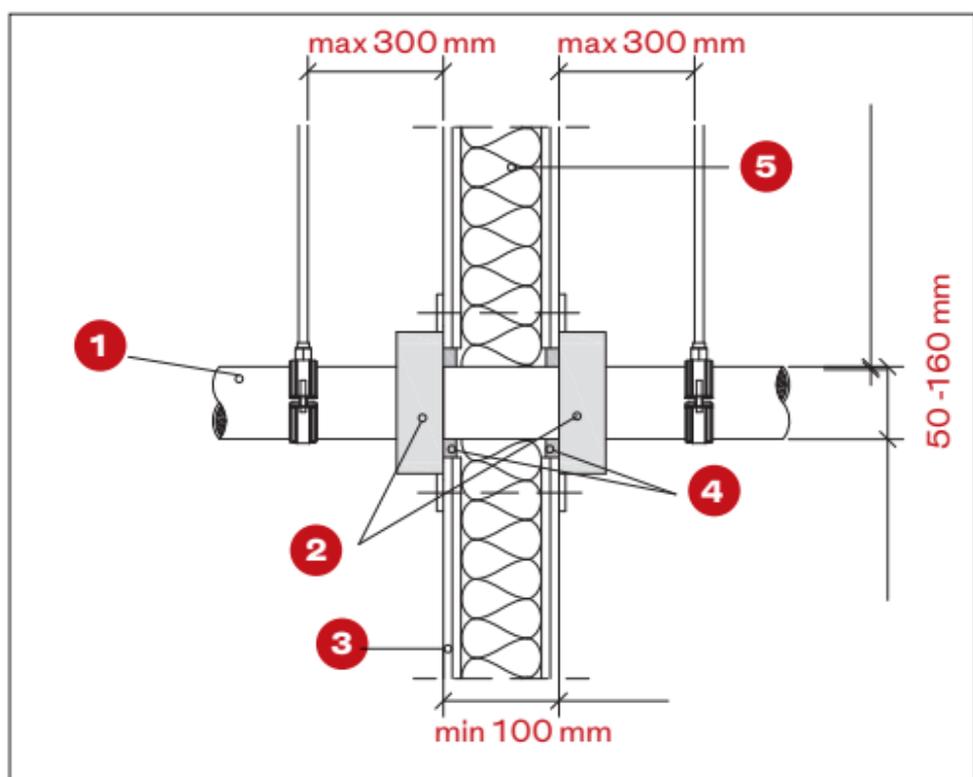


STANDARD PENETRATION DETAIL: EXAMPLES

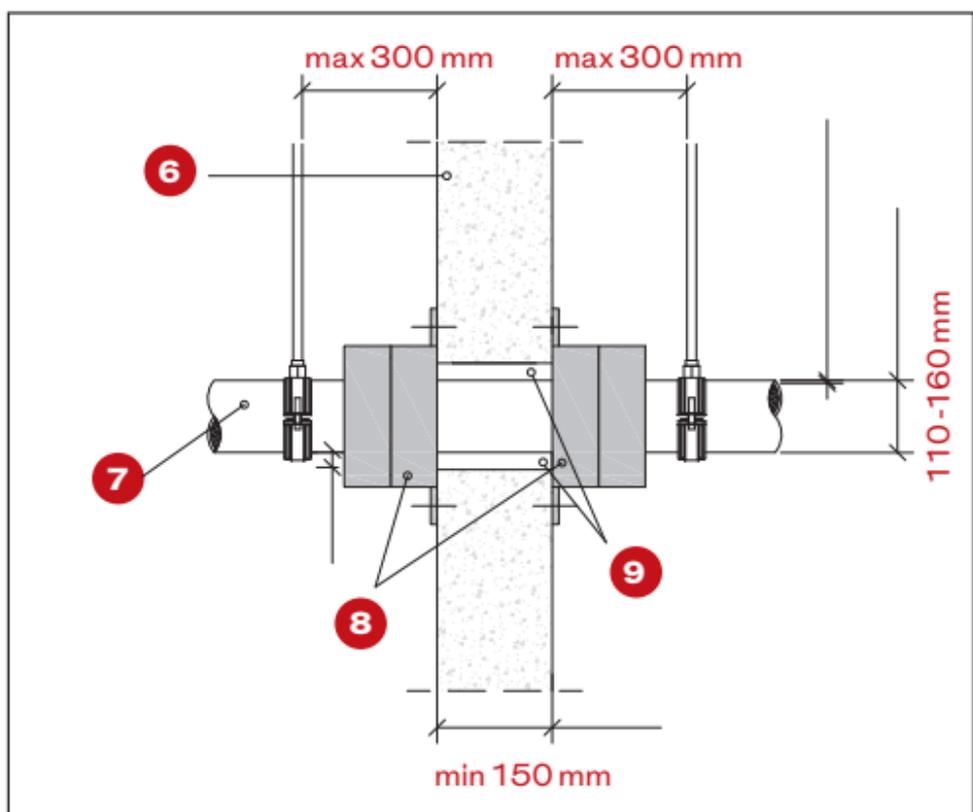
Firestop collar :

Straight plastic pipe in a flexible wall



Firestop collar endless :

Straight plastic pipe in a rigid wall



- 1 PE pipe according to EN ISO 15494 and DIN 8074/8075
- 2 Hilti CFS-C-P firestop collar
- 3 2 x min 12.5 thick boards
- 4 Annular gap fill material:
Hilti Firestop Acrylic Sealant CFS-SARC on both sides with depth >25 mm from the surface of the wall.
Gypsum plaster or cementitious mortar over the entire thickness of the wall.
- 5 Mineral wool
- 6 Comprise concrete, aerated concrete, brickwork, lime malm bricks or masonry. Min density of 650 kg/m^3
- 7 Geberit Silent db20 pipe
- 8 Hilti CFS-C EL firestop endless collar
- 9 Annular gap fill material:
0-15mm gap: Hilti Firestop Acrylic Sealant CFS-SARC on both sides with floor.
0-40mm gap: Hilti Firestop Acrylic Sealant CFS-SARC on top side with floor only with depth >25 mm, backfilled with mineral wool.
0-40mm gap: Cementitious mortar acc. EN 998-2 group M10 over the entire thickness of the wall.