

Western Drilling Tools Inc. Product Catalogue



Western Drilling Tools Inc.
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Introduction

Western Drilling Tools is a privately owned and proudly Canadian company. Since being established in 2004 we have grown to become a leading manufacturer and supplier of high quality drilling tools and accessories. We excel in designing, manufacturing, and distributing drilling tools as well as finding custom solutions to complex problems. Our goal is to provide our customers with the best quality tools, accessories and service in the industry Supported by



many years of experience and trained professionals, Western Drilling maintains a strong

“Our goal is to provide our customers with the best quality tools, accessories and service in the industry”



reputation in the **Construction, Exploration, Water Well, Geothermal, Mining, and Oil & Gas** Industries as a company that can provide reliability, dependability and high quality products at excellent value. Our broad spectrum of customers allows us to offer a dynamic range of products and solutions.

You can trust us to meet your industries demands!



From concept, custom part design, drafting, and Implementation to Machining fabrication, assembly and distribution, we are ready to meet any of your industries drilling challenges.



At Western Drilling Tools we feel it is important to work closely with both our customers and suppliers to develop a relationship based on trust and cooperation.

Our company uses state of the art Okuma CNC's to manufacture parts with extremely high precision and accuracy. We constantly acquire and stock quality raw materials to reduce lead times on our products, and work closely with our customers to continuously improve their products in an effort to reduce their cost per foot when drilling.

Western Drilling Tools has a large machine shop with numerous high quality CNC Lathes and Mills including a 4 Axis 14 3/4" Diameter Spindle Bore lathe. We have a large Welding Area, and commonly preform ARC, MIG, TIG and pressure welding applications. Western Drilling also offers Full Repair, Re-tipping, & rebuilding on nearly all of our products.



We can also build any custom thread to customer specification



Drill Pipe

We offer drill pipe sizes from 1 3/4" to 16" in outside diameter and up to 40ft in length. We also offer a full set of accessories to match any size drill pipe. Our drill pipe is manufactured to High quality and durability to withstand even the most rigorous drilling applications. We are also capable of supplying directional pipe, External Upset Pipe and Internal Upset Pipe.

Threaded Connections

API IF	2" --- 5 1/2"
API REG	2 3/8" --- 8 5/8"
API FULL HOLE	2 7/8" --- 6 5/8"
MAYHEW JR	2 3/8"
MAYHEW REG	2 3/8"
MAYHEW FH	2 7/8"
HUGHES H90	2 3/8" --- 8 5/8"
HUGES External Flush	2 3/8" --- 4 1/2"
BECO	3" --- 10"
XTRA HOLE	2 7/8" --- 3 1/2"
M.T.	3/4" --- 2 1/16"
PAC	2 3/8 --- 3 1/2"



We can also build custom tools to any customer specification





Drill Collars

These thick walled heavy steel tubulars apply weight to the bit. Our drill collars typically have an outside diameter of 3 1/2" to 11" in and a length 1' to 30' ft.

Thread connections

Our drill collars can be built to have the same connectors as our drill pipe. Or any custom

thread

CP Core Pipe

The Pipe is generally made from tough 4140 L80 material with the thread connectors made from harder more wear resistant 4140 P110 and welded together.

Thread Connections and Sizes

Available in 4 1/2", 4 5/8", 5", 5 1/2", 7 5/8" O.D.

C.P. thread. Length: 3m- 9m



Reverse Circulation Pipe

Our RC pipe is specially designed to reduce friction, vibration and provide continuous uncontaminated samples. Our design also has the advantage of easily removing the inner tube to use the outer barrel for conventional drilling. The RC pipe is comprised of an inner tube which extends beyond the outer barrel and simultaneously mates to the other inner tube when outer barrels are threaded together.

Pipe Diameter Sizes

2 7/8" --- 13 3/4"

Threaded Connections

MPD 2 7/8" --- 13 3/4"

CSR 2 7/8" --- 13 3/4"



If a size is required that is beyond what is listed. We may still be able to build it or acquire it through our distribution network.



Casing

Whether you need casing to prevent contamination of well zones, prevent unstable upper formations from caving in, a strong upper foundation to continue drilling deeper or a smooth internal bore for installing production equipment. Western Drilling Tools can supply casing for your application. Typical casing thread is left handed.

Threaded Casing Diameter Sizes

70mm --- 355mm

2 3/8" --- 14"

Casing Threads

HUGHES H-90

IMPROVED BUTTRESS

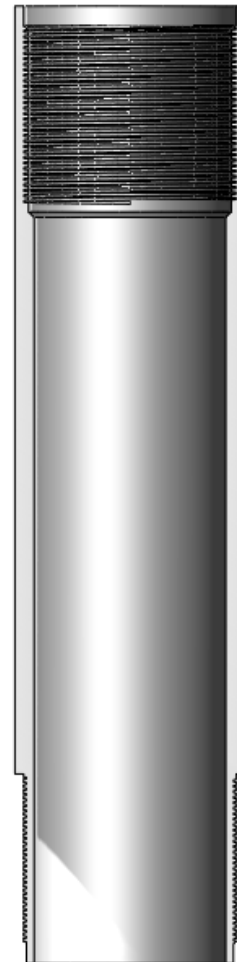
KRUPP

SONIC

MODIFIED ACME

8" ROUND THREAD

NPT



We have in house product design, development and testing





RC Bit Subs

Used with RC system for rotary applications, Attach to the drill bit to maximize flow to outside forcing cutting up the pipe.

Thread Connections and Sizes

Any API threads, Diameter sizes up to 14 3/4"

Inner Changers

Used with RC system for hammer applications and with MPD pipe.

Thread Connections and Sizes

Any API threads, MPD or Custom Threading

Diameter sizes up to 14 3/4"



If a size is required that is beyond what is listed. We may still be able to build it or acquire it through our distribution network.





Umbrella Subs

Used with RC system in larger holes in conjunction with inner changers to help guide samples up the pipe.

Thread Connections and Sizes

Any API threads, Diameter sizes up to 36"

Discharge Heads/Discharge Swivels

We have two styles of discharge heads; Rotary and stationary. These are generally built to divert cuttings and hole contents at the surface. The rotary style allows for circulation and rotation at the same time

Rotary

Barring style and rotating sleeve style.
Built in a wide variety of pin and box threads up to a max OD of 36"

Stationary

Rotating sleeve style, Built in a wide variety of pin and box threads up to a max OD of 36".



Air Swivel/Flushing Heads

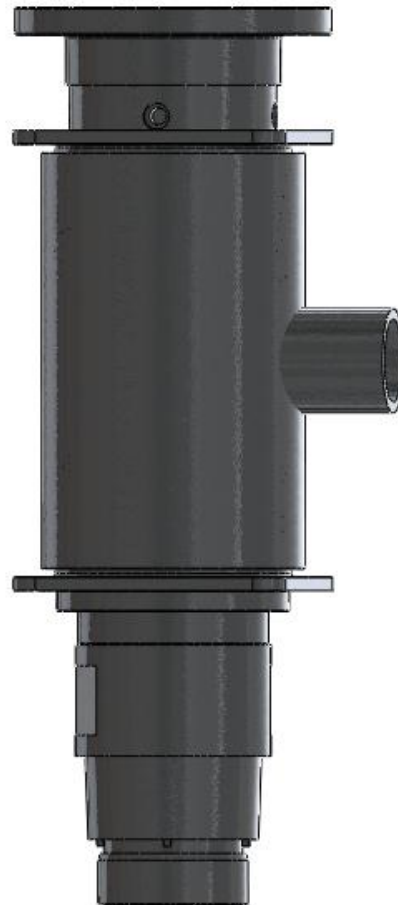
Similar application to Discharge swivels but has a side inlet.
Allows for circulation and rotation at the same time. Used for
higher pressure applications. We build a few different style
swivels; a ball bearing style and a wear sleeve style.

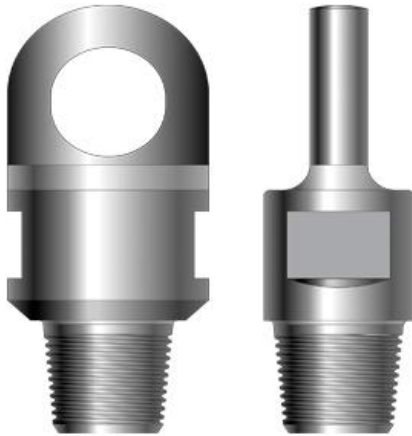
Ball Bearing

Great longevity and smooth rotation.
The air swivel can be fitted to any type
of threaded connection up to a 24" OD.

Wear Sleeve

Good performance Easy maintenance
Very inexpensive to repair. The air swivel
can be fitted to any type of threaded
connection up to a 24" OD.





Lifting Subs / Lifting swivels

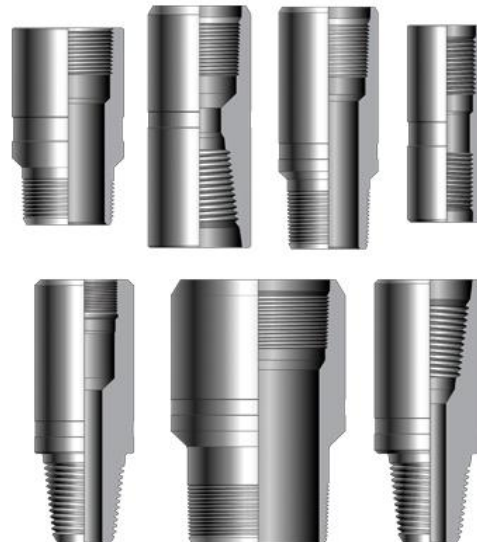
Used for lifting drill pipe into the hole, Bringing in a single from the rack, removing and lifting pipe or casing when tripping. We build light duty to heavy duty with or without a swivel. Standard lifting capacity from 40,000lbf – 160,000lbf (18,100kg-72,500kg) depending on size, threaded connection and style. All our lifting subs are pull tested to verify weight.

Thread Connections and Sizes

Lifting subs can be built with any API, CP or custom thread up to a maximum 14" OD

Crossovers Subs

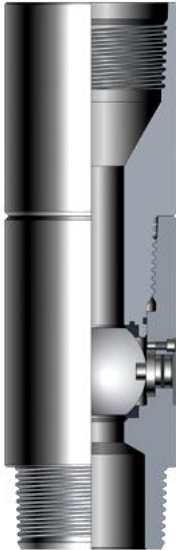
These allow you to connect any dissimilar threaded connectors or tools your rig may use. We also build saver subs which act as a stabilizer and wear component between two more valuable parts.



Thread Connections and Sizes

Crossovers can be fitted with any Threaded connection API or custom up to a maximum OD of 24" Regardless of if it is pin x box, pin x pin or box x box.





Ball Type Kelly Cocks

Safety valves installed above or below the Kelly. They are manually operated and prevent flow from coming up the drill string. They are also used to prevent the loss of mud while making connections. Our Kelly are tested to pressures of 2000 psi



Thread Connections and Sizes

Available in any variety of pin or box threads and connections up to a maximum 14" OD

Stabilizers

These are used to stabilize smaller OD drilling equipment within larger diameter drill pipe or casing or within the annulus to reduce chatter and unnecessary vibration. We manufacture three different types; spiral, flush and bell.

Thread Connections and Sizes

Available in any variety of pin or box threads and connections up to a maximum 24" OD





Drag Bits

These drill bits have carbide teeth or buttons in a steel body. They have no moving parts so it is less likely that junk will be left in the hole. These are generally suited for soft to medium formations but have many different designs and styles suited for many operations and formations. We carry Blade Bits, Button Bits, and Fish Tail/Chevron Bits, Seismic and step Bits.

Bits Thread Connections and Sizes

Bit size 3 5/8" – 4 7/8"	Thread 2 3/8 API
Bit size 5" – 5 5/8"	Thread 2 7/8 API
Bit size 5 3/4" – 6 3/4"	Thread 3 1/2 API
Bit size 7 7/8" – 8 3/4"	Thread 4 1/2 API
Bit size 9 1/2" – 12 1/4"	Thread 6 5/8 API
Bit size 9 1/2" – 12 1/4"	Thread 6 5/8 API
Bit size 12 1/4" – 15"	Thread 7 7/8 API



PDC Bits

These drill bits use Polycrystalline diamond cutter in a steel or matrix body. They have no moving parts and are made of the hardest stuff on earth. These can be suited for anything from soft to extremely hard formations. They have many different designs and styles suited for many procedures and operations. Generally the greater number of cutters the harder the formation they are suited for. PDC's will generally outperform all other bits in all formations other than gravel



They are well suited for coring applications or extra deep holes. We also repair and re-tip these bits. Ideal for Oil and gas water well and mining

Core bits 6 -15 cutters

Bit size 4 5/8, 5 1/2, 5 3/4, 6 1/8, 6 1/4

Thread 2 7/8 API, 4 5/8 CP

Steel Body and Matrix PDC

Bit size 2 3/4, -8 3/4 Standard API threads



Tricone Bits

The most versatile Bit in the Industry. A sold Performer in any formation. We can supply both TCI and mill tooth style bits. We also repair and re-tip these bits. Ideal for Oil and gas water well and mining



Bits Thread Connections and Sizes

Bit sizes 4 1/2" - 26" Standard API threads





Rotary Drive Shoes

Our drive shoes also known as barber shoes are the premier product in the market. They come in 2 grades, heavy duty and supreme. Both are precision machined out of 4140 HT and contain Press fit tungsten carbide buttons. The supreme has a revolutionary design employing milled slots which are hard welded for more aggressive penetration and long life. The supreme also has a unique system which improves the tools life while helping to ream the hole.

Bits Sizes

Both the heavy duty and the supreme come in sizes ranging from:

3" - 24"

Fishing Tools

Tapper Thread and Magnetic

Tapper Thread

Used to fish out tubulars from down hole.
Undershot and overshot styles

Magnetic

Lifting force up to 450lb

For steel non tubulars





Augers and Auger Bits

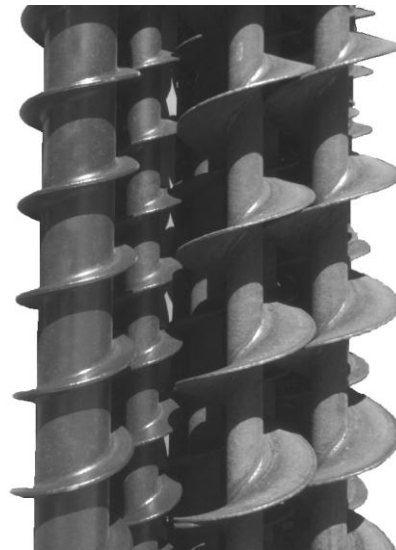
Solid Stem Augers, Fish tail, hollow stem, and solid stem. All sampling tools. Commonly used in Environmental geo thermal and construction

Connections and Sizes

Sizes 3 1/2" - 12" hex connection 13/16 - 2"

Hollow stem

2 1/4" - 12" threaded, keyed & octagon connections

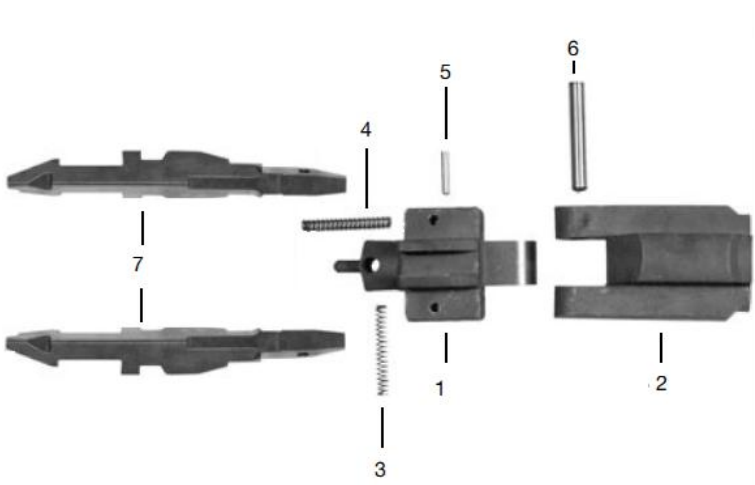


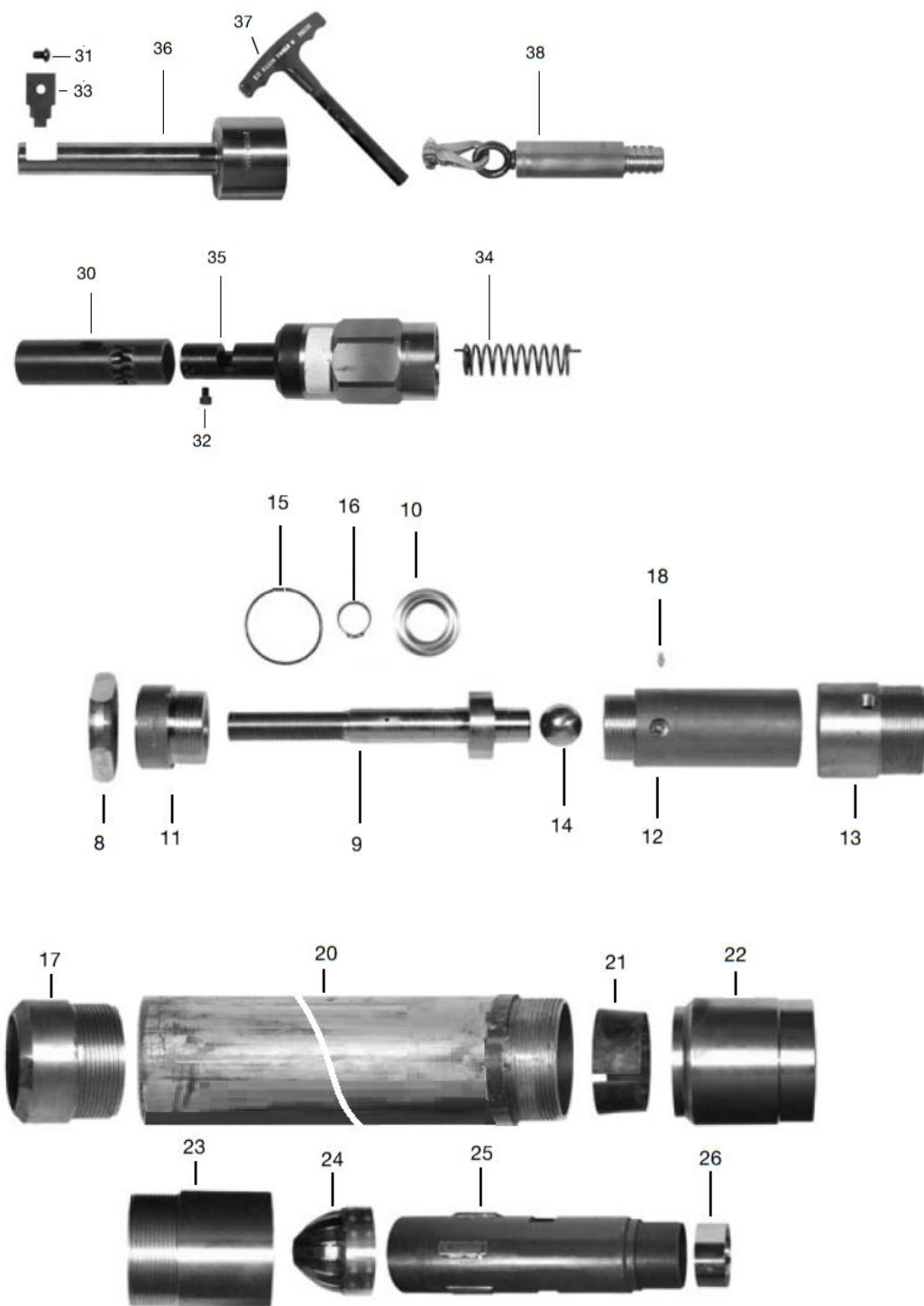
Quad Latch Coring Equipment

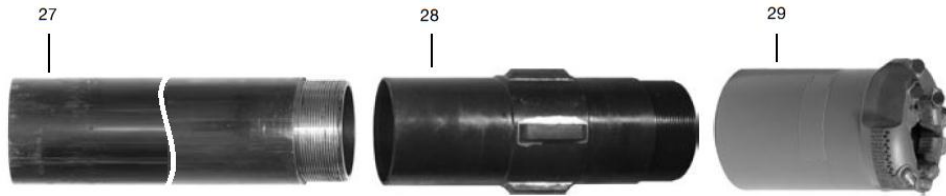
We supply a full and comprehensive line of coring supplies and equipment.

a. 4-5/8 core barrel assembly

Hole size	core size	Outer Tube		Inner Tube	
		OD	ID	OD	ID
5.5 in	3.00 in	4.625 in	3.875 in	3.5 in	3.125 in
139.7mm	76.2mm	117.5mm	98.4mm	88.9mm	79.4mm







ASK US ABOUT THESE PRODUCTS AND SERVICES

Casing Pullers

Deck Bushings

Under Reamers/ Hole Openers

Hammers / Back Hammers

Claw Bits

Drop Off Rings

Shock Subs



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Hammer Bits

Prototyping

