



3.125" Pyrotechnic Delay Firing Head

The 3-1/8" Pyrotechnic Delay Firing Head assembly utilizes the 1-11/16" Pressure Actuated Firing Head to initiate the detonation sequence. This firing head assembly is designed for well conditions that are not suitable for detonating bars.

The firing head uses precision shear pins to provide a desired actuating pressure ($\pm 5\%$) for a perforating assembly. An appropriate actuating pressure will be a function of hydrostatic pressure, auxiliary pressure actuated tools, casing pressure limits, and a safety factor. All pressure constraints and variables must be considered when determining an appropriate actuating pressure. When actuated, the firing head initiates a 1" CAD pyrotechnic delay fuse. The fuse provides a 6-minute delay before detonating the gun system.

FEATURES/BENEFITS

- Minimum pinning recommendation of *4,875 psi
- Cannot be detonated at surface without applying pressure
- Must apply the required pressure at the tool to actuate firing heads
- Ideal for vertical, deviated, and horizontal wells
- Can be run on top or bottom of GEODynamics TCP guns
- Can be used to detonate multiple gun systems
- Can be used on work string, coiled tubing, and sucker rod conveyance methods
- Can be used to actuate perforating assemblies, setting tools, and cutters
- Not affected by electrical sources or radio frequencies; radio silence not required

**Minimum of five (5) pins required to survive a drop test.*

3.125" Pyrotechnic Delay Firing Head

SPECIFICATIONS

Assembly P/N	TC-FHPD-31-A238	TC-FHPD-31-A288
Firing Head Type	Pressure-Actuated	
Outside Diameter	3.125 in / 79.4 mm	
Overall Length	21.00" / 53.34 cm	
Min. Operating Pressure	*4,875 psi / 33.61 MPa	
Max. Operating Pressure	20,000 psi / 137.90 MPa	
Temperature Rating	Determined by explosive package used	
Collapse Pressure	20,000 psi / 137.90 MPa	
Shear Pin Value	975 psi / 6.72 MPa (@ 70°F)	
Delay Time	Six (6) -minute pyrotechnic delay	
Tensile Strength	50,000 lbs min. or API Handling Sub	
Seal Ratings	10,000 psi @ 290°F without Back-up Rings 20,000 psi @ 375°F with PEEK Back-up Rings	
Tubing Thread Connections	2-3/8" EUE (-A238) or 2-7/8" EUE (-A288) Pin (uphole) 3-1/8" Standard Top Sub (2-3/4" - 6 Acme) Box (downhole)	

* Minimum of five (5) pins required to survive drop test.

