



# TECHNICAL INFORMATION

Reference MSDS #1122

# NONEL® STARTER

I-34-02-01-05

Nonelectric Delay Detonator

Nonelectric Shock Tube and Detonator Assembly



## Packaging

Length per Spool		Spools / Case	Weight per Case	
200 ft	61 m	8	10 lbs	5 kgs
500 ft	152.5 m	8	21 lbs	10 kgs
1000 ft	305 m	4	19 lbs	9 kgs

### 200 ft Case Dimensions

10 3/4 X 10 3/4 X 9 3/4 in  
27 X 27 X 25 cm

### 500 & 1000 ft Case Dimensions

17 X 17 X 7 1/4 in  
43 X 43 X 18 cm

## Product Description

A **NONEL® STARTER** nonelectric delay detonator is a spool of nonelectric shock tube factory-assembled to a detonator that is housed in a plastic bunch block. NONEL Starter is available in 200, 500 and 1000 foot (61, 152.5, 305 meter, respectively) spooled lengths for easy application and deployment. NONEL Starter provides controlled, nonelectric initiation of surface and underground blast rounds.

NONEL Starter shock tube is a small diameter, three-layer plastic tube coated on the innermost wall with a reactive explosive compound. When initiated, NONEL shock tube propagates a low energy signal, similar to a dust explosion, at approximately 6,500 ft/sec along the tube's length with minimal disturbance to the outside of the tube. The signal is transmitted from one NONEL shock tube to another through field-assembled splices.

## Application Recommendations

- **Never** attempt to initiate more than 8 NONEL shock tubes or one detonating cord trunkline with the bunch block. Misfires may result.
- **Never** place detonating cord and shock tube in the same NONEL® Starter bunch block. Misfires may result.
- Where NONEL TD delays are used with detonating cord downlines at the starting hole, ensure the NONEL TD delay j-hooks are attached to the detonating cord downline at least 12 inches (30 cm) from the NONEL Starter bunch block.
- When using NONEL Starter nonelectric delay detonators with a detonating cord trunkline, place the detonating cord in the bunch block parallel to the detonator with the detonator pointing in the desired direction of initiation. Wrap the end of the detonating cord trunkline around the bottom of the bunch block and then back in the bunch block parallel to the detonator. Close the door of the bunch block firmly.

## Product Disclaimer

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# NONEL<sup>®</sup> STARTER

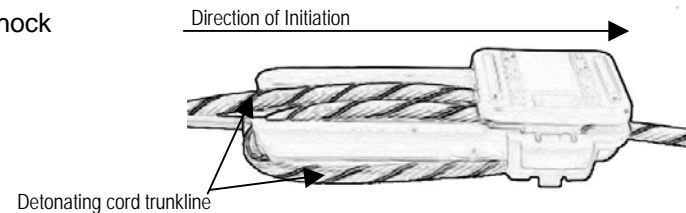
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### Application Recommendations

- **Always** trim excess lengths of detonating cord from bunch block. Detonating cord tails lying across outgoing trunkline can interfere with normal function.
- After attaching the bunch block to NONEL shock tubes or detonating cord trunkline, place the bunch block with the door face down and cover the NONEL Starter bunch block with drill cuttings or stemming material to prevent shrapnel cut-off. Ensure all outgoing NONEL shock tubes or the detonating cord trunkline lead straight away from the bunch block for at least 12 inches (30 cm).
- **Always** use NONEL Lead Line to splice onto the NONEL Starter unit to make up a custom length nonelectric starter assembly whenever the length of NONEL Starter unit is not sufficient to position the blaster safely.
- **Always** use the plastic connector sleeves packaged in each NONEL Lead Line case to make a reliable splice connection to NONEL Starter unit.
- **Always** hook the NONEL Starter bunch block to the blast round **only** after all equipment and non-essential personnel are clear of the blast area.
- **Always** unspool NONEL Starter unit by hand if the bunch block has been attached to the blast round.
- **Never** attach the NONEL Starter bunch block to the blast round until after the NONEL Starter shock tube deployment is complete whenever a NONEL Starter unit is to be unspooled by any method other than by hand.
- **Never** run over NONEL Starter detonators with equipment. This may damage the shock tube and may cause a misfire.
- **Always** replace the NONEL Starter unit if it is damaged.
- **Always** initiate the NONEL Starter detonator with a nonelectric shock tube starter specifically designed for that purpose when total nonelectric control is required for the initiation of a blast round.



### Transportation, Storage and Handling

- NONEL Starter units must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.
- Recommended shelf life, when stored in a cool, dry, well-ventilated magazine, is three (3) years from date of manufacture. Explosive inventory should be rotated. Avoid using new materials before the old. For recommended good practices in transporting, storing, handling and using this product, see the booklet "Prevention of Accidents in the Use of Explosive Materials" packed inside each case and the Safety Library Publications of the Institute of Makers of Explosives.

### Hazardous Shipping Description

- **In the United States** Detonator Assemblies Nonelectric, 1.4B UN0361 II
- **In Canada** Detonator Assemblies Nonelectric, 1.1B UN0360 II

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