



Cat[®] AP500

Asphalt Paver

The Cat[®] AP500 Asphalt Paver is designed for urban streets, car parks, rural roads and many other small to intermediate-type applications. This paver provides high throughput capability as-well-as application versatility, easy set-up, and a wide paving range.

More Performance and Flexibility

- Powerful C4.4 engine supports increased feeder system capacity as well as hopper inserts for continuous paving
- Tight 90° turning capability enables the paver to rotate and cover its tracks on a return paving pass
- Standard paving range utilizing the SE47 V screed is 2.4 m - 4.7 m (8' - 15'6") with a maximum width of 6.1 m (20')
- Standard paving range utilizing the SE47 FM screed is 2.4 m - 4.7 m (8' - 15'6") with a maximum width of 5.9 m (19' 6")
- Standard paving range utilizing the SE47 VT screed is 2.4 m - 4.7 m (7' 10" - 15' 4") with a maximum width of 6 m (19' 8")
- Standard paving range utilizing the the SE50 VT is 2.55 m - 5.0 m (8' 4" - 16' 4") with a maximum width of 6.77 m (23' 3")
- Paving depths up to 300 mm (12") supports aggregate paving applications

Transport Made Easy

- Machine weight of less than 14.5 mt (32,000 lb) paver and screed combination enables easy transport on a variety of trailer types
- Length of 5.87 m (19' 3") and width of 2.50 m (8'2") when equipped with SE47 FM screed with optional folding end gates accommodates machine transport without special permits.
- The front-loading angle of 17° and high front bumper clearance reduces the need for additional blocking when loading onto various trailer designs
- Front, middle, and rear tie-down locations make securing the paver highly efficient for quick travel to the next job site

Exceptional Mobility With Fast Travel Speed

- Wheel undercarriage provides exceptional mobility and fast travel speeds for unmatched maneuverability around the job site
- Excellent traction is delivered through the 17.5 R25 radial drive tires
- Front-wheel assist option provides power to the rear set of bogie wheels for excellent performance in tough conditions
- All-wheel drive option utilizes a flow divider to deliver power to both sets of front bogie wheels for additional pulling power
- High ground clearance of 197 mm (7.8") helps avoid storm drains, curbs, and other obstacles

Smooth Material Flow

- Optimized hopper design with low truck entry height and short front apron enhances material flow while simplifying clean-out
- Enhanced feeder system with 355 mm (14") diameter augers provides consistent material flow across the screed for efficient flow at both narrow and wide paving widths
- Confined auger chamber keeps material moving and helps eliminate stagnate patches
- Independent control of each material feed sensor when utilizing a cut-off shoe, simply turn off the sensor for manual proportional feed control



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More Comfort

- Ventilation system option draws fumes from the auger chamber and redirects them away from the operator for a more comfortable working environment
- The single sliding console provides operation from either side of the machine for optimal visibility to curbs, edges, and transverse joints
- Dual independent seats swing out 40° beyond the platform for good visibility to curbs and obstacles
- Optimized height and integrated exhaust provide unobstructed visibility around the machine
- Optional screed and paver mounted umbrellas offer protection from direct sunlight
- Heated seat option delivers comfort in cool weather
- High visibility 76 mm (3") seat belt assists with crew safety compliance

Easy Viewing Displays, Simple Operation

- High-definition, touchscreen displays with adjustable brightness control for all types of lighting conditions, including direct sunlight
- High-visibility touch screen operating display with simplified menu structures, intuitive graphics, and short-cut keys help simplify machine adjustments
- Single-touch functions from main screen include screed heat, wash-down system, vibratory activation, ventilation system, accessory panel
- Cat® Grade Control or Basic Grade Control options available
- Operating displays can be tailored to specific language requirements with multiple options available
- Wash-down system includes level indication

Cat Electronics

- Cat Electronic Control Modules (ECM) and ET compatibility simplifies diagnostics and trouble-shooting procedures
- Dedicated auto reset circuit breaker for material sensors

Low Owning and Operating Costs

- Durable Cat C4.4 engine provides 110 kW (148 hp) of power with variations that meet U.S. EPA Tier 4 Final or EU Stage V emission standards. The Cat C4.4 engine also meets UN ECE R96 Stage IIIA emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Single source supplier of Cat engines and machine parts helps maximize uptime
- Exclusive Eco-mode and Automatic Engine Speed Control reduce fuel consumption and lower sound levels for better comfort and communication
- Conveyor bed plates and chain guards designed to minimize labor requirements and provide lower cost replacement
- Maintenance-free high torque motors reduce service requirements for the auger and conveyor drive systems

Product Link™ Elite

- Make timely, fact-based decisions to maximize efficiency, improve productivity, and lower owning and operating costs
- Easily track location, machine hours, fuel usage, and idle time in real time
- Diagnostic codes are made available through online web applications
- Remote flash for easy software updates
- Scheduled maintenance and Scheduled Oil Sampling notification
- Remote disable deactivates the engine for enhanced security

Service and Repair Kits

- Paver and screed service and repair kits include the parts necessary to complete specific repairs
- Cat genuine parts are manufactured to precise specifications and designed for optimal performance and maximum uptime
- Repair kits are identified by a single part number to make ordering easy
- Select kits are available to be packaged as a kit by the dealer for over-the-counter purchases or through the dealer service shop

Standard and Optional Equipment

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

| | Standard | Optional |
|----------------------------------|----------|----------|
| OPERATING ENVIRONMENT | | |
| Canopy – hydraulic lift – manual | | ✓ |
| Canopy – hydraulic lift – power | | ✓ |
| Deceleration pedal | | ✓ |
| Dual operating consoles | | ✓ |
| Heated seat | | ✓ |
| Side shields | | ✓ |
| Single operating console | ✓ | |
| Steering guide | ✓ | |
| Umbrella – tractor or screed | | ✓ |
| Ventilation system | | ✓ |
| Windshield – requires canopy | | ✓ |

| | | |
|---|---|---|
| TECHNOLOGY | | |
| Cat® Grade Control | | ✓ |
| Basic Grade Control | | ✓ |
| Product Link™ Elite 643 (cellular) | ✓ | |
| Product Link Elite 683 (cellular/satellite) | | ✓ |

| | | |
|------------------------------|---|---|
| POWERTRAIN | | |
| All-wheel drive | | ✓ |
| Ballast – front weights | | ✓ |
| Cat C4.4 – four-cylinder | ✓ | |
| Cooling fan – variable speed | ✓ | |
| Front-wheel assist | | ✓ |
| Radial drive tires | | ✓ |
| Sand-rib drive tires | ✓ | |

| | | |
|--|---|--|
| ELECTRICAL SYSTEM | | |
| 1400 CCA battery – maintenance free | ✓ | |
| 150-amp alternator | ✓ | |
| 12-volt charging system | ✓ | |
| Automotive-type fuse system | ✓ | |
| Auto-reset breaker for material feed sensors | ✓ | |
| Cat Electronic Technician (Cat ET) | ✓ | |

| | Standard | Optional |
|----------------------------------|----------|----------|
| MATERIAL DELIVERY | | |
| Auger extensions – 0.15 m (6") | ✓ | |
| Auger extensions – 0.46 m (1.5') | | ✓ |
| Mainframe extensions – power | | ✓ |
| Mainframe extensions – manual | | ✓ |
| Material feed sensors – contact | ✓ | |
| Material feed sensors – sonic | | ✓ |
| Push-roller – adjustable | ✓ | |
| Tamper bar system | | ✓ |
| Wash-down pump and reel | | ✓ |

| | | |
|--|---|--|
| SERVICE AND MAINTENANCE | | |
| Hydraulic oil – Cat® HYDO™ Advanced | ✓ | |
| Remote access drains | ✓ | |
| Remote flash | ✓ | |
| Service repair kits | ✓ | |
| Sampling ports for Scheduled Oil Sampling (S.O.S SM) | ✓ | |
| Sight Gauges - engine coolant, hydraulic oil | ✓ | |

| | | |
|-------------------------------|---|---|
| SAFETY | | |
| Alarm – back-up | ✓ | |
| Horn – warning (front & rear) | ✓ | |
| Lights – LED Working | ✓ | |
| Lights – LED Rooding | | ✓ |
| Mirror package | ✓ | |
| Warning beacon – LED | | ✓ |

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Technical Specifications

PowerTrain

| | | |
|--|-----------------|------------|
| Engine Model | Cat C4.4 | |
| Engine Power @ 2200 rpm (ISO 14396-2002) | 110 kW | 148 hp |
| Meets U.S. EPA Tier 4 Final and EU Stage V emission standards. | | |
| Engine Model | Cat C4.4 | |
| Engine Power @ 2200 rpm (ISO 14396-2002) | 106 kW | 142 hp |
| Meets UN ECE R96 Stage IIIA emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA | | |
| Speed – paving | 61 m/min | 200 ft/min |
| Speed – travel | 16 km/hr | 10 mph |
| Tire size | 17.5 R25 radial | |

Machine Weight

| | | |
|--|-----------|-----------|
| Paver only (shipping) – vibratory screed | 11 481 kg | 25,311 lb |
| Paver only (shipping) – tamper screed | 12 026 kg | 26,513 lb |
| w/SE47 V screed (operating) | 14 409 kg | 31,766 lb |
| w/SE47 FM screed (operating) | 14 518 kg | 32,007 lb |
| w/SE47 VT screed (operating) | 15 351 kg | 33,843 lb |
| w/SE50 VT screed (operating) | 15 430 kg | 34,017 lb |

Operating weights are approximate and include coolant, lubricants, full fuel tank, 75 kg (165 lb) operator, and grade control components. In addition, operating weights with the tamper bar screed also include canopy and ballast.

Service Refill Capacities

| | | |
|---|--------------------|---------------------|
| Maximum throughput capacity | 1000 Tonnes | 1100 US Tons |
| Hopper capacity | 6.1 m ³ | 215 ft ³ |
| Fuel Tank | 200 L | 53 gal |
| Cooling System | 24 L | 6.3 gal |
| Engine Oil | 9 L | 2.4 gal |
| Hydraulic Tank | 121 L | 32 gal |
| DEF Tank (U.S. Tier 4 Final, EU Stage V only) | 19 L | 5 gal |
| Washdown Spray Tank | 32 L | 8.5 gal |

Paving Range

SE47 V

| | | |
|----------------------------|---------------|-------------|
| Standard range | 2.4 m - 4.7 m | 8' - 15' 6" |
| Maximum width w/extensions | 6.1 m | 20' |

SE47 FM

| | | |
|----------------------------|---------------|-------------|
| Standard range | 2.4 m - 4.7 m | 8' - 15' 6" |
| Maximum width w/extensions | 5.9 m | 19' 6" |

SE47 VT

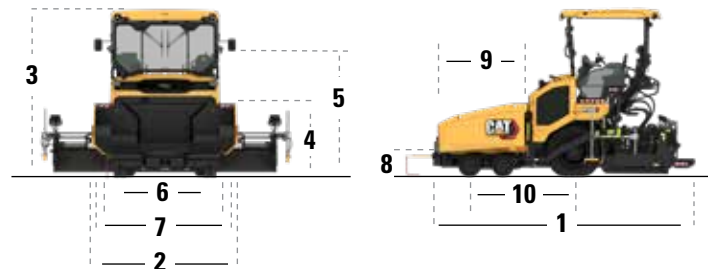
| | | |
|----------------------------|---------------|-----------------|
| Standard range | 2.4 m - 4.7 m | 7' 10" - 15' 4" |
| Maximum width w/extensions | 6.0 m | 19' 8" |

SE50 VT

| | | |
|----------------------------|----------------|----------------|
| Standard range | 2.55 m - 5.0 m | 8' 4" - 16' 4" |
| Maximum width w/extensions | 6.77 m | 22' 3" |

Dimensions

| | | | |
|----|---|---------|--------|
| 1 | Operating length – SE47 V screed | 5909 mm | 19' 5" |
| | Shipping length – SE47 V screed | 5648 mm | 18' 6" |
| 1 | Operating length – SE47 FM screed | 5866 mm | 19' 3" |
| | Shipping length – SE47 FM screed | 5629 mm | 18' 6" |
| | Shipping length – SE47 FM, folding end gate | 5866 mm | 19' 3" |
| 1 | Operating length – SE47 VT screed | 5938 mm | 19' 6" |
| | Shipping length – SE47 VT screed | 5707 mm | 18' 9" |
| 1 | Operating length – SE50 VT screed | 5944 mm | 19' 6" |
| | Shipping length – SE50 VT screed | 5712 mm | 18' 9" |
| 2 | Operating width (hoppers lowered) | 3281 mm | 10' 9" |
| 3 | Operating height | 3352 mm | 11' |
| 4 | Operating platform height | 1731 mm | 5' 8" |
| 5 | Transport height (steering wheel) | 2882 mm | 9' 5" |
| 6 | Transport width – SE47 V | 2590 mm | 8' 6" |
| | Transport width – SE47 FM, folding end gate | 2500 mm | 8' 2" |
| | Transport width – SE47 VT | 2550 mm | 8' 4" |
| | Transport width – SE50 VT, folding end gate | 2550 mm | 8' 4" |
| 7 | Truck entry width | 3149 mm | 10' 4" |
| 8 | Truck entry height (hopper) | 537 mm | 21" |
| | Truck entry height (apron) | 507 mm | 20" |
| | Ground clearance | 182 mm | 7" |
| 9 | Hopper length | 1925 mm | 6' 4" |
| 10 | Axle to axle - center drive to front idler | 2338 mm | 7' 8" |
| | Auger diameter | 355 mm | 14" |



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® C4.4 engine is available in configurations that meet U.S. EPA Tier 4 Final and EU Stage V emission standards.
- The Cat® C4.4 engine is available in configurations that meet UN ECE R96 Stage IIIA emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- 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 (hydrogenated vegetable oil) and GTL (gas-to-liquid) fuels
- Cat engines meeting UN ECE R96 Stage IIIA, equivalent to U.S. EPA Tier 3 and EU Stage IIIA, are compatible with diesel fuel blended with the following lower-carbon intensity fuels up to:
 - ✓ 100% biodiesel FAME (fatty acid methyl ester)**
 - ✓ 100% renewable diesel, HVO (hydrogenated 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.

**Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel.*

***For use of blends higher than 20% biodiesel, consult your Cat dealer.*

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, engines meeting U.S. EPA Tier 4 Final or EU Stage V, and tamper bar screeds:

Operator Sound Pressure Level – 91 dB(A) European Directive 2000/14/EC, ISO 11201, EN 500-1, and EN 500-6

Exterior Sound Power Level – 104 dB(A) European Directive 2000/14/EC, European Directive 2005/88/EC, ISO 3744, EN 500-1, and EN 500-6

With cooling fan speed at 70% of maximum value, engines meeting UN ECE R96 Stage IIIA, equivalent to U.S. EPA Tier 3 or EU Stage IIIA, and tamper bar screeds:

Operator Sound Pressure Level – 89 dB(A) European Directive 2000/14/EC, ISO 11201, EN 500-1, and EN 500-6

Exterior Sound Power Level – 104 dB(A) European Directive 2000/14/EC, European Directive 2005/88/EC, ISO 3744, EN 500-1, and EN 500-6

- When equipped with vibratory only screeds and U. S. EPA Tier 4 Final or EU Stage V engines, operator sound pressure levels are 2 dB (A) lower than the value listed above.
- When equipped with vibratory only screeds and U.S. EPA Tier 3 or EU Stage III engines, operator sound pressure levels are 0 dB (A) lower than the value listed above.
- When equipped with vibratory only screeds, exterior sound power levels are 1 dB (A) lower than the values listed above.
- 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.
 - Eco-mode operates at a lower rpm to minimize fuel consumption
 - Automatic engine speed control modifies engine speed when moved to and from neutral to enhance fuel efficiency
 - Advanced Eco-mode combines automatic engine speed control and Eco-mode to modify engine speed based on engine load, conserving fuel and increasing efficiency
 - Extended maintenance intervals reduce fluid and filter consumption

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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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