

# CARLSON DRILL GRADE SYSTEM

— INCREASE ACCURACY, EFFICIENCY & SAFETY

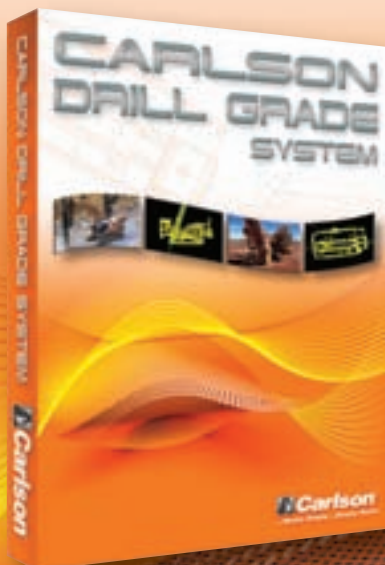
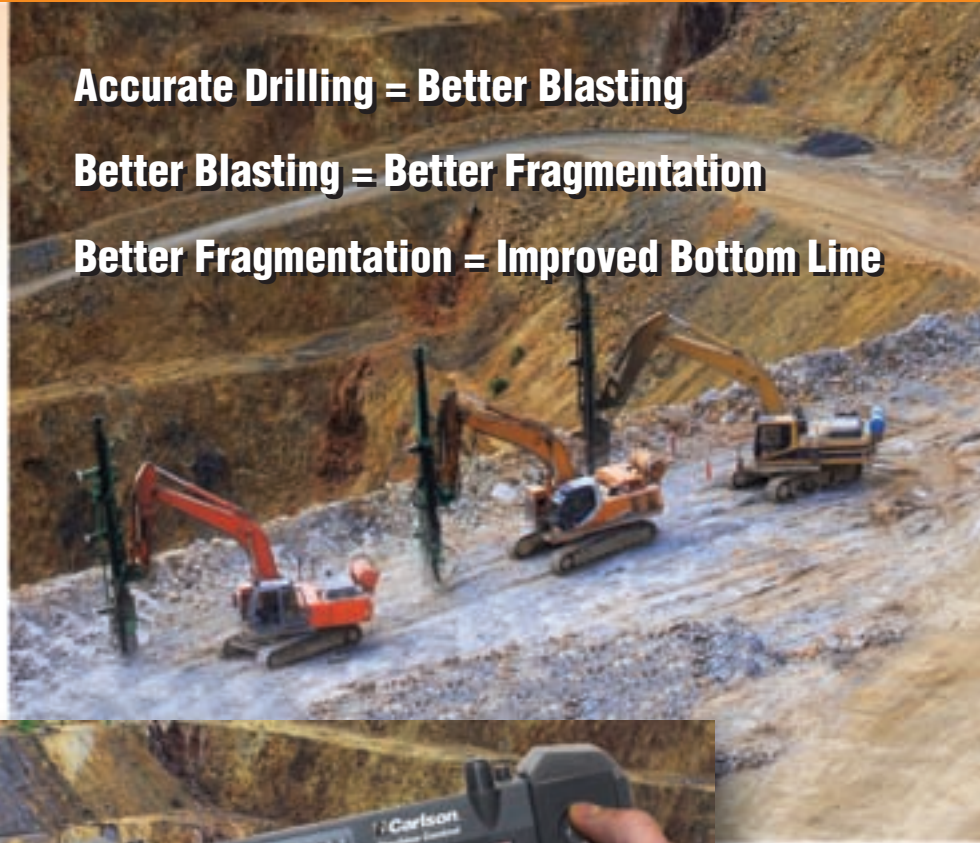
Get all-weather assistance with drilling and blasting for both mining and construction applications with **Carlson Drill Grade System**, which uses the latest in Global Navigation Satellite System (GNSS) technology:

- Operators can navigate & position from within the cab without the need for a surveyor
- Design can be done from the office or in the field with easy-to-use interface
- Project & record hole depth
- Record & measure multiple drill parameters
- Set-up for angle drilling
- Remote wireless monitoring provides near real-time system feedback
- Ability for unlimited tagging of strata & to extract strata information
- Real-time location of all working machines displayed

**Accurate Drilling = Better Blasting**

**Better Blasting = Better Fragmentation**

**Better Fragmentation = Improved Bottom Line**



**Find Out More NOW!**

To contact Carlson Software call, visit or email:  
**800-989-5028 • [www.carlsonsw.com](http://www.carlsonsw.com)**  
**[machinecontrol@carlsonsw.com](mailto:machinecontrol@carlsonsw.com)**



**Carlson**<sup>®</sup>

Machine Control ... for the rest of us!

# CARLSON DRILL GRADE SYSTEM

## Overview:

Carlson Software's Drill Grade System<sup>®</sup> provides improved accuracy, efficiency and safety for all functions related to drilling and blasting. The features and benefits of Drill Grade<sup>®</sup> improve the bottom line for mining or construction operations.

- Get correct depth of all holes
- Enable correct hole and row distance at bottom of the blast
- Eliminate need for surveyors to mark collar points and depth

## Benefits:

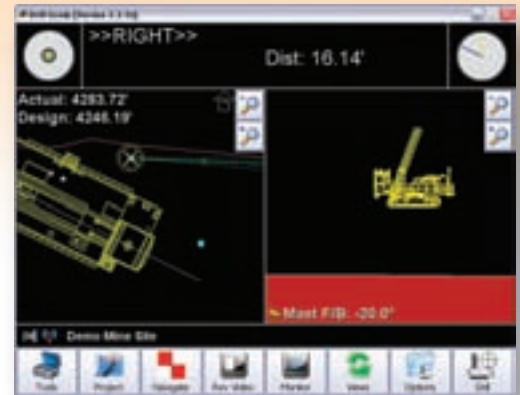
- Reduces blasting costs
- Lowers survey costs
- Limits need for over and under drilling
- Enables all-weather operation, day or night
- Increases overall safety of operations
- Provides real-time information for operators and office personnel
- Keeps operator in the cab & out of harm's way, thanks to stakeless drill pattern layout
- Has both audio and visual alarms, set up for avoidance zones, to keep machines in safe working boundaries
- Prevents encroachment of individual machines with proximity warnings – operators know each machine's location and alarms can be triggered if a proximity zone is breached
- Enables both daylight and darkness safety

## Key Hardware Components:

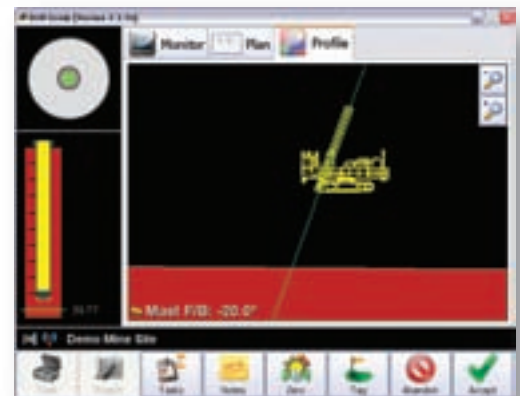
- CPU/Touchscreen Display – Carlson Commander™ loaded with Carlson's Drill Grade Software
- Dual GNSS Receiver
- Boom Articulation Sensor
- Dual Axis Sensor
- Encode with Transducer
- Transducer for Hammering Signal
- Hydraulic Pressure Switch

## Additional Features:

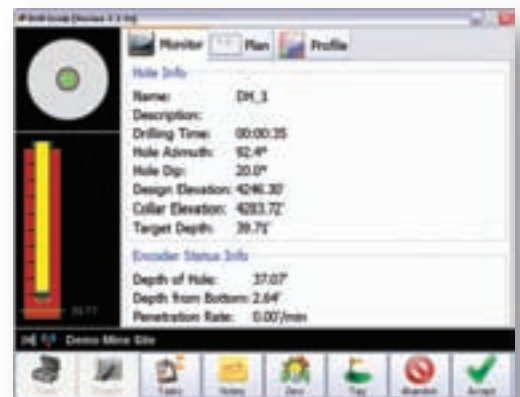
- Stakeless drill pattern layout
- Drill to the surface design (DTM), elevation or desired depth
- Supports most all GPS/GNSS receivers
- Supports both vertical and angle drilling
- Graphical historical playback – providing unsurpassed post analysis and operator training
- Real time data transmission (two way) provides up-to-the-minute project distribution
- Instant messaging
- Create DTM from collected drill data
- Avoidance, warning and watch zones can be established by polygon or DTM
- Link to Carlson's blasting module and other Carlson mining software products
- Reporting module provides:
  - As-built drill hole to design files
  - Near realtime volumes
  - Drill productivity
  - Extract strata information
  - Individual machine reports for fleets/users/activities/number of holes drilled



Navigate - Approaching Next Drill Hole



Navigate - On Hole Target



Monitor - Drilling in Process

## Find Out More NOW!

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