

HI JAR™ - Horizontal Impact Jar

Impact Selector's HI Jar™ is a zero cable tension wireline Jar designed to be used in horizontal wells where conventional jarring tools cannot be deployed.

The HI Jar gives the wireline service company the ability to jar on command, and deliver an impact sufficient to free a stuck tool string in horizontal wells where wireline pulling capability is compromised.



The HI Jar is a single time intensive gathered energy Horizontal Jar that provides a single jarring force to a stuck tool string.

Designed to provide a high intensity jarring force in long horizontals where wireline cable tension is not available, the HI Jar serves as insurance to break a faulty plug setting tool shear pin, or free a stuck perforating gun.

It accomplishes this by storing energy in a vacuum chamber that is released using a standard detonator. The wellbore fluid pressure accelerates a piston (and the upper tool string) upward before hitting a hard stop, shocking the lower tool string upward.

The HI Jar will ensure that a stuck tool string is retrieved from the hole each time, preventing stuck tool strings, and expensive fishing operations.

Environmental Specifications

Pressure Rating (psi / MPa)	25,000 / 172.4
Maximum Temperature Rating (°F / °C)	400 / 200 (detonator limited)
Minimum Temperature Rating (°F / °C)	-13 / -25
Axial Shock (G)	5000 Minimum

Functional Specifications

Impact Force (k lbf)	1-150 Surface selectable
Power Stroke (in / mm)	8.75 / 222

Features and Benefits

- ▶ Provides a surface selectable and predictable jarring force up to 150,000lbs.
- ▶ Sufficient to break all plug setting tool shear pins.
- ▶ Surface selectable Jar force.
- ▶ Standard addressable perforating switch telemetry with electrical pass-through capabilities.
- ▶ Fishing strength: 110klbf.
- ▶ Split ring design allows the detonator to be removed and replaced within minutes

Mechanical Specifications

Outside Diameter (in / mm)	3.125 / 79.38
Length (in / m)	61 / 1.55
Weight (lbs / kg)	102 / 46.3
Position in String	Anywhere in wireline string, sequential firing required
Upper Connection	1-5/8" 6 Acme (GO B)
Lower Connection	1-5/8" 6 Acme (GO B)
Fishing Strength (lbf)	110,000

Electrical Specifications

Pass Through Voltage (V)	1000
Pass Through Current (A)	3