

# TOP DRILL

- ▶ DTH Hammer Series
- ▶ CLUSTER Hammer Series
- ▶ DTH BIT Series
- ▶ Overburden Drilling Systems
- ▶ Other Products



CONSTRUCTION DRILLING  
 MINING AND QUARRY DRILLING  
 WATER WELL AND GEOTHERMAL DRILLING  
 EXPLORATION DRILLING



# TOP DRILL

## PRODUCT CATALOGUE

- ▶ DTH Hammer Series
- ▶ CLUSTER Hammer Series
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- ▶ Overburden Drilling Systems
- ▶ Other Products

CONSTRUCTION

MINING AND QUARRYING

WATER WELL AND GEOTHERMAL

EXPLORATION

# DRILLING



TG60 DHD360

TGX320N TG320

TRC450 RC450

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## TOP DRILL

## DTH Hammer Series

- TG Hammer
- TGX Hammer
- TRC Hammer



# TG HAMMER SERIES

TG hammer is TOPDRILL's latest down the hole hammers design. In extensive testing, these state-of-the-art hammers perform well with increased power and more efficient drilling.

## FEATURES AND BENEFITS

- Effective design provides maximum energy output
- Offering solution for even larger holes
- Providing excellent durability with experienced quality control
- Easy maintenance and assembly
- Innovative Bit Retainer System



## TG HAMMER SPECIFICATIONS (Small size)

Model	TG35		TG40		TG50		TG60		TGR60		TG70		TG80		TGR80		TG90	
Connection	API 2 3/8" Reg. Pin		API 2 3/8" Reg. Pin		API 3 1/2" Reg. Pin		API 3 1/2" Reg. Pin		API 3 1/2" Reg. Pin		API 4 1/2" Reg. Pin		API 4 1/2" Reg. Pin		API 4 1/2" Reg. Pin		API 4 1/2" Reg. Pin	
Bit Shank	DHD3.5		DHD340		DHD350		DHD360		SD6		SD8		DHD380		MACH80		TD90	
General Specifications	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial
Reversible casing	NO		NO		NO		NO		YES		NO		NO		YES		NO	
Recommended bit diameter	93 – 105	3 2/3 – 4 1/7	105 – 127	4 1/7 – 5	130 – 152	5 1/8 – 6	152 – 194	6 – 7 2/3	152 – 194	6 – 7 2/3	190 – 254	7 1/2 – 10	195 – 270	7 2/3 – 10 5/8	195 – 270	7 2/3 – 10 5/8	219 – 290	8 5/8 – 11 3/7
Outside Diameter	85	3.35	98	3.86	118	4.65	142	5.59	142	5.59	168	6.61	182	7.17	182	7.17	197	7.76
Length w/o connection & bit	797.0	31.4	961.1	37.8	1081.0	42.6	1218.5	48.0	1146.5	45.1	1163.0	45.8	1400.0	55.1	1341.5	52.8	1382.0	54.4
Weight w/o bit	25.2	55.6	39.7	87.5	61.5	135.6	104.2	229.7	96.0	211.6	143.4	316.2	195.5	431.1	188.0	414.9	234.8	517.5
Backhead across flats (mm)	40 X 67 AF		40 X 74 AF		40 X 100 AF		40 X 100 AF		40 X 100 AF		40 X 156 AF		50 X 128 AF		50 X 128 AF		50 X 143 AF	
Air Consumption																		
10.3 BAR / 150 PSI (m³/min & cfm)	5.2	185	7.2	254	8.7	310	12.5	440	12.9	455	13.6	480	15.6	550	15.6	550	16.0	565
13.8 BAR / 200 PSI (m³/min & cfm)	7.3	257	9.3	325	12.0	421	16.5	578	15.7	548	18.0	635	20.4	720	20.4	720	21.0	742
17.2 BAR / 250 PSI (m³/min & cfm)	9.2	324	11.1	394	15.0	530	19.8	700	17.7	625	22.9	810	26.0	920	26.0	920	26.6	940
20.7 BAR / 300 PSI (m³/min & cfm)	11.7	409	13.4	468	18.5	646	25.2	883	21.9	768	27.8	972	31.4	1100	31.4	1100	32.1	1124
24.1 BAR / 350 PSI (m³/min & cfm)	13.9	490	15.3	540	21.5	760	29.7	1050	25.3	895	32.5	1137	36.7	1285	36.7	1285	37.5	1312
Available Options																		
Bit Shank			TD40 / SD4 / QL40		QL50 / SD5		QL60 / SD6				QL60 / DHD360				QL80 / SD8		SD8	
Bit retainer system																	YES	
Heavy Duty Design									YES (152mm / 6")									

# TG HAMMER SERIES

TG hammer is TOPDRILL's latest down the hole hammers design. In extensive testing, these state-of-the-art hammers perform well with increased power and more efficient drilling.

## TG HAMMER SPECIFICATIONS (Medium size)

Model	TG100L		TG100N		TG120L		TG120N		TG125		TG320N		TG320S		TG370N		TG370S			
Connection	API 6 5/8" Reg. Pin, Hex Joint		API 6 5/8" Reg. Pin, Hex Joint		API 6 5/8" Reg. Pin, Hex Joint		API 6 5/8" Reg. Pin, Hex Joint		API 6 5/8" Reg. Pin, Hex Joint		API 8 5/8" Reg. Pin, Hex Joint		API 8 5/8" Reg. Pin, Hex Joint		API 8 5/8" Reg. Pin, Hex Joint		API 8 5/8" Reg. Pin, Hex Joint			
Bit Shank	SD10		SD10		SD12		SD12		N125		TG320		TG320		TG370		TG370			
General Specifications	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial		
Reversible casing	NO		NO		NO		NO		NO		NO		NO		NO		NO			
Recommended bit diameter	251 – 305	9 7/8 – 12	251 – 305	9 7/8 – 12	300 – 445	11 4/5 – 17 1/2	300 – 445	11 4/5 – 17 1/2	311 – 460	12 1/4 – 18 1/9	355 – 525	14 – 20 2/3	355 – 525	14 – 20 2/3	445 – 575	17 1/2 – 22 2/3	445 – 575	17 1/2 – 22 2/3		
Outside Diameter	225	8.86	225	8.86	264	10.39	274	10.79	286	11.26	320	12.60	320	12.60	376	14.80	376	14.80		
Length w/o connection & bit	1387.0	54.6	1487.0	58.5	1615.0	63.6	1788.0	70.4	1684.0	66.3	1739.0	68.4	1985.0	78.2	1910.0	75.2	2075.0	81.7		
Weight w/o bit	310.3	684.1	336.5	741.9	494.0	19.4	628.0	1349.8	583.6	1286.6	826.0	1824.5	984.0	2139.5	1250.6	2757.1	1382.2	3047.3		
Backhead breakout pin hole (mm)	70 X 165 AF		70 X 165 AF		4-ø40		4-ø40		4-ø40		4-ø34		4-ø34		4-ø40		4-ø40			
Air Consumption																				
10.3 BAR / 150 PSI (m³/min & cfm)	24.5	865	25.2	890	23.9	845	24.5	865	25.7	910	31.2	1100	35.7	1260	38.0	1340	40.2	1420		
13.8 BAR / 200 PSI (m³/min & cfm)	29.6	1045	30.9	1090	32.3	1140	34.2	1210	37.0	1310	42.8	1510	47.6	1680	51.0	1800	54.1	1910		
17.2 BAR / 250 PSI (m³/min & cfm)	32.8	1160	34.0	1200	43.0	1520	46.4	1640	49.0	1740	51.0	1800	59.5	2100	68.0	2400	72.0	2540		
Available Options																				
Bit Shank	N100		TG120 / N120 / DHD112 / DD10				DHD112 / N120		QL120		N125				SD15 / DD14					
Bit retainer system	YES								YES						YES					

## TG HAMMER SPECIFICATIONS (Large size)

Model	TG450N		TG450S		TG550N		TG550S		TG640S		TG800		TG900	
Connection	API 8 5/8" Reg. Pin, Hex Joint		API 8 5/8" Reg. Pin, Hex Joint		Hex Joint		Hex Joint		Hex Joint		Hex Joint		Hex Joint	
Bit Shank	TG450		TG450		TG550		TG550		TG640		TG800		TG900	
General Specifications	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial
Reversible casing	NO		NO		NO		NO		NO		NO		NO	
Recommended bit diameter	460 – 660	18 1/9 – 26	460 – 660	18 1/9 – 26	610 – 850	24 – 33 1/2	610 – 850	24 – 33 1/2	710 – 975	28 – 38 2/5	900 – 1250	35 3/7 – 49 1/5	1020 – 1450	40 1/6 – 57
Outside Diameter	415	16.34	415	16.34	530	20.87	530	20.87	640	25.20	800	31.50	900	35.43
Length w/o connection & bit	1872.0	73.7	2065.0	81.3	1848.0	72.7	1997.5	78.6	2109.0	83.0	2173.5	85.6	2195.5	86.4
Weight w/o bit	1474.9	3251.7	1656.9	3652.8	2350.0	5180.0	2587.7	5704.9	4146.9	9142.3	6519.7	14373.5	8405.2	18530.3
Backhead breakout pin hole (mm)	50 X 370 AF / 4-ø40		50 X 370 AF / 4-ø40		54 X 480 AF / 4-ø40		4-ø40		4-ø50		4-ø50		4-ø50	
Air Consumption														
6.9 BAR / 100 PSI (m³/min & cfm)	45.0	1590	46.4	1640	55.2	1950	54.4	1920	65.7	2320	85.8	3030	96.8	3420
10.3 BAR / 150 PSI (m³/min & cfm)	64.7	2285	66.2	2340	79.8	2820	82.4	2910	100.2	3540	139.0	4910	150.6	5320
13.8 BAR / 200 PSI (m³/min & cfm)	85.2	3010	89.5	3160	99.7	3520	109.3	3860	135.3	4780	195.0	6920	211.0	7460
Available Options														
Bit Shank	N180 / SD18 / QL200		N180		N240		N240							
Bit retainer system	YES		YES		YES		YES							

# TGX HAMMER SERIES

TGX Hammer does not need foot valve of bit. It eliminates operation problem associated with the foot valve. TGX hammers perform well with higher piston frequency for softer formation.

## FEATURES AND BENEFITS

- Solid piston reduces residual stress affecting the failure
- Effective inner cylinder provides longer life
- Simple design ensures ease of assembly and disassembly



## TGX HAMMER SPECIFICATIONS

Model	TGX40		TGX50		TGX60		TGX80		TGX100		TGX320		
Connection	API 2 3/8" Reg. Pin		API 3 1/2" Reg. Pin		API 3 1/2" Reg. Pin		API 4 1/2" Reg. Pin		API 6 5/8" Reg. Pin		API 8 5/8" Reg. Pin, Hex Joint		
Bit Shank	M40		M50		QL60		SD8		SD10		TG320		
Reversible casing	NO		NO		NO		NO		NO		NO		
General Specifications	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	
Recommended bit diameter	105 – 127	4 1/7 – 5	130 – 152	5 1/8 – 6	158 – 194	6 2/9 – 7 2/3	195 – 270	7 2/3 – 10 5/8	251 – 305	9 7/8 – 12	355 – 525	14 – 20 2/3	
Outside Diameter	98	3.86	118	4.65	148	5.83	182	7.17	225	8.86	320	12.60	
Length w/o connection & bit	954.0	37.6	1031.0	40.6	1089.0	42.9	1182.0	46.5	1487.0	58.5	1687.0	66.4	
Weight w/o bit	41.0	90.4	61.0	134.6	100.0	220.4	171.7	378.6	338.3	745.9	810.2	1786.2	
Backhead across flats (mm)	40 X 74 AF		40 X 100 AF		40 X 100 AF		60 X 148 AF		70 X 165 AF		Backhead pin hole 4–ø34		
Air Consumption													
10.3 BAR / 150 PSI (m³/min & cfm)	5.1	180	8.2	290	11.2	395	14.4	510	21.8	770	32.3	1140	
13.8 BAR / 200 PSI (m³/min & cfm)	7.9	275	11.2	393	14.7	514	19.7	695	27.2	960	43.3	1530	
17.2 BAR / 250 PSI (m³/min & cfm)	10.6	370	13.9	490	17.6	620	25.0	885	32.6	1150	56.0	1980	
24.1 BAR / 350 PSI (m³/min & cfm)	16.0	560	20.4	720	26.0	920	36.0	1259					
Available Options													
Bit Shank	DHD340		QL50		DHD360 / SD6 / M60		DHD380 / QL80 / M80						
Bit retainer system													
Heavy Duty Design	YES (152mm / 6")												

# TRC HAMMER SERIES

It's a new version of Reverse Circulation hammer. The cuttings are evacuated to the ground through the inner tube of RC hammer. TRC hammers lead to productivity growth and cost savings.

## FEATURES AND BENEFITS

- Available in a wide range of sizes
- Require less air to evacuate cuttings
- Minimize damage of surrounding formation in sensitive sites



## TRC HAMMER SPECIFICATIONS

Model	TRC50		TRC80		TRC120		TRC450		TRC550		TRC640	
Connection	4" / 4.5" Metzke, 4.5" Remet		Hex Joint		Hex Joint		Hex Joint		Hex Joint		Hex Joint	
Bit Shank	RC50		RC80		RC120		RC450		RC550		RC640	
General Specifications	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial	Metric	Imperial
Recommended bit diameter	133-146	5 1/4-5 3/4	204-260	8 1/5-10 5/8	300-426	11 4/5-16 7/9	503-620	19 4/5-24 2/5	550-670	21 2/3-26 3/8	680-830	26 7/9-32 2/3
Outside Diameter	121	4.76	194	7.64	286	11.26	483	19.02	525	20.67	640	25.20
Length w/o connection & bit	1008.5	39.7	1167.0	45.9	1625.0	64.0	1848.5	72.8	2056.0	80.9	2059.0	81.1
Weight w/o bit	59.0	130.1	203.0	447.6	627	1382.5	1916.0	4224.1	2700.0	5952.5	4750.0	10472.0
Backhead across flats (mm)	50 X 100 AF		50 X 160 AF		40 X 260 AF		Backhead pin hole 4-ø40		50 X 490 AF		Backhead pin hole 4-ø50	
Air Consumption												
6.9 BAR / 100 PSI (m³/min & cfm)							45.3	1600	48.1	1700	56.6	2000
10.3 BAR / 150 PSI (m³/min & cfm)	7.9	280	13.0	460	20.4	720	68.0	2400	70.8	2500	85.0	3000
13.8 BAR / 200 PSI (m³/min & cfm)	11.3	400	18.1	640	28.3	1000	93.4	3300	96.3	3400	113.3	4000
17.2 BAR / 250 PSI (m³/min & cfm)	15.3	540	23.8	840	39.6	1400	116.1	4100	118.9	4200	141.6	5000
24.1 BAR / 350 PSI (m³/min & cfm)	22.6	800	34.0	1200								

\* Other size of TRC Hammer is available upon customer's request.



## TOP DRILL Cluster Hammer Series

- TGM Hammer
- Reverse Circulation TGM
- Hole opener TGM

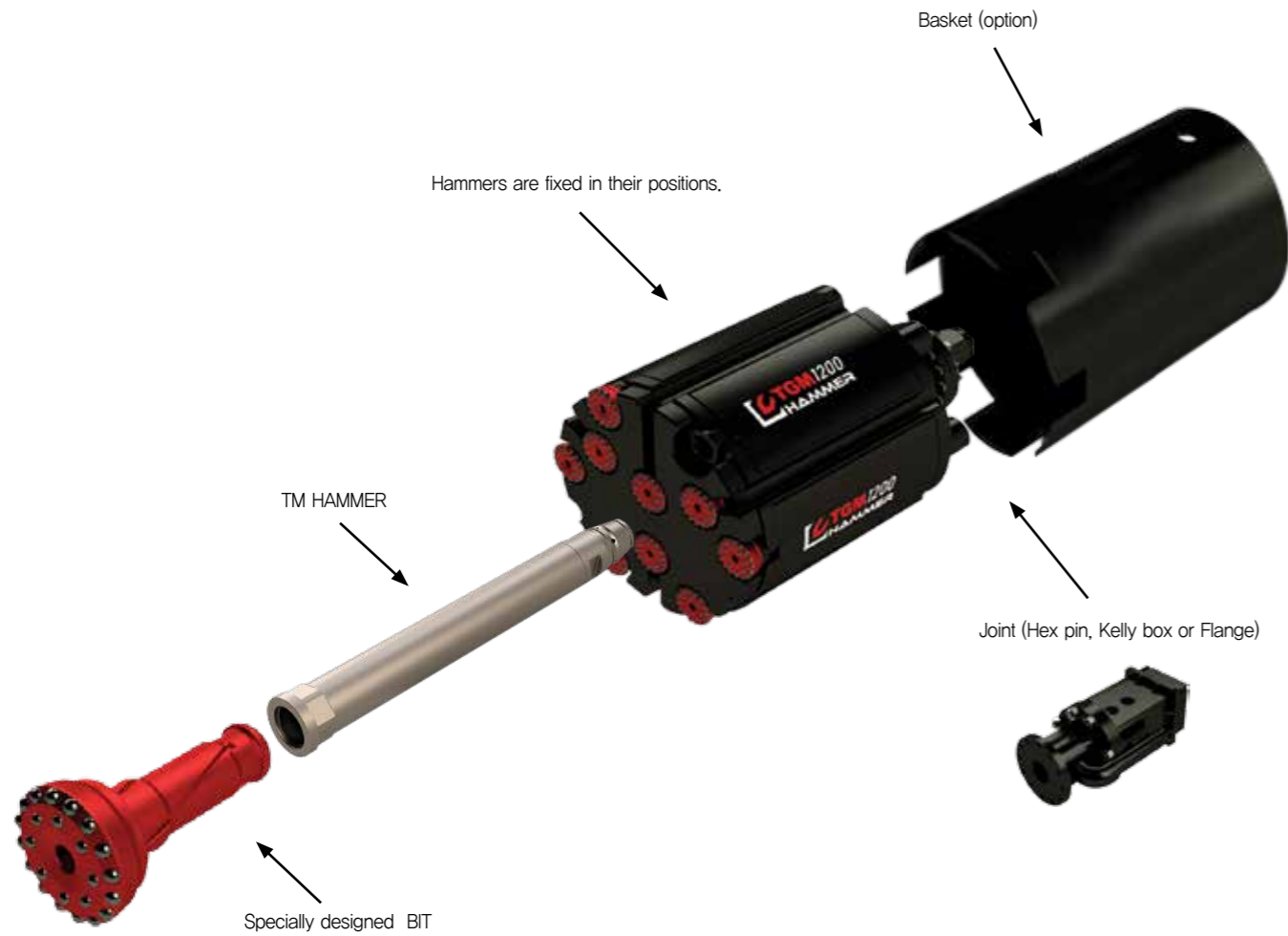


# TGM HAMMER SERIES

TGM – Top Drill’s cluster drill – consists of a robust canister in which Top Drill TM hammers are fitted. These hammers utilize specially designed drill bits. Hammers fitted with bits rotate with the canister.

## FEATURES AND BENEFITS

- Drilling super large diameter holes
- Suitable for sensitive downtown infrastructure
- Efficient TM hammers provide drilling with lower air consumption
- Same size of bits lead to cost reduction compared to conventional large DTH bits
- Bits are free to be rotated and buttons wear evenly
- Joint with Kelly box, Hexagonal pin or Flange



## TGM HAMMER SPECIFICATIONS

Model	No. of Hammers	Working Diameter		Total Weight		Air Requirements	
		MM	INCH	KGS	LBS	SCFM	M <sup>3</sup> /MIN
TGM 470	4	470	18.5	750	1653	1016	28.8
TGM 550	4	550	21.7	1267	2793	1580	44.7
TGM 610	4	610	24.0	1460	3219	1580	44.7
TGM 635	5	635	25.0	1560	3439	1975	55.9
TGM 660	5	660	26.0	1770	3902	1975	55.9
TGM 700	5	700	27.6	1850	4079	1975	55.9
TGM 750	5	750	29.5	2080	4586	1975	55.9
TGM 800	6	800	31.5	2430	5357	2370	67.1
TGM 870	6	870	34.3	2712	5979	2370	67.1
TGM 914	7	914	36.0	2984	6579	2765	78.3
TGM 1000	7	1000	39.4	3380	7452	2765	78.3
TGM 1050	7	1050	41.3	3650	8047	2765	78.3
TGM 1200	10	1200	47.2	4700	10362	3950	111.9

\* COMPOSITION: SPECIALLY DESIGNED TM60 (TM40) HAMMER AND BIT

\* AIR REQUIREMENTS PER HAMMER – 395 CFM@150 PSI OR 514 CFM@200 PSI

\* Other size of TGM Hammer is available upon customer's request.

# TGM HAMMER SERIES

TGM – Top Drill’s cluster drill – consists of a robust canister in which Top Drill TM hammers are fitted. These hammers utilize specially designed drill bits. Hammers fitted with bits rotate with the canister.



## TGM HAMMER SPECIFICATIONS

Model	No. of Hammers	Working Diameter		Total Weight		Air Requirements	
		MM	INCH	KG	LBS	SCFM	M <sup>3</sup> /MIN
TGM 914	5	914	36.0	3680	8113	2550	72.2
TGM 1016	6	1016	40.0	4480	9877	3060	86.6
TGM 1067	6	1067	42.0	4700	10362	3060	86.6
TGM 1219	7	1219	48.0	5680	12522	3570	101.1
TGM 1372	9	1372	54.0	6730	14837	4590	130.0
TGM 1500	11	1500	59.1	8074	17800	5610	158.9
TGM 1676	13	1676	66.0	9690	21363	6630	187.7

\* COMPOSITION: SPECIALLY DESIGNED TM80 HAMMER AND BIT

\* AIR REQUIREMENTS PER HAMMER – 510 CFM@150 PSI OR 695 CFM@200 PSI

\* Other size of TGM Hammer is available upon customer’s request.

# REVERSE CIRCULATION TGM HAMMER SERIES

Reverse Circulation TGM hammers are designed specially to provide better performance by efficient removal of cuttings.



# HOLE OPENER TGM HAMMER SERIES

Hole opener TGM hammers are designed for reaming of predrilled pilot holes.



## HOLE OPENER TGM HAMMER SPECIFICATIONS

Model	No. of Hammers	Hammer Type	Pilot Diameter		Reamer Diameter		Air Requirements	
			MM	INCH	MM	INCH	SCFM	M <sup>3</sup> /MIN
1219X1676	7	TM80	1219	48.0	1676	66.0	3570	101.1
1029X1981	13	TM80	1029	40.5	1981	78.0	6630	187.7

\* AIR REQUIREMENTS PER HAMMER – 510 CFM@150 PSI OR 695 CFM@200 PSI

\* Other size of Hole Opener TGM Hammer is available upon customer’s request.



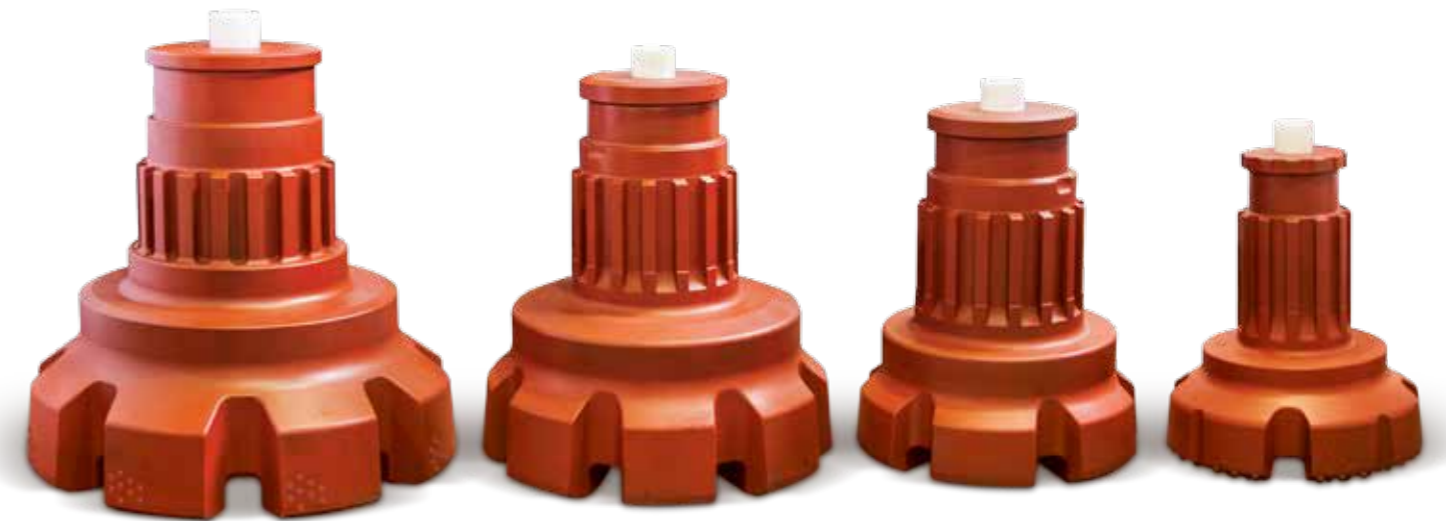


## DRILL BITS

TOP DRILL DTH BITS are designed for efficient drilling. These bits transfer maximum amount of piston energy to the rock. TOP DRILL DTH BITS are made to strict quality standard with experienced metal machining technology.

### FEATURES AND BENEFITS

- Large diameter DTH bits are available up to 1500mm diameter
- Bit forgings are tested by ultrasonic and microscopic method
- Longer bit life is ensured by rigorous heat treatment, shot peening and careful deburring



## TOP DRILL DTH BIT Series

■ DRILL BITS ■ HOLE OPENERS ■ RING BITS

# DRILL BITS

TOP DRILL DTH BITS are designed for efficient drilling. These bits transfer maximum amount of piston energy to the rock. TOP DRILL DTH BITS are made to strict quality standard with experienced metal machining technology.



## DTH BIT SPECIFICATIONS

DTH Hammer	Bit Diameter		Shank
	MM	INCH	
ACE10	55 ~ 66	2 1/6 ~ 2 3/5	DOM10
ACE20L	66 ~ 76	2 3/5 ~ 3	DHD065
ACE20	70 ~ 80	2 3/4 ~ 3 1/7	MACH20
ACE30	87 ~ 105	3 3/7 ~ 4 1/7	DHD3.5
TG35	93 ~ 105	3 2/3 ~ 4 1/7	DHD3.5
TG40, TGX40	105 ~ 127	4 1/7 ~ 5	DHD340
TG50, TGX50	130 ~ 152	5 1/8 ~ 6	QL50
TG60, TGX60, TGR60	152 ~ 194	6 ~ 7 2/3	QL60
TG70, TG80, TGX80, TGR80	190 ~ 270	7 1/2 ~ 10 5/8	SD8
TG90	219 ~ 290	8 5/8 ~ 11 3/7	TD90
TG100L, TG100N, TGX100	251 ~ 305	9 7/8 ~ 12	SD10
TG120L, TG120N	300 ~ 445	11 4/5 ~ 17 1/2	SD12
TG125	311 ~ 460	12 1/4 ~ 18 1/9	NI25
TG320N, TG320S, TGX320	355 ~ 525	14 ~ 20 2/3	TG320
TG370N, TG370S	445 ~ 575	17 1/2 ~ 22 2/3	TG370
TG450N, TG450S	460 ~ 660	18 1/9 ~ 26	TG450
TG550N, TG550S	610 ~ 850	24 ~ 33 1/2	TG550
TG640S	710 ~ 975	28 ~ 38 2/5	TG640
TG800	900 ~ 1250	35 3/7 ~ 49 1/5	TG800
TG900	1020 ~ 1450	40 1/6 ~ 57	TG900

\* Other size of DTH Bit is available upon customer's request.

\* Standard Gauge button diameter

14mm (5/8 in) : larger than 121mm (4 3/4 in) bit diameter  
 16mm (5/8 in) : larger than 140mm (5 1/2 in) bit diameter  
 19mm (3/4 in) : larger than 210mm (8 1/4 in) bit diameter  
 20mm (4/5 in) : larger than 445mm (17 1/2 in) bit diameter

# HOLE OPENERS

TOP DRILL HOLE OPENERS are designed for reaming of predrilled pilot holes. Specially designed Pilot & Reamer diameter and head shape meet variable drilling requirements.



# RING BITS

RING BITS are welded to the end of casing. Heavy duty reusable ring bits (CIP, DRA) are used in the weak ground conditions.





# TRB SYSTEMS

TRB overburden drilling systems are designed for economic cost of drilling in simultaneous casing advancement. The wings are retracted by reverse rotation.



## TRB SYSTEM SPECIFICATIONS

Model	Casing Size							Bit Diameter				No. of Wings	Applicable Hammer
	OD	ID	T	OD	ID	T	Exp	Ret	Exp	Ret			
	MM			INCH			MM		INCH				
TRB90	114.0	102.8	5.6	4.488	4.047	0.220	126	90	4.96	3.54	2	TG35	
TRB115	141.3	128.1	6.6	5.563	5.043	0.260	157	113	6.18	4.45	2	TG40	
TRB130	148.7	133.7	7.5	5.854	5.264	0.295	155	117	6.10	4.61	2	TG40	
TRB140	168.3	146.4	10.9	6.626	5.764	0.429	176	132	6.93	5.20	2	TG50	
TRB150	177.8	167.0	5.4	7.000	6.575	0.213	188	150	7.40	5.91	2	TG50/TG60	
TRB165	193.1	182.3	5.4	7.602	7.177	0.213	203	163	7.99	6.42	2	TG60	
TRB190	219.0	200.0	9.5	8.622	7.874	0.374	229	180	9.02	7.09	2, 3	TG60/TG80	
TRB215	244.0	231.4	6.3	9.606	9.110	0.248	260	213	10.24	8.39	3	TG80	
TRB240	285.0	265.0	10.0	11.220	10.433	0.394	299	241	11.77	9.49	3	TG80	
TRB250	301.6	272.2	14.7	11.874	10.717	0.579	312	253	12.28	9.96	3	TG80	
TRB280	335.9	315.9	10.0	13.224	12.437	0.394	350	292	13.78	11.50	3	TG100	
TRB315	356.0	331.0	12.5	14.016	13.031	0.492	372	305	14.65	12.01	3	TG100/TG120	
TRB365	406.0	374.0	16.0	15.984	14.724	0.630	422	350	16.61	13.78	3	TG120/TG125	
TRB410	457.2	425.2	16.0	18.000	16.740	0.630	477	399	18.78	15.71	3	TG320	
TRB460	508.0	476.0	16.0	20.000	18.740	0.630	526	452	20.71	17.80	3	TG370	
TRB510	558.8	539.8	9.5	22.000	21.252	0.374	578	510	22.76	20.08	3	TG450	
TRB560	609.6	584.2	12.7	24.000	23.000	0.500	630	554	24.80	21.81	3	TG450	
TRB610	660.4	635.0	12.7	26.000	25.000	0.500	682	605	26.85	23.82	3	TG550	
TRB660	711.2	685.8	12.7	28.000	27.000	0.500	733	644	28.86	25.35	3	TG550	
TRB710	762.0	742.0	10.0	30.000	29.213	0.394	782	708	30.79	27.87	3	TG550	
TRB760	813.0	775.0	19.0	32.008	30.512	0.748	835	742	32.87	29.21	3	TG550	
TRB810	863.0	819.0	22.0	33.976	32.244	0.866	874	781	34.41	30.75	3	TG640	
TRB860	914.4	882.4	16.0	36.000	34.740	0.630	936	835	36.85	32.87	3	TG640	
TRB960	1016.0	986.0	15.0	40.000	38.819	0.591	1054	950	41.50	37.40	4	TG800	
TRB1160	1219.2	1168.4	25.4	48.000	46.000	1.000	1251	1125	49.26	44.29	5	TG800	

\* Other size of TRB system is available upon customer's request.



## TOP DRILL

## OVERBURDEN DRILLING SYSTEMS

- TRB SYSTEMS
- TREX SYSTEMS
- TDEX SYSTEMS
- TDS SYSTEMS
- TDN SYSTEMS

# TREX SYSTEMS

TREX overburden drilling systems are designed for wings to be retracted when bit is pulled up.



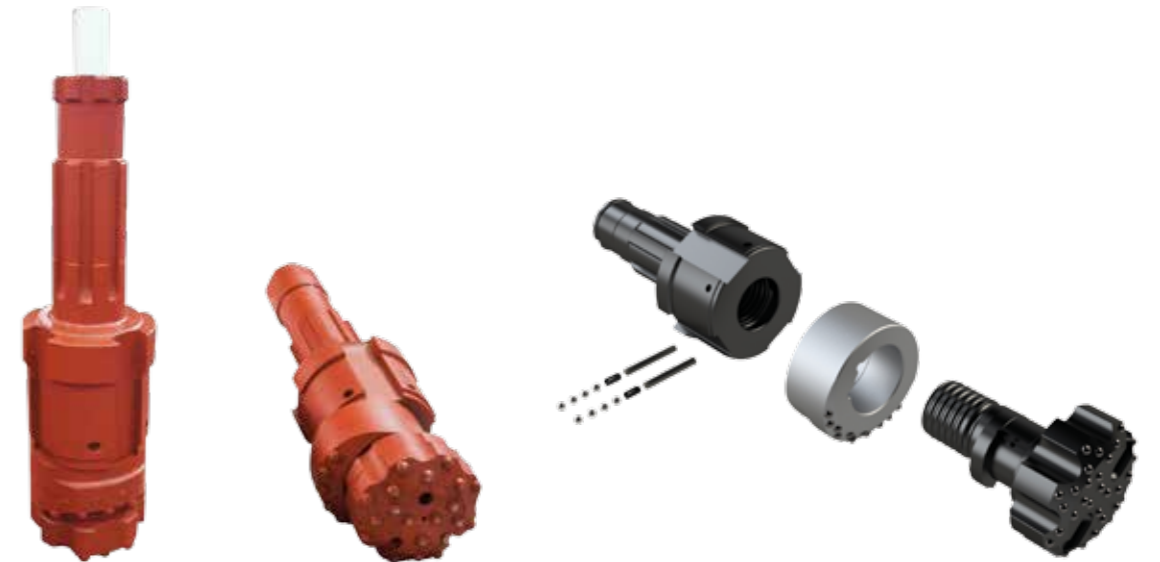
## TREX SYSTEM SPECIFICATIONS

Model	Casing Size			Bit Diameter							No. of Wings	Applicable Hammer
	OD	ID	T	OD	ID	T	Exp	Ret	Exp	Ret		
	MM			INCH			MM					
TREX90	114.3	101.6	6.4	4.500	4.000	0.252	127	90	5.00	3.54	2	TG35
TREX115	139.8	125.0	7.4	5.504	4.921	0.291	154	113	6.06	4.45	2	TG40
TREX130	152.4	132.4	10.0	6.000	5.213	0.394	164	122	6.47	4.80	2	TG40
TREX140	168.0	156.0	6.0	6.614	6.142	0.236	184	140	7.24	5.51	2	TG50
TREX150	177.8	167.0	5.4	7.000	6.575	0.213	197	153	7.76	6.02	2	TG50/TG60
TREX165	193.7	179.7	7.0	7.626	7.075	0.276	212	165	8.35	6.50	2	TG60
TREX190	219.0	203.0	8.0	8.622	7.992	0.315	238	187	9.37	7.36	3	TG60/TG80
TREX215	245.0	226.0	9.5	9.646	8.898	0.374	264	213	10.39	8.39	3	TG80
TREX240	273.0	254.0	9.5	10.748	10.000	0.374	290	240	11.42	9.45	3	TG80
TREX250	299.0	279.0	10.0	11.772	10.984	0.394	316	255	12.44	10.04	3	TG80
TREX280	324.0	299.0	12.5	12.756	11.772	0.492	340	276	13.39	10.87	3	TG100
TREX315	355.6	336.6	9.5	14.000	13.252	0.374	373	315	14.69	12.40	3	TG100/TG120
TREX365	406.0	374.0	16.0	15.984	14.724	0.630	420	351	16.54	13.82	3	TG120/TG125
TREX410	457.2	435.0	11.1	18.000	17.126	0.437	478	412	18.82	16.22	3	TG320
TREX460	508.0	482.6	12.7	20.000	19.000	0.500	530	455	20.87	17.91	4	TG370
TREX510	558.8	533.4	12.7	22.000	21.000	0.500	578	499	22.76	19.65	4	TG450
TREX560	609.6	584.2	12.7	24.000	23.000	0.500	632	556	24.88	21.89	4	TG450
TREX610	660.4	635.0	12.7	26.000	25.000	0.500	682	605	26.85	23.82	4	TG550
TREX660	711.2	685.8	12.7	28.000	27.000	0.500	733	656	28.86	25.83	4	TG550
TREX710	762.0	736.6	12.7	30.000	29.000	0.500	784	704	30.87	27.72	4	TG550
TREX760	813.0	773.0	20.0	32.008	30.433	0.787	833	738	32.80	29.06	4	TG550
TREX810	863.6	838.2	12.7	34.000	33.000	0.500	886	809	34.88	31.85	4	TG640
TREX860	914.4	889.0	12.7	36.000	35.000	0.500	938	831	36.93	32.72	4	TG640
TREX960	1020.0	996.0	12.0	40.157	39.213	0.472	1046	955	41.18	37.60	4	TG800

\* Other size of TREX system is available upon customer's request.

# TDEX SYSTEMS

TDEX overburden drilling systems are designed for small size piling from 114mm to 406mm.



## TDEX SYSTEM SPECIFICATIONS

Model	Casing Size			Bit Diameter							Applicable Hammer
	OD	ID	T	OD	ID	T	Exp	Ret	Exp	Ret	
	MM			INCH			MM				
TDEX90	114.3	101.6	6.4	4.500	4.000	0.250	122	90	4.80	3.54	TG35
TDEX115	141.3	128.1	6.6	5.563	5.043	0.260	151	116	5.94	4.57	TG40
TDEX140	168.3	155.6	6.4	6.626	6.126	0.252	186	140	7.32	5.51	TG50
TDEX165	193.7	179.7	7.0	7.626	7.075	0.276	212	166	8.35	6.54	TG60
TDEX180	219.0	194.0	12.5	8.622	7.638	0.492	232	180	9.13	7.09	TG60
TDEX190	219.0	205.0	7.0	8.622	8.071	0.276	237	192	9.33	7.56	TG60, TG80
TDEX215	244.0	222.0	11.0	9.606	8.740	0.433	256	202	10.08	7.95	TG80
TDEX240	273.0	260.2	6.4	10.748	10.244	0.252	292	240	11.50	9.45	TG80
TDEX280	324.0	305.0	9.5	12.756	12.008	0.374	343	283	13.50	11.14	TG100
TDEX315	355.6	336.6	9.5	14.000	13.252	0.374	375	315	14.76	12.40	TG100/TG120
TDEX365	406.0	387.0	9.5	15.984	15.236	0.374	425	358	16.73	14.09	TG120/TG125

\* Other size of TDEX system is available upon customer's request.

# TDS SYSTEMS

TDS overburden drilling systems are designed to use ring bit which is not connected to casing shoe. Special profile DTH Bit passes through enough large inner diameter of ring bit.



## TDS SYSTEM SPECIFICATIONS

Model	Casing Size						Ring bit Diameter		Applicable Hammer
	OD	ID	T	OD	ID	T	OD	OD	
	MM						MM	INCH	
TDS90	114.3	101.6	6.4	4.500	4.000	0.250	121	4.76	TG35
TDS115	141.3	128.1	6.6	5.563	5.043	0.260	148	5.83	TG40
TDS140	178.0	158.0	10.0	7.008	6.220	0.394	186	7.32	TG50
TDS165	193.7	181.0	6.4	7.626	7.126	0.252	214	8.43	TG60
TDS190	219.0	194.0	12.5	8.622	7.638	0.492	229	9.02	TG60
TDS215	244.6	225.6	9.5	9.630	8.882	0.374	254	10.00	TG80
TDS240	273.0	253.0	10.0	10.748	9.961	0.394	293	11.54	TG80
TDS280	320.0	295.0	12.5	12.598	11.614	0.492	334	13.15	TG100
TDS315	356.0	343.4	6.3	14.016	13.520	0.248	375	14.76	TG120
TDS365	406.0	374.0	16.0	15.984	14.724	0.630	420	16.54	TG125
TDS410	457.0	437.0	10.0	17.992	17.205	0.394	477	18.78	TG320
TDS460	508.0	488.0	10.0	20.000	19.213	0.394	520	20.47	TG370
TDS560	609.6	584.2	12.7	24.000	23.000	0.500	622	24.49	TG450
TDS660	711.2	685.8	12.7	28.000	27.000	0.500	726	28.58	TG550
TDS710	762.0	736.6	12.7	30.000	29.000	0.500	782	30.79	TG550
TDS760	813.0	781.0	16.0	32.008	30.748	0.630	826	32.52	TG550
TDS860	914.4	882.4	16.0	36.000	34.740	0.630	924	36.38	TG640
TDS960	1016.0	988.0	14.0	40.000	38.898	0.551	1032	40.63	TG800
TDS1010	1067.0	1016.0	25.5	42.008	40.000	1.004	1092	42.99	TG800
TDS1360	1420.0	1388.0	16.0	55.906	54.646	0.630	1440	56.69	TG900
TDS1410	1500.0	1449.2	25.4	59.055	57.055	1.000	1558	61.34	TG900

\* Other size of TDS system is available upon customer's request.

# TDN SYSTEMS

TDN overburden drilling systems are designed to use ring bit which is integrated to casing shoe. This ring bit set is retrieved for multi use.



## TDN SYSTEM SPECIFICATIONS

Model (shoulder type)	Casing Size						Ring bit Diameter		Applicable Hammer
	OD	ID	T	OD	ID	T	OD	OD	
	MM						MM	INCH	
TDN190	219.0	209.0	5.0	8.622	8.228	0.197	229	9.02	TG60
TDN215	244.6	220.6	12.0	9.630	8.685	0.472	255	10.04	TG80
TDN560	609.6	584.2	12.7	24.000	23.000	0.500	630	24.80	TG450
TDN760	813.0	789.0	12.0	32.008	31.063	0.472	832	32.76	TG550
TDN1160	1219.2	1168.4	25.4	48.000	46.000	1.000	1239	48.79	TG800

\* Other size of TDN system is available upon customer's request.

# TOPDRILL OTHER PRODUCTS



## SCREW HAMMERS

Model	Hole diameter		Combined	
	MM	INCH	Hammer	Bit (MM)
TDSH 300	300	11.81	TGX60	190
TDSH 450	450	17.72	TGX100	270
TDSH 600	600	23.62	TG120L	385

\* Other size of Screw Hammer is available upon customer's request.



## ACE HAMMERS


Model	Connection	Bit shank	Recommended bit diameter	Outside diameter	Length	Weight
ACE10	40mm DIN405 6 TPI Box	ACE10	55 ~ 66	47	772.0	7.0
ACE20L	JIS50 Box	DHD065	66 ~ 76	58	781.5	11.0
ACE20	50mm DIN405 6 TPI Box, Pin	MACH20	70 ~ 80	62	797.0	12.5
ACE30	API 2 3/8 Reg. Pin	DHD3.5	87 ~ 105	79	839.0	24.0

## RCD ROLLER CUTTER



# TOPDRILL OTHER PRODUCTS

## SHOCK ABSORBERS

Model	Applicable hammer	Diameter (mm)	product
TDSA3,5	TG35	85	
TDSA4	TG40	98	
TDSA5	TG50	112	
TDSA6	TG60	137	
TDSA8	TG80	162	
TDSA10	TG100	212	
TDSA12L	TG120L, TG125	264	
TDSA14	TG320	315	
TDSA15	TG370	352	
TDSA18	TG450	402	
TDSA24	TG550	455	
TDSA28	TG640	505	
TDSA36	TG800	605	

## BREAKOUT BENCH

Model	Standard range
SB100	TG60 ~ TG100
SB120	TG60 ~ TG125
SB450	TG120 ~ TG450
SB800	TG120 ~ TG800
SB900	TG120 ~ TG900



## DRILL PIPES



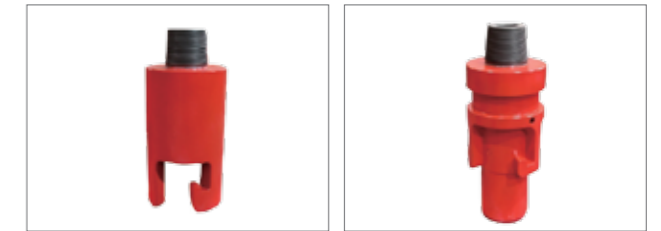
## ADAPTERS



## AIR SWIVELS



## BAYONET ADAPTERS



## OILERS



## HAMMER SHROUDS

