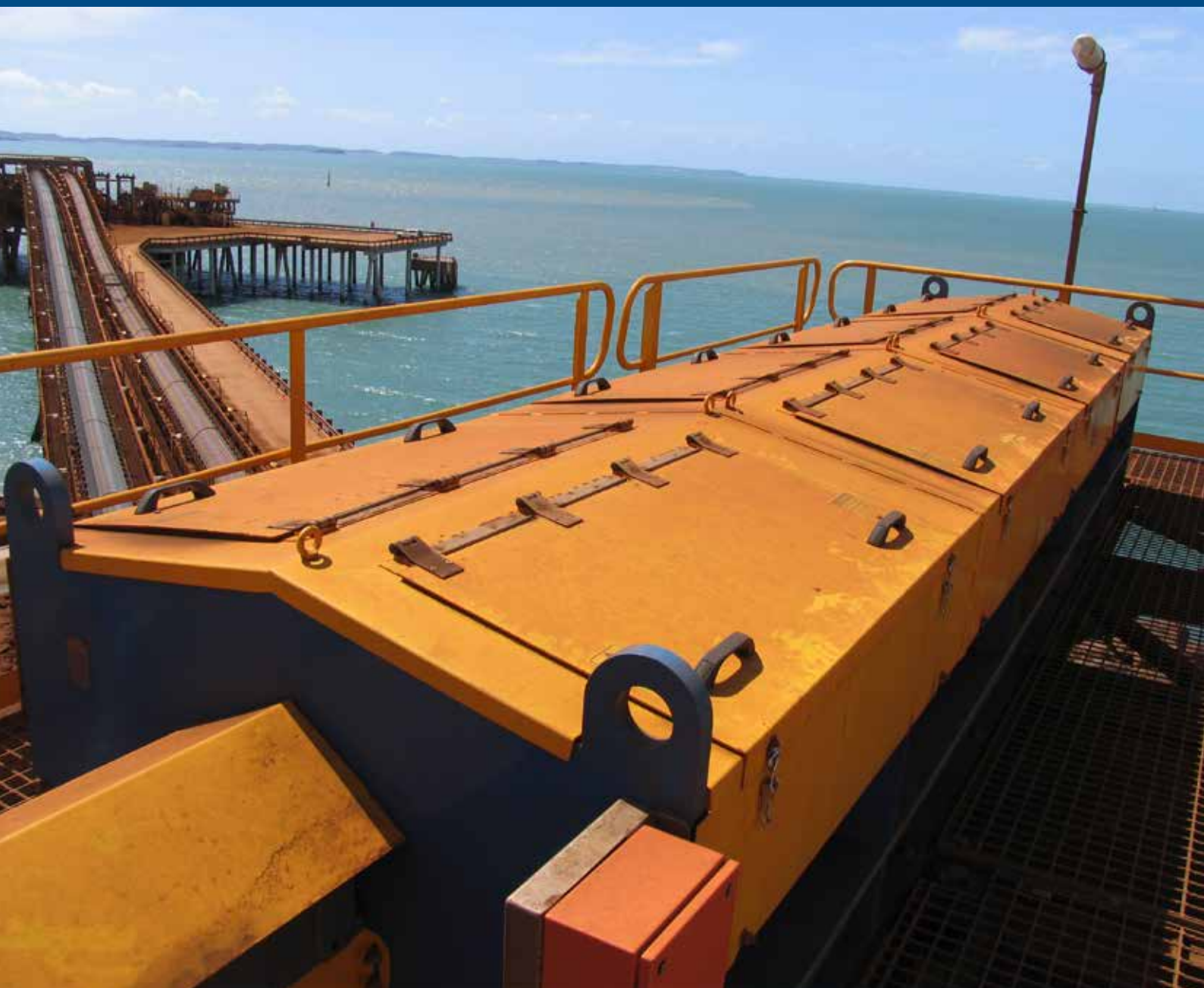


Bulk commodity sampling



Engineered representative sampling systems

Product summary

- **Linear Falling Stream Samplers**
 - Ball Screw Linear Samplers
 - Belt Drive Linear Samplers
 - Synchronous Belt Drive Samplers
- **Rotary Falling Stream Samplers**
 - Vezin Samplers
- **Sample Collectors**
- **Sample Size Reduction Equipment**
- **Sampling Stations**

Gaining a truly representative sample necessitates the use of proven and accepted procedures.

Essa® Samplers are engineered and manufactured to conform to international standards and protocols for the primary and subsequent sampling of ores, coal, particulate solids, slurries and other free flowing bulk materials.

Specific international standards that Essa sampling equipment is engineered to conform to include:

- ISO 3082 Iron Ores
- ISO 4296 Manganese Ores
- ISO 12743 Copper, Lead, Zinc and Nickel concentrates
- ISO 6153 Chromium Ores

The full spectrum of representative sampling applications, from exploration – the mine – process plant – laboratory – stockpile – to shipment loading and unloading, are serviced by the Essa range of sampling machines, accessories and engineered sampling systems.

Reduce the uncertainties associated with mechanical sampling by taking advantage of our technical competence and quality engineering.



Falling Stream Samplers

Accepted sampling theory and current industry standard dictates that for accurate sampling the entire material stream should be sampled. This basic requirement can be accomplished by cutting across the entire stream. We advocate the use of falling stream samplers, such as ball screw or belt driven linear samplers and vezin samplers, for primary, secondary and subsequent sampling applications. Typical large tonnage falling stream sampling installations handle flow rates up to 16,000 TPH from belts up to 2.5 m wide.



Ball Screw Linear Samplers

We are pioneers in the use of the ball screw concept to drive falling stream samplers. The simple, but rugged application of the positive and uniform drive mechanism assures maximum reliability and availability of your sampling system.

Belt Drive Linear Samplers

Recent years have seen major commodity suppliers ramping up production levels. We have responded by engineering low maintenance belt-driven falling stream linear samplers to handle the demand for reliable wide-belt, high-tonnage mine and port sampling requirements.



Synchronous Belt Drive Sampler

The Essa SBD Sampler is used where the sampler drive has to be mounted below the discharge point. A single electric motor drives two synchronised toothed belts located either side of the ore stream. This allows the sampler drive and cutter to operate on the same plane across the falling ore stream.



Vezin Samplers

The Essa Vezin Sampler is a fully enclosed unit containing a rotating sample cutter that passes at constant



speed through a falling stream of slurry or free flowing solids. Correct cutter geometry design ensures radial cutter edges accurately cut a fixed portion of the stream.



Sample Collectors

Essa Rotary Sample Collectors are essentially electro-mechanically driven rotating carousel tables carrying a number of removable sample receivers. The receivers are automatically indexed under the final discharge point of a continuous sampling system to collect and store the discharged sample/s. The inlet of all containers, except that being immediately filled, is kept sealed against moisture and dust loss or the ingress of foreign material.

Sample Size Reduction Equipment and Sampling Stations

FLSmith also offers a full range of complementary sample size reduction equipment and a design through to commissioning service for complete sampling stations and systems. A selection of jaw, cone and rolls crushers are available for reducing sample size. Sampling station solutions include equipment design, selection and layout; structural design; chute design; and electrical control systems.

One Source

Project Centre Australia

FLSmidth Pty Limited
PO Box 717
Welshpool DC WA 6986
Australia
Tel: +61 8 6258 4800
Fax: +61 8 6258 4888
Email: samplers@flsmidth.com

Project Centre Denmark

FLSmidth A/S
Vigerslev Allé 77
2500 Valby
Denmark
Tel: +45 36 18 10 00
Fax: +45 36 18 2799
Email: automation@flsmidth.com