



Quality Handling Systems Pty Ltd

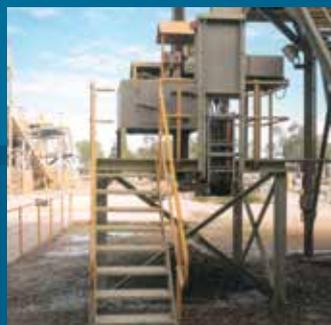
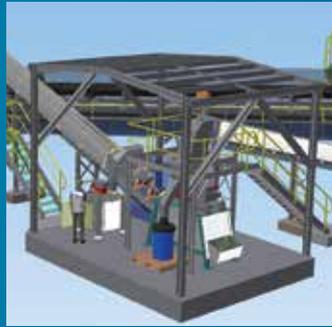
Sampling Solution Specialists

Sampling Systems for Bulk Materials



Quality Handling Systems Pty Ltd

www.qhs.com.au



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Sampling Systems for Bulk Materials

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Our Mission

“Our goal at QHS is to supply sampling equipment that is reliable, accurate and designed to suit the location and the characteristics of the material being sampled.

We do not simply supply equipment out of a catalogue as this often proves to be inappropriate for the application.”

Our Services

Quality Handling System Pty Ltd (QHS) specialises in the design and manufacture of sampling systems and equipment for bulk materials and slurries.

Our services include:

- New sampling systems and equipment.
- Upgrades to existing sampling systems.
- Rectification of problems in existing sampling systems, including reliability and accuracy.
- Specialised sampling equipment for difficult locations.
- Engineering and consulting services for sampling projects.

Our Experience

The company started operations in 1993 and quickly developed into one of the largest suppliers of sampling systems in Australia.

QHS sampling systems are used for collecting representative samples from streams of bulk materials and slurries. Materials sampled include coal, mineral ores, processed minerals, aggregates, concentrates, fertiliser, mineral sands, process by-products, limestone, cement, grains, woodchips and various slurries.

From our base in Sydney, we have supplied systems and equipment throughout Australasia, Asia, Europe, Africa and the Americas.

QHS products range from sampling systems at mines and processing plants to major multi-stage sampling systems at import and export terminals, sampling flowrates up to 13,200 tonnes per hour.

Over 20 years of service,
a lifetime of expertise

Our People

The QHS engineering team consists of engineers and draftspersons working in project management, production management, mechanical and electrical engineering design, research and development, and quality assurance.

The senior staff members at QHS all have over 30 years of experience in the field of mechanical sampling.

Our Facilities

- QHS is based in Sydney where we have an engineering and design office and three separate workshops.
- Engineering and design is performed with both 2D and 3D CAD systems.
- Our main workshop performs stainless steel fabrication and final assembly while the other workshops cater for carbon steel fabrication, electrical fabrication and general parts storage.
- QHS has agents in Asia and Europe.



Engineering, design, consulting,
fabrication, commissioning

Our Projects

The sampling projects undertaken by QHS have ranged from small single stage samplers to very large 4-stage sampling systems. QHS has designed and supplied the majority of the sampling systems for the coal and minerals import and export terminals on the east coast of Australia over the past 20 years. These contracts have ranged in value up to \$6 million AUD.

QHS' clients include most of the major mining companies in Australia, as well as import and export terminals, power stations and processing plants. We have supplied sampling equipment and services to the UK, New Zealand, PNG, Indonesia, Vietnam, Laos, Taiwan, Philippines, China, Russia, Korea, Venezuela, Egypt, France, Netherlands, Belgium and Finland.

Our Equipment

QHS offers a wide range of sampling equipment, designed to suit different locations and different materials. Our range of sampling equipment includes:

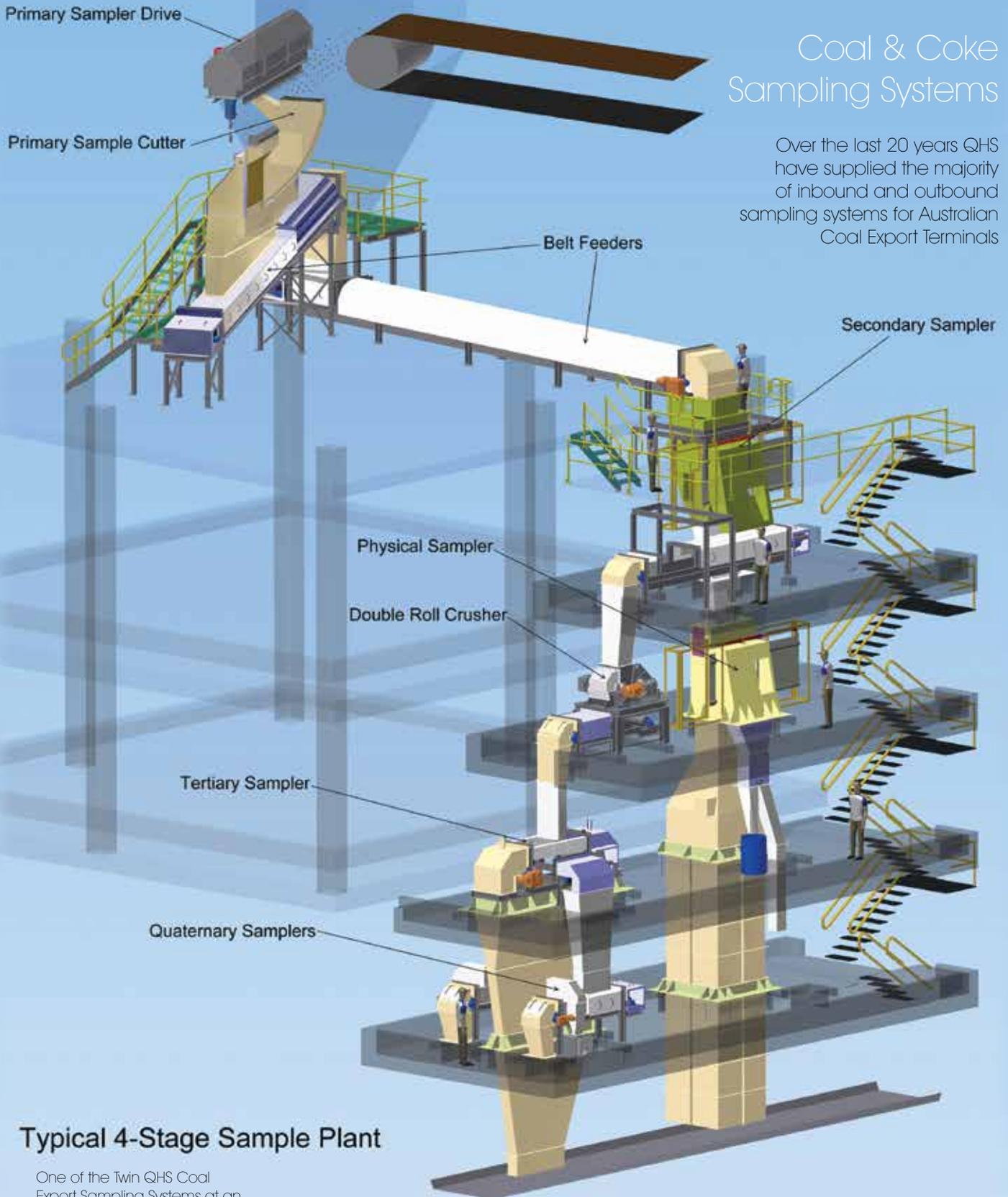
- Falling Stream Samplers – including inline and reverse diverter chute samplers, pivoting reverse spoon samplers, oscillating chute samplers, Vezin samplers, slotted belt samplers, swing arm samplers and rotary cone dividers
- Cross Belt Samplers – these include additional features to improve sampling accuracy, such as relative velocity cutters and proper belt profiling
- Sample Belt Feeders, Conveyors, Bucket Elevators and Screw Feeders
- Sample Crushers – of various types, designed to suit the material and application
- Slurry Sampling Equipment
- Laboratory Preparation Equipment
- Electrical Control Systems

Reliable & accurate
sampling systems



Coal & Coke Sampling Systems

Over the last 20 years QHS have supplied the majority of inbound and outbound sampling systems for Australian Coal Export Terminals



Typical 4-Stage Sample Plant

One of the Twin QHS Coal Export Sampling Systems at an Australian Coal Terminal

Coal export sampling systems rated up to 13,200 t/h

QHS Coal Terminal Sampling System

Under Construction



Completed



Coal & Coke Sampling Systems

QHS is the major supplier of coal sampling equipment in Australia. We have supplied almost all of the new coal terminal sampling systems and system upgrades in Australia since 1993. This includes all of the 20 sampling systems at the two largest coal ports, at Mackay (DBCT and Hay Point terminals), and at Newcastle (PWCS Carrington and Kooragang, and NCIG terminals).

QHS has supplied hundreds of samplers and sampling systems to coal mines, coal handling and preparation plants and power stations.

QHS 2-Stage Coal Product Sampling System

These have ranged from small, single stage samplers to large 3-stage sampling systems. Many of these systems have been retrofitted into existing coal plants.

QHS 2-Stage Coal Trainloading Sampling System

Largest supplier
of coal sampling
systems in Australia

Coal & Coke Sampling Systems

Samplers for coal can be either falling stream samplers or cross belt samplers.



QHS Sampler
at a NSW
Power Station

QHS Sampler
at a QLD
Power Station



QHS 2-Stage Coal Sampling System – 3D Model

Suppliers of falling stream & cross belt samplers

Twin QHS Coal Export Sampling Systems
– System 1 Completed & System 2
Under Construction



Iron Ore Sampling Systems

QHS has designed and supplied iron ore sampling systems for mines, ports and steelworks in Australia, Africa, Asia, South America and Europe. These have ranged from single stage samplers at crushing plants to multi-stage Sampling Systems at import and export terminals.

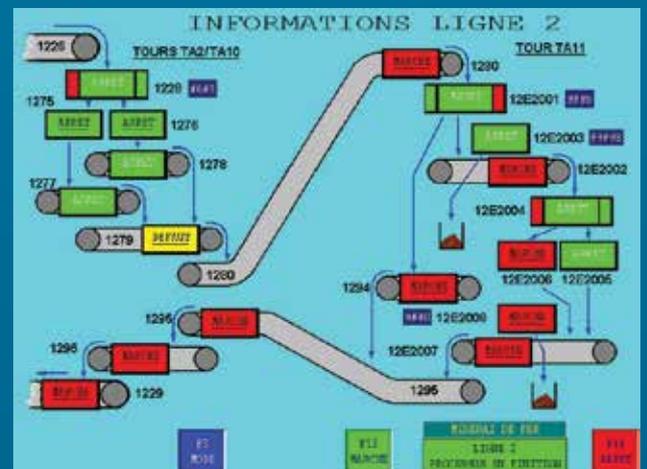
QHS 4-Stage Sinter Sampling System Australia



QHS 2-Stage Iron Ore Export Sampling System Australia



QHS Twin Iron Ore Samplers Egypt



Mimic Diagram for one of 2 QHS Combined Iron Ore & Coal Sampling System France



QHS 2-Stage Iron Ore Sampling System Australia

Robust
equipment
for a difficult
environment



Zinc Refinery Australia

Concentrates Sampling Systems

Lead, zinc and copper concentrates can be very sticky and easily lose moisture during sampling. Generic sampling equipment is usually not suitable for these materials.

QHS sampling equipment for concentrates has been designed to suit the sticky nature of these materials and to minimise the moisture losses. It includes special chute designs with UHMWPE liners and airlocks between sampling stages.

QHS has supplied sampling systems for concentrates at mines, import and export terminals and refineries in Australia and overseas.

QHS Concentrates Sampling System Belgium –
3D Model & Finished System



Concentrates Export Terminal PNG

Specialised
sampling
equipment for
difficult to handle
material

Aggregates Sampling Systems

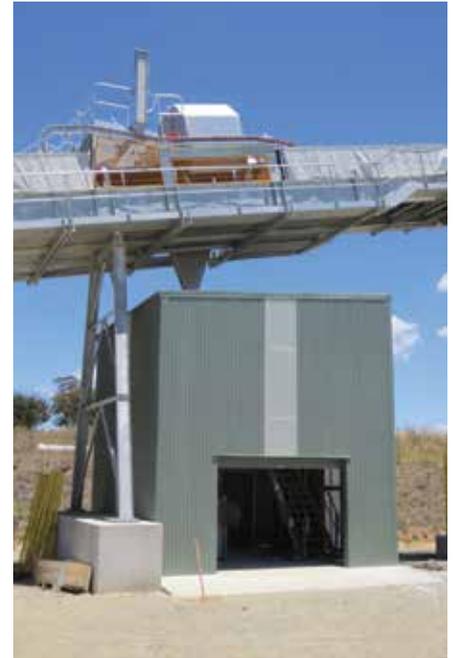
QHS has supplied many samplers for aggregates used in roadworks and concrete. Some of these projects have included Vision Sizing Systems from Scientific Industrial Automation. These sizing systems provide real-time sizing data for the aggregate being sampled



Five QHS Samplers, one for each size fraction



QHS Aggregate Sampler and Sample Collector



QHS Aggregate Sampling System

Alumina Sampling Systems

Collecting samples of alumina requires special sampling equipment that is able to handle the free flowing product while getting representative proportions of the size fractions, including ultra fine material.



QHS Alumina Sampling System (Primary Sampler Stage)



QHS Probe Sampler for Alumina

Accurate sampling with real-time sizing

Various Ores & By-product Sampling Systems

QHS have designed and supplied samplers and sampling systems for most types of ores, as well as for many different by-products and process reject streams. Some of these include run-of-mine samplers and samplers throughout beneficiation stages to monitor the process.



QHS Aluminium Smelter By-product Sampler



QHS Blast Furnace Slag Sampler



QHS Gold Ore Sampling System

Samplers for spodumene?
No problem!

QHS Magnesite Sampler



Grain Sampling Systems

QHS has a range of sampling, sample transportation and inspection equipment for grain.

This includes:

- Primary Samplers
- Dead Boxes
- Sample Dividers
- Sample Inspection Tables
- Sample Storage Carousels
- Sample Reject Systems



QHS Grain Inspection Tables at an Export Terminal



QHS Sample Collector for Shipping Samples at an Export Terminal

QHS Sample Collector for Train Receiving Samples at an Export Terminal



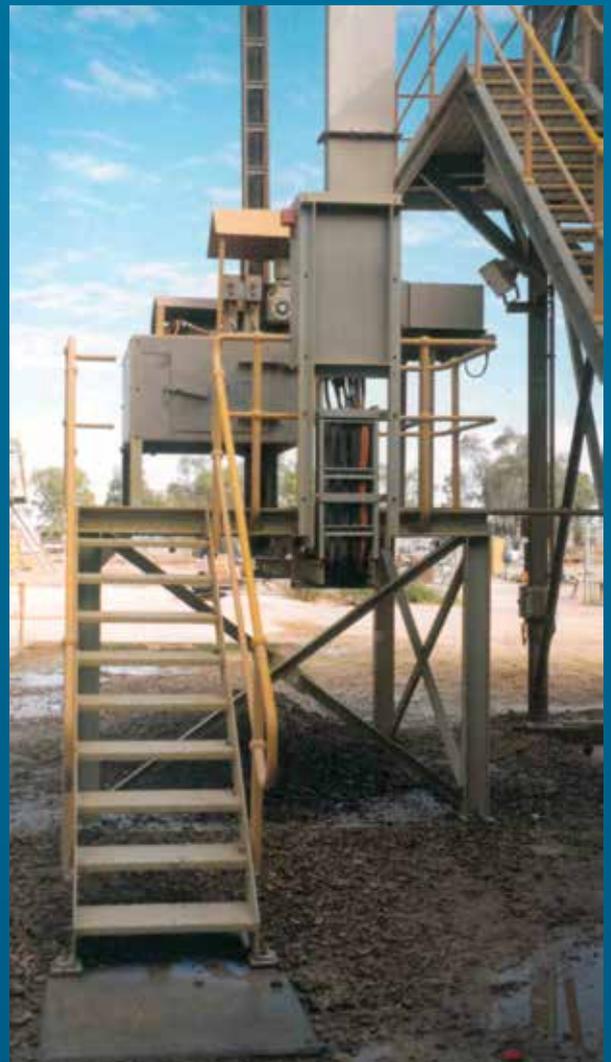
QHS Grain Sample Dividers

Fertilizer Sampling Systems

QHS fertilizer samplers range from small samplers at various stages of the production, through to full sampling systems at export terminals



Phosphate Export Terminal – Australia



Phosphate Rock Sampler – Australia

Slurry samplers for coal & mineral processing plants

QHS Slurry Sampling System

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Slurry Sampling Systems

QHS has designed and supplied slurry sampling systems for coal and mineral processing plants in Australia and Asia. QHS can provide slurry sampling solutions for new or existing processing plants, for pressure or gravity flow conditions and for all types of slurries.



QHS Slurry Sampler



QHS Secondary Slurry Sampler



QHS 2-Stage Modular Slurry Sampling System

Other Sampling Systems

QHS has expertise in sampling other bulk materials. These include:

- Cement and Lime
- Limestone and Clinker
- Mineral Sands
- Woodchips
- Enquire about other bulk materials



QHS Woodchip Sampler – Packed for Transport

Laboratory Preparation Equipment



QHS Automatic Sample Preparation System for Large Coal Samples



QHS Sample Crusher



QHS Rotary Sample Divider



QHS Automatic Sample Preparation System

Automated laboratory preparation systems



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