

# Diamond Coring Option (DCO)

TSi Part #: DD-150-4100

## About the DCO

The TSi Diamond Coring Option (DCO) is a drilling accessory that increases TSi Sonic Rigs' capability in coring in mineral exploration and for geotechnical purposes. Sonic drilling advances through hard, heavy overburden to pre-collar boreholes down to bedrock before attaching the DCO. Hydraulic flow used for oscillating diverts to the DCO's dual-speed coring motor, and the frequency dial used to control oscillation adjusts the motor's RPM.

## Benefits of Using the DCO:

- **One Rig Operation:** Attaches to any TSi 150 Series Drill Oscillator, enabling one rig operation for sonic rilling and diamond coring.
- **Easily Installed:** Installs quickly and easily via a skid steer with fork attachments.
- **RQD Friendly:** Allows rock quality designation (RQD) analysis from rock cores.
- **Intact Samples:** Maintains structural integrity of samples.
- **Quick Dusting:** When used with water circulation, dusting is eliminated quickly.
- **Functional Versatility:** May be used with the optional TSi high-speed coring winch.

## Technical Specifications:

- Dual-speed head for 0 to 600 RPM with 1623 ft-lbs. (2200 N-m) continuous torque, and 0 to 1000 rpm with 811 ft-lbs. (1100 N-m) continuous torque.
- Includes mounting/support frame and hydraulic quick connect/disconnect hose kit.
- Female threading 2 3/8" API REG on water swivel so customers can adapt the tooling to their specifications.
- Threaded casing adapter designed to receive a TSi 6" spindle.
- Requires user-supplied diamond coring bits.

## Applications for Diamond Core Drilling

Diamond core drilling efficiently extracts intact samples in rock formations for mineral exploration and geotechnical purposes. Core samples determine the geotechnical properties of the tested area, such as porosity, permeability, fluid content and geologic age. The cores help determine the makeup of minerals in the earth to demonstrate the potential economic value to a mining prospector.

## Wireline Rod Depth Capacity with Diamond Coring

