

# BAR TRACKER

## concrete covermeter

Conform to BS 1881-204



- detection of reinforcing bars and meshes
- measurement of cover depth
- determination of reinforcing bars diameters

# BARTRACKER

## What is a covermeter

A Covermeter is a gauge that measures the thickness of concrete cover over steel reinforcement bars and metal pipes. The covermeter can tell you the depth of the concrete, the location and orientation of reinforcement bar (rebar) or metal pipe and can even determine the diameter of the rebar. A drill making contact with a rebar or tendon duct can not only destroy the drill bit, but can also cause serious structural damage.

The **BARTRACKER** covermeter is able to accurately determine where the metal is, even when there are complicated crossings of mesh support structures and can locate tendon ducts deep within the structure.

This takes the guesswork out of rebar and pipe location.

## BARTRACKER feature overview

- Rugged, waterproof IP65 case sealed against the elements and tough enough to work in harsh environments



- Probe storage for easy portability

- Memory and data logging with data output to PC or direct to printer

- Noisy environment? The headphone socket is there so you can always hear your gauge

- Ergonomically shaped case has a gentle curve to fit snugly against your hip

- Intuitive menus in multiple languages allow you to start using the gauge as soon as you receive it

- International bar ranges includes Metric & US Bar Numbers



# ACKER

This typical view of the cover display screen shows you everything you need to know. Screens can be backlit for ease of viewing in dark conditions.

The easy to use menus, in multiple languages, enable you to access all the data you need while on site, without constant reference to the instruction book!



- Battery packs can be recharged inside or outside the gauge, keeping it going for as long as is required

- Most functions can be accessed & controlled through 4 simple keys ideal for single handed operation



**BARTRACKER** in use on concrete column reinforced with steel bars.

# BARTRACKER Measuring Ranges & Accuracy

As with all covermeters, the accuracy of the readings alter at differing depths. The **BARTRACKER** boasts one of the best measurement accuracy features available on the market today.

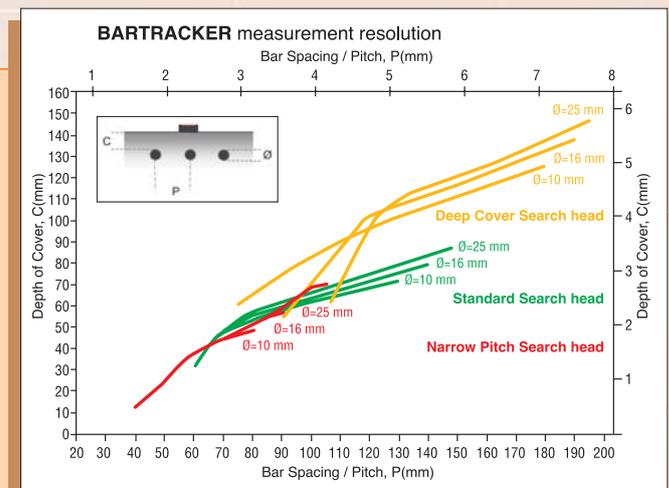
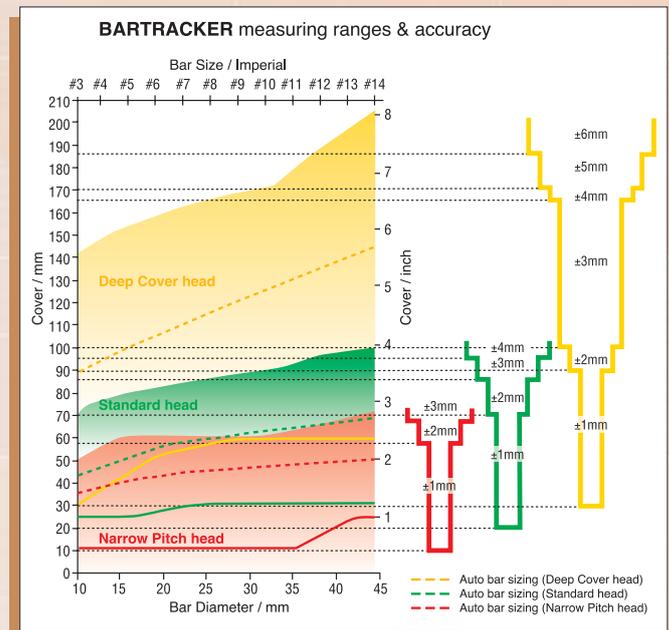
With the **BARTRACKER** Covermeters you can be safe in the knowledge that the readings you take are accurate and precise.

The focussed search heads enable an accurate measurement in congested situations, giving you the detailed information you need for your site survey.

The class leading resolution of the **BARTRACKER** Covermeters allows you to achieve accurate readings when there is a minimal distance between rebars.

With the choice of extra search heads available as options, which are easily interchangeable and are automatically recognised by the unit, the **BARTRACKER** can deliver the results you need quickly, easily and accurately.

Using the optional Borehole Probe you can extend the **BARTRACKER's** measurement range to locate and orientate additional layers of rebar and tendons up to 100 cm/40" below the surface.



## Main functions

- Rebar location
- Rebar orientation
- Depth of cover
- Cover thickness reading mm or inches
- Large graphic display with backlight
- Multiple language menu structure
- Signal strength bar
- Interchangeable heads with LED & keypad
- User selectable bar range sizes & numbers
- Autosize mode for quick bar diameter determination
- Orthogonal mode for bar diameter determination
- RS232 output to PC
- EDTS MS EXCEL link software
- Data logging
- Date & time
- Rugged waterproof case (IP65)
- Adjustable beep volume & earphone socket

### Bar diameter ranges:

Metric: 5 - 50 mm bar diameters in 21 values  
US bar numbers: #2 - #18 bar sizes in 16 values

### Rechargeable power supply:

7,4V lithium ion battery pack provides up to 32 hours of continuous use (20 hrs if backlight on).  
Rechargeable in 4 hrs either inside or outside the gauge using external charger.

Maximum operating temperature: 50°C / 122°F

Unit dimensions: 230 x 130 x 125 mm / 9 x 5,1 x 4,9"

Unit weight: 1,54 kg / 3,4 lbs

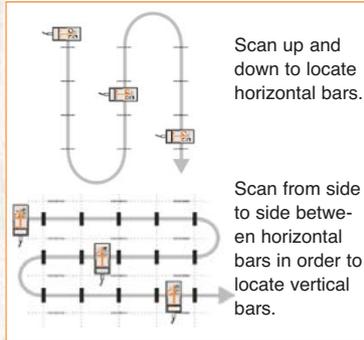
## The gauge is supplied complete with:

- main unit;
- standard search head;
- PC cable;
- battery pack and charger;
- shoulder strap;
- earphone;
- instruction book and carry case.

# BARTRACKER Measurement Techniques

## Determine orientation of rebars and surface mapping

The maximum signal is sounded when the search head is aligned parallel to the rebar, making determining orientation easy. Mapping the concrete surface in a systematic manner allows you to easily locate and store 2 layers of reinforcement bars at right angles to each other.



Scan up and down to locate horizontal bars.

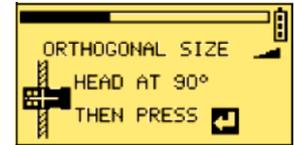
Scan from side to side between horizontal bars in order to locate vertical bars.

## Auto-sizing and orthogonal size function

Autosizing automatically calculates an estimate for the size of rebar and the depth of cover. If this figure differs greatly from your expected rebar size, or you do not know the expected rebar size, the orthogonal size function provides an accurate measurement of bar size. The step by step directions on the covermeter make the accurate sizing of bars quick and easy.



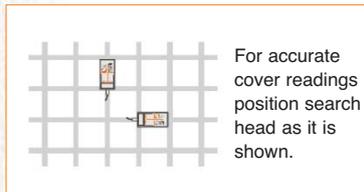
Simply access the menu and then follow the clear on-screen instructions.



When step 2 is complete, the bar size and depth of cover will be shown.

## Measuring depth of cover

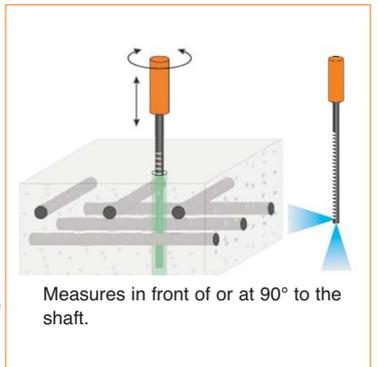
After reinforcement location it is possible to measure accurately the depth of cover with the search head over the centre-line of the bar and parallel to the bar.



For accurate cover readings position search head as it is shown.

## Borehole Probe (optional accessory)

When an area between the first layers of rebar has been identified, drill a hole with a large enough diameter to fit the shaft of the probe. By pushing the borehole probe into the shaft, information about the previously hidden reinforcement either to the side of or in front of the end of the probe can be determined, giving you the full picture.



Measures in front of or at 90° to the shaft.

## BARTRACKER search heads

All search heads and the bore hole probe are fully interchangeable without the need to return your gauge to CONTROLS. When ordering your gauge, please remember to order your choice of search head separately (standard head is included).

### Standard search head (included)

Designed to meet most of your measurement requirements.

Range: 40 mm / 1.6" bar 15 mm to 95 mm / 0.6" to 3.75"  
 8 mm / 0.3" bar 8 mm to 70 mm / 0.3" to 2.75"  
 Dimensions: 155 x 88 x 42 mm / 6.1 x 3.5 x 1.65"  
 Sensing area: 120 x 60 mm / 4.72 x 2.36"

### Narrow Pitch search head (optional) 58-E6100/1

Accurately measures the cover thickness when the gaps between each of the rebars (pitch) are close together.

Range: 40 mm / 1.6" bar 8 mm to 80 mm / 0.3" to 3.1"  
 8 mm / 0.3" bar 5 mm to 60 mm / 0.2" to 2.4"  
 Dimensions: 155 x 88 x 42 mm / 6.1 x 3.5 x 1.65"  
 Sensing area: 120 x 60 mm / 4.72 x 2.36"

### Deep Cover search head (optional) 58-E6100/2

The ideal search head for accurately measuring rebars that are deep within the structure.

Range: 40 mm / 1.6" bar 35 mm to 180 mm / 1.4" to 7"  
 8 mm / 0.3" bar 25 mm to 160 mm / 1" to 6.3"  
 Dimensions: 170 x 94 x 54 mm / 6.7 x 3.7 x 2.1"  
 Sensing area: 160 x 80 mm / 6.3 x 3.15"

### Borehole Probe (optional) 58-E6100/3 and 58-E6100/4

The solution for locating tendon ducts and multiple layers of rebar lying deep within the concrete.

Measurement depth: Short probe: 0 - 40 cm / 0 - 16"  
 Long probe: 0 - 100 cm / 0 - 40"

Approximate detection ranges: Tendon duct (70 mm / 2.75" diameter): up to 90 mm / 3.54"  
 Reinforcement bar: up to 60 mm / 2.36"



Narrow Pitch head  
58-E6100/1



Deep Cover head  
58-E6100/2



Borehole Probe  
58-E6100/3  
58-E6100/4

# BARTRACKER



58-E6102

## BARTRACKER concrete covermeter

- detection of reinforcing bars and meshes
- measurement of their cover depth
- determination of reinforcing bars diameters

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In line with its continual program of product research and development,  
CONTROLS reserves the right to alter specifications to equipment to any time.

### Ordering information

|          |   |
|----------|---|
| 58-E6102 | BARTRACKER covermeter with standard search head, carry case, gauge-to-PC transfer cable, battery pack and battery charger 230V/50Hz/1Ph |
|----------|---|

Other voltages: 220V/60Hz/1Ph model 58-E6103 - 110V/60Hz/1Ph model 58-E6104

### Accessories

|            |   |
|------------|---|
| 58-E6100/1 | Narrow pitch search head for BARTRACKER covermeter          |
| 58-E6100/2 | Deep cover search head for BARTRACKER covermeter            |
| 58-E6100/3 | Borehole probe short type 0-40 cm for BARTRACKER covermeter |
| 58-E6100/4 | Borehole probe long type 0-100 cm for BARTRACKER covermeter |
| 58-E6100/8 | Calibration test block for BARTRACKER covermeter            |

### Calibration certificates

(must be requested at the time of order)

| for  | BARTRACKER with standard search head | BARTRACKER with narrow pitch search head | BARTRACKER with deep cover search head | BARTRACKER with borehole probe |
|------|--------------------------------------|--|--|--------------------------------|
| Code | 58-E6100/CAL1                        | 58-E6100/CAL2                            | 58-E6100/CAL3                          | 58-E6100/CAL4                  |

### Re-calibration certificates

(The gauge and search head must be returned to CONTROLS for re-certification)

| for  | BARTRACKER with standard search head | BARTRACKER with narrow pitch search head | BARTRACKER with deep cover search head | BARTRACKER with borehole probe |
|------|--------------------------------------|--|--|--------------------------------|
| Code | 58-E6100/CAL1*                       | 58-E6100/CAL2*                           | 58-E6100/CAL3*                         | 58-E6100/CAL4*                 |

### Spares

|             |   |
|-------------|---|
| 68-E6100/20 | Curly search head cable for BARTRACKER covermeter                 |
| 68-E6100/21 | Gauge to PC RS232 serial transfer cable for BARTRACKER covermeter |
| 68-E6100/22 | Battery pack for BARTRACKER covermeter                            |

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