SHOTPlus™

SHOTPlus Standard
Blasthole Charging

March 2017

ORICA

DEFINING A DEFAULT CHARGING DESIGN FOR NON-ELECTRIC INITIATION

1. **Surface tail length** – minimum length of Exel signal tube or EBS lead wire required at collar

2. **Tube wastage** – factor applied to account for any lead or signal tube slack in a hole or at the surface

3. **Primer stand-off** – distance of primer from top / bottom of deck

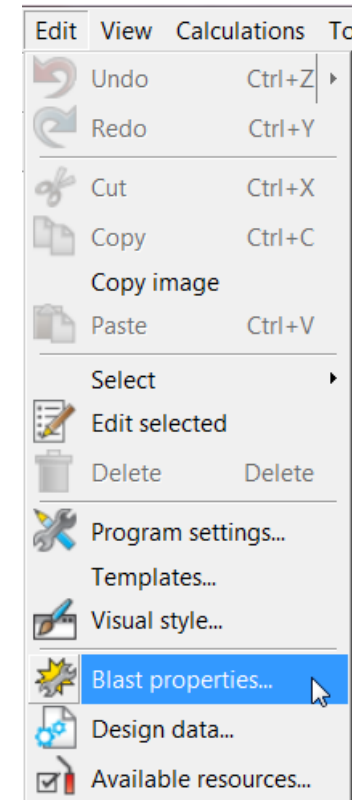# DEFINING A DEFAULT CHARGING DESIGN FOR EBS INITIATION

SHOTPlus™

1. **Blaster Type** – SURBS, SURBS Synchro, UT, UT Synchro

2. **Delay Increments** – Set delay increments for EBS timing (can be changed through timing tools)

3. **EBS connection** – define COM port for EBS connections

Edit blast properties

Blast header information
EBS
Hole types
Initiation
Loading chart options
Loading options

EBS options

EBS blaster type: Blaster2400S / SURBS (max 12 loggers)

Delay increment 1: 25 ms
Delay increment 2: 50 ms
Delay increment 3: 150 ms

Use inhole timing offsets: ☐

EBS hardware connection: COM3 ☐ Show full list
Apply IDs and delays from uploads: ☐
Use i-kon I detonators ☑
Logger I firmware supports reload (522d+) ☐
Mark manually timed holes with "*" ☐

Restore defaults   OK   Cancel

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DEFINING A DEFAULT CHARGING DESIGN

Users can define a number of default loading options that will influence the lead length and position of initiators used in the charging design
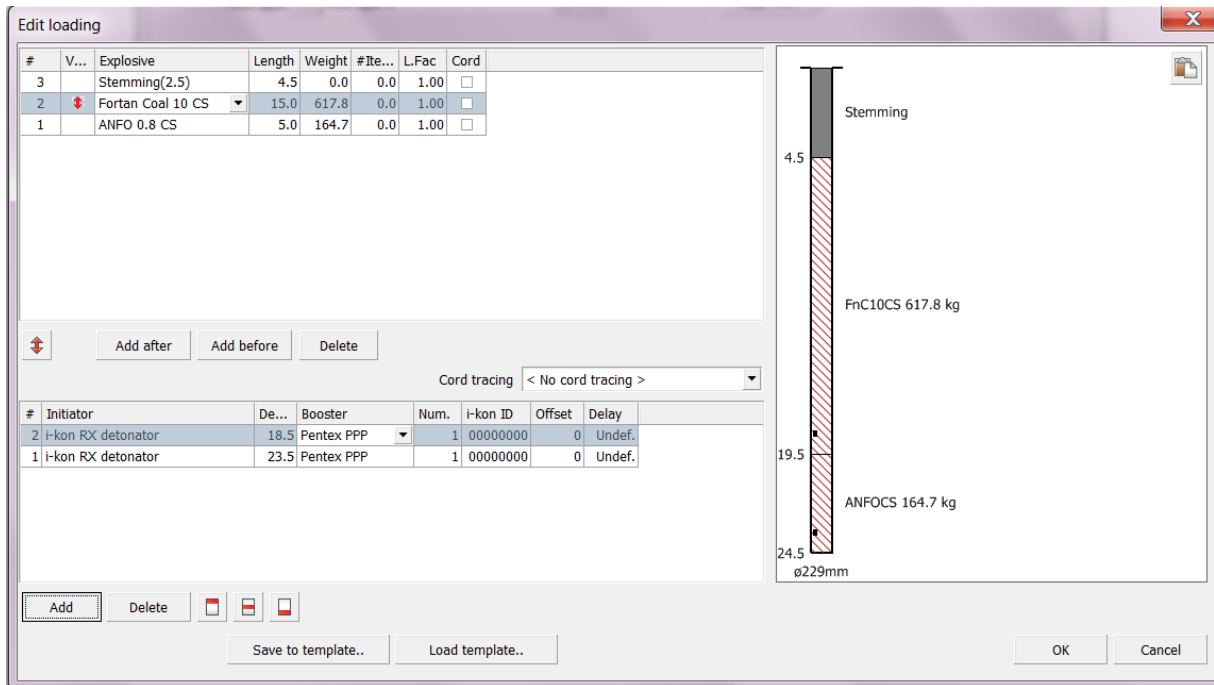
- Loading options can be accessed under the **Edit-Blast properties** menu item

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DEFINING A DEFAULT CHARGING DESIGN

In the **Edit Loading** window, the charging design for the Hole Type can be defined, this can consist of;

1. Multiple decks
2. Multiple initiators
3. Displayed graphically

SAVING LOADING TEMPLATES

A defined charging design (decks and initiators) can be saved as a template for future use

1. Select **Save to file** to save a charging template
2. Select **Load file** to import a previously saved charging template

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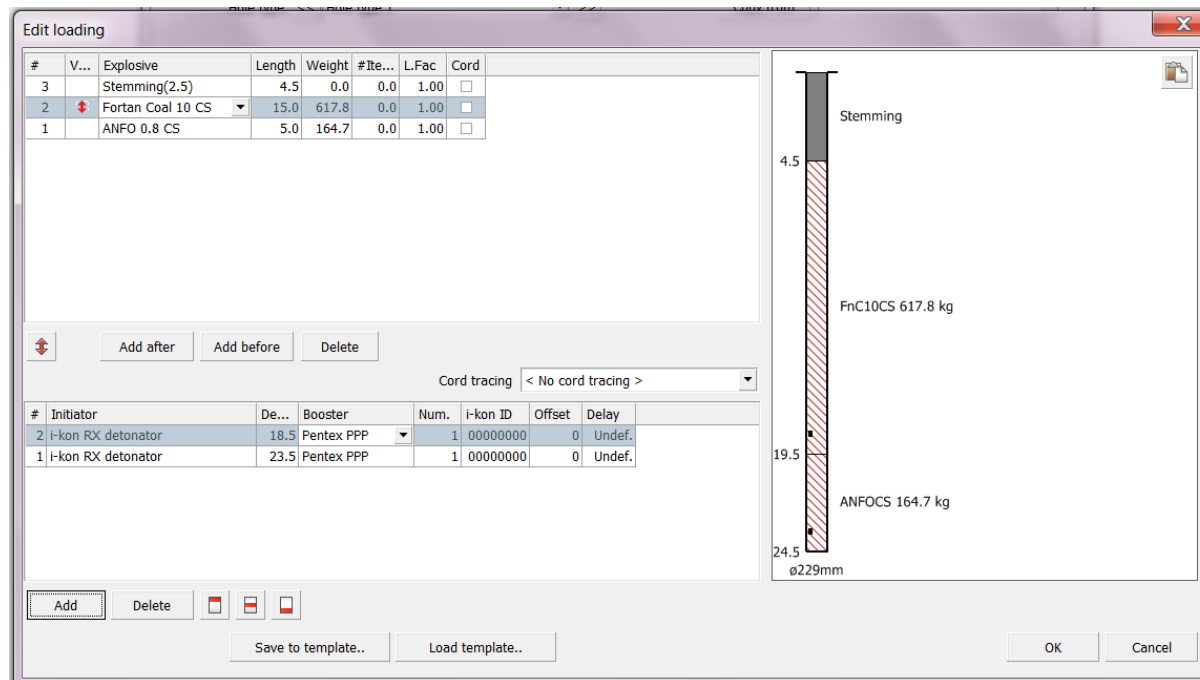
AUTOMATIC LOADING WITH RULES

SHOTPlus allows the creation of rules to control the specific application of your defined charging design

Loading Rules provide a quick and efficient method to;

1. load a large volume of holes in your design
2. load complicated designs with varying charging requirements

AUTOMATIC LOADING WITH RULES

Each charge design rule can have **one or more conditions** specified to control the application of that rule

Conditions are essentially **IF** statements

When multiple conditions are used, then the criteria for all conditions must be met (i.e. **IF AND**, not **IF OR**)

If the condition criteria are met, by a blast hole, then that hole will be charged according to the specified rule, for example

› *If the blast hole is greater than 10metres in length, then charge with...*

AUTOMATIC LOADING WITH RULES

Rules are applied to blast holes sequentially (i.e. in the order that they are defined)

Once a hole is loaded it can not be reloaded by another rule, even if it meets the new rule criteria

Therefore the sequence that you define the rules is critical

DEFINING A LOADING RULE

A charging design can also be defined using the **Edit loading rules** function, accessible via

1. The **Tools-Auto loading-Edit loading rules** menu item
2. The **Edit loading rules** button on the **Loading Tools** tool bar (usually docked at top of screen)
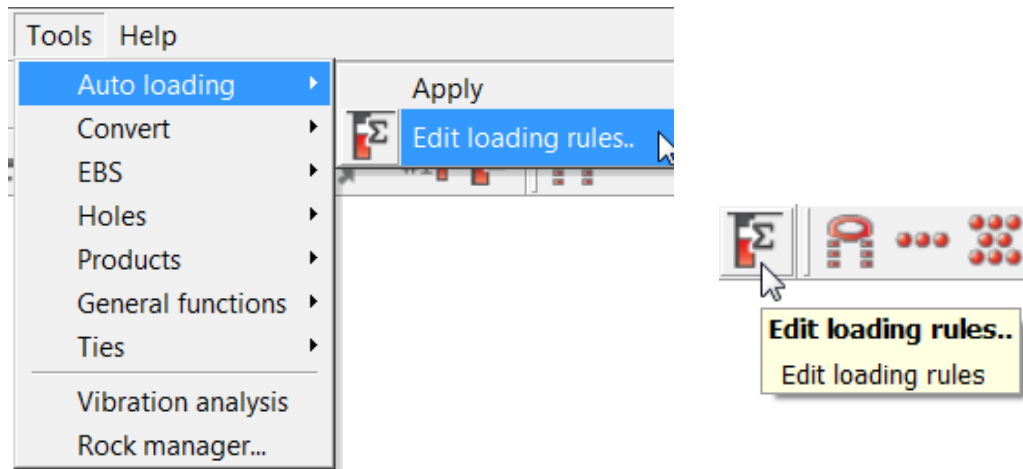
DEFINING A LOADING RULE

In the **Edit loading rules** window, condition based rules can be created.
- Multiple rules can be created to suit different conditions.
- Conditions specified control the application of the rules. Rules defined by:
  - Length
  - Diameter
  - Hole Angle
  - Hole Type
- Example loading provided

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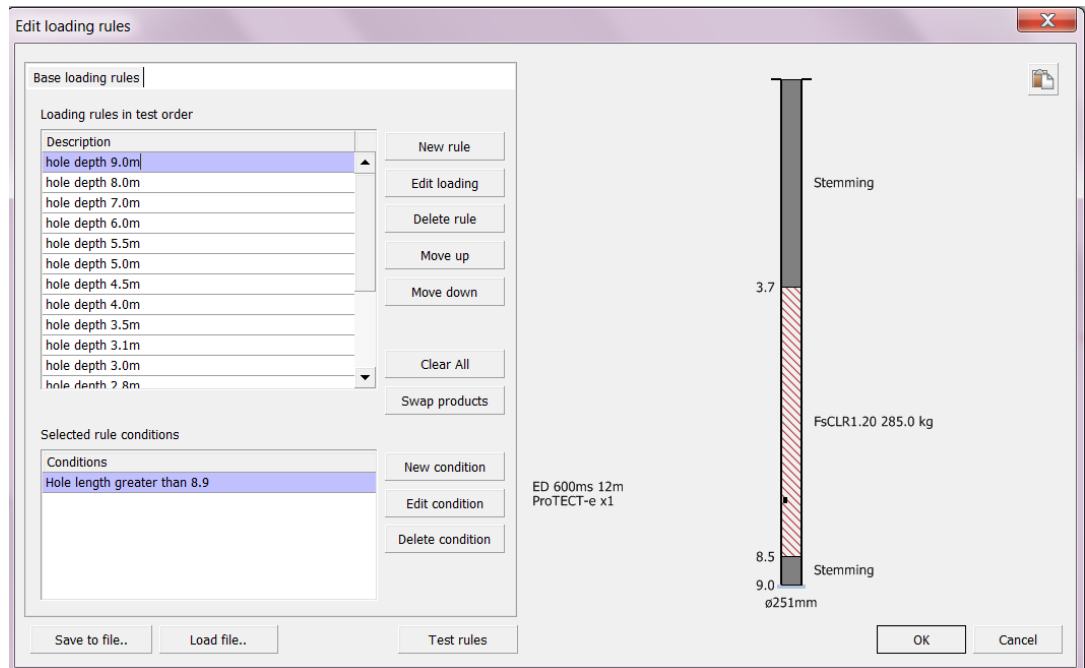
DEFINING A LOADING RULE

The charging design for a rule is completed as per the previously described process
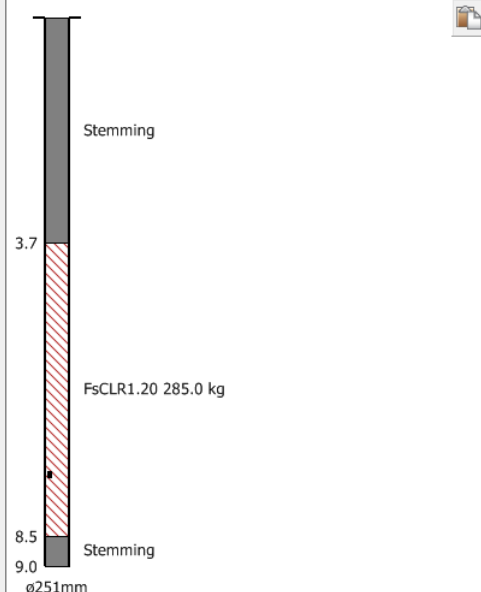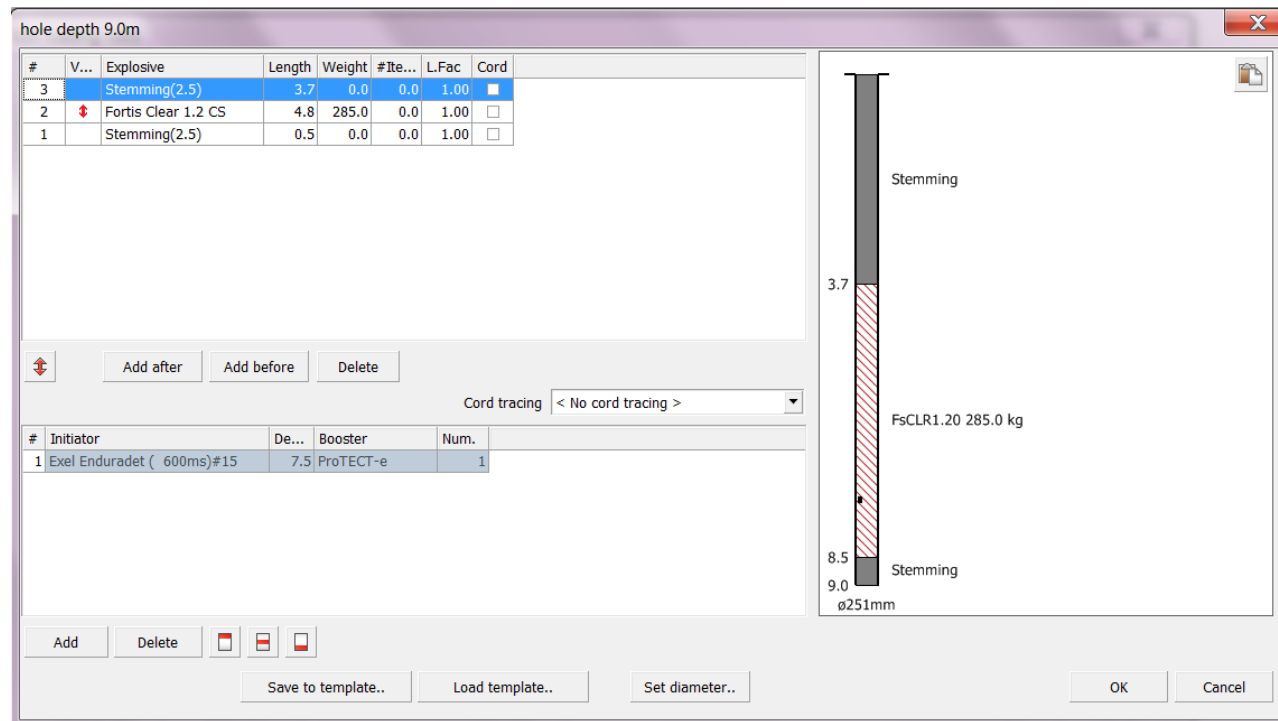
SAVING LOADING RULE TEMPLATES

A defined set of loading rules can be saved as a template for future use

1. Select **Save to file** to save a rules template
2. Select **Load file** to import a previously saved rules template

TESTING LOADING RULE APPLICATION

To verify that you have correctly defined your conditions and the order of the rules

1. Use the **Test Rules** function. By changing hole parameters, you verify that the rules behave as expected

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