



UNIVERSAL

HORIZONTAL DIRECTIONAL DRILLING



SHORT-RANGE CLASS

UNI 10x15
UNI 12x15
UNI 12x15L

Design

The new UNI 10x15 and new UNI 12x15 lead the industry in operator comfort, performance and versatility. High performance John Deere engine, powerful motors and small footprint help you get more done and increase your bottom line.

Size

Designed and purpose-built to meet diverse size and space confined restrictions, the UNI 10x15 and UNI 12x15 can help improve productivity without compromising power or speed. With a small footprint, the rig can maneuvered and setup in most confined spaces. With highest power-to-size ratio UNI 10x15 and UNI 12x15 are ideal for short-range installations.

Service

Grouped service points allow for efficient checks and maintenance, from the ground level. Diagnostic Ports allow for quick measure and troubleshooting of the hydraulic system. Daily maintenance points are easily accessible. Simplified service and maintenance features combined with improved service access are designed to reduce downtime.

Hydraulic System

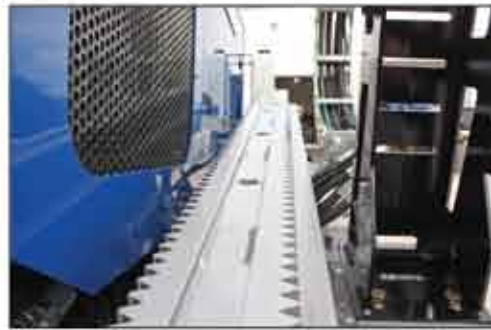
Maximum power and reliability are built into the new UNI 10x15 and UNI 12x15 hydraulic system. The hydraulic system features increased torque and rotating power allowing you to pull more material and get more done. The hydraulic cooling system provides improved fuel efficiency, increased horsepower, reduced sound levels and improved cold weather performance.





Operator Station

The operator station is ergonomically designed for total machine control in a comfortable, productive and safe environment. All controls, levers switches and gauges are positioned to maximize productivity and minimize operator fatigue.



Double Rack & Pinion

The Double Rack & Pinion is designed to generate maximum thrust and pullback force, while at the same time providing high reliability and minimal maintenance.



Carriage

Designed to perform and deliver power and torque to complete most demanding jobs. This provides the on-site versatility required to match the diverse and continually changing needs.



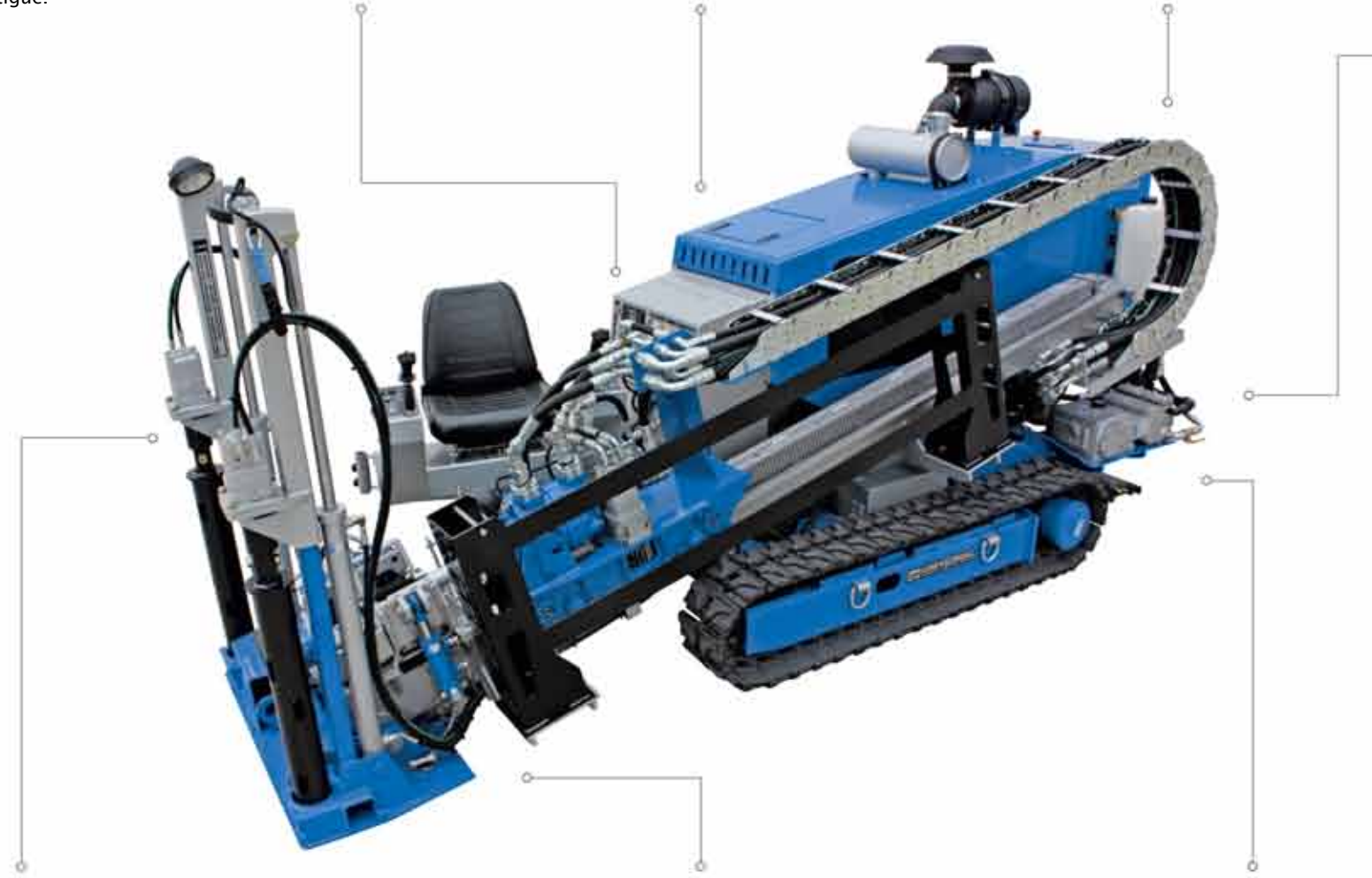
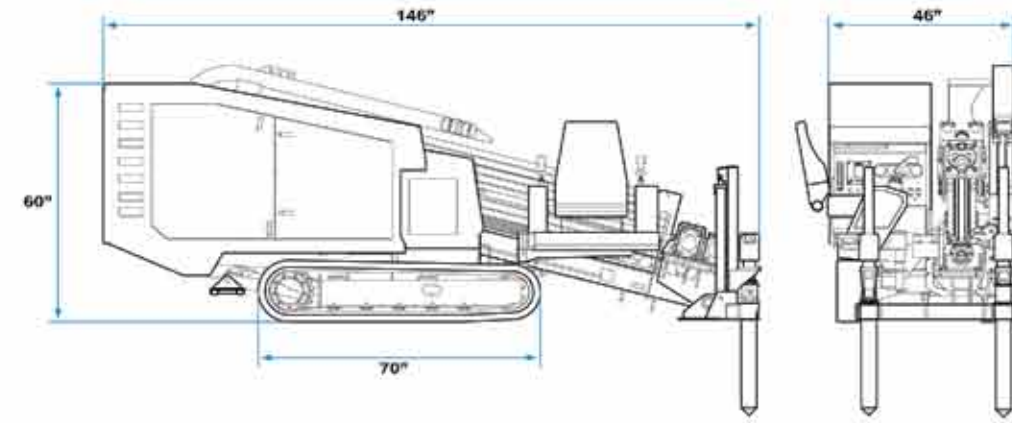
Mud Pump

The UNI 10x15 and UNI 12x15 come equipped with on-board heavy-duty Kerr mud pump. This drilling fluid management unit supplies the rig with quality and stable mud during the operational cycle.



Service

The UNI 10x15 and UNI 12x15 are designed for easy and effortless service and maintenance. All service points can be accessed through cover doors on the side and back of the rigs, which minimizes maintenance time and cost.



	UNI 10x15		UNI 12x15		UNI 12x15L	
Specification	U.S.	Metric	U.S.	Metric	U.S.	Metric

Thrust Force:	10,000 lbs	4.5 ton	12,000 lbs	5.4 ton	12,000 lbs	5.4 ton
Pullback Force:	10,000 lbs	4.5 ton	12,000 lbs	5.4 ton	12,000 lbs	5.4 ton
Rotation (Low):	200 rpm		200 rpm		200 rpm	
Torque (Low):	1,500 ft-lb	2,034 N-m	1,500 ft-lb	2,034 N-m	1,500 ft-lb	2,034 N-m
Entry Angle:	10-18 degrees		10-18 degrees		10-18 degrees	

Engine:	John Deere / Deutz ¹		John Deere		John Deere	
Fuel:	Diesel		Diesel		Diesel	
Gross Power:	66 hp (Turbo)	49.2 kW (Turbo)	66 hp (Turbo)	49.2 kW (Turbo)	66 hp (Turbo)	49.2 kW (Turbo)

Rod Length:	6 ft	1.82 m	6 ft	1.82 m	10 ft	3.04 m
Rod Diameter:	1.66 inch	4.06 cm	1.66 inch	4.06 cm	1.9 inch	4.82 cm
Rod Basket:	39		39		33	
Rod Loader:	-		-		Automatic Over-the-Top	

Mud Pump:	Kerr		Kerr		Kerr	
Flow Rate:	1,200 psi	82.73 bar	1,200 psi	82.73 bar	1,200 psi	82.73 bar
Pressure Rate:	20 gpm	75.7 l/min	20 gpm	75.7 l/min	20 gpm	75.7 l/min

On-Board Locating System:	DCI		DCI		DCI	
Integrated MFD:	◆		◆		◆	

Length:	146 inch	370.84 cm	146 inch	370.84 cm	146 inch	370.84 cm
Width:	38-46 inch ²	96.52-116.84 cm ²	46 inch	116.84 cm	46 inch	116.84 cm
Height:	60 inch	152.4 cm	60 inch	152.4 cm	60 inch	152.4 cm
Weight:	8,900 lb	4.03 ton	9,100 lb	4.12 ton	9,400 lb	4.26 ton

◆ Integrated MFD display is substituted with a Remote Display
¹ 38" width model comes equipped with a Deutz Diesel engine
² Width is calculated based on engine configuration: Deutz Diesel engine - 38", John Deere engine - 46"



Stakedown System

Heavy-duty stakedown system provides additional support and stability when pulling the product. The system features two point auger design.



Wrench

The wrench system features heavy-duty replaceable jaws designed to last and open-top architecture for additional visibility.



Diagnostic Ports

Easily accessible Diagnostic Ports allow for quick measure and troubleshooting of the hydraulic system.

MID-RANGE CLASS

UNI 24x40
UNI 36x50

Performance

Compact design, high engine gross power, higher torque and rotation rise, stronger components and excellent maneuverability ensures that the UNI 24x40 and UNI 36x50 deliver a solid performance.

Power

Powerful hydraulic system delivers excellent torque and rotating forces to drill in most demanding ground. High volume mud pump and powerful Rineer motors, Double Rack & Pinion design result in fast cycle times.

Design

Representing a long-standing commitment to quality and performance, this rugged, powerful HDD machines are designed and built for mid-range directional drilling. Various optional features are available to meet all your needs and requirements.

Productivity

World class operator station fitted with electronics and hydraulic controls for low effort operation and increased productivity. Optional cabin provides a quiet, secure working environment. Large window openings offer excellent visibility in all directions. Enclosed design provides temperature-controlled air circulation with air-conditioned comfort and a more comfortable working environment.

Service

Many convenient service features such as hinged service doors, easily accessible scheduled maintenance points, diagnostic ports and a integrated cooling system make servicing easy. Reliable components reduce the risk of leaks and breakdowns, helping minimize down-time and reducing operating costs.





Diagnostic Ports

Easily accessible Diagnostic Ports allow for quick measure and troubleshooting of the hydraulic system.

Cabin

Optional larger, spacious cabin provides operator comfort and improved visibility. An intuitive instrument panel layout for ease of operation reduces operator fatigue.

Video Monitoring System

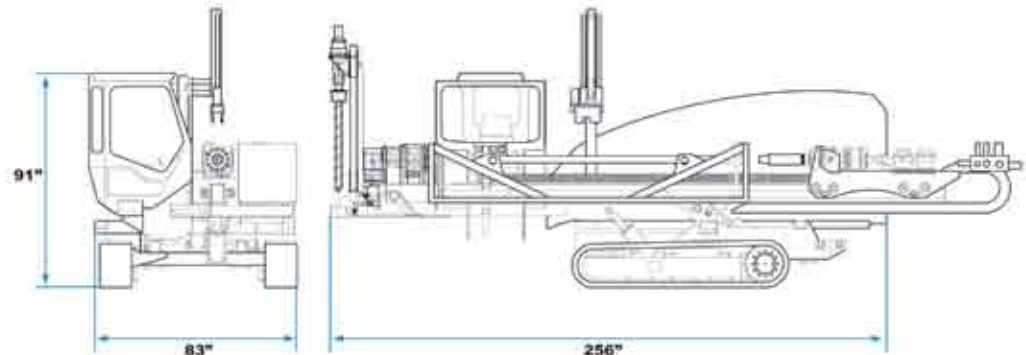
Integrated Video Monitoring System (VMS) provides the operator with additional view of the rack and the carriage. This eliminates unnecessary downtime, additional manpower on site, and speeds up the working cycle.

Rod Loader

Over-the-top automatic rod loader makes it easy to operate and load rods on the fly. Open architecture and design makes it easy to service and perform maintenance.

Double Rack & Pinion

Designed to generate highest trust and pullback force. The Double Rack & Pinion also provides highest precision, while at the same time providing high reliability and minimal maintenance.



Mud Pump

Both UNI 24x40 and UNI 36x50 come equipped with on-board Kerr mud pump. This drilling fluid management unit supplies the rig with quality and stable mud during the operational cycle. The build-in mud pump reduces transportation problems and increases maneuverability of the horizontal drilling machine.

	UNI 24x40		UNI 36x50	
Specification	U.S.	Metric	U.S.	Metric
Thrust Force:	24,000 lbs / 30,000 lbs ¹	10.8 ton / 13.6 ton	36,000 lbs	16.3 ton
Pullback Force:	24,000 lbs / 30,000 lbs ¹	10.8 ton / 13.6 ton	36,000 lbs	16.3 ton
Rotation (Low):	150 rpm		110 rpm	
Rotation (High):	300 rpm		220 rpm	
Torque (Low):	4,000 ft-lb	5,423 N-m	5,000 ft-lb	6,779 N-m
Torque (High):	2,000 ft-lb	2,711 N-m	2,500 ft-lb	3,389 N-m
Entry Angle:	10-18 degrees		10-18 degrees	
Engine:	John Deere		John Deere	
Fuel:	Diesel		Diesel	
Gross Power:	125 hp (Turbo) / 140 hp (Turbo) ¹	93.2 kW (Turbo) / 104.4 kW (Turbo) ¹	140 hp (Turbo)	104.4 kW (Turbo)
Rod Length:	10 ft	3.04 m	10 ft	3.04 m
Rod Diameter:	2.063 inch	5.24 cm	2.375 inch	6.03 cm
Rod Basket:	40		40	
Rod Loader:	Automatic Over-the-Top		Automatic Over-the-Top	
Mud Pump:	Kerr		Kerr	
Flow Rate:	1,200 psi	82.73 bar	1,200 psi	82.73 bar
Pressure Rate:	50 gpm	189.2 l/min	70 gpm	264.9 l/min
On-Board Locating System:	DCI		DCI	
Integrated MFD:	□		□	
Length:	240 inch	609.6 cm	256 inch	650.2 cm
Width:	82 inch	208.2 cm	83 inch	210.8 cm
Height:	91 inch	231.4 cm	91 inch	231.4 cm
Weight:	12,500 lb	5.67 ton	13,800 lb	6.26 ton



Wrench & Centralizer

The wrench system features Active Centralizer System (ACS) to reduce wear on drill stems, heavy-duty replaceable jaws, open-top architecture for additional visibility.



Rod Support System

This automatic system provides support for a drill stem during a drilling working cycle. The Rod Support System (RSS) automatically lowers and raises when need. It makes loading and unloading of a drill stem fast and effortless.



Tracks

These heavy-duty track provide high traction control and maneuverability practically on any surface. Designed to last and withstand high rates of wear and tear.



Back Steakdown

Two independent back steakdowns provide additional stability and support during drilling cycle. The steakdown system raises the rig and shift the pressure point to the front of the rig. Optional single steakdown system is available.

□ Integrated MFD display must included in conjunction with a Cabin option
 1 Upgradable to 140 hp engine and 30,000 lbs thrust force

MID-RANGE CLASS

UNI 45x60
UNI 60x70

Power

High drilling forces and fast cycle times maximize productivity without compromising controllability. Turbocharged John Deere engines give higher power and maintain strong performance during most demanding working cycles. High drilling forces give power through even the most compacted and rocky ground with smooth control and responsive hydraulics that deliver productivity that our customers demand.

Design

The UNI 45x60 and UNI 60x70 deliver high performance with outstanding versatility. Optional spacious cabin with joystick control keeps you comfortable throughout the work day, allowing you to get more done. The Rod Loader System delivers fast loading and unloading of drill stems with superior control. Intuitive operator's controls are easy to use for greater job accuracy and efficiency.

Hydraulic System

Smooth responsive hydraulic system gives the level of control demanded by the customer in any application, from drilling in sand to rocky soil. Double Rack & Pinion design combined with fast and powerful Rineer motors result in world class productivity and performance.

Service

Robust, reliable and easily serviceable are the key attributes of any Universal HDD's rig. Full steel body cover protects from potential damage to key components. Easy access to all daily service points are accessed through the rear hood and side covers.

Ergonomic Layout

The controls and layout of the cabin are designed to make it as easy to operate. Quick, easy to read and simple to operate, the controls and gauges on all Universal HDD's rigs allow the operator to concentrate on production.





Integrated MDF
 Integrated inside a cabin, DigiTrak MDF display provides necessary data transmitted by a sonde. The Multi-Function Display can accept and display telemetry signals from 5* different DCI manufactured receivers: Eclipse™, Eclipse®, LT2™, Mark III, and Mark V.



Cabin

Ergonomically designed for operator comfort, superior control and high productivity. All controls, switches and gauges are positioned to maximize productivity and minimize operator fatigue.

Double Rack & Pinion

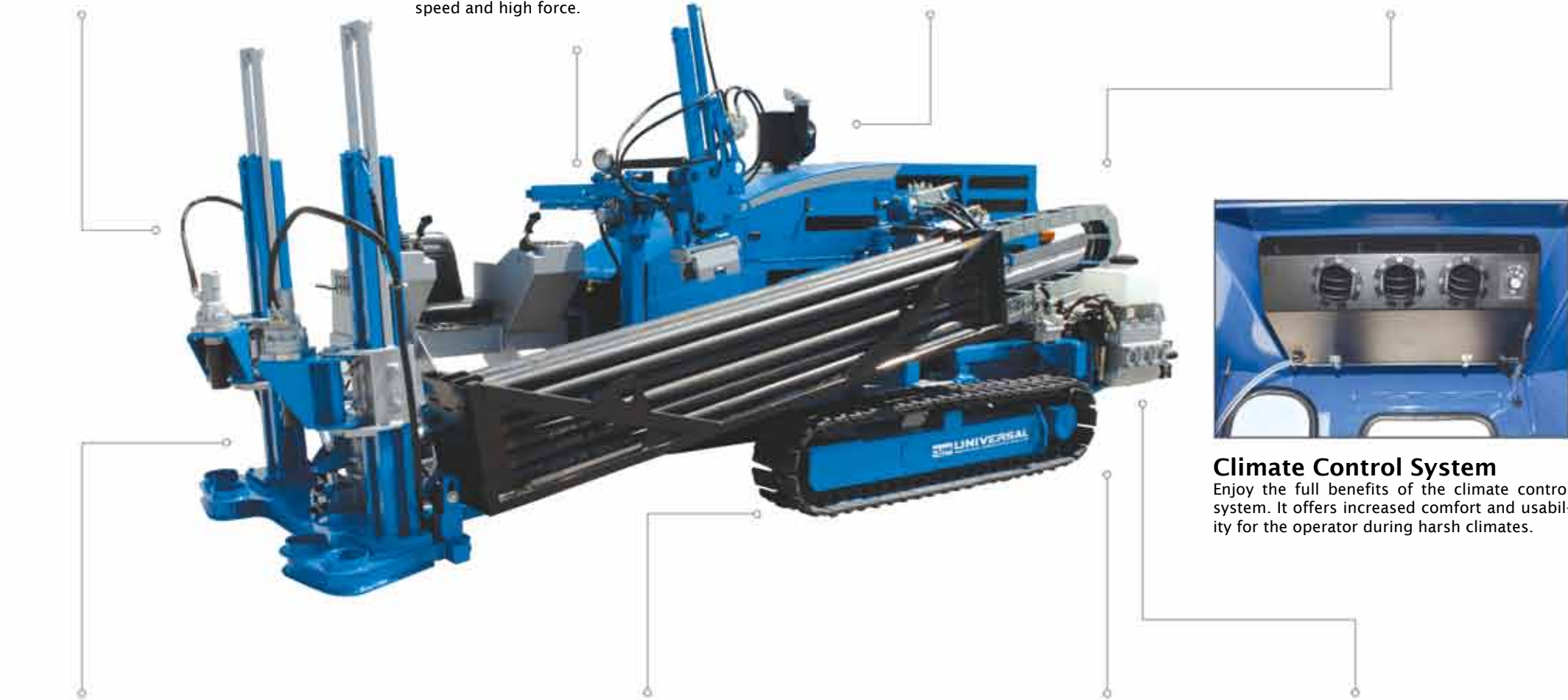
The Double Rack & Pinion design delivers maximum thrust and pullback force, while at the same time insures high reliability and minimal maintenance. Rineer drives provide smooth motion, and a great combination of both high speed and high force.

Video Monitoring System

Integrated Video Monitoring System (VMS) provides the operator with additional view of the rack and the carriage. This eliminates unnecessary downtime, additional manpower on site, and speeds up the working cycle.

Rineer Motors

The Rineer patented vane crossing vane design produces much higher volumetric and mechanical efficiencies than is possible with a standard vane type design. These motors produce higher mechanical efficiency and flatter torque curves.



Climate Control System

Enjoy the full benefits of the climate control system. It offers increased comfort and usability for the operator during harsh climates.

	UNI 45x60		UNI 60x70	
Specification	U.S.	Metric	U.S.	Metric
Thrust Force:	45,000 lbs	20.4 ton	60,000 lbs	27.2 ton
Pullback Force:	45,000 lbs	20.4 ton	60,000 lbs	27.2 ton
Rotation (Low):	110 rpm		85 rpm	
Rotation (High):	220 rpm		170 rpm	
Torque (Low):	6,000 ft-lb / 7,000 ft-lb ¹	8,135 N-m / 9,491 N-m ¹	7,000 ft-lb	9,491 N-m
Torque (High):	3,000 ft-lb / 3,500 ft-lb ¹	4,067 N-m / 4,745 N-m ¹	3,500 ft-lb	4,745 N-m
Entry Angle:	10-18 degrees		10-18 degrees	
Engine:	John Deere		John Deere	
Fuel:	Diesel		Diesel	
Gross Power:	155 hp (Turbo) / 170 hp (Turbo) ¹	115.5 N-m (Turbo) / 126.7 N-m (Turbo) ¹	170 hp (Turbo)	126.7 N-m (Turbo)
Rod Length:	10 ft	3.04 m	10 ft	3.04 m
Rod Diameter:	2.875 inch	7.3 cm	2.875 inch	7.3 cm
Rod Basket:	40		40	
Rod Loader:	Automatic Over-the-Top		Automatic Over-the-Top	
Mud Pump:	Kerr		Kerr	
Flow Rate:	1,200 psi	82.73 bar	1,200 psi	82.73 bar
Pressure Rate:	105 gpm / 170 gpm ¹	397.4 l/min / 643.5 l/min ¹	180 gpm	681.3 l/min
On-Board Locating System:	DCI		DCI	
Integrated MFD:	☐		☐	
Length:	256 inch	650.2 cm	260 inch	660.4 cm
Width:	87 inch	220.9 cm	87 inch	220.9 cm
Height:	72 inch	182.8 cm	72 inch	182.8 cm
Weight:	17,700 lb	8.02 ton	18,500 lb	8.39 tonzt



Centralizer

Unlike similar technologies utilized by other companies, Universal HDD's Active Centralizing Technology (ACT) offers fully adjustable centralizer. With ACT, the drill pipe can be effortlessly leveled, which reduces wear on the thread and drill stem itself.

Tracks

These heavy-duty track provide outstanding traction in the toughest terrain you can find to crawl over. With improved strength, durability and reliability, these tracks are made to last.

Back Steakdown

Double back steakdown provides enhanced support and stability for the rig during a drilling cycle. Two steakdowns can be independently adjusted depending on terrain.

Mud Pump

Integrated Kerr mud pump specifically engineered for high transfer rate of abrasive fluid. Heavy-duty design insures extended life cycle and minimal downtime.

☐ Integrated MFD display must included in conjunction with a Cabin option
 1 Upgradable to 170 hp engine, 7,000 ft-lb torque and 170 gpm mud pump

LONG-RANGE CLASS

UNI 90x120
UNI 120x180
UNI 160x240
UNI 220x280
UNI 300x400

Design

Universal HDD's long-range (MAXI) class rigs deliver the power and reliability necessary to perform in the most demanding horizontal directional drilling applications. Designed for efficient operation, superior power, reduced engine noise and lower operating costs.

Power

The Double Rack & Pinion design is matched with powerful Hägglunds' motors and Turbo-charged John Deere engines to provide consistent power and efficiency for peak power drilling performance. Add the motor's quick reaction time and ability to handle demanding performance, and you have a rig that's as flexible as it is tough.

Hydraulic System

The simplified hydraulic system combines engine, motors, road loader and mud pump to optimize overall rigs performance. Diagnostic data can be accessed via the Diagnostic Ports to improve troubleshooting and reduce downtime.

Frame

Universal HDD's rig frames are designed and built to optimize torsional load displacement in high impact applications. High strength and heavy-duty steels provide durability, flexibility, and resistance in the most demanding drilling applications, even in extremely cold climates.

Service

All Universal HDD's rigs are designed for quick and easy servicing. Simplified service and maintenance features reduce downtime, allowing the machine to spend less time being serviced and more time in the field.



Cabin

The cabin is engineered to offer full control and comfort during utilization of the unit. All essential controls and monitoring equipment are located on the console to allow for easy and effortless operation. Furthermore, placement of the console gives operator high visibility of all crucial components necessary during working cycle of a directional drilling machine.



Rod Support System

This unique automatic system provides support for a drill stem during a drilling working cycle. The Rod Support System (RSS) automatically lowers and raised when need. It makes loading and unloading of a drill stem fast and effortless.



Double Rack & Pinion

The Double Rack & Pinion is designed to generate maximum thrust and pullback force, while at the same time providing high reliability and minimal maintenance. Hägglunds drives provide smooth motion, and a great combination of both high speed and high force.



Crane

All Universal HDD high performance class rigs feature IMT (Iowa Mold Tooling) cranes. Light weight, small size, reliability, and high performance makes it the ideal crane for horizontal direction drill. The crane is incorporated into the back portion of the drill, which simplifies loading and unloading of drill stems. An optional wireless remote can be installed, to enhance visibility for the operator and safety of the work site.



Climate Control System

Enjoy the full benefits of the climate control system. It offers increased comfort and usability for the operator during harsh climates. With the touch of a button, operator can select desired temperature.



Centralizer System

This new technology allows for a complete control of a drill stem during the working cycle. Unlike similar technologies utilized by other companies, Universal HDD's Active Centralizing Technology (ACT) offers fully adjustable centralizer. With ACT, the drill pipe can be effortlessly leveled, which reduces wear on the thread and drill stem itself.



Rod Loader System

This innovative Rod Loader System (RLS) reduces time of loading and unloading of a drill stem by 70%. During the drilling cycle, each next drill stem can be pre loaded into the Rod Loader, and in matter of seconds loaded on a carriage.



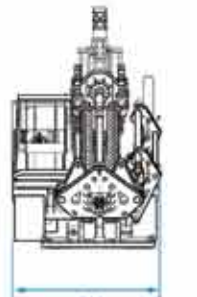
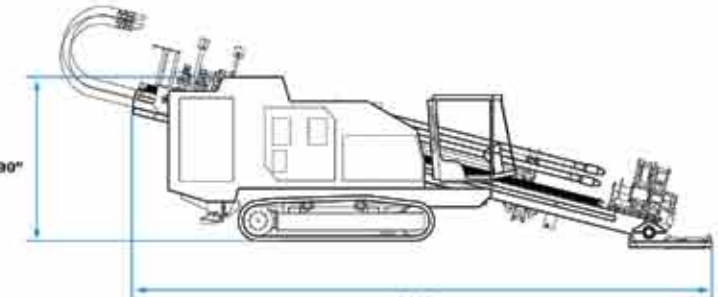
Video Monitoring System

Integrated Video Monitoring System (VMS) provides the operator with additional view of the rack and the carriage. This eliminates unnecessary downtime, additional manpower on site, and speeds up the working cycle.

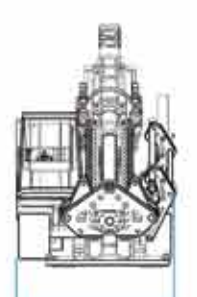
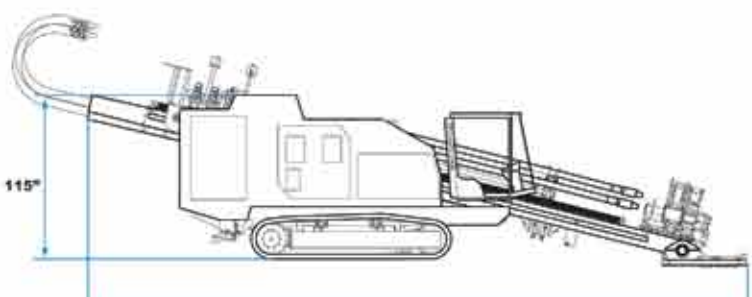


Mud Pump

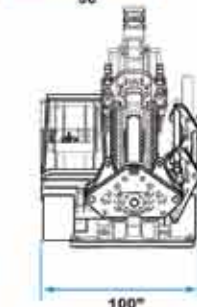
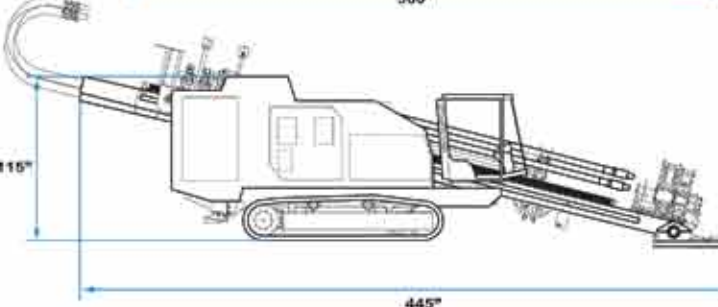
All Universal HDD rigs up to UNI 160x240 come equipped with on-board Kerr mud pump. This drilling fluid management unit supplies the rig with quality and stable mud during the operational cycle. The build-in mud pump reduces transportation problems and increases maneuverability of the horizontal drilling machine.



* UNI 90x120



* UNI 120x180
* UNI 160x240



* UNI 120x180
* UNI 160x240



Standard Features and Options

Actual prices and available options are subject to change and may vary from those listed here. Universal HDD reserves the right to make changes at any time, without notice, to any content, including, but not limited to, options, materials, and equipment. Check with your authorized Universal HDD dealer for complete information and availability.

Specification	UNI 90x120		UNI 120x180		UNI 160x240		UNI 220x280		UNI 300x400	
	U.S.	Metric	U.S.	Metric	U.S.	Metric	U.S.	Metric	U.S.	Metric
Thrust Force:	90,000 lbs / 120,000 lbs ¹	40.8 ton / 54.4 ton ¹	120,000 lbs / 140,000 lbs ²	54.4 ton	160,000 lbs / 200,000 lbs ⁴	72.6 ton	220,000 lbs	99.7 ton	300,000 lbs	136 ton
Pullback Force:	90,000 lbs / 120,000 lbs ¹	40.8 ton / 54.4 ton ¹	120,000 lbs / 140,000 lbs ²	54.4 ton	160,000 lbs / 200,000 lbs ⁴	72.6 ton	220,000 lbs	99.7 ton	300,000 lbs	136 ton
Rotation (Low):	60 rpm		60 rpm		60 rpm		60 rpm		50 rpm	
Rotation (High):	120 rpm		120 rpm		120 rpm		120 rpm		100 rpm	
Torque (Low):	12,000 ft-lb	16,269 N-m	18,000 ft-lb	24,404 N-m	24,000 ft-lb	32,539 N-m	28,000 ft-lb	37,962 N-m	40,000 ft-lb	54,232 N-m
Torque (High):	6,000 ft-lb	8,134 N-m	9,000 ft-lb	12,202 N-m	12,000 ft-lb	16,269 N-m	14,000 ft-lb	18,981 N-m	20,000 ft-lb	27,116 N-m
Entry Angle:	12-18 degrees		12-18 degrees		12-18 degrees		12-18 degrees		12-18 degrees	

Engine:	John Deere		John Deere		John Deere		John Deere		John Deere	
Fuel:	Diesel		Diesel		Diesel		Diesel		Diesel	
Gross Power:	250 hp (Turbo) / 275 hp (Turbo) ¹	186.4 N-m (Turbo) / 205 N-m (Turbo) ¹	275 hp (Turbo) / 325 hp (Turbo) ²	205 N-m (Turbo) / 242.3 N-m (Turbo) ²	350 hp (Turbo) / 400 hp (Turbo) ⁴	260.9 N-m (Turbo) / 298.2 N-m (Turbo) ⁴	400 hp (Turbo) / 500 hp (Turbo) ⁵	298.2 N-m (Turbo) / 372.8 N-m (Turbo) ⁵	450 hp (Turbo) / 500 hp (Turbo) ⁵	335.5 N-m (Turbo) / 372.8 N-m (Turbo) ⁵
Rod Length:	15 ft	4.57 m	15 ft / 20 ft ³	4.57 m / 6.09 m ³	15 ft / 20 ft ⁴	4.57 m / 6.09 m ⁴	20 ft	6.09 m	20 ft / 30 ft ⁷	6.09 m / 9.14 m ⁷
Rod Diameter:	3.5 inch	8.89 cm	4 inch	10.16 cm	4 inch	10.16 cm	4 inch	10.16 cm	4 inch	10.16 cm
Crane:	Yes		Yes		Yes		Yes		Yes	
Rod Loader:	Semi-Automatic		Semi-Automatic		Semi-Automatic		Semi-Automatic		-	

Mud Pump:	Kerr		Kerr		Kerr		-		-	
Flow Rate:	1,200 psi	82.73 bar	1,200 psi	82.73 bar	1,200 psi	82.73 bar	-		-	
Pressure Rate:	200 gpm / 250 gpm ¹	757 l/min / 946 l/min ¹	250 gpm / 325 gpm ²	946 l/min / 1,230 l/min ²	325 gpm	1,230 l/min	-		-	

On-Board Locating System:	DCI		DCI		DCI		DCI		DCI	
Integrated MFD:	Yes		Yes		Yes		Yes		Yes	

Length:	360 inch	914.4 cm	380 inch / 445 inch ³	965.2 cm / 1,130.3 cm ³	380 inch / 445 inch ³	965.2 cm / 1,130.3 cm ³	484 inch ⁶	1,234.44 cm ⁶	484 inch ⁶	1,234.44 cm ⁶
Width:	90 inch	228.6 cm	100 inch	254 cm	100 inch	254 cm	100 inch ⁶	254 cm ⁶	100 inch ⁶	254 cm ⁶
Height:	90 inch	228.6 cm	110 inch / 115 inch ³	279.4 cm / 292.1 cm ³	110 inch / 115 inch ³	279.4 cm / 292.1 cm ³	115 inch ⁶	292.1 cm ⁶	115 inch ⁶	292.1 cm ⁶
Weight:	35,000 lb	15.87 ton	44,000 lb / 50,000 lb ⁵	19.95 ton / 22.67 ton ⁵	46,000 lb / 50,000 lb ⁵	20.86 ton / 22.67 ton ⁵	70,000 lb - 85,000 lb ⁶	31.75 ton - 38.55 ton ⁶	70,000 lb - 85,000 lb ⁶	31.75 ton - 40.82 ton ⁶

	UNI 10x15	UNI 12x15	UNI 24x40	UNI 36x50	UNI 45x60	UNI 60x70	UNI 90x120	UNI 120x180	UNI 160x240	UNI 220x280	UNI 300x400
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Features / Options	UNI 10x15	UNI 12x15	UNI 24x40	UNI 36x50	UNI 45x60	UNI 60x70	UNI 90x120	UNI 120x180	UNI 160x240	UNI 220x280	UNI 300x400
Crawler / Tracks	■	■	■	■	■	■	■	■	■	■	■
Trailer Mounted						●	●	●	●	●	●
Steakdown System	■	■	■	■	■	■	■	■	■	■	■
Double Rack & Pinion	■	■	■	■	■	■	■	■	■	■	■
Active Centralizer System (ACT)			■	■	■	■	■	■	■	■	■
Wrench System	■	■	■	■	■	■	■	■	■	■	■
Rod Support		■	■	■	■	■	■	■	■	■	■
Air Hammer Tool (UNIHAMMER)	●	●	●	●	●	●	●	●	●	●	●
Strike Alert System	■	■	■	■	■	■	■	■	■	■	■
Anti-Freeze System	■	■	■	■	■	■	■	■	■	■	■
Mud Pump	■	■	■	■	■	■	■	■	■	■	■
Mud Pump Upgrade						●	●	●	●	●	●
Engine Upgrade				●	●	●	●	●	●	●	●
Heated Rack			●	●	●	●	●	●	●	●	●
Hydraulic Diagnostic Ports	■	■	■	■	■	■	■	■	■	■	■
Extended Rack (Upgrade to Longer Drill Rod)		●						●	●	●	●
On-Board Rod Basket	■	■	■	■	■	■	■	■	■	■	■
Rod-Loader		■	■	■	■	■	■	■	■	■	■
Crane							■	■	■	■	■
Remote Control	■	■	■	■	■	■	■	■	■	■	■
Wireless Remote Control	●	●	●	●	●	●	●	●	●	●	●
Ergonomic Operators Station	■	■	■	■	■	■	■	■	■	■	■
Enclosed Glass Cabin				●	●	●	●	●	●	●	●
Air Conditioner (AC)				●	●	●	●	●	●	●	●
Heater				●	●	●	●	●	●	●	●
Video Monitoring System (VMS)				●	●	●	●	●	●	●	●
Integrated DigiTrak MFD Display (w/ antenna)				●	●	●	●	●	●	●	●

■ Standard equipment
● Optional equipment

1 Upgradable to 275 hp engine, 120,000 lbs torque and 250 gpm mud pump
 2 Upgradable to 325 hp engine, 140,000 lbs torque and 325 gpm mud pump
 3 Optional extended rack for 20 ft drill pipe
 4 Upgradable to 400 hp engine, 200,000 lbs torque
 5 Engine configuration is selected based on configuration and options
 6 Weight and size are subject to change based on configuration and options
 7 Optional extended rack for 30 ft drill pipe

UNIHAMMER



Why drill with air?

- Little to no water needed
- No refilling water when drilling tough ground (300 gallons will typically last all day, even in rock, on large drills)
- No moving the bore around because of ground conditions. Soft clay to solid rock can be handled with one head
- Less mess than mud system
- If the ground or rock is tough, simply go bigger air. UNIHAMMER can handle up to 500 psi for the extreme jobs

How much air?

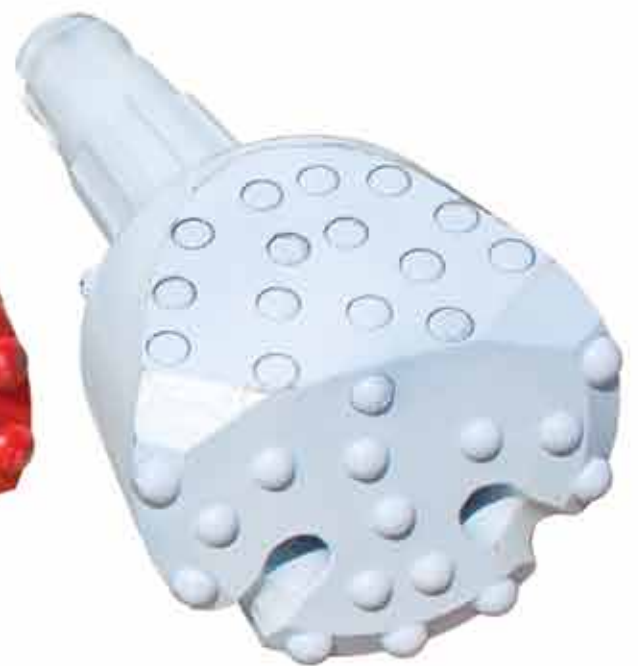
- As small as a 400 cfm/200 psi to 1150 cfm/500 psi. Ground conditions and length determine your size needs
- The control unit has a built-in pump that supplies from 1/2 gallon per minute to 3.5 gallon per minute of fluid to aid in cutting removal and cooling the sonde. No need to run the pump on your drill
- A wireless remote control activates the supply valve at the control unit from your drilling air needs
- Sonde housing handles both DCI® and SubSite® sondes, up to 19" and wireline compatible

Versus the competition.

- In Head to Head testing, the UNIHAMMER outperforms the other air hammer systems on the market
- Specific Metal Compound is used to ensure longer bit life and housing life
- Designed to maximize airflow to provide downhole power, while saving compressor fuel costs by running smaller compressors
- Specifically designed to handle more water for cuttings removal and cooling
- Bit designed to grind up cuttings more efficiently and finer to help keep the hole clean
- Designed and tested for everyday use, not just rock boring, giving you a better return on your investment
- Sonde Housing has been verified by DCI® to work with all DCI® sondes. Also compatible with all Subsite® sondes.

Success Stories

- 440' Bessemer, AL. Through the bottom of a mountain. Solid Limestone for Alabama Gas. Shot out in 3 days with 4" Hammer, 750/350 compressor on 24x40 size drill. Shot reamed and pulled in 6 additional days. Ditch Witch 2720 All terrain 1 road up, there for 3 months on same type shot.
- 330' Fort Payne, AL. Across I-59. In and out of rock, shot out 2 days with 4" hammer and 900/300 compressor. D50x100 size drill.
- 300' Johnson City, TN. Side of road, tight set up, on hill side. Shot with 4" Hammer, 750/350 compressor and 24x40 Vermeer. Solid Limestone, shot and pulled back in pilot hole in 2 days.
- Conway, MO. Under creek and climb hill. 3" Hammer, 24x40 Series II, 400/200 compressor. 300 feet in solid rock in 9 hours.
- 1100' Indianapolis, IN. Under River. 80x100, 3.5 Days, Ground mixed with dirt, boulder, 400 foot solid rock. Miller Pipeline
- 24,000 lb machine. Complete pilot hole in 4 1/2 day - 700' with 4" hammer and 5 1/2 bit in solid rock. Team Fishel, Manassas, VA.

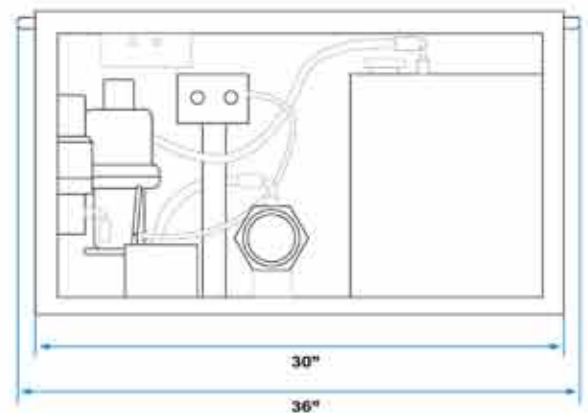
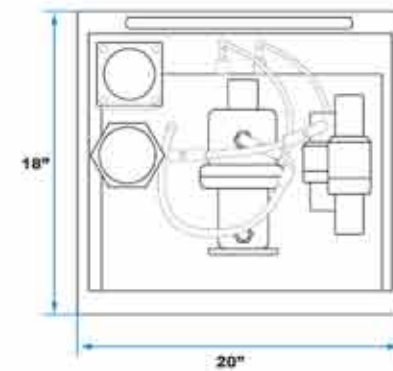


4" Hammer

- Highest Striker Weight to generate power
- Runs on less air, 750 cfm / 350 psi compressor is ideal. This means smaller compressors and less fuel costs.
- Designed to run with large volumes of water to help flush hole, or to compensate for ground water
- Oversized 5.5" head saves wear on the housing and provides better steering and longer life. Allows pullback of 4" pipe with no reamer.

3" Hammer

- Designed to run on 400 cfm / 200 psi compressor
- Small compressor options, allows a simple set up and low operating cost
- Can turn a small drill like the 7x11 into a rock drill or aide in tough ground conditions that are not quite rock
- Works all the way up to 24x40
- 4.5" cut allows pullback up to 3" diameter with no reamer



Subsite is a registered trademark of Charles Machine Works of Perry, Oklahoma.
DCI DigiTrak is a registered trademark of Digital Control Inc, of Renton, Washington

LOCATING SYSTEMS



The DigiTrak® F2™ delivers the most popular features of the Eclipse® locator with enhanced sensitivity and greater ease of operation. Discover the next generation ball-in-box locator. The revolution continues. The DigiTrak F2 incorporates DCI's patented 3-D antenna and "target-in-the-box" locating with a new depth screen display for exceptional accuracy and clarity.

The 2 dimensional bird's eye perspective is viewed on the same screen as the depth view. This means for the first time with a HDD locating device you can actually view the drill head location in 3 dimensions in real-time. The data display screen is streamlined to provide transmitter roll, pitch, signal strength and temperature in a single column view. The locating display is free from clutter.

It's picture-driven menu structure removes language as a barrier to using the system anywhere in the world. The menu and screen views are easily navigated with a single switch/trigger interface. The real-time, bird's-eye view provides operators with critical on-the-fly steering ability and directly contributes to on-the-job productivity and moneysaving opportunities.

The complete system includes a handheld receiver, F Series display, battery charger, rechargeable lithium-ion batteries to power the receiver and remote display, DC power cable as an option to power the remote display from the drill rig, and carry case.



F2™ Systems

Cut	Description
F2SYS	System without FSD Includes a Receiver, Lithium-Ion Battery Charger, 2 Lithium-Ion Battery Packs, Receiver Carry Case, Manual
F2SYSFSD	System with FSD Includes a Receiver, Remote Display, MFDC 12V Cord, Lithium-Ion Battery Charger, 3 Lithium-Ion Batteries, a brace insert, System Carry Case, Manual

F2™ Components

Cut	Description
F2R	F2™ Receiver
FSD	F2™ Remote Display
MFDC	MFDC/FSD Display Cord (460-3825-00)
FBC w/Power Kit	Lithium-ion Battery Pack Charger w/Power Kit
FBC Power Kit US	AC Power Cord, AC Adapter & DC Power Cord
FBC Power Kit AU, UK CH & India	AC Power Cord, AC Adapter & DC Power Cord
FBP	Lithium-ion Battery Pack
FRCC	F Series Receiver Case
FCC	F Series System Case
F2CD-MAN	F2™ CD ROM Manual, Several Languages

F Series Transmitters

Cut	Description
FX	F2™ 15" Long Range Transmitter 0.1% Pitch (Gray)
FXL	F2™ 19" Extended Long-Range Transmitter 0.1% Pitch (Gray.) Requires SuperCell™ lithium battery.

The DigiTrak® Eclipse® system is revolutionary for the HDD industry. It is the first of its kind to display the drill head location and locate points in a "real-time" bird's-eye view. All new systems are dual frequency capable. Older systems can be upgraded. All transmitters are sewer grade with pitch readings in 0.1% increments. The locating frequency was designated at such a level because it results in the least amount of interference. Programmable target depth and remote steering function. Advanced features such as tension monitoring and magnetic steering tool capabilities available as upgrades.

Eclipse® Systems

Cut	Description
SYSREME	System without EDD Includes a Receiver, Battery Charger, DBC power Kit, 3 Battery Packs, System Carry Case
SYSREMMFDE	System with Remote Display Includes a Receiver, MFDF free standing Remote Display, DC cable assembly for remote, Battery Charger, DBC Power Kit, 4 Battery Packs, System Carry Case, Manual
SYSREMCABE	Remote Cable Transmitter System with EDD Includes a Receiver, Cable Remote Display, Battery Charger, DBC Power Kit, 4 Battery Packs, Cable Transmitter Power Supply, Remote DC Adaptor, System Carry Case, Manual

Eclipse® Components

Cut	Description
EDRR	Eclipse® Receiver
EDD	Eclipse® Cable Remote Display
MFDF	Multi Function Display Free Standing
EDCS	Eclipse® EDD Cable Transmitter Power Supply
ELP	Eclipse® EDD Remote Display DC Adapter
MFDC	Multi Function/F Series Display DC Power Cord
EDL-KIT	Eclipse® Datalog® Kit (IR-LNK, DL-USB & EDLMAN)
DCTOOL	Cable Transmitter Removal Tool
DBC	NiCad Battery Charger w/Power Kit
Power Kit US	AC Power Cord, AC Adapter & DC Power Cord

Eclipse® Series Transmitters

Cut	Description
EXL	EXL Extended Range - 0.1% Pitch (Light Gray)
EDF	EDF Dual Frequency - 0.1% Pitch (Lavender)
ET	ET Standard Range - 0.1% Pitch (Black)
ES	ES Short Range - 0.1% Pitch (Gray)
ECP	ECP Cable Transmitter - 0.1% Pitch (Black)
EDDT	EDDT DucTrak™ Extended Range Transmitter
EDTS	EDTS DucTrak™ Transmitter

The DigiTrak® LT™ Locating System is DCI's solution for versatility, compactness and ease-of-use. Eight communication channels for congested drilling areas. Well-suited for shallow depths and areas where compact equipment is required. Real-time graphic display allows drill head to be tracked while it is moving, or "on-the-fly," minimizing idle time for the drill rig. Patented target-in-the-box® technology provides the intuitiveness and simplicity that HDD operators appreciate in DCI locating systems. Both the LT receiver and LT remote display show depth, pitch, roll, temperature and battery status information for the transmitter.

LT™ Systems

Cut	Description
SYSREMDLT US	System with Remote Display Includes Receiver, Remote Display, Battery Charger, DBC Power Kit, 3 Battery Packs, System Carry Case, Manual

DigiTrak® LT™ System Components

Cut	Description
LDR	DigiTrak® LT™ Receiver
LDD	DigiTrak® LT™ Remote Display
DBC	NiCad Battery Charger w/Power Kit
DBC Power Kit US	AC Power Cord, AC Adapter & DC Power Cord
DBC Power Kit AU, UK CH & India	AC Power Cord, AC Adapter & DC Power Cord
DBP	NiCad Battery Pack
LCC	MK/LT System Carrying Case - Gray

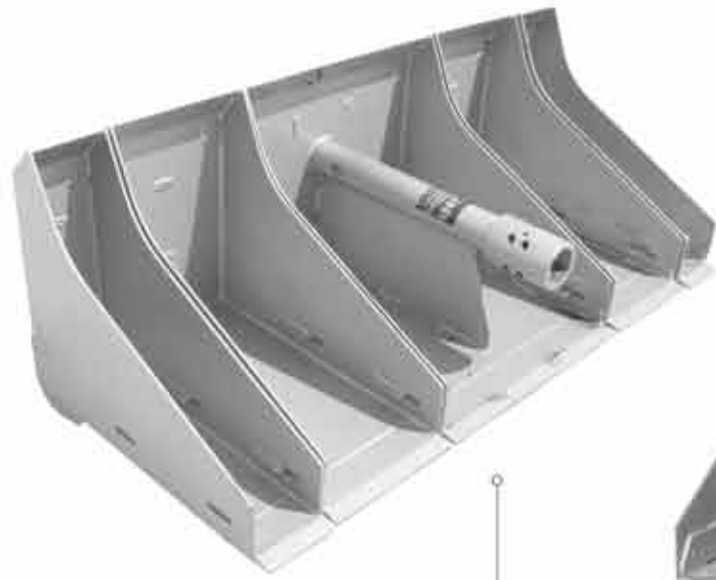
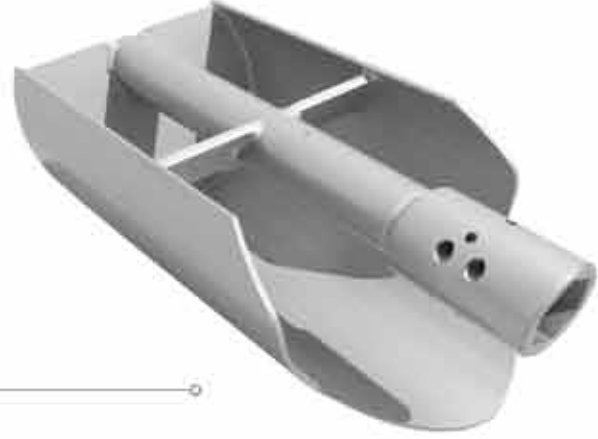
LT™ Series Transmitters

Cut	Description
EXL	LT (12 kHz) Standard-Range Transmitter for use with the LT™ System (Lime)
EDF	LS (12 kHz) Short-Range Transmitter for use with the LT™ System (Brown)
700-1480-00	Short Transmitter Housing Adapter for 8", LS, DS & ES Only



Authorized DCI® (DigiTrak®) Dealer

UNIVERSAL HARR



Pull Bucket
Designed to pull material back towards to operator.



Push Bucket
Designed to push material out the far end of the culvert. It can also function as a scoop removing material bucket full at a time.



Barrel Reamer
Designed to loosen and remove heavy material located in the culvert.

Brush
Designed to fine clean a culvert.

With the awareness of environmental hazards detailed by federal and local regulations, it is important that drainage structures are properly maintained. In the past these structures have not been given the attention they deserve. Many culverts in the U.S. have never been cleaned which has resulted in damages to the structures themselves, roads, ditches, personal property and even people. One of the main reasons organizations have not maintained their structures is due to the lack of efficient and effective culvert cleaning methods. Open cutting a road, better trucks, backhoes and cables are all methods that have been used to clean culverts in the past. Each of these methods have their shortcomings.

Harr's patented method have overcome these failures of other methods and has introduced an efficient and effective way to clean clogged culverts. The following are benefits of this method:

Benefits

Containment of Debris
Using a directional drill gives the operator complete control of the debris within a culvert. With controlled pullback and thrust speeds the operator can remove as little or as much material as they want at a controlled speed. This will allow for the material to be shovelled, excavated or vacuumed as it is being removed from the culvert. Using a pull bucket or push bucket, material can be removed from either end of a culvert.

Reduced Water Usage
When using a better truck, potentially thousands of gallons of water can be used to effectively clean a culvert. Harr's method will use a fraction of that. For example, a 60' culvert with a diameter of 24" that is 100% full can be cleaned using between 100-250 gallons of water. Using Harr's method the water usage and pressure are controlled by the drill operator. The water is pumped through the drill stem to the culvert cleaning attachments.

Versatile
Using a directional drill culverts of any size, shape and material can be cleaned effectively.

Structurally Safe
The culvert cleaning tools are built out of a mild steel that will not damage the interior of the culvert. Using a directional drill allows the operator to control the rotation of the tools. This is very important especially when a failure or void is encountered. With total control the operator will be able to back out the tool to determine where the failure is.

Containment of Debris
Using a directional drill gives the operator complete control of the debris within a culvert. With controlled pullback and thrust speeds the operator can remove as little or as much material as they want at a controlled speed. This will allow for the material to be shovelled, excavated or vacuumed as it is being removed from the culvert. Using a pull bucket or push bucket, material can be removed from either end of a culvert.



UNIMIX 13.0 SYSTEM



Pump Output: 370 gal/min

Venturi

Venturi design delivers highest mixing performance in least amount of time.

Honda 13.0 HP Engine

With 4-cycle 13.0 horsepower, Honda high-output, environmentally friendly engine, gives you more power to insure stable flow of mud fluid. Honda has taken their technology one step further with the development of the GX Series, a line of rugged powerful and economical overhead cam engines designed specifically for industrial applications.

Electric Starter

Build and designed for everyday use, all UNIMIX models are equipped with electric starter for easy and more convenient starts. Every mixer also feature newly designed recoil starter which has a larger starter reel making manual starting fast and easy.

UNITANK 750

Specification	U.S.	Metic
Capacity	750 gal	2,835 lit
Tank Jets	6	6
Length	105 inch	268cm
Height	66 inch	168 cm
Width	48 inch	122 cm
Weight (empty)	450 lb	200 kg
Weight (full)	4,630 lb	2,100 kg

UNIMIX 13.0

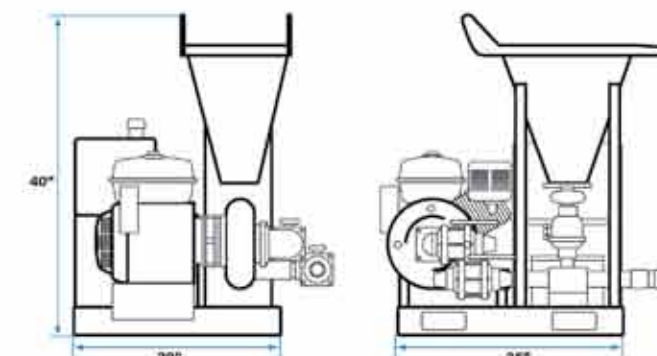
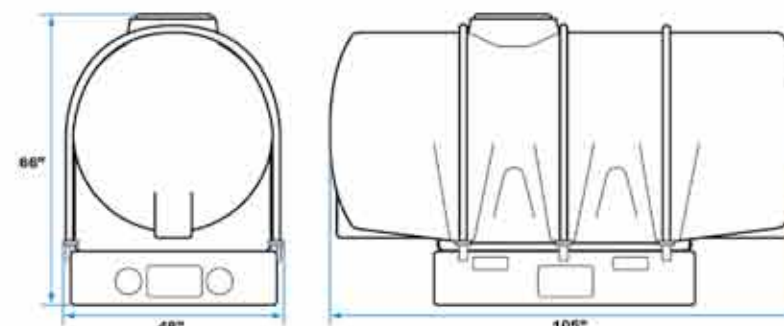
Specification	
Engine	Honda 13.0 hp
Engine type	Air-cooled, 4-Stroke, OHV, single cylinder
Engine features	Oil Alert
Starter	Recoil or Electric Starter
Fuel capacity	6.4 qt (6.1 lit)
Fuel type	Gasoline
Pump (output)	370 gpm (1,400 lit)

Centrifugal Pump

The centrifugal pump is designed to handle abrasive, corrosive dirty and reclaim process fluids. Its heavy-duty rotating impeller is designed for high volume pressure and increasable durability.

Valves

UNIMIX series mixers come outfitted with noncorrosive and durable valves, designed for maximum flow efficiencies with high pressure ratings. They feature a dial handle for easy flow regulation and visual indication of valve setting, plus Teflon seats for dependable sealing.



UNIMIX 24.0 SYSTEM



Pump Output: 430 gal/min

Electric Starter

Build and designed for everyday use, all UNIMIX models are equipped with electric starter for easy and more convenient starts. Every mixer also feature newly designed recoil starter which has a larger starter reel making manual starting fast and easy.

Venturi

Venturi design delivers highest mixing performance in least amount of time.



Design

All UNIMIX series mixers designed for both easy transportation and maximum productivity. It is an optimal balance between efficiency, power and portability. The heavy duty and innovative design delivers high shearing capability and requires low maintenance.

Valves

UNIMIX series mixers come outfitted with non-corrosive and durable valves, designed for maximum flow efficiencies with high pressure ratings. They feature a dial handle for easy flow regulation and visual indication of valve setting, plus Teflon seats for dependable sealing.

Centrifugal Pump

The centrifugal pump is designed to handle abrasive, corrosive dirty and reclaim process fluids. Its heavy-duty rotating impeller is designed for high volume pressure and increased durability.

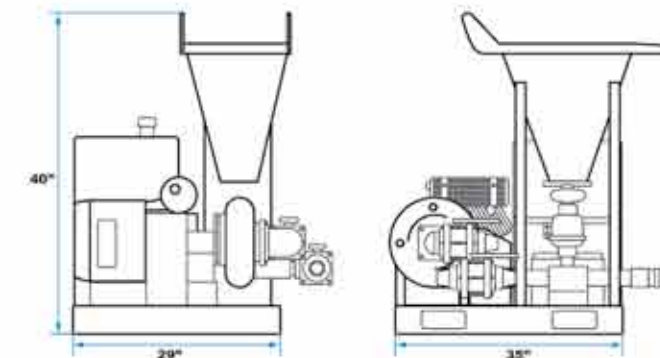
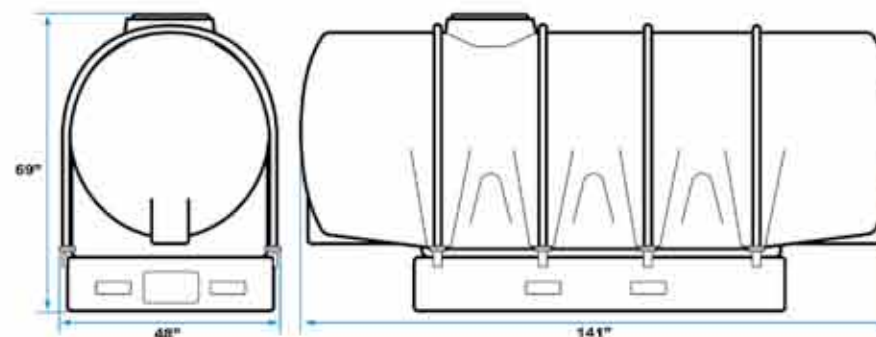


UNITANK 1000

Specification	U.S.	Metic
Capacity	1,000 gal	3,785 lit
Tank Jets	8	8
Length	141 inch	358 cm
Height	69 inch	175 cm
Width	48 inch	122 cm
Weight (empty)	1,300 lb	591 kg
Weight (full)	9,600 lb	4,364 kg

UNIMIX 24.0

Specification	
Engine	Honda 24.0 hp
Engine type	Air-cooled, 4-Stroke, OHV, 90L V-Twin
Engine features	Oil Alert
Starter	Recoil or Electric Starter
Fuel capacity	6.4 qt (6.1 lit)
Fuel type	Gasoline
Pump (output)	370 gpm (1,400 lit)



UNITANK TANKS



Design

Efficient, portable, heavy-duty, and cost-effective, all our water tanks are designed specifically for horizontal directional drilling industry.

Durable

These mud storage tanks are made to last. Our mud tanks are tough enough to meet the standards of the U.S. Department of the Interior, USDA and the Department of Transportation.

Transportation

Our mud tanks are lightweight and easy to handle. Often times mud tanks must be placed in a location not easily accessible. Universal HDD mud tanks can be easily maneuvered, and lifted into position. Simply install on native soil or sand pad.



Variety

Our selection of mud storage tanks is available in a wide variety of sizes. Some mud tanks of a particular size can be made in different dimensions. Most of our mud tanks are available in white color.

Tank Jets

Every UNITANK series water tank features a set of high-performance tank jets. These tank jets are constructed from industrial strength materials, and are able to deliver prompt and thorough yield. In turn, this means faster and higher quality yield.



UNITANK	1000		750		500		300	
Specification	U.S.	Metic	U.S.	Metic	U.S.	Metic	U.S.	Metic
Capacity	1,000 gal	3,785 lit	750 gal	2,835 lit	500 gal	1,890 lit	350 gal	1,134 lit
Tank Jets	8	8	6	6	4	4	3	3
Length	141 inch	358 cm	105 inch	268 cm	101 inch	256 cm	68 inch	172 cm
Height	69 inch	175 cm	66 inch	168 cm	63 inch	160 cm	50 inch	127 cm
Width	48 inch	122 cm	48 inch	122 cm	48 inch	122 cm	37 inch	94 cm
Weight (empty)	1,300 lb	591 kg	450 lb	200 kg	450 lb	200 kg	250 lb	200 kg
Weight (full)	9,600 lb	4,364 kg	4,630 lb	2,100 kg	3,800 lbs	1,727 kg	2,100 lb	954 kg

Drill Pipes For Vermeer® (Original Hunting Iberia - 100% OEM Compatible)

HDD Machine	Tube OD	Wall	Length	Connection	Part #
D6X6	1.315"	.179W	6'	HIWS1	U-HI222394
D7X11	1.66"	.191W	6'	HIWS1	U-HI216492
D10X15	1.66"	.191W	10'	HIWS1	U-HI219006
D16X20	1.90"	.240W	10'	HIWS1	U-HI230993
D18x22	1.90"	.240W	10'	HIWS1	U-HI230993
D24X26	2.063"	.260W	10'	HIWS1	U-HI221628
D24X33	2.063"	.260W	10'	HIWS2	U-HI281600
D24X40	2.375"	.254W	10'	HIWS1	U-HI222276
D40X40	2.375"	.295W	15'	HIWS1	U-HI222455
D33X44	2.375"	.295W	10'	HIWS2	U-HI294566
D33X44	2.375"	.295W	15'	HIWS2	U-HI284153
D36X50	2.625" Flush	.400W	15'	HIWS2	U-HI294642
	2.625"	.400W	15'	HIWS2	U-HI276305
D50x100	2.875"	.392W	15'	HIWS1	U-HI222452
D80x100	2.875"	.392W	15'	HIWS1	U-HI222452
D55X100	2.875"	.440W	15'	HIWS2	U-HI276307
D80X100	3.500"	.449W	15'	HIWS1	U-HI222454
D100X120	3.500"	.449W	20'	HIWS2	U-HI276376



Authorized Dealer

Universal HDD is an authorized dealer of Hunting Iberia, and we offer a complete line of Hunting's HDD drill rods.

Steel

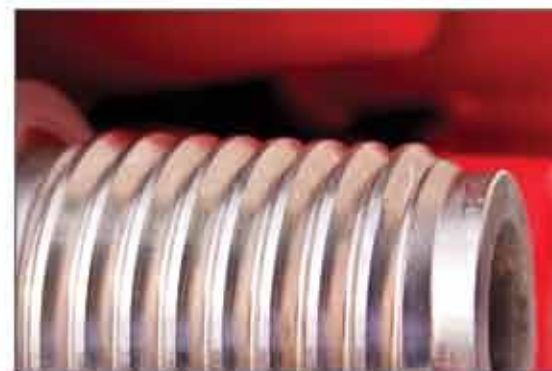
Manufactured from highest-quality steel which delivers optimal balance between toughness and flexibility.

Design

Designed for high-performance, high torque, and maximum resistance to abrasive environment.

Quality

All the machining is performed at very high precision levels and quality inspections are performed during every production stage and process.



Drill Pipes For Ditch Witch® (Compatible Rods)

HDD Machine	Tube OD	Wall	Length	Weight	Part #
JT520	1.13"	1.75"	59"	16 lbs	U-369-318
JT921	1.58"	2.00"	72"	29 lbs	U-400-963
JT922	1.58"	2.00"	72"	29 lbs	U-400-1118
JT920L	1.63"	2.00"	120"	39 lbs	U-400-842
JT1220	1.82"	2.38"	120"	39 lbs	U-355-1005
JT1720	2.06"	2.50"	120"	59 lbs	U-400-843
JT2020	2.06"	2.63"	120"	59 lbs	U-401-339
JT2720	2.38"	3.00"	120"	78 lbs	U-400-844
JT2720M1	2.38"	3.00"	120"	78 lbs	U-400-845
JT3020M1	2.38"	3.00"	177"	90 lbs	U-400-1031
JT4020	2.63"	3.25"	177"	176 lbs	U-400-846
JT4020M1	2.81"	3.50"	177"	176 lbs	U-400-847
JT7020	4.00"	3.50"	177"	176 lbs	U-400-8478



Ditch Witch is a registered trademark of Charles Machine Works of Perry, Oklahoma.
VERMEER is a registered trademark of Vermeer Manufacturing Company of Pella, Iowa.

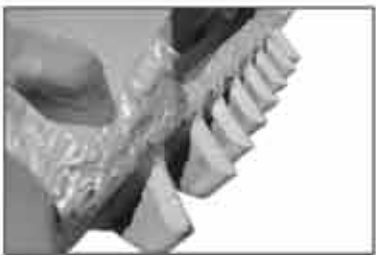
1221 Flex Court, Lake Zurich, IL 60047, USA
TEL: (847)955-0050 FAX: (847)955-0055
WEB: www.unihdd.com EMAIL: info@unihdd.com

UNI UNIVERSAL
HORIZONTAL DIRECTIONAL DRILLING

Ring-Cutter Back Reamer

Diameter	Description	Shaft	Part #
12"	Ring-Cutter Back Reamer	2-3/4"	R-RC-12-234
12"	Ring-Cutter Back Reamer	3-1/2"	R-RC-12-312
12"	Ring-Cutter Back Reamer	5.625"	R-RC-12-5625
14"	Ring-Cutter Back Reamer	2-3/4"	R-RC-14-234
14"	Ring-Cutter Back Reamer	3-1/2"	R-RC-14-312
14"	Ring-Cutter Back Reamer	5.625"	R-RC-14-5625
16"	Ring-Cutter Back Reamer	2-3/4"	R-RC-16-234
16"	Ring-Cutter Back Reamer	3-1/2"	R-RC-16-312
16"	Ring-Cutter Back Reamer	5.625"	R-RC-16-5625
18"	Ring-Cutter Back Reamer	2-3/4"	R-RC-18-234
18"	Ring-Cutter Back Reamer	3-1/2"	R-RC-18-312
18"	Ring-Cutter Back Reamer	5.625"	R-RC-18-5625
20"	Ring-Cutter Back Reamer	2-3/4"	R-RC-20-234
20"	Ring-Cutter Back Reamer	3-1/2"	R-RC-20-312
20"	Ring-Cutter Back Reamer	5.625"	R-RC-20-5625
22"	Ring-Cutter Back Reamer	3-1/2"	R-RC-22-312
22"	Ring-Cutter Back Reamer	5.625"	R-RC-22-5625
24"	Ring-Cutter Back Reamer	3-1/2"	R-RC-24-312
24"	Ring-Cutter Back Reamer	5.625"	R-RC-24-5625
25"-30"	Ring-Cutter Back Reamer	5.625"	
30"-35"	Ring-Cutter Back Reamer	5.625"	

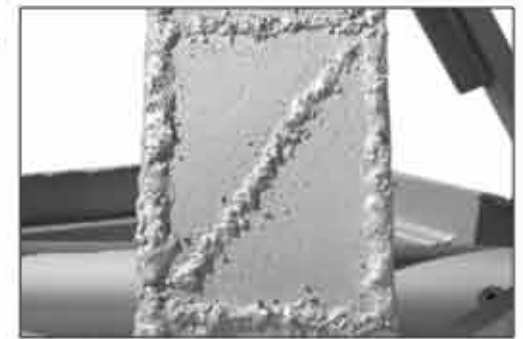
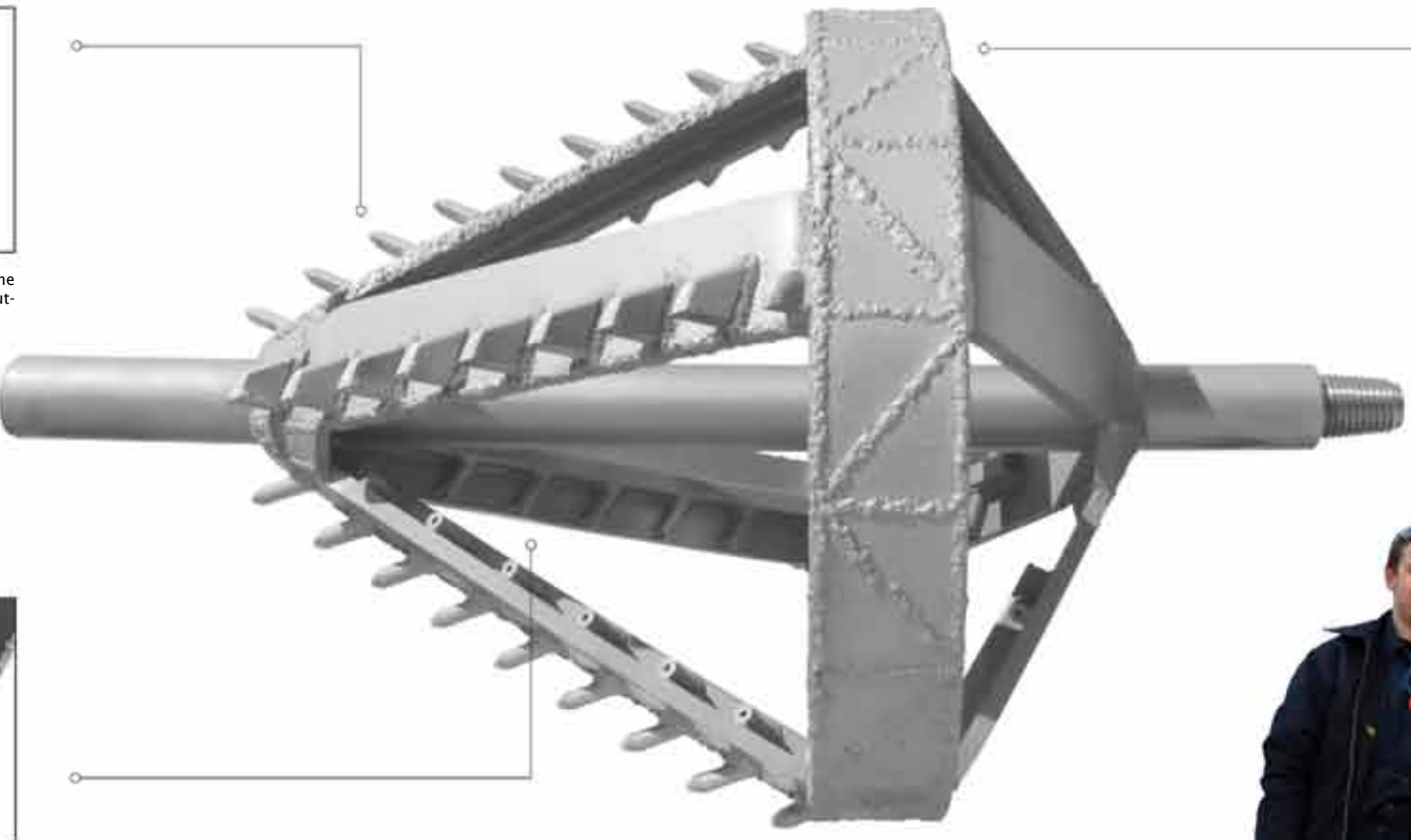
- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread



Heavy-duty carbide cutters placed along the blades of the reamer, delivering superior cutting power.



Replaceable fluid ports deliver high pressure fluid stream into the bore, softening the ground and cooling down tooling.



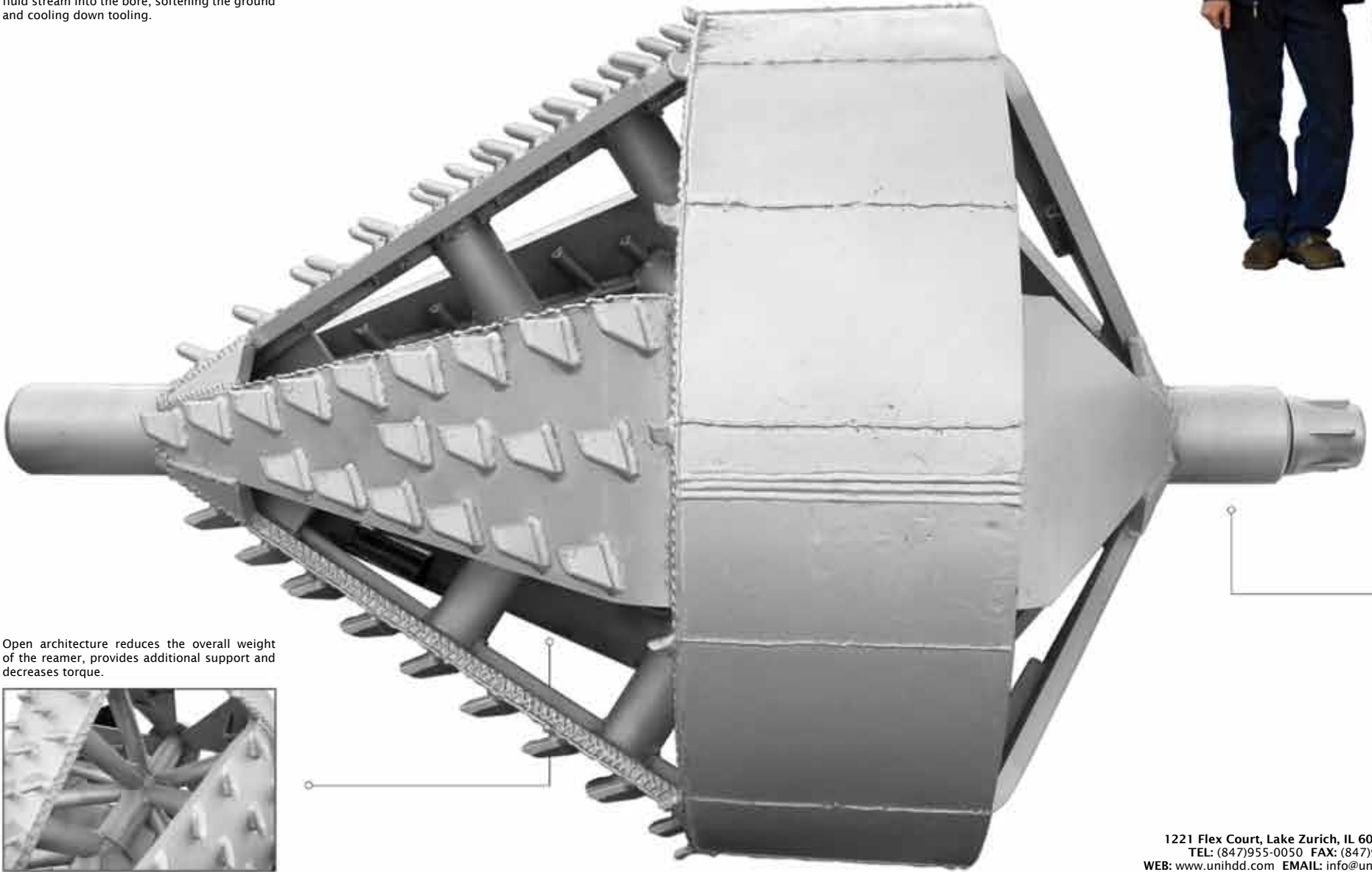
Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer.



MAXI Ring-Cutter Back Reamer

Diameter	Description	Shaft	Part #
40"	Maxi Ring-Cutter Back Reamer	5.625"	R-MRC-40-5625
40"	Maxi Ring-Cutter Back Reamer	6 1/4"	R-MRC-40-614
40"	Maxi Ring-Cutter Back Reamer	7 1/4"	R-MRC-40-714
45"	Maxi Ring-Cutter Back Reamer	5.625"	R-MRC-45-5625
45"	Maxi Ring-Cutter Back Reamer	6 1/4"	R-MRC-45-614
45"	Maxi Ring-Cutter Back Reamer	7 1/4"	R-MRC-45-714
50"	Maxi Ring-Cutter Back Reamer	5.625"	R-MRC-50-5625
50"	Maxi Ring-Cutter Back Reamer	6 1/4"	R-MRC-50-614
50"	Maxi Ring-Cutter Back Reamer	7 1/4"	R-MRC-50-714
55"	Maxi Ring-Cutter Back Reamer	5.625"	R-MRC-55-5625
55"	Maxi Ring-Cutter Back Reamer	6 1/4"	R-MRC-55-614
55"	Maxi Ring-Cutter Back Reamer	7 1/4"	R-MRC-55-714
60"	Maxi Ring-Cutter Back Reamer	5.625"	R-MRC-60-5625
60"	Maxi Ring-Cutter Back Reamer	6 1/4"	R-MRC-60-614
60"	Maxi Ring-Cutter Back Reamer	8 1/2"	R-MRC-60-714
65"	Maxi Ring-Cutter Back Reamer	7 1/4"	R-MRC-65-614
65"	Maxi Ring-Cutter Back Reamer	8 1/2"	R-MRC-65-812
70"	Maxi Ring-Cutter Back Reamer	8 1/2"	R-MRC-70-812
70"	Maxi Ring-Cutter Back Reamer	10 1/2"	R-MRC-70-1012
75"-80"	Maxi Ring-Cutter Back Reamer	10 1/2"	
85"-95"	Maxi Ring-Cutter Back Reamer	10 1/2"	
100"-120"	Maxi Ring-Cutter Back Reamer	10 1/2"	

- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread
 - Custom shaft sizes available: 5.625" - 14 1/2"



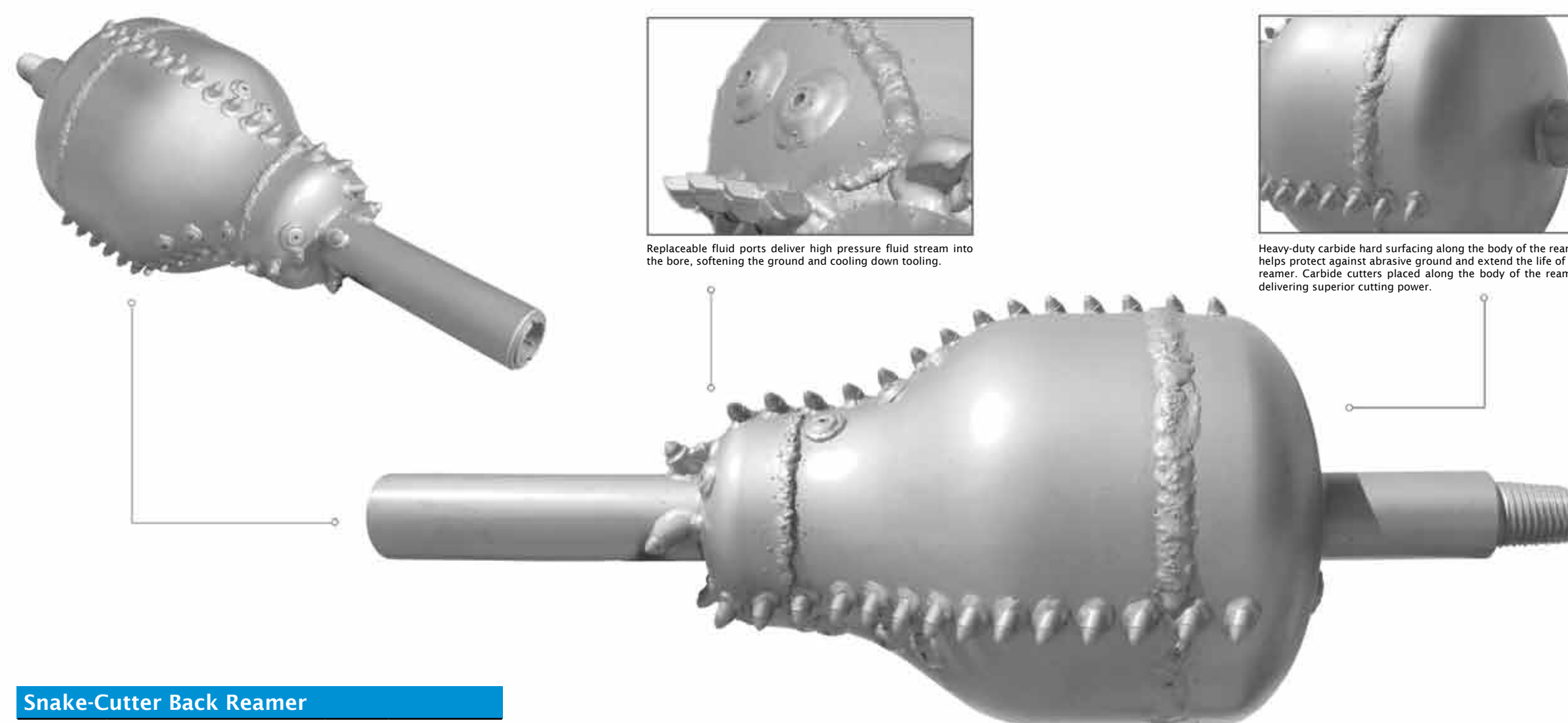
Open architecture reduces the overall weight of the reamer, provides additional support and decreases torque.



Cutter-Packer Back Reamer

Diameter	Description	Shaft	Part #
6"	Cutter-Packer Back Reamer	2-3/4"	R-CP-6-234
6"	Cutter-Packer Back Reamer	3-1/2"	R-CP-6-312
8"	Cutter-Packer Back Reamer	2-3/4"	R-CP-8-234
8"	Cutter-Packer Back Reamer	3-1/2"	R-CP-8-312
10"	Cutter-Packer Back Reamer	2-3/4"	R-CP-10-234
10"	Cutter-Packer Back Reamer	3-1/2"	R-CP-10-312
10"	Cutter-Packer Back Reamer	5.625"	R-CP-10-5625
12"	Cutter-Packer Back Reamer	2-3/4"	R-CP-12-234
12"	Cutter-Packer Back Reamer	3-1/2"	R-CP-12-312
12"	Cutter-Packer Back Reamer	5.625"	R-CP-12-5625
14"	Cutter-Packer Back Reamer	2-3/4"	R-CP-14-234
14"	Cutter-Packer Back Reamer	3-1/2"	R-CP-14-312
14"	Cutter-Packer Back Reamer	5.625"	R-CP-14-5625
16"	Cutter-Packer Back Reamer	2-3/4"	R-CP-16-234
16"	Cutter-Packer Back Reamer	3-1/2"	R-CP-16-312
16"	Cutter-Packer Back Reamer	5.625"	R-CP-16-5625
18"	Cutter-Packer Back Reamer	2-3/4"	R-CP-18-234
18"	Cutter-Packer Back Reamer	3-1/2"	R-CP-18-312
18"	Cutter-Packer Back Reamer	5.625"	R-CP-18-5625
20"	Cutter-Packer Back Reamer	3-1/2"	R-CP-20-312
20"	Cutter-Packer Back Reamer	5.625"	R-CP-20-5625
22"-26"	Cutter-Packer Back Reamer	5.625"	
28"-32"	Cutter-Packer Back Reamer	5.625"	
34"-40"	Cutter-Packer Back Reamer	5.625"	

- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread



Replaceable fluid ports deliver high pressure fluid stream into the bore, softening the ground and cooling down tooling.

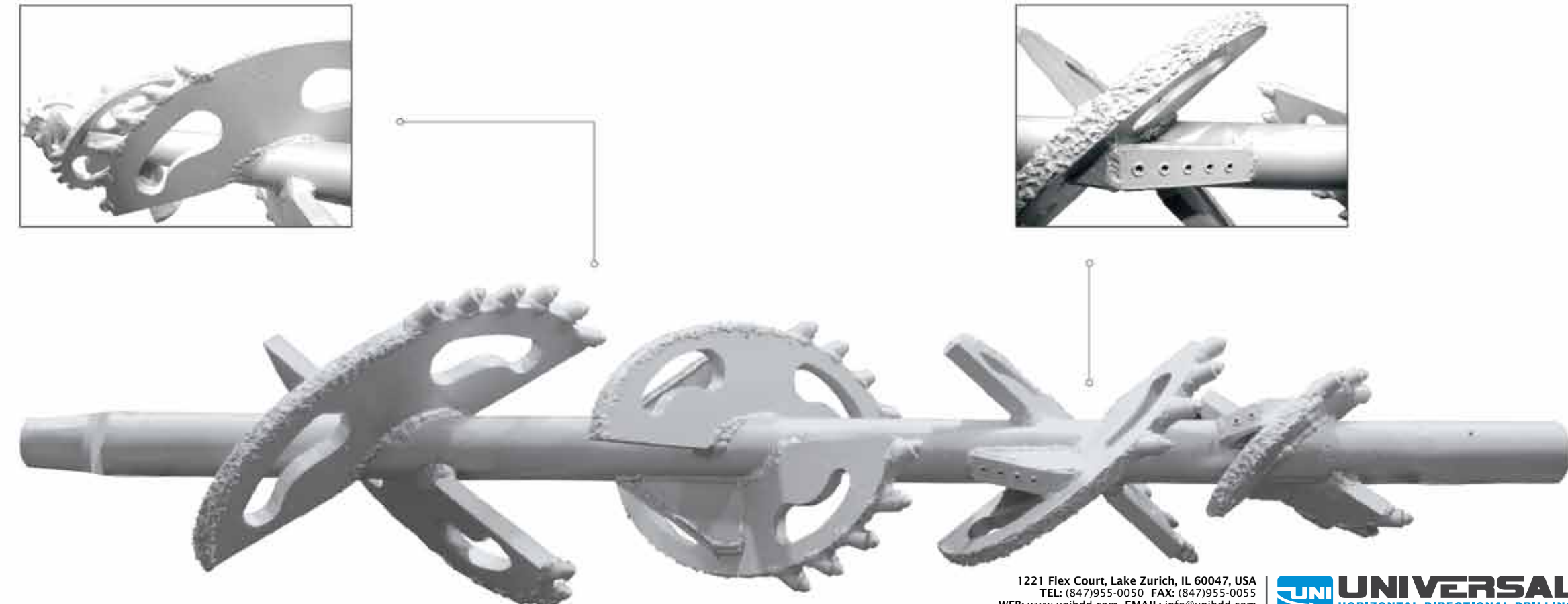
Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer. Carbide cutters placed along the body of the reamer, delivering superior cutting power.

Snake-Cutter Back Reamer

Diameter	Description	Shaft	Part #
6"	Snake-Cutter Back Reamer	2-3/4"	R-SC-6-234
6"	Snake-Cutter Back Reamer	3-1/2"	R-SC-6-312
8"	Snake-Cutter Back Reamer	2-3/4"	R-SC-8-234
8"	Snake-Cutter Back Reamer	3-1/2"	R-SC-8-312
8"	Snake-Cutter Back Reamer	5.625"	R-SC-8-5625
10"	Snake-Cutter Back Reamer	2-3/4"	R-SC-10-234
10"	Snake-Cutter Back Reamer	3-1/2"	R-SC-10-312
10"	Snake-Cutter Back Reamer	5.625"	R-SC-10-5625
12"	Snake-Cutter Back Reamer	2-3/4"	R-SC-12-234
12"	Snake-Cutter Back Reamer	3-1/2"	R-SC-12-312
12"	Snake-Cutter Back Reamer	5.625"	R-SC-12-5625
14"	Snake-Cutter Back Reamer	2-3/4"	R-SC-14-234
14"	Snake-Cutter Back Reamer	3-1/2"	R-SC-14-312
14"	Snake-Cutter Back Reamer	5.625"	R-SC-14-5625
16"	Snake-Cutter Back Reamer	2-3/4"	R-SC-16-234
16"	Snake-Cutter Back Reamer	3-1/2"	R-SC-16-312
16"	Snake-Cutter Back Reamer	5.625"	R-SC-16-5625
18"	Snake-Cutter Back Reamer	2-3/4"	R-SC-18-234
18"	Snake-Cutter Back Reamer	3-1/2"	R-SC-18-312
18"	Snake-Cutter Back Reamer	5.625"	R-SC-18-5625
20"	Snake-Cutter Back Reamer	2-3/4"	R-SC-20-234
20"	Snake-Cutter Back Reamer	3-1/2"	R-SC-20-312
20"	Snake-Cutter Back Reamer	5.625"	R-SC-20-5625
22"-26"	Snake-Cutter Back Reamer	5.625"	
26"-30"	Snake-Cutter Back Reamer	5.625"	

Open architecture reduces the overall weight of the reamer, provides additional support and decreases torque.

Replaceable fluid ports deliver high pressure fluid stream into the bore, softening the ground and cooling down tooling.



- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread

1221 Flex Court, Lake Zurich, IL 60047, USA
 TEL: (847)955-0050 FAX: (847)955-0055
 WEB: www.unihdd.com EMAIL: info@unihdd.com



MAXI Barrel Back Reamer

Diameter	Description	Shaft	Part #
40"	Maxi Barrel Back Reamer	5.625"	R-MB-40-5625
40"	Maxi Barrel Back Reamer	6 1/4"	R-MB-40-614
40"	Maxi Barrel Back Reamer	7 1/4"	R-MB-40-714
45"	Maxi Barrel Back Reamer	5.625"	R-MB-45-5625
45"	Maxi Barrel Back Reamer	6 1/4"	R-MB-45-614
45"	Maxi Barrel Back Reamer	7 1/4"	R-MB-45-714
50"	Maxi Barrel Back Reamer	5.625"	R-MB-50-5625
50"	Maxi Barrel Back Reamer	6 1/4"	R-MB-50-614
50"	Maxi Barrel Back Reamer	7 1/4"	R-MB-50-714
55"	Maxi Barrel Back Reamer	5.625"	R-MB-55-5625
55"	Maxi Barrel Back Reamer	6 1/4"	R-MB-55-614
55"	Maxi Barrel Back Reamer	7 1/4"	R-MB-55-714
60"	Maxi Barrel Back Reamer	5.625"	R-MB-60-5625
60"	Maxi Barrel Back Reamer	6 1/4"	R-MB-60-614
60"	Maxi Barrel Back Reamer	8 1/2"	R-MB-60-812
65"	Maxi Barrel Back Reamer	7 1/4"	R-MB-65-714
65"	Maxi Barrel Back Reamer	8 1/2"	R-MB-65-712
70"	Maxi Barrel Back Reamer	8 1/2"	R-MB-70-714
70"	Maxi Barrel Back Reamer	10 1/2"	R-MB-70-712
75"-80"	Maxi Barrel Back Reamer	10 1/2"	
85"-95"	Maxi Barrel Back Reamer	10 1/2"	

- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread

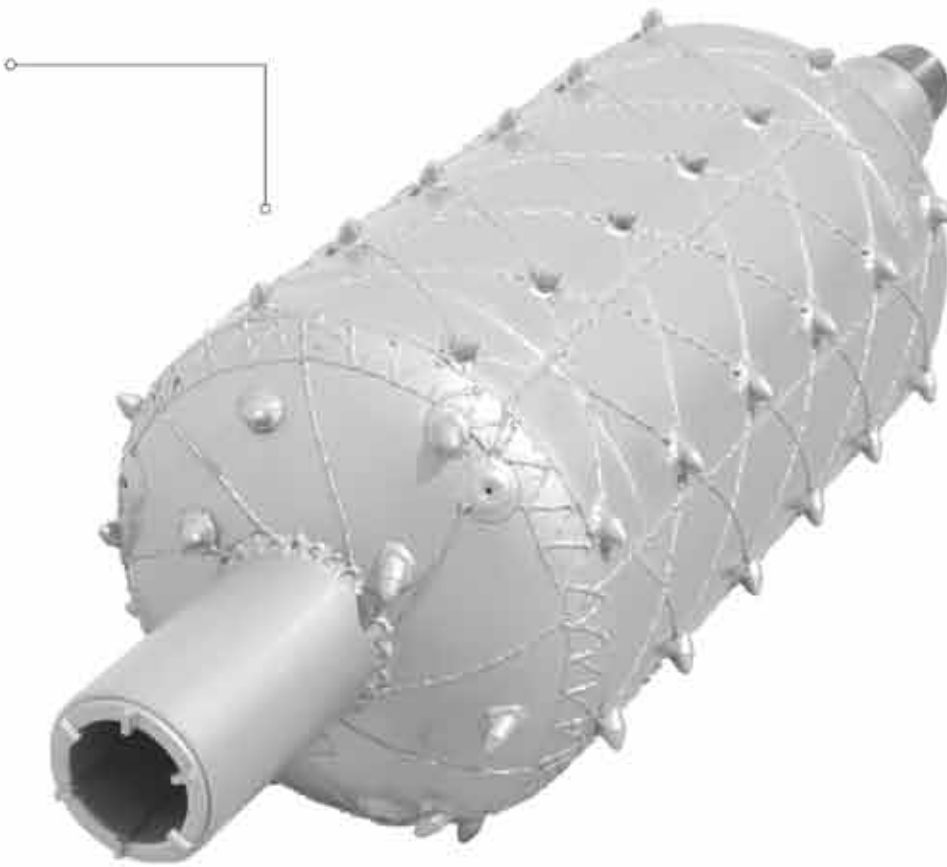
Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer. Carbide cutters placed along the body of the reamer, delivering superior cutting power.



Barrel Back Reamer

Diameter	Description	Shaft	Part #
10"	Barrel Back Reamer	2-3/4"	R-B-10-234
10"	Barrel Back Reamer	3-1/2"	R-B-10-312
12"	Barrel Back Reamer	2-3/4"	R-B-12-234
12"	Barrel Back Reamer	3-1/2"	R-B-12-312
12"	Barrel Back Reamer	5.625"	R-B-12-5625
14"	Barrel Back Reamer	2-3/4"	R-B-14-234
14"	Barrel Back Reamer	3-1/2"	R-B-14-312
14"	Barrel Back Reamer	5.625"	R-B-14-5625
16"	Barrel Back Reamer	2-3/4"	R-B-16-234
16"	Barrel Back Reamer	3-1/2"	R-B-16-312
16"	Barrel Back Reamer	5.625"	R-B-16-5625
18"	Barrel Back Reamer	2-3/4"	R-B-18-234
18"	Barrel Back Reamer	3-1/2"	R-B-18-312
18"	Barrel Back Reamer	5.625"	R-B-18-5625
20"	Barrel Back Reamer	2-3/4"	R-B-20-234
20"	Barrel Back Reamer	3-1/2"	R-B-20-312
20"	Barrel Back Reamer	5.625"	R-B-20-5625
22"	Barrel Back Reamer	3-1/2"	R-B-22-312
22"	Barrel Back Reamer	5.625"	R-B-22-5625
24"	Barrel Back Reamer	3-1/2"	R-B-24-312
24"	Barrel Back Reamer	5.625"	R-B-24-5625
26"-30"	Barrel Back Reamer	5.625"	
32"-36"	Barrel Back Reamer	5.625"	
z38"-42"	Barrel Back Reamer	5.625"	

- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread



Tri-Barrel Back Reamer

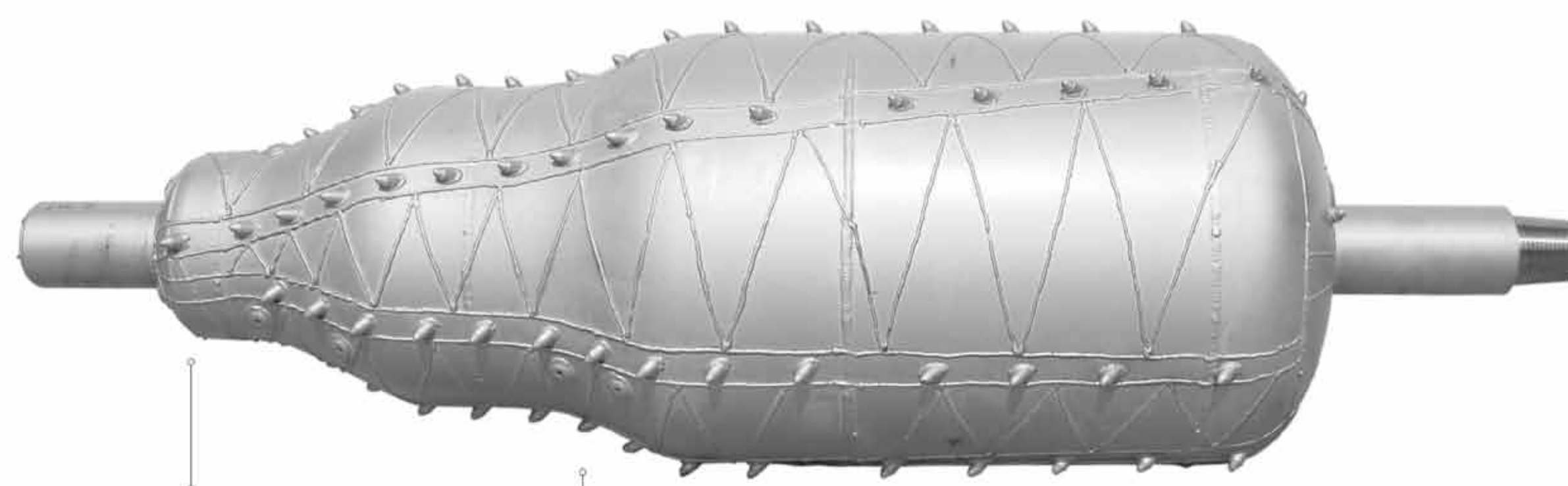
Diameter	Description	Shaft	Part #
14"	Tri-Barrel Back Reamer	2-3/4"	R-TB-14-234
14"	Tri-Barrel Back Reamer	3-1/2"	R-TB-14-312
14"	Tri-Barrel Back Reamer	5.625"	R-TB-14-5625
16"	Tri-Barrel Back Reamer	2-3/4"	R-TB-16-234
16"	Tri-Barrel Back Reamer	3-1/2"	R-TB-16-312
16"	Tri-Barrel Back Reamer	5.625"	R-TB-16-5625
18"	Tri-Barrel Back Reamer	2-3/4"	R-TB-18-234
18"	Tri-Barrel Back Reamer	3-1/2"	R-TB-18-312
18"	Tri-Barrel Back Reamer	5.625"	R-TB-18-5625
20"	Tri-Barrel Back Reamer	2-3/4"	R-TB-20-234
20"	Tri-Barrel Back Reamer	3-1/2"	R-TB-20-312
20"	Tri-Barrel Back Reamer	5.625"	R-TB-20-5625
22"	Tri-Barrel Back Reamer	3-1/2"	R-TB-22-312
22"	Tri-Barrel Back Reamer	5.625"	R-TB-22-5625
24"	Tri-Barrel Back Reamer	3-1/2"	R-TB-24-312
24"	Tri-Barrel Back Reamer	5.625"	R-TB-24-5625
26"-30"	Tri-Barrel Back Reamer	5.625"	
32"-36"	Tri-Barrel Back Reamer	5.625"	
38"-42"	Tri-Barrel Back Reamer	5.625"	

- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread

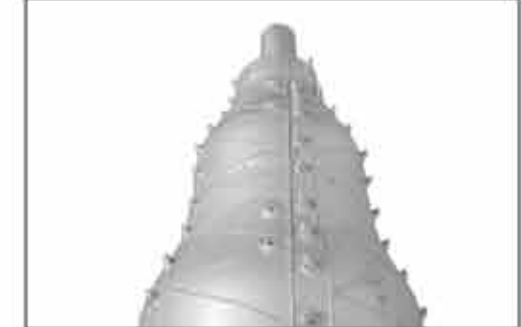
Blade Back Reamer

Diameter	Description	Shaft	Part #
10"	Blade Back Reamer	2-3/4"	R-BL-10-234
10"	Blade Back Reamer	3-1/2"	R-BL-10-312
12"	Blade Back Reamer	2-3/4"	R-BL-12-234
12"	Blade Back Reamer	3-1/2"	R-BL-12-312
12"	Blade Back Reamer	5.625"	R-BL-12-5625
14"	Blade Back Reamer	2-3/4"	R-BL-14-234
14"	Blade Back Reamer	3-1/2"	R-BL-14-312
14"	Blade Back Reamer	5.625"	R-BL-14-5625
16"	Blade Back Reamer	2-3/4"	R-BL-16-234
16"	Blade Back Reamer	3-1/2"	R-BL-16-312
16"	Blade Back Reamer	5.625"	R-BL-16-5625
18"	Blade Back Reamer	2-3/4"	R-BL-18-234
18"	Blade Back Reamer	3-1/2"	R-BL-18-312
18"	Blade Back Reamer	5.625"	R-BL-18-5625
20"	Blade Back Reamer	2-3/4"	R-BL-20-234
20"	Blade Back Reamer	3-1/2"	R-BL-20-312
20"	Blade Back Reamer	5.625"	R-BL-20-5625
22"	Blade Back Reamer	3-1/2"	R-BL-22-312
22"	Blade Back Reamer	5.625"	R-BL-22-5625
24"	Blade Back Reamer	3-1/2"	R-BL-24-312
24"	Blade Back Reamer	5.625"	R-BL-24-5625
26"-30"	Blade Back Reamer	5.625"	
32"-36"	Blade Back Reamer	5.625"	
38"-42"	Blade Back Reamer	5.625"	

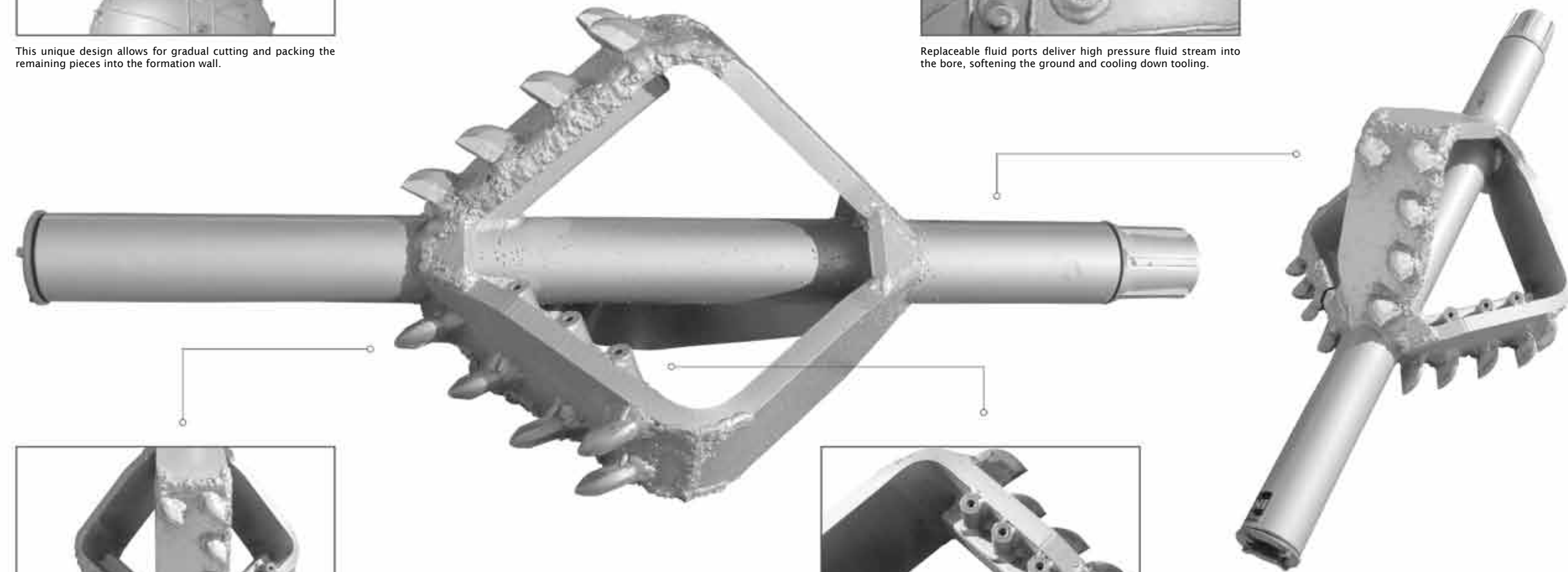
- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread



Replaceable fluid ports deliver high pressure fluid stream into the bore, softening the ground and cooling down tooling.



This unique design allows for gradual cutting and packing the remaining pieces into the formation wall.



Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer. Carbide cutters placed along the body of the reamer, delivering superior cutting power.



Open architecture reduces the overall weight of the reamer, provides additional support and decreases torque. Replaceable fluid ports deliver high pressure fluid stream into the bore, softening the ground and cooling down tooling.

Compactor Reamer w/ Swivel

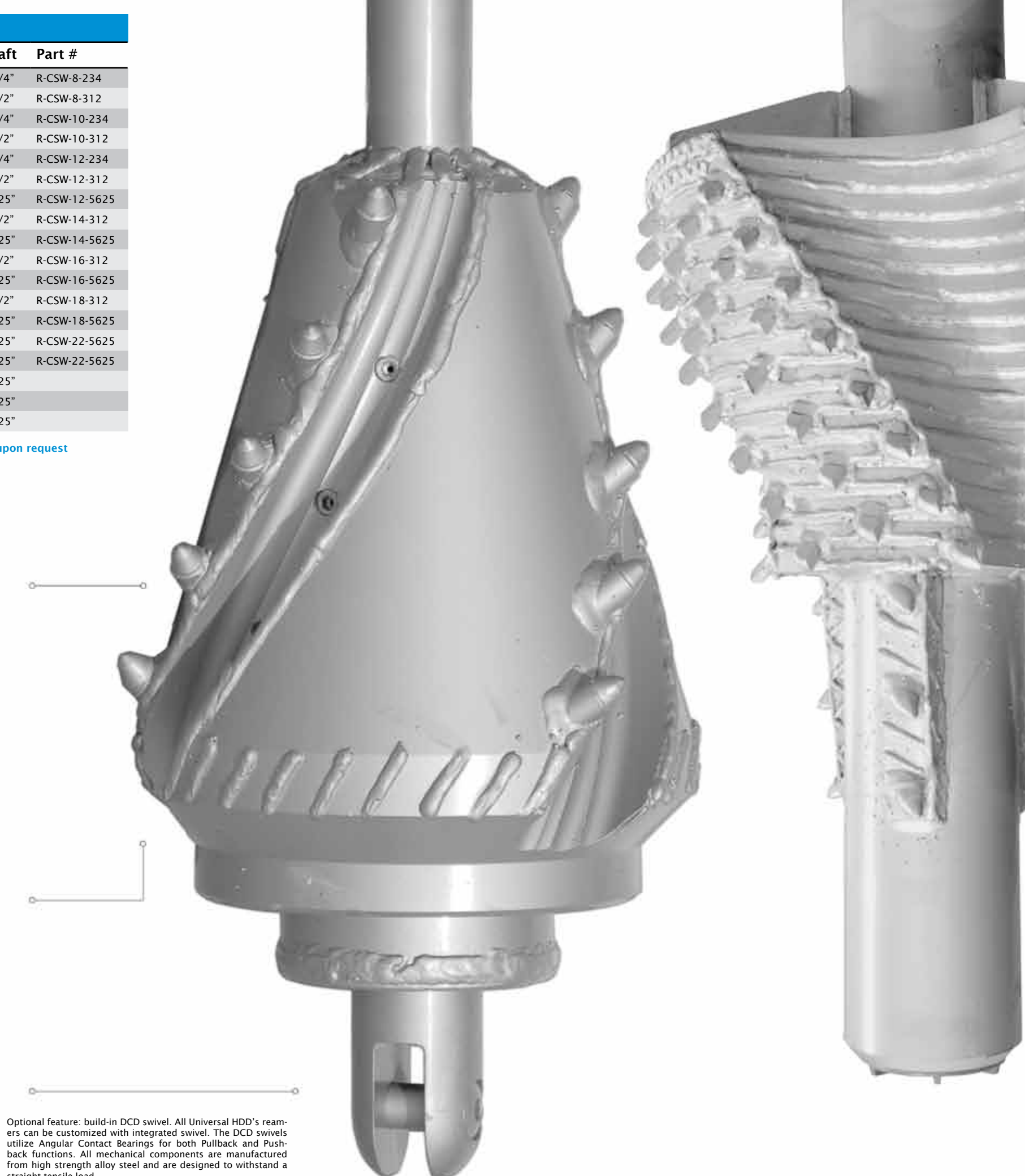
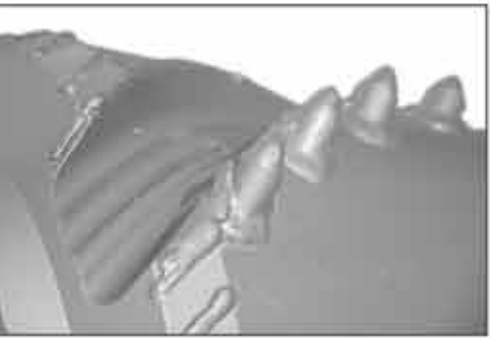
Diameter	Description	Shaft	Part #
8"	Compactor Reamer with Swivel	2-3/4"	R-CSW-8-234
8"	Compactor Reamer with Swivel	3-1/2"	R-CSW-8-312
10"	Compactor Reamer with Swivel	2-3/4"	R-CSW-10-234
10"	Compactor Reamer with Swivel	3-1/2"	R-CSW-10-312
12"	Compactor Reamer with Swivel	2-3/4"	R-CSW-12-234
12"	Compactor Reamer with Swivel	3-1/2"	R-CSW-12-312
12"	Compactor Reamer with Swivel	5.625"	R-CSW-12-5625
14"	Compactor Reamer with Swivel	3-1/2"	R-CSW-14-312
14"	Compactor Reamer with Swivel	5.625"	R-CSW-14-5625
16"	Compactor Reamer with Swivel	3-1/2"	R-CSW-16-312
16"	Compactor Reamer with Swivel	5.625"	R-CSW-16-5625
18"	Compactor Reamer with Swivel	3-1/2"	R-CSW-18-312
18"	Compactor Reamer with Swivel	5.625"	R-CSW-18-5625
20"	Compactor Reamer with Swivel	5.625"	R-CSW-22-5625
22"	Compactor Reamer with Swivel	5.625"	R-CSW-22-5625
30"-36"	Compactor Reamer with Swivel	5.625"	
38"-42"	Compactor Reamer with Swivel	5.625"	
42"-50"	Compactor Reamer with Swivel	5.625"	

- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread

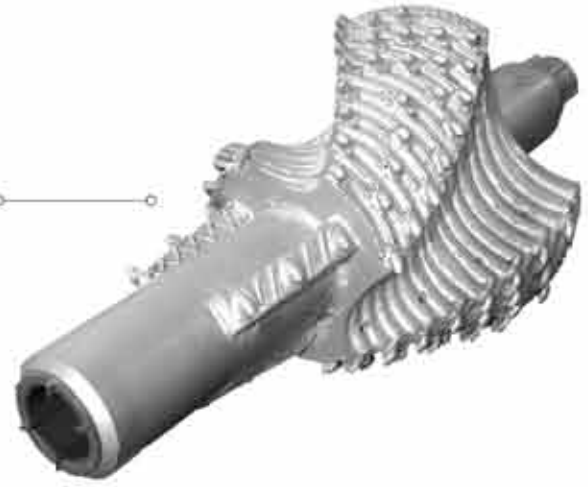
Replaceable fluid ports deliver high pressure fluid stream into the bore, softening the ground and cooling down tooling



Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer. Carbide cutters placed along the body of the reamer, delivering superior cutting power.



Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer. Carbide cutters placed along the body of the reamer, delivering superior cutting power. Constructed from solid metal plates.



All-Terrain Back Reamer

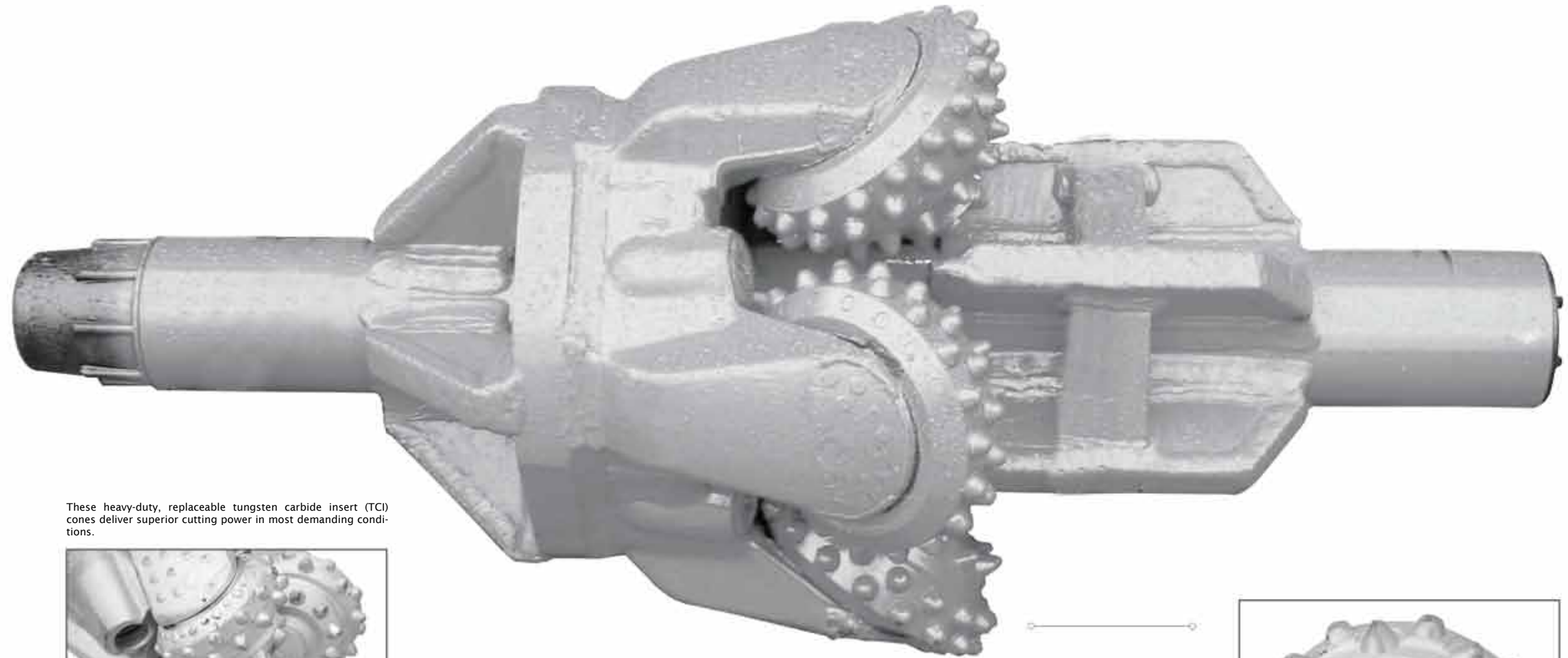
Diameter	Description	Shaft	Part #
8"	All-Terrain Fluted Back Reamer	2-3/4"	R-AT-8-234
8"	All-Terrain Fluted Back Reamer	3-1/2"	R-AT-8-312
10"	All-Terrain Fluted Back Reamer	2-3/4"	R-AT-10-234
10"	All-Terrain Fluted Back Reamer	3-1/2"	R-AT-10-312
12"	All-Terrain Fluted Back Reamer	2-3/4"	R-AT-12-234
12"	All-Terrain Fluted Back Reamer	3-1/2"	R-AT-12-312
12"	All-Terrain Fluted Back Reamer	5.625"	R-AT-12-5625
14"	All-Terrain Fluted Back Reamer	2-3/4"	R-AT-14-234
14"	All-Terrain Fluted Back Reamer	3-1/2"	R-AT-14-312
14"	All-Terrain Fluted Back Reamer	5.625"	R-AT-14-5625
16"	All-Terrain Fluted Back Reamer	2-3/4"	R-AT-16-234
16"	All-Terrain Fluted Back Reamer	3-1/2"	R-AT-16-312
16"	All-Terrain Fluted Back Reamer	5.625"	R-AT-16-5625
18"	All-Terrain Fluted Back Reamer	2-3/4"	R-AT-18-234
18"	All-Terrain Fluted Back Reamer	3-1/2"	R-AT-18-312
18"	All-Terrain Fluted Back Reamer	5.625"	R-AT-18-5625
20"	All-Terrain Fluted Back Reamer	5.625"	R-AT-20-5625
22"	All-Terrain Fluted Back Reamer	5.625"	R-AT-20-5625
30"-36"	All-Terrain Fluted Back Reamer	5.625"	
38"-42"	All-Terrain Fluted Back Reamer	5.625"	
42"-50"	All-Terrain Fluted Back Reamer	5.625"	

- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread

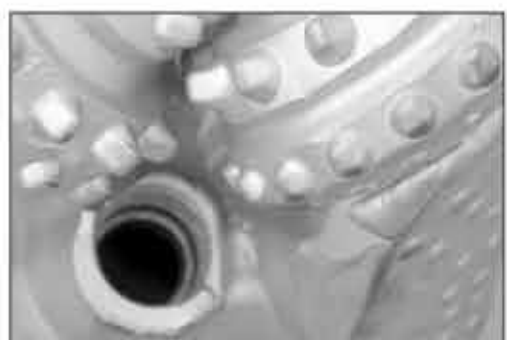
Rock Reamer w/ TCI Cones

Diameter	Description	Shaft	Part #
8"	Rock Reamer / 4-Cone TCI	2-3/4"	R-R-4-8-234
8"	Rock Reamer / 4-Cone TCI	3-1/2"	R-R-4-8-312
10"	Rock Reamer / 4-Cone TCI	2-3/4"	R-R-4-10-234
10"	Rock Reamer / 4-Cone TCI	3-1/2"	R-R-4-10-312
12"	Rock Reamer / 4-Cone TCI	2-3/4"	R-R-4-12-234
12"	Rock Reamer / 5-Cone TCI	3-1/2"	R-R-5-12-312
12"	Rock Reamer / 5-Cone TCI	5.625"	R-R-5-12-5625
14"	Rock Reamer / 5-Cone TCI	3-1/2"	R-R-5-14-312
14"	Rock Reamer / 6-Cone TCI	5.625"	R-R-6-14-5625
16"	Rock Reamer / 5-Cone TCI	3-1/2"	R-R-5-16-312
16"	Rock Reamer / 6-Cone TCI	5.625"	R-R-6-16-5625
18"	Rock Reamer / 6-Cone TCI	3-1/2"	R-R-6-18-312
18"	Rock Reamer / 6-Cone TCI	5.625"	R-R-6-18-5625
20"	Rock Reamer / 6-Cone TCI	5.625"	R-R-6-20-5625
22"	Rock Reamer / 8-Cone TCI	5.625"	R-R-8-22-5625
30"-36"	Rock Reamer / 8-Cone TCI	5.625"	
38"-42"	Rock Reamer / 12-Cone TCI	5.625"	

- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread



These heavy-duty, replaceable tungsten carbide insert (TCI) cones deliver superior cutting power in most demanding conditions.



Fluid ports deliver high pressure fluid stream into the bore, softening the ground and cooling down tooling.



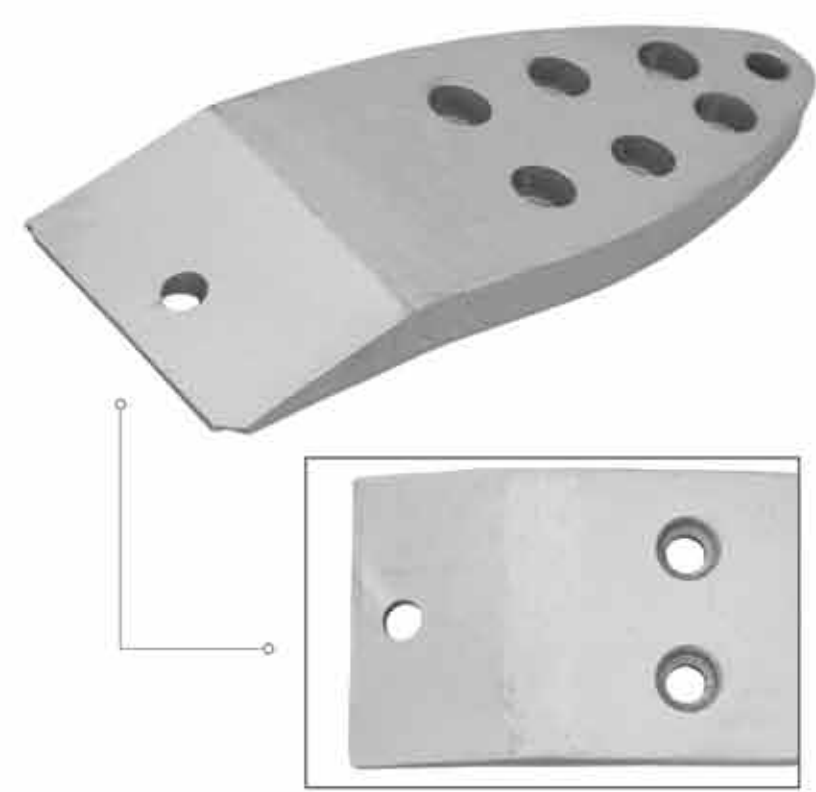
These heavy-duty, replaceable tungsten carbide insert (TCI) cones deliver superior cutting power in most demanding conditions.



Rock-Crusher Bit w/ TCI Cones

Diameter	Description	Shaft	Part #
3-7/8"	Rock-Crusher Rock Bit	2-3/8"	DB-RC-378-238
4-3/4"	Rock-Crusher Rock Bit	2-7/8"	DB-RC-438-278
5-1/2"	Rock-Crusher Rock Bit	2-7/8"	DB-RC-512-278
5-1/2"	Rock-Crusher Rock Bit	3-1/2"	DB-RC-512-312
5-7/8"	Rock-Crusher Rock Bit	2-7/8"	DB-RC-578-278
5-7/8"	Rock-Crusher Rock Bit	3-1/2"	DB-RC-578-312
6-1/4"	Rock-Crusher Rock Bit	3-1/2"	DB-RC-614-312
6-1/2"	Rock-Crusher Rock Bit	3-1/2"	DB-RC-612-312
6-1/2"	Rock-Crusher Rock Bit	4-1/2"	DB-RC-612-412
7-1/2"	Rock-Crusher Rock Bit	4-1/2"	DB-RC-712-412
7-7/8"	Rock-Crusher Rock Bit	4-1/2"	DB-RC-778-412
8-3/4"	Rock-Crusher Rock Bit	4-1/2"	DB-RC-834-412

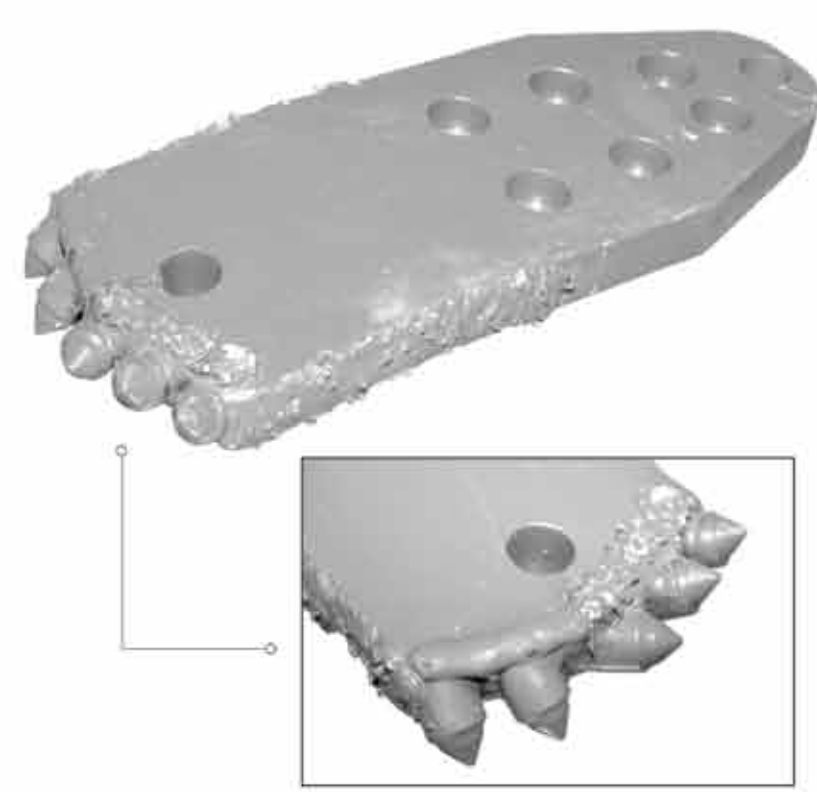
- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread



Plain Drill Bit

Cut	Description	Pattern	Part #
3"	Plain Bit	Small	DB-P-SM-3
3-1/2"	Plain Bit	Small	DB-P-SM-312
4"	Plain Bit	Small	DB-P-SM-4
4-1/2"	Plain Bit	Small	DB-P-SM-412
5"	Plain Bit	Small	DB-P-SM-5
6"	Plain Bit	Small	DB-P-SM-6
4"	Plain Bit	Large	DB-P-L-3
4-1/2"	Plain Bit	Large	DB-P-L-412
5"	Plain Bit	Large	DB-P-L-5
6"	Plain Bit	Large	DB-P-L-6
8"	Plain Bit	Large	DB-P-L-8
10"	Plain Bit	Large	DB-P-L-10

- Compatible with Vermeer® patters

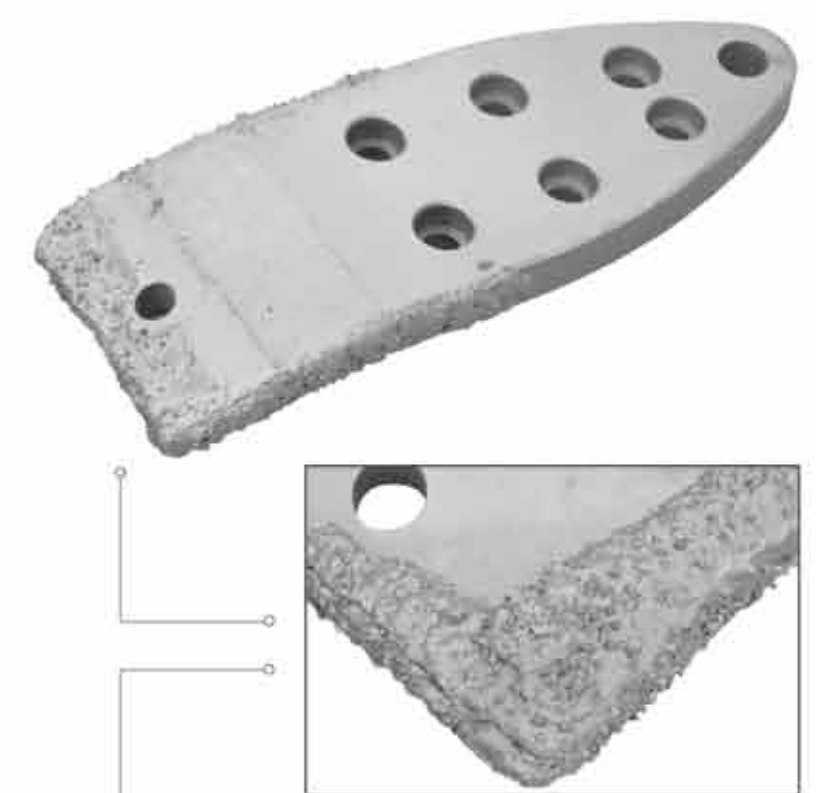


Crusher Drill Bit

Cut	Description	Pattern	Part #
3"	Crusher Bit	Small	DB-CR-SM-3
3-1/2"	Crusher Bit	Small	DB-CR-SM-312
4"	Crusher Bit	Small	DB-CR-SM-4
4-1/2"	Crusher Bit	Small	DB-CR-SM-412
5"	Crusher Bit	Small	DB-CR-SM-5
6"	Crusher Bit	Small	DB-CR-SM-6
4"	Crusher Bit	Large	DB-CR-L-3
4-1/2"	Crusher Bit	Large	DB-CR-L-412
5"	Crusher Bit	Large	DB-CR-L-5
6"	Crusher Bit	Large	DB-CR-L-6
8"	Crusher Bit	Large	DB-CR-L-8
10"	Crusher Bit	Large	DB-CR-L-10

- Compatible with Vermeer® patters

Carbide cutters placed along at the front of the drill bit, delivering superior cutting power.



Rigid Drill Bit

Cut	Description	Pattern	Part #
3"	Rigid Bit	Small	DB-R-SM-3
3-1/2"	Rigid Bit	Small	DB-R-SM-312
4"	Rigid Bit	Small	DB-R-SM-4
4-1/2"	Rigid Bit	Small	DB-R-SM-412
5"	Rigid Bit	Small	DB-R-SM-5
6"	Rigid Bit	Small	DB-R-SM-6
4"	Rigid Bit	Large	DB-R-L-3
4-1/2"	Rigid Bit	Large	DB-R-L-412
5"	Rigid Bit	Large	DB-R-L-5
6"	Rigid Bit	Large	DB-R-L-6
8"	Rigid Bit	Large	DB-R-L-8
10"	Rigid Bit	Large	DB-R-L-10

- Compatible with Vermeer® patters



Hard Rigid Drill Bit

Cut	Description	Pattern	Part #
3"	Hard Rigid Bit	Small	DB-HR-SM-3
3-1/2"	Hard Rigid Bit	Small	DB-HR-SM-312
4"	Hard Rigid Bit	Small	DB-HR-SM-4
4-1/2"	Hard Rigid Bit	Small	DB-HR-SM-412
5"	Hard Rigid Bit	Small	DB-HR-SM-5
6"	Hard Rigid Bit	Small	DB-HR-SM-6
4"	Hard Rigid Bit	Large	DB-HR-L-3
4-1/2"	Hard Rigid Bit	Large	DB-HR-L-412
5"	Hard Rigid Bit	Large	DB-HR-L-5
6"	Hard Rigid Bit	Large	DB-HR-L-6
8"	Hard Rigid Bit	Large	DB-HR-L-8
10"	Hard Rigid Bit	Large	DB-HR-L-10

- Compatible with Vermeer® patters

Heavy-duty carbide hard surfacing along the body of the drill bit helps protect against abrasive ground and extend the life of the bit.

* Available for all types of machines AA®, Astec®, Vermeer®, Ditch Witch®, Straightline HDD® and Universal HDD®



Transmitter Housing

Diameter	Description	Bolts	Part #
2"	Screw-on, Bit Style Housing	3	TH-CR-3-2
2-1/2"	Screw-on, Bit Style Housing	6	TH-CR-7-212
2-3/4"	Screw-on, Bit Style Housing	6	TH-CR-7-234
3"	Screw-on, Bit Style Housing	6	TH-CR-7-3
3-1/4"	Screw-on, Bit Style Housing	6	TH-CR-7-314
3-5/8"	Screw-on, Bit Style Housing	6	TH-CR-7-314
4-1/4"	Screw-on, Bit Style Housing	6	TH-CR-7-414
4-1/4"	Screw-on, Bit Style Housing (End Load)	6	TH-CR-7-414

- Compatible with Vermeer® patters

TRAILERS

Design

This design is able to handle heavy load demands placed by long distance transportation on the roads as well as the special requirement involved in moving enormous and abnormal loads and large HDD rigs on site.

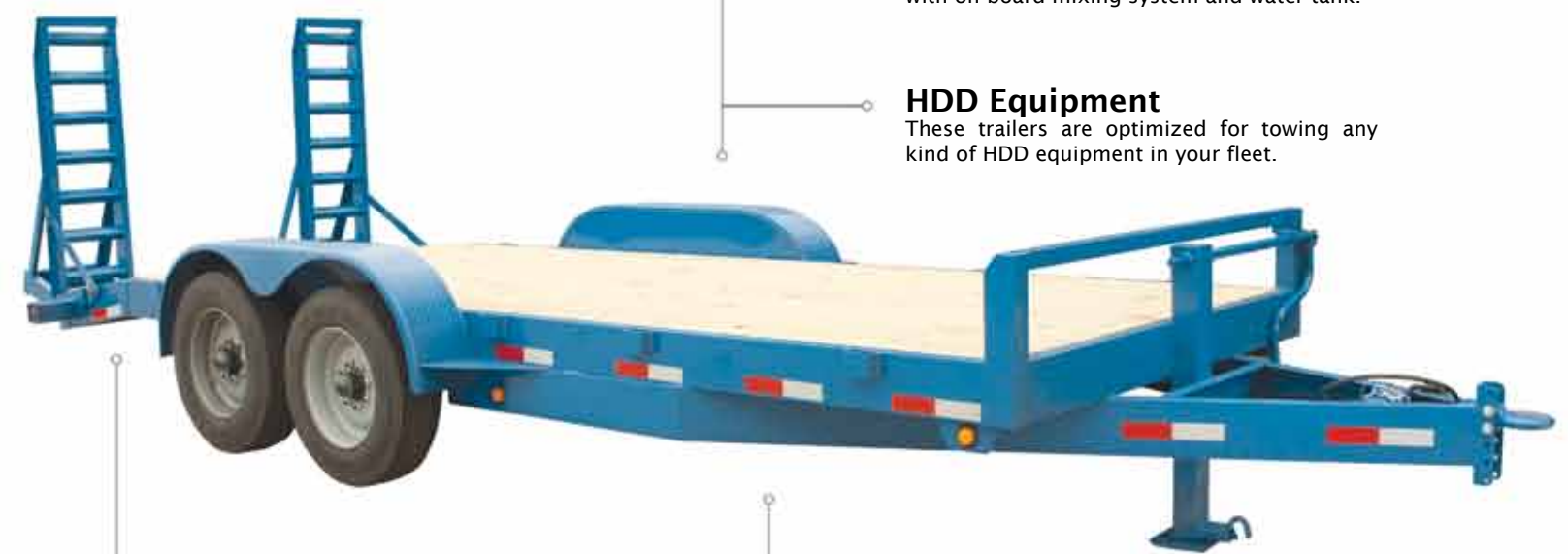


Customize

Our trailers can be customized according to you specification and needs. It can be outfitted with on-board mixing system and water tank.

HDD Equipment

These trailers are optimized for towing any kind of HDD equipment in your fleet.



Used Equipment

Universal HDD is proud to offer you the large selection of certified used and refurbished equipment. From small rigs to large rigs, we've got the equipment you've been looking for.

Buy

We buy and sell used equipment no matter what shape it is. If it is broken, we can fix it.



Restoration

Universal HDD offers 13-point inspection and restoration service on all used equipment. Our complete service includes: rebuilding, replacement of all broken equipment, repainting and complete testing.



Before



After



DRILPLEX HDD

A specialty product used to enhance the gel strengths of MAX GEL* viscosifier, DRILPLEX* HDD viscosifier is an inorganic chemical viscosifier for waterbase, bentonite drilling fluids. DRILPLEX HDD viscosifier is only slightly soluble in water.

DUO-TEC

DUO-TEC* additive is a dispersible, non-clarified technical-grade xanthan gum that provides viscosity, including low-shear-rate viscosity, and weight-material suspension for all water-base mud systems. DUO-TEC xanthan gum has the unique ability to produce a fluid that is highly shear-thinning and thixotropic.



MAX GEL

MAX GEL* viscosifier is a premium 220-bbl yield Wyoming bentonite blended with special extenders, capable of yielding more than twice as much viscosity as regular Wyoming bentonite. MAX GEL viscosifier is an easily mixed, superior Wyoming sodium bentonite for freshwater drilling and boring applications. MAX GEL viscosifier is used in the following applications to rapidly build mud viscosity and provide superior hole cleaning, as well as to help control lost circulation, formation sloughing and promote hole stability in unconsolidated formations.



DUO-VIS / SUPER-VIS

DUO-VIS*/SUPER-VIS* xanthan gum is a high-molecular-weight biopolymer used for increasing carrying capacity in water-base systems. DUO-VIS/SUPER-VIS biopolymer has the unique ability to produce a fluid that is highly shear-thinning and thixotropic.

RINGFREE

RINGFREE* additive is a highly efficient, thermally stable thinner and surface-active agent that removes bentonite clays from the drill-string. It is environmentally acceptable and contains no heavy metals. Because it dissolves rapidly, RINGFREE additive immediately affects the rheology of most drilling fluids.



POLY-PLUS

POLY-PLUS* polymer is a high molecular-weight, anionic liquid designed to provide cuttings encapsulation and shale stabilization. POLY-PLUS additive also acts as a viscosifier, friction reducer and flocculant. POLY-PLUS polymer can be used in mud systems using makeup waters from freshwater to saltwater.

MAX BORE HDD

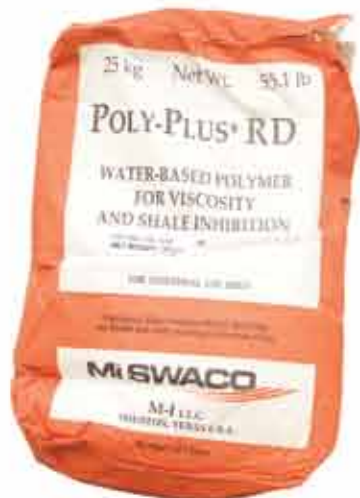
The MAX BORE*HDD system is a proprietary, blended, high-yielding Wyoming bentonite supplied as a single-sack product used especially in boring-fluid applications. The MAX BOREHDD system provides suspension, wellbore stability and filtration control. The system also helps reduce torque and drag for water-base applications and is designed to minimize environmental impact.

ROD EASE

ROD EASE* lubricant mixes instantly and is not affected by water quality. For this product to deliver rod protection and reduce torque after drilling has started, consideration must be given to the number of rods and the amount of fluid in the hole. Treatment can require dosing the system with several pails of lubricant. Established maintenance levels are required after initial dosage and treatment.

PLATINUM PAC

PLATINUM PAC* polyanionic cellulose is a readily dispersible, watersoluble polymer designed to control fluid loss in water-base muds. PLATINUM PAC polyanionic cellulose is effective in low concentrations, with the normal fluid-loss treatment ranging from 0.25 to 1 lb/bbl (0.71 to 2.85 kg/m³). This product is applicable in all water-base muds, ranging from low-solids, non-dispersed polymer systems to high-density, dispersed systems. It is used as a filtrate reducer and borehole stabilizer in water-base drilling applications.



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