

## Ultrasonic Testing System

### ASTM C 597 BS 1881-203

The Ultrasonic Concrete Testing System is used primarily for quality control and inspection of concrete structures. Use it to survey complete structures, new, old, fire damaged or weathered. It measures the speed of ultrasonic pulses through the concrete to correlate concrete strength to standard strength. It will identify nonhomogeneous conditions in structures such as honeycombs, voids, cracks, frozen concrete, etc. The large LCD display shows a graphic waveform and the elapsed time in 0.1 microsecond increments.

The system includes two 54 kHz transducers with connecting cables, readout unit, power cord, built-in rechargeable batteries, carrying case and coupling grease. The system facilitates automatic calculation of ultrasonic pulse velocity, Poisson's ratio and modulus of elasticity.



C-561

#### Specifications for Ultrasonic Concrete Testing System

Dimensions:	4.5 x 8.5 x 10.5 in (114 x 223.5 x 267 mm)
Frequency Range:	24 to 500 kHz, based on transducers selected
Receiver Sensitivity:	250 microvolts, between 30 kHz and 100 kOhms
Transit Time:	0.1 to 6553.5 microseconds, direct digital display
Accuracy:	0.1 microseconds
Transmitter Output:	Pulse 1000 V / 500 V, 2 microseconds
Battery:	14 V, 4-10 hours continuous use (L-ion)
Display:	320 by 240, backlit for daylight use
Storage:	1800 + readings
Software:	Windows® XP compatible
Temperature:	0° - 50° C

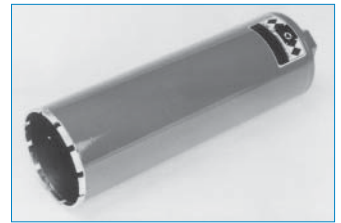
C-561	Ultrasonic Concrete Testing System	17 lb
C-56101	Ultrasonic Concrete Testing System w/o Software	
C-56102	Ultrasonic Concrete Testing System w/o Transducers	

#### Related Item

C-56130 Coupling Grease

## Coring Bits

Continuous Coring Bits are popular with State Highway Departments, government agencies and private contractors for retrieving cores up to 14-in (35 cm) long from asphalt and concrete pavements, pre-stressed material, reinforced concrete, concrete block, brick and stone.



C-71042

Open-back bits accept three-piece expanding adapters to connect the bit to the coring machine. The open back design allows access to the core should the core become wedged in the hole. Solid backed bits are one piece construction for ease of operation. The bit adapter is permanently welded to the bit.

Bits are available for cores from 1 to 14 in (2.5 to 35.6 cm). The most requested sizes are shown below. Other sizes are available upon request.

#### Concrete Coring Bits

Bit Size	Core Diameter	Concrete Coring Bits		Weight
		Concrete Solid Back Bit	Asphalt	
2 1/4 in	2 in (5.1 cm)	C-71022	C-71122	4.0 lb
3 1/4 in	3 in (7.6 cm)	C-71032	C-71132	6.0 lb
4 1/4 in	4 in (10.2 cm)	C-71042	C-71142	8.0 lb
6 1/4 in	6 in (15.2 cm)	C-71062	C-71162	14.0 lb
Bit Size	Core Diameter	Concrete Coring Bits		Weight
2 1/4 in	2 in (5.1 cm)	C-72022	C-72222	3.0 lb
3 1/4 in	3 in (7.6 cm)	C-72032	C-72232	4.0 lb
4 1/4 in	4 in (10.2 cm)	C-72042	C-72242	6.0 lb
6 1/4 in	6 in (15.2 cm)	C-72060	C-72262	12.0 lb
Bit Size	Core Diameter	Concrete Coring Bits		Weight
2 1/4 in	2 in (5.1 cm)	C-72122		2.0 lb
3 1/4 in	3 in (7.6 cm)	C-72132		4.0 lb
4 1/4 in	4 in (10.2 cm)	C-72142		5.0 lb
6 1/4 in	6 in (15.2 cm)	C-72162		10.0 lb

## Shaft Extension Rods

Shaft extension rods permit greater drilling depths when using standard bit lengths.

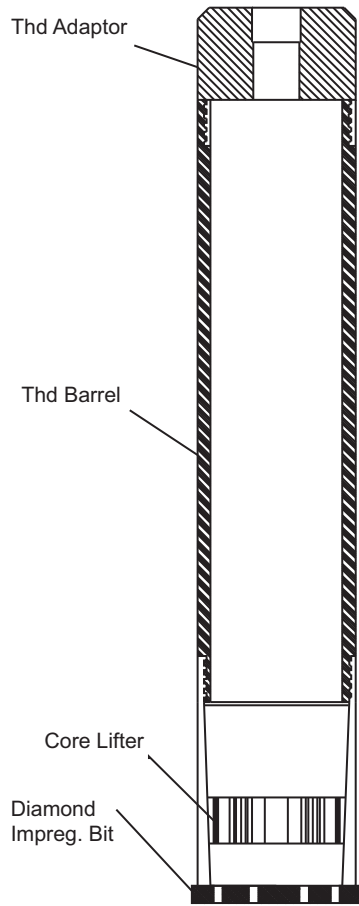
#### Shaft Extension Rods

C-72506	6 in (15.2 cm) Rod, 5/8-11 Thr.	2.0 lb
C-72512	12 in (30.5 cm) Rod, 5/8-11 Thr.	4.0 lb
C-72606	6 in (15.2 cm) Rod, 1 1/4-7 Thr.	3.0 lb
C-72612	12 in (30.5 cm) Rod, 1 1/4-7 Thr.	6.0 lb

**Thin Walled Core Barrel Assembly**

The thin walled core barrel assembly allows continuous coring with a standard concrete coring machine to depths greater than the normal 14 inches long thin walled core barrel. Excellent tools for coring thick zones of soil-cement or near surface coring of roller compacted concrete dams.

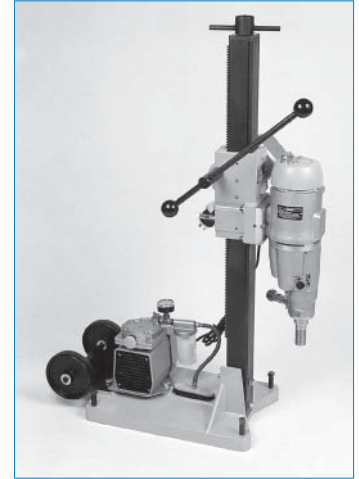
Basic assembly includes: 3.437-in diamond bit, core lifter, threaded barrel and adapter head. Threaded barrels are added to achieve greater sampling depth and the core catcher retains the cut core during retrieval. Standard bit size is 3.437-in OD; however, bit sizes and ancillary components available in 2.437-in OD and 4.437-in OD.



Thin Walled Core Barrel Assembly		
C-73030	Diamond Bit, 3.437 in OD	2.0 lb
C-73131	Threaded Barrel, 1-ft length	3.0 lb
C-73132	Threaded Barrel, 2-ft length	6.0 lb
C-73133	Threaded Barrel, 3-ft length	9.0 lb
C-73134	Threaded Barrel, 4-ft length	12.0 lb
C-73138	Core Lifter for C-73030 bit	1.0 lb
C-73139	Adapter Head with 1-1/4 - 7 tpi	6.0 lb

**Portable Electric Concrete Core Drill**

The Coring Drill enables easy cutting of cores from pavements, floors and other horizontal surfaces. Easily moved with built-in wheels and slide handle, the base may be fixed with anchors or by application of a vacuum. Powered by an 18 A "Cardi" electric motor to allow use of bits up to 10-in (25.4 cm) diameter. 3-speed gear box. It also features a control panel with an amp meter and dual switch/outlets. Spindle thread size: 1 1/4 in - 7 tpi.



C-752

A recirculation ring and pump is available.

C-752	Portable Electric Core Drill, 110 V, 18 A.	140 lb
C-75215	Portable Electric Core Drill, 220 V, 50 Hz,	140 lb
C-821	Portable Core Drill, w/ 15 hp gasoline motor	300 lb

**Related Items:**

C-75250	Collection Pan
C-72606	6-in Rod, 1 1/4 in - 7 thread
C-72612	12-in Rod, 1 1/4 in - 7 thread
C-72615	Sub AW Box to 1 1/4 in - 7 tpi Pin
C-73030	Diamond Closed Bit, 3.437 x 2.875 in
C-73131	1-ft Threaded Barrel for C-73030
C-73132	2-ft Threaded Barrel for C-73030
C-73133	3-ft Threaded Barrel for C-73030
C-73134	4-ft Threaded Barrel for C-73030
C-73138	Core Lifter for C-73030 Bit
C-73139	Threaded Adaptor for C-73030