



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

Decomposition	Item	Part Number	Description
	1	MD4501	Top Sub
	2	MD4502	"O" Ring of Top Sub
	3	MD4503	Check Valve
	4	MD4504	Spring
	5	MD4505	Compression Buffer
	6	MD4506	Air Distributor
	7	MD4507	Internal Cylinder
	8	MD4508	Piston
	9	MD4509	External Cylinder
	10	MD4510	"O" Ring of Stop Ring
	11	MD4511	Stop Ring
	12	MD4512	Drive Chuck
	13	MD4513	Drill Bit

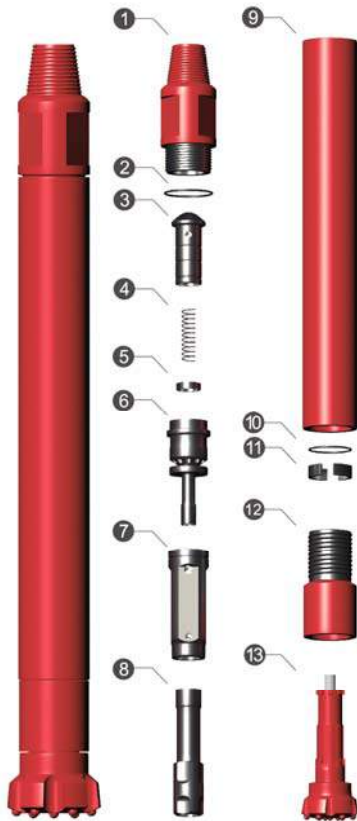
Product Number

MD45

Technical Parameters

Length(Less bit)	1030mm
Weight(Less bit)	39.00Kg
External Diameter	Ø99mm
Bit Shank	Cop44 / DHD340A
Hole Range	ø110-ø135
Connection Thread	API 2 3/8" Reg
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	28HZ
Recommended Rotation Speed	25-40r/min
Air Consumption	145-350PSI 200-600CFM

Decomposition	Item	Part Number	Description
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1	MSD401	Top Sub
2	MSD402	"O" Ring of Top Sub
3	MSD403	Check Valve
4	MSD404	Spring
5	MSD405	Compression Buffer
6	MSD406	Air Distributor
7	MSD407	Internal Cylinder
8	MSD408	Piston
9	MSD409	External Cylinder
10	MSD410	"O" Ring of Stop Ring
11	MSD411	Stop Ring
12	MSD412	Drive Chuck
13	MSD413	Drill Bit

Technical Parameters

Length(Less bit)	1084mm
Weight(Less bit)	40.50Kg
External Diameter	Ø99mm
Bit Shank	SD4
Hole Range	Ø110-Ø135
Connection Thread	API 2 3/8" Reg
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	28HZ
Recommended Rotation Speed	25-40r/min
Air Consumption	145-350PSI 200-600CFM

Product Number

MSD4

Decomposition	Item	Part Number	Description
	1	MQL401	Top Sub
	2	MQL402	"O" Ring of Top Sub
	3	MQL403	Check Valve
	4	MQL404	Spring
	5	MQL405	Compression Buffer
	6	MQL406	Air Distributor
	7	MQL407	Internal Cylinder
	8	MQL408	Piston
	9	MQL409	External Cylinder
	10	MQL410	Guided Sleeve
	11	MQL411	"O" Ring of Stop Ring
	12	MQL412	Stop Ring
	13	MQL413	Drive Chuck
	14	MQL414	Drill Bit

Product Number

MQL4

Technical Parameters

Length(Less bit)	1097mm
Weight(Less bit)	41.00Kg
External Diameter	ø99mm
Bit Shank	QL40
Hole Range	ø110-ø135
Connection Thread	API 2 3/8" Reg
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	28HZ
Recommended Rotation Speed	25-40r/min
Air Consumption	145-350PSI 200-600CFM



High Air Pressure -Without Foot Valve DTH Hammer Code

DTH Hammer Without Foot Valve (i.e. MQL4A)

M	QL	4	A/S
Our Company: Maxdrill	Bit shank: D- DHD Bit Shank QL4- QL40 Bit Shank SD4-SD4 Bit Shank BR1-BR1 Bit Shank M-Mission Bit Shank N-NUMA Bit Shank	Inch: 4" hammer	A-Bit without foot valve S-Smaller size than general DTH Hammer

Decomposition	Item	Part Number	Description
	1	MD45A01	Top Sub
	2	MD45A02	"O" Ring of Top Sub
	3	MD45A03	Check Valve
	4	MD45A04	Spring
	5	MD45A05	Air Distributor
	6	MD45A06	Internal Cylinder
	7	MD45A07	Piston
	8	MD45A08	External Cylinder
	9	MD45A09	Guided Sleeve
	10	MD45A10	"O" Ring of Stop Ring
	11	MD45A11	Stop Ring
	12	MD45A12	Drive Chuck
	13	MD45A13	Drill Bit

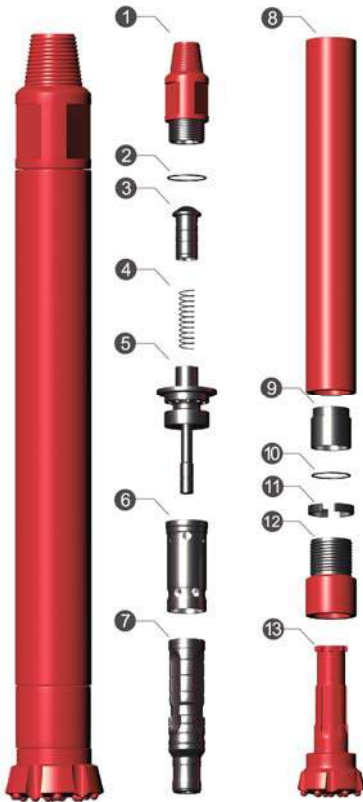
Product Number

MD45A

Technical Parameters

Length(Less bit)	1011mm
Weight(Less bit)	43.20Kg
External Diameter	Ø99mm
Bit Shank	Cop44 / DHD340A
Hole Range	ø 110- ø 135
Connection Thread	API 2 3/8" Reg
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	28HZ
Recommended Rotation Speed	25-40r/min
Air Consumption	145-350PSI 200-600CFM

Decomposition	Item	Part Number	Description
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1	MD45S01	Top Sub
2	MD45S02	"O" Ring of Top Sub
3	MD45S03	Check Valve
4	MD45S04	Spring
5	MD45S05	Air Distributor
6	MD45S06	Internal Cylinder
7	MD45S07	Piston
8	MD45S08	External Cylinder
9	MD45S09	Guided Sleeve
10	MD45S10	"O" Ring of Stop Ring
11	MD45S11	Stop Ring
12	MD45S12	Drive Chuck
13	MD45S13	Drill Bit

Product Number

MD45S

Technical Parameters

Length(Less bit)	986mm
Weight(Less bit)	37.00Kg
External Diameter	Ø92mm
Bit Shank	Cop44 / DHD340A
Hole Range	ø 105- ø 120
Connection Thread	API 2 3/8" Reg
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	28HZ
Recommended Rotation Speed	25-40r/min
Air Consumption	145-350PSI 200-600CFM

Decomposition	Item	Part Number	Description
	1	MM4A01	Top Sub
	2	MM4A02	"O" Ring of Top Sub
	3	MM4A03	Check Valve
	4	MM4A04	Spring
	5	MM4A05	Compression Buffer
	6	MM4A06	Air Distributor
	7	MM4A07	Piston
	8	MM4A08	External Cylinder
	9	MM4A09	Guided Sleeve
	10	MM4A10	"O" Ring of Stop Ring
	11	MM4A11	Stop Ring
	12	MM4A12	Drive Chuck
	13	MM4A13	Drill Bit

Product Number

MM4A

Technical Parameters

Length(Less bit)	1005mm
Weight(Less bit)	40.00Kg
External Diameter	Ø99mm
Bit Shank	Mission40A
Hole Range	ø 110- ø 135
Connection Thread	API 2 3/8" Reg
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	28HZ
Recommended Rotation Speed	25-40r/min
Air Consumption	145-350PSI 200-600CFM

Decomposition	Item	Part Number	Description
	1	MQL4A01	Top Sub
	2	MQL4A02	"O" Ring of Top Sub
	3	MQL4A03	Check Valve
	4	MQL4A04	Spring
	5	MQL4A05	Air Distributor
	6	MQL4A06	Internal Cylinder
	7	MQL4A07	Piston
	8	MQL4A08	External Cylinder
	9	MQL4A09	Guided Sleeve
	10	MQL4A10	"O" Ring of Stop Ring
	11	MQL4A11	Stop Ring
	12	MQL4A12	Drive Chuck
	13	MQL4A13	Drill Bit

Product Number

MQL4A

Technical Parameters

Length(Less bit)	1070mm
Weight(Less bit)	40.00Kg
External Diameter	Ø99mm
Bit Shank	QL40
Hole Range	ø 110- ø 135
Connection Thread	API 2 3/8" Reg
Working Pressure	1.0-2.5Mpa
Impact Rate at 1.7Mpa	28HZ
Recommended Rotation Speed	25-40r/min
Air Consumption	145-350PSI 200-600CFM

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

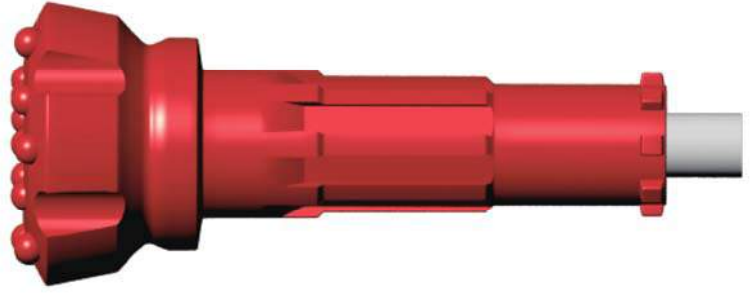
Ballistic buttons are usually used as front buttons of DTH Bits, suitable for medium abrasive and medium hard formations. They can also be used as gauge buttons if the rock is soft.



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.

**MD45
DHD340A
COP44**



Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Flat	105	4 1/8	105MD45FF	7 x φ14		6 x φ13	2	7.7
	110	4 5/16	110MD45FF	8 x φ14		6 x φ13	2	7.8
	115	4 1/2	115MD45FF	8 x φ14		7 x φ13	2	8.3
	120	4 3/4	120MD45FF	8 x φ14		7 x φ13	2	8.7
	125	4 15/16	125MD45FF	8 x φ14		7 x φ13	2	8.9
	130	5 1/8	130MD45FF	8 x φ14		7 x φ13	2	9.0

Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Concave	105	4 1/8	105MD45CC	7 x φ14		6 x φ13	2	7.7
	110	4 5/16	110MD45CC	8 x φ14		6 x φ13	2	7.8
	115	4 1/2	115MD45CC	8 x φ14		7 x φ13	2	8.3
	120	4 3/4	120MD45CC	8 x φ14		7 x φ13	2	8.7
	125	4 15/16	125MD45CC	8 x φ14		7 x φ13	2	8.9
	130	5 1/8	130MD45CC	8 x φ14		7 x φ13	2	9.0

Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Convex	105	4 1/8	105MD45CV	7 x φ14		6 x φ13	2	7.7
	110	4 5/16	110MD45CV	8 x φ14		6 x φ13	2	7.8
	115	4 1/2	115MD45CV	8 x φ14		7 x φ13	2	8.3
	120	4 3/4	120MD45CV	8 x φ14		7 x φ13	2	8.7
	125	4 15/16	125MD45CV	8 x φ14		7 x φ13	2	8.9
	130	5 1/8	130MD45CV	8 x φ14		7 x φ13	2	9.0

M40A



Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Flat	105	4 1/8	105MM40FF	7 x φ14		6 x φ13	2	7.7
	110	4 5/16	110MM40FF	8 x φ14		6 x φ13	2	7.8
	115	4 1/2	115MM40FF	8 x φ14		7 x φ13	2	8.3
	120	4 3/4	120MM40FF	8 x φ14		7 x φ13	2	8.7
	125	4 15/16	125MM40FF	8 x φ14		7 x φ13	2	8.9
	130	5 1/8	130MM40FF	8 x φ14		7 x φ13	2	9.0

Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Concave	105	4 1/8	105MM40CC	7 x φ14		6 x φ13	2	7.7
	110	4 5/16	110MM40CC	8 x φ14		6 x φ13	2	7.8
	115	4 1/2	115MM40CC	8 x φ14		7 x φ13	2	8.3
	120	4 3/4	120MM40CC	8 x φ14		7 x φ13	2	8.7
	125	4 15/16	125MM40CC	8 x φ14		7 x φ13	2	8.9
	130	5 1/8	130MM40CC	8 x φ14		7 x φ13	2	9.0

Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Convex	105	4 1/8	105MM40CV	7 x φ14		6 x φ13	2	7.7
	110	4 5/16	110MM40CV	8 x φ14		6 x φ13	2	7.8
	115	4 1/2	115MM40CV	8 x φ14		7 x φ13	2	8.3
	120	4 3/4	120MM40CV	8 x φ14		7 x φ13	2	8.7
	125	4 15/16	125MM40CV	8 x φ14		7 x φ13	2	8.9
	130	5 1/8	130MM40CV	8 x φ14		7 x φ13	2	9.0

SD4

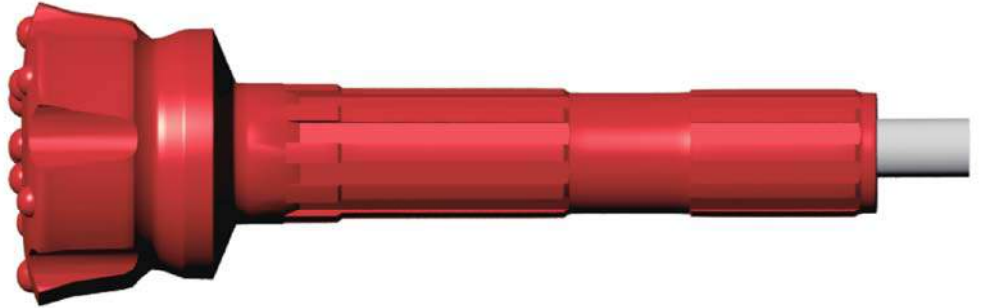


Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Flat	105	4 1/8	105MSD4FF	7 x ϕ 14		6 x ϕ 13	2	8.9
	110	4 5/16	110MSD4FF	8 x ϕ 14		6 x ϕ 13	2	9.0
	115	4 1/2	115MSD4FF	8 x ϕ 14		7 x ϕ 13	2	9.4
	120	4 3/4	120MSD4FF	8 x ϕ 14		7 x ϕ 13	2	9.9
	125	4 15/16	125MSD4FF	8 x ϕ 14		7 x ϕ 13	2	10.1
	130	5 1/8	130MSD4FF	8 x ϕ 14		7 x ϕ 13	2	10.2

Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Concave	105	4 1/8	105MSD4CC	7 x ϕ 14		6 x ϕ 13	2	8.9
	110	4 5/16	110MSD4CC	8 x ϕ 14		6 x ϕ 13	2	9.0
	115	4 1/2	115MSD4CC	8 x ϕ 14		7 x ϕ 13	2	9.4
	120	4 3/4	120MSD4CC	8 x ϕ 14		7 x ϕ 13	2	9.9
	125	4 15/16	125MSD4CC	8 x ϕ 14		7 x ϕ 13	2	10.1
	130	5 1/8	130MSD4CC	8 x ϕ 14		7 x ϕ 13	2	10.2

Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Convex	105	4 1/8	105MSD4CV	7 x ϕ 14		6 x ϕ 13	2	8.9
	110	4 5/16	110MSD4CV	8 x ϕ 14		6 x ϕ 13	2	9.0
	115	4 1/2	115MSD4CV	8 x ϕ 14		7 x ϕ 13	2	9.4
	120	4 3/4	120MSD4CV	8 x ϕ 14		7 x ϕ 13	2	9.9
	125	4 15/16	125MSD4CV	8 x ϕ 14		7 x ϕ 13	2	10.1
	130	5 1/8	130MSD4CV	8 x ϕ 14		7 x ϕ 13	2	10.2

QL40



Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Flat	105	4 1/8	105MQL40FF	7 x ϕ 14		6 x ϕ 13	2	9.0
	110	4 5/16	110MQL40FF	8 x ϕ 14		6 x ϕ 13	2	9.1
	115	4 1/2	115MQL40FF	8 x ϕ 14		7 x ϕ 13	2	9.5
	120	4 3/4	120MQL40FF	8 x ϕ 14		7 x ϕ 13	2	10.0
	125	4 15/16	125MQL40FF	8 x ϕ 14		7 x ϕ 13	2	10.2
	130	5 1/8	130MQL40FF	8 x ϕ 14		7 x ϕ 13	2	10.3

Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Concave	105	4 1/8	105MQL40CC	7 x ϕ 14		6 x ϕ 13	2	9.0
	110	4 5/16	110MQL40CC	8 x ϕ 14		6 x ϕ 13	2	9.1
	115	4 1/2	115MQL40CC	8 x ϕ 14		7 x ϕ 13	2	9.5
	120	4 3/4	120MQL40CC	8 x ϕ 14		7 x ϕ 13	2	10.0
	125	4 15/16	125MQL40CC	8 x ϕ 14		7 x ϕ 13	2	10.2
	130	5 1/8	130MQL40CC	8 x ϕ 14		7 x ϕ 13	2	10.3

Face	Diameter		Part No.	No. x Button (mm)			Flushing holes	Weight
	Dia.	Inch		Outer	Inner	Front		kg
Convex	105	4 1/8	105MQL40CV	7 x ϕ 14		6 x ϕ 13	2	9.0
	110	4 5/16	110MQL40CV	8 x ϕ 14		6 x ϕ 13	2	9.1
	115	4 1/2	115MQL40CV	8 x ϕ 14		7 x ϕ 13	2	9.5
	120	4 3/4	120MQL40CV	8 x ϕ 14		7 x ϕ 13	2	10.0
	125	4 15/16	125MQL40CV	8 x ϕ 14		7 x ϕ 13	2	10.2
	130	5 1/8	130MQL40CV	8 x ϕ 14		7 x ϕ 13	2	10.3



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