





Tube Technologies Machine	Part Number	Mfg. Method	Mid-Body	Tool Joint OD	Length	Weight (lbs.)	Connection	Max Torque	% Slope Per Rod	Bend Radius	Rack Quantity
Grundodrill 4X/5X	TR4X	1-pc. Forged	1.660 inch	1.900 inch	5 ft	23	Firestick <sup>™</sup> 1 #200	950	5.0%	97 ft	32
Toro Machine	Part Number	Mfg. Method	Mid-Body	Tool Joint OD	Length	Weight (lbs.)	Connection	Max Torque	% Slope Per Rod	Bend Radius	Rack Quantity
Toro Machine DD2226, DD2024	Part Number TR221628	Mfg. Method 1-pc. Forged	Mid-Body 2.063 inch	Tool Joint OD  2.250 inch	Length 10 ft	Weight (lbs.)	Connection Firestick™ 1 #400	Max Torque 2600	% Slope Per Rod 9.8%	Bend Radius	Rack Quantity

Tuff Rod manufactures high-quality HDD (Horizontal Directional Drilling) drill pipe compatible with all manufacturers drills.

Tensile Strength 145,000 PSI. Tensile strength for TuffRod drill pipe is the maximum stress the material will sustain before fracture.

Yield Strength 135,000 PSI. TuffRod drill pipes yield strength is the stress corresponding to a specified permanent (plastic) deformation which is the point at which the material yields and won't spring back.