SPECIFICATION

EASY IN A HARD WORLD

SINGLE DRUM SOIL COMPACTOR | VM75 / VM166 / VM200

Operating weight: 7400kg – 19940kg Engine power: 63 – 129kW Centrifugal force: 84 – 370kN

JCB

EASY IN A HARD WORLD.

Outstanding gradeability and tractive power make our VM75, VM166 and VM200 compactors suitable for all jobs. Easy to understand and operate with precision, these machines make the operators life stress-free, whatever the conditions.

QUALITY, RELIABILITY, DURABILITY.

Our compaction machines are always built to last. That's why you'll find them more reliable, with lower maintenance costs and reduced downtime.

EASY TO USE.

Our VM75, VM166 and VM200 all feature the same intuitive and easy to use operation system, allowing you to quickly and simply get on with your job.

POWER, PERFORMANCE, PRODUCTIVITY.

JCB compaction rollers roll quickly, powerfully and accurately, giving you complete control and maintaining unbeatable productivity levels.

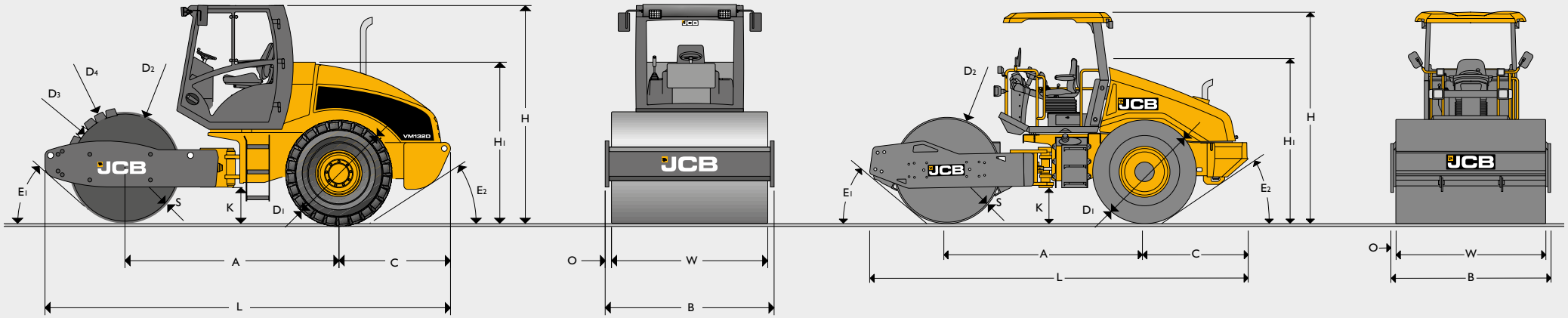
SERVICEABILITY.

All our soil compactors are designed with serviceability in mind, making them easy to maintain for greater uptime. More uptime means more time spent getting the job done.

LIVELINK TELEMATICS.

JCB LiveLink is an innovative telematics system that lets you monitor and manage your machines remotely online, via your laptop, tablet or smartphone.

STATIC DIMENSIONS



STATIC DIMENSIONS

			VM75	VM166	VM200
A	Wheelbase	mm	2514	2996	3076
B	Overall width	mm	1870	2270	2270
C	Axle to rear face	mm	1470	1651	1660
D1	Wheel diameter	mm	1298	1520	1520
D2	Drum diameter (smooth drum)	mm	1220	1500	1600
D3	Inner diameter padfoot drum	mm	1140	1400	1400
D4	Outer diameter padfoot drum	mm	1300	1600	1600
H	Total travel clearance with ROPS/FOPS cabin	mm	2845	2935	2985
H1	Height to top of seat	mm	2070	2160	2245
K	Ground clearance	mm	389	447	497
L	Total travel length	mm	4887	5847	5996
O	Overhang	mm	60	85	85
S	Drum thickness	mm	25	35	40
W	Drum width	mm	1750	2100	2100
E1	Front departure angle	degrees	40	36	35
E2	Rear departure angle	degrees	28	29	29

OPERATING DATA

		VM75D		VM75PD		VM166D		VM166PD		VM200D		VM200PD	
Operating weight with ROPS/FOPS cabin	kg	7660		7320		15520		16060		18530		18370	
Maximum operating weight with ROPS/FOPS cabin	kg	8420		7320		16930		16060		19940		18370	
Operating weight with ROPS/FOPS canopy	kg	7400		7060		15260		15800		18270		18110	
Operating axle load front/rear with ROPS/FOPS cabin	kg	3590/4070		3650/3670		9630/5890		10130/5930		11400/7130		11030/7340	
Operating linear load front with ROPS/FOPS cabin	kg/cm	20.5				45.9				54.3			
Vibration stage		1	2	1	2	1	2	1	2	1	2	1	2
Exciter frequency	Hz	29	36	29	36	29	36	29	36	29	35	29	35
Nominal amplitude	mm	2	0.8	2	0.8	1.8	0.8	1.8	0.8	2	0.75	2	0.75
Centrifugal force	kN	138	84	156	96	301	195	321	208	370	205	370	205
Centrifugal force/drum width	N/cm	789	480	891	549	1433	929	1529	990	1762	976	1762	976
Compaction depth up to	cm	62	50	75	60	130	100	140	110	145	100	155	110
Working speed (forward/reverse) max	km/h	6.9		6.9		7.3		7.3		7.6		7.6	
Travel speed (forward/reverse) max	km/h	11		11		11.4		11.4		11.8		11.8	
Steering lock angle	degrees	±28		±28		±35		±35		±35		±35	
Vertical oscillation	degrees	±15		±15		±15		±15		±15		±15	
Inner turning radius	m	2.97		2.97		3.6		3.6		3.6		3.6	
Tyres		14.9 – 24/6 PR AWT		14.9 – 24 Dyna Torque II		23.1 – 26/8 PR AWT		23.1 – 26/8 PR Dyna Torque II		23.1 – 26/8 PR AWT		23.1 – 26/8 PR Dyna Torque II	
Number of padfeet				100				132				132	
Height of padfoot	mm			80				100				100	
Gradeability up to	degrees (%)	31 (60)		33 (65)		32 (62)		33 (65)		24 (45)		24 (45)	

ENGINE

		VM75	VM166	VM200
		Tier 3	Tier 2	Tier 2
Make		JCB	Cummins	Cummins
Model		444	B5.9 – 173C	B5.9 – 150C
Piston displacement	cm^3	4399	5880	5880
Performance - DIN 6271	kW (hp)	63 (84)	129 (173)	129 (173)
Operating speed	rpm	2200	2200	2200
Starting device		Electric motor	Electric motor	Electric motor
Air cleaner		Dry cartridge with safety cartridge	Dry cartridge with safety cartridge	Dry cartridge with safety cartridge
Fuel filter		Cartridge	Cartridge	Cartridge
Fuel injection type		Mechanical	Mechanical/Electronic	Mechanical/Electronic

SERVICE CAPACITIES

		VM75	VM166	VM200
Fuel	litres	230	400	320
Engine oil (engine)	litres	8	14.5	14.5
Gear oil (exciter)	litres	3	12	12
Hydraulic oil	litres	80	80	80
Coolant	litres	14	19	19

PROPULSION

Infinitely variable hydrostatic direct drive by fixed displacement motor on rear axle and drum, multidisc self-locking differential (no-spin).

EXCITER DRIVE

Electrically controlled hydrostatic direct drive on both drums for double vibration and front only drum vibration.

EXCITER

Single-shaft circular exciter with overturning weights.

STEERING SYSTEM

Servo assisted centre articulation with vertical oscillation.

BRAKING SYSTEM

Service brake: Hydrostatic propulsion system.
Parking brake: Hydraulically released multi-disc brake on rear axle and drum drive.
Emergency brake: Electrically controlled, disk brake on rear axle and drum drive.

ELECTRICAL SYSTEM

		VM75/VM166/VM200
Voltage	V	12
Battery capacity	Ah	143
Alternator	A	max. 95

INDICATORS AND SWITCHES

Hour meter, fuel, engine temperature, engine oil pressure, battery charging current, hydraulic oil and air filter condition, parking brake, neutral position control lever, speed range selection, frequency, AVC (Automatic Vibration Control), acoustic back-up alarm. Optional lighting, turn signal, hazard-warning lights.

OPTIONS

High comfort ROPS/FOPS certified cabin, ROPS frame, working lights, road traffic lights, yellow rotating beacon, adapter for turning seat, several homologation kits, padfoot shell kits (3 segments) with scraper, polyurethane scrapers, tractor and diamond pattern tread spare wheels, tool bags, COMPATRONIC, anti-vandalism cover for dashboard, heating, air condition, FOPS roof for ROPS frame, canopy, air precleaner, additional fuel filters, fuel lubrication filters.

COMPACTED LAYER THICKNESS UP TO... (M)					
Machine	Weight (kg)	Rock	Sand/Gravel	Mixed Soil	Clay/Loam
VM75D	7660*	N/A	0.5	0.4	0.15
VM75PD	7320*	N/A	0.5	0.4	0.2
VM166D	15520*	1.3	1	0.7	0.35
VM166PD	16060*	1.3	1	0.7	0.4
VM200D	18530	1.45	1.2	0.8	0.4
VM200PD	18370*	1.45	1.2	0.8	0.45

COMPACTED OUTPUT... (M^3/H)					
Machine	Weight (kg)	Rock	Sand/Gravel	Mixed Soil	Clay/Loam
VM75D	7660*	N/A	210 – 420	160 – 330	60 – 120
VM75PD	7320*	N/A	210 – 420	160 – 330	80 – 160
VM166D	15520*	660 – 1320	510 – 1020	360 – 720	180 – 360
VM166PD	16060*	660 – 1320	510 – 1020	360 – 720	200 – 410
VM200D	18530*	740 – 1480	610 – 1220	410 – 820	205 – 410
VM200PD	18370*	740 – 1480	610 – 1220	410 – 820	230 – 460


Rock


Sand / Gravel


Mixed Soil


Clay / Loam

Assumption and Notes:
The achieved compaction and productivity values will vary with exact material composition and moisture content.
In critical applications these values should always be verified by physical measurement.
Laboratory soil test should always be carried out to assess the soil structure & strength for compaction.
Weights – CECE with ROPS or Cab*.
Working width: 2.1m with 0.2m overlap of paths.
Working speed: 60 m/min (=3 km/h).
Compaction output speed: 75% of working speed = 2.25 km/h.
Compaction output: assumes 80% of maximum layer thickness stated in upper table.
Compaction output: number of passes are 4….8.


VM166
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Single Drum Soil Compactor VM75 / VM166 / VM200

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