PM310 | PM312 | PM313

Cold Planers



Cat® C9.3 ACERT™ Engine

Gross Power (Canada, EU, US)	242 kW	325 hp
Gross Power (All other regions)	246 kW	330 hp

Cutting Dimensions

Width - PM310	1000 mm	39.4 in
Width - PM312	1225 mm	48.2 in
Width - PM313	1300 mm	51.2 in
Maximum Cutting Depth	330 mm	13 in

Operating Weight

PM310 Track	21 655 kg	47,746 lb
PM312 Track	21 842 kg	48,153 lb
PM313 Track	21 946 kg	48,382 lb
PM310 Wheel	20 955 kg	46,203 lb
PM312 Wheel	21 142 kg	46,610 lb
PM313 Wheel	21 246 kg	46,839 lb



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THE MILLING MACHINES YOU HAVE BEEN WAITING FOR

Cat® PM300 cold planers add to the growing range of Cat cold planers. They are the product of years of study, tinkering, rethinking. Every system and component has been examined, refined, optimized. The result is a line of advanced, world-class cold planers.

The payoff for contractors is immediate: lowered operating costs and increased productivity, paired with Cat reliability and the legendary dealer support you expect from Caterpillar.

The PM310, PM312 and PM313 are well equipped to deliver precision and efficient production for urban and utility milling applications. Many options are available to enhance machine versatility and customize operations to suit the application, from milling highway approaches and shoulders to urban streets.

Whether you are texturing the surface or milling an airport runway, there is a Cat cold planer that will meet your requirements and expectations.

1. Cat C9.3 ACERT™ Engine
2. Control Console
3. Anti-Slab Device
4. Remote Camera (option)
5. Hydraulic Side Plates with Position Sensors
6. Crawler Tracks with Bolt-on Pads
7. Wheel Undercarriage (option)
8. LCD Touchscreen Display
9. Power Canopy (option)
10. Dust Abatement System (option)
11. Articulating Right Rear Column
12. Water Spray Control and Clean out Manifold
13. Truck Interface Signal Lights (option)
14. Cat Diamond Bits (option)
15. Cat Grade Control (option)
16. Working Lights (LED option)
17. Warning Beacon (option)
18. Ballast Kit (option)





TRACK OR WHEEL

OPTIONS THAT MAKE YOU MORE PRODUCTIVE.

RUGGED POWERTRAIN

SIMPLE DESIGN DELIVERS AMPLE POWER TO GROUND.

C9.3 ACERT ENGINE

– Two engine configurations depending on region:

EMISSIONS	ENGINE POWER
U.S. EPA Tier 4 Final / EU Stage IV	242 kW (325 hp)
China III NR / Brazil MAR-1 (Tier 3 / Stage IIIA equivalent)	246 kW (330 hp)

– Multiple rotor speeds optimizes output to the demand on the engine, keeping operation smooth and efficient
– High capacity cooling system keeps engine at ideal temperature for optimal fuel efficiency and lower emissions
– Proven core engine design ensures reliability and quiet operation
– Engine is iso-mounted to reduce noise and vibration







PROPEL SYSTEM

– Robust propel system features propel pump driving dual displacement planetary motors at each leg post
– Automatic Load Control senses load changes on the rotor system and adjusts propel speed to prevent stalls and optimize production
– Steering and propel are controlled with the multi-function joystick
– Automatic traction control ensures production in the most challenging applications

STABLE PLATFORM

– Four leg posts provide powered vertical movement to maintain desired cutting depth or travel height
– Optional Cat Grade Control is integrated with the machine and provides maximum cutting precision without complication; system can be enhanced to full 3D milling capability

WHEEL UNDERCARRIAGE

– Four wheels with solid rubber tires provide enhanced job site speed compared to track undercarriage
– Wheels are 660 mm (25.9 in) diameter and 260 mm (10.2 in) wide









WORRY-FREE TRACKS

- Four crawler tracks based on proven Cat track design and components
- Tracks automatically adjust to provide ideal tension
- Track pads are easily replaceable with bolt-on design

EXCELLENT MANEUVERABILITY

- Electronic Control Modules (ECMs) optimize steering angles to ensure smooth turns
- Minimum left cutting radius: 4.14 m (13.58 ft)
- Minimum right cutting radius: 1.92 m (6.30 ft)

The right rear leg articulates, a feature that allows it to be positioned outboard of the cutting chamber for maximum stability and traction in demanding cuts, or inboard in front of the rotor chamber for enhanced flush cutting capability.



COMFORT AND CONTROL

OPERATE WITH CONFIDENCE.

OPERATING ENVIRONMENT

- Right side operating console is intuitive and comfortable
- Touchscreen LCD display provides gauge cluster, operating information, remote camera feed, machine control and diagnostics; optional second and third display available to provide additional gauge or machine operation/control information
- Suspension seat reposition for optimal visibility and comfort
- Lockable storage beneath seat provides secure area to stow personal items
- 12-volt power receptacle

ERGONOMIC CONTROLS

- Controls comfortably positioned for easy use
- Large, backlit keypads are visible in all light conditions
- Durable design tested to 1 million cycles
- Lockable cover provides protection from vandalism

EQUIPPED FOR 24/7 OPERATION

- Working areas and perimeter well lit with standard halogen lights
- Displays and controls easy to see
- Floor lighting enhances nighttime operation
- Additional LED light options

POWER CANOPY OPTION

– Hard top canopy is hydraulically raised and lowered with control toggle by rear control console or keypad button on operator's control console
– Side panel can be positioned to improve sun coverage

GROUND CONTROL CONSOLE

– Provides convenient ground-level control for certain functions during rotor service
– Emergency stop (E-Stop) button provides means for immediate machine shut down upon activation
– Located within lockable protective enclosure





Easy to use controls and large LCD screens keep the operator informed and in control.





CUTTING SYSTEM

EFFICIENT AND DEPENDABLE, AS IT SHOULD BE.

ROBUST ROTOR CHAMBER

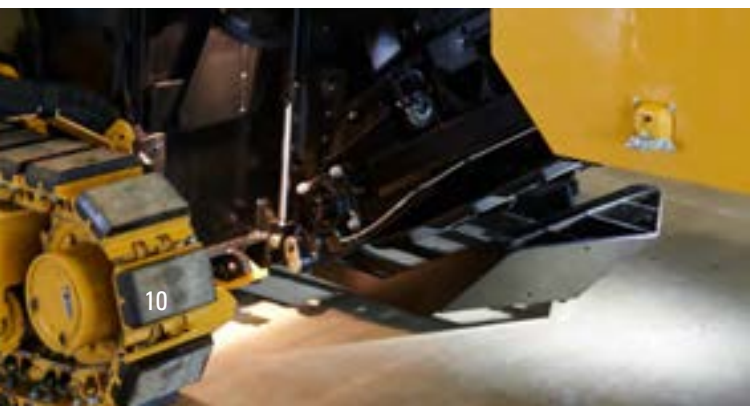
- Chamber optimizes material flow to promote thorough clean-out
- Abrasion resistant in areas exposed to high abrasion for greater durability
- Side plates are hydraulically adjustable with position-sensing cylinders for use with grade control
- Hydraulically adjustable moldboard applies optimal down-pressure to keep material contained for clean out and minimize required sweeping

THE VERSATILITY YOU NEED

- Three available cutting widths
- Cutting depth to 330 mm (13 in)
- Enhanced clearance for flush cutting
- Three rotor speeds, electronically selectable during operation
- High production and fine milling drums available
- Optional Cat Grade Control keeps machine on target

ANTI-SLAB DEVICE

- Helps to optimize sizing and gradation
- Protects collecting conveyor
- Prevents blockage in the discharge opening





ADVANCED AUTOMATED FEATURES

- Automatic Load Control senses load changes on the rotor and adjusts propel speed to prevent stalls and optimize production
- Automatic plunge-cut feature ensures precise, repeatable starting cuts and reduces wear on machine (requires Cat Grade Control option)
- Ramp-in, Ramp-out cutting capability (requires Cat Grade Control option)
- Jump hold feature assists to clear obstacles

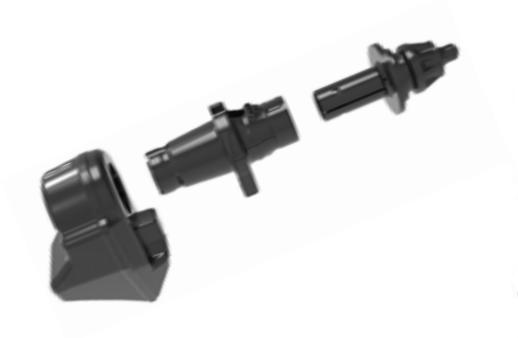
ROTOR DRIVE SYSTEM

- Driven by a dual-stage belt drive through a gear reducer
- Automatic belt tensioning to reduce slippage
- Heavy-duty dry clutch

HIGH PRODUCTION ROTORS

- 1000 mm (39.4 in), 1225 mm (48.2 in) or 1300 mm (51.2 in) cutting widths
- Cutting bits held in exclusive conical quick-release tool holders and arranged in a triple-wrap flight pattern
- Large, replaceable carbide-faced loading paddles effectively move milled material onto collecting conveyor
- Standard 15 mm (5/8 in) tool tip spacing is optimal for high production and reduced wear
- Triple tree tool arrangement on rotor ends reduces wear on rotor when maneuvering in the cut
- Premium carbide bits available
- Optional Cat Diamond Bits provide cutting life up to 80 times longer than conventional carbide bits, decreasing overall fuel consumption and reducing machine wear







ABOVE: Exclusive 3-piece conical tool holders
BELOW: Reversible, replaceable carbide-faced loading paddles



CAT GRADE CONTROL

EASY TO USE; HIGH PRECISION.



INTEGRATED DESIGN

– System communicates directly with position-sensing hydraulic cylinders, slope sensors and processors to ensure optimal precision

CONTROL BOX

– LCD color touchscreen display with soft keys is durable and visible in all light conditions
– Intuitive interface is easy to understand and use
– Supports multiple languages
– Durable design is robust and weather resistant

REFERENCE OPTIONS



1. Position-sensing Sideplates
2. Sonic Sensor Mounting Point
3. Control Box Location
4. 3D Mast Mounting Point

SYSTEM SIMPLICITY

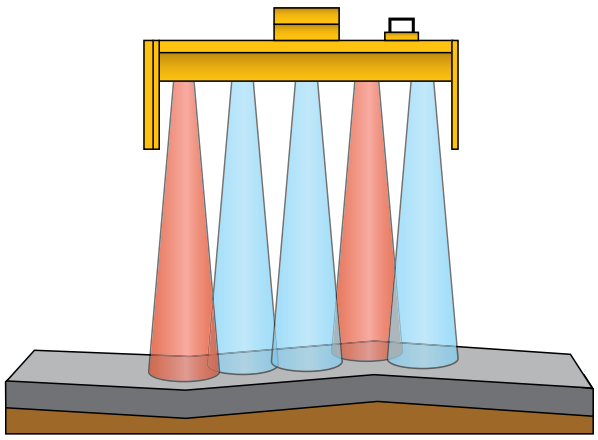
- System reads position sensing hydraulic cylinders on the side plates to use them as averaging skis
- Onboard slope sensors provide slope data
- Can be configured for full 3D operation
- Sonic sensors can be positioned on either side the machine

SONIC SENSORS

- Sensor units feature five ceramic transducers
- System discards the highest and lowest readings and averages remaining three for a true average
- Each unit equipped with temperature sensor that compensates for fluctuations due to temperature change
- Durable construction outlasts foil transducer designs



Each sensor has five transducers; the high and low readings are discarded and the remaining three are averaged for a true average reading.



BLUE: Averaged readings
RED: Discarded readings



HIGH CAPACITY MATERIAL REMOVAL

EFFICIENT AND EFFECTIVE.

The high-capacity conveyors provide efficient removal of milled material and dust with outstanding discharge control.

COLLECTING CONVEYOR

- A wide opening and seamless 600 mm (23.6 in) wide belt efficiently clears rotor chamber
- Variable belt speed optimizes speed to material type and production rate
- Reversible for easy clean out

WATER SPRAY SYSTEM

- Water spray system provides lubrication and cools bits while helping to control dust
- Spray system fed by 1260 L (333 gal) onboard tank; tank can be filled from top left side fill port or side fill valve
- Optional additional water spray system provides maximum lubrication, cooling and dust suppression
- Optional air compressor available provide convenient capability to purge water lines

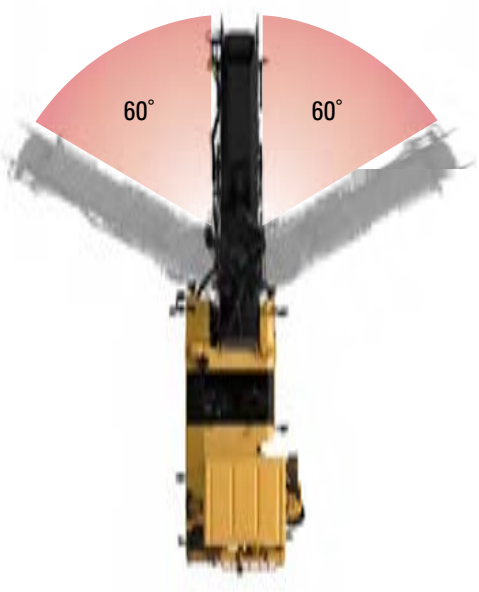
OPTIONAL DUST ABATEMENT SYSTEM

- Vacuum system ports to collecting conveyor housing and transition between collecting and loading conveyor to remove airborne particles
- Augments dust suppression provided by water spray system
- Discharges collected dust into the loading conveyor to facilitate removal from working area around machine
- Optional additional water spray system maximizes dust supression capability



LOADING CONVEYOR

- Loading conveyor swings 60 degrees from center position to the left or right
- Covers and seals reduce spillage and help control dust; side panels easily removed for cleaning conveyor
- Seamless 600 mm (23.6 in) wide belt provides heavy duty, high speed discharge
- Variable belt speed optimizes speed to material type and production rate
- Reversible for easy clean out
- Loading conveyor folds to reduce length for transport; optional hydraulically folding conveyor available
- Quick connect fittings make it simple to remove loading conveyor





OPTIONAL EQUIPMENT

OPTIMIZE VERSATILITY, PRODUCTIVITY, COMFORT.

CAT GRADE AND SLOPE CONTROL
System is integrated with the machine for maximum precision

POWER CANOPY
Raises and lowers hydraulically

CAT DIAMOND BITS
Lasts up to 80 times longer than conventional carbide bits

ADDITIONAL LCD TOUCHSCREEN DISPLAY
For use to monitor machine functions

PRODUCT LINK, ADDITIONAL CONFIGURATIONS
Keep track of your machine health, location or fleet use

ADDITIONAL WATER SPRAY SYSTEM
Second system augments lubrication, bit cooling and dust suppression capabilities of the standard system

BALLAST KIT
Additional 500 kg (1100 lb) supplemental weight for increased productivity in demanding cuts

TRUCK SIGNAL LIGHTS
Facilitates clear visual communication with truck drivers.

DUST ABATEMENT SYSTEM
Vacuum system ports to the transition area between the rotor chamber and the collecting conveyor as well as the transition between the collecting conveyor and the loading conveyor; dust is removed and expelled within the loading conveyor, where is it discharged with the milled material

REMOTE CAMERA, LOADING CONVEYOR
Mounts to the discharge end of the loading conveyor; provides enhanced view of discharge loading

REMOTE CAMERA, REAR
Mounts to the rear of machine; provides enhanced view of area behind the machine

REMOTE CAMERA, CUTTING CHAMBER EDGE
Provides view to left edge of cutting chamber

REMOTE CAMERA, MAGNETIC MOUNT
Mounts magnetically to various locations

HIGH PRESSURE WASHDOWN SYSTEM
High pressure hose and spray wand connect to onboard water tank to deliver high pressure water spray for convenient clean up

AIR COMPRESSOR
For operating air tools and blowing out water lines

WARNING BEACON
Amber warning beacon mounts to two fixed locations on loading conveyor and rear of machine

HYDRAULIC FOLDING CONVEYOR
Provides full hydraulic assist to fold conveyor for transport

EMERGENCY AUXILIARY POWER UNIT
Provides hydraulic flow to critical systems to enable assisted machine movement

COMMISSIONING SUPPORT
Cat technician provides machine introduction and training to key personnel

















1. Power Sun Canopy
2. Truck Signal Lights
3. Dust Abatement System
4. Remote Camera, Left Cutting Edge/Side Plate
5. Remote Camera, Rear
6. Remote Camera, Loading Conveyor
7. High Pressure Washdown System
8. LED Lights/Storage

EASY SERVICE

DESIGNED RIGHT IN.

Outstanding access to critical components and systems makes service and maintenance easier and faster. That keeps your machine where you need it: on the job.



LARGE ACCESS DOORS AND PANELS

- Designed to facilitate efficient service, reducing labor costs and service time
- Quick and easy maintenance
- Accessible pumps and components
- Visual indicators simplify routine service checks
- Remote grease fittings simplify maintenance



HYDRAULIC SYSTEM

– Manual overrides simplify troubleshooting
– Hydraulic hoses are cleanly routed and clamped for long-term reliability
– Exposed hoses are wrapped in nylon sleeves for protection against abrasion
– Pressure test ports and oil sampling ports simplify hydraulic system diagnosis



ELECTRICAL SYSTEM

– 24-volt system with 100 amp alternator
– Color-coded and numbered electrical wiring simplifies troubleshooting
– Harnesses are wrapped in abrasion-resistant nylon braid

ELECTRONIC CONTROL MODULES (ECM)

– Monitors machine systems to ensure proper function and precision
– Provides warning indications via LCD touchscreen display when machine performance is substandard
– Provides diagnostic information



TELEMATICS: PRODUCT LINK™

– Maximize up-time
– Automatic machine location
– Hour updates
– Diagnostic codes
– Schedule service at convenient times
– Optional configurations available

LONG SERVICE INTERVALS

– 500 hour engine oil service interval
– 3,000 hour hydraulic oil service interval without oil sampling; 6,000 hours with oil sampling



OPTIONAL EMERGENCY AUXILIARY POWER UNIT

– Provides full operational control of primary machine functions to enable assisted machine movement during maintenance or service
– Facilitates assisted relocation of machine from live construction area to service area during emergency situations

CUTTING BITS

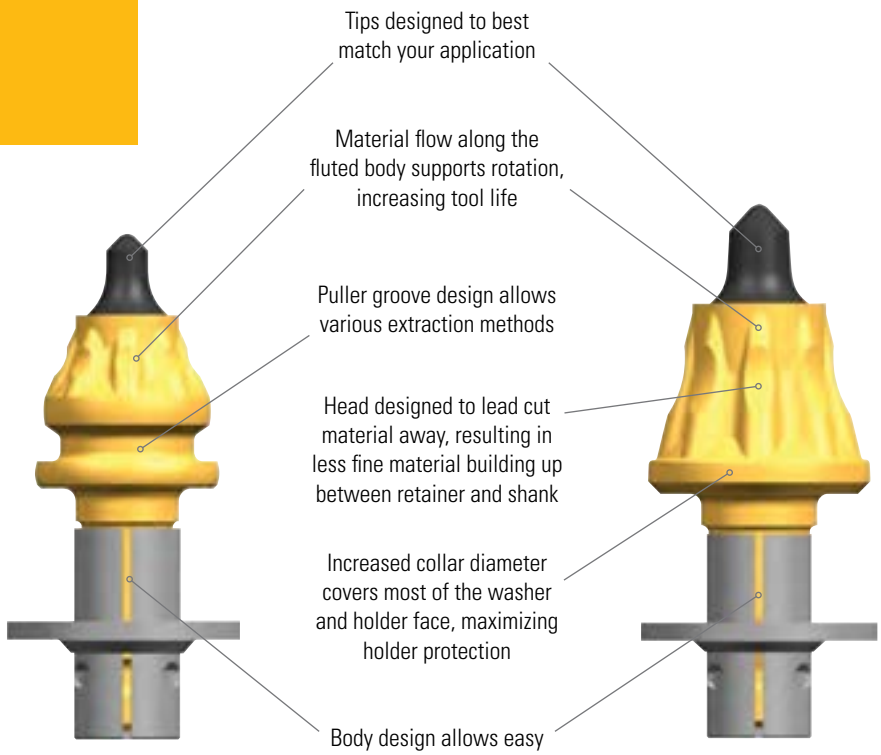
OPTIMIZE PERFORMANCE, MAXIMIZE PRODUCTION.



PREMIUM CUTTING BITS

Your Cat Dealer can supply you with a wide assortment of cutting bits to match performance to your application. Offering superior holder protection and easy penetration, the right cutting bit can ensure peak machine performance, providing maximum production, greater fuel efficiency and less wear on your machine.

A wide range of styles, shapes and shank sizes to accommodate most rotors, engine powers, materials and applications.





CAT DIAMOND BITS

STAY SHARP UP TO **80X** LONGER THAN CONVENTIONAL CARBIDE.

Average life and exact tonnage is impacted by local aggregate and operating technique. Diamond Asphalt Bits last up to 45x the life of standard carbide bits and Diamond Extended Life Bits last up to 80x the life of standard carbide bits.

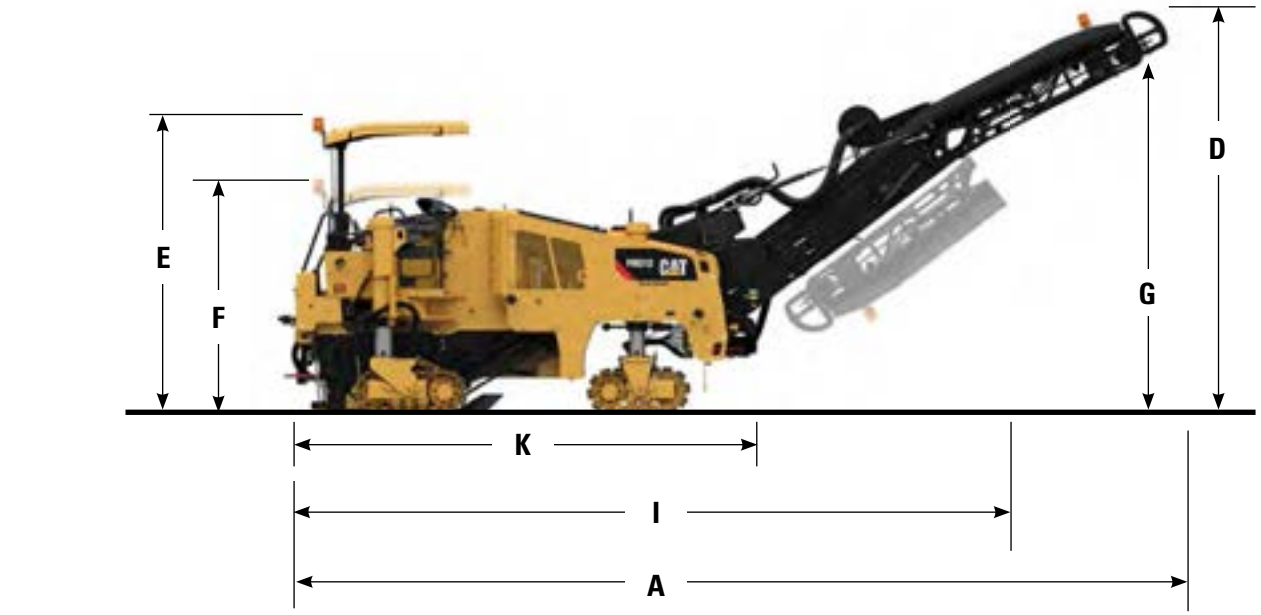
PROVEN BENEFITS

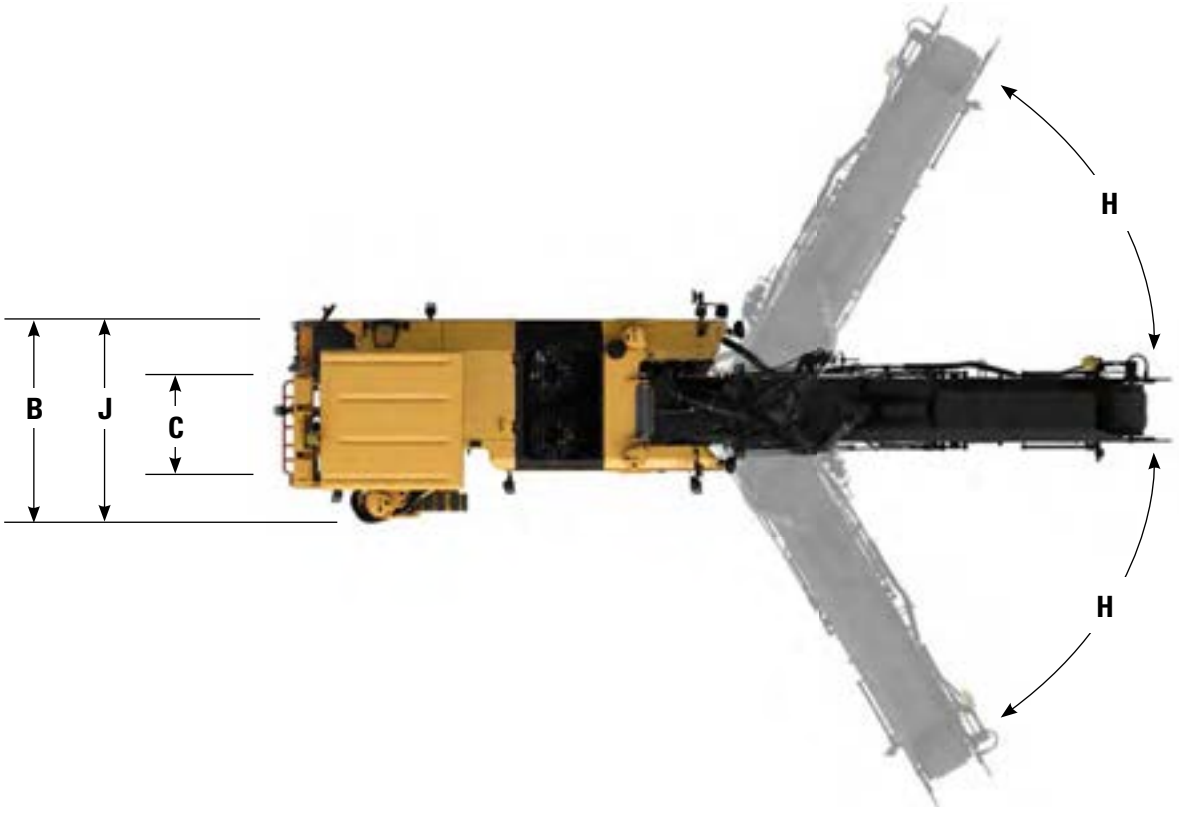
More efficiency, more productivity, lower fuel consumption and less wear on the machine. It all adds up to more profitability and growth for your company.

- Last up to 80x longer than carbide tips, keeping crews more productive, month after month
- Assure faster project completions
- Provide you with a significant bidding advantage
- Virtually eliminate labor costs for pick changes; eliminate unplanned, unproductive interruptions
- Deliver proven fuel savings per ton of production
- Enable faster milling speeds and increased productivity
- Eliminate costly bit inventory, and the handling that goes with it
- Require no rotation, crucial because half of carbide failures result when tools fail to turn
- Create less vibration, increasing the life of planetaries, drive shafts, stub shafts, bearings and other parts and components
- Increase track-pad life because the machine does not work as hard
- Deliver a dramatically improved return on your mill investment through increased engagement
- Extend life of moldboards through a consistent pattern; protect welded-on base blocks—and ultimately the drum



SPECIFICATIONS





SPECIFICATIONS

Operating Dimensions

A	Overall length, conveyor up	11.11 m	36.45 ft
B	Maximum machine width	2.55 m	8.37 ft
C	Cutting width - PM310	1000 mm	39.4 in
	Cutting width - PM312	1225 mm	48.2 in
	Cutting width - PM313	1300 mm	51.2 in
D	Maximum height, raised conveyor	5.15 m	16.89 ft
E	Height to optional canopy	3.75 m	12.30 ft
F	Height, no canopy (canopy down)	3.00 m	9.84 ft
G	Maximum truck clearance	4.70 m	15.42 ft
H	Conveyor swing	± 60° from center	

Shipping Dimensions

I	Transport length	9.32 m	30.58 ft
J	Transport width	2.55 m	8.37 ft
K	Length of base machine	8.33 m	27.33 ft
F	Transport height	3.00 m	9.84 ft

Weight

PM310

Operating weight - Track	21 655 kg	47,746 lb
Operating weight - Wheel	20 955 kg	46,203 lb
Transport weight - Track	20 043 kg	44,187 lb
Transport weight - Wheel	19 343 kg	42,644 lb

PM312

Operating weight - Track	21 842 kg	48,153 lb
Operating weight - Wheel	21 142 kg	46,610 lb
Transport weight - Track	20 230 kg	44,560 lb
Transport weight - Wheel	19 530 kg	43,017 lb

PM313

Operating weight - Track	21 946 kg	48,382 lb
Operating weight - Wheel	21 246 kg	46,839 lb
Transport weight - Track	20 334 kg	44,560 lb
Transport weight - Wheel	19 634 kg	43,286 lb

Weights shown are approximate and include:

- Operating weights include coolants, lubricants, full fuel tank, full water tank and 75 kg (165 lb) operator.
- Transport weights include coolants, lubricants, 50% full fuel tank and empty water tank.

Powertrain

Cat C9.3 ACERT Engine	6-cylinder	
CANADA, EU, U.S.A.		
Gross power - SAE J1995	242 kW	325 hp
Emissions	U.S. EPA Tier 4 Final / EU Stage IV	
ALL OTHER REGIONS		
Gross Power - SAE J1995	246 kW	330 hp
Emissions	Brazil MAR-1 / China III NR (Tier 3 / Stage IIIA equivalent)	
Operating speed	33 m/min	108 ft/min
Maximum travel speed- Track	5.5 km/h	3.4 mph
Maximum travel speed- Wheel	7.5 km/h	4.7 mph

Service Refill Capacities

Fuel Tank	600 L	158.5 gal
Diesel Exhaust Fluid (DEF) Tank*	22 L	5.8 gal
Cooling System	62 L	16.4 gal
Engine Oil	30 L	7.9 gal
Hydraulic Oil	59 L	15.6 gal
Water Tank	1260 L	333 gal

Optional Equipment

- Power Canopy
- Warning Beacon
- Additional Touchscreen Display
- Hydraulic Folding Conveyor
- Additional Water Spray System
- Truck Signal Lights
- Air Compressor
- Dust Abatement System
- Cat Grade Control
- Remote Camera (Front, Rear, Left Cutting Edge or Magnet Mount)
- Product Link (optional configurations available)
- Emergency Auxiliary Power Unit
- Cat Diamond Bits
- Ballast Kit
- Machine Commissioning Support

* Equipped on machines sold in Canada, EU and U.S.A. only.

IBAMA PROCONVE HOMOLOGADO

PM310 | PM312 | PM313
Cold Planers

For more complete information on Cat products, dealer services,and industry solutions, visit us on the web at www.cat.com

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