



INTERNATIONAL
DRILLING
EQUIPMENT, INC.



**Rotary
Drilling
Tools**

AUGERS

IDE offers includes a wide range of **augers** for drilling layers of dry soil layers and rock in order to meet the requirements of different piles diameter.

Augers can be either straight or conical and as such are designed in two different ways:

Single start cutting edge straight auger: suitable for drilling soils in presence of water and rock layers up to a 1000 mm diameter. They are particularly advantageous when used with casing applications.

Double start cutting edge straight auger: suitable for rock layers and bored piles 1000mm and over.

Conical augers are primarily used for drilling very hard rock formations.

The flights increase diameter gradually as they spiral. Round shank chisels are placed along the borderline up to the cutting edge, so that rock formations are ripped progressively with excellent results.

All augers are designed according to rotary torque and gravel compressive strength, which allows varying of the central stem diameter, flight pitch and thickness of all materials.

All flight cutting edges are protected with special wear protection material, HB 600/900.

Augers can be supplied with different types of teeth or chisel according to the soil and rock hardness.

Further, the number of teeth and their inclination are all obtained through a software analysis which is capable of guaranteeing high productivity.

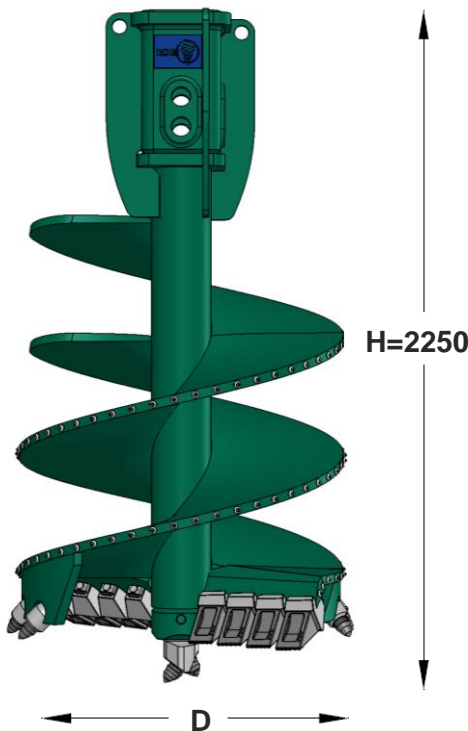
Auger diameters match flawlessly with IDE single and double wall casing.

All auger dimensions can be customized according to client needs and are available on request.

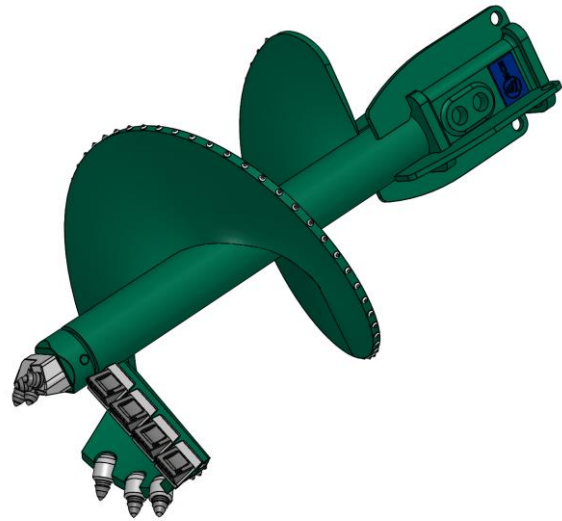
All weights are approximate values.

Soil Auger

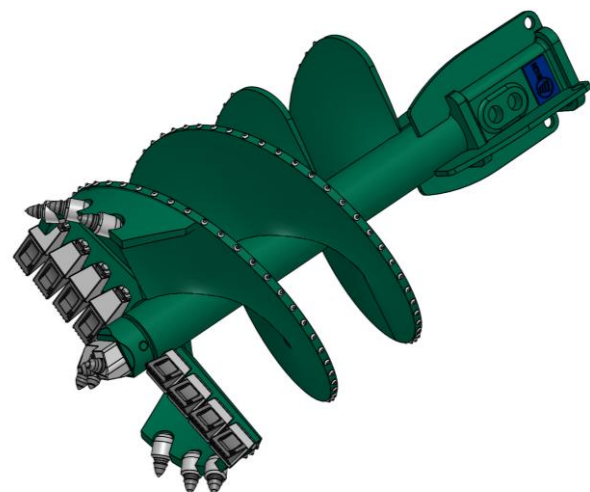
Technical data



single cut



double cut



D	Φ Casings	Weight
mm	mm	kg
520	620/540	660
650	750/670	730
780	880/800	810
900	1000/920	850
980	1080/1000	900
1060	1180/1100	975
1180	1300/1220	1020
1350	1500/1400	1140
1650	1800/1700	1505
1830	2000/1880	1800

Custom lengths and diameters are available upon request

Features

- Kelly boxes are made of heat-treated cast steel with two locking pins
- Auger flight thickness of 30 mm
- Betek TungStuds wear protection at the auger body
- Single cut up to a diameter of 1200 mm
- Fitted with Betek teeth and interchangeable bit
- Collar plates for calibrating the cutting diameter

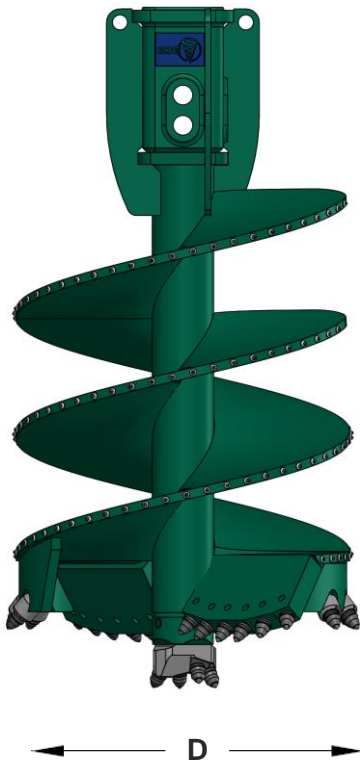
Application

Stiff to hard silt and clay, medium dense to dense sand, gravel (< 12.5 Mpa)

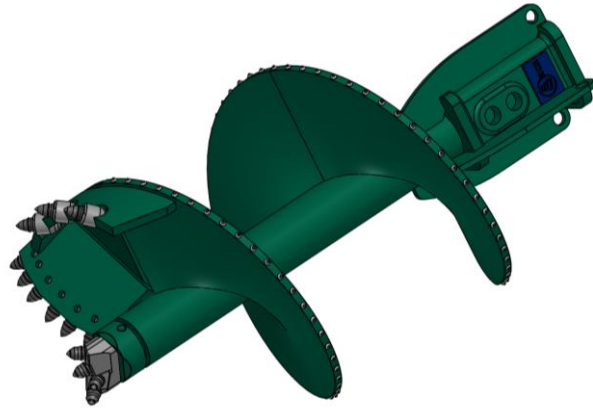
Double cut is recommended for uncased bores, bigger diameters and secant pile walls.

Flat Rock Auger

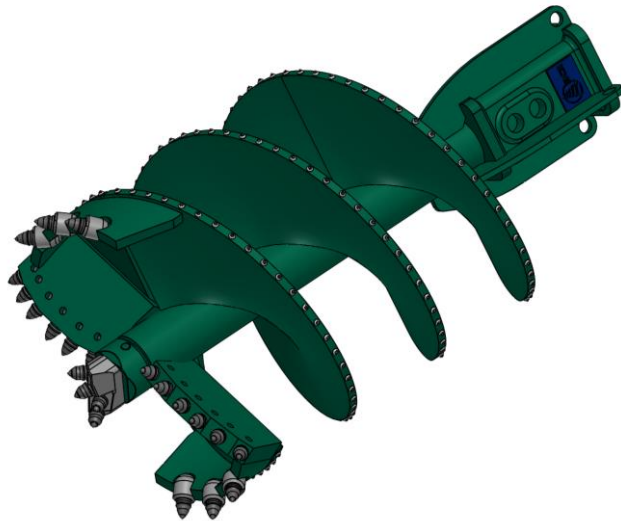
Technical data



single cut



double cut



D	Φ Casings	Weight
mm	mm	kg
520	620/540	660
650	750/670	760
780	880/800	880
900	1000/920	930
980	1080/1000	1000
1060	1180/1100	1070
1180	1300/1220	1150
1350	1500/1400	1320
1650	1800/1700	1690
1830	2000/1880	1980

Custom lengths and diameters are available upon request

Features

- Kelly boxes are made of heat-treated cast steel with two locking pins
- Auger flight thickness of 30 mm
- Betek TungStuds wear protection at the auger body
- Single cut up to a diameter of 1200 mm
- Fitted with Betek chisels and interchangeable bit
- Collar plates for calibrating the cutting diameter
- Blades in Hardox HB 500 with holes for mounting Betek chisels

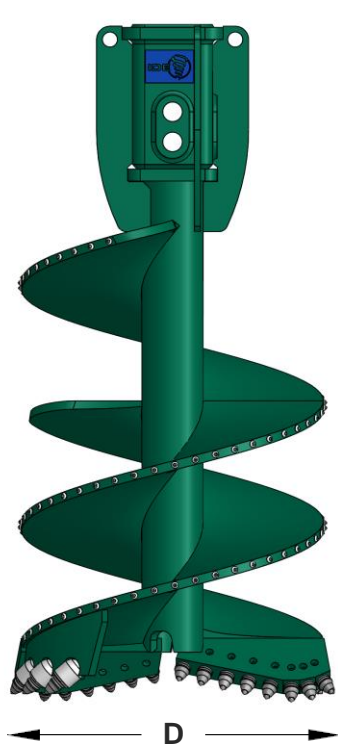
Application

Very dense sand and gravel, weak rock (< 12.5 Mpa)

Double cut is recommended for uncased bores, bigger diameters and secant pile walls

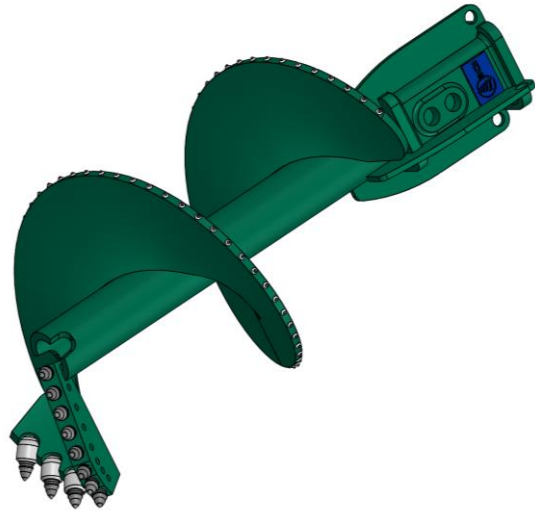
Flat Rock Auger – without pilot bit

Technical data

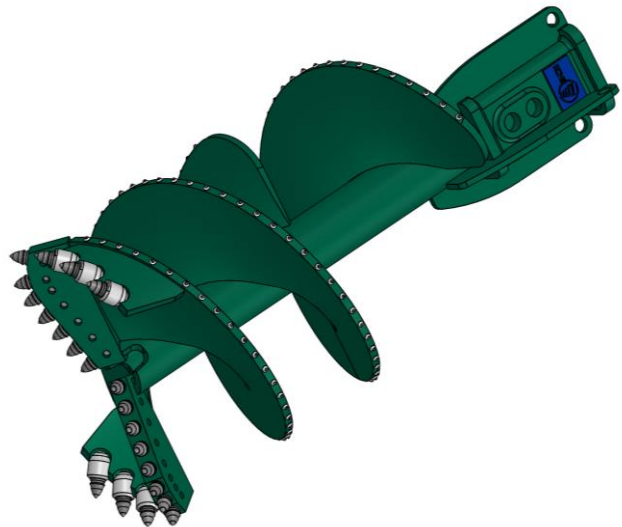


H=2250 mm

single cut



double cut



D	Φ Casings	Weight
mm	mm	kg
520	620/540	675
650	750/670	760
780	880/800	900
900	1000/920	950
980	1080/1000	1030
1060	1180/1100	1100
1180	1300/1220	1180
1350	1500/1400	1360
1650	1800/1700	1750
1830	2000/1880	2050

Custom lengths and diameters are available upon request

Features

- Kelly boxes are made of heat-treated cast steel with two locking pins
- Auger flight thickness of 30 mm
- Betek TungStuds wear protection at the auger body
- Single cut up to a diameter of 1200 mm
- Fitted with Betek chisels and interchangeable bit
- Collar plates for calibrating the cutting diameter
- Blades in Hardox HB 500 with holes for mounting Betek chisels

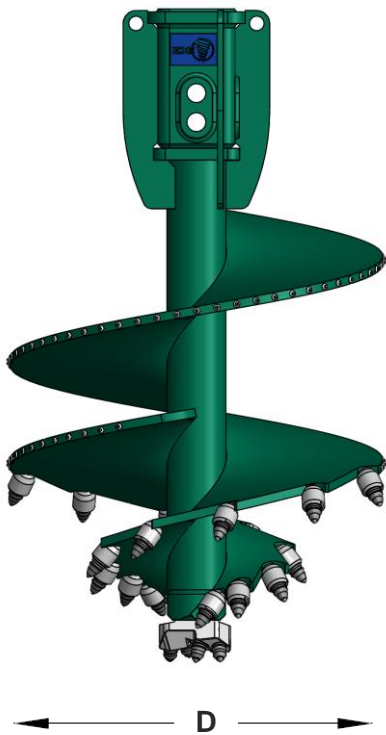
Application

moderately weak to moderately strong rock (12.5 – 50 Mpa)

very suitable in fractured rock

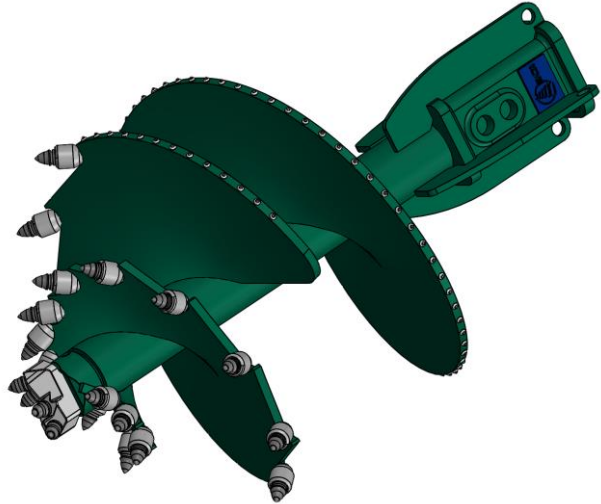
Progressive Rock Auger

Technical data

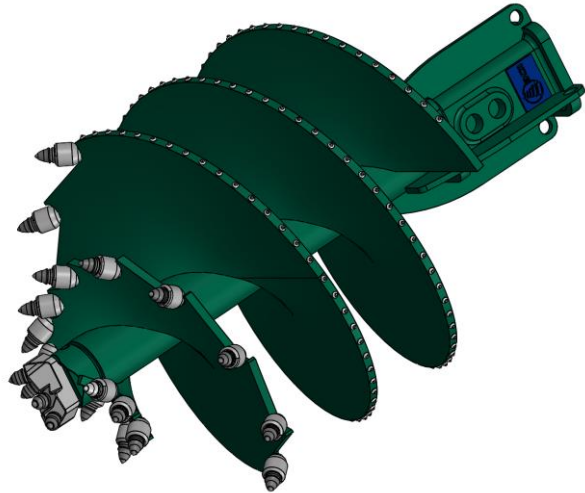


H=2250 mm

single pitch



double pitch



D	Φ Casings	Weight
mm	mm	kg
520	620/540	660
650	750/670	800
780	880/800	970
900	1000/920	1100
980	1080/1000	1300
1060	1180/1100	1400
1180	1300/1220	1650
1350	1500/1400	2200
1650	1800/1700	2850
1830	2000/1880	3700

Custom lengths and diameters are available upon request

Features

- Kelly boxes are made of heat-treated cast steel with two locking pins
- Auger flight thickness of 30 mm
- Betek TungStuds wear protection at the auger body
- Double pitch for all length
- Fitted with Betek chisels and interchangeable bit

Application

Strong rock (50 – 100 MPa)

PRA-S Line

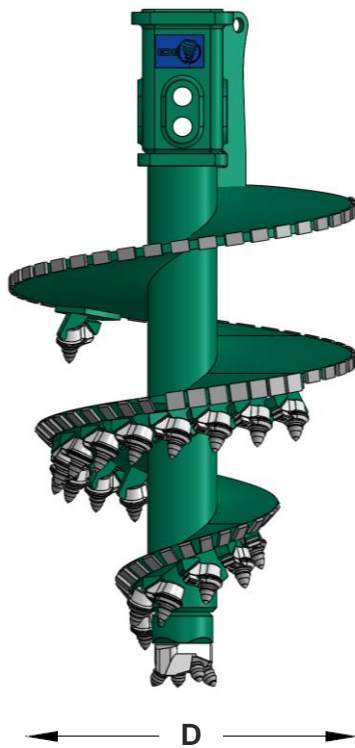
Designed to handle the most difficult drilling conditions, this auger is the evolution of years of drilling experience; it has been studied to work in very hard rock strata having a Compressive Strength more than 100 MPa. The geometry of the chisels arrangement is optimized for excellent cutting performance. The flights pitch has been specifically designed to get better output for high torque drilling rigs in order to improve material handling.

Auger main features are:

- High and fast drilling capacity - optimized cutting geometry yields fast drilling rates, due to its flight which increases in diameter progressively and its special chisels and holders. This auger displays excellent ripping characteristics.
- Low and easy maintenance - replaceable strips in Hardox HB 600 are highly wear resistant while the special setting angle allows the Betek round shank chisels to sharpen themselves as they turn.
- High operational reliability - quality and design that comes with 25 years of experience in the design and production of rotary drilling tools.

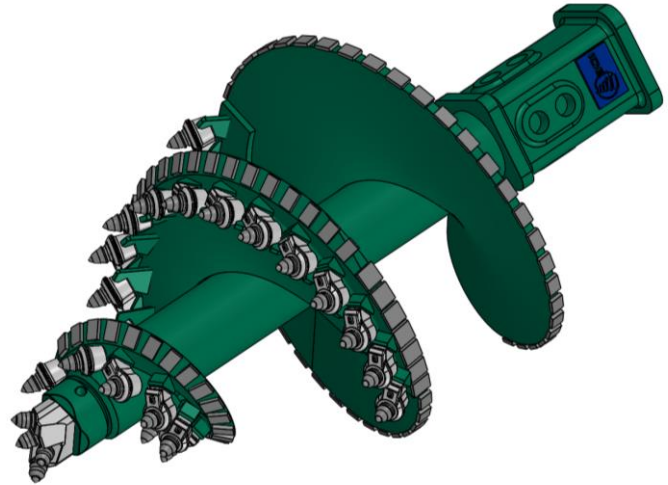
PRA-S Line

Technical data



single pitch

H=2250 mm



D	Φ Casings	Weight
mm	mm	kg
520	620/540	660
650	750/670	800
780	880/800	970
900	1000/920	1100
980	1080/1000	1300
1060	1180/1100	1400
1180	1300/1220	1650
1350	1500/1400	2200
1650	1800/1700	2850
1830	2000/1880	3700

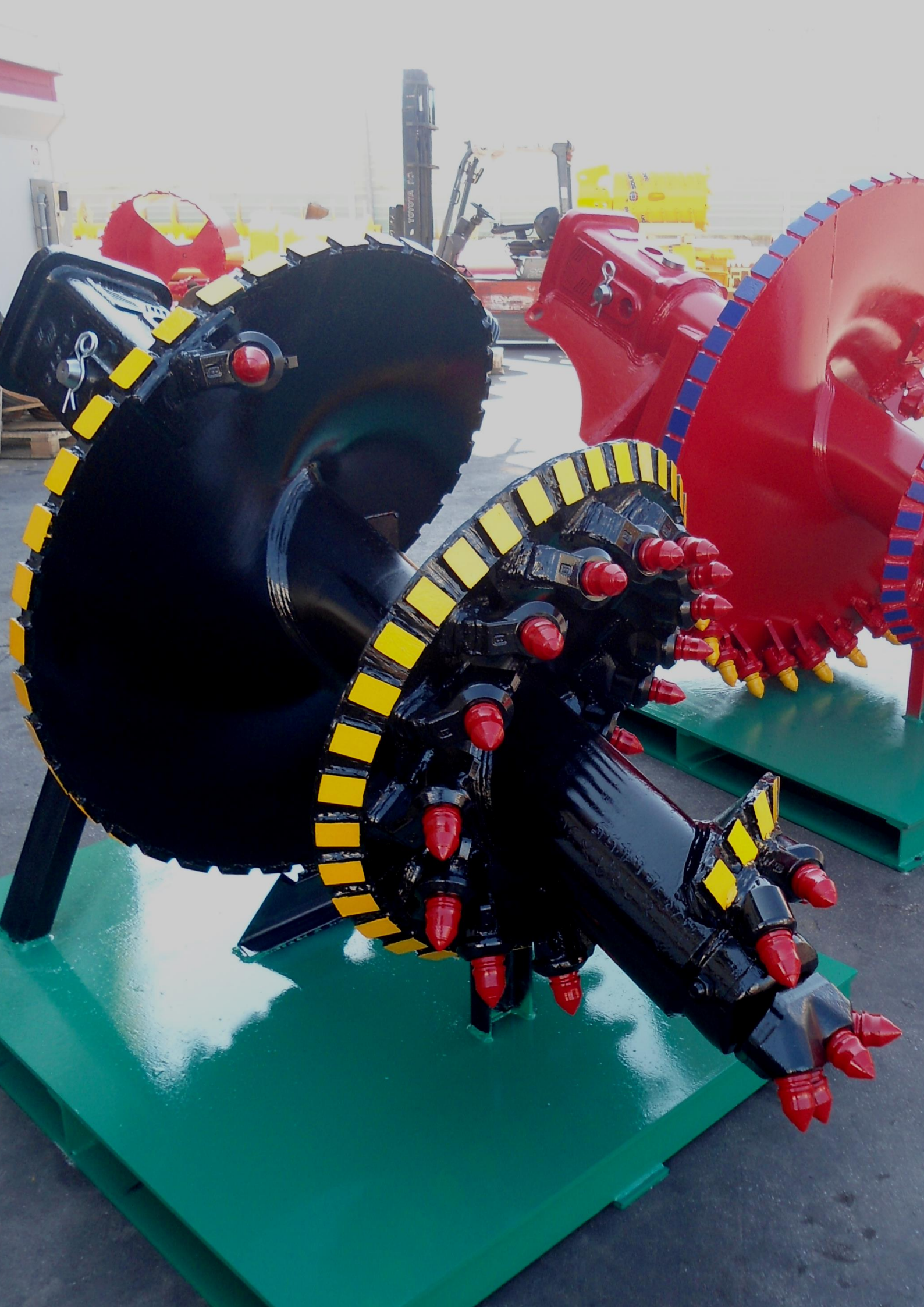
Custom lengths and diameters are available upon request

Features

- Kelly boxes are made of heat-treated cast steel with two locking pins
- Auger flight thickness of 50 mm
- Antiwear protection HB 600 at the auger body
- Single pitch for all length
- Fitted with Betek chisels and interchangeable bit

Application

Strong rock (≥ 100 MPa)





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