

Pentex™ H Booster



Description

Pentex™ H boosters are made of high explosive composition cast into a cardboard shell. Two longitudinal tunnels in the booster accommodate either a detonator or detonating cord. One tunnel has straight walls while the other is stepped at the top of the booster to provide a stop for the detonator. Detonating cord, signal tube or lead wires are protected from damage by a recessed well at the base of the booster.

Pentex™ H boosters contain *Detlok™*. *Detlok™* securely holds the detonator in place during loading, while still enabling safe removal of the detonator if required. *Detlok™* is compatible for use with all recommended detonating cords.

Pentex™ H boosters have a high density, and a high velocity of detonation (VOD) to maximise performance.

Safety

Pentex™ H boosters contain molecular explosives, which can be initiated by intense impact, friction or heat. As with all high explosives, *Pentex™ H* boosters should be handled and stored with care. Boosters must be handled with care, avoid impact with a solid surface or another booster. Any such collision may cause damage that could lead to a misfire, or a premature initiation. *Pentex™ H* boosters may be used at temperatures up to 70°C. Seek technical advice from Orica for priming systems suitable for higher temperatures.

DO NOT use these boosters with any detonator, which cannot be completely contained within the booster. If this is not observed, damage to the detonator may occur during charging which may lead to a premature detonation. *Pentex™ H* boosters are supplied in Class 1.1D packaging and have UN Number 0042.

Application

Pentex™ H boosters are reliably initiated by detonators or by detonating cords containing at least 10 g/m PETN. *Pentex™ H* boosters have been specifically designed to provide reliable initiation of pumped, augered and packaged explosives. The main intended application, for *Pentex™ H* boosters, is for use with explosives, in hole diameters from 76mm to 115mm. *Pentex™ H* boosters will function reliably in any depth of water encountered in the mining environment.

Technical Properties

Nominal diameter	34 mm
Nominal length	120 mm
Nominal mass	150 g
Tunnel diameter-straight	7.9 - 8.6 mm
Tunnel diameter-stepped	6.5 - 8.6 mm
Shell colour	Green
Nominal density	1.7 g/cm ³
Nominal velocity of detonation	7.2 km/s
Nominal detonation pressure	22.0 GPa
Water resistance	Excellent*
Oil resistance	Excellent*

*Consideration should be given to the type of initiation system used (refer to the relevant Technical Data Sheets).

Recommendations For Use With Detonating Cord

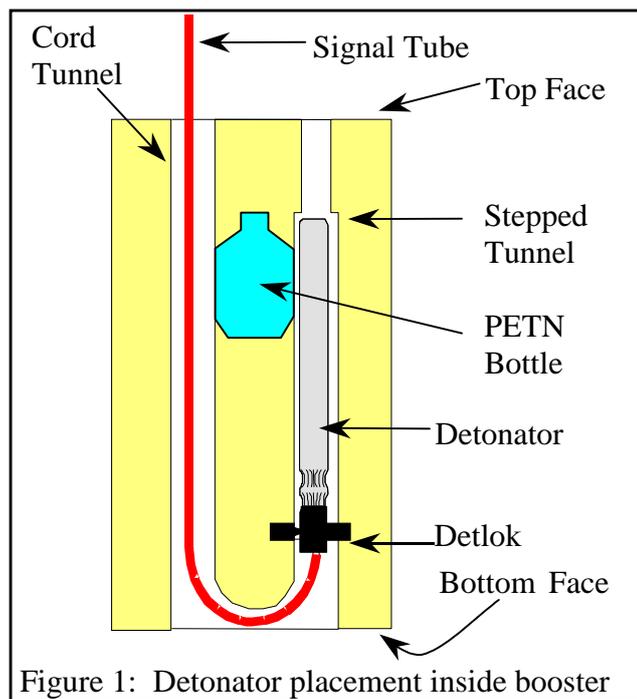
Use *Pentex™ H* boosters with any detonating cord which has a PETN charge mass of 10 g/m or greater. Ensure the booster is securely attached to the detonating cord by passing the cord down through one tunnel, round the curved channel and back through the other tunnel. Tie the cord to form a loop, then lower the complete assembly to the desired location in the blasthole. Cut the detonating cord downline from its reel and adequately secure it at the blasthole collar.

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Charge the hole with explosives to the design level. For any subsequent boosters on the same downline, unfasten the detonating cord tail and thread the end of the cord through the straight walled tunnel. Re-secure the cord tail, at the collar, and lower the booster to the desired location.

With Delay Detonators

Thread the detonator through the booster, shown in Figure 1. After assembly, the top and bottom faces may be taped for additional security against the detonator falling out especially in rough, angled blastholes. Lower the complete primer assembly to the desired location in the blasthole.



Avoid walking on the signal tube or lead wires as this is likely to cause damage. In all applications, ensure that the primer is completely immersed in the explosive it is intended to initiate. This can be achieved by either pulling the primer up into the explosive, or suspending the primer above the hole bottom during loading. Large diameter packaged explosives should be lowered on top of primers, rather than dropped from the blasthole collar. The cord or tube downline should be kept taut during charging and stemming, to prevent damage and minimise abrasion. However, if a primer begins to float on top of a rising column of bulk explosive,

temporarily slacken the downline. Once the surface of the explosive column has risen past the primer, tension can be reapplied to the downline.

Packaging

Pentex™ H boosters are packed in cardboard cases. The case dimensions are 0.360 x 0.265 x 0.145 m. A case weighs 12 kg and contains 80 boosters.

Storage And Handling

These boosters should be stored in a cool, dry magazine licensed for 1.1D explosives, and oldest cases should be used first. *Pentex™ H* boosters have a maximum shelf life of 5 years in proper storage conditions.

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