



Polar Penetrator

**The answer to drilling in
frozen and dense soils**

Patent Pending

POLAR PENETRATOR SERIES DRILL BITS

To all of whom have spent hours on top of a CFA auger trying to chew through dense frozen clays, silts and various other strata.

Ever have to pull the bit out of the hole to find the teeth packed with thawed compacted material ?

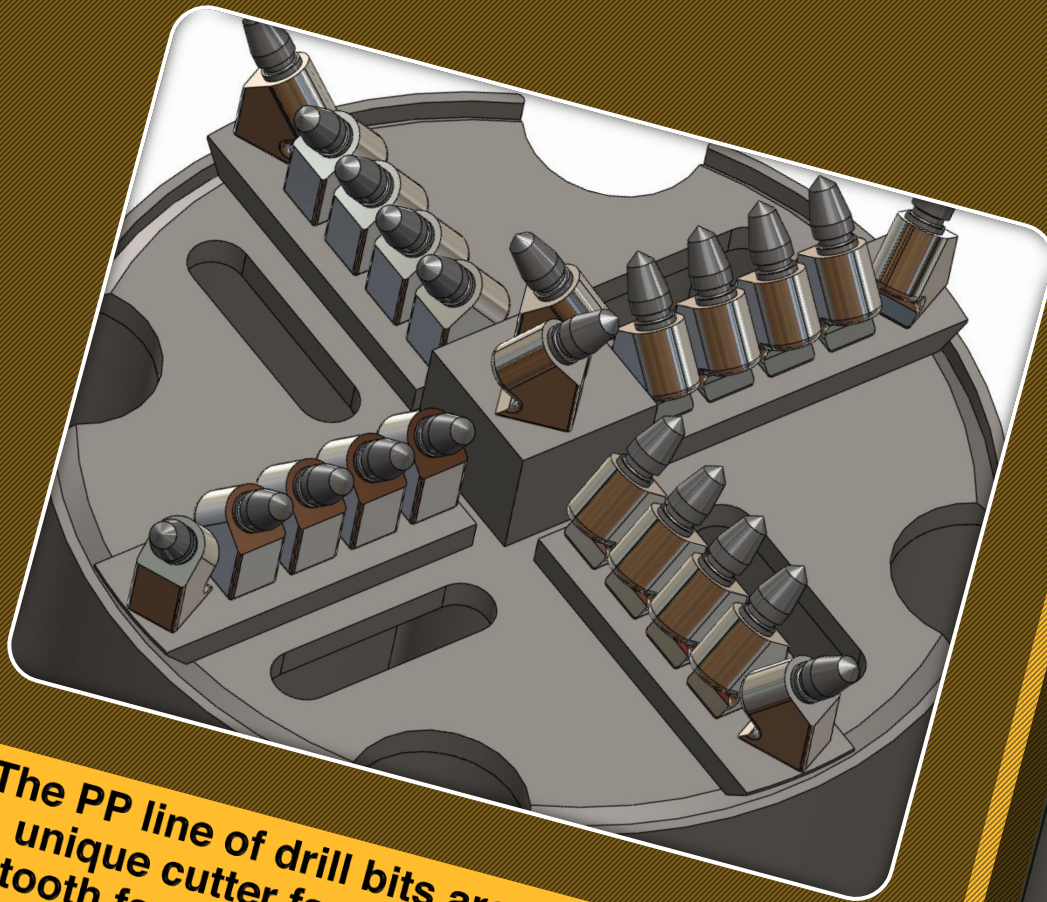
Down hole hammers although great in rock, are over kill in conditions that are below 100 psi in density.

We would all have to agree something needs to change.

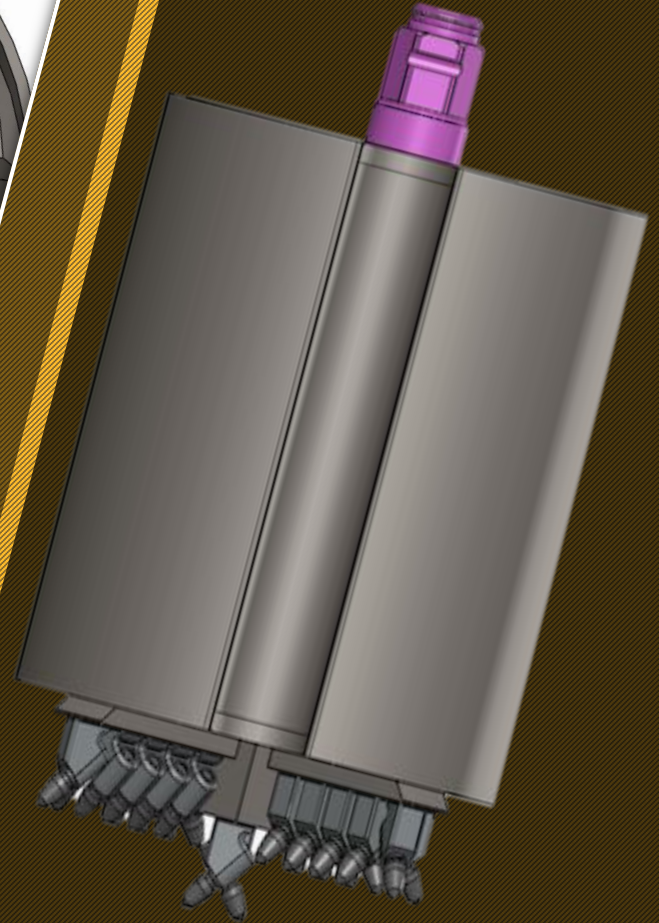
After years of drilling in the foundation industry APE has sought to design a air assisted drill tool that is able to combat tight, dense and frozen materials and can be advanced in depth with a very high rate efficiency.

Field tested from the frozen Alaskan tundra to the dry dessert conditions of Arizona, the PP series of drill bits can make quick work of the ground that has frustrated us all for years in the drilling world.





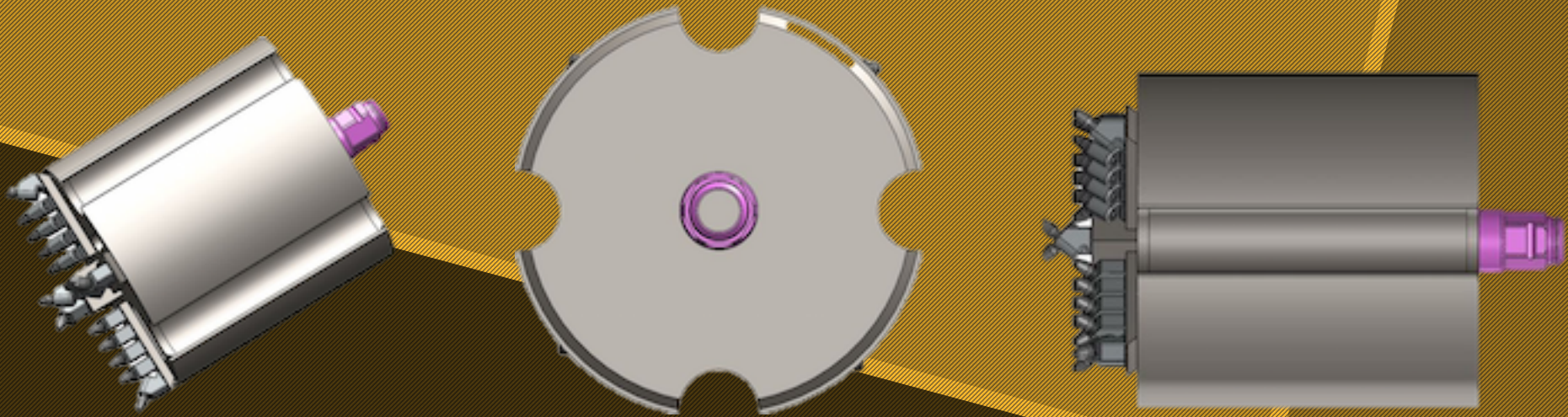
The PP line of drill bits are designed with a unique cutter face with ports above the tooth face to help evacuate the cuttings via air pressure up and out the flutes in the sides of the bits body.



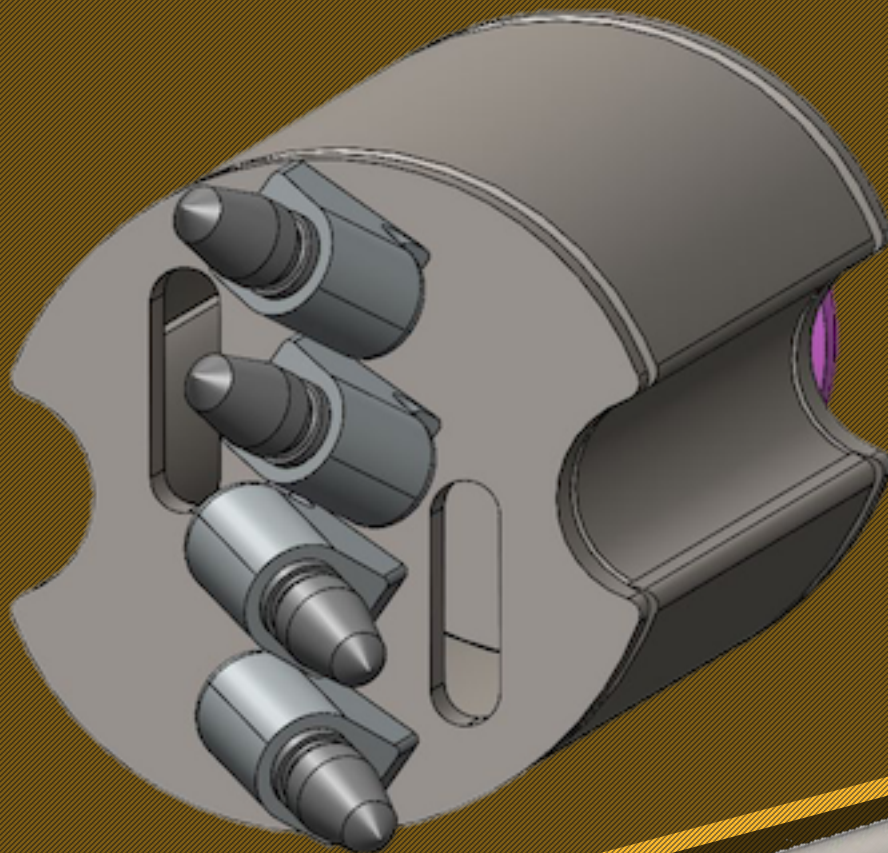
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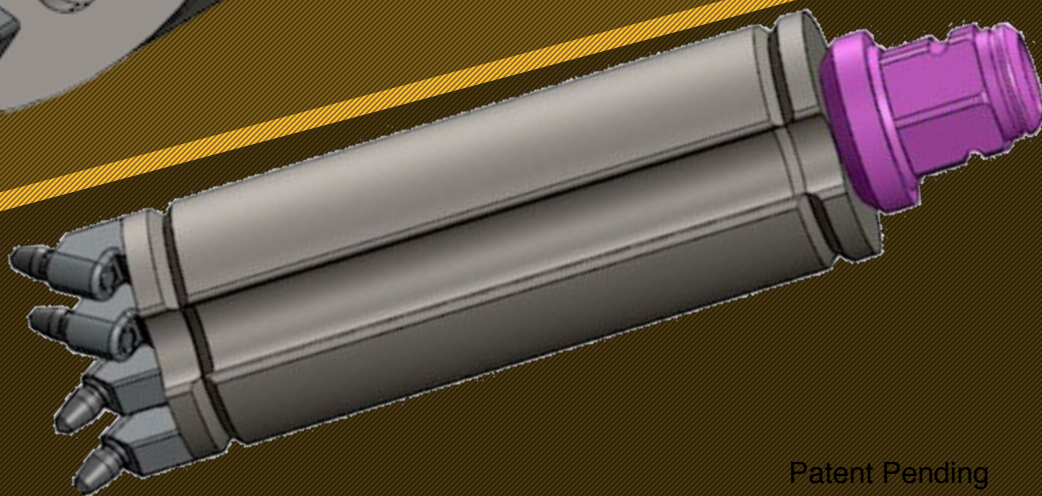
Our PP line up covers from 9 5/8" up to 30" diameters that can be outfitted with a drive coupler of choice to connect with your equipment's unique specifications. Custom sizes can be made available upon request



Patent Pending



The various sizes available allow use in multiple applications from open hole work to clearing out driven pile.



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Designed to be teamed up with our unique HD Drilling system and Quickloc Drill Casing the PP series lineup of bits can over come many of the challenges that frozen and dense soils have presented. In efforts to bring this platform to all user applications, custom connections can be added to adapt to what ever your needs maybe and custom sizes can be made available as well

General construction is made from 110 ksi steel, 1 ¼" T1 top and bottom plates, C30 Tooth Holders and C31HD Teeth. Hard Face strips run the radius and length of the body to insure protection of the barrel when drilling in various soils

