Quality Handling Systems Pty Ltd
Sampling Solution Specialists

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

Coal & Coke
Sampling Systems

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

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.

Robust equipment for a difficult environment
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

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.

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.
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.

Samplers for spodumene? No problem!

QHS Magnesite Sampler
QHS Aluminium Smelter By-product Sampler
QHS Blast Furnace Slag Sampler
QHS Gold Ore Sampling System
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

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
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.
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

Laboratory Preparation Equipment

QHS Woodchip Sampler – Packed for Transport

QHS Sample Crusher

QHS Automatic Sample Preparation System for Large Coal Samples

QHS Rotary Sample Divider

QHS Automatic Sample Preparation System

Automated laboratory preparation systems