Technical Data Sheet

Exel™ HTD

(Non Electric, Handi Trunkline Delay (HTD) Unit)

The Power of Partnership

Description

Exel™ *HTD* detonators are signal tube based detonators designed to control the millisecond delay sequence from hole to hole, across the surface of a blast.

The special design of *Exel*™ *HTD* detonators allows up to five outgoing signal tubes to be initiated and provides security of tube retention. *Exel*™ *HTD* detonators consist of a length of *Exel*™ signal tube and a low strength delay detonator. The free end of the tubing is closed with a waterproof seal. The delay detonator is fully enclosed in a unique color coded handiblock.

Application

Exel™ *HTD* detonators function as a surface relay system, which enables an unlimited number of blastholes to be fired in sequence. This permits large well-controlled blasts to be fired, producing better results more efficiently.

Exel™ *HTD* detonators are commonly used in conjunction with a delay detonator in every blasthole. The normal practice is for all in-hole detonators to have the same delay period and, as a result, the surface detonators control the firing sequence. *Exel*™ *HTD* detonators are produced with arrange of delay times to match to the needs of mines, quarries and construction projects.

Technical Properties

Exel ™ Shock Tube	Green with color-coded flag tag indicating length, delay number and delay time
Handiblock	Color-coded block have five shock tube capacity
Detonator	Low strength detonator and Low Shrapnel

Delay Nominal Times	
Delay (ms)	Handiblock Color
9	Green
17	Yellow
25	Red
33	Yellow
42	White
65	White
100	Black
200	Orange

Recommendations for Use

Exel™ *HTD* detonators can initiate up to six 3-mm shock tubes in both the directions.

Shock tubes are attached to *Exel*™ *HTD* detonator with the handiblock. Clip each shock tube into the handiblock, keeping the handiblock and tube at right angles. Ensure that the tubes are firmly hooked in place. The handiblock should be slid down the tubes to ensure crossovers have not formed. The handiblock does not require burying, as the detonator is a low shrapnel design.

Avoid damage to the shock tube. Do not use the shock tube as a lowering line.

Never pull so hard as to stretch or break shock tubing. A premature detonation may result. *Exel*™ *HTD* detonator assemblies can be initiated with:

- Another Orica shock tube surface delay system
- An electric Detonator (#8 Strength)
- Detonating cord having core charge between 3,6 and 5 g PETN/meter (recommended)

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Packaging

Exel™ *HTD* detonators are wound in figure-eight coils. *Exel*™ *HTD* detonators are packed in plastic bag and they are shipped in carton cases.

Tube Length (m)	Qty per bag (1.1B)	Qty per box (1.1B)
1 – 5	15	150
6 – 7	10	100
7 – 11	8	80
12 – 14	5	50
15 – 18	4	40

Storage and Handling

Product Classification

Authorised Name: *Exel*™ *HTD*
Proper Shipping Name: Detonator assemblies, non-electric
UN No: 0360, 0361, 0500
Classification: 1.1B, 1.4B, 1.4S
EC Type Certificate: -

All regulations on the handling and use of such explosives apply.

Storage

For best results, store under moderate temperatures and dry conditions in a well ventilated, approved detonator magazine.

Disposal

Disposal of explosives materials can be hazardous. Methods for safe disposal of explosives may vary depending on the user's situation. Please contact a local Orica-Nitro representative for information on safe practices.

Safety

Exel™ *HTD* detonators provide a high level of safety against initiation by static electricity, stray electrical currents and radio frequency transmissions. The full enclosure of the delay detonator by the handiblock guards against accidental initiation. However it contains explosive components. Care should be taken not to cause initiation by intense impact, friction or heat. The detonator is a factory assembled in the handiblock and no attempt should be made to disassemble it. The *Exel*™ *HTD* detonators are not suitable for the initiation of detonating cord.

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