

Which Concrete Anchor? — Type Comparison

Tapcon vs wedge vs sleeve vs drop-in · strength, wall material, removable, bit rule

ANCHOR	STRENGTH	WALL MATERIALS	REMOVABLE?	DRILL-BIT RULE
Tapcon (concrete screw)	Light-medium	Concrete, brick, block	Yes – unscrews	Bit is UNDERSIZED vs the screw
Sleeve anchor	Medium	Concrete, brick, block, stone	Partly	1:1 – bit = anchor diameter
Wedge anchor	Highest	Solid concrete ONLY	No – permanent	1:1 – bit = anchor diameter
Drop-in anchor	Medium-heavy	Solid concrete	Bolt removable, anchor stays	Bit is OVERSIZED – match the shank

Wall material decides first: WEDGE anchors are for SOLID CONCRETE ONLY — in brick or block they split the masonry or spin in a cavity, so use a SLEEVE anchor (grips solid and hollow) or a Tapcon concrete screw there. Then pick by load: light -> Tapcon; medium -> sleeve or a larger Tapcon; heavy on solid concrete -> wedge, or a drop-in for a flush removable-bolt fixture.

Not sure if the wall is solid or hollow? Drill a small test hole first — solid brick and core-filled block look identical to hollow from outside. A sleeve anchor or a Tapcon is the safe pick either way.

Bit rules are the convention (each anchor's own page has the exact size). Always check the anchor packaging. For structural, heavy, seismic, edge-distance or chemical/epoxy anchoring, follow the manufacturer's engineered data and a structural engineer.