DHT HAMMER

Product Specification

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4"	5"	6"	8"	10"	12"	15"	18"	24"

	DTH HAMMER	Standard Back head Size	Outside Diameter (mm/inch)	Length (mm/inch)
1	4" HAMMER	API 2 3/8 Reg. PIN, BOX	98mm	1096mm
2	5" HAMMER	API 3 1/2 Reg. PIN, BOX	116mm	1161mm
3	6" HAMMER	API 3 1/2 Reg. PIN, BOX	138mm	1386mm
4	8" HAMMER	API 4 1/2 Reg. PIN, BOX	180mm	1463mm
5	10" HAMMER	API 4 1/2 Reg. PIN, BOX	225mm	1450mm
6	12" HAMMER	API 6 5/8 Reg. PIN, BOX	272mm	1789mm
7	15" HAMMER	API 8 5/8 Reg. PIN, BOX	350mm	1777mm
8	18" HAMMER	API 8 5/8 Reg. PIN, BOX	410mm	1972mm
9	24" HAMMER	API 8 5/8 Reg. PIN, BOX	520mm	2027mm
10	33" HAMMER	API 8 5/8 Reg. PIN, BOX	710mm	2273mm

	Outside Diameter of Piston (mm/inch)	Strock (mm/inch)	Weight (kg/lbs)	Shank Type
1	75mm	100mm	44kg	IR340, SD4
2	92mm	100mm	62kg	IR350, SD5
3	108mm	100mm	108kg	IR360, SD6
4	148mm	100mm	205kg	IR380, SD8
5	174mm	100mm	350kg	IR310, SD10
6	216mm	100mm	650kg	IR112, SD12, N120
7	260mm	100mm	1080kg	N120, N120S, N125
8	310mm	127mm	1492kg	SD18, N180
9	381mm	127mm	2545kg	SD24, N240
10	508mm	127mm	5800kg	

Air Consumption Chart

	DTH HAMMER	100 PSI (7kg/cm2)	150 PSI (10.5kg/cm2)	200 PSI (14kg/cm2)
1	4" HAMMER	160 CFM	230 CFM	300 CFM
2	5" HAMMER	170 CFM	285 CFM	400 CFM
3	6" HAMMER		385 CFM	525 CFM
4	8" HAMMER		610 CFM	860 CFM
5	10" HAMMER		690 CFM	980 CFM
6	12" HAMMER		880 CFM	1250 CFM
7	15" HAMMER		1650 CFM	2090 CFM
8	18" HAMMER	1430 CFM	2120 CFM	3000 CFM
9	24" HAMMER	1760 CFM	2540 CFM	3580 CFM
10	33" HAMMER	3100 CFM	4500 CFM	6300 CFM
	250 PSI (17.5kg/cm2)	**300 PSI (21kg/cm2)**	**350 PSI (25kg/cm2)**	
1	380 CFM	470 CFM		
2	520 CFM	645 CFM		
3	675 CFM	830 CFM	951 CFM	
4	1070 CFM			
5	1290 CFM			
6	1700 CFM			
7	2680 CFM			

Rotation Speed

Correct rotation speed has a direct effect on both bit life and hammer performance. Proper rotation is essential for long hammer and bit life. Some common elements involving rotation speed are:

■ Bit Life

Rotation Too Slow - The main purpose of rotating a down hole hammer and bit is to index the carbide button inserts to fresh rock on every impact. If the rotation is too slow the buttons may tend to bury themselves and this will result in an erratic rotation. Slow rotation can also result in the re-crushing of the rock, also known as regrinding, which results in rapid carbide wear.

Rotation Too Fast - Increasing the rotation speed will not necessarily increase the penetration rate. It will usually result in rapid gage carbide wear due to the high scraping forces rather than a crushing force.

■ Hammer Performance

Rotation when drilling with a down the hole hammer serves only two simple purposes.

1. Turning in a clockwise direction keeps the tool joints tight.

2. Rotation indexes the carbide buttons to fracture fresh rock with each impact.

An operator must learn to have a feel for finding the proper rotation speed that will deliver optimum penetration rate without sacrificing bit life. As a starting point an operator can use the following:

R.P.M. = 1/2 Penetration rate per hour in Feet.

R.P.M. = 1.6 X Penetration rate per hour in Meters.

As an example, if the average penetration rate is 60 feet (18.3 m) per hour the revolutions per minute should be around 30.