

# ABOUT G-FORCE

G-Force  
J28GF

G-FORCE JARS, LLC was founded by staff that has over 50 years of knowledge in downhole tool design. Our Jars are bidirectional hydraulic jars which are much shorter and hit harder, making them more efficient than standard jars. We pride ourselves on customer service and are dedicated to helping educate and train to better serve our clients. **When you need it NOW**, G-Force tools can be delivered to anywhere in the country overnight, to any location. Our multiple locations help to make this possible, reducing downtime. **When you need it to WORK**, G-Force's team of engineers and in-house manufacturing enables us to provide the best in jarring and extended reach tools. These tools are constantly tested to ensure the most dependable and

reliable tool for your work force. All of our products are Made in America. G-Force is there "When You Need It." We're setting a new standard in rentals and sales to oilfield service companies by our ability to learn your requirements and exceed them.

## Hydraulic Coiled Tubing Jars

**How Does The G-Force Hydraulic Coiled Tubing Jar Work?** G-Force Hydraulic jars use a piston (metering device) and oil to create a time delay. This time delay allows energy to be stored in stretched tubing. Once the energy is stored, the jar piston bypasses creating a hammer-and-anvil effect that imparts an impact load to the end of the tool assembly. As the jar is pulled in tension, a piston moves through a restricted bore containing oil. This process enables the system to store energy and the continued upward pull moves the piston over the step, which releases the stored energy and allows the mass to rapidly accelerate to the top of its stroke. This process creates an impact force that exceeds the tension that can be pulled on the tubing alone. The force supplied depends upon the force applied at the tool. The Hydraulic Coiled Tubing Jars can be supplied either up acting, down acting or bidirectional.

### G-Force Hydraulic Coiled Tubing Jar Design Features

- Shorter than most hydraulic jars
- Higher impact capability, it can hit harder than any other jar of the same size.
- Maximum operating temperature 500 degrees F
- Large bore for drop ball
- High tensile strength for higher impact service capability
- Hydrostatic pressure balanced
- Can be run in compression or tension
- Straight pull up/push down jarring tool that employs a combination of proven principles of hydraulics and mechanics.
- Unique design simplifies redress
- Allows for easy & dependable service
- No setting or adjustment is required before going in the hole or after the fish is engaged.
- Easily control the intensity of jarring blows by varying the load
- Can deliver wide range of blows from low to very high impact

The G-FORCE Coiled Tubing Jar is fully adjustable down-hole by varying the pull of the coiled tubing to fire up or slacken off to fire down. Cocking or resetting the Coiled Tubing Jar is automatic once the desired impact is delivered, just raise or lower the string to allow the proprietary metering mechanism to be reactivated. Then the G-FORCE Coiled Tubing Jar is again ready to deliver the next impact. There is no need to "Cool Down" the G-FORCE Hydraulic Coiled Tubing Jar as its proprietary design allows the jar to maintain its temperature and pressure compensation at all times.

### G-Force Coiled Tubing Jar Specifications

Complete Assembly	J16GF	J21GF	J28GF	J31GF
JAR O.D. (inches) (mm)	1 11/16" (42.862)	2 1/8" (53.975)	2 7/8" (73.025)	3 1/8" (79.375)
JAR I.D. (inches) (mm)	9/16" (14.287)	3/4" (19.05)	1" (25.40)	1.25" (31.75)
STANDARD CONNECTION	1 AMMT	1.5 AMMT	2 3/8 PAC	2 3/8 REG
OVERALL LENGTH CLOSED (inches) (mm)	4'8 1/4" (1,428)	4' 9" (1,447)	4'6 3/8" (1,381)	5'11 1/2" (1,816)
MAXIMUM OVERPULL (lbs)	10,000	18,000	34,000	45,000
MAXIMUM OVERPUSH (lbs)	10,000	15,000	20,000	35,000
TENSILE STRENGTH (lbs)	70,500	135,000	250,000	325,000
MAXIMUM LIFT LOAD AFTER JARRING (lbs)	50,000	100,000	200,000	280,000
TORSIONAL YIELD STRENGTH (lbs)	950	2,000	2,700	3,100
TESTING PULL LOAD (lbs)	8,000	11,000	20,000	20,000
TESTING PUSH LOAD (lbs)	4,000	5,000	10,000	10,000
PUMP OPEN AREA (sq. inches)	1.18	1.63	3.01	3.50
TOTAL STROKE (inches)	12"	12"	12"	12"
TOTAL WEIGHT (lbs) (kg)	38 (17.272)	60 (27.272)	80 (36.36)	100 (45.45)