



Complete Systems Engineering for Aggregate Processing





Valdilecha Plant, Hanson Group: a newly erected complete crushing and screening plant for producing multiple end products of limestone near Madrid, Spain .

Complete systems engineered to your needs

In over a quarter century of operations, Metso Minerals has provided crushing solutions to an immensely broad range of customers. As a result, we've certainly learned a few things along the way when it comes to identifying what works best and what doesn't.

Our systems have been engineered to suit an incredibly diverse spectrum of applications in the mining and aggregates industries. And because our engineers have been busy designing systems for customers like you for more than a century, it's more than likely that Metso Minerals has the system that's just right for your needs.

Customer can benefit of our engineering expertise

You get the benefit of engineering expertise that has been developed to match to different regional standards. You get machines and parts that have been built to precise engineering specifications that are tried, tested and proven, thus reducing your investment risk factor. Your erection and commissioning lead times are significantly reduced, leading to a faster return on your investment and also lower operating costs as a result of these reduced operating costs per ton.

Best of all, you'll be getting the world-renowned quality and reliability of Metso Minerals complete systems.

Right: ARICAN (the Canary Islands) - 500 tph basalt process plant.

**Optimized quarry costs and
experience automation** 5

**Engineering and rock process
know-how** 7

**Worldwide industrial capability and
project management** 9

Global service and environment care 11





Technology and quality to give you the lowest cost per ton

Customers are invited to participate in the creation of their crushing plant throughout the entire project. You will participate in the initial system application development, engineering design, project planning, plant commissioning, operations and maintenance training and the final handover and acceptance of the project.

New, complete systems always require considerable investment. You, as a customer need total commitment from your supplier to support the whole project application requirements, capacity plans and payback time. Metso Minerals fully commits to a plant design that will optimize your investment, and will ensure an economical payback period.

Efficient cost control of a complete installation is a vital issue after the commissioning of a plant. Based on large volumes of data gathered from complete systems through many decades, Metso Minerals is able to reach the operating costs discussed during the initial plant design stage.

Automation systems for remote controlling

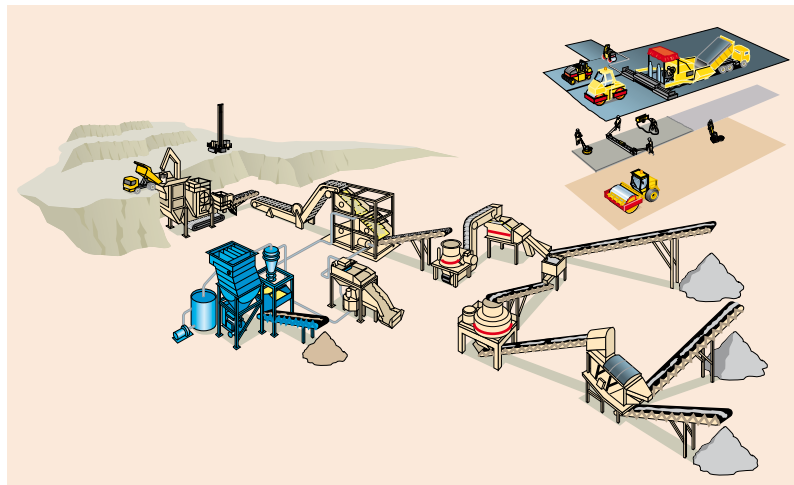
Crushing plants in most cases are remote from the management's view. Metso Minerals is creating automation systems that allow management to follow the process from remote places using the latest communication technology.

In joining the cost reduction race, customers are demanding more sophisticated technology to perform real time plant diagnosis that will allow them to optimize their plant maintenance and reduce down time. Metso Minerals automation systems provide you with the right tools to monitor the whole process accurately.

To assist in maintenance planning, our plant automation systems can provide real time plant process data and also monitor machine parameters, all of which are necessary input for the proper planning and control of plant maintenance. Production reporting is also available as part of this automation package.



Comprehensive planning with the customer is a vital part of a successful plant project.



As a Metso Minerals customer, the most sophisticated project and automation tools are available.



Process and automation know-how are today a vital part of complete systems.

Left: Savreux, France, VINCI Group, a complete automated plant in a sand and gravel application.



Proven design expertise

Metso Minerals has the experience of several decades in planning of complete crushing and screening systems. This makes us the most proven provider of plant design.

With each plant being different, Metso Minerals uses state of the art digital design to lay out and adapt each customer's plant design to his unique site. Our modern Valpro software guarantees quicker and more accurate plant design.

Quality certified manufacturing management

Being ISO9001-V2000 certified and working to these standards, Metso Minerals ensures the same quality and professionalism to the systems projects as seen in our production facilities.

Thorough rock fragmentation knowledge

Input from our extended sales network and our global expertise provides Metso Minerals with a thorough knowledge base of plant feed materials and their characteristics.

This information enables Metso to predict how the customers feed material will react to the communication process and is considered and incorporated in all design aspects of a plant system.

The use of latest technology in the crushing and screening process continues to push plant design boundaries. Metso Minerals can provide flow-sheet design that combines creativity and cost effectiveness.

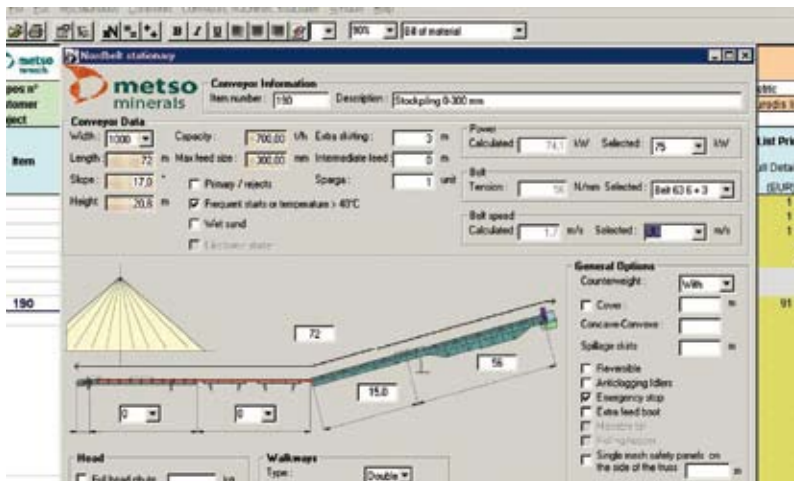
More and more markets around the world are demanding that their end products meet stringent shape and calibration standards. Metso Minerals is capable of achieving these standards using their high quality crushing equipment.



Metso Minerals offers many years of experience to its customers.



Our laboratory ensures the quality rock test for a better end product simulation.



Valpro: a complete software developed by Metso Minerals for complete systems quotation.

Left: In a turnkey project, Metso Minerals designed, built and installed the Al Dhahira complete plant in Oman for a production output of 800 tph.

The Al Dhahira operation is producing a wide range of aggregates to standard sizes including, 40/25 mm; 25/20 mm; 20/10 mm; 10/5 mm; 5/3 mm; and 0/3 mm.



Global equipment offering

Metso Minerals is the world's leading supplier of crushing and screening equipment, complete crushing systems and crushing solutions for the rock and minerals processing industries. We serve all industries involved in the reduction of rock and minerals including aggregate production, quarrying, mining, mineral processing, construction, civil engineering and recycling.

Metso Minerals, as a global player in its field, has several manufacturing plants, agents and distributors in over 150 countries, over 500 service locations around the world and a global workforce of 10,000 people.

Local sourcing capabilities

Metso Minerals global exposure allows us to be present in all the main markets around the world. This in turn allows us to provide components of the highest quality standards in many places.

The plant commissioning process indicates the first breath of life for plants. Metso Minerals uses a highly experienced team of professionals that are conditioned to working in difficult environments and are happy to transfer their knowledge to the customers.

Complete plants with a guarantee

Metso Minerals, as main contractor, is qualified to take on the building of complete aggregate plants. Metso's design capabilities respect all guarantees given to the customer and Metso Minerals also ensure that all contractual obligations with the customer are met.

To assist our customers in further cost reduction, Metso's design capabilities can provide, with its plant designs, material that will reduce wear. This use of sophisticated wear material will provide benefits in both reduced plant operating costs and increased plant availability.

Left: Whether you need a single crusher, a multi-stage process or a complete plant, Metso Minerals can assist you on the right design for the most cost-effective crushing process.



Complete plant in the USA.



Plant with Nordberg Gfa vibrating equipment.



Barmac B7150 vertical shaft impact crusher at a stationary installation in Belgium.



Spares, wears and service always near to you

Metso Minerals designs and supplies complete aggregate and screening systems as part of its worldwide systems engineering organization. We are both global and local. Everything from plant design, equipment selection and sourcing, to manufacturing, installation, commissioning and after sales support are efficiently coordinated and brought to you locally.

We have a global team of crushing professionals always ready to help you in after-sales service. Spare and wear parts are always close to you. Genuine, high-quality parts will give you the assurance of correct metallurgy, precise engineering and ideal suitability for trouble free operation. They will help you to produce the quality end product your Metso Minerals crushing and screening equipment is designed to produce, providing value for you and your customer.

We offer training courses to help you to get the most out of your complete system. Over the years, thousands of crushing professionals like you have benefited from the wide variety of seminars we offer. Do you have special training needs? Tell us -and we'll create a unique training session just for your company.

Environment protected from dust and noise

Quarries are generally located in fragile environments. Planning and design of buildings within such surroundings requires special care. Metso Minerals is well experienced in design for such conditions and take special care in their design and location of structures so as not to impact on this environment.

Aggregate processing plants generate large amounts of dust nuisance. Metso Minerals as good citizens and as a priority, promote the use of the latest available market technology in dust collection and dust suppression as part of their plant design.

In the same way that Metso Minerals control other environmental conditions, Metso Minerals can provide plant design that uses techniques to reduce noise pollution to acceptable levels and within environmental standards.



Une équipe de professionnels du concassage toujours proche de vous.



Disponibilité des pièces de rechange et d'usure.



Metso Minerals s'applique à préserver l'environnement.

Left: Overview of the Holcim Zahor complete plant near Granada in Spain.

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