# ROCK-ON-GROUND SERVICES (ROG)

## Blasting Solutions

TAP Technical Applications Services

ROCK-ON-GROUND (ROG) services deliver rock blasted to the required size on time. MAXAM's Technical Applications Group (TAP) helps customers optimize their drilling and blasting operations, bringing unparalleled transparency, cost control and improved rock output. By delegating blast planning, blast design, drilling, loading and blasting to MAXAM, mines and quarries convert fixed costs to variable costs. In addition, MAXAM helps mines and quarries comply with onsite regulations and control inventory of dangerous goods onsite.

## APPLICATIONS

- Open pit
- Special applications
- Civil construction
- Quarry

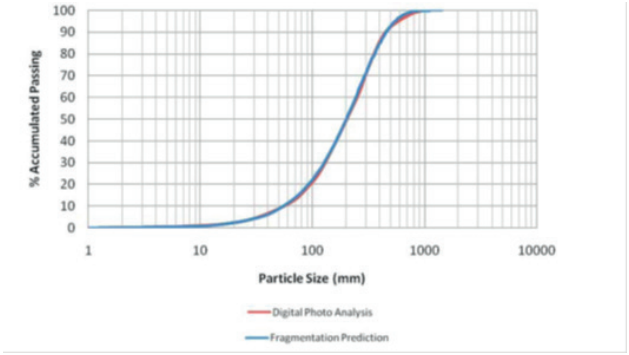
## BENEFITS

- Pay for rock produced to a required fragmentation, in a specific timeframe.
- Discover hidden costs in drilling and blasting.
- Reduce investment in drill rigs, and reduce costs of drill rig operation and maintenance.
- Improve performance of shovels, trucks and primary crushers.
- Improve inventory control of explosives and accessories.
- Improved regulatory compliance.
- Reduce invoice processing.
- Daily and monthly reporting.

## EQUIPMENT

MAXAM's experienced technicians uses state-of-the-art technologies and tools and MAXAM's global ex-pert network to design and implement long term ROG operations anywhere in the world.

Each blast is designed and verified before execution. No blast related work begins without a safety review and a comprehensive risk assessment. MAXAM tools use field information to develop and calibrate prediction models used to control all risks like flyrock, vibrations, misfires or cutoffs.



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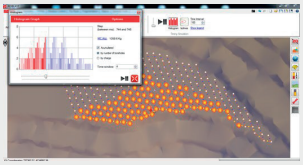
## COURSE MODULES

| ROCK-ON-GROUND SERVICES (ROG) | |
|---|---|
| **BEFORE STARTING** | **SERVICE** |
| Define scope of work | Rolling production forecast |
| Responsibilities<br>Contacts<br>Conflict resolution | Site access for each blast for MAXAM staff, equipment and supplies |
| | Safety review, risk assessment |
| Drill & blast specifications (site specific information, rock production schedule, safety, environment, vibration and other requirements (daily, weekly, monthly, annually), fragmentation, oversize, undersize, ... etc.) | Blast site survey, Blast design, Drill plan, Blast plan |
| | Customer approval |
| | Drlling and and drill audit (CLIENT OR MAXAM) |
| Drill & blast program, KPI and report definitions (rolling production forecast, MAXAM resource assignment and supply chain ( equipment, staff,supplies of explosives and accessories, ... etc.) | Loading, priming, tie-up, stemming and shooting |
| | Site check<br>Blast reports<br>KPI update<br><br>Daily and monthly reports |

Call to explore how MAXAM Blasting Solutions can help you add value to the mine cycle by improving safety, reducing environmental impact, reducing costs and increasing transparency

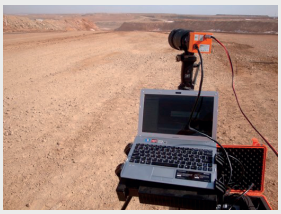
Topography and Laser profiling the free face maps blast site data into MAXAM´s RIOBLAST software.a



Blast design & simulation with RIOBLAST generates drilling plan, blast plan and expected fragmentation, vibrations and safety circlesv.

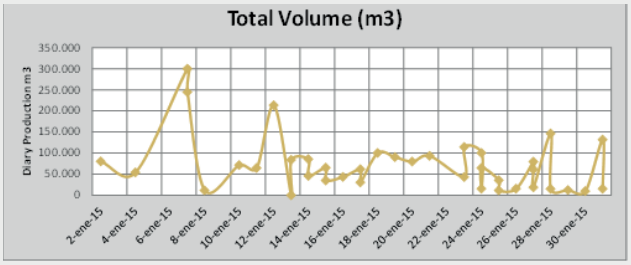
Boretrak checks blast holes and with RIOBLAST, helps optimize design for each blast

MAXAM's highly trained staff load, prime, stem and tie-up the blast using state-of-art equipment, advanced explosvies and initiation systems



Blasts are recorded and fragmentation is measured for each blast

A comprehensive blast report for every blast & monthly tracking



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Maxam Civil Explosives
Avda. del Partenón, 16.
Campo de las Naciones. 28042.
Madrid - Spain



www.maxam.net