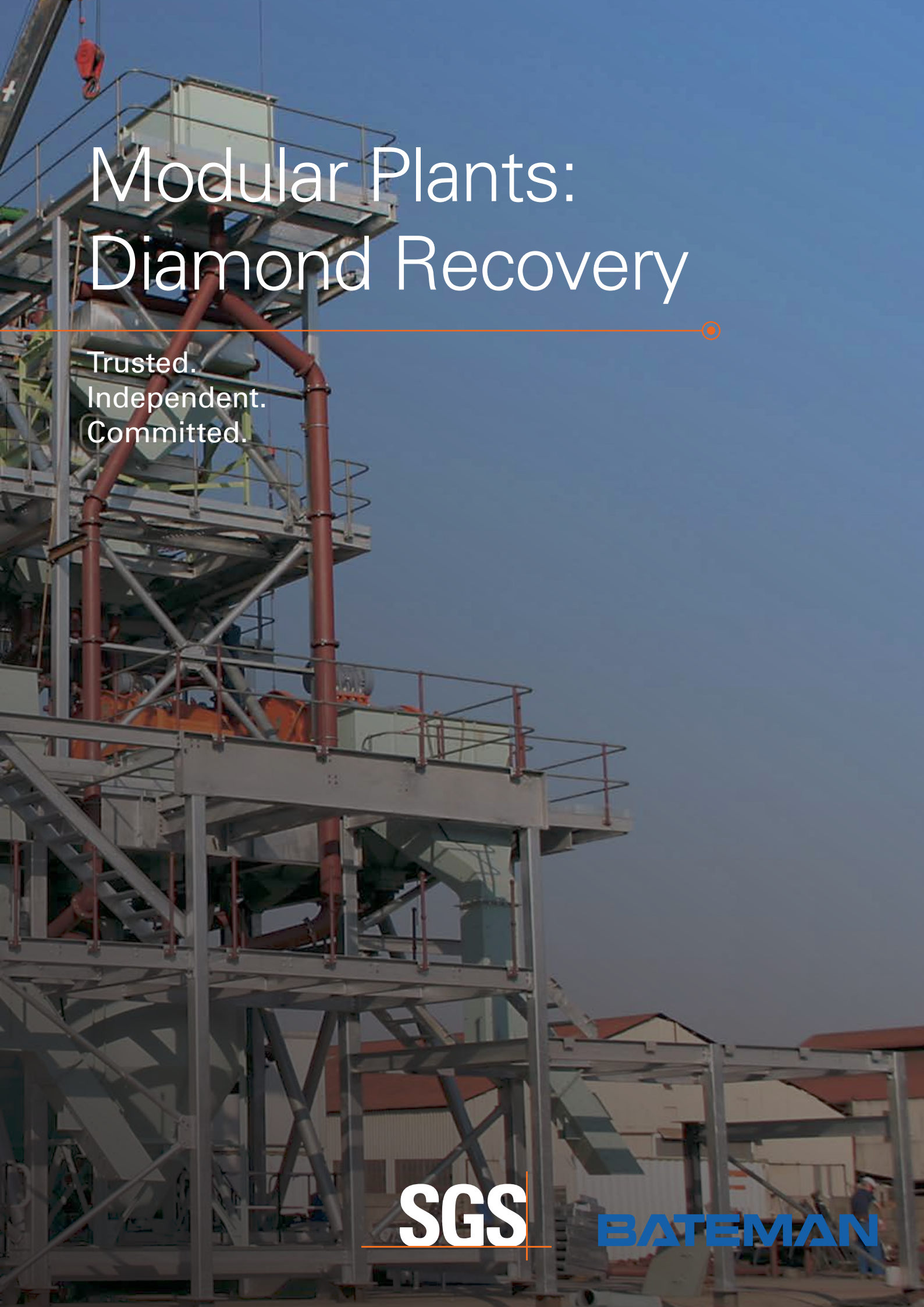


Modular Plants: Diamond Recovery

Trusted.
Independent.
Committed.

SGS BATEMAN



Innovative Technological Solutions

SGS Bateman modular plants offer innovative technological solutions as well as full process and commodity knowledge to the global mining industry.

SGS Bateman manages the complete project lifecycle from concept to commissioning, optimizing the flowsheet of a project through state-of-the-art process engineering and successfully delivering completed projects using leading-edge project management systems. Comprehensive services for new process plants and brownfield upgrades, cover a wide range of commodities and are tailored to both large and small projects. With some 500 modular plants installed since the 1960s, SGS Bateman modular plants offer competitive mineral processing packages for lower tonnages, while reducing risk by pre-commissioning before site erection.

SGS Bateman's engineering and EPCM skills and modular solutions have been proven on some of the most exacting mineral resource projects, in the most difficult of terrains.

Modular plants are self contained or are integrated into conventional plants. They are used for prospecting, exploration, research and testing, mining and mineral processing on land or sea. The process design is robust and makes use of the best available components from reputable suppliers that support their products worldwide. SGS Bateman modular plants are easy to erect on site since they are trial erected and pre-commissioned at the factory, where they are marked, stripped and packed into containers, prior to dispatch to site.

Modular plants are used in the beneficiation and recovery of a wide range of commodities, including lithium, diamonds, coal, graphite, copper, magnesite, andalusite, chromite, platinum and gold.



Diamond Recovery

Modular plants are used for the recovery of diamonds from kimberlite and alluvial gravel on land and sea.

The plants consist of feed preparation, which typically includes crushing, scrubbing and screening. This is followed by Dense Media Separation (DMS) and thereafter, grease and/or X-ray sorting modules used for final diamond recovery.

The plant design capacities match our standard DMS units which range from 1 tonne per hour (tph) to 200 tph.

MODULAR PLANT DESIGN

The modular plant design ensures:

- Fast delivery – popular choice for fast track projects.
- Competitive, efficient and cost- effective processing.
- Configuration to specific process requirements.
- Supply as stand-alone facilities or for incorporation into more permanent processing circuits.

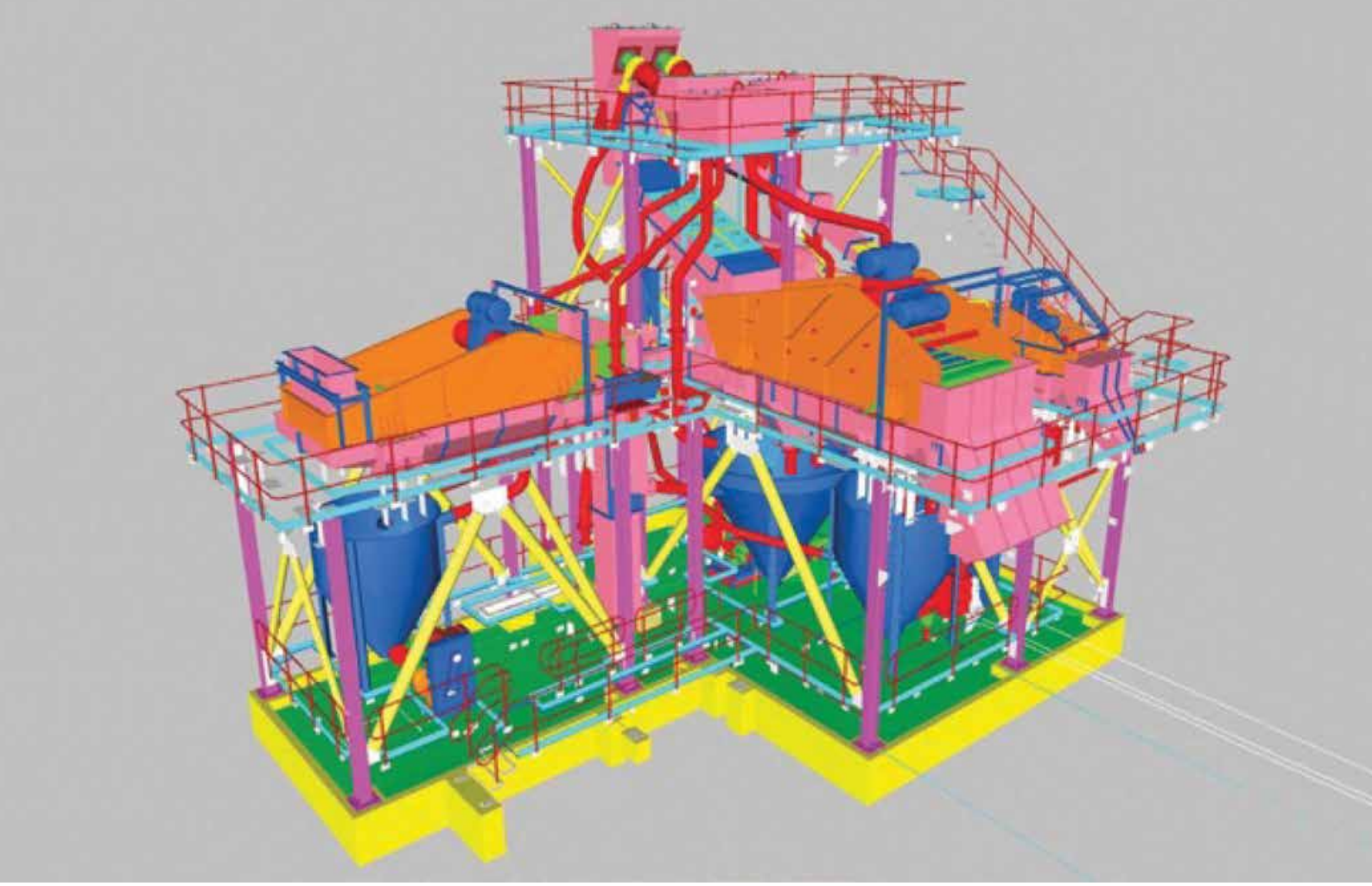
SGS Bateman's Quality Management System is aligned to ISO 9001:2015.



Benefits Of Modular Plants

SGS Bateman offers a wide range of services:

- Pre-assembly and testing of all structures, equipment, piping and electrics
  - Eliminates on-site erection difficulties.
  - Reduces overall construction time.
  - Ensures reliable operation on commissioning.
- Ideal for remote sites with minimal infrastructure
  - All services provided in self-contained modules.
  - Containerised modules or modular gable coverings provide security and protection against the elements.
  - Low skill personnel required on site for re-assembly.
- Easy to transport, re-erect, operate and maintain
  - Partially assembled and transported in containers.
  - Designed to allow ease of maintenance.
  - Ergonomic design makes equipment readily accessible.
  - Minimal operator attention required, which is key where there are skills shortages.
  - Wear and corrosion resistant construction materials.
  - Low maintenance components.
  - Modular structures ensure that vibrations are contained.
- Prolonged service life and reliable operation
  - Fit-for-purpose design.
  - Hard wearing, corrosion-resistant, robust and proven components.
  - Equipment sourced from world-leading brands, which provide global support services.
- Low impact on the environment
  - Modules built on boxed steel skid frames, which minimise on-site civil structures.
  - Minimal rehabilitation of the site required post mining operations.



Standard DMS Module Range

Standard pre-designed plant consists of 1, 5, 10, 20, 50, 70, 100, 150 and 200 tph modules which can be:

- Incorporated into purpose-designed plants for large capacity processing.
- Used as multiple modules in parallel to boost output and enabling servicing to be undertaken while maintaining plant throughput.

APPLICATIONS

- 50 tph plant is the most popular of the range.
- 1 tph low-CAPEX plant is suitable for prospecting.
- Mega modular plants (plants in parallel) are used for increased throughput.
- Plants used for sampling campaigns have capacities from 10 tph to 60 tph of feed.
- Ship and barge-mounted plants comprise floating modules to process material pumped from beds under the sea and rivers. They comprise liberation modules for scrubbing, screening and sizing, DMS modules and diamond-recovery modules.

DIAMOND RECOVERY MODULES

SGS Bateman has complete diamond recovery capability, i.e. high and low throughput X-ray sorting and grease recovery technologies. These are used in fit-for-purpose combinations to meet client specific needs.

Automated, hands-off diamond recovery systems recover up to 98% of diamonds, depending on diamond characteristics.

X-RAY SYSTEMS

SGS Bateman has access to world class X-ray sorters for enrichment of diamond bearing ores and X-ray analytical instruments:

- Sorters for primary enrichment of ore handle feed sizes of -50 mm to +5 mm and feature recovery rates greater than 98%, at throughputs from 9 tph to 100 tph, depending on the feed size.



X-RAY SYSTEMS cont.

- Sorters for concentrate treatment handle feed sizes from -6 mm to +3 mm, with recovery rates in excess of 98% and 99% and throughputs from 170 kg/h to 5,000 kg/h, depending on the feed size.
- Sorters for final concentrate treatment handle feed sizes from -50 mm to +1 mm, with recovery rates in excess of 98% and 99% and throughputs from 2 kg/h to 2,500 kg/h, depending on the feed size.

GREASE BELT SYSTEMS

Grease belts excel in the recovery of type II diamonds (low luminescence). The unit capacity is also superior to most X-ray machines. Throughputs of 2 tph per feeder for fines (-6 mm), 3 tph per feeder for middlings (-12 mm + 6 mm), and 5 tph per feeder for coarse (32 mm +12 mm) concentrate, depending on the grease belt system in use.

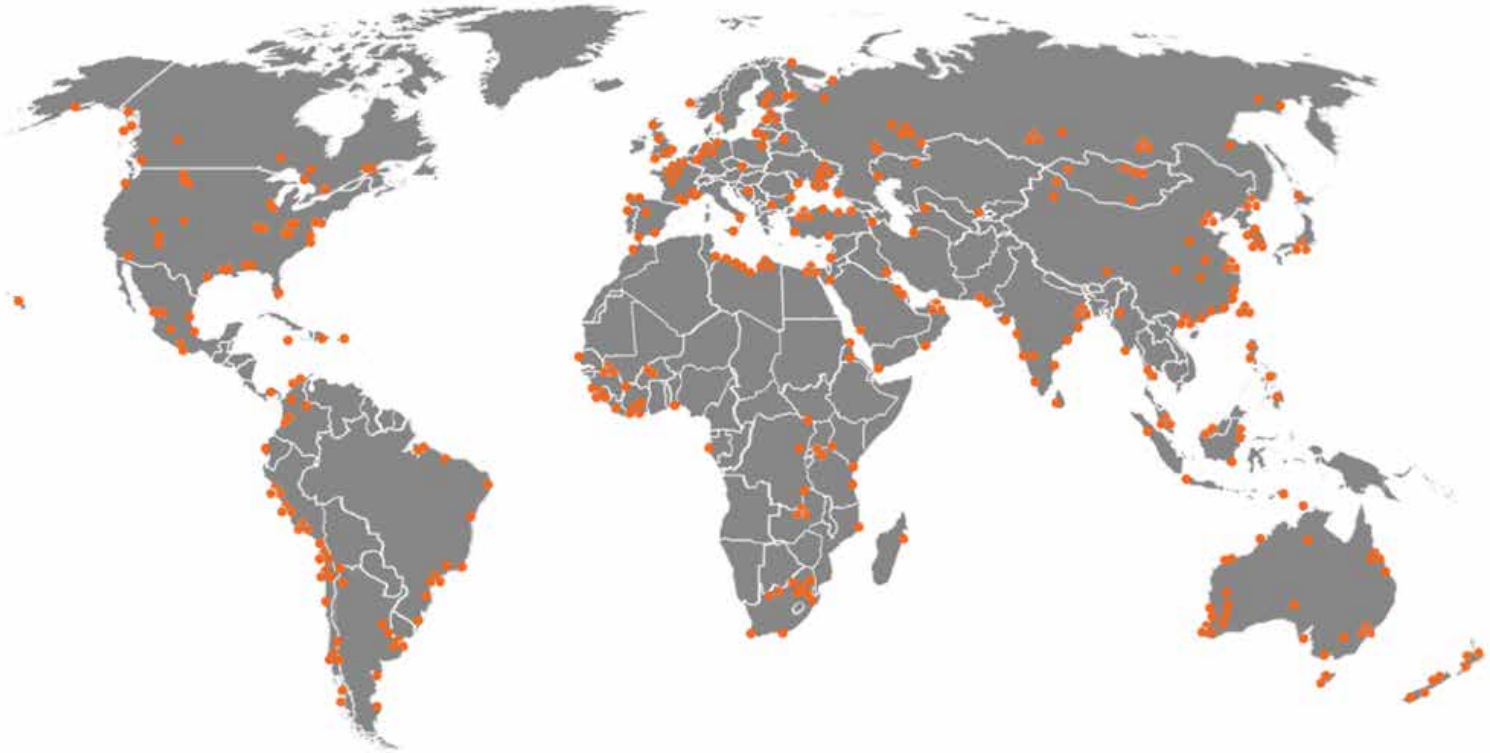
Support Services

SGS Bateman offers a comprehensive range of support services:

- Spares and consumables: dispatched worldwide.
- Long-lasting, high quality diamond sorting gloves.
- Special grades of grease for diamond grease belts are blended.
- Density tracers: standard and inexpensive technique to determine whether DMS cyclones are functioning optimally.
- Consulting and training: consulting services on all aspects of processing; supervision of erection and commissioning; and training of operating personnel.

Global Reach

SGS Bateman is part of SGS's unparalleled global network of over 150 commercial, on-site and mobile laboratories, 11 metallurgical facilities, 5 mineralogy facilities. Of these sites, 4 labs are fully integrated GEMM (geochemistry, environmental, metallurgy, mineralogy) labs (located in Canada, Chile and South Africa) and to provide integrated geochemistry metallurgy services (Peru and Russia). SGS Bateman has another process engineering office located in the United States.



SGS BATEMAN

Enabling a better, safer and more interconnected world

TAKE YOUR NATURAL RESOURCES OPERATIONS TO THE NEXT LEVEL.

GET IN TOUCH TODAY.



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