

DRILL PIPE BEST PRACTICES

- Set up unit correctly.
- Securely anchor drilling unit.
- Break in threads on new pipe.
- Make up and break out tool joints correctly.
- Assemble and disassemble tool joints at moderate speed.
- Keep the rotation speed and thrust speed synchronized.
- Apply proper torque to all tool joints.
- Avoid over-bending, over-steering and over-correcting.
- Keep threads clean and lubricated.
- Use correct drilling fluid for soil conditions and use plenty of it.
- Refer to your operator's manual for complete drill pipe care, maintenance and operation.



THE CHARLES MACHINE WORKS, INC. DITCH WITCH WORLDWIDE HEADQUARTERS PERRY, OK 73077-0066 U.S.A.

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GROUNDBREAKING™ EQUIPMENT FROM THE COMPANY THAT LAUNCHED THE INDUSTRY

COMPACT UTILITY | TRENCHERS | HDD | ELECTRONICS

CERTIFIED QUALITY
MANAGEMENT SYSTEM
ISO 9001:2000

LFCMWM2770-0507-1

BETTER PIPE. **BETTER PERFORMANCE.**





We know the demands placed on drill pipe, the careful balance of strength and flexibility required to ensure maximum performance of the drill and the drill string. We know because we are the only directional drill manufacturer that designs and manufactures its own drill pipe. Producing long-lasting Ditch Witch® drill pipe begins with the highest-quality steel and involves a precise, time-tested series of steps. After machining, every tool joint is inspected and gauged to ensure quality and reliability. Our proven welding technique does not produce stress concentration points that are common on competitors' pipe. After welding, we inspect each pipe, and section a piece of pipe from each batch to ensure weld quality and integrity. You expect a lot from our drill pipe. So we put a lot into it.



POWER PIPE (UNLINED)



POWER PIPE (LINED)



Manufactured exclusively by The Charles Machine Works, Inc., Ditch Witch Power Pipe® is a high-strength, low-alloy steel pipe that provides maximum tensile strength. Our patented manufacturing process produces the straightest pipe in the business. Its expanded, exceptionally strong ends are formed without the heat of the forging process, leaving the integrity of the pipe intact and no strength reduction at the heat-affected zones.

Ditch Witch Power Pipe is also available with exclusive Fluid Miser II® lining. With patented Fluid Miser II inside each joint of pipe, drilling fluid volume is reduced by as much as 60%, allowing the drill string to pressure up faster and clean up quicker, which saves you time and money. The Fluid Miser II lining also minimizes internal rust and reduces spillage during pipe breakout.

Compatible Equipment	Description (OD of Tool Joint X OD of Pipe Body)	Part No.
JT920L	Unlined Power Pipe 2.00" x 1.63"	400-842
JT921	Unlined Power Pipe 2.00" x 1.58"	400-963
JT922	Unlined Power Pipe 2.00" x 1.58"	400-1118
JT1220	Unlined Power Pipe 2.38" x 1.82"	355-1005
JT1720	Unlined Power Pipe 2.50" x 2.06"	400-843
JT2020	Unlined Power Pipe 2.63" x 2.06"	401-339
JT2720	Unlined Power Pipe 3.00" x 2.38"	400-844
JT2720M1	Unlined Power Pipe 3.00" x 2.38"	400-845
JT3020M1	Unlined Power Pipe 3.00" x 2.38"	400-1031
JT4020	Unlined Power Pipe 3.25" x 2.63"	400-846
JT4020M1	Unlined Power Pipe 3.50" x 2.81"	400-847

Compatible Equipment	Description (OD of Tool Joint X OD of Pipe Body)	Part No.
JT920L	Lined Power Pipe 2.00" x 1.63"	369-227
JT921	Lined Power Pipe 2.00" x 1.58"	369-048
JT922	Lined Power Pipe 2.00" x 1.58"	355-269
JT1220	Lined Power Pipe 2.38" x 1.82"	401-239
JT1720	Lined Power Pipe 2.50" x 2.06"	369-056
JT2020	Lined Power Pipe 2.63" x 2.06"	401-304
JT2720	Lined Power Pipe 3.00" x 2.38"	369-235
JT2720M1	Lined Power Pipe 3.00" x 2.38"	400-168
JT3020M1	Lined Power Pipe 3.00" x 2.38"	400-1029
JT4020	Lined Power Pipe 3.25" x 2.63"	369-221
JT4020M1	Lined Power Pipe 3.50" x 2.81"	369-804

ALL TERRAIN PIPE



The patented shaft-within-a-pipe design of our All Terrain (AT) systems features a strong drive rod that turns inside an outer pipe. This enables AT systems to transfer power to the cutting head more efficiently than any other system—and outperform all other rock systems in their horsepower class.

Compatible Equipment	Description (OD of Tool Joint X OD of Pipe Body)	Part No.
AT2720M1	Power Pipe Assembly AT	369-448
AT2720M1	Power Pipe Assembly AT Cobble	400-658
AT2720M1	Lead Pipe Assembly 4.75 AT	369-717
AT2720M1	Lead Pipe Assembly 4.75 AT Cobble	400-659
AT4020M1	UFE Pipe Assembly	400-633

UFE DRILL PIPE



Ditch Witch UFE (Upset Forged End) pipe is a composite design with tubing and high-strength alloy ends, making the pipe and tool joints stronger and more resistant to abrasion. After forging, all Ditch Witch UFE pipes are fully heat-treated to eliminate any potential heat-affected zones.

Compatible Equipment	Description (OD of Tool Joint X OD of Pipe Body)	Part No.
JT520	Unlined UFE Pipe 1.75" x 1.13"	369-318
JT8020	Unlined UFE Pipe 4.00" x 3.63"	368-665