FRAGTrack™ is a state-of-the-art fragmentation measurement tool that uses advanced machine vision technologies to enable automated post-blast measurement and analysis.

Available in both conveyor and shovel-based configurations, FRAGTrack™ delivers online fragmentation data, benchmarks and insights needed to ensure sustainable and cost-effective improvements in blast performance at your operations.

orica.com/FRAGTrack
FRAGTrack™ solutions can deliver sustainable improvements that:

- **Reduce operating costs**
- **Improve productivity**
- **Improve safety**
- **Improve visibility of blast outcomes**

**OPTIMISED FRAGMENTATION ENABLED BY FRAGTRACK™**

- **Advanced binocular machine vision technology**
  Unique hybrid 2D/3D technique provides automated high quality stereoscopic fragmentation image analysis. Allowing continued high performance in variable lighting, material colour, and textured environments.

- **Reliability and accuracy**
  High level accuracy with results comparable to conventional sieve analysis methods. Designed and tested to meet the demanding requirements of the mining environments.

- **Location and time tracking**
  Blast fragmentation measurements logged to a precise location and point in time by capturing spatial co-ordinates and timestamp information with each image.

- **Online fragmentation data access**
  FRAGTrack™ is a cloud hosted system where all synchronised data is stored securely on Microsoft’s Azure platform. Online access allows user configurable display of historical data, key performance indicators and reporting needs, anytime, anywhere on any device.

- **Available in belt conveyor and shovel mounted configurations**
  The system can be configured for both operating face-shovels for continual assessment of particle size at the dig face of a muck pile, as well as above the conveyor, allowing the determination of both volume and mass of material.

- **Engineered data integrity**
  Localised image processing and storage ensures data security and control through the preservation of both sample and processed data on the device in the event of communication failure.

- **Empty belt detection**
  FRAGTrack™’s sophisticated triggering mechanism guarantees only valid results are captured for analysis, ensuring decisions are made on valid information at all times.

- **Autonomous and unbiased sampling**
  The smart triggering system guarantees only valid samples are collected and processed, eliminating sampling bias and increasing sample frequency.

**WHO SHOULD USE FRAGTRACK™:**

- Drill and blast engineers
- Drill and blast operators
- Blast operations manager
- Mining, quarry and civil engineers
- Mining, quarry and civil consultants

**ENSURING YOUR SUCCESS WITH FRAGTRACK™**

Our comprehensive training, support and Customer Success Program is aimed at tailoring each FRAGTrack™ implementation specific to your individual site needs. Our structured implementation program, and access to world-class blasting and technical expertise ensures rapid deployment and integration into your operations, maximising the value delivered and increasing productivity, cost reduction and regulatory compliance across your blasting operations.
LIGHTWEIGHT F60 CAMERA
- Water and dust proof housing
- Ruggedised mounting hardware
- Advanced optical cameras
  - F60 camera houses measurement sensors used in the determination of particle size distribution samples.

F50 PROCESSING UNIT
- 3G/Wireless connectivity
- Built-in position identification receivers
- High speed processor
  - F50 processing unit houses the edge computer processing and communication technologies used by the system.

<table>
<thead>
<tr>
<th>TECHNICAL SPECIFICATIONS</th>
<th>FRAGTRACK™ CONVEYOR</th>
<th>FRAGTRACK™ SHOVEL</th>
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<tbody>
<tr>
<td>Machine vision digital stereoscopic cameras</td>
<td>✔️</td>
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<tr>
<td>Edge computing processor for autonomous triggering and analysis</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Wired ethernet connection to site LAN/WAN</td>
<td>✔️</td>
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<tr>
<td>Wireless communication (3G cellular and 2.4GHz WiFi supported)</td>
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<tr>
<td>24 V DC input power supply</td>
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<tr>
<td>Lighting of conveyor sample region (minimum of 6 kLux required)</td>
<td>✔️</td>
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<tr>
<td>Lighting of dig face sample region (night shift operation)</td>
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<tr>
<td>Ruggedised mounting hardware with vibration dampening</td>
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<td>Operating ambient temperature range -30°C/+55°C</td>
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<td>Advanced filter algorithms for lighting corrections and image enhancement</td>
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<tr>
<td>Global Navigation Satellite System (GNSS) receiver for spatial location of samples</td>
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To learn more about the FRAGTrack™ and how it can support your operations today, please contact your local Orica representative orica.com/FRAGTrack