

Augers





VIEWING OPTIONS:

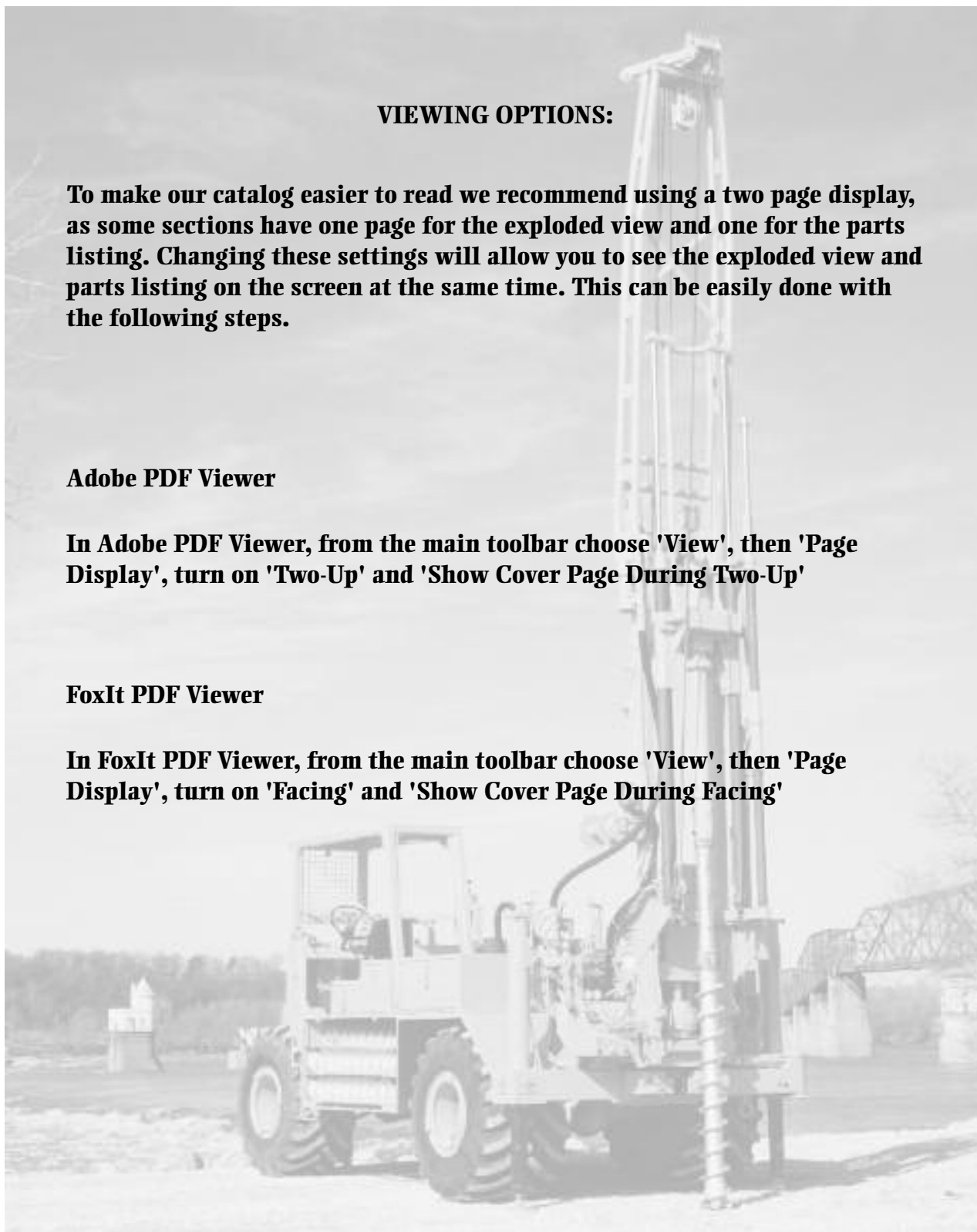
To make our catalog easier to read we recommend using a two page display, as some sections have one page for the exploded view and one for the parts listing. Changing these settings will allow you to see the exploded view and parts listing on the screen at the same time. This can be easily done with the following steps.

Adobe PDF Viewer

In Adobe PDF Viewer, from the main toolbar choose 'View', then 'Page Display', turn on 'Two-Up' and 'Show Cover Page During Two-Up'

FoxIt PDF Viewer

In FoxIt PDF Viewer, from the main toolbar choose 'View', then 'Page Display', turn on 'Facing' and 'Show Cover Page During Facing'





CME Hollow Augers

CME key-type hollow augers have a patented coupling design. This unique key-type design permits the augers to be reversed in the hole without coming apart. The augers are easily connected by sliding the joints together and inserting a cap screw. Uncoupling only involves removing the cap screw and sliding the joints apart. An "O" ring seal is provided at each joint to make the augers water tight.

CME hollow augers are lightweight and easy to handle, yet are able to withstand the most rugged drilling conditions. The outside diameter is held to a minimum hole size resulting in less cuttings to shovel and less torque required to advance the augers in the hole.

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CME Hollow Stem Augers

Strength, Simplicity and Durability

The key is in the coupler

The two most important features of an auger coupling are strength and simplicity. CME gives you both.

Our field-proven dual key coupler provides a strong connection you can depend on. The simplicity of the design means quicker connections for greater overall drilling efficiency. The dual key coupler also allows you to reverse the augers in the hole without worrying about joints coming apart.

Connections are quickly and easily made by simply sliding the joints together and screwing in the auger connector bolts. To uncouple, just unscrew the bolts and slide the joints apart. Since the connector bolts are the only external parts, you won't find yourself spending valuable production time cleaning mud and dirt from complex coupling devices.

Patented O-ring seal helps isolate the annulus of the auger column

Each connection features a patented O-ring seal which provides two major benefits. First, the seal helps prevent material on the outside of the auger column from leaking into the annulus of the auger column. That means your samples are less likely to be contaminated by material from outside the targeted sampling zone.

Secondly, in fluid circulation drilling applications, the seal helps contain drilling mud or water inside the auger column.

Field-proven design and construction

CME augers are tough enough to tackle the most challenging drilling conditions. That's because we use only premium grade steel for all components. We also hard surface the outside edge of the entire auger flight for maximum durability.

Auger flighting dimensions, including outside diameter and pitch, are designed to efficiently convey soil cuttings with a minimum amount of drilling torque.

Heavy-duty and extra-heavy-duty augers give you an extra edge

CME heavy-duty and extra-heavy-duty augers give you the extra edge you need for today's highly competitive drilling industry. The heavy-duty augers feature larger keys and larger auger connector bolts. The couplings have thicker walls and are tapered so they slide together and apart even easier. This is especially advantageous when you're drilling in fine sands or silts.

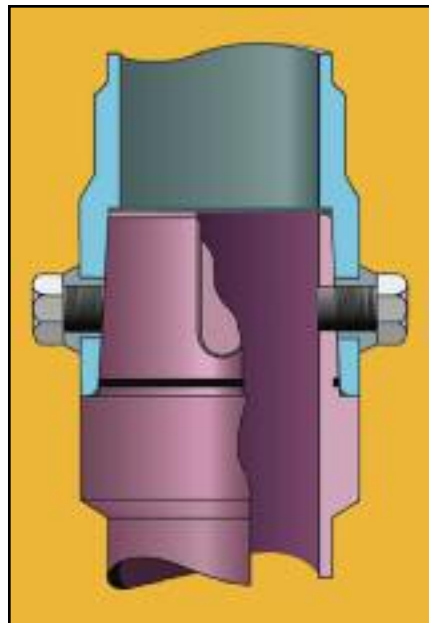
CME extra-heavy-duty augers have all the features of our heavy-duty augers, plus even thicker tube walls and thicker flighting for maximum strength. These augers are designed for high-torque rigs. They'll handle the most demanding job with confidence.

Custom augers can solve special drilling problems

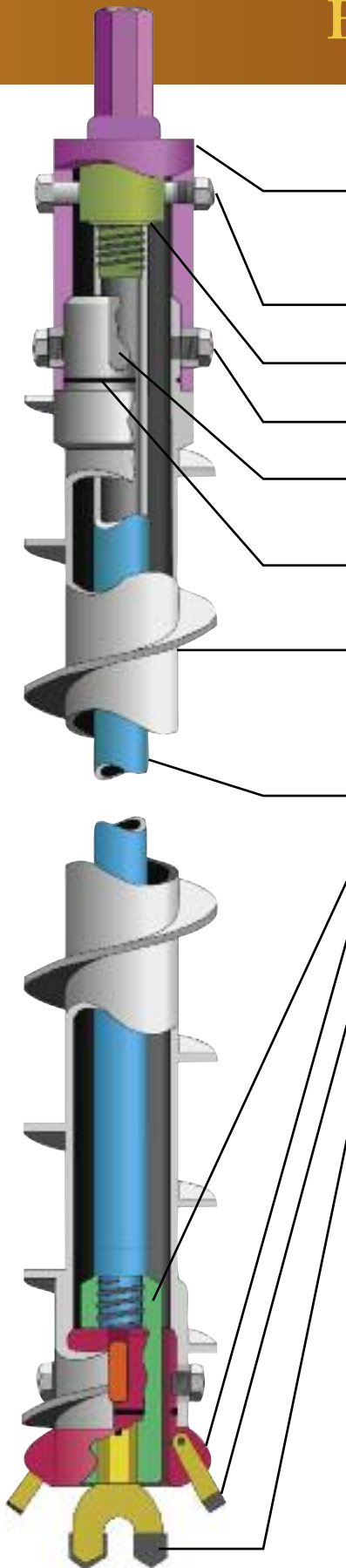
When a drilling job presents unique problems, we can supply unique solutions. We will be happy to work with you to fulfill your specific needs. Plus we have numerous custom designs currently available. For example, our double and triple flight lead augers provide extra strength and weight for starting holes in abrasive or cobble filled formations where maintaining initial hole diameter can be difficult.

If your rig has especially high torque and retract capabilities, you might be interested in our 4 1/4" or 6 1/4" XHDS hollow augers. They have oversized connector bolts which provide more surface contact area for greater strength and rigidity to the auger column.

These are just a few examples of things we can do for you to help make your drilling program more efficient and therefore more profitable.



Hollow Stem Auger Assembly



- Drive cap** - The CME hollow auger drive cap has a shank to fit the drill spindle adaptor assembly and a keyed auger box coupling that fits over a hollow auger pin coupling.
- Drive cap bolt and nut** - Connects drive cap to rod-to-cap adaptor.
- Rod-to-cap adaptor** - Connects top center rod to drive cap.
- Auger connector bolt** - Secures each hollow auger connection.
- Key-way** - Allows augers to be rotated in forward or reverse under full rotary power while applying down pressure or retract forces to the auger column.
- Patented O-ring seal** - O-ring seal installed in groove on auger pin helps prevent contaminants from leaking into the auger column and drilling fluids from leaking out.
- Hollow stem auger section** - Auger flighting diameters and pitch are designed for maximum conveyance of soil cuttings with minimum drilling torque. Entire length of flighting is hardsurfaced for long-term abrasive wear resistance.
- Drill rods** - Threaded drill rods connect rod-to-cap adaptor to pilot assembly with center head.
- Pilot assembly** - Includes center head and connects to first center rod.
- Auger head** - Multi-use hollow auger head with replaceable forged steel, tungsten carbide tipped teeth.
- Replaceable carbide insert tooth** - Easily changeable forged steel, tungsten carbide tipped teeth are designed with the ultimate combination of hardness, durability and size for optimum cutting efficiency and long life.
- Center head** - Center heads used with 2 1/4" (5.7 cm) through 3 3/4" (9.5 cm) ID hollow augers are completely replaceable. Center heads used with 4 1/4" (10.8 cm) ID hollow augers can be either completely replaceable or have replaceable teeth. Center heads used with larger hollow augers have replaceable teeth.



Completely replaceable center head



Center head with replaceable teeth



Center Hexagon Drive System

For large diameter holes and tough drilling conditions

If your drilling operations include large diameter auger jobs...or, if you're frequently drilling in especially difficult formations, CME's center hexagon drive system can save you time and money.

Large diameter auger drilling or tough drilling conditions can over-torque threaded connections on center drill rods. Over-torqued connections can be extremely difficult and time consuming to break-out. Excessive torque can also shorten the life of threaded drill rod connections.

CME's center hexagon drive system has no threaded connections. You simply slide the box and pin hex ends together and install the drive pin. When coming out of the hole, a slide connector allows you to separate the hollow auger connection and access the hexagon rod connection inside. You simply knock out the drive pin and slide the rods apart.

A big advantage in wet sands

Drilling and sampling in wet sands can be a real challenge. During drilling operations, sand tends to pass between the pilot assembly and the inside diameter of the hollow auger. The sand can bridge the annulus of the auger above the pilot assembly and form a plug.

This plug will not only make it difficult to pull the center rod string, it will also cause a vacuum to form below the center head. As you raise the center rod string, even more sand will be drawn up inside the center of the augers.

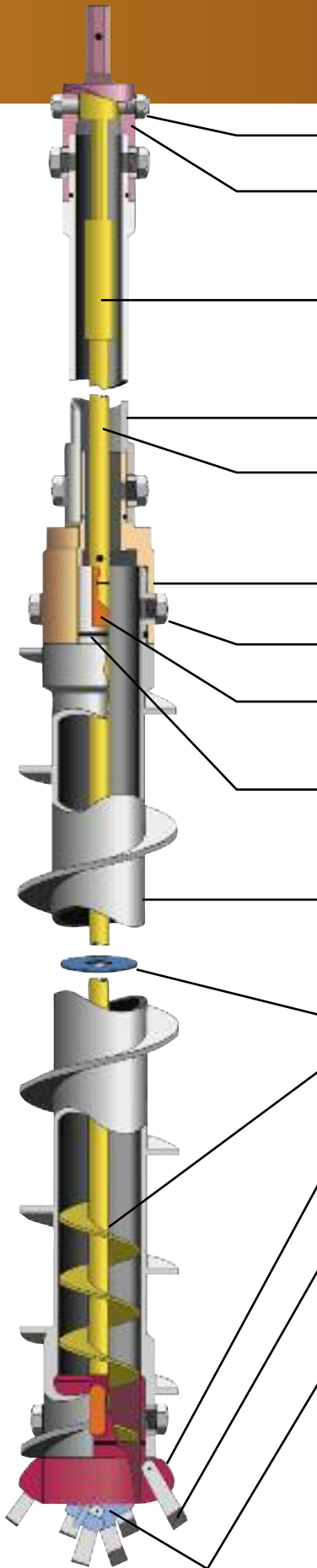
CME's center hexagon drive system with reverse flighting lead stem provides an open area between the center head and the inside wall of the hollow auger. This helps to prevent sand from bridging in the annulus of the auger. The reverse flighting on the lead center stem also works against sand trying to move up inside the auger column.

Special alloy steel for maximum durability

CME's hexagon rods are made from special alloy steel and are heat treated for maximum strength and durability. Center hexagon rod systems are available for use with all CME hollow stem augers 3 1/4" (8.3 cm) I.D. and larger.



Hexagon Drive Assembly



Drive cap bolt and nut - Connects drive cap to slide connector.

Drive cap - The CME hollow auger drive cap has a shank to fit the drill spindle adaptor assembly and a keyed auger box coupling that fits over a hollow auger pin coupling.

Slide connector - Connects drive cap to internal hex rod assembly. When an auger coupling is disconnected, the slide connector allows you to raise the auger above the joint and access the internal hex rod connection.

Auger stem - Extension which connects the drive cap to the auger sub.

Hex rod drill stem - Drill stem with hexagon pin and box connections which are secured with a drive pin. Since it has no threads, hexagon connection will not unscrew during reverse rotation.

Auger sub - Adapts auger stem to larger diameter hollow auger.

Auger connector bolt - Secures hollow auger connections.

Key-way - Allows augers to be rotated in forward or reverse under full rotary power while applying down pressure or retract forces to the auger column.

Patented O-ring seal - O-ring seal installed in groove on auger pin helps prevent contaminants from leaking into the auger column and drilling fluids from leaking out.

Hollow stem auger section - Auger flighting diameters and pitch are designed for maximum conveyance of soil cuttings with a minimum of drilling torque. Entire length of flighting is hardsurfaced for long-term abrasive wear resistance.

Guide ring - Keeps drill stem centered inside hollow stem auger column.

Lead center stem - Drill stem with unique reverse flighting helps prevent cuttings from plugging the bottom of the auger column. If cuttings do enter the auger column, reverse flighting allows you to rotate and easily pull out.

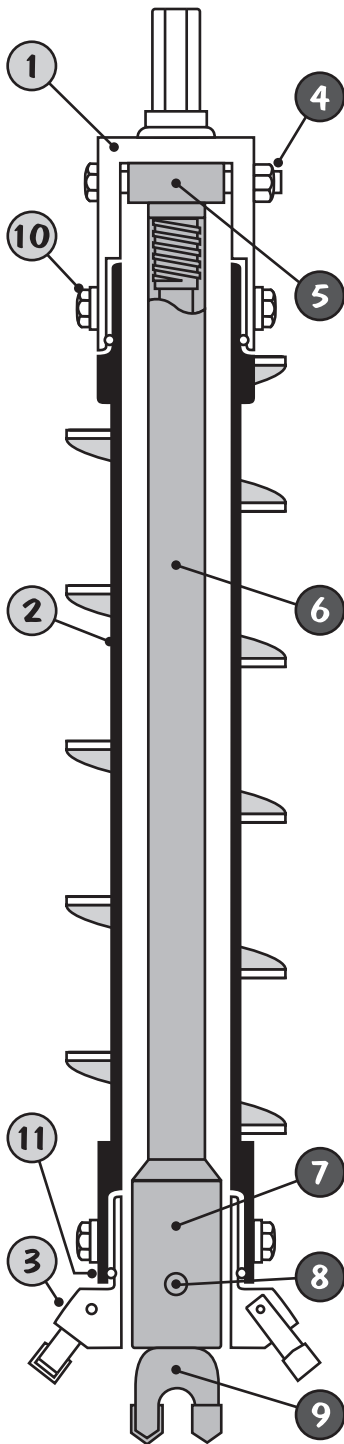
Auger head - Multi-use hollow auger head with replaceable forged steel, tungsten carbide tipped teeth.

Replaceable carbide insert tooth - Easily changeable forged steel, tungsten carbide tipped teeth feature the best combination of hardness and durability for optimum cutting efficiency and long life.

Center head - Center heads used with 2 1/4" (5.7 cm) through 3 3/4" (9.5 cm) ID hollow augers are completely replaceable. Center heads used with 4 1/4" (10.8 cm) ID hollow augers can be either completely replaceable or have replaceable teeth. Center heads used with larger hollow augers have replaceable teeth.

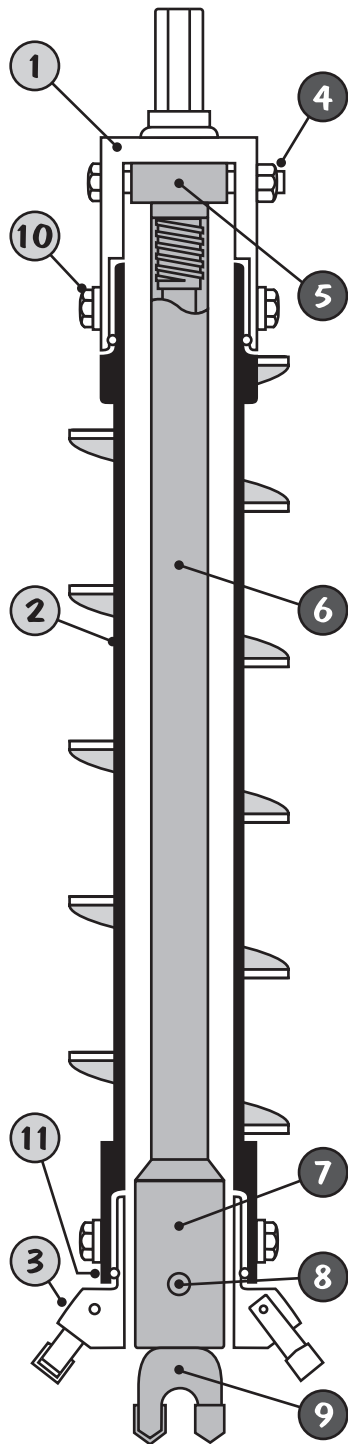


Augers



CME 2.25" ID HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	21001	Drive cap 2.25" 1.625" hex
2	21007	Hollow stem auger, 2.25" ID x 5.625" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and auger connector
3	21010	Hollow auger head, 2.25" ID x 6.25" OD with CME keyed coupling, including four 5T teeth
4	21011	Bolt with nut 2.25", for Rod to cap adapter
5	21014	Rod to cap adapter, 2.25", AWJ pin
6	30038	Drill rod, AWJ, 5' Note: Other rod sizes available.
7	21019	Pilot assembly with center head, 2.25", AWJ
8	21023	Center head pin for pilot assembly
9	21022	Center head for pilot assembly
10	21025	Auger connector
11	21024	Auger seal, 2.25"
	21824	Auger connector wrench
	21041	Auger handling hook
	32270	Hoisting swivel, Drill rod, AWJ
	21039	Auger holding fork
	21087	Rod slips, AWJ
	21042	Insert tap
	19021	Auger tooth 5T
	21062	Repair pin, 2.25"
	21065	Repair box, 2.25"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert

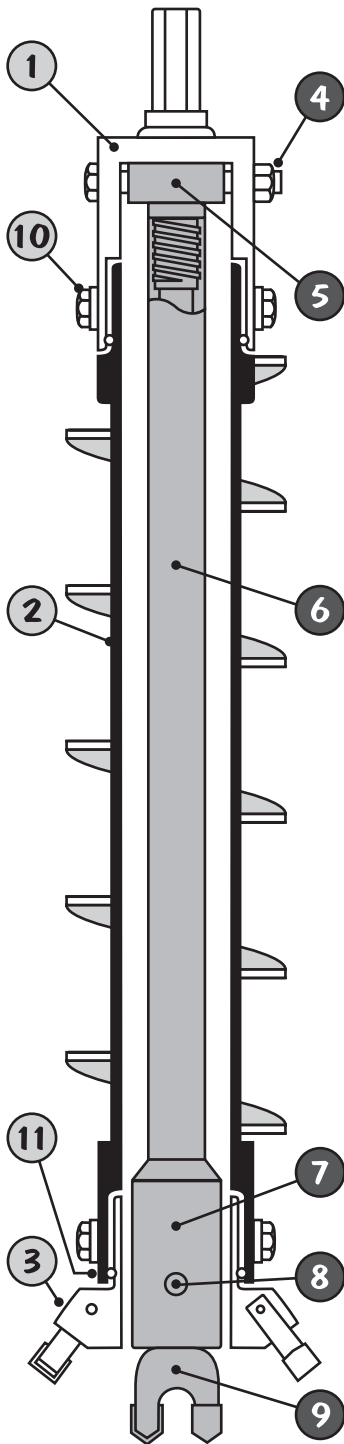


CME 2.75" ID HOLLOW STEM AUGER TOOLS

Ref. #	Part No.	Description
1	21089	Drive cap 2.75" 1.625" hex
2	21095	Hollow stem auger, 2.75" ID x 6.125" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and auger connector
3	21098	Hollow auger head, 2.75" ID x 6.75" OD with CME keyed coupling including four 5T teeth
4	21099	Bolt with nut 2.75", for Rod to cap adapter
5	21102	Rod to cap adapter, 2.75", AWJ pin
6	30038	Drill rod, AWJ, 5' Note: Other rod sizes available.
7	21111	Pilot assembly with center head, 2.75", AWJ
8	21119	Center head pin for pilot assembly
9	19001	Center head for pilot assembly
10	21025	Auger connector
11	21120	Auger seal, 2.75"
	21824	Auger connector wrench
	21041	Auger handling hook
	32270	Hoisting swivel, Drill rod, AWJ
	21135	Auger holding fork
	21132	Rod slips, AWJ
	21042	Insert tap
	19021	Auger tooth 5T
	21161	Repair pin, 2.75"
	21164	Repair box, 2.75"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert

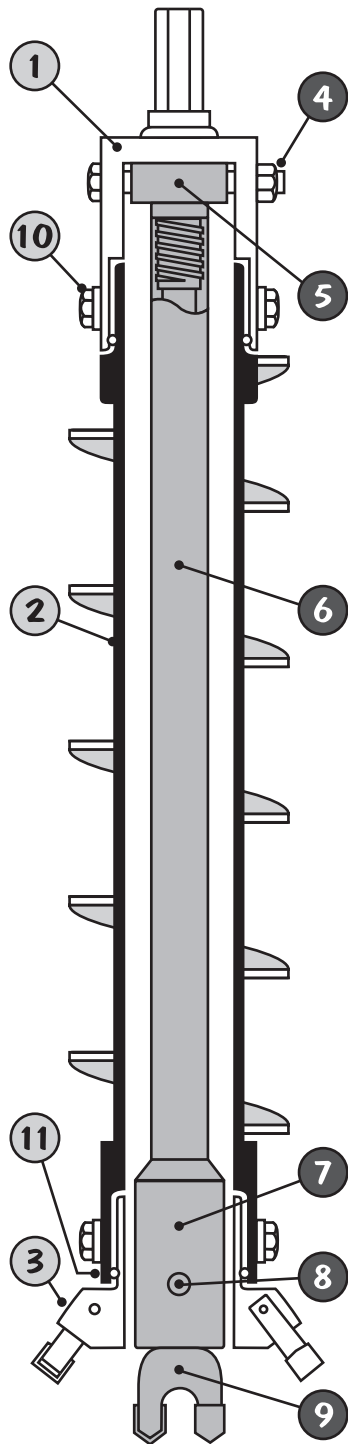


Augers



CME 3.25" ID HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	21263	Drive cap 3.25" 1.625" hex
2	21191	Hollow stem auger, 3.25" ID x 6.625" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and auger connector
3	21194	Hollow auger head, 3.25" ID x 7.25" OD with CME keyed coupling, including four 5T teeth
4	21195	Bolt with nut 3.25", for Rod to cap adapter
5	21198	Rod to cap adapter, 3.25", AWJ pin
6	30038	Drill rod, AWJ, 5' Note: Other rod sizes available.
7	21207	Pilot assembly with center head, 3.25", AWJ
8	21215	Center head pin for pilot assembly
9	21214	Center head for pilot assembly
10	21025	Auger connector
11	21216	Auger seal, 3.25"
	21824	Auger connector wrench
	21041	Auger handling hook
	32270	Hoisting swivel, Drill rod, AWJ
	21233	Auger holding fork
	21228	Rod slips, AWJ
	21042	Insert tap
	19021	Auger tooth 5T
	21259	Repair pin, 3.25"
	21262	Repair box, 3.25"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert

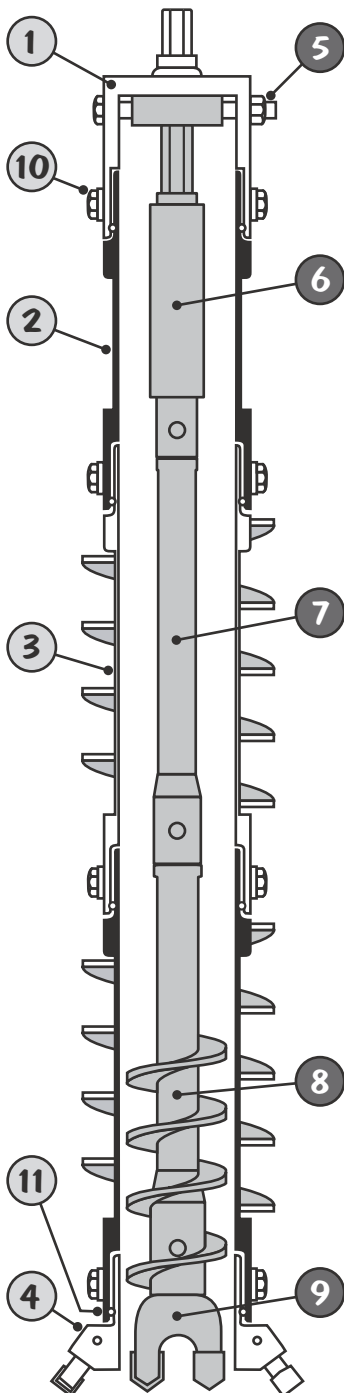


CME 3.25" ID HEAVY-DUTY HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	21900	Drive cap 3.25" HD 1.625" hex
2	21908	Hollow stem auger, 3.25" ID x 6.625" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
3	21911	Hollow auger head, 3.25" ID x 7.25" OD with CME HD keyed coupling, including four 5T teeth
4	21195	Bolt with nut 3.25", for Rod to cap adapter
5	21198	Rod to cap adapter, 3.25", AWJ pin
6	30038	Drill rod, AWJ, 5' Note: Other rod sizes available.
7	21207	Pilot assembly with center head, 3.25", AWJ
8	21215	Center head pin for pilot assembly
9	21214	Center head for pilot assembly
10	21913	Auger connector HD
11	21912	Auger seal, 3.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	32270	Hoisting swivel, Drill rod, AWJ
	21233	Auger holding fork
	21228	Rod slips, AWJ
	21916	Insert tap HD
	19021	Auger tooth 5T
	21959	Repair pin, 3.25" HD
	21960	Repair box, 3.25" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

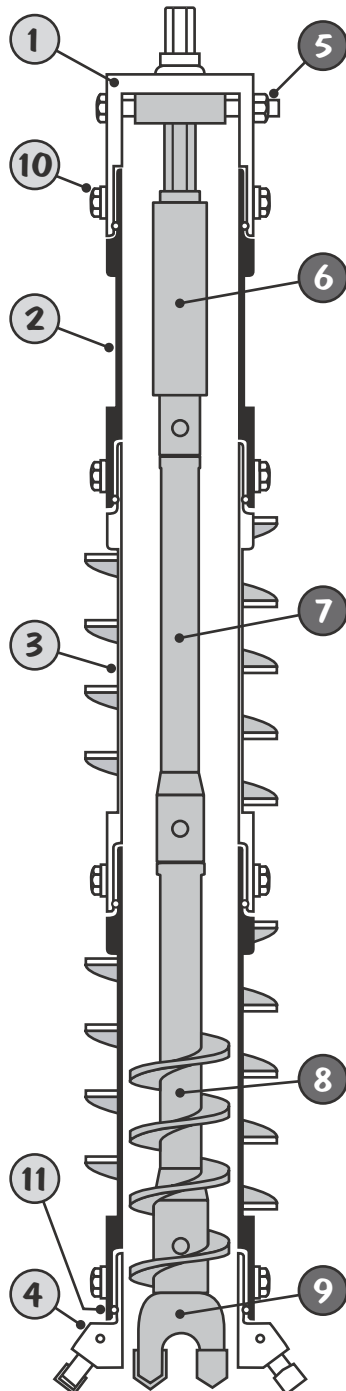


Augers



CME 3.25" HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	21263	Drive cap 3.25" 1.625" hex
2	21275	Hollow auger stem 3.25" x 2.0'
3	21191	Hollow stem auger, 3.25" ID x 6.625" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and auger connector
4	21194	Hollow auger head, 3.25" ID x 7.25" OD with CME keyed coupling, including four 5T teeth
5	21195	Bolt with nut 3.25", for Slide connector
6	15302	Slide connector 3.25" 1.625" hex
7	19240	Drill stem with drive pin 1.625" hex x 5'
8	15305	Lead center stem 3.25" LH 1.625" hex
9	21214	Center head for lead center stem
10	21025	Auger connector
11	21216	Auger seal, 3.25"
	21824	Auger connector wrench
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21233	Auger holding fork
	21042	Insert tap
	19021	Auger tooth 5T
	15036	Drive pin DP2000 short
	21259	Repair pin, 3.25"
	21262	Repair box, 3.25"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert

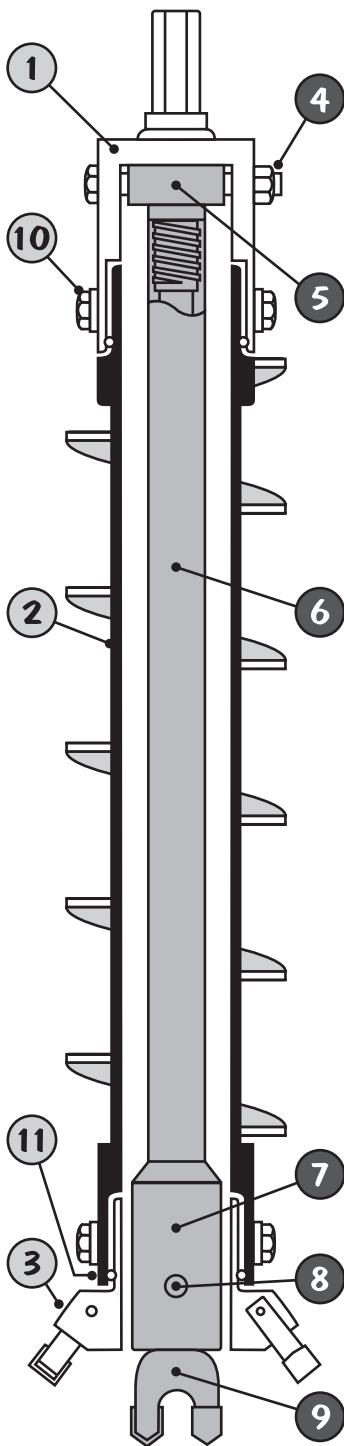


CME 3.25" HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	21900	Drive cap 3.25" HD 1.625" hex
2	21920	Hollow auger stem 3.25" HD x 2.0'
3	21908	Hollow stem auger, 3.25" ID x 7.25" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
4	21911	Hollow auger head, 3.25" ID x 8.00" OD with CME HD keyed coupling, including four 5T teeth
5	21195	Bolt with nut 3.25", for Slide connector
6	15302	Slide connector 3.25" 1.625" hex
7	19240	Drill stem with drive pin 1.625" hex x 5'
8	15305	Lead center stem 3.25" LH 1.625" hex
9	21214	Center head for lead center stem
10	21913	Auger connector HD
11	21912	Auger seal, 3.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21233	Auger holding fork
	21916	Insert tap HD
	19021	Auger tooth 5T
	15036	Drive pin DP2000 short
	21959	Repair pin, 3.25" HD
	21960	Repair box, 3.25" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

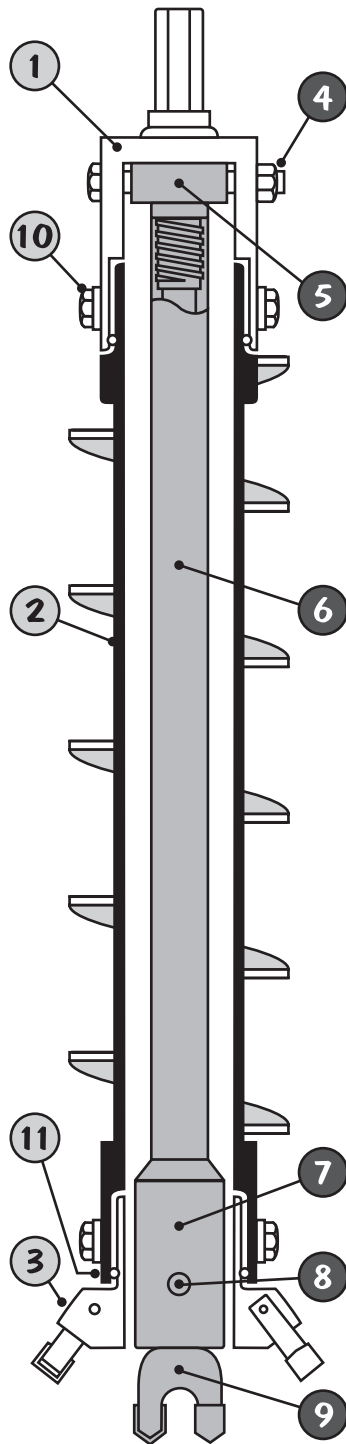


Augers



CME 3.75" ID HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	21410	Drive cap 3.75" 1.625" hex
2	21338	Hollow stem auger, 3.75" ID x 7.125" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and auger connector
3	21341	Hollow auger head, 3.75" ID x 7.75" OD with CME keyed coupling, including four 5T teeth
4	21342	Bolt with nut 3.75" for Rod to cap adapter
5	21345	Rod to cap adapter, 3.75", AWJ pin
6	30038	Drill rod, AWJ, 5' Note: Other rod sizes available.
7	21354	Pilot assembly with center head, 3.75", AWJ
8	21362	Center head pin for pilot assembly
9	21214	Center head for pilot assembly
10	21025	Auger connector
11	21363	Auger seal, 3.75"
	21824	Auger connector wrench
	21041	Auger handling hook
	32270	Hoisting swivel, Drill rod, AWJ
	21380	Auger holding fork
	21375	Rod slips, AWJ
	21042	Insert tap
	19021	Auger tooth 5T
	21406	Repair pin, 3.75"
	21409	Repair box, 3.75"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert

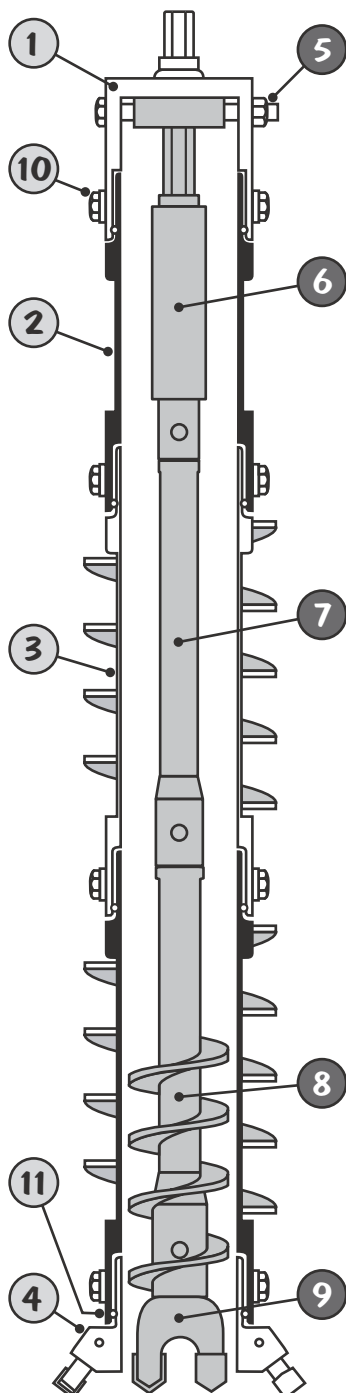


CME 3.75" ID HEAVY-DUTY HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	21976	Drive cap 3.75" HD 1.625" hex
2	21984	Hollow stem auger, 3.75" ID x 7.125" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
3	21987	Hollow auger head, 3.75" ID x 7.75" OD with CME HD keyed coupling, including four 5T teeth
4	21342	Bolt with nut 3.75" for Rod to cap adapter
5	21345	Rod to cap adapter, 3.75", AWJ pin
6	30038	Drill rod, AWJ, 5' Note: Other rod sizes available.
7	21354	Pilot assembly with center head, 3.75", AWJ
8	21362	Center head pin for pilot assembly
9	21214	Center head for pilot assembly
10	21913	Auger connector HD
11	21988	Auger seal, 3.75" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	32270	Hoisting swivel, Drill rod, AWJ
	21380	Auger holding fork
	21375	Rod slips, AWJ
	21916	Insert tap HD
	19021	Auger tooth 5T
	22031	Repair pin, 3.75" HD
	22030	Repair box, 3.75" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

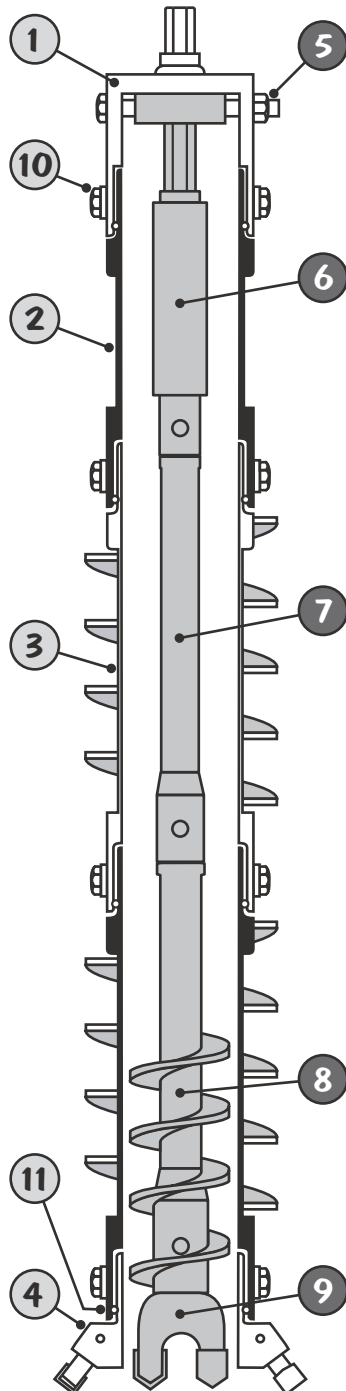


Augers



CME 3.75" HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	21410	Drive cap 3.75" 1.625" hex
2	21422	Hollow auger stem 3.75" x 2.0'
3	21338	Hollow stem auger, 3.75" ID x 7.125" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and auger connector
4	21341	Hollow auger head, 3.75" ID x 7.75" OD with CME keyed coupling, including four 5T teeth
5	21342	Bolt with nut 3.75", for Slide connector
6	15308	Slide connector 3.75" 1.625" hex
7	19240	Drill stem with drive pin 1.625" hex x 5'
8	15310	Lead center stem 3.75" LH 1.625" hex
9	21214	Center head for lead center stem
10	21025	Auger connector
11	21363	Auger seal, 3.75"
	21824	Auger connector wrench
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21380	Auger holding fork
	21042	Insert tap
	19021	Auger tooth 5T
	15036	Drive pin DP2000 short
	21406	Repair pin, 3.75"
	21409	Repair box, 3.75"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert

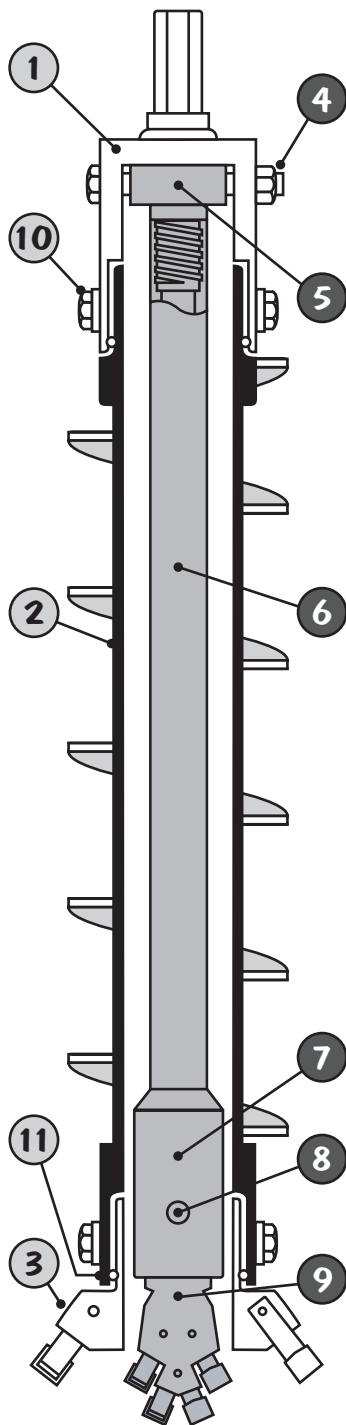


CME 3.75" HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	21976	Drive cap 3.75" HD 1.625" hex
2	21991	Hollow auger stem 3.75" HD x 2.0'
3	21984	Hollow stem auger, 3.75" ID x 7.75" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
4	21987	Hollow auger head, 3.75" ID x 8.50" OD with CME HD keyed coupling, including four 5T teeth
5	21342	Bolt with nut 3.75", for Slide connector
6	15308	Slide connector 3.75" 1.625" hex
7	19240	Drill stem with drive pin 1.625" hex x 5'
8	15310	Lead center stem 3.75" LH 1.625" hex
9	21214	Center head for lead center stem
10	21913	Auger connector HD
11	21988	Auger seal, 3.75" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21380	Auger holding fork
	21916	Insert tap HD
	19021	Auger tooth 5T
	15036	Drive pin DP2000 short
	22031	Repair pin, 3.75" HD
	22030	Repair box, 3.75" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

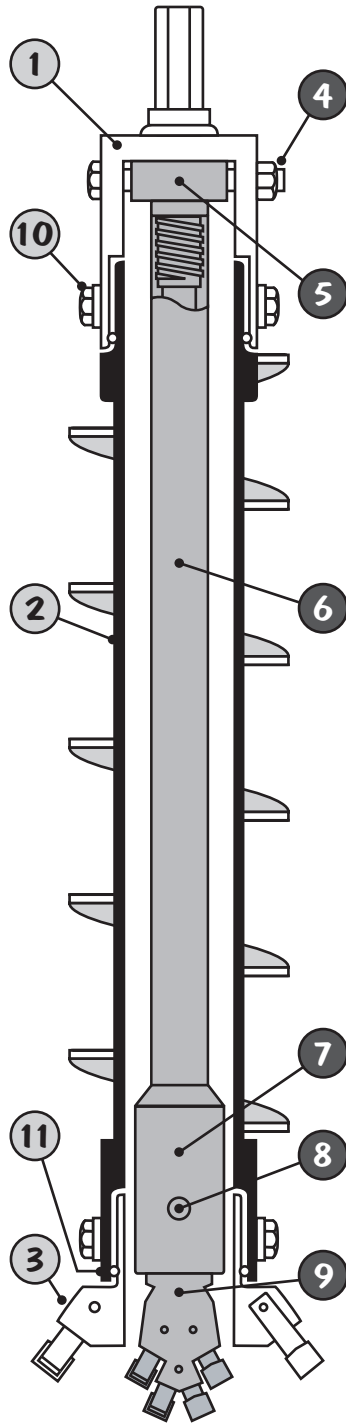


Augers



CME 4.25" ID HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	21469	Drive cap 4.25" 1.625" hex
2	21475	Hollow stem auger, 4.25" ID x 7.625" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and two auger connectors
3	21478	Hollow auger head, 4.25" ID x 8.25" OD with CME keyed coupling, including four 5T teeth
4	21479	Bolt with nut 4.25" for Rod to cap adapter
5	21488	Rod to cap adapter, 4.25", NWJ pin
6	30729	Drill rod, NWJ, 5' Note: Other rod sizes available.
7	21497	Pilot assembly with center head, 4.25", NWJ
8	21499	Center head pin for pilot assembly
9	21498	Center head for lead center stem with four 5T auger teeth, 2 short, 2 standard
10	21025	Auger connector
11	21500	Auger seal, 4.25"
	21824	Auger connector wrench
	21041	Auger handling hook
	32275	Hoisting swivel, Drill rod, NWJ
	21517	Auger holding fork
	21515	Rod slips, NWJ
	21042	Insert tap
	19021	Auger tooth 5T
	19022	Auger tooth 5T short
	21543	Repair pin, 4.25"
	21546	Repair box, 4.25"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert

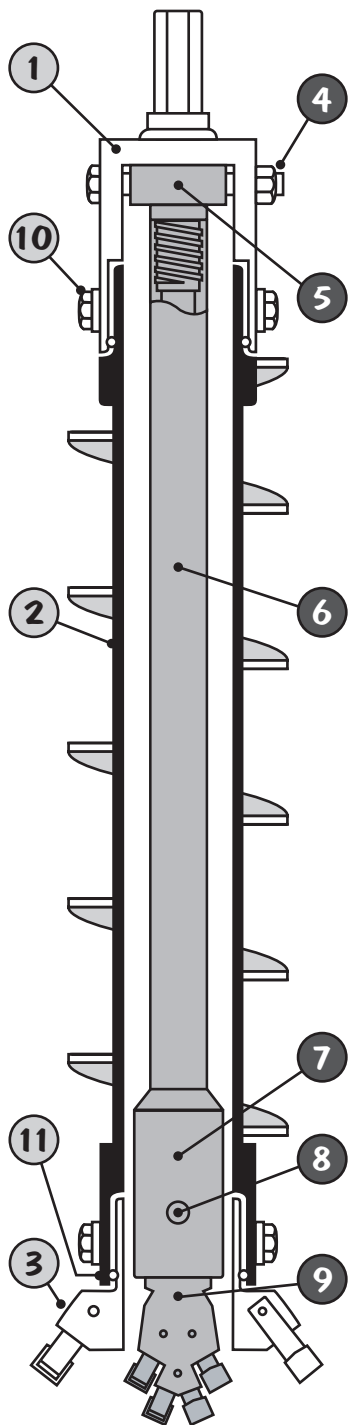


CME 4.25" ID HEAVY-DUTY HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22055	Hollow stem auger, 4.25" ID x 8.25" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
3	22058	Hollow auger head, 4.25" ID x 9.00" OD with CME HD keyed coupling, including four 5T teeth
4	21479	Bolt with nut 4.25" for Rod to cap adapter
5	21488	Rod to cap adapter, 4.25", NWJ pin
6	30729	Drill rod, NWJ, 5' Note: Other rod sizes available.
7	21497	Pilot assembly with center head, 4.25", NWJ
8	21499	Center head pin for pilot assembly
9	21498	Center head for lead center stem with four 5T auger teeth, 2 short, 2 standard
10	21913	Auger connector HD
11	22059	Auger seal, 4.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	32275	Hoisting swivel, Drill rod, NWJ
	21517	Auger holding fork
	21515	Rod slips, NWJ
	21916	Insert tap HD
	19021	Auger tooth 5T
	19022	Auger tooth 5T short
	22102	Repair pin, 4.25" HD
	22103	Repair box, 4.25" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD



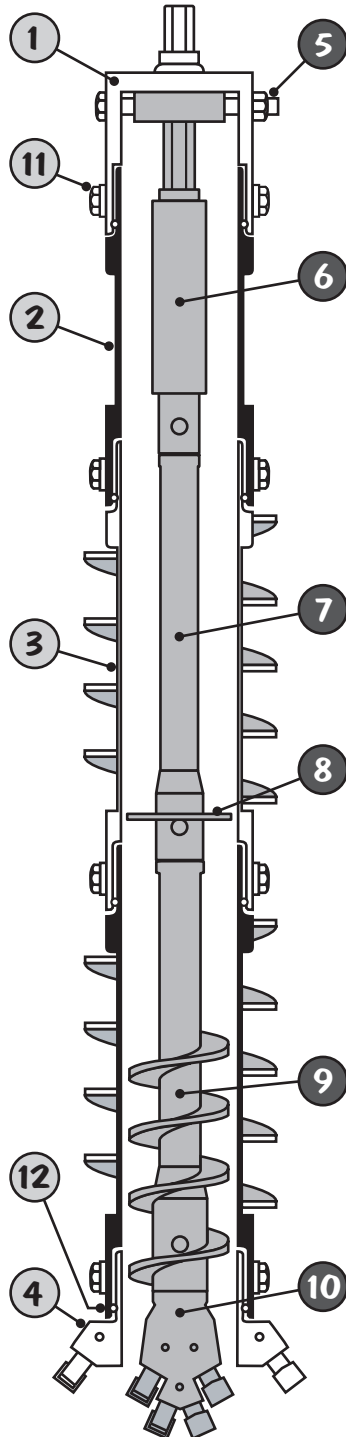
Augers



CME 4.25" ID EXTRA HEAVY-DUTY HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22085	Hollow stem auger, 4.25" ID x 8.25" OD x 5' length with CME XHD keyed coupling, hardsurfaced, including auger seal and two auger connectors
3	22058	Hollow auger head, 4.25" ID x 9.00" OD with CME HD keyed coupling, including four 5T teeth.
4	21479	Bolt with nut 4.25" for Rod to cap adapter
5	21488	Rod to cap adapter, 4.25", NWJ pin
6	30729	Drill rod, NWJ, 5' NOTE: Other rod sizes available.
7	21497	Pilot assembly with center head, 4.25", NWJ
8	21499	Center head pin for pilot assembly
9	21498	Center head for lead center stem with four 5T auger teeth, 2 short, 2 standard
10	21913	Auger connector HD
11	22059	Auger seal, 4.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	32275	Hoisting swivel, Drill rod, NWJ
	21517	Auger holding fork
	21515	Rod slips, NWJ
	21916	Insert tap HD
	19021	Auger tooth 5T
	19022	Auger tooth 5T short
	22098	Repair pin, 4.25" XHD
	22097	Repair box, 4.25" XHD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

NOTE: This Auger available in Super XHD Series.

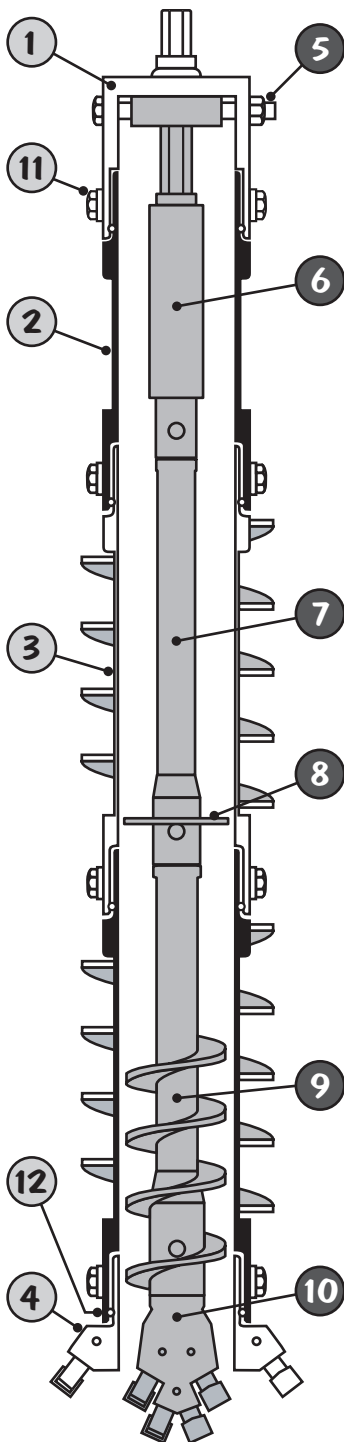


CME 4.25" HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	21469	Drive cap 4.25" 1.625" hex
2	21503	Hollow auger stem 4.25" x 2.0'
3	21475	Hollow stem auger, 4.25" ID x 7.625" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and auger connector
4	21478	Hollow auger head, 4.25" ID x 8.25" OD with CME keyed coupling, including four 5T teeth
5	21479	Bolt with nut 4.25", for Slide connector
6	15313	Slide connector 4.25" 1.625" hex
7	19240	Drill stem with drive pin 1.625" hex x 5'
8	15536	Guide Ring 4.25"
9	15315	Lead center stem 4.25" LH 1.625" hex
10	21498	Center head for lead center stem with four 5T auger teeth, 2 short, 2 standard
11	21025	Auger connector
12	21500	Auger seal, 4.25"
	21824	Auger connector wrench
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21517	Auger holding fork
	21042	Insert tap
	19021	Auger tooth 5T
	19022	Auger tooth 5T short
	15036	Drive pin DP2000 short
	21543	Repair pin, 4.25"
	21546	Repair box, 4.25"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert



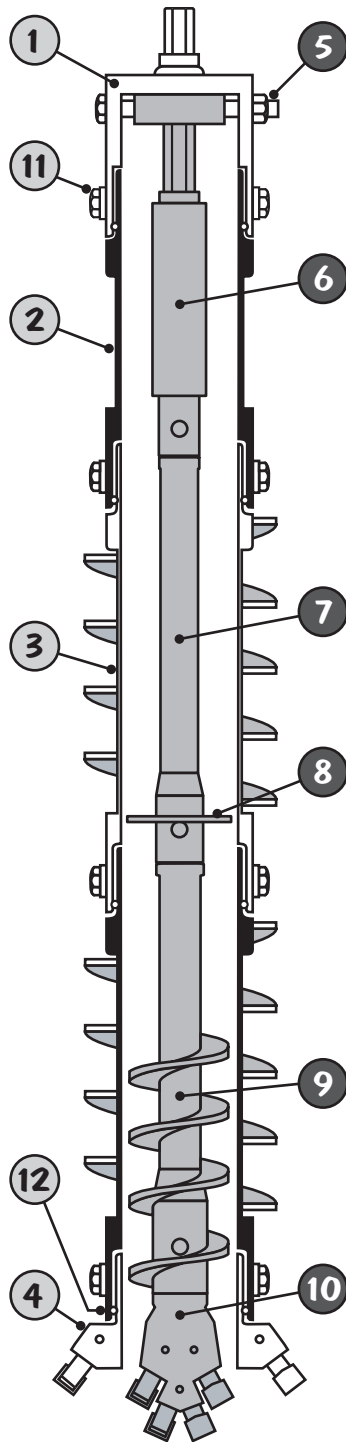
Augers



CME 4.25" HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22090	Hollow auger stem 4.25" HD x 2.0'
3	22055	Hollow stem auger, 4.25" ID x 8.25" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and auger connector
4	22058	Hollow auger head, 4.25" ID x 9.00" OD with CME HD keyed coupling, including four 5T teeth
5	21479	Bolt with nut 4.25", for Slide connector
6	15313	Slide connector 4.25" 1.625" hex
7	19240	Drill stem with drive pin 1.625" hex x 5'
8	15536	Guide Ring 4.25"
9	15315	Lead center stem 4.25" LH 1.625" hex
10	21498	Center head for lead center stem with four 5T auger teeth, 2 short, 2 standard
11	21913	Auger connector HD
12	22059	Auger seal, 4.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21517	Auger holding fork
	21916	Insert tap HD
	19021	Auger tooth 5T
	19022	Auger tooth 5T short
	15036	Drive pin DP2000 short
	22102	Repair pin, 4.25" HD
	22103	Repair box, 4.25" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

NOTE: This Auger available in Super XHD Series.



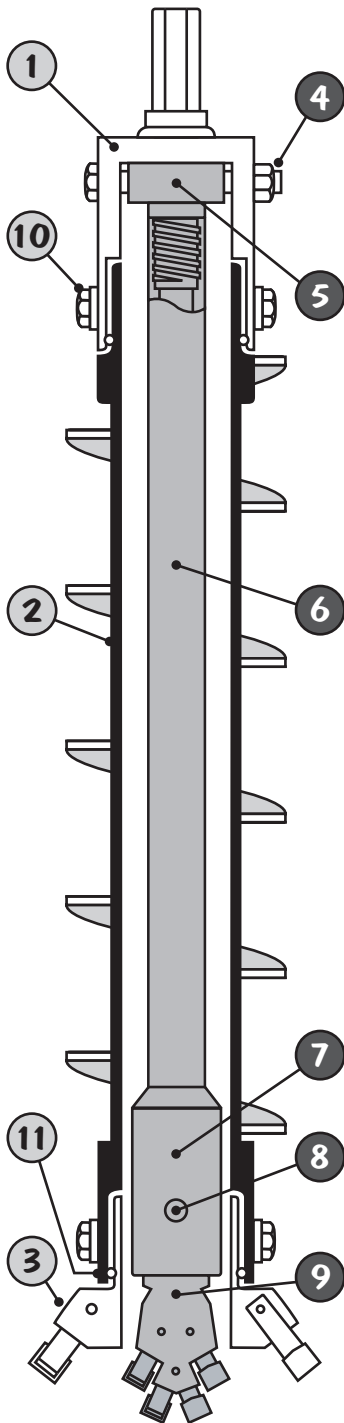
CME 4.25" EXTRA HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22090	Hollow auger stem 4.25" XHD x 2.0'
3	22085	Hollow stem auger, 4.25" ID x 8.25" OD x 5' length with CME XHD keyed coupling, hardsurfaced, including auger seal and auger connector
4	22058	Hollow auger head, 4.25" ID x 9.00" OD with CME HD keyed coupling, including four 5T teeth
5	21479	Bolt with nut 4.25", for Slide connector
6	15313	Slide connector 4.25" 1.625" hex
7	19240	Drill stem with drive pin 1.625" hex x 5'
8	15536	Guide Ring 4.25"
9	15315	Lead center stem 4.25" LH 1.625" hex
10	21498	Center head for lead center stem with four 5T auger teeth, 2 short, 2 standard
11	21913	Auger connector HD
12	22059	Auger seal, 4.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21517	Auger holding fork
	21916	Insert tap HD
	19021	Auger tooth 5T
	19022	Auger tooth 5T short
	15036	Drive pin DP2000 short
	22098	Repair pin, 4.25" XHD
	22097	Repair box, 4.25" XHD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

NOTE: This Auger available in Super XHD Series.

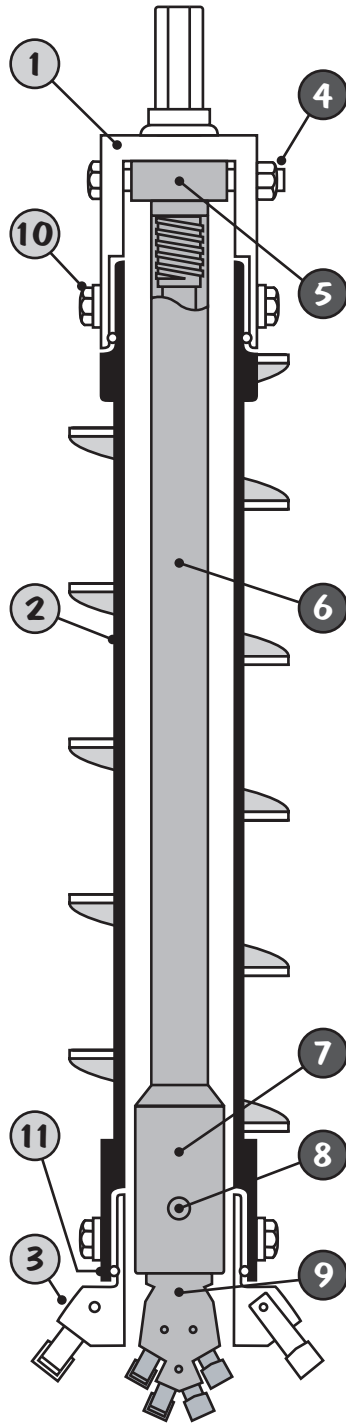


Augers



CME 6.25" ID HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	21674	Drive cap 6.25" 1.625" hex
2	21680	Hollow stem auger, 6.25" ID x 9.625" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and two auger connectors
3	21683	Hollow auger head, 6.25" ID x 10.50" OD with CME keyed coupling, including six 5T teeth
4	21684	Bolt with nut 6.25" for Rod to cap adapter
5	21693	Rod to cap adapter, 6.25", NWJ pin
6	30729	Drill rod, NWJ, 5' Note: Other rod sizes available.
7	21702	Pilot assembly with center head, 6.25", NWJ
8	21703	Center head pin for pilot assembly
9	19007	Center head for lead center stem with four 5T auger teeth
10	21025	Auger connector
11	22201	Auger seal, 6.25"
	21824	Auger connector wrench
	21041	Auger handling hook
	32275	Hoisting swivel, Drill rod, NWJ
	21721	Auger holding fork
	21519	Rod slips, NWJ
	21042	Insert tap
	19021	Auger tooth 5T
	21734	Repair pin, 6.25"
	21737	Repair box, 6.25"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert

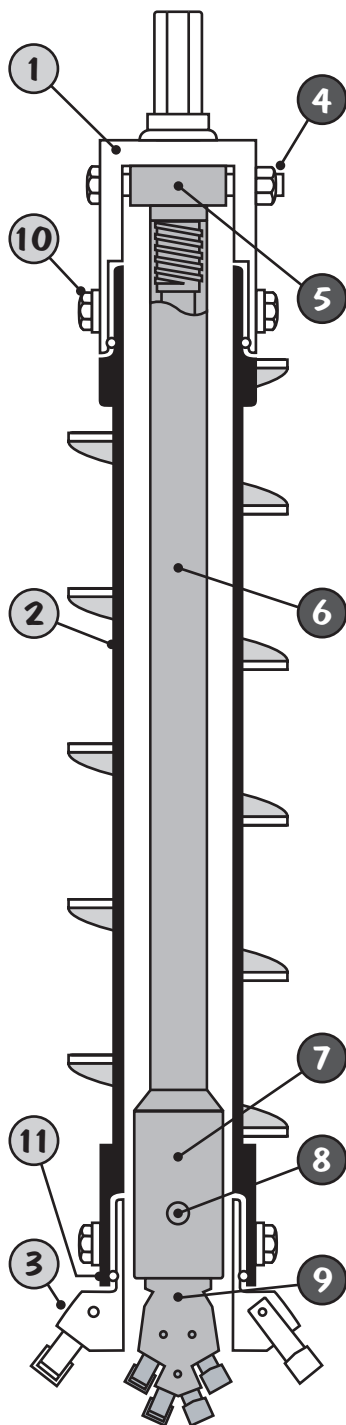


CME 6.25" ID HEAVY DUTY HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	22189	Drive cap 6.25" HD 1.625" hex
2	22197	Hollow stem auger, 6.25" ID x 10.25" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
3	22200	Hollow auger head, 6.25" ID x 11.00" OD with CME HD keyed coupling, including six 5T teeth
4	21684	Bolt with nut 6.25" for Rod to cap adapter
5	21693	Rod to cap adapter, 6.25", NWJ pin
6	30729	Drill rod, NWJ, 5' Note: Other rod sizes available.
7	21702	Pilot assembly with center head, 6.25", NWJ
8	21703	Center head pin for pilot assembly
9	19007	Center head for lead center stem with four 5T auger teeth
10	21913	Auger connector HD
11	22201	Auger seal, 6.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	32275	Hoisting swivel, Drill rod, NWJ
	21721	Auger holding fork
	21719	Rod slips, NWJ
	21916	Insert tap HD
	19021	Auger tooth 5T
	22244	Repair pin, 6.25" HD
	22246	Repair box, 6.25" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD



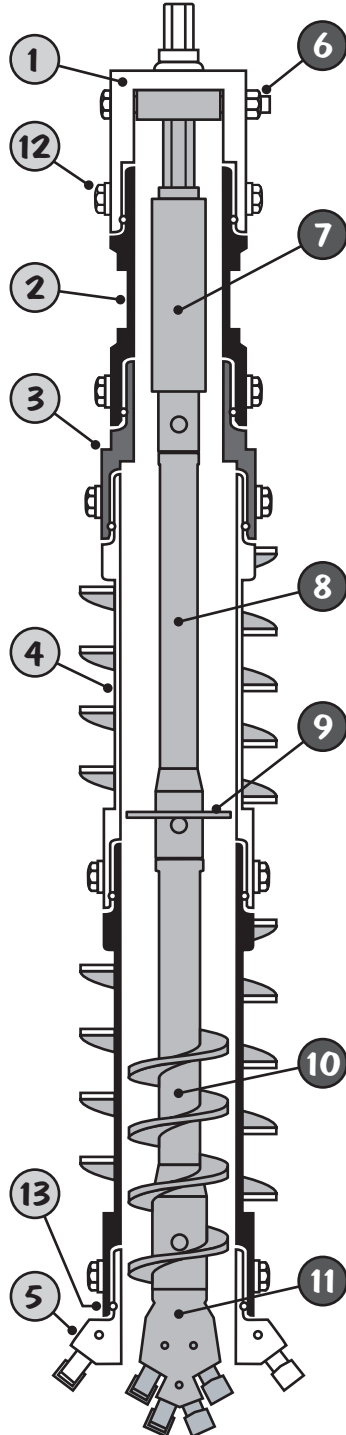
Augers



CME 6.25" ID EXTRA HEAVY-DUTY HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	22189	Drive cap 6.25" HD 1.625" hex
2	22227	Hollow stem auger, 6.25" ID x 10.25" OD x 5' length with CME XHD keyed coupling, hardsurfaced, including auger seal and two auger connectors
3	22200	Hollow auger head, 6.25" ID x 11.00" OD with CME XHD keyed coupling, including six 5T teeth
4	21684	Bolt with nut 6.25" for Rod to cap adapter
5	21693	Rod to cap adapter, 6.25", NWJ pin
6	30729	Drill rod, NWJ, 5' Note: Other rod sizes available.
7	21702	Pilot assembly with center head, 6.25", NWJ
8	21703	Center head pin for pilot assembly
9	19007	Center head for lead center stem with four 5T auger teeth
10	21913	Auger connector HD
11	22201	Auger seal, 6.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	32275	Hoisting swivel, Drill rod, NWJ
	21721	Auger holding fork
	21719	Rod slips, NWJ
	21916	Insert tap HD
	19021	Auger tooth 5T
	22240	Repair pin, 6.25" XHD
	22239	Repair box, 6.25" XHD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

NOTE: This Auger available in Super XHD Series.

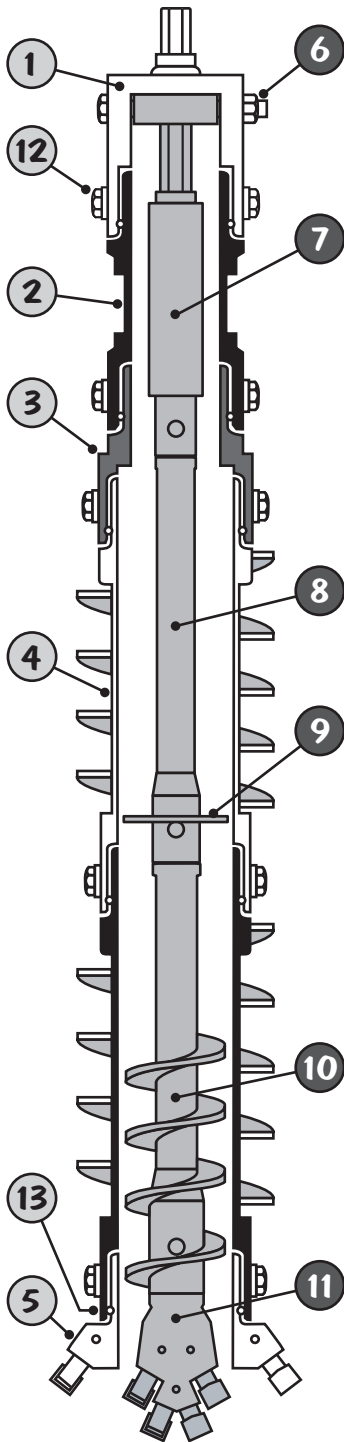


CME 6.25" HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	21469	Drive cap 4.25" 1.625" hex
2	21502	Hollow auger stem 4.25" x 1.5'
3	15248	Sub 6.25" box 4.25" pin
4	21680	Hollow stem auger, 6.25" ID x 9.625" OD x 5' length with CME keyed coupling, hardsurfaced, including auger seal and auger connector
5	21683	Hollow auger head, 6.25" ID x 10.50" OD with CME keyed coupling, including six 5T teeth
6	21479	Bolt with nut 4.25", for Slide connector
7	15313	Slide connector 4.25" 1.625" hex
8	19240	Drill stem with drive pin 1.625" hex x 5'
9	15397	Guide Ring 6.25"
10	15320	Lead center stem 6.25" LH 1.625" hex
11	19007	Center head for lead center stem with four 5T auger teeth
12	21025	Auger connector
13	22201	Auger seal, 6.25"
	21824	Auger connector wrench
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21721	Auger holding fork
	21042	Insert tap
	19021	Auger tooth 5T
	15036	Drive pin DP2000 short
	21734	Repair pin, 6.25"
	21737	Repair box, 6.25"
	21066	Repair shank, 1.625" hex for drive cap
	21067	Auger key
	21068	Threaded insert



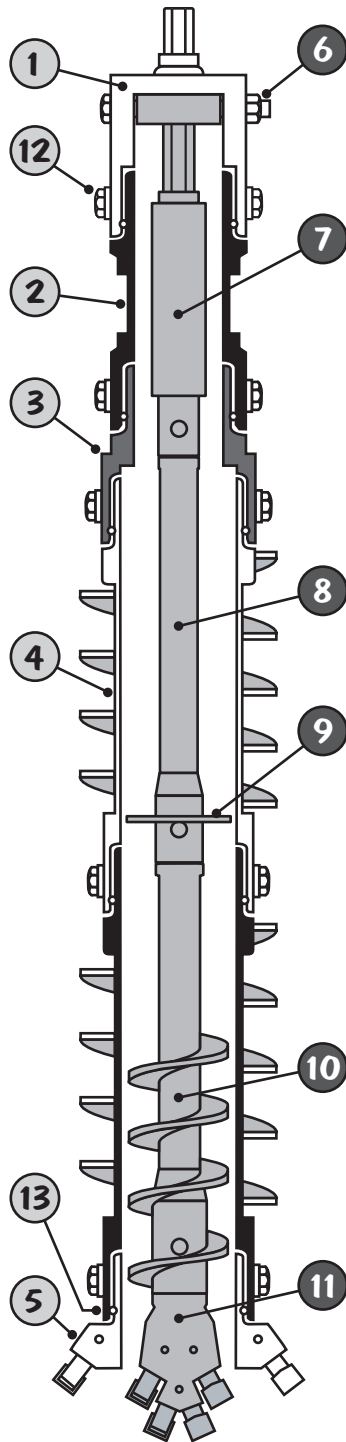
Augers



CME 6.25" HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22061	Hollow auger stem 4.25" HD x 1.5'
3	15371	Sub 6.25" HD box 4.25" HD pin
4	22197	Hollow stem auger, 6.25" ID x 10.25" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
5	22200	Hollow auger head, 6.25" ID x 11.00" OD with CME HD keyed coupling, including six 5T teeth
6	21479	Bolt with nut 4.25", for Slide connector
7	15313	Slide connector 4.25" 1.625" hex
8	19240	Drill stem with drive pin 1.625" hex x 5'
9	15397	Guide Ring 6.25"
10	15320	Lead center stem 6.25" LH 1.625" hex
11	19007	Center head for lead center stem with four 5T auger teeth
12	21913	Auger connector HD
13	22201	Auger seal, 6.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21721	Auger holding fork
	21916	Insert tap HD
	19021	Auger tooth 5T
	15036	Drive pin DP2000 short
	22244	Repair pin, 6.25" HD
	22246	Repair box, 6.25" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

NOTE: This Auger available in Super XHD Series.



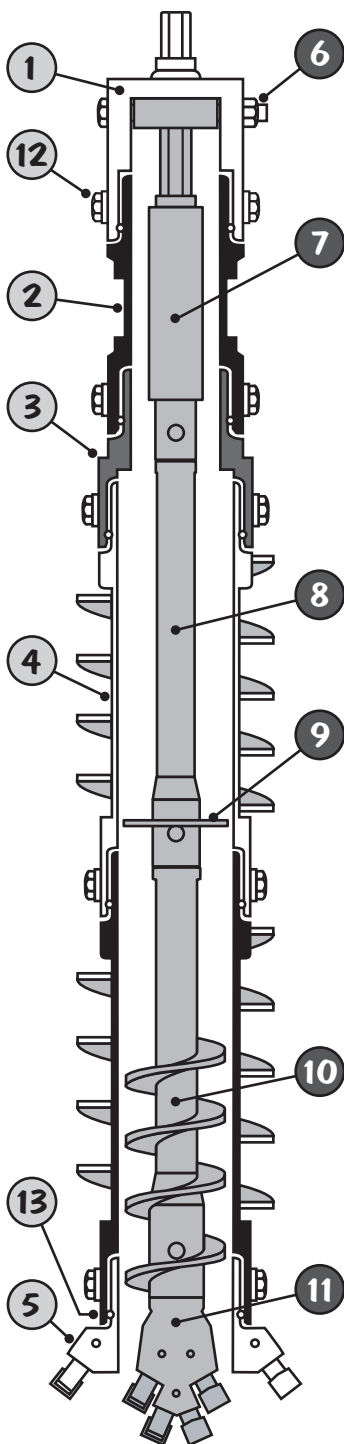
CME 6.25" EXTRA HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22089	Hollow auger stem 4.25" XHD x 1.5'
3	15371	Sub 6.25" HD box 4.25" HD pin
4	22227	Hollow stem auger, 6.25" ID x 10.25" OD x 5' length with CME XHD keyed coupling, hardsurfaced, including auger seal and two auger connectors
5	22200	Hollow auger head, 6.25" ID x 11.00" OD with CME HD keyed coupling, including six 5T teeth
6	21479	Bolt with nut 4.25", for Slide connector
7	15313	Slide connector 4.25" 1.625" hex
8	19240	Drill stem with drive pin 1.625" hex x 5'
9	15397	Guide Ring 6.25"
10	15320	Lead center stem 6.25" LH 1.625" hex
11	19007	Center head for lead center stem with four 5T auger teeth
12	21913	Auger connector HD
13	22201	Auger seal, 6.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21721	Auger holding fork
	21916	Insert tap HD
	19021	Auger tooth 5T
	15036	Drive pin DP2000 short
	22240	Repair pin, 6.25" XHD
	22239	Repair box, 6.25" XHD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

NOTE: This Auger available in Super XHD Series.

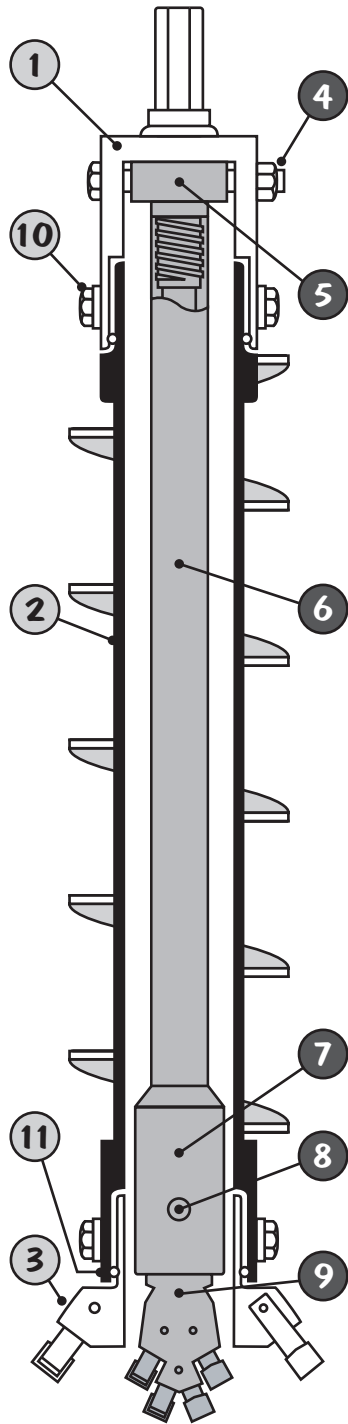


Augers



CME 7.25" EXTRA HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22089	Hollow auger stem 4.25" XHD x 1.5'
3	15382	Sub 7.25" HD box 4.25" XHD pin
4	22298	Hollow stem auger, 7.25" ID x 11.25" OD x 5' length with CME XHD keyed coupling, hardsurfaced, including auger seal and two auger connectors
5	22271	Hollow auger head, 7.25" ID x 12.00" OD with CME HD keyed coupling, including six 5T teeth
6	21479	Bolt with nut 4.25", for Slide connector
7	15313	Slide connector 4.25" 1.625" hex
8	19240	Drill stem with drive pin 1.625" hex x 5'
9	15396	Guide Ring 7.25"
10	15383	Lead center stem 7.25" LH 1.625" hex
11	19010	Center head for lead center stem with six 5T auger teeth
12	21913	Auger connector HD
13	22272	Auger seal, 7.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	22314	Auger holding fork
	21916	Insert tap HD
	19021	Auger tooth 5T
	15036	Drive pin DP2000 short
	22311	Repair pin, 7.25" XHD
	22310	Repair box, 7.25" XHD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

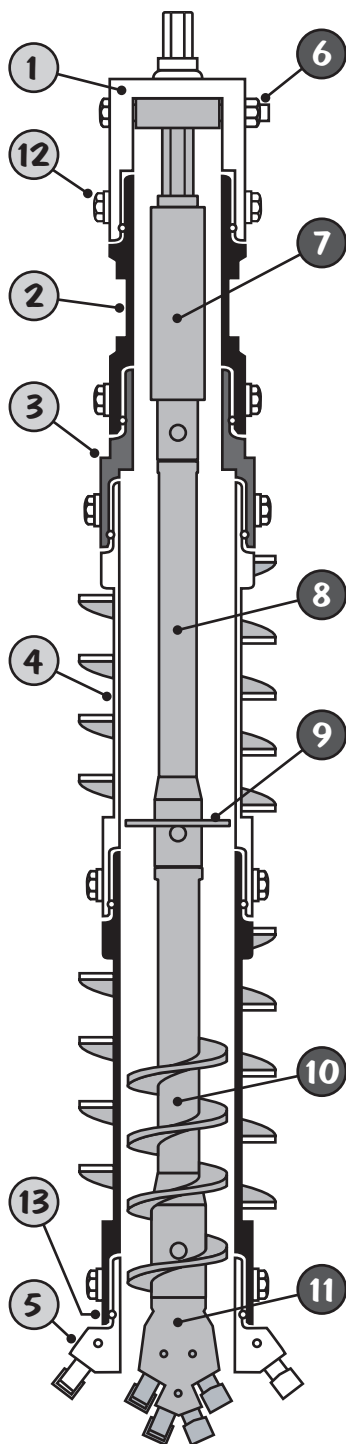


CME 8.25" ID HEAVY-DUTY HOLLOW STEM AUGER TOOLS

Ref. No.	Part No.	Description
1	21769	Drive cap 8.25" HD 1.625" hex
2	21775	Hollow stem auger, 8.25" ID x 12.25" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
3	21778	Hollow auger head, 8.25" ID x 13.00" OD with CME HD keyed coupling, including six 5T teeth
4	21779	Bolt with nut 8.25" for Rod to cap adapter
5	21783	Rod to cap adapter, 8.25", NWJ pin
6	30729	Drill rod, NWJ, 5' Note: Other rod sizes available.
7	21787	Pilot assembly with center head, 8.25", NWJ
8	21703	Center head pin for pilot assembly
9	19010	Center head for lead center stem with six 5T auger teeth
10	21913	Auger connector HD
11	21789	Auger seal, 8.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	32275	Hoisting swivel, Drill rod, NWJ
	21803	Auger holding fork
	21801	Rod slips, NWJ
	21916	Insert tap HD
	19021	Auger tooth 5T
	21835	Repair pin, 8.25" HD
	21836	Repair box, 8.25" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

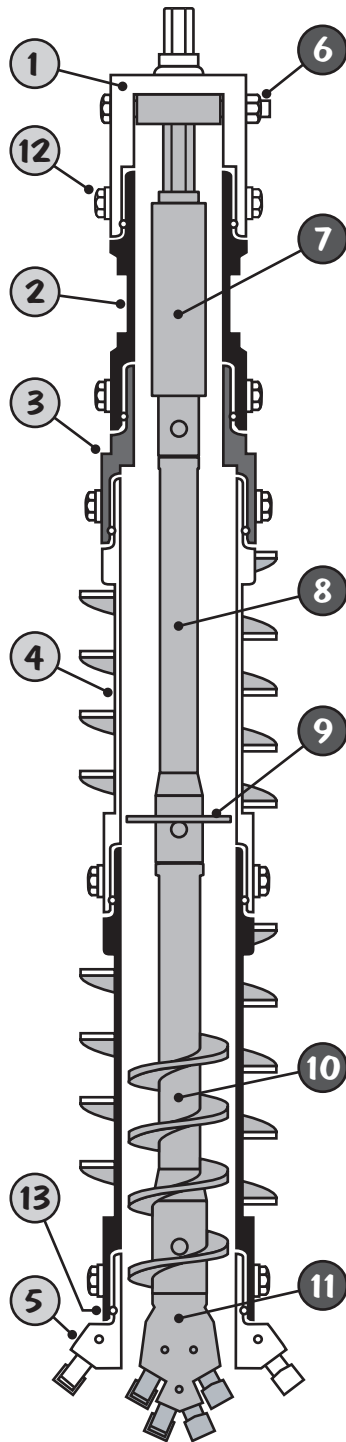


Augers



CME 8.25" HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22089	Hollow auger stem 4.25" HD x 1.5'
3	15372	Sub 8.25" HD box 4.25" HD pin
4	21775	Hollow stem auger, 8.25" ID x 12.25" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
5	21778	Hollow auger head, 8.25" ID x 13.00" OD with CME HD keyed coupling, including six 5T teeth
6	21479	Bolt with nut 4.25", for Slide connector
7	15313	Slide connector 4.25" 1.625" hex
8	19240	Drill stem with drive pin 1.625" hex x 5'
9	15489	Guide Ring 8.25"
10	15326	Lead center stem 8.25" LH 1.625" hex
11	19010	Center head for lead center stem with six 5T auger teeth
12	21913	Auger connector HD
13	21789	Auger seal, 8.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	21803	Auger holding fork
	21916	Insert tap HD
	19021	Auger tooth 5T
	15036	Drive pin DP2000 short
	21811	Repair pin, 8.25" HD
	21814	Repair box, 8.25" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD

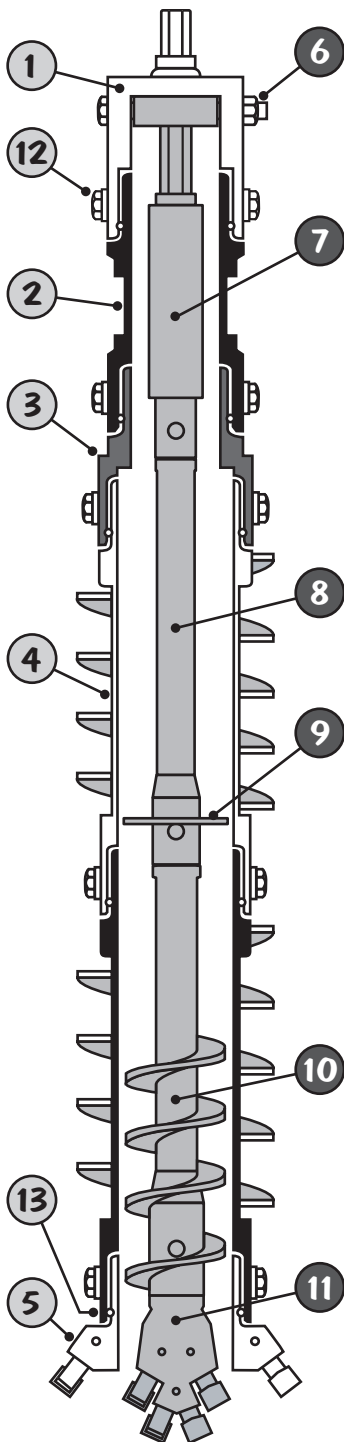


CME 10.25" HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE SYSTEM

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22089	Hollow auger stem 4.25" HD x 1.5'
3	15373	Sub 10.25" HD box 4.25" HD pin
4	22340	Hollow stem auger, 10.25" ID x 14.00" OD x 5' length with CME HD keyed coupling, hardsurfaced, including auger seal and two auger connectors
5	22343	Hollow auger head, 10.25" ID x 14.75" OD with CME HD keyed coupling, including six 5T teeth
6	21479	Bolt with nut 4.25", for Slide connector
7	15313	Slide connector 4.25" 1.625" hex
8	19240	Drill stem with drive pin 1.625" hex x 5'
9	15514	Guide Ring 10.25"
10	15388	Lead center stem 10.25" LH 1.625" hex
11	22385	Center head for lead center stem with four #37 wedges and twelve 72T auger teeth
12	21913	Auger connector HD
13	22344	Auger seal, 10.25" HD
	21825	Auger connector wrench HD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	22384	Auger holding fork
	21916	Insert tap HD
	19021	Auger tooth 5T
	15036	Drive Pin DP2000 Short
	19024	Auger tooth, 72T for 22385 center head
	19034	Wedge, #37
	22397	Repair pin, 10.25" HD
	22398	Repair box, 10.25" HD
	21066	Repair shank, 1.625" hex for drive cap
	21917	Auger key HD
	21915	Threaded insert HD



Augers




CME 12.25" EXTRA HEAVY DUTY HOLLOW STEM AUGER WITH CENTER HEXAGON DRIVE

Ref. No.	Part No.	Description
1	22047	Drive cap 4.25" HD 1.625" hex
2	22089	Hollow auger stem 4.25" HD x 1.5'
3	15562	Sub 12.25" XHD box 4.25" HD pin
4	22507	Hollow stem auger, 12.25" ID x 17.50" OD x 5' length with CME XHD keyed coupling, hardsurfaced, including auger seal and two auger connectors
5	22510	Hollow auger head, 12.25" ID x 18.50" OD with CME XHD keyed coupling, including twelve 5T teeth
6	21479	Bolt with nut 4.25", for Slide connector
7	15313	Slide connector 4.25" 1.625" hex
8	19240	Drill stem with drive pin 1.625" hex x 5'
9	15719	Guide Ring 10.25"
10	15582	Lead center stem 10.25" LH 1.625" hex
11	22385	Center head for lead center stem with four #37 wedges and twelve 72T auger teeth
12	22590	Auger connector XHD
13	22512	Auger seal, 10.25" XHD
	22602	Auger connector wrench XHD
	21041	Auger handling hook
	19264	Hoisting socket 1.625" hex
	22537	Auger holding fork
	22595	Insert tap XHD
	19021	Auger tooth 5T
	15036	Drive Pin DP2000 Short
	19024	Auger tooth, 72T for 22385 center head
	19034	Wedge, #37
	22524	Repair pin, 12.25" XHD
	22523	Repair box, 12.25" XHD
	21066	Repair shank, 1.625" hex for drive cap
	22592	Auger key XHD
	22591	Threaded insert XHD



HOLLOW STEM AUGER - TWO FOOT

Part No.	Description	Part No.	Description
21003	2.25"	22051	4.25" HD
21091	2.75"	22081	4.25" XHD
21187	3.25"	21676	6.25"
21265	3.25" (2-Hole)	22193	6.25" HD
21904	3.25" HD	22223	6.25" XHD
21334	3.75"	21771	8.25"
21412	3.75" (2-Hole)	22336	10.25"
21980	3.75" HD	22503	12.25"
21471	4.25"		



HOLLOW STEM DOUBLE FLIGHT LEAD AUGER - FIVE FOOT

Part No.	Description	Part No.	Description
22862	2.25"	21569	4.25"
21180	2.75"	22108	4.25" HD
21200	3.25"	22884	4.25" XHD
22946	3.25" (2-Hole)	21761	6.25"
21974	3.25" HD	22251	6.25" HD
21347	3.75"	22957	6.25" XHD
21458	3.75" (2-Hole)	21842	8.25"
22037	3.75" HD		

NOTE: Triple Flight Augers available upon request.





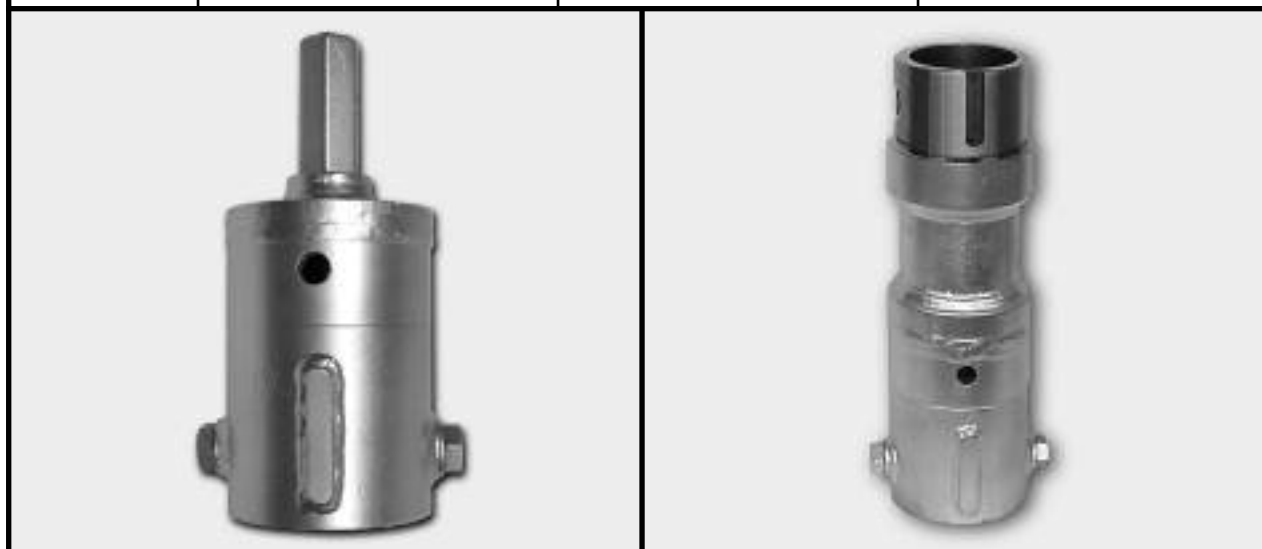
DRIVE CAPS

Series

ID	1.625" Hex	2" Hex	HSA Pin
2.25"	21001	21074	N/A
2.75"	21089	21171	N/A
3.25"	21263	21311	15407
3.25" HD	21900	21902	15450
3.75"	21410	21448	15398
3.75" HD	21976	21978	15252
4.25"	21469	21557	15538
4.25" HD	22047	22049	15381
6.25"	21674	21748	N/A
6.25" HD	22189	22191	N/A
7.25" XHD	22260	22262	N/A
8.25" HD	21769	21820	N/A
10.25" HD	22332	22334	N/A
12.25" HD	N/A	N/A	N/A

REPAIR SHANK

	21066	21070	N/A
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HOLLOW AUGER STEM

ID	12"	18"	24"	30"	36"	42"	48"	54"	60"
2.25"	21026	21027	21028	21029	21030	21031	21032	21033	21034
2.75"	21121	21122	21123	21124	21125	21126	21127	21128	21129
3.25"	21273	21274	21275	21276	21277	21278	21279	21280	21281
3.25" HD	21918	21919	21920	21921	21922	21923	21924	21925	21926
3.75"	21420	21421	21422	21423	21424	21425	21426	21427	21428
3.75" HD	21989	21990	21991	21992	21993	21994	21995	21996	21997
4.25"	21501	21502	21503	21504	21505	21506	21507	21508	21509
4.25" HD	22060	22061	22062	22063	22064	22065	22066	22067	22068
4.25" XHD	22088	22089	22090	22091	22092	22093	22094	22095	22096
6.25"	21705	21706	21707	21708	21709	21710	21711	21712	21713
6.25" HD	22202	22203	22204	22205	22206	22207	22208	22209	22210
6.25" XHD	22230	22231	22232	22233	22234	22235	22236	22237	22238
7.25" XHD	22301	22302	22303	22304	22305	22306	22307	22308	22309
8.25" HD	21790	21791	21792	21793	21794	21795	21796	21797	21798
10.25" HD	22345	22346	22347	22348	22349	22350	22351	22352	22353
12.25" HD	22513	22514	22515	22516	22517	22518	22519	22520	22521

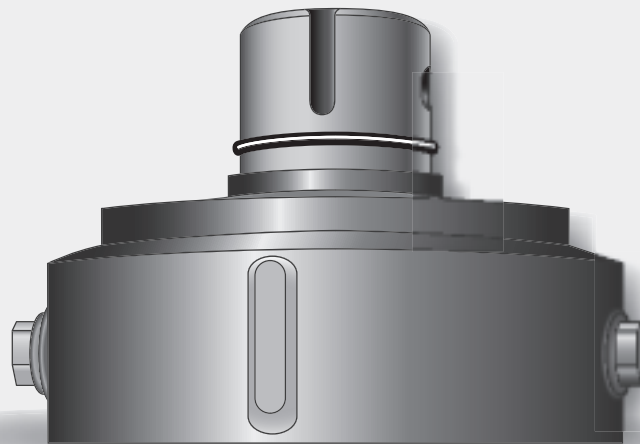




HOLLOW AUGER SUB

Box	Pin					
	3.25"	3.25" HD	3.75"	3.75" HD	4.25"	4.25" HD
2.25"	15061	15294	15136	15347	15354	15362
2.75"	15077	15295	15243	15348	15355	15363
3.25"	15137	15251	15344	15349	15262	15364
3.25" HD	15250	15296	15345	15350	15356	15365
3.75"	15124	15297	15338	15351	15357	15366
3.75" HD	15339	15340	15337	15352	15358	15367
4.25"	15089	15298	15090	15353	15267	15368
4.25" HD	15292	15299	15257	15259	15359	15369
6.25"	15099	15341	15100	15253	15248	15370
6.25" HD	15256	15266	15258	15260	15360	15371
7.25" HD	15644	15645	15646	15647	15648	15382
8.25" HD	15111	15342	15112	15264	15263	15372
10.25" HD	15293	15343	15346	15261	15361	15373
12.25" HD	N/A	N/A	N/A	15617	15655	15562

NOTE: Other HSA sizes available



ROD TO CAP ADAPTERS

Size	AW	AWJ	NW	NWJ
2.25"	21013	21014	N/A	N/A
2.75"	21101	21102	N/A	N/A
3.25"	21197	21198	21203	21204
3.75"	21344	21345	21350	21351
4.25"	21481	21482	21487	21488
6.25"	21686	21687	21692	21693
8.25"	N/A	N/A	21782	21783
10.25"	N/A	N/A	N/A	N/A
12.25"	N/A	N/A	N/A	N/A



NOTE: Other rod connections available



PILOT ASSEMBLIES

Size	AW	AWJ	NW	NWJ
2.25"	21018	21019	N/A	N/A
2.75"	21110	21111	N/A	N/A
3.25"	21206	21207	21212	21213
3.75"	21353	21354	21359	21360
4.25"	21490	21491	21496	21497
6.25"	21695	21696	21701	21702
8.25"	N/A	N/A	21786	21787
10.25"	N/A	N/A	N/A	N/A
12.25"	N/A	N/A	N/A	N/A



CENTER HEAD PINS

Description	Part No.	Description	Part No.
2.25"	21023	6.25"	21703
2.75"	21119	8.25"	21703
3.25"	21215	10.25"	N/A
3.75"	21362	12.25"	N/A
4.25"	21499		



S - SERIES HOLLOW AUGER HEADS

Size		STD	HD	STD F/Disc	HD F/Disc
2.25"	4 P O C K E T	12734	N/A	12762	N/A
2.75"		N/A	N/A	N/A	N/A
3.25"		12766	12693	12767	12772
3.75"		12769	12671	12770	12773
4.25"		12779	12669	12781	12780
4.25"	6 P O C K E T	12755	12715	12771	12774
6.25"		12760	12682	12761	12775
7.25"		N/A	N/A	N/A	N/A
8.25"		N/A	12700	N/A	12776
10.25"		N/A	12726	N/A	N/A
12.25"		N/A	N/A	N/A	N/A

The S-series heads feature replaceable shields that cover and protect the bit pockets. After normal wear, the shields can be replaced before wear damage occurs to the bit pockets themselves. This system will increase cutter head life substantially.

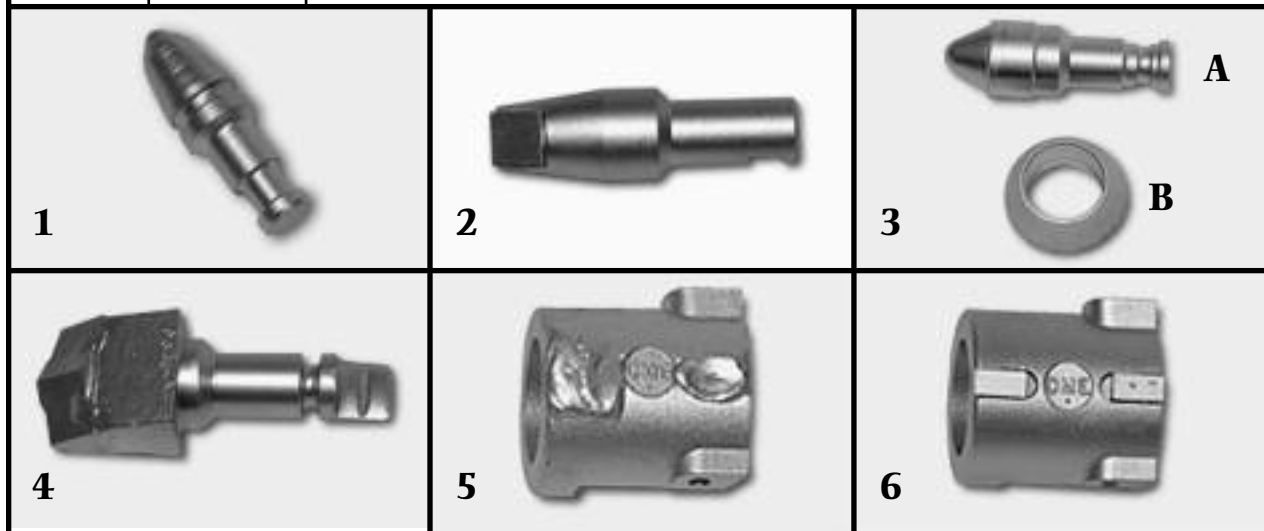
Another benefit of these S-series cutter heads is their interchangeable teeth. Depending on the material being drilled, conical, spade or 5S teeth can be used in any combination. This versatility also allows teeth to be changed as the formation changes.






S-SERIES HEAD COMPONENTS

Ref. No.	Part No.	Description
1	12744	Conical Tooth
2	12759	5S Tooth
3A	19396	Large Conical Tooth
3B	19394	Bit Skirt (for Large Conical Tooth-3A)
4	19390	Spade Tooth
5	19373	Hard Surfaced Shield
6	19381	Carbide Tipped Shield
	12747	Bit Retainer



5T HOLLOW AUGER HEADS

Size	STD	HD	STD F/Disc	HD F/Disc
2.25"	21010	N/A	21043	N/A
2.75"	21098	N/A	21136	N/A
3.25"	21194	21911	21234	21933
3.75"	21341	21987	21381	22004
4.25"	21478	22058	21518	22075
6.25"	21683	22200	21749	22217
7.25"	N/A	22271	N/A	22289
8.25"	N/A	21778	N/A	21826
10.25"	N/A	22343	N/A	22361
12.25"	N/A	22510	N/A	N/A



5T HEAD COMPONENTS

Part No.	Description
19021	5T Tooth
21069	Bit retainer






EXPENDABLE DISCS AND PLUGS

Size	Stainless Steel Disc	Stainless Steel Spring	Steel Disc	Steel Spring	HDPE Plug	Wood Plug
2.25"	21076	21077	21044	21045	212349	212348
2.75"	21167	21168	21137	21138	212369	212368
3.25"	21314	21315	21235	21236	212356	212350
3.75"	21451	21452	21382	21383	212357	212351
4.25"	21565	21566	21519	21520	212358	212352
6.25"	21759	21760	21750	21751	212359	212353
7.25"	22317	22318	22321	22322	212371	212370
8.25"	21833	21834	21827	21828	212360	212354
10.25"	N/A	N/A	22387	22388	212361	212355
12.25"	N/A	N/A	22540	22541	212362	N/A



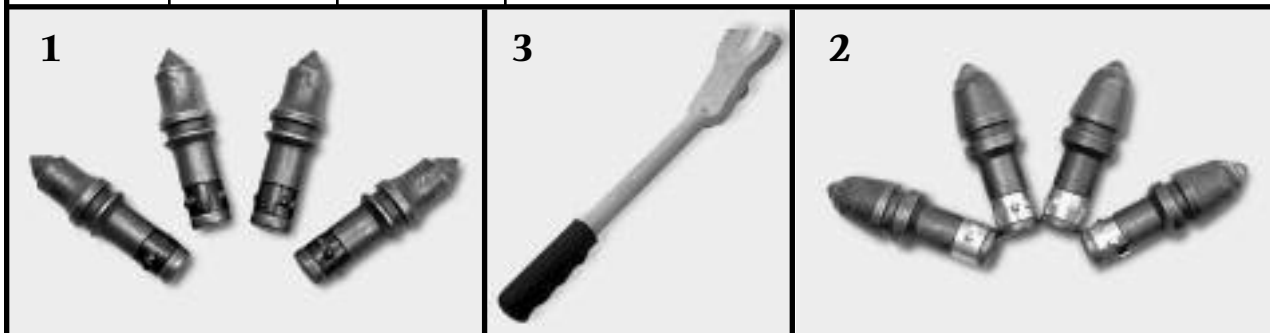
CONICAL HOLLOW AUGER HEADS

Size	STD	HD	STD F/Disc	HD F/Disc
2.25"	21082	N/A	N/A	N/A
2.75"	21170	N/A	N/A	N/A
3.25"	21321	21961	21320	21963
3.75"	21456	22032	N/A	22035
4.25"	21567	22105	21570	22109
6.25"	21764	22248	21765	22250
7.25"	N/A	22319	N/A	N/A
8.25"	N/A	21838	N/A	21839
10.25"	N/A	22597	N/A	22598
12.25"	N/A	22593	N/A	N/A



CONICAL COMPONENTS

Ref. No.	Part No.	HSA	Description
1	22182	2.25"	Conical Tooth
2	22107	2.75" - 12.25"	Conical Tooth
3	22183	N/A	Bit Removal Tool





WATER TEES FOR HSA

Part No.	Description	Part No.	Description
21038	2.25"	22074	4.25" XHD
21134	2.75"	21720	6.25"
21232	3.25"	22216	6.25" HD
21932	3.25" HD	22216	6.25" XHD
21379	3.75"	22287	7.25" XHD
22003	3.75" HD	21802	8.25" HD
21516	4.25"	22359	10.25" HD
22074	4.25" HD	22536	12.25" XHD



AUGER HOLDING FORKS

Part No.	Description	Part No.	Description
21039	2.25"	21517	4.25" XHD
21135	2.75"	21721	6.25"
21233	3.25"	21721	6.25" HD
21233	3.25" HD	21721	6.25" XHD
21380	3.75"	22314	7.25" HD
21380	3.75" HD	21803	8.25" HD
21517	4.25"	22384	10.25" HD
21517	4.25" HD	22537	12.25" HD



AUGER HANDLING HOOK

Part No.	Description
21041	Auger Handling Hook
NOTE: Not designed for pulling Augers from Bore Hole	



HOISTING ASSEMBLY FOR HSA


Part No.	Description	Part No.	Description
22816	4.25" - 10.25"	22820	Replacement Lock Pin
22821	12.25"	22826	Replacement Lock Pin







ROD SLIPS FOR HSA

	A	AW/AWJ	BW	N	NW/NWJ
2.25"	21036	21037	N/A	N/A	N/A
2.75"	21131	21132	21133	N/A	N/A
3.25"	21227	21228	21229	21230	21231
3.75"	21374	21375	21376	21377	21378
4.25"	21511	21512	21513	21514	21515
6.25"	21715	21716	21717	21718	21719
8.25"	N/A	N/A	21829	21800	21801



HOISTING SWIVEL - H.D. - BALL BEARING TYPE

	A	AW	AWJ	N4	N3	NW	NWJ
Part No.	32268	32269	32270	32272	32273	32274	32275

HOLLOW AUGER RETRIEVER FOR STANDARD HSA

	2.25"	2.75"	3.25"	3.75"	4.25"	6.25"
Part No.	21035	21130	21282	21429	21510	21714



HOLLOW AUGER RETRIEVER FOR HEAVY-DUTY HSA

	3.25"	3.75"	4.25"	6.25"	8.25"	10.25"
Part No.	21927	21998	22069	22211	21799	22354





Augers



FLIGHT AUGERS						
1500 Series						
Hole Size	Auger O.D.	Hex Size	Spiral Pitch	Plain Part No.	Hardsurfaced Part No.	Auger Head
3"	2.5"	1.125"	2.75"	19090	19091	
3.125"	3"	1.125"	3"	19100	19101	19003
4.5"	4"	1.125"	3"	19110	19111	19004
5"	4.5"	1.125"	4"	19120	19121	19006
6"	5.5"	1.125"	5"	19130	19131	19008

Augers listed are 60" long - others lengths available upon request

2000 Series						
Hole Size	Auger O.D.	Hex Size	Spiral Pitch	Plain Part No.	Hardsurfaced Part No.	Auger Head
4.5"	4"	1.625"	3"	19140	19141	19005
5"	4.5"	1.625"	4"	19150	19151	19007
6"	5.5"	1.625"	5"	19160	19161	19009
6.75"	6"	1.625"	5"	19170	19171	19010
8.25"	7"	1.625"	6"	19180	19181	19015



Augers listed are 60" long - others lengths available upon request

2875 Series						
Hole Size	Auger O.D.	Hex Size	Spiral Pitch	Plain Part No.	Hardsurfaced Part No.	Auger Head
9"	7.875"	1.625"	6"	19300	19301	19305
10"	8.875"	1.625"	6"	19190	19191	19017
12"	11"	1.625"	9"	19200	19201	19019

Augers listed are 60" long - others lengths available upon request






FLIGHT AUGER HEADS

Part No.	Head O.D.	Hex Size	Tooth Type	No. Req.	#34 Wedge Required	#37 Wedge Required	
19003	3.125"	1.125"	5T	2	N/A	N/A	
19004	4.5"	1.125"	5T	4	N/A	N/A	
19005	4.5"	1.625"	5T	4	N/A	N/A	
19006	5"	1.125"	5T	4	N/A	N/A	
19007	5"	1.625"	5T	4	N/A	N/A	
19008	6"	1.125"	5T	6	N/A	N/A	
19009	6"	1.625"	5T	6	N/A	N/A	
19010	6.75"	1.625"	5T	6	N/A	N/A	
19015	8.25"	1.625"	72FB*	10	2	4	
19305	9"	1.625"	72FB*	12	N/A	6	
19017	10"	1.625"	72FB*	12	N/A	6	
19019	12"	1.625"	72FB*	14	2	6	

* Also available with 72T Auger Tooth Type.

AUGER TEETH

Part No.	Tooth Type	5T	72T	72FB
19021	5T			
19024	72T			
19025	72F			
19026	72FB			
19028	74F			
19029	74FB			

WEDGES

Part No.	Wedge Type	#34	#37
19033	34		
19034	37		




Augers




FISHTAIL AUGER HEADS

Complete Assembly			Components	
Assembly Part No.	O.D.	Hex	Head Part No.	Lug Part No.
19037	2.5"	1.125"	19051	19062
19038	3"	1.125"	19052	19062
19039	3.5"	1.125"	19053	19063
19041	4.5"	1.125"	19054	19063
19042	4.5"	1.625"	19054	19065
19043	5"	1.125"	19055	19064
19044	5"	1.625"	19055	19066
19045	6"	1.125"	19056	19064
19046	6"	1.625"	19056	19066
19047	7"	1.625"	19057	19066
19048	8"	1.625"	19058	19066
19049	9"	1.625"	19059	19066
19050	10"	1.625"	19060	19066



Assy.





Head



Lug

DRIVE PINS

Series						
	1500	2000S	2000	2875		
Part No.	19242	15036	19244	19245		
Pointed Hammer						
Part No.	19276					



HOISTING SOCKETS

Part No.	Hex Size
19262	0.8125"
19263	1.125"
19264	1.625"
19279	2.000"



AUGER FORKS

Series			
	1500	2000	2875
Part No.	19247	19248	19249



DRILL STEMS


Series				
	1500	2000	X2000	3500
	1.125" Hex	1.625" Hex	1.625" Hex	2" Hex
Length	Part No.			
6"	15005	15028	N/A	19280
12"	15131	15132	19224	19281
18"	15006	15029	19225	19282
24"	19233	19237	19226	19283
30"	15007	15030	19227	19284
36"	19234	19238	19228	19285
42"	15008	15031	19229	19286
48"	19235	19239	19230	19287
54"	19333	N/A	19231	19288
60"	19236	19240	19232	19289





FLIGHT AUGER RETRIEVERS

Part No.	Hex Size	Pitch
19250	0.8125"	2.25"
19251	0.8125"	2.75"
19252	1.125"	3"
19253	1.125"	4"
19254	1.125"	5"
19255	1.625"	3"
19256	1.625"	4"
19257	1.625"	5"
19258	1.625"	6"
19259	1.625"	9"



FLIGHT AUGER REPAIR PARTS

Series	Hex Size	Repair Pin Part No	Repair Box Part No.
1500	1.125"	19268	19269
2000	1.625"	19270	19271
2875	1.625"	19272	19273

AUGER SUBS

HEX BOX to HEX BOX

	Part No.	Description
	30580	1.125HX - 1.125HX
	30248	1.125HX - 1.625HX
	30622	1.125HX - 2.0HX
	30248	1.625HX - 1.125HX
	30249	1.625HX - 1.625HX
	30637	2.0HX - 1.625HX
		



Augers

