

Volvo Construction Equipment  
Building Tomorrow



# DD105, DD105 osc

Volvo Double Drum Compactors 9.9-10.5 t 86.3 kW





# WELCOME TO OUR WORLD

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Welcome to the world of Volvo Construction Equipment – we think you're going to like it here.

## The road to success

Our range of road machinery combines the heritage of the Ingersoll Rand and ABG brands with the engineering excellence of Volvo. The result is a line-up of Volvo pavers and compactors which achieve an unrivalled level of quality, in both paving and compaction applications.

Building on our proud history, we continue to innovate our products to offer customers the best solutions for their operation. Our Compact Assist and Pave Assist products are just two examples of how we are developing intelligent solutions to ensure our machines deliver world-class performance and results long into the future.







## Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

### Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

### There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.

**BUILDING TOMORROW**





# 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 Volvo DD105/DD105 OSC double drum compactor - powered by a Volvo engine which can be configured to meet the latest emissions standards. Unique Eco mode and auto-idling features are built-in to provide the power you need with minimal fuel consumption, emissions and noise.

## Engine

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



## Eco mode

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



## 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.



# A home away from home

With industry-leading comfort, control and visibility the Volvo DD105/DD105 OSC 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.

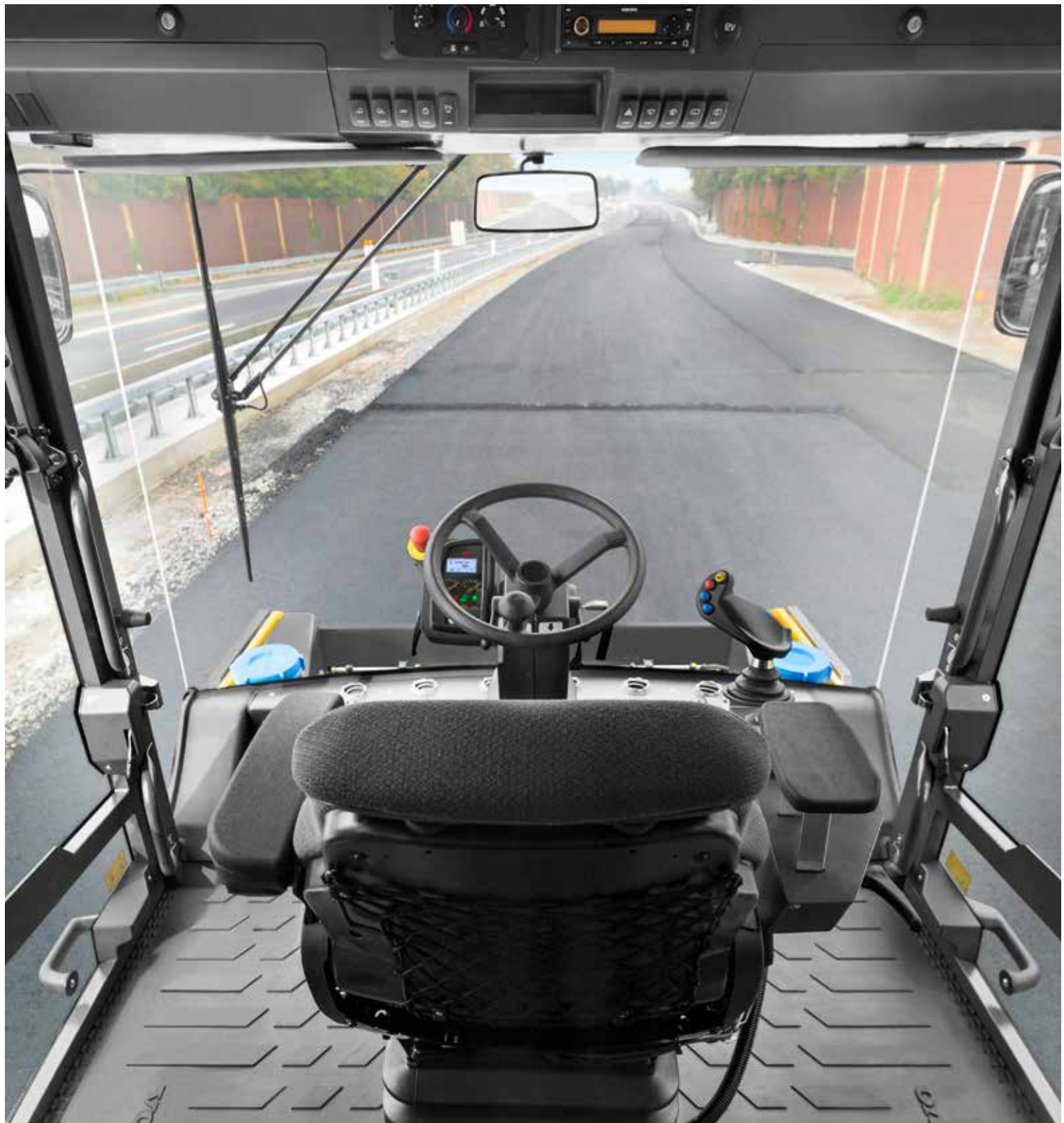


## Low noise

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.



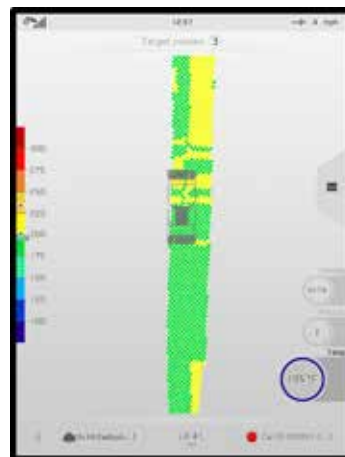
## Compact thin lifts

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

## INDUSTRY-LEADING CAB

- Low noise level
- Seamless visibility to drum edges, spray bars and worksite
- Sliding/rotating operator seat
- Industry-leading climate control system
- Ergonomic controls

## Efficient engine

- Adaptive engine power
- Fuel efficiency
- Eco mode, Auto idle
- Variable speed fan drive

## OSCILLATORY DRUM (DD105 OSC)

- Front vibratory drum with dual amplitudes
- Rear oscillatory drum with hardened steel drum
- Compact thin lifts, improve smoothness and achieve joint density







## PRIMED FOR PRODUCTIVITY

- Low positioned water tank: increased visibility, ground-level access
- Dual water pumps
- Anti-Slip Control
- Offset steering

### Compact Assist

- Intelligent Compaction System from Volvo
- Real-time insight into the work
- Pass mapping
- Temperature mapping

### Volvo Services

- CareTrack telematics system
- Customer Support Agreements
- Genuine Volvo Parts
- Range of Uptime Services, Productivity Services

## MAINTENANCE MADE EASY

- Easy access to all maintenance points
- Fuses and relays stored in cab
- Swing-up engine hood
- Single key for all access points

# 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 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/DD105 OSC 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/DD105 OSC 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

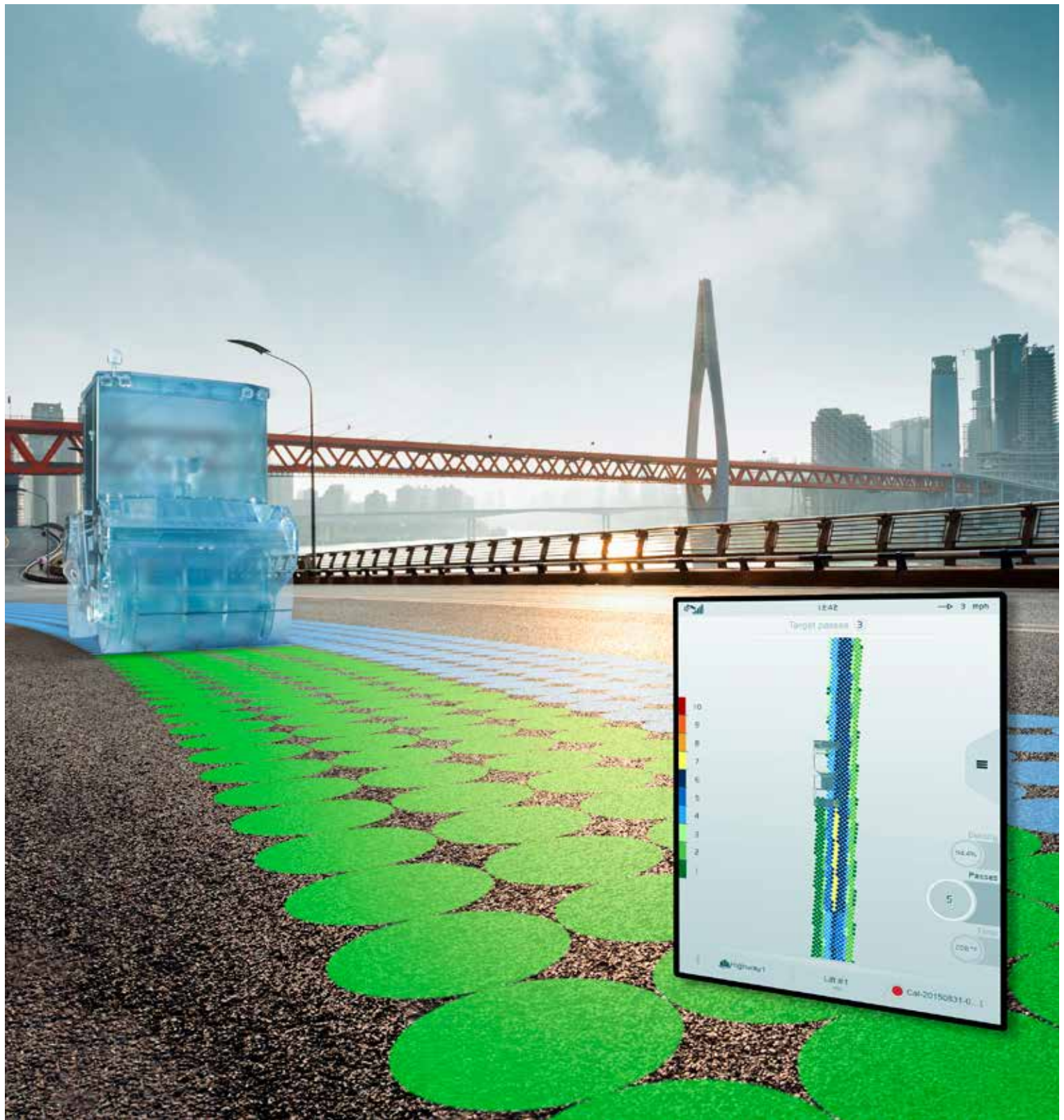
The fan-spray nozzles and screens in the water spraying system can be cleaned quickly and easily without the use of tools. This minimizes the time required for maintenance.



## 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. While Density Direct provides a view of the asphalt density during the compaction process.



# 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

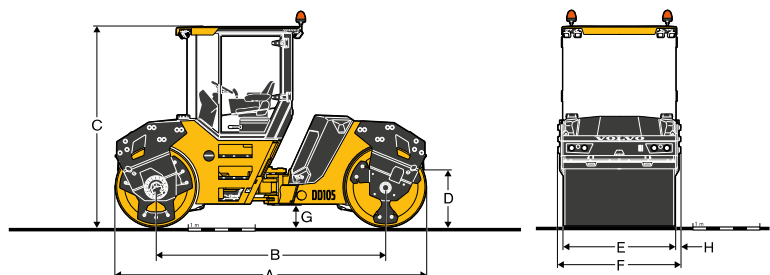
Our attention to detail is what makes us stand out. This proven concept acts as a solid investment in your machine's future. Parts are extensively tested and approved because every part is vital for uptime and performance. Only by using Genuine Volvo Parts, can you be sure that your machine retains the 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*	kg	10 325	10 400	10 103	10 178
Weight @ front drum	kg	5 111	5 149	5 124	5 161
Weight @ rear drum	kg	5 214	5 251	4 980	5 017
Shipping weight**	kg	9 788	9 863	9 628	9 703
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	22	22
OSC drum shell thickness	mm	-	-	17	17
Finish	machined surface; chamfered and radiused edges				
Vibration					
		Front and rear drums		Front drum	
Frequency	hz	40 / 50	40 / 50	40 / 50	40 / 50
Amplitude	mm	0.86 / 0.45	0.86 / 0.45	0.86 / 0.45	0.86 / 0.45
Centrifugal Force (high / low amplitude)	kN	111 / 91	111 / 91	111 / 91	111 / 91
Oscillation (rear drum)					
Frequency	hz	-	-	39	39
Amplitude (tangential)	mm	-	-	1.37	1.37
Oscillation force	kN	-	-	144	144
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					
Engine 1	Volvo D3.8, Stage V				
Engine 2	Volvo D3.8E, UN R96 (Similar to Stage IIIA/Tier 3)				
Engine type	4 Cyl, Electronic, Turbo charged CAC				
Rated power @ 2,600 r/min	kW	86.3			
Electrical	12 V DC, 130 A alternator, Starter 3 kW, Battery 830 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	740			
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	L <sub>PA</sub> dB	87	77	87	77
External, acc. to Directive 2000/14/EC	L <sub>WA</sub> dB	107			
* incl. 50% fuel, 50% water, 75 kg / 165 lb operator					
** 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
<b>Engine</b>		
Eco Mode	•	•
Battery disconnect switch	•	•
V-belt protection	•	•
<b>Operator environment</b>		
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	•	•
<b>Vibration and drum system</b>		
Auto vibration	•	•
Selectable vibration: front, rear, both	•	•
Drum offset function to both sides (optional on Tier 3 machines)	•	•
2 frequencies, 2 amplitudes	•	•
<b>Electrics and electronics</b>		
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
<b>Operator environment</b>		
Autoradio Bluetooth / USB / MP3	•	•
<b>Vibration and drum system</b>		
Drum offset function to both sides (standard on Stage V machines)	•	
<b>Electrics and electronics</b>		
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	•	—
<b>Structure</b>		
Special paintwork	•	•
<b>Environmental</b>		
Biodegradable hydraulic oil	•	•
<b>Attachments</b>		
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



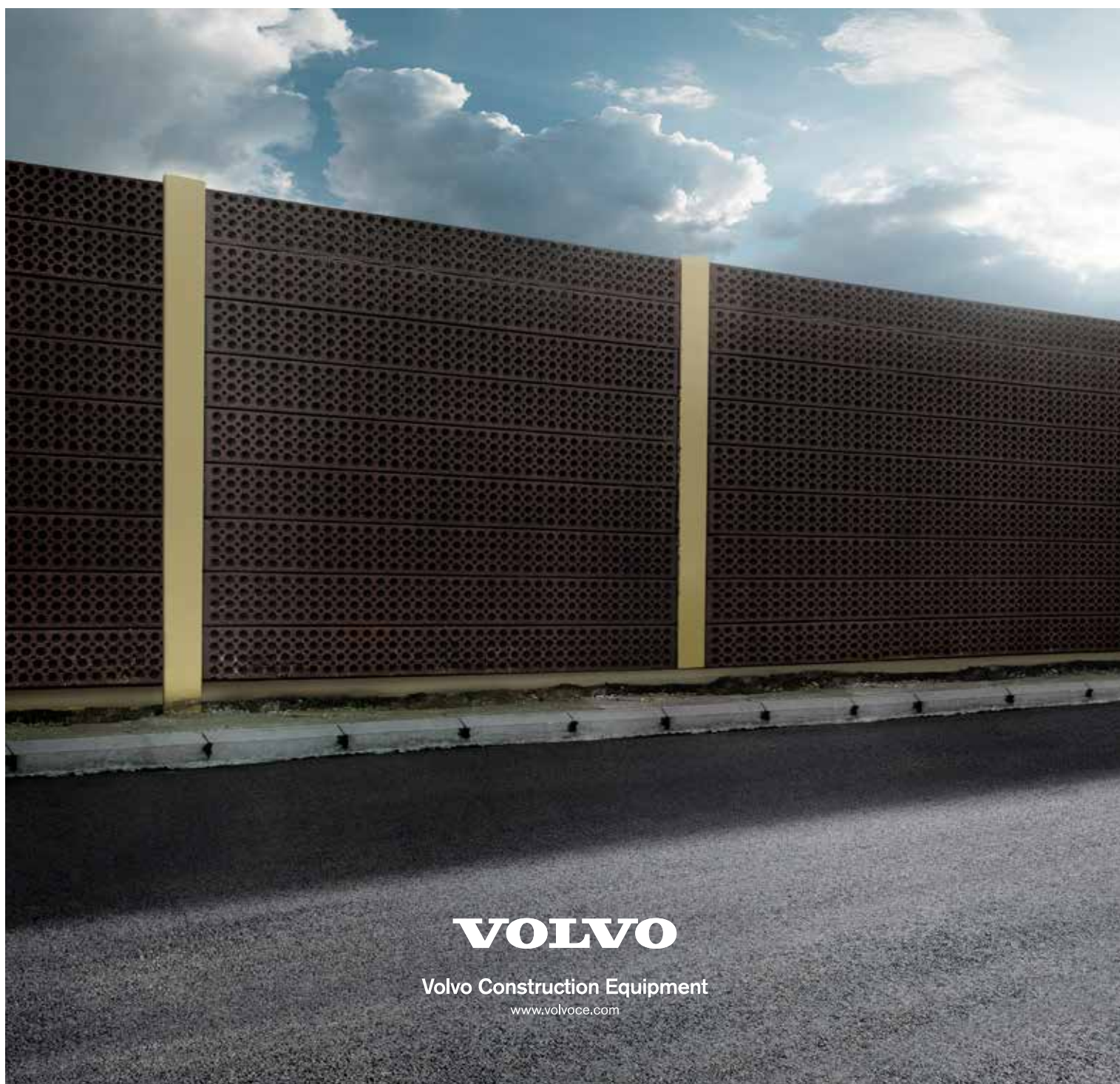
Impact meter



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.



**VOLVO**

Volvo Construction Equipment

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