Volvo Construction Equipment
Building Tomorrow

DD105, DD105 OSC

Volvo Double Drum Compactors 9.9-10.5 t 85 kW



A passion for performance

At Volvo Construction Equipment, we're not just coming along for the ride. Developing products and services that raise productivity – we are confident we can lower costs and increase profits for industry experts. Part of the Volvo Group, we are passionate about innovative solutions to help you work smarter – not harder.





Helping you to do more

Doing more with less is a trademark of Volvo Construction Equipment. High productivity has long been married to low energy consumption, ease of use and durability. When it comes to lowering life-cycle costs, Volvo is in a class of its own.

Designed to fit your needs

There is a lot riding on creating solutions that are suited to the particular needs of different industry applications. Innovation often involves high technology – but it doesn't always have to. Some of our best ideas have been simple, based on a clear and deep understanding of our customers' working lives.





You learn a lot in 180 years

Over the years, Volvo has advanced solutions that have revolutionized the use of construction equipment. No other name speaks Safety louder than Volvo. Protecting operators, those around them and minimizing our environmental impact are traditional values that continue to shape our product design philosophy.

We're on your side

We back the Volvo brand with the best people. Volvo is truly a global enterprise, one that is on standby to support customers quickly and efficiently – wherever they are.



We have a passion for performance.





Volvo Trucks



Renault Trucks




















Mack Trucks | UD Trucks | Volvo Buses | Volvo Construction Equipment | Volvo Penta | Volvo Financial Services



ADAPTIVE POWER

Volvo automatically adjusts engine output according to jobsite requirements. Power is delivered only when needed for optimum performance and efficiency thanks to the Eco mode and auto-idling features.

Exceptionally efficient

Introducing the new Volvo DD105 double drum compactor – the first of a new generation of exceptionally efficient machines, designed to help you protect the environment and your profits. Powered by an advanced Stage IV engine with efficiency-enhancing Eco mode and auto-idling features built in, this compactor ensures high quality performance with minimal fuel consumption, emissions and noise.

Engine

Built on decades of experience, the advanced Stage IV Volvo engine with variable speed fan drive delivers maximum power and efficiency.



Auto idle

When stationary, the auto idling feature automatically reduces engine speed to idle after five seconds, decreasing fuel consumption and noise. The machine returns to high idle when moved out of neutral.



Eco mode

Reduce fuel consumption by up to 30% with Eco mode. Noise and emissions are also decreased, without impacting performance.



A home away from home

With industry-leading comfort, control and visibility the Volvo DD105 offers one of the most productive operator environments on the market. The comfortable seat slides and rotates to provide clear views of the mat and drum edge while the padded floor reduces noise and vibrations for a smooth, quiet ride and minimal fatigue.

Seat

Sliding and rotating seat with clear views of the mat and drum edge. The clear floor design keeps moving parts tucked away and clean in the rear wall.



Cool environment

Control your climate with Volvo's efficient, industry-leading climate control system. With well-spaced vents quickly heating or cooling the cab, this air circulation and defrosting system increases comfort and productivity.



Ergonomic controls

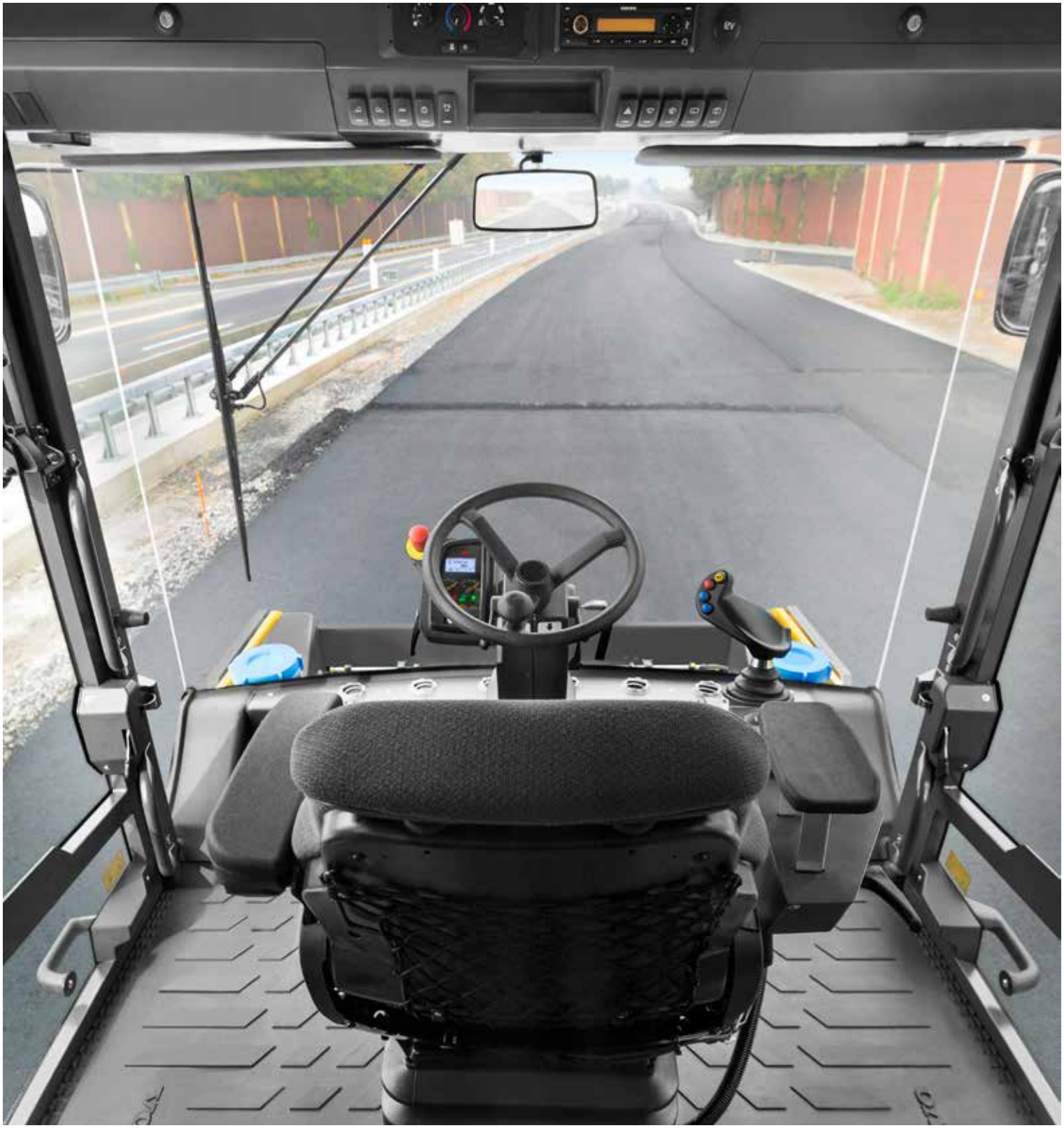
The compactor's controls are easy to reach and help minimise fatigue. The display is easily in view and allows the operator keep an eye on the road at all times.



Low noise

By locating the engine in the rear frame, as far away from the operator as possible, noise in the cab is kept to a minimum – increasing operator comfort and performance.





PILLAR-LESS VIEW

With large expanses of curved glass, the Volvo cab offers a commanding view of the jobsite for optimum safety and precision. The pillar-less forward view puts less steel between the operator and the road.



DD105 OSC

The DD105 OSC features a front vibratory drum with dual amplitudes and a rear oscillatory drum with a hardened steel shell. This enables the DD105 OSC to compact in a wider range of applications.

Work in Sensitive Applications with Oscillation

By eliminating vertical drum motion, there is minimal chance of crushing softer aggregates. Oscillation is ideal for flexible pavement materials used on bridges, adjacent to buildings, or over underground utilities.

Achieve Joint Density

When compacting a hot to cold joint, an oscillatory drum does not run the risk of damaging the cool pavement lane. Oscillatory drums are more effective in achieving joint density than static rolling.



Improve Smoothness

The oscillatory movement of the hardened steel drum eliminates drum impacts, which makes oscillation ideal for intermediate and finish rolling.



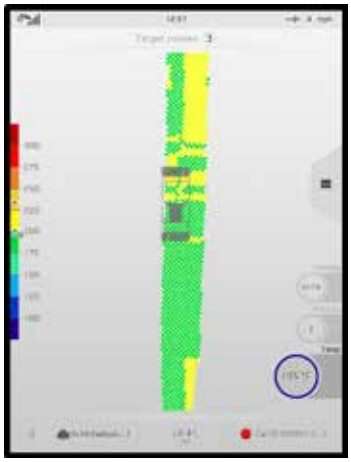
Compact Thin Lifts

Efficiently achieve density on lifts too thin to vibrate. Thinner lifts cool faster than moderate lifts, and oscillation achieves density faster than static rolling.



Increased Time Available for Compaction

Use of oscillatory rollers extends the Time Available for Compaction (TAC) because the rocking oscillatory drum motion can rearrange aggregate in the asphalt material at lower temperatures than conventional vibratory rollers.



Superior compaction

DD105 OSC

Work in a wider range of applications with the DD105 OSC variant.

PILLAR-LESS VIEW

Pillar-less forward view allows excellent visibility to the drum edges, water spraying system and worksite.

Water spraying system

Industry-leading, automatic drum wetting system provides uniform drum coverage to prevent material pick-up.

Low noise

Noise in the cab is kept to a minimum for a comfortable and productive work shift.

Off-set steering

Visibility is increased for greater precision and safety.

Drum vibration system

Volvo's drum vibration system reduces start up power consumption by 50%.

Cab

Comfortable, climate-controlled cab with excellent visibility minimizes operator fatigue.

Seat

Sliding and rotating seat with clear views of the mat and drum edge.

ADAPTIVE POWER

Engine output is adapted according to jobsite requirements for maximum fuel efficiency.



SERVICE ACCESS

Swing-up hood design provides easy and complete access to the engine and hydraulic components for efficient inspections and maintenance.

Eco mode

Eco mode decreases fuel consumption by up to 30% without impacting performance.

Superior compaction

The Volvo DD105 delivers industry-leading compaction with a smooth, even-quality finish.

Productivity on tap

Volvo's industry-leading automatic water spraying system with triple filtration provides uniform drum coverage with variable flow – preventing material pick-up for reduced downtime. The low positioning of the water tank affords the machine a low center of gravity for excellent stability while the large 800 l volume extends refill intervals and therefore, more uptime.

Drum visibility

Unobstructed sightlines down to the drum and spray bars allow perfect placement and make it easy to monitor water flow. This allows the operator to maintain excellent control over the machine for consistent results.



Easy refill

Easy access to the water tank at ground level allows for quick and safe refill – keeping the compactor on the job for longer.



Water spraying system

Industry-leading, automatic drum wetting system provides uniform drum coverage with variable flow – preventing material pick-up for reduced downtime. Features include primary and backup pumps, spray bars, nozzles, triple filtration and drum wipers.



Backup pump

The compactor is fitted with two water pumps that alternate during normal operation. This allows the compactor to remain on the job even if a pump malfunctions, as a constant flow of water to the drum surface can still be provided. Uptime is optimized.



Primed for performance

The Volvo DD105 double drum compactor is primed with a range of features to ensure high performance and efficiency. The new drum vibration system, off-set steering and anti slip control deliver excellent compaction with a smooth and consistent finish whatever the site conditions.

Drum vibration system

Volvo's new eccentric design reduces vibration system start up power consumption by 50% while improving performance. This allows the roller to operate more effectively even at high altitudes.



Machined drums

Each drum is specially machined to ensure it is perfectly cylindrical for a smooth, even finish. The edges are chamfered to avoid marking the mat while rolling.



Anti Slip Control (ASC)

ASC ensures excellent traction at all times. Not only does ASC guarantee even performance, it is especially important when loading and unloading the compactor for transport – enhancing site staff safety and preventing damage to the road.



Off-set steering

Off-set steering enhances the operator's view of curbs and obstructions for safe, efficient and high-quality compaction.





SERVICE ACCESS

The swing-up hood design provides easy, complete access to the engine and hydraulic components, allowing inspections and maintenance to be performed more efficiently. Unobstructed daily checkpoints with ground-level access to the engine, radiator, battery and filters saves time and helps ensure daily maintenance is properly completed.

Maintenance made easy

The Volvo DD105 double drum compactor offers the industry's safest and easiest maintenance access – taking the hassle out of daily service checks. Technicians can access all service hatches – as well as the cab door and ignition – with a single key while fuses and relays are grouped together for speed and convenience. Achieve maximum uptime from your compactor.

Safe entrance/exit

Well positioned handrails allow the operator to keep three-point-contact at all times when entering/exiting the compactor for increased safety even in low-light or wet weather.



Volvo single key

A single key allows all access, service and operation to one or more Volvo compactors for the ultimate in fleet management convenience.



Hand serviceable sprays

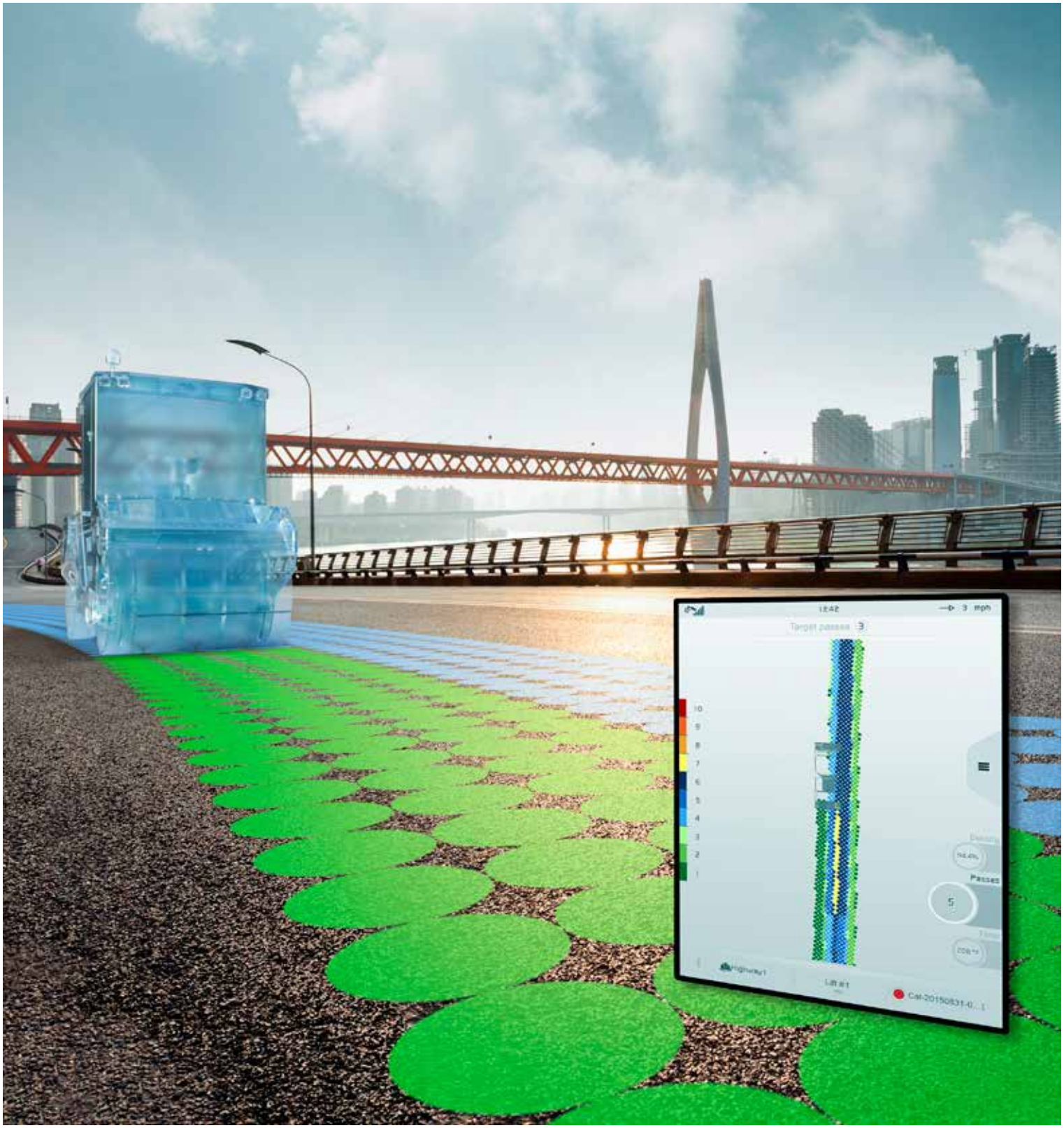
The fan-spray nozzles and screens in the water spraying system can be cleaned quickly and easily without the use of tools. This minimizes the time required for maintenance.



Fuses and relays

Fuses and relays are grouped and centrally mounted in the roof of the operator platform, protected from water or damage. This design speeds up routine maintenance for maximum uptime from the machine.





COMPACT ASSIST

Unlock the full potential of your machine with Compact Assist, the optional Intelligent Compaction system from Volvo. For a more efficient and precise job, Compact Assist offers real-time insight into the work using pass mapping and temperature mapping.
Not applicable to DD105 OSC

Adding value to your business

Being a Volvo customer means having a complete set of services at your fingertips. Volvo can offer you a long-term partnership, protect your revenue and provide a full range of customer solutions using high quality parts, delivered by passionate people. Volvo is committed to a positive return on your investment.

CareTrack

CareTrack is the state-of-the-art Volvo telematics system that provides access to a wide range of machine monitoring information designed to save time and money. Proactively manage service and maintenance schedules, optimize machine and operator performance and reduce fuel costs with CareTrack.



Customer Support Agreements

The range of Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services. Volvo uses the latest technology to monitor machine operation and status, giving you advice to increase your profitability. By having a Customer Support Agreement you are in control of your service costs.



Complete Solutions

Volvo has the right solution for you. So why not let us provide all your needs throughout the whole life cycle of your machine? By listening to your requirements, we can reduce your total cost of ownership and increase your revenue.



Genuine Volvo Parts

Our attention to detail is what makes us stand out. This proven concept acts as a solid investment in your machine's future. Parts are extensively tested and approved because every part is vital for uptime and performance. Only by using Genuine Volvo Parts, can you be sure that your machine retains the renowned Volvo quality.

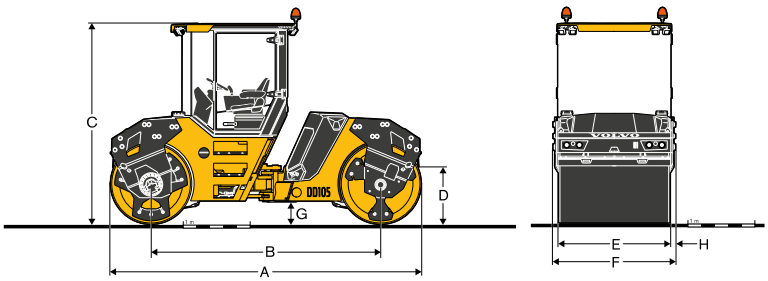


Specifications

Model		DD105		DD105 OSC	
		with open ROPS/ FOPS canopy	with enclosed cab	with open ROPS/ FOPS canopy	with enclosed cab
Machine weights					
Operating weight (1)	kg	10 325	10 400	9 667	9 742
Weight @ front drum	kg	5 214	5 251	5 019	5 5058
Weight @ rear drum	kg	5 111	5 149	4 648	4 684
Shipping weight (2)	kg	9 788	9 863	9 130	9 205
Drums					
Width	mm	1 680	1 680	1 680	1 680
Diameter	mm	1 220	1 220	1 220	1 220
Shell thickness	mm	22	22	17	17
Finish		machined surface; chamfered and radiused edges			
Vibration					
Frequency	hz	40 / 50	40 / 50	39	39
Amplitude	mm	0.86 / 0.45	0.86 / 0.45	1.43 (tangential)	1.43 (tangential)
Centrifugal Force (low / high amplitude)	kN	112 / 99	112 / 99	-	-
Centrifugal Force (total/per eccentric)	kN	-	-	144 / 72	144 / 72
Propulsion					
Type		closed-loop hydrostatic, parallel circuit to both drums			
Drum drive		2-speed axial piston motors with planetary gear drive			
Travel speed	km/h	5.2-11.4	5.2-11.4	5.2-11.4	5.2-11.4
Engine					
Make / model		Volvo D3.8, EPA Tier 4 final			
Engine type		4 Cyl, Electronic, Turbo charged CAC			
Rated power @ 2,600 r/min	kW	85	85	85	85
Electrical		12 V DC, 130 A alternator, Starter 3 kW, Battery 1360 CCA (SAE)			
Brakes					
Service		Dynamic hydrostatic through propulsion system			
Parking secondary		Spring-applied, hydraulic release on both drum drives			
Water system					
Type		Pressure spray drum wetting system with central water tank			
Spray bars		Two spray bars per drum			
Nozzles		Hand-serviceable spray nozzles, 6 per spray bar			
Filtration		Filter baskets in fill necks, primary filter at each pump, fine filter for each nozzle			
Drum wipers		Front and rear urethane wipers for each drum			
Water tank capacity	l	800	800	800	800
Miscellaneous					
Articulation angle	°	+ / - 35			
Oscillation angle	°	+ / - 7.5			
Inside turning radius (to drum edge)	mm	4 600	4 600	4 600	4 600
Fuel tank capacity	l	175	175	175	175
DEF tank capacity	l	20	20	20	20
Hydraulic oil capacity	l	85	85	85	85
Gradeability (theoretical)	%	39.6	39.6	39.6	39.6
Guaranteed Sound Level					
Operator's Ear, acc. to ISO 11203:2009	LpA dB(A)	77			
External, acc. to Directive 2000/14/EC	LwA dB(A)	107			

(1) incl. 50% fuel, 50% water, 75 kg / 165 lb operator
(2) incl. 50% fuel, no water, no operator

Dimensions		DD105 and DD105 OSC
Unit		**mm**
A	Overall length	4 650
B	Drum base	3 430
C	Overall height (top of cab)	3 000
D	Curb clearance	751
E	Drum width	1 680
F	Overall width	1 838
G	Ground clearance	350
H	Side Clearance	79



Equipment

STANDARD EQUIPMENT

	DD105	DD105 OSC
Engine		
Eco Mode	•	•
Battery disconnect switch	•	•
V-belt protection	•	•
Operator environment		
Operator seat, steering wheel and main controls: lateral sliding and rotating +/- 90°	•	•
Propulsion control lever	•	•
Air conditioning system	•	•
Adjustable steering wheel	•	•
2 charger sockets 12V	•	•
Integrated ROPS/FOPS	•	•
Storage compartments	•	•
Easy to clean anti slip cab floor	•	•
2 cup holders	•	•
Openable side windows to the rear	•	•
Seat switch with timer delay	•	•
3'' seat belt	•	•
Seat belt alarm	•	•
Interior light	•	•
Tinted safety glass	•	•
Vibration and drum system		
Auto vibration	•	•
Selectable vibration: front, rear, both	•	•
Drum offset function to both sides	•	•
2 frequencies, 2 amplitudes	•	•
Electrics and electronics		
Permanent wetting system water level display	•	•
Permanent fuel level display	•	•
Information display:	•	•
- Fluid temperatures	•	•
- Engine speed	•	•
- Vehicle speed	•	•
4 cab mounted worklights: Halogen	•	•
Trailer loading function	•	•
Rotating Beacon	•	•
Emergency stop button	•	•
Back-up alarm	•	•

OPTIONAL EQUIPMENT

	DD105	DD105 OSC
Operator environment		
Autoradio Bluetooth / USB / MP3	•	•
Electrics and electronics		
4 cab mounted worklights: LED	•	•
8 cab mounted worklights: LED or Halogen	•	•
4 work lights on drum edges: LED or Halogen	•	•
Asphalt temperature sensor	•	•
Anti slip control	•	•
Impact meter	•	•
Anti theft	•	•
Road light kit	•	•
Tachograph prep kit	•	•
Compact Assist	•	–
Structure		
Special paintwork	•	•
Environmental		
Biodegradable hydraulic oil	•	•
Attachments		
Chip spreader	•	•
Edge cutter and edge compactor	•	•

SELECTION OF VOLVO OPTIONAL EQUIPMENT

Chip spreader



Anti slip control (ASC)



Edge cutter and edge compactor



Work lights



Impact meter



Radio with Bluetooth, USB, MP3



Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

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