**NONEL® Starter**

**Nonelectric Shock Tube & Detonator Assembly**

**Product Description**
NONEL STARTER is a nonelectric detonator consisting of a spooled length of yellow shock tube with a Standard (#8) detonator attached to one end and the other end sealed. The detonator is housed in a plastic bunch block which facilitates easy connection to both shock tube and detonating cord.

NONEL STARTER is designed to provide controlled, nonelectric initiation of surface and underground blast rounds.

**Application Recommendations**
For detailed application recommendations, **ALWAYS** request a copy of Dyno Nobel’s Product Manual: NONEL® and PRIMACORD® from your Dyno Nobel representative.

- **ALWAYS** trim excess lengths of detonating cord from bunch block. Detonating cord tails lying across outgoing trunkline can interfere with normal function
- **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

**Properties**

<table>
<thead>
<tr>
<th>Net Explosive Content per 100 units</th>
<th>0.0570 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.1256 lbs</td>
</tr>
</tbody>
</table>

**Hazardous Shipping Description**
Detonator Assemblies nonelectric, 1.4B, UN 0361 PG II

---

I-34-03-20-17

See Product Disclaimer on page 2
Application Recommendations (continued)

- **ALWAYS** hook the NONEL STARTER bunch block to the blast round 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.
- **ALWAYS** place the bunch block so the lid is face down and cover the bunch block with drill cuttings or other inert material to help prevent shrapnel cut-off after attaching the bunch block to detonating cord or shock tube.
- **NEVER** attempt to initiate more than eight (8) NONEL shock tubes or one (1) 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.
- **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 unsponed 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 if it is damaged.
- **ALWAYS** place the detonating cord in the bunch block parallel to the detonator with the detonator pointing in the desired direction of initiation, when using NONEL STARTER detonators with a detonating cord trunkline.

Transportation, Storage and Handling

- NONEL STARTER must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.
- For maximum shelf life (3 years), NONEL STARTER must be stored in a cool, dry, well ventilated magazine. 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.

Packaging

<table>
<thead>
<tr>
<th>Length</th>
<th>Case Type</th>
<th>Spools / Case</th>
<th>Weight / Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>m</td>
<td>ft</td>
<td></td>
<td>kg</td>
</tr>
<tr>
<td>153</td>
<td>500</td>
<td>NL</td>
<td>8</td>
</tr>
<tr>
<td>305</td>
<td>1000</td>
<td>NL</td>
<td>4</td>
</tr>
</tbody>
</table>

* Length rounded to nearest one-half meter.

Case Dimensions

- **N**: 27 x 27 x 25 cm (10 ¾ x 10 ¾ x 9 ¾ in)
- **NL**: 43 x 43 x 18 cm (17 x 17 x 7 ¼ in)

**Product Disclaimer**

Dyno Nobel Inc. and its subsidiaries disclaim any warranties with respect to this product, the safety or suitability thereof, or the results to be obtained, whether express or implied, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND/OR OTHER WARRANTY. Buyers and users assume all risk, responsibility and liability whatsoever from any and all injuries (including death), losses, or damages to persons or property arising from the use of this product. Under no circumstances shall Dyno Nobel Inc. or any of its subsidiaries be liable for special, consequential or incidental damages or for anticipated loss of profits.