



*RP-501 Detonation: A high speed camera has captured the detonation at 4 microsecond intervals*

The manufacture of all Secondary Explosive Initiators has given RISI a unique capability to perform critical explosive and non-explosive powder operations. RISI can perform the operations shown below for any customer need.

### ***Recrystallization of Explosives***

RISI routinely recrystallizes PETN, RDX and HNS explosive for their own use in the manufacture of Exploding Foil Initiators and Exploding BridgeWire Detonators. We have also recrystallized HNAB and NONA explosives.

This process is critical to the performance of RISI's standard product line of EBW's and EFI's and has been performed since 1968 when the sale of EBW's first started in a joint venture with Physics International. Processed PETN was used in an EBW for the Polaris Missile and later the Poseidon Missile under contract with the Lockheed Missile and Space Program. During this 29 year period the process has been continually improved to the point where EBW's are now used in general blasting and mining applications or wherever added safety is needed.

### ***Binder Addition***

RISI presently adds binder to both RDX and HNS in the manufacture of their standard product line of EBW and EFI detonators and other products. Binder materials including FPC461 and Kel-F-800 are now used in these Plastic Bonded Explosives. Other binders can also be used as required.

### ***Pellet Manufacturing***

RISI has been manufacturing explosive pellets since 1968. All EBW's and EFI's require some type of high density pellet. These operations include: (1) Very precise hand weighed, single station die pressing. (2) Single station automatic pressing (3) Multi station automatic pressing. RISI maintains a large selection of tooling diameters to fabricate pellets with various types of secondary explosives. RISI has had considerable experience precision loading explosives such as PETN, RDX, HNS, PBX-9407 and PBX-N5. Diameters as small as 0.062 inch and as large as 0.625 inch have been successfully loaded to tolerances as low as plus or minus 0.1 milligram and densities as tight as 0.01 g / cc. RISI has the capability to control densities by either pressure loading or weighing and pressing to fixed stops.