



# BOREXO

INDIA Pvt. Ltd.,



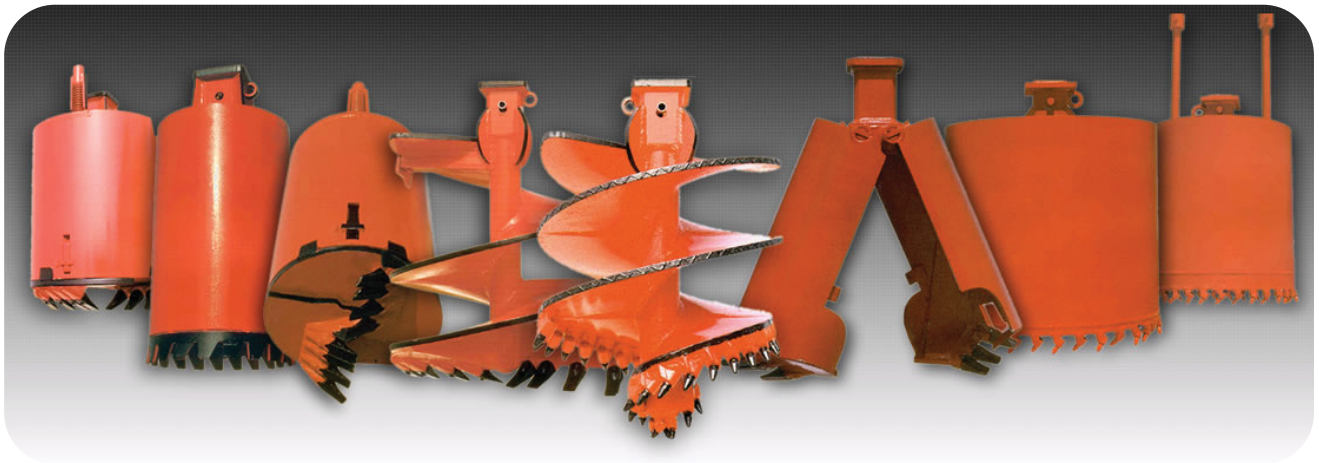
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# WHO WE ARE

Our fast-growing world infrastructures, the constructions are acting the major role, for this we are manufacturing all kinds of piling tools with high quality and precision. The Extra Heavy-Duty and Heavy-Duty tools have been introduced as two product lines with the goal of even better satisfying various requirements of customer.



Our **BOREXO** piling tools provided with well experience engineers, precision fabricator and certified 6G welders who got lot of experience in this field are the great strength of **BOREXO** piling tools. We will assure quality with short time delivery of our all product and we satisfy with customer's satisfaction.



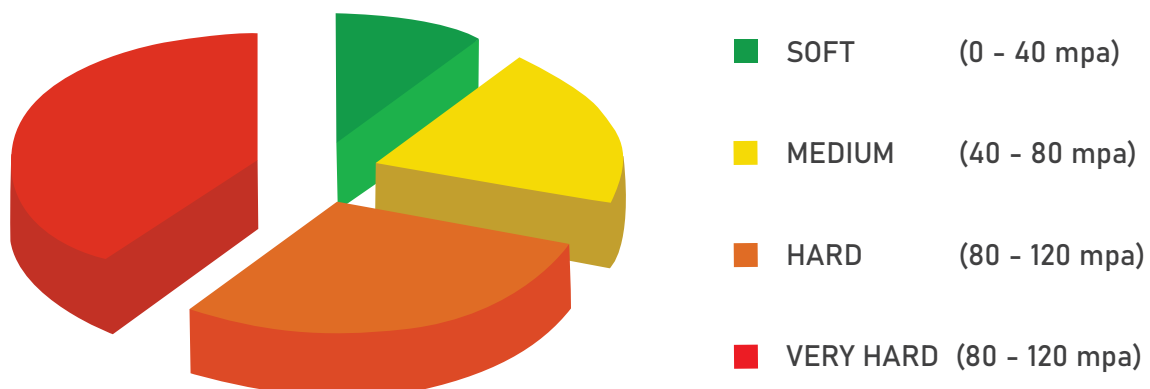
# HARDNESS CHART

COMPRESSIVE STRENGTH (MPA)

SEDIMENTARY ROCKS	MIN	MAX
Gravel, Loam, Silica, Clay, Sand	< 5	30
Breccia	10	45
Conglomerate	80	150
Sandstone	120	200
Argillite	10	100
Tuff	5	10
Limestone, Dolostone	55	220
Travertine	20	60
Gypsum, Halite	< 5	30
Carbonate	10	25
Flint (o Jasper)		190
Phosphorite	< 5	10
Alabaster	55	120
Anhydrite	100	130
Marl	< 5	30
Coal	5	50
Diatomite	10	100
METAMORPHIC ROCKS	MIN	MAX
Marble	90	220
Gneiss	110	240
Andresia	70	200
Amphibolite	170	280
Schists	5	100
Quartzite	150	300



METAMORPHIC ROCKS	MIN	MAX
Phyllite, Mica Schist, Calcareous Schist	70	100
Paragneiss, Orthogneiss	110	160
Chlorite schist	10	50
Serpentinite	> 300	
IGNEOUS ROCKS	MIN	MAX
Basalt	120	300
Porphyry	180	> 300
Granite	130	250
Diorite, Labradorite	180	300
Syenite	150	270
Gabbro	160	300
Andesite	180	> 300
Trachyte	140	180
Granodiorite, Tonalite. Granodiorite	150	300
Rhyolite	160	190
Leucitite	110	140
Obsidian, Pumice	100	120
Dacite	140	170
Peridotite		> 300
Pegmatite, Aplite, Porphyrite	100	250



# AUGERS

# AUGERS

In our **BOREXO** production include a wide Range of Augers for different drilling ground condition according to the Geo - Technical Order (GTO) and various pile diameter. We offer a wide Range of Augers with different types, different categories, and different diameter at the Range of 500mm — 2500mm.

The categories followed by single start, double start, Half and double start full spiral.

## OUR TYPES ARE:

- (i) Soil Augers: • Single Start • Double Start with half spiral and full spiral
- (ii) Rock Augers: • Single Start • Double Start with half Spiral and full spiral
- (iii) Conical Rock Augers
- (iv) Continuous Flight Augers.

Our **BOREXO** Augers are classified into following categories:

- Standard: -Suitable for medium and limited hardness (0 - 12.5 mpa)
- Heavy-Duty: -Suitable for medium hardness of (12.5 — 50 mpa)
- Extra Heavy-duty : -suitable for high hardness of (50 — 100 mpa)



# SOIL AUGERS

It is suitable for drilling Loose, medium dense soil, gravels and clay with hardness Range of (0-12.5 mpa) Single Start is mainly used for less than equal to 750 mm diameter. Double start is mainly used for greater than 750 to 2500 mm diameter.



## TECHNICAL SPECIFICATIONS

Central Pipe

O = 159/203 mm

Thickness = 30 mm

Flights Thickness = 30/40 mm

Pitch = 300/600 mm

Tung Studs HB 900

Blades

In Hardox HB 400

Thickness = 70 mm

Equipment

Teeth Esco 18TU25T

Rock Pilot bit Interchangeable

Kelly box

200x200 mm

130x130 mm

AUGER PART NO:	PILE DIA mm	CUTTING DIA mm	FLIGHT THICKNESS mm	PITCH mm	FLIGHT LENGTH mm
BSA1101	600	560	30 mm As per customer requirements	300	1200
BSA1102	700	660			
BSA1103	800	760			
BSA1104	900	860			
BSA1105	1000	960			
BSA1106	1100	1060		450	
BSA1107	1200	1160			
BSA1108	1300	1260			
BSA1109	1400	1360			
BSA1110	1500	1460			
BSA1111	1600	1560		600	
BSA1112	1700	1660			
BSA1113	1800	1760			
BSA1114	1900	1860			
BSA1115	2000	1960			
BSA1116	2100	2060			
BSA1117	2200	2160			
BSA1118	2300	2260			
BSA1119	2400	2360			
BSA1120	2500	2460			

# ROCK AUGERS

The Rock Auger is suitable for drilling medium dense gravels, Hard Rock of Hardness range of (12.5 to 50 mpa). Single Start is mainly used less than equal to 750 mm diameter. Double start is main used for greater then 750 to 2500 mm

## TECHNICAL SPECIFICATIONS

Central Pipe

O = 159/203 mm

Thickness = 25/30 mm

Flights

Thickness = 30/40 mm

Pitch = 300/600 mm

Blades

In Hardox HB 400

Rock Pilot bit B47

Kelly box

200x200 mm

130x130 mm





AUGER PART NO:	PILE DIA    mm	CUTTING DIA    mm	FLIGHT THICKNESS    mm	PITCH    mm	FLIGHT LENGTH    mm
BRA1201	600	560	30 mm As per customer requirements	300	1200
BRA1202	700	660			
BRA1203	800	760			
BRA1204	900	860			
BRA1205	1000	960			
BRA1206	1100	1060		450	
BRA1207	1200	1160			
BRA1208	1300	1260			
BRA1209	1400	1360			
BRA1210	1500	1460			
BRA1211	1600	1560		600	
BRA1212	1700	1660			
BRA1213	1800	1760			
BRA1214	1900	1860			
BRA1215	2000	1960			
BRA1216	2100	2060			
BRA1217	2200	2160			
BRA1218	2300	2260			
BRA1219	2400	2360			
BRA1220	2500	2460			

## CONICAL AUGERS

Our conical Augers are suitable for drilling very hard rocks, Sedimentary rocks and Igneous rocks, with the hardness of 50-100 mps. Single Start is used for drilling the hardness range of (50 – 100 mpa) Double start is used to drill the hardness range of more than 100 (>100 mpa)

## TECHNICAL SPECIFICATIONS

Central Pipe

O = 159/203 mm

Thickness = 25/30 mm

Flights Thickness = 30/40 mm

Pitch = 300/600 mm  
 Tung Studs HB 900  
 Rock Pilot bit Interchangeable  
 Kelly box  
 200x200 mm  
 130x130 mm



AUGER PART NO:	PILE DIA mm	CUTTING DIA mm	FLIGHT THICKNESS mm	PITCH mm	FLIGHT LENGTH mm
BCA1301	600	560	30 mm As per customer requirements	300	1200
BCA1302	700	660			
BCA1303	800	760			
BCA1304	900	860			
BCA1305	1000	960			
BCA1306	1100	1060		450	
BCA1307	1200	1160			
BCA1308	1300	1260			
BCA1309	1400	1360			
BCA1310	1500	1460			
BCA1311	1600	1560		600	
BCA1312	1700	1660			
BCA1313	1800	1760			
BCA1314	1900	1860			
BCA1315	2000	1960			
BCA1316	2100	2060			
BCA1317	2200	2160			
BCA1318	2300	2260			
BCA1319	2400	2360			
BCA1320	2500	2460			

# CONTINUOUS FLIGHT AUGERS

Continuous flight Auger (CFA) piling is the quietest form of piling and is a fast and very economical technique. It is known as cast-in-situ Process. It is very suitable for soft ground where deep casing (or) use of drilling support fluids might otherwise be needed.

- It is available in common length of 3 m & 6m
- Both rock and soil options are available
- Various hard facing (or) wear plate. Options are available.





# BUCKETS

# BUCKETS

It is difficult task to perform the drilling in open tool condition. So, in advance stages of piling, the Buckets are acting major role to increase productivity. Buckets are designed with closed surface and rotating bottom with an opening. It helps to stop the overflow and to hold maximum soil inside the tool itself. Hence piling should be done without much wastage. Our **BOREXO** Buckets are designed for all kinds of ground drilling conditions such as hard rocks, gravels, soil and clay. Our Buckets are mainly classified into two major types. The Cylinders and Conical Buckets.

According to its usage majorly classified into three types:  
**The Soil Buckets, Rock Buckets and Cleaning Buckets.**

Our **BOREXO** Buckets are classified into following categories :

- **Standard:** Suitable for medium and limited hardness (0 - 12.5 mpa)
- **Heavy Duty:** Suitable for medium hardness of (12.5 — 50 mpa)
- **Extra Heavy duty:** Suitable for high hardness of (50 — 100 mpa)

## SOIL BUCKETS

The Soil Buckets are mainly used for fine grained soil, clay soil, low dense sand, and low dense gravel. Our Soil Buckets are designed into Three types: Standard, Heavy Duty, Extra Heavy Duty.



## TECHNICAL SPECIFICATIONS

### Shell

Thickness = 20 mm

Height = 1000 mm

### Bottoms

Fixed and rotating bottom in

Thickness = 40 mm

Hard faced ribbings HB 600

### Blades

Thickness = 40 mm

### Equipment

Teeth Esco 18TU25T

Pilot bit

Kelly box

200x200 mm; 130x130 mm





BUCKET PART NO:	PILE DIA mm	CUTTING DIA mm	SHELL THICKNESS mm	SHELL HEIGHT mm
BSB2101	600	560	16 - 20 AS PER CUSTOMER REQUIREMENTS	1200
BSB2102	700	660		1000
BSB2103	800	760		
BSB2104	900	860		
BSB2105	1000	960		
BSB2106	1100	1060		
BSB2107	1200	1160		
BSB2108	1300	1260		
BSB2109	1400	1360		
BSB2110	1500	1460		
BSB2111	1600	1560		
BSB2112	1700	1660		
BSB2113	1800	1760		
BSB2114	1900	1860		
BSB2115	2000	1960		
BSB2116	2100	2060		1200
BSB2117	2200	2160		
BSB2118	2300	2260		
BSB2119	2400	2360		
BSB2120	2500	2460		

## ROCK BUCKETS

The Rock Buckets are to perform Brisement Hard Rock fine particles and Bentonite (or) polymers are used in this process to carry out the cutting particles and protect the casing. We basically design and manufacture Cylinder and Conical Rock Buckets. We prefer to use our Cylinder Buckets for dense sand, gravel and hard Rocks of >100 mpa and recommend Conical Buckets for soft & stiff, medium dense soil gravel medium coarse gravel. Also designed for Sedimentary and Siliceous Rocks of (50 – 100 mpa)

## TECHNICAL SPECIFICATIONS

### Shell

Thickness = 20 mm

Height = 1250 mm

### Bottoms

Thickness = 40 mm

### Blades

In Hardox HB 400

Thickness = 70 mm

Rock Pilot bit

Interchangeabl

### Kelly box

200x200 mm; 130x130 mm



BUCKET PART NO:	PILE DIA mm	CUTTING DIA mm	SHELL THICKNESS mm	SHELL HEIGHT mm
BRB2201	600	560	16 - 20 AS PER CUSTOMER REQUIREMENTS	1200
BRB2202	700	660		1000
BRB2203	800	760		
BRB2204	900	860		
BRB2205	1000	960		
BRB2206	1100	1060		
BRB2207	1200	1160		
BRB2208	1300	1260		
BRB2209	1400	1360		
BRB2210	1500	1460		
BRB2211	1600	1560		
BRB2212	1700	1660		
BRB2213	1800	1760		
BRB2214	1900	1860		
BRB2215	2000	1960		
BRB2216	2100	2060		1200
BRB2217	2200	2160		
BRB2218	2300	2260		
BRB2219	2400	2360		
BRB2220	2500	2460		

## CLEANING BUCKETS

The cleaning buckets are mainly designed to clean the bottom of Pile. We construct cleaning Bucket with double opening and single opening. It is mainly used to clean the fine-grained sand, medium coarse soil and clay with hardness of 0 - 12.5 mpa.





# BARRELS



# CORE BARRELS

Our core Barrel are designed with harden steel and Hard tungsten carbide to Brisement the hard rock formation, which has high strength and durability. It is suitable for drilling in stratification with hardness range of 50-100 mpa.



## TECHNICAL SPECIFICATIONS

Shell

Thickness = 30 mm

Height = 1000 mm

Equipment

Betek round shank chisel 0 = 30/38  
mm

Kelly box

# CROSS CORE BARRELS

The Cross Core Barrels are heavy-duty tool to archive the greater productivity in the hard rock condition at the range of more than 100 mpa (>100 mpa)



# TREMIE PIPES



# TREMIE PIPES

Basically, Tremie Pipes are used to pour the concrete in to the drilled pile. Our tremie pipes are made of good quality drawn steel pipe in order to guarantee high resistance elements, pipe section can be connected by two kind of joints, one is Threaded and another one is Wire Cable Joints.

- Threaded types are joint together with male and female joints. We prefer up to 6" diameter for threaded joints.
- Wire Cable types are joint together with pin and box (or) male and female collar. we prefer up to 6" to 12".

**Funnel:** To pour the concrete to the Tremie Pipe.

**Lifting Head:** It is help to lift (or) lowering operation.

**Tremie Stand:** It is mainly used to stock the pipes and to move easily from one site to another site.

**Tremie Gate:** It is for tightening and remove the tremie.





# WEAR PARTS

Bullet Teeth



Soil Bucket Teeth



Kelly Adapter







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