

Pockets & tool access

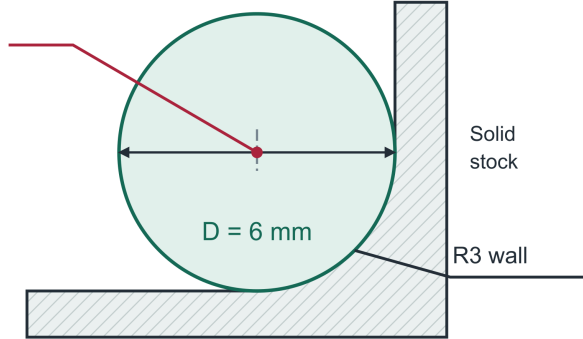
Give the cutting edge room to reach, clear chips and leave the required corner.

DESIGN INTENT The cutter must fit the corner AND reach the floor.

01 Equal radii: no sweep radius

TOP VIEW / INTERNAL VERTICAL CORNER

Centers coincide



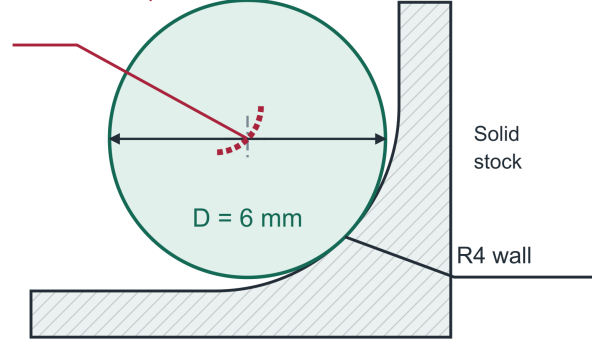
Same scale in both views. Cutter shown at the corner.

R3 corner / diameter 6 cutter

02 Larger corner: room to sweep

TOP VIEW / INTERNAL VERTICAL CORNER

1 mm center-path radius



Same scale in both views. Cutter shown at the corner.

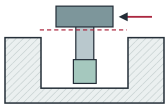
R4 corner / diameter 6 cutter

WORKED EXAMPLE / mm

Corner-path radius = $R - D/2$

R3: $3 - 6/2 = 0$ mm | R4: $4 - 6/2 = 1$ mm

03 Reduce unnecessary reach



Flutes provide chip space; the neck and holder also need clearance. A deep pocket may require a long, less rigid tool.

CAD: keep nonfunctional pockets shallow.

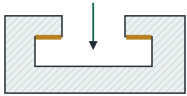
04 Clear square mating corners



A round tool leaves an inside radius. Local corner relief can clear a square insert; verify fit and the remaining load-bearing section.

CAD: add relief only where permitted.

05 Plan the tool approaches



Group accessible features where function permits. Re-clamping adds handling; undercuts still need a tool entry and exit path.

CAD: review access and necessary setups early.

06 Distinguish blind and through



Wire EDM needs a through path in conductive material and wire entry. A blind floor needs another approach, such as sinker EDM.

CAD: preserve required floors and sealing walls.

WHAT THIS DOES NOT PROVE

A larger corner helps the toolpath; it does not prove tool reach. Check flute, neck and holder clearance separately.

BEFORE RELEASE Protect fit, loads, sealing and required material sections when changing geometry.

- ☐ Identify the smallest internal vertical radius.
- ☐ Check tool and holder access to every feature.
- ☐ Mark any permitted corner relief on the drawing.
- ☐ Dimension pocket depth separately from wall height.
- ☐ Identify square-corner mating requirements.
- ☐ Discuss inaccessible undercuts before release.

Illustrative geometry; not to scale. No universal shop limits or structural approval. Drawing and approved process requirements govern.