



## Top Hammer Rock Drilling Tools

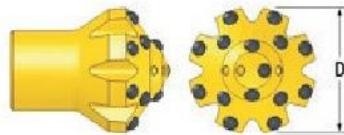
- BENCH AND DRILLING----- PAGE 42

# BENCH DRILLING R32

Drill Bit	Length		Tip Size(mm)			Flushing Hole		Weight Approx kg	DRILL P/N
	mm	inch	Front	Gauge	Angle	Front	Side		

### Spherical buttons

Dome bit for reaming

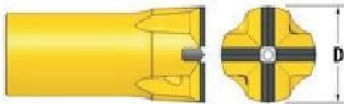


76	3	1×13	9×13	35°	3	1	2.0	1441-76R32-113/913-45-31
89	3 1/2	1×13	14×13	35°	2	2	2.6	1441-89R32-113/1413-45-31
102	4	1×13	16×13	35°	2	2	3.2	1441-102R32-113/1613-45-31
127	5	1×13	18×13	35°	3	1	4.8	1441-127R32-113/1813-45-31

### Parabolic buttons

76	3	1×13	9×13	35°	3	1	2.0	1441-76R32-113/913-45-51
89	3 1/2	1×13	14×13	35°	2	2	2.6	1441-89R32-113/1413-45-51
102	4	1×13	16×13	35°	2	2	3.2	1441-102R32-113/1613-45-51
127	5	1×13	18×13	35°	3	1	4.8	1441-127R32-113/1813-45-51

Cross-type bits



45	1 3/4	16×10	-	-	1	4	0.9	1221-45R32-16/10-42-23
48	1 7/8	16×10	-	-	1	4	0.9	1221-48R32-16/10-42-23
51	2	16×10	-	-	1	4	1.2	1221-51R32-16/10-42-23
57	2 1/4	16×10	-	-	1	4	1.3	1221-57R32-16/10-42-23
64	2 1/2	18×13	-	-	1	4	1.5	1221-64R32-18/13-42-23

Drill Rod	Length		Diameter		Weight Approx kg	DRILL P/N
	mm	foot	mm	inch		

Extension rod R32-Round32-R32

Flushing hole 9.2mm.

Wrench flat 25.4mm.

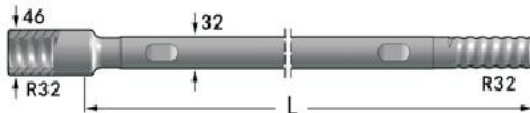


915	3'	32	1 1/4	5.4	23R32-R32-0915-23
1000	3'33/8"	32	1 1/4	5.9	23R32-R32-1000-23
1220	4'	32	1 1/4	7.2	23R32-R32-1220-23
1830	6'	32	1 1/4	10.8	23R32-R32-1830-23
2435	8'	32	1 1/4	14.3	23R32-R32-2435-23
3050	10'	32	1 1/4	17.9	23R32-R32-3050-23
3660	12'	32	1 1/4	21.5	23R32-R32-3660-23

MF-rod R32-Round32-R32

Flushing hole 9.2mm.

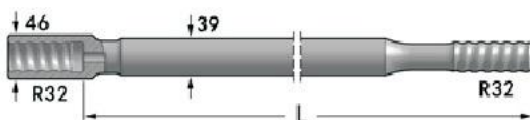
Wrench flat 25.4mm.



915	3'	32	1 1/4	6.2	24R32-R32/46-0915-23
1220	4'	32	1 1/4	8.0	24R32-R32/46-1220-23
1525	5'	32	1 1/4	9.8	24R32-R32/46-1525-23
1830	6'	32	1 1/4	11.6	24R32-R32/46-1830-23
2435	8'	32	1 1/4	15.1	24R32-R32/46-2435-23
3050	10'	32	1 1/4	18.7	24R32-R32/46-3050-23
3660	12'	32	1 1/4	22.3	24R32-R32/46-3660-23

Guide speedrod R32-Round39-R32

Flushing hole 14.5mm.



3050	10'	39	1 1/2	27.0	24R39-R32/46-3050-23
3660	12'	39	1 1/2	32.0	24R39-R32/46-3660-23

## BENCH DRILLING R32

	Length		Diameter		Weight Approx kg	DRILL P/N
	mm	inch	mm	inch		

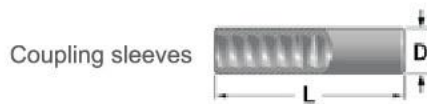
Guide tube

D46 for bits from 51-64mm



1220	4'	46	1 3/4	10.0	24R46-R32/46-1220-23
1525	5'	46	1 3/4	12.5	24R46-R32/46-1525-23
1830	6'	46	1 3/4	14.2	24R46-R32/46-1830-23
3050	10'	46	1 3/4	25.0	24R46-R32/46-3050-23

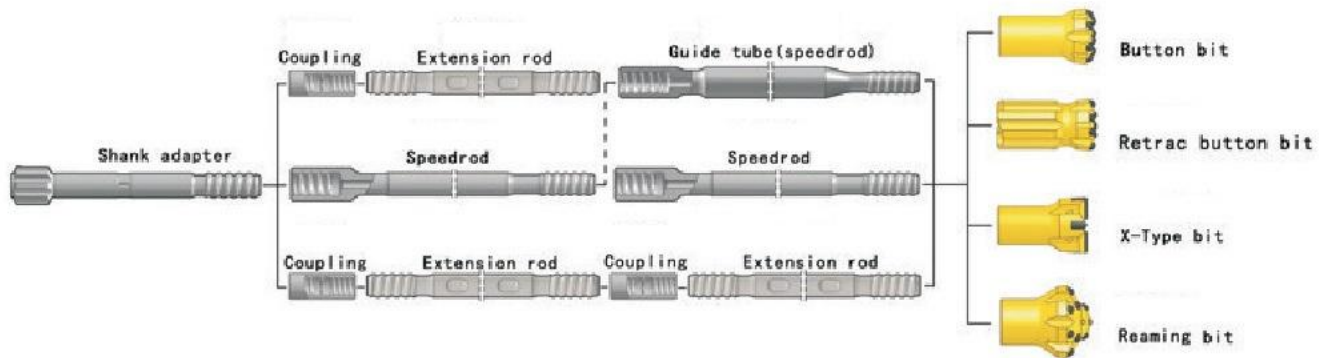
Coupling	Length		Diameter		Thread	Weight Approx kg	DRILL P/N
	mm	inch	mm	inch			



Coupling sleeves

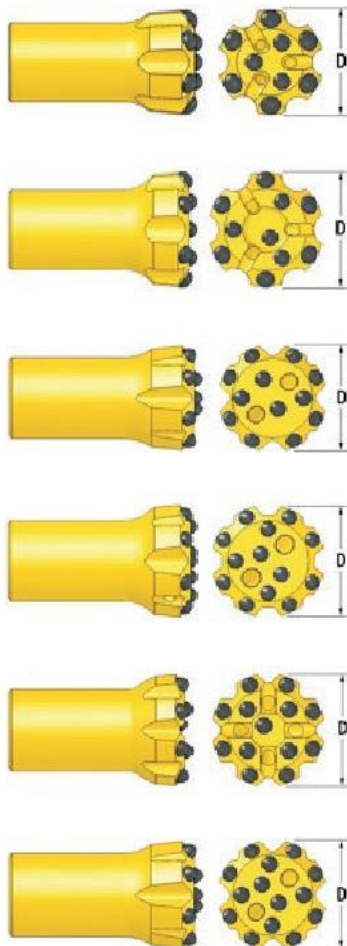
150	6 1/8	44	1 3/4	R32	1.0	31-R32-44-150-23
160	6 1/4	44	1 3/4	R32	1.1	31-R32-44-160-23

# BENCH DRILLING T38



Drill Bit	Length		Tip Size(mm)			Flushing Hole		Weight Approx kg	DRILL P/N
	mm	inch	Front	Gauge	Angle	Front	Side		

## Button bit



### Spherical buttons

64	2 1/2	3×11	6×12	35°	3	-	1.8	1431-64T38-311/612-45-31
64	2 1/2	4×10	8×10	40°	2	-	1.6	1431-64T38-410/810-45-31
64	2 1/2	3×10,1×10	6×11	35°	3	-	1.7	1433-64T38-410/611-45-31
70	2 3/4	4×11	8×11	40°	2	-	1.9	1431-70T38-411/811-45-31
70	2 3/4	4×10,1×10	8×11	30°	4	-	1.9	1432-70T38-510/811-45-31
70	2 3/4	3×10,1×10	6×12	35°	3	-	1.8	1433-70T38-410/612-45-31
76	3	4×11	8×11	40°	2	-	2.4	1431-76T38-411/811-45-31
76	3	5×11	8×13	35°	2	1	2.4	1431-76T38-511/813-45-31
76	3	3×11,1×11	6×12	35°	3	1	2.6	1433-76T38-411/612-45-31
76	3	4×11,1×11	8×12	35°	4	-	2.6	1432-76T38-511/812-45-31
76	3	4×11,1×11	8×11	40°	4	-	2.6	1432-76T38-511/811-45-31
89	3 1/2	4×13	8×13	40°	2	-	3.3	1431-89T38-413/813-45-31
89	3 1/2	5×13	8×13	35°	2	-	3.3	1431-89T38-513/813-45-31
89	3 1/2	6×11	8×12	35°	2	-	3.3	1431-89T38-611/812-45-31
89	3 1/2	3×11,2×11	6×13	35°	3	1	3.3	1433-89T38-511/613-45-31
89	3 1/2	4×11,1×11	8×13	35°	4	-	3.3	1433-89T38-511/813-45-31
89	3 1/2	4×13,1×13	8×13	35°	4	-	3.3	1432-89T38-513/813-45-31

### Parabolic buttons

64	2 1/2	3×11	6×12	35°	3	-	1.8	1431-64T38-311/612-45-51
64	2 1/2	4×10	8×10	40°	2	-	1.6	1431-64T38-410/810-45-51
64	2 1/2	3×10,1×10	6×11	35°	3	-	1.7	1433-64T38-410/611-45-51
70	2 3/4	4×11	8×11	40°	2	-	1.9	1431-70T38-411/811-45-51
70	2 3/4	3×10,1×10	6×12	35°	3	-	1.8	1433-70T38-410/612-45-51
76	3	4×11	8×11	40°	2	-	2.4	1431-76T38-411/811-45-51
76	3	5×11	8×13	35°	2	1	2.4	1431-76T38-511/813-45-51
76	3	3×11,1×11	6×13	35°	3	1	2.6	1433-76T38-411/613-45-51
76	3	4×11,1×11	8×12	35°	4	-	2.6	1432-76T38-511/812-45-51
76	3	4×11,1×11	8×11	40°	4	-	2.6	1432-76T38-511/811-45-51
89	3 1/2	5×13	8×13	35°	2	-	3.3	1431-89T38-513/813-45-51
89	3 1/2	6×11	8×12	35°	2	-	3.3	1431-89T38-611/812-45-51
89	3 1/2	3×11,2×11	6×13	35°	3	1	3.3	1433-89T38-511/613-45-51
89	3 1/2	4×11,1×11	8×13	35°	4	-	3.3	1433-89T38-511/813-45-51
89	3 1/2	4×13,1×13	8×13	35°	4	-	3.3	1432-89T38-513/813-45-51

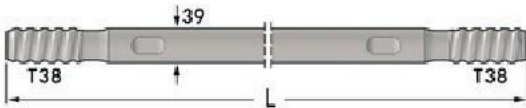
# BENCH DRILLING T38

Drill Rod	Length		Diameter		Weight Approx kg	DRILL P/N
	mm	foot	mm	inch		

### Extension rod T38-Round39-T38

Flushing hole 14.5mm.

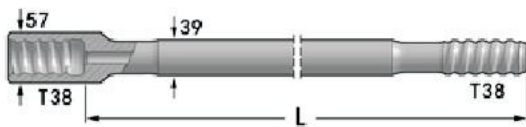
Wrench flat 32mm.



1220	4'	39	1 1/2	10.2	23R39-T38-1220-23
1525	5'	39	1 1/2	12.8	23R39-T38-1525-23
1830	6'	39	1 1/2	15.3	23R39-T38-1830-23
2435	8'	39	1 1/2	20.4	23R39-T38-2435-23
3050	10'	39	1 1/2	25.5	23R39-T38-3050-23
3660	12'	39	1 1/2	30.9	23R39-T38-3660-23
3965	13'	39	1 1/2	33.2	23R39-T38-3965-23
4270	14'	39	1 1/2	35.7	23R39-T38-4270-23
4880	16'	39	1 1/2	41.0	23R39-T38-4880-23
5530	18'11/2"	39	1 1/2	46.3	23R39-T38-5530-23
6095	20'	39	1 1/2	50.9	23R39-T38-6095-23

### MF-rod T38-Round39-T38

Flushing hole 14.5mm.



915	3'	39	1 1/2	10.7	24R39-T38/57-0915-23
1220	4'	39	1 1/2	13.3	24R39-T38/57-1220-23
1525	5'	39	1 1/2	15.8	24R39-T38/57-1525-23
1830	6'	39	1 1/2	18.3	24R39-T38/57-1830-23
3050	10'	39	1 1/2	28.5	24R39-T38/57-3050-23
3660	12'	39	1 1/2	33.6	24R39-T38/57-3660-23
4270	14'	39	1 1/2	38.7	24R39-T38/57-4270-23
4880	16'	39	1 1/2	43.7	24R39-T38/57-4880-23
5530	18'11/2"	39	1 1/2	49.2	24R39-T38/57-5530-23
6095	20'	39	1 1/2	53.9	24R39-T38/57-6095-23

### Hex. extension rod T38-Hex32-T38

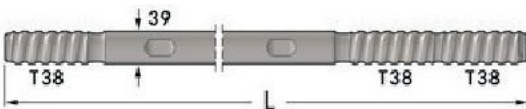
Flushing hole 9.6mm.



1220	4'	32	1 1/4	8.6	23H32-T38-1220-23
1830	6'	32	1 1/4	12.6	23H32-T38-1830-23
2435	8'	32	1 1/4	16.6	23H32-T38-2435-23
3050	10'	32	1 1/4	20.8	23H32-T38-3050-23
3660	12'	32	1 1/4	24.9	23H32-T38-3660-23

### Double thread rod T38-Round39-T38

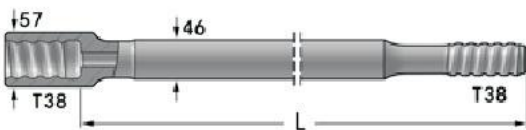
Flushing hole 14.5mm. Wrench flat 32mm.



3050	10'	46	1 3/4	25.7	23R39-T38/2T38-3050-23
3660	12'	46	1 3/4	30.9	23R39-T38/2T38-3660-23

### Guide speedrod T38-Round46-T38

Flushing hole 17mm.

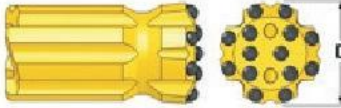
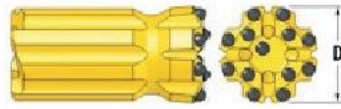
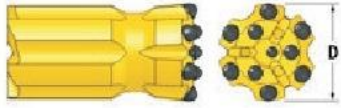


1830	6'	46	1 3/4	23.5	24R46-T38/57-1830-23
3050	10'	46	1 3/4	37.2	24R46-T38/57-3050-23
3660	12'	46	1 3/4	44.0	24R46-T38/57-3660-23
4270	14'	46	1 3/4	50.9	24R46-T38/57-4270-23
4880	16'	46	1 3/4	57.7	24R46-T38/57-4880-23
5530	18'11/2"	46	1 3/4	65.0	24R46-T38/57-5530-23
6095	20'	46	1 3/4	71.3	24R46-T38/57-6095-23

# BENCH DRILLING T38

Drill Bit	Length		Tip Size(mm)			Flushing Hole		Weight Approx kg	DRILL P/N
	mm	inch	Front	Gauge	Angle	Front	Side		

## Button bit



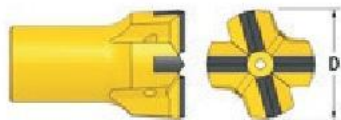
### Spherical buttons

64	2 1/2	4×10	8×10	30°	2	-	2.2	1531-64T38-410/810-45-31
64	2 1/2	3×10,1×10	6×11	35°	3	-	2.2	1533-64T38-410/611-45-31
70	2 3/4	4×11	8×11	40°	2	-	2.4	1531-70T38-411/811-45-31
70	2 3/4	3×10,1×10	6×13	35°	3	-	2.4	1533-70T38-410/613-45-31
70	2 3/4	4×10,1×10	8×11	35°	4	-	2.4	1632-70T38-510/811-45-31
76	3	4×11	8×11	40°	2	-	3.3	1531-76T38-411/811-45-31
76	3	4×11,1×11	8×11	35°	4	-	3.3	1632-76T38-511/811-45-31
76	3	4×11,1×11	8×12	35°	4	-	3.3	1632-76T38-511/812-45-31
89	3 1/2	4×13	8×13	40°	2	-	4.8	1531-89T38-413/813-45-31
89	3 1/2	5×13	8×13	35°	2	-	4.8	1531-89T38-513/813-45-31
89	3 1/2	6×11	8×12	35°	2	-	4.8	1531-89T38-611/812-45-31
89	3 1/2	4×11,1×11	8×13	35°	4	-	4.8	1533-89T38-511/813-45-31
89	3 1/2	4×13,1×13	8×13	35°	4	-	4.8	1632-89T38-513/813-45-31

### Parabolic buttons

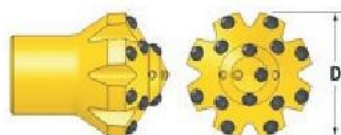
64	2 1/2	4×10	8×10	30°	2	-	2.2	1531-64T38-410/810-45-51
64	2 1/2	3×10,1×10	6×11	35°	3	-	2.2	1533-64T38-410/611-45-51
70	2 3/4	4×11	8×11	40°	2	-	2.4	1531-70T38-411/811-45-51
70	2 3/4	3×10,1×10	6×13	35°	3	-	2.4	1533-70T38-410/613-45-51
70	2 3/4	4×10,1×10	8×11	35°	4	-	2.4	1632-70T38-510/811-45-51
76	3	4×11	8×11	40°	2	-	3.3	1531-76T38-411/811-45-51
76	3	4×11,1×11	8×11	35°	4	-	3.3	1632-76T38-511/811-45-51
76	3	4×11,1×11	8×12	35°	4	-	3.3	1632-76T38-511/812-45-51
89	3 1/2	4×13	8×13	40°	2	-	4.8	1531-89T38-413/813-45-51
89	3 1/2	5×13	8×13	35°	2	-	4.8	1531-89T38-513/813-45-51
89	3 1/2	6×11	8×12	35°	2	-	4.8	1531-89T38-611/812-45-51
89	3 1/2	4×11,1×11	8×13	35°	4	-	4.8	1533-89T38-611/813-45-51
89	3 1/2	4×13,1×13	8×13	35°	4	-	4.8	1632-89T38-513/813-45-51

## X-type bit



64	2 1/2	25×13	-	-	1	2	1.9	1321-64T38-25/13-42-23
76	3	25×13	-	-	1	2	2.5	1321-76T38-25/13-42-23
89	3 1/2	25×13	-	-	1	2	2.8	1321-89T38-25/13-42-23

## Dome bit for reaming



### Spherical buttons

102	4	1×13	16×13	35°	2	2	3.8	1441-102T38-113/1613-45-31
127	5	1×13	18×13	35°	1	3	5.2	1441-127T38-113/1813-45-31

### Parabolic buttons

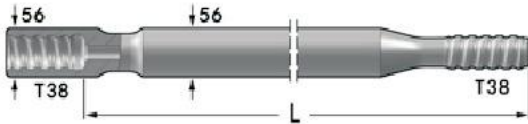
102	4	1×13	16×13	35°	2	2	3.8	1441-102T38-113/1613-45-51
127	5	1×13	18×13	35°	1	3	5.2	1441-127T38-113/1813-45-51

## BENCH DRILLING T38

Guide Tube	Length		Diameter		Weight Approx kg	DRILL P/N
	mm	inch	mm	inch		

Guide tube

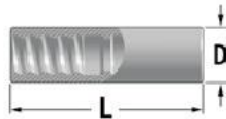
D56 for bits from 64-76mm and  
D64 for bits from 76-89mm



1220	4'	56	2 1/8	12.6	24G56-T38/56-1220-23
1525	5'	56	2 1/8	14	24G56-T38/56-1525-23
1830	6'	56	2 1/8	17.4	24G56-T38/56-1830-23
3050	10'	56	2 1/8	28.3	24G56-T38/56-3050-23
3660	12'	56	2 1/8	32.8	24G56-T38/56-3660-23
4920	16'2"	56	2 1/8	47.9	24G56-T38/56-4920-23
3660	12'	64	2 1/2	51	24G64-T38/64-3660-23

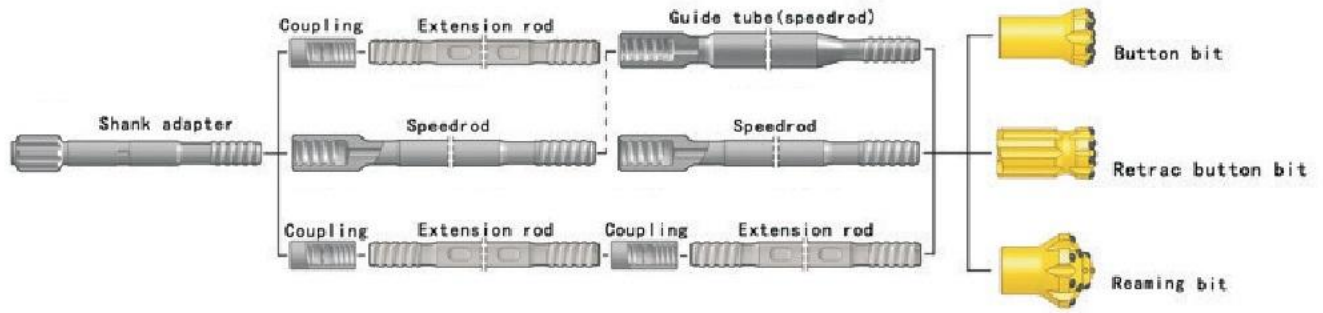
Coupling	Length		Diameter		Thread	Weight Approx kg	DRILL P/N
	mm	inch	mm	inch			

Coupling sleeves



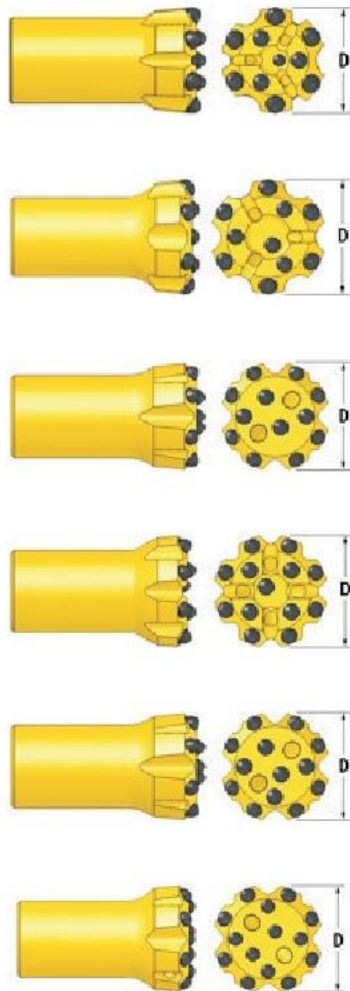
190	7 1/2	55	2 5/32	T38	2.1	31-T38-55-190-23
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# BENCH DRILLING T45



Drill Bit	Length		Tip Size(mm)			Flushing Hole		Weight Approx kg	DRILL P/N
	mm	inch	Front	Gauge	Angle	Front	Side		

## Button bit



## Spherical buttons

70	2 3/4	4×11	8×11	40°	2	-	2.3	1431-70T45-411/811-45-31
70	2 3/4	3×11,1×9	6×11	35°	3	-	2.2	1433-70T45-411/611-45-31
70	2 3/4	4×10,1×10	8×11	35°	4	-	2.2	1432-70T45-510/811-45-31
76	3	4×11	8×11	40°	2	-	2.6	1431-76T45-411/811-45-31
76	3	5×11	8×12	35°	2	1	2.6	1431-76T45-511/812-45-31
76	3	3×11,1×11	6×13	35°	3	-	2.4	1433-76T45-411/613-45-31
76	3	4×11,1×11	8×12	35°	4	-	2.6	1432-76T45-511/812-45-31
89	3 1/2	4×13	8×13	40°	2	-	4.6	1431-89T45-413/813-45-31
89	3 1/2	6×11	8×12	35°	2	-	4.6	1431-89T45-611/812-45-31
89	3 1/2	3×11,2×11	6×13	35°	3	1	4.1	1433-89T45-511/613-45-31
89	3 1/2	4×11,1×11	8×12	35°	4	-	4.6	1433-89T45-511/812-45-31
89	3 1/2	4×13,1×13	8×13	35°	4	-	4.6	1432-89T45-513/813-45-31
102	4	5×14	8×14	40°	2	-	5.0	1431-102T45-514/814-45-31
102	4	6×13	8×16	40°	2	1	5.0	1431-102T45-613/816-45-31
102	4	3×13,2×13	6×14	35°	3	1	4.5	1433-102T45-513/614-45-31
102	4	4×13,1×13	8×14	35°	4	-	4.5	1433-102T45-513/814-45-31
102	4	4×13,2×13	8×13	35°	4	1	4.5	1433-102T45-613/813-45-31

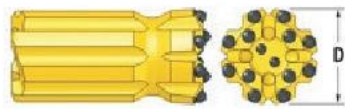
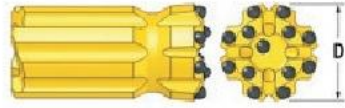
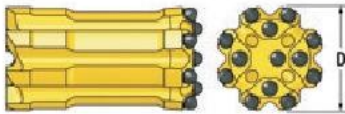
## Parabolic buttons

70	2 3/4	3×11,1×9	6×11	35°	3	-	2.2	1433-70T45-411/611-45-51
70	2 3/4	4×10,1×10	8×11	35°	4	-	2.2	1432-70T45-510/811-45-51
76	3	4×11	8×11	40°	2	-	2.6	1431-76T45-411/811-45-51
76	3	5×11	8×12	35°	2	1	2.6	1431-76T45-511/812-45-51
76	3	3×11,1×11	6×13	35°	3	1	2.4	1433-76T45-411/613-45-51
76	3	4×11,1×11	8×11	35°	4	-	2.6	1432-76T45-511/811-45-51
76	3	4×11,1×11	8×12	35°	4	-	2.6	1432-76T45-511/812-45-51
89	3 1/2	4×13	8×13	40°	2	-	4.6	1431-89T45-413/813-45-51
89	3 1/2	6×11	8×12	35°	2	-	4.6	1431-89T45-611/812-45-51
89	3 1/2	3×11,2×11	6×13	35°	3	1	4.1	1433-89T45-511/613-45-51
89	3 1/2	4×11,1×11	8×12	35°	4	-	4.6	1433-89T45-511/812-45-51
89	3 1/2	4×13,1×13	8×13	35°	4	-	4.6	1432-89T45-513/813-45-51

# BENCH DRILLING T45

Drill Bit	Length		Tip Size(mm)			Flushing Hole		Weight Approx kg	DRILL P/N
	mm	inch	Front	Gauge	Angle	Front	Side		

## Button bit



### Spherical buttons

70	2 3/4	4×11	8×11	40°	2	-	2.5	1531-70T45-411/811-45-31
70	2 3/4	3×11,1×9	6×11	35°	3	-	2.5	1533-70T45-411/611-45-31
70	2 3/4	4×10,1×10	8×11	35°	4	-	2.5	1632-70T45-510/811-45-31
76	3	4×11	8×11	40°	2	-	3.2	1531-76T45-411/811-45-31
76	3	5×11	8×12	35°	2	1	3.2	1531-76T45-511/812-45-31
76	3	3×11,1×11	6×13	35°	3	-	3.2	1533-76T45-411/613-45-31
76	3	4×11,1×11	8×11	35°	4	-	3.2	1632-76T45-511/811-45-31
76	3	4×11,1×11	8×12	35°	4	-	3.2	1632-76T45-511/812-45-31
89	3 1/2	4×13	8×13	40°	2	-	5.4	1531-89T45-413/813-45-31
89	3 1/2	6×11	8×12	35°	2	-	5.4	1531-89T45-611/812-45-31
89	3 1/2	3×11,2×11	6×13	35°	3	1	5.4	1533-89T45-511/613-45-31
89	3 1/2	4×11,1×11	8×12	35°	4	-	5.4	1533-89T45-511/812-45-31
89	3 1/2	4×13,1×13	8×13	35°	4	-	5.4	1632-89T45-513/813-45-31
102	4	5×14	8×14	40°	2	-	6.8	1531-102T45-514/814-45-31
102	4	6×13	8×16	40°	2	1	6.8	1531-102T45-613/816-45-31
102	4	3×13,2×13	6×14	35°	3	1	6.8	1533-102T45-513/614-45-31
102	4	4×13,1×13	8×14	35°	4	-	6.8	1533-102T45-513/814-45-31
102	4	4×13,2×13	8×13	35°	4	1	6.8	1533-102T45-613/813-45-31

### Parabolic buttons

70	2 3/4	3×11,1×9	6×11	35°	3	-	2.5	1533-70T45-411/611-45-51
70	2 3/4	4×10,1×10	8×11	35°	4	-	2.5	1632-70T45-510/811-45-51
76	3	4×11	8×11	40°	2	-	3.2	1531-76T45-411/811-45-51
76	3	5×11	8×12	35°	2	1	3.2	1531-76T45-511/812-45-51
76	3	3×11,1×11	6×13	35°	3	1	3.2	1533-76T45-411/613-45-51
76	3	4×11,1×11	8×11	35°	4	-	3.2	1632-76T45-511/811-45-51
76	3	4×11,1×11	8×12	35°	4	-	3.2	1632-76T45-511/812-45-51
89	3 1/2	4×13	8×13	40°	2	-	5.4	1531-89T45-413/813-45-51
89	3 1/2	6×11	8×12	35°	2	-	5.4	1531-89T45-611/812-45-51
89	3 1/2	3×11,2×11	6×13	35°	3	1	5.4	1533-89T45-511/613-45-51
89	3 1/2	4×11,1×11	8×12	35°	4	-	5.4	1533-89T45-511/812-45-51
89	3 1/2	4×13,1×13	8×13	35°	4	-	5.4	1632-89T45-513/813-45-51

## Dome bit for reaming



### Spherical buttons

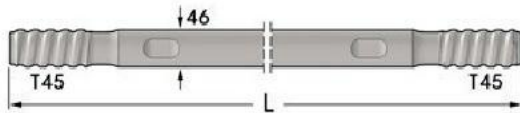
127	5	1×13	18×13	35°	3	1	6.0	1441-127T45-113/1813-45-31
152	6	2×14	18×14	35°	3	1	10.6	1441-152T45-214/1814-45-31

### 抛物线齿 Parabolic buttons

127	5	1×13	18×13	35°	3	1	6.0	1441-127T45-113/1813-45-51
152	6	2×14	18×14	35°	3	1	10.6	1441-152T45-214/1814-45-51
ii	ii	ii	ii	ii	ii	ii	ii	ii
ii	ii	ii	ii	ii	ii	ii	ii	ii

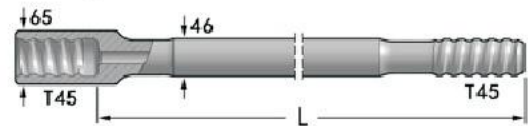
# BENCH DRILLING T45

Drill Rod	Length		Diameter		Weight Approx kg	DRILL P/N
	mm	foot	mm	inch		
Extension rod T45-Round46-T45 Flushing hole 17mm. Wrench flat 38mm.	1830	6'	46	1 3/4	21.6	23R46-T45-1830-23
	2435	8'	46	1 3/4	28.3	23R46-T45-2435-23
	3050	10'	46	1 3/4	35.2	23R46-T45-3050-23
	3660	12'	46	1 3/4	42.1	23R46-T45-3660-23
	4270	14'	46	1 3/4	48.9	23R46-T45-4270-23
	5530	18'	46	1 3/4	63.0	23R46-T45-5530-23
6095	20'	46	1 3/4	69.3	23R46-T45-6095-23	



## MF-rod T45-Round46-T45

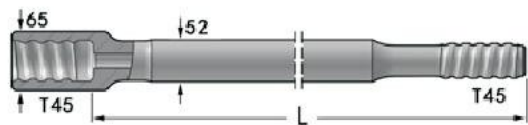
Flushing hole 17mm.



1525	5'	46	1 3/4	21.2	24R46-T45/65-1525-23
1830	6'	46	1 3/4	24.6	24R46-T45/65-1830-23
3050	10'	46	1 3/4	38.2	24R46-T45/65-3050-23
3660	12'	46	1 3/4	45.0	24R46-T45/65-3660-23
4270	14'	46	1 3/4	51.9	24R46-T45/65-4270-23
5530	18'	46	1 3/4	66.0	24R46-T45/65-5530-23
6095	20'	46	1 3/4	72.3	24R46-T45/65-6095-23

## Guide speedrod T45-Round52-T45

Flushing hole 21.5mm.

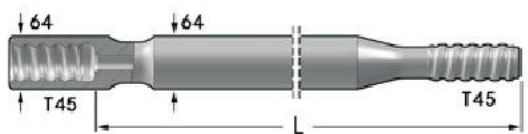


3050	10'	52	2	46.6	24R52-T45/65-3050-23
3660	12'	52	2	55.8	24R52-T45/65-3660-23
4270	14'	52	2	63.8	24R52-T45/65-4270-23
5530	18'	52	2	81.5	24R52-T45/65-5530-23
6095	20'	52	2	89.4	24R52-T45/65-6095-23

Guide Tube	Length		Diameter		Weight Approx kg	DRILL P/N
	mm	foot	mm	inch		

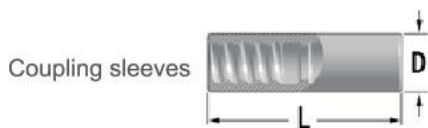
## Guide tube

D64 for bits from 76-89mm and  
D76 for bits from 89-102mm



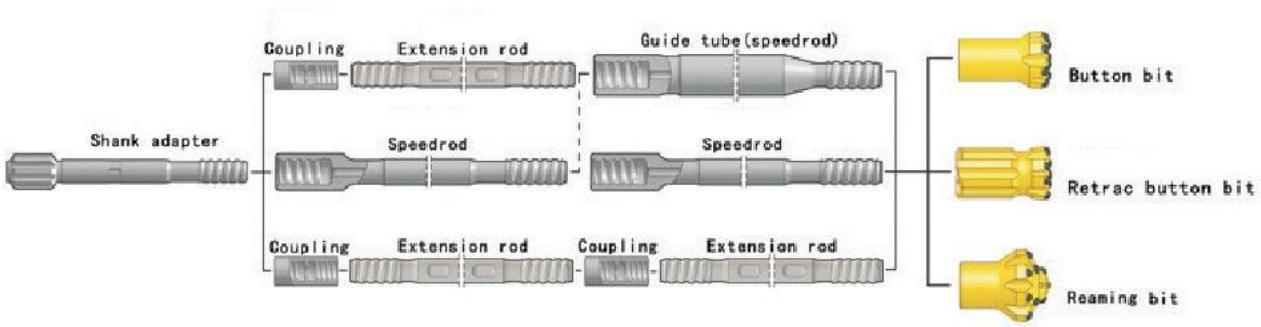
1220	4'	64	2 1/8	12.6	24G64-T45/64-1220-23
1525	5'	64	2 1/8	14.0	24G64-T45/64-1525-23
1830	6'	64	2 1/8	17.4	24G64-T45/64-1830-23
3050	10'	64	2 1/8	28.3	24G64-T45/64-3050-23
3660	12'	64	2 1/8	32.8	24G64-T45/64-3660-23
1830	6'	76	3	40.0	24G76-T45/76-1830-23
3660	12'	76	3	77.8	24G76-T45/76-3660-23

Coupling	Length		Diameter		Thread	Weight Approx kg	DRILL P/N
	mm	foot	mm	inch			



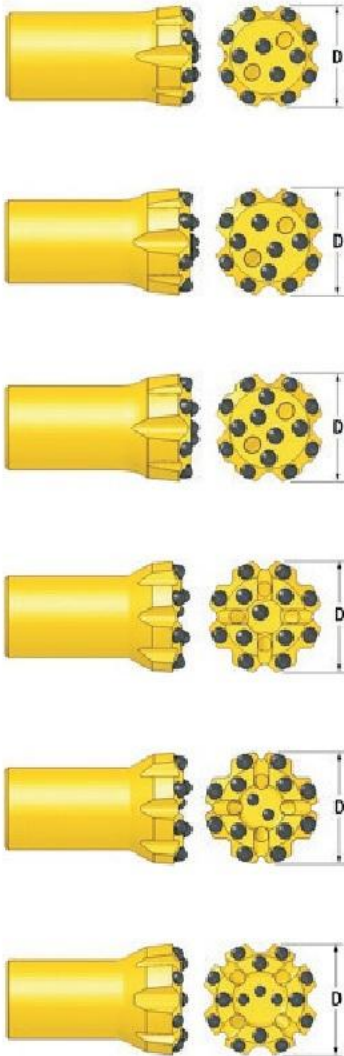
Coupling sleeves	210	8 1/4	63	2 33/64	T45	3.0	31-T45-63-210-23
	210	8 1/4	66	2 37/64	T45	3.3	31-T45-66-210-23

# BENCH DRILLING T51



Drill Bit	Length		Tip Size(mm)			Flushing Hole		Weight Approx kg	DRILL P/N
	mm	inch	Front	Gauge	Angle	Front	Side		

## Button bit



### Spherical buttons

89	3 1/2	4x13	8x13	40°	2	-	4.9	1431-89T51-413/813-45-31
89	3 1/2	5x13	8x13	35°	2	1	4.9	1431-89T51-513/813-45-31
89	3 1/2	3x11,2x11	6x13	35°	4	-	4.9	1433-89T51-511/613-45-31
89	3 1/2	4x11,1x11	8x13	35°	4	-	4.9	1433-89T51-511/813-45-31
89	3 1/2	4x13,1x13	8x13	35°	4	-	4.9	1432-89T51-513/813-45-31
102	4	4x14	8x14	40°	2	-	5.8	1431-102T51-414/814-45-31
102	4	6x13	8x16	35°	2	1	5.8	1431-102T51-613/816-45-31
102	4	3x13,2x13	6x14	35°	3	1	5.2	1433-102T51-513/614-45-31
102	4	4x13,1x13	8x14	35°	4	-	5.8	1433-102T51-513/814-45-31
102	4	4x13,2x13	8x13	35°	4	1	5.8	1433-102T51-613/813-45-31
115	4 1/2	6x14	8x14	35°	2	-	6.8	1431-115T51-614/814-45-31
115	4 1/2	6x14	8x16	35°	2	-	6.8	1431-115T51-614/816-45-31
115	4 1/2	4x13,2x13	8x14	35°	4	-	6.8	1433-115T51-613/814-45-31
115	4 1/2	4x13,3x13	8x14	35°	4	-	6.8	1433-115T51-713/814-45-31
115	4 1/2	4x14,2x14	8x16	35°	4	-	6.8	1433-115T51-614/816-45-31
127	5	8x14	8x16	35°	2	1	7.5	1431-127T51-814/816-45-31
127	5	4x16,2x13	8x16	35°	4	-	7.5	1433-127T51-616/816-45-31
127	5	4x14,3x14	8x14	35°	4	-	7.5	1433-127T51-714/814-45-31

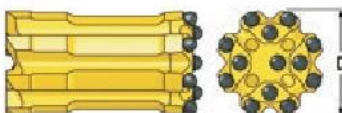
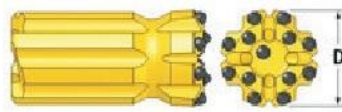
### Parabolic buttons

89	3 1/2	5x13	8x13	35°	2	1	4.9	1431-89T51-513/813-45-51
89	3 1/2	3x11,2x11	6x13	35°	4	-	4.9	1433-89T51-511/613-45-51
89	3 1/2	4x11,1x11	8x13	35°	4	-	4.9	1433-89T51-511/813-45-51
89	3 1/2	4x13,1x13	8x13	35°	4	-	4.9	1432-89T51-513/813-45-51
102	4	4x14	8x14	40°	2	-	5.8	1431-102T51-414/814-45-51
102	4	6x13	8x16	35°	2	1	5.8	1431-102T51-613/816-45-51
102	4	3x13,2x13	6x14	35°	3	1	5.2	1433-102T51-513/614-45-51
102	4	4x13,1x13	8x14	35°	4	-	5.8	1433-102T51-513/814-45-51
102	4	4x13,2x13	8x13	35°	4	1	5.8	1433-102T51-613/813-45-51
115	4 1/2	6x14	8x16	35°	2	-	6.8	1431-115T51-614/816-45-51
115	4 1/2	4x13,2x13	8x14	35°	4	-	6.8	1433-115T51-613/814-45-51
115	4 1/2	4x13,3x13	8x14	35°	4	-	6.8	1433-115T51-713/814-45-51
115	4 1/2	4x14,2x14	8x16	35°	4	-	6.8	1433-115T51-614/816-45-51

# BENCH DRILLING T51

Drill Bit	Length		Tip Size(mm)			Flushing Hole		Weight Approx kg	DRILL P/N
	mm	inch	Front	Gauge	Angle	Front	Side		

## Button bit



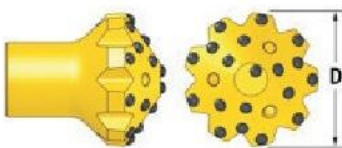
### Spherical buttons

89	3 1/2	4×13	8×13	40°	2	-	5.3	1531-89T51-413/813-45-31
89	3 1/2	5×13	8×13	35°	2	1	5.3	1531-89T51-513/813-45-31
89	3 1/2	3×11,2×11	6×13	35°	4	-	5.3	1533-89T51-511/613-45-31
89	3 1/2	4×11,1×11	8×13	35°	4	-	5.3	1533-89T51-511/813-45-31
89	3 1/2	4×13,1×13	8×13	35°	4	-	5.3	1632-89T51-513/813-45-31
102	4	4×14	8×14	40°	2	-	7.3	1531-102T51-414/814-45-31
102	4	6×13	8×16	35°	2	1	7.3	1531-102T51-613/816-45-31
102	4	4×13,1×13	8×14	35°	4	-	7.3	1533-102T51-513/814-45-31
102	4	4×13,2×13	8×13	35°	4	1	7.3	1533-102T51-613/813-45-31
102	4	4×13,1×13	8×14	35°	4	1	7.3	1533-102T51-513/814-45-31
115	4 1/2	6×14	8×14	35°	2	-	9.8	1531-115T51-614/814-45-31
115	4 1/2	6×14	8×16	35°	2	-	9.8	1531-115T51-614/816-45-31
115	4 1/2	4×13,2×13	8×14	35°	4	-	9.8	1533-115T51-613/814-45-31
115	4 1/2	4×13,3×13	8×14	35°	4	-	9.8	1533-115T51-713/814-45-31
115	4 1/2	4×14,2×14	8×16	35°	4	-	9.8	1533-115T51-614/816-45-31
127	5	8×14	8×16	35°	2	1	12.0	1531-127T51-814/816-45-31
127	5	4×16,2×13	8×16	35°	4	-	12.0	1533-127T51-616/816-45-31
127	5	4×14,3×14	8×14	35°	4	-	12.0	1533-127T51-714/814-45-31

### Parabolic buttons

89	3 1/2	5×13	8×13	35°	2	1	5.3	1531-89T51-513/813-45-51
89	3 1/2	3×11,2×11	6×13	35°	4	-	5.3	1533-89T51-511/613-45-51
89	3 1/2	4×11,1×11	8×13	35°	4	-	5.3	1533-89T51-511/813-45-51
89	3 1/2	4×13,1×13	8×13	35°	4	-	5.3	1632-89T51-513/813-45-51
102	4	4×14	8×14	40°	2	-	7.3	1531-102T51-414/814-45-51
102	4	6×13	8×16	35°	2	1	7.3	1531-102T51-613/816-45-51
102	4	4×13,1×13	8×14	35°	4	-	7.3	1533-102T51-513/814-45-51
102	4	4×13,2×13	8×13	35°	4	1	7.3	1533-102T51-613/813-45-51
102	4	4×13,1×13	8×14	35°	4	1	7.3	1533-102T51-513/814-45-51
115	4 1/2	6×14	8×16	35°	2	-	9.8	1531-115T51-614/816-45-51
115	4 1/2	4×13,2×13	8×14	35°	4	-	9.8	1533-115T51-613/814-45-51
115	4 1/2	4×13,3×13	8×14	35°	4	-	9.8	1533-115T51-713/814-45-51
115	4 1/2	4×14,2×14	8×16	35°	4	-	9.8	1533-115T51-614/816-45-51

## Dome bit for reaming



### Spherical buttons

152	6	2×14	18×14	35°	3	1	10.6	1441-152T51-214/1814-45-31
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### Parabolic buttons

152	6	2×14	18×14	35°	3	1	10.6	1441-152T51-214/1814-45-51
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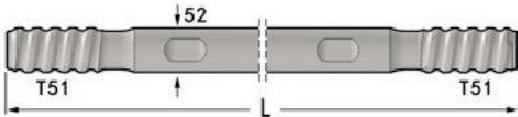
# BENCH DRILLING T51

Drill Rod	Length		Diameter		Weight Approx kg	DRILL P/N
	mm	foot	mm	inch		

Extension rod T51-Round52-T51

Flushing hole 21.5mm.

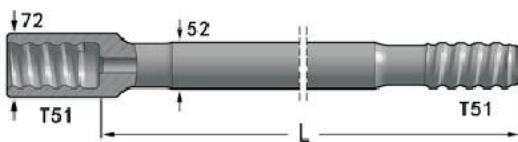
Wrench flat 45mm.



3050	10'	52	2	45.3	23R52-T51-3050-23
3660	12'	52	2	54.1	23R52-T51-3660-23
4270	14'	52	2	63.0	23R52-T51-4270-23
4880	16'	52	2	71.8	23R52-T51-4880-23
5530	18'	52	2	81.2	23R52-T51-5530-23
6095	20'	52	2	89.4	23R52-T51-6095-23

MF-rod T45-Round46-T45

Flushing hole 17mm.



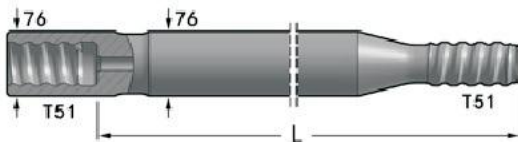
1525	5'	52	2	26.2	24R52-T51/72-1525-23
1830	6'	52	2	30.6	24R52-T51/72-1830-23
3050	10'	52	2	48.3	24R52-T51/72-3050-23
3660	12'	52	2	57.1	24R52-T51/72-3660-23
4270	14'	52	2	66.0	24R52-T51/72-4270-23
4880	16'	52	2	74.8	24R52-T51/72-4880-23
5530	18'	52	2	84.2	24R52-T51/72-5530-23
6095	20'	52	2	92.4	24R52-T51/72-6095-23

Guide Tube	Length		Diameter		Weight Approx kg	DRILL P/N
	mm	foot	mm	inch		

Guide tube

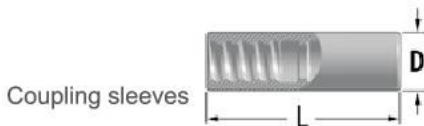
D76 for bits from 89-102mm and

D87 for bits from 102-127mm



1830	6'	76	3	42.0	24G76-T51/76-1830-23
3660	12'	76	3	81.0	24G76-T51/76-3660-23
3660	12'	87	3 1/2	86.0	24G87-T51/87-3660-23

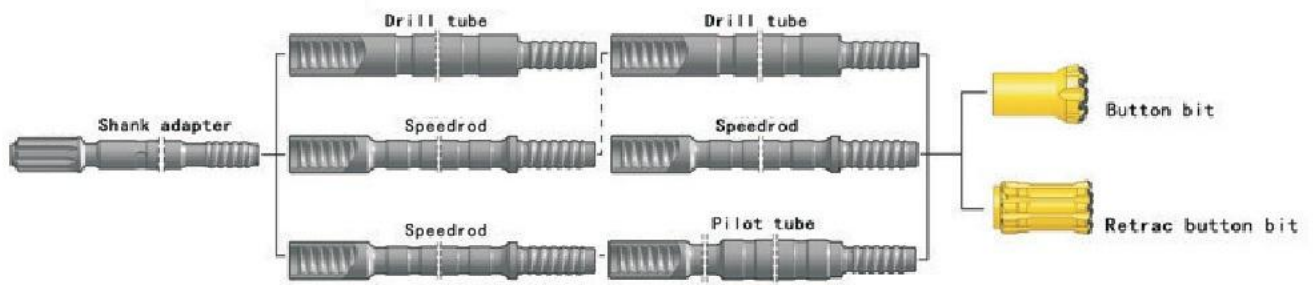
Coupling	Length		Diameter		Thread	Weight Approx kg	DRILL P/N
	mm	inch	mm	inch			



Coupling sleeves

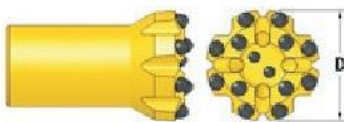
225	8 7/8	71	2 51/64	T51	4.6	31-T51-71-225-23
225	8 7/8	76	3	T51	4.8	31-T51-76-225-23
235	9 1/4	72	2 7/8	T51	4.7	31-T51-72-235-23
235	9 1/4	77	3 1/32	T51	4.9	31-T51-77-235-23

# BENCH DRILLING T60



Drill Bit	Length		Tip Size(mm)			FlushingHole		Weight Approx kg	DRILL P/N
	mm	inch	Front	Gauge	Angle	Front	Side		

## Button bit



### Spherical buttons

92	3 5/8	4×13,1×13	8×13	35°	4	-	5.3	1432-92T60-513/813-45-31
96	3 3/4	4×13,1×13	8×14	35°	4	-	5.6	1432-96T60-513/814-45-31
102	4	9×11	9×13	35°	3	-	6.0	1431-102T60-911/913-45-31
115	4 1/2	10×12	9×14	35°	3	-	6.8	1431-115T60-1012/914-45-31
127	5	10×13	9×14	35°	3	-	7.5	1431-127T60-1013/914-45-31
140	5 1/2	10×14	9×16	35°	3	-	9.0	1431-140T60-1014/916-45-31
152	6	12×14	9×16	35°	3	-	10.6	1431-152T60-1214/916-45-31

### Parabolic buttons

92	3 5/8	4×13,1×13	8×13	35°	4	-	5.3	1432-92T60-513/813-45-51
96	3 3/4	4×13,1×13	8×14	35°	4	-	5.6	1432-96T60-513/814-45-51
102	4	9×11	9×13	35°	3	-	6.0	1431-102T60-911/913-45-51
115	4 1/2	10×12	9×14	35°	3	-	6.8	1431-115T60-1012/914-45-51
127	5	10×13	9×14	35°	3	-	7.5	1431-127T60-1013/914-45-51
140	5 1/2	10×14	9×16	35°	3	-	9.0	1431-140T60-1014/916-45-51
152	6	12×14	9×16	35°	3	-	10.6	1431-152T60-1214/916-45-51

## Retrac button bit



### Spherical buttons

92	3 5/8	9×12	9×12	40°	2	-	5.4	1531-92T60-912/912-45-31
96	3 3/4	9×12	9×12	40°	2	-	6.3	1531-96T60-912/912-45-31
102	4	10×12	9×13	40°	2	-	7.3	1531-102T60-1012/913-45-31
115	4 1/2	10×12	9×14	35°	3	-	9.8	1531-115T60-1012/914-45-31
118	4 5/8	6×13	9×16	35°	3	-	10.0	1531-118T60-613/916-45-31
127	5	10×13	9×14	35°	3	-	12.0	1531-127T60-1013/914-45-31
140	5 1/2	10×14	9×16	35°	3	-	14.0	1531-140T60-1014/916-45-31
152	6	12×14	9×16	35°	3	-	16.0	1531-152T60-1214/916-45-31

### Parabolic buttons

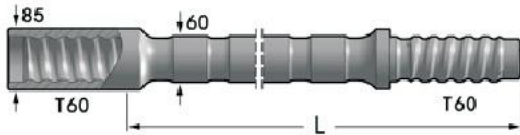
92	3 5/8	9×12	9×12	40°	2	-	5.4	1531-92T60-912/912-45-51
96	3 3/4	9×12	9×12	40°	2	-	6.3	1531-96T60-912/912-45-51
102	4	10×12	9×13	40°	2	-	7.3	1531-102T60-1012/913-45-51
115	4 1/2	10×12	9×14	40°	3	-	9.8	1531-115T60-1012/914-45-51
118	4 5/8	6×13	9×16	35°	3	-	10.0	1531-118T60-613/916-45-51
127	5	10×13	9×14	35°	3	-	12.0	1531-127T60-1013/914-45-51
140	5 1/2	10×14	9×16	35°	3	-	14.0	1531-140T60-1014/916-45-51
152	6	12×14	9×16	35°	3	-	16.0	1531-152T60-1214/916-45-51

# BENCH DRILLING T60

Drill Rod	Length		Diameter		Weight Approx kg	DRILL P/N
	mm	foot	mm	inch		

MF-rod, For bits from 96mm

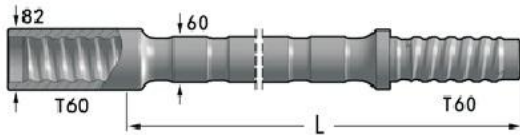
Flushing hole 22.5mm.



3660	12'	60	2 3/8	73.9	24R60-T60/85-3600-23
4265	14'	60	2 3/8	85.5	24R60-T60/85-4265-23
6095	20'	60	2 3/8	116.6	24R60-T60/85-6095-23
4265	14'	64	2 1/2	95.0	24R64-T60/85-4265-23

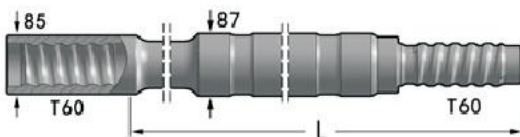
MF-rod T45-Round46-T45

Flushing hole 22.6mm.



3660	12'	60	2 3/8	73.9	24R60-T60/82-3600-23
4265	14'	60	2 3/8	85.5	24R60-T60/82-4265-23
6095	20'	60	2 3/8	116.6	24R60-T60/82-6095-23

Pilot Tube Female end OD 85mm  
(82mm on 76mm tubes)



1600	5'3"	87	3 1/2	39.0	24G87-T60/85-1600-23
4265	14'	87	3 1/2	99.0	24G87-T60/85-4265-23
5335	17'6"	76	3	124.9	24G76-T60/85-5335-23

Drill Tube



3660	12'	87	3 1/2	87.8	24G87-T60/87-3660-23
4265	14'	87	3 1/2	99.0	24G87-T60/87-4265-23