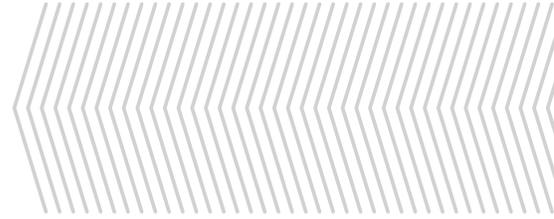


EK250

CYLINDER CROWD DRILLING RIG



CZM
FOUNDATION EQUIPMENT



EK250

FEATURES

The **EK250** is a robust, heavy-duty drilling rig engineered for high production in hard soil and rock drilling. Designed to deliver the high torque and crowd force, with structural durability required for the toughest foundation applications, it combines strength, performance, and reliability to handle demanding jobsite conditions. The EK250 operates with full capability in both **Long Mast** and **Short Mast** configurations, for projects containing large diameter, deep shafts or under power lines.

CZM'S OPERATOR ASSIST TECHNOLOGY:

- › Auto Gear shifting for Rotary
- › Auto Gear shifting for Main winch
- › Drill Lock
- › Auto Crowd
- › Auto Level
- › Return to Center

TELEMATICS: The rig includes a CZM Telematics System for remote monitoring, diagnostics, and software updates, enabling CZM Support to assist with troubleshooting and performance optimization.

BASE

The new Cat® 340 Next Gen is a purpose-built machine powered by a fuel-efficient U.S. EPA Tier 4 Final C9.3 ACERT engine.

Equipped with CAT Vision Link that allows management to monitor machine operations and maintenance data online and wireless, providing information such as location, hours, fuel usage, idle time, event codes and maintenance schedule.

ROTARY

Robust design, with 2 slewing bearings on top and bottom, robust pinion and main gear.

2 groups of Hydraulic Motor / Planetary Gears for high torque and long life.

Anti-cavitation and anti-shock system for longer hydraulic motor life.

Cooling system for hydraulic motors and gearboxes.

Power-shift for High spin-off speed (100rpm) for quick discharge of soil.

3 operation speeds and 3 spinoff speeds. For high torque and high speeds.

Automatic gear shifting, for seamless operation, high production.

Exchangeable keys, bolted and reversible. No need to rebuild keys by welding inside the rotary.

Hydraulic measurement of torque displayed in the cab for the operator.



UNDERCARRIAGE

Caterpillar variable undercarriage with a reinforced H-style frame provides increased stability and traction force. Its variable width design expands for maximum stability during drilling and retracts for easy transport.

MAST

Reinforced mast, with high strength steel.

MAIN WINCH

Special groove for better cable winding and longer cable life.

Press roller to maintain cable alignment standard.

2 gears allows for both high speed and high pulling force.

Automatic gear shifting, for seamless operation, high production.

Automatic down the hole winch stop. When Kelly bar reaches the bottom of the hole, winch automatically stops.

CAB

AM/FM Radio, Air conditioning/Heating

Top protection

LCD monitor for Engine and Hydraulics computer, with diagnostic system

CONTROL SYSTEM

Touch Screen Display

Measurements:

- Torque and rotary speeds
- Drilling depth
- Mast inclination X/Y axis
- Main Winch pulling force
- Crowd force

Automatic functions:

- Auto-level of mast
- Rotary automatic gear shifting
- Main Winch automatic gear shifting

Maintenance and data logging



SAFETY

Stability according to EN16228

Base, Mast and Boom Inclinometers

Working radius warning

Limit switches for Boom, Mast Tilt, Main Winch and Service Winch

Operator warnings for non recommended operations.

ACCESSORIES

Lighting package

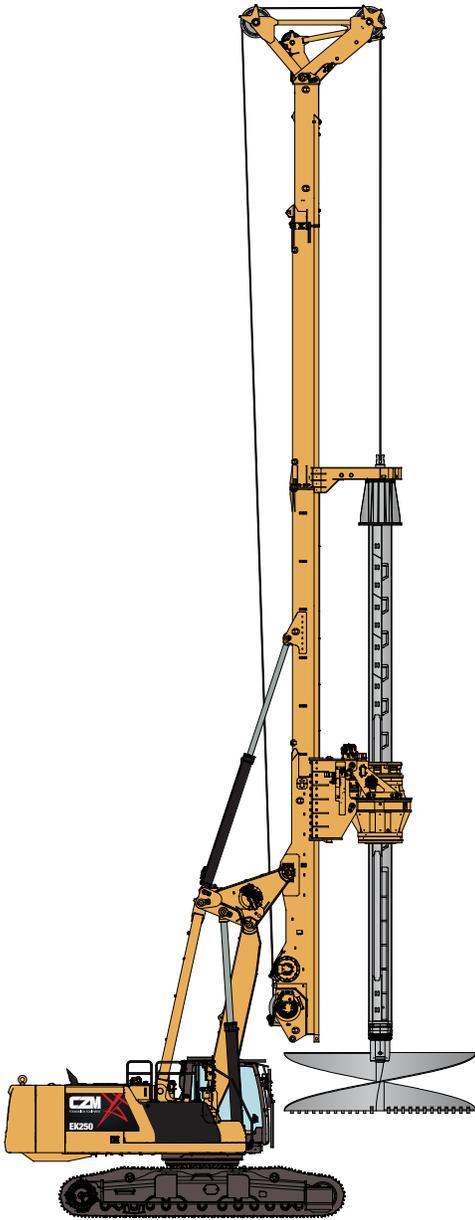
Refueling pump

O-ring kits

Toolbox

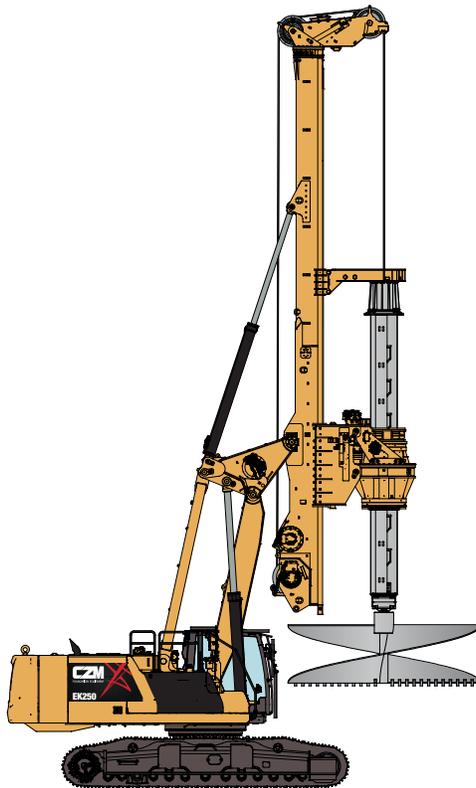
EK250

APPLICATIONS



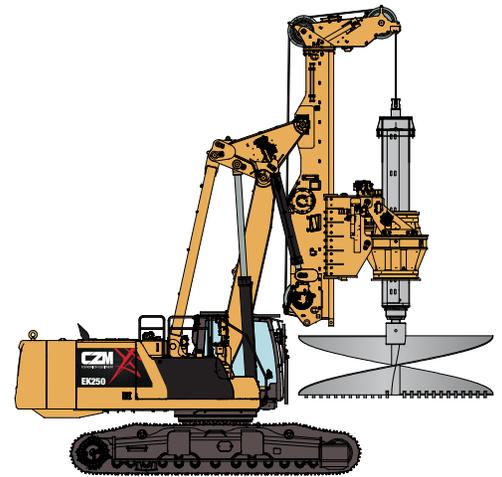
STANDARD MAST

| | |
|--------------------------------|-----------------------|
| Standard Drilling Depth | 125 ft |
| Diameter (Max. w/ lower mast) | 8 ft 4 in |
| Diameter (Max. w/o lower mast) | 13 ft |
| Max. Torque | 234,000 ft.lbs |
| Operating weight* | 195,000 lb |



MID MAST

| | |
|--------------------------------|-----------------------|
| Standard Drilling Depth | 95 ft |
| Diameter (Max. w/ lower mast) | 8 ft 4 in |
| Diameter (Max. w/o lower mast) | 13 ft |
| Max. Torque | 234,000 ft.lbs |
| Operating weight* | 187,200 lb |



SHORT MAST

| | |
|--------------------------------|-----------------------|
| Standard Drilling Depth | 55 ft |
| Diameter (Max. w/ lower mast) | 8 ft 4 in |
| Diameter (Max. w/o lower mast) | 13 ft |
| Max. Torque | 234,000 ft.lbs |
| Operating weight* | 170,000 lb |

* Weight includes standard kelly bar, without tool.

EK250

TECHNICAL SPECIFICATIONS

ROTARY HEAD - RT 460 - 14

| | |
|---------------------------|-----------------------|
| Maximum torque (Nominal) | 234,000 ft.lbs |
| Working speed of rotation | 10-22 rpm |
| Spin-off rotation | 50-100 rpm |

CROWD SYSTEM

| | |
|---------------------------------|-------------------|
| Cylinder stroke - standard mast | 19 ft 6 in |
| Cylinder stroke - short mast | 8 ft 3 in |
| Cylinder push force | 73,400 lbf |
| Cylinder push speed | 34 ft/min |
| Cylinder pull force | 81,900 lbf |
| Cylinder pull speed | 31 ft/min |

MAIN WINCH

| | |
|---|-------------------|
| Max. pull-force - 1st Layer (effective)* | 59,000 lbf |
| Max. pull-force - 1st Layer - 2nd Speed (effective) | 46,400 lbf |
| Line speed - 1st Layer* | 200 ft/min |
| Max. line speed - 1st Layer - 2nd Speed | 260 ft/min |
| Cable diameter | 1 ½ in |
| Drum diameter - 1st Layer* | 22 in |

*Option for Short Mast Main Winch Max. Line pull of 66,500 lbf (180 ft/min)

AUXILIARY WINCH

| | |
|---|-------------------|
| Max. pull-force - 1st Layer (effective) | 22,000 lbf |
| Line speed - 1st Layer | 85 ft/min |
| Cable diameter | 3/4 in |
| Drum diameter - 1st Layer | 16.5 in |

MAST INCLINATION

| | |
|----------|----------------|
| Backward | 15° |
| Forward | 5° |
| Sideways | 5° / 5° |

DIESEL ENGINE Cat® 340 - (Cat® C9.3 ACERT™)

| | |
|-----------------------|----------------|
| Net Power (ISO 14396) | 352 hp |
| Displacement | 568 in³ |
| Fuel Tank | 158 gal |

HYDRAULIC SYSTEM - (Cat® 340)

| | |
|-------------------------------|---------------------|
| Hydraulic pressure | 5,076 psi |
| Flow rate (main circuit) | 2x74 gal/min |
| Flow rate (auxiliary circuit) | 26.5 gal/min |
| Hydraulic oil tank capacity | 42.5 gal |

UNDERCARRIAGE

| | |
|-----------------------------------|--------------------|
| Track length | 19 ft 8 in |
| Length to Center of rollers | 16 ft 5 in |
| Closed position width (retracted) | 9 ft 10 in |
| Working position width (extended) | 14 ft 1 in |
| Shoes width | 31.5 in |
| Max. drawbar pull | 144,600 lbf |
| Max. travel speed | 1.0 mph |

STANDARD MAST

GENERAL DIMENSIONS



| KELLY BAR OPTIONS | PART # | # ELEMENTS | DEPTH - DPT ¹ | TRANSPORT - KCL ² | HGT ³ | KOP ⁴ | WEIGHT ⁵ |
|------------------------------|----------------|------------|--------------------------|------------------------------|------------------|------------------|---------------------|
| 4/125 Interlock | 25842.4125.000 | 4 | 123 ft 4 in | 41 ft | 18 ft 8 in | 130 ft 9 in | 20,100 lb |
| 4/158 Interlock | 25842.4158.000 | 4 | 157 ft 3 in | 49 ft 3 in | 18 ft 8 in | 164 ft 7 in | 23,300 lb |
| 4/200 Interlock ⁶ | 25842.4200.000 | 4 | 204 ft | 61 ft 1 in | 9 ft 10 in | 211 ft 6 in | 28,500 lb |

¹ DPT: Total depth with 5 ft tool boomed all the way back. Additional 2 ft of depth if boomed forward.

² KCL: Length measured from bottom of stub to top of swivel.

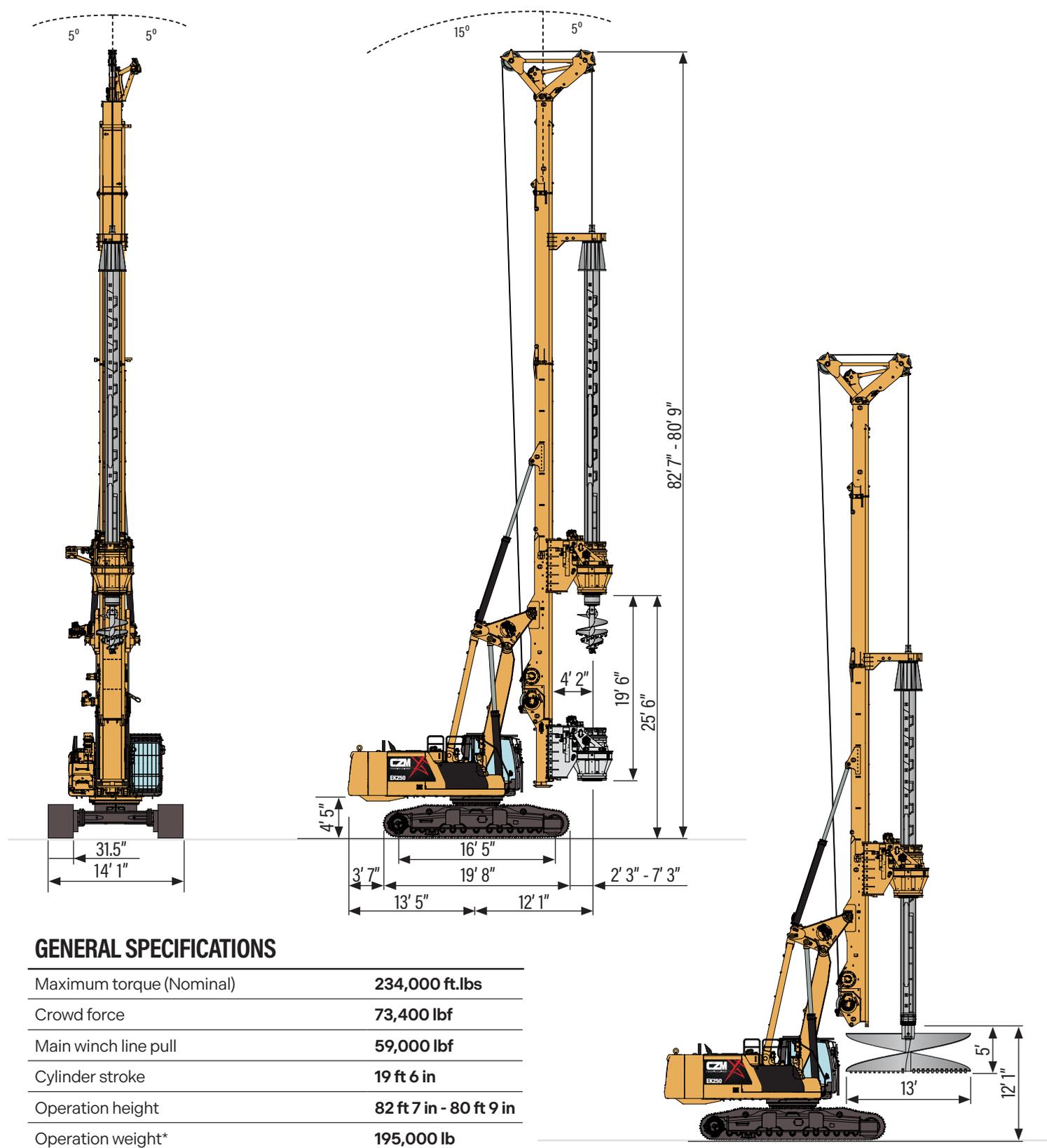
³ HGT: Length measure from ground to bottom of auger assuming a 5 ft tall tool.

⁴ KOP: Length measure from top of flange to bottom of stub (without a tool).

⁵ Weight includes A-frame and swivel.

⁶ Special kelly bar, not in stock.

Other kelly bars available upon request.



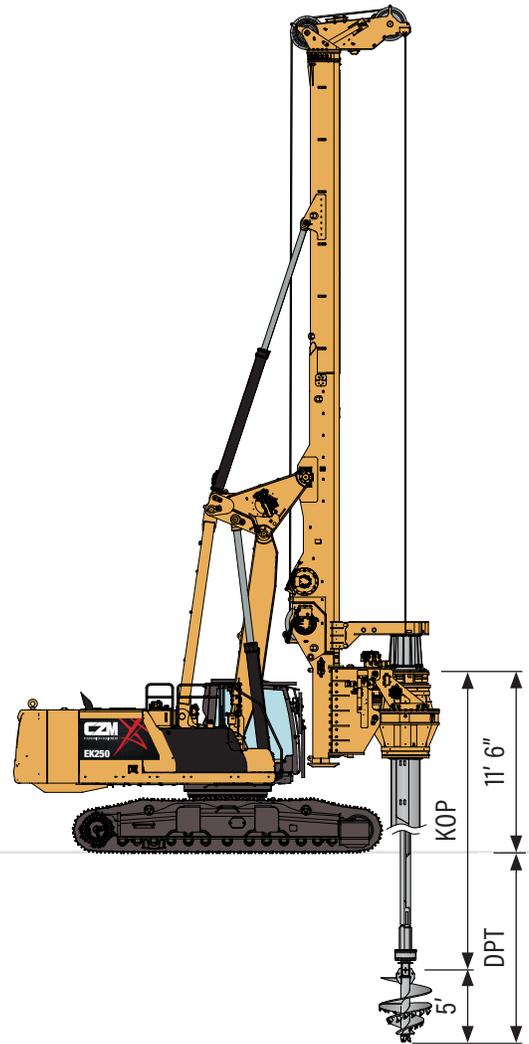
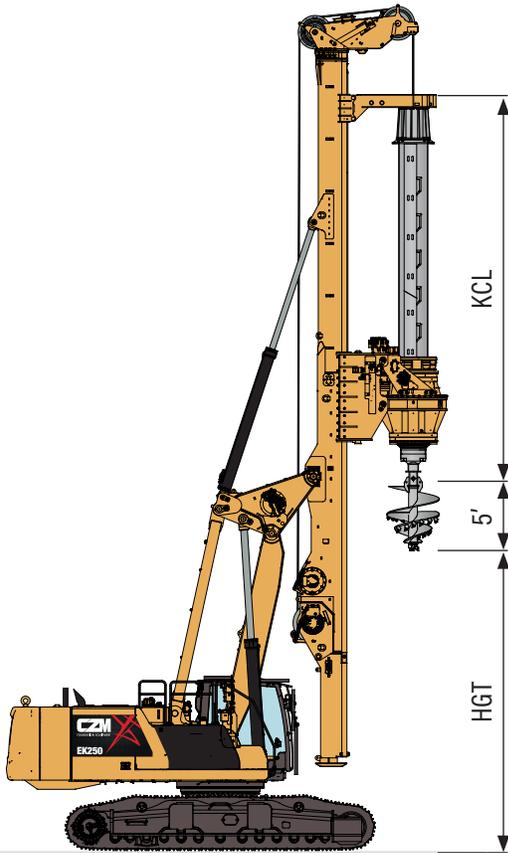
GENERAL SPECIFICATIONS

| | |
|--------------------------|--------------------------------|
| Maximum torque (Nominal) | 234,000 ft.lbs |
| Crowd force | 73,400 lbf |
| Main winch line pull | 59,000 lbf |
| Cylinder stroke | 19 ft 6 in |
| Operation height | 82 ft 7 in - 80 ft 9 in |
| Operation weight* | 195,000 lb |

* with 4/125 kelly bar, without tool.

MID MAST

GENERAL DIMENSIONS



| KELLY BAR OPTIONS | PART # | # ELEMENTS | DEPTH - DPT ¹ | TRANSPORT - KCL ² | HGT ³ | KOP ⁴ | WEIGHT ⁵ |
|-------------------------|----------------|------------|--------------------------|------------------------------|------------------|------------------|---------------------|
| Standard 6/95 Interlock | 25852.6095.000 | 6 | 93 ft | 22 ft 10 in | 18 ft 8 in | 100 ft 4 in | 16,500 lb |

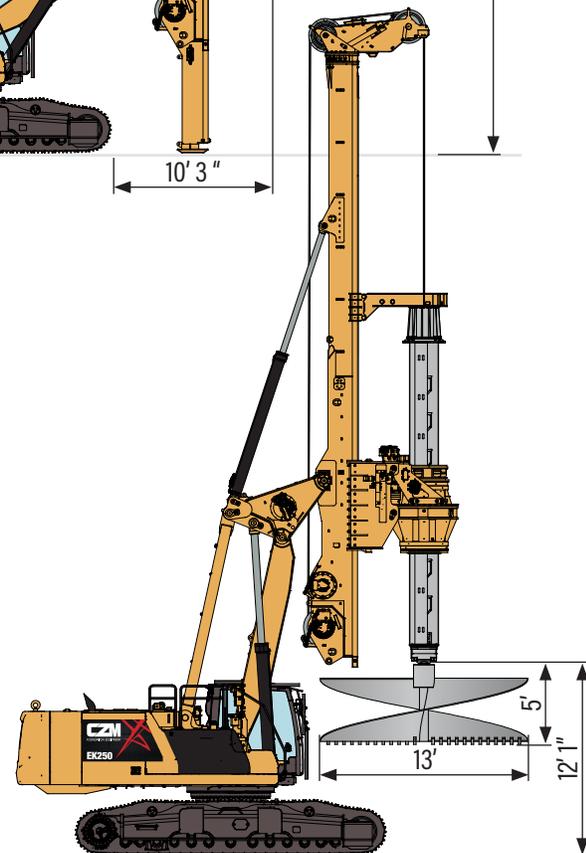
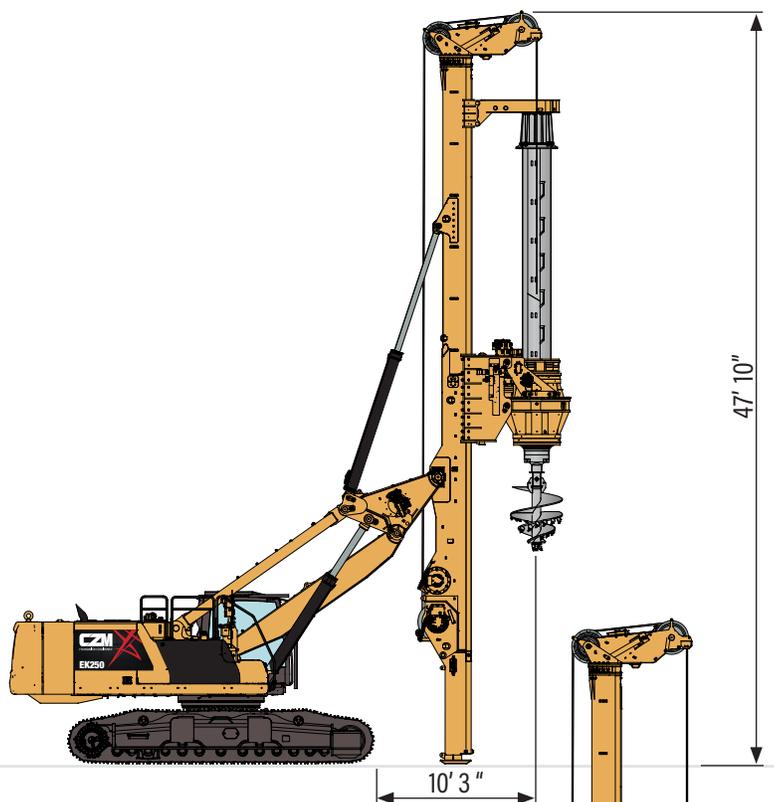
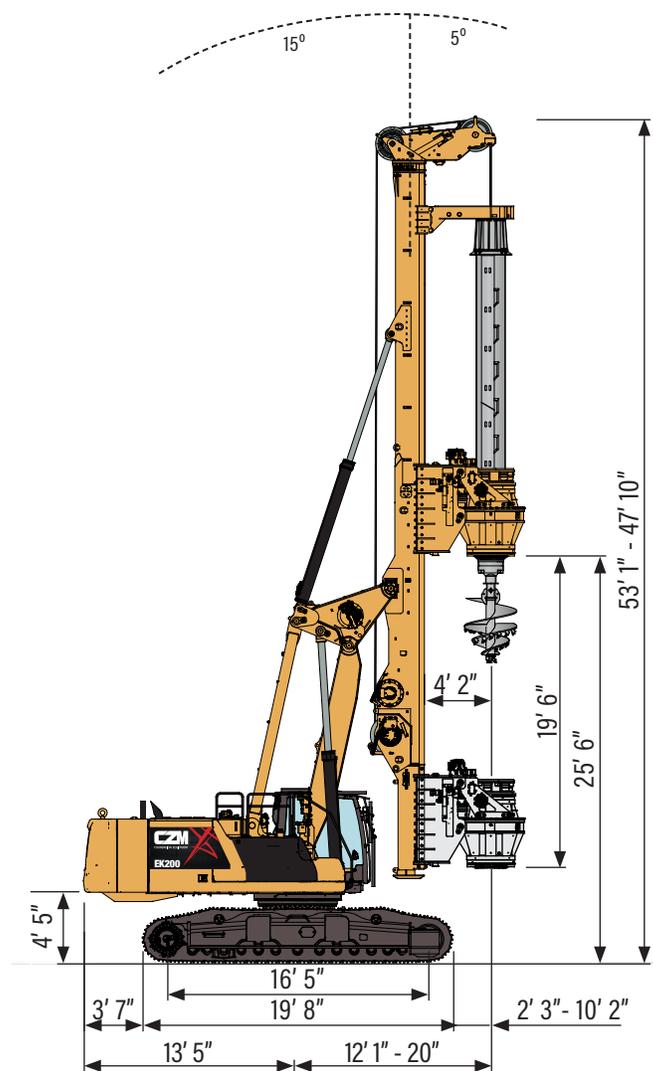
¹ DPT: Total depth with 5 ft tool boomed all the way back*. Additional 5 ft of depth if boomed forward.

² KCL: Length measured from bottom of stub to top of swivel.

³ HGT: Length measure from ground to bottom of auger assuming a 5 ft tall tool. More clearance can be reached with mast extension.

⁴ KOP: Length measure from top of flange to bottom of stub (without a tool).

⁵ Weight with A-frame and swivel.



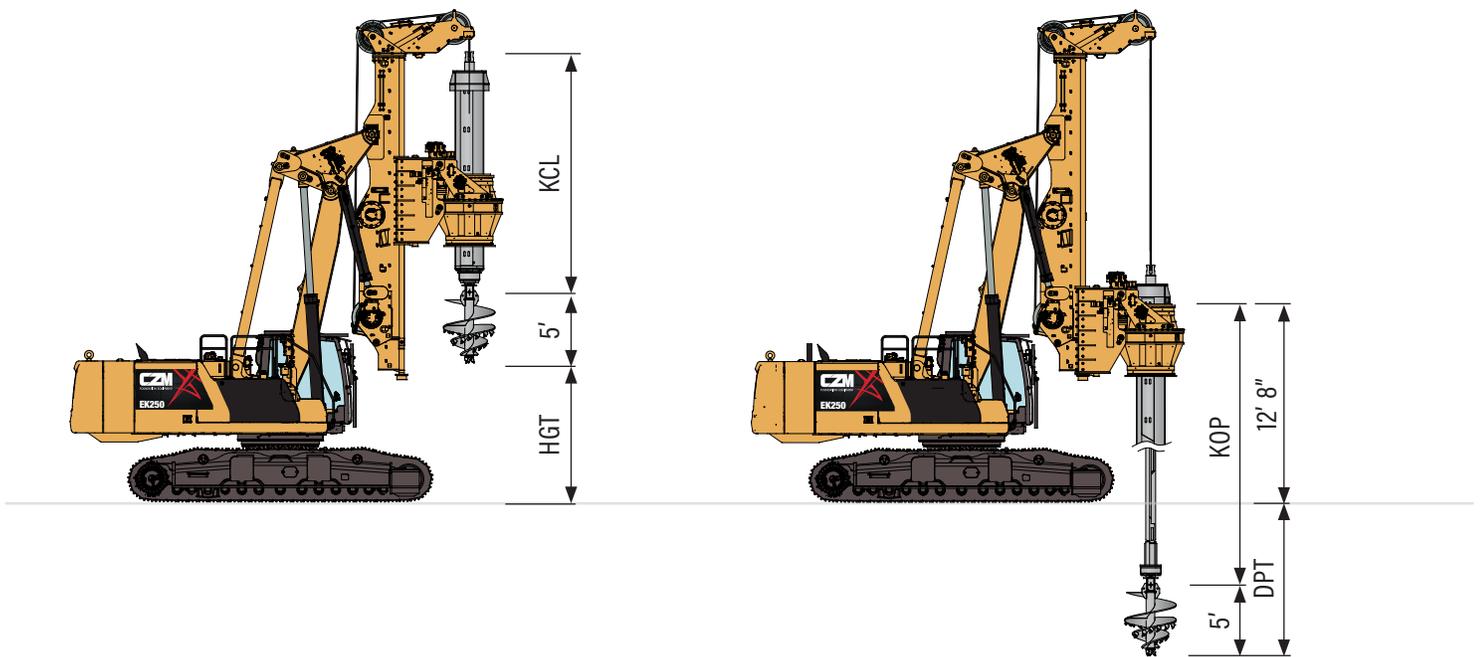
GENERAL SPECIFICATIONS

| | |
|--------------------------|-----------------------------|
| Maximum torque (Nominal) | 234,000 ft.lbs |
| Crowd force | 73,400 lbf |
| Main winch line pull | 59,000 lbf |
| Cylinder stroke | 19 ft 6 in |
| Operation height | 53 ft 1 in - 47' 10" |
| Operation weight* | 187,200 lb |

* with 4/125 kelly bar, without tool.

SHORT MAST

GENERAL DIMENSIONS



| KELLY BAR OPTIONS | PART # | # ELEMENTS | DEPTH - DPT ¹ | TRANSPORT - KCL ² | HGT ³ | KOP ⁴ | WEIGHT ⁵ |
|-------------------------|----------------|------------|--------------------------|------------------------------|------------------|------------------|---------------------|
| Standard 6/55 Interlock | 25852.6055.000 | 6 | 50 ft 10 in | 15 ft 7 in | 8 ft 10 in | 59 ft 4 in | 10,500 lb |
| 6/72 Interlock | 25852.6072.000 | 6 | 71 ft 2 in | 18 ft 10 in | 5 ft 4 in | 79 ft 3 in | 12,200 lb |

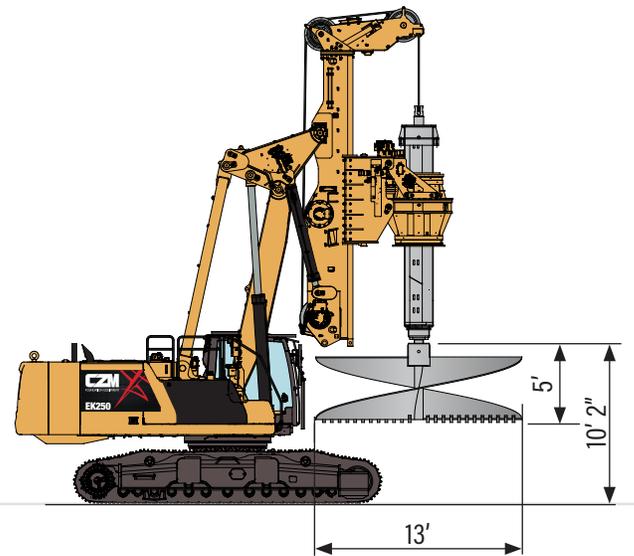
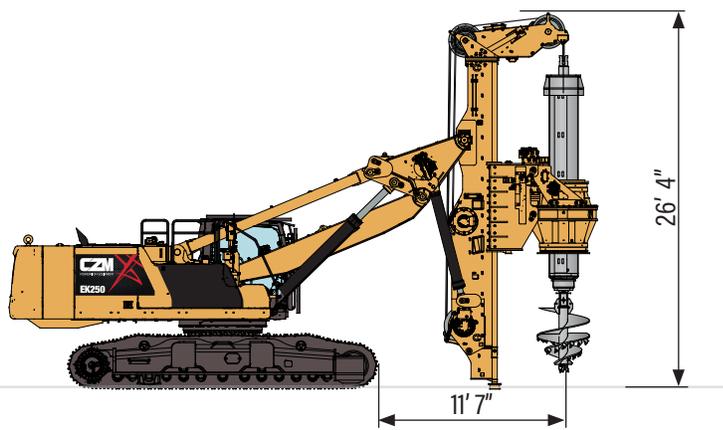
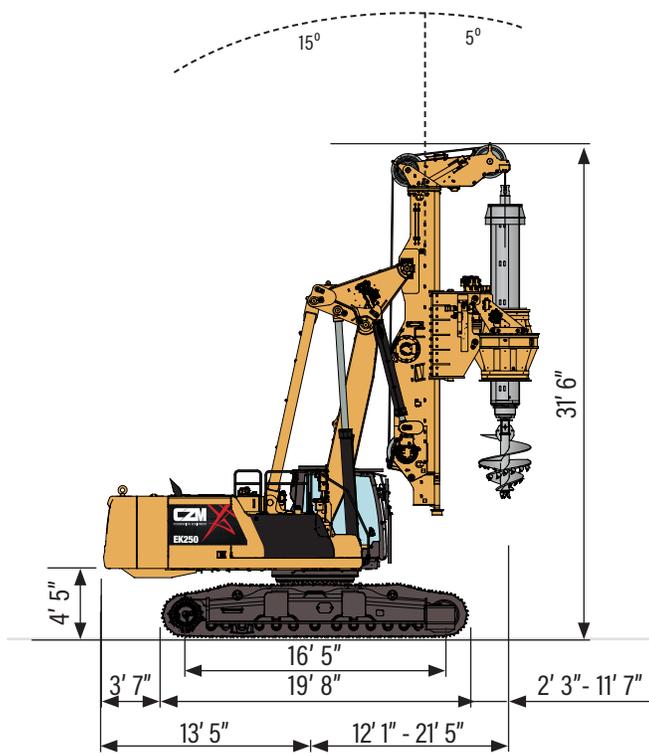
¹ DPT: Total depth with 5 ft tool boomed all the way back*. Additional 6 ft 9 in of depth if boomed forward.

² KCL: Length measured from bottom of stub to top of swivel.

³ HGT: Length measure from ground to bottom of auger assuming a 5 ft tall tool. More clearance can be reached with mast extension.

⁴ KOP: Length measure from top of flange to bottom of stub (without a tool).

⁵ Weight with swivel.



GENERAL SPECIFICATIONS

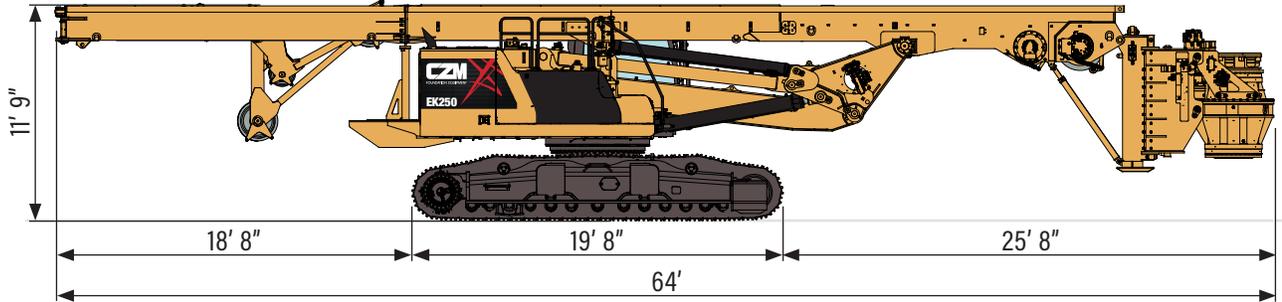
| | |
|--------------------------|--------------------------------|
| Maximum torque (Nominal) | 234,000 ft.lbs |
| Crowd force | 73,400 lbf |
| Main winch line pull | 66,500 lbf |
| Cylinder stroke | 8 ft 3 in |
| Operation height | 31 ft 6 in - 26 ft 4 in |
| Operation weight* | 170,000 lb |

* with 6/55 kelly bar, without tool

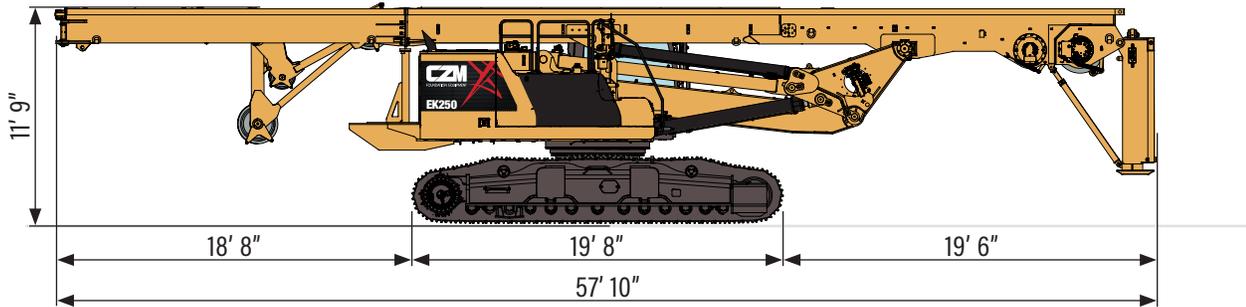
TRANSPORT

DIMENSIONS

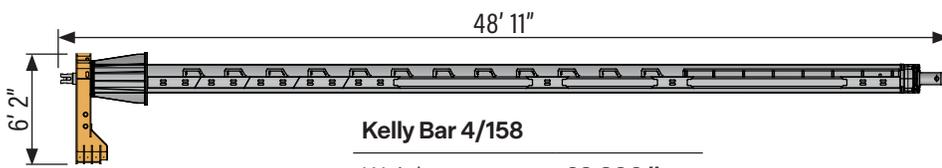
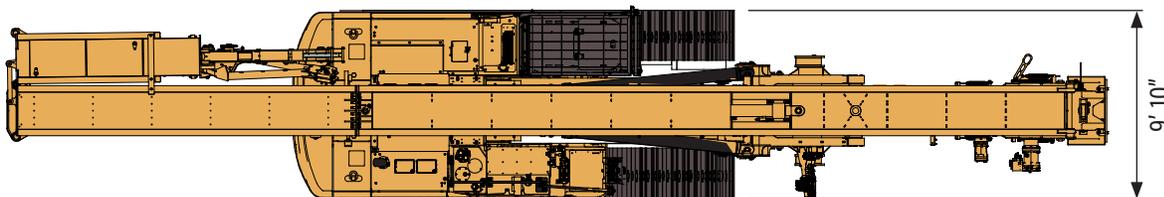
STANDARD MAST



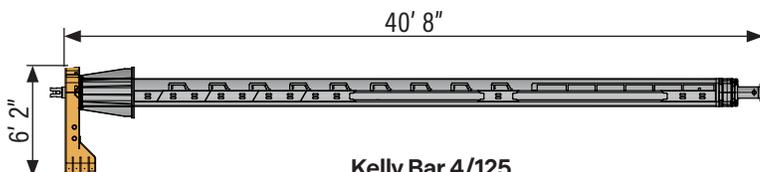
| | | | |
|--------|-------------------|--------|-------------------|
| Height | 11 ft 9 in | Width | 9 ft 10 in |
| Length | 64 ft | Weight | 145,870 lb |



| | | | |
|--------|--------------------|--------|-------------------|
| Height | 11 ft 9 in | Width | 9 ft 10 in |
| Length | 57 ft 10 in | Weight | 129,290 lb |

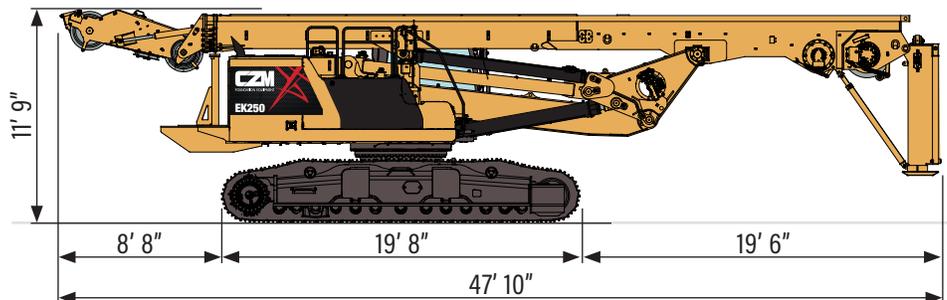


Kelly Bar 4/158
Weight **23,300 lb**

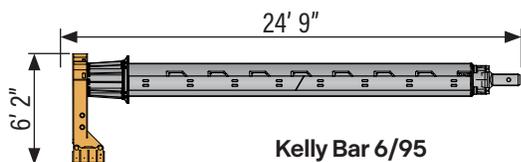


Kelly Bar 4/125
Weight **20,100 lb**

MID MAST



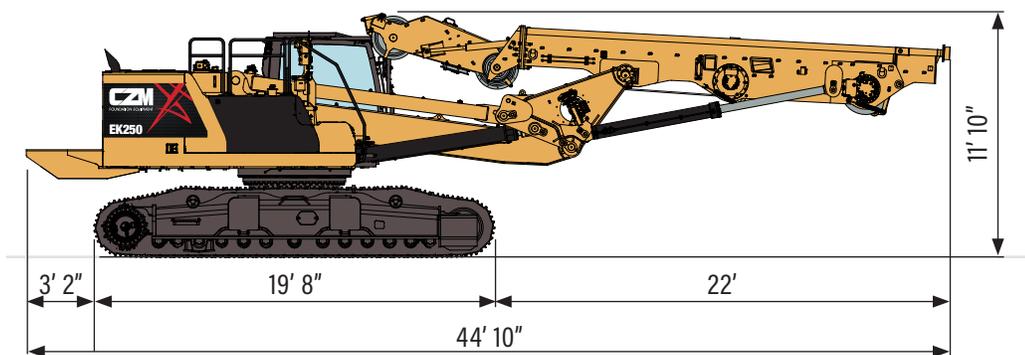
| | |
|--------|-------------|
| Height | 11 ft 9 in |
| Length | 47 ft 10 in |
| Width | 9 ft 10 in |
| Weight | 125,090 lb |



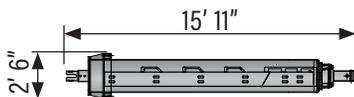
Kelly Bar 6/95

Weight **16,500 lb**

SHORT MAST



| | |
|--------|-------------|
| Height | 11 ft 10 in |
| Length | 44 ft 10 in |
| Width | 9 ft 10 in |
| Weight | 113,890 lb |

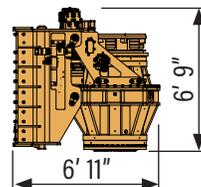
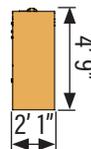
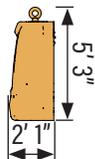


Kelly Bar 6/55

Weight **10,500 lb**

COMPONENTS

| | |
|-------------------------|-----------|
| Rotary | 16,580 lb |
| Main Cat® Counterweight | 18,680 lb |
| Aux. Counterweight | 10,350 lb |









FOUNDATION EQUIPMENT

> HEADQUARTERS

962 Interstate Centre Blvd.
Ellabell, Georgia 31308
(912) 200-7654

czm-us.com



AFTER SALES

> CALIFORNIA

1720 N. Ventura Avenue
Ventura, CA 93001
(805) 701-9885

> GEORGIA

145 East Industrial Blvd.
Pembroke, GA 31321
(912) 200-7656

> KENTUCKY

170 Budco Lane
Elizabethtown, KY 427012
(912) 675-3059

> TEXAS

2501 Blue Mound Rd. W.
Haslet, TX 76052
(817) 232-8053

ABOUT CZM

CZM is headquartered in Savannah, Georgia, USA. For 50 years, we have specialized in manufacturing foundation equipment. We design and customize models for many different drilling applications including Drilled Shafts, CFA, Displacement piles, Soilmixing, Micropiles, Anchors, Driven piles and Soil improvement. We are a Caterpillar OEM (Original Equipment Manufacturer).

myCZM > portal.myczm-us.com

The myCZM Web Portal is the essential digital point of reference for all customers and dealers, providing instant access to everything you need.

- > **Machine Documentation:** Consult manuals, warranties, stability charts, and technical schematics (electrical/hydraulic).
- > **Spare Parts:** Navigate and identify needed parts, and submit direct quotation requests.
- > **Support:** Directly submit information and general inquiries.

CZM CAPITAL

CZM provides flexible, affordable financing to get our machines working for you, Get more than just a machine for your money.

Contact us today at (877) 773-0333.

Specifications are subject to change without notice.