



MTG

No limits innovation

CATALOGUE

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► ABOUT US

At MTG we are specialists in the design and manufacture of wear solutions for earth-moving, mining, construction and dredging machinery.

MTG is a family business, focused on international excellence, which has evolved over 60 years and guarantees professional and independent management. We want the Triginer family to be a means of transmitting stability and continuity to our customers.

We firmly believe that our main drive is innovation, which we never limit. Our most resistant steel and our cutting-edge 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 technology that furnishes our users with greater productivity and performance while, at the same time, improving our agility and flexibility in response to our clients' demands. In this sense, we have an excellent customer service department and a dedicated team of engineers, able to provide rapid and effective solutions, anywhere in the world.

We recently opened a new foundry in Monzón, Spain, which allows us to manufacture larger parts and is currently one of the most modern of its kind in Europe. The new facilities, which continue to expand, allow us to increase our production capacity and our portfolio of products.

MTG is currently immersed in a phase in which communication— in terms of agility with clients, and directness with markets—will be aimed at the clear generation of brand value and attaining pride in this great family, that you are, without a doubt, an important part of, for the present and the future of our company.

Francisco Triginer
President of MTG

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



► WHAT WE DO



MTG Factory in Monzón, Huesca (Spain).

“We design and manufacture wear parts to guarantee maximum productivity in earthmoving machinery”

At MTG we design and manufacture innovative G.E.T. systems for earthmoving machinery buckets to ensure our clients obtain the maximum productivity from their machines while ensuring maximum reliability and safety.

MTG is an international company, operating in the world’s leading mining, construction and dredging markets. We operate through over 300 distributors that are present in over 60 countries.

With a capacity for the production of larger wear parts, the factory that MTG opened in 2012 in Monzón keeps growing and is in continuous evolution. The foundry, which is one of the most modern in Europe and it is equipped with the most innovative technological equipment, will make it possible to expand the range of products.

The positive results obtained, added to the overall acceptance of the MTG Systems DMet system, have prompted the company to take the strategic decision of entering the dredging market, the goal being to become market leader in the high quality segment. MTG operates as a technological partner for dredging companies, and seeks to improve productivity in their dredgers through customized projects.

With two headquarters (Barcelona and Houston) and over 400 employees, MTG ensures the highest standards of service to all its customers.

► 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 success of our customers.



Excellence

We offer the highest quality in our products and services, in accordance with the most demanding standards: ISO9001.



Experience

Over 60 years of tradition and experience on our side.



Value creation

We are constantly evolving to improve our results and add value to all our 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 allows us to make contacts and do business worldwide.



Market orientation, focus on service

We aim to guarantee client satisfaction as the basis for attaining better results.



Social Responsibility

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



► MTG'S COMMITMENT TO INNOVATION



MTG

No limits innovation

“**Innovation is our permanent challenge and our best strategy for the future**”

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.

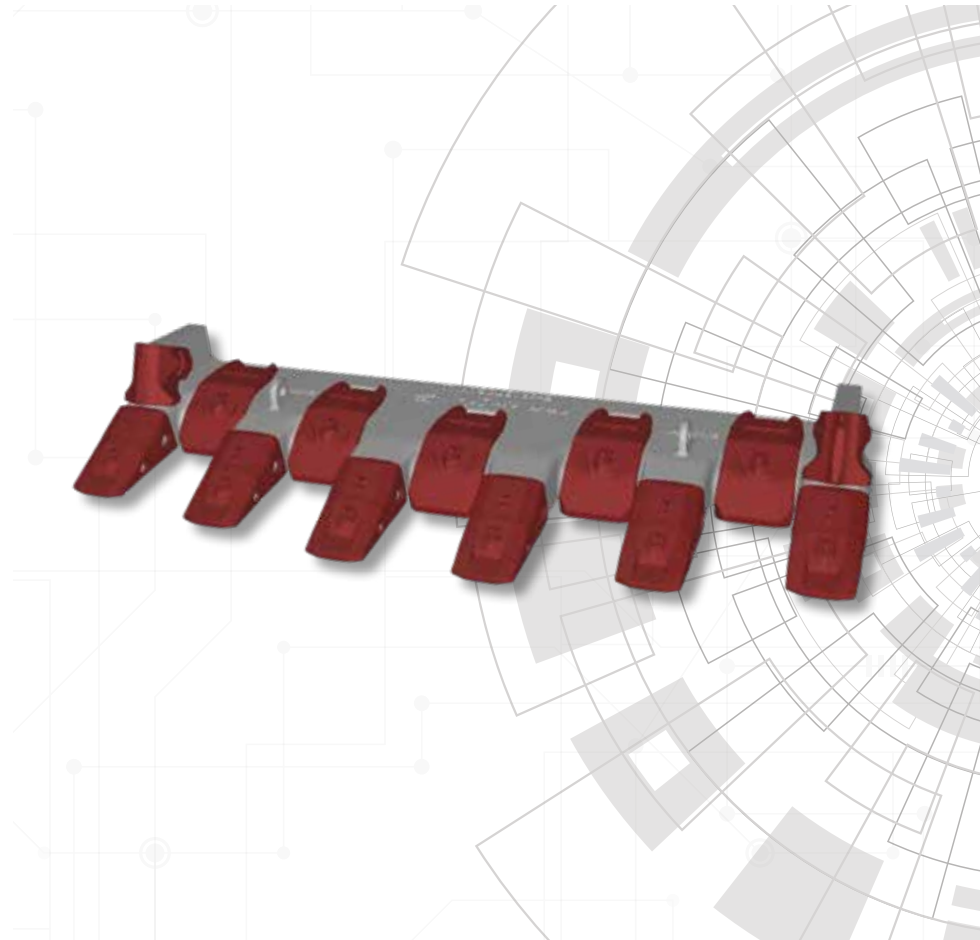
These steels are specifically designed to withstand the highest levels of mechanical stress when operated. Our steels maximize the hardness/toughness combination due to their low level of impurities and structure which is developed using specific heat treatments.

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.



New Cast Lip for buckets on hydraulic excavators of more over 350 Tn.

► WHERE WE ARE BASED



“**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 and warehouse in Chile and a state-of-the-art production plant in Monzón (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.



“MTG innovates to maximize the productivity of the earth-moving machinery in the mining, construction and dredging sectors”



► SECTORS WE WORK IN

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.



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

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.



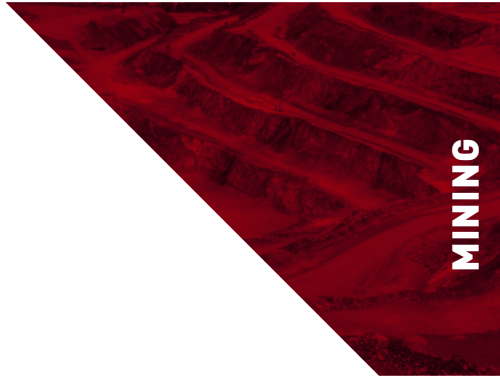
Reducing costs

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.



EXCAVATORS



100 - 120 TON

CAT⁽¹⁾ 6015
RH⁽¹⁾ 40
EX⁽¹⁾ 1200 - 6
PC⁽¹⁾ 1250

170 - 200 TON

CAT⁽¹⁾ 6015
CAT⁽¹⁾ 6018
RH⁽¹⁾ 90
EX⁽¹⁾ 1900 - 6
PC⁽¹⁾ 2000

280 - 350 TON

CAT⁽¹⁾ 6030
RH⁽¹⁾ 120
EX⁽¹⁾ 2600 - 6
EX⁽¹⁾ 3600

OVER 350 TON

EX⁽¹⁾ 5500
CAT⁽¹⁾ 6050
CAT⁽¹⁾ 6060
RH⁽¹⁾ 200
RH⁽¹⁾ 340
PC⁽¹⁾ 5500

SYSTEMS
TWINMET

SYSTEMS
STARMET

SYSTEMS
PROMET

LOADERS



95 - 110 TON

CAT⁽¹⁾ 992
WA⁽¹⁾ 800
WA⁽¹⁾ 900
LT⁽¹⁾ - 950

130 - 145 TON

CAT⁽¹⁾ 993
LT⁽¹⁾ - 1150

180 - 220 TON

CAT⁽¹⁾ 994
WA⁽¹⁾ 1200
LT⁽¹⁾ - 1350

240 - 250 TON

LT⁽¹⁾ - 1850
LT⁽¹⁾ - 2350

SYSTEMS
STARMET

SYSTEMS
PROMET

ELECTRIC ROPE SHOVELS



P&H⁽¹⁾ 2800

CAT⁽¹⁾ 7395 (BE395)

P&H⁽¹⁾ 4100
CAT⁽¹⁾ 7495 (BE495)

SYSTEMS
STARMET ROPE SHOVELS

⁽¹⁾ See note at the end of the catalog.

BULLDOZERS



SIZE 45

CATERPILLAR⁽¹⁾
D8T
KOMATSU⁽¹⁾
D155AX - 5B

SIZE 50

CATERPILLAR⁽¹⁾
D10R
KOMATSU⁽¹⁾
D375A - 5

SIZE 55

CATERPILLAR⁽¹⁾
D11N
KOMATSU⁽¹⁾
D475A - 5

SYSTEMS
RIPMET

UNDERGROUND MINING LOADERS



LHD LOADERS

CATERPILLAR⁽¹⁾
R1300, R1600, R1700
SANDVIK⁽¹⁾
LH307 AND LH410

JOY GLOBAL⁽¹⁾
LT1050
ATLAS COPCO⁽¹⁾
ST10, ST14, ST1510

NOTE: Examples of the most common machines.

PLUS
LHD LIP SYSTEM

⁽¹⁾ See note at the end of the catalog.

NEW MTG SYSTEMS TWINMET



MTG Systems TwinMet in Ponferrada (Spain).

► PROTECTION FOR HYDRAULIC EXCAVATORS AND DRAGLINES OVER 350 TON

MTG Systems TwinMet is an innovative three-part system (tooth - intermediate adapter - nose) for large mining machines.

► MACHINE MODELS



OVER 350 TON

EX⁽¹⁾ 5500
CAT⁽¹⁾ 6050
CAT⁽¹⁾ 6060
RH⁽¹⁾ 200
RH⁽¹⁾ 340
PC⁽¹⁾ 5500

⁽¹⁾ See note at the end of the catalog.

► ADVANTAGES OF THE SYSTEM

MTG SYSTEMS TWINMET. ROBUSTNESS, RELIABILITY AND OPTIMIZATION.

Strength

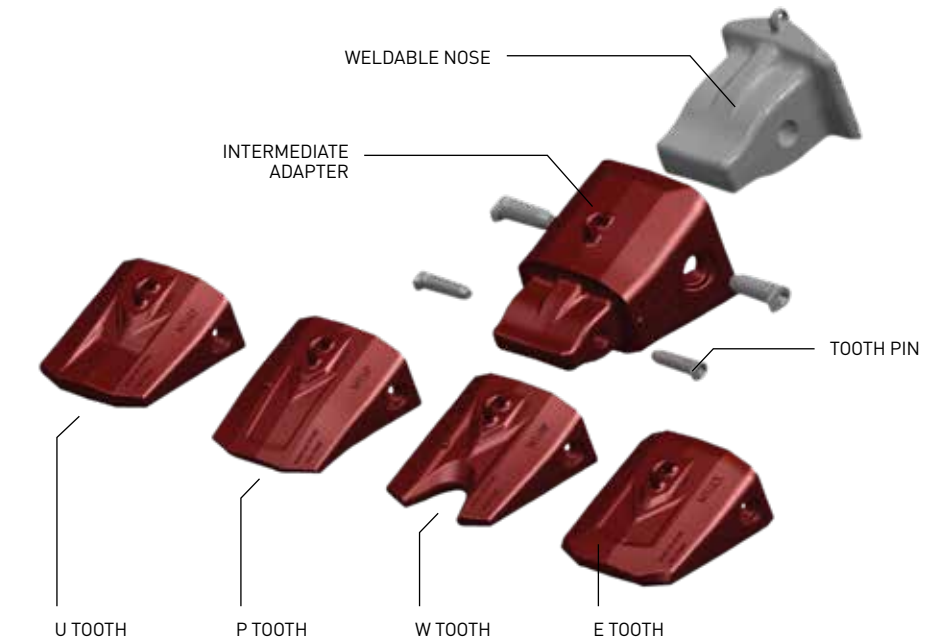
- Reinforced nose design that provides greater robustness to the system. Greater resistance in areas of maximum tension.
- The large stabilization surfaces improve contact between pieces, reducing possible effort between them.
- The fitting system is designed to reduce the load and traction effort that could arise.

Reliability

- Horizontal stabilization in the multiple axes which allow increased reliability of the entire system.
- Optimal adjustment between pieces, improving reliability and reducing their wear.

Optimization

- Optimum tooth box design that allows an increased wear material ratio.
- Reversible system. It is possible to rotate the pieces if deemed necessary.
- Specific tooth design for hydraulic excavators over 350 Tn that offer high penetration.



MTGTWIST HAMMERLESS LOCKING SYSTEM

1. Lateral pins to attach the adapter to the nose.
2. Lateral pins to attach the tooth to the intermediate adapter.

▶ 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.



MTG Systems StarMet and ProMet, complete bucket protection.

▶ 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.



▶ MACHINE MODELS

▶ Examples of excavators



100 - 120 TON

CAT⁽¹⁾ 6015
RH⁽¹⁾ 40
EX⁽¹⁾ 1200 - 6
PC⁽¹⁾ 1250

170 - 200 TON

CAT⁽¹⁾ 6015
CAT⁽¹⁾ 6018
RH⁽¹⁾ 90
EX⁽¹⁾ 1900 - 6
PC⁽¹⁾ 2000

280 - 300 TON

CAT⁽¹⁾ 6030
RH⁽¹⁾ 120
EX⁽¹⁾ 2600 - 6

95 - 110 TON

CAT⁽¹⁾ 992
WA⁽¹⁾ 800
WA⁽¹⁾ 900
LT⁽¹⁾ - 950

130 - 145 TON

CAT⁽¹⁾ 993
LT⁽¹⁾ - 1150

180 - 220 TON

CAT⁽¹⁾ 994
WA⁽¹⁾ 1200
LT⁽¹⁾ - 1350

240 - 250 TON

LT⁽¹⁾ - 1850
LT⁽¹⁾ - 2350

⁽¹⁾ See note at the end of the catalog.

▶ Examples of loaders



▶ EXCAVATOR AND LOADER SYSTEMS

SYSTEMS
STARMET

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

SYSTEMS
PROMET

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:

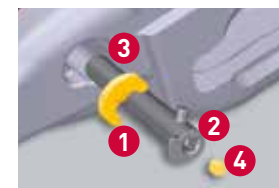
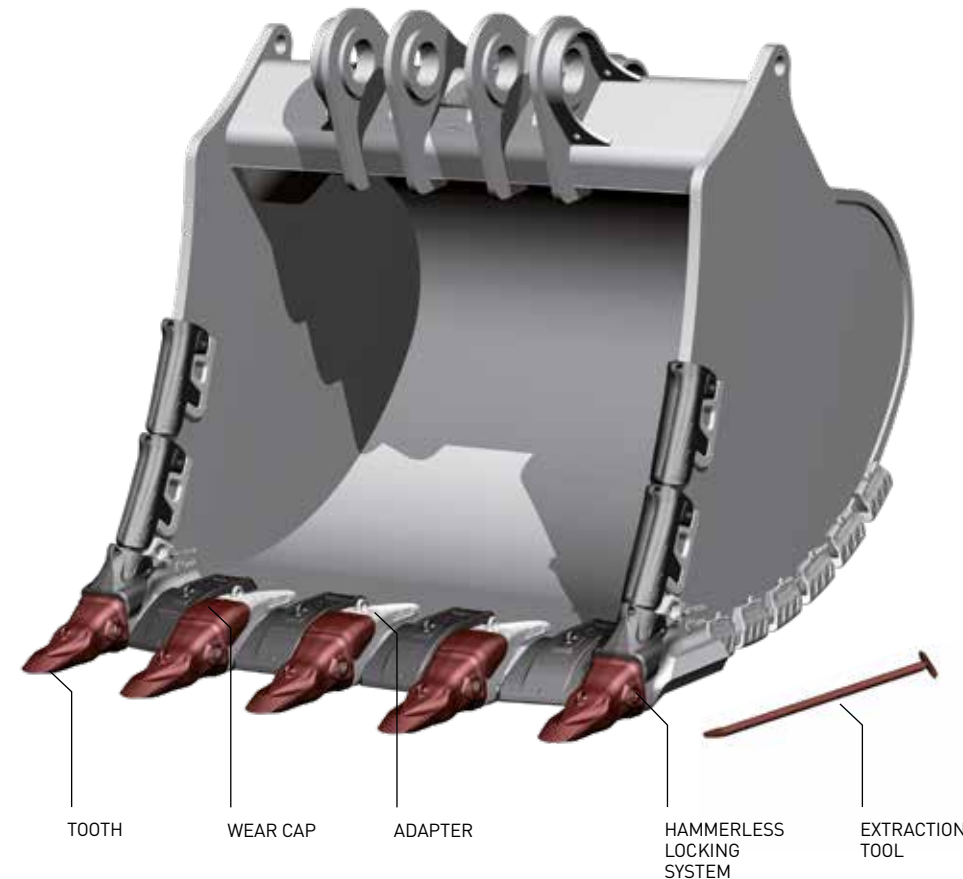
- **Safety.** There is no chance of accidents being caused by flying metal particles.
- **Comfort.** Less effort is required when replacing teeth as compared to when a hammer is used.
- **Ease.** Only one operator is needed to replace the tooth.
- **Greater safety in the locking.** Tested system that 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.



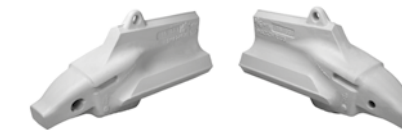
MTGTWIST LATERAL LOCKING SYSTEM

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.

LATES MTG SYSTEMS STARMET RELEASES.



M-A Design. Mechanical shroud.



Designs WL/WR. Asymmetrical Cast Corner adapters.



HD-A Design. Reinforced wear bottom leg shroud.



WS design. Side straddle adapter.

New mechanical shroud for extreme and high impact applications

For sizes 120-500, the top zone and the radius of the workpiece have been reinforced, providing more wear material, and ensuring maximum strength and protection for the adapter.

MTG Systems StarMet Asymmetrical Cast Corner adapters

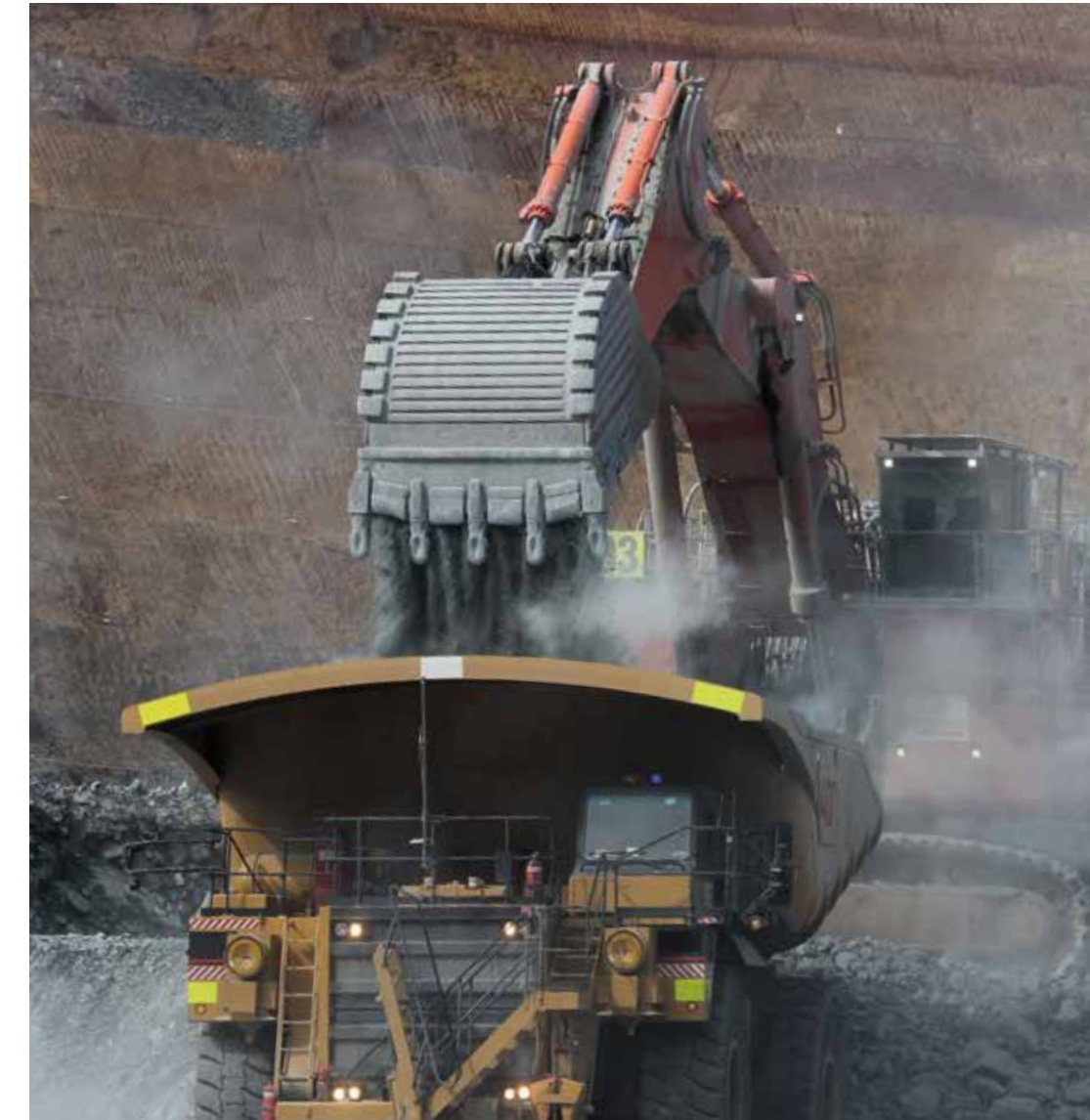
Specially designed to withstand the toughest working conditions. Available in sizes 240 and 500. With the launching of this product MTG completes its range of StarMet side adapters for working in all types of applications.

Reinforced wear bottom leg shrouds

Specially designed to extend the service life of the adapter in abrasive applications. Available in StarMet adapter sizes 120, 180, 240 and 500.

Side straddle adapter

Scissor-type size 180 StarMet adapter for bucket edges with a 100 mm blade thickness. The scissor-type adapters allow quick, reliable installation without the need to cut the blade or its edge.



MTG Systems StarMet working in Australia.


MINING SIZES

120 / 180 / 240 / 500

HEAVY MINING SIZES

500

RANGE OF TEETH




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.




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 ADAPTERS AND SHROUDS




WR

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




WL

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




WN

Weld-on nose
For repairing or converting any adapter to 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 shroud
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.




HD/ HD-A

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



M/ M-A

Mechanical shroud
Reinforced shroud in the upper area and the radius of the piece, providing more wear material and ensuring maximum resistance and protection for the adapter.



MS

Mechanical shroud Straddle and Cast Corner
Protects the top of the adapter on high-abrasion and high-impact applications.

► ADVANTAGES OF THE SYSTEM

MTG SYSTEMS PROMET. MAXIMUM PROTECTION FOR THE BUCKET.

Complete range of lip and wing shrouds for excavators and loaders buckets.

More safety, comfort, ease and fastness

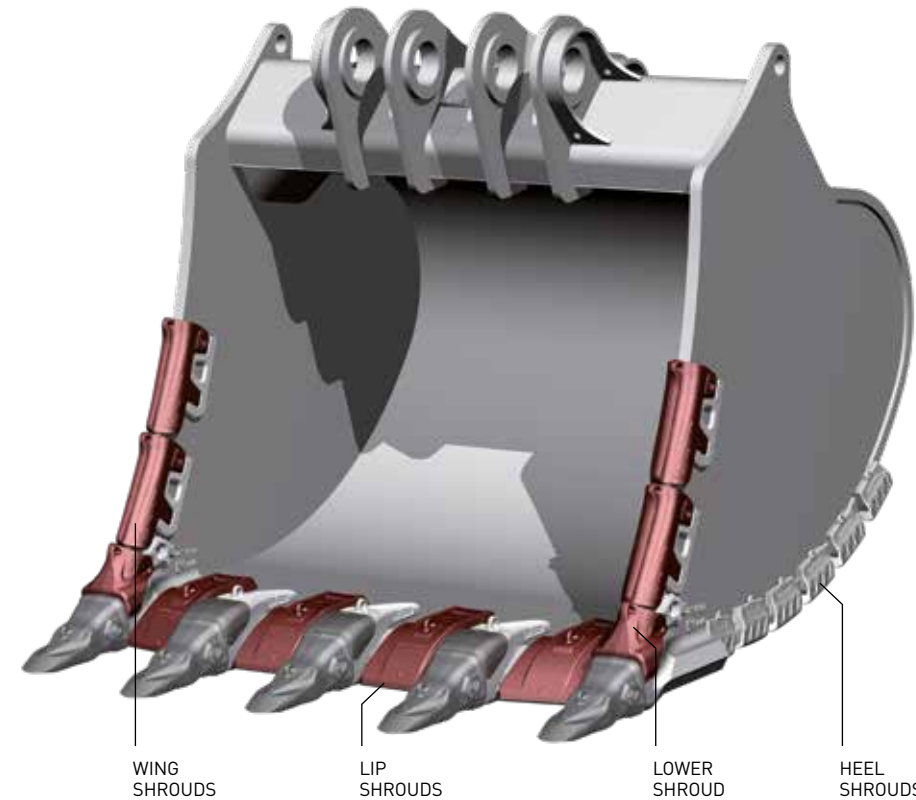
Lateral shrouds

The upper 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.

- **Safety:** with the MTGtwist hammerless locking system an optimal locking is ensured on the most aggressive 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.

Lip shrouds

- **MTGtwist hammerless system: safe and reliable** locking system.
- **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 lip to impacts and abrasion, **increasing the useful life of the bucket.**
- The fitting system only requires welding a base for each shroud, thus making **installation easy and quick** while reducing machine downtimes.
- **Optimized design of the locking system,** improving contact stability for the wear parts.



PROMET LATERAL LOCKING SYSTEM

1. Wing shroud.
2. Weld-on base for stabilization (one 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.



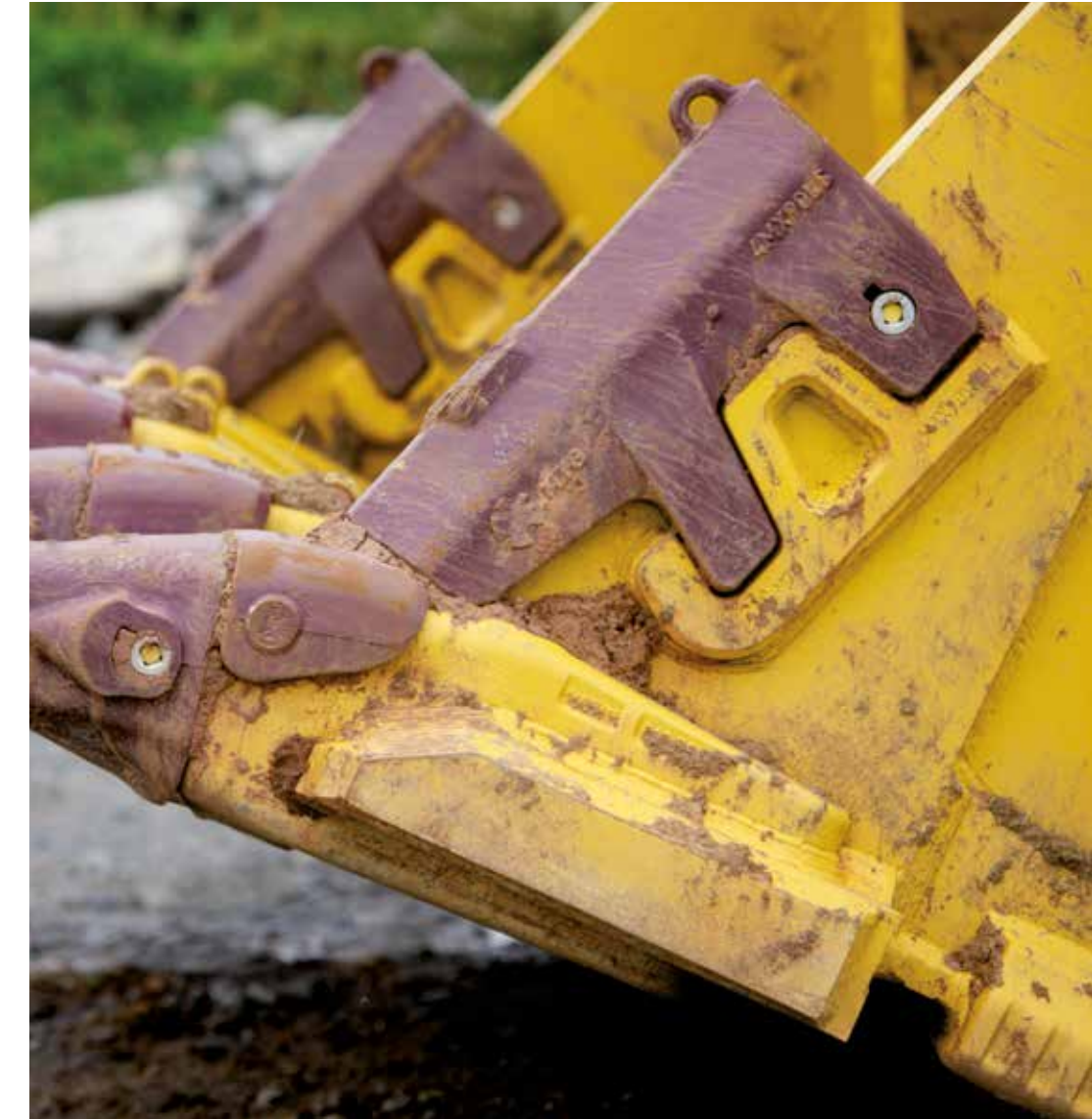
Wing shrouds for Heavy Mining applications.



Blade shrouds for loaders.



Blade shrouds for excavators.



Full bucket shroud solutions in Scotland.

► 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



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⁽¹⁾ loaders used for abrasive applications.



RDX

Right blade shroud

Bolt-on half arrow right blade shroud for Caterpillar⁽¹⁾ loaders used for abrasive applications.



LDX

Left Delta shroud

Bolt-on half arrow left blade shroud for Caterpillar⁽¹⁾ loaders used for abrasive applications.



⁽¹⁾ See note at the end of the catalog.

Full bucket solution in Scotland.



Electric rope shovels bucket in Sweden.

▶ COMPLETE PROTECTION FOR 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⁽¹⁾ 2800
(WH10)



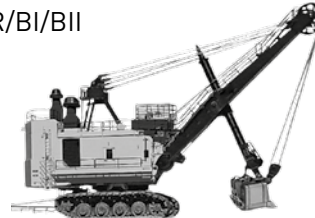
CAT⁽¹⁾ 7395 HR/BI/BII
BE395
(WH12)



P&H⁽¹⁾ 4100
(WH10, WH12)



CAT⁽¹⁾ 7495 HR/BI/BII
BE495
(WH12)



▶ SYSTEMS FOR ELECTRIC ROPE SHOVELS

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

▶ BUCKET CONFIGURATIONS

Bucket configurations for Caterpillar⁽¹⁾ electric rope shovels:

CAT⁽¹⁾ 7395 BI

Machine configurations
for CAT⁽¹⁾ 7395 BI/BII

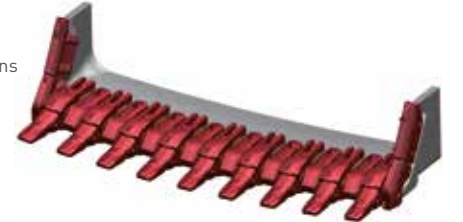


CAT⁽¹⁾ 7495 HR



CAT⁽¹⁾ 7495 BI

Machine configurations
for CAT⁽¹⁾ 7495 BI/BII



Bucket configurations for P&H⁽¹⁾ 4100 electric rope shovels:

P&H⁽¹⁾ 4100



Bucket configurations for P&H⁽¹⁾ 2800 electric rope shovels:

P&H⁽¹⁾ 2800



⁽¹⁾ See note at the end of the catalog.

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. FULL BUCKET PROTECTION.

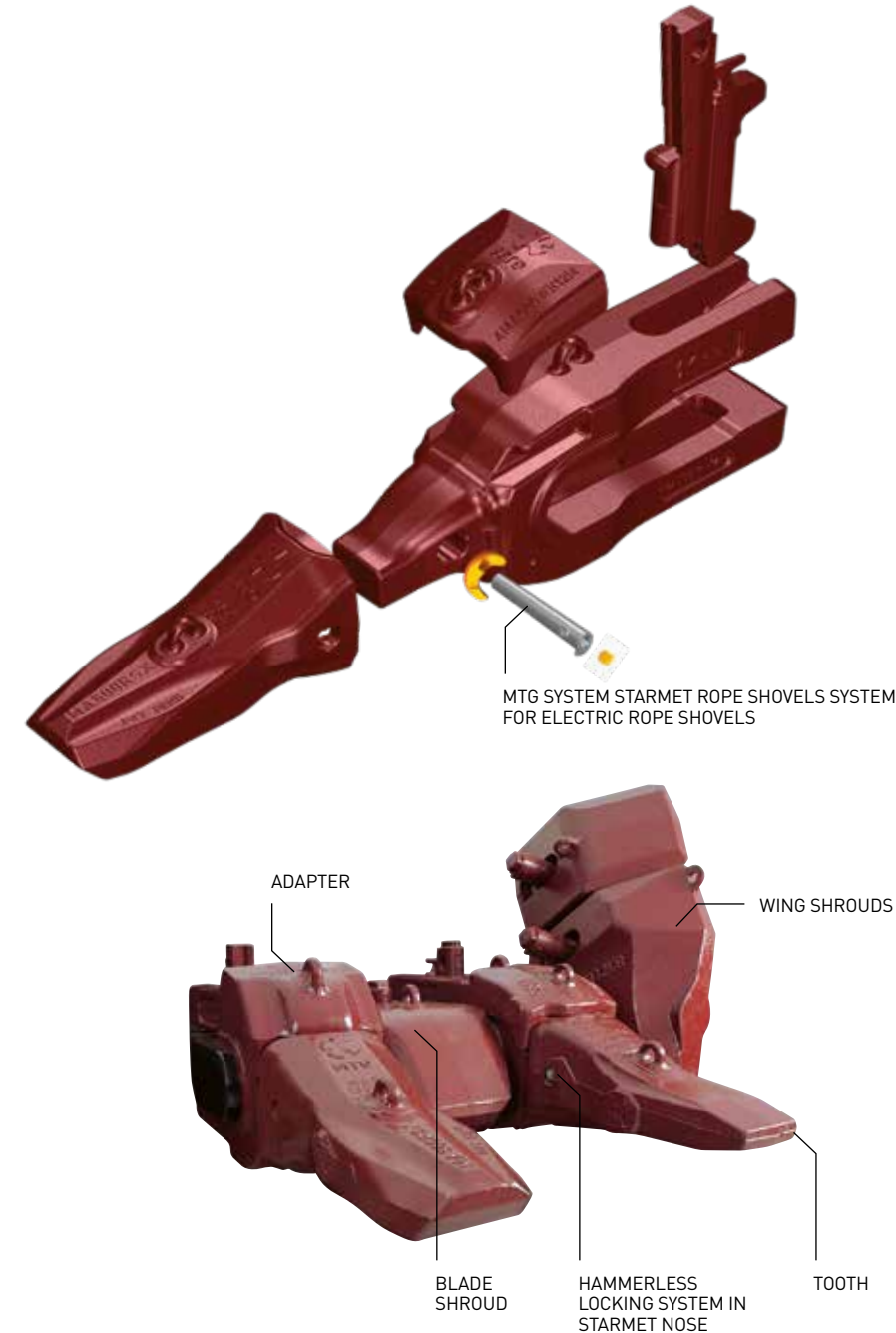
Broad range of Whisler⁽¹⁾ adapters and shrouds (sizes 10 and 12) for electric rope shovels. It also offers specially designed hammerless teeth for this type of mining machinery, and conventional locking for shrouds that offer a complete and optimized protection for the bucket. Wear parts for heavy machines provide:

More reliability, comfort, fastness and safety

- **Adapters.** Electric rope shovels tooth-adapters have been designed with the StarMet tooth-and-adapter fitting system and a conventional mechanical two or three-part lip locking system.
- **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.

Extends the working life of the bucket and its productivity

- **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.



⁽¹⁾ See note at the end of the catalog.

▶ RANGE OF TEETH



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.



RSP

RSP Tooth

For electric rope shovels that require better penetration than with RS or RSX teeth but with less impact.

▶ RANGE OF ADAPTERS



WH10

Whisler⁽¹⁾ StarMet 10 adapter

For electric rope shovels with Whisler⁽¹⁾ 10 lip configurations.



WH12

Whisler⁽¹⁾ StarMet 12 adapter

For electric rope shovels with Whisler⁽¹⁾ 12 lip configurations.



BK6

StarMet WR6 (Wide Radius 6) adapter

For electric rope shovels with 6-inch BK lip configurations.

▶ RANGE OF SHROUDS



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.



BK

Conventional mechanical shroud WR6

For bucket configurations on machines P&H⁽¹⁾ 4100XPC with conventional locking.



LR

Wing shroud right

For bucket configurations on machines CAT⁽¹⁾ 7495HR/BI/BII and CAT⁽¹⁾ 7395BI/BII, P&H⁽¹⁾ 2800, P&H⁽¹⁾ 4100.



LL

Wing shroud left

For bucket configurations on machines CAT⁽¹⁾ 7495HR/BI/BII and CAT⁽¹⁾ 7395BI/BII, P&H⁽¹⁾ 2800, P&H⁽¹⁾ 4100.



UR

Wing shroud upper right

For bucket configurations on machines CAT⁽¹⁾ 7495HR/BI/BII and CAT⁽¹⁾ 7395BI/BII.



UL

Wing shroud upper left

For bucket configurations on machines CAT⁽¹⁾ 7495HR/BI/BII and CAT⁽¹⁾ 7395BI/BII.



U

Wing shroud upper

For bucket configurations on machines CAT⁽¹⁾ 7495HR/BI/BII and CAT⁽¹⁾ 7395BI/BII, P&H⁽¹⁾ 2800, P&H⁽¹⁾ 4100.



C

Central shroud

For bucket configurations on machines CAT⁽¹⁾ 7495HR/BI/BII and CAT⁽¹⁾ 7395BI/BII, P&H⁽¹⁾ 2800, P&H⁽¹⁾ 4100.

⁽¹⁾ See note at the end of the catalog.



MTG Systems RipMet in silicon applications in Spain.

► 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

CATERPILLAR⁽¹⁾
D8T

KOMATSU⁽¹⁾
D155AX - 5B

SIZE 50

CATERPILLAR⁽¹⁾
D10R

KOMATSU⁽¹⁾
D375A - 5

SIZE 55

CATERPILLAR⁽¹⁾
D11N

KOMATSU⁽¹⁾
D475A - 5

⁽¹⁾ See note at the end of the catalog.
NOTE: size 45 is specific for Construction.

► BULLDOZER SYSTEMS

SYSTEMS
RIPMET

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

► ADVANTAGES OF THE SYSTEM

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.

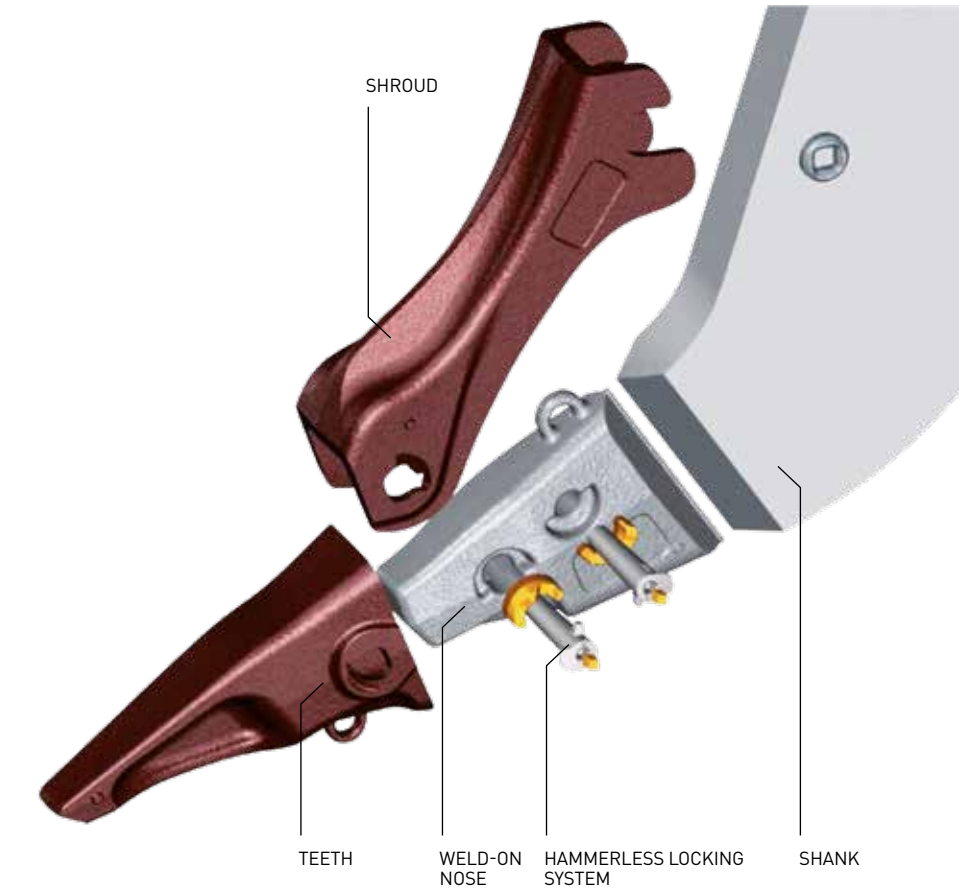
- The stabilization surfaces of the fitting system guarantees improved distribution of forces while working and it keeps the tooth firmly in place. System minimizes breakages, even on the most extreme applications.
- The fitting system stops the impacts from being transmitted to the locking devices,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



Underground loader bucket in Portugal.

► FULL BUCKET SOLUTION FOR UNDERGROUND MINING LOADERS

MTG LHD Lip System, bucket protection for underground mining.

► MACHINE MODELS



LHD LOADERS

CATERPILLAR⁽¹⁾
R1300, R1600, R1700

SANDVIK⁽¹⁾
LH307 AND LH410

JOY GLOBAL⁽¹⁾
LT1050

ATLAS COPCO⁽¹⁾
ST10, ST14, ST1510

⁽¹⁾ See note at the end of the catalog.
NOTE: Examples of the most common machines.

► ADVANTAGES OF THE SYSTEM

MTG PLUS LHD LIP SYSTEM, OPTIMIZED PENETRATION AND PRODUCTIVITY.

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

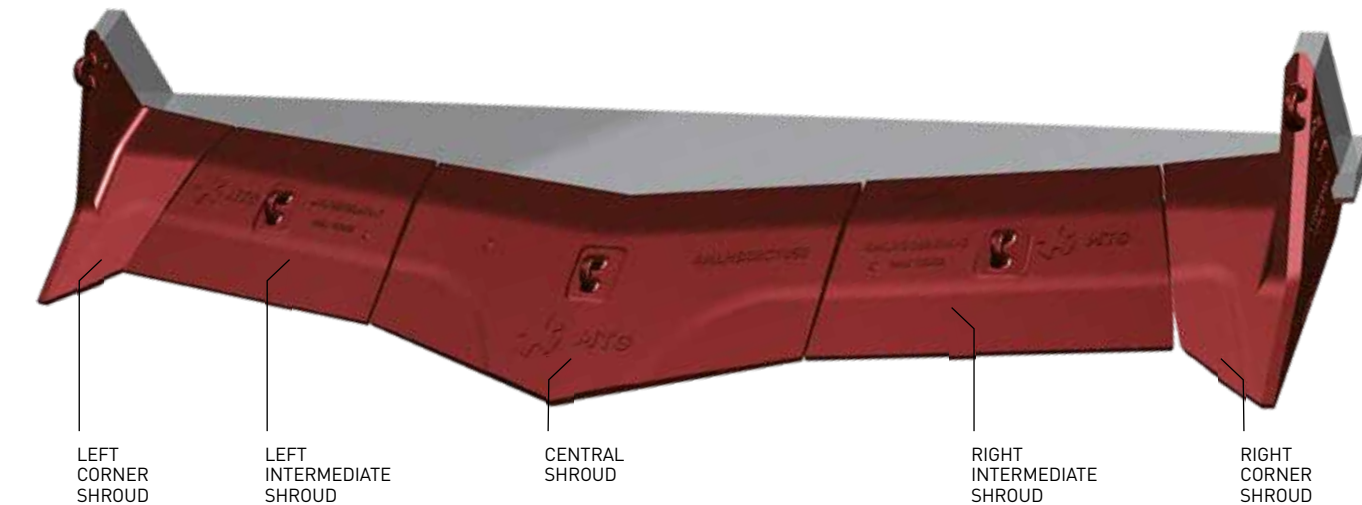
It has been developed to the stricted quality controls (including AOD process control) to **maximize the hardness and protection of the bucket** without losing the weldability of steel.

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.



► UNDERGROUND LOADERS SYSTEMS

► 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



LHD RC HD

HD Weld-on LHD right shroud



LHD LC HD

HD Weld-on LHD left shroud



MTG SYSTEMS STARMET TEETH IN HIGH-IMPACT APPLICATIONS



5 positions excavator bucket working in a gold mine in Australia.



Close up of MTG Systems StarMet performing in Australia.

STARMET

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%.^[2]



Machine: HITACHI^[1] EX3600
System: MTG Systems StarMet
Terrain: Gold mine in Australia. Hard rock with a medium level of abrasion
Location: Australia

^[1] ^[2] See notes at the end of the catalog

MTG SYSTEMS STARMET CAST CORNER ADAPTERS IN ABRASIVE APPLICATIONS



Bucket excavator working on rock and granite terrain in Russia.



MTG Systems StarMet cast corner adapter in abrasive applications.

STARMET

RESULTS: INCREASED G.E.T. WEAR LIFE AND PENETRATION EFFECTIVENESS. SIGNIFICANT REDUCTION IN MACHINE DOWNTIMES.^[2]



Machine: KOMATSU^[1] PC 3000
System: MTG Systems StarMet
Terrain: Compact and abrasive (granite or silicate rock)
Location: Arkhngelsk, Russia

^[1] ^[2] See notes at the end of the catalog

MTG SYSTEMS STARMET IN HIGH IMPACT APPLICATIONS



Mining Excavators in high impact applications in West Virginia.



STARMET

RESULTS: MAXIMUM EFFICIENCY AND DURATION IN HIGH-IMPACT APPLICATIONS. ^[2]



Machine: HITACHI⁽¹⁾ EX1900
System: MTG Systems StarMet
Terrain: Board. Low abrasion and high impact application
Location: West Virginia

MTG Systems StarMet G.E.T. working in a mine in West Virginia.

^{(1) (2)} See notes at the end of the catalog

G.E.T. SOLUTIONS FOR HIGHLY ABRASIVE APPLICATIONS



Complete MTG solutions for bucket protection in Scotland.



STARMET PROMET

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. ^[2]



Machine: KOMATSU⁽¹⁾ PC 3000
System: MTG Systems StarMet and MTG Systems ProMet
Terrain: Boulder clay, limestone and shile. Impact level: high. Abrasion level: high
Location: Scotland

Teeth, adapters and specific shrouds for high level of abrasion and impact.

^{(1) (2)} See notes at the end of the catalog.

MTG SYSTEMS PROMET SHROUDS IN HIGH-IMPACT APPLICATIONS



Hydraulic excavator in a copper mine in Brasil.



Hydraulic bucket excavator with MTG Systems ProMet wing shrouds.

PROMET

RESULTS: SINCE USING MTG'S TEETH, ADAPTERS AND SHROUDS THE WEAR LIFE OF THEIR HYDRAULIC EXCAVATORS G.E.T. HAS IMPROVED SUBSTANTIALLY COMPARED TO PREVIOUS SYSTEMS. ^[2]



Machine: KOMATSU⁽¹⁾ PC 2000
System: MTG Systems ProMet
Terrain: Copper mine.Abrasion level: high. Impact level: high
Location: Mina Sossego, Brasil

^{(1) (2)} See notes at the end of the catalog

MTG SYSTEMS STARMET ROPE SHOVELS APPLICATIONS IN HIGH LEVEL OF ABRASION



Detail of MTG Systems StarMet Rope Shovels with conventional locking system.



Front view of Rope Shovels bucket in Sweden.

STARMET ROPE SHOVELS

RESULTS: OPTIMUM OPERATION DURING THE TEST PERIOD. ^[2]



Machine: BUCYRUS⁽¹⁾ 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

^{(1) (2)} See notes at the end of the catalog.

SPECIFIC MTG SYSTEMS RIPMET APPLICATIONS IN BULLDOZERS



MTG Systems tooth for bulldozers working in Spain.



MTG Systems RipMet in silica applications.

RIPMET

RESULTS: THANKS TO THE HAMMERLESS LOCKING SYSTEM, WE HAVE REDUCED MACHINE DOWNTIMES THUS INCREASING MACHINE EFFICIENCY. ^[2]



Machine: KOMATSU^[1] 475
System: MTG Systems RipMet
Terrain: Silica gel. Ripper for Bulldozer
Location: Spain

^[1] ^[2] See notes at the end of the catalog

MTG PLUS LHD LIP SYSTEM IN COPPER MINE



Lip for underground loaders working in Portugal.



Bucket with LHD Lip Systems in a copper underground mine.

PLUS **LHD LIP SYSTEM**

RESULTS: MTG'S LHD LIP SYSTEM LASTS LONGER, INCREASING PRODUCTIVITY AND REDUCING MACHINE'S DOWNTIME. ^[2]



Machine: ATLAS^[1] ST14
System: MTG Plus LHD Lip System
Terrain: Underground copper mine
Location: Aljustrel, Portugal

^[1] ^[2] See notes at the end of the catalog.



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

SYSTEMS
STARMET

SYSTEMS
PROMET

SYSTEMS
KINGMET



| 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 ⁽¹⁾ |
| PC138USLC - 10 PC170LC - 10 | PC210LC - 10 PC290LC - 10 PC390LC - 10 | PC390LC - 11 PC490LC - 10 MH PC800LC - 8 HM | KOMATSU ⁽¹⁾ |
| ZX130LNC - 5 ZX160LC - 5 ZX180LC - 5 | ZX210LC - 5 ZX290LC - 5 ZX380LC - 6 | ZX470LC - 5 ZX670LC - 5 ZX870LC - 5 | HITACHI ⁽¹⁾ |

LOADERS

SYSTEMS
STARMET

SYSTEMS
PROMET

SYSTEMS
KINGMET



| 30 - 35 TON | 45 - 55 TON | 75 - 85 TON | 95 - 110 TON |
|------------------------|---|------------------------|---|
| CAT ⁽¹⁾ 980 | CAT ⁽¹⁾ 988 WA ⁽¹⁾ 600 | CAT ⁽¹⁾ 990 | CAT ⁽¹⁾ 992 WA ⁽¹⁾ 800 WA ⁽¹⁾ 900 LT ⁽¹⁾ - 950 |

▶ SYSTEMS FOR CONSTRUCTION

SYSTEMS
STARMET

Tooth-adaptor hammerless locking system for construction and quarries, which provide maximum protection for excavator and loader buckets.

| Sector | Sizes |
|--------------------|----------------|
| Construction | 15, 20, 30, 40 |
| Heavy construction | 50, 60 |



SYSTEMS
PROMET

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



SYSTEMS
KINGMET

MTG system for light, medium and heavy construction.

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



⁽¹⁾ See note at the end of the catalog.

⁽¹⁾ See note at the end of the catalog.

► ADVANTAGES OF THE SYSTEM

MTG SYSTEMS STARMET. PROVIDES INCREASED SAFETY, SAVINGS AND PRODUCTIVITY.

Increased Safety

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

When changing teeth:

- Safety. There is no chance of accidents being caused by flying metal particles.
- Ease of use: less effort is needed to change teeth than when using a hammer.
- Ease: only one operator is needed to complete the tooth change.

When working:

- Safer retention: tried and tested system offering excellent retention and preventing tooth loss.

Longer wear life

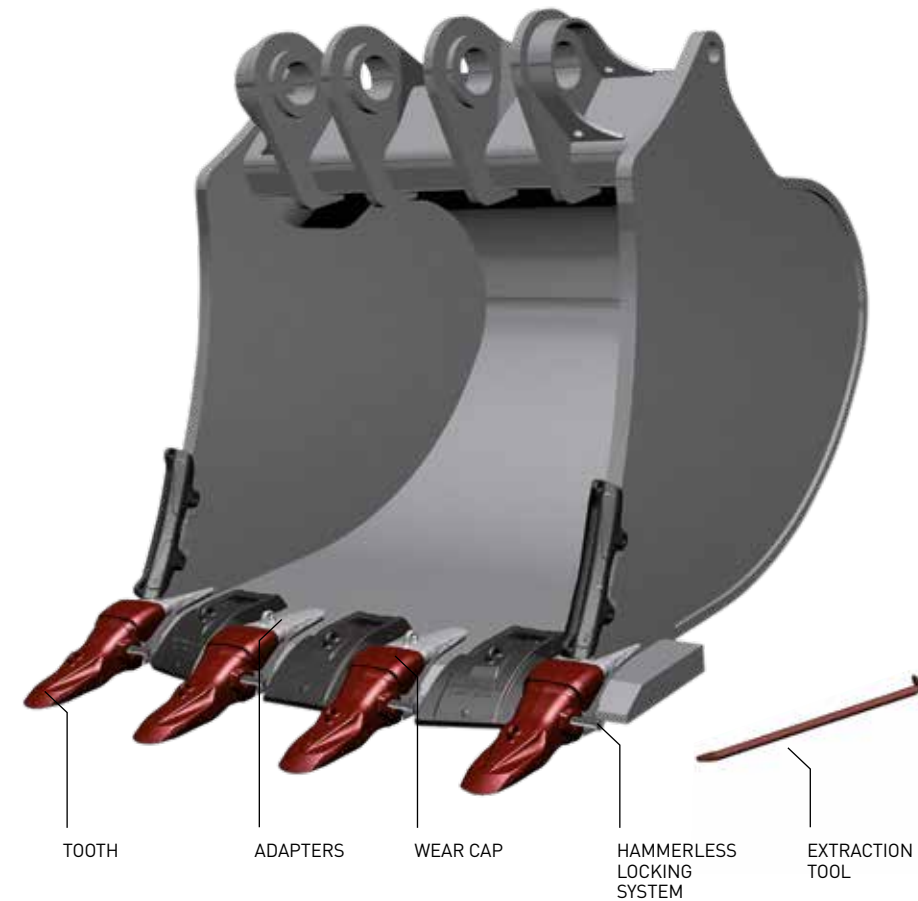
- Optimized tooth design means better penetration and more wear material.
- Adapter designed to protect the weld, as well as bottom leg and lateral wear, increasing the wear life of the adapter.
- Specific mechanical shroud for highly abrasive applications (size 40 onward)
- Fitting system designed for optimal load distribution, obtaining maximum resistance and robustness.

Greater savings and productivity

- The penetrating and self-sharpening design of the tooth increases the machine's productivity.
- Optimized adapter design reduces the number and duration of downtime, generating savings in maintenance downtimes thanks to long wear life.
- The innovative MTGtwist hammerless locking solution makes assembly and disassembly easier, reducing your machine's downtime.
- All our products are made with MTG Steels, lending them greater duration and less breakage.

SIZES

20 / 30 / 40 / 50 / 60


















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 StarMet teeth working in quarry in Spain.

RANGE OF TEETH

| | | | | | | |
|--|--|--|---|--|---|--|
|  E Extra For excavators in highly abrasive applications which require good penetration. E for construction (sizes 15 to 60). |  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 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. |  S Standard For excavators on loose, low-abrasive terrain which requires good penetration. Especially indicated for work in changing conditions and multiple applications. |  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 ADAPTERS AND SHROUDS

| | | | | |
|---|---|--|---|--|
|  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 shroud Weld-on delta wear cap for excavators and loaders with delta blade. |  FC Welded Flush Central For loaders on cleaning jobs where the terrain surface must be left flat. |  HD Reinforced wear bottom leg Weld-on shroud that reinforces the bottom blade of the adapter for high-abrasion and high-impact applications. |  M/M-A Mechanical shroud Protects the top of the adapter on high-abrasion and high-impact applications. | |

► ADVANTAGES OF THE SYSTEM

MTG SYSTEMS PROMET. COMPLETE PROTECTION FOR THE BUCKET.

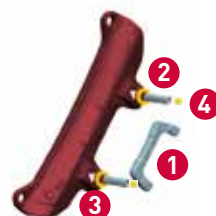
Longer wear life, safety, reliability and productivity

Wing shrouds

- **Offer 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. Wear material ratio above 70%.
- **Protect 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: safe and reliable locking system.
- **Its sharpness and lightness increase penetration** of the bucket, thus **improving machine productivity**.

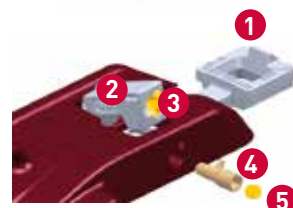
Lip Shrouds

- **Customized designs**, for the purpose of offering up to 30% more wear material as compared to the equivalent model on the market.
- **Reduce the exposure of the blade to impacts and abrasion**, 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.
- **Customized design for the locking system**, improving wear parts contact and stability.



PROMET LATERAL LOCKING SYSTEM

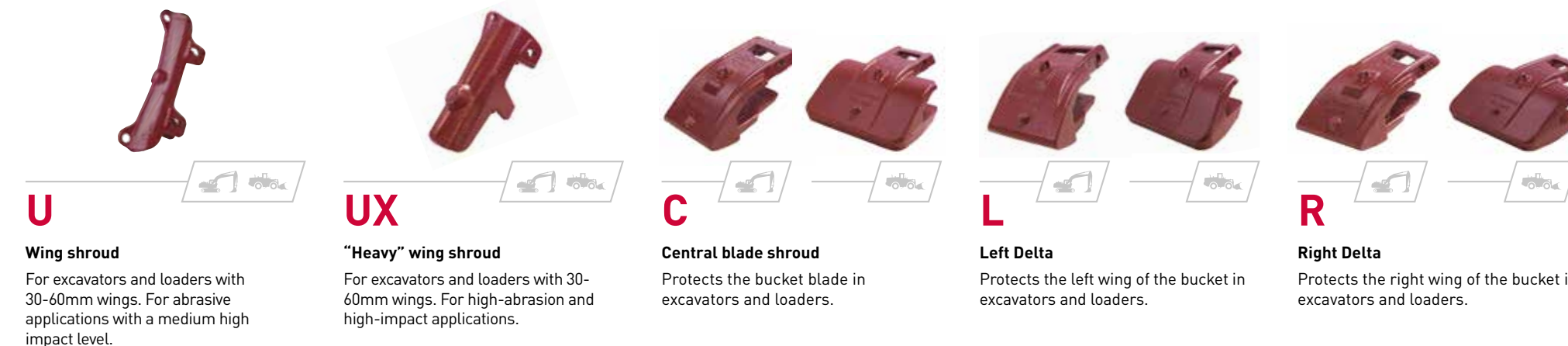
1. Weldable bases.
2. MTGtwist hammerless pin.
3. MTGtwist retainer made of Elastomet and polyurethane.
4. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.



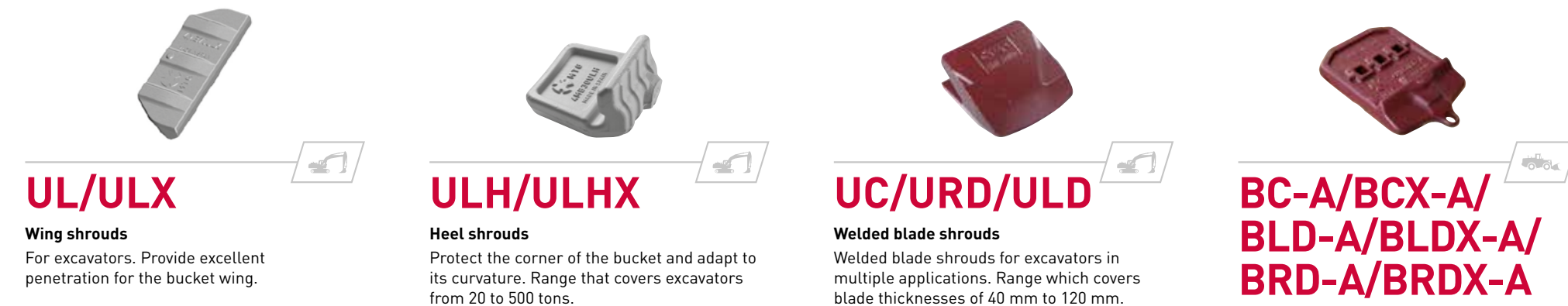
PROMET BLADE LOCKING SYSTEM

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 WING AND LIP SHROUDS



► OTHER SHROUDS



⁽¹⁾ See note at the end of the catalog.

► ADVANTAGES OF THE SYSTEM

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:

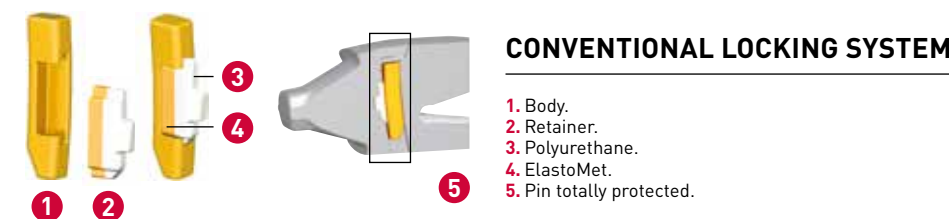
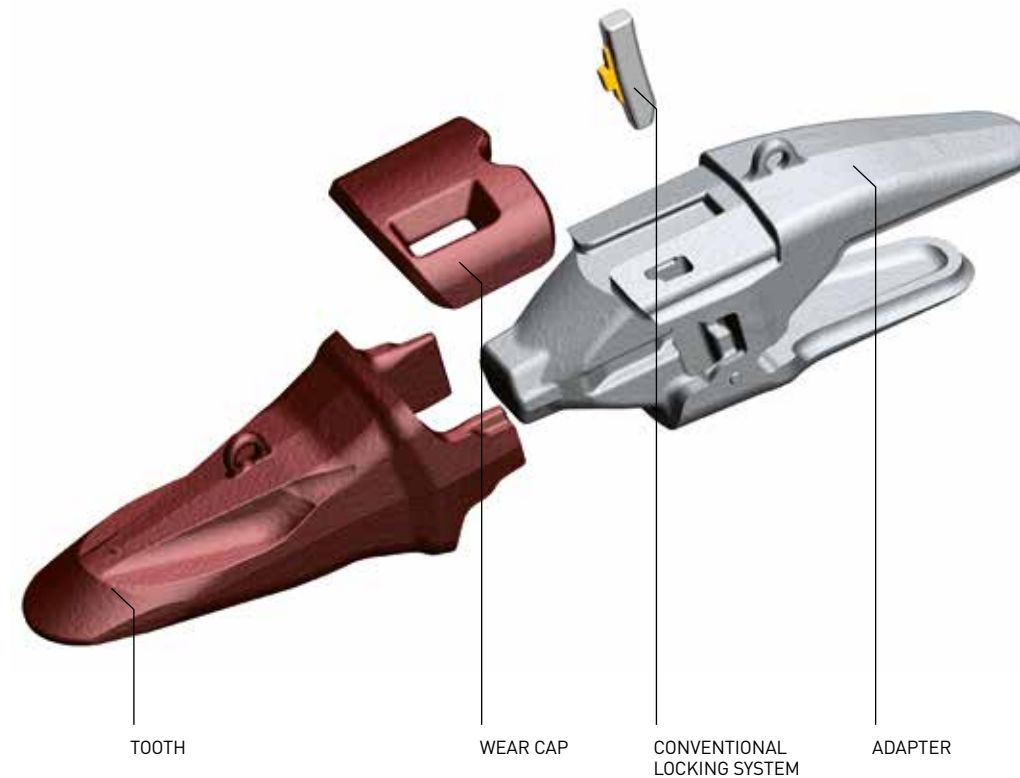
- The **body of the pin, made of the highest-quality steel in order to give it optimal resistance** and make reuse possible.
- The **retainer**, which is made of two components united as a single piece: Elastomet, which gives it **elasticity and flexibility**, and compact polyurethane.
- The combination 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.




Detail of MTG Systems KingMet teeth.


▶ RANGE OF TEETH




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 ADAPTERS AND SHROUDS




UC
Universal Central / Lower shovel
For small excavators, small loaders and mixed machines in applications requiring low impact.




WL/WR
Corners left-right
For the corners on excavator buckets.




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.




WC HD/M
Weld center with mechanical shroud
For applications with extreme abrasion. Protects the top of the adapter from wear.




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.



WC HS
Weld Center / Flush for hot slag
For loaders on hot slag applications.



FCC
Flush clamshell
For clamshell applications.

► ADVANTAGES OF THE SYSTEM

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.

Longer wear life, productivity and penetration

- 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**.

Safety, comfort and ease

- 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:

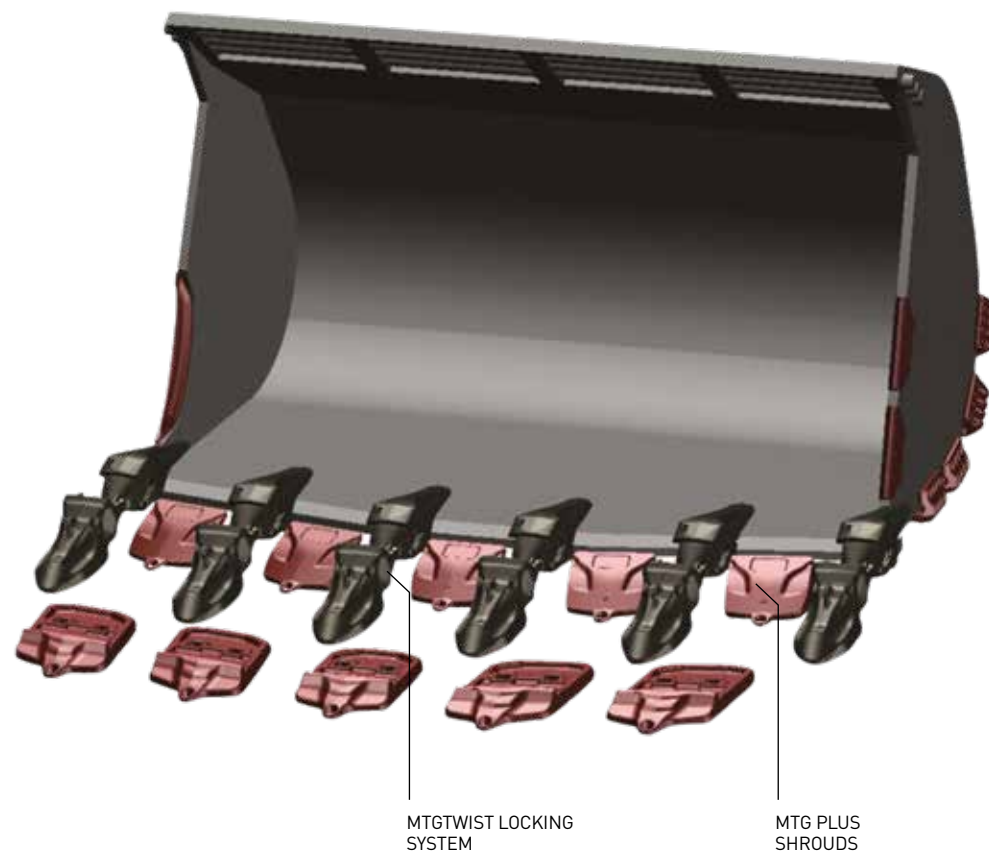
MTG Plus adaptable to Caterpillar⁽¹⁾ side pin

MTG Plus adaptable to Caterpillar⁽¹⁾ Ripper

MTG Plus adaptable to Komatsu⁽¹⁾ Ripper

MTG Plus shrouds

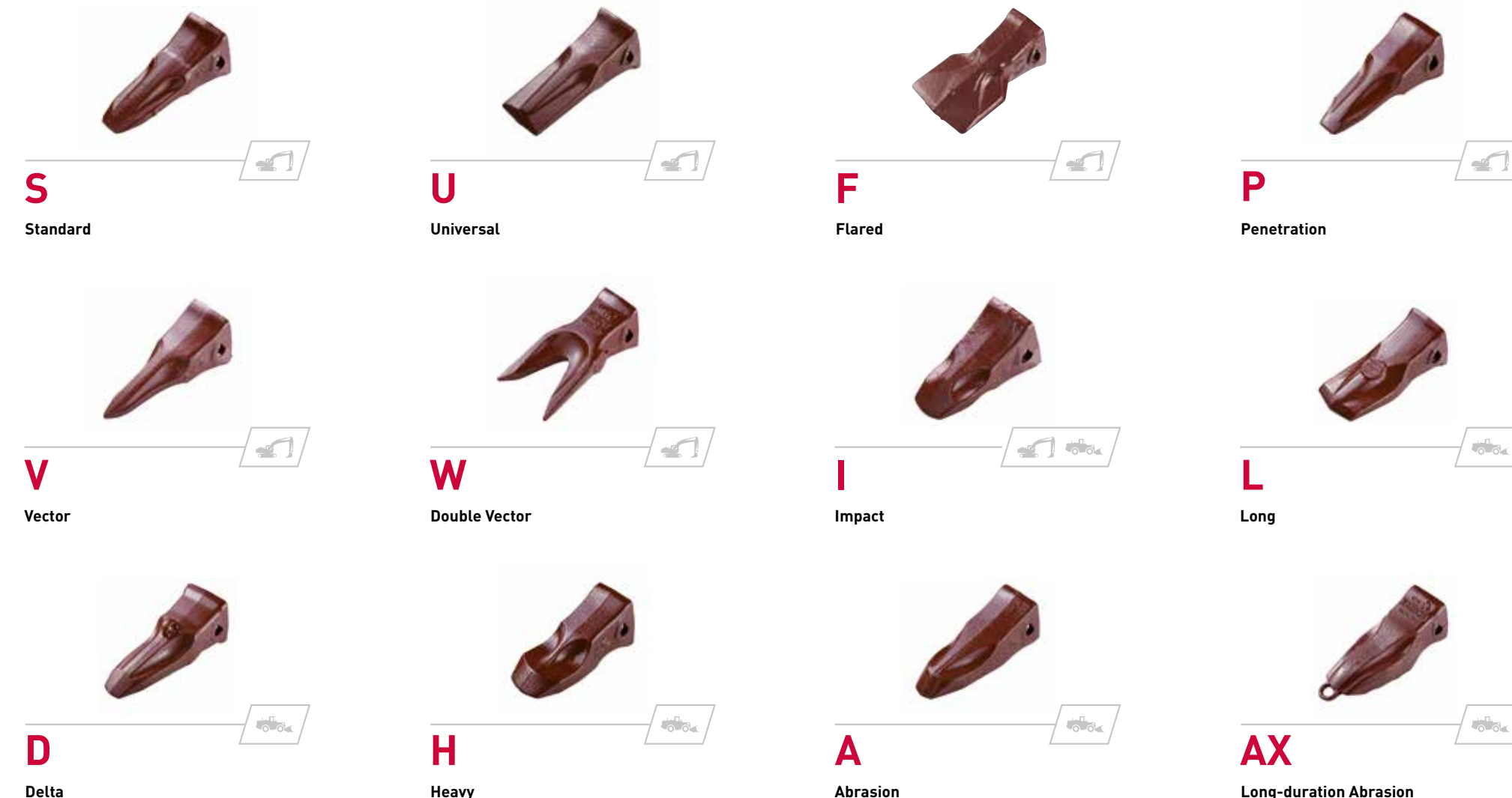
MTG Plus adaptable to H&L⁽¹⁾



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



⁽¹⁾ See note at the end of the catalog.

MTG SYSTEMS STARMET IN LIMESTONE AND QUARTZ APPLICATIONS



Construction excavator with MTG wear parts operating in Ireland.



MTG Systems StarMet tooh in a limestone and quartz quarry.

STARMET

RESULTS: THE HAMMERLESS LOCKING SYSTEM IMPROVES THE SAFETY AND RELIABILITY OF TEETH, BEING THE MAIN ADVANTAGE OF MTG SYSTEMS STARMET TEETH. ^[2]



Machine: HITACHI⁽¹⁾ ZX 850
System: MTG Systems StarMet
Terrain: Limestones and quartz quarries
Location: Ireland

^{(1) (2)} See notes at the end of the catalog

MTG SYSTEMS STARMET IN COMPACT AND ABRASIVE APPLICATIONS



MTG wear parts working in compact and abrasive applications in Germany.



MTG wear parts working in granite and silicate rock terrains.

STARMET

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. ^[2]



Machine: CATERPILLAR⁽¹⁾ 385BL REACH
System: MTG Systems StarMet
Terrain: Granite or silicate rock (compact and abrasive)
Location: Germany

^{(1) (2)} See notes at the end of the catalog.

MTG SYSTEMS STARMET TEETH FOR HOT SLAG APPLICATIONS



G.E.T. in hot slag applications in Spain.



MTG locking system working on extreme temperatures.

STARMET

RESULTS: MAXIMUM RESISTANCE AND DURABILITY AT EXTREME TEMPERATURES WITH MTG SYSTEMS STARMET FOR HOT SLAG. ^[2]



Machine: LOADER CAT⁽¹⁾ 980
System: MTG Systems StarMet
Terrain: Hot slag application
Location: Spain

^{(1) (2)} See notes at the end of the catalog

MTG SYSTEMS PROMET SHROUDS IN LIMESTONES TERRAIN



Excavator with MTG wear parts working in a limestone quarry in France.



MTG Systems ProMet shrouds working in a limestone terrain.

PROMET

RESULTS: INCREASE OF THE DURATION AND EASE OF ASSEMBLING-DISASSEMBLING WITH MTG SYSTEMS PROMET HAMMERLESS SHROUDS FOR CONSTRUCTION. ^[2]



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

^{(1) (2)} See notes at the end of the catalog.



DREDGING

► OBJECTIVE

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



More production

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



Longer wear life

System designs to protect the adapter, minimizing its wear and increasing its wear life in the cutterhead.



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.

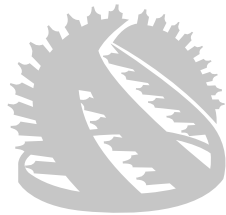


Safety and fast tooth changes

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 SUCTION DREDGERS

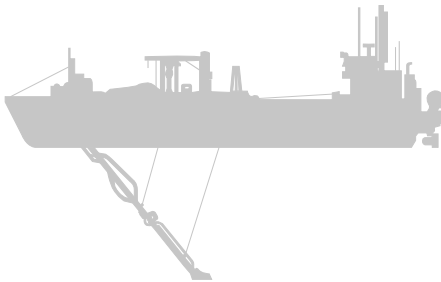
SYSTEMS
DMET MTG *PLUS*



Teeth, adapters and cutterheads for Cutter Section Dredgers.

HOPPER DREDGERS

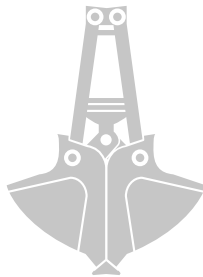
SYSTEMS
DMET *SYSTEMS*
STARMET



Teeth and adapters for dragheads.

CLAMSHELL OR GRAB DREDGERS

SYSTEMS
STARMET *SYSTEMS*
TWINMET



Teeth and adapters for clamshell Dredger buckets.

BACKHOE DREDGERS

SYSTEMS
STARMET *SYSTEMS*
TWINMET



Teeth and adapters for Backhoe Dredger buckets.

▶ MTG SYSTEMS FOR DREDGING

SYSTEMS
DMET

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

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.

SYSTEMS
TWINMET

Innovative three-part system (tooth - intermediate adapter - nose) for large clamshells and backhoes.

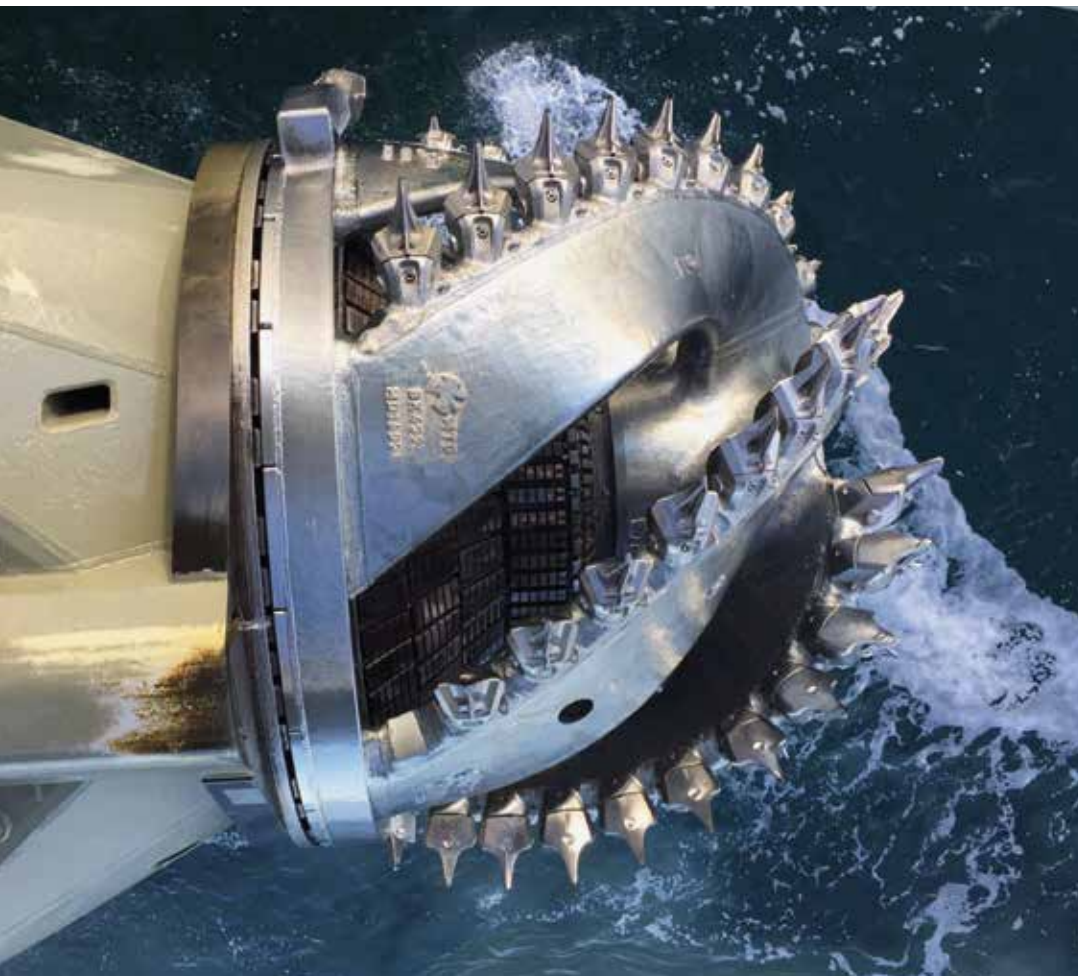
MTG *PLUS*

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

► CUTTING SYSTEMS TO MAXIMIZE THE PRODUCTIVITY OF THE DREDGING SERVICES

MTG develops innovative systems and technical services that help increase protection and productivity in dredging applications (Cutter Suction Dredgers, Hopper Dredgers, Clamshell or Grab Dredgers, Backhoe Dredgers).

In addition, MTG designs and manufactures its own cutterheads with the best steels and the latest production technology, which allows you to obtain the best quality available on the market.



MTG cutterheads are already working in different boats in the Middle East.



Since 2016, MTG produces its own cutterheads in its facilities of Monzón, Huesca.

► CUTTERHEADS

MTG DESIGNS ITS OWN CUTTERHEADS, EQUIPPED WITH THE DMET SYSTEM.

Design and manufacture of cutterheads

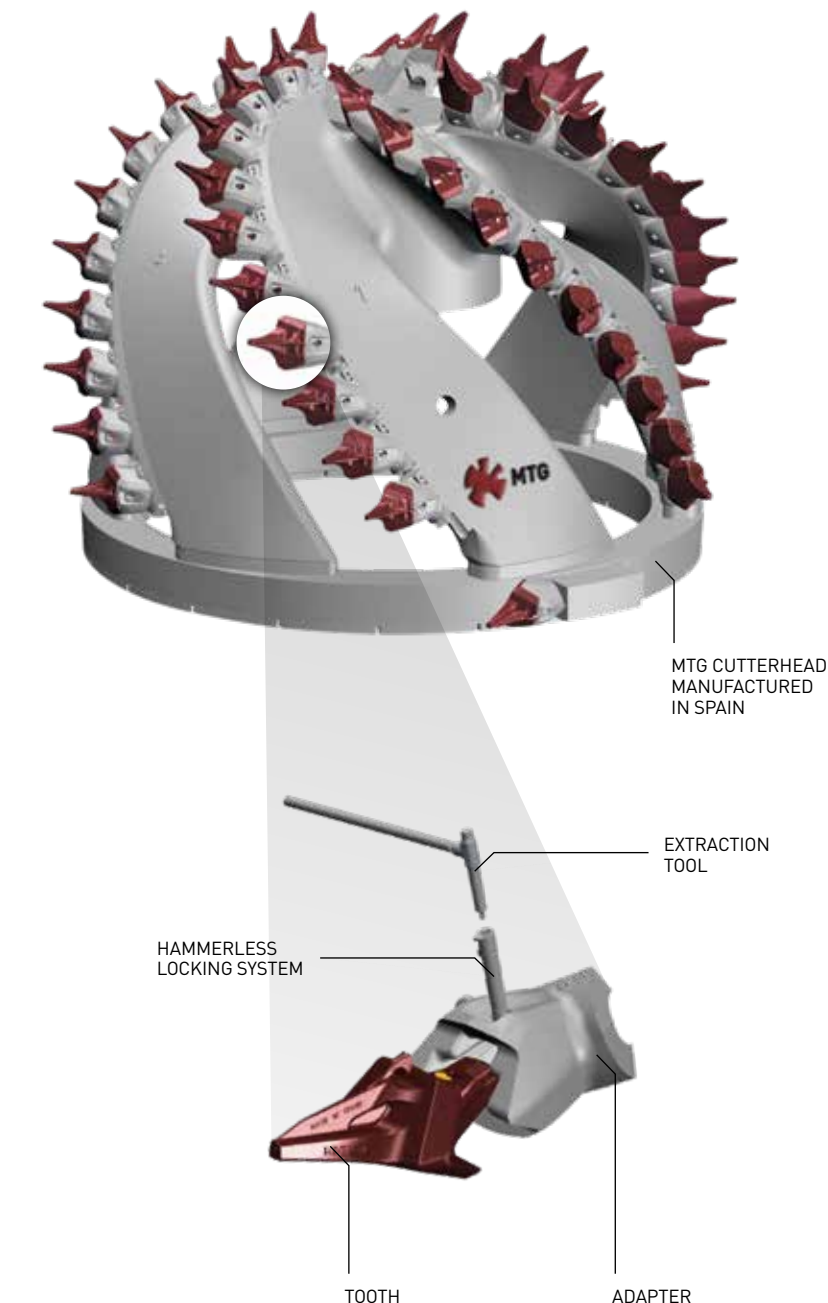
- MTG Engineering: customized designs according to the specific needs of each client and for any application, including the most demanding.
- Range of steels adapted to the type of design and application.
- MTG currently supplies to the most powerful dredgers on the market.

Adapter repair and replacement service

- MTG Engineering to position the DMet adapter and maximize the productivity of the cutterhead.
- Repair and conversion jobs at MTG.

New facilities for assembly and welding

- MTG has new facilities for manufacturing cutterheads, equipped with the latest technologies and the most cutting-edge procedures.
- Exhaustive quality control.
- Capacity for manufacturing several cutterheads simultaneously.



► ADVANTAGES OF THE SYSTEM

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 allow 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 the most efficient solution. Tooth deflectors protect the adapter from wear and extend its wear life. 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 cutterhead.

Quick, easy and safe tooth replacement

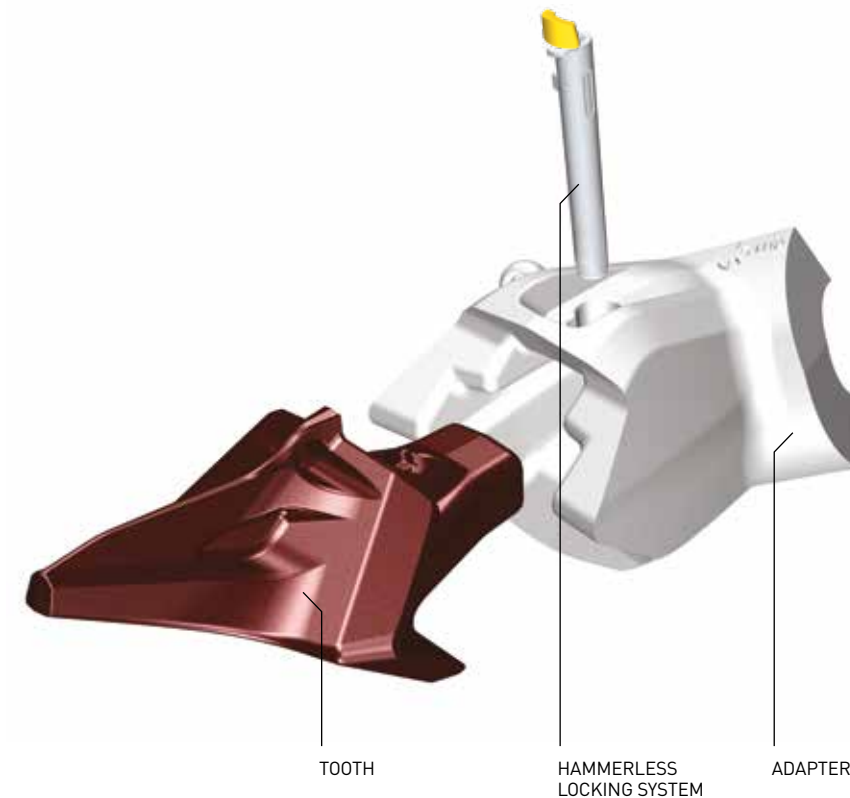
The hammerless locking solution makes tooth assembly and disassembly easier, reducing your machine's downtime. The locking device is easy and safe and its use is totally intuitive, avoiding any kind of error during installation, increasing ease of replacement. Tooth replacement can be carried out by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

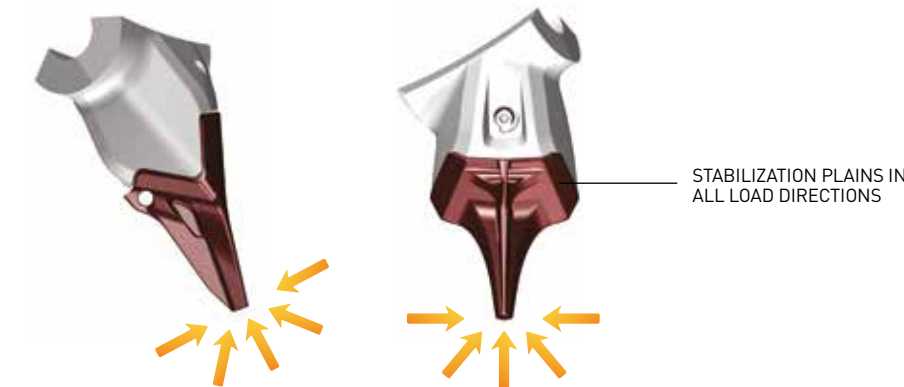
The new MTG Systems DMet system minimizes the risk of tooth breakage in severe work conditions. The smooth system design allows material to flow towards the inside of the cutterhead increasing suction efficiency and cutterhead productivity. The optimal functioning of the system, the increase in wear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



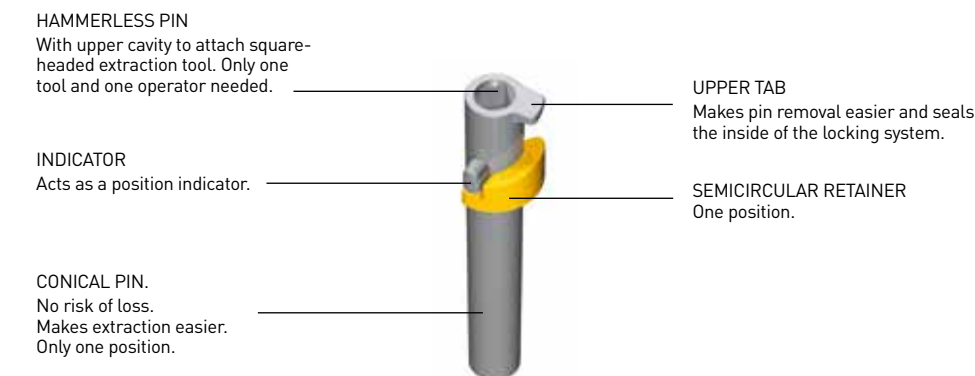
VERTICAL LOCKING SYSTEM

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

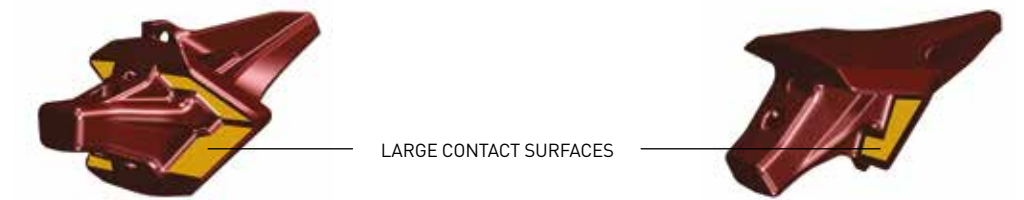
► STABILIZATION PLAINS DETAIL



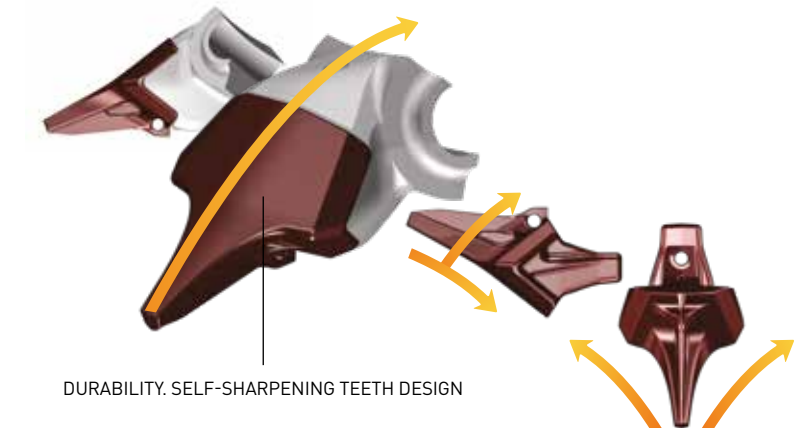
► REUSE OF THE PIN DETAIL



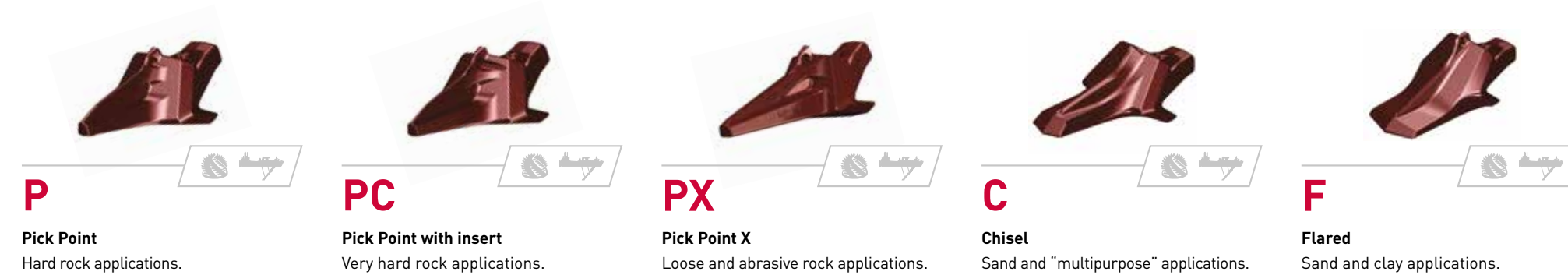
► CONTACT SURFACES DETAIL



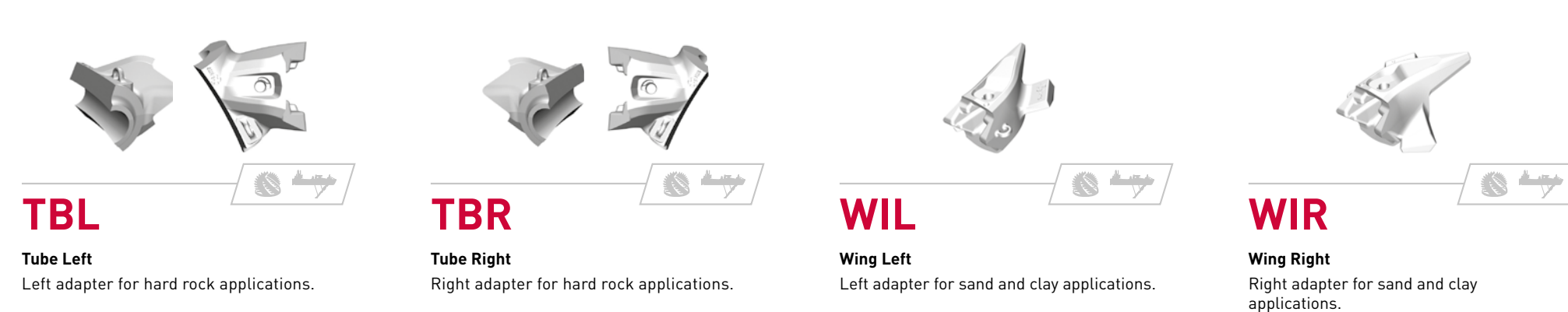
► DURABILITY DETAIL. SELF-SHARPENING TEETH



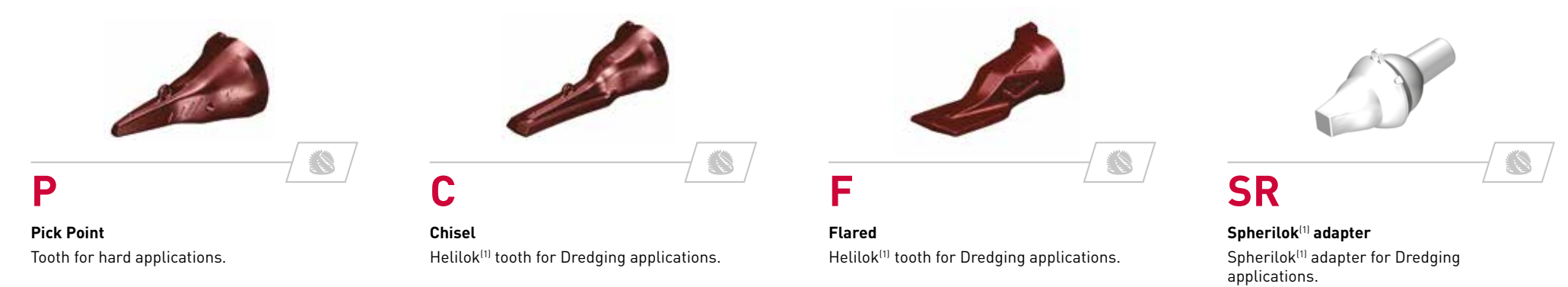
► RANGE OF TEETH



► RANGE OF ADAPTERS



► MTG PLUS RETROFIT HELILOK⁽¹⁾ RANGE OF TEETH AND ADAPTERS



► DREDGE SUPERCONICAL⁽¹⁾ RANGE OF TEETH AND ADAPTERS



⁽¹⁾ See note at the end of the catalog.

MAXIMUM PRODUCTIVITY AND RELIABILITY WITH DMET



New MTG cutterhead working in UAE. Designed and manufactured entirely in MTG with MD7 system.



MTG Systems DMet in a MTG cutterhead working in rock terrain.

DMET

RESULTS: HIGH RELIABILITY AND MAXIMUM PRODUCTIVITY. NO BREAKAGES, FEWER STOPS FOR MAINTENANCE AND OPTIMUM CUTTERHEAD PENETRATION. ^[2]



Machine: CUTTER SUCTION DREDGER TAURUS⁽¹⁾
System: MTG Systems DMet
Terrain: Rock
Location: UAE

^{(1) (2)} See notes at the end of the catalog

MTG SYSTEMS DMET IN EXTREME CONDITIONS



Cutterhead with MTG wear parts working in Qatar.



Maximum reliability with MTG Systems DMet teeth in limestone.

DMET

RESULTS: MAXIMUM RELIABILITY, NO BREAKAGES EVEN IN THE MOST EXTREME CONDITIONS AND INCREASED PRODUCTIVITY. ^[2]



Machine: CUTTER SUCTION DREDGERS TAURUS & PHOENIX⁽¹⁾
System: MTG Systems DMet
Terrain: Limestone
Location: Qatar

^{(1) (2)} See notes at the end of the catalog.

INCREASED PRODUCTIVITY WITH THE MTG SYSTEMS STARMET



Clamshell bucket fitted with StarMet 500 in Singapore.



Detail of MTG Systems StarMet teeth fitted to a clamshell bucket.

STARMET

RESULTS: OPTIMIZED CUTTING PROCESS, IMPROVED PRODUCTIVITY AND REDUCED COSTS. ^[2]




Machine: CLAMSHELL
System: MTG Systems StarMet
Terrain: Clay
Location: Singapore

^{[1] [2]} See notes at the end of the catalog



MTG cutterheads, made with the best MTG steels.

The background of the page features a complex, abstract geometric design. On the right side, there are large, overlapping circular and square shapes in shades of gray, resembling a stylized gear or a technical diagram. On the left side, there are smaller, more delicate geometric patterns, including lines and dots, suggesting a circuit board or a network diagram. The overall aesthetic is technical and modern.

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No limits innovation

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