xrf scientific

ULTRA PERFORMANCE LABORATORY JAW CRUSHERS

ORBIS RANGE







Features

Dual Action Jaw Crusher
for high throughput and accuracy

Automated Splitting
for accurate sample representation

LIMS Connectivity
automated data handling and machine input control

Applications
gold, iron ore, base metals and more

AUTOMATED DUAL-ACTION FINE CRUSHERS

ORBIS CORE CRUSHERS



55x Sample Size Reduction
Crush 110mm drill core samples down to 2mm in a single pass

Automated Splitting
with smart RSD or LSD. Option to collect split sample in customised jars

Robust Design
Designed to withstand harsh mining conditions and operate 24/7

Operator Safety
Reduce operator exposure to manual handling risks with automated sample loaders

Overview

Our Orbis range consists of dual action fine crushers designed by experts with decades of experience in sample preparation.

The efficiency of the dual action jaws allows for samples to be reduced by up to 55 times their original size. With large mining customers in mind, our flagship OM100 was designed to take drill core samples down to 2 mm in a single pass.

Orbis crushers are used by commercial labs and mining companies globally. With a proven ability to crush samples faster and accurately, Orbis is a popular choice for preparing gold samples for photon assay.

ORBIS CRUSHERS

FEATURES



Large Dual Action Jaws

Most jaw crushers are designed so that a single moving plate crushes samples against a fixed plate. Our dual moving plates dramatically increase crushing efficiency and yields. Wear plates can be rotated for additional life. The flagship OM100 crusher is large enough to take up to 15kg of sample.



Automated & Accurate Sample Splitting

Orbis crushers feature both Rotary Sample Dividers (RSD) and Linear Sample Dividers (LSD) options. Splitting can be automated with the addition of a PLC controlled smart unit. Samples are weighed, which then allows the system to perform an automated split. Smart systems can be set up in dual configurations, with one central unit controlling two crusher/splitting units.



LIMS Connectivity

Orbis crushers are designed to be fully integrated with your LIMS, to improve sample tracking, increase automation and reduce operator error. Sample weights and split parameters can be directly imported into the system's PLC, removing the requirement for manual data entry.



Robust and Safe Design

Our crushers were designed to withstand harsh mining conditions, processing high volume of samples around the clock. Maintenance is quick and easy by design, to ensure maximum uptime for laboratories of all sizes. Ergonomics can be improved through the addition of a sample lifting accessory.

ORBIS CRUSHERS

SPECIFICATIONS

	OM25	OM50	OM50 WM	OM100
Motor power	5.5kW, 3 phase	5.5kW, 3 phase	7.5kW, 3 phase	7.5kW, 3 phase
Maximum input lump size	70mm	70mm	70mm	110mm
Product size	-2mm passing up to 90% (sample size dependent)	-2mm passing up to 90% (sample size dependent)	-2mm passing up to 90% (sample size dependent)	-2mm passing up to 90% (sample size dependent)
Jaw width	200mm	300mm	400mm	400mm
Hopper capacity	5kg	10kg	10kg	15kg
Wear Plates	High or Low Chrome	High or Low Chrome	High or Low Chrome	High or Low Chrome
Dust extraction	50mm Dust Outlet	50mm Dust Outlet	50mm Dust Outlet	50mm Dust Outlet
Weight	700kg	750kg	850kg	1200kg
Product Dimensions - Width × Depth × Height (mm)	608 × 1006 × 1293	708 × 1006 × 1293	808 × 1006 × 1293	808 × 1006 × 1393
Shipping Dimensions - Width × Depth × Height (mm)	1400 × 1200 × 1590	1400 × 1200 × 1590	1400 × 1200 × 1590	1400 × 1200 × 1590

We reserve the right to change the design or specification of our products without notice. Some of the information contained in this brochure is general in nature and customers should check that it is applicable to their individual circumstances.

Options

- RSD or LSD sample splitters, with the option of smart automated PLC control. Single or duplicate sample split options.
- Smart systems can be configured to include 1 or 2 crushers, controlled by a central cabinet and weigh station(s).
- Sample lifters for transferring each sample into the jaw crusher hopper.
- Customised sample collection options such as photon assay jars.