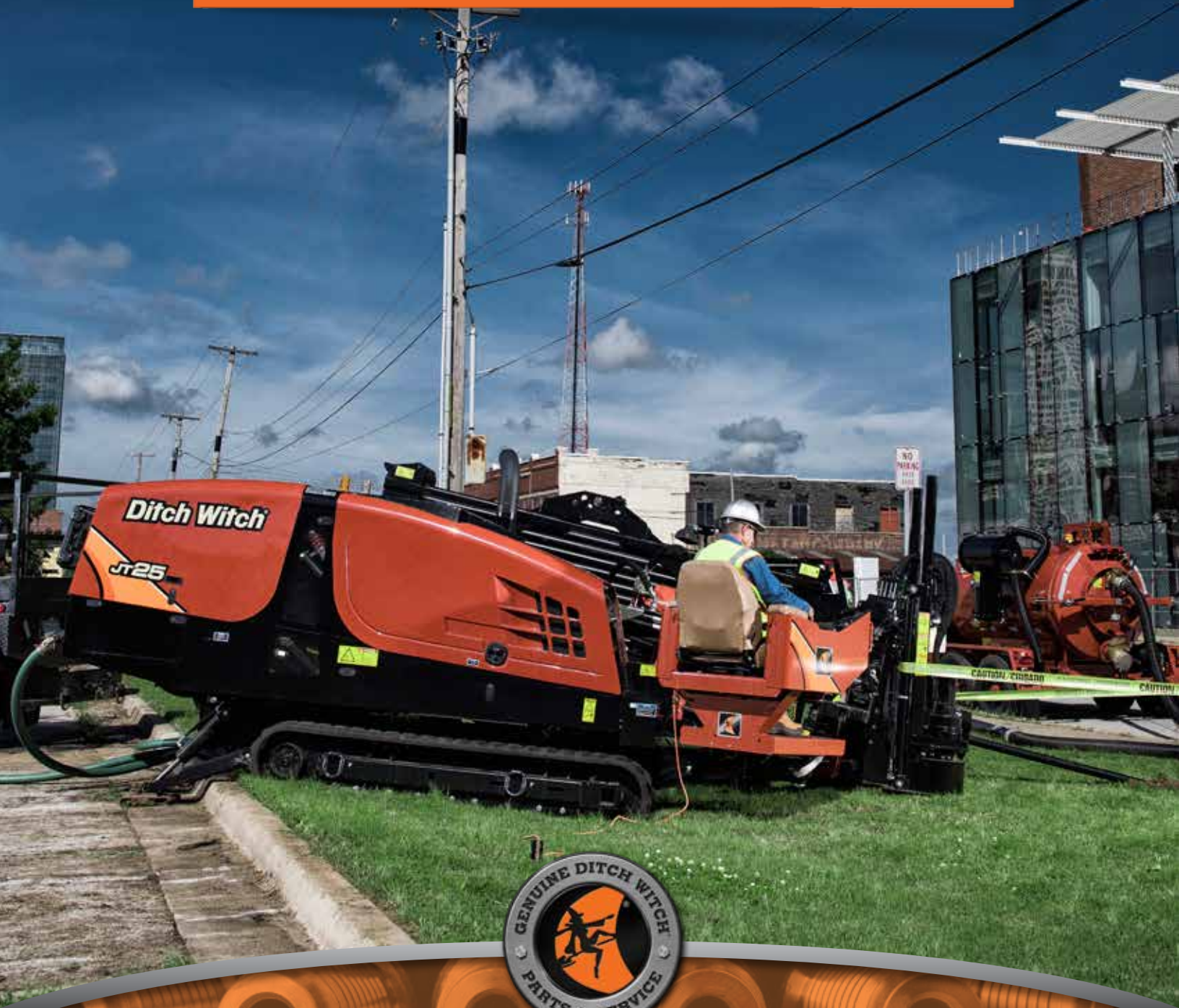


PROVEN TOUGH. PROVEN TRUE.
PROVEN HDD PARTS.



HDD TOOLING CATALOG

THE PARTS YOU NEED.
THE SUPPORT YOU DESERVE.





RYAN ZIMMERMAN / APEX / DRILL OPERATOR

We know what it's like on the jobsite. You need to stay on schedule to stay profitable. That's why we offer everything an HDD operation needs. Durable parts that deliver unmatched value and performance, backed by knowledgeable, experienced dealers providing expert service and support.

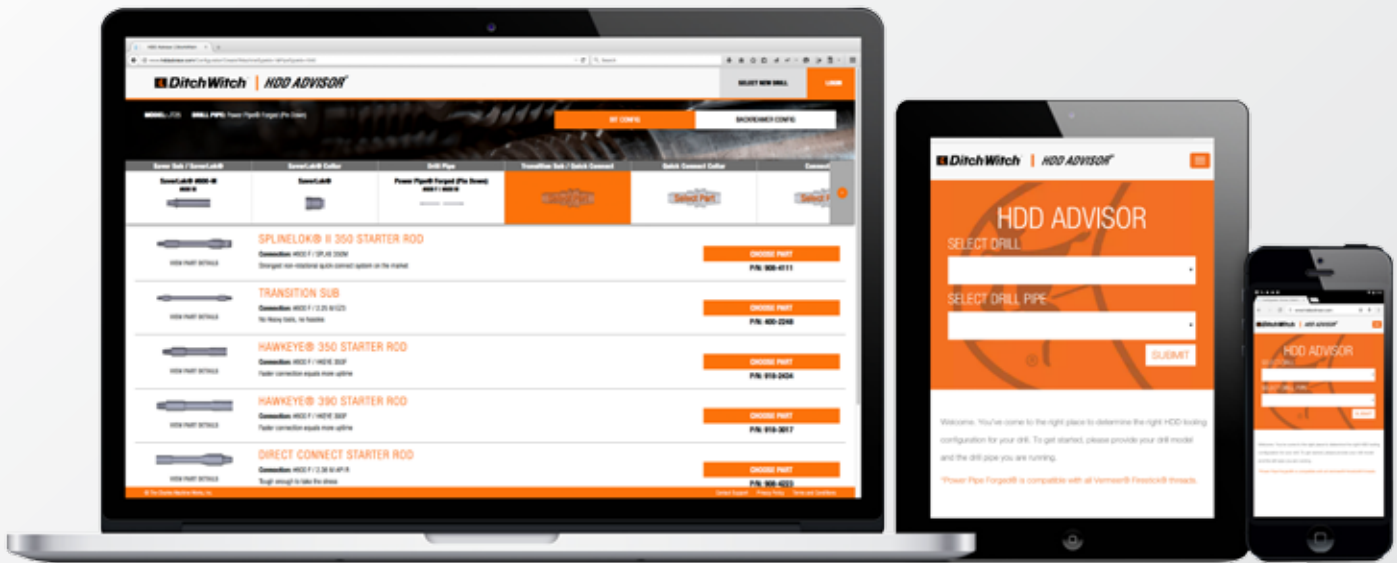
We're here to help you get the job done. Efficiently. And effectively. After all,

WE'RE IN THIS TOGETHER.



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SPEND LESS TIME CHOOSING TOOLS AND MORE TIME USING THEM.

An industry first, HDD Advisor™ is a free tool that helps you quickly and confidently determine the right tooling configuration for your Ditch Witch® or Vermeer® directional drill.

For information as reliable as our tools, visit hddadvisor.com.



SAVERLOK® SYSTEM

Our new SaverLok System is quick and easy to install and replace. There are no special tools required, and no overnight downtime for your rig is needed. A few minutes is all you need to get up and running.

SAVER SUB

Made of high-grade steel, our solid, one-piece units are engineered with the same proprietary gauges used on all Ditch Witch® drill string components.

Part Number	Drill Thread	Model(s)
400-828	1.21	JT520
300-7827	1.1	JT5
400-2242	#200	JT520 / JT5 PPF
301-891	1.41	JT920 / JT920L / JT921 / JT921S
300-2340	1.41	JT922 Fine Thread
300-7767	1.3	JT922 Coarse Thread
400-2240	#200	JT920 / JT921 / JT922 PPF
400-604	1.47	JT1220M1
400-2237	#250	JT1220M1
301-892	1.69	JT1720M1
400-905	1.94	JT2020M1 / JT20
400-2304	#400	JT1220M1 / JT20
400-2235	#600	JT2020M1 / JT20 PPF
400-1229	2.11	JT2720M1
400-1223	2.11	JT3020 / JT30
400-2232	#600	JT3020 / JT30 PPF
400-1134	2.59	JT4020M1
400-1132	3.27	JT7020 / JT8020 / JT100
400-2115	3.27	JT100-New Gear Box
400-2241	#800	JT7020 / JT8020 / JT100 PPF-Legacy
400-2276	#800	JT100 PPF-New Gear Box
400-1226	2.77 DS	AT2720
400-1225	2.77 SS	AT2720 Cobble
400-1222	2.77 DS	AT30
400-1221	2.77 SS	AT30 Cobble
400-1133	3.25 SS	AT4020
400-1375	3.44 SS	AT100 New Gear Box
400-2234	#800	AT100 Conversion to PPF-New Gear Box
300-5735	3.27	AT100 Conversion-New Gear Box

NOTE: Remember to change the saver sub every time you change drill pipe. A saver sub is a wear item that will make up to every joint of pipe on every job. Be sure to regularly check for wear and replace when needed.

Part Number	Description	Model(s)
400-1634	1.94-F SaverLok	JT2020 / JT20
400-2255	#600 SaverLok	JT2020 / JT20
400-2254	#400-F SaverLok	JT2020 / JT20
400-2037	2.11-F SaverLok	JT25 / JT30
400-2038	#600-F SaverLok	JT25 / JT30
400-2174	#600-M SaverLok	JT25 / JT30
400-2156	2.77 DS-F SaverLok	AT30
400-2219	2.77 SS-F SaverLok	AT30
400-2215	2.11-F SaverLok	AT30
400-2233	#600-F SaverLok	AT30
400-2159	2.59-F SaverLok	JT4020M1
400-2150	2.46-F SaverLok	JT60 / AT60
400-2253	#900-F SaverLok	JT60 / AT60
400-2148	3.25-F SaverLok	JT60 / AT60
400-2166	3.27-F SaverLok	JT100 / AT100
400-2256	#800-F SaverLok	JT100 / AT100
400-2169	3.44 SS-F SaverLok	JT100 / AT100

Part Number	Description	Model(s)
301-5719	SaverLok Collar	JT2020 / JT20
301-3830	SaverLok Collar	JT25 / JT30
400-2155	SaverLok Collar	AT30 / JT4020M1
301-5732	SaverLok Flange	JT60 / AT60 / JT100 / AT100



A BETTER INVESTMENT. STRAIGHT UP.

Our patented manufacturing process produces something no one else can: the straightest, strongest pipe available. Power Pipe,[®] a high-strength, low-alloy steel pipe, delivers the perfect balance of tensile strength and flexibility. Get it with our exclusive Fluid Miser[®] II lining to reduce drilling fluid volume of the pipe by as much as 76 percent, allowing your drill string to pressure up faster and clean up quicker. Our patented All Terrain design transfers power to the cutting head more efficiently than any other steerable rock-drilling system. And our UFE pipe is a composite design with forged tubing and high-strength alloy ends for stronger pipe and tool joints. Trust the only HDD manufacturer that designs, tests and builds its own pipe to match the specifications of the rig: Ditch Witch[®].



POWER PIPE® HD, UNLINED

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.

Part Number	Tool Joint x Pipe Body x Thread	Drill Pipe Length	Bend Radius	Model(s)
355-1052	1.75" x 1.13" x 1.21	4.9' / 1.5 m	70' / 21.3 m	JT520 UFE Assembly
355-1038	1.875" x 1.13" x 1.1	4.9' / 1.5 m	70' / 21.3 m	JT5 UFE Assembly
400-842	2" x 1.63" x 1.41	9.67' / 3 m	100' / 30.5 m	JT920L
400-963	2" x 1.58" x 1.41	6.5' / 2 m	100' / 30.5 m	JT921
355-1228	2" x 1.58" x 1.41	6' / 1.8 m	100' / 30.5 m	JT922 / JT9
355-1149	2.125" x 1.58" x 1.3	6' / 1.8 m	100' / 30.5 m	JT922 Coarse Thread
355-1005	2.38" x 1.82" x 1.47	10' / 3 m	120' / 36.6 m	JT1220M1
355-1152	2.5" x 2.6" x 1.69	10' / 3 m	135' / 41.1 m	JT1720M1
401-339	2.63" x 2.6" x 1.94	10' / 3 m	135' / 41.1 m	JT2020M1 / JT20
355-1106	2.63" x 2.06" x 1.94	10' / 3 m	107' / 32.3 m	JT2020 / JT20
355-1094	2.75" x 2.38" x 2.11	9.8' / 3 m	123' / 37.5 m	JT25 / JT30 / JT2720M1
400-847	3.5" x 2.81" x 2.59	14.75' / 4.5 m	185' / 56.4 m	JT4020M1
355-1079	3.5" x 3.06" x 2.46	15' / 4.57 m	170' / 51.8 m	JT60
355-1200	4" x 3.63" x 3.27	14.75' / 4.5 m	205' / 56.5 m	JT7020M1 / JT8020M1 / JT100M1 UFE Assembly



POWER PIPE HD, FLUID MISER® II

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 up to 76 percent, allowing the drill string to pressure up faster and clean up quicker.

Part Number	Tool Joint x Pipe Body x Thread	Drill Pipe Length	Bend Radius	Model(s)
369-227	2" x 1.63" x 1.41	9.67' / 3 m	100' / 30.5 m	JT920L
369-048	2" x 1.58" x 1.41	6.5' / 2 m	100' / 30.5 m	JT921
355-1229	2" x 1.58" x 1.41	6' / 1.8 m	100' / 30.5 m	JT922
355-1150	2.125" x 1.58" x 1.3	6' / 1.8 m	100' / 30.5 m	JT922 Coarse Thread / JT9
401-239	2.38" x 1.82" x 1.47	10' / 3 m	120' / 36.6 m	JT1220M1
355-1051	2.5" x 2.6" x 1.69	10' / 3 m	135' / 41.1 m	JT1720M1
355-1107	2.63" x 2.06" x 1.94	9.8' / 3 m	107' / 32.6 m	JT2020 / JT20
355-1111	2.75" x 2.38" x 2.11	9.8' / 3 m	123' / 37.5 m	JT25 / JT2720M1 / JT30
369-804	3.5" x 2.81" x 2.59	14.75' / 4.5 m	185' / 56.4 m	JT4020M1
355-1100	3.5" x 3.06" x 2.46	15' / 4.57 m	123' / 37.5 m	JT60

DRILL PIPE



POWER PIPE® FORGED

Featuring double shoulders for high torque capacity and coarse threads that allow smooth makeup and breakout during drilling, this single-piece forged pipe is heat-treated to optimize performance. Compatible with all Vermeer® Firestick® threads. Conversion kits are available for use on most Ditch Witch® drills.

Part Number	Tool Joint x Pipe Body x Thread	Drill Pipe Length	Bend Radius	Model(s)
355-1119	1.32" x 1.88" x #200	5' / 1.5 m	57.3' / 17.5 m	JT5 / DD65
355-1120	1.32" x 1.88" x #200	6' / 1.8 m	57.3' / 17.5 m	D6X6
355-1121	1.66" x 1.88" x #200	6' / 1.8 m	95.5' / 29.1 m	JT922 / D7X11 / D9X13
355-1122	1.66" x 1.88" x #200	10' / 3 m	95.5' / 29.1 m	D10X15
355-1123	1.90" x 2.13" x #250	10' / 3 m	98.7' / 30 m	JT1220 / D16X20 / D18X22
355-1124	2.06" x 2.25" x #400	10' / 3 m	101.9' / 31.1 m	JT1220 / JT20 / D20X22 / D24X26
355-1118	2.38" x 2.63" x #600	10' / 3 m	108.2' / 33 m	JT20 / JT25 / JT30 / D24X40
355-1126	2.38" x 2.63" x #600	15' / 4.6 m	108.2' / 33 m	D40X40
355-1127	2.38" x 2.75" x #650	10' / 3 m	108.2' / 33 m	D33X44 / D36X50
355-1128	2.38" x 2.75" x #650	15' / 4.6 m	108.2' / 33 m	D33X44 / D36X50
355-1129	2.63" x 3.10" x #700	10' / 3 m	145' / 44.2 m	D36X50
355-1130	2.63" x 3.10" x #700	15' / 4.6 m	145' / 44.2 m	D33X44 / D36X50
355-1131	2.88" x 3.25" x #900	10' / 3 m	168.7' / 51.4 m	UNI60X70 / D60X90
355-1132	2.88" x 3.25" x #900	15' / 4.6 m	168.7' / 51.4 m	JT60 / D50X100 / D80X100
355-1133	3.50" x 3.63" x #800	15' / 4.6 m	197.4' / 60.2 m	JT100 / D80X100
355-1134	3.50" x 4.38" x #1000	20' / 6 m	197.4' / 60.2 m	D80X120 / D100X120

POWER PIPE FORGED HXT™

The special heat-treatment process employed in manufacturing this pipe improves tensile and compressive strength, resulting in high-quality, long-term performance. Compatible with Vermeer Firestick II® threads.

Part Number	Tool Joint x Pipe Body x Thread	Drill Pipe Length	Bend Radius	Model(s)
355-1135	2.06" x 2.50" x #402	10' / 3 m	101.9' / 31.1 m	D24X33
355-1136	2.38" x 2.75" x #602	10' / 3 m	108.2' / 33 m	D33X44 / D36X50
355-1137	2.38" x 2.75" x #602	15' / 4.6 m	108.2' / 33 m	D33X44 / D36X50
355-1138	2.63" x 2.80" x #602F	15' / 4.6 m	145' / 44.2 m	D36X50
355-1139	2.63" x 3.38" x #702	15'	145'	D36X50
355-1140	2.88" x 3.88" x #902	15' / 4.6 m	168.7' / 51.4 m	D55X100
355-1141	3.50" x 4.13" x #802	20' / 6 m	197.4' / 60.2 m	D100X120
355-1142	3.50" x 4.13" x #802	15' / 4.6 m	197.4' / 60.2 m	UNI120X180



POWER PIPE® ALL TERRAIN

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

Part Number	Tool Joint x Pipe Body x Thread	Drill Pipe Length	Bend Radius	Model(s)
400-1491	3.25" X 2.23" X 2.77DS	9.3' / 2.84 m	145' / 44.2 m	AT30 / AT2720
400-1494	3.25" x 1.94" x 2.77DS / LR	9.3' / 2.84 m	145' / 44.2 m	AT30 / AT2720
355-1225	3.25" x 2.94" x 2.77SS / FLUSH	9.3' / 2.84 m	210' / 64 m	AT30 / AT2720
400-1493	3.25" x 2.23" x 2.77SS M / 2.52SS F / LR	9.3' / 2.84 m	210' / 64 m	AT30 / AT2720
355-1050	4.50" x 3.63" x 3.44SS	14.1' / 4.31 m	205' / 62.5 m	AT100
355-1169	4.13" X 3.63" x 3.25	14.25' / 4.34 m	205' / 62.5 m	AT4020 / AT60

DS = Double Shoulder

LR = Lead Rod

SS = Single Shoulder

ROD WIPERS

Part Number	Model(s)
116-515	JT520 / JT5
149-578	JT920 / JT920L / JT921 / JT922 / JT9
149-974	JT1220M1
362-2078	JT20 / JT25 / JT30
149-973	JT30M1 / JT2720M1 / JT2020M1 / JT1720M1 / AT30 / AT2720
117-627	JT4020M1
157-196	JT7020M1 / JT8020M1 / JT100M1 / AT4020 / AT60





TOUGH ENOUGH TO TAKE THE STRESS.

Our transition subs and starter rods help absorb stress in the connections between drill pipe, beacon housings and backreamers. Their high-strength, low-alloy steel is heat-treated and precision-gun-drilled to produce maximum durability. Using the same proprietary gauges as we use on our saver subs, drill pipe, beacon housings, backreamers, and connectors ensures the tightest possible connection throughout the drill string, for worry-free performance downhole.



TRANSITION SUBS

Transition subs connect directly between the drill pipe and the housing or backreamer. The overall length of the transition sub allows you to pull into the machine wrenches to make up or break loose from the drill pipe.



Part Number	Description	Model(s)
400-1260	1.10 M / 1.10 M	JT5
369-213	1.21 M / 1.21 F	JT520
400-2294	#200 M / #200 M	JT520 / JT5 PPF
400-2293	#200 M / 1.10 M	JT520 / JT5 PPF
369-326	1.41 M / 1.41 F	JT920 / JT920L / JT921 / JT922
400-2217	1.41 M / 2.0 M API IF	JT920 / JT920L / JT921 / JT922
400-1427	1.30 M / 1.41 F	JT922 Coarse Thread / JT9
400-2216	1.30 M / 2.0 M API IF	JT922 Coarse Thread / JT9
400-2284	#200 M / 2.0 M API IF	JT920 / JT921 / JT922 PPF
400-2285	#200 M / 1.94 M	JT920 / JT921 / JT922 PPF
400-2286	#200 M / 1.41 F	JT920 / JT921 / JT922 PPF
401-005	1.47 M / 1.94 M	JT1220M1
400-2289	#250 M / 2.0 M API IF	JT1220M1
400-2290	#250 M / 1.94 M	JT1220M1
400-2282	#400 M / 1.94 M	JT1220M1 / JT20
400-2278	#400 M / 2.0 M API IF	JT1220M1 / JT20
400-2279	#400 M / 2.38 M API	JT1220M1 / JT20
400-2193	1.47 M / 2.0 M API IF	JT1220M1
368-985	1.69 M / 1.69 F	JT1720M1
400-2202	1.94 M / 2.0 M API IF	JT20 / JT2020
400-2192	1.94 M / 2.38 M API R	JT20 / JT2020
401-319	1.94 M / 1.94 M	JT20 / JT2020
400-2283	#600 M / 1.94 M	JT20 / JT2020 PPF
400-231	2.11 M / 2.59 M	JT25 / JT2720M1 / JT3020 / JT30
400-2191	2.11 M / 2.38 M API R	JT25 / JT2720M1 / JT3020 / JT30
400-2244	#600 M / 2.38 M API R	JT2020 / JT20 / JT25 / JT3020 / JT30 PPF
400-2245	#600 M / 2.59 M API R	JT2020 / JT20 / JT25 / JT3020 / JT30 PPF
400-2246	#600 F / 2.59 M API R	JT25 PPF
400-575	2.59 M / 2.59 M	JT4020M1
400-1419	2.59 M / 2.88 M API R	JT4020M1
400-2268	2.46 M / 3.27 M	JT60
400-2269	2.46 M / 2.88 M API R	JT60
400-2271	#900 M / 3.27 M	JT60
400-2272	#900 M / 2.88 M API R	JT60
400-2258	#800 M / 3.27 M	JT7020 / JT8020 / JT100 PPF
400-2257	#800 M / 3.5 M API IF	JT7020 / JT8020 / JT100 PPF
400-1479	3.27 M / 3.5 M API IF	JT7020 / JT8020 / JT100
369-222	3.27 M / 3.27 M	JT7020 / JT8020 / JT100

TRANSITION SUBS & STARTER RODS



ALL TERRAIN TRANSITION SUBS

All Terrain transition subs allow you to run dirt tooling with the patented All Terrain Power Pipe®.

Part Number	Description	Model(s)
400-057	2.52 M / 2.59 M	AT2720 / AT30
369-410	2.77 M / 2.59 M	AT2720 / AT30
400-2305	2.77 M / 2.38 M API R	AT30
400-685	3.25 M / 2.59 M	AT4020
400-1679	3.25 M / 2.88 M API R	AT4020 / AT60
401-143	3.25 M / 3.27 M	AT4020 / AT60
400-1383	3.44 M / 3.27 M	AT100
400-1678	3.44 M / 3.5 M API IF	AT100



VERMEER® STARTER RODS

Using a Vermeer rig? You still get the genuine Ditch Witch® performance you expect from Vermeer compatible starter rods, designed specifically to fit your drill.

Part Number	Description	Model(s)
908-0802	#200 F / 2.11 M	D6X6 / D7X11 / D9X13
908-1702	#250 F / 2.38 M API R	D16X20
908-1705	#400 F / 2.38 M API R	D18X20 / D20X22 / D24X26
908-4227	#402 F / 2.38 M API R	D24X33
908-4223	#600 F / 2.38 M API R	D24X40
908-4229	#602 F / 2.38 M API R	D33X44 / D36X50 (#602)
908-4230	#650 F / 2.38 M API R	D33X44 / D36X50 (#650)
908-4241	#700 F / 2.38 M API R	D36X50 (#700)
908-4240	#702 F / 2.38 M API R	D36X50 (#702)
908-5187	#800 F / 2.88 M API R	D50X100 / D55X100 / D75X100 / D80X100
908-5198	#800 F / 3.50 M API R	D80X120 / D100X120 (#1000)
908-5194	#802 F / 2.88 M API R	D80X120 / D100X120 (#802)
908-5204	#802 F / 3.50 M API R	D80X120 / D100X120 (#802)
908-5185	#900 F / 2.88 M API R	D50X100 / D80X100
908-5201	#900 F / 3.50 M API R	D50X100 / D80X100
908-5206	#1000 F / 3.50 M API R	D80X120 / D100X120 (#1000)



**NO HEAVY TOOLS.
NO HASSLES.**

Modern directional drilling rigs have greater torque and pullback forces, requiring increased control over HDD tooling and backreamers. Made for today's most powerful drills, the Hawkeye® Quick Connect System can withstand greater torque and pullback forces while improving steering control and extending tool life.



EZ CONNECT ASSEMBLIES

In addition to providing all the benefits of a transition sub, EZ Connect assemblies offer a quick method of changing out tooling without using the machine torque.

Part Number	Thread	Description	Model(s)
400-105	1.21 M / 1.31 M EZ2	EZ Connect Assembly	JT520
400-104		Transition Sub	
149-104		O-Ring	
369-258		Collar	
107-519		Retainer Bolt	
400-1261	1.10 M / 1.31 M EZ2	EZ Connect Assembly	JT5
400-1259		Transition Sub	
149-104		O-Ring	
369-258		Collar	
107-519		Retainer Bolt	
400-2296	#200 M / 1.31 M EZ2	EZ Connect Assembly	JT520 / JT5
400-2295		Transition Sub	
149-104		O-Ring	
369-258		Collar	
107-519		Retainer Bolt	
400-070	1.41 M / 1.63 M EZ2	EZ Connect Assembly	JT920 / JT920L / JT921 / JT922 Fine Thread
400-067		Transition Sub	
149-911		O-Ring	
400-1860		Collar	
107-540		Retainer Bolt	
400-1384	1.3 M / 1.63 M EZ2	EZ Connect Assembly	JT922 Coarse Thread / JT9
400-1178		Transition Sub	
149-911		O-Ring	
400-1860		Collar	
107-540		Retainer Bolt	
368-813		EZ Connect Box	
400-2288	#200 M / 1.63 M EZ2	EZ Connect Assembly	JT920 / JT920L / JT921 / JT922 / JT9
400-2287		Transition Sub	
149-911		O-Ring	
400-1860		Collar	
107-540		Retainer Bolt	



EZ CONNECT ASSEMBLIES

Part Number	Thread	Description	Model(s)
400-918	1.47 M / 1.88 M EZ3	EZ Connect Assembly	JT1220M1
400-917		Transition Sub	
153-856		O-Ring	
400-1861		Collar	
106-847		Retainer Bolt	
400-2292	#250 M / 1.88 M EZ3	EZ Connect Assembly	JT1220M1
400-2291		Transition Sub	
153-856		O-Ring	
400-1861		Collar	
106-847		Retainer Bolt	
400-2281	#400 M / 2.0 M EZ2	EZ Connect Assembly	JT1220M1 / JT20
400-2280		Transition Sub	
400-1862		Collar	
107-521		Retainer Bolt	
400-001	1.69 M / 2.0 M EZ2	EZ Connect Assembly	JT1720M1
369-998		Transition Sub	
157-194		O-Ring	
400-1862		Collar	
107-521		Retainer Bolt	
401-300	1.94 M / 2.0 M EZ2	EZ Connect Assembly	JT2020 / JT20
401-301		Transition Sub	
157-194		O-Ring	
400-1862		Collar	
107-521		Retainer Bolt	
369-814	2.11 M / 2.25 M EZ2	EZ Connect Assembly	JT2720M1
369-812		Transition Sub	
149-548		O-Ring	
400-1863		Collar	
107-521		Retainer Bolt	
400-2251	#600 M / 2.25 M EZ3	EZ Connect Assembly	JT2020 / JT20 / JT25 / JT3020 / JT30
400-2247		Transition Sub	
149-548		O-Ring	
400-1864		Collar	
107-277		Retainer Bolt	
400-2252	#600 F / 2.25 M EZ3	EZ Connect Assembly	JT25
400-2248		Transition Sub	
149-548		O-Ring	
400-1864		Collar	
107-277		Retainer Bolt	
400-1505	2.11 M / 2.25 M EZ3	EZ Connect Assembly	JT25 / JT30
400-1504		Transition Sub	
149-548		O-Ring	
400-1864		Collar	
107-277		Retainer Bolt	





EZ CONNECT ASSEMBLIES

Part Number	Thread	Description	Model(s)
400-095	2.59 M / 2.63 M EZ2	EZ Connect Assembly	JT4020M1
400-096		Transition Sub	
149-041		O-Ring	
400-1865		Collar	
107-513		Retainer Bolt	
400-2274	2.46 M / 3.5 M EZ2	EZ Connect Assembly	JT60
400-2270		Transition Sub	
368-815		Collar	
105-593		Retainer Bolt	
400-2275	#900 M / 3.5 M EZ2	EZ Connect Assembly	JT60
400-2273		Transition Sub	
368-815		Collar	
105-593		Retainer Bolt	
400-1482	3.27 M / 3.5 M EZ2	EZ Connect Assembly	JT8020M1 / JT100M1
400-1481		Transition Sub 3.27 M / 3.5 M EZ	
368-815		Collar	
105-593		Retainer Bolt	
400-2260	#800 M / 3.5 M EZ2	EZ Connect Assembly	JT8020M1 / JT100M1
400-2259		Transition Sub #800 M / 3.5 M EZ	
368-815		Collar	
105-593		Retainer Bolt	
400-1067	2.77 DS / 2.25 M EZ3	EZ Connect Assembly	AT2720 / AT30
400-1055		Transition Sub	
149-041		O-Ring	
400-1865		Collar	
107-513		Retainer Bolt	
316-573		Inner Rod Support Block	
400-1507	2.77 DS / 2.25 M EZ3	EZ Connect Assembly	AT2720 / AT30
400-1506		Transition Sub	
149-548		O-Ring	
400-1864		Collar	
106-847		Retainer Bolt	
316-573		Inner Rod Support Block	
400-1507	2.77 DS / 2.25 M EZ3	EZ Connect Assembly	AT2720 / AT30
400-1506		Transition Sub	
149-548		O-Ring	
400-1864		Collar	
106-847		Retainer Bolt	
316-573		Inner Rod Support Block	

HAWKEYE®

The revolutionary Hawkeye quick connect system is made specifically for today's more powerful drilling rigs. Our patented wear-compensating design withstands greater torque and pullback forces while improving steering control and extending tool life.

Part Number	Thread	Description	Model(s)
918-0734	1.41 M / HKEYE 275 F	Hawkeye 275 Starter Rod Short	JT920 / JT920L / JT921 / JT922 Fine Thread
918-0759	1.41 M / HKEYE 275 F	Hawkeye 275 Starter Rod Long	JT920 / JT920L / JT921 / JT922 Fine Thread
918-0715		Hawkeye 275 Collar	
918-0722		O-Ring	
918-0736	1.3 M / HKEYE 275 F	Hawkeye 275 Starter Rod Short	JT922 Coarse Thread / JT9
918-0760	1.3 M / HKEYE 275 F	Hawkeye 275 Starter Rod Long	JT922 Coarse Thread / JT9
918-0715		Hawkeye 275 Collar	
918-0722		O-Ring	
918-0756	#200 M / HKEYE 275 F	Hawkeye 275 Starter Rod	JT5 / JT922 / JT9
918-0715		Hawkeye 275 Collar	
918-0722		O-Ring	
918-0757	#250 M / HKEYE 275 F	Hawkeye 275 Starter Rod	JT1220
918-0715		Hawkeye 275 Collar	
918-0722		O-Ring	
918-0738	1.47 M / HKEYE 275 F	Hawkeye 275 Starter Rod Short	JT1220M1
918-0761	1.47 M / HKEYE 275 F	Hawkeye 275 Starter Rod Long	JT1220M1
918-0715		Hawkeye 275 Collar	
918-0722		O-Ring	
918-2486	#400 M / HKEYE 350 F	Hawkeye 350 Starter Rod	JT1220 / JT20
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3066	#400 M / HKEYE 390 F	Hawkeye 390 Starter Rod	JT1220 / JT20
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-2487	#600 M / HKEYE 350 F	Hawkeye 350 Starter Rod	JT20
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-2454	1.69 M / HKEYE 350 F	Hawkeye 350 Starter Rod Short	JT1720M1
918-2492	1.69 M / HKEYE 350 F	Hawkeye 350 Starter Rod Long	JT1720M1
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	



HAWKEYE®



Part Number	Thread	Description	Model(s)
918-2453	1.94 M / HKEYE 350 F	Hawkeye 350 Starter Rod Short	JT2020M1
918-2491	1.94 M / HKEYE 350 F	Hawkeye 350 Starter Rod Long	JT2020M1
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-2489	#600 M / HKEYE 350 F	Hawkeye 350 Starter Rod	JT25 / JT30
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3067	#600 M / HKEYE 390 F	Hawkeye 390 Starter Rod	JT25 / JT30
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-2468	#600 M / HKEYE 350 F	Hawkeye 350 Starter Rod	JT2020 / JT20
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-2455	2.11 M / HKEYE 350 F	Hawkeye 350 Starter Rod Short	JT25 / JT2720M1 / JT3020 / JT30
918-2493	2.11 M / HKEYE 350 F	Hawkeye 350 Starter Rod Long	JT25 / JT2720M1 / JT3020 / JT30
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3049	2.11 M / HKEYE 390 F	Hawkeye 390 Starter Rod Short	JT25 / JT2720M1 / JT3020 / JT30
918-3091	2.11 M / HKEYE 390 F	Hawkeye 390 Starter Rod Long	JT25 / JT2720M1 / JT3020 / JT30
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-2471	2.77 DS M / HKEYE 350 F	Hawkeye 350 Starter Rod	AT2720M1 / AT30
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-2470	2.52 SS M / HKEYE 350 F	Hawkeye 350 Starter Rod	AT2720M1 / AT30
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
908-3058	2.77 DS M / HKEYE 390 F	Hawkeye 390 Starter Rod	AT2720M1 / AT30
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-3057	2.52 SS M / HKEYE 390 F	Hawkeye 390 Starter Rod	AT2720M1 / AT30
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-2459	2.59 M / HKEYE 350 F	Hawkeye 350 Starter Rod Short	JT4020 / JT4020M1
918-2494	2.59 M / HKEYE 350 F	Hawkeye 350 Starter Rod Long	JT4020 / JT4020M1
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3050	2.59 M / HKEYE 390 F	Hawkeye 390 Starter Rod Short	JT4020 / JT4020M1
918-3092	2.59 M / HKEYE 390 F	Hawkeye 390 Starter Rod Long	JT4020 / JT4020M1
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-3648	2.59 M / HKEYE 426 F	Hawkeye 426 Starter Rod	JT4020M1
918-3640		Hawkeye 426 Collar	
918-3619		O-Ring	
918-0713	#200 F / HKEYE 275 F	Hawkeye 275 Starter Rod	D6X6 / D7X11 / D9X13
918-0715		Hawkeye 275 Collar	
918-0722		O-Ring	



QUICK CONNECT SYSTEMS

HAWKEYE®



Part Number	Thread	Description	Model(s)
918-2437	#250 F / HKEYE 350 F	Hawkeye 350 Starter Rod	D16X20
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3046	#250 F / HKEYE 390 F	Hawkeye 390 Starter Rod	D16X20
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-2436	#400 F / HKEYE 350 F	Hawkeye 350 Starter Rod	D18X20 / D22X20 / D24X26
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3047	#400 F / HKEYE 390 F	Hawkeye 390 Starter Rod	D18X20 / D22X20 / D24X26
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-2456	#402 F / HKEYE 350 F	Hawkeye 350 Starter Rod	D24X33
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3048	#402 F / HKEYE 390 F	Hawkeye 390 Starter Rod	D24X33
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-2434	#600 F / HKEYE 350 F	Hawkeye 350 Starter Rod	JT25 / D24X40
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3017	#600 F / HKEYE 390 F	Hawkeye 390 Starter Rod	JT25 / D24X40
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-3617	#600 F / HKEYE 426 F	Hawkeye 426 Starter Rod	JT25 / D24X40
918-3640		Hawkeye 426 Collar	
918-3619		O-Ring	
918-2435	#602 F / HKEYE 350 F	Hawkeye 350 Starter Rod	D33X44 / D36X50
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3018	#602 F / HKEYE 390 F	Hawkeye 390 Starter Rod	D33X44 / D36X50
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-3609	#602 F / HKEYE 426 F	Hawkeye 426 Starter Rod	D33X44 / D36X50
918-3640		Hawkeye 426 Collar	
918-3619		O-Ring	
918-2457	#650 F / HKEYE 350 F	Hawkeye 350 Starter Rod	D33X44 / D36X50
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3015	#650 F / HKEYE 390 F	Hawkeye 390 Starter Rod	D33X44 / D36X50
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	
918-3649	#650 F / HKEYE 426 F	Hawkeye 426 Starter Rod	D33X44 / D36X50
918-3640		Hawkeye 426 Collar	
918-3619		O-Ring	
918-2458	#700 F / HKEYE 350 F	Hawkeye 350 Starter Rod	D36X50 / D33X44 / D36X50
918-2439		Hawkeye 350 Collar	
918-2423		O-Ring	
918-3016	#700 F / HKEYE 390 F	Hawkeye 390 Starter Rod	D36X50 / D33X44 / D36X50
918-3029		Hawkeye 390 Collar	
918-3019		O-Ring	



HAWKEYE® REAMER COLLARS

Part Number	Description	Size
918-2488	Reamer Collar	Hawkeye 350
918-2461	Pull Tab Connector	Hawkeye 350
918-3088	Reamer Collar	Hawkeye 390
918-3054	Pull Tab Connector	Hawkeye 390

SPLINELOK® II

SplineLok II is the strongest non-rotational quick connect system on the market. Its patented double-pin system and its unique taper-to-taper interlock design ensures quick assembly and removal of tooling.



Part Number	Thread	Description	Model(s)
908-4271	1.69 M / SPLK 350 M	SplineLok II 350 Starter Rod Short	JT1720M1
908-4311	1.69 M / SPLK 350 M	SplineLok II 350 Starter Rod Long	JT1720M1
908-4270	1.94 M / SPLK 350 M	SplineLok II 350 Starter Rod Short	JT2020M1
908-4310	1.94 M / SPLK 350 M	SplineLok II 350 Starter Rod Long	JT2020M1
908-4276	2.11 M / SPLK 350 M	SplineLok II 350 Starter Rod Short	JT2020 / JT20 / JT25 / JT2720M1 / JT30M1
908-4312	2.11 M / SPLK 350 M	SplineLok II 350 Starter Rod Long	JT2020 / JT20 / JT25 / JT2720M1 / JT30M1
908-4281	2.59 M / SPLK 350 M	SplineLok II 350 Starter Rod Short	JT4020M1
908-4313	2.59 M / SPLK 350 M	SplineLok II 350 Starter Rod Long	JT4020M1
908-4300	2.72 DS M / SPLK 350 M	SplineLok II 350 Starter Rod Short	AT30
908-4301	2.52 SS M / SPLK 350 M	SplineLok II 350 Starter Rod Short	AT30
908-4174	#250 F / SPLK 350 M	SplineLok II 350 Starter Rod Short	D16X20
908-4182	#400 F / SPLK 350 M	SplineLok II 350 Starter Rod Short	D18X20 / D20X22 / D24X26
908-4113	#402 F / SPLK 350 M	SplineLok II 350 Starter Rod Short	D24X33
908-4111	#600 F / SPLK 350 M	SplineLok II 350 Starter Rod Short	JT25 / D24X40
908-4112	#602 F / SPLK 350 M	SplineLok II 350 Starter Rod Short	D33X44 / D36X50
908-4221	#650 F / SPLK 350 M	SplineLok II 350 Starter Rod Short	D33X44 / D36X50
908-4279	#700 F / SPLK 350 M	SplineLok II 350 Starter Rod Short	D36X50
908-1721	#400 M / SPLK 350 M	SplineLok II 350 Starter Rod Short	JT1220 / JT20
908-4243	#600 M / SPLK 350 M	SplineLok II 350 Starter Rod Short	JT20
908-4257	#600 M / SPLK 350 M	SplineLok II 350 Starter Rod Short	JT25 / JT30
908-4258	#700 F / SPLK 350 M	SplineLok II 350 Starter Rod Short	D33X44 / D36X50
908-4104		Solid Pins	
908-0036		Coiled Pins	
908-4009		O-Ring	

HAWKEYE® SCREWS



Part Number	Description	Size
918-0618	Socket Head Cap Screw	Hawkeye 275
918-0001	Socket Head Cap Screw	Hawkeye 350-426
918-0719	Plug	Hawkeye 275
918-2419	Plug	Hawkeye 350-426
918-2418	Nozzle	Hawkeye 350-426
918-0718	Nozzle	Hawkeye 275

LPT QUICK CONNECT

Our LPT quick connects are specifically designed to fit your Vermeer® rig.

Part Number	Thread	Description	Model(s)
400-2249	#600 M / 2.125 LPT F	2.125 LPT Starter Rod	JT25 / JT3020 / JT30
908-4244		2.125 LPT Collar	
908-0812	#200 F / 1.62 LPT F	1.62 LPT Starter Rod	D6X6 / D7X7 / D9X13
908-0844		1.62 LPT Collar	
908-4273	#250 F / 2.125 LPT F	2.125 LPT Starter Rod	D16X20
908-4244		2.125 LPT Collar	
908-4272	#400 F / 2.125 LPT F	2.125 LPT Starter Rod	D18X20 / D20X22 / D24X26
908-4244		2.125 LPT Collar	
908-4275	#402 F / 2.125 LPT F	2.125 LPT Starter Rod	D24X33
908-4244		2.125 LPT Collar	
908-4274	#600 F / 2.125 LPT F	2.125 LPT Starter Rod	JT25 / D24X40
908-4244		2.125 LPT Collar	
908-4277	#602 F / 2.125 LPT F	2.125 LPT Starter Rod	D33X44 / D36X50
908-4244		2.125 LPT Collar	
908-4278	#650 F / 2.125 LPT F	2.125 LPT Starter Rod	D33X44 / D36X50
908-4244		2.125 LPT Collar	
908-4280	#700 F / 2.125 LPT F	2.125 LPT Starter Rod	D36X50
908-4244		2.125 LPT Collar	
908-4288	2.12 LPT	Reamer Collar	
908-4285	2.12 LPT	Pull Tab Connector	



CONNECTORS

Ditch Witch® HDD Tooling offers the widest range of connectors available, so you can adapt to virtually any drilling situation. You'll find exactly what you need to establish solid pin-to-pin or pin-to-box connections. And if you don't, we'll customize a connector to your specifications.

Part Number	Description	Model(s)
369-310	1.21 M / 1.41 F	JT520
369-470	1.21 M / 1.21 M	JT520
908-0804	1.21 M / #200 M	JT520
368-263	1.41 M / 1.94 M	JT920 / JT920L / JT921 / JT922 / JT9
908-0806	1.41 M / 2.11 M	JT920 / JT920L / JT921 / JT922 / JT9
908-0805	1.41 M / #200 M	JT920 / JT920L / JT921 / JT922 / JT9
400-2220	1.41 M / 2.0 M API IF	JT920 / JT922 / JT9
400-2222	2.0 F API IF / 1.94 M	JT920 / JT922 / JT9
400-2221	2.0 F API IF / 1.41 F	JT920 / JT922 / JT9
400-2223	2.0 F API IF / 1.9 F	JT920 / JT922 / JT9
368-264	1.69 M / 1.94 M	JT1720M1
906-1783	1.69 F / 2.38 M API R	JT1720M1
908-1707	1.69 M / 2.38 M API R	JT1720M1
906-2562	1.69 M / 2.12 LPT M	JT1720M1
368-261	1.94 M / 1.94 M	JT1720M1 / JT2020 / JT20
369-139	1.94 M / 2.40 M	JT1720M1 / JT2020 / JT20
906-2582	1.94 M / 2.38 M API R	JT1720M1 / JT2020 / JT20
908-0818	1.94 F / 2.11 M	JT1720M1 / JT2020 / JT20
908-1703	1.94 F / 2.38 M API R	JT1720M1 / JT2020 / JT20
908-1708	1.94 M / 2.38 M API R	JT1720M1 / JT2020 / JT20
908-4189	1.94 M / 2.12 LPT F	JT1720M1 / JT2020 / JT20
400-567	2.59 F / 2.40 M	JT4020
400-1676	2.59 F / 2.88 M API R	JT4020
400-568	2.59 F / 3.50 F API R	JT4020
400-576	2.59 F / 3.27 M	JT4020
908-4226	2.59 F / 2.38 M API R	JT4020
401-255	3.27 F / 2.88 M API IF	JT7020 / JT8020 / JT100 / JT60 / AT60
401-256	3.27 F / 3.5 M API R	JT7020 / JT8020 / JT100 / JT60 / AT60
908-5188	3.27 F / 2.88 M API R	JT7020 / JT8020 / JT100
908-5196	3.27 F / 3.5 M API R	JT7020 / JT8020 / JT100
400-1675	3.27 F / 3.5 M API IF	JT7020 / JT8020 / JT100
400-035	3.5 M API IF / 3.5 M API IF	JT7020 / JT8020 / JT100
400-036	3.5 M API IF / 3.5 M API R	JT7020 / JT8020 / JT100
369-472	3.27 F / 3.5 F API R	JT60 / JT7020 / JT8020 / JT100 / AT60
369-257	1.31 F EZ2 / 1.21 M	JT520 / JT5
369-307	1.31 F EZ2 / 1.94 M	JT520 / JT5
369-309	1.31 F EZ2 / 5K Tab	JT520 / JT5
369-311	1.31 F EZ2 / 1.41 F	JT520 / JT5
400-1431	1.31 F EZ2 / 1.10 M	JT520 / JT5
908-0792	1.31 F EZ2 / #200 M	JT520 / JT5
400-064	1.63 F EZ2 / 1.41 F	JT920 / JT920L / JT921 / JT922 / JT9



CONNECTORS

Part Number	Description	Model
400-068	1.63 F EZ2 / 1.94 M	JT920 / JT920L / JT921 / JT922 / JT9
908-0793	1.63 F EZ2 / 2.11 M	JT920 / JT920L / JT921 / JT922 / JT9
400-2218	1.63 F EZ2 / 2.0 M API IF	JT920 / JT920L / JT921 / JT922 / JT9
400-920	1.88 F EZ3 / 1.94 M	JT1220M1
401-006	1.88 F EZ3 / 1.94 F	JT1220M1
908-0808	1.88 F EZ3 / 2.11 M	JT1220M1
908-0816	1.88 F EZ3 / 2.38 M API R	JT1220M1
400-2188	1.88 F EZ3 / 2.0 M API IF	JT1220M1
369-999	2.0 F EZ / 1.94 M	JT1720M1 / JT2020 / JT20
400-615	2.0 F EZ2 / 1.94 F	JT1720M1 / JT2020 / JT20
400-824	2.0 F EZ2 / 2.59 M	JT1720M1 / JT2020 / JT20
400-2201	2.0 F EZ2 / 2.0 M API IF	JT1720M1 / JT2020 / JT20
908-1706	2.0 F EZ2 / 2.38 M API R	JT1720M1 / JT2020 / JT20
400-1050	2.25 M EZ3 / 1.94 M	JT1720M1 / JT2020 / JT20
400-1010	2.25 F EZ3 / 2.59 M	JT25 / JT3020 / JT30
400-309	2.25 F EZ2 / 2.59 M	JT2720M1
401-340	2.25 F EZ2 / 2.4 M	JT2720M1
908-4235	2.25 F EZ2 / 2.38 M API R	JT25 / JT3020 / JT30
908-4225	2.25 F EZ3 / 2.38 M API R	JT25 / JT3020 / JT30
400-091	2.63 F EZ2 / 3.27 M	JT4020
400-1417	2.63 F EZ2 / 2.88 M API R	JT4020
400-094	2.63 F EZ2 / 2.59 M	JT4020
400-2308	3.27 F / 2.88 M API R	JT60
400-2307	2.88 B API R / 3.27 M	JT60
400-2230	3.5 F API IF / 3.27 M	JT60 / JT7020 / JT8020 / JT100
368-813	3.5 F EZ2 / 3.27 M	JT60 / JT7020 / JT8020 / JT100
400-1480	3.5 F EZ / 3.50 M API IF	JT7020 / JT8020 / JT100
908-5189	3.5 F EZ / 2.88 M API R	JT7020 / JT8020 / JT100
400-016	2.88 M API IF / 2.88 M API R	AT4020
400-038	2.88 M API R / 2.38 M API IF	AT4020
400-040	2.88 M API R / 3.50 M API R	AT4020
908-0817	#200 F / 2.11 M	JT520 / JT5 / JT922 / D6X6 / D7X11 / D9X13
908-4196	#600 F / 2.88 M API R	JT2020 / JT20 / JT25 / JT3020 / JT30 / D24X40
908-4197	#602 F / 2.88 M API R	D33X34 / D36X50
908-1701	#250 F / 2.38 M API R	JT1220 / D16X20
908-1704	#400 F / 2.38 M API R	JT1220 / JT2020 / JT20 / D18X20 / D20X22 / D24X26
908-4228	#402 F / 2.38 M API R	D24X33
908-4224	#600 F / 2.38 M API R	JT2020 / JT20 / JT25 / JT3020 / JT30 / D24X40
908-4233	#602 F / 2.38 M API R	D33X34 / D36X50





CONNECTORS

Part Number	Description	Model(s)
908-4234	#650 F / 2.38 M API R	D33X34 / D36X50
908-4242	#700 F / 2.38 M API R	D36X50
908-5186	#800 F / 2.88 M API R	JT7020 / JT8020 / JT100 / D80X100
908-5199	#800 F / 3.50 M API R	JT7020 / JT8020 / JT100 / D80X100
908-5210	#800 F / 3.50 M API IF	JT7020 / JT8020 / JT100 / D80X100
908-5205	#802 F / 3.50 M API R	D80X120 / D100X120
908-5211	#802 F / 3.50 M API IF	D80X120 / D100X120
908-5195	#802 F / 2.88 M API R	D80X120 / D100X120
908-5184	#900 F / 2.88 M API R	D50X100 / D80X100
908-5186	#800 F / 2.88 M API R	JT7020 / JT8020 / JT100 / D80X100
908-5200	#900 F / 3.50 M API R	JT60 / D50X100 / D80X100
908-5214	#900 F / 3.50 M API IF	JT60 / D50X100 / D80X100
908-5190	#1000 F / 2.88 M API R	D80X120 / D100X120
908-5207	#1000 F / 3.50 M API R	D80X120 / D100X120
908-5213	#1000 F / 3.50 M API IF	D80X120 / D100X120
908-5163	#900 F / 2.88 M API R	D50X100 / D80X100
908-4002	#600 M / 2.38 M API R	JT2020 / JT20 / JT25 / JT3030 / JT30 / D24X40
908-4003	#600 M / 2.59 M	JT2020 / JT20 / JT25 / JT3030 / JT30 / D24X40
908-5002	#800 M / 2.88 M API R	JT7020 / JT8020 / JT100 / D80X100
908-5004	#800 M / 3.5 M API IF	JT7020 / JT8020 / JT100 / D80X100
908-5005	#800 M / 3.27 M	JT7020 / JT8020 / JT100 / D80X100
908-1724	#400 M / 2.0 M API IF	JT1220 / JT2020 / D18X20 / D20X22 / D24X26
908-1725	#400 M / 2.38 M API R	JT1220 / JT2020 / D18X20 / D20X22 / D24X26
908-0701	#200 M / 2.0 M API IF	JT520 / JT5 / JT922 / D6X6 / D7X11 / DX913
908-1726	#400 M / 1.94 M	JT1220 / JT2020 / D18X20 / D20X22 / D24X26
908-1727	#600 M / 1.94 M	JT2020 / JT20 / JT25 / JT3030 / JT30 / D24X40
908-5006	3.5 F API IF / 2.88 M API R	JT60
908-4004	2.38 F API R / 2.59 M	JT4020
918-0749	Hawkeye® 275 M / 1.41 F	JT920 / JT920L / JT921 / JT922 / JT1220 / D6X6 / D7X11 / D9X13
918-0747	Hawkeye 275 M / 1.94 M	JT920 / JT920L / JT921 / JT922 / JT1220 / D6X6 / D7X11 / D9X13
918-0751	Hawkeye 275 M / 2.0 M API IF	JT920 / JT920L / JT921 / JT922 / JT1220 / D6X6 / D7X11 / D9X13
918-0745	Hawkeye 275 M / 2.11 M	JT920 / JT920L / JT921 / JT922 / JT1220 / D6X6 / D7X11 / D9X13
918-0707	Hawkeye 275 M / 2.38 M API R	JT920 / JT920L / JT921 / JT922 / JT1220 / D6X6 / D7X11 / D9X13
918-0731	Hawkeye 275 M / SplineLok® II 350 M	JT920 / JT920L / JT921 / JT922 / JT1220 / D6X6 / D7X11 / D9X13
918-0729	Hawkeye 275 M / 1.62 LPT F	JT920 / JT920L / JT921 / JT922 / JT1220 / D6X6 / D7X11 / D9X13
918-0730	Hawkeye 275 M / 2.125 LPT F	JT920 / JT920L / JT921 / JT922 / JT1220 / D6X6 / D7X11 / D9X13
918-2451	Hawkeye 350 M / 1.94 M	JT1720 / JT2020 / JT20 / D16X20 / D18X20 / D20X22
918-2407	Hawkeye 350 M / 2.38 M API R	JT1720 / JT2020 / JT20 / JT25 / JT2720 / JT3020 / JT30 / D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
918-2452	Hawkeye 350 M / 2.59 M	JT25 / JT2720 / JT3020 / JT30 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
918-2481	Hawkeye 350 M / 2.88 M API R	JT25 / JT2720 / JT3020 / JT30 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50

CONNECTORS

Part Number	Description	Model(s)
918-2483	Hawkeye® 350 M / 2.0 M API IF	JT1220 / JT2020 / JT20
918-2429	Hawkeye 350 M / SplineLok® II 350 M	JT1720 / JT2020 / JT20 / JT25 / JT2720 / JT3020 / JT30 / D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
918-2479	Hawkeye 350 M / #800 M	JT7020 / JT8020 / JT100 / D80X100
918-2426	Hawkeye 350 M / 2.125 LPT F	D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50/
918-2428	Hawkeye 350 M / 1.625 LPT F	D6X6 / D7X11 / D9X13
918-3052	Hawkeye 390 M / 1.94 M	JT1720 / JT2020 / JT20 / D16X20 / D18X20 / D20X22
918-3044	Hawkeye 390 M / 2.59 M	JT25 / JT2720 / JT3020 / JT30 / JT4020 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
918-3024	Hawkeye 390 M / 2.38 M API R	JT1720 / JT2020 / JT20 / JT25 / JT2720 / JT3020 / JT30 / D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
918-3006	Hawkeye 390 M / 2.88 M API R	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
918-3035	Hawkeye 390 M / SplineLok II 350 M	JT1720 / JT2020 / JT20 / JT25 / JT2720/ JT3020 / JT30 / D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
918-3069	Hawkeye 390 M / #800 M	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
918-3071	Hawkeye 390 M / 3.27 M	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
918-3033	Hawkeye 390 M / 1.625 LPT F	D6X6 / D7X11 / D9X13
918-3034	Hawkeye 390 M / 2.12 LPT F	D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
918-3624	Hawkeye 426 M / 2.38 M API R	JT1720 / JT2020 / JT20 / JT25 / JT2720 / JT3020 / JT30 / D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
918-3647	Hawkeye 426 M / 2.59 M	JT25 / JT2720 / JT3020 / JT30 / JT4020 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
918-3606	Hawkeye 426 M / 2.88 M API R	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
918-3607	Hawkeye 426 M / 3.5 M API R	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
918-3629	Hawkeye 426 M / #900 M	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
918-3622	Hawkeye 426 M / #800 M	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
918-3634	Hawkeye 426 M / 2.12 LPT F	D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
908-4268	SplineLok® II 350 F / 1.94 M	JT1720 / JT2020 / JT20
908-4124	SplineLok II 350 F / #600 F	JT2020 / JT20 / JT25 / JT3020 / JT30 / D24X40
908-4123	SplineLok II 350 F / #600 M	JT2020 / JT20 / JT25 / JT3020 / JT30 / D24X40
908-4269	SplineLok II 350 F / 2.59 M	JT4020
908-4153	SplineLok II 350 M / 2.38 F API R	JT1720 / JT2020 / JT20 / JT25 / JT2720 / JT3020 / JT30 / D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
908-4137	SplineLok II 350 F / #800 F	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
908-4180	SplineLok II 350 F / 3.5 M API R	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
908-4188	SplineLok II 350 F / #800 M	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
908-4021	SplineLok II 350 F / 2.12 LPT WELD-OVER	D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50



CONNECTORS

Part Number	Description	Model(s)
908-4171	SplineLok® II 350 F / #900 M	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
908-4149	SplineLok II 350 F / 2.88 M API R	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
908-4102	SplineLok II 350 F / 2.38 M API R	JT1720 / JT2020 / JT20 / JT25 / JT2720 / JT3020 / JT30 / D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
400-740	1.62 LPT M / 1.41 F	D6X6 / D7X11 / D9X13
400-742	1.62 LPT F / 1.94 M	D6X6 / D7X11 / D9X13
400-743	1.62 LPT M / 1.94 M	D6X6 / D7X11 / D9X13
908-0825	1.62 LPT M / 2.0 M API IF	D6X6 / D7X11 / D9X13
918-0728	1.62 LPT F / 2.38 F API R	D6X6 / D7X11 / D9X13
908-0790	1.62 LPT M / 2.38 M API R	D6X6 / D7X11 / D9X13
908-0815	1.62 LPT M / 2.11 M	D6X6 / D7X11 / D9X13
400-140	2.12 LPT / 1.94 M	D16X20 / D18X20 / D20X22 / D24X26 / D24X33
908-4007	2.12 LPT M / 2.0 M API IF	D6X6 / D7X11 / D9X13
918-3632	2.12 LPT F / 2.38 API R F	D24X33 / D24X40 / D33X44 / D36X50
908-1666	2.12 LPT M / 2.38 API R M	D16X20 / D18X20 / D20X22 / D24X26 / D24X33
908-4142	2.12 LPT M / 350 SPLK II M	D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
400-2570	2.38 API R M / 2.38 API R M	JT1720 / JT2020 / JT20 / JT25 / JT2720 / JT3020 / JT30 / D16X20 / D18X20 / D20X22 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
400-2571	2.88 API R M / 2.88 API R M	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10
908-4103	3.28 API R M / 2.12 LPT M	D16X20 / D24X33
400-2277	3.5-F EZ / 2.88 M API R	JT60
368-813	3.5-F EZ / 3.27 M	JT60
400-035	3.5 IF M / 3.5 IF M	JT4020 / D24X26 / D24X40 / D36X50 / D50X100 / D55X10



STRONG CONNECTIONS. SUPERIOR PROTECTION.

When it comes to protecting your electronics, Ditch Witch® HDD Tooling continues to offer innovative solutions. The recessed lid on our housings reduces breakage downhole. Our industry-exclusive Beacon Buddy helps protect your electronics like nothing else. And our patented TriHawk® housings are exceptionally versatile and durable, with an innovative high-flow design that has the power and volume to drill in varying ground conditions. Plus, as drilling conditions change, you can change tooling with maximum speed and security thanks to the housing's square drive spline.



POWERHOUSE™ HD DIRT HOUSING

PowerHouse HD dirt housings are the most advanced, durable and productive housings on the market today. They are exceptionally strong and offer extended battery life, patented electronic protection, a lid system that allows you to adapt to downhole conditions, and other innovative features that combine to maximize productivity with every bore. Every PowerHouse HD dirt housing is designed to deliver increased uptime and more profit per foot.

Part Number	Diameter	Bit Pattern / Thread	Electronics	Model(s)
908-0680	2"	3 Hole / 12 mm / DW / 1.1	SBRP / 88B	JT5 / JT520
908-0880	2.5"	5 Hole / 12 mm / DW / 2.0 API IF	850 / 86 / TK series	JT922 / JT921 / JT921S / JT920 / JT920L / JT1220
908-1080	2.75"	5 Hole / 12 mm / DW / 2.0 API IF	850 / 86 / TK series	JT1220 / JT20 / JT2020M1 / JT2720M1
908-1680	3"	5 Hole / 12 mm / DW / 2.38 API R	850 / 86 / TK series	JT20 / JT2020M1
908-4080	3.25"	6 Hole / 16 mm / DW / 2.38 API R	850 / 86 / TK series	JT25 / JT30 / JT3020M1 / JT2720M1
908-4082	3.75"	6 Hole / 20 mm / DW / 2.88 API R	850 / 86 / TK series	JT4020M1
908-5280	4.25"	6 Hole / 20 mm / DW / 2.88 API R	850 / 86 / TK series	JT4020M1 / JT60
906-5357	4.75"	6 Hole / 20 mm / DW / 3.5 API IF	BHL Series	JT100 (TriHawk® Assembly)
400-1423*	4.75"	6 Hole / 20 mm / DW / 3.5 API IF F	BHL Series	JT100
908-0670	2"	5 Hole / 3/8" / VM / Firestick® I #200 DCI Mini		D6X6 / D7X11 / D9X13
908-0870	2.5"	6 Hole / 1/2" / VM / 2.0 API IF	DCI	D6X6 / D7X11 / D9X13
908-1070	2.75"	6 Hole / 1/2" / VM / 2.0 API IF	DCI	D6X6 / D7X11 / D9X13
908-1670	3"	6 Hole / 1/2" / VM / 2.38 API R	DCI	D16X20 / D18X20 / D20X22
908-4070	3.25"	6 Hole / 1/2" / VM / 2.38 API R	DCI	D24X26 / D24X33 / D24X40 / D33X44 / D36X50
908-5270	4.25"	6 Hole / 5/8" / VM / 2.88 API R	DCI	D50X100 / D55X100 / D75X100 / D80X100 / D80X120 / D100X120
908-5272	4.25"	6 Hole / 3/4" / VM / 2.88 API R	DCI	D50X100 / D55X100 / D75X100 / D80X100 / D80X120 / D100X120
159-461	All Housings		Beacon Buddy -8	

* Not a Powerhouse HD housing.

Special note: These housings will accommodate Ditch Witch® and DCI Electronics with proper isolation.

NOTE: CONTACT YOUR DEALER FOR WEAR ITEMS SUCH AS LIDS, WINDOWS AND LID BOLTS.



TRIHAWK® HD HOUSINGS

TriHawk HD housings are exceptionally versatile, durable and productive housings that are compatible with Ditch Witch® and Vermeer® drills. With their innovative high-flow design, TriHawk HD housings have the power and volume to drill in varying ground conditions. Plus, as drilling conditions change, you can change tooling with maximum speed and security thanks to a square drive spline, one of the TriHawk HD housing's many patented features.

Part Number	Diameter	Thread	Spline Size	Model(s)
906-0854	2.75"	2.0 API IF	2.125"	JT922 / JT1220 / D6X6 / D7X11 / D9X13
906-1854	3"	2.38 API R	2.125"	JT1220 / JT1720M1 / JT20 / JT2020 / D6X6 / D7X11 / D9X13 / D16X20 / D18X20 / D20X22
906-2654	3.5"	2.38 API R	2.5"	JT25 / JT2720M1 / JT30 / JT3020 / JT4020 / D24X26 / D24X33 / D24X40 / D33X44 / D36X50
906-5354	4.25"	2.88 API R	3.375"	JT4020 / JT7020 / JT8020 / JT60 / D33X44 / D36X50 / D50X100 / D55X100 / D75X100 / D80X100 / D80X120
906-5356	4.75"	3.5 API IF	3.375"	JT7020M1 / JT8020M1 / JT100 / D50X100 / D55X100 / D75X100 / D80X100 / D80X120

Note: These housings will accommodate Ditch Witch and DCI Electronics, excluding the 19" sonde.

NOTE: CONTACT YOUR DEALER FOR WEAR ITEMS SUCH AS LIDS, WINDOWS AND LID BOLTS.



UNIVERSAL HD HOUSINGS

Universal HD housings give you the flexibility to run threaded options such as mud motors, air hammers and threaded bits. These are wireline capable and can accept 15" through 19" beacons.

Special note: These housings will accommodate Ditch Witch® and DCI Electronics (excluding BHL).

Part Number	Diameter	Front Threads	Rear Threads	Flow Rates	Model(s)
908-1690	3.25"	2.38 F API R F	2.38 F API R F	162 gpm	JT20 / JT2020 / D16X20 / D18X20 / D20X22 / D24X26 / D24X33
908-4290	3.75"	2.38 F API R F	2.38 F API R F	245 gpm	JT25 / JT3020 / JT30 / AT30 / D24X40 / D33X44 / D36X50
908-5290	4.75"	3.5 F API IF F	3.5 F API IF F	749 gpm	JT40 / JT60 / JT7020 / JT8020 / JT100 / AT40 / AT60 / AT100 / D50X100 / D55X100 / D60X90 / D75X100 / D80X10 / D100X120
908-6190	6.5"	4.5 M API IF F	4.5 F API IF F	1,529 gpm	150K-330K
908-8090	8"	6.625 M API FH F	6.625 F API FH F	2,202 gpm	400K-1000K



Part Number	Front Threads	Spline Size	Connector
906-2585	2.38 API R M	2.125"	908-4290 / 908-1690
906-5310	3.5 API IF M	3.375"	908-5290

ALL TERRAIN HOUSINGS

All Terrain housings are the only housings designed and manufactured to provide superior performance with the patented All Terrain technology, which allows you to steer while drilling. These housings feature rebuildable components—allowing you to replace only worn parts—and are designed with a 2° offset for responsive steering.

Part Number	Style	Description	Electronics	Model(s)
401-160	3.75" Cobble 1.5°	AT30 / 2.88 API R	88 Series	AT2720 / AT30
401-159	3.75" Rockmaster™ 2°	AT30 / 2.88 API R	88 Series	AT2720 / AT30
401-329	3.75" Rockmaster 2°	AT30 / 2.88 API R	850 / 86 / TK series	AT2720 / AT30
400-1314	4.75" Cobble 2°	AT30 / 2.88 API R	850 / 86 / TK series	AT2720 / AT30
350-1254	4.75" Rockmaster 2°	AT30 / 2.88 API R	850 / 86 / TK series	AT2720 / AT30
400-1200	4.5" Rockmaster (TXu) 2°	AT30 / 2.88 API R	TXu (1.25-15")	AT2720 / AT30
400-919	5" Rockmaster 1.5°	AT4020 / 3.5 API R	850 / 86 / TK series	AT4020 / AT60
401-241	5" Rockmaster 2°	AT4020 / 3.5 API R	850 / 86 / TK series	AT4020 / AT60
400-1380	5" Rockmaster 2°	AT100 / 3.5 API R	850 / 86 / TK series	AT100



MORE PRODUCTIVE IN THE TOUGH STUFF.

Advanced technology enables the All Terrain Air Hammer to continuously drill as it is being steered, an exclusive All Terrain drill feature that results in superior productivity; other air hammers require stopping the drill rotation to change directions.



Your All Terrain Air Hammer works like nothing else. It's designed to penetrate the hardest rock where rotary units and mud motors lose effectiveness. To ensure that superior performance, trust genuine Ditch Witch Air Hammer housings—the only parts designed, manufactured and tested by the creators of All Terrain technology.



ALL TERRAIN AIR HAMMER

Part Number	Style	Description	Electronics	Model(s)
400-1467	5" Rockmaster™ Air 2°	AT4020 / 3.5" API R	850 or 86 series	AT4020
400-1488	5" Rockmaster Air 2°	AT100 / 3.5" API R	850 or 86 series	AT100
190-1692	6" Air Hammer Kit	AT4020 / 3.5" API R	850 or 86 series	AT4020
190-1932	6" Air Hammer Kit	AT60 / 3.5" API R	850 or 86 series	AT60
190-1701	6" Air Hammer Kit (Tier 3)	AT100 / 3.5" API R	850 or 86 series	AT100
190-2559	6" Air Hammer Kit (Tier 4)	AT100 / 3.5" API R	850 or 86 series	AT100

Convex



Concave



AIR HAMMER BITS

Part Number	Style	Description	Jaw Part Number
400-1451	Concave / Spherical Inserts	6.5"	400-1486
400-1452	Convex / Spherical Inserts*	6.5"	400-1477
400-1454	Convex / Semi-Ballistic Inserts	6.5"	400-1487
400-1455	Convex / Ballistic Inserts	6.5"	400-1487

*Comes standard in all AT air hammer kits.

TESTED AND PROVEN TO OUTPERFORM AND OUTLAST.



Nothing touches a Ditch Witch® bit. They are tested in jobsite conditions and engineered to outperform and outlast any competitor's bit. Manufactured with the most effective amount and placement of carbide, our bits maximize performance and value. Best of all, every Ditch Witch bit is optimized not only for soil type, but for the specific drill that drives it.



Choosing the ideal bit for a particular type of soil can be challenging. This chart offers guidelines to help, but for specific recommendations for your area, ask your Ditch Witch® dealer.

SOIL CONDITION CHART

Key ● =Best ◐ =Better ○ =Good

	Sandy Soil	Soft Soil	Medium Soil	Hard Soil	Cobble Rock	Soft Rock	Medium Rock	Hard Rock
TriHawk® I		○	◐	●	◐	●		
TriHawk III		○	○	◐	◐	●		
TriHawk IV				○	●	◐		
TriHawk V		●	●	●	●			
TriHawk VI				○	◐	◐	●	○
Sand Bit	●	◐						
Hard Surface Bit	◐	●	◐	○				
Durabit	◐	◐	●	●	●			
Barracuda Bit	◐	●	●	◐				
Steep Taper Tuff Bit	○	○	◐	●	●	○		
Steep Taper Bit	○	○	◐	●		○		
Tornado Bit	◐	◐	●	●	◐	○		
Grade Bit	◐	●	●					
Shot Gun Bit		●	●	●	◐			
Cobble Bit				◐	●	◐		
Tuff Bit	◐	●	●	●	◐	○		
Tri-Cone Bit					●	●	●	●
Soft Formation Bit				◐	◐	●		
Rockmaster™ Bit					●	●	●	●
Ditch Witch Tri-Cone Bit					●	●	●	●

This chart is meant as a guideline only. See your local Ditch Witch dealer for recommendations in your area.

Note: For bits with clevis holes, there are corresponding sizes of pull holes.

3-hole bits = .531 or 1/2" clevis

5-hole bits = .688 or 5/8" clevis

6-hole, 16-mm bit bolts = 1.125 or 1" clevis

6-hole, 20-mm bit bolts = 1.25 or 1" clevis

TriHawk® bits are field-proven to provide unbeatable performance and reliability. Using the highest quality, heat-treated alloy steel and strategically placed carbide, TriHawk bits punch through rock, overburdened cobble or compacted soil, while their patented square-drive spline is the toughest tooling connection in the industry. Combine them with TriHawk HD housings for an unbeatable combination.

TRIHAWK I

TriHawk I is an aggressive directional drill bit designed for soft rock conditions up to 8,000 psi (552 bar). It also provides excellent performance in dry, compacted soils as well as cobble and broken formations. Made of high-quality, heat-treated alloy steel, TriHawk I features replaceable carbide teeth that are angled into the cut to increase production and reduce machine vibration.



Part Number	Cut	Spline	Replacement Teeth	Drill Size
906-1792	3.75"	2.125"	906-1642 short / 906-1637 long	6K - 12K Drills
906-1626	4.44"	2.125"	906-2434 short / 906-2437 long	16K - 20K Drills
906-2426	5.12"	2.5"	906-2446 med / 906-2494 long	24K - 40K Drills
906-5026	6.12"	3.375"	906-5082 med / 906-5090 long	50K - 100K Drills
906-2427	5.12"	2.5"	906-2446 med / 906-2494 long	24K - 40K Drills
906-1827	TriHawk I Pullback Tool			5K - 12K Drills
906-2627	TriHawk I Pullback Tool			16K - 40K Drills



TriHawk I with Pullback



TRIHAWK® III



TriHawk III features superior abrasion resistance and massive, carbide-core cutting teeth designed to efficiently cut through soft to medium rock up to 12,000 psi (827 bar) and cobble. Welded carbide grit is applied not only to the bit surface, but also into grooves that are cut into high-wear areas, keeping the bit surface smooth and resulting in less resistance when pushing to steer.



Part Number	Cut	Spline Size	Replacement Teeth	Drill Size
906-1719	4.38"	2.125"	906-1713	16K - 20K Drills
906-2519	5.5"	2.5"	906-2516	24K - 40K Drills
906-5119	6.6"	3.375"	906-5116	50K - 100K Drills
906-1513	10.0"	4.5 F API IF	906-1512	150K - 300K Drills
906-1527	12.5"	6.625 F FH	906-1530	500K Drills +
906-1723	TriHawk III Pull Back			16K - 20K Drills
906-2523	TriHawk III Pull Back			24K - 40K Drills

TRIHAWK IV

The TriHawk IV drill bit is designed for use in heavy, overburdened cobble or fractured rock. Our bit is machined from high-grade alloy steel and engineered to reduce machine vibration in tough drilling conditions. The TriHawk IV's numerous carbide chisels are positioned to help provide smooth, rotational drilling and fracture clearance space for the housing.



Part Number	Cut	Spline Size	Drill Size
906-1730	4.38"	2.125"	16K - 20K Drills
906-2530	5.5"	2.5"	24K - 40K Drills
906-5130	6.6"	3.375"	50K - 100K Drills



TRIHAWK® V

The innovative design of TriHawk V combines torque-edge steering with thrust-face steering to provide unbeatable performance in round rock cobble, flat river stone, hardpan, and loose fill. TriHawk V's patented J-tapered torque edge feature converts rotational torque to direct steering thrust, which gives the operator exceptional control. The key to TriHawk V's outstanding productivity is the tapering of the leading edge toward the bit's trailing edge.

SOFT SOIL MEDIUM SOIL HARD SOIL COBBLE ROCK

Part Number	Cut	Spline Size	Drill Size
906-0708	3.5"	6 Hole VM - Bolt-on	5K - 12K Drills
906-0792	3.5"	5 Hole DW - Bolt-on	5K - 12K Drills
906-1771	3.88"	2.125"	16K - 20K Drills
906-2571	4.8"	2.5"	24K - 40K Drills
906-5171	7"	3.375"	50K - 100K Drills
906-1523	9"	4.5 F API IF	150K - 300K Drills
906-0825	TriHawk V Pullback		5K - 12K Drills
906-1825	TriHawk V Pullback		16K - 20K Drills
906-2625	TriHawk V Pullback		24K - 40K Drills



TRIHAWK VI

New design allows a quick and easy change when soil conditions change to medium to hard rock formations. Designed for single-pipe systems.

HARD SOIL COBBLE ROCK SOFT ROCK MEDIUM ROCK HARD ROCK

Part Number	Cut	Spline Size	Drill Size
906-1864	4.6"	2.125"	16K - 20K Drills
906-2670	5.4"	2.5"	24K - 40K Drills
906-5383	6.8"	3.375"	50K - 100K Drills

TRIHAWK REAMER BIT

Intended to use for fast, easy, small-diameter installations. When you finish a bore with your TriHawk system, simply drive out the two roll pins holding the bit and install the reamer bit instead. This cast reamer is equipped with a pulling tab intended to be used in conjunction with a swivel and will cut a 5.25" hole.

Part Number	Cut	Spline Size	Drill Size
906-1812	6"	2.125"	16K - 20K Drills
906-2712	6"	2.5"	24K - 40K Drills





SOIL CONDITION CHART

Key ● =Best ○ =Better ○ =Good

SAND BIT

● SANDY SOIL
○ SOFT SOIL

With its square nose and carbide added to the surface and cutting edge, the Sand Bit is ideal for soft soil and sandy conditions.



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-167	2.5"	3 Hole DW	12 mm	1/2"	0°
368-897	3"	5 Hole DW	12 mm	1/2"	10°
368-896	3"	5 Hole DW	12 mm	1/2"	0°
369-078	4"	5 Hole DW	12 mm	5/8"	10°
369-076	4"	5 Hole DW	12 mm	5/8"	0°
369-080	5"	5 Hole DW	12 mm	5/8"	10°
400-1657	4"	6 Hole DW	16 mm	3/4"	10°
400-1659	5"	6 Hole DW	16 mm	1"	10°
400-1548	3.5"	6 Hole VM	1/2"	3/4"	10°
400-1550	4"	6 Hole VM	1/2"	3/4"	10°
400-1552	5"	6 Hole VM	1/2"	3/4"	10°
400-1566	5"	6 Hole VM	5/8"	1"	10°
400-1568	6"	6 Hole VM	5/8"	1"	10°

HARD SURFACE BIT

The Hard Surface Bit can be used in cobble and chunk rock conditions and is a good choice for wet and silty clays.

○ SANDY SOIL ● SOFT SOIL ○ MEDIUM SOIL ○ HARD SOIL



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-068	3"	5 Hole DW	12 mm	5/8"	10°
369-069	4"	5 Hole DW	12 mm	5/8"	10°
369-070	5"	5 Hole DW	12 mm	5/8"	10°
400-1649	4"	6 Hole DW	16 mm	3/4"	10°
400-1651	5"	6 Hole DW	16 mm	1"	10°
400-1655	6"	6 Hole DW	16 mm	1"	10°
400-1653	5"	6 Hole DW	20 mm	1"	10°
400-1542	3"	6 Hole VM	1/2"	3/4"	10°
400-1544	4"	6 Hole VM	1/2"	3/4"	10°
400-1546	5"	6 Hole VM	1/2"	3/4"	10°
400-1570	5"	6 Hole VM	5/8"	1"	10°
400-1572	6"	6 Hole VM	5/8"	1"	10°

BITS

DURABIT

 SANDY SOIL
  SOFT SOIL
  MEDIUM SOIL
  HARD SOIL
  COBBLE ROCK

The Durabit is designed to provide extended wear in all non-rock soil formations.



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-169	2.5"	3 Hole DW	12 mm	1/2"	0°
368-901	3"	5 Hole DW	12 mm	5/8"	10°
368-900	3"	5 Hole DW	12 mm	1/2"	10°
368-899	3"	5 Hole DW	12 mm	5/8"	0°
368-898	3"	5 Hole DW	12 mm	1/2"	0°
368-904	4"	5 Hole DW	12 mm	3/4"	10°
368-903	4"	5 Hole DW	12 mm	5/8"	10°
368-902	4"	5 Hole DW	12 mm	1/2"	10°
369-082	5"	5 Hole DW	12 mm	5/8"	10°
369-005	5"	6 Hole DW	16 mm	3/4"	0°
368-980	5.2"	6 Hole DW	20 mm	1"	0°
368-982	6.4"	6 Hole DW	20 mm	1"	0°
368-984	8"	6 Hole DW	20 mm	1"	0°
400-1869	2.5"	5 Hole VM	1/2"	1/2"	0°

BARRACUDA BIT

 SANDY SOIL
  SOFT SOIL
  MEDIUM SOIL
  HARD SOIL

The Barracuda Bit can be used in most soil conditions, especially running sand and sandy loam soils.



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-171	2.5"	3 Hole DW	12 mm	1/2"	0°
368-891	3"	5 Hole DW	12 mm	5/8"	10°
368-890	3"	5 Hole DW	12 mm	1/2"	10°
368-894	4"	5 Hole DW	12 mm	3/4"	10°
368-893	4"	5 Hole DW	12 mm	5/8"	10°
368-892	4"	5 Hole DW	12 mm	1/2"	10°
369-067	5"	5 Hole DW	12 mm	5/8"	10°
400-1587	4"	6 Hole DW	16 mm	3/4"	10°
369-181	5"	6 Hole DW	16 mm	3/4"	0°
369-468	5"	6 Hole DW	16 mm	3/4"	10°
369-469	6.4"	6 Hole DW	16 mm	3/4"	10°
369-500	5"	6 Hole DW	20 mm	1"	10°
369-498	5"	6 Hole DW	20 mm	1"	0°
369-508	7.8"	6 Hole DW	20 mm	1"	10°
400-1534	3.5"	6 Hole VM	1/2"	3/4"	10°
400-1536	4"	6 Hole VM	1/2"	3/4"	10°
400-1538	5"	6 Hole VM	1/2"	3/4"	10°
400-1540	6.5"	6 Hole VM	1/2"	3/4"	10°
400-1562	5"	6 Hole VM	5/8"	1"	10°
400-1564	6"	6 Hole VM	5/8"	1"	10°
400-1911	8"	6 Hole VM	3/4"	1"	10°
400-1915	8"	6 Hole VM	3/4"	1"	10°

STEEP TAPER TUFF BIT



Designed for hard, compacted soils and soft sedimentary rock, the Steep Taper Tuff Bit features a pointed, triangle-shaped nose and Tuff Bit segments along the leading edge that have the strength and stability to withstand the pounding and vibration of drilling in rock.

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
400-120	4"	5 Hole DW	12 mm	3/4"	10°
400-122	4"	6 Hole DW	16 mm	3/4"	10°
400-124	5"	6 Hole DW	16 mm	3/4"	10°
400-1893	5"	6 Hole DW	20 mm	1"	10°
400-431	6"	6 Hole DW	20 mm	1"	10°
400-1895	8"	6 Hole DW	20 mm	1"	10°
400-1530	4"	6 Hole VM	1/2"	3/4"	10°
400-1885	3.5"	6 Hole VM	1/2"	5/8"	10°
400-1532	5"	6 Hole VM	1/2"	3/4"	10°
400-1887	5"	6 Hole VM	5/8"	1"	10°
400-1889	6"	6 Hole VM	5/8"	1"	10°
400-1891	8"	6 Hole VM	3/4"	1"	10°



STEEP TAPER BIT



Designed with a pointed, triangle-shaped nose, the Steep Taper Bit can be used in highly compacted soil, light rock and cobble.



Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-315	2.5"	3 Hole DW	12 mm	1/2"	0°
369-072	3"	5 Hole DW	12 mm	5/8"	10°
400-160	4"	5 Hole DW	12 mm	5/8"	10°
368-895	4"	5 Hole DW	12 mm	5/8"	10°
369-074	5"	5 Hole DW	12 mm	5/8"	10°
400-170	4.5"	6 Hole DW	16 mm	3/4"	10°
369-183	5"	6 Hole DW	16 mm	3/4"	0°
369-466	5"	6 Hole DW	16 mm	3/4"	10°
369-467	6.4"	6 Hole DW	16 mm	3/4"	10°
369-486	5"	6 Hole DW	20 mm	1"	0°
369-490	6.4"	6 Hole DW	20 mm	1"	0°
400-1851	3.5"	6 Hole VM	1/2"	1"	10°
400-1841	4"	6 Hole VM	1/2"	3/4"	10°
400-1843	5"	6 Hole VM	1/2"	1"	10°
400-1845	6.5"	6 Hole VM	1/2"	1"	10°
400-1847	5"	6 Hole VM	5/8"	1"	10°
400-1849	6"	6 Hole VM	5/8"	1"	10°

TORNADO BIT



New, long-lasting, all-purpose bit designed for use in a variety of soils, including sandstone, chunk rock and hard soils. Tornado Bits use both button and crushed carbide for optimized performance and extended life.

Vermeer®

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
400-1929	3"	5 Hole DW	12 mm	5/8"	10°
400-1925	3.5"	5 Hole DW	12 mm	5/8"	10°
400-1927	4"	5 Hole DW	12 mm	5/8"	10°
400-1931	4"	5 Hole DW	12 mm	3/4"	10°
400-1585	5"	5 Hole DW	12 mm	3/4"	10°
400-1933	4.5"	6 Hole DW	16 mm	3/4"	10°
400-1935	5"	6 Hole DW	16 mm	3/4"	10°
400-1063	6"	6 Hole DW	16 mm	3/4"	10°
400-1937	6.5"	6 Hole DW	16 mm	3/4"	10°
400-1939	5"	6 Hole DW	20 mm	1"	10°
400-1941	6"	6 Hole DW	20 mm	1"	10°
400-1901	8"	6 Hole DW	20 mm	1"	10°
400-1897	3.5"	6 Hole VM	1/2"	5/8"	10°
400-1514	3.5"	6 Hole VM	1/2"	3/4"	10°
400-1516	4"	6 Hole VM	1/2"	3/4"	10°
400-1518	5"	6 Hole VM	1/2"	1"	10°
400-1520	6"	6 Hole VM	1/2"	3/4"	10°
400-1554	5"	6 Hole VM	5/8"	1"	10°
400-1558	6"	6 Hole VM	5/8"	1"	10°
400-1899	8"	6 Hole VM	3/4"	1"	10°

GRADE BIT



Shorter and narrower than our standard bit, the Grade Bit is designed to help the drill head stay on grade and allow steering corrections to be executed more gradually.

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
400-1246	4"	6 Hole DW	16 mm	3/4"	0°
368-144	5.5"	6 Hole DW	16 mm	3/4"	0°
400-022	5"	6 Hole DW	20 mm	1"	0°
400-021	5"	6 Hole DW	20 mm	1"	0°
400-1366	6"	6 Hole DW	20 mm	1"	0°





SHOT GUN BIT



This new designed bit is made for hard compacted soils and sedimentary rock. The Shot Gun Bit uses large carbide cutters for greater rock fracturing and production. The barracuda material down the sides adds protection for the life of the bit.

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
400-1665	3.5"	5 Hole DW	12 mm	3/4"	10°
400-1667	4"	5 Hole DW	12 mm	3/4"	10°
400-1669	5"	5 Hole DW	12 mm	3/4"	10°
400-1671	4"	6 Hole DW	16 mm	1"	10°
400-1673	5"	6 Hole DW	16 mm	1"	10°
400-1905	5"	6 Hole DW	16 mm	3/4"	10°
400-1907	6"	6 Hole DW	20 mm	1"	10°
400-1909	8"	6 Hole DW	20 mm	1"	10°
400-1574	3.5"	6 Hole VM	1/2"	3/4"	10°
400-1576	4"	6 Hole VM	1/2"	3/4"	10°
400-1578	5"	6 Hole VM	1/2"	3/4"	10°
400-1903	8"	6 Hole VM	3/4"	1"	10°
400-1580	5"	6 Hole VM	5/8"	1"	10°
400-1582	6"	6 Hole VM	5/8"	1"	10°



TUFF BIT



Ultimate long-wearing bit for all soil conditions, including hard, compacted soils or soft, sedimentary rock. Tuff Bit segments along the leading edge have the strength and stability to handle the pounding and vibration of drilling in rock. The barracuda material down the sides reduces wear on the nose of the housing.

Part Number	Cut	Bolt Pattern	Bolt Size	Thickness	Bend Angle
369-727	3"	3 Hole DW	12 mm	1/2"	0°
369-729	3"	5 Hole DW	12 mm	5/8"	10°
401-334	3.5"	5 Hole DW	12 mm	5/8"	10°
369-731	4"	5 Hole DW	12 mm	5/8"	10°
369-733	5"	5 Hole DW	12 mm	5/8"	10°
400-172	4.5"	6 Hole DW	16 mm	3/4"	10°
369-735	5"	6 Hole DW	16 mm	3/4"	10°
369-737	6.4"	6 Hole DW	16 mm	3/4"	10°
369-739	5"	6 Hole DW	20 mm	1"	10°
369-741	6.5"	6 Hole DW	20 mm	1"	10°
369-743	8"	6 Hole DW	20 mm	1"	10°
400-1871	2.5"	5 Hole VM	1/2"	1/2"	0°
400-1522	4"	6 Hole VM	1/2"	3/4"	10°
400-1524	5"	6 Hole VM	1/2"	3/4"	10°
400-1528	8"	6 Hole VM	5/8"	1"	10°
400-1560	6"	6 Hole VM	5/8"	1"	10°
400-1877	3.5"	6 Hole VM	1/2"	5/8"	10°
400-1881	5"	6 Hole VM	5/8"	1"	10°
400-1879	8"	6 Hole VM	3/4"	1"	10°
400-1526	6.5"	6 Hole VM	1/2"	3/4"	10°



DIRT BIT ADAPTERS

Part Number	Housing Diameter	Spline Size	Bolt Pattern
906-1796	3" TriHawk® HD	2.125"	5 Hole DW / 12 mm
906-2697	3.5" TriHawk HD	2.5"	6 Hole DW / 16 mm
906-2698	3.5" TriHawk HD	2.5"	6 Hole DW / 20 mm
906-5296	4.25" TriHawk HD	3.375"	6 Hole DW / 20 mm
906-1665	3" TriHawk HD	2.125"	6 Hole VM (1/2" Bolt)
906-2465	3.5" TriHawk HD	2.5"	6 Hole VM (1/2" Bolt)
906-5165	4.25" TriHawk HD	3.375"	6 Hole VM (5/8" Bolt)
906-5166	4.25" TriHawk HD	3.375"	6 Hole VM (3/4" Bolt)



COBBLE BIT



Part Number	Cut	Thread
400-972	5.5"	2.88 API

An exclusive design of the Ditch Witch organization, the Cobble Bit is ideal for loose rock or gravel conditions.



TRI-CONE BIT



Tri-Cone Bits are designed to cut in compacted soils to hard rock conditions. These bits are used with the patented Ditch Witch All Terrain system to optimize performance.



Part Number	Cut	Thread	Description
400-432	4.75"	2.88 API	MT TCI
400-1356	4.75"	2.88 API	TCI HDS3
401-345	5.5"	2.88 API	TCI HDX40
401-349	5.5"	2.88 API	TCI HDS2
401-138	6.25"	3.5 API	TCI Value Line
401-139	6.25"	3.5 API	TCI Value Line
401-346	6.5"	3.5 API	HDX30
400-1812	6.5"	3.5 API	TCI XR50
401-361	6.5"	3.5 API	TCI HDS3

Note: For bits with clevis holes, here are corresponding sizes of pull holes

3-hole bits = .531 or 1/2" clevis
 5-hole bits = .688 or 5/8" clevis
 6-hole, 16-mm bit bolts = 1.125 or 1" clevis
 6-hole, 20-mm bit bolts = 1.25" or 1" clevis



SOFT FORMATION BIT

The Soft Formation Bit is used in sandstone, shale and tight or compacted clay. Designed exclusively for Ditch Witch® All Terrain systems.



Part Number	Cut	Thread
400-971	5.25"	2.88 API
400-1094	6.65"	2.88 API
400-683	7"	3.50 API

ROCKMASTER™ BIT



Part Number	Cut	Thread	Description
400-2317	5.5"	2.88 API R	Rockmaster Open Bearing IADC:533
400-2319	5.5"	2.88 API R	Rockmaster Sealed Bearing IADC:517
400-2517	5.5"	2.88 API R	Rockmaster Sealed Bearing IADC:637
400-2320	6.5"	3.5 API R	Rockmaster Sealed Bearing IADC:537
400-2516	6.5"	3.5 API R	Rockmaster Sealed Bearing IADC:637
400-2420	4.75"	2.88 API R	Rockmaster Sealed Bearing IADC:517
400-2421	4.75"	2.88 API R	Rockmaster Open Bearing IADC:533

The Rockmaster bit is engineered with proven, premium bearing technology utilizing high-performance components to extend life in hard rock conditions. Designed for Ditch Witch All Terrain and Vermeer® rock drills.



DITCH WITCH TRI-CONE BIT



Made with high-performance components and tungsten carbide, or steel tooth design options, for variable ground conditions.

Part Number	Cut	Thread	Description
400-2314	4.75"	2.88 API R	DW Rock Bit Open Bearing IADC:612
400-2520	5.5"	2.88 API R	DW Mill Tooth Open Bearing IADC:211
400-2521	6.5"	3.5 API R	DW Mill Tooth Open Bearing IADC:211
400-2316	5.625"	3.5 API R	DW Rock Bit Open Bearing IADC:612
400-2318	6.5"	3.5 API R	DW Rock Bit Sealed Bearing IADC:537
400-2315	5.625"	3.5 API R	DW Mill Tooth Open Bearing IADC:211





BUILT BETTER TO LAST LONGER.

Ditch Witch® backreamers are the longest lasting, most ruggedly built in the directional drilling industry. They're also the most flexible, designed to tackle the cutting and expanding requirements of extreme soil conditions like rock, chunk rock and cobble, and also effectively manage the spoils of long bores. If you demand superior performance, look for backreamers designed, manufactured and extensively tested by the same experts who built the drills that drive them. Demand Ditch Witch HDD Tooling.



SOIL CONDITION CHART

Key ● =Best ◐ =Better ○ =Good

This chart helps you choose the ideal backreamer for a particular type of soil.

	Sandy Soil	Soft Soil	Medium Soil	Hard Soil	Cobble Rock	Soft Rock	Hard Rock
Compact Fluted HD		○	◐	●	●	◐	
Kodiak HD		○	○	◐	●	●	●
Beavertail HD	◐	●	●	●			
Warthog HD			○	◐	●	●	
Rockmaster						●	●

This chart is meant as a guideline only. See your local Ditch Witch® dealer for recommendations in your area.

FLANGED SWIVEL OPTIONS

Utilizing high-performance components to extend life and featuring a new clevis design, our flange swivel options eliminate the need for multiple connections between the reamer and product. They also position the product closer to the reamer, reducing the possibility of binding.

Part number	Description
190-2359	12K Swivel Kit (12K Clevis)
190-2360	12K Swivel Kit (12K Tab)
190-2361	20K Swivel Kit (20K Clevis)
190-2362	20K Swivel Kit (20K Tab)
190-2363	30K Swivel Kit (30K Clevis)
190-2364	30K Swivel Kit (30K Tab)
190-2365	40K Swivel Kit (40K Clevis)
190-2366	40K Swivel Kit (40K Tab)
190-2367	100K Swivel Kit (100K Clevis)
190-2368	100K Swivel Kit (100K Tab)

Note: Flanged swivel options for Compact Fluted HD and Kodiak™ backreamers.



COMPACT FLUTED HD BACKREAMER

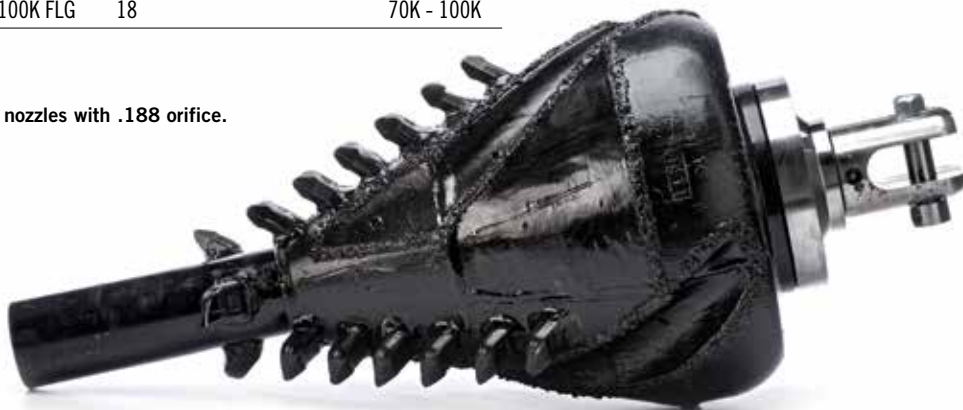
All of our Compact Fluted HD Backreamers are built with integrated swivel options that position the product closer to the reamer, which reduces the possibility of binding. Fluid distribution is enhanced with a replaceable hardened steel nozzle for flow flexibility allowing cuttings and fluid to flow behind the reamer over the product. The improved casting design and tapered base provide smooth pushback capability. As with all our tooling products, these backreamers feature heavy duty components for extended life.



Part Number	Cut	Shaft	Description	Nozzle Qty.	Model(s)
400-2543	4.5"	2.75"	2.0 API-IF F / 12K FLG	4	9K - 20K
400-2544	6.5"	2.75"	2.0 API-IF F / 12K FLG	9	9K - 20K
400-2545	8"	2.75"	2.0 API-IF F / 12K FLG	12	9K - 20K
400-2546	10"	2.75"	2.0 API-IF F / 12K FLG	12	9K - 20K
400-2547	12"	2.75"	2.0 API-IF F / 12K FLG	15	9K - 20K
400-2396	8"	3.25"	2.38 API-R F / 20K FLG	12	16K - 36K
400-2397	10"	3.25"	2.38 API-R / 20K FLG	12	16K - 36K
400-2398	12"	3.25"	2.38 API-R / 30K FLG	15	16K - 36K
400-2399	14"	3.25"	2.38 API-R / 30K FLG	18	16K - 36K
400-2400	16"	3.25"	2.38 API-R / 30K FLG	18	16K - 36K
400-2401	18"	3.25"	2.38 API-R / 30K FLG	18	16K - 36K
400-2485	8"	4.25"	2.88 API R F / 20K FLG	12	40K - 60K
400-2486	10"	4.25"	2.88 API R F / 20K FLG	12	40K - 60K
400-2487	12"	4.25"	2.88 API R F / 30K FLG	15	40K - 60K
400-2488	14"	4.25"	2.88 API R F / 40K FLG	18	40K - 60K
400-2489	16"	4.25"	2.88 API R F / 40K FLG	18	40K - 60K
400-2490	18"	4.25"	2.88 API R F / 40K FLG	18	40K - 60K
400-2491	12"	4.75"	3.5 API-IF F / 30K FLG	12	70K - 100K
400-2492	14"	4.75"	3.5 API-IF F / 100K FLG	19	70K - 100K
400-2493	16"	4.75"	3.5 API-IF F / 100K FLG	19	70K - 100K
400-2494	18"	4.75"	3.5 API-IF F / 100K FLG	19	70K - 100K
400-2495	20"	4.75"	3.5 API-IF F / 100K FLG	22	70K - 100K
400-2496	22"	4.75"	3.5 API-IF F / 100K FLG	22	70K - 100K
400-2497	24"	4.75"	3.5 API-IF F / 100K FLG	25	70K - 100K
400-2498	26"	4.75"	3.5 API-IF F / 100K FLG	18	70K - 100K

Find your flanged swivel options on page 47.

Note: All compact fluted HD backreamers use 1/4" NPT nozzles with .188 orifice.



BACKREAMERS

SOIL CONDITION CHART

Key ● =Best ○ =Better ○ =Good



KODIAK HD



Its name says it all. The Kodiak is the ultimate backreamer for challenging conditions. Designed for extreme soils like rock, chunk rock and cobble, its spiraling flutes allow for cuttings and fluid to flow behind the reamer over the product. It also features an improved plate design and tapered tail end to better accommodate pushing back.

Part Number	Cut	Shaft	Description	NPT/Orifice/Nozzle Qty.	Model(s)
400-2599	8"	2.75"	2.0 API IF F / 12K FLG	1/4" / .250 - 12	9K - 20K
400-2600	10"	2.75"	2.0 API IF F / 20K FLG	1/4" / .250 - 15	9K - 20K
400-2601	12"	2.75"	2.0 API IF F / 20K FLG	1/4" / .250 - 18	9K - 20K
400-2357	8"	3.25"	2.38 API R F / 12K Flange	1/4" / .188 - 12	16K - 36K
400-2358	10"	3.25"	2.38 API R F / 20K Flange	1/4" / .188 - 15	16K - 36K
400-2359	12"	3.25"	2.38 API R F / 20K Flange	1/4" / .188 - 18	16K - 36K
400-2360	14"	3.25"	2.38 API R F / 30K Flange	1/4" / .188 - 21	16K - 36K
400-2361	16"	3.25"	2.38 API R F / 30K Flange	1/4" / .188 - 24	16K - 36K
400-2362	18"	3.25"	2.38 API R F / 30K Flange	1/4" / .188 - 27	16K - 36K
400-2500	10"	4.25"	2.88 API R F / 30K Flange	1/4" / .188 - 9	40K - 70K
400-2501	12"	4.25"	2.88 API R F / 30K Flange	1/4" / .188 - 15	40K - 70K
400-2502	14"	4.25"	2.88 API R F / 40K Flange	1/4" / .188 - 19	40K - 70K
400-2503	16"	4.25"	2.88 API R F / 40K Flange	1/4" / .188 - 22	40K - 70K
400-2504	18"	4.25"	2.88 API R F / 40K Flange	1/4" / .188 - 25	40K - 70K
400-2505	20"	4.25"	2.88 API R F / 40K Flange	1/4" / .188 - 22	40K - 70K
400-2506	24"	4.25"	2.88 API R F / 40K Flange	1/4" / .188 - 25	40K - 70K
400-2507	28"	4.25"	2.88 API R F / 40K Flange	1/4" / .188 - 28	40K - 70K
400-2588	12"	4.75"	3.5 API IF F / 30K Flange	1/4" / .250 - 12	70K - 100K
400-2589	14"	4.75"	3.5 API IF F / 40K Flange	1/4" / .250 - 16	70K - 100K
400-2590	16"	4.75"	3.5 API IF F / 100K Flange	1/4" / .250 - 19	70K - 100K
400-2591	18"	4.75"	3.5 API IF F / 100K Flange	1/4" / .250 - 22	70K - 100K
400-2592	20"	4.75"	3.5 API IF F / 100K Flange	1/4" / .250 - 22	70K - 100K
400-2593	24"	4.75"	3.5 API IF F / 100K Flange	1/4" / .250 - 22	70K - 100K
400-2594	28"	4.75"	3.5 API IF F / 100K Flange	1/4" / .250 - 25	70K - 100K
400-2595	30"	4.75"	3.5 API IF F / 100K Flange	1/4" / .250 - 28	70K - 100K
400-2596	34"	4.75"	3.5 API IF F / 100K Flange	1/4" / .250 - 31	70K - 100K
400-2597	36"	4.75"	3.5 API IF F / 100K Flange	1/4" / .250 - 31	70K - 100K

Find your flanged swivel options on page 47.

BEAVERTAIL HD BACKREAMER

With its low-weight design and low-resistance profile, the Beavertail allows for more efficient fluid-mixing capabilities downhole, requiring less horsepower for rotation. It features a replaceable, hardened-steel Allen-head nozzle for flow flexibility and consistent carbide Shark® teeth for improved life.



Part Number	Cut	Shaft	Description	NPT/Orifice	Model(s)
400-2602	6"	2.75"	2.0 API IF F / 20K TAB	1/4" / .188	9K - 20K
400-2603	8"	2.75"	2.0 API IF F / 20K TAB	1/4" / .188	9K - 20K
400-2604	10"	2.75"	2.0 API IF F / 20K TAB	1/4" / .188	9K - 20K
400-2605	12"	2.75"	2.0 API IF F / 20K TAB	1/4" / .188	9K - 20K
400-2606	14"	2.75"	2.0 API IF F / 20K TAB	1/4" / .188	9K - 20K
400-2607	16"	2.75"	2.0 API IF F / 20K TAB	1/4" / .188	9K - 20K
400-2608	18"	2.75"	2.0 API IF F / 20K TAB	1/4" / .188	9K - 20K
400-2609	20"	2.75"	2.0 API IF F / 20K TAB	1/4" / .188	9K - 20K
400-2381	8"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188	16K - 36K
400-2382	10"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188	16K - 36K
400-2383	12"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188	16K - 36K
400-2384	14"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188	16K - 36K
400-2385	16"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188	16K - 36K
400-2386	18"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188	16K - 36K
400-2387	20"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188	16K - 36K
400-2388	24"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188	16K - 36K

Note: All Beavertail HD backreamers require 13 nozzles.



SOIL CONDITION CHART

Key ● = Best ○ = Better ○ = Good

BEAVERTAIL HD BACKREAMER

○ SANDY SOIL
 ● SOFT SOIL
 ○ MEDIUM SOIL
 ● HARD SOIL

Part Number	Cut	Shaft	Description	NPT/Orifice	Model(s)
400-2508	8"	4.25"	2.88 API R F / 2.88 API R F	3/8" / .250	40K - 60K
400-2509	10"	4.25"	2.88 API R F / 2.88 API R F	3/8" / .250	40K - 60K
400-2510	12"	4.25"	2.88 API R F / 2.88 API R F	3/8" / .250	40K - 60K
400-2511	14"	4.25"	2.88 API R F / 2.88 API R F	3/8" / .250	40K - 60K
400-2512	16"	4.25"	2.88 API R F / 2.88 API R F	3/8" / .250	40K - 60K
400-2513	18"	4.25"	2.88 API R F / 2.88 API R F	3/8" / .250	40K - 60K
400-2514	20"	4.25"	2.88 API R F / 2.88 API R F	3/8" / .250	40K - 60K
400-2515	24"	4.25"	2.88 API R F / 2.88 API R F	3/8" / .250	40K - 60K
400-2524	12"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2525	14"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2526	16"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2527	18"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2528	20"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2529	24"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2530	28"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2531	30"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2532	34"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2533	36"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2534	38"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K
400-2535	40"	4.75"	3.5 API IF F / 3.5 API IF F	3/8" / .250	70K - 100K

Note: All Beavertail HD backreamers require 13 nozzles.





WARTHOG™ HD BACKREAMER



The Warthog's dynamic cutting structure is designed to reduce drag and use lower torque pressures downhole for superior backreaming efficiency. Its carbide-reinforced Shark teeth carve through everything from hard, compacted soils to sandstone and shale. Along with its box design, allowing for flexibility in setting up ideal configurations, the Warthog features a through-flow shaft to accommodate stacking reamers for increased production.

Part Number	Cut	Shaft	Description	NPT/Orifice/Nozzle Qty.	Model(s)
400-2537	8"	2.75"	2.0 API R F / 20K Tab	1/4" / .188 - 5	9K - 20K
400-2538	10"	2.75"	2.0 API R F / 20K Tab	1/4" / .188 - 8	9K - 20K
400-2539	12"	2.75"	2.0 API R F / 20K Tab	1/4" / .188 - 14	9K - 20K
400-2540	14"	2.75"	2.0 API R F / 20K Tab	1/4" / .188 - 14	9K - 20K
400-2541	16"	2.75"	2.0 API R F / 20K Tab	1/4" / .188 - 17	9K - 20K
400-2542	18"	2.75"	2.0 API R F / 20K Tab	1/4" / .188 - 20	9K - 20K
400-2349	8"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188 - 6	16K - 36K



SOIL CONDITION CHART

Key ● =Best ○ =Better ○ =Good

WARTHOG™ HD BACKREAMER

Part Number	Cut	Shaft	Description	NPT/Orifice/Nozzle Qty.	Model(s)
400-2350	10"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188 - 9	16K - 36K
400-2351	12"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188 - 15	16K - 36K
400-2352	14"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188 - 15	16K - 36K
400-2353	16"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188 - 18	16K - 36K
400-2354	18"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188 - 21	16K - 36K
400-2355	20"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188 - 21	16K - 36K
400-2356	24"	3.25"	2.38 API R F / 2.38 API R F	1/4" / .188 - 21	16K - 36K
400-2423	8"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 5	40K - 60K
400-2424	10"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 8	40K - 60K
400-2425	12"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 8	40K - 60K
400-2427	14"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 14	40K - 60K
400-2426	16"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 17	40K-60K
400-2428	18"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 20	40K-60K
400-2429	20"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 20	40K-60K
400-2430	24"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 20	40K-60K
400-2431	28"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 20	40K-60K
400-2432	30"	4.25"	2.88 API R F / 2.88 API R F	1/4" / .188 - 20	40K-60K
400-2447	12"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 8	70K-100K
400-2448	14"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 8	70K-100K
400-2449	16"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 17	70K-100K
400-2450	18"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 17	70K-100K
400-2451	20"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 20	70K-100K
400-2451	24"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 20	70K-100K
400-2453	28"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 20	70K-100K
400-2454	30"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 20	70K-100K
400-2455	34"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 26	70K-100K
400-2456	36"	4.75"	3.5 API IF F / 3.5 API IF F	1/4" / .188 - 26	70K-100K

ROCKMASTER™ BACKREAMER

Designed for heavy or solid rock bores, the Rockmaster is available in four reamer body sizes. Features include replaceable Mill Tooth or TCI (Tungsten Carbide Insert) cutters that are field-replaceable and gauge-protected for extended life. Hole diameters range from 6" (152 mm) to 22" (559 mm), depending on the reamer body and cutters used.

SOFT
ROCK

HARD
ROCK

Part Number	Cut	Description	Shaft	Ends	Model(s)	All Terrain Model(s)
190-1403	6"	TCI	2.75"	2.59 F / 30K Tab	27K - 30K Drills	
190-1404	6"	MT	2.75"	2.59 F / 30K Tab	27K - 30K Drills	
190-1391	8"	TCI	4"	2.59 F / 40K Soc	27K - 40K Drills	
190-1392	8"	MT	4"	2.59 F / 40K Soc	27K - 40K Drills	
190-1393	10"	TCI	4"	2.59 F / 40K Soc	27K - 40K Drills	
190-1394	10"	MT	4"	2.59 F / 40K Soc	27K - 40K Drills	
190-1395	12"	TCI	4"	2.59 F / 40K Soc	27K - 40K Drills	
190-1396	12"	MT	4"	3.5 API M / 30K Tab	27K - 40K Drills	
190-1397	10"	TCI	5.75"	3.5 API M / 30K Tab	60K - 100K Drills	AT2720 - AT100
190-1398	10"	MT	5.75"	3.5 API M / 30K Tab	60K - 100K Drills	AT2720 - AT100
190-1399	12"	TCI	5.75"	3.5 API M / 30K Tab	60K - 100K Drills	AT2720 - AT100
190-1400	12"	MT	5.75"	3.5 API M / 30K Tab	60K - 100K Drills	AT2720 - AT100
190-1401	14"	TCI	5.75"	3.5 API M / 30K Tab	60K - 100K Drills	AT2720 - AT100
190-1402	14"	MT	5.75"	3.27 FM / 70K Tab	60K - 100K Drills	AT2720 - AT100
190-1405	16"	TCI 500 Series	8"	3.27 FM / 70K Tab	60K - 100K Drills	
190-1406	16"	TCI 700 Series	8"	3.27 FM / 70K Tab	60K - 100K Drills	
190-1407	18"	TCI 500 Series	8"	3.27 FM / 70K Tab	60K - 100K Drills	
190-1408	18"	TCI 700 Series	8"	3.27 FM / 70K Tab	60K - 100K Drills	
190-1409	20"	TCI 500 Series	8"	3.27 FM / 70K Tab	60K - 100K Drills	
190-1410	20"	TCI 700 Series	8"	3.27 FM / 70K Tab	60K - 100K Drills	
190-1411	22"	TCI 500 Series	8"	3.27 FM / 70K Tab	60K - 100K Drills	
190-1412	22"	TCI 700 Series	8"	3.27 FM / 70K Tab	60K - 100K Drills	





CENTERING CONE

Part Number	Size	All Terrain Model(s)
401-108	6"	AT30 - AT4020
401-110	8"	AT30 - AT4020
401-112	10"	AT30 - AT4020
401-115	12"	AT30 - AT4020
401-118	14"	AT30 - AT4020
401-121	16"	AT30 - AT4020
401-124	18"	AT30 - AT4020



DURABLE AS THE DRILLS THAT PULL THEM.



A weak link can cripple your entire jobsite. That's why you can't skimp on important components like pullers, swivels and tabs. Ditch Witch® one-piece pullers provide a reliable connection you can count on bore after bore. Our swivels are built to last up to four times longer than aftermarket counterparts. And our pulling tabs are made from hardened steel and tested to perform up to the demanding standards of Ditch Witch.



CLEVIS

Part Number	Size	Bolt Size	Width
110-289	5/16"	3/8"	.53"
110-509	1/2"	5/8"	.815"
110-969	5/8"	13/16"	1.065"
110-040	3/4"	7/8"	1.25"
110-987	7/8"	1"	1.5"
110-847	1"	1-1/8"	1.69"
111-018	1-1/4"	1-3/8"	2.03"
111-019	1-1/2"	1-5/8"	2.375"
369-709	Bit Clevis	1/2"	N/A



PULLING GRIP WITH SWIVEL



Part Number	Size
185-901	1/4 - 1/2"
185-902	1/2 - 3/4"
185-903	3/4 - 1-1/4"
185-904	1-1/4 - 2"
185-906	2 - 2-3/4"
185-907	2-3/4 - 3-1/2"
185-913	3-1/2 - 4-1/4"
185-914	4-1/4 - 4-3/4"

PULLING GRIP WITHOUT SWIVEL

Part Number	Size
185-917	3/4 - 1-1/4"
185-918	1-1/4 - 2"
185-919	2 - 2-3/4"
185-920	2-3/4 - 3-1/2"
185-921	3-1/2 - 4-1/4"



HEAVY-DUTY PULLING GRIP



Part Number	Size
185-922	3/4 - 1-1/4"
185-923	1-1/4 - 2"
185-924	2 - 2-3/4"
185-925	2-3/4 - 3-1/2"
185-926	3-1/2 - 4-1/4"

PULL CLEVIS

Part Number	Size
368-234	1.94" - 4 F / 12K
400-781	2.77" - 4 DS AT F / 30K
400-805	2.77" - 4 SS AT F / 30K



SLEEVED PULLERS



Part Number	Size	Min - Max ID	SDR Range
902-2100	1"	1.050 - 1.200" ID	11 - 17
902-2200	1.25"	1.200 - 1.500" ID	9 - 17
902-2300	1.5"	1.530 - 1.620" ID	11 - 13.5
902-2400	2"	1.900 - 2.050" ID	11 - 13.5
902-2500	2.5"	2.310 - 2.700" ID	11 - 17
902-2600	3"	2.825 - 3.070" ID	11 - 17
902-2700	4"	3.620 - 4.090" ID	11 - 21
902-2800	5"	4.470 - 5.160" ID	11 - 26
902-2900	6"	5.320 - 6.040" ID	11 - 21



NON-SLEEVED PULLERS

The economical choice for trenchless installation professionals, Ditch Witch® Non-Sleeved Pullers offer the secure connection you need for pullback in tough downhole conditions. Non-sleeved pullers are made of high-quality alloys and feature a durable pulling eye for reliable performance every time. Like our sleeved puller, non-sleeved pullers can be quickly and easily installed into HDPE, PVC and other types of pipe.

Part Number	Size	Min - Max ID	SDR Range
902-0010	1"	1.050 - 1.200" ID	11 - 17
902-0101	1.25"	1.200 - 1.500" ID	9 - 17
902-0151	1.5"	1.530 - 1.620" ID	11 - 13.5
902-0201	2"	1.900 - 2.050" ID	11 - 13.5
902-0251	2.5"	2.310 - 2.700" ID	11 - 17
902-0301	3"	2.825 - 3.070" ID	11 - 17
902-0401	4"	3.620 - 4.090" ID	11 - 21
902-0501	5"	4.470 - 5.160" ID	11 - 26
902-0601	6"	5.320 - 6.040" ID	11 - 21
902-0801	8"	7.050 - 7.750" ID	11 - 21
902-1001	10"	8.670 - 9.875" ID	11 - 26
902-1201	12"	10.430 - 11.960" ID	11 - 23.5



CARROT PULLER

Made of high-quality alloys, carrot pullers are designed for quick and reliable connections. They feature extra thread reliefs that create a clean, precise thread on the pipe to ensure a superior connection.



Part Number	Size	Min - Max ID	SDR Range
901-0102	.5 - 1"	0.38 - 1.08" ID	9 - 11
901-0105	1"	0.90 - 1.21" ID	7.3 - 17
901-0122	1 - 1.25"	1 - 1.39" ID	9 - 13.5
901-0125	1.25"	1.27 - 1.51" ID	9 - 17
901-0152	1.25 - 1.5"	1.1 - 1.66" ID	7 - 17
901-0150	1.5"	1.52 - 1.67" ID	11 - 17
901-0202	2.0"	1.82 - 2.10" ID	9 - 17

PULLERS, SWIVELS & TABS



DOUBLE CLEVIS



CLEVIS TO TAB

Part Number	Connection	Model(s)
185-935	5K Clevis / 5K Clevis	5K - 9K
401-283	20K Clevis / 20K Clevis	9K - 20K
300-1164	30K Clevis / 30K Clevis	9K - 17K
401-294	40K Clevis / 40K Clevis	100K / 27K AT-40K AT

Part Number	Connection	Model(s)
368-513	12K Clevis / 12K Tab	5K - 9K
368-634	20K Clevis / 20K Tab	9K - 20K
369-712	30K Clevis / 20K Tab	9K - 20K
300-1157	30K Clevis / 30K Tab	17K - 100K / 27K AT - 100K AT
400-748	40K Clevis / 40K Tab	40K AT - 100K AT
369-971	70K Clevis / 40K Tab	40K AT - 100K AT
369-972	70K Clevis / 70K Tab	100K / 40K AT - 100K AT



SOCKETS

Part Number	Connection	Model(s)
300-1162	40K Socket F / 30K Tab	27K AT - 30K AT
300-1159	40K Socket F / 30K Tab	27K - 30K / 27K AT - 30K AT
400-221	40K Socket / 40K Tab	27K AT - 30K AT
400-759	40K Socket / 40K Tab	40K / 40K AT - 100K AT
400-2557	2.88 API R M / 40K Socket	40K - 60K



THREADED SWIVELS

Part Number	Connection	Model(s)
400-111	1.94-4M / 12K Tab	9K
400-112	1.94-4M / 20K Tab	9K - 20K
369-195	1.94-4F / 12K Tab	5K
400-236	1.94-4F / 20K Tab	9K - 20K
300-1160	1.94-4F / 30K Tab	17K - 20K
400-2558	2.38 API R M / 20K Clevis	16K - 36K
400-2559	2.38 API R M / 20K Tab	16K - 36K
400-2560	2.38 API R M / 30K Clevis	16K - 36K
400-2561	2.38 API R M / 30K Tab	16K - 36K
400-2562	2.88 API R M / 30K Tab	40K - 70K
400-2563	2.88 API R M / 30K Tab	40K - 70K
400-2564	2.88 API R M / 40K Tab	40K - 70K
400-2565	2.88 API R M / 40K Tab	40K - 70K
400-2566	3.5 API IF M / 40K Clevis	70K - 100K
400-2567	3.5 API IF M / 40K Tab	70K - 100K
400-2568	3.5 API IF M / 100K Clevis	70K - 100K
400-2569	3.5 API IF M / 100K Tab	70K - 100K



PULL TABS

Part Number	Description	Model(s)
369-308	1.21 M / 5K Tab	JT520
369-309	1.31 F / 5K Tab	JT520
400-1432	1.33 F / 5K Tab	JT5
368-352	1.41 M / 12K Tab	JT920 / JT920L / JT921 / JT921S / JT922
400-921	1.88 F / 10K Tab	JT1220M1
401-007	1.88 F / 20K Tab	JT1220M1
369-864	1.94 M / 10K Tab	JT920L / JT1220M1
369-865	1.94 M / 20K Tab	JT920 / JT920L / JT921 / JT921S / JT922 / JT1220M1 JT1720M1 / JT2020M1
400-2554	2.38 API R M / 20K Tab	16K-36K
400-2419	2.38 API R M / 30K Tab	16K-36K
400-760	2.77 M / 30K Tab	AT2720 / AT30
400-803	2.77 M / 30K Tab	AT2720 / AT30 Cobble
400-2555	2.88 API R M / 30K Tab	40K-70K
400-2518	2.88 API R M / 40K Tab	40K-70K
401-246	3.25 M / 30K Tab	AT4020
400-818	3.25 M / 40K Tab	AT4020
369-123	3.27 M / 70K Tab	JT8020M1 / JT100M1
369-122	3.27 F / 70K Tab	JT8020M1 / JT100M1
400-2556	3.5 API IF M / 40K Tab	70K-100K
400-2519	3.5 API IF M / 100K Tab	70K-100K
400-583	40K Socket / 30K Tab	3.5" Shaft Reamers
400-704	40K Socket / 40K Tab	JT4020M1 / AT4020
369-854	70K Clevis / 40K Tab	JT4020M1 / JT8020M1 / JT100M1





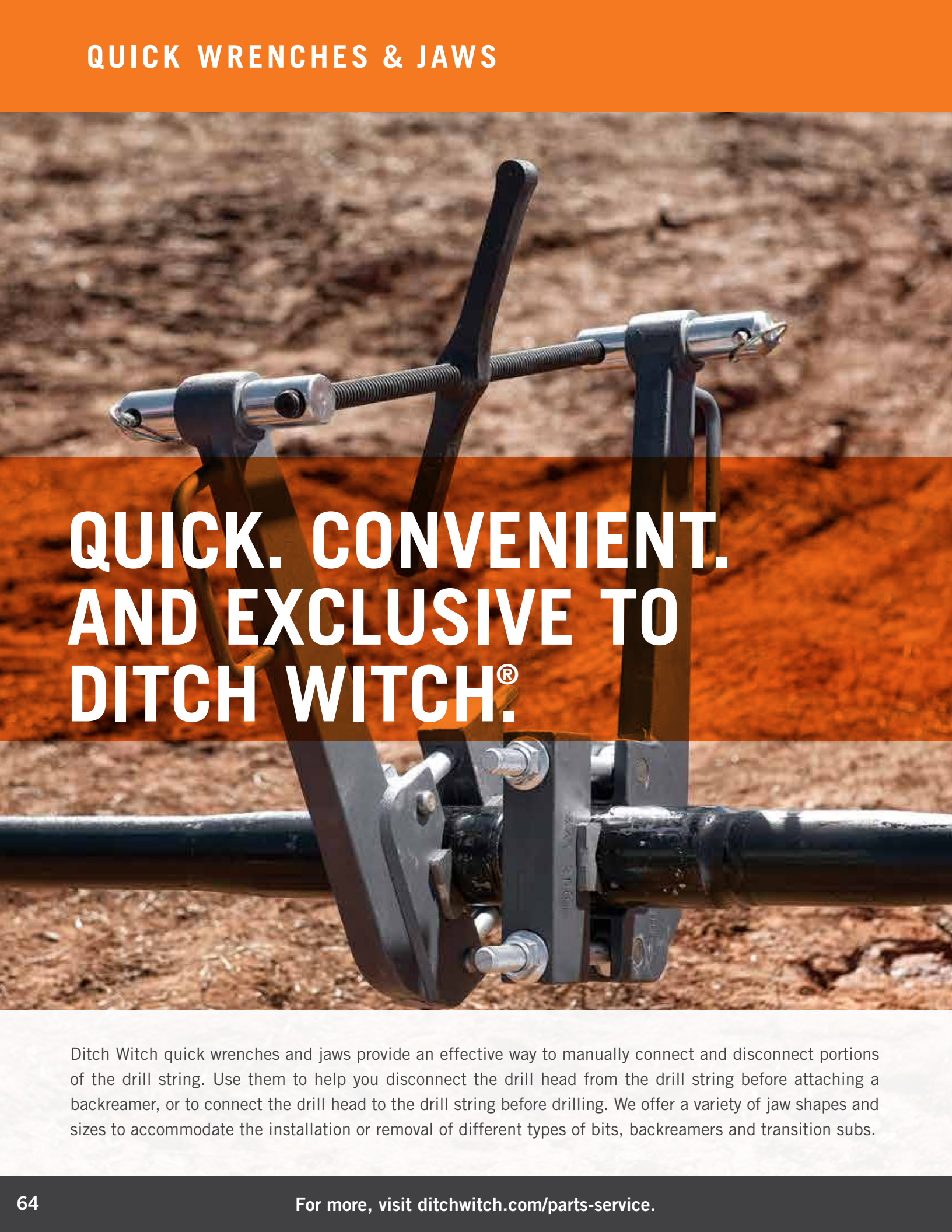
RUGGED CONSTRUCTION. PRECISION PERFORMANCE. MAXIMUM EFFICIENCY.

Whether manufactured from heat-treated steel or fabricated with carbide inserts, our nozzles can take what the jobsite dishes out, while still regulating and directing fluid flow with precision. Available with varying flows and pressures, we have a nozzle that will help maximize the efficiency of your directional drill in virtually any application.

NOZZLES

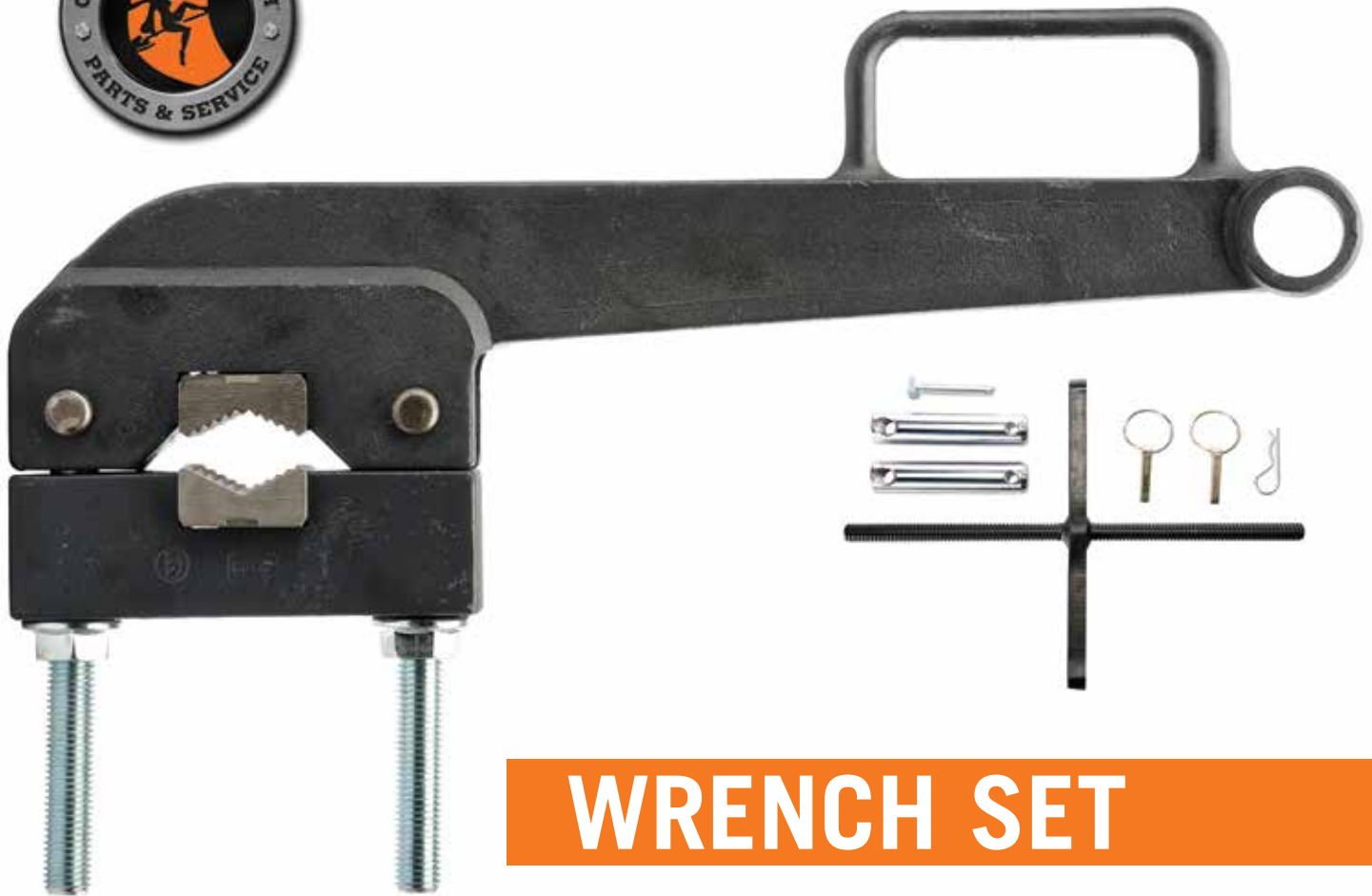


Part Number	Thread Size	Orifice Size	Type
149-200	1/4 NPT	.07"	Single Jet
149-201	1/4 NPT	.1"	Single Jet
149-202	1/4 NPT	.15"	Single Jet
149-203	1/4 NPT	.2"	Single Jet
149-204	1/4 NPT	.25"	Single Jet
906-2673 (Not carbide material)	1/4 NPT	.25"	Single Jet
906-1526	3/8 NPT	0.312"	Single Jet
159-297	7/16 - 20	.074"	Single Jet
159-293	7/16 - 20	.104"	Single Jet
159-423	7/16 - 20	.188"	Single Jet
159-295	7/16 - 20	.074"	Angled Jet
159-422	7/16 - 20	.156"	Angled Jet
159-291	7/16 - 20	.209"	Angled Jet
159-296	7/16 - 20	.074"	Dual Jet
159-292	7/16 - 20	.104"	Dual Jet
159-294	7/16 - 20	N/A	Plug
159-407	7/8 - 14	.104"	Single Jet
159-405	7/8 - 14	.157"	Single Jet
159-397	7/8 - 14	.209"	Single Jet
159-406	7/8 - 14	.104"	Angled Jet
159-404	7/8 - 14	.157"	Angled Jet
159-396	7/8 - 14	.209"	Angled Jet
159-398	7/8 - 14	N/A	Plug



QUICK. CONVENIENT. AND EXCLUSIVE TO DITCH WITCH.®

Ditch Witch quick wrenches and jaws provide an effective way to manually connect and disconnect portions of the drill string. Use them to help you disconnect the drill head from the drill string before attaching a backreamer, or to connect the drill head to the drill string before drilling. We offer a variety of jaw shapes and sizes to accommodate the installation or removal of different types of bits, backreamers and transition subs.



WRENCH SET

Part Number	Description	Size
401-229	Wrench Screw Assembly	0 - 4,000 ft-lb
369-324	Wrench Screw Assembly	3,000 - 6,500 ft-lb
368-681	Wrench Handle Assembly	0 - 4,000 ft-lb
368-753	Wrench Handle Assembly	3,000 - 6,500 ft-lb
368-533	Vice Wrench Assembly	0 - 4,000 ft-lb
369-325	Vice Wrench Assembly	3,000 - 6,500 ft-lb



HYDRA-TONG

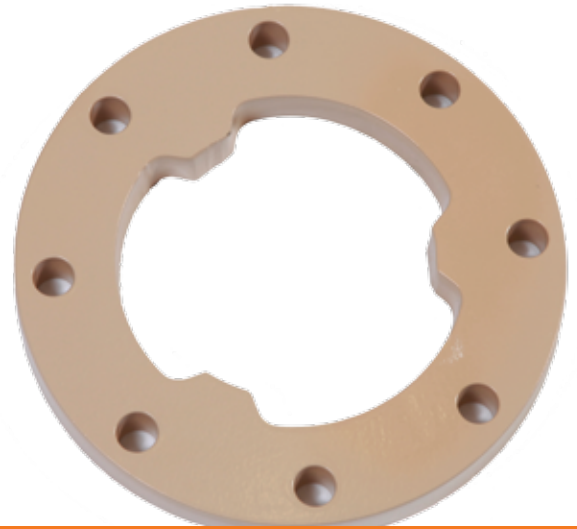
Part Number	Description	Size
400-2638	Hydra-Tong Assembly	Fits Outside Diameter 4.25" Up To 5.0"
400-161	Hydra-Tong Jaw Handle	
400-2637	Hydra-Tong Power Supply & Hose Kit	





FLAT JAW

Part Number	Description	Size
368-693	Quick Wrench Jaw	1.24"
369-281	Quick Wrench Jaw	1.42"
369-282	Quick Wrench Jaw	1.56"
368-692	Quick Wrench Jaw	1.63"
368-690	Quick Wrench Jaw	2"
368-689	Quick Wrench Jaw	2.1"
368-688	Quick Wrench Jaw	2.25"
359-103	Quick Wrench Jaw	2.25"
368-687	Quick Wrench Jaw	2.35"
368-686	Quick Wrench Jaw	2.4"
369-286	Quick Wrench Jaw	2.5"
400-004	Jaw (1" Thick)	3.25"
368-682	Quick Wrench Jaw	3.75"
369-101	Jaw (1.5" Thick)	3.75"
400-749	Jaw	5.5"



BIT BLOCK JAW

Part Number	Description	Size
369-795	Tri-Cone	4.75"
400-928	Tri-Cone	5.5"
401-133	Tri-Cone	6.25"
400-705	Tri-Cone	6.5"
401-148	Soft Formation	6.25"
400-1119	Soft Formation	6.65"



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

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