



CB-214D

CB-224D

Asphalt Compactors

CB-225D

Combi Asphalt Compactor



	CB-214D		CB-224D		CB-225D	
Operating weight	2430 kg	5,355 lb	2610 kg	5,750 lb	2390 kg	5,265 lb
Compaction width	1000 mm	39"	1200 mm	47"	1200 mm	47"
Gross power	23,5 kW	31.5 hp	23,5 kW	31.5 hp	23,5 kW	31.5 hp

Production-Sized Results in Small Packages

Maneuverability, transportability and versatility are combined in easy-to-operate machines that will help you meet and exceed your tons-per-day production needs.



The CB-214D, CB-224D and CB-225D are versatile machines that can be used as the only compactor on small sized jobs or on larger jobs as a support roller for high-production compactors. As a support roller, they work well for turning lanes, crossovers, shoulders and other similar sized jobs.

With its 1000 mm (39") wide drums, the CB-214D is well suited for rental customers and contractors or agencies that maintain streets, roads, alleys or are adding paths to parks and recreation areas. In these applications, the tight turning radius and easy maneuverability make it a perfect match.

The CB-224D provides greater production capabilities with its 1200 mm (47")

wide drums. Its high amplitude and drum width give it the capacity to achieve a tons-per-day production rate that make it an excellent match for shoulders, small parking lots, lane additions or other similar sized jobs.

Meanwhile, the CB-225D is versatility driven. Its steel front drum and rubber tired rear wheels allow it to function as both a vibratory and a pneumatic compactor. The CB-225D produces a tight mat with a smooth finish.

All three machines provide a comfortable and convenient operating environment that contribute to the versatility of the machines. The roomy operator's station provides excellent visibility to drum edge or tire contact points. Their low-

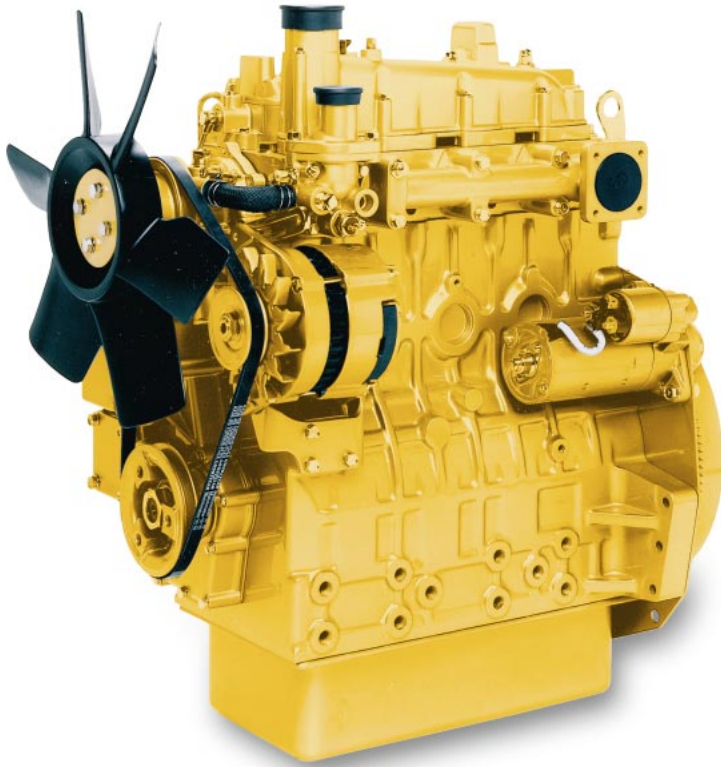
profile design provides great visibility to the front or rear.

In addition, the machines are quiet for the operator and spectators, especially beneficial on commercial jobs when compaction must coincide with day-to-day business operations. They also are simple to operate, allowing the least experienced crew member to operator them.

Caterpillar compactors are supported by an extensive dealer network and parts distribution system as well as by Caterpillar dealer representatives that are highly trained and motivated. Caterpillar offers a comprehensive line of asphalt pavers, cold planers, compactors, reclaimers and stabilizers.

Caterpillar® 3013 Engine

Reliable and durable diesel engines for years of low maintenance operation.



Precise balance and optimum running speed for smooth operation and extended engine life.

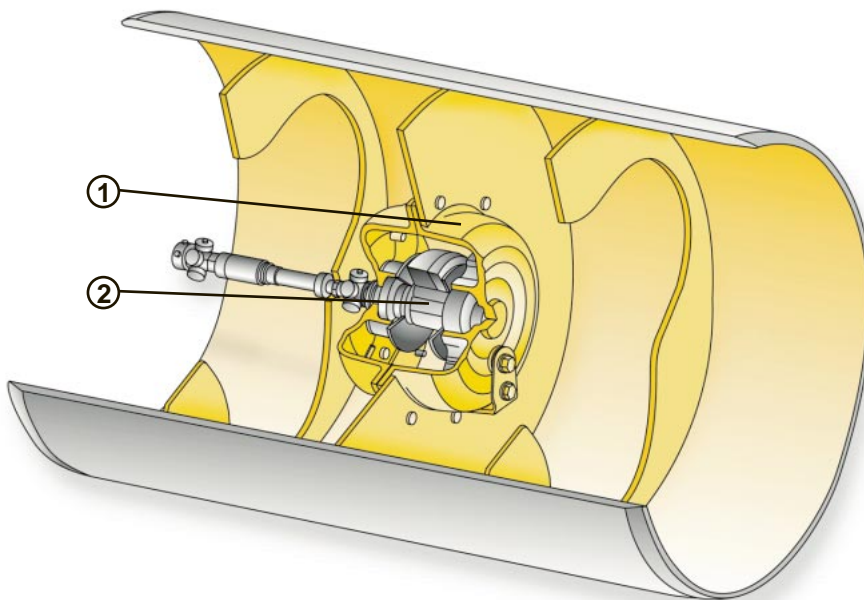
Engine is liquid-cooled keeping temperature low and helping reduce component wear.

Timing drive use three helically cut gears that help reduce noise levels.

Heat-treated chrome molybdenum steel crankshaft provides durable service life.

Vibratory System

Precise system delivers optimum compactive force.



Pod-style weight housings are assembled and sealed at the factory to ensure cleanliness, extended bearing life and easy field exchange/service.

Change interval for bearing lubrication is every three years or 3,000 hours.

Balance between frequency and amplitude provides a good mat finish for commercial work.

- 1 Pod-style weight housing 2 Fixed eccentric weight

Operator Comfort

Operating ease and comfort promote all-day productivity.



Single-lever control provides simplified operation, making the machines a perfect fit for inexperienced operators.

Easy-to-understand instrument panel allows the operator to quickly verify the status of machine systems.

Lockable cover protects instrumentation and gauges.

Low sound levels make them comfortable for both operators and spectators.

Operator's station is isolated with four rubber mounts that help eliminate vibration before it reaches the operator, controls and instrumentation.

Operator's Station

Note: The sliding operator's seat shown here is standard equipment for North America and South America. The sliding seat is optional for Africa, Asia, Australia, Europe, and Middle East, and a stationary seat is standard.



Seat slides from side to side and locks into three positions – right, center and left.

When positioned on the left or right side, operator has unobstructed visibility to drum edge or wheel contact points.

Roomy operator's station provides plenty of leg room for all-day operation.

Adjustable bucket seat provides lasting comfort.

Optional suspension seat with armrests enhances ride.

Note: machine is shown with a suspension seat that is optional in some parts of the world.

Excellent Forward and Rearward Visibility

Low-profile design provides convenient control of machines.



Excellent forward visibility allows the operator to see objects 0,58 m (1.9') high and 1 m (3.3') in front of the machine.

Rearward visibility is even better. Operator can see objects that are 0,35 m (1.1') behind the machine and flush to the surface.

Low-profile engine enclosure provides unobstructed sight lines to ground personnel working near machine.

Water Spray System

Corrosion-proof system and extended-life components provide reliable operation.



Constant or intermittent spray capabilities provide extended operation between refills.

Triple water filtration reduces machine downtime caused by system clogs.

Extended-life water pump provides optimum spray and flow.

Water pump and filters are conveniently located for easy access.

Large water tank drain allows system to be drained in less than five minutes.

Drum Design Keeps Production High

Machined drum surfaces help ensure a smooth mat.



Specially designed drum edges help eliminate marks on deep lifts or when turning. Note: CB-214D and CB-224D can be equipped with optional Non-Machined Drum Edges that have a square profile instead of the standard design.

Drums are constructed of rolled steel plate and are finished to reduce surface irregularities.

Replaceable rubber mounts isolate vibration and enhance vibratory capabilities.

Each drum is fitted with two retractable, spring-loaded, self-adjusting scrapers, positioned at the front and rear of each drum.

Ends of each drum are fitted with steel plates that help prevent rocks, soil, asphalt or other material from entering the ends of the drums.

Tires Enhance Versatility – CB-225D

Tires manipulate the mat under and between its wheels.



Steel front drum and rubber tires at the rear allow a single machine to function as both a double drum and pneumatic compactor.

Four rubber tires generate a high ground contact pressure that penetrates deep into the lift.

Because the tires are flexible, horizontal pressures develop, assisting with compaction.

Each tire is fitted with a replaceable, adjustable scraper. The scrapers can be positioned above the tires when they are not needed.

Serviceability

Time-saving features reduce maintenance requirements and increase production.



Fiberglass engine enclosure pivots upward and locks open with a prop rod.

External engine components, hydraulics and routine service points are clustered in easy-to-access locations.

Daily Visual Maintenance system simplifies verification of fluid levels and filter conditions.

Extended-life oils increase maintenance intervals for the vibratory system, hydraulic system and engine oil.

Remote-mounted drains for hydraulic and engine oils provide simplified collection of fluids.

Quick-connect hydraulic test ports simplify system diagnosis.

Electrical wiring is color-coded and numbered for simple troubleshooting.

Nylon-braided wrap and all-weather connectors ensure electrical system integrity.

Engine

Caterpillar 3013 naturally aspirated, water-cooled, 4-stroke, 3-cylinder diesel engine. Meets EPA Tier I and 97/68/EC Stage 2 emissions engine regulations.

Ratings at 2,800 rpm	kW	hp
Gross power	23,5	31.5

Ratings of Caterpillar machine engines are based on standard air conditions of 25°C (77°F) and 99 kPa (29.32") Hg dry barometer. Power is based on using 35° API gravity fuel having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 30°C (86°F) [ref. a fuel density of 838.9 g/L (7.001 lb/U.S. gal)]. Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.

The following ratings apply at 2,800 rpm when tested under the specified standard conditions for the specified standard:

Net Power	kW	hp
ISO 9249	22,5	30.2
EEC80/1269	22,5	30.2

Dimensions

Bore	84 mm	3.3"
Stroke	90 mm	3.7"
Displacement	1496 cm ³	91 in ³

Dual-element, dry-type air cleaner with visual restriction indicator.

Electrical System

The 12-volt electrical system includes one maintenance-free Cat battery and color-coded and numbered wiring wrapped in nylon braid. The system includes a 55-amp alternator. The starting system provides 750 cold cranking amps.

Sound Levels

Sound level measured at the operator ear (sound pressure) is 80 dB(A), and average at spectator (sound pressure) measured at 7 m (23') is 73 dB(A).

Transmission

(CB-214D and CB-224D)

Variable-displacement piston pump supplies pressure flow to fixed-displacement hydraulic motors that drive the front and rear drums.

(CB-225D)

Variable-displacement piston pump supplies pressure flow to a fixed-displacement hydraulic motor that drives the front drum, and the pump supplies pressure flow to two fixed-displacement motors that drive the rear wheels.

A propel lever located at the operator's station provides smooth hydrostatic control of the infinitely variable speeds in both forward and reverse.

Speed ranges

Work	0 - 6,5 kmph	0 - 4 mph
Transfer	6,5 - 10 kmph	4 - 6.2 mph

Final Drives

(CB-214D and CB-224D)

High-torque, low-speed hydraulic motors directly drive each drum.

(CB-225D)

High-torque, low-speed hydraulic motor directly drives the front drum, and two high-torque, low-speed hydraulic motors directly drive the rear wheels.

Wheels and Tires

(CB-225D)

9.5/65-15 6-ply tires are standard. Each tire is equipped with a replaceable scraper. The scrapers help clean asphalt or soil off the tires. The scrapers can be positioned above the tires when they are not needed. Wheels are on a fixed axle.

Frame

Frame is fabricated from heavy gauge steel plate and joined at the center articulation pivot. Two self-aligning bearings on the pivot housing provide a ± 32 degrees steering angle, and a horizontal pin provides a ± 10 degrees oscillation angle. The articulation pivot is structurally reinforced for extended service life. For transport purposes, the articulation pivot can be secured at the zero steering angle.

Water Spray System

Spray bars are constructed of stainless steel for corrosion resistance. The water tank is reinforced polyethylene. An electric water pump provides either continuous or intermittent spray. Intermittent spray setting increases spray time by 50 percent over continuous setting. Triple filtration includes a filter on the tank fill spout, an in-line filter at the water pump and filters on each spray nozzle. Spray nozzles are easily removed without tools for cleaning.

Capacity 160 L 42 gal

Tire Wetting System

Tire Wetting System allows an emulsion to be sprayed on the tire surfaces, helping prevent asphalt from adhering to the tires. One spray nozzle is positioned above each tire. The system is controlled with a momentary switch on the control console.

Capacity 28 L 7.4 gallons

Instrumentation

The control console includes: steering wheel; water spray system switch; vibratory drum selector switch; horn; start switch; heat start switch; parking brake; and a four-segment light for hydraulic oil temperature, oil pressure, alternator, and engine coolant. The vibratory system is activated with a switch on the top of the propel lever. When the vibratory system is activated, a vibration indicator light illuminates. The engine throttle lever is located on the left side of the control console pedestal. If equipped with optional light packages, switches and a turn signal light are located on the control console.

The machine is protected from vandalism with several covers. The control console, hood and compartment for the Operation and Maintenance Manual are equipped with lockable covers.

Brakes

Brake systems meet EN500-1, EN500-4, SAE J1472 and ISO 3450.

Service

■ Closed-loop hydrostatic drive system provides dynamic braking during machine operation.

Secondary and Parking

■ A spring-applied, pressure-released brake inside each propel motor immobilizes the roller. Activation is by a switch on the operator's console or when the engine is shut off.

Service Refill Capacities

	Liters	Gallons
Fuel Tank	36	9.5
Crankcase	7,1	1.9
Hydraulic fluid tank	26	6.9
Hydraulic circuit	30	7.9
Water Spray System	160	42
Tire wetting system	28	7.4

Steering

An engine-driven gear-type pump supplies hydraulic fluid for the steering circuit.

	CB-214D		CB-224D		CB-225D	
Minimum turning radius						
Inside drum edge	2510 mm	99"	2410 mm	95"	2410 mm	95"
Outside drum edge	3510 mm	138"	3610 mm	142"	3610 mm	142"
Steering angle	32°		32°		32°	

Hydraulic system: One 70 mm (2.75") bore, double-acting cylinder powered by a gear-type pump. Output @ 2,800 rpm is 23 liter/min (6.1 gpm) with relief valve at 1,700 psi.

Weights (approximate)

Weights include lubricants, 80 kg (175 lb) operator, full fuel tank, full hydraulic system and half-full water tank.

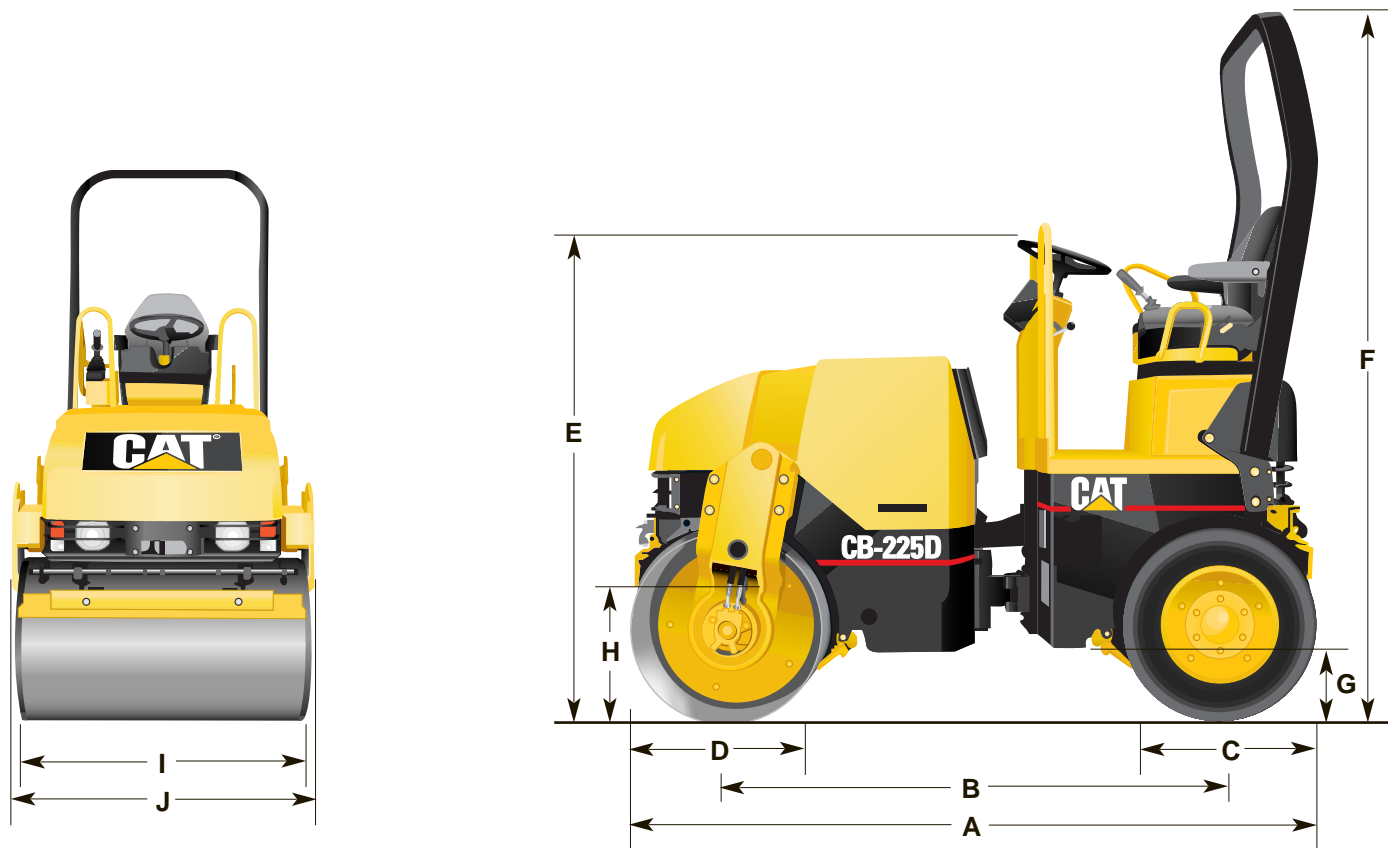
	CB-214D		CB-224D		CB-225D	
Operating without ROPS	2430 kg	5,355 lb	2610 kg	5,750 lb	2390 kg	5,265 lb
at front drum	1160 kg	2,560 lb	1260 kg	2,780 lb	1280 kg	2,820 lb
at rear drum	1270 kg	2,795 lb	1350 kg	2,970 lb	—	—
at rear wheels	—	—	—	—	1110 kg	2,445 lb
weight per rear wheel	—	—	—	—	278 kg	611 lb
Operating with ROPS	2490 kg	5,490 lb	2670 kg	5,885 lb	2450 kg	5,400 lb
at front drum	1160 kg	2,560 lb	1260 kg	2,780 lb	1280 kg	2,820 lb
at rear drum	1330 kg	2,930 lb	1410 kg	3,105 lb	—	—
at rear wheels	—	—	—	—	1170 kg	2,580 lb
weight per rear wheel	—	—	—	—	292 kg	645 lb

Compaction Characteristics

	CB-214D		CB-224D		CB-225D	
Vibration selections	Front or both		Front or both		Front	
Eccentric weight drive	Hydraulic		Hydraulic		Hydraulic	
Frequency	60 Hz	3,600 vpm	60 Hz	3,600 vpm	60 Hz	3,600 vpm
Nominal amplitude	0,5 mm	0.02"	0,5 mm	0.02"	0,5 mm	0.02"
Centrifugal force per drum	25,4 kN	5,710 lb	29,8 kN	6,700 lb	29,8 kN	6,700 lb
Load per cm of drum contact/Pounds per linear inch:						
Static	12,2 kg/cm	69 lb/in	10,9 kg/cm	61 lb/in	10 kg/cm	56 lb/in
Centrifugal	25,4 kg/cm	146 lb/in	24,8 kg/cm	143 lb/in	24,8 kg/cm	143 lb/in

Dimensions

	CB-214D		CB-224D		CB-225D	
A Length	2430 mm	96"	2430 mm	96"	2430 mm	96"
B Wheelbase	1730 mm	68"	1730 mm	68"	1730 mm	68"
C Drum diameter	700 mm	27.6"	700 mm	27.6"	700 mm	27.6"
Drum shell thickness	13,5 mm	0.53"	13,5 mm	0.53"	13,5 mm	0.53"
D Tire diameter	—	—	—	—	670 mm	26"
E Height at steering wheel	1760 mm	69"	1760 mm	69"	1760 mm	69"
F Height at ROPS	2585 mm	102"	2585 mm	102"	2585 mm	102"
G Ground clearance	250 mm	10"	250 mm	10"	250 mm	10"
H Curb clearance	530 mm	21"	530 mm	21"	530 mm	21"
I Compaction width	1000 mm	39"	1200 mm	47"	1200 mm	47"
J Machine width	1100 mm	43"	1300 mm	51"	1300 mm	51"



Optional Equipment for Africa, Asia, Australia, Europe and Middle East

Note: Standard and optional equipment may vary. Consult your Caterpillar dealer for specifics.

Roll Over Protective Structure (ROPS) is a two-post structure that bolts directly onto flanges welded to the machine frame. The ROPS meets SAE J1040 May94, ISO 3471 and EN 500-4.

Foldable ROPS includes pivots that allows the ROPS to fold, lowering shipping height.

Sun Canopy is a thermoformed plastic structure that blocks the operator's station from the sun. Structure is bolted to the ROPS.

Work Light Package consists of two front headlights and one independent rear work light.

Roading and Working Light Package consists of two front headlights, two rear taillights, two front-position lights, turn signals, hazard lights and one independent rear work light.

Rotating Beacon includes an amber beacon and mount that can be attached to machines with or without ROPS.

Spark Arrestor Muffler helps eliminate burning carbon particles that can exit the muffler.

Back-up Alarm emits a high-pitched sound when the machine is in reverse.

Suspension Seat is mechanical type with vertical adjustments and armrests.

Seat Switch requires operator to be seated for machine to be started and operated.

Sliding Seat slides across the width of the platform, helping enhance visibility to drum edge contact points.

Coco Mats retain water as it is distributed by the water spray system. The mats allow water to seep out of them, providing continuous water distribution to drum surfaces.

Heat Retention Device helps trap heat and warms the tires on the CB-225D. The heat retention devices help eliminate asphalt from adhering to the tires.

Optional Equipment for North America and South America

Note: Standard and optional equipment may vary. Consult your Caterpillar dealer for specifics.

Roll Over Protective Structure (ROPS) is a two-post structure that bolts directly onto flanges welded to the machine frame. The ROPS meets SAE J1040 May94, ISO 3471 and EN 500-4.

Foldable ROPS includes pivots that allows the ROPS to fold, lowering shipping height.

Sun Canopy is a thermoformed plastic structure that blocks the operator's station from the sun. Structure is bolted to the ROPS.

Roading and Working Light Package consists of two front headlights, two rear taillights, two front-position lights, turn signals, hazard lights and one independent rear work light.

Rotating Beacon includes an amber beacon and mount that can be attached to machines with or without ROPS.

Spark Arrestor Muffler helps eliminate burning carbon particles that can exit the muffler.

Suspension Seat is mechanical type with vertical adjustments and armrests.

Seat Switch requires operator to be seated for machine to be started and operated.

Non-Machined Drum Edges have a square profile instead of the standard design. When working on straight runs, a square profile may reduce marks in the mat. If desired, the square profile can be machined. This option is available for the CB-214D and CB-224D only.

Heat Retention Device helps trap heat and warms the tires on the CB-225D. The heat retention devices help eliminate asphalt from adhering to the tires.

Coco Mats retain water as it is distributed by the water spray system. The mats allow water to seep out of them, providing continuous water distribution to drum surfaces

The CB-214D and CB-224D Asphalt Compactors can be ordered with non-machined drum edges as an option. Instead of the standard dual-radius design, the drum edges have a square profile. This allows the drum edges to be machined to match customers' preferences.

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Materials and specifications are subject to change without notice.

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