## RS Reynolds Industries Systems Incorporated



- From 5 to 100 milliseconds
- Must be specified at the time of order in 1.0 millisecond increments

RISI is a Reynolds subsidiary located in Tracy, California. RISI was incorporated in 1972 to design and manufacture explosive products primarily for military applications but quickly found applications in commercial blasting and oil exploration.

Reynolds is the industry leader in the manufacture of explosive devices and systems using only secondary explosives. Most RISI products manufactured for the Aerospace/Defense industry are designed and developed by RISI to a customer requirement.

The Millisecond Delay Initiator shown at left, is an example of a product developed from a customers "wish list". Containing only secondary

explosives, the initiator can be ordered with a delay of up to 100 milliseconds in 1.0 millisecond increments from the time the electrical pulse is applied. This versatile product can also be initiated from shock tube, an Exploding Bridgewire Detonator (EBW) or an Exploding Foil Initiator (EFI).

The RP-503 is an all plastic case, sealed EBW detonator designed to function under water up to a depth of 10 feet. It is designed to provide similar explosive output as a #8 blasting cap with significantly less fragmentation. The detonator is provided with up to 100 feet of RISI's rugged twin lead blasting cable attached.

The output pellet is 454 mg of RDX. The initial pressing is 167 mg of PETN.

Key performance parameters are: Threshold burst current: 180 amps. Threshold voltage: 500 volts (approx.) Function time:  $5.0 \mu$  sec. max.

RISI has developed the capability for processing

Photo **1** shows EFI HNS 1 10 times actual size. Crystal size is 12 m<sup>2</sup>/gram prilled with 5% Binder. The process results in plastic bonded explosive materials with significantly improved handling,

secondary explosives for improved handling, pressing and shock initiation characteristics over standard military specification materials. Quantity processing can be performed to a wide range of specific

customer requirements.

pressing and pelleting characteristics.



All Plastic Sealed EBW Detonator

## Processing Secondary Explosives

1 Plastic Bonded Explosive (PBX) 2 EBW PETN

Photo 2 shows PETN 180 times actual size.

Crystal size is 0.3 m<sup>2</sup>/gram. The process modifies the size and shape to improve its sensitivity to shock from an EBW or EFI.