

Purpose

CORECASE is a portable light weight coring rig for quickly obtaining drilled cores that are accurate in diameter, have straight sides, and are perpendicular to the surface. In addition to determining in-place compressive strength, drilled cores can also be used for the following purposes:

- Verification of flaws identified by NDT methods such as the **s'MASH impulse-response** system; the **DOCTer impact-echo** system; and the **MIRA** and **EyeCon** pulse-echo systems
- Preparing a partially drilled core for conducting a pull-off test with **BOND-TEST** in accordance with BS 1881:207 or ASTM C1583
- Other laboratory tests such as: rapid chloride penetration using the **PROOVE'it** system, bulk conductivity using **Merlin**, air-void parameters using the **RapidAir** system, or for petrographic analysis

Principle

A thin-walled coring barrel with a high-performance diamond bit is attached to a water-cooled drill rig weighing between 1.8 kg and 3.5 kg. The drill rig pushes the drill barrel forward concentrically thereby avoiding bending forces during drilling. A special plastic coupling is used between the electric drill and the coring barrel to reduce vibration of the bit, ensuring a long life for the diamond bit and a smooth core surface. The drill rig is kept securely perpendicular to the surface by adjustable clamps anchored to the surface or by a suction plate. The end result is a quickly drilled core that has a smooth surface, accurate diameter, and drilled perpendicular to the surface. Two versions are available: **CORECASE CS-75** for a 75-mm core diameter and **CORECASE CEL-100** for a 100-mm core diameter.

Example Applications



Coring with the **CS-75** rig clamped to the surface



The **CS-75** coring rig attached to the suction plate before conducting **BOND-TEST**



Coring with the **CS-75** rig for inspection of cracks following chloride extraction



Coring with the **CEL-100** rig to obtain specimen for testing with **PROOVE'it** for chloride permeability

CORECASE

CORECASE49 CS-75 (75-mm core)

Item	Order #
Coring rig with coupling	CC-10
Handles for coring rig, 3 pcs	CC-20
Coring bit, 75 mm x 110 mm	CCB-75/110
Water pump with 2 hoses	CC-30
Clamping pliers, adjustable, 2	CC-40
Set of anchoring tools, 8 mm	CC-50
8 mm expansion anchors, 20	CC-60
Chisel	CC-70
Hammer	CC-80
Core lifter, 75-mm diameter	CC-90
Wrench, 14 mm	CC-100
Measuring tape	CC-110
Set of spare bearings for coring rig	CC-120
Reinforcement locator	CC-130
Manual	CC-140
Attaché case	CC-150

Optional items	
Suction plate	CC-160
Vacuum pump	CC-170
1150 W electric drill	CC-180



Optional suction plate with vacuum pump

CORECASE CEL-100 (100 mm core)

Item	Order #
Coring rig with coupling	CC-15
Handles for coring rig, 3 pcs	CC-20
Coring bit, 100 mm x 210 mm	CCB-100/210
Water pump with 2 hoses	CC-30
Clamping pliers, adjustable, 2	CC-40
Set of anchoring tools, 12 mm	CC-55
12 mm expansion anchors, 20	CC-65
Chisel	CC-75
Hammer	CC-80
Core lifter, 100-mm diameter	CC-95
Wrench, 14 mm	CC-100
Measuring tape	CC-110
Set of spare bearings for coring rig	CC-120
Reinforcement locator	CC-130
Manual	CC-145
Attaché case	CC-155

Optional	
1150 W electric drill	CC-180

Extension rods, 100 mm long, for drilling deeper than 110 mm (CS-75) or deeper than 210 mm (CEL-100) are available on request, Order # CC-190.



Additional coring bits

For CORECASE CS-75

Core diameter × length	Coring bit #
25 mm × 110 mm	CCB-25/110
35 mm × 110 mm	CCB-35/110
50 mm × 110 mm	CCB-50/110
75 mm × 110 mm	CCB-75/110

For CORECASE CEL-100

Core diameter × length	Coring bit #
25 mm × 210 mm	CCB-25/210
35 mm × 210 mm	CCB-35/210
50 mm × 210 mm	CCB-50/210
75 mm × 210 mm	CCB-75/210
100 mm × 210 mm	CCB-100/210

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