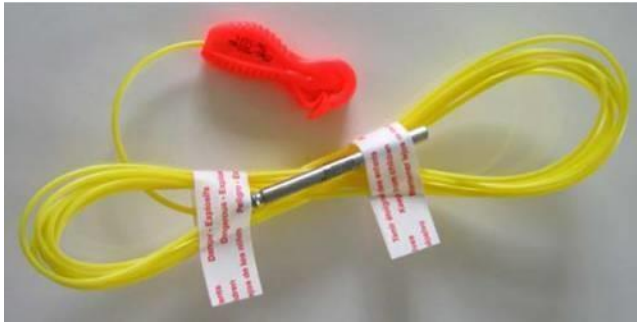


Force Twindet



Description

Force Twindet non-electric, surface delay and in-hole detonator assemblies are easy-to-use components in non-electric sequential blasting applications. Used in pipeline and utility trenching, quarries, open pits and construction projects, *Force Twindet* assemblies are easy to connect, easy to verify, and provide accurate surface and in-hole timing.

Benefits

- Reduce the number of components on site
- Allow pre-blast changes to pattern design
- Reduce inventory
- Provide excellent blast control
- Allow easy hook-up - increase productivity
- Facilitate rapid hook-up verification
- Reduce chance of ground movement cut-off failures
- Can be used in all weather conditions
- No tangles, no waste
- Reduce operating costs

Features

- Surface and in-hole delays in one unit
- New lower energy design
- Accurately timed
- Quick and simple to connect
- Highly visible 6 tube ergonomic connector design
- Highly visible
- Rugged, with new abrasion resistant tubing
- Resistant to hot or cold conditions; easy to handle in figure-eight coils

Technical Properties

In-hole Detonator	No 8
Surface Delay Initiator	New Low Shrapnel
Connector Block	6 tube capacity, colour coded by surface delay time, indelibly printed with length and delays
Shock Tube	Bright yellow colour
Water resistance	0.3 MPa
Shock tube velocity	2000 m/s

Delay Times	
Surface / In-hole (ms)	Connector block colour
17/500	Yellow
25/475	Orange
# 25/500	Orange
42/475	White
42/500	White
42/700	White

Standard short delay combination

Other delays may be available by special arrangements.

Recommendations for Use

Do not use the *Force Twindet* assembly as a lowering line. Keep the shock tube taut until loading has been completed. Avoid damage to the shock tube during loading and stemming operations.

Force Twindet detonators maybe used in temperatures - 30°C to +80°C.

Never pull so hard as to stretch or break shock tubing. A premature detonation may result.

Force Twindet detonator assemblies are unidirectional.

They can be initiated by:

- The surface initiator from another *Force Twindet*
- Electric detonator No 8 strength
- An shock tube surface starter

Force Twindet

Packaging

Force Twindet detonator assemblies are wound in figure-eight coils. Assemblies are bulk packed in fibreboard cases.

Tube Length (m)	Qty per case (1.1B)	Qty per case (1.4B)
4	100	90
5	100	90
7	75	70
8	75	70
9	65	60
12	50	50
15	45	45
18	40	30
25	25	25
30	25	25
37	20	20

Other lengths may be available by special arrangements. Some length/delay combinations may not be available.

Storage and Handling

Product Classification

Authorised Name: *Force Twindet*
 Proper Shipping Name: Detonator assemblies, non-electric
 UN No: 0360, 0361
 Classification: 1.1B, 1.4B
 EC Type Certificate: ENB/D/009/08

Force Twindet should be stored in a cool, dry detonator magazine licensed for explosives products. The temperature range should be 0° C to +50 °C and the relative humidity max. 45 %. Stacks of cases should be no more than 2 metres high. *Force Twindet* should be used within 3 months of opening the inner bag. Batches of detonators more than 2 years old should not be used.

Force Twindet detonators will remain in good working order for a minimum of 2 years from the date of manufacture if stored properly under the above conditions.

Safety

Force Twindet detonators provide a high level of safety against initiation by static electricity, stray electrical currents and radio frequency transmissions. However, sensitive explosives are components of *Force Twindet* detonators. Care should be taken not to cause initiation by intense impact, friction or heat. *Force Twindet* detonators may be used in temperatures up to 50 °C. *Force* detonators are supplied in Class 1.1B and 1.4B packaging and have UN Number 0360 and 0361.

Disclaimer

The manufacturer reserves the right to modify products without prior notice. All information in this brochure is believed up-to-date at the time of publication. Because Nobel Explosives cannot anticipate or control the conditions under which this information and its products may be used, Nobel Explosives does not take any responsibility for their suitability for use in any particular application other than liabilities implied mandatorily by law and which cannot be disclaimed. The user is expressly responsible to verify the suitability of the information and the product for use in any particular application. Nobel Explosives' general terms and conditions of contract, a copy of which is available upon request, apply to all sales and are incorporated by reference.

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