



DTH HAMMERS & BITS

MINERAL EXPLORATION
ENVIRONMENTAL
GEOTECHNICAL
GEOHERMAL
ROTARY
SONIC
HDD



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DTH HAMMERS & BITS

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DTH HAMMERS & BITS



Hole Products offers a comprehensive range of high performance DTH hammers, DTH hammer bits, and accessories for use in the mining, construction, geothermal, and rotary drilling industries.

DTH hammers are available in sizes from 2" to 20" from the industries leading manufacturer's including Mincon[®], Sandvik[®], Halco[®], Drill King[®], Rockmore[®], JK Olsen, and more.

DTH hammer bits are available in sizes from 2" to 36", with all shanks, multiple head/face designs, and with a variety of tungsten carbide button styles to suit a wide variety of drilling conditions.

DTH accessories, including hammer oil and lube, grinding and sharpening tools, adapter, subs, shock absorbers, and more, are available to complement our DTH product offering.

Please contact your Hole Products representative for additional details, product specifications, and DTH hammers and bits ordering assistance.

*Products listed in the catalog are representative of the most common industry sizes and styles.
Please contact your Hole Products representative for additional product offerings.*

DTH HAMMERS



Choosing the right hammer is largely determined by the hole size and type of rock formation. Ideally, the size of the hammer should match the required hole dimension as closely as possible, leaving just enough space for cuttings to evacuate the hole.

Hole Products offers a wide range of quality, versatile DTH hammers from a number of leading industry manufacturers. Hammers are available for down hole and blast hole applications and use in nearly all ground conditions. HDD and Reverse Circulation hammers are available. Please refer to the HDD or Reverse Circulation sections of this catalog or contact your Hole Products representative for details.

Most DTH hammers are designed for use with the industry's most common bit shank types. This allows for the use of one bit on multiple hammers.

Mincon® MC and Sandvik® RH550 series hammers, however, are only compatible with special bits from the respective manufacturers. These hammers do not use foot valves and, therefore, eliminate the potential for them to break.

In addition to our complete range of DTH hammers, we offer a comprehensive line of hammer replacement and spare parts. Assembly drawings for all hammers are available on request.

Please contact your Hole Products representative for product specific information and DTH hammer ordering assistance.

MINCON® DTH HAMMERS



3" MINCON HAMMERS

MODEL #	MC30	MP35	MINCON 3	MINCON 3.5
Part #	3751015	3751040	3751045	3750004
Outside Diameter	3.03"	3.35"	3.03"	3.35"
Minimum Bit Size	3.35"	3.75"	3.35"	3.75"
Hammer Length	34.00"	34.20"	34.00"	34.20"
Hammer Weight	49 lbs.	54 lbs.	49 lbs.	54 lbs.
Bit Shank Type	MINCON MC30	MINCON MD3.5	DHD3.5	DHD3.5
Backhead Thread*	2 3/8" API REG PIN	2 3/8" API REG PIN	2 3/8" API REG PIN	2 3/8" API REG PIN

*Other backhead thread connections are available.

4" MINCON HAMMERS

MODEL #	MC40	4HDS	4HR	4HRSD4
Part #	3750051	3750052	3751001	3750070
Outside Diameter	3.82"	3.82"	3.82"	3.82"
Minimum Bit Size	4.33"	4.33"	4.33"	4.33"
Hammer Length	37.60"	37.60"	37.60"	37.60"
Hammer Weight	85 lbs.	85 lbs.	85 lbs.	85 lbs.
Bit Shank Type	MINCON MC42	MINCON MD4	DHD340A	SD4
Backhead Thread*	2 3/8" API REG PIN	2 3/8" API REG PIN	2 3/8" API REG PIN	2 3/8" API REG PIN

*Other backhead thread connections are available.

MINCON® DTH HAMMERS

5" MINCON HAMMERS						
MODEL #	MC55	MP55	5DH	5DH-QL	55BH	MP55SD5
Part #	3750048	3750042	3751019	3751050	3751055	3751060
Outside Diameter	4.88"	4.88"	4.88"	4.88"	4.88"	4.88"
Minimum Bit Size	5.50"	5.50"	5.50"	5.50"	5.50"	5.50"
Hammer Length	39.90"	39.90"	41.50"	40.70"	39.90"	39.90"
Hammer Weight	152 lbs.	148 lbs.	153 lbs.	153 lbs.	146 lbs.	152 lbs.
Bit Shank Type	MINCON MC51	QL50	DHD350R	QL50	DHD350R	SD5
Backhead Thread*	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN

*Other backhead thread connections are available.

6" MINCON HAMMERS							
MODEL #	MC60	6DH	XP60	6DH360	6DHSD6	6BH	MC65
Part #	3750016	3750020	3750015	3751017	3750025	3751016	3751024
Outside Diameter	5.5"	5.5"	5.5"	5.75"	5.5"	5.75"	5.75"
Minimum Bit Size	6"	6"	6"	6.5"	6"	6.5"	6.25"
Hammer Length	40.6"	40.6"	40.2"	44.6"	42.7"	40.7"	40.6"
Hammer Weight	201 lbs.	192 lbs.	190 lbs.	210 lbs.	200 lbs.	216 lbs.	225 lbs.
Bit Shank Type	MINCON MC61	QL60	QL60	DHD360	SD6	QL60	MC61
Backhead Thread*	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN

*Other backhead thread connections are available.

8" MINCON HAMMERS						
MODEL #	MC80	8DH	MP80	8DHSD8	XP80-QL80	XP80-380
Part #	3750065	3750036	3750037	3750035	3750060	3751070
Outside Diameter	7.15"	7.15"	7.15"	7.15"	7.15"	7.15"
Minimum Bit Size	7.88"	7.88"	7.88"	7.88"	7.88"	7.88"
Hammer Length	47.40"	47.40"	47.50"	47.50"	47.50"	47.40"
Hammer Weight	381 lbs.	385 lbs.	381 lbs.	383 lbs.	381 lbs.	385 lbs.
Bit Shank Type	MINCON MC80	DHD380	QL80	SD8	QL80	DHD380
Backhead Thread*	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN

*Other backhead thread connections are available.

12" MINCON HAMMER	
MODEL #	XP120 - SD12
Part #	3751065
Outside Diameter	10.75"
Minimum Bit Size	12.00"
Hammer Length	56.60"
Hammer Weight	1,248 lbs.
Bit Shank Type	SD12/10015
Backhead Thread*	6 5/8" API REG PIN

*Other backhead thread connections are available.



SANDVIK® DTH HAMMERS

3" SANDVIK HAMMER	
MODEL #	RH550r
Part #	3751075
Outside Diameter	3.2"
Minimum Bit Size	90mm
Hammer Length	32.4"
Hammer Weight	55 lbs.
Bit Shank Type	M30
Backhead Thread*	2 3/8" API REG PIN

*Other backhead thread connections are available.

4" SANDVIK HAMMER	
MODEL #	RH550r
Part #	3751080
Outside Diameter	3.56"
Minimum Bit Size	110mm
Hammer Length	36"
Hammer Weight	83 lbs.
Bit Shank Type	M40
Backhead Thread*	2 3/8" API REG PIN

*Other backhead thread connections are available.

5" SANDVIK HAMMERS			
MODEL #	RH550	RH550G	RH550r
Part #	3751085	3751090	3751095
Outside Diameter	4.72"	4.96"	4.96"
Minimum Bit Size	130mm	130mm	130mm
Hammer Length	38.86"	38.86"	38.86"
Hammer Weight	145 lbs.	160 lbs.	160 lbs.
Bit Shank Type	M50	M50	M50
Backhead Thread*	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN

*Other backhead thread connections are available.



SANDVIK® DTH HAMMERS

6" SANDVIK HAMMERS				
MODEL #	RH550w	RH550	RH550g	RH550r
Part #	3750095	3750010	3750100	3750009
Outside Diameter	5.6"	5.6"	5.9"	5.9"
Minimum Bit Size	152mm	152mm	152mm	152mm
Hammer Length	36.3"	36.3"	36.3"	36.3"
Hammer Weight	158 lbs.	158 lbs.	180 lbs.	180 lbs.
Bit Shank Type	M60	M60	M60	M60
Backhead Thread*	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN

*Other backhead thread connections are available.

8" SANDVIK HAMMERS		
MODEL #	MC80	8DH
Part #	3750105	3750110
Outside Diameter	7.12"	7.12"
Minimum Bit Size	200mm	200mm
Hammer Length	48"	50"
Hammer Weight	380 lbs.	380 lbs.
Bit Shank Type	M80	M80
Backhead Thread*	4 1/2" API REG PIN	4 1/2" API REG PIN

*Other backhead thread connections are available.



DRILL KING® DTH HAMMERS

3" DRILL KING HAMMER	
MODEL #	DKA30-I
Part #	3750115
Outside Diameter	3.35"
Minimum Bit Size	3.5" - 4"
Hammer Length	34.25"
Hammer Weight	53 lbs.
Bit Shank Type	IR3.5
Backhead Thread*	2 3/8" API REG PIN



*Other backhead thread connections are available.

4" DRILL KING HAMMERS			
MODEL #	DKA40-I	DKA40-Q	DKA-40-S
Part #	3750120	3750125	3750130
Outside Diameter	3.86"	3.86"	3.86"
Minimum Bit Size	4" - 5"	4" - 5"	4" - 5"
Hammer Length	39.375"	42.1"	41.4"
Hammer Weight	84 lbs.	86 lbs.	86 lbs.
Bit Shank Type	IR340	QL4	SD4
Backhead Thread*	2 3/8" API REG PIN	2 3/8" API REG PIN	2 3/8" API REG PIN

*Other backhead thread connections are available.

5" DRILL KING HAMMERS			
MODEL #	DKA50-I	DKA50-Q	DK-A50-S
Part #	3750135	3750140	3750145
Outside Diameter	4.76"	4.76"	4.76"
Minimum Bit Size	5" - 5 7/8"	5" - 5 7/8"	5" - 5 7/8"
Hammer Length	47.5"	46.7"	46.7"
Hammer Weight	137 lbs.	137 lbs.	137 lbs.
Bit Shank Type	IR350R	QL50	QL50
Backhead Thread*	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN

*Other backhead thread connections are available.

DRILL KING® DTH HAMMERS

6" DRILL KING HAMMERS			
MODEL #	DKA60-I	DK-A60-Q	DK-A60-S
Part #	3750150	3750155	3750160
Outside Diameter	5.59"	5.59"	5.59"
Minimum Bit Size	5 7/8" - 6 3/4"	5 7/8" - 6 3/4"	5 7/8" - 6 3/4"
Hammer Length	47.9"	45.7"	48.5"
Hammer Weight	198 lbs.	198 lbs.	209 lbs.
Bit Shank Type	IR360	QL60	SD6
Backhead Thread*	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN

*Other backhead thread connections are available.

8" DRILL KING HAMMERS					
MODEL #	DKA80-I	DK-A80-Q	DK-A80-S	DKA80-IDW	DKA80-QDW
Part #	3750165	3750170	3750175	3750180	3750185
Outside Diameter	7.16"	7.16"	7.16"	7.16"	7.16"
Minimum Bit Size	7 7/8" - 10 5/8"	7 7/8" - 10 5/8"	7 7/8" - 10 5/8"	7 7/8" - 10 5/8"	7 7/8" - 10 5/8"
Hammer Length	55.9"	55.1"	55.1"	55.3"	55.3"
Hammer Weight	405 lbs.	405 lbs.	405 lbs.	405 lbs.	405 lbs.
Bit Shank Type	IR380	QL80	SD8	IR380	QL80DW
Backhead Thread*	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN

*Other backhead thread connections are available.

12" DRILL KING HAMMERS		
MODEL #	DKA120-Q	DK-T120-S
Part #	3750190	3750195
Outside Diameter	11.25"	10.8"
Minimum Bit Size	11 7/8" - 17 1/2"	11 7/8" - 15"
Hammer Length	67.5"	71.4"
Hammer Weight	1,433 lbs.	1,433 lbs.
Bit Shank Type	QL120	SD12
Backhead Thread*	6 5/8" API REG PIN	6 5/8" API REG PIN

*Other backhead thread connections are available.

ROCKMORE® DTH HAMMERS

3" ROCKMORE HAMMERS							
MODEL #	ROK 3LT	ROK 3	ROK 350 - 001	ROK 350 - 002	ROK 350 - 003	ROK 350 - 004	ROK 350 - 005
Part #	3750200	3750205	3750210	3750215	3750220	3750225	3750230
Outside Diameter	3.2"	3.2"	3.4"	3.4"	3.4"	3.4"	3.4"
Minimum Bit Size	3.5" - 3.7"	3.6" - 4.1"	3.8" - 4.1"	3.7" - 4.1"	3.8" - 4.1"	3.7" - 4.1"	3.8" - 4.1"
Hammer Length	33.3"	29.5"	33.0"	33.0"	33.0"	33.0"	33.0"
Hammer Weight	53.0 lbs.	64.0 lbs.	49 lbs.	49 lbs.	51 lbs.	51 lbs.	49 lbs.
Bit Shank Type	BR33	IR3.5	IR3.5	IR3.5HD	IR3.5	IR3.5HD	IR3.5
Backhead Thread*	2 3/8" API REG PIN	2 3/8" API REG BOX	2 3/8" API REG PIN	2 3/8" API REG PIN	2 3/8" API REG BOX	2 3/8" API REG BOX	CUBEX #21 PIN W/SPLINE

*Other backhead thread connections are available.

4" ROCKMORE HAMMERS						
MODEL #	ROK 4	ROK 400 - 001	ROK 400 - 002	ROK 400 - 004	ROK 400 - 005	ROK 400 - 006
Part #	3750235	3750240	3750245	3750250	3750255	3750260
Outside Diameter	3.8"	3.9"	3.9"	3.9"	3.9"	4.5"
Minimum Bit Size	4.9" - 5.5"	4.3" - 4.9"	4.3" - 4.9"	4.3" - 4.9"	4.3" - 4.9"	5.0" - 5.5"
Hammer Length	40.6"	35.4"	35.4"	35.4"	35.4"	35.4"
Hammer Weight	84.0 lbs.	70.8 lbs.	70.8 lbs.	70.8 lbs.	70.8 lbs.	107.0 lbs.
Bit Shank Type	340A	340A	340A	340A	340A	340A
Backhead Thread*	2 3/8" API REG PIN	2 3/8" API REG PIN	2 7/8" API REG PIN	2 3/8" API IF REG PIN	2 3/8" API REG BOX	2 3/8" API IF HD WEAR SLEEVE

*Other backhead thread connections are available.

5" ROCKMORE HAMMER	
MODEL #	ROK 500 - 001
Part #	3750265
Outside Diameter	4.9"
Minimum Bit Size	5.5" - 6.0"
Hammer Length	40.5"
Hammer Weight	132.9 lbs.
Bit Shank Type	QL5/QL50
Backhead Thread*	3 1/2" API REG PIN

*Other backhead thread connections are available.



ROCKMORE® DTH HAMMERS

6" ROCKMORE HAMMERS					
MODEL #	ROK 600Q - 002	ROK 600W - 001	ROK 650Q - 001	ROK 650Q - 005	ROK 650Q - 006
Part #	3750270	3750275	3750280	3750285	3750290
Outside Diameter	5.6"	5.6"	5.9"	5.9"	5.9"
Minimum Bit Size	6.0" - 7.0"	6.1" - 7.0"	6.5" - 7.0"	6.5" - 7.0"	6.5" - 7.0"
Hammer Length	39.9"	39.9"	39.9"	39.9"	39.9"
Hammer Weight	168.0 lbs.	168.0 lbs.	218.0 lbs.	218.0 lbs.	218.0 lbs.
Bit Shank Type	QL6/QL60	QL6/QL60	QL6/QL60	QL6/QL60	QL6/QL60
Backhead Thread*	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API IF REG PIN	4 1/2" API REG PIN

*Other backhead thread connections are available.

8" ROCKMORE HAMMER	
MODEL #	ROK 875-001
Part #	3750295
Outside Diameter	7.4"
Minimum Bit Size	8.5" - 10.0"
Hammer Length	50.6"
Hammer Weight	405.6 lbs.
Bit Shank Type	QL8/QL80
Backhead Thread*	4 1/2" API REG PIN

*Other backhead thread connections are available.



JK OLSEN DTH HAMMERS

4" JK OLSEN HAMMERS		
MODEL #	DRILL 4	T4
Part #	3750300	3750305
Outside Diameter	3.625"	3.875"
Minimum Bit Size	4" - 5.125"	4.25" - 5.25"
Hammer Length	39.5"	40.875"
Hammer Weight	77 lbs.	86 lbs.
Bit Shank Type	SD4	340 SHANK
Backhead Thread*	2 3/8" API REG PIN	2 3/8" or 2/78" API REG PIN

*Other backhead thread connections are available.

5" JK OLSEN HAMMERS			
MODEL #	DRILL 5	BB5.5	P5.5
Part #	3750310	3750315	3750320
Outside Diameter	4.563"	4.875"	4.875"
Minimum Bit Size	5.125" - 5.875"	5.25" - 6"	5.25" - 6"
Hammer Length	38.906"	38.75"	41.4375"
Hammer Weight	137 lbs.	146 lbs.	153 lbs.
Bit Shank Type	SD5	QL5	QL5
Backhead Thread*	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN

*Other backhead thread connections are available.

6" JK OLSEN HAMMERS						
MODEL #	DRILL 6	BB6 STD	P6-STD	DRILL 6 HD	BB6-HD	P6-HD
Part #	3750325	3750330	3750335	3750340	3750345	3750350
Outside Diameter	5.438"	5.5"	5.5"	5.75"	5.75"	5.75"
Minimum Bit Size	6" - 10"	6" - 10"	6" - 10"	6.5" - 10"	6.5" - 10"	6.5" - 10"
Hammer Length	49.281"	40.75"	43.5"	49.281"	40.75"	43.5"
Hammer Weight	225 lbs.	189 lbs.	206 lbs.	270 lbs.	214 lbs.	234 lbs.
Bit Shank Type	SD6	QL6	QL6	SD6	QL6	QL6
Backhead Thread*	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN	3 1/2" API REG PIN

*Other backhead thread connections are available.

JK OLSEN DTH HAMMERS

8" JK OLSEN HAMMERS					
MODEL #	DRILL 8	TH8	BB8	BB8 DEEP HOLE	DRILL 8 5/8
Part #	3750360	3750365	3750370	3750375	370380
Outside Diameter	6.75"	7.125"	7.125"	7.125"	8.56"
Minimum Bit Size	7.375" - 12"	7.875" - 12"	7.875" - 12"	7.875" - 12"	8.625"
Hammer Length	47.0625"	52.375"	48.0625"	48.625"	47.0625"
Hammer Weight	365 lbs.	375 lbs.	392 lbs.	392 lbs.	440 lbs.
Bit Shank Type	SD8	DHD 380	QL8	QL8	SD8
Backhead Thread*	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN	4 1/2" API REG PIN

*Other backhead thread connections are available.

10" JK OLSEN HAMMER	
MODEL #	DRILL 10
Part #	3750385
Outside Diameter	8.875"
Minimum Bit Size	9.875" - 12.5"
Hammer Length	49.875"
Hammer Weight	690 lbs.
Bit Shank Type	SD10 SHANK
Backhead Thread*	6 5/8" API REG PIN

*Other backhead thread connections are available.

12" JK OLSEN HAMMER	
MODEL #	DRILL 12
Part #	3750390
Outside Diameter	10.75"
Minimum Bit Size	11.875" - 20"
Hammer Length	59.468"
Hammer Weight	1,150 lbs.
Bit Shank Type	SD12
Backhead Thread*	6 5/8" API REG PIN

*Other backhead thread connections are available.



REVERSE CIRCULATION HAMMERS

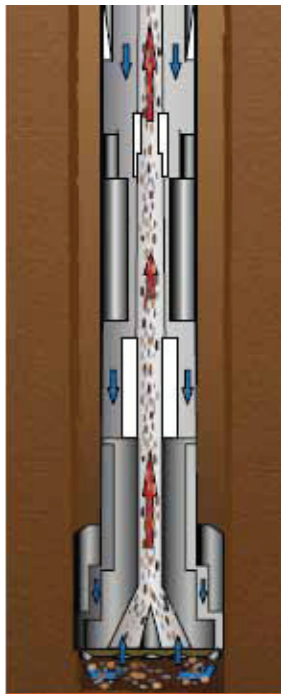
Hole Products offers a complete line of Reverse Circulation hammers and spare parts from the industry's leading manufacturers including Mincon® and Sandvik®. Hammers are available in a wide range of sizes and styles, to provide maximum performance and longevity on all RC drilling jobs.

Reverse Circulation hammers are designed with an inner sample tube that extends through the center and into the top of the hammer bit. The RC hammer exhausts the air between the bit splines and over the face of the bit. This forces the sample into the recovery holes in the face of the bit, through the center of the hammer and upward through the drill rod inner tubes to the surface for collection. The use of a shroud or collar is required when a RC hammer is used, to help direct the return air and cuttings up through the face of the bit.

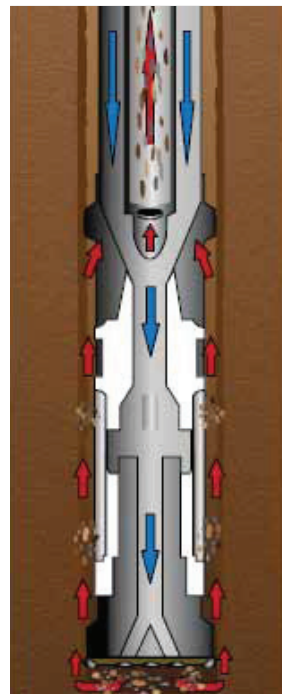
Conventional DTH hammers can also be in RC drilling operations, but increase the potential for sample loss and contamination. A conventional DTH hammer is used in conjunction with a cross-over sub located between the hammer and drill rod. The sample travels from the face of the bit up the outside of the hammer and into the cross-over sub. The sub directs the sample up the center of the dual wall rods and to the surface.

Please refer to the Reverse Circulation section of this catalog or contact your Hole Products representative for additional details.

RC HAMMER



CONVENTIONAL HAMMER



DTH HAMMER BITS



Hole Products offers a comprehensive range of quality DTH drill bits from the industry's leading manufacturers for use in all rock types and drilling conditions. Bit life and rate of penetration are the most important criteria in selecting the right bit for a particular application.

DTH bits are available in sizes from 2" to 36". Bits come in three different standard bit head/face designs (Convex, Flat Face, and Concave), and with a number of tungsten carbide insert options, to guarantee a DTH drill bit that can tackle any challenge and rock-face formation. Additional bit head designs and custom options are available depending upon manufacturer.

Reverse Circulation hammer bits are available on request. Please refer to the Reverse Circulation section of this catalog or contact your Hole Products representative for details.


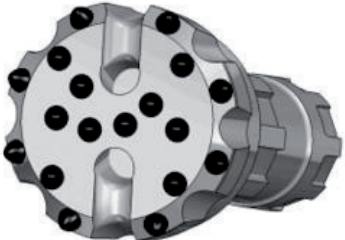
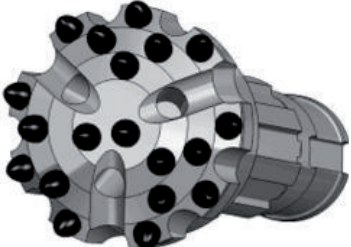
Due to the vast number of DTH bit designs options available, part numbers are not listed in this section of the catalog.

Please contact your Hole Products representative for specific product details and assistance selecting the bit designed for your particular rock drilling application.

BIT HEAD DESIGNS



Hammer bits are available with multiple head designs suitable for a variety of rock formations.

Concave, flat, and convex are the most common head designs. Additional designs are available on request. Please contact your Hole Products representative for additional information.

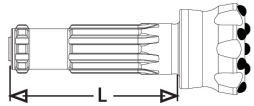
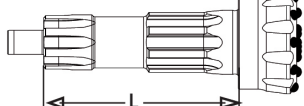
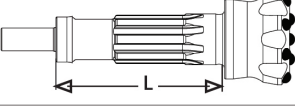
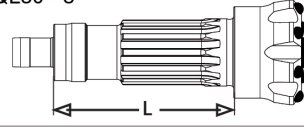
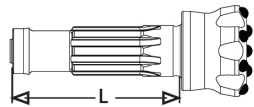
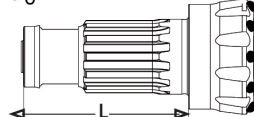
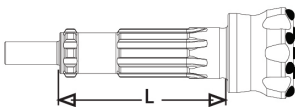
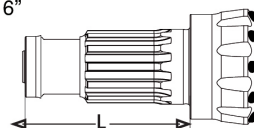
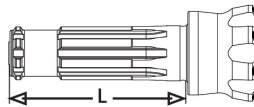
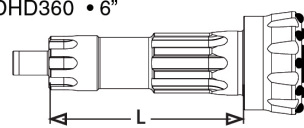
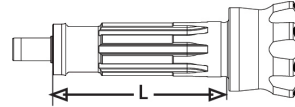
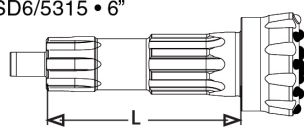
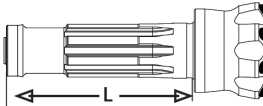
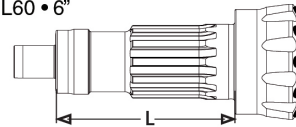
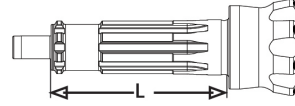
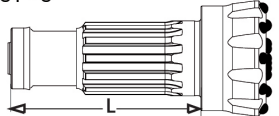
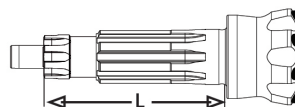
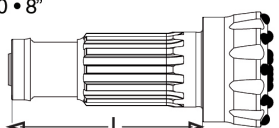
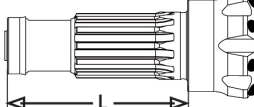
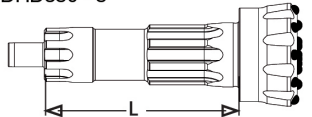
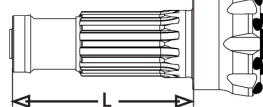
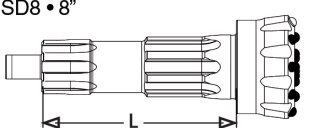
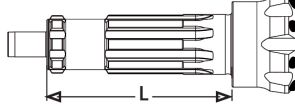
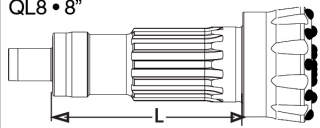
BIT HEAD DESIGNS		DESCRIPTION
CONCAVE		The concave bit design is an excellent all around bit, suitable for soft and hard formations. The cone shaped face design provides good stability during drilling, allowing for straighter holes while reducing equipment vibration. The carbide configuration design gives added penetration in many formations.
FLAT		Used for general purpose drilling, the flat face design is considered effective in very broken ground as well as hard formations that tend to over drill.
CONVEX		Convex are suitable for most drilling applications, particularly hard, abrasive rock to give a combination of speed and good service life.

TUNGSTEN CARBIDE INSERTS

Hammer bits are offered with a variety of insert shapes. Dome/spherical and ballistic are the most common inserts. Additional tungsten carbide insert grades and shapes, as well as diamond enhanced inserts are available on request.

TUNGSTEN CARBIDE INSERTS	
	
<p>DOME/SPHERICAL Tough shape for very hard abrasive rock and deep hole drilling.</p>	<p>BALLISTIC Ideal for less abrasive sedimentary deposits where speed is vital.</p>

BIT SHANK IDENTIFICATION CHART

<p>MC30 • 3"</p> 	<p>L = 5.120" (130mm) 8 Splines</p>	<p>SD5/4315 • 5"</p> 	<p>L = 10.236" (260 mm) 8 Splines</p>
<p>MD3.5 • 3"</p> 	<p>L = 7.126" (181 mm) 8 Splines</p>	<p>QL50 • 5"</p> 	<p>L = 9.45" (240 mm) 12 Splines</p>
<p>M30 • 3"</p> 	<p>L = 8.82" (224mm) 8 Splines</p>	<p>MC61 • 6"</p> 	<p>L = 7.441" (189 mm) 12 Splines</p>
<p>DHD3.5 • 3"</p> 	<p>L = 7.126" (181mm) 8 Splines</p>	<p>M60 • 6"</p> 	<p>L = 9.05" (230 mm) 8 Splines</p>
<p>MC41 • 4"</p> 	<p>L = 5.827" (148mm) 8 Splines</p>	<p>DHD360 • 6"</p> 	<p>L = 12.126" (308 mm) 8 Splines</p>
<p>MD4 • 4"</p> 	<p>L = 8.228" (209mm) 8 Splines</p>	<p>SD6/5315 • 6"</p> 	<p>L = 12.756" (324 mm) 8 Splines</p>
<p>M40 • 4"</p> 	<p>L = 8.98" (228 mm) 12 Splines</p>	<p>QL60 • 6"</p> 	<p>L = 9.97" (533 mm) 12 Splines</p>
<p>DHD340 • 4"</p> 	<p>L = 8.228" (209 mm) 8 Splines</p>	<p>MC81 • 8"</p> 	<p>L = 8.740" (222 mm) 16 Splines</p>
<p>SD4/315 • 4"</p> 	<p>L = 10.236" (260 mm) 8 Splines</p>	<p>M80 • 8"</p> 	<p>L = 12.95" (329 mm) 12 Splines</p>
<p>MC51 • 5"</p> 	<p>L = 7.007" (178 mm) 12 Splines</p>	<p>DHD380 • 8"</p> 	<p>L = 13.780" (350 mm) 10 Splines</p>
<p>M50 • 5"</p> 	<p>L = 11.30" (287 mm) 12 Splines</p>	<p>SD8 • 8"</p> 	<p>L = 12.638" (321 mm) 8 Splines</p>
<p>DHD350R • 5"</p> 	<p>L = 10.276" (261 mm) 8 Splines</p>	<p>QL8 • 8"</p> 	<p>L = 13.059" (331.7 mm) 16 Splines</p>

- See page 21 for replacement foot valves.

DTH HAMMER BITS

3" SERIES BITS - (3 1/4" - 4 1/8")

BIT SHANK	COMPATIBLE HAMMERS	
MC30	MINCON MC30	
MD3.5	MINCON MP3.5	
M30	SANDVIK RH550r (3")	
DHD3.5	ATLAS COPCO DHD3.5 STD BUCYRUS (HALDCO) DOMINATOR 350, DART 350 BULOC HYPER 31	MINCON 3, 3.5 NUMA PATRIOT 35A PUMA 3.1 DHD3.5

4" SERIES BITS (4 1/8" - 5 1/4")

BIT SHANK	COMPATIBLE HAMMERS	
MC41	MINCON MC40	
MD4	MINCON 4HDS	
M40	SANDVIK RH550r (4")	
DHD340	ATLAS COPCO DHD4 STD ATLAS COPCO COP44, COP44Q BUCYRUS (HALCO) DOMINATOR 400 BULROC HYPER 41	MINCON 4HR NUMA CHAMPION 40 PUMA 434 DHD340 ROCKMORE ROC 4
SD4/3415	BUCYRUS (HALCO) DOMINATOR-M BUCYRUS (HALCO) MACH 44M BULROC HYPER 41-SD4	MINCON 4HRSD4 NUMA CHALLENGER 4 SANDVIK SD4

5" SERIES BITS (5 1/8" - 6")

BIT SHANK	COMPATIBLE HAMMERS	
MC51	MINCON MC55	
M50	SANDVIK RH550 (5") SANDVIK RH550G (5")	SANDVIK RH550R (5")
DHD350R	ATLAS COPCO DHD5 SD BUCYRUA (HALCO) DOMINATOR 500-IR BULROC HYPER 51	MINCON 5DH PUMA M5.2 DHD350
SD5/4315	BUCYRUS (HALCO) DOMINATOR 500-M BULROC HYPER 51-SD5 MINCON MP55SD5	PUMA 5.2 SD5 SANDVIK SD5
QL50	ATLAS COPCO QL50 CENTER ROCK CR50 NUMA PATRIOT 50	PUMA 5.2 QL5 MINCON MP55, 5DH-QL ROCKMORE ROCK 500-001

DTH HAMMER BITS

6" SERIES BITS (5 7/8" - 9")		
BIT SHANK	COMPATIBLE HAMMERS	
MC61	MINCON MC60, MC65	
M60	SANDVIK RH550 (6") SANDVIK RH550G (6")	SANDVIK RH550R (6") SANDVIK RH550W (6")
DHD360	ATLAS COPCO DHD360 STD BUCYRUS (HALCO) DOMINATOR 600-IR BULROC HYPER 63, HYPER 66/DHD360	MINCON 6DH360 NUMA PATRIOT 60W, CHALLENGER 6 PUMA M6.2 DHD360
SD6/5315	BUCYRUS (HALCO) DOMINATOR 600-M BULROC HYPER 63-SD6 MINCON MC60, MC65	MINCON 6DHSD6 PUMA M6.2 SD6 SANDVIK SD6
QL60	ATLAS COPCO QL60, QL65, TD60, TD65 BULROC HYPER 66/QL60 CENTER ROCK CR6-DW ,CR60-W	MINCON 6DH, 6BH, XP60 NUMA PATRIOT 60WQ, DCS 6 PUMA M6.2 QL6

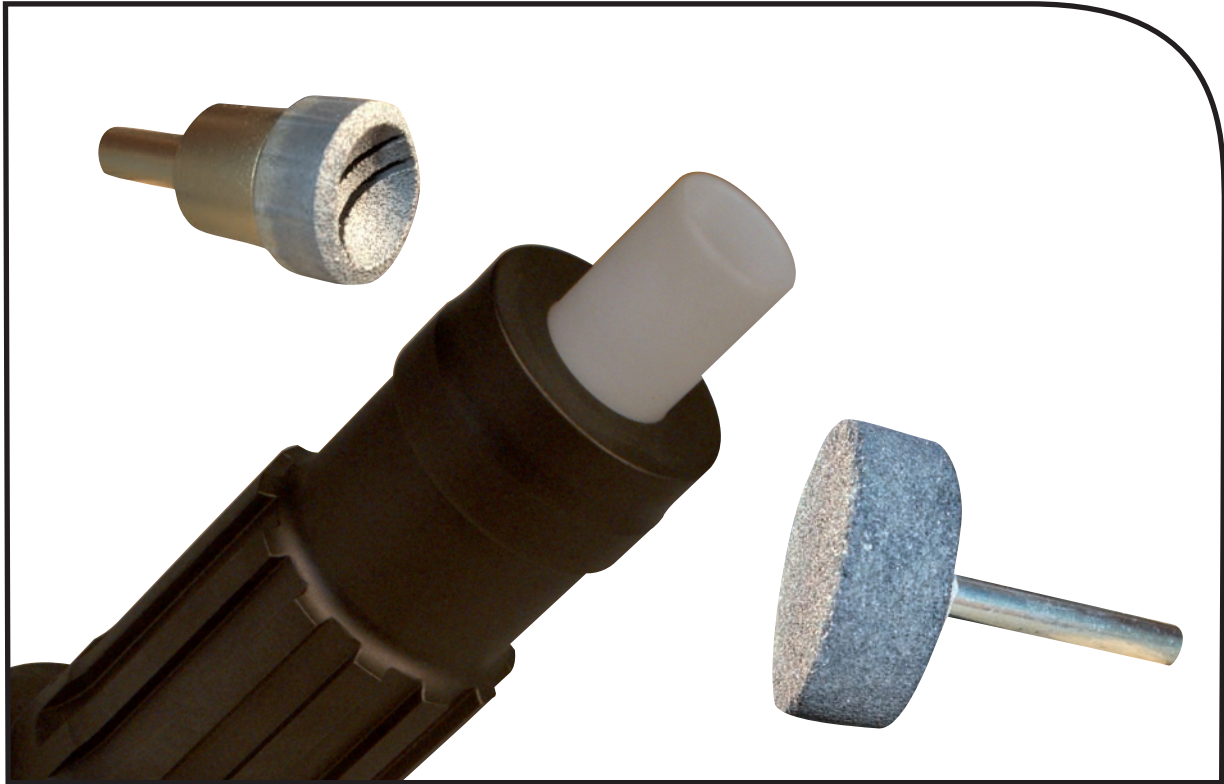
8" SERIES BITS (7 7/8" - 12")		
BIT SHANK	COMPATIBLE HAMMERS	
MC81	MINCON MC80	
M80	SANDVIK RH550R (8") SANDVIK RH550W (8")	
DHD380	ATLAS COPCO DHD360 STD BUCYRUS (HALCO) DOMINATOR 600-IR BULROC HYPER 63, HYPER 66/DHD360	MINCON 6DH360 NUMA PATRIOT 60W, CHALLENGER 6 PUMA M6.2 DHD360
SD8	BULROC HYPER 81-SD8 MINCON 8DHSD8	SANDVIK SD8
QL8	ATLAS COPCO QL80, TD80 BUCYRUS (HALCO) DOMINATOR 850 MINCON MP80, XP80-QL80	NUMA CHALLENGER 80Q PUMA 8.1 QL8

REVERSE CIRCULATION HAMMER BITS

Reverse Circulation hammer bits are similar to conventional hammer bits, but feature sample recovery ports in the face and a large bore through the center to accept the hammer's inner tube. Deep channels on the outside of the drill bit head to allow the exhaust air to force the sample into the recovery ports in the bit face.

Please refer to the Reverse Circulation section of this catalog for additional information, or contact your Hole Products representative for ordering assistance.

DTH ACCESSORIES



Hole Products offers a wide range of DTH drilling accessories, from hammer oil and lube to grinding and sharpening tools, to replacement foot valves. Hole Products can provide the DTH accessories successful drilling contractors require to get the job done.

In addition, we offer a complete line of sub-adaptors, shock absorbers, and much more.

Additional accessories including custom manufactured tooling are available on request.

Please contact your Hole Products representative for availability of additional DTH drilling accessories.

FOOT VALVES/EXHAUST TUBES

Replacement foot valves are available to fit a wide range of hammer bit shanks. Don't see what you need? Give us a call and we will get it.

FOOT VALVES/EXHAUST TUBES	
PART #	DESCRIPTION
3550019	SD4 SHANK BITS
3551066	SD5 SHANK BITS
3550001	SD6 SHANK BITS
3550049	SD8 SHANK BITS
3550072	SD10 SHANK BITS
3550039	SD12 SHANK BITS
3551134	QL40 SHANK BITS
3550045	QL50 SHANK BITS
3550003	QL60 SHANK BITS
3551067	IR340/MD4 SHANK BITS
3551049	IR340 SHANK BITS - HEAVY DUTY
3551032	IR350 SHANK BITS
3550002	IR360 SHANK BITS
3551118	IR380 SHANK BITS
3551069	MACH 303 SHANK BITS



GRINDER AND SHARPENING TOOLS

Hole Products offers a complete line of grinders and grinding stones to increase efficiency and add to the life of the DTH bit. Additional sharpening tools, sizes, and styles are available.

GRINDER & SHARPENING TOOLS		
PART #	DESCRIPTION	
3551022	HG-105 GRINDER	
3550017	GRINDING STONE - 16MM ROUND - STRAIGHT SHAFT	
3550016	GRINDING STONE - 18MM ROUND - STRAIGHT SHAFT	
3550018	GRINDING STONE - 19MM ROUND - STRAIGHT SHAFT	
3550015	GRINDING WHEEL - 1 1/2" X 1/2" X 1/4"	

HAMMER OIL

Hole Products offers specially formulated oil for use with DTH hammers. DTH hammers require hammer oil to operate properly. Hammer oil reduces wear and increases the longevity of the hammer.



HAMMER OIL*	
PART #	DESCRIPTION
3551044	ENVIRONMENTALLY SAFE HAMMER OIL - 5 GAL.
3550005	HAMMER OIL - 5 GAL.

*55 Gallon drums are available on request.

HAMMER LUBE

Hole Products offers nontoxic, biodegradable hammer lube designed to lubricate the interior workings of the hammer, thus increasing hammer life and productivity. Lube is designed for hammers up to 6" in diameter. Apply 2-3 oz. of lube into the drill string for every 300' or 3 hours of continuous drilling.



HAMMER LUBE	
PART #	DESCRIPTION
3550037	HAMMER LUBE - 10 OZ. TUBE