



CENTRAL MINE EQUIPMENT COMPANY



# The Company

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Central Mine Equipment Company was founded in St Louis, Missouri in 1928. Our initial product line included augers, cutters and related accessories for the coal mining industry. In 1962, we introduced our first drill rig, the CME-55.

Today, we design and manufacture a complete line of drilling equipment for the geotechnical, environmental, mineral exploration, and construction industries. We also build a complete line of hollow-stem and continuous flight augers, auger accessories, sampling systems and all-terrain and rough-terrain carriers.

In addition to our line of quality-manufactured products, CME is a leading provider of tools, equipment, and supplies for core and rotary drilling, soil sampling, and ground water monitoring.

The key to our success has been product innovation and service after the sale. Central Mine Equipment Company holds patents covering everything from auger connections and sampling systems to drill rig safety features, including an emergency spindle brake that can stop rotation in less than a revolution. This system is standard on all CME drill rigs.

In order to best serve the needs of our customers, all manufacturing, warehouse and office operations are consolidated at our 210,000 square foot facility located in St. Louis, Missouri.





# Drill Rigs

## Truck, Trailer, and Skid Mounted Drills



### CME-45C

This is one of our most versatile drill rigs. It can be mounted on a truck, trailer, skid, ATV or the CME-300 tracked carrier. It can even be helicopter-portable. A skid/trailer configuration is also available. This application gives you two options. You can use the drill as a conventional trailer mounted unit, or you can easily remove the drill from the trailer and skid it up or down steep slopes, or through narrow openings.

The CME-45C has the same drilling capabilities as the CME-45B but can also be equipped for angle drilling.



### CME-45B

The CME-45B is an economical, efficient drill that can be mounted on a truck, trailer or ATV carrier. Power is provided by a deck-mounted diesel engine. Available optional equipment includes in-out and sideways slide bases, automatic SPT hammer, direct push hammer, hydraulic rod holder and breakout wrench, cathead, water tank, a variety of hydraulic hoists, and much more.

The CME-45B will drill holes up to 13 inches (33 cm) in diameter using conventional or hollow-stem augers. And with its fixed vertical feed frame, the CME-45B is ideal for pavement core work.



### CME-55

The CME-55 has been the standard of its class for over 57 years. It can be mounted on a truck, trailer, ATV, or the CME-300 tracked carrier.

Two low-clearance models are also available. The CME-55LC and CME-55LCX allow you to drill under service station canopies or other overhead obstructions.

With 28,275 pounds (12,825 kg) of retract force and up to 9,420 foot pounds (12,772 Nm) of rotary torque, the CME-55 is capable of drilling holes up to 14.75 inches (32.5 cm) in diameter using conventional or hollow-stem augers.

The CME-55LCX offers nearly 12,000 foot pounds (16,270 Nm) of rotary torque as a result of its higher horsepower engine.



### CME-75

The CME-75 has earned a reputation second to none for outstanding performance and reliability. It can be mounted on a single or tandem rear axle truck or ATV carrier.

Fast retract rates mean quick cycle times when adding augers or tripping out of the hole.

The dependable mechanical rotary drive is available with up to 13,225 foot pounds (17,931 Nm) of torque for auger drilling holes up to 18.5 inches (47 cm) in diameter.



## CME-85

This rig has big power. And it was built to handle that power. There are no compromises. Everything is heavy-duty. The right angle drive, the rotary box, the frame, every component was specifically designed to take the forces this drill can produce, and then some.

Like all CME drills, the CME-85 is designed with many features for easy operation. A patented hydraulic kelly bar lift system, for instance, makes coupling and uncoupling the kelly bar to the right angle drive virtually effortless.

The transmission has six forward gears so there's a rotation speed and torque combination for just about any situation, from large diameter auger drilling to deep rotary jobs. With 22,900 foot pounds (31,048 Nm) of torque, the CME-85 can handle hole sizes up to 18.5 inches (47 cm) in diameter using hollow-stem augers.



## CME-95

Equip the CME-95 with a string of CME extra-heavy-duty augers and you've got the ultimate combination for really big drilling jobs. No other drill is going to do the job for you faster or more efficiently. The rugged mechanical rotary drive is available with up to 36,100 foot pounds (48,945 Nm) of torque for turning large diameter augers.

In auger drilling applications, the standard CME-95 can drill up to 18.5 inch (47 cm) diameter holes. It can also be equipped for drilling up to 25 inch (63.5 cm) diameter holes.

## Truck, Trailer and Skid Mounted Drill Specifications

		CME-45B	CME-45C	CME-55	CME-55LC	CME-55LCX	CME-75	CME-85	CME-95
Standard	Rotary Torque (max)	3,530 ft lbs (4,786 Nm)	3,530 ft lbs (4,786 Nm)	7,780 ft lbs (10,548 Nm)	7,780 ft lbs (10,548 Nm)	11,950 ft lbs (16,202 Nm)	10,440 ft lbs (14,155 Nm)	22,900 ft lbs (31,048 Nm)	30,200 ft lbs (40,946 Nm)
	Rotary Speed (max)	760 rpm	760 rpm	800 rpm	800 rpm	605 rpm	745 rpm	530 rpm	544 rpm
High Torque	Rotary Torque (max)	4,850 ft lbs (6,576 Nm)	4,850 ft lbs (6,576 Nm)	9,420 ft lbs (12,772 Nm)	9,420 ft lbs (12,772 Nm)		13,225 ft lbs (17,931 Nm)		36,100 ft lbs (48,945 Nm)
	Rotary Speed (max)	550 rpm	550 rpm	665 rpm	665 rpm		585 rpm		454 rpm
High Speed	Rotary Torque (max)			6,800 ft lbs (9,220 Nm)	6,800 ft lbs (9,220 Nm)		8,355 ft lbs (11,328 Nm)	18,000 ft lbs (24,405 Nm)	
	Rotary Speed (max)			920 rpm	920 rpm		930 rpm	670 rpm	
	Retract Force	19,600 lbs (8,890 kg)	19,600 lbs (8,890 kg)	28,275 lbs (12,825 kg)	27,615 lbs (12,526 kg)	27,615 lbs (12,526 kg)	30,000 lbs (13,608 kg)	48,105 lbs (21,820 kg)	62,830 lbs (28,499 kg)
	Pulldown Force	13,650 lbs (6,192 kg)	13,650 lbs (6,192 kg)	18,650 lbs (8,459 kg)	19,750 lbs (8,958 kg)	19,750 lbs (8,958 kg)	20,000 lbs (9,072 kg)	28,225 lbs (12,803 kg)	33,135 lbs (15,030 kg)
	Mounting Applications	Truck, Trailer, ATV	Skid, Truck, Trailer, Skid on trailer, Skid on truck, ATV	Truck, Trailer, ATV	Truck, Trailer, ATV	Truck, Trailer, ATV	Truck, Trailer, ATV	Truck	Truck

Performance ratings are based on engineering specifications, calculations and accepted industry standards. Capacities may vary according to drilling conditions. CME reserves the right to amend these specifications at any time, without notice.

# Rubber-tired ATV Drills



## CME-550X

Since the carrier was designed as an integral part of the overall rig, we were able to mount the drill on the carrier frame, in between the tires. That puts the center of gravity as low as possible. No-spin differentials give you true 4-wheel pulling power. And planetary axles put gear reduction at the wheels. That means less stress on all drivetrain components.

With 28,275 pounds (12,825 kg) of retract force and up to 11,345 foot pounds (15,382 Nm) of rotary torque, the CME-550X is capable of drilling holes up to 14.75 inches (37.5 cm) in diameter using hollow-stem augers.

## CME-750X

The CME-750X is the culmination of 40 years of experience in ATV drill technology. It's been designed and refined from the ground up to provide the best combination of mobility and drilling performance you can get with a rubber-tired all-terrain drill rig.

The dependable mechanical rotary drive is available with up to 13,225 foot pounds (17,931 Nm) of torque for auger drilling holes up to 18.5 inches (47 cm) in diameter.



## CME-1050

The CME-1050 combines big drilling power with the off-road mobility of a rubber-tired ATV. It can get to remote, rough-terrain locations that are inaccessible to even all-wheel drive truck mounted drills. And once at the job, it has the power to turn big augers. The CME-1050 has many standard features including angle drilling capability.

With up to 24,700 foot pounds (33,489 Nm) of torque, the CME-1050 can drill holes up to 18.5 inches (47 cm) in diameter with hollow-stem augers.

RUBBER-TIRED ATV MOUNTED DRILLS				TRACK- MOUNTED DRILLS					
	CME-550X	CME-750X	CME-1050	CME-45C	CME-55	CME-55LC	CME-55LCX	CME-850X CME-850XR	
Standard	Rotary Torque (max)	9,080 ft lbs (12,311Nm)	10,445 ft lbs (14,162 Nm)	24,700 ft lbs (33,489 Nm)	3,530 ft lbs (4,786 Nm)	7,780 ft lbs (10,548 Nm)	7,780 ft lbs (10,548 Nm)	11,950 ft lbs (16,202 Nm)	15,410 ft lbs (20,893 Nm)
	Rotary Speed (max)	690 rpm	745 rpm	435 rpm	760 rpm	800 rpm	800 rpm	605 rpm	665 rpm
High Torque	Rotary Torque (max)	11,345 ft lbs (15,382 Nm)	13,225 ft lbs (17,931 Nm)		4,850 ft lbs (6,576 Nm)	9,420 ft lbs (12,772 Nm)	9,420 ft lbs (12,772 Nm)		
	Rotary Speed (max)	550 rpm	585 rpm		550 rpm	665 rpm	665 rpm		
High Speed	Rotary Torque (max)	6,800 ft lbs (9,220 Nm)	8,355 ft lbs (11,328 Nm)	19,460 ft lbs (26,384 Nm)		6,800 ft lbs (9,220 Nm)	6,800 ft lbs (9,220 Nm)		12,330 ft lbs (16,717 Nm)
	Rotary Speed (max)	920 rpm	930 rpm	550 rpm		920 rpm	920 rpm		835 rpm
	Retract Force	28,275 lbs (12,825 kg)	30,000 lbs (13,608 kg)	48,105 lbs (21,820 kg)	19,600 lbs (8,890 kg)	28,275 lbs (12,825 kg)	27,615 lbs (12,525 kg)	27,615 lbs (12,525 kg)	28,275 lbs (12,825 kg)
	Pulldown Force	18,650 lbs (8,459 kg)	20,000 lbs (9,072 kg)	28,225 lbs (12,803 kg)	13,650 lbs (6,192 kg)	18,650 lbs (8,459 kg)	19,750 lbs (8,958 kg)	19,750 lbs (8,958 kg)	18,650 lbs (8,459 kg)

Performance ratings are based on engineering specifications, calculations and accepted industry standards. Capacities may vary according to drilling conditions. CME reserves the right to amend these specifications at any time, without notice



# Track Mounted Drills



## CME-850X

The CME-850X can get you to locations that are inaccessible to any other type drill rig. The 33 inch wide tracks spread the surface contact area of this all-terrain track drill over more than 9,669 square inches. Ground bearing pressure is only 2.9 psi. That's less than the average man's footstep. The CME-850X can go places you can't even walk. The high flotation allows you to negotiate soft mud, deep snow or sand. And the walking beam suspension easily climbs over rocks and fallen logs. This rig has a very low center of gravity which provides the stability you need in off-road conditions. Angle drilling capability is standard.

With 28,275 pounds (12,825 kg) of retract force and up to 15,410 foot pounds (20,893 Nm) of rotary torque, the CME-850X is capable of drilling holes up to 14.75 inches (37.5 cm) in diameter using hollow-stem augers.

## CME-850XR

The CME-850XR is a rough-terrain drill that features full rubber tracks that won't damage most pavement. It has the same drilling performance specifications as the CME-850X and is available with all the same options.

Like all CME ATV rigs, the CME-850X and CME-850XR, utilize a single engine to power both drill and carrier. This means better weight distribution and lower operating costs.



CME-55 on CME-300 Carrier

## CME-300 Tracked Carrier

The CME-45C, CME-55 and low clearance CME-55LC and CME-55LCX are available mounted on the remote controlled CME-300 tracked carrier. This machine can climb hills, traverse mud, sand, rocks and snow...all while your operator's feet are planted firmly on the ground.

The rubber tracks will not damage most pavement, so you can also use this rig anywhere you might use a truck mounted drill.

Since the CME-300 tracked carrier is designed specifically for carrying drill rigs, there are no compromises. It has the best center of gravity for both driving and drilling. And you won't find a more rugged carrier in its class.

Drills mounted on the CME-300 carrier are available with all the features you need to get the job done as efficiently as possible. You can equip them with in/out and sideways slide bases, angle drilling, automatic SPT hammer, auger racks, tool boxes and more.



Low Clearance CME-55LCX on CME-300 Carrier



CME-45C on CME-300 Carrier

# Efficient Control Panel

## Control commonality - A key to operator productivity

Do your drillers find themselves working with a CME-45C one day and a CME-75 the next? No problem. Almost all of our drills have essentially the same control panel layout. That means your operators can work with maximum efficiency, no matter which rig they are using. There's no hesitancy or confusion on where to find the right control when using retract, feed, hoists, etc.

Drilling and set-up controls are logically arranged for maximum efficiency. The most frequently used controls, such as the feed, hydraulic hoists and sliding base levers, are staggered for easier identification and operation.

All hydraulic hoses have JIC fittings which are extremely dependable and readily available.



## Optional Features\*



### Automatic SPT hammer

The CME 140-pound (63.5 kg) automatic hammer gives you extremely consistent and accurate Standard Penetration Test results, meeting all ASTM-D-1586-99 requirements. There are no ropes or cables to impede the free-fall of the weight. A viewing slot allows you to verify the 30 inch (76.2 cm) fall height.

The hammer swings on a hydraulic cylinder, from the stored position to on-hole position. And the six foot vertical travel also allows you to use the hammer to drive casing or probes. Since raising and lowering is done hydraulically, set-up is quick and almost effortless.

To improve safety, all moving parts are enclosed, including the impact area between weight and anvil. A 340 pound (154 kg) hammer is also available.

### Direct Push Hammer

When job specifications demand, you can easily convert your auger rig to a direct push sampling machine. Simply hoist the hammer from its convenient storage rack, mount it on the feed system, connect the two quick-disconnect hydraulic hoses and you're ready to go to work.



### Hydraulic rod holder and breakout wrench

The hydraulic rod holder makes your job quicker and safer. It not only pivots from on-hole to off-hole positions, but also hydraulically telescopes in and out. For efficient operation, the breakout wrench is mounted at the pivot point of the rod holder arm. This gives you a direct, in-line pull to help prevent rod bending when loosening connections.



\* Not all optional features are available on all models



# More Optional Features\*

## Angle drilling system for special applications

This unique system is especially effective for drilling underneath ponds, storage tanks or other structures. When used with our patented Continuous Sample Tube System, you can even take soil samples while drilling angle holes.

The angle drilling system will also allow you to drill vertically with the rig positioned on an uphill slope. That can eliminate the time-consuming job of leveling an area on which to place the rig.

And, since the kelly drive is directly connected to the right angle drive box, you can raise or lower the mast with the drive-train already connected and ready to go. The angle drilling drive-line is standard on CME-45C, CME-550X, CME-850X, CME-850XR and CME-1050 drills and available as an option for all other models.



## Auger storage racks

Several under body auger rack configurations are available, including hydraulically operated racks that slide in and out for easy access to augers.



## Water tank / tool box combinations

Numerous water tank/tool box configurations are available, including models with rod storage capacity underneath and an expanded metal rack on top.



## Quick mast disconnect

This feature allows you to quickly disconnect the optional mast when working inside buildings, underneath bridges or in other low overhead drilling locations. Since the mast is completely separated from the uprights, it doesn't interfere with other drill functions such as the optional slide bases.

With the mast in a horizontal position, you simply clamp it to its storage rack and extend the drill's in-out slide base. This pulls the sockets on the upright drill frame away from the large tapered pins on the mast.

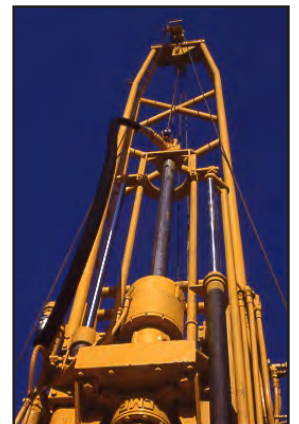


## Fluted kelly and chuck assembly

If your drilling operations include a substantial amount of core or rotary drilling, the CME fluted kelly and chuck assembly can save you a lot of time. The 5 foot stroke of the kelly, combined with the 6 foot stroke of the feed system, gives you a total stroke of 11 feet. You can use 10 foot drill rods, which means fewer rod connections and less rod handling.

The kelly has two vertical slots and two horizontal slots which are engaged by the chuck to provide rotary torque and thrust. The CME fluted kelly can even be rotated without engaging the thrust plungers. This gives you the option of using the weight of the drill string to provide down pressure on the bit.

The 2 5/8 inch fluted kelly and chuck assembly is available in either manual or hydraulically actuated configurations. Or, for larger diameter holes, a 3 1/2 inch O.D. fluted kelly and hydraulic chuck assembly is available.



\* Not all optional features are available on all models



# *CME All-terrain carrier*

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The CME-800X all-terrain tracked carrier has proven itself in some of the roughest environments imaginable. It is designed to accept just about any piece of equipment normally mounted on a truck, such as digger derricks, man lifts, brush hogs, tree trimmers, or wild-land fire fighting apparatus. The CME-800X has a payload capacity of up to 16,000 pounds (7,258 kg). Ground bearing pressure of a fully loaded vehicle is less than 3.4 psi. That's less than the average man's footstep. It can negotiate soft mud, deep snow or sand. And the walking beam suspension easily climbs over rocks and fallen logs.

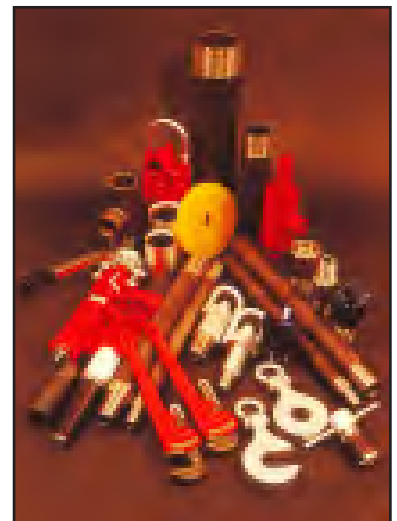
A rough-terrain model, the CME-800XR, is also available that features full rubber tracks that won't damage most pavement.



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## *Drilling tools, equipment and supplies*

We've got all the tooling and drilling supplies you'll need to get the job done. One toll free phone call can put you in touch with our experienced in-house sales department. It's not only easier than calling multiple sources, it also simplifies billing and accountability. And you'll always get competitive pricing and the highest quality items.





*Safety...it's a habit you can live with*



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