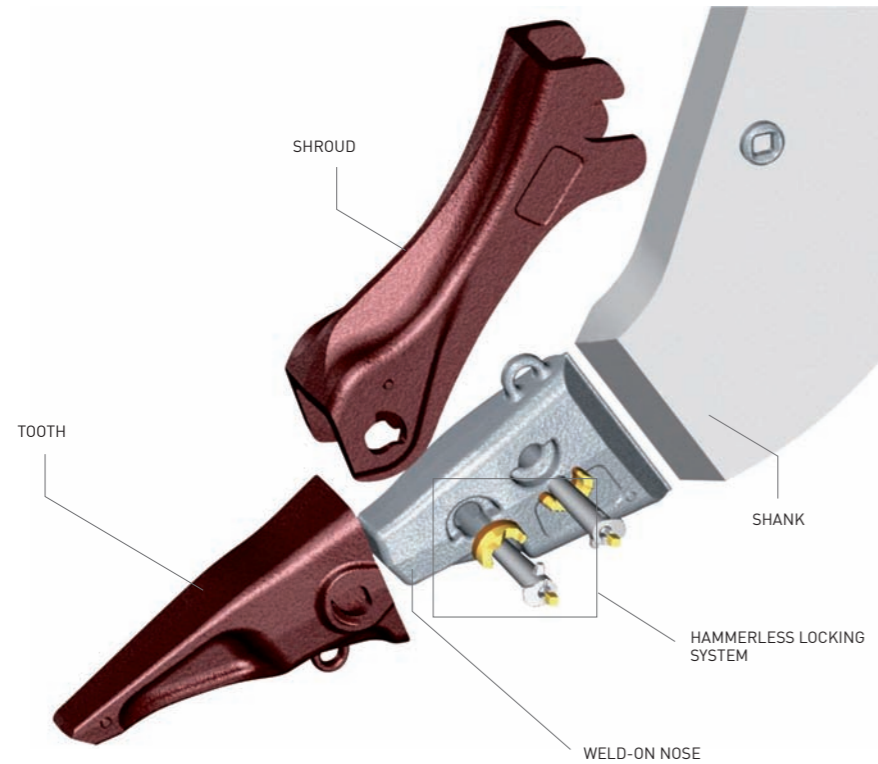
OTHER MECHANICAL SHROUDS





MTG SYSTEMS RIPMET

Patented MTG Systems RipMet wear parts for Bulldozers in the mining sector. Longer wear life and optimum penetration of the wear parts.



MTGtwist LOCKING SYSTEM FOR BULLDOZERS

1. Hammerless conical pin for an easier extraction.
2. Standard shaped square hole.
3. MTGtwist retainer made of Elastomet polyurethane.
4. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.

Greater wear life and optimal penetration. When other rippers on the market must be replaced, the RipMet teeth keep working with excellent penetration.

- The shorter shape of the adapter nose has had a positive effect on the performance of the adapter.
- The teeth have a higher percentage of wear material, which increases their wear life.
- The teeth's longer self-sharpening channel maintains the penetration until the end of their life.
- The shroud protects and optimizes the penetration of the arm durably, preventing the wear on the central nerve to the maximum.
- The components of the RipMet are fully integrated into the system, improving material flow and optimizing the penetration.

Excellent resistance on the toughest applications. The stability of the fitting system better distributes the forces when working, minimizing breakages even on the toughest applications.

- The stabilization surfaces of the fitting system guarantees improved distribution of forces while working and it keeps the tooth firmly in place. System minimizes breakages, even on the most extreme applications.
- The fitting system stops the impacts from being transmitted to the locking devices, preventing the pin from bending or breaking.

Safety and ease when changing teeth. MTG Systems RipMet wear parts incorporates the MTGtwist hammerless locking solution which offers the following advantages:

- When changing the teeth and the shroud. Safety: the fact that no hammer is required prevents accidents due to flying metal particles.
- Comfort: less effort is required than with traditional systems with a hammer.
- Easier and faster: changing the elements of the system can be completed much easier and more quickly.

When working: Excellent retention. The pin retention system ensures it always remains in its initial position.

EXCELLENT RESISTANCE IN THE TOUGHEST APPLICATIONS

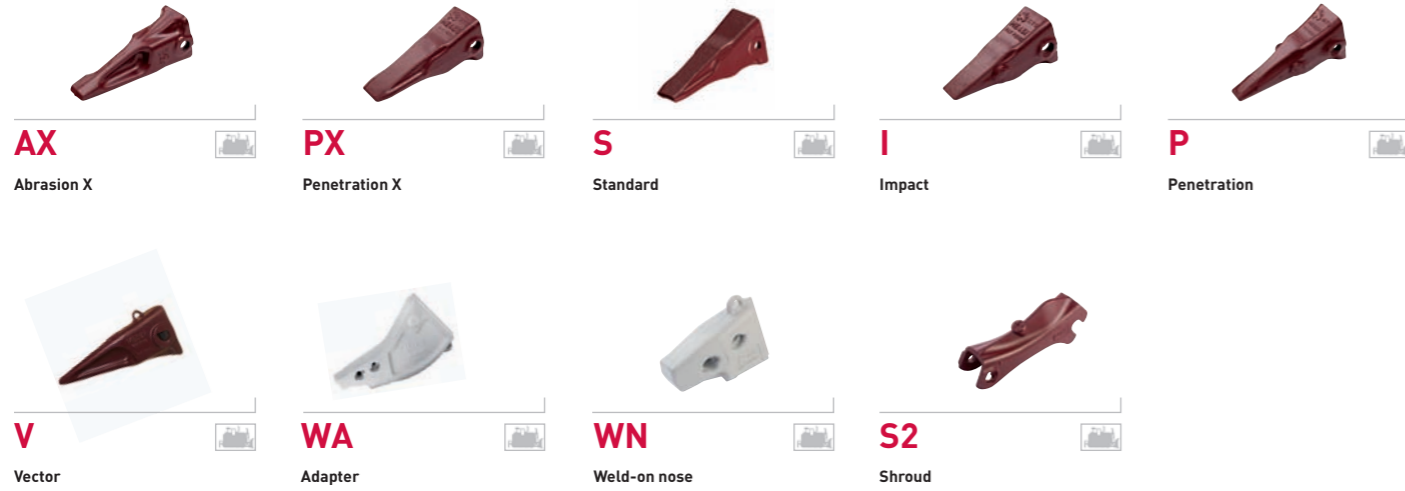


SAFETY AND EASE OF USE WHEN CHANGING TEETH





RANGE OF TEETH, ADAPTERS AND SHROUDS



ACCESSORIES



TESTIMONIALS

Improves penetration, retention and wear life of teeth



Machine: KOMATSU* 475.
Terrain: Silica gel.
 Ripper for Bulldozer.
Location: Spain.



Results: thanks to the hammerless locking system, we have reduced machine downtimes thus increasing machine efficiency. **





RANGE OF TEETH, ADAPTERS AND SHROUDS



ACCESSORIES





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Fax. (905) 673-8208

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Washago, ON P0E 1N0
Tel. (705) 345-4900
Fax. (705) 689-2710

151 Tansley Drive,
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Fax. (613) 831-7811

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