



UNIVERSAL

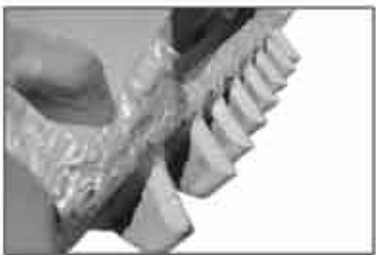
HORIZONTAL DIRECTIONAL DRILLING



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"	

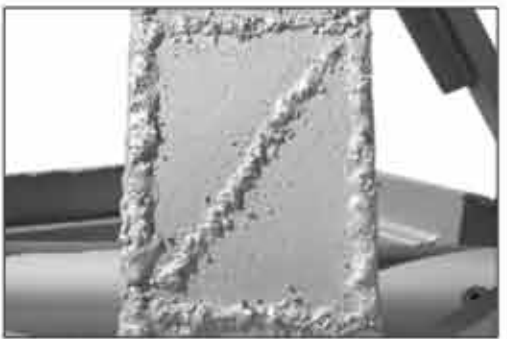
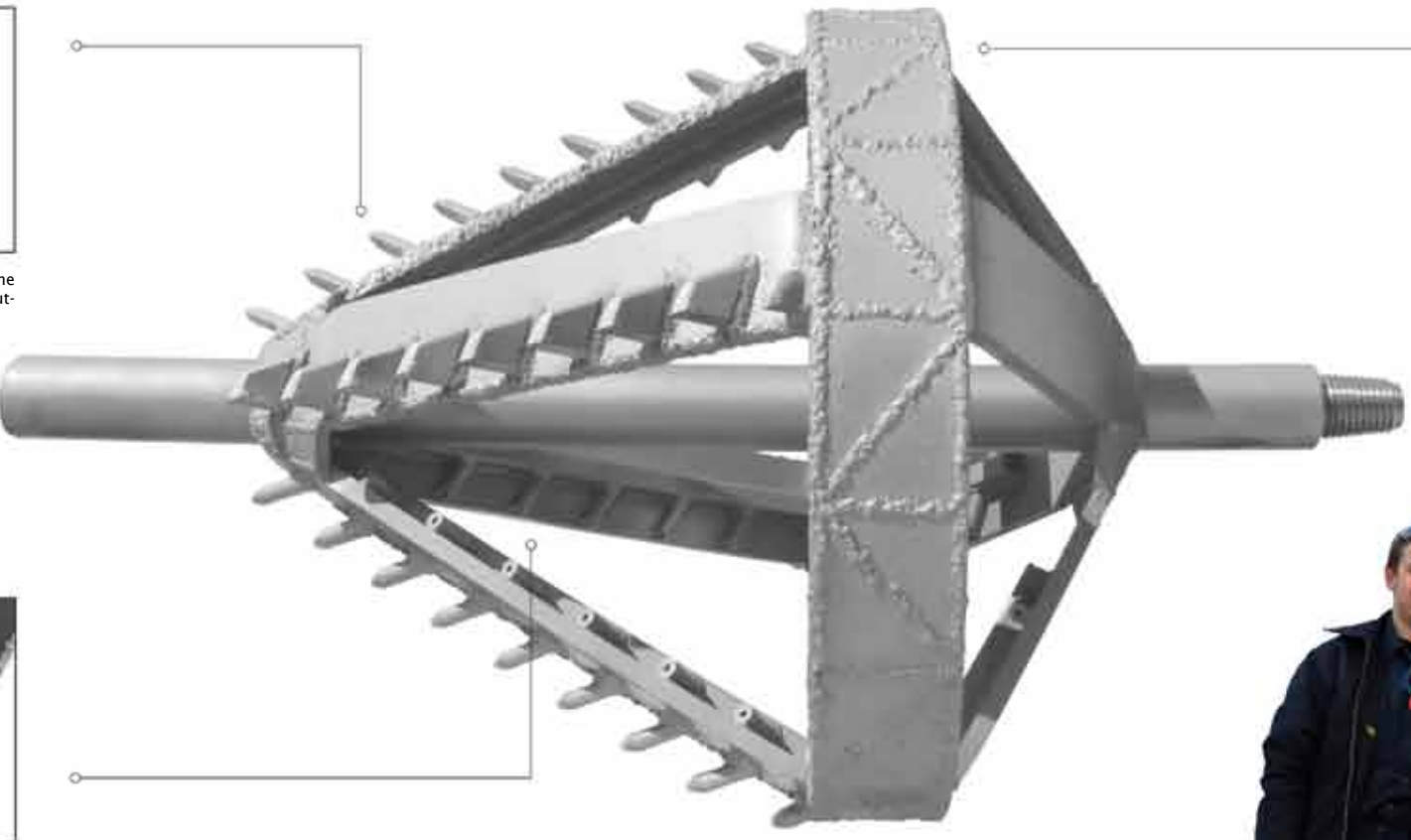
- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread



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.



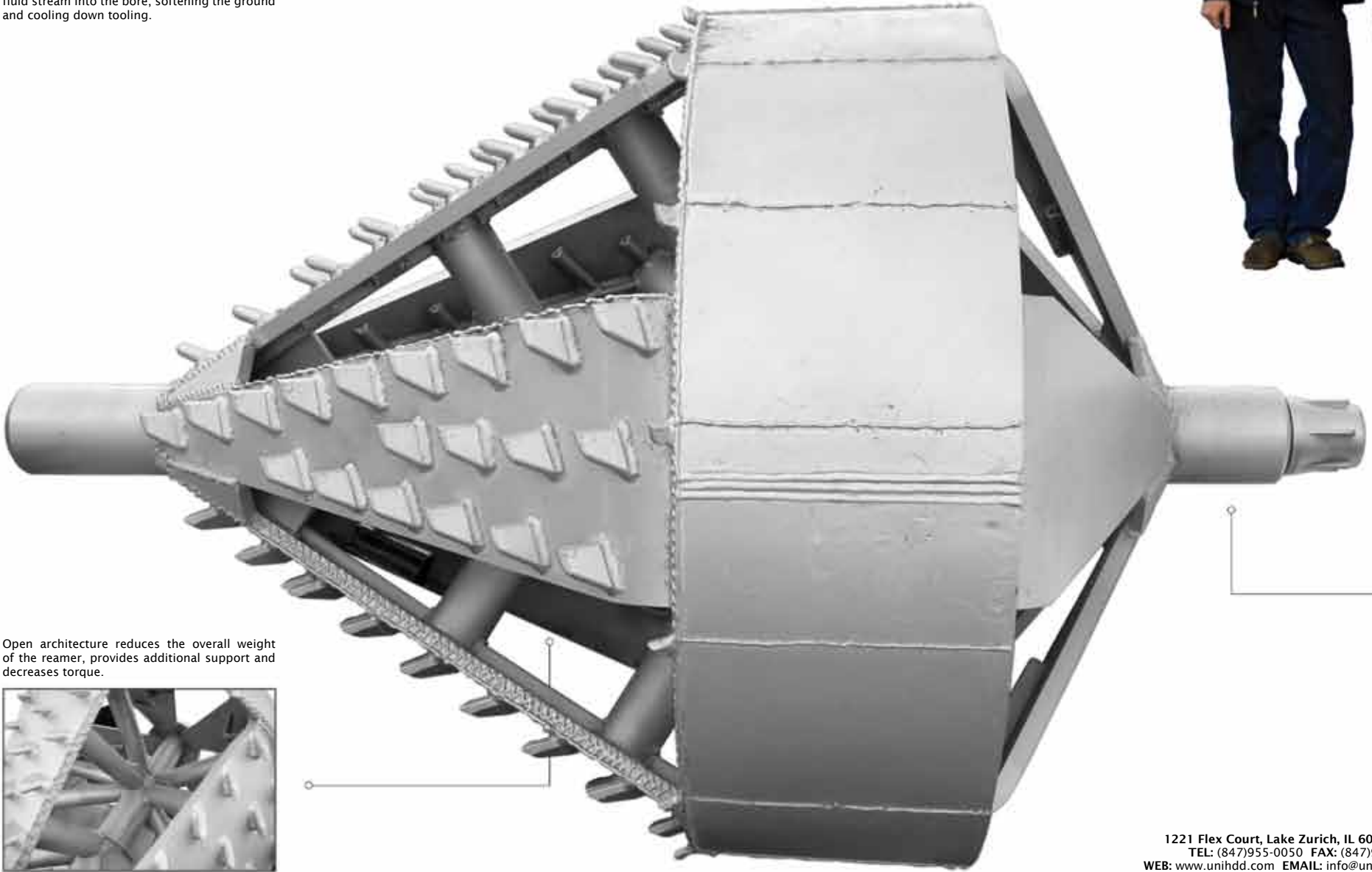
Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer.



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"



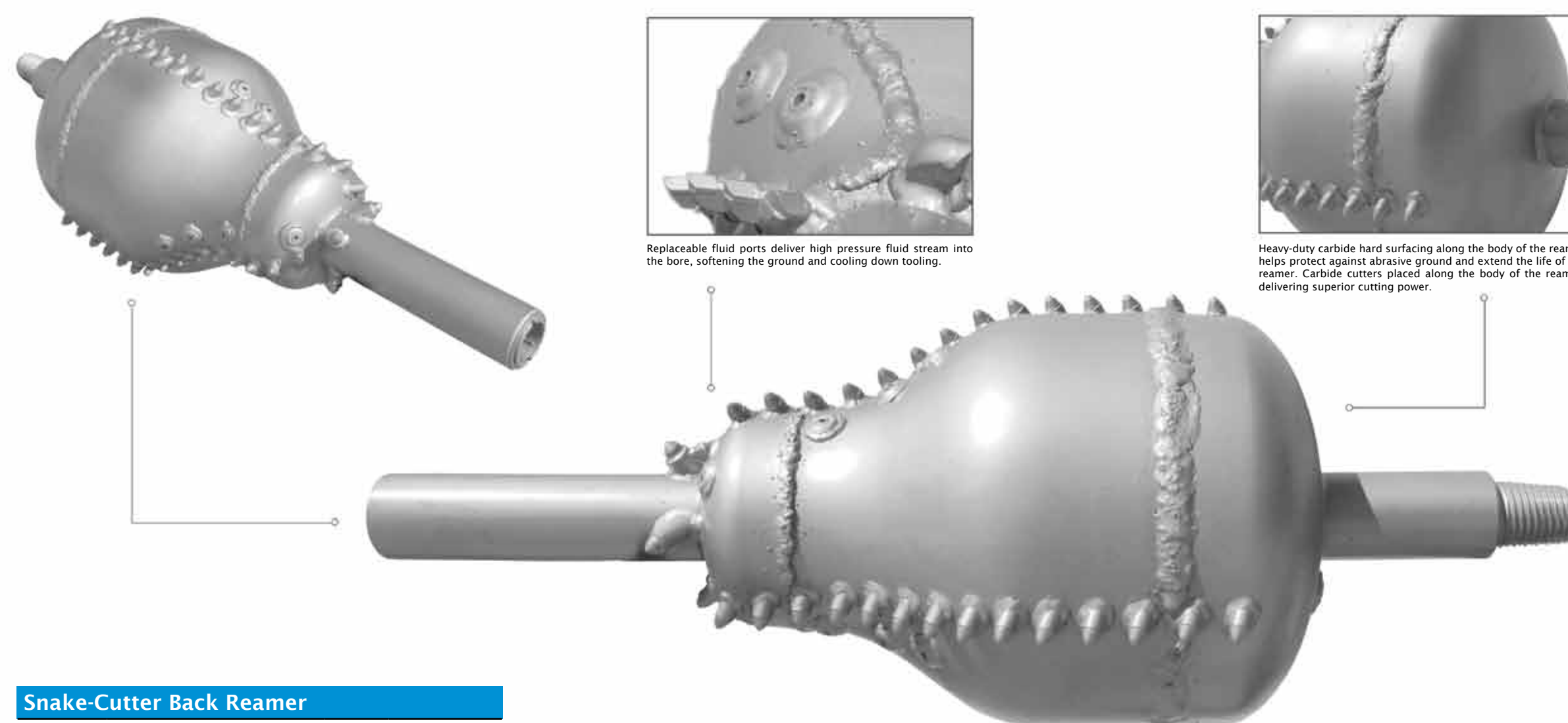
Open architecture reduces the overall weight of the reamer, provides additional support and decreases torque.



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.

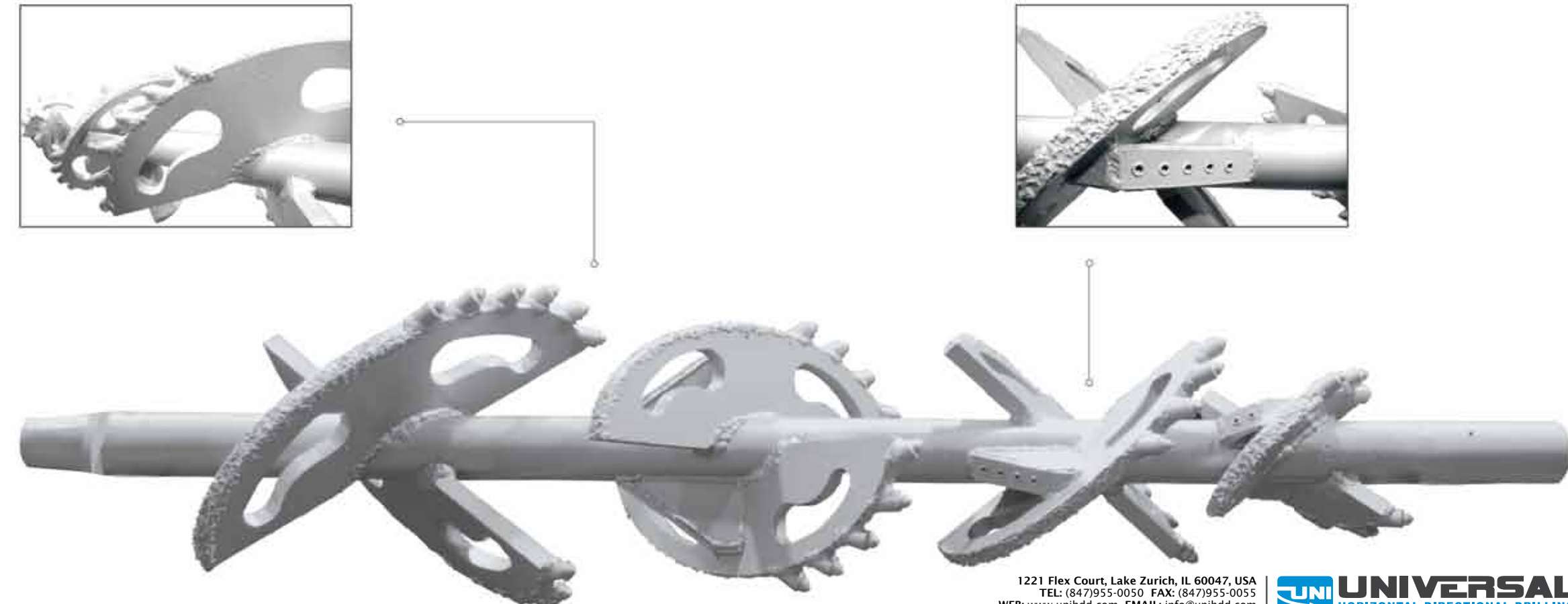
Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer. Carbide cutters placed along the body of the reamer, delivering superior cutting power.

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.



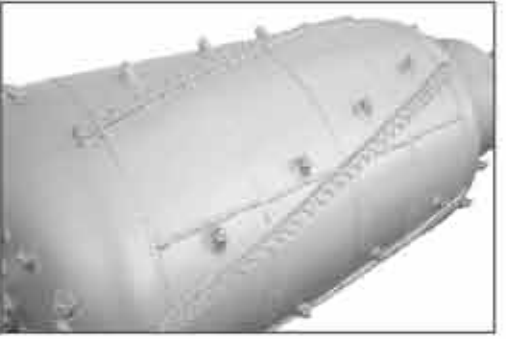
- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread

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

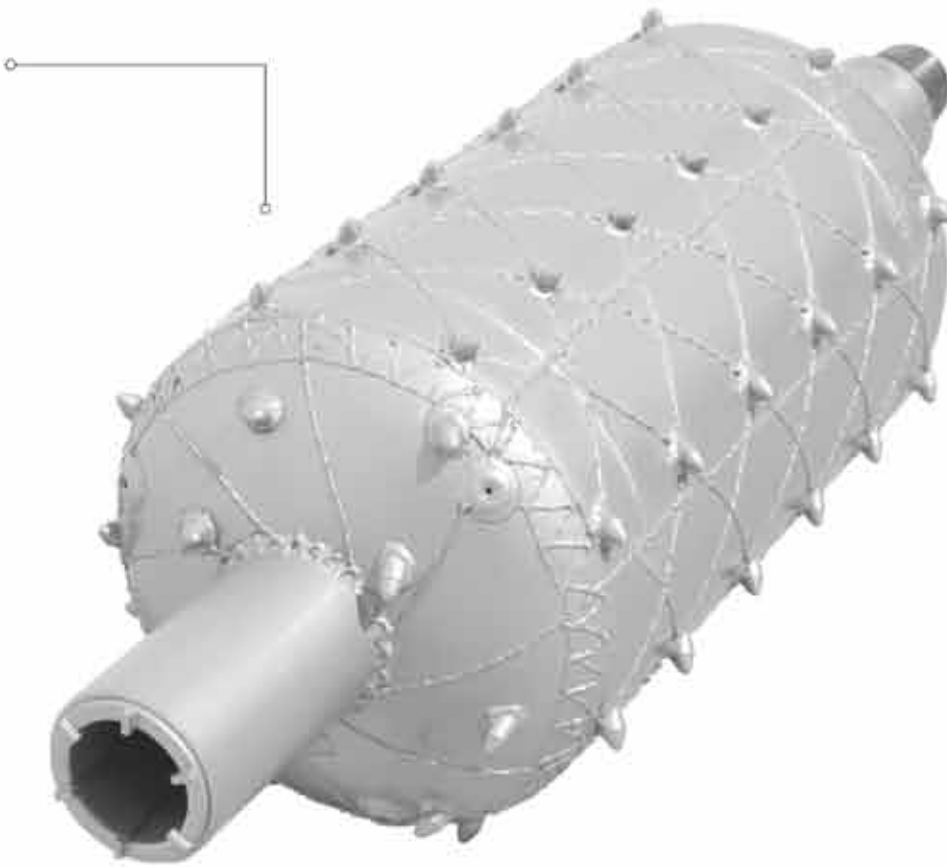
Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer. Carbide cutters placed along the body of the reamer, delivering superior cutting power.



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

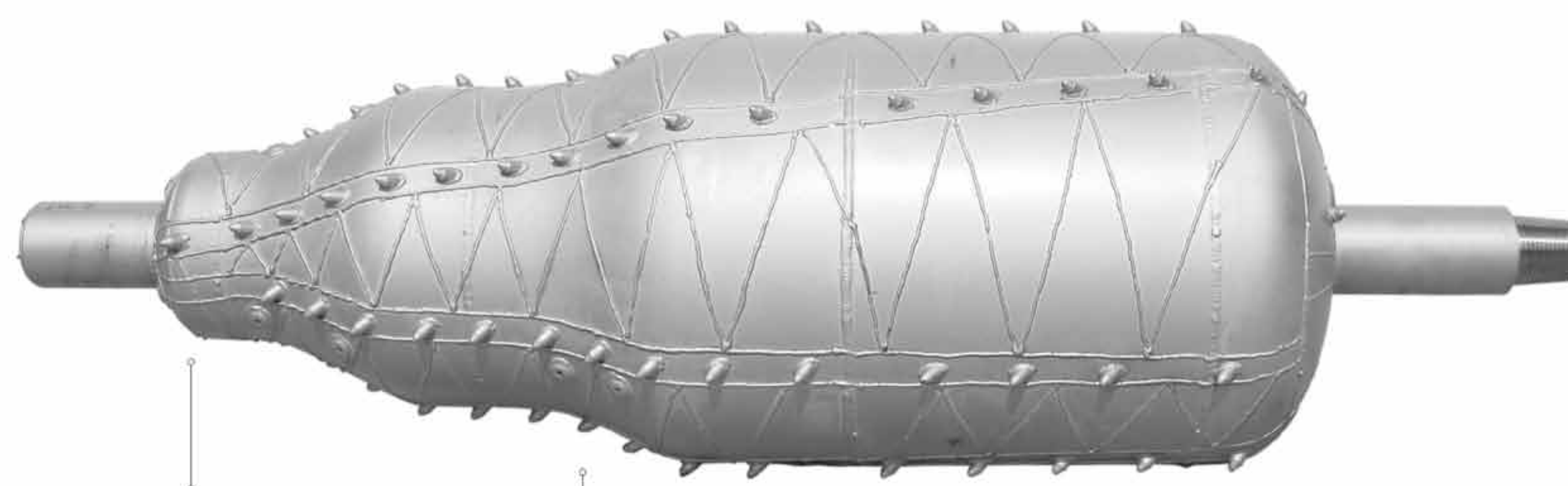
Diameter	Description	Shaft	Part #
14"	Tri-Barrel Back Reamer	2-3/4"	R-TB-14-234
14"	Tri-Barrel Back Reamer	3-1/2"	R-TB-14-312
14"	Tri-Barrel Back Reamer	5.625"	R-TB-14-5625
16"	Tri-Barrel Back Reamer	2-3/4"	R-TB-16-234
16"	Tri-Barrel Back Reamer	3-1/2"	R-TB-16-312
16"	Tri-Barrel Back Reamer	5.625"	R-TB-16-5625
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"	

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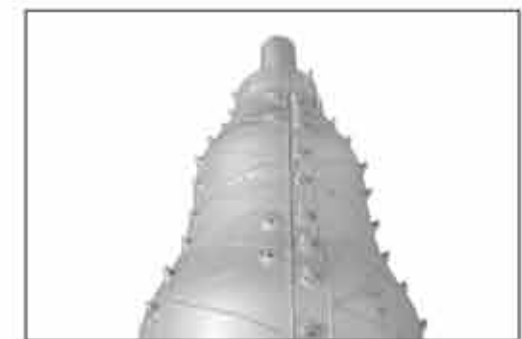
Blade Back Reamer

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"	

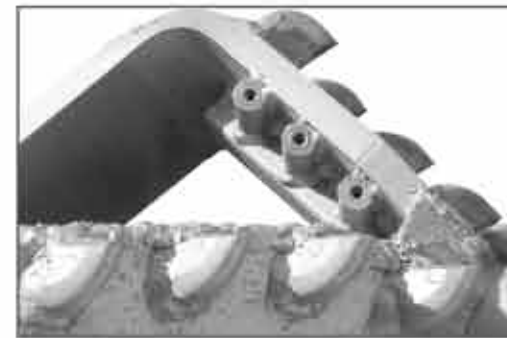
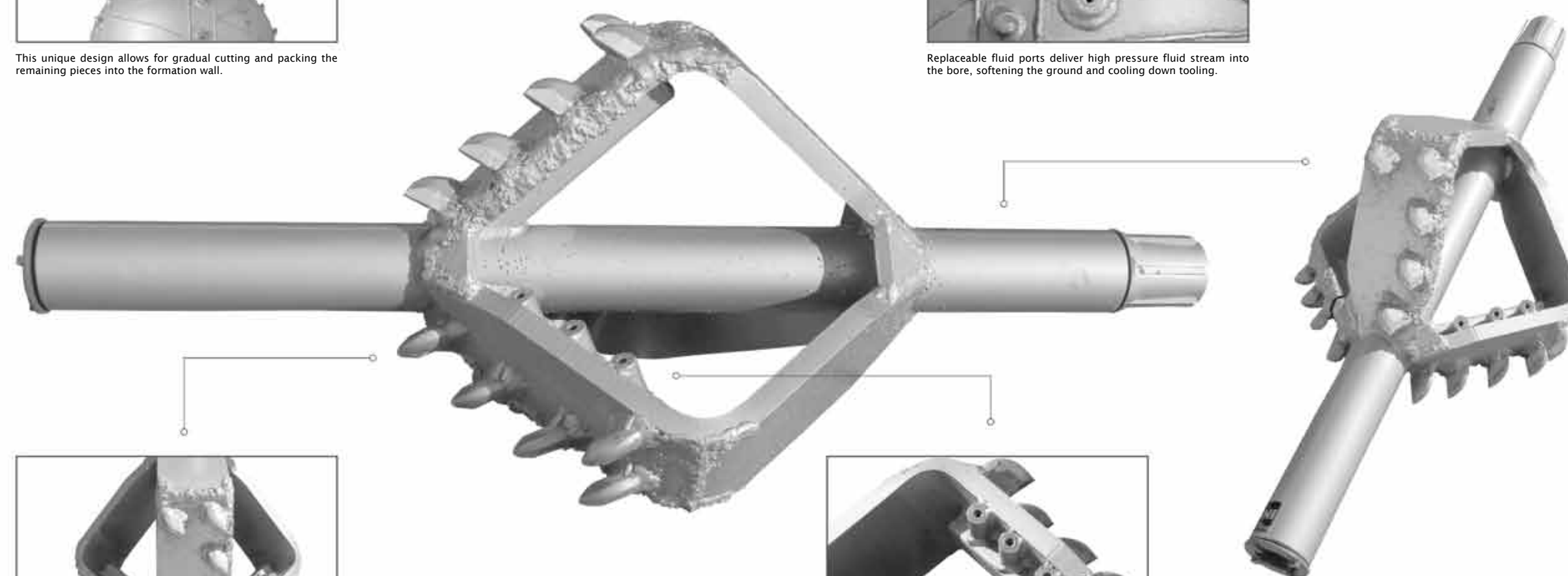
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Replaceable fluid ports deliver high pressure fluid stream into the bore, softening the ground and cooling down tooling.



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

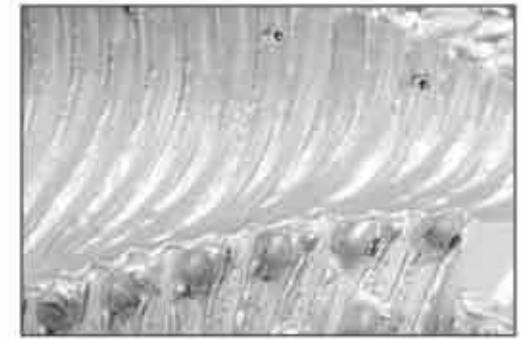
Replaceable fluid ports deliver high pressure fluid stream into the bore, softening the ground and cooling down tooling



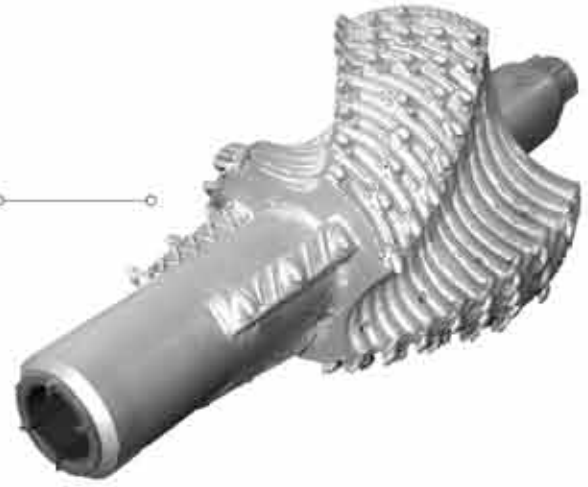
Heavy-duty carbide hard surfacing along the body of the reamer helps protect against abrasive ground and extend the life of the reamer. Carbide cutters placed along the body of the reamer, delivering superior cutting power.



Optional feature: build-in DCD swivel. All Universal HDD's reamers can be customized with integrated swivel. The DCD swivels utilize Angular Contact Bearings for both Pullback and Pushback functions. All mechanical components are manufactured from high strength alloy steel and are designed to withstand a straight tensile load.



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

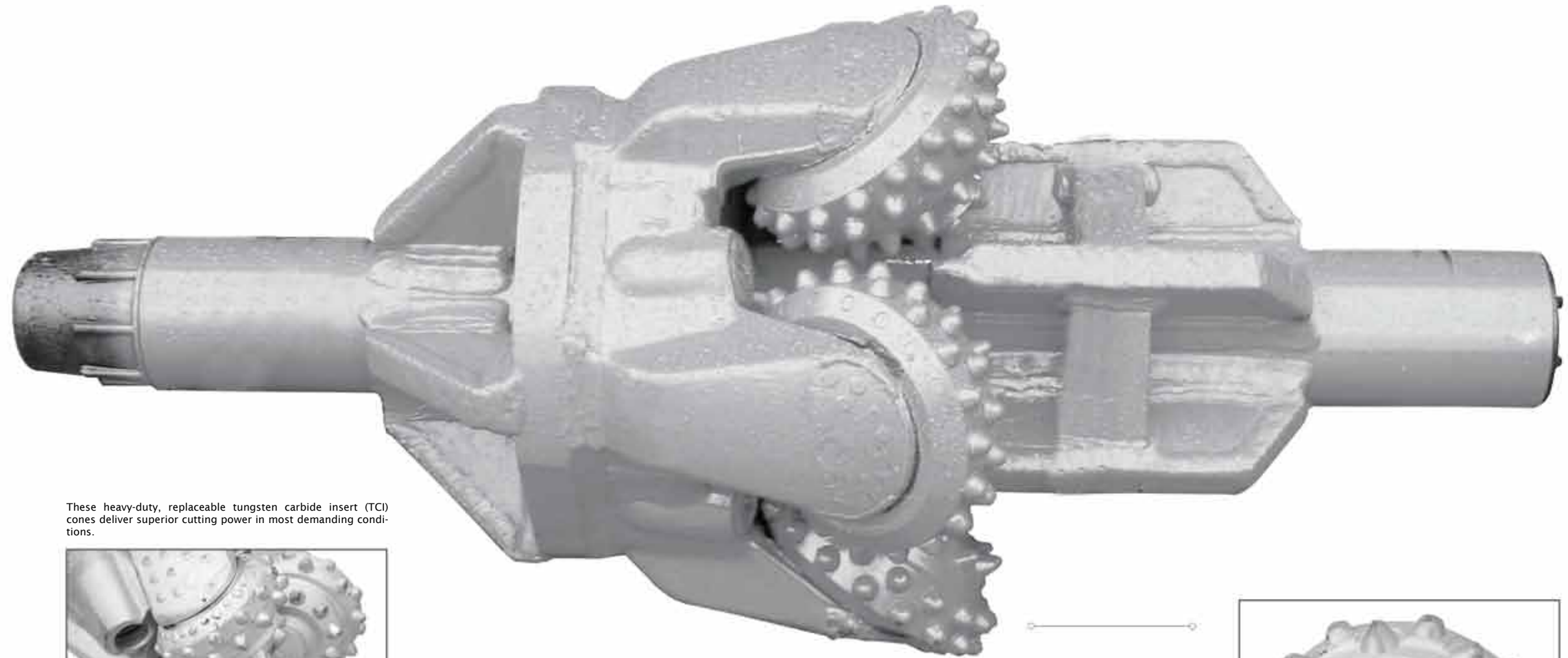
Diameter	Description	Shaft	Part #
8"	All-Terrain Fluted Back Reamer	2-3/4"	R-AT-8-234
8"	All-Terrain Fluted Back Reamer	3-1/2"	R-AT-8-312
10"	All-Terrain Fluted Back Reamer	2-3/4"	R-AT-10-234
10"	All-Terrain Fluted Back Reamer	3-1/2"	R-AT-10-312
12"	All-Terrain Fluted Back Reamer	2-3/4"	R-AT-12-234
12"	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

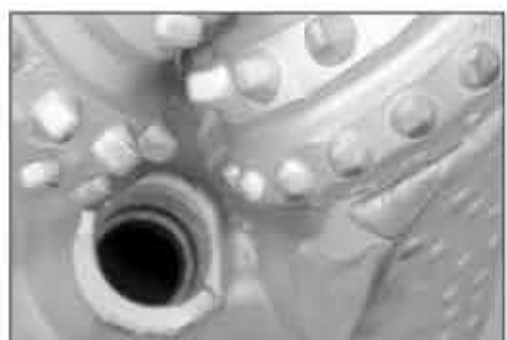
Rock Reamer w/ TCI Cones

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.



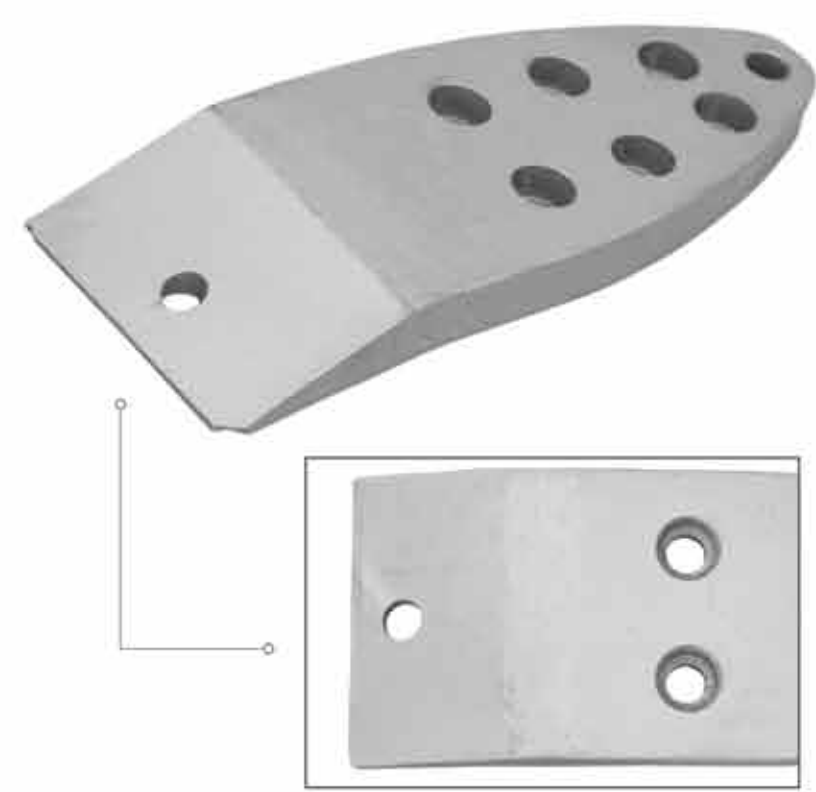
These heavy-duty, replaceable tungsten carbide insert (TCI) cones deliver superior cutting power in most demanding conditions.



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

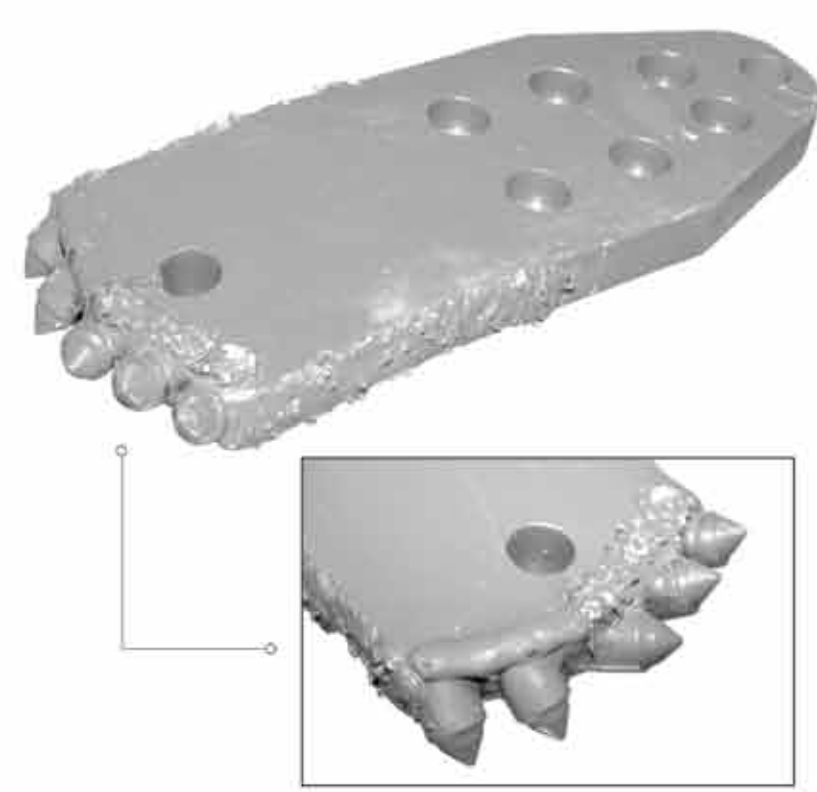
- Large sizes and additional modifications available upon request
 - Can be customized to fit any thread



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

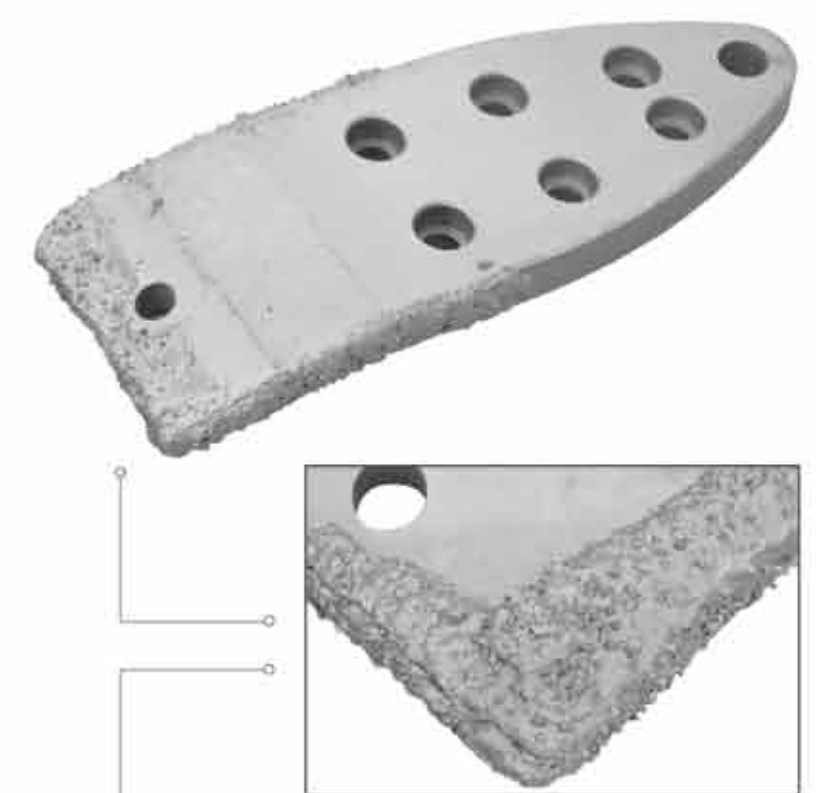


Crusher Drill Bit

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



Universal HDD believes the specifications in this brochure to be correct at the time of printing. However, specifications, standard equipment, options and dimensions are subject to change without notice. Some equipment may be unavailable when your machine is built. Please ask your adviser for list concerning current availability of standard and optional equipment and tooling, and verify that your machine will include the equipment you ordered. Machines in this brochure are shown with optional equipment. While Universal HDD makes diligent efforts to provide accurate information in this brochure, there is no guarantee or warranty of accuracy. This brochure shall not be used or relied upon as substitute for information that is available from your Universal HDD center. Further information can be obtained from your authorized Universal HDD dealer or www.unihdd.com.



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