



The National Institute for Occupational Safety and Health (NIOSH)

Mining Product: DRIFT Software

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DRIFT is a program to design perimeter control blast rounds for typical underground drifting applications. The design utilizes current methods of perimeter blasting with the added design element of a buffer row coordinated with the perimeter row to reduce perimeter damage. The coordination is in applying one of several blast damage models to calculate the damage extent for each buffer and perimeter blast hole in the design. The calculated damage is then applied to the spacing between the buffer and perimeter blast holes. Underground blasting with perimeter damage control can reduce the requirement for loose rock scaling and reduce the risk of ground fall injury.

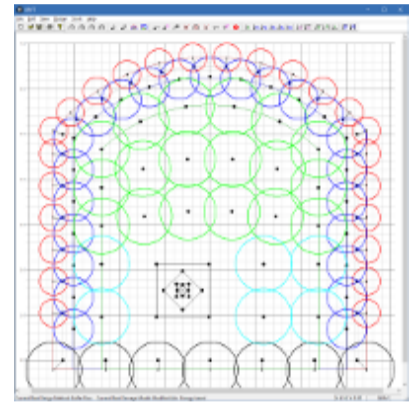
The purpose of the DRIFT software is to provide the blast design engineer a tool for developing an initial conceptual blast design intended to meet design objectives. A program of field trials and blast design refinement is suggested until design objectives are met.

New with DRIFT 2.0:

- Important note: Designs created with DRIFT 2.0 Beta will not be compatible with the official 2.0 release.
- New design method called Charge Region.
- Input dialog only has 4 tabs.
- Input dialog explosives properties and charging tab has an advanced input if using bottom charge and column charge.
- Input dialog Project tab has offset inputs for the back, rib, and floor blast holes to control the location and limits for lookout perimeter holes, straight buffer holes, lifters and production stoping holes.
- Designs can be initialized to default input parameters and then further modified.
- Metric units are default but can be easily changed to English using a radio button on the input dialog project tab window.
- Damage limit circles represent the end of the blast round because the perimeter holes lookout angle offset is at the maximum extent.
- Practical damage limit models are limited to Ash Energy, LK, PPV, Sher, Johnson, Etkin.

Installation Notes:

- Download and unzip the offline installer to a local folder.
- Open the Installer folder and run **DRIFT v2.0 Setup.exe**.



Software (Windows) - July 2019

Version: 2.0

Installer (22.64 MB) 

Spokane, WA: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health