CATALOGUE

SEPTEMBER EDITION 2016

MTG

No limits innovation

INDEX

Presentation

About us 03
What we do 04
MTG's commitment to innovation 06
Where we are based 07

Mining

Objective 09
Machine models and systems 10
Electric Rope Shovels
MTG Systems StarMet Rope Shovels 12
Excavators + Loaders
MTG Systems StarMet 22
MTG Systems ProMet 24
Bulldozer
MTG Systems RipMet 30
Underground Mining Loaders
MTG Plus LHD Lip System 40

Construction

Objective 45
Machine models and systems 46
Excavators + Loaders
MTG Systems StarMet 48
MTG Systems ProMet 49
MTG Systems KingMet 54
MTG Plus 58

Dredging

Objective 65
Machine models and systems 66
Cutter Dredgers
MTG Systems DMet 68
MTG Systems StarMet 68
MTG Plus 73

About Us

"At MTG we are specialists, creating innovations in teeth, adapters, shrouds, and locking devices for earthmoving machinery"

At MTG we are specialists, creating innovations in teeth, adapters, shrouds, and locking devices for earthmoving machinery. That sentence, which seems so simple, perfectly explains what we have been doing for more than fifty years now and describes our vocation of European and international leadership.

MTG is a family company which guarantees professional and independent management. We want the Triginer family to be a means of transmitting stability and continuity to our customers.

Without limiting innovation. Our most resistant steels and our newest-generation products are the result of a decisive promotion of continued improvement and of the R&D and innovation process, with the aim of attaining a product and production technology which provides our users with greater productivity and performance and which, at the same time, improves our agility and flexibility in response to our customers' demands. New tools for communication, such as the website and the new iPad, make it more and more easy to work with us.

MTG is currently immersed in a phase in which communication—more agile with our customers and more direct with our markets—will also be directed towards the clear generation of brand value and towards attaining a clear pride of ownership in this great family, of which you, too, are undoubtedly an important part for the present and the future of our company.

Francisco Triginer
President of MTG

What we do

We design and manufacture wear parts protection systems used for guaranteeing the maximum productivity of earth-moving machinery

At MTG we design and manufacture protection systems for earth-moving machinery buckets to ensure our clients obtain the maximum productivity from their machines while ensuring maximum reliability and safety.

Quality and innovation are essential elements in the development of our products. We design them at our own laboratories using the most advanced tools, carrying out field tests to guarantee the maximum quality of our wear parts. This is certified by our accreditations such as ISO 9001.

In our commitment to develop innovative products and systems, we offer bucket protection systems for the following sectors:

Mining: protection systems for mining machinery such as rope shovels, hydraulic excavators and loaders.

Construction: a wide range of products for construction machinery such as excavators, loaders and bulldozers.

Dredging: state of the art wear technology for dredging machinery.

Also, at MTG we have a specialized division in offering solutions for OEMs and machinery manufacturers.

The foundation and values of MTG

Our products and services are based on our values which have confirmed us as a leading company with an international vocation.

Innovation & Development

Develop solutions, products and services to ensure the business success of our customers.

Excellence

Offer the maximum quality in our products and services.

Experience

Over 50 years of tradition and experience on our side.

Value creation

Improve the results and add value to all the processes.

Commitment and reliability

We are firmly committed to the people who work for us, offering them opportunities for development within a climate of responsibility and mutual respect.

Global outlook

Our open-minded approach to other cultures and opinions enables to us to make contacts and do business worldwide.

Market orientation, focus on service

To guarantee customer satisfaction as a base of contributions for attaining better results and proposing new concepts for problem solving.

Social Responsibility

Participate in the progress and development of our surrounding area with the maximum collaboration and transparency.

MTG's commitment to innovation

Innovation is our permanent challenge and our best strategy for the future

MTG
No limits innovation

Innovation in steels. The permanent commitment to innovation, the long tradition in the production of high quality steels, and the support of leading international experts, form the bedrock of MTG Steels.

These steels are specifically designed to withstand the highest levels of mechanical stress when operated. Our steels maximize the hardness/toughness combination due to their low level of impurities and structure which is developed using specific heat treatments.

They are medium carbon and low-alloy steels, made with the most advanced production techniques available for steel castings and the steel industry. We guarantee low levels of non-metallic inclusions and dissolved gases thanks to exhaustive composition checks and comprehensive refining processes in electric arc furnaces and AOD converters.

Innovation in our own fitting systems. Reliable and safe tooth-adapter systems are one of the greatest referents in the earth movement sector.

Innovation in specialized tooth designs. Optimum combination between penetration, self-sharpening and resistance in each of our designs. One design for each application and the best wear material optimization.

Innovation in production-process technology. Specialized processes equipped with the latest technology and with a large degree of flexibility in the production which guarantee highly accurate processes.

Prototype of MTG Systems TwinMet

Where we are based

Globalization and growth make MTG a company that is recognized the world over

Globalization and growth make MTG a company that is recognized the world over.

MTG has its central office and warehouse in Barcelona, as well as offices and a warehouse in Houston, a sales branch in Chile and a state-of-the-art production plant in Monzón (Spain).

MTG factory in Monzón, Huesca (Spain)

Monzon factory is completely equipped and ready to face the future growth challenges of the demanding sectors in which MTG is present: mining, construction and dredging.

Today our products and distribution network extend all over the world: Europe, the Middle East, North America, South America, Africa, Asia and Oceania.

MINING

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 life service 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 G.E.T. 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.

MACHINE MODELS AND SYSTEMS

ELECTRIC ROPE SHOVELS

MTG SYSTEMS STARMET ROPE SHOVELS

P&H* 2800

CAT*7395 (BE395)

P&H*4100
CAT*7495 (BE495)

EXCAVATORS

MTG SYSTEMS STARMET

MTG SYSTEMS PROMET

100 - 120 TON

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

170 - 200 TON

CAT*6015
CAT*6018
RH*90
EX*1900 - 6
PC*2000

280 - 350 TON

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

LOADERS

MTG SYSTEMS STARMET

MTG SYSTEMS PROMET

95 - 110 TON

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

130 - 145 TON

CAT*993
LT* -1150

180 - 220 TON

CAT*994
WA*1200
LT* - 1350

240 - 250 TON

LT* - 1850
LT* - 2350

MTG SYSTEMS

BULLDOZERS

MTG SYSTEMS RIPMET

SIZE 45

CATERPILLAR*
D8T

KOMATSU*
D155AX - 5B

SIZE 50

CATERPILLAR*
D10R

KOMATSU*
D375A - 5

SIZE 55

CATERPILLAR*
D11N

KOMATSU*
D475A - 5

UNDERGROUND MINING LOADERS

MTG PLUS LHD LIP SYSTEM

LHD LOADERS

CATERPILLAR*
R1300, R1600, R1700

SANDVIK*
LH307 AND LH410

JOY GLOBAL*
LT1050

ATLAS COPCO*
ST10, ST14, ST1510

NOTE: Examples of the most common machines.

ELECTRIC ROPE SHOVELS

Complete protection of electric rope shovels buckets. Wide range of wear parts to equip the most widely used lip fitting configurations for electric rope shovels.

Machine models

P&H* 2800
(WH10)

CAT*7395 HR/BI/BII
BE395
(WH12)

P&H* 4100
(WH10, WH12)

CAT* 7495 HR/BI/BII
BE495
(WH12)

BUCKET CONFIGURATIONS

Bucket configurations for Caterpillar* electric rope shovels

The available configurations for CAT* machinery are:

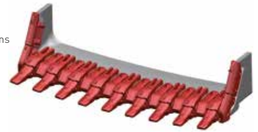
CAT*7395 BI

Machine configurations
for CAT*7395 BI/BII

CAT*7495 HR

CAT*7495 BI

Machine configurations
for CAT*7495 BI/BII



Bucket configurations for P&H* 4100 electric rope shovels

The available configuration for P&H*4100 machine is:

P&H* 4100

Bucket configurations for P&H* 2800 electric rope shovels

The available configuration for P&H*2800 machine is:

P&H* 2800

NOTE: configurations shown as a guide. Contact us if you want to get the best MTG Systems StarMet Rope Shovels configuration for your bucket.

ADVANTAGES OF THE SYSTEM

MTG SYSTEMS STARMET ROPE SHOVELS.

MTG is expanding the StarMet range by adding the Whisler* (sizes 10 and 12) adapters and shrouds for electric rope shovels. It also offers specifically designed teeth for this type of mining machinery. Teeth and adapters with conventional mechanical shrouds that offer a complete and optimized protection for the bucket. Wear parts for heavy machines provide:

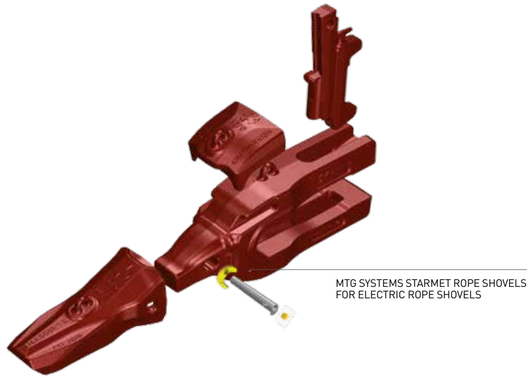
- **Tooth-adapter.** Electric shovel tooth-adapter have been designed with the StarMet tooth-and-adapter fitting system and a conventional two or three-part lip locking system. MTG is currently developing a hammerless locking system for these adapters. This will not require a modification of the bucket lip in order to install the hammerless locking system on the MTG adapter.

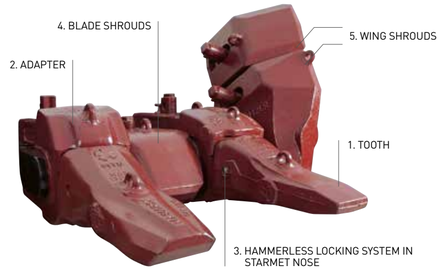
- **Mechanical shrouds (wear cap).** The adapter allows the use of wear caps where necessary. Two wear cap designs are available, depending on the soil abrasion level and type of application.

- **Teeth.** MTG Systems StarMet incorporates the MTGtwist hammerless locking solution, which makes attaching and removing teeth reliable, easier to use, fast and safe. More robust teeth with more wear material that increase bucket productivity for electric rope shovels.

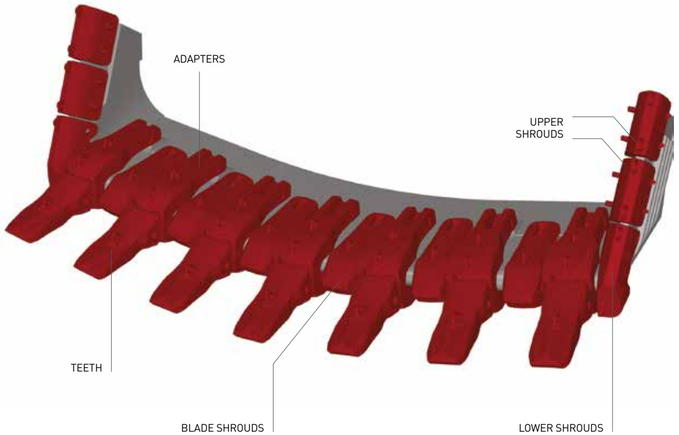
- **Shrouds.** The wing and blade shrouds, in combination with a conventional mechanical locking system, offer full bucket protection. The robust design extends the working life of the bucket and its productivity.

- **Templates.** Required for checking the condition of the lip and reconstruct if it's necessary. Ensure a proper installation of the adapters and shrouds, extending the life of the bucket and preventing incidences from occurring when the bucket is being operated.





EXPANSION OF THE RANGE FOR ELECTRIC ROPE SHOVELS BUCKET CONFIGURATIONS- P&H*2800



TEETH DESIGN FOR MTG SYSTEMS STARMET ROPE SHOVELS

TOOTH RS

TOOTH RSS

TOOTH RSX

TOOTH RSXX

NEW TOOTH EXX

MTG SYSTEMS STARMET ROPE SHOVELS APPLICATIONS IN HIGH LEVEL OF ABRASION

Results: optimum operation during the test period. **

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

RANGE OF TEETH AND ADAPTERS

RS
RS Tooth
For electric Rope Shovels in hard applications with a very good relationship between resistance, penetration and duration.

RSS
RSS Tooth
For electric Rope Shovels in hard applications with a very good resistance, penetration and duration ratio.

RSX
RSX Tooth
For electric Rope Shovels in very hard and abrasive applications with a very good relationship between resistance, penetration and duration.

RSXX
RSXX Tooth
For electric Rope Shovels in applications with an extreme abrasion level and very high impact.

NEW

EXX
EXX Tooth
For electric Rope Shovels; especially recommended for iron ore applications.

WH10
Whisler* StarMet 10 adapter
2 types available based on the angle of the adapter nose (WH10-0 for Heavy Duty adapters 500 size with nose at 0º).

WH12
Whisler* StarMet 12 adapter
2 types available based on the angle of the adapter nose (WH12-5 for adapters with nose at 5º and WH12-0 for adapters with nose at 0º).

WEAR CAP SHROUDS FOR ADAPTERS

M
"Slim" wear cap shroud for RS adapter
Protects the top of the adapter on high-abrasion and high-impact applications.

MX
"Heavy" wear cap shroud for RS adapter
Extra-reinforced wear cap shroud that protects the top area of the tooth-adapter from wear in extremely abrasive applications with a very high impact.

RANGE OF SHROUDS

LR

Wing shroud right

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

LL

Wing shroud left

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

UR

Wing shroud upper right

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

UL

Wing shroud upper left

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

U

Wing shroud upper

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

C

Central shroud

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

Bucket equipped with MTG Systems StarMet Rope Shovels (Sweden).

EXCAVATORS

Complete bucket protection for excavators

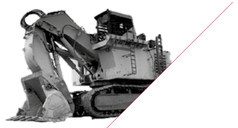
MTG Systems StarMet teeth and adapters and MTG Systems ProMet shrouds that offer a complete hammerless protection for buckets for a wide range of mining machinery.

LOADERS

Complete bucket protection for loaders

MTG Systems StarMet and MTG Systems ProMet product range specifically designed to protect loading machinery; specific designs on shrouds, exclusive teeth for maximizing the mineral load, etc.

Examples of excavators



100 - 120 TON

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

170 - 200 TON

CAT*6015
CAT*6018
RH*90
EX*1900 - 6
PC*2000

280 - 300 TON

CAT*6030
RH*120
EX*2600 - 6

Examples of loaders

95 - 110 TON

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

130 - 145 TON

CAT*993
LT* - 1150

180 - 220 TON

CAT*994
WA*1200
LT* - 1350

240 - 250 TON

LT* - 1850
LT* - 2350

EXCAVATOR / LOADER SYSTEMS

MTG SYSTEMS STARMET

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

MTG SYSTEMS PROMET

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

ADVANTAGES OF THE SYSTEM

MTG SYSTEMS STARMET. INCREASED SAFETY, LONGER SERVICE LIFE, GREATER SAVINGS AND HIGHER PRODUCTIVITY.

Increased safety

MTG Systems StarMet includes the MTGtwist tooth-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.** Only one operator is needed to replace the tooth.
- **Greater safety in the locking.** Tested system that offers an excellent retention and prevents tooth loss.

Longer wear life

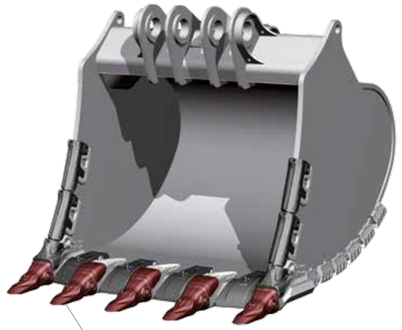
- **Teeth.** Optimized design with better penetration, self-sharpening and higher ratio of wear material.
- **Adapters.** Designed to protect the weld and the legs from the lower and lateral wear and tear, increasing the wear life of the adapter.
- **Fitting System.** Designed to provide an optimal distribution 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.

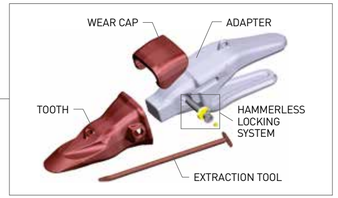
Greater savings and higher productivity

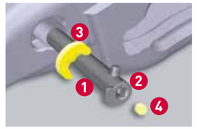
- **Teeth.** The penetrating design of the tooth increases the machine's productivity.
- **Adapter.** The optimized design and its long wear life reduces the amount and length of stops, generating savings in maintenance downtimes.
- **MTGtwist locking system.** The MTGtwist hammerless locking solution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

MINING SIZES
120 / 180 / 240 / 500

HEAVY MINING SIZES
500







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.

MTG SYSTEMS STARMET. COMPLETE PRODUCT RANGE FOR MULTIPLE APPLICATIONS AND TYPES OF MACHINES.

Design WL.
Asymmetrical Cast Corner.

New MTG Systems StarMet Asymmetrical Cast Corner adapters specially designed to withstand the toughest working conditions. Available in sizes 240 and 500. With the launching of this product MTG completes its range of StarMet side adapters for working in all types of applications.

Locking system for
Hot Slag.

Metallic locking system for hot slag applications. Fully compatible with current StarMet teeth and adapters. Convenient pin and retainer conversion system, no need to change adapters.

Design HD.
Reinforced wear bottom leg.

New Reinforced Wear Bottom Leg Shroud, especially designed to extend the service life of the adapter in abrasive applications. Available in StarMet adapter sizes 120, 180, 240 and 500.

Design E.
For excavators.

Design A.
For loaders.

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

ADVANTAGES OF THE SYSTEM

PROMET

MTG SYSTEMS PROMET. MAXIMUM PROTECTION FOR THE BUCKET.

MTG Systems ProMet offers lateral shrouds for loaders and excavators.

Lateral shrouds

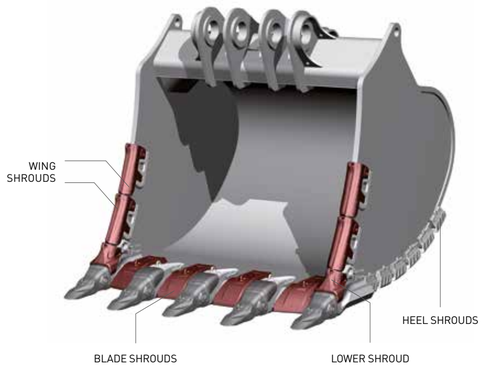
The top wing shrouds have been specifically redesigned for extreme and high impact applications. More stylized shrouds with improved distribution of the wear material and the contact surfaces, reducing plastic deformation.

The new design reduces stress in critical areas, greatly increasing resistance and the lifetime of the adapter.

- Safety: with the MTGtwist hammerless locking system an optimal locking is ensured on the most aggresive applications , preventing accidents while assembling and disassembling.
- 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. Optimal locking ensured on the most aggressive applications.

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 useful 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.



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. Only one weldable base 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. COMPLETE RANGE OF SHROUDS FOR MINING MACHINERY.

Wing shrouds for Heavy Mining applications specially designed for excavators and loaders.

Wing shrouds for Heavy Mining applications.

Blade shrouds for loaders.

Blade shrouds for excavators.

RANGE OF TEETH, ADAPTERS AND SHROUDS

E

Extra

For excavators in highly abrasive applications which require good penetration. E1: for mining (sizes 120 to 500).

EX

Extra X

For excavators on loose terrain and extremely abrasive pre-split stone quarries which require a good penetration.
Impact: medium-high.

NEW

EXX

Extra XX

For 250-350Tn hydraulic excavators, and especially recommended for high abrasion applications and designed for iron ore applications.

U

Universal

For excavators on loose terrain with little abrasion and multiple applications. Specific for trenching and finishing.
Impact: medium-low.

P

Penetration

For excavators in compact soil that produce a lot of abrasion and impact and which require a high level of penetration.

V

Vector

For excavators on very compact terrain.
Abrasion: low.
Impact: high.

W

Double Vector

For excavators on extremely compact terrain.
Abrasion: low.
Impact: high.

CX

Chisel

Tooth for excavating in low impact applications, which improves the duration to penetration ratio.

I

Impact

For excavators and loaders on low-abrasion terrain with a high level of impact. Especially indicated for quarries and applications with large blocks of stone.

A

Abrasion

For loaders on loose terrain and pre-exploded stone quarries where there is a high level of abrasion and a good penetration is required.
Impact level: medium-low.

AX

Abrasion X

For loaders on applications with an extreme level of abrasion.

D

Delta

For loaders on compact terrain which require a lot of penetration and high level of protection from abrasion.

H

Heavy

For loaders on loose terrain where there is a high level of abrasion. Facilitates loading the material due to the width of the tooth.

RANGE OF TEETH, ADAPTERS AND SHROUDS

WN

Weld-on nose

For repairing or converting any adapter to the MTG Systems StarMet.

WC

Central

Weld-on tooth-adapter for excavators and loaders in applications requiring a high resistance to impact, improving blade fastening and providing excellent penetration of the bucket.

WRD
WLD

Delta

Right-left delta weld-on tooth-adapter for excavators and loaders with delta blade.

WC/M

Central with mechanical shroud

Weld-on tooth-adapter with mechanical shroud for excavators and loaders on applications which require a high resistance to abrasion and impact.

WRD/M
WLD/M

Delta with mechanical wear cap

Weld-on delta wear cap for excavators and loaders with delta blade.

WS

Lateral Straddle

Can be welded to blade ends of excavators and loaders without having to cut the side of the bucket. For standard applications with normal levels of abrasion and impact.

NEW

WR

Asymmetrical welded right adapter

For the right corner of excavator buckets, protecting them from abrasion and impact, lending greater rigidity.

NEW

WL

Asymmetrical welded left adapter

For the left corner of excavator buckets, protecting them from abrasion and impact, lending greater rigidity.

HD

Reinforced wear bottom leg

Weld-on shroud that reinforces the bottom blade of the adapter for high-abrasion and high-impact applications.

NEW

ML

Lower shroud

Protects the lower side of the bucket on high-abrasion and high-impact applications.

M

Mechanical shroud

Protects the top of the adapter on high-abrasion and high-impact applications.

MS

Mechanical shroud Straddle and Cast Corner

Protects the top of the adapter on high-abrasion and high-impact applications.

RANGE OF BLADE SHROUDS

C

Central blade shroud

Protects the bucket blade in excavators and loaders.

L

Left Delta

Protects the left wing of the bucket in excavators and loaders.

R

Right Delta

Protects the right wing of the bucket in excavators and loaders.

RANGE OF WING SHROUDS

NEW

UX

"Heavy" wing shroud

Mechanical shroud for excavators in heavy mining applications.

U

Standard wing shroud

Mechanical shroud for mining loaders.

OTHER MECHANICAL SHROUDS

BCX

Central blade Shroud

Bolt-on half arrow center blade shroud for Caterpillar* loaders used for abrasive applications.

RDX

Right blade shroud

Bolt-on half arrow right blade shroud for Caterpillar* loaders used for abrasive applications.

LDX

Left blade shroud

Bolt-on half arrow left blade shroud for Caterpillar* loaders used for abrasive applications.

Full bucket solution in Scotland.

BULLDOZER

Patented MTG Systems RipMet wear parts for Bulldozers.
Longer service life with an optimum penetration at quarries and during mining work.

Machine models

SIZE 45	SIZE 50	SIZE 55
CATERPILLAR* D8T	**CATERPILLAR*** D10R	**CATERPILLAR*** D11N
KOMATSU* D155AX - 5B	**KOMATSU*** D375A - 5	**KOMATSU*** D475A - 5

NOTE: size 45 is specific for Construction.

ADVANTAGES OF THE SYSTEM — RIPMET

MTG SYSTEMS RIPMET. HAMMERLESS SYSTEM.

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.

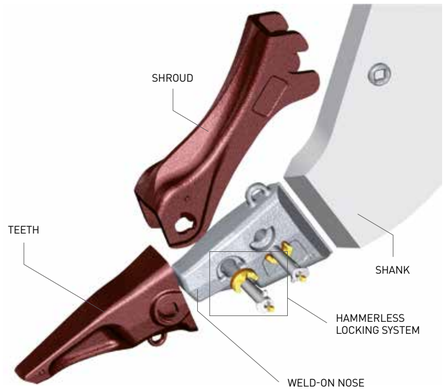
Excellent resistance on the toughest applications. The stability of the fitting system better distributes the forces when working, minimizing breakages even on the toughest applications.

- 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:

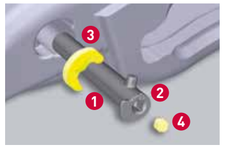
- When changing the teeth and the shroud: Safety: the fact that no hammer is required prevents accidents due to flying metal particles.
- Comfort: less effort is required than with traditional systems with a hammer.
- Easier and faster: changing the elements of the system can be completed much easier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

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



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.



RANGE OF TEETH

AX

Abrasion X
Abrasion: high. Impact: medium or low.

PX

Penetration X
Abrasion: medium. Impact: medium-high.

S

Standard
Abrasion: medium. Impact: medium.

I

Impact
Abrasion: low. Impact: high.

P

Penetration
Abrasion: medium. Impact: medium.

V

Vector
Recommended for ripper excavator.

RANGE OF ADAPTERS AND SHROUDS

WA

Adapter

WN

Weld-on nose

S2

Shroud

Specific bulldozer solutions in Spain.

MTG SYSTEMS STARMET TEETH IN HIGH-IMPACT APPLICATIONS

Results: MTG Systems StarMet teeth provide a set that is easier and safer to replace. Increase the service life by 41% and reduce teeth replacement costs by 50%. **

Machine: HITACHI* EX3600.
System: MTG Systems StarMet.
Terrain: Gold mine in Australia.
Hard rock with a medium level of abrasion.
Location: Australia.

MTG SYSTEMS STARMET CAST CORNER ADAPTERS IN ABRASIVE APPLICATIONS

Results: increased GET wear life and penetration effectiveness. Significant reduction in machine downtimes. **

Machine: KOMATSU* PC3000.
System: MTG Systems StarMet.
Terrain: Compact and abrasive (granite or silicate rock).
Location: Arkhngelsk, Russia.

MTG SYSTEMS STARMET IN HIGH-IMPACT APPLICATIONS

Results: maximum efficiency and duration in high-impact applications. **

Machine: HITACHI* EX1900.
System: MTG Systems StarMet.
Terrain: Board. Low abrasion and high impact application.
Location: West Virginia.

G.E.T. SOLUTIONS FOR HIGHLY ABRASIVE APPLICATIONS

Results: choosing MTG for such a delicate job is a guarantee that we won't have any problems, as we've never had them before. **

Machine: KOMATSU* PC 3000.
System: MTG Systems StarMet and MTG Systems ProMet.
Terrain: Boulder clay, limestone and shile.
Impact level: high. Abrasion level: high.
Location: Scotland.

MTG SYSTEMS PROMET

MTG SYSTEMS PROMET SHROUDS IN HIGH-IMPACT APPLICATIONS

Results: since using MTG's teeth, adapters and shrouds the wear life of their hydraulic excavators GET has improved substantially compared to previous systems. **

Machine: KOMATSU* PC 2000.
System: MTG Systems ProMet.
Terrain: Copper mine.
Abrasion level: high. Impact level: high.
Location: Mina Sossego, Brasil.

MTG SYSTEMS RIPMET

SPECIFIC MTG SYSTEMS RIPMET APPLICATIONS IN BULLDOZERS

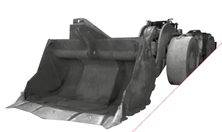
Results: thanks to the hammerless locking system, we have reduced machine downtimes thus increasing machine efficiency. **

Machine: KOMATSU* 475.
System: MTG Systems RipMet.
Terrain: Silica gel. Ripper for Bulldozer.
Location: Spain.

UNDERGROUND MINING

MTG LHD Lip System, bucket protection for underground mining.

Machine models



LHD LOADERS

CATERPILLAR*
R1300, R1600, R1700

SANDVIK*
LH307 AND LH410

JOY GLOBAL*
LT1050

ATLAS COPCO*
ST10, ST14, ST1510

NOTE: Examples of the most common machines.

UNDERGROUND LOADERS SYSTEMS

MTG PLUS
LHD LIP SYSTEM

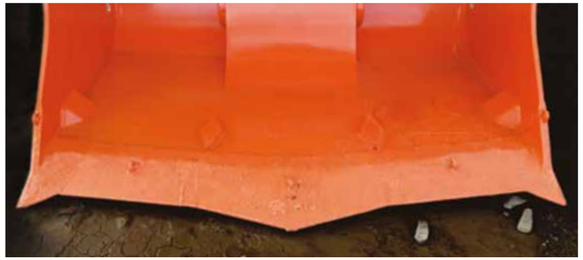
Welded lip shroud system for low-profile Underground Mining Load-Haul-Dump Loaders that maximize bucket penetration and machine productivity.

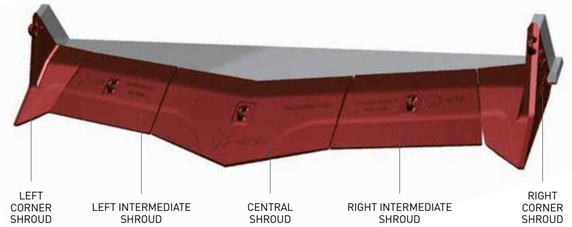
ADVANTAGES OF THE SYSTEM

PLUS LHD LIP SYSTEM

MTG PLUS LHD LIP SYSTEM.

- **Streamlined design that optimizes bucket penetration and reliability.** The new "Ultra slim" streamlined design has been specifically optimized for LHD loaders, maximizing penetration in underground mines and avoiding the accumulation of materials typical to other wide designs.
- Manufactured in Europe, **the LHD Lip system is produced with the new steel alloy**, MET73W, developed to the stricted quality controls (including AOD process control) to maximize the hardness and protection of the bucket without loosing the weldability of steel.
- **Self-sharpening of the shroud that increases wear life.** The design of the weldable LHD blade shrouds has been specifically optimized to stay sharp throughout the progressive loss of wear material, maintaining penetration capacity for longer.
- **Reduction of fuel and tire consumption.** The "ultra slim" shroud design considerably increases bucket penetration, reducing fuel consumption and tire wear.





MTG PLUS LHD LIP SYSTEM IN COPPER MINE

Results: MTG's LHD Lip system lasts longer, increasing productivity and reducing machine's downtime. **

Machine: ATLAS* ST14.
System: MTG Plus LHD System.
Terrain: Underground copper mine.
Location: Aljustrel, Portugal.

RANGE OF WELDABLE SHROUDS

LHD RC
Weld-on LHD central right shroud

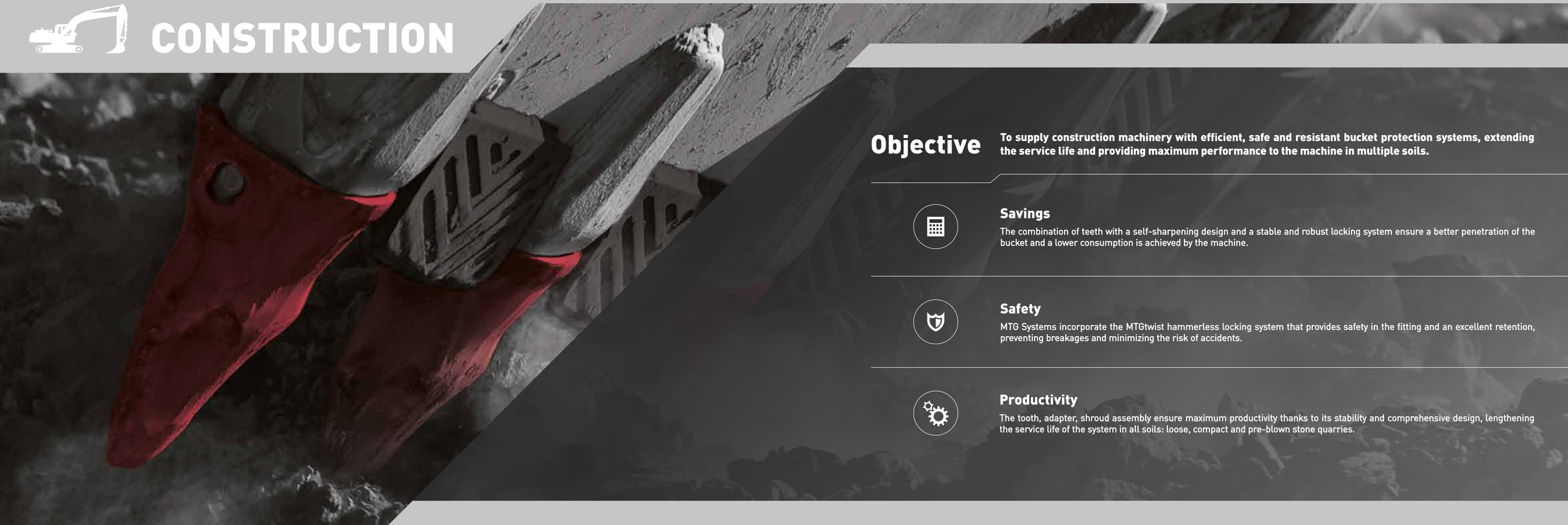
LHD R
Weld-on LHD right shroud

LHD LC
Weld-on LHD central left shroud

LHD L
Weld-on LHD left shroud

LHD C
Weld-on LHD central shroud

CONSTRUCTION



Objective

To supply construction machinery with efficient, safe and resistant bucket protection systems, extending the service life and providing maximum performance to the machine in multiple soils.

Savings

The combination of teeth with a self-sharpening design and a stable and robust locking system ensure a better penetration of the bucket and a lower consumption is achieved by the machine.

Safety

MTG Systems incorporate the MTGtwist hammerless locking system that provides safety in the fitting and an excellent retention, preventing breakages and minimizing the risk of accidents.

Productivity

The tooth, adapter, shroud assembly ensure maximum productivity thanks to its stability and comprehensive design, lengthening the service life of the system in all soils: loose, compact and pre-blown stone quarries.

EXCAVATORS

12 - 20 TON	21 - 40 TON	41 - 90 TON	
312E L 314E L CR 318E L	320E L/N 329E L/LN 336F L/LN	349E L 374F L 390F L	CAT*
PC138USLC - 10 PC170LC - 10	PC210LC - 10 PC290LC - 10 PC390LC - 10	PC390LC - 11 PC490LC - 10 MH PC800LC - 8 HM	KOMATSU*
ZX130LNC-5 ZX160LC - 5 ZX180LC - 5	ZX210LC-5 ZX290LC-5 ZX380LC - 6	ZX470LC - 5 ZX670LC - 5 ZX870LC - 5	HITACHI*

LOADERS

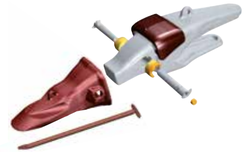
30 - 35 TON	45 - 55 TON	75 - 85 TON
CAT*980	CAT*988 WA*600	CAT*990

SYSTEMS FOR CONSTRUCTION

MTG SYSTEMS STARMET

Innovative tooth-adapter hammerless locking system for construction, quarries, which provide maximum protection for excavator/loader buckets.

Sector	Sizes
Construction	15, 20, 30, 40
Heavy Construction	50, 60



MTG SYSTEMS PROMET

Innovative hammerless locking system for bucket protection. Includes the new range of wing and blade shrouds for buckets in excavators and loaders.

MTG SYSTEMS KINGMET

MTG system for light and medium construction.

Sector	Sizes
Light Construction	5, 8, 10
Medium Construction	15, 20, 30, 40
Heavy Construction	55, 65, 80

MTG SYSTEMS STARMET

ADVANTAGES OF THE SYSTEM STARMET

MTG SYSTEMS STARMET. PROVIDES A LONGER SERVICE LIFE, SAVINGS AND GREATER PRODUCTIVITY.

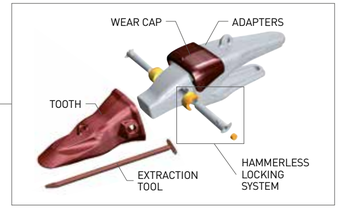
- **Quick, easy and safe replacement of the teeth.** Less machine downtimes and greater safety for the operator. There is no chance of accidents being caused by flying metal particles.
- **The hammerless MTGtwist locking system offers an excellent retention,** preventing the loss of its teeth. Since it is housed in the adapter, the pin is completely protected from wear and impacts thus enhancing the longevity of the locking system. With MTG Systems StarMet teeth sizes* 20 to 60, the locking system allows the pin and the retainer to be mounted on either side of the adapter (only one pin and one retainer are required per kit).
- **Designs that offer improved penetration,** with self-sharpening and more wear material that allows increasing the productivity of the machine.

ADAPTERS:

- **Designs that protect the bucket's welds,** as well as the side and blade wear of the bucket, thus extending the service life of the adapter.
- **Optimized designs reduce the number and length of stoppages** generating savings in maintenance downtimes due to its longer wear life.

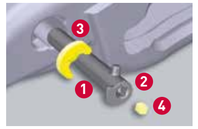
***SIZES**

20 / 30 / 40 / 50 / 60



MTG Systems StarMet includes a metal locking system for **hot slag applications.**

- Exclusive design of the pin and the metal retainer.
- Entirely compatible with MTG Systems StarMet teeth and adapters.
- Does not require replacing the tooth or adapter.



BILATERAL LOCKING SYSTEM

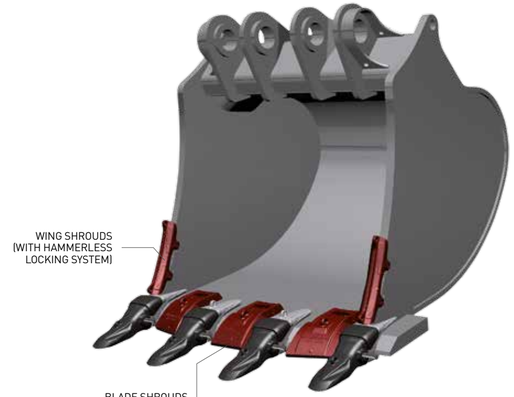
1. Hammerless conical pin for an easier extraction.
2. Standard shaped square hole.
3. MTGtwist retainer made of Elastomet and polyurethane.
4. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.

MTG SYSTEMS PROMET

ADVANTAGES OF THE SYSTEM PROMET

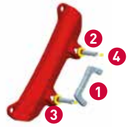
MTG SYSTEMS PROMET. COMPLETE PROTECTION FOR THE BUCKET.

- **Offers a wide range of reversible wing shrouds,** which allow exchanging its position in order to achieve a complete wear of the part, and extends its service life.
- **Protects the sides of the bucket** from exposure to impacts and abrasions, increasing the bucket's life.
- **Complete range,** for wing thicknesses between 30 and 60mm.
- **MTGtwist** hammerless system.
- **Wear material ratio** above **70%.**
- **Its sharpness and lightness increase penetration** of the bucket, thus improving machine productivity.



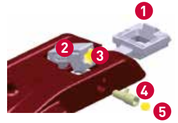
PROMET LATERAL LOCKING SYSTEM

1. Weldable bases.
2. MTGtwist hammerless pin.
3. MTGtwist retainer made of Elastomet and polyurethane.
4. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.



PROMET BLADE LOCKING SYSTEM

1. Only one weldable base 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.



RANGE OF TEETH, ADAPTERS AND SHROUDS

E

Extra

For excavators in highly abrasive applications which require good penetration.
E for construction (sizes 15 to 60).

EX

Extra X

Extra X. For excavators on loose terrain and extremely abrasive pre-split stone quarries which require a good penetration.
Impact: medium-high.

U

Universal

For excavators on loose terrain with little abrasion and multiple applications. Specific for trenching and finishing.
Impact: medium-low.

P

Penetration

For excavators in compact soil that produce a lot of abrasion and impact and which require a high level of penetration.

F

Flared

For excavators on leveling, trenching, and cleaning jobs, very useful in building foundations.
Abrasion: low.
Impact: medium

V

Vector

For excavators on very compact terrain.
Abrasion: medium.
Impact: medium.

VC

Vector Coal

For excavators on very compact terrain. Design with high penetration and self-sharpening.

W

Double Vector

For excavators on extremely compact terrain.
Abrasion: low.
Impact: high.

I

Impact

For excavators and loaders on low-abrasion terrain with a high level of impact. Especially indicated for quarries and applications with large blocks of stone.

A

Abrasion

For loaders on particularly abrasive loose terrain and pre-exploded stone quarries where a high penetration is required.
Impact level: medium-low.

AX

Abrasion X

For loaders on applications with an extreme level of abrasion.

L

Long

For loaders on loose terrain or pre-split stone quarries where there is not a high level of abrasion. For cleaning jobs, we recommend mounting it with an FC (Flush Central) adapter.
Impact level: medium-low.

D

Delta

For loaders on compact terrain which require a lot of penetration and high level of protection from abrasion.

H

Heavy

For loaders on loose terrain where there is a high level of abrasion. Facilitates loading the material due to the width of the tooth.

RANGE OF TEETH, ADAPTERS AND SHROUDS

FC

Welded Flush Central

For loaders on cleaning jobs where the terrain surface must be left flat.

WN

Weld-on nose

For repairing or converting any adapter to the MTG Systems StarMet.

UC

Universal Central

For mini-excavators and mixed machines in applications requiring a low level of impact.

WC

Central

Weld-on tooth-adapter for excavators and loaders in applications requiring a high resistance to impact, improving blade fastening and providing excellent penetration of the bucket.

WRD WLD

Delta

Right-left delta weld-on tooth-adapter for excavators and loaders with delta blade.

WC/M

Central with mechanical shroud

Weld-on tooth-adapter with mechanical shroud for excavators and loaders in applications requiring a high resistance to abrasion and impact.

WRD/M WLD/M

Delta with mechanical wear cap

Weld-on delta wear cap for excavators and loaders with delta blade.

HD

Reinforced wear bottom leg

Weld-on shroud that reinforces the bottom blade of the adapter for high-abrasion and high-impact applications.

M

Mechanical Shroud

Protects the top of the adapter on high-abrasion and high-impact applications.

RANGE OF SHROUDS

U

New wing shroud

For excavators and loaders with 30-60mm wings. For abrasive applications with a medium high impact level.

LA

Lateral Asymmetrical

For excavators and loaders. The LA design allows for a greater increase in bucket capacity. For 30–50 mm and 60–80 mm wings.

LS

Lateral Symmetrical

For excavators and loaders. The LS design offers excellent impact resistance.

OTHER SHROUDS

BC-A/BCX-A/ BLD-A/BLDX-A/ BRD-A/BRDX-A

Bolt on blade shrouds

Bolt-on half arrow blade shrouds for Caterpillar* loaders which work on abrasive applications.

UC/URD/ULD

Welded blade shrouds

Welded blade shrouds for excavators in multiple applications. Range which covers blade thicknesses of 40 mm to 120 mm.

UL/ULX

Lateral shrouds

For excavators. Provide excellent penetration for the bucket wing.

ULH/ULHX

Lateral shrouds

Protect the corner of the bucket and adapt to its curvature. Range that covers excavators from 20 to 300 tons.

Excavator bucket with MTG Systems StarMet teeth and MTG Systems ProMet shrouds in Germany.

ADVANTAGES OF THE SYSTEM *KINGMET*

MTG SYSTEMS KINGMET. ROBUST AND RESISTANT TEETH AND ADAPTER SYSTEM.

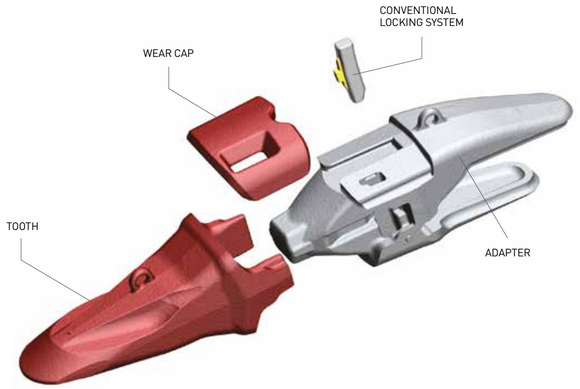
The teeth will operate without breaking, thanks to the robust and resistant tooth-adapter system. The elliptical shape of the nose increases the contact surfaces between the tooth and adapter for a better distribution of stresses, increasing the wear life of the adapter and the resistance to all types of forces.

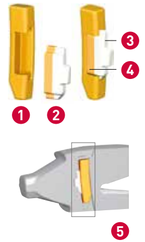
Faster and easier tooth changing. The locking system is comprised of a vertical pin that reduces any possible side interferences. The vertical pin is made up of two parts:

- The body of the pin, made of the highest-quality steel in order to give it optimal resistance and make reuse possible.
- The retainer, which is made of two components united as a single piece: Elastomet, which gives it elasticity and flexibility, and compact polyurethane.
- The combination of a resistant, reusable body and an elastic, flexible pin provides great ease of assembly and, in turn, the maximum reliability and guarantee in the proper operation of the MTG Systems KingMet fixing system.

Teeth with a longer service life. Long lasting and extended performance thanks to the good quality wear material and because they are built using steels by MTG Steels, which last longer and break less often. Since it is housed in the adapter, the pin is completely protected from wear and impacts thus enhancing the longevity of the locking system.

Teeth remain always sharp. Improved bucket penetration. The specially designed fitting profile offers an excellent penetration throughout the service life of the tooth.





CONVENTIONAL LOCKING SYSTEM

1. Body.
2. Retainer.
3. Polyurethane.
4. ElastoMet.
5. Pin totally protected.

LIGHT CONSTRUCTION SIZES
5 / 8 / 10

MEDIUM CONSTRUCTION SIZES
10 / 20 / 30 / 40

HEAVY CONSTRUCTION SIZES
55 / 65 / 80

MTG Systems KingMet detail in Ireland.

RANGE OF TEETH, ADAPTERS AND SHROUDS

E

Extra

For excavators in loose soils and pre-blown stone quarries that are especially abrasive and require good penetration.

EX

Extra X

For excavators on loose terrain and extremely abrasive pre-split stone quarries which require a good penetration.
Impact: medium-high.

U

Universal

For excavators on loose terrain with little abrasion and multiple applications. Specific for trenching and finishing.
Impact: medium-low.

P

Penetration

For excavators on compact terrains that produce a lot of abrasion and impact and where a high level of penetration is required. Particularly for applications in pre-exploded stone quarries.

S

Standard

For excavators on loose, low-abrasive soil which requires good penetration. Especially indicated for work in changing conditions and multiple applications.

F

Flared

For excavators on leveling, trenching, and cleaning jobs, very useful in building foundations.
Abrasion: low.
Impact: medium.

V

Vector

For excavators on very compact terrain.
Abrasion: low.
Impact: high.

W

Double Vector

For excavators on extremely compact terrain.
Abrasion: low.
Impact: high.

I

Impact

For excavators and loaders on low-abrasion terrain with a high level of impact.

D

Delta

For loaders on compact terrain which require a lot of penetration and high level of protection from abrasion.

A

Abrasion

For loaders on particularly abrasive loose terrains and pre-exploded stone quarries where we require good penetration.

AX

Abrasion X

For loaders on applications with an extreme level of abrasion. Especially indicated for hot slag.

H

Heavy

For loaders on loose terrain where there is a high level of abrasion. The width of the tooth facilitates loading the material.

L

Long

For loaders on loose terrain or pre-split stone quarries where there is not a high level of abrasion.
For cleaning jobs, we recommend mounting it with an FC adapter so the lower surface coincides with the blade.

RANGE OF TEETH, ADAPTERS AND SHROUDS

FC

Flush Central

For loaders on cleaning jobs where the terrain surface must be left flat.

FC HS

Weld Center / Flush for hot slag

For loaders on hot slag applications.

FCC

Flush clamshell

For clamshell applications.

UC

Universal Central / Lower shovel

For small excavators, small loaders and mixed machines in applications requiring low impact.

WC

Weld Center

For excavators and loaders in hard works and with abrasion, because it provides improved locking of the blade and an excellent protection of the bucket.

WN
WN HS

Weld-on nose

Useful for repairing or converting any adapter to the MTG Systems KingMet.

WL/WR

Corners left-right

For the corners on excavator buckets.

WLD
WRD

Left-right in delta blade

For excavators and loaders with delta blade.

WC HS

Weld Center / Flush for hot slag

For loaders on hot slag applications.

WC
HD/M

Weld center with mechanical shroud

For applications with extreme abrasion. Protects the top of the adapter from wear.

ADVANTAGES OF THE SYSTEM PLUS

MTG PLUS AND OTHER DESIGNS ADAPTABLE TO THE MOST COMMON SYSTEMS ON THE MARKET.

MTG, apart from offering the most innovative patented product solutions, offers a wide range of innovative tooth, locking devices and shrouds designs that can be adapted to the most common systems on the market.

Benefits

- Made of MTG Steels. Since they are built using MTG Steels, which are one of the most technologically advanced on the market, they provide a longer service life of the wear parts, which break less often.
- MTG offers a design for each application. Increased machine productivity, thanks to the greater penetration and service life of the tooth due to the optimization of its wear material.
- The non-patented MTG Plus product line offers a customized tooth that is adaptable to the most popular systems on the market with the MTGtwist hammerless locking solution.

Advantages

- When replacing teeth: safety, comfort and ease.
- When operating: increased safety in the retention; applicable to current adapters, without additional costs; reuse of the pin.

Details of the MTG Plus product lines adaptable to other systems on the market:

MTG Plus adaptable to Caterpillar* side pin

MTG Plus adaptable to Caterpillar* Ripper

MTG Plus adaptable to Komatsu* side pin

MTG Plus adaptable to Komatsu* Ripper

MTG Plus shrouds

MTG Plus adaptable to Poclain*

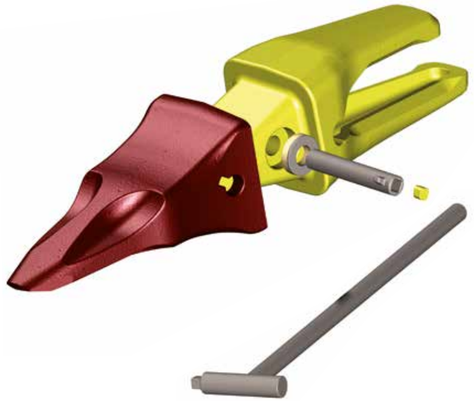
MTG Plus adaptable to Conical System

MTG Plus adaptable to Conical Ripper

MTG Plus adaptable to the Dredge Superconical system

MTG Plus adaptable to H&L*

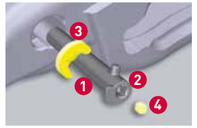
MTG Plus adaptable to Orca*



MTG TWIST

MTGTWIST LOCKING SYSTEM

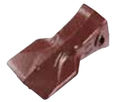
1. Hammerless conical pin to extract it easy.
2. Standard shaped square hole.
3. MTGtwist retainer made of Elastomet and polyurethane.
4. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.



RANGE OF TEETH

S
Standard

U
Universal



F
Flared

P
Penetration

E
Extra

EX
Extra X

V
Vector

W
Double Vector

WI
Double Vector Impact

IX
Long-duration Impact

I
Impact

L
Long

D
Delta

H
Heavy

A
Abrasion

AX
Long-duration Abrasion

MTG SYSTEMS STARMET TEETH FOR HOT SLAG APPLICATIONS

Results: maximum resistance and durability at extreme temperatures with MTG Systems StarMet for hot slag. **

Machine: LOADER CAT*980.
System: MTG Systems StarMet.
Terrain: Hot slag application.
Location: Spain.

MTG SYSTEMS STARMET IN LIMESTONE AND QUARTZ APPLICATIONS

Results: the hammerless locking system improves the safety and reliability of teeth, being the main advantage of MTG Systems StarMet teeth. **

Machine: HITACHI* ZX 850.
System: MTG Systems StarMet.
Terrain: Limestones and quarz quarries.
Location: Ireland.

MTG SYSTEMS STARMET IN COMPACT AND ABRASIVE APPLICATIONS

Results: MTG Systems StarMet increases the durability and safety of the tooth-adapter set. Their innovative products and tailored services result in absolute confidence in MTG and their partners. **

Machine: CATERPILLAR* 385BL REACH.
System: MTG Systems StarMet.
Terrain: Granite or silicate rock (compact and abrasive).
Location: Deutschland.

MTG SYSTEMS PROMET SHROUDS IN LIMESTONES TERRAIN

Results: increase of the duration and ease of assembling-disassembling with MTG Systems Promet hammerless shrouds for construction. **

Machine: EXCAVATOR (70 TON).
System: MTG Systems ProMet.
Terrain: Limestones
Location: France.

DREDGING

Objective

To develop innovative systems and technological services that help increase protection and productivity in dredging applications (Cutter Dredgers, Hopper Dredgers, Clamshell or Grab Dredgers, Backhoe Dredgers).

More production

The patented tooth - adapter set is the best system in terms of robustness and resistance on the market, which increases machine productivity and effectiveness in dredging.

Longer wear life

New tooth designs that provide greater protection for the adapter, minimizing its wear and increasing its wear life in the cutter - head.

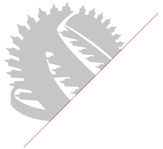
Reliability

Tooth and adapter systems with stabilization in all load directions make our systems the most robust and resistant on the market, in the most demanding applications. Systems supervised by our sales and technical team with the highest quality and experience in dredging systems.

Safety and fast tooth changes

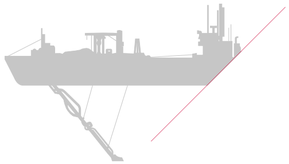
Quick and safe tooth changes thanks to the hammerless locking systems, that bring safety and efficiency to the system, reducing tooth replacement time and the possibility of them getting lost.

CUTTER DREDGERS



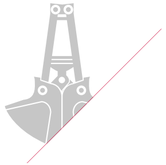
Teeth, adapters and cutter - heads for Cutter Section Dredgers.

HOPPER DREDGERS



Teeth and adapters for dragheads.

CLAMSHELL OR GRAB DREDGERS



Teeth and adapters for clamshell Dredger buckets.

BACKHOE DREDGERS

Teeth and adapters for Backhoe Dredger buckets

MTG SYSTEMS FOR DREDGING

MTG SYSTEMS DMET

Teeth and adapters for Cutter and Hopper Dredgers. Patented tooth-adapter sets that allow increased productivity and effectiveness in dredging machinery.

MTG SYSTEMS STARMET

Teeth and adapters for hopper, clamshell, grab, and backhoe dredgers. Wear parts with hammerless locking system that increase tooth-changing reliability, safety and speed in large dredging machinery.

MTG PLUS

Teeth and adapters for cutter dredgers. Other systems for dredgers that provide more durability and wear life of wear parts in cutter dredgers.

CUTTER DREDGERS

Full protection for dredging machinery. Innovative and patented MTG Systems for the Dredging sector for Cutter Dredgers and Hopper Dredgers. Complete protection solutions for the Cutter-head that increase protection and productivity even in the most extreme conditions.

Furthermore, MTG designs and manufactures its own Cutter Heads using the best iron and the latest production technology, increasing dredging machinery productivity and efficiency.

CUTTER DREDGERS SYSTEMS

MTG SYSTEMS DMET

Teeth and adapters for Cutter and Hopper Dredgers. Patented tooth-adapter sets that allow increased productivity and effectiveness in dredging machinery.

MTG PLUS

Teeth and adapters for cutter dredgers. Other systems for dredgers that provide more durability and wear life of wear parts in cutter dredgers.

New MTG Cutter Head manufactured with the highest quality MTG Steels.

MTG SYSTEMS DMET

ADVANTAGES OF THE SYSTEM

DMET

MTG SYSTEMS DMET. A ROBUST, RESISTANT AND REALIABLE SYSTEM, THAT INCREASES DURABILITY.

- **A robust, resistant and reliable system.** Stabilization in all load directions make the system the most robust and resistant on the market, in the most demanding applications. The tooth-adapter fitting system contact surfaces are perpendicular to the direction of the main forces, allowing better load distribution and reducing the possible plastic deformation of the fitting system. The large vertical and lateral stabilization surfaces in the tooth's shank reduce the hammering effect in the fitting system and protect the system from overloading, preventing breakage.

- **Durability. Self-sharpening tooth design and adapters with better protection.** Optimized and self-sharpening tooth design offers a better wear material ratio, offering the most efficient solution. Tooth deflectors protect the adapter from wear and extend its wear life. Plus, the need for any kind of protection ("chocky bars" or "hard facing") on the adapters is eliminated. Thanks to the overprotection of the adapters considerably reducing repair and maintenance costs for the cutter - head.

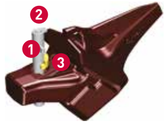
- **Quick, easy and safe tooth replacement.** The hammerless locking solution makes tooth assembly and disassembly easier, reducing your machine's downtime. The locking device is easy and safe and its use is totally intuitive, avoiding any kind of error during installation, increasing ease of replacement. Tooth replacement can be carried out by a single operator.

- **Reuse of the pin.** The pin can be used several times, even in the most extreme conditions. Thanks to the vertical position of the pin, access for assembly and disassembly is easier, avoiding pin loss during tooth replacement. Following is a view of the vertical pin locking system.

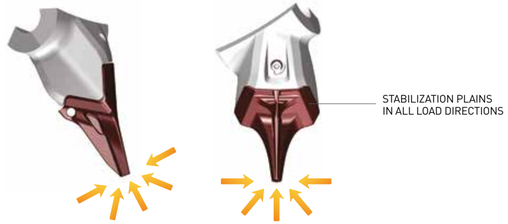
- **Optimal functioning.** The new MTG Systems DMet system minimizes the risk of tooth breakage in severe work conditions. The smooth system design allows material to flow towards the inside of the cutter-head increasing suction efficiency and cutter - head productivity. The optimal functioning of the system, the increase in wear material in the teeth and the long duration of the adapters, reduce the vibrations from the dredger and reduce the cost/m³ , increasing the system's productivity.

VERTICAL LOCKING SYSTEM

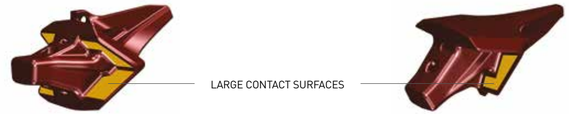
1. Hammerless conical pin for an easier extraction.
2. Standard shaped square hole.
3. Exclusive MTGtwist retainer for DMet systems.



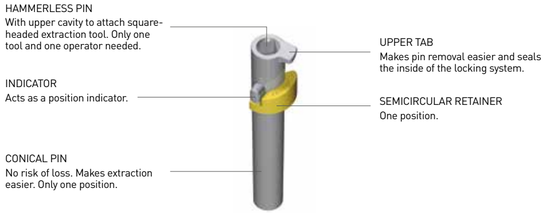
STABILIZATION PLAINS DETAIL



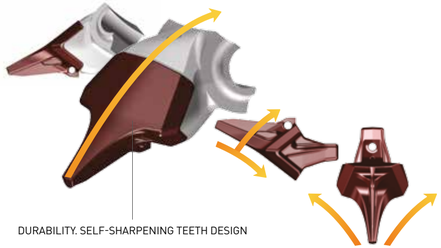
CONTACT SURFACES DETAIL



REUSE OF THE PIN DETAIL



DURABILITY DETAIL. SELF-SHARPENING TEETH



RANGE OF TEETH

P
Pick Point
Teeth for cutter - heads and hopper dredgers in hard rock applications.

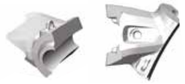
PC
Pick Point with insert
Tooth with insert for cutter - heads and hopper dredgers in very abrasive applications.

C
Chisel
Teeth for cutter - heads and hopper dredgers in dredging applications.

F
Flared
Teeth for cutter - heads and hopper dredgers in dredging applications.

RANGE OF ADAPTERS

TBL
Tube Left
Left adapter for cutter - heads and hopper dredgers in hard rock applications.



TBR
Tube Right
Right adapter for cutter - heads and hopper dredgers in hard rock applications.

WIL
Wing Left
Left adapter for cutter - heads and hopper dredgers in sand and clay applications.

WIR
Wing Right
Right adapter for cutter - heads and hopper dredgers in sand and clay applications.

MTG PLUS RETROFIT HELILOK* RANGE OF TEETH AND ADAPTERS

P
Pick Point
Teeth for cutter - heads in hard applications.

C
Chisel
Tooth Helilok* for cutter - heads in dredging applications.

SR
Adapter Spherilok*
Adapter Spherilok* for cutter - heads in dredging applications.

DREDGE SUPERCONICAL* RANGE OF TEETH AND ADAPTERS

C
Chisel
Specific teeth for specific dredging applications.

F
Flared
Specific teeth for specific dredging applications.

PS
Symmetrical Pick Point
Symmetrical tooth for cutter - heads in hard applications.

PA
Asymmetrical Pick Point
Asymmetrical tooth for cutter - heads in hard applications.

WL
Left Wing
Adapter for cutter - heads in dredging applications.

MTG SYSTEMS DMET IN EXTREME CONDITIONS

Results: maximum reliability, no breakages even in the most extreme conditions and increased productivity. **

Machine: CUTTER DREDGERS TAURUS & PHOENIX*.
System: MTG Systems DMet.
Terrain: Limestone.
Location: Qatar.

Detail Cutter-Head working (Qatar).

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MTG

No limits innovation

MTG Europe
Carrer d'Àvila, 45
08005 Barcelona (Spain)
Tel.: (+34) 93 741 70 00
Fax: (+34) 93 752 15 74
mtg-europe@mtg.es
www.mtg.es

MTG International
(Asia, Africa, South America, Australia)
Tel.: (+34) 93 741 70 53
Fax: (+34) 93 751 02 09
mtg-international@mtg.es
www.mtg.es

MTG Corp.
12941 North Freeway Suite 610
Houston TX 77060
Tel.: +1 (281) 872 1500
Fax: +1 (281) 872 1599
support@mtgcorp.us
www.mtgcorp.us

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