



**TRI CON**

**NON-THREADED HDD DRILLING SYSTEM**

**MELFRED  
BORZALL**

CONNECTING THE FUTURE OF HDD

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# INTRODUCING THE TRI-CON

## Non-threaded Drilling System For HDD

Tri-Con™ features an innovative, patent-pending design with a rounded triangular shape. It's shape efficiently transfers the rotary torque, but without the sharp corners and stress concentrations of splined connections. The Tri-Con™ shape has shown longer life than other non-threaded connection types.

### TRI-CON™ SYSTEM FEATURES:

- Faster & easier to swap out tooling for a pilot shot or pullback — *no breakout wrench needed*
- Ability to ream & pullback directly from the transmitter housing
- Transmitter housing has a standard API connection for quick-connect systems
- Eliminate the need for starter rods and adapters in some applications



### DESIGNED FOR UP TO 30,000-POUND CLASS RIGS

#### Versatile tooling options:

- 3-1/4" DigiTrak™ compatible housing
- 3-1/4" SubSite® compatible housing
- 4-1/4" & 5" Iron Fist bits
- 4-1/4" & 5" Eagle Claw bits
- 6x1/2", 5x12mm, and 6x16mm bolt pattern bit bodies with our patented Pit Bull™ option
- Compact Tornado-style reamers
- Compact Juggernaut-style reamers
- Compact packer barrel reamers
- Tri-Con™ pulling eye & various adapters



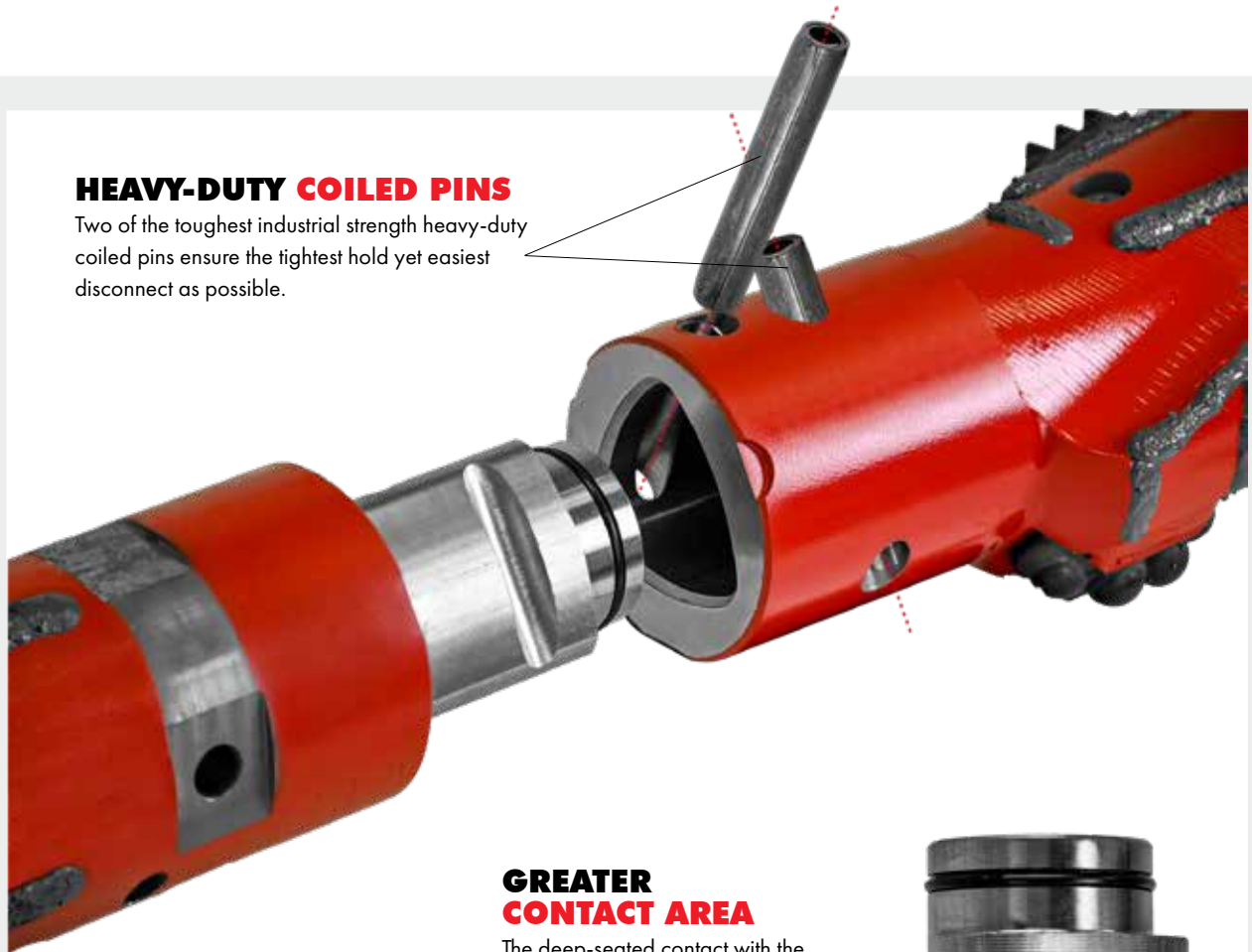
The Tri-Con Connection is Patent Pending



CONNECTING THE FUTURE OF HDD

### HEAVY-DUTY COILED PINS

Two of the toughest industrial strength heavy-duty coiled pins ensure the tightest hold yet easiest disconnect as possible.



### GREATER CONTACT AREA

The deep-seated contact with the body provides a more stable hold than many other systems.



### ROUNDED CORNERS = LESS STRESS

There are less sharp edges or right angles that often contribute to stress fracture points which means longer drilling with less downtime.

# THE TRI-CON SYSTEM PART LIST

Your One-stop Place To Find All Tri-Con™ Part Numbers & Description.

Tri-Con™ System Tooling		
Description	Part #	Details
Tri-Con Transmitter Housing (DigiTrak™)	5632-HT4-77M	3-1/4" Diameter Housing That Fits DigiTrak™ or U-Mag
Tri-Con Transmitter Housing (Subsite®)	5932-HD4-77M	3-1/4" Diameter Housing That Fits Subsite®
Tri-Con™ Bit Body   DW 6-bolt Pattern	5632-13-77F	3-1/4" Diameter with Pit Bull Pins & (6) 1/2"-13 Bolts
Tri-Con™ Bit Body   DW 5-bolt Pattern	5932-14-77F	3-1/4" Diameter with Pit Bull Pins & (5) 12MMx25MM Bolts
Tri-Con™ Bit Body   VM 6-bolt Pattern	5932-15-77F	3-1/4" Diameter with Pit Bull Pins & (6) 16MMx35MM Bolts
4-1/4" Tri-Con™ Eagle Claw SD Bit	EC-42D3-77F	4-1/4" Cut Diameter with 2-5/8" Tri-Con™ Connection
5" Tri-Con™ Eagle Claw SD Bit	EC-50D3-77F	5" Cut Diameter with 2-5/8" Tri-Con™ Connection
4-1/4" Tri-Con™ Iron Fist Bit	IF-42DC4-77F	4-1/4" Cut Diameter with 2-5/8" Tri-Con™ Connection
5" Tri-Con™ Iron Fist Bit	IF-50DC4-77F	5" Cut Diameter with 2-5/8" Tri-Con™ Connection
4" Tri-Con™ Compact Barrel Reamer	80-04-77F-EYE310	3-1/4" Shaft Diameter   2-5/8" Tri-Con (box) x 310 Pulling Eye
6" Tri-Con™ Compact Barrel Reamer	80-06-77F-EYE310	3-1/4" Shaft Diameter   2-5/8" Tri-Con (box) x 310 Pulling Eye
6" Tri-Con™ Compact Juggernaut Reamer	85-06-77F-EYE310	3-1/4" Shaft Diameter   2-5/8" Tri-Con (box) x 310 Pulling Eye
8" Tri-Con™ Compact Juggernaut Reamer	85-08-77F-EYE310	3-1/4" Shaft Diameter   2-5/8" Tri-Con (box) x 310 Pulling Eye
6" Tri-Con™ Compact Tornado Reamer	90-06-77F-EYE310	3-1/4" Shaft Diameter   2-5/8" Tri-Con (box) x 310 Pulling Eye
8" Tri-Con™ Compact Tornado Reamer	90-08-77F-EYE310	3-1/4" Shaft Diameter   2-5/8" Tri-Con (box) x 310 Pulling Eye
10" Tri-Con™ Compact Tornado Reamer	90-10-77F-EYE310	3-1/4" Shaft Diameter   2-5/8" Tri-Con (box) x 310 Pulling Eye

*\*Only the transmitter housings include coiled pins or a punch tool. All bits, bit bodies & reamers use a 2 1/2" Heavy Duty Coiled Pin (CP-050-250-HD) for connection.*



**2 1/8" CONNECTION COMING SOON!**

## TRI-CON ADAPTERS

Use The Tri-Con System With Your Current Housing Or Bits By Using These Cross-Over Adapters.

Tri-Con™ System Adapters		
Part #	Details	Application Use
21M-77F	2" IF (Pin) x Tri-Con (Box)	Convert standard reamer to Tri-Con™
23M-77M	2-3/8" Reg (Pin) x Tri-Con (Pin)	Convert thread-on housing to Tri-Con™
23M-77F	2-3/8" Reg (Pin) x Tri-Con (Box)	Convert standard reamer to Tri-Con™
23F-77F	2-3/8" Reg (Box) x Tri-Con (Box)	Convert threaded bit for use with Tri-Con™ Housing
77F-EYE310	Tri-Con (Box) x 310 Pulling Eye	Direct pullback with Tri-Con™ Housing

*\*Adapter purchases do not include coiled pin (CP-050-250-HD) or punch tool (PUNCH-RP-044).*







# TRI-CON REAMERS & PACKERS

Connect Directly To The Tri-Con Housing & Pullback In A Flash With These Newly-Designed Compact Reamers & Packers.

**NEW!**



## THE PACKER



TRI-CON™ Packer				
Size	Shaft Diameter	Front Thread	Rear Pulling Eye	Part Number
4" Packer	3.25"	2-5/8" Tri-Con™ (box)	EYE310	80-04-77F-EYE310
6" Packer	3.25"	2-5/8" Tri-Con™ (box)	EYE310	80-06-77F-EYE310

This Tri-Con™ packer is great for swabbing the hole during your pullback process. With chunky hardfacing protecting all high-wear areas, this will be your new go-to for fast packing on pullback.

## JUGGERNAUT REAMER



TRI-CON™ Juggernaut Reamer				
Size	Shaft Diameter	Front Thread	Rear Pulling Eye	Part Number
6" Juggernaut	3.25"	2-5/8" Tri-Con™ (box)	EYE310	85-06-77F-EYE310
8" Juggernaut	3.25"	2-5/8" Tri-Con™ (box)	EYE310	85-08-77F-EYE310

The Juggernaut reamer is HDD's go-to option for those drillers reaming with a fluted reamer option. This compact version does not scrimp on teeth and allows you to connect directly to your Tri-Con™ housing.

## TORNADO REAMER



TRI-CON™ Tornado Reamer				
Size	Shaft Diameter	Front Thread	Rear Pulling Eye	Part Number
6" Tornado	3.25"	2-5/8" Tri-Con™ (box)	EYE310	90-06-77F-EYE310
8" Tornado	3.25"	2-5/8" Tri-Con™ (box)	EYE310	90-08-77F-EYE310
10" Tornado	3.25"	2-5/8" Tri-Con™ (box)	EYE310	90-10-77F-EYE310

We've taken Melfred Borzall's #1 reamer and compacted it into a single phase reamer for the Tri-Con™ connection. You'll want this if you are trying to mix and pump those cuttings downhole in unstable soils.



77F-EYE310

Don't need a reamer? Try the TRI-CON™ pulling eye that is compatible with our 15,000 - 20,000 lbs. swivels.



\*Tri-Con™ connection coiled pins (CP-050-250-HD) and punch tool (PUNCH-RP-044) sold separately.



## FASTER PILOT BORES

When time = production costs, speed matters. Tri-Con's patent-pending quick bit connection for Eagle Claw and Iron Fist bits can decrease breakout & make-up time, and our bit bodies provide versatility. Convert the housing to a bolt-on in a snap when a job's ground condition calls for a directional blade.

## QUICKER BACKREAMING

Traditional backreaming is much faster without having to thread heavy reamers. We have engineered special compact-style reamers that are patterned after our best-selling Tornado & Juggernaut reamers. There is also a hardfaced-only (toothless) packer option for swabbing the hole.



## DIRECT PULLBACK

There's no question that direct pullback will decrease your production time if the job condition's allow. Our Tri-Con™ transmitter housings are FastBack® System ready to attach cutter blocks and go! Don't forget to add a Tri-Con™ pulling eye to your next order with your Melfred Borzall salesperson!



# NEW TRI-CON SD HOUSINGS



Compatible With Subsite<sup>®</sup>, DigiTrak<sup>™</sup> & Underground Magnetics<sup>™</sup>.



Using DigiTrak & UMag 2-cell Transmitters				Replacement Parts				
Drill Rig Thrust	Diameter	Thread (rear)	Thread (front)	Part #	O-Ring	Coiled Pins	Sonde Cavity Parts	Fluid Port
Up to 30,000 lbs	3.25"	2.375" Reg	2-5/8" Tri-Con	5632-HT4-77F	O-RING-221	Front: CP-050-250-HD Lid: CP-038-200-SD	Lid: 5632-HT4-CP Lid Bolts: SHCS1/2X3/4 Bumpers: 5000-BUMPER-1-S	NOZ-0.25-0.75 PLUG-0.75-16

Using Subsite <sup>®</sup> Transmitters				Replacement Parts				
Drill Rig Thrust	Diameter	Thread (rear)	Thread (front)	Part #	O-Ring	Coiled Pins	Sonde Cavity Parts	Fluid Port
Up to 30,000 lbs	3.25"	2.375" Reg	2-5/8" Tri-Con	5932-HD4-77F	O-RING-221	Front: CP-050-250-HD Lid: CP-038-200-SD	Lid: 5932-HD4-CP Lid Bolts: SHCS16MMX25MM Bumpers: 5000-BUMPER-1-S	NOZ-0.25-0.75 PLUG-0.75-16





# MELFRED BORZALL

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805-739-0118 international  
www.melfredborzall.com/tri-con

## WHERE CAN I FIND A DISTRIBUTOR OF TRI-CON TOOLING?

SCAN THE QR CODE FOR MORE CONTACT INFORMATION ABOUT YOUR NEAREST DISTRIBUTOR OF TRI-CON TOOLING



## NORTH AMERICA

### CA, AK, HI, NM, KY, CT, RI, MA, NH, VT, ME, WA, OR, MO, KS

#### Melfred Borzall

Santa Maria, CA - (805) 739-0118  
Southern California - (805) 264-6549  
Northern California - (805) 354-4125  
Pacific Northwest - (503) 941-8638  
HDD Store St. Louis, MO - (314) 899-5666  
East Missouri - (816) 599-0060  
West Missouri & Kansas - (816) 642-8255

### TX, OK, LA, AR

#### Underground Supply Solutions

Houston, TX - (713) 818-5112  
Carrollton, TX - (972) 626-8114  
Center, TX - (903) 374-1704  
Lubbock, TX - (806) 910-8114  
Oklahoma City, OK - (405) 249-0774  
Baton Rouge, LA - (225) 480-8114  
Little Rock, AR - (501) 743-8114

### VA, NC, SC, GA, TN, MD, DE, DC

#### Tarheel Contractors Supply, Inc.

Rock Hill, South Carolina - (800) 218-0492  
Rocky Mount, North Carolina - (800) 218-0492  
Murfreesboro, Tennessee - (800) 218-0492  
Millersville, Maryland - (800) 218-0492

### AL, FL, MS

#### Atlantic Supply

Largo, Florida - (800) 752-9416  
Jacksonville, Florida - (888) 260-5584  
Orlando, Florida - (800) 569-8950  
Riviera Beach, Florida - (800) 535-7384  
Montgomery, Alabama - (866) 917-3447

### MN, IA, East North Dakota

#### FS3, Inc.

Annandale, Minnesota - (320) 274-7223

### OH, WV, IL, WI, PA, MI, IN, West NY

#### Whole Solutions, Inc.

Mineral Ridge, Ohio - (330) 652-1725  
Jackson, Michigan - (517) 888-3597

### UT, AZ, ID, CO, SD, MT, WY, NE, WEST ND

#### Mountainland Supply, Inc.

Salt Lake City, Utah - (801) 981-5254  
Cedar City, Utah - (801) 981-5254  
Telleson, Arizona - (602) 278-0237  
Nampa, Idaho - (801) 981-5254  
Aurora, Colorado - (844) 665-9048

### NJ, East NY

#### UPSCO, Inc.

Moravia, New York - (315) 497-1070

### Canada

#### Guardian Equipment Limited

Saskatoon, Saskatchewan - (306) 850-9821

#### HDD Underground Solutions, Inc.

Edmonton, Alberta - (780) 340-8311

#### Boring Solutions

Peterborough, Ontario - (905) 410-2120  
Alliston, Ontario - (705) 816-5541

## WORLDWIDE

### Mexico

#### Master HDD

Saltillo, Coahuila - +52 844 107 4657

### New Zealand, Pacific Islands

#### Blick Group

Te Rapa, New Zealand - +64 7 849 2366

### United Kingdom

#### TA Drilling

St Leonards-on-Sea, England - +14 2 485 4112

### FI, SE, NO, DK

#### Maakone

Pori, Finland - 358 50 5142195

### PL, LT, EE, LV

#### Dakor

Warsaw, Poland - +48 530 212 657

### France

#### M.O.S.T.:

#### Materiels et Outils pour le Sans Tranche

IGNY, France - +33 (0)1 69 33 17 39

### Australia

#### Queensland Drilling Sales & Supplies

Campbellfield, Victoria - +61 4 332 86136  
Arundel, Queensland - +04 0 318 7873