



Cat[®] PM820

Cold Planer

The Cat[®] PM820 Cold Planer brings maximum power and advanced cutting capabilities, with Cat GRADE with Grade and Slope technology to increase cutting precision. Smooth and efficient performance with multiple rotor speeds lowers fuel consumption, while long service intervals and easy access to critical components simplifies service. Many options are available to enhance machine capability on a cold planer that is built to maximize production.

Not all features available in all regions. Consult your Cat dealer for specific configurations available in your region.

Efficient Performance with More Power

- Powerful Cat[®] C18 twin-turbo engine meets regional emission standards
- Smooth and efficient operation with Automatic Idle Control and multiple rotor speeds optimize output and demand on the engine
- High capacity cooling system keeps engine at ideal temperatures for optimal fuel efficiency and lower emissions
- Automatic load sensing on the rotor adjusts milling speed to prevent stalls and optimize production

Optimal Maneuverability and Control

- Reliable track undercarriage leverages proven designs from Cat dozers and an automatic tensioning system to ensure consistent performance and longer track life
- Robust propel system features two independent propel pumps to drive two crawler tracks each, in a high-traction, cross-drive pattern
- Automatic traction control maintains consistent speed in the most challenging applications
- Four steering modes with advanced alignment and tracking provides precise steering geometry and reduces track pad wear
- Ability to electronically switch between rotor speeds during operation

Efficient Material Removal

- High-capacity conveyors provide efficient removal of milled material with outstanding discharge control
- A wide opening and seamless belt effectively clear the rotor chamber
- Adjust the belt speed to match material type and production rate, while the built in “boost” feature provides a temporary surge in belt speed to eject material faster and farther
- The belt reverses for faster clean-up, while magnetic vinyl covers provide quick access to inspect the rollers for wear



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Comfortable Work Environment

- Operate in comfort with height-adjustable operating consoles and intuitive, ergonomic controls
- Retractable handrails stow and redeploy easily when approaching obstacles
- Work day or night with backlit keypads and illuminate the work area around the machine with wide-dispersion and perimeter LED lighting options
- Upgrade operator stations with optional suspension seats that reposition for improved visibility and comfort
- Optional remote cameras enhance visibility to the cutting edge and conveyor
- The single post, forward-folding powered canopy option with overhead LED lighting and integrated side extensions quickly stows and redeploys during operation to clear overhead obstacles with the simple push of a button, and optional windscreens can be added for increased comfort
- Maximize dust removal from the working areas with the optional dust abatement system

Durable and Dependable Cutting System

- The rotor drive system features a heavy-duty dry clutch, automatic belt-tensioning to prevent slippage and two high tensile (five-rib) belts to drive the rotor
- Reinforced cutting chamber offers enhanced durability
- Improved access simplifies rotor changes
- Hardened full length side plate skis, inboard ski shoe, and anti-slab shoes reduce wear and maintenance

Boost Precision with Integrated Cat Technology

- Achieve accurate, repeatable and automatic cutting precision with the integrated Cat GRADE with Grade and Slope system
- Control boxes can be repositioned without the need to reconfigure settings and the background color changes to night mode when the work lights are activated
- Obtain full control of grade and slope from any control box
- Seamlessly switch between multiple grade sensors for uninterrupted accuracy during milling
- Adjust the speed at which the rotor drops into the cut for optimal machine control
- Set and automate transitions in/out of cuts and save settings for future jobs
- Clear obstacles in the cutting path with ease using the obstacle jump feature
- Enhance for full 3D milling operation (additional hardware required)

High Production System K Rotors Optimize Cutting Capability

- Cat System K rotors feature efficient material flow with an excellent cutting pattern for numerous applications
- A tapered dual-retention design secures toolholders in place without a retaining pin, bolt or setscrew, speeding up replacement and eliminating the need for fasteners or torqueing
- Reversible paddles and high strength alloys reduce wear and abrasion to extend rotor life
- Optional diamond bits can extend replacement intervals up to 80 times longer than conventional carbide bits

Simplified Service

- Maintenance is easier and faster with large service doors and power hood for walk-in access to critical components
- Maintenance-free track components and easy to replace track pads lower service costs
- Standard ground-level controls and an optional electrically-operated rotor turning device with pendant simplify bit removal and replacement
- High and low pressure washdown options connect to the onboard water tank for convenient clean-up
- Operate select machine functions during maintenance and service with the accessory drive system
- Electrical system wiring is color-coded and numbered for easy identification and wrapped in a protective, abrasion-resistant nylon braid for longer life
- Extended hydraulic oil service intervals: 3000 hours without oil sampling, 6000 hours with oil sampling
- Track scheduled maintenance with Cat Product Link™ telematics services
- Electronic Control Modules (ECMs) monitor machine systems to alert the operator of performance issues and can be paired with Product Link options to enable additional remote services with your local Cat dealer
- Multi-piece, cartridge-style engine filters are environmentally friendly, reducing waste and lowering replacement costs
- Convenient parts availability, dealer locations and service repair kits simplify ordering of high wear components

Convenience Features

Cat cold planers offer a variety of features and options designed to make daily operation and maintenance tasks easier.

- Pause and resume machine functions with the push of a button during truck exchanges
- Optional magnetic paint can holders
- Hooks for water hose storage
- Angled water fill connection
- Easily accessible shovel holder
- Top and side view rotor depth indicators
- Compressed air connection in center operator console

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Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
OPERATOR ENVIRONMENT			POWERTRAIN		
Ground control keypads	✓		Auto engine idle control	✓	
Single high-resolution LCD touchscreen display	✓		High capacity cooling system	✓	
12-volt power receptacle	✓		Dual propel pumps	✓	
Dual high-resolution LCD touchscreen displays		✓	Automatic load control	✓	
Hydraulically folding canopy with LEDs		✓	CE certificate		✓
Air-ride suspension seats		✓	HYDRAULIC SYSTEM		
Windscreens		✓	Dual pump hydraulic propel system	✓	
CAT CONNECT TECHNOLOGY			Traction control	✓	
Cat® Product Link™	✓		Water tank transfer pump		✓
Cat GRADE	✓		Fuel transfer pump		✓
Inboard ski		✓	SERVICE AND MAINTENANCE		
Sonic sensor (averaging or string line)		✓	Sampling ports for Scheduled Oil Sampling (S.O.S SM)	✓	
Ground level grade controls and displays		✓	Power hood	✓	
CONVEYOR			Platform-level engine oil dipsticks	✓	
Grease tensioner	✓		Rotor chamber water spray system	✓	
Material removal boost feature	✓		Air compressor	✓	
Dust abatement system		✓	Accessory drive system	✓	
Remote camera (loading conveyor)		✓	3400 L (898 gal) onboard water tank	✓	
ROTOR SYSTEM			Side water fill valve	✓	
Automatic plunge-cut	✓		High pressure washdown		✓
Automatic transition feature	✓		Low pressure washdown		✓
Obstacle jump	✓		Additional spray bars		✓
Three cutting speeds	✓		SAFETY AND SECURITY		
System K Rotor - Coarse (25 mm)		✓	Platform handrails	✓	
System K Rotor - Coarse (18 mm)		✓	Signaling/warning horn	✓	
System K Rotor - Standard (15 mm)		✓	Wide-dispersion LED work lights	✓	
System K Rotor - Fine (8 mm)		✓	Perimeter LED strip lights		✓
System K Rotor - Micro (6 mm)		✓	Magnetic LED work light		✓
System H Rotor - Micro (6 x 2 mm)		✓	Warning beacon (fixed or magnetic mount)		✓
Diamond bits		✓	Truck signal lights		✓
Bit bucket trays		✓	Remote camera (rear, front, magnetic mount)		✓
Pneumatic bit removal tool		✓			
Tool holder extractor		✓			
Rotor turning device with pendant control		✓			

Technical Specifications

Engine

Engine Model	Cat C18 twin-turbo	
Cylinders	6	
Emissions	U.S. EPA Tier 4 Final, EU Stage V Gross Power – SAE J1995:2014 601 kW 806 hp Engine Power – ISO 14396:2002 595 kW 798 hp U.S. EPA Tier 2, EU Stage II equivalent Gross Power – SAE J1995:2014 576 kW 772.4 hp Engine Power – ISO 14396:2002 569 kW 763 hp	
Build Number	02B	
Maximum Milling Speed	100 m/min	328 ft/min
Maximum Travel Speed	5.9 km/h	3.7 mph

Cutting System

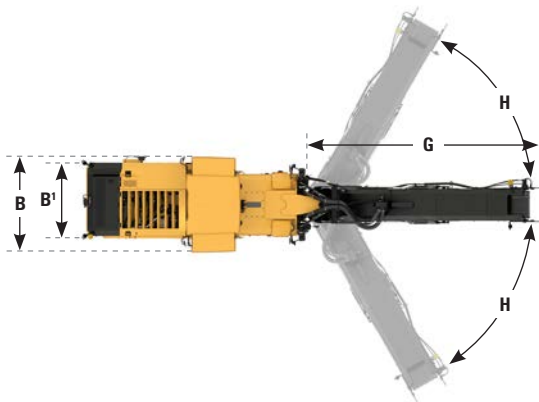
Milling Width	2010 mm	79.1 in
Number of Bits (15 mm spacing)	170	
Maximum Cutting Depth	330 mm	13.0 in
Rotor Speeds	100 / 109 / 118 rpm	
Minimum Left Cutting Radius	2.00 m	6.56 ft
Minimum Right Cutting Radius	2.00 m	6.56 ft

Machine Weight

Operating Weight	36 130 kg	79,653 lb
Transport Weight	32 230 kg	71,055 lb

Weights shown are approximate and include:

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



Service Refill Capacities

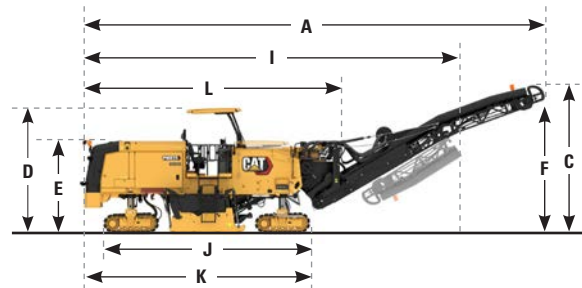
Fuel Tank	1108 L	292.7 gal
Cooling System	104 L	27.5 gal
Engine Oil	65 L	17.2 gal
Hydraulic Oil	113 L	29.9 gal
Water Tank	3400 L	898.2 gal

Operating Dimensions

A Overall Length (conveyor raised)	14.52 m	47.64 ft
B Maximum Machine Width	3.11 m	10.20 ft
B' Minimum Machine Width	2.52 m	8.27 ft
C Maximum Height (conveyor raised)	5.23 m	17.16 ft
D Height to Optional Canopy	4.05 m	13.29 ft
E Height (canopy lowered)	3.00 m	9.84 ft
F Maximum Truck Clearance	4.86 m	15.94 ft
G Conveyor Length	8.38 m	27.49 ft
H Conveyor Swing	±60° from center	

Shipping Dimensions

I Transport Length	12.43 m	40.78 ft
B' Transport Width	2.52 m	8.27 ft
E Transport Height (canopy lowered)	3.00 m	9.84 ft
J Length (track to track)	6.69 m	21.95 ft
K Length of Machine (rear to front track)	7.32 m	24.02 ft
L Length of Base Machine	8.33 m	27.33 ft



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Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit www.caterpillar.com/en/company/sustainability.html.

ENGINE

- The Cat C18 Twin Turbo is available in configurations that meet U.S. EPA Tier 4 Final and EU Stage V emission standards or equivalent to U.S. EPA Tier 2 and EU Stage II.
- Cat U.S. EPA Tier 4 Final and EU Stage V diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)
 - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels
- Cat engines equivalent to U.S. EPA Tier 2 and EU Stage II are compatible with diesel fuel blended with the following lower-carbon intensity fuels up to:
 - ✓ 20% biodiesel FAME (fatty acid methyl ester)
 - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

PAINT

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
 - Barium < 0.01%
 - Cadmium < 0.01%
 - Chromium < 0.01%
 - Lead < 0.01%

SOUND PERFORMANCE

With cooling fan speed at 70% of maximum value:

Operator Sound Pressure Level – 97 dB(A)
(EN 500-2:2006+A1:2008, Annex A)

Exterior Sound Power Level – 113 dB(A)
(EN 500-2:2006+A1:2008, Annex A)

- Hearing protection may be needed when operating with an open operator station for extended periods or in a noisy environment.

OILS AND FLUIDS

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

FEATURES AND TECHNOLOGY

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
 - Advanced hydraulic systems balance power and efficiency
 - Adjustable rotor speeds allow for milling at lower engine speeds
 - Automatic Idle Control system increases engine speed only when functions need it
 - Variable speed cooling fan operates at the lowest speed for optimal cooling
 - System K rotor efficiently removes material and reduces drag
 - The Standby/Resume feature pauses machine functions and lowers engine speed during truck exchanges
 - Extended maintenance intervals reduce fluid and filter consumption
 - Diamond bits stay sharper up to 80 times longer than conventional carbide and reduce cutting resistance

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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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Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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(Global)

