



We create *integral solutions to add value* to our customers' mining processes

VAES (Value-Added Engineering Services) is ME Elecmetal's work philosophy, based on building collaborative relationships and earning trust with customers. Through the VAES program, ME Elecmetal helps customers optimize processes, extend the lifespan of wear parts, reduce operational risks and increase profitability.

Our goal is to *exceed the expectations* of our customers

We build trust through proposing value-added solutions to improve ore extraction and processing key performance indicators (KPIs). We are on the ground accompanying our customers, setting common goals and providing timely responses based on effective collaboration.

We cultivate *long-term* relationships

Constructive relationships are in the DNA of ME FIT solutions programs. Smooth communication and analysis of shared information are the keys to understanding problems, identifying opportunities and implementing increasingly efficient solutions.

Our *innovation* comes from experience and technical knowledge

Research and technical developments define our vision for the future. Innovations in products and services, more advanced alloys, telemetry and operational data processing are what drives the continuous improvement of ME FIT solutions.



VAES

A Philosophy that Inspires

More than a work methodology, VAES (Value-Added Engineering Services), is a strategy to tackle complex technical challenges through our ME FIT programs for mining.

Leveraging the unparalleled market knowledge and technical expertise of ME Elecmetal's team, ME FIT programs are aimed at creating value in mining processes, analyzing and quantifying results and offering the best cost-effective solutions to our customers.

As part of VAES, we record the tangible benefits of every project in a report provided to, and validated by, our customers. These reports are also useful as technical references for future projects.

Collaboration builds trust and strengthens relationships over time. Our VAES philosophy provides transparency and enables the development of highly effective solutions. We align with the priorities of our customers, positioning ME Elecmetal as a true strategic partner in mining.



VAP:

A philosophy that seeks to generate value-added solutions, documented step-by-step.

GLOBAL PRESENCE:

We understand the global mining industry, as well as its regional distinctions — allowing us to be where our customer needs us.

PRODUCTS & SERVICES:

We make a difference with the high-quality grinding and crushing parts we manufacture and the advanced services we offer.

ME FIT SYSTEMS

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ON SITE:

Presence in the field, rapid response times and on-going monitoring of our solutions.

ME DIGITAL:

Predictive models, performance simulations data collection, and data analysis enrich each ME FIT technical proposal.

BENCHMARK:

We generate comparative benchmark data from mining operations around the world, providing perspective when working with our customers.

MATERIALS DEVELOPMENT:

Our engineers and metallurgists adapt and create new alloys, new designs and new configurations to meet the objectives of our customers.



Solutions based on experience — not processes

ME FIT program solutions are possible thanks to the mutual collaboration between our customers and the ME Elecmetal technical team. The knowledge and deep understanding of the unique challenges at each mining operation help us provide solutions to positively impact priority KPIs: tons per hour, safety management, availability and maintainability of equipment, risk prevention, among others.

With our experienced professionals in metallurgy, casting and component manufacturing, along with their in-depth knowledge of the mining industry and their ability to analyze operational data, ME Elecmetal is able to make a difference through the ME FIT program — providing tangible benefits and lower-cost options. Our technical-commercial team proposes integral solutions, designed to optimize the operation of each part and component we manufacture or repair.





Responding to the needs of customers facing high productivity demands

The objective of the ME FIT Crushing program is to improve efficiency in the first stage of ore comminution, reduce processing costs and optimize crushing equipment availability and reliability.

To do this, we design solutions to help our customers achieve their goals by combining wear parts with technology tools, advice, training and monitoring — all of which allow us to create value in our customers' processes.



Tangible benefits

In mining industry, it is often hard to see the forest through the trees. That is why we measure the value of a solution based on its impact on our customer's entire process — in line with their priorities and operational strategies.

The ME FIT Crushing program is ME Elecmetal's way of rising to the challenges posed by the demanding crushing stage. We offer the most cost-effective products and services, digital technologies, metallurgical expertise and an in-depth knowledge of the mining industry to help our customers increase productivity and reduce downtime. When experience meets technology, the outcome is a total solution.

Close collaboration with our customers and cohesion within our internal work teams is what allows the ME FIT Crushing program to be successful. Because we understand the day-to-day complexities of a crushing operation, we are better able to rapidly respond to the needs and challenges of our customers, allowing them to focus on the future.

As a company with a global presence, ME Elecmetal understands the markets we serve and successfully maneuvers through a constantly changing world market. Reaching this understanding requires knowledgeable and experienced people prepared to process and interpret operational information, and create proposals that align with each specific customer need.

The benefits and value our ME FIT Crushing solutions are demonstrated when we are able to quantify increases in the KPIs our customers want to improve.



Positive results

Solutions delivered by the ME FIT Crushing program contribute to crusher productivity. Once the impact of a solution has been measured, we record the tangible benefits of the project in a report provided to, and validated by, the customer.

Equipment: Allis Chalmers 54" x 74" Solution: M4 alloy change (14% Mn) to M3 (17% Mn) in mantles KPI: Availability Impact: +34% duration

Equipment: Fuller Traylor 60" x 113" Solution: Design change to tapered mantles to decrease current surges KPI: Production Impacto: +6.4% processing

Equipment: MP1000 Short Head Solution: M1 alloy change (14% Mn) to M3 (17% Mn) KPI: Availability Impact: +44% duration

Equipment: Fuller Traylor 60" x 113"
Solution: Measurement methodology CSST (Close Side Setting Tracker)
KPI: Availability
Impact: -83% measurement time

The customer knows what they want to achieve. ME FIT Crushing provides tools and accompanies them on the path to greater efficiency

Four fundamental points:

- Reliability
- Maintainability
- Processing (TPH)
- Availability

Applying collaboration

Collaborative work is at the core of the ME FIT Grinding program and is reflected in the relationships we have with our customers. We are present at all levels of the plant. We understand the challenges in each stage of the crushing process.

We believe fluid communication is vital to eliminating uncertainties and strengthening trust. Because we understand the day-to-day challenges in an operation, we are better able to respond to unforeseen events — 365 days a year. ME FIT Crushing takes the entire implementation cycle into consideration in its technical proposals: manufacturing, installation, deployment and performance monitoring. We believe continuous communication with our customers is key to understanding their entire process, so we are better able to detect anomalies and propose adjustments with a focus on continuous process improvement.

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We aim to satisfy customer needs with proposals to simplify workflows. We detect and solve issues that generate "bottlenecks" in processes. We are engaged in the day-to-day activities of our customers' operations, identifying variables and exchanging points of view across all areas of the plant.

Our method

- Detect opportunities within a process
- Diagnose the analyzed situation
- Compare findings with the customer's needs
- Generate the best, cost-effective solution

Successful collaboration

In 2018, an ME FIT Crushing proposal was awarded the tender for 70% of the supplies of a plant located in southern Peru, including liners and all associated services (consulting, design optimizations and wear monitoring, among others) to a large-scale cone crusher circuit.

The proposal involved the deployment of an ME FIT Crushing program aimed at maximizing the performance of the plant, favorably impacting production and lowering the cost of the solution implemented.

After evaluating both the production achieved and the improvement implementation plan, the benefits of this strategy were clear, and the customer decided to extend the liner supply to 100% of the plant's equipment.





With the development of digital tools for capturing and analyzing large volumes of data, ME FIT Crushing solutions allows increasingly accurate projections to be made. Today, we are exploring artificial intelligence and machine learning applications to accurately quantify the productivity impact of each solution we provide.

Relationships built on trust, sophisticated technologies, expert data analysis and the wealth of knowledge our employees bring are at the forefront of how we better, and more precisely, define the benefits an ME FIT Crushing solutions delivers.

ME Elecmetal

ME Elecmetal is a world leader in offering comprehensive mining solutions, including engineering, technology services, specialty steel parts, grinding media, and a host of other products and services for the global mining market.

ME Elecmetal has offices and representatives in all regions of the world. With more than 100 years of existence, it has created an extensive international network of its own manufacturing plants, joint ventures, licensing and strategic alliances with high-level corporations such as Valley Forge, from the USA; Ferry Capitain, from France, and Long Teng Special Steel Co. Ltd., from China.

With the ME FIT integral solution programs, the company seeks to meet global demand in the areas of earthmoving, crushing and grinding, through the manufacture of products and technology services incorporating sensor and early-warning tools, simulations, equipment repair and operational improvements focused on improving productivity.

