



TURBO

Supercharge Your Reaming In Sand.

BEST FOR:



GOOD FOR:

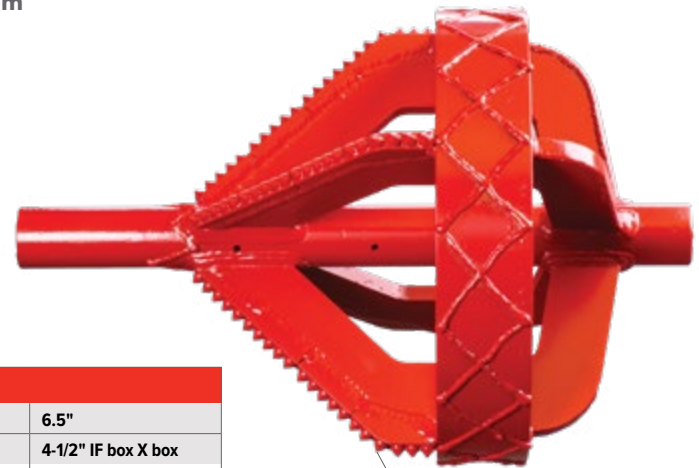


TURBO Shaft Diameter & Thread						
Cut Diameter	Pack Diameter	2.75"	3.25"	4.25"	4.75"	6.5"
		2" IF box X box	2-3/8" Reg box X box	2-7/8" IF box X box	3-1/2" IF box X box	4-1/2" IF box X box
6"	4-1/2"	83-06-21F-21F	83-06-23F-23F			
8"	6-5/8"	83-08-21F-21F	83-08-23F-23F	83-08-27F-27F		
10"	8-5/8"	83-10-21F-21F	83-10-23F-23F	83-10-27F-27F		
12"	10-3/4"	83-12-21F-21F	83-12-23F-23F	83-12-27F-27F		
14"	12-3/4"	83-14-21F-21F	83-14-23F-23F	83-14-27F-27F	83-14-29F-29F	
16"	14"	83-16-21F-21F	83-16-23F-23F	83-16-27F-27F	83-16-29F-29F	83-16-47F-47F
18"	16"	83-18-21F-21F	83-18-23F-23F	83-18-27F-27F	83-18-29F-29F	83-18-47F-47F
20"	18"		83-20-23F-23F	83-20-27F-27F	83-20-29F-29F	83-20-47F-47F
24"	20"		83-24-23F-23F	83-24-27F-27F	83-24-29F-29F	83-24-47F-47F
28"	24"			83-28-27F-27F	83-28-29F-29F	83-28-47F-47F
32"	28"			83-34-27F-27F	83-34-29F-29F	83-34-47F-47F
36"	32"			83-36-27F-27F	83-36-29F-29F	83-36-47F-47F
40"	36"			83-40-27F-27F	83-40-29F-29F	83-40-47F-47F
48"	44"				83-48-29F-29F	83-48-47F-47F

Long "Turbo" blades scoop up sand to keep it from piling up on the hole bottom and to mix it with drill fluid

Back-up blades make for easier push backs

Curved packer blades provide maximum mixing and pumping



HEDGEHOG

Push Or Pull...This Reamer Will Get The Job Done.

HEDGEHOG Shaft Diameter & Thread					
Cut Diameter	2.75"	3.25"	4.25"	4.75"	6.5"
	2" IF box X box	2-3/8" Reg box X box	2-7/8" IF box X box	3-1/2" IF box X box	4-1/2" IF box X box
8"	68-08-21F-21F	68-08-23F-23F			
10"	68-10-21F-21F	68-10-23F-23F	68-10-27F-27F		
12"	68-12-21F-21F	68-12-23F-23F	68-12-27F-27F	68-12-29F-29F	
14"	68-14-21F-21F	68-14-23F-23F	68-14-27F-27F	68-14-29F-29F	68-14-47F-47F
16"	68-16-21F-21F	68-16-23F-23F	68-16-27F-27F	68-16-29F-29F	68-16-47F-47F
18"	68-18-21F-21F	68-18-23F-23F	68-18-27F-27F	68-18-29F-29F	68-18-47F-47F
20"		68-20-23F-23F	68-20-27F-27F	68-20-29F-29F	68-20-47F-47F
24"		68-24-23F-23F	68-24-27F-27F	68-24-29F-29F	68-24-47F-47F
28"			68-28-27F-27F	68-28-29F-29F	68-28-47F-47F
30"			68-30-27F-27F	68-30-29F-29F	68-30-47F-47F
36"				68-36-29F-29F	68-36-47F-47F
42"				68-42-29F-29F	68-42-47F-47F

10" and larger are designed with a ring for strength and stability



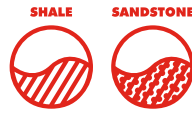
Tapered, bi-directional blades with carbide cutting teeth create an aggressive cutting action with a "push" or "pull" option



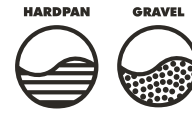
SABERTOOTH

Crunch Through Harder Ground
And Lighten Your Load.

BEST FOR:



GOOD FOR:



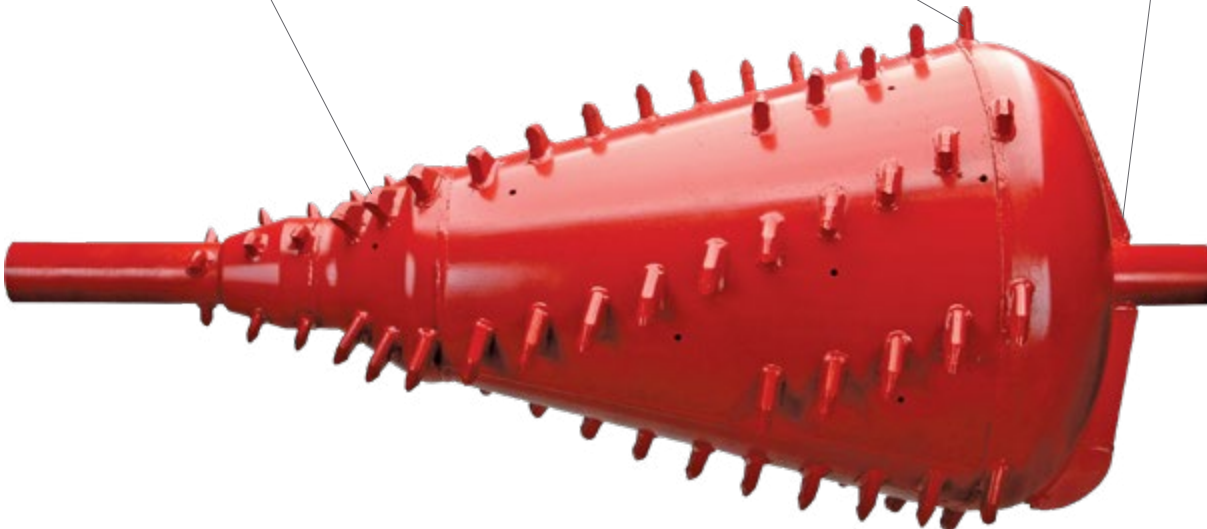
SABERTOOTH Shaft Diameter & Thread

Cut Diameter	Pack Diameter	2.75" 2" IF box X box	3.25" 2-3/8" Reg box X box	4.25" 2-7/8" IF box X box	4.75" 3-1/2" IF box X box	6.5" 4-1/2" IF box X box
6"	4-1/2"	96-06-21F-21F	96-06-23F-23F			
8"	6-5/8"	96-08-21F-21F	96-08-23F-23F	96-08-27F-27F		
10"	8-5/8"	96-10-21F-21F	96-10-23F-23F	96-10-27F-27F		
12"	10-3/4"	96-12-21F-21F	96-12-23F-23F	96-12-27F-27F		
14"	12-3/4"	96-14-21F-21F	96-14-23F-23F	96-14-27F-27F	96-14-29F-29F	
16"	14"	96-16-21F-21F	96-16-23F-23F	96-16-27F-27F	96-16-29F-29F	96-16-47F-47F
18"	16"	96-18-21F-21F	96-18-23F-23F	96-18-27F-27F	96-18-29F-29F	96-18-47F-47F
20"	18"		96-20-23F-23F	96-20-27F-27F	96-20-29F-29F	96-20-47F-47F
24"	20"		96-24-23F-23F	96-24-27F-27F	96-24-29F-29F	96-24-47F-47F
28"	24"			96-28-27F-27F	96-28-29F-29F	96-28-47F-47F
32"	28"			96-34-27F-27F	96-34-29F-29F	96-34-47F-47F
36"	32"			96-36-27F-27F	96-36-29F-29F	96-36-47F-47F
40"	36"			96-40-27F-27F	96-40-29F-29F	96-40-47F-47F
48"	44"				96-48-29F-29F	96-48-47F-47F

Angled placement of cutters in a spiral pattern results in excellent mixing and pumping action

Large shark teeth carbide cutters for aggressive yet smooth cutting

Back-up blades make for easier push backs



PULLBACK SWIVELS





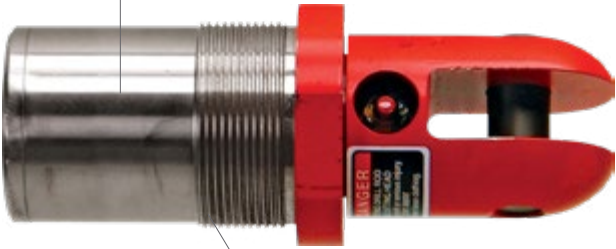
FLUTED REAMER SWIVELS

Designed Exclusively For Melfred Borzall Juggernaut Reamers.

Pocket Swivels for Fluted Juggernaut

Pullback Capacity	Juggernaut Size	
	4" - 6"	8"
4.5 ton	00503-604-44M	00503-604-45M
10 ton		00503-610-45M

Totally self-contained and greaseable for a long lasting swivel



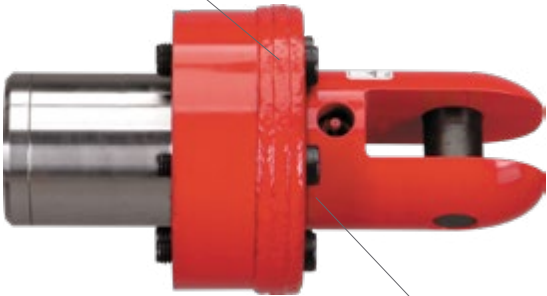
Push and pull loads are absorbed by premium quality angular contact bearings



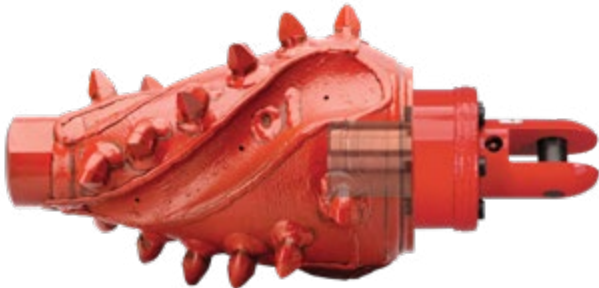
Flange Swivels for Fluted Juggernaut

Pullback Capacity	Juggernaut Size	
	10" - 12"	14" - 16"
10 ton	00503-610	00503-610
15 ton	00503-615	00503-615
20 ton		00503-620
30 ton		00503-630

Hardfacing around face of flange minimizes wear at the head of the bolts



Features a triple-stage sealing system to keep debris from destroying bearings



HOUSINGS

DIRECT
PULLBACK

BITS &
BLADES

DIRECT & QUICK-
DISCONNECTS

REAMERS

SWIVELS

PULLERS

ADAPTERS &
SUB-SAVERS

PARTS &
ACCESSORIES



DELUXE DUB PULLING SWIVELS

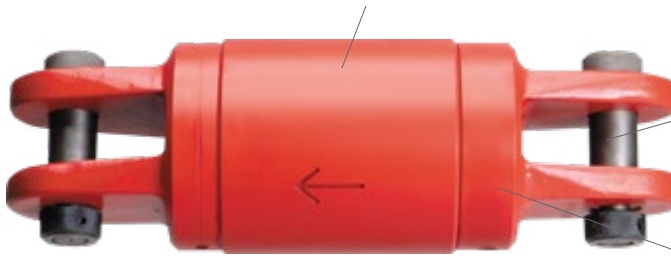
Quad-Stage Seal System And 5-To-1 Safety Factor Make The Deluxe Dub One Long-Lasting Swivel.

Deluxe DUB Swivels				
Pullback Capacity	Swivel Diameter	Clevis X Clevis	Clevis X 2-3/8" Reg Pin	Clevis X 2-7/8" IF Pin
		Part #	Part #	Part #
5,000 lb	2"	00508-202		
10,000 lb	3.125"	00508-205		
20,000 lb	3.75"	00508-210	00508-710-23M	
30,000 lb	4.75"	00508-215	00508-715-23M	00508-715-27M
40,000 lb	5.75"	00508-220		00508-720-27M
60,000 lb	6"	00508-230		00508-730-27M
80,000 lb	6.5"	00508-240		00508-740-27M
100,000 lb	7.5"	00508-250		
120,000 lb	7.5"	00508-260		
160,000 lb	9"	00508-280		

More details on swivel fitting online at www.melfredborzall.com/swivels



Metal- to-metal face seal to ensure reliability and long life



Clevis x Pin option available



Greasable tapered roller & 4-stage sealing system



VALU-DUB PULLING SWIVELS

Greasable Premium Angular Contact Bearings And Triple Sealing System Meet The Demands Of The Toughest HDD Jobs.

Valu DUB Swivels					
Pullback Capacity	Swivel Diameter	Clevis X Clevis	Clevis X 2" IF Pin	Clevis X 2-3/8" Reg Pin	Clevis X 2-7/8" IF Pin
		Part #	Part #	Part #	Part #
5,000 lb	1.25"	00503-202			
8,500 lb	2"	00503-204			
10,000 lb	2.25"	00503-205	00503-705-21M		
15,000 lb	2.5"	00503-208			
20,000 lb	2.5"	00503-210	00503-710-21M	00503-710-23M	
30,000 lb	3"	00503-215		00503-715-23M	
40,000 lb	4.75"	00503-220		00503-720-23M	
60,000 lb	5.75"	00503-230			00503-730-27M
90,000 lb	6"	00503-245			00503-745-27M

Push and pull loads absorbed by premium angular contact bearings



Clevis x Clevis



Clevis x Pin

Fitted with a grease nipple that makes for easy lubrication and a long-lasting swivel



QUICK-SWIVEL

Perform Direct Pullbacks Exclusively With Any Melfred Borzall Blade.

Quick-Swivel				
Pullback Capacity	Part #	Replacement Bolt	Replacement Nut	Replacement Washer
5 ton	00503-205-QS	HHCS-3/4-2.75-8	3/4-10-NUT	3/4 LOCKWASHER



Key-way & bolt feature exclusive to Borzall Blades, ensures the swivel stays with the centerline rotation of the drill head



Made from the same quality components as the 5-ton Valu-DUB swivel



MAXI-RIG SWIVELS

Maximum Strength for the Heaviest Loads and Toughest Conditions.

Maxi Rig Swivels					
Pullback Capacity	Swivel Diameter	Clevis X 4-1/2" IF box	Clevis X 6-5/8"Reg box	Clevis X 6-5/8"FH box	Clevis X 7-5/8"Reg box
		Part #	Part #	Part #	Part #
220,000 lb	10.75"	00508-1110			
330,000 lb	19.5"	00508-1165			
440,000 lb	19.5"		00508-1220		
550,000 lb	19.5"			00508-1275	
700,000 lb	16"			00508-1351	00508-1350
1,000,000 lb	19.5"			00508-1501	00508-1500
1,400,000 lb	23"				00508-1700

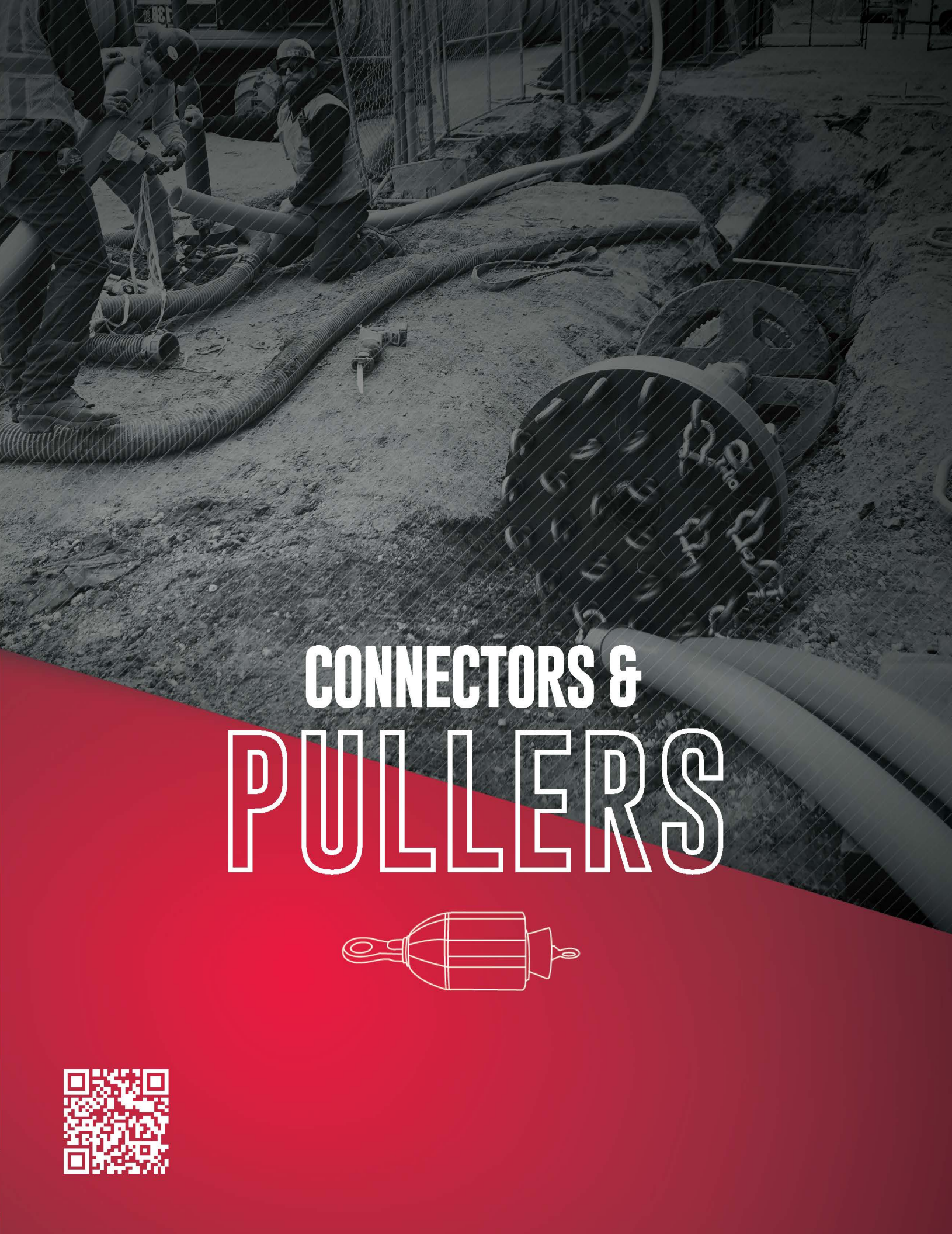
Fitted with a grease nipple and relief valve for easy lubrication, making it a long-lasting swivel



Designed with service in mind. Seals are field replaceable

Push and pull loads are absorbed by premium quality angular contact bearings

Triple-stage seal system keeps bearings protected on your heaviest loads

A black and white photograph of a construction site. In the foreground, a large, corrugated metal pipe lies on the ground. To the right, a large, circular, ribbed metal component, possibly a manhole cover or a large pipe fitting, is visible. In the background, two workers wearing hard hats and safety vests are working with another large pipe. The scene is set in a trench or excavation area with a chain-link fence in the distance.

CONNECTORS & PULLERS



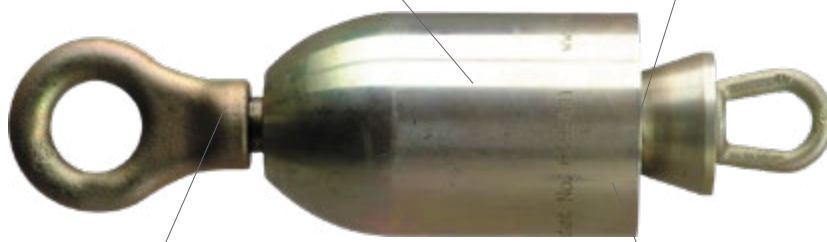


SUPER DELUXE DUCT PULLERS

Super Deluxe Duct Pullers		
Duct Size	I.D.	Part #
1¼"	1.18" to 1.68"	00660-125
1½"	1.39" to 1.92"	00660-150
2"	1.68" to 2.40"	00660-200
2½"	2.24" to 2.90"	00660-250
3"	2.55" to 3.52"	00660-300
4"	3.31" to 4.52"	00660-400
5"	4.29" to 5.61"	00660-500
6"	5.20" to 6.69"	00660-600
8"	6.71" to 8.80"	00660-800

A rugged puller that is quick and easy to install and remove

Sealing on the inside of the product pipe makes this puller watertight



High-tensile drop-forged eyebolt

Can be disassembled by hand for easy maintenance in the field



DELUXE DUCT PULLERS

Deluxe Duct Pullers		
Duct Size	I.D.	Part #
1¼"	1.25" to 1.50"	00650-125
1½"	1.44" to 1.69"	00650-150
2"	1.81" to 2.19"	00650-200
2½"	2.19" to 2.56"	00650-250
3"	2.69" to 3.06"	00650-300
4"	3.44" to 4.25"	00650-400
5"	4.31" to 5.13"	00650-500
6"	5.06" to 6.06"	00650-600

* Metric sizes available

Precision machined, hardened alloy pulling head will handle the abuses of HDD

Expanding jaws grip the inside of the duct as the front eye is rotated, spreading the load evenly around the inside diameter of the duct



Outer sleeve prevents stretching of duct

Oversized rear eye



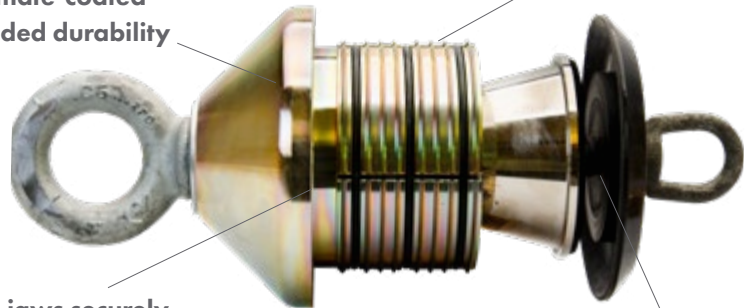
PREMIUM DUCT PULLER

Premium Duct Pullers		
Duct Size	I.D.	Part #
1¼"	1.28" to 1.61"	00616-125
1½"	1.44" to 1.81"	00616-150
2"	1.81" to 2.19"	00616-200
2½"	2.19" to 2.62"	00616-250
3"	2.69" to 3.12"	00616-300
4"	3.31" to 4.06"	00616-400
5"	4.25" to 5.06"	00616-500
6"	4.87" to 6.19"	00616-600

* Metric sizes available

Puller head made from zinc dichromate-coated steel for added durability

Fewer moving parts for easy repair and maintenance



Expanding jaws securely grip inside wall of duct

Comes standard with a polyurethane plugger to minimize fluid from entering the duct

STANDARD DUCT PULLERS

No special tools required

Pluggers available to keep mud out



Expanding jaws securely grip inside wall of duct

Large number of jaw teeth (compared to other brands) result in a stronger grip

Premium Duct Pullers		
Duct Size	I.D.	Part #
1¼"	1.28" to 1.50"	00620-125
1½"	1.47" to 1.69"	00620-150
2"	1.88" to 2.12"	00620-200
2½"	2.25" to 2.50"	00620-250
3"	2.75" to 3.06"	00620-300
4"	3.50" to 4.06"	00620-400
5"	4.50" to 5.00"	00620-500
6"	5.44" to 6.12"	00620-600
8"	6.44" to 7.87"	00620-800
10"	Please specify SDR	00620-1000
12"	Please specify SDR	00620-1200

* Metric sizes available



INNERDUCT PULLERS

Innerduct Pullers		
Duct Size	I.D.	Part #
¾"	0.72" to 0.93"	00604-075
1"	0.94" to 1.15"	00604-100
1¼"	1.26" to 1.44"	00604-125
1½"	1.48" to 1.66"	00604-150
2"	1.91" to 2.08"	00604-200

Phenomenal gripping power

Economical means of pulling small diameter duct and innerduct



No moving parts and maintenance free

Double cutting edges that actually cut a thread into the duct



PULLING GRIPS

Standard-Duty Wire Mesh Pulling Grips			
Duct Size	Outer Diameter Range	Breaking Strength	Part #
1/4"	.24" to .37"	4,250 lbs	00670-025
3/8"	.38" to .74"	5,000 lbs	00670-038
1/2" & 3/4"	.75" to 1.12"	6,600 lbs	00670-050
1"	1.13" to 1.49"	10,000 lbs	00670-100
1 1/4" & 1 1/2"	1.50" to 1.99"	13,800 lbs	00670-125
2"	2.00" to 2.49"	14,200 lbs	00670-200
2 1/2"	2.50" to 2.99"	17,500 lbs	00670-250

Heavy-Duty Wire Mesh Pulling Grips			
Duct Size	Outer Diameter Range	Breaking Strength	Part #
3/8"	.50" to .74"	5,800 lbs	00680-038
1/2" & 3/4"	.75" to 1.12"	6,700 lbs	00680-050
1"	1.13" to 1.49"	10,000 lbs	00680-100
1 1/4" & 1 1/2"	1.50" to 1.97"	16,400 lbs	00680-125
2"	2.00" to 2.50"	18,500 lbs	00680-200
2 1/2"	2.50" to 2.99"	24,500 lbs	00680-250
3"	3.00" to 3.74"	24,500 lbs	00680-300
4"	4.25" to 4.99"	31,000 lbs	00680-400



Made with a double weave of galvanized wire for maximum durability

Heavy-Duty

At least a 2X safety factor

Return weave design to avoid crimped ends



Standard-Duty

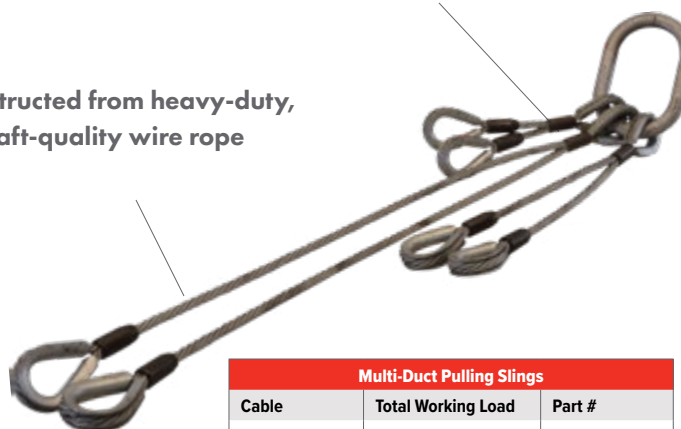


SHACKLES, LINKS & SLINGS

An inexpensive and effective way to hook up and pull 2 to 6 ducts at a time



Constructed from heavy-duty, aircraft-quality wire rope



These sturdy shackles & links connect all sizes of pulling grips and pullers.

Shackles	
Size	Part #
7/16"	SHACKLE-7/16
5/8"	SHACKLE-5/8
3/4"	SHACKLE-3/4
7/8"	SHACKLE-7/8
1"	SHACKLE-100

Links	
Size	Part #
1/2"	LINK-1/2
3/4"	LINK-3/4
5/8"	LINK-5/8
7/8"	LINK-7/8

Multi-Duct Pulling Slings		
Cable	Total Working Load	Part #
2-way, 1/4"	9,600 lbs	23250-020
3-way, 1/4"	9,600 lbs	23250-030
4-way, 1/4"	9,600 lbs	23250-040
2-way, 3/8"	9,600 lbs	23375-020
3-way, 3/8"	14,400 lbs	23375-030
4-way, 3/8"	19,200 lbs	23375-040
6-way, 3/8"	28,800 lbs	23375-060
2-way, 1/2"	13,800 lbs	23500-020
3-way, 1/2"	20,700 lbs	23500-030
4-way, 1/2"	27,600 lbs	23500-040
6-way, 1/2"	41,400 lbs	23500-060



BREAKAWAY CONNECTORS

Designed To Protect Polyethylene Ducting From Overload.

Pocket Breakaway Swivel

Break strengths from 250 lb to 2,500 lb (1 pin)



Breakaway Swivel

Break strengths from 250 lb to 12,500 lb (5 pin)



Standard-Duty Breakaway Connector

Break strengths from 750 lb to 12,500 lb



Heavy-Duty Breakaway Connector

Break strengths from 3,000 lb to 45,000 lb



Light-Duty Breakaway Swivels and Pins		
Description	Part #	
Pocket Breakaway Swivel	00570-202	
Breakaway Swivel	00570-208	
Breakaway Connector	00560-010	
Pin Kit (5 per kit)	Part #	Color Code
250 lb. pin kit	00565-025	Dark Brown
700 lb. pin kit	00565-070	Green
750 lb. pin kit	00565-075	Yellow
1,000 lb. pin kit	00565-100	Orange
1,200 lb. pin kit	00565-120	Purple
1,300 lb. pin kit	00565-130	Black
1,500 lb. pin kit	00565-150	Red
2,000 lb. pin kit	00565-200	Blue
2,500 lb. pin kit	00565-250	Green

Heavy-Duty Breakaway Connectors and Pins		
Description	Part #	
Breakaway Connector	00560-020	
Pin Kit (5 per kit)	Part #	Color Code
3,000 lb. pin kit	00565-300	Yellow
6,000 lb. pin kit	00565-600	Orange
7,000 lb. pin kit	00565-700	Red
8,000 lb. pin kit	00565-800	Blue
9,000 lb. pin kit	00565-900	Green

Color-Coded Breakaway Pins

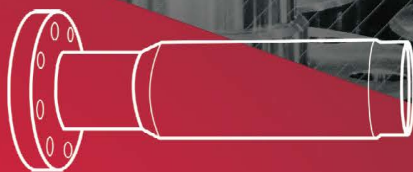


Need a custom puller designed for a specific job requirement?

See page 52



ADAPTERS & SUB-SAVERS



STOCK ADAPTERS

Adapters for Vermeer® Threads					
Drill Rig	Front Thread ►	2" IF Pin	2-3/8" Reg Pin	2-7/8" IF Pin	3-1/2" IF Pin
	Connection Type ▼	Part #	Part #	Part #	Part #
D6x6, D7x11, D7x11 S2, D9x13 S2/S3, D10x15	QuickFire® QF300	21M-L300MV3	23M-L300MV3		
	1-5/8" Low Profile QD	21M-L42M	23M-L42M		
	FS200 Drill Rod	21M-31F	23M-31F		
D16X20, D16X20 S2, D18X22	QuickFire® QF400	21M-L400MV4	23M-L400MV4		
	2-1/8" Low Profile QD	21M-L43M	23M-L43M		
	FS250 Drill Rod	21M-32F	23M-32F		
D20X22 S2/S3, D24X26	QuickFire® QF400	21M-L400MV4	23M-L400MV4		
	2-1/8" Low Profile QD	21M-L43M	23M-L43M		
	FS400 Drill Rod	21M-30F	23M-30F		
D23X30, D24X40, D24X40 S2/S3	QuickFire® QF400	21M-L400MV4	23M-L400MV4		
	2-1/8" Low Profile QD	21M-L43M	23M-L43M	27M-L43M	
	FS600 Drill Rod	21M-40F	23M-40F	27M-40F	
D33x44, D36x50, D36x50 S2 D40X55	QuickFire® QF460	21M-L460MV4	23M-L460MV4	27M-L460MV4	
	2-1/8" Low Profile QD	21M-L43M	23M-L43M	27M-L43M	
	FS650 Drill Rod		23M-46F	27M-46F	
D50x100, D60X90	FS700 Drill Rod		23M-41F	27M-41F	
	FS900 Drill Rod		23M-50F	27M-50F	
D80x100, D80x100 S2	FS800 Drill Rod			27M-80F	29M-80F
D80x120, D100x120	FS802 Drill Rod			27M-81F	29M-81F
D100x120, D100x140	FS1000 Drill Rod			27M-82F	29M-82F

Adapters for Ditch Witch® Threads					
Drill Rig	Front Thread ►	2" IF Pin	2-3/8" Reg Pin	2-7/8" IF Pin	3-1/2" IF Pin
	Connection Type ▼	Part #	Part #	Part #	Part #
JT520 JT5	1.21-6 EZ-Connect	21M-L52F			
	1.10 Drill Rod	21M-05M			
JT9, JT920, JT921, JT922	1.63-6 EZ-Connect	21M-L55F			
	1.30-5 (coarse) Drill Rod	21M-09M			
	1.41-6 (fine) Drill Rod	21M-01M			
JT1220 Mach1	1.88-6 EZ-Connect	21M-L58F			
	1.47-4 Drill Rod	21M-34M	23M-34M		
JT1720	2.00-6 EZ-Connect	21M-L54F	23M-L54F		
	1.81-6 Drill Rod	21M-86M	23M-86M		
JT20, JT2020, JT2720	2.00-6 EZ-Connect	21M-L54F	23M-L54F		
	1.94-4 Drill Rod	21M-20M	23M-20M		
JT2720 Mach1	2.25-6 EZ-Connect		23M-L56F	27M-L56F	
	2.11-4 Drill Rod	21M-36M	23M-36M	27M-36M	
JT40	2.63-6 EZ-Connect		23M-L57F	27M-L57F	
	2.10 Drill Rod		23M-48M	27M-48M	
JT25, JT3020, JT30	2.25-6 EZ-Connect 3	21M-L59F	23M-L59F	27M-L59F	
	2.11-4 Drill Rod	21M-36M	23M-36	27M-36M	
JT4020	2.63-6 EZ-Connect		23M-L57F	27M-L57F	
	2.40-4 Drill Rod		23M-42M	27M-42M	
JT4020 Mach1	2.63-6 EZ-Connect		23M-L57F	27M-L57F	
	2.59-4 Drill Rod		23M-43M	27M-43M	
JT60	2.46-4 Drill Rod			27M-60M	
	FS900 Drill Rod			27M-50M	
JT7020, JT8020, JT100	3.27-4 Drill Rod			27M-72M	29M-72M

DRIVE CHUCKS & SUB-SAVERS COMPATIBLE WITH VERMEER & DITCH WITCH

Changing out worn sub-savers and drive chucks is an inexpensive and easy way to get the maximum life out of your drill rod. If they are allowed to wear too much, a drill rod's threads will start to deform to the shape of the worn sub-saver threads. When attaching the drill rod to the sub-saver or chuck, be sure to torque it up to the correct pressure.

**Fred Tip: Don't forget
the Auntie C's
thread lube!
See pg. 49**



Drive Chucks For Vermeer® Drill Rigs			
Drill Rig Model	Drill Rod Thread	Drive Flange Part #	Sub-saver Part #
D7x11a, D10x14, D10x15	FS200	VF-31M-FO-V	VS-31M-31F-4.0
D7x11 S2, D91x13 S2	FS200		VS-31M-32F-8.0
D16x20, D18x22, D20x22	FS250	VF-32M-FO-V	VS-32M-32F-4.0
D16x20S2	FS250		VS-32M-40F-10.1
D18x22, D20x22, D18x20	FS400		VS-30M-30F-6.5
D20x22 S2	FS400		VS-30M-40F-10.1
D23X30	FS600		VS-40M-40F-10.1
D24X40 S2	FS600	VF-40M-FO	VS-40M-40F-9.5
D24X40 S3	FS600		VS-40M-40F-10.1
D24X40A S/N 1-382	FS600	VF-40M-FO	VS-40M-40F-5.5
D24X40A S/N 383+	FS600	VF-40M-FO	VS-40M-40F-7.0
D40X40	FS600	VF-40M-FO	VS-40M-40F-8.5
D36X50 S2	FS650	VF-46M-FO	VS-46M-46F-7.9
D40X55 S3	FS650		VS-46M-46F
D36X50, D36X50 S2	FS700		VS-41M-41F-8.5
D40X55 S3	FS700	VF-41M-FO	VS-41M-41F-9.5
D50X100A, D80X100 S2	FS800	VF-80F-FO	VS-80M-80F-7.0
D80X100A	FS800	VF-80F-FO	VS-80M-80F-10.5
D50X100A	FS900		VS-50M-50F-5.8
D60X90 S2, D60X90 S3	FS900		VS-50M-50F-8.7
D100X120, D100X120 S2, D100X140	FS1000		VS-82M-82F-7.0

CNC-machined for a perfect
match with your drill rod



Completely heat-treated alloy
for maximum durability



Most drive chucks are
available with a replaceable,
inexpensive sub-saver

Drive Chucks For Ditch Witch® Rigs			
Drill Rig Model	Drill Rod Thread	Drive Flange Part #	Sub-saver Part #
JT5	1.10-5	DF-04F	
JT920, JT921 - fine thread	1.41-6	DF-01AF	
JT922 - fine thread	1.41-6	DF-922-01AF	
JT922, JT9, JT10	1.30-5	DF-09F	
JT9, JT922, JT10	1.66 FS200	DF-09-31F	
JT1220	1.47-4	DF-34F	
JT20, JT2020	1.94-4	DF-20F	
	2-3/8" FS600	DF-20-40F	
JT30, JT3020	2.11-4	DF-25F	DS-25M-36F

HOUSINGS

DIRECT
PULLBACK

BITS &
BLADES

DIRECT & QUICK-
DISCONNECTS

REAMERS

SWIVELS

PULLERS

ADAPTERS &
SUB-SAVERS

PARTS &
ACCESSORIES



REPLACEMENT PARTS & ACCESSORIES





AUNTIE C'S THREAD LUBE

Provides maximum protection against galling and seizing

Auntie C's Thread Lube			
Description	Part #	Arctic Grade Part #	Bulk Details
20 oz. tube	AS-402-JT		10 per carton
10 lb. (1 gal.) pail	AS-410	AS-410-AG	100 per pallet
20 lb. (2 gal.) pail	AS-420	AS-420-AG	60 per pallet
45 lb. (5 gal.) pail	AS-445	AS-445-AG	24 per pallet

Lead-free, environmentally safe compound with no zinc or temperature-sensitive materials

New 5-gallon bucket in Arctic Grade for cold conditions and for rigs with auto-luber to get all the lube out

Premium copper thread lube designed specifically for the demands of HDD

For rigs with auto-lubers, we recommend using the Arctic Grade Auntie C's Thread Lube



DRILL ROD WIPERS

Drill Rod Wipers				
Drill Pipe Diameter Range	Solid 9" Wiper Part #	Dual Split Wiper Part #	Wiper Diameter	Hole Size
1.125"	WIPE-0.88-09-NS		9" Dia.	0.875" Hole
1.6" - 1.75"	WIPE-1.13-09-NS		9" Dia.	1.13" Hole
1.75" - 2.25"	WIPE-1.50-09-NS	WIPE-1.50-09-DS	9" Dia.	1.5" Hole
2.25" - 2.6"	WIPE-2.00-09-NS	WIPE-2.00-09-DS	9" Dia.	2" Hole
2.6" - 3.1"	WIPE-2.50-09-NS	WIPE-2.50-09-DS	9" Dia.	2.5" Hole
3.1" - 3.5"	WIPE-3.00-09-NS	WIPE-3.00-09-DS	9" Dia.	3" Hole
14" Wipe with 3.00" Hole		WIPE-3.00-14-DS	14" Dia.	3" Hole
14" Wipe with 4.00" Hole		WIPE-4.00-14-DS	14" Dia.	4" Hole
14" Wipe with 4.50" Hole		WIPE-4.50-14-DS	14" Dia.	4.5" Hole
14" Wipe with 6.25" Hole		WIPE-6.25-14-DS	14" Dia.	6.25" Hole

Check out our wiper compatibility chart online for more detailed product specifications!
www.melfredborzall.com/drill-rod-wipers



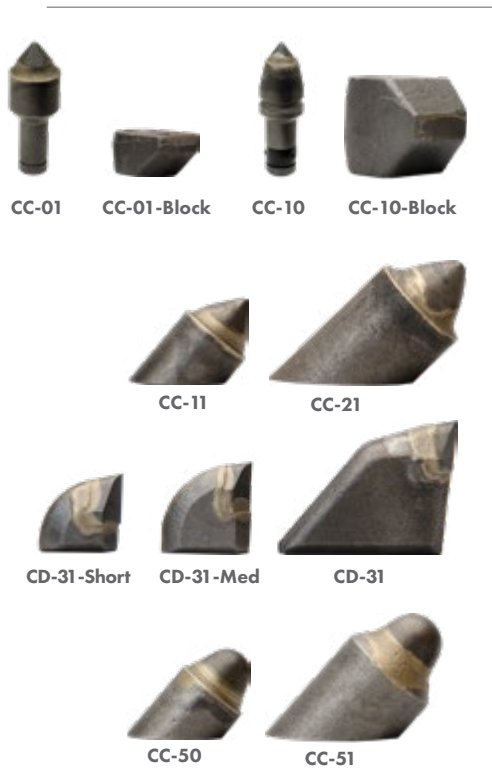
Dual-split 9" Wiper

Solid 9" Wiper





CARBIDE CUTTERS & BLOCKS



High-quality carbide cutter teeth to rebuild your HDD tools fast and accurately.

Carbide Cutter Teeth				
Description	Width	Height	Thickness	Part #
Conical cutter – Small	0.44"	2.15"		CC-01
Cutter block – Small	1.63"	0.75"		CC-01-BLOCK
Conical cutter – Large	0.75"	3.37"		CC-10
Cutter block – Large	2.25"	1.75"		CC-10-BLOCK
Angled conical cutter– Small	0.76"	0.84"		CC-11
Angled conical cutter – Large	1.06"	1.26"		CC-21
Shark Tooth® cutter – Small	1.25"	1.25"	0.89"	CD-31-SHORT
Shark Tooth® cutter – Medium	1.43"	1.50"	0.75"	CD-31-MED
Shark Tooth® cutter – Large	2.66"	2.16"	0.89"	CD-31
Angled dome cutter – Small	1.06"	1.18"		CC-50
Angled dome cutter– Large	0.77"	0.83"		CC-51



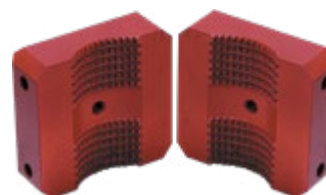
BREAKOUT JAWS

Breakout Jaws - DitchWitch® Compatible		
Drill Rig	Jaw Type	Part #
JT2020	Insert	JAW-20-INS
JT2720M1, JT3020, JT4020M1	Insert	JAW-37-INS
JT8020, JT100	Insert	JAW-100-INS

Breakout Jaws - Vermeer® Compatible		
Drill Rig	Jaw Type	Part #
D24a, D24x26	Stationary	JAW-30
D7x11, D10x15	Stationary	JAW-31
D7x11, D10x15	Cylinder	JAW-31-CT
D16x20	Stationary	JAW-32
D16x20	Cylinder	JAW-32-CT
D33x44	Stationary	JAW-33
D33x44	Insert	JAW-33-INS
D36x50	Stationary	JAW-36
D24x40a	Stationary	JAW-40
D24x40	Insert	JAW-40-INS
D40x40	Cylinder	JAW-40-CT
D50x100, 2 7/8" rod	Cylinder	JAW-50-CT
D50x100, 2 7/8" rod	Insert	JAW-50-INS
D50x100, D80x100, 3 1/2" rod	Cylinder	JAW-80-CT
D80x100, 3 1/2" rod	Insert	JAW-80-INS
D100x120, 3 1/2" rod	Insert	JAW-120-DIA-INS



Cylinder Side Breakout Jaws:
Breakout wrench replacement jaws



Stationary Side Breakout Jaws:
High quality replacement jaws



Breakout Jaw Inserts:
High quality replacement jaw inserts

ELECTRICAL SAFETY GEAR

Safety Shoes & Boots	
Description	Part #
Over-the-shoe Safety Shoe	1830-SH
Over-the-shoe Safety Boot	1830-BT

Safety Gloves	
Description	Part #
Rubber glove	1820-GLV
Leather protector	1820-PRO
Glove storage bag	1820-BAG

Conforms with ASTM F1117 and tested to 20,000 volts



Boots are a 12" over-the-shoe style

Leather protectors go over to protect rubber glove from damage

Dielectric rubber gloves rated for usage at up to 17,000 volts

Meets ASTM specification D-120



Half and whole sizes available

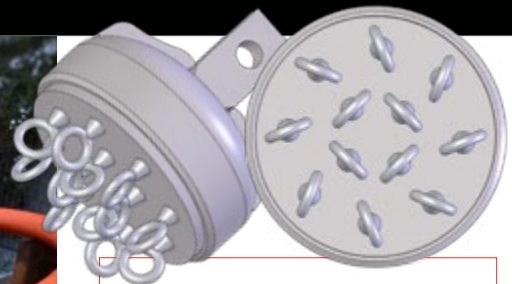




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With distributors all over the globe, you can count on getting tools fast! When you need it, you need it now...and we get it. Same-day shipping and local inventory with our distributors helps deliver tools fast to keep you up and running.

An Innovative Edge

Our state-of-the-art facility & engineers are always pushing for more productive ways to build better HDD tooling, and are available to design and manufacture your custom solution that can improve efficiency.

Unparalleled Experience

Being a founding member of the HDD industry has given us the opportunity to grow up with it. Laser focus on HDD tooling from the beginning has provided us with unique manufacturing experience over 75 years and continues to fuel innovation.

77 YEARS

EXPERIENCE | INNOVATION | SERVICE | SUPPORT

Continuing Innovation For A Better Tomorrow

We don't just protect drillers, we protect the Earth and strive to inspire future leaders of our industry. Our energy efficient facility and community outreach helps to accomplish that mission.

\$150k+

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and trade programs

1000

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the Santa Maria plant

86

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26

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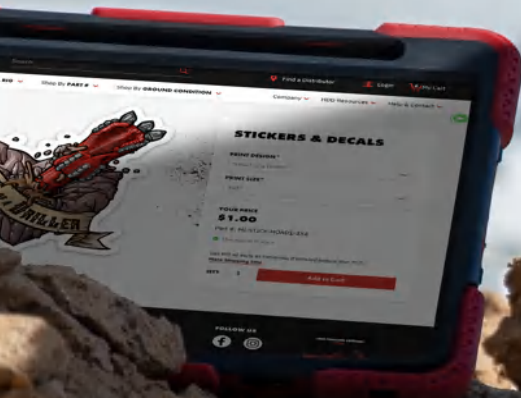
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