

ShockForce™ Drilling Jar

A Force to be Reckoned With.

We designed the ShockForce™ double-acting hydraulic drilling jar for exceptional performance and reliability. Its modular design improves safety and ease of use during drilling and jarring operations.

The ShockForce drilling jar features the longest free stroke lengths available, giving you industry leading impact forces. The jar is hydrostatically balanced, allowing for operation in drilling environments up to 30,000 psi. Plus, the Safety Lock module and JarMax technology make the ShockForce drilling jar the safest and hardest-hitting jar we've ever engineered.

Features and Benefits

- Longest free stroke lengths available – generates higher impact and impulse forces
- Hydrostatically balanced – operational to 30,000 psi
- Improved sealing technology – delivers reliable, consistent impacts under extended jarring
- Integrated elevator lift area – cost savings from reduced handling time
- Safety Lock module – eliminates the need for a traditional safety collar
- JarMax technology – ensures the hardest hits and prevents jarring damage to the tool



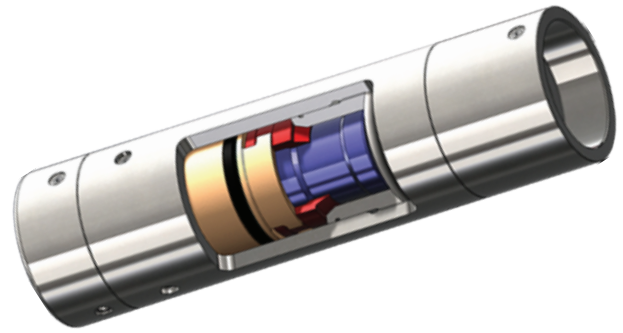
Size	6½ in	7 in	8 in
Minimum O.D.	6.50 in	7 in	8 in
Minimum I.D.	2.75 in	2.75 in	3.06 in
Free stroke up	9 in	9 in	9 in
Free stroke down	8 in	8 in	8 in
Torsional yield	58,500 ft-lbs	83,000 ft-lbs	123,000 ft-lbs
Maximum tensile load after jarring	920,000 lbs	1,230,000 lbs	1,610,000 lbs
Max (up/down) load during hydraulic delay	182,000 lbs	235,000 lbs	325,000 lbs
Maximum hydrostatic	30,000 psi	30,000 psi	30,000 psi

*Safety Lock Module Max Hydrostatic = 25,000 psi (172,300 kpa)

Safety Lock Module

The Safety Lock module on the *ShockForce*™ drilling jar is an innovative feature that simplifies operation and improves safety on the rig floor.

Eliminating the need for traditional safety collars, the Safety Lock module keeps the *ShockForce* drilling jar locked at the surface and uses hydrostatic pressure to automatically unlock the jar downhole. It reduces handling time and the number of personnel required on the rig floor.



Features and Benefits

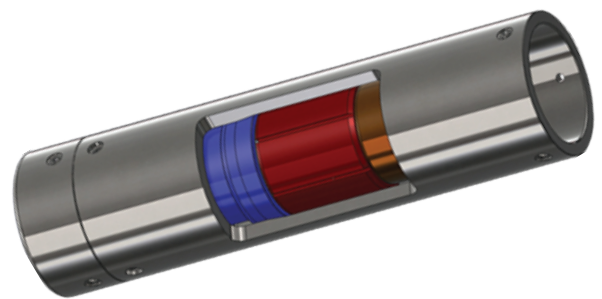
- Automatically unlocks/locks when tripping in/out – reduces jar handling time on the rig floor
- No external safety collar – eliminates fall and pinch hazards
- No external safety collar – cost savings due to less handling operations
- Reduces number of personnel required – improves safety on the rig floor
- Operational to extreme depths – 25,000 psi capability



JarMax Technology

JarMax technology is a ground-breaking feature of the *ShockForce* drilling jar that prevents accidental excessive over-pull damage from improper jarring calculations or unforeseen down-hole jarring conditions.

With JarMax technology, jarring can occur immediately during a stuck BHA event without performing any calculations. The *ShockForce* drilling jar can quickly and repeatedly be pulled to the overpull limit, improving the performance and safety of jarring operations.



Features and Benefits

- Releases at max-pull rating of the jar – allows the jar to be safely pulled to its over-pull limit
- Prevents jarring damage to the tool - enables drilling-ahead after the jarring event
- Provides surface indication to find the max capacity of the jar – jarring operations begin immediately
- Ensures the max hits possible – increases the probability of freeing a stuck BHA
- Can be repeatedly over-pulled – improves efficiency of jarring operations
- Eliminates human error – no need for time-consuming calculations