




ROTARY DRILLING TOOLS





COMPANY PROFILE

A vertical strip on the left side of the page shows a modern building at night. The building has many windows, some of which are brightly lit, creating a grid-like pattern of light and dark squares. The building's facade is a mix of dark and light blue tones.

Unimate Heavy Industry Co.,Ltd (UNIMATE) is a leading manufacturer of rotary drilling tools.

As a company dedicated to the R&D and manufacture of various rotary drilling tools, attachments and spare parts, by depending on a group of engineers and skilled workers with years of experience in foundation engineering and construction design, Unimate has won more than 20 national patents and takes the lead in terms of drilling technology and quality in China's foundation engineering industry.

With the advanced production facilities, we have completed the designs of drilling tools, attachments and construction methods in many large-scale and complicated foundation projects such as 2014 World Cup Stadium, 2016 Olympic Games Stadium, Wuhan-Guangzhou High Speed Railway, Shanghai-Kunming High Speed Railway, Changsha subway, etc, which have helped us to win a good reputation among our clients.

UNIMATE highly focuses on international cooperation and communication. Till present, our products have been exported to over 50 countries and regions such as the U.S, the U.K, Singapore, France, Australia, etc.



20 Patents

We take pride in our leadership in the rotary drilling tool industry in China



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Advantages of Unimate Drilling Tools

- ▶ *With the help of experienced team of engineers and well-supervised production team, Unimate has a greater ability to produce top-quality foundation drilling tools.*
- ▶ *High-quality welding and finishing throughout the drilling tool is very important to increase the life of the Drilling tool. Unimate drilling tools are manufactured under very experienced supervision, and quality inspection and control before delivery ensures that the right product is sent out to the customers.*
- ▶ *Wear resisting strips on the drilling tool help to minimize the wearing out of body of the drilling tools.*
- ▶ *Each different type of drilling tool is designed to meet maximum possible variations in the soil for specific job-site conditions.*
- ▶ *The angle of attack of drilling bits are variable according to the type of soil/rock to generate maximum efficiency during drilling.*
- ▶ *Each drilling bit is positioned at a specific angle on the bottom plate to make sure there is minimum wearing out and breakage of the drilling bits or holders.*
- ▶ *Unimate manufactured rock drilling buckets or augers have all the bits at the correct angles, which have been found out after a series of drilling tests performed in hard rock to facilitate rotation during drilling.*
- ▶ *Unimate provides an on-time after sales service when/if required by the customers for any issues.*



Features of Unimate Drilling Tools

Kelly box size as per customer demand

Cylinder roundness with a tolerance between 3~5mm

Nm500 resisting strips for wear protection and service life extending

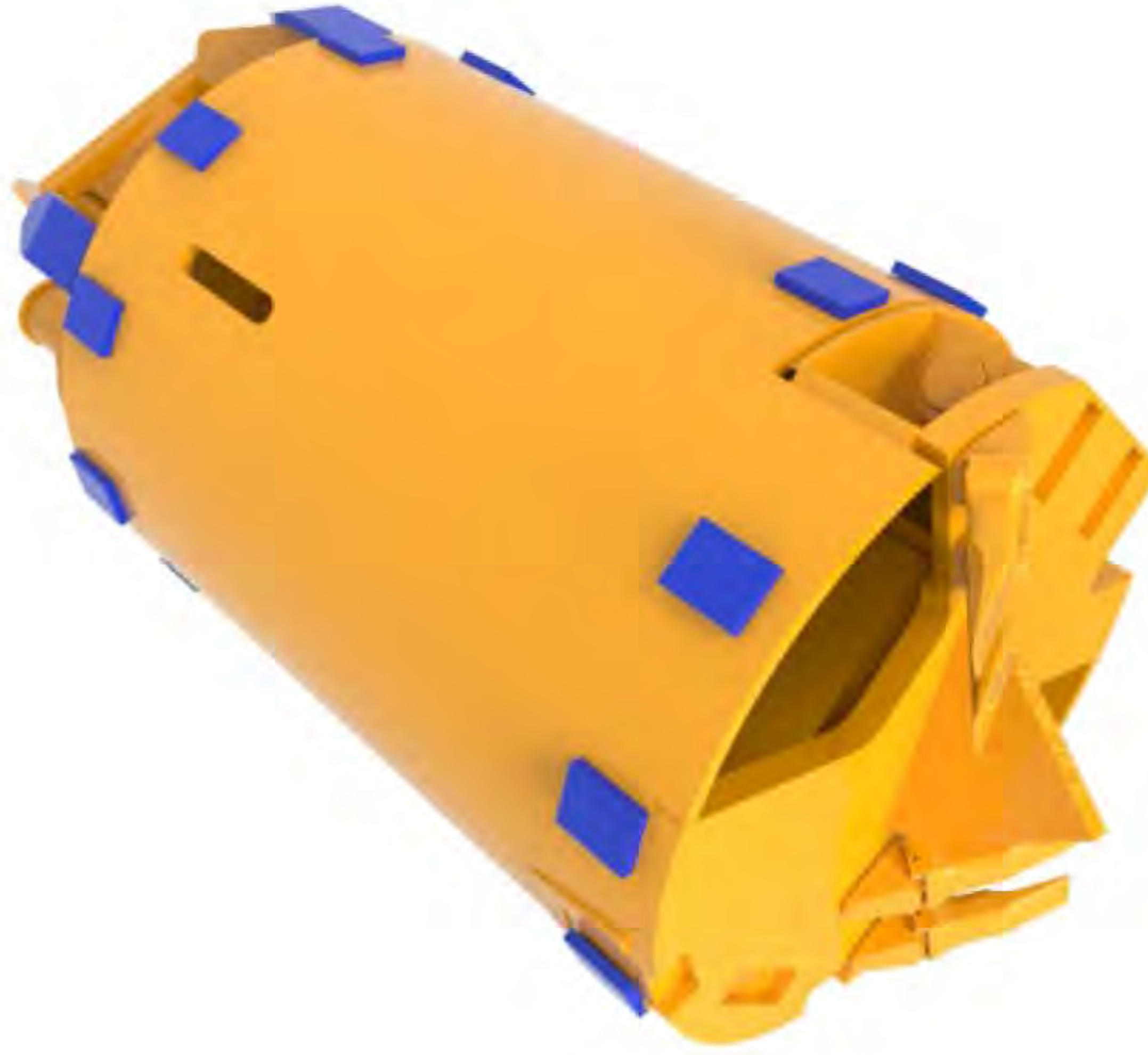
Througout ventilation hole

Minimized bottom plates gap of 5~7mm to avoid being stuck

Accurate attack angle of the drilling bits to generate maximum efficiency during drilling

Soil Drilling Bucket

Single-bottom Double Cut Soil Bucket Double-bottom Double Cut Soil Bucket



Main Applications:

- Clay, silt, loose to medium dense sand and gravel, up to coarse gravel.
- Double Cut soil bucket is recommended in cased/uncased and for bigger diameter piles.

Features:

- Cylindrical barrel or Conical barrel(optional).
- Throughout ventilation hole.
- Hard facing strips for wear protection.
- Kelly box 130mm,150mm,200mm (optional).



Drilling Dia. mm	Shell Dia. mm	Shell Length mm	Shell Thickness mm	Teeth Qty Pcs	Single cut	Double cut
					Weight kg	Weight kg
600	550	1200	16	4	686	656
700	650	1200	16/20	4	824	784
800	700	1200	16/20	4	959	909
900	800	1200	16/20	5	1120	1051
1000	900	1200	16/20	6	1276	1186
1100	1000	1200	16/20	6	1416	1336
1200	1100	1200	16/20	6	1585	1455
1300	1200	1200	16/20	7	1828	1668
1400	1300	1200	16/20	8	2022	1841
1500	1400	1200	16/20	9	2078	1938
1600	1500	1200	16/20	10	2392	2152
1700	1600	1000	20	10	2401	2271
1800	1700	1000	20	11	3073	2823
2000	1900	800	20	12	3480	3160
2200	2100	800	20	14	4019	3669
2500	2400	800	20	16	4556	4076

*Other sizes can be manufactured as per customer demand

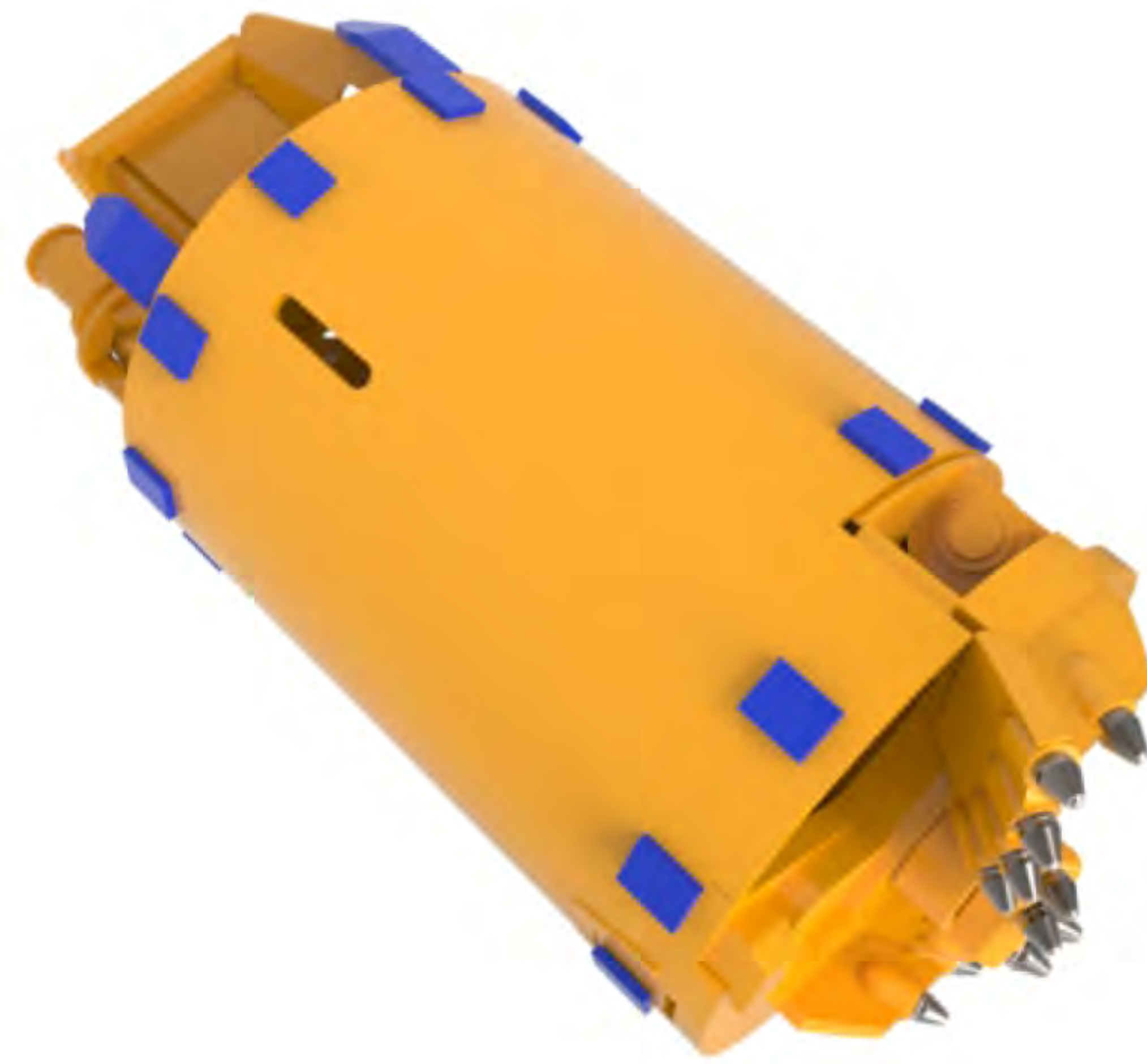
Drilling Bucket

Rock Drilling Bucket

Single Cut Rock Bucket



Double Cut Rock Bucket



Main Applications:

- Very dense sand and gravel, weak rock and up to coarse gravel.
- Double cut rock bucket is recommended in uncased bores or for bigger diameters and for secant pile walls.

Features:

- Cylindrical barrel or Conical barrel(optional).
- Throughout ventilation hole.
- Hard facing strips for wear protection.
- Sturdy and wearable rock pilot for accurate positioning.
- Kelly box 130mm,150mm,200mm (optional).

Drilling Dia. mm	Shell Dia. mm	Shell Length mm	Shell Thickness mm	Teeth Qty Pcs	Single cut	Double cut
					Weight kg	Weight kg
600	550	1200	16	7	712	682
700	650	1200	16/20	8	866	826
800	700	1200	16/20	9	971	921
900	800	1200	16/20	12	1130	1061
1000	900	1200	16/20	14	1280	1190
1100	1000	1200	16/20	16	1440	1360
1200	1100	1200	16/20	16	1643	1513
1300	1200	1200	16/20	18	1938	1778
1400	1300	1200	16/20	19	2100	1919
1500	1400	1200	16/20	20	2304	2164
1600	1500	1200	16/20	22	2668	2428
1700	1600	1000	20	24	2535	2405
1800	1700	1000	20	26	3207	2957
2000	1900	800	20	28	3567	3247
2200	2100	800	20	30	4137	3787
2500	2400	800	20	32	4716	4236

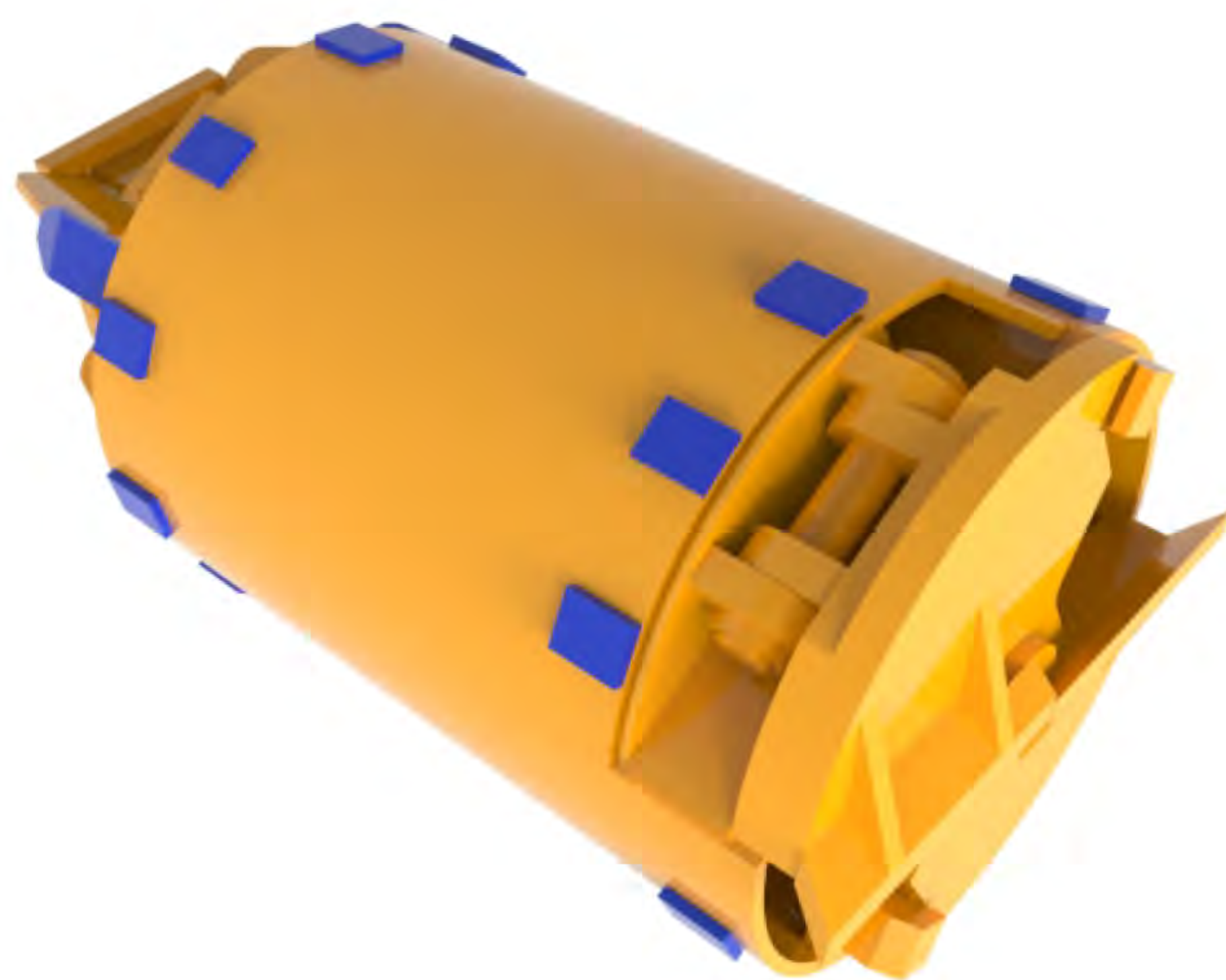
*Other sizes can be manufactured as per customer demand



Drilling Bucket

Cleaning Bucket

Cleaning Bucket



Main Applications:

- Cleaning the bottom of borehole.

Features:

- Cylindrical barrel or Conical barrel(optional). Throughout ventilation hole.
- Hard facing strips for wear protection.
- Kelly box 130mm,150mm,200mm (optional).



Drilling Dia. mm	Shell Dia. mm	Shell Length mm	Shell Thickness mm	Weight kg
600	550	1200	16	740
700	650	1200	16/20	837
800	700	1200	16/20	920
900	800	1200	16/20	1024
1000	900	1200	16/20	1109
1100	1000	1200	16/20	1293
1200	1100	1200	16/20	1431
1300	1200	1200	16/20	1591
1400	1300	1200	16/20	1775
1500	1400	1200	16/20	1988
1600	1500	1200	16/20	2194
1700	1600	1000	20	2592
1800	1700	1000	20	2875
2000	1900	800	20	3350
2200	2100	800	20	3829
2500	2400	800	20	4622

*Other sizes can be manufactured as per customer demand

Drilling Auger

Conical Rock Auger

Single Cut Conical Rock Auger



Double Cut Conical Rock Auger



Drilling Dia. mm	Flight Dia. mm	Pitch mm	Flight Length mm	Teeth Qty Pcs	Single cut	Double cut
					Weight kg	Weight kg
600	550	600	1200	22	438	537
700	650	600	1200	22	467	596
800	750	600	1200	24	512	708
900	850	600	1200	26	586	775
1000	950	600	1200	28	633	871
1100	1050	600	1200	30	674	958
1200	1150	600	1200	32	718	1047
1300	1250	600	1200	32	767	1145
1400	1350	600	1200	34	821	1253
1500	1450	600	1200	36	875	1367
1800	1750	600	1200	40	1081	1766

*Other sizes can be manufactured as per customer demand



Main Applications:

- Medium to strong rock (15-60 Mpa).
- Double Cut Auger is recommended in uncased bores or for bigger diameters.

Features:

- Sturdy and wearable forging steel pilot for accurate positioning.
- Hard facing strips on flights for wear protection.
- Kelly box 130mm,150mm,200mm (optional).

Flat Rock Auger

Single Cut Rock Auger



Double Cut Rock Auger



Drilling Dia. mm	Flight Dia. mm	Pitch mm	Flight Length mm	Teeth Qty Pcs	Single cut	Double cut
					Weight kg	Weight kg
600	550	600	1200	6	481	559
700	650	600	1200	8	519	630
800	750	600	1200	10	560	705
900	850	600	1200	12	614	802
1000	950	600	1200	12	675	910
1100	1050	600	1200	14	741	1029
1200	1150	600	1200	16	809	1153
1300	1250	600	1200	16	887	1293
1400	1350	600	1200	17	973	1447
1500	1450	600	1200	18	1059	1606
1800	1750	600	1200	22	1364	2155

*Other sizes can be manufactured as per customer demand

Main Application:

- Very dense sand and gravel, weak rock(<5Mpa).
- Double cut auger is recommended in uncased bores or for bigger diameters and secant pile walls.

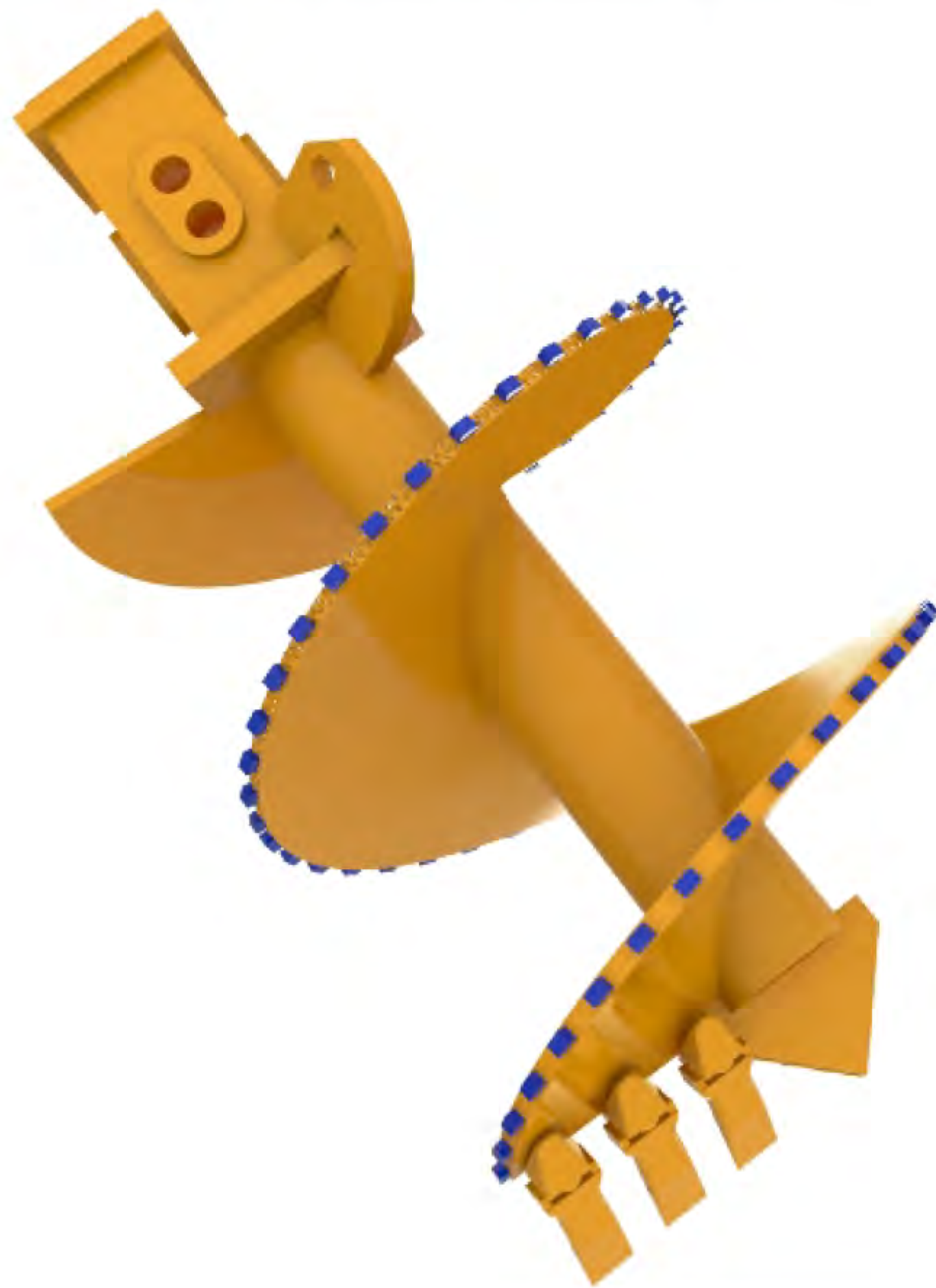
Features:

- Sturdy and wearable forging steel pilot for accurate positioning.
- Hard facing strips on flights for wear protection. Kelly box 130mm,150mm,200mm (optional).

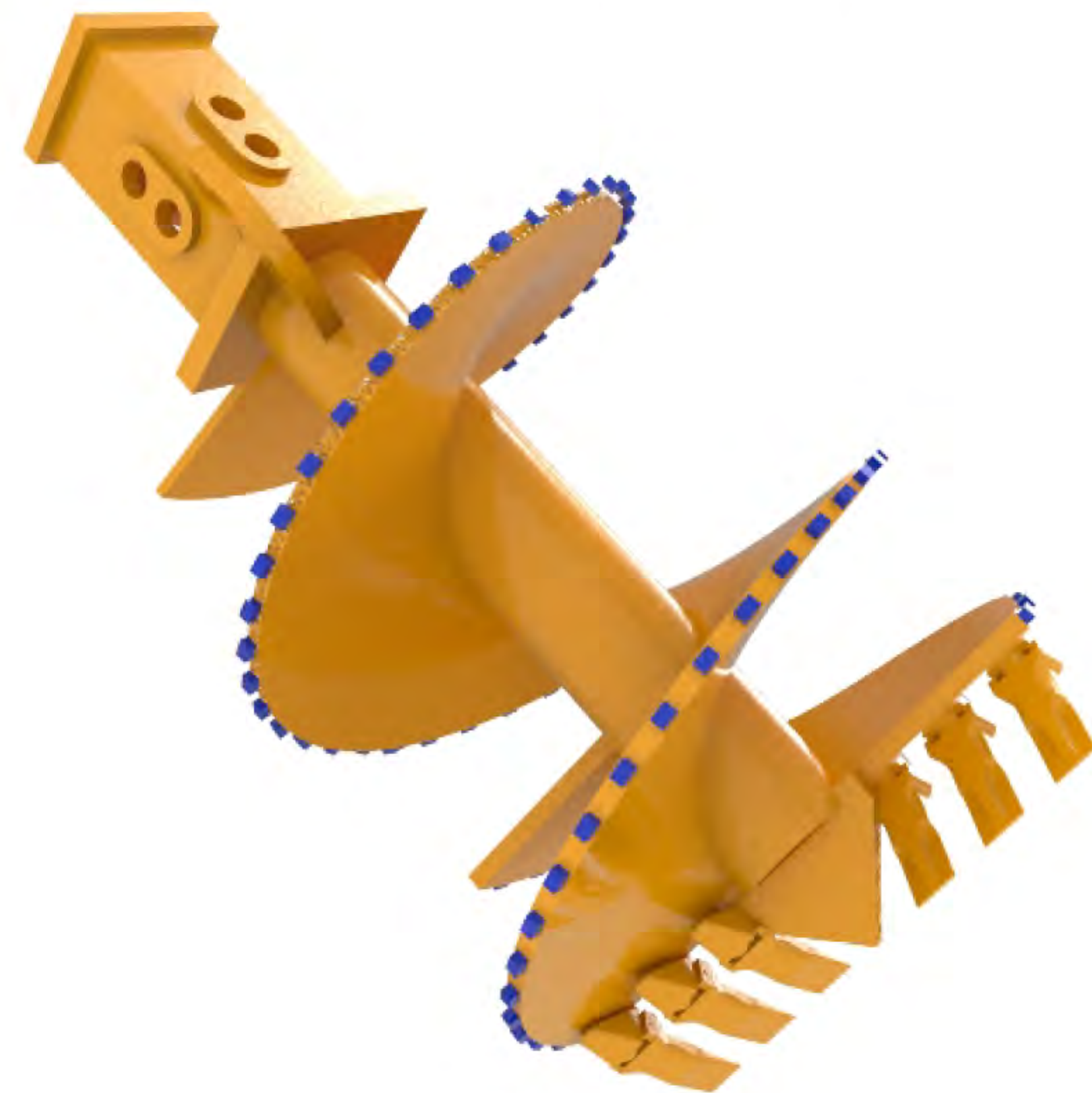
Drilling Auger

Flat Soil Auger

Single Cut Soil Auger



Double Cut Soil Auger



Drilling Dia. mm	Flight Dia. mm	Pitch mm	Flight Length mm	Teeth Qty Pcs	Single cut	Double cut
					Weight kg	Weight kg
600	550	600	1200	4	478	561
700	650	600	1200	4	516	630
800	750	600	1200	4	554	700
900	850	600	1200	5	610	796
1000	950	600	1200	6	668	904
1100	1050	600	1200	6	732	1016
1200	1150	600	1200	6	800	1139
1300	1250	600	1200	7	879	1279
1400	1350	600	1200	8	959	1429
1500	1450	600	1200	9	1050	1590
1800	1750	600	1200	11	1351	2132

*Other sizes can be manufactured as per customer demand



Main Applications:

- Soft to stiff silt and clay, loose to medium dense sand and gravel.
- Double cut soil auger is recommended for uncased bores or for bigger diameters.

Features:

- Fish-tail Pilot for accurate positioning.
- Hard-facing strips on flights for wear protection.
- Kelly box 130mm,150mm,200mm (optional).

Core Barrel with Bullet Teeth



Drilling Dia. mm	Shell Dia. mm	Shell Length mm	Shell Thickness mm	Teeth Qty pcs	Weight kg
600	520	1200	16+30	6	500
700	620	1200	16+30	9	572
800	720	1200	16+30	9	660
900	820	1200	16+30	12	730
1000	920	1200	16+30	12	810
1100	1020	1200	16+30	15	861
1200	1120	1200	16+30	15	1000
1300	1220	1200	16+30	15	1052
1400	1320	1200	16+30	18	1180
1500	1420	1200	16+30	18	1240
1600	1520	1200	16+30	21	1350
1700	1620	1000	20+40	24	1635
1800	1720	1000	20+40	24	1690
2000	1920	800	20+40	27	1770
2200	2120	800	20+40	30	1950
2500	2420	800	20+40	33	2450

*Other sizes can be manufactured as per customer demand

Core Barrel with Roller Bits



Drilling Dia. mm	Shell Dia. mm	Shell Length mm	Shell Thickness mm	Teeth Qty pcs	Weight kg
600	520	1200	16+30	4	550
700	600	1200	16+30	4	612
800	700	1200	16+30	6	734
900	800	1200	16+30	6	794
1000	900	1200	16+30	8	908
1100	1000	1200	16+30	8	1006
1200	1100	1200	16+30	8	1089
1300	1200	1200	16+30	10	1175
1400	1300	1200	16+30	12	1327
1500	1400	1200	16+30	12	1387
1600	1500	1200	16+30	14	1522
1700	1600	1000	20+40	16	1831
1800	1700	1000	20+40	16	1886
2000	1900	800	20+40	18	1991
2200	2100	800	20+40	18	2162
2500	2400	800	20+40	20	2684

*Other sizes can be manufactured as per customer demand



Core Barrel

Cross Cutter Core Barrel

Drilling Dia. mm	Shell Dia. mm	Shell Length mm	Shell Thickness mm	Teeth Qty pcs	Weight kg
600	520	1200	16+20	11	615
700	620	1200	16+20	19	678
800	720	1200	16+20	19	768
900	820	1200	16+20	25	843
1000	920	1200	16+20	25	984
1100	1020	1200	16+20	28	1038
1200	1120	1200	16+20	39	1216
1300	1220	1200	16+20	39	1270
1400	1320	1200	16+20	42	1414
1500	1420	1200	16+20	46	1487
1600	1520	1200	16+20	49	1614
1700	1620	1000	20	56	1922
1800	1720	1000	20	56	1994
2000	1920	800	20	67	2090
2200	2120	800	20	74	2194
2500	2420	800	20	85	2817

*Other sizes can be manufactured as per customer demand



Main Applications:

Core barrel with bullet teeth is used for cutting an annular ring in rock or concrete (also reinforced concrete).

Core barrel with roller bits is used in very strong rock formations (compressive strength > 100 Mpa).

Cross Cutter Core barrel is mainly used to break rock cores which remain in the borehole after using a core barrel, also suitable for drilling hard, jointed rock (< 100Mpa) and for penetrating through layers containing boulders.

Features:

- ▶ Cutting ring with staggered arrangement of round shank chisels.
- ▶ Chisel holders are welded to the base body. The round shank chisels can be easily replaced.
- ▶ Kelly box 130mm, 150mm, 200mm (optional).



Centrifugal Bucket

Centrifugal Soil Bucket

Centrifugal Rock Bucket



Main Applications:

- Drilling in clay, silt and loose to medium dense sand and gravel.

Features:

- Large inlet of soil open shell design, easy to dump spoil to increase the drilling efficiency.
- Super high strength structure and guide plate to increase the working life of bucket.
- Wearing strips arranged on the surface of bucket for wear protection.
- Kelly box 130mm,150mm,200mm (optional).

Centrifugal Soil Bucket

Drilling Dia. mm	Shell Dia. mm	Shell Length mm	Shell Thickness mm	Teeth Qty pcs	Weight kg
600	520	1200	25	4	849
700	620	1200	30	6	1140
800	680	1200	30	6	1274
900	780	1200	30	6	1437
1000	860	1200	30+40	8	1775
1200	1060	1200	30+40	10	2394

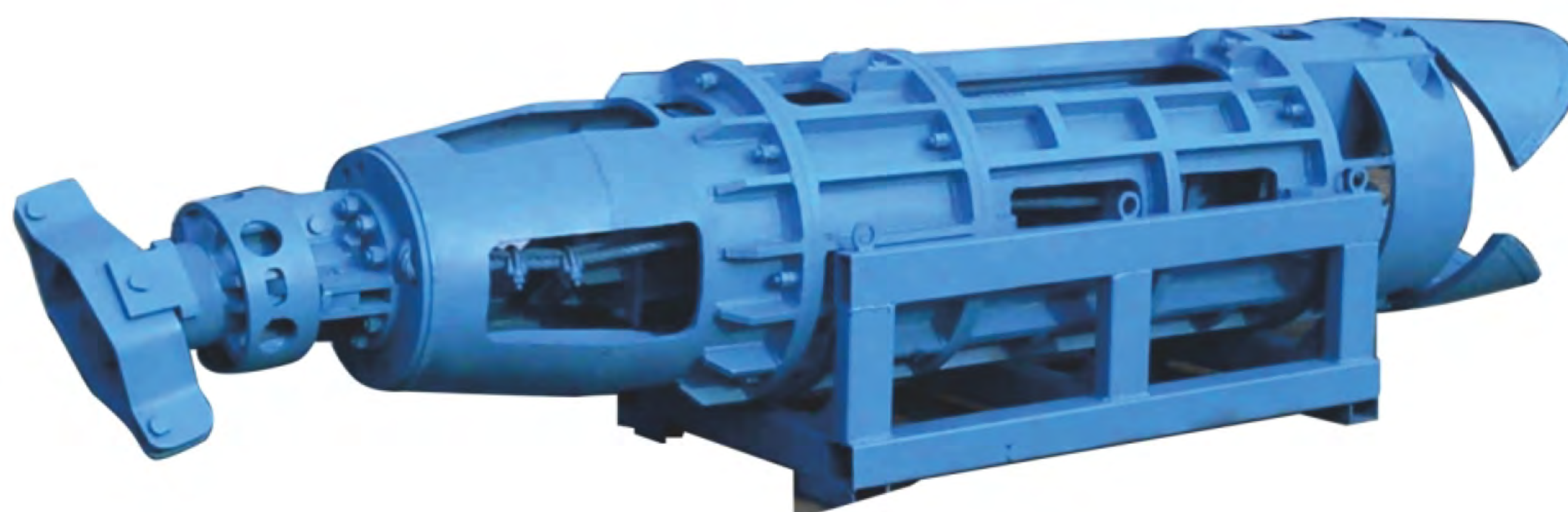
*Other sizes can be manufactured as per customer demand

Centrifugal Rock Bucket

Drilling Dia. mm	Shell Dia. mm	Shell Length mm	Shell Thickness mm	Teeth Qty pcs	Weight kg
600	520	1200	25	7	836
700	620	1200	30	8	1100
800	680	1200	30	8	1240
900	780	1200	30	10	1395
1000	860	1200	30+40	10	1754
1200	1060	1200	30+40	12	2362

*Other sizes can be manufactured as per customer demand

Hammer Grab



Heavy Duty Model

Model	Casing Dia. mm	Jaw Capa. L(mm)	Length(mm)		Weight(kg)	
			Single	Double	Single	Double
UM-H1350A	1500	800	4824	4291	7000	6200
UM-H1650A	1800	1100	4950	4417	8000	7200
UM-H1800A	2000	1200	5012	4479	8500	7700
UM-H1800B	2000	1200	5722	5146	11000	10100
UM-H2250B	2500	1800	5911	5335	12700	11800
UM-H2750B	3000	2300	6045	5469	14000	13100

Standard Model

Model	Casing Dia. mm	Jaw Capa. L(mm)	Length(mm)		Weight(kg)	
			Single	Double	Single	Double
UM-H1050S	1200	340	4151	3819	3500	3200
UM-H1350S	1500	830	4242	3910	4800	4500
UM-H1800S	2000	1150	4607	4275	6500	6200

Ropeless Model

Model	Casing Dia. mm	Jaw Capa. L(mm)	Length(mm)		Weight(kg)	
			Single	Double	Single	Double
UM-H0805R	1000	180	4152	3592	4500	3400
UM-H1050R	1200	340	4295	3762	5500	4700
UM-H1350R	1500	830	4423	3890	6800	6000
UM-H1800R	2000	1150	5783	5250	8200	7400



DRILLMASTER

Headquarters

Drillmaster Engineering Technology Co.,Ltd

More than a drilling tools supplier, Drillmaster is a leading solution provider for foundation engineering. With decades of years' experience in the R&D, fabrication and sales of piling equipments: pile breaker, casing rotator, oscillator, drill bits, etc, Drillmaster has established a complete factory production system. Unimate, Unidrill and Fountech are subsidiaries of Drillmaster, respectively responsible for the R&D and production of different foundation engineering products.

The Unimate logo is located in a white circle on a vertical gold bar. The logo itself consists of the word "UNIMATE" in a bold, sans-serif font, with a blue and yellow swoosh above the letters.

Unimate Heavy Industry Co.,Ltd

With factory in Fujian, China, 10 years of production experience, specializes in the production of drilling tools, casings and drilling accessories as well as the rent of drill rig and sales of used drill rig.

The Unidrill logo is located in a white circle on a vertical gold bar. The logo consists of the word "UNIDRILL" in a bold, sans-serif font, with a red and black swoosh above the letters.

Unidrill Technology Co.,Ltd

Factories are located in Hebei and Wuhan respectively, mainly responsible for the production of Kelly Bars, Drill Tools and Desander, well known by its strict quality control.

The Fountech logo is located in a white circle on a vertical gold bar. The logo consists of the word "FOUTECH" in a bold, sans-serif font, with a green swoosh above the letters.

Fountech Construction Machinery Co.,Ltd

With factory in Jiangsu, China, mainly responsible for the production and sales of micro drill rig and used drill rig.



STRIVE TO BE THE BEST

—UNIMATE MOTTO



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