CTT
Coil Tubing Technology, Inc.

# CTT Jet Motor
# (Patented)

## Description

The "CTT Jet Motor" is a powerful downhole rotating motor designed for use in coiled tubing drilling and workover service. The rotational torque output in foot pounds is equal to or greater than many conventional positive displacement motors on the market today.

The advantage of The "CTT Jet Motor" is the elimination of elastomers in the tool and compact length. The tool can be run with fluid, nitrogen, acids or co-mingled fluids without damaging the tool. The "CTT Jet Motor" can be utilized to drill formation, cement plugs or clean-out work. The external rotational nozzle system can clean the tubing completely to the wall and the "CTT Jet Motor" drill bit removes obstructions all in one trip.

The "CTT Jet Motor" can be used in hot hole situations without damage to the tool as there are no rubber products in the "CTT Jet Motor" to swell and deteriorate.

Redress cost of the "CTT Jet Motor" is very minimal compared to a conventional PDM as there are no rotors or stators to replace or repair in the tool.

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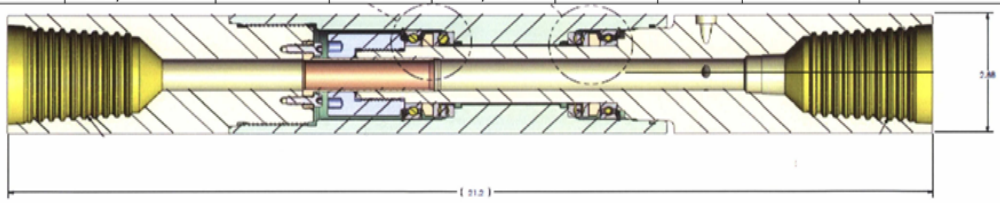
| OD SIZE | STANDARD CONNECTION | LENGTH Ft. | OP W.O.B | FLOW GPM/LITRE | SPEED RPM | OP. DP PSI | OP. TORQUE Ft/Lbs. | TEMPERATURE °F |
|---|---|---|---|---|---|---|---|---|
| 1.69 | 1" MT | 19" | 300 | 30 / 114 | 300 | 500 | 80 | 500 |
| 1.75 | 1" MT | 19" | 300 | 30 / 128 | 300 | 500 | 80 | 500 |
| 2.125 | 1-1/2" MT | 22" | 500 | 70 / 270 | 400 | 500 | 300 | 500 |
| 2.875 | 2-3/8" PAC | 22" | 600 | 90 / 341 | 500 | 600 | 450 | 500 |



| | 1.688 "CTT Jet Motor" | 1.750 "CTT Jet Motor" | 2.125 "CTT Jet Motor" | 2.875 "CTT Jet Motor" |
|---|---|---|---|---|
| Assembly Part Number | 70-1688 | 70-1750 | 70-2125 | 70-2875 |
| Overall Length ( Closed ) | 21" | 21" | 24" | 24" |
| Approximate Weight | 10 Lbs. | 12 Lbs. | 20 Lbs. | 30 Lbs. |
| Standard Tool Joint | 1" AMMT Box Up x 1" AMMT Box Down | 1" AMMT Box Up x 1" AMMT Box Down | 1-1/2" AMMT Box Up x 1-1/2" AMMT Box Down | 2-3/8" PAC Box Up x 2-3/8" PAC Box Down |
| *Operational* | | | | |
| Operating Pressure (Optimum) | 500 PSI | 500 PSI | 750 PSI | 1200 PSI |
| MAX OVERPULL | 20,000 Lbs. | 20,000 Lbs. | 25,000 Lbs. | 40,000 Lbs. |
| Flow Rate (Optimum) | 32 GPM/250 SCFM | 32 GPM/250 SCFM | 60 GPM/500 SCFM | 120 GPM/700 SCFM |
| Torsional Yield (Ft-Lbs.) | 5,000 Ft. Lbs. | 7,000 Ft. Lbs. | 10,000 Ft. Lbs. | 15,000 Ft. Lbs. |
| Tensile Yield | 41,000 Lbs. | 52,000 Lbs. | 60,000 Lbs. | 68,000 Lbs. |
| Temperature Rating (F) | 450 F | 450 F | 450 F | 450 F |
| *Performance at Optimum* | | | | |
| Nozzle Diameter/Jet Impact Force Per Nozzle | .188/52 Lbs. | .188/52 Lbs. | .188/52 Lbs. | .188/200 Lbs. |
| Wt./RPM | 500 Lbs. @ 600 RPM | 500 Lbs. @ 600 RPM | 1500 Lbs. @ 600 RPM | 1500 Lbs. @ 600 RPM |
| MAX ALLOWABLE WT. ON BIT | 1,000 Lbs. | 1,000 Lbs. | 2500 Lbs. | 3000 Lbs. |
| Torque Output/Stall | 90 Ft. Lbs./ 120 Ft. Lbs. Stall | 90 Ft. Lbs./ 120 Ft. Lbs. Stall | 300 Ft. Lbs./ 450 Ft. Lbs. Stall | 450 Ft. Lbs./ 600 Ft. Lbs. Stall |