Auto-Release Firing Device

The Auto-Release Firing Device is used to perforate the wellbore and simultaneously release the guns into the rathole.

Its unique design allows the same apparatus to be used for a wide range of bottom-hole pressures and ensures reliable operation with short gun assemblies. The release mechanism is compatible with most Expro firing devices, including the Pressure-Actuated, Pyrotechnic-Delay, and Safety-Impact Firing systems.

Features and Benefits:
- Versatile design allows use in low or high bottom-hole pressures
- Ideal for overbalanced or underbalanced perforating
- Compatible with a variety of firing devices
- Substantial tensile integrity maintained while release weight requirement is low
- Delay time easily increased in 10-minute increments
- Bar guide/catcher subs are standard for 3⅛” and 4⅛” diameter tools; available for 2⅜” diameter tools on request

Operation:
After the gun assembly is positioned at depth, the firing device is activated by either dropping a bar or pressurizing the tubing to the required value. Upon detonation, a release mechanism is operated that simultaneously disengages a collet. A unique design feature hydraulically forces the apparatus apart, thereby ensuring reliable release of the perforating assembly.

Specifications:

<table>
<thead>
<tr>
<th>Size</th>
<th>2⅜”</th>
<th>2⅝”</th>
<th>3⅛”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubing Thread</td>
<td>2⅜” EU RD box</td>
<td>2⅝” EU RD box</td>
<td>3⅛” EU RD box</td>
</tr>
<tr>
<td>Length</td>
<td>24” (0.61 m)</td>
<td>24” (0.61 m)</td>
<td>24” (0.61 m)</td>
</tr>
<tr>
<td>Outer Diameter</td>
<td>2.92” (74.17 mm)</td>
<td>3.38” (85.7 mm)</td>
<td>4.25” (108 mm)</td>
</tr>
<tr>
<td>Guide I.D. after release</td>
<td>2.208” (56.1 mm)</td>
<td>2.445” (62.1 mm)</td>
<td>3.125” (79.38 mm)</td>
</tr>
<tr>
<td>Working Pressure &amp; Temperature</td>
<td>15,000 psi (103.42 Mpa) at 350˚F/175˚C</td>
<td>10,000 psi (68.95 Mpa) at 375˚F/190˚C</td>
<td></td>
</tr>
</tbody>
</table>

Pressure Rating
- Collapse: 20,000 PSI
- Differential: 10,000 PSI
- Seal Rating: 10,000 PSI standard
- Operating Pressure
  - Minimum: 200 PSI
  - Maximum: 20,000 PSI
  - Fishing Diameter: 2.88” (73.15 mm)

Tensile Rating
- 75,000 lbs.
- 110,000 lbs.
- 100,000 lbs.

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