



# Down The Hole Hammer & Bit



# Bit Face Shape Selection



**Drop Center** For high penetration rates in soft to medium hard and fissured rock formations. Low to medium air pressures. Maximum hole deviation control.



**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.

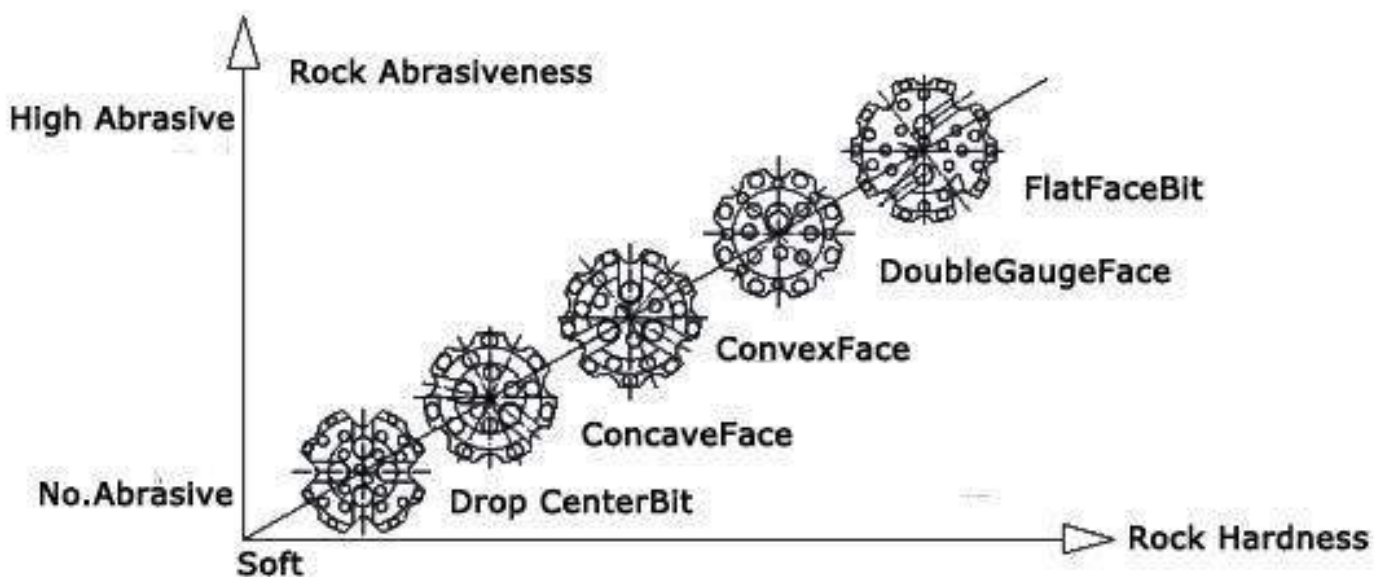


**Double Gauge Face** This kind of face shape is suitable for fast penetration rates in medium to hard rock formations. Designed for high air pressures and good resistance to steel wash step gauge bit.



**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.

## Technical Date



# 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.



## **Flat Button**

Flat Buttons are usually used as protection buttons to reduce wear on rubbing surfaces of DTH Bits.

## 1" BIT Data Referenced By MBR1 Flat Face Bit



**Specification Of Products:BR1**

Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
57	2 1/4	6×9	2×8	38	2	1.6	BR1-57
64	2 1/2	6×10	3×10	38	2	1.8	BR1-64
70	2 3/4	6×12	4×10	38	2	2.1	BR1-70
76	3	6×12	4×10	38	2	2.4	BR1-76

## 2" BIT Data Referenced By MD25 Flat Face Bit



**Specification Of Products:MD25**

**Specification Of Products:BR2**

Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
76	3	6×13	5×10	38	2	3.3	MD25-76
80	3 1/8	6×13	4×11	38	2	3.4	MD25-80
82	3 1/4	6×13	4×11	38	2	3.5	MD25-82
90	3 9/16	6×13	5×12	38	2	3.7	MD25-90

## 3" BIT Data Referenced By MD35 Flat Face Bit

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**Specification Of Products:MD35  
IR3.5 COP34**



**Specification Of Products:M30A**



**Specification Of Products:COP32**



**Specification Of Products:QL30**



**Specification Of Products:BR3**

Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
90	3 9/16	6×14	4×12	38	2	4.6	MD35-90
92	3 5/8	6×14	4×12	38	2	4.6	MD35-92
95	3 3/4	6×14	4×13	38	2	4.7	MD35-95
100	3 15/16	6×14	5×13	38	2	4.8	MD35-100
105	4 1/8	6×14	5×13	38	2	5	MD35-105
110	4 5/16	8×14	6×13	38	2	5.5	MD35-110

## 4" BIT Data Referenced By MD45 Flat Face Bit

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**Specification Of Products:MD45  
DHD340A COP44**



**Specification Of Products:M40A**



**Specification Of Products:SD4**



**Specification Of Products:QL40**

Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Guage Buttons	Front Buttons				
105	4 1/8	6×14	5×13	38	2	7.6	MD45-105
110	4 5/16	7×14	6×13	38	2	7.8	MD45-110
115	4 1/2	8×14	7×13	38	2	8.2	MD45-115
120	4 3/4	8×14	7×13	38	2	8.7	MD45-120
125	4 15/16	8×14	7×13	38	2	8.9	MD45-125
130	5 1/8	8×16	7×14	38	2	9.4	MD45-130

## 5" BIT Data Referenced By MD55 Flat Face Bit

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**Specification Of Products:MD55  
DHD350R COP54**



**Specification Of Products:M50A**



**Specification Of Products:SD5**



**Specification Of Products:QL50**

Diameter		No × Button diameter,mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
130	5 1/8	8× 16	8× 14	38	2	15	MD55-130
135	5 1/4	8× 16	8× 14	38	2	15.2	MD55-135
138	5 1/2	8× 16	8× 14	38	2	15.6	MD55-138
140	5 1/2	8× 16	10× 14	38	2	15.8	MD55-140
146	5 3/4	8× 18	8× 15	38	2	16.1	MD55-146
150	5 7/8	8× 18	8× 15	38	2	16.5	MD55-150
152	6	8× 18	8× 15	38	2	17	MD55-152
156	6 1/8	8× 18	8× 16	38	2	17.5	MD55-156

## 6" BIT Data Referenced By MD65 Concave Face Bit



**Specification Of Products:MD65  
DHD360 COP64**



**Specification Of Products:M60A**



**Specification Of Products:SD6**



**Specification Of Products:QL60**

Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
152	6	8×18	4×16+4×14	38	2	23	MD65-152
154	6	8×18	4×16+4×14	38	2	23	MD65-154
156	6 1/4	8×18	4×16+4×16	38	2	23	MD65-156
159	6 1/4	8×18	4×16+4×16	38	2	23.5	MD65-159
165	6 1/2	8×18	4×16+4×16	38	2	24	MD65-165
171	6 3/4	8×18	8×16	38	2	25	MD65-171
178	7	8×18	6×16+4×16	38	2	26	MD65-178
185	7 1/4	9×18	6×16+4×16	38	2	26.8	MD65-185
190	7 1/2	10×18	8×16+5×16	38	2	27.5	MD65-190
203	8	10×18	8×16+6×16	38	2	31	MD65-203



## 8" BIT Data Referenced By MD85 Concave Face Bit



**Specification Of Products:MD85  
DHD380 COP84**



**Specification Of Products:M80A**



**Specification Of Products:SD8**



**Specification Of Products:QL80**

Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
200	7 7/8	10×18	8×18+6×16	38	2	46	MD85-200
203	8	10×18	8×18+6×16	38	2	47	MD85-203
216	8 1/2	10×18	8×18+6×16	38	2	53	MD85-216
219	8 5/8	10×18	8×18+6×16	38	2	54	MD85-219
222	8 3/4	10×18	8×18+6×16	38	2	55	MD85-222
225	8 7/8	10×18	8×18+7×16	38	2	56	MD85-225
229	9	10×18	8×18+7×16	38	2	57	MD85-229
235	9 1/4	12×18	12×16+8×16	38	2	57.5	MD85-235
240	9 1/2	12×18	12×16+8×16	38	2	58	MD85-240
254	10	12×18	8×18+12×16+6×16	38	2	61	MD85-254
270	10 5/8	12×19	8×18+12×16+8×16	38	2	66	MD85-270
279	11	12×19	8×18+12×16+8×16	38	3	71	MD85-279

## 10" BIT Data Referenced By MSD10 Concave Face Bit

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**Specification Of Products:SD10**



**Specification Of Products:NUMA100**

Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
254	10	12×18	12×16+8×16	38	2	85	SD10-254
270	10 5/8	12×19	8×18+12×16+8×16	38	2	88	SD10-270
279	11	12×19	8×18+12×16+8×16	38	2	91	SD10-279
295	11 5/8	12×19	20×18+9×16	38	2	95	SD10-295
305	12	15×19	12×18+15×18+9×16	38	3	97	SD10-305
311	12 1/4	15×19	12×18+15×18+9×16	38	3	99	SD10-311
315	12 3/8	15×19	12×18+15×18+9×16	38	3	102	SD10-315
330	13	15×19	12×18+15×18+9×18	38	3	114	SD10-330

## 12" BIT Data Referenced By MSD12 Concave Face Bit

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**Specification Of Products:SD12**



**Specification Of Products:DHD1120**



**Specification Of Products:NUMA120**



**Specification Of Products:NUMA125**

Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
305	12	15×19	36×18	38	3	130	SD12-305
311	12 1/4	15×19	36×18	38	3	132	SD12-311
315	12 3/8	15×19	42×18	38	3	136	SD12-315
330	13	15×19	42×18	38	3	140	SD12-330
343	13 1/2	15×19	42×18	38	3	145	SD12-343
350	13 3/4	15×19	44×18	38	3	148	SD12-350
356	14	15×19	44×18	38	3	150	SD12-356
368	14 1/2	15×19	40×19	38	3	156	SD12-368
375	14 3/4	15×19	40×19	38	3	160	SD12-375
381	15	15×19	40×19	38	3	164	SD12-381

# 15"BIT Data Referenced By MD330 Concave Face Bit



## Specification Of Products:MD330

Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
381	15	15×19	40×19	38	3	237	MD330-381
391	15 3/8	15×19	40×19	38	3	244	MD330-391
413	16 1/4	15×19	44×19	38	3	232	MD330-413
435	17 1/8	18×19	44×19	38	3	282	MD330-435
438	17 1/4	18×19	44×19	38	3	282	MD330-438
445	17 1/2	18×19	44×19	38	3	282	MD330-445
451	17 3/4	18×19	44×19	35	3	289	MD330-451
457	18	18×25.4	47×19	35	3	295	MD330-457
464	18 1/4	18×25.4	47×19	35	3	299	MD330-464
483	19	20×25.4	57×19	35	3	330	MD330-483
508	20	20×25.4	61×19	35	3	342	MD330-508

## 20" BIT Data Referenced By MD450 Concave Face Bit

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### Specification Of Products:MD450

Diameter		No ×Button diameter,mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Guage Btuttons	Front Buttons				
483	19	20×25.4	57×19	35	3	330	MD450-483
508	20	20×25.4	61×19	35	3	342	MD450-508
560	22	16×25.4	50×25.4	35	4	523	MD450-560
578	22 3/4	16×25.4	50×25.4	35	4	505	MD450-578
610	24	16×25.4	59×25.4	35	4	545	MD450-610
660	26	24×25.4	69×25.4	35	6	610	MD450-660

## 24" BIT Data Referenced By MD525 Concave Face Bit

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### Specification Of Products:MD525

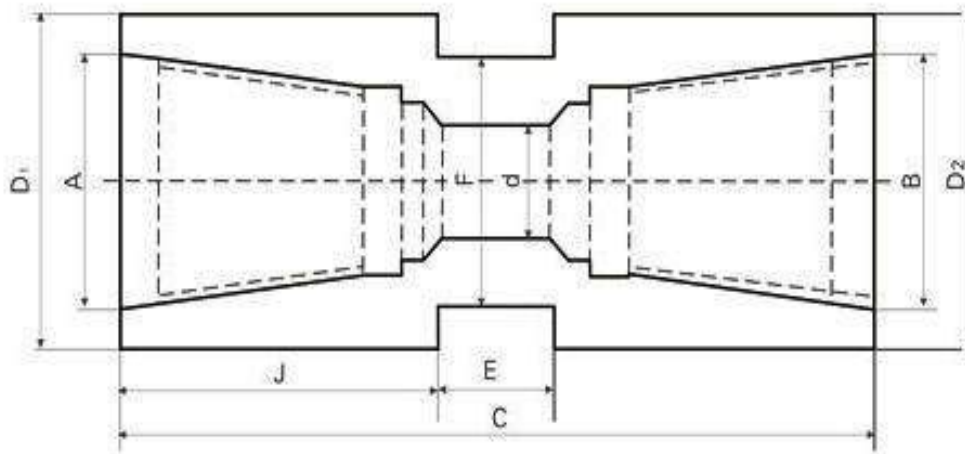
Diameter		No × Button diameter, mm		Button angle°	Flushing holes	Weight (Kg)	Part No
mm	inch	Gauge Buttons	Front Buttons				
610	24	16×25.4	59×25.4	35	4	545	MD525-610
660	26	24×25.4	69×25.4	35	6	608	MD525-660
724	28 1/2	24×25.4	69×25.4	35	6	990	MD525-724
737	29	24×25.4	69×25.4	35	6	980	MD525-737
762	30	24×25.4	73×25.4	35	6	1020	MD525-762
864	34	24×25.4	96×25.4	35	6	1200	MD525-864
914	36	24×25.4	108×25.4	35	6	1280	MD525-914

## The others

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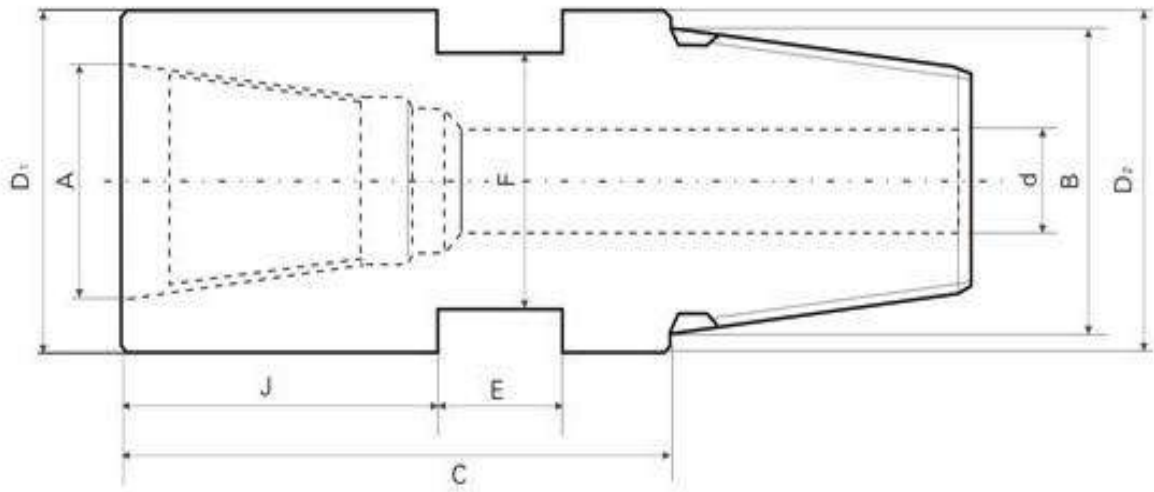
# Box-Box Adapters



Connection		C	J	E	d	Outside diameter		F Across flat (mm)
Box up A	Box down B	Length (mm)	Length shoulder (mm)	Width spanner flats(mm)	Std bore (mm)	D1 TopD1 (mm)	D2 BottomD2 (mm)	
API 2 3/8"REG	API 2 3/8"REG	219	57.1	50.8	38.1	88.9	88.9	69.85
API 2 7/8"REG	API 2 3/8"REG	219	69.85	50.8	38.1	114.3	88.9	98.4
API 2 3/8"REG	API 3 1/2"REG	128.6	57.1	50.8	38.1	88.9	114.3	69.8
API 3 1/2"REG	API 3 1/2"REG	241.3	69.85	50.5	44.45	114.3	114.3	98.4
API 3 1/2"REG	API 4 1/2"REG	269.8	88.9	50.8	58.7	114.3	146	98.4
API 2 7/8"REG	API 3 1/2"REG	241.3	69.85	50.8	44.45	114.3	51.7	98.4
API 4 1/2"REG	API 2 7/8"REG	250.8	76.2	50.8	44.45	114.3	146	98.4

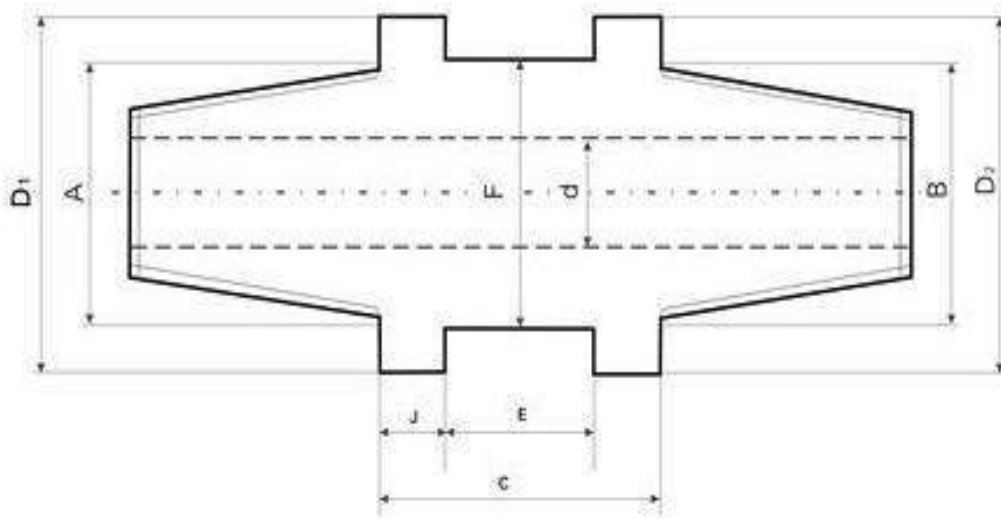


# Pin-Box Adapters



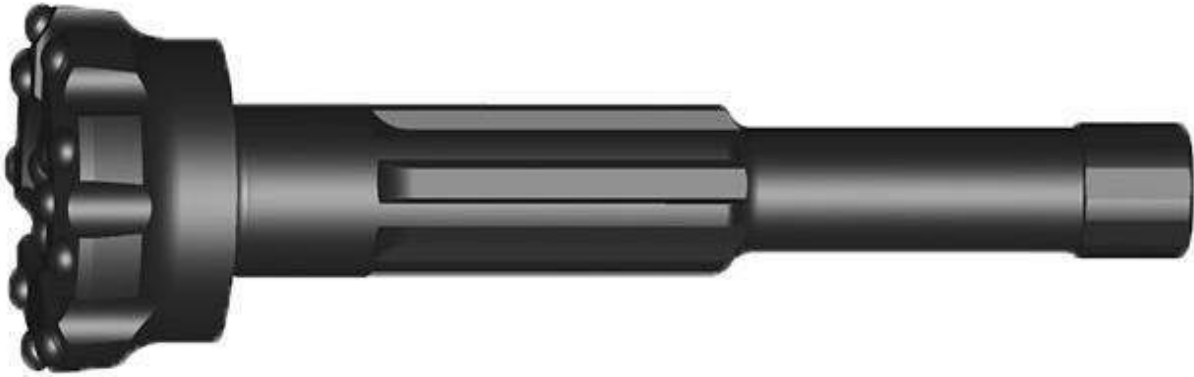
Connection		C	J	E	d	Outside diameter		F Across flat (mm)
Box up A	Pin down B	Length (mm)	Length shoulder (mm)	Width spanner flats(mm)	Std bore (mm)	D1 TopD1 (mm)	D2 BottomD2 (mm)	
API 2 3/8"REG	API 2 3/8"REG	140	50.8	65	24	88.9	88.9	69.85
API 2 3/8"REG	API 2 7/8"REG	134.9	69.85	50.8	31.75	88.9	88.9	69.85
API 2 3/8"REG	API 3 1/2"REG	146	39.7	50.8	25.4	114.3	88.9	98.4
API 3 1/2"REG	API 3 1/2"REG	101.6	39.7	50.8	44.45	127	127	98.4
API 3 1/2"REG	API 4 1/2"REG	134.9	39.7	50.8	52.4	114.3	146	98.4
API 2 7/8"REG	API 2 3/8"REG	134.9	39.7	50.8	31.75	88.9	88.9	69.85
API 2 7/2"REG	API 3 1/2"REG	134.9	39.7	50.8	44.45	114.3	114.3	98.4
API 2 7/8"REG	API 4 1/2"REG	174.6	100	50.8	44.45	114.3	146	98.4

# Pin-Pin Adapters



Connection		C	J	E	d	Outside diameter		F
Pin up A	Pin down B	Length (mm)	Length shoulder (mm)	Width spanner flats(mm)	Std bore (mm)	D1 TopD1 (mm)	D2 ButtomD2 (mm)	Across flat (mm)
API 2 3/8"REG	API 2 3/8"REG	70	20	50.8	24	78	78	65
API 2 3/8"REG	API 2 7/8"REG	152.4	50.8	50.8	25.4	88.9	88.9	69.85
API 2 3/8"REG	API 3 1/2"REG	96	35	50.8	24	114.3	114.3	98.4
API 3 1/2"REG	API 3 1/2"REG	177.8	63.5	50.8	44.45	114.3	114.3	98.4
API 3 1/2"REG	API 4 1/2"REG	92	12.7	69.85	38.1	114.3	139.7	120.65
API 4 1/2"REG	API 4 1/2"REG	203.2	76.2	50.8	58.7	146	146	120.65

# Long Shank Bit



Diameter	Gauge	Front	Flushing holes	Weight (Kg)	Part-No
90	9×11	7×11	3×8	5.8	MROD76-90
95	9×12	7×11	3×8	6.0	MROD76-95
105	9×12	7×12	3×10	6.4	MROD76-105
105	9×13	7×12	3×13	9.1	MROD89-105
115	9×14	6×14	3×13	9.7	MROD89-115
127	9×14	7×14	3×13	10.6	MROD89-127
115	9×14	6×14	3×13	12.6	MROD102-115
127	9×14	7×14	3×13	13.2	MROD102-127
140	9×16	9×16	3×13	14.5	MROD102-140
140	9×16	9×16	3×15	21.3	MROD127-140
152	9×16	9×16	3×15	23.1	MROD127-152
165	10×16	10×16	3×15	23.9	MROD127-165

# "Globe Drilling Industry Experts"

No matter what kinds of soft rock, loose-medium rock, hard rock and any other special formations, just tell us what you need, our special tailored service is waiting for you upon your demand.



## **KEMAICO USA CORPORATION**

Add: 300 Knightsbridge Pkwy Ste. 113 Lincolnshire, IL 60069

Tel: 1-847-913-6878

Fax: 1-847-913-6879

Email: [office@kemaico.us](mailto:office@kemaico.us)

[info@kemaico.us](mailto:info@kemaico.us)

Web: [www.kemaico.us](http://www.kemaico.us)