

## CONCRETE GUIDE

### 1. Before you measure: what to check

A good estimate starts with a quick site check. It helps you order the right amount, choose a suitable mix, and avoid delays on pour day.

#### A quick checklist

- Draw it out: sketch the area and split it into simple shapes (rectangles, triangles, circles).
- Confirm thickness/depth: for slabs, this is usually a set depth; for foundations, follow the spec or building control guidance.
- Allow for falls and steps: if the ground slopes,

measure the shallow and deep edges and use an average depth.

- Access: can a mixer get close enough, or do you need a line pump for restricted access?
- Sub-base and reinforcement: note where you have MOT Type 1, mesh/rebar, DPM, insulation or shuttering.
- Finishing plan: power float, brushed finish, tamped finish, screed finish - this can affect workability and timing.

### 2. How to measure concrete: the simple method

For most jobs, concrete volume is calculated as:

$$\text{Volume (m}^3\text{)} = \text{Length (m)} \times \text{Width (m)} \times \text{Depth (m)}$$

Once you have your measurements, use the concrete calculator on the Monster Mix website to estimate volume and request a quote.

#### Choosing a sensible allowance

Most projects benefit from a small allowance to over uneven ground, minor over-excavation, and settlement in the sub-base.

As a guide:

- Neat, well-shuttered slabs: add around 5%.
- Irregular groundworks, trench fill, or poor access: add around 10%.
- If you are using on-site mixed concrete, you can stop the pour when you have enough and only pay for what you use.

### 3. Common jobs and worked examples

Below are quick ways to measure typical domestic and commercial pours. Take the measurements listed, then use the website calculator to estimate the volume.

#### **Slabs: patios, driveways, shed bases, floors**

Measure:

- Length
- Width
- Depth (thickness)
- If the slab has a fall or step, note the shallow depth and the deep depth.

#### **Strip foundations and trench fill**

Measure:

- Total trench length (add each run together)
- Trench width (average is fine)
- Trench depth (average is fine, or follow the spec)
- If the trench steps down, measure each section separately.

#### **Post holes and circular pads**

Measure:

- Number of holes/pads
- Diameter (straight across the top)
- Depth
- If sizes vary, group them (for example: "6 holes at 300mm diameter x 600mm deep").

#### **Ramps, steps and awkward shapes**

Measure:

- Split the area into simple rectangles and measure each one
- For ramps/slopes, note the thickness at the shallow end and the thickness at the deep end
- If you're not sure how best to split it up, send us a quick sketch and we'll help.

***Not sure? Email or WhatsApp a sketch with your measurements and we'll confirm the best way to run it through the calculator.***

### 4. Preparing your site for a smooth pour

Good preparation saves time on pour day and helps the concrete perform as intended. If you are working to a structural design, always follow the engineer's specification.

#### **Ground and sub-base**

- Excavate to the required level and remove soft spots.
- Compact the sub-base in layers. An uneven or loose base is a common cause of cracking and settlement.
- Set your formwork/shuttering firmly and check levels and falls before the truck arrives.

#### **Membranes, insulation and reinforcement**

- If required, lay a damp proof membrane (DPM) with taped joints and turn up edges.

- Place reinforcement mesh/rebar on suitable spacers so it sits in the right position within the slab.
- Plan openings, service penetrations and edge details (e.g., garage thresholds, channels, ACO drains) ahead of time.

#### **Finishing and curing**

- Have enough labour and tools ready (rakes, tamp, floats, straightedge).
- Protect fresh concrete from heavy rain, strong sun, and frost. Cover if needed.
- Curing matters: avoid rapid drying in the first few days to reduce surface cracking.

**Access reminder:** If the pour point is a long distance from where the truck can park, ask us about line pumping so concrete can be placed exactly where it's needed.

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## 6. Concrete mixes: what to use and when

Below is a quick guide to common mixes we supply. If you have a specification from an engineer or building control, follow that spec. If you are unsure, tell us what you're building and we'll advise a suitable mix.

***Our commercial mixes comply with BS 8500 and BS EN 206-1 standards, and we can advise on the best option for your application.***

Mix Type	Typical uses	Notes
C10 / GEN 1	Non-structural: kerb bedding, blinding layers, backfilling	Low-strength mix for general support work.
C15 / GEN 2	General purpose: light foundations, pathways, oversites, shed bases	Good all-round option where moderate strength is required.
C20 / GEN 3	General/structural: floor slabs, foundations, some reinforced applications	A versatile balance of strength and workability.
RC concrete mixes	Reinforced structural: RC slabs, beams, retaining walls, load-bearing elements	High-strength mixes suited to reinforced designs.
FND	Foundation concrete: strip foundations and trench fill (controlled ground conditions)	Designed for foundation applications.
FND 4	Higher-performance foundation: demanding ground conditions; deeper/wider foundation designs	For tougher ground and higher requirements.
ST1	Structural (mass fill): mass fill and trench applications	Uniform strength and durability.
ST2	Structural (reinforced): reinforced foundations and ground-bearing slabs	Common commercial specification level.
ST3	Higher-strength structural: reinforced slabs and structural components	Used where increased load capacity is required.
ST4	High-performance structural: heavily loaded and reinforced applications	Often used on commercial/civil engineering projects.
Screed	Floor finishing layer: internal floor finishes for a smooth, level surface	Ready for final coverings once cured.

***Specialist mixes*** Project-specific Prescribed/ special mixes on request. Ask us about fibres, additives or specific perform.



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# DOMESTIC VS COMMERCIAL: QUICK POINTERS

*Domestic jobs often use GEN mixes for bases, paths and small slabs, while commercial jobs more often require structural mixes (ST/RC/FND) to meet design loads and specifications.*

## 7. Pumping and large-volume deliveries

If access is tight or the pour point is a long distance from where vehicles can park, pumped concrete can keep the job moving safely and cleanly.

### When pumping makes sense

- Restricted access: terraced properties, rear gardens, tight commercial yards or internal slabs.
- Long runs: placing concrete far from the road without constant wheelbarrow runs.
- Speed and safety: less manual handling and faster placement.

### What we can provide

- Line pumps up to approximately 65 metres for efficient placement.
- Ideal for foundations, floor slabs and commercial pours.
- Works alongside volumetric or drum deliveries.

## 8. Ordering checklist

Use this checklist when requesting a quote. It helps us recommend the right mix and delivery method first time.

- ▶ *Project type: driveway, slab, foundation, trench fill, retaining wall, hardstanding, screed, etc.*
- ▶ *Dimensions: length, width, depth (and any steps or falls).*
- ▶ *Estimated volume: use the website concrete calculator once you've measured.*
- ▶ *Site access: gate widths, overhead cables/trees, distance from parking to pour point.*
- ▶ *Delivery method: direct pour, wheelbarrow distance, or pumping required.*
- ▶ *Timing: preferred date/time and any site constraints.*
- ▶ *Specification: any engineer/building control requirements (strength class, reinforcement, exposure class).*

**Ready to get a quote? Measure your job, run it through our concrete calculator, and then call 01452 690010 or email [info@monstermixconcrete.co.uk](mailto:info@monstermixconcrete.co.uk).**