Paver Block, Bedding Sand and Kerb Quantity

Number of paver blocks for an area with joints and wastage, bedding sand volume before compaction, and kerb stones for the edge restraint.

Method: Modular paving layout

Input parameters

Unit system: SI

Parameter	Value	Unit
Paved area	500.00	m²
Paver length	200.00	mm
Paver width	100.00	mm
Joint width	3.0000	mm
Wastage and cuts	5.0000	%
Compacted bedding sand thickness	30.000	mm
Loose-to-compacted sand factor	1.2500	
Edge perimeter needing kerbs	90.000	m
Kerb stone length	500.00	mm

Calculated results

Parameter	Value	Unit
Paver blocks	25,109	
Blocks per square metre	47.826	1/m
Loose bedding sand	18.750	m³
Kerb stones	180.00	

Notes for this case

• Blocks per m² = 1/[(l + j)(b + j)]; add 3–10 % for cuts, breakage and patterns (more for herringbone and curves). Bedding sand is screeded loose about 20–25 % thicker than its compacted depth. Joint filling sand is small extra volume, a few litres per square metre.

Formula and method

$$N = \left\lceil \frac{A(1+f_w)}{(l+j)(b+j)} \right\rceil, \quad V_s = A t_s f_c$$

Variables

A	Paved area	m²
l	Paver length	m
b	Paver width	m
j	Joint width	m
f_w	Wastage and cuts	-
t_s	Compacted bedding sand thickness	m
f_c	Loose-to-compacted sand factor	-
L_e	Edge perimeter needing kerbs	m
l_k	Kerb stone length	m
N	Paver blocks	-

n/m^2	Blocks per square metre	1/m
V_s	Loose bedding sand	m³
n_k	Kerb stones	-

Method and standards

Paving quantities.

Assumptions and limits

- Rectangular blocks laid in a regular pattern.

References

Modular paving layout

Report details

Report reference	FCC-W6E6-MDTZ (the same inputs always give the same reference)
Generated	23 November 2026, 18:08 UTC
Calculator	Paver Block, Bedding Sand and Kerb Quantity
Method last reviewed	17 November 2026
Software release	FireCAD Calc, release of 22 November 2026
Release checks	3 reference cases of this calculator, computed independently, are checked on every release

Results are for engineering estimation. Verify critical designs against the referenced standards and your own data.

This calculator online

https://calc.firecad.com/civil/quantities/paver-block-quantity

Open this case on calc.firecad.com →

Reopens the calculator with the inputs of this report.