



# DTH Drilling Equipment

## KEMAICO USA CORPORATION



**GLOBAL DRILLING INDUSTRY EXPERTS**



## High Air Pressure DTH Hammer -With Foot Valve Code

### DTH Hammer With Foot Valve ( i.e. MQL5 )

M	QL	5
Our Company: Maxdrill	Bit shank: D- DHD Bit Shank QL5- QL50 Bit Shank SD5-SD5 Bit Shank	Inch: 5" hammer

# The Characteristics Of Big Size DTH Hammer -Using In Water Wells, Oil, Gas, and Construction Drilling

Based on the characteristics of the wells, oil, gas, and construction drilling, our company self-designed, developed and manufactured this kind of high air pressure DTH hammer.

## It has the following characteristics:

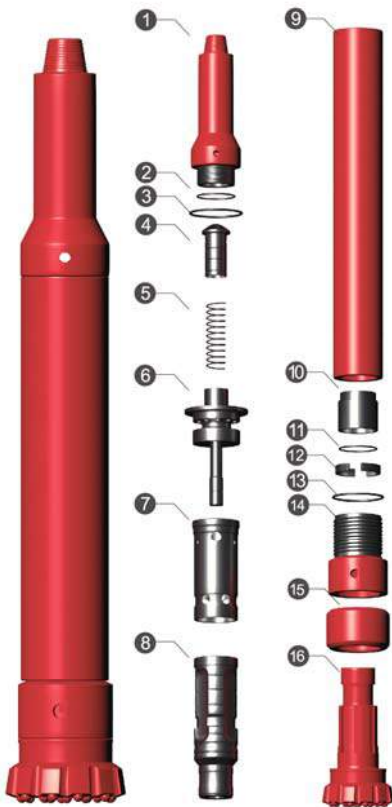
- ☒ Using the latest rock drilling theory, optimizing the inside structure and the size of the air distribution, to make the DTH Hammer obtain the optimal energy transfer and make it achieve faster drilling speed and lower air consumption.
- ☒ For such projects as the drill bit break, retrieving very difficult, we specially designed a safe and reliable anti shedding device for the bit.
- ☒ The check valve can be replaced to the one with bigger air controlling hole to provide more efficient cutting discharge.
- ☒ The top sub and the drive chunk have special thread, which can achieve an easier disassemble.

## Big Size DTH Hammer Without Foot Valve ( i.e. MD330A )

M	D	330	A
Our Company: Maxdrill	Down the hole	The O.D. of hammer is 330mm	A- Bit without foot valve



Decomposition	Item	Part Number	Description
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1	MD330A01	Top Sub
2	MD330A02	"O" Ring of Top Sub
3	MD330A03	Breakout Ring
4	MD330A04	Check Valve
5	MD330A05	Spring
6	MD330A06	Air Distributor
7	MD330A07	Internal Cylinder
8	MD330A08	Piston
9	MD330A09	External Cylinder
10	MD330A10	Guided Sleeve
11	MD330A11	"O" Ring of Stop Ring
12	MD330A12	Stop Ring
13	MD330A13	Breakout Ring
14	MD330A14	Drive Chuck
15	MD330A15	Retainer
16	MD330A16	Drill Bit

### Technical Parameters

Length(Less bit)	3870mm
Weight(Less bit)	1050.00Kg
External Diameter	Ø330mm
Bit Shank	MD330
Hole Range	ø 350- ø 660
Connection Thread	API 7 5/8" Reg
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	20HZ
Recommended Rotation Speed	15-25r/min
Air Consumption	145-350PSI 836-1150CFM

Product Number

# MD330A

Decomposition	Item	Part Number	Description
	1	MD450A01	Top Sub
	2	MD450A02	"O" Ring of Top Sub
	3	MD450A03	Breakout Ring
	4	MD450A04	Check Valve
	5	MD450A05	Spring
	6	MD450A06	Air Distributor
	7	MD450A07	Internal Cylinder
	8	MD450A08	Piston
	9	MD450A09	External Cylinder
	10	MD450A10	Guided sleeve
	11	MD450A11	Piston Retaining Ring
	12	MD450A12	Bit Retaining Ring
	13	MD450A13	Breakout Ring
	14	MD450A14	Drive Sub
	15	MD450A15	Drill Bit

Product Number

**MD450A**

### Technical Parameters

Length(Less bit)	2195mm
Weight(Less bit)	1450.00Kg
External Diameter	Ø450mm
Bit Shank	MD450
Hole Range	ø 550- ø 700
Connection Thread	According to your request
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	20HZ
Recommended Rotation Speed	15-25r/min
Air Consumption	145-350PSI 836-1150CFM

Decomposition	Item	Part Number	Description
	1	MD525A01	Top Sub
	2	MD525A02	"O" Ring of Top Sub
	3	MD525A03	Breakout Ring
	4	MD525A04	Check Valve
	5	MD525A05	Spring
	6	MD525A06	Air Distributor
	7	MD525A07	Internal Cylinder
	8	MD525A08	Piston
	9	MD525A09	External Cylinder
	10	MD525A10	Guided Sleeve
	11	MD525A11	"O" Ring of Stop Ring
	12	MD525A12	Stop Ring
	13	MD525A13	Breakout Ring
	14	MD525A14	Drive Sub
	15	MD525A15	Drill Bit

Product Number

**MD525A**

### Technical Parameters

Length(Less bit)	2650mm
Weight(Less bit)	2895.00Kg
External Diameter	Ø525mm
Bit Shank	MD525
Hole Range	ø 610- ø 800
Connection Thread	According to your request
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	20HZ
Recommended Rotation Speed	15-25r/min
Air Consumption	145-350PSI 836-1150CFM

# Bit Face Shape Selection

## Concave Face

The all-round application bit face specifically for medium hard and homogenous rock formations. Good hole deviation control and good flushing capacity.



## Convex Face

For high penetration rates in soft to medium-hard with low to medium air pressures. It is the most resistance to steel wash, and may reduce the load and wear on the gauge buttons, but poor hole deviation control.



## Flat Face

This kind of face shape is suitable for hard to very hard and abrasive rock formations in applications with high air pressures. Good penetration rates and resistance to steel wash.



## DTH Bit Code ( i.e. 150MQL50CC )

150	M	QL50	CC/CV/FF
Bit Diameter: 150mm	Our company: Maxdrill	Bit Shank: QL50-QL50 Bit Shank SD5-SD5 Bit Shank M50-Misson50 Bit Shank D-DHD Bit Shank N-NUMA Bit Shank	Front Design: CC-Concave CV-Convex FF-Flat Face



# Carbide Button Shape Selection



## Domed/ Round Button

Domed / Round buttons are usually used as gauge buttons of DTH Bits, suitable for very abrasive and very hard formations.



## Parabolic/Semi-Ballistic Button

Parabolic buttons are usually used as gauge buttons and front buttons of DTH Bits, suitable for medium abrasive and hard formations.



## Ballistic Button

Ballistic buttons are usually used as front buttons of DTH Bits, suitable for medium abrasive and medium hard formations. They can also be used as gauge buttons if the rock is soft.

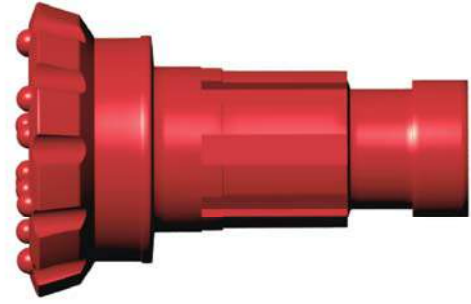


## Sharp Button

Sharp buttons are usually used as front buttons of DTH Bits for soft formations where fast penetration rates are possible and button breakage is minimal.

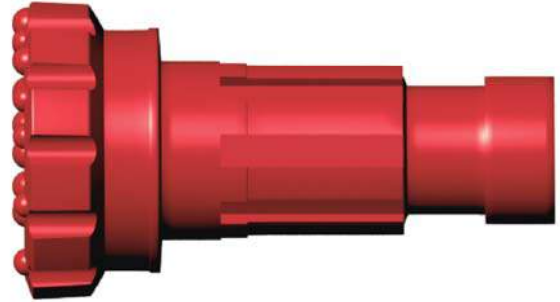


# MD330



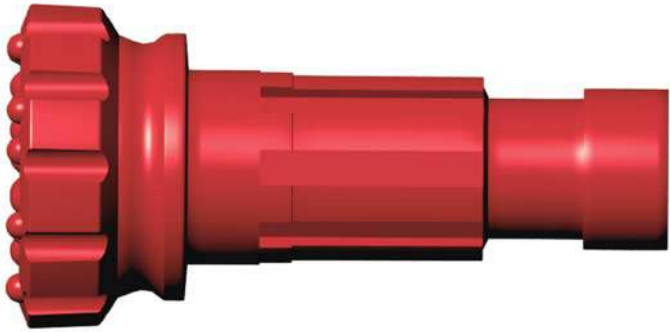
Face	Diameter		Part No.	No. x Button (mm)		Flushing holes	Weight
	Dia.	Inch		Gauge Buttons	Front Buttons		kg
Concave	381	15	381MD330CC	15 x φ19	40 x φ19	3	237
	391	15 3/8	391MD330CC	15 x φ19	40 x φ19	3	244
	413	16 1/4	413MD330CC	15 x φ19	44 x φ19	3	232
	438	17 1/4	438MD330CC	18 x φ19	43 x φ19	3	282
	445	17 1/2	445MD330CC	18 x φ19	44 x φ19	3	282
	451	17 3/4	451MD330CC	18 x φ19	45 x φ19	3	289
	457	18	457MD330CC	18 x φ25.4	46 x φ19	3	295
	464	18 1/4	464MD330CC	18 x φ25.4	47 x φ19	3	299
	483	19	483MD330CC	20 x φ25.4	48 x φ19	3	330
	508	20	508MD330CC	20 x φ25.4	49 x φ19	3	342

# MD450



Face	Diameter		Part No.	No. x Button (mm)		Flushing holes	Weight
	Dia.	Inch		Gauge Buttons	Front Buttons		kg
Concave	483	19	483MD450CC	20 x $\varnothing$ 25.4	57 x $\varnothing$ 19	3	330
	508	20	508MD450CC	20 x $\varnothing$ 25.4	61 x $\varnothing$ 19	3	342
	560	22	560MD450CC	16 x $\varnothing$ 25.4	50 x $\varnothing$ 25.4	4	505
	578	22 3/4	578MD450CC	16 x $\varnothing$ 25.4	50 x $\varnothing$ 25.4	4	523
	610	24	610MD450CC	16 x $\varnothing$ 25.4	59 x $\varnothing$ 25.4	4	545
	660	26	660MD450CC	24 x $\varnothing$ 25.4	69 x $\varnothing$ 25.4	6	610

# MD525



Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Gauge Buttons	Front Buttons			kg
					Outer	Inner		
Concave	660	26	660MD525CC	44 x $\phi$ 20	64 x $\phi$ 19	24 x $\phi$ 20	4	863
	720	28 1/3	660MD525CC	44 x $\phi$ 20	84 x $\phi$ 19	24 x $\phi$ 20	4	988

Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Gauge Buttons	Front Buttons			kg
					Outer	Inner		
Convex	775	30 1/2	775MD525CV	56 x $\phi$ 20	116 x $\phi$ 19	44 x $\phi$ 19	4	1330





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