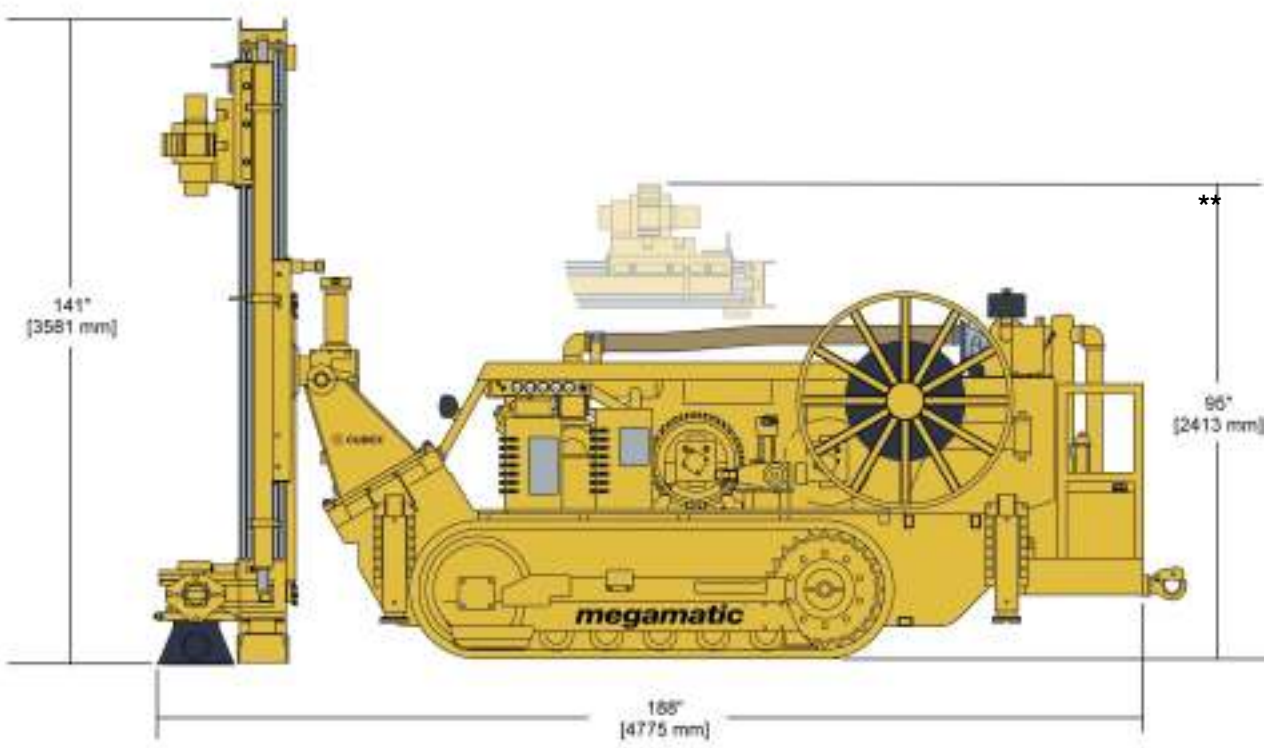
5200 ITH

The 5200 is a track mounted ITH drill designed to drill with In-The-Hole hammers powered with high air pressure. This drill is unitized with an on board reciprocating booster compressor.

***Note: The length of the mast may very depending upon configuration / options.**



PERFORMANCE

The 5200 can be used to drill from 3.5 in. (89 mm) to 6.5 in. (165 mm) diameter holes to a depth greater than 330 ft. (100 m). WITH OPTIONS: It can also be used for drilling 8.5 in (216 mm) holes and occasionally reaming up to 17.5 in. (445 mm) diameter holes with a 12 in. hammer and up to 30 in. (762 mm) diameter holes with a V-30 raise attachment.

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Standard Features:

Undercarriage

- The tracks are sealed and lubricated with a Caterpillar® take-up system.
- The shoes are triple grouser 12 in. (305 mm) wide.
- The torque hubs can be disengaged to allow the drill to be towed.
- Brakes are spring applied/hydraulic released (SAHR).
- Gradeability is 65% and ground clearance is 7 in. (178 mm).
- When tramming the driller stands on a tram platform located at the rear of the drill. This tram platform comes with railings for greater driller security.

Centralizer

- Hydraulic centralizer with a maximum opening of 7 in. (178 mm) along with a hydraulically actuated slip plate, which is sized to the drill tool used.

Booster

- The on board booster compressor delivers up to 700 scfm (20 m^3) of air @ 350 psi (24 bar) with mine air supply at 90 psi (6 bar). The output of the booster can be sized for the particular hammer to be used for maximum efficiency.
- The 3 in. manifold consists of a mine air filter/water separator, 3 in. 3-way valve c/w actuator, an atmosphere air filter and a booster by-pass line.
- The discharge manifold leads from the compressor to a single air receiver. The discharge manifold consists of piping, temperature probe, flexible steel discharge hose and plate-seal after-cooler. The plate-seal after-cooler requires a minimum of 2 gpm (7.6 lpm) of water and cools the discharge air by a minimum of 100° F. (80° C.)
- The air receiver is fitted with a safety relief valve set at 400 psi (27.6 bar), pilot unloader valve for loading and unloading the compressors, discharge valve and drain valve.

Water Injection

- Water for dust suppression is injected with a hydraulic driven, positive displacement, triplex pump. The pump delivers a maximum capacity of 12 gpm (45 lpm) @ 700 psi (48 bar).

Feed Assembly

- The feed overall length is 11 ft. 9 in. (3581 mm) for 6 ft. (1.83 m) drill pipe.
- Feed comes with one (1) stinger cylinder set and one (1) feed extension cylinder.
- The two-stage telescopic feed cylinder has an 84 in. (2134 mm) stroke and exerts 15,800 lbs (70kN) of hoisting and pull-down force.
- The top drive mounting plate has long wearing replaceable sliders for positive control of top drive rotation movement up and down the mast. The abrasion resistant polyethylene V-profile sliders run on replaceable steel guide bars.
- Abrasion resistant polyethylene sliders are also used on the mast connection plate and allow the mast with v-bars to be extended easily with a stable movement.
- The removable cutting deflector catches the drill cuttings returning out of the hole and discharges them through the side port. If sampling is desired, a connection can be made to the 6 in. (152 mm) discharge port.

6230 Top Drive

- Hydraulically driven by two (2) high torque motors, the top drive has a torque capacity of 4225 ft-lb. (5730 Nm) @ 3000 psi (207 bar).
- The speed is infinitely variable from 0 to 80 rpm.
- Incorporated in the top drive is the patented splined piston breakout system, which eliminates the need for wrenches to breakout drill pipe.
- Cubex threads available are #21, #24, #28, #37, and reverse circulation.

Positioning

- The feed is positioned horizontally for tramming and can be dumped for drilling from 5º below horizontal to 15º past vertical, under the drill.
- 360º swing of the feed is accomplished with a rack and pinion rotary
- Actuator: The actuator has a torque capacity of 150,000 in-lbs. (16,950 Nm).
- For quick positioning over the hole, the drill has a slideover feature with 28.5 in. (724 mm) of travel.
- The feed is extended to bring it in contact with the rock face using the feed extension cylinder. This cylinder has 39 in. (990 mm) of stroke.
- Fixing of the feed is done with the stinger cylinder assembly which has two (2) opposite acting cylinders. These cylinders can be extended 48 in. (1220 mm) to an overall length of 17 ft. 10 in. (5436 mm).

Oil Injection

- Oil for hammer lubrication is injected into the air stream with an air driven, positive displacement pump producing up to 6 gpm (22.7 lpm) at 1000 psi (69 bar). This pump system includes a non-pressurized 5 gal. (20 litre) reservoir tank.

Controls

- Electric/Hydraulic controls are mounted on an articulation swing arm that allows drilling from either side of the drill.
- The control panel comes with:
  - On/off button and power on light
  - Pressure gauges for air, holdback, pull down and rotation
  - Holdback and pull down controls
  - Controls for all drilling functions
  - Reverse drilling valve

Power

- 100 Hp (37 kW), TEFC electric motor

Hydraulics

- At the heart of the open loop hydraulic system is the variable displacement, load sensing, pressure compensated pump. It produces 34 gpm (148 lpm) @ 3000 psi (207 bar).
- Oil is stored and cooled in the 70 gal. (265 l.) tank.
- Oil filtration is done three (3) times first through a 10 micron fill filter, then to a 3 micron high pressure filter and finally through a 10 micron return filter.

Electrical

- All electrical components are enclosed in a watertight panel. This panel contains:
  - 3 Kva transformer
  - Delta-wye starter
  - Circuit breaker
  - On/off and reset buttons
  - Phase loss/phase reversal protection
  - Motor overload protection
  - Voltmeter and ammeter
  - Indicator lights
  - Compressor indicator lights
  - The electrical system includes the following safety shut downs:
  - Low mine air pressure
  - Low mine water pressure
  - Low compressor oil pressure
  - High discharge air temperature

Dimensions – Standard Configuration

Width	**Standard**	**70.5 in.**	**(1791 mm)**
	Optional with out Diesel	**62 in.**	**(1575 mm)**
Height	**Mast down, tramming**	**95 in.**	**(2413 mm)**
	Mast up, drilling	**141 in.**	**(3581 mm)**
Length	**Mast down, tramming**	**204 in.**	**(5182 mm)**
	Mast up, drilling	**188 in.**	**(4775 mm)**
Weight	**(approx.)**	**22,000 lbs.**	**(10,000 Kg)**

Equipment Options

Standard Production Options

Feed / Alignment Systems

- Accra Feed control system – Hole Quality & performance Improvement
- Alignment Laser, TERRA LP-10, Chassis Set-up
- Angle Indicator, TERRA A-20, Feed Set-up
    - Wireless system upgrade kit for TERRA A-20
- Data Logging

Drill and Feed

- 16 Rod Carousel – sizes up to 4" O.D. (102mm)
- 16 Rod Carousel – sizes up to 5" O.D. (127mm)
- 24 Rod Carousel – sizes up to 4.5" O.D. (114mm)
- Centralized Greasing stations
- Grease injection, ITH Hammer Lubrication
- Forward Dump-Slide Over – Allows Drilling 25° Underneath Drill
- RPM Indicator for 6230 Top Drive
- Forward Dump Slide – Increases Dump Angle By 30°
- Stabilization / leveling Jacks
- Narrow 6200 Upgrade
- Dual Stinger Stabilizers, Feed mounted
- Hydraulic Centralizers, Standard, Large 8.5" (216)mm
- Pneumatic Bit Sharpener
- Power Diesel Deutz BF4M1012C
- Power Diesel Deutz BF4M1013C
- Ansul Fire Suppression – Semi-auto system
- Ansul Fire Suppression – Automatic system
- Centralized Greasing
- Hydraulic Powered Cable Reel
- Heavy Hoist Feed Assembly
    - 25% Higher Capacity Electric Motor
    - 100 cc Hydraulic Pump
    - Shell and Tube Oil Cooler

Air System

- On Board Reciprocating compressor 700 CFM @ 350 psi

Electrical

- Ground/Fault Monitor
- Feed Mounted Shut-Down System
- Remote Control
- Remote Local Control, Second Station
- Electric Trailing Cable Limit Stop

Raise Options

V30 Raise Bore

- **Blind Boring Package - V30**
    - Heavy Hoist feed Assembly
    - 25% Higher Capacity Electric Motor
    - 100 cc Hydraulic Pump
    - Spacer to move centerline of drive shaft out an additional 10 inches
    - Shell and tube oil cooler
    - Drill Table Spacer Extension
    - 6230 Top Drive torque upgrade to 6283 ft LBS
    - Heavy Duty Swing Out Centralizers

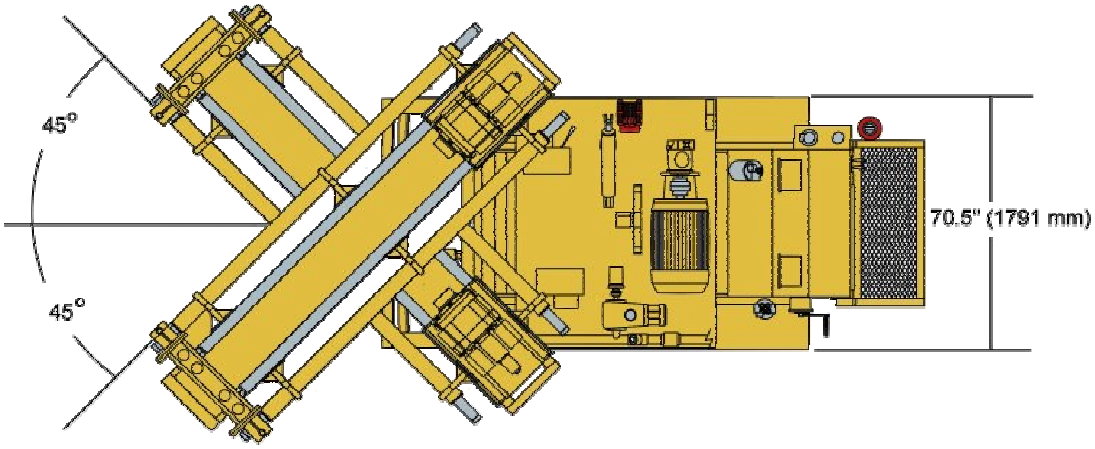
Rapid Raising / Slit Raising

- Hydraulic Centralizers, Swing-out Heavy Duty

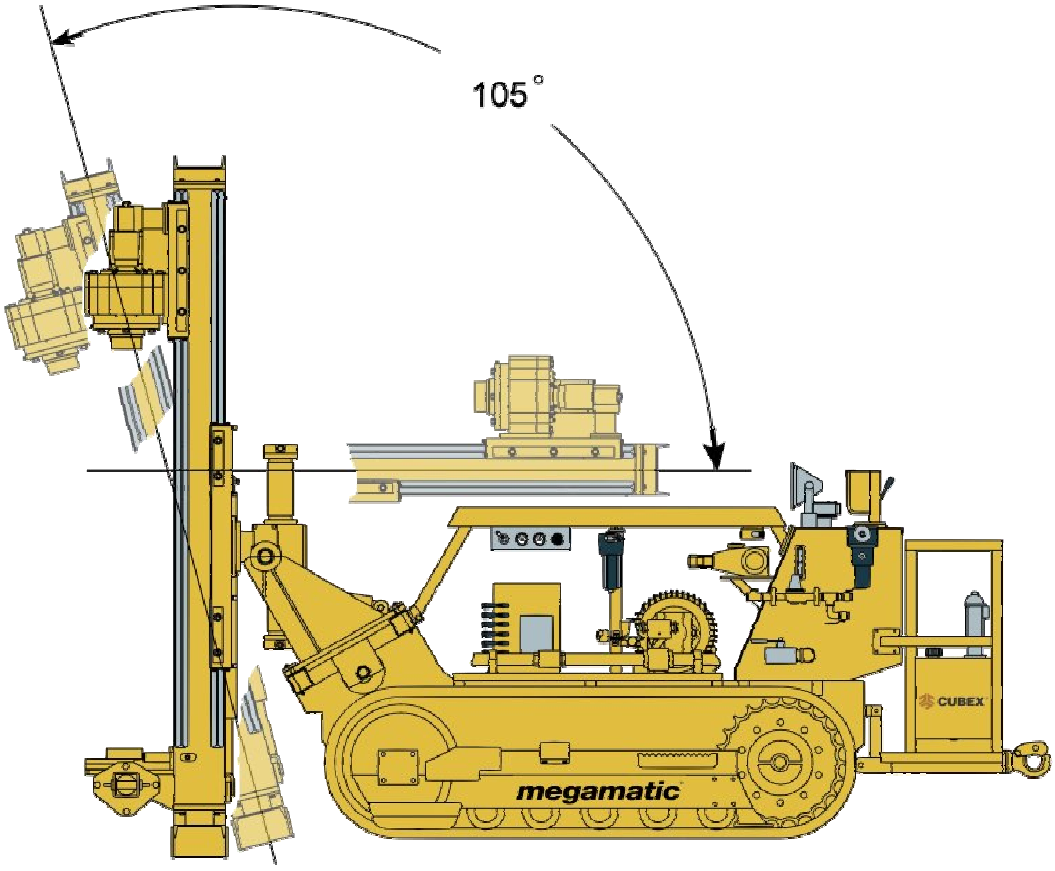
Reverse Circulation Drilling

- Breakout, Triple Wrench
- Top Drive 6230RC
- Top Drive 6200RC
- Dry Drilling Package

Horizontal Drilling Angle



Mast Dump Angle



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