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

MTO 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.

MTO is currently immersed in a phase in which communications—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 MTO

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

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.

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.

"We design and manufacture wear parts to guarantee maximum productivity in earthmoving machinery”
MTG’S COMMITMENT TO 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-adaptor 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.

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).

Monzón 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.
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.

SECTORS WE WORK IN

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

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

**MINING**

**Objective**

- **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 options, 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 chocks.

- **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.
MINING MACHINE MODELS AND SYSTEMS RECOMMENDED

**EXCAVATORS**

100 - 120 TON
- CAT® 410F
- RH® 44
- EX® 4300 - 4
- PO-1200

170 - 200 TON
- CAT® 610F
- RH® 60
- EX® 1300 - 6
- PO-2000

280 - 350 TON
- CAT® 6200F
- EX® 4300 - 4
- EX® 5000

OVER 350 TON
- EX® 4900
- CAT® 6200F
- EX® 5000
- RH® 500
- EX® 6000
- PO-3000

**LOADERS**

95 - 110 TON
- CAT® 992
- RH® 94
- LT® 1100

130 - 145 TON
- CAT® 993
- RH® 1150
- LT® 1250

180 - 220 TON
- CAT® 994
- RH® 1700
- LT® 1350

240 - 250 TON
- CAT® 995
- RH® 2000
- LT® 1500

**ELECTRIC ROPE SHOVELS**

P&H™ 2800
- CAT® 735F (BE235)
- P&H™ 3200
- CAT® 750F (BE245)

**SYSTEMS**

**BULLDOZERS**

SIZE 45
- CATERPILLAR®
- D10R

SIZE 50
- KOMATSU®
- D150A - 5

SIZE 55
- KOMATSU®
- D155A - 5

**UNDERGROUND MINING LOADERS**

LHD LOADERS
- CATERPILLAR®
- R1300, R1600, R1700

- SANDVIK
- LH307 AND LH410

- JOY GLOBAL®
- LT1050

- ATLAS COPCO®
- ST10, ST14, ST1510

NOTE: Examples of the most common models.

**NOTE:** See note at the end of the catalog.

**SYSTEMS**
NEW MTG SYSTEMS TWINMET

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.

MTG SYSTEMS TWINMET in Ponferrada (Spain).

MTG Twist Hamerless Locking System
MINING EXCAVATORS AND LOADERS

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.

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) 90
- EX(1) 1900 - 6
- PC(1) 2000

170 - 200 TON
- CAT(1) 6015
- RH(1) 90
- EX(1) 1900 - 6
- PC(1) 2000

280 - 300 TON
- CAT(1) 6030
- RH(1) 120
- EX(1) 2600 - 6
- PC(1) 3000

95 - 110 TON
- CAT(1) 992
- WA(1) 800
- WA(1) 900
- LT(1) - 950

130 - 145 TON
- CAT(1) 993
- LT(1) - 1150
- WA(1) 1200
- LT(1) - 1350

180 - 220 TON
- CAT(1) 993
- LT(1) - 1650
- WA(1) 1600
- LT(1) - 1850

240 - 250 TON
- CAT(1) 993
- LT(1) - 1850
- WA(1) 1800
- LT(1) - 2350

Examples of loaders

170 - 200 TON
- CAT(1) 6015
- RH(1) 90
- EX(1) 1900 - 6
- PC(1) 2000

280 - 300 TON
- CAT(1) 6030
- RH(1) 120
- EX(1) 2600 - 6
- PC(1) 3000

95 - 110 TON
- CAT(1) 992
- WA(1) 800
- WA(1) 900
- LT(1) - 950

130 - 145 TON
- CAT(1) 993
- LT(1) - 1150
- WA(1) 1200
- LT(1) - 1350

180 - 220 TON
- CAT(1) 993
- LT(1) - 1650
- WA(1) 1600
- LT(1) - 1850

240 - 250 TON
- CAT(1) 993
- LT(1) - 1850
- WA(1) 1800
- LT(1) - 2350

(1) See note at the end of the catalog

EXCAVATOR AND LOADER SYSTEMS

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

Hammerless tooth-adapter system for mining that offers optimized, robust and resistant designs for excavators and loaders.
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-adaptor 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. Toothed system that offers an excellent retention and prevents tooth loss.

Longer Wear Life

• Teeth. Optimized design with better penetration, self-sharpening and higher rate of wear material.
• Adaptors. 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 optimum distribution of the force, 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.
• Adaptor. The optimized design and/or/years life reduces the amount and weight of stop work, thus reducing the machine's downtime.
• Wear parts manufactured using MTG Steels. They last longer and break less.

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

MTGWIST LATERAL LOCKING SYSTEM

1. Hammerless conical pin for an easier extraction.
2. Standard shaped square hole.
3. MTG twist wear plate of prehardened and carbon-hardened steel.
5. Wear parts manufactured using MTG Steels. They last longer and break less.

MINING SIZES
120 / 180 / 240 / 500

HEAVY MINING SIZES
500

LATES MTG SYSTEMS STARMET RELEASES.

New mechanical shroud for extreme and high impact applications

For sizes 120, 180, the top cone 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.
EXCAVATORS AND LOADERS

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

U Universal
For excavators in high abrasion applications, which require a high level of penetration.

P Penetration
For excavators on extremely compact terrain, which require a high level of penetration.

V Vector

W Double Vector

RANGE OF ADAPTERS AND SHROUDS

CX Chisel
Tooth for excavating in low impact applications, which improve the ratio of penetration to wear.

I Impact
For excavators and loaders on low abrasion terrain and high impact. Especially indicated for pre-excavation and applications with large blocks of stone.

A Abrasion

AX Abrasion X

D Delta
For loaders on compact terrain which require a lot of abrasion and impact. Abrasion: high. Impact: medium-low.

H Heavy
For loaders on loose terrain, where there is a high level of abrasion and impact. Abrasion: high. Impact: high.

WR Asymmetrical welded right adapter
For the right corner of excavator blades, protecting them from abrasion and impact.

WL Asymmetrical welded left adapter
For the left corner of excavator blades, protecting them from abrasion and impact.

WN Weld on nose
For repairing or convertting any adapter to MTG Systems StarMet.

WC Weld on tooth-adapter for excavators and loaders with delta blade.

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

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

WRD/M Weld on tooth-adapter with mechanical shroud for excavators and loaders with delta blade.

WS Weld-on tooth-adapter with mechanical shroud
For excavators and loaders without having to remove the adapter. Standard applications with normal levels of abrasion and impact.

HD/HD-A Nonstandard wear bottom leg shroud
For adavanced applications, which require a high level of penetration.

M/M-A Mechanical shroud
Mechanical shroud: Reinforced shroud in the upper area and the bottom of the bucket, providing maximum resistance and protection for the bucket.
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 customised, 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.

• Optimised 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 hammerless pin.
4. MTGtwist retainer made of Elastomet and polyurethane.
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 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.

- **BCX**: Central blade shroud
  - Bolt-on half arrow central 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 Delta shroud
  - Bolt-on half arrow left blade shroud for Caterpillar® loaders used for abrasive applications.

**OTHER MECHANICAL SHROUDS**

- **UX**: "Heavy" wing shroud
  - Mechanical shroud for excavators in heavy mining applications.

- **U**: Standard wing shroud
  - Mechanical shroud for mining loaders.

- **BCX**: Central blade shroud
  - Bolt-on half arrow central 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 Delta shroud
  - Bolt-on half arrow left blade shroud for Caterpillar® loaders used for abrasive applications.

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(1) See note at the end of the catalog.
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** 2800 (WH10, WH12)
- **P&H** 4100 (WH10, WH12)
- **CAT** 7395 HR/BI/BII BE395
- **CAT** 7495 HR/BI/BII BE495

**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® electric rope shovels:
- **CAT** 7395 BI
- **CAT** 7495 HR

Bucket configurations for P&H® 4100 electric rope shovels:
- **P&H** 4100

Bucket configurations for P&H® 2800 electric rope shovels:
- **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. FULL BUCKET PROTECTION.**

Broad range of Whisler® 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.
- **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.

**ADVANTAGES OF THE SYSTEM**

1. **Mechanical shrouds (wear cap).**
2. **Teeth.**
3. **Shrouds.**

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**MTG Systems StarMet Rope Shovels solution.**
MINING

ELECTRIC ROPE SHOVELS

**RANGE OF TEETH**

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

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

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

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

- **RSP** Tooth
  - For electric rope shovels that require better penetration than with RS or RSS teeth but with less impact.

- **RSP** Tooth
  - For electric rope shovels with Whisler® 10 lip configurations.

- **RSXX** Tooth
  - For electric Rope Shovels with 6-inch BK lip configurations.

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

- **RSP** Tooth
  - For electric rope shovels with Whisler® 12 lip configurations.

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

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

**RANGE OF SHROUDS**

- **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® 4100XPC with conventional locking.

- **UL** Wing shroud upper left
  - For bucket configurations on machines CAT® 1W/1HR/1ER/1EB and CAT® 7395E/B/E/BII.

- **UR** Wing shroud upper right
  - For bucket configurations on machines CAT® 1W/1HR/1ER/1EB and CAT® 7395E/B/E/BII.

- **U** Wing shroud upper
  - For bucket configurations on machines CAT® 1W/1HR/1ER/1EB and CAT® 7395E/B/E/BII.

- **LL** Wing shroud upper left
  - For bucket configurations on machines CAT® 1W/1HR/1ER/1EB and CAT® 7395E/B/E/BII.

- **LR** Wing shroud right
  - For bucket configurations on machines CAT® 1W/1HR/1ER/1EB and CAT® 7395E/B/E/BII.

- **C** Central shroud
  - For bucket configurations on machines CAT® 71V5/4HR/4EB and CAT® 7375E/B/E/BII.

- **WH10** StarMet® 10 adapter
  - For bucket configurations with Whisler® 10 lip configurations.

- **WH12** StarMet® 12 adapter
  - For bucket configurations with Whisler® 12 lip configurations.

- **BK6** StarMet® WR6 (Wide Radius 6) adapter
  - For electric rope shovels with Whisler® 12 lip configurations.

- **BK6** StarMet® WR6 (Wide Radius 6) adapter
  - For electric rope shovels with Whisler® 10 lip configurations.

- **W** Wing shroud left
  - For bucket configurations on machines CAT® 1W/1HR/1ER/1EB and CAT® 7395E/B/E/BII.

- **U** Wing shroud upper
  - For bucket configurations on machines CAT® 1W/1HR/1ER/1EB and CAT® 7395E/B/E/BII.

- **WH10** StarMet® WR6 (Wide Radius 6) adapter
  - For electric rope shovels with Whisler® 10 lip configurations.

- **WH12** StarMet® WR6 (Wide Radius 6) adapter
  - For electric rope shovels with Whisler® 12 lip configurations.

- **BK6** StarMet® WR6 (Wide Radius 6) adapter
  - For electric rope shovels with Whisler® 12 lip configurations.

**RANGE OF ADAPTERS**

- **Whisler® StarMet® 10 adapter**
  - For electric rope shovels with Whisler® 10 lip configurations.

- **Whisler® StarMet® 12 adapter**
  - For electric rope shovels with Whisler® 12 lip configurations.

(1) See note at the end of the catalog.
PATENTED MTG SYSTEMS RIPMET WEAR PARTS FOR BULLDOZERS

Longer service life with an optimum penetration at quarries and during mining work.

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 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 teeth 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.

MACHINE MODELS

SIZE 45  SIZE 90  SIZE 95
CATERPILLAR®  D8T  D10N  D11N
KOMATSU®  D15A-6  D15A-6  D17A-5

32 33
**RANGE OF TEETH**

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

**PX**
Penetration X

**S**
Standard

**I**
Impact

**P**
Penetration

**V**
Vector
Recommended for ripper excavator.

**RANGE OF ADAPTERS AND SHROUDS**

**WA**
Adapter

**WN**
Weld-on nose

**S2**
Shroud

Specific bulldozer solutions in Spain.
MINING

FULL BUCKET SOLUTION FOR UNDERGROUND MINING LOADERS

MTG LHD Lip System, bucket protection for underground mining.

MACHINE MODELS

LHD LOADERS
- CATERPILLAR: R1300, R1700, R1750
- SANDVIK: LH307 AND LH410
- JOY GLOBAL: LT1050
- ATLAS COPCO: ST10, ST14, ST1510

See note at the end of the catalog. Note: Examples of the most common machines.

UNDERGROUND LOADERS SYSTEMS

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.

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.

NOTE: Examples of the most common machines.

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

Underground loader bucket in 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

LHD RC HD
- HD Weld-on LHD right shroud

LHD LC HD
- HD Weld-on LHD left shroud

MTG Plus solution for Underground loaders.
MTG SYSTEMS STARMET TEETH IN HIGH-IMPACT APPLICATIONS

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

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)

MTG SYSTEMS STARMET CAST CORNER ADAPTERS IN ABRASIVE APPLICATIONS

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

RESULTS: INCREASED G.E.T. WEAR LIFE AND PENETRATION EFFECTIVENESS. SIGNIFICANT REDUCTION IN MACHINE DOWNTIMES. (2)

(1) (2) See notes at the end of the catalog.
TESTIMONIALS FOR MINING

MTG SYSTEMS STARMET IN HIGH IMPACT APPLICATIONS

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

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

RESULTS: MAXIMUM EFFICIENCY AND DURATION IN HIGH-IMPACT APPLICATIONS. (2)

G.E.T. SOLUTIONS FOR HIGHLY ABRASIVE APPLICATIONS

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

Complete MTG solutions for bucket protection in Scotland.

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

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)

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

(1) (2) See notes at the end of the catalog.
TESTIMONIALS FOR MINING

MTG SYSTEMS PROMET SHROUDS IN HIGH-IMPACT APPLICATIONS

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

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)

MTG SYSTEMS STARMET ROPE SHOVELS APPLICATIONS IN HIGH LEVEL OF ABRASION

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

RESULTS: Optimum operation during the test period. (2)

Mina Sossego, Brasil

Rope Shovels bucket in Sweden.

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

(1) (2) See notes at the end of the catalog.
TESTIMONIALS FOR MINING

SPECIFIC MTG SYSTEMS RIPMET APPLICATIONS IN BULLDOZERS

Machine: KOMATSU® 475
System: MTG Systems Ripmet
Terrain: Silica gel, Ripper for Bulldozer
Location: Spain

RESULTS: THANKS TO THE HAMMERLESS LOCKING SYSTEM, WE HAVE REDUCED MACHINE DOWNTIMES THUS INCREASING MACHINE EFFICIENCY. (1)

MTG Systems Ripmet in silica applications.

MTG SYSTEMS

MTG PLUS LHD LIP SYSTEM IN COPPER MINE

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

RESULTS: MTG’S LHD LIP SYSTEM LASTS LONGER, INCREASING PRODUCTIVITY AND REDUCING MACHINE’S DOWNTIME. (2)

Lip for underground loader working in Portugal.

MTG PLUS LHD LIP SYSTEM

(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.
MACHINE MODELS AND SYSTEMS

CONSTRUCTION

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

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

PROMET
MTG system for light, medium and heavy construction.

EXCAVATORS

<table>
<thead>
<tr>
<th>Sector Sizes</th>
<th>12 - 20 TON</th>
<th>21 - 40 TON</th>
<th>41 - 90 TON</th>
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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:
1. Safety: There is no chance of accidents being caused by flying metal particles.
2. Ease of use: less effort is needed to change teeth than when using a hammer.
3. Ease: only one operator is needed to complete the tooth change.

When working:
4. 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 onwards).
- Fitting system designed for optimal load distribution, obtaining maximum resilience 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.

BILATERAL LOCKING SYSTEM

1. Hammerless: avoid injuries to the operator and machine
2. Increased productivity: improves retention of metal teeth and polyurethane
3. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly

MTG Systems StarMet teeth working in quarry in Spain.

SIZES
20 / 30 / 40 / 50 / 60
CONSTRUCTION

EXCAVATORS AND LOADERS

RANGE OF TEETH

EX

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

EX X

Extra X
For excavators on loose terrain with little abrasion and multiple applications. Suits for mining, impact: medium-high.

U

Universal
For excavators on loose terrain with low abrasion and multiple applications. Suits for mining, impact: medium-high.

P

Penetration
For excavators in compact terrain. Abrasion: medium, impact: medium-high.

F

Flared
For excavators on highly compacted terrain. Abrasion: high, impact: medium-high.

V

Vector
For excavators on very compacted terrain. Abrasion: high, impact: medium-high.

VC

Vector Goal
For excavators on very compacted terrain. Design with high penetration and self-sharpening.

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Vector Goal
For excavators on very compacted terrain. Design with high penetration and self-sharpening.

RANGE OF ADAPTERS AND SHROUDS

WN

Weld-on nose
For repairing or converting any adapter to the MTG Systems StarMet. Abrasion: low, impact: medium-high.

UC

Universal Central
For main excavators and loaders in applications requiring a low level of impact.

WC

Weld-on tooth-adapter for excavators and loaders in applications requiring high resistance to impact. Improves blade fastening and provides maximum penetration of the bucket.

WRD

Weld-on right-left delta tooth-adapter for excavators and loaders. Abrasion: low, impact: high.

WRD/M

Delta with mechanical shroud
Delta with mechanical shroud for excavators and loaders. Abrasion: low, impact: high.

M/M-A

Mechanical shroud
Mechanical shroud for the adapter on high-abrasion and high-impact applications.

WLD

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

WC/M

Central with mechanical shroud
Central with mechanical shroud for excavators and loaders in applications requiring high resistance to abrasion and impact.

Double Vector

Double Vector
For excavators on extremely compact terrain. Abrasion: high, impact: high.

Standard

Standard
For excavators on loose, low-abrasion terrain, which requires impact and penetration. Especially indicated for works with variable abrasion, like in multiple applications.

Impact

Impact
For excavators and loaders on new applications with a high level of impact. Especially indicated for works on compacted soil with multiple applications with large blocks of stone.

Abrasion

Abrasion
For excavators on particularly abrasive loose terrains with a high level of abrasion. Abrasion also indicated for applications with large blocks of stone.

Abrasion X

Abrasion X
For excavators on applications with an extreme level of abrasion.

Long

Long
For loaders on loose terrains or pre-split stone quarries where there is a high level of abrasion. For loaders on pre-split stone quarries, use reinforced wearing parts, such as the Delta tooth with mechanical shroud. Abrasion: high, impact: medium-low.

R/WLDM

Delta with mechanical shroud
Delta with mechanical shroud for excavators and loaders. Abrasion: low, impact: high.

WC

Weld-on tooth-adapter for excavators and loaders in applications requiring high resistance to impact. Improves blade fastening and provides maximum penetration of the bucket.

WC/M

Central with mechanical shroud
Central with mechanical shroud for excavators and loaders in applications requiring high resistance to abrasion and impact.

WN

Weld-on nose
For repairing or converting any adapter to the MTG Systems StarMet. Abrasion: low, impact: medium-high.

UC

Universal Central
For main excavators and loaders in applications requiring a low level of impact.

WC

Weld-on tooth-adapter for excavators and loaders in applications requiring high resistance to impact. Improves blade fastening and provides maximum penetration of the bucket.

WRD

Weld-on right-left delta tooth-adapter for excavators and loaders with delta blade.

WC/M

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Central with mechanical shroud for excavators and loaders in applications requiring high resistance to abrasion and impact.

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**ADVANTAGES OF THE SYSTEM**

**MTG SYSTEMS PROMET. COMPLETE PROTECTION FOR THE BUCKET.**

**Larger 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.
- MTGDelta 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 15% 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.

**RANGE OF WING AND LIP SHROUDS**

**Wing shrouds**
- For excavators and loaders with 30-60mm wings. For abrasive applications with a medium-high impact level.
- "Heavy" wing shroud: For excavators and loaders with 30-60mm wings. For high-abrasion and high-impact applications.
- Central blade shroud: Protects the bucket blade in excavators and loaders.
- Left Delta: Protects the left wing of the bucket in excavators and loaders.
- Right Delta: Protects the right wing of the bucket in excavators and loaders.

**Lip shrouds**
- UL/ULX: For excavators. Provide excellent penetration for the bucket wing.
- ULH/ULHX: Welded blade shrouds for excavators in multiple applications. Range which covers blade thicknesses of 60 mm to 120 mm.
- UC/URD/ULD: Welded blade shrouds for excavators in multiple applications. Range which covers blade thicknesses of 60 mm to 120 mm.

**OTHER SHROUDS**

**UL/ULX**
- Wing shrouds: For excavators. Provide excellent penetration for the bucket wing.

**ULH/ULHX**
- Welded blade shrouds: For excavators in multiple applications. Range which covers blade thicknesses of 60 mm to 120 mm.

**UC/URD/ULD**
- Welded blade shrouds: For excavators in multiple applications. Range which covers blade thicknesses of 60 mm to 120 mm.

**PROMET LATERAL LOCKING SYSTEM**

1. Using one attachment per shroud.
2. Universal standard style.
4. MTGTwist retention made of Elastomet and polyurethane.
5. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.

**PROMET BLADE LOCKING SYSTEM**

1. Only one attachment per shroud.
2. Universal locking block.
3. MTGTwist retention made of Elastomet and polyurethane.
4. Plug to prevent the square hole becoming filled with soil, saving cleaning time during disassembly.


Bolt-on lateral shrouds. Bolt-on half lateral blade shrouds for Caterpillar® loaders which work on abrasive applications.

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

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

**RANGE OF TEETH**

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

- **W** Double Vector
  - For excavators on extremely compact terrain requiring high abrasion resistance.

- **I** Impact
  - For excavators and loaders on low-abrasion terrain with low impact levels.

- **A** Abrasion
  - For loaders on compact terrain requiring high abrasion resistance.

- **AX** Abrasion X
  - For loaders on applications requiring extreme abrasion resistance.

- **L** Long
  - For loaders on low-abrasion terrain with a high level of abrasion resistance.

- **H** Heavy
  - For loaders on extremely compact terrain requiring high abrasion resistance.

- **F** Flared
  - For excavators on leveling jobs, very useful in building foundations. Abrasion: low. Impact: medium.

- **S** Standard
  - For excavators on loose terrain with little abrasion and multiple applications.

- **P** Penetration
  - For excavators on compact terrain that produce a lot of abrasion and low penetration and require a high level of penetration.

- **F** Flared
  - For excavators on loose terrain with low abrasion and multiple applications.

- **V** Vector
  - For excavators on very compact terrain requiring a high level of penetration.

**RANGE OF ADAPTERS AND SHROUDS**

- **UC** Universal Central Lower Shroud
  - For small excavators, small loaders on applications requiring low impact.

- **WL/WR** Corners Left Right
  - For the corners on excavator buckets.

- **FC** Flash Central
  - For loaders on clearing jobs where the bucket surface should be left flat.

- **CF** Flared Central
  - For loaders on extremely compact terrain requiring high abrasion resistance.

- **FCC** Flush Clamshell
  - For clamshell applications.

- **WC** Weld Center
  - For excavators and loaders on hard works and with abrasion, because it provides improved locking of the blade and excellent protection of the bucket.

- **WN** Weld-on nose
  - Useful for repairing or converting any adapter to the MTG Systems Knight.

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

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

- **WC HS** Weld Center / Flash for hot slag
  - For loaders on hot slag applications.

- **WN HS** Weld-on Hot Slag
  - For excavators and loaders on hot slag applications.
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 breaks 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 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 Komatsu® Ripper
- MTG Plus shrouds
- MTG Plus adaptable to H&L®

RANGE OF TEETH

- S: Standard
- U: Universal
- F: Flared
- P: Penetration
- V: Vector
- W: Double Vector
- I: Impact
- L: Long
- D: Delta
- H: Heavy
- A: Abrasion
- AX: Long-duration Abrasion

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TESTIMONIALS FOR CONSTRUCTION

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. (1, 2)

Machine: HITACHI® ZX 850
System: MTG Systems Starmet
Terrain: Limestones and quartz quarries
Location: Ireland

MTG System StarMet teeth in a limestone and quartz quarry.

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. (1, 2)

Machine: CATERPILLAR® 336BL REACH
System: MTG Systems Starmet
Terrain: Granite or silicate rock (compact and abrasive)
Location: Germany

MTG wear parts working in granite and calcite rock terrains.

(1) (2) See notes at the end of the catalog.
TESTIMONIALS FOR CONSTRUCTION

MTG SYSTEMS STARMET TEETH FOR HOT SLAG APPLICATIONS

MTG locking system working at extreme temperatures.

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

RESULTS: MAXIMUM RESISTANCE AND DURABILITY AT EXTREME TEMPERATURES WITH MTG SYSTEMS STARMET FOR HOT SLAG. \(^2\)

MTG SYSTEMS PROMET SHROUDS IN LIMESTONES TERRAIN

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

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

RESULTS: INCREASE OF THE DURATION AND EASE OF ASSEMBLING-DISASSEMBLING WITH MTG SYSTEMS PROMET HAMMERLESS SHROUDS FOR CONSTRUCTION. \(^1\)

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

MTG Systems ProMet shrouds working in a limestone terrain.

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

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

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

**OBJECTIVE**

- **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.
DREDGING MACHINE MODELS AND SYSTEMS

CUTTER SUCTION DREDGERS

Teeth, adapters and cutterheads 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

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

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.

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

Teeth and adapters for cutter suction dredgers. Other systems for dredgers that provide more durability and wear life of wear parts in cutter dredgers.
MTG designs its own cutterheads, equipped with the DMet system.

CUTTERHEADS

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.

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.
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 surfa ces allow better load distribution and reducing the possible plastic deformation of the fitting system. The large vertical and lateral stabilization surfa ces 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. Teeth deflectors protect the adapter from wear and extend its wear life. The need for any kind of protection (“checky 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
1. Stays system plains in all load directions
2. Large contact surfaces
3. Semicircular retainer
4. One position

REUSE OF THE PIN DETAIL
1. Assembled pin detail
2. Assembled pin detail
3. Assembled pin detail
4. Assembled pin detail
5. Assembled pin detail

CONTACT SURFACES DETAIL
1. Large contact surfaces
2. Stays in all load directions
3. Large contact surfaces
4. Stays in all load directions
5. Large contact surfaces

DURABILITY DETAIL. SELF-SHARPENING TEETH
1. Large contact surfaces
2. Stabilization plains in all load directions
3. Self-sharpening teeth design
4. Self-sharpening teeth design
5. Self-sharpening teeth design

DMET
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DREDGING MACHINERY

**RANGE OF TEETH**

- **P** Pick Point
  - Hard rock applications.
- **PC** Pick Point with insert
  - Very hard rock applications.
- **PX** Pick Point X
  - Loose and abrasive rock applications.
- **C** Chisel
  - General and "multipurpose" applications.
- **F** Flared
  - Sand and clay applications.

**RANGE OF ADAPTERS**

- **TBL** Tube Left
  - Left adapter for hard rock applications.
- **TBR** Tube Right
  - Right adapter for hard rock applications.
- **WIL** Wing Left
  - Left adapter for sand and clay applications.
- **WIR** Wing Right
  - Right adapter for sand and clay applications.

**MTG PLUS RETROFIT HELILOK**

- **P** Pick Point
  - Tooth for hard applications.
- **C** Chisel
  - Helilok tooth for Dredging applications.
- **F** Flared
  - Helilok tooth for Dredging applications.
- **SR** Spherilok
  - Spherilok adapter for Dredging applications.

**DREDGE SUPERCONICAL**

- **C** Chisel
  - Specific tooth for specific dredging applications.
- **F** Flared
  - Specific tooth for specific dredging applications.
- **PS** Symmetrical Pick Point
  - Symmetrical tooth for hard applications.
- **PA** Asymmetrical Pick Point
  - Asymmetrical tooth for hard applications.
- **WL** Left Wing
  - Adapter for Dredging applications.

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See note at the end of the catalog.
TESTIMONIALS FOR DREDGING

MAXIMUM PRODUCTIVITY AND RELIABILITY WITH DMET

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

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

RESULTS: HIGH RELIABILITY AND MAXIMUM PRODUCTIVITY. NO BREAKAGES, FEWER STOPS FOR MAINTENANCE AND OPTIMUM CUTTERHEAD PENETRATION. (1)

Machine: CUTTER SUCTION DREDGER TAURUS®
System: MTG Systems DMet
Terrain: Rock
Location: UAE

RESULTS: MAXIMUM RELIABILITY, NO BREAKAGES EVEN IN THE MOST EXTREME CONDITIONS AND INCREASED PRODUCTIVITY. (2)

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

(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

(1) (2) See notes at the end of the catalog.
Increased productivity with the MTG Systems StarMet

**RESULTS:** Optimized cutting process, improved productivity and reduced costs. (1) (2) See notes at the end of the catalog.
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