

ROCKTEC – ERAL WASHING, DEWATERING, SLIMES, SLUDGE AND FINES TREATMENT



Dewatering screens



Compact hydrocyclone plants



Clarifiers/thickeners



Washing drums



Filter presses



Sieve bends



As well as complete plants and process systems...

Rocktec and ERAL

Rocktec has entered into a collaboration agreement with ERAL, Equipos y Procesos, S.A. Founded in 1979, ERAL is an internationally renowned company, based in Madrid, Spain, specialising in the treatment of minerals and sands. Its principal corporate purpose is to develop, manufacture and supply capital goods and services for the Quarrying, Mining, Construction, Public Works, Environmental and other industries.

ERAL provides technical solutions tailored to specific client requirements, thereby providing an ideal partner for Rocktec. Together we offer innovative technical solutions, tailored to individual requirements in a wide range of activities, from dealing with simple technical enquiries to the design, manufacture, assembly and commissioning of turnkey plants.

Each business activity line is professionally dealt with to verify and/or validate design, materials and processes. We are jointly committed to an ongoing product improvement process, to provide the industries we serve with innovative solutions and technology, technical quality and service reliability, while generating added value for our customers.

All ERAL equipment is certified to ISO standards 9001:2000 (Quality), 14001:2004 (Environment) and Environmental Impact Statement is validated under certificate R.(EC) 761/2001 EMAS.

Working hand-in-hand with a broad spectrum of clients, in close collaboration with research institutes and universities, ERAL has optimised product development to generate innovative processes and provide highly efficient and cost effective plants, resulting in a reduced Return on Investment.

Supplementing these resources, ERAL has laboratory and pilot plant facilities, with numerous configurations, to conduct sampling tests and field work. These enable us to simulate production processes on site and extrapolate the information gathered.

We are able to undertake equipment and plant engineering work from the initial stage of a project to ensure the implementation of new technologies and formulate efficient solutions with minimal capital investment, by applying detailed planning and design concepts, customised to project demands. Automation and instrumentation are built into equipment to provide an integrated system, designed to ensure continuous process control.



Specific areas of expertise are:

Sand & Gravel Processing

We can offer an extensive portfolio of highly efficient and cost-effective plants and equipment for the treatment of sands and aggregates, with advanced design arising from years of expertise and experience in this market sector.

To meet the growing market demand for special sands, we continue to incorporate the latest technologies, with continued evolution of new automated, more precise and versatile processing plants. Examples include the two-washing-stage hydrocyclone plants, compact hydrocyclone plants for dual mortar and concrete sands preparation, and plants equipped with small diameter hydrocyclones of high classifying efficiency applicable to obtain sands for piping laying, farm land conditioning, sport fields levelling, and for high strength precast concrete sands. ERAL's commitment to designing sustainable engineering systems, which address all environmental concerns, has led to new developments, such as the high efficiency hi-rate clarifiers and filter presses for the sedimentation and dehydration of slurries generated during aggregate washing.



Industrial Minerals

ERAL has technical expertise and experience in designing treatment systems and plants for numerous raw mineral materials (kaolin, silica sand, feldspar, quartz etc.), to meet the most demanding requirements of the glass, ceramic, foundry and paper industries, amongst others.

It is essential in the raw materials processing to obtaining homogeneous, high quality products at the following process stages: classification into finely separated fractions by means of specially designed hydrocyclones, thickening, filtering, drying and subsequent storage, as well as the gravimetric or magnetic elimination of pollutants. All these very important processing stages are studied in detail by ERAL, to define treatment parameters and design plants that fulfil project requirements.



Metal Ore Processing

ERAL has made substantial contributions to metal mining globally, and has developed and supplied efficient closed grinding circuits within concentration plant designs to optimise classification, in order to increase grinding capacity or improve fineness.

ERAL's development of new mineral treatment techniques and procedures has enabled the Company to undertake large-scale turnkey projects and installations. Foremost among these achievements are gravity concentration and recovery plants for minerals treatment, such as copper, lead, zinc, gold, tin, wolfram and iron, amongst others. These are equipped with magnetic and electrostatic separation facilities in the final stages. It has also developed systems to recover valuable elements, lost in previous processes, from old mine tailings or residues disposal.



ERAL designs and builds large scale cylindrical agglomerators for the hydrometallurgical treatment of copper, gold and uranium ores by heap-leaching. Another prominent activity is its research on a hydrometallurgical process for the bacterial leaching of auriferous and nonferrous sulphide ores, as well as copper, lead and zinc concentrates.

Coal, Chemical, Recycling and other industries

With its long experience in solid-liquid separation processes, ERAL has expanded its field of activity into other areas of production, such as the coal Industry, with efficient and cost effective treatment systems and plants, including for the reduction of ash content in lower grade coals.

For the chemical and food industries, with the need for corrosion and heat-resistant materials, there is a range of special equipment and plants to meet these requirements. The recycling Industry needs functional solutions to recover materials from industrial components or sands. This is one of our strong points, for we feature requirement-compliant systems and plants able to recover metals from waste obsolete equipment or recycle and regenerate foundry sands ("green sand").



Environment

Environment conservation is a company goal we take very seriously when implementing designs and planning our business, which is conducted to ecological criteria. We are able to offer technical consultancy services and systems designed for the environmental protection. Examples of facilities and plants installed to remedy or control the environmental impact include: effluents treatment, dewatering of industrial processing plant slurries, remediation of hazardous substance-contaminated soils, systems to remove flue gas sulphur in power plants, and recycling of used foundry sands - traditionally taken to landfill sites.



We feature a non-polluting hydrometallurgical process for the fast bio-leaching of non-ferrous sulphide ores, developed in conjunction with an external research institute and tested at the laboratory and pilot plant scale facilities, before commercial release.

Turnkey plants

The background and expertise in the processing equipment development and mineral treatment systems have enabled ERAL to reach an advanced technological level, and undertake major turnkey project plants. As an ongoing process, ERAL also conduct studies for processing plant expansions and optimization in accordance with client requirements.



Given its track record of excellent service to the industry since its inception, ERAL is endorsed by a long list of complete plants that serve as corporate references:

- Gravity concentrate plants for heavy mineral ores treatment (wolfram, tin, iron and gold) with a capacity between 30-300MTPH
- Concentrate plants for copper/lead/zinc ore of up to 1,000MTPD
- In the Sand and Gravel industry, numerous plants between 100-1,000MTPH, some of them with very high clay content.
- Complete plants for kaolin, silica sand and feldspar treatment with capacities between 20-200MTPH
- Clay crushing and stockpile plants with capacities to 1,200MTPH
- Numerous others, such as a 100MTPH silica sand reclaiming plant to treat used foundry sands, treatment plants for coal of up to 500MTPH, and iodine/nitrate salts to 100MTPH.

For all your requirements in any of these categories, please contact Rocktec today.