Hilti
PS 250
Ferroscan
PS 1000 X-Scan
detection systems



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# Inside insight.

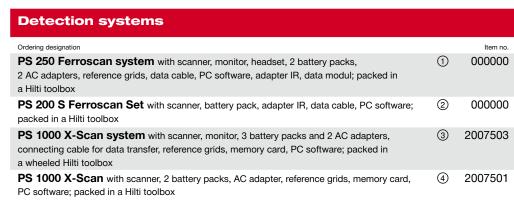




Non-destructive inspection of concrete structures, e.g. locating reinforcement or tensioning tendons.



Locating objects in concrete structures before drilling penetrations or breaking out openings.



Accessories			
	PS 250	PS 1000	
PSA 100 monitor with soft case, battery pack and AC adapter			2006082
PSA 10 reference grid, in mm			377654
PSA 12 reference grid, in mm			2006083
PSA 14 reference grid, in mm			2006085
PSA 75 brush			2013776
PUA 70 marking pens, 12 pcs			340806
PUA 90 adhesive tape			319362
PSA 50 connecting cable, 2 m, for data transfer PS 1000 - PSA 100			2006185
PSA 51 connecting cable, 10 m, for data transfer PS 1000 - PSA 100			2006186
PSA 55 adapter IR for buffering data, with PUA 95 data cable			2044480
PUA 95 data cable for Data transfer PSA 55 Adapter IR - PC			2044481
PSA 65 carrying device for the PSA 100 monitor			2006200
PSA 70 extension for PS 1000 X-Scan (floor applications)			2006199
PSA 80 battery pack for scanner and PS 200 M monitor			377472
PUA 80 AC adapter for the PSA 80 battery pack			000000
PSA 81 battery pack for PS 1000 X-Scan			2006182
PSA 82 battery pack for PSA 100 monitor			2006183
PUA 81 AC adapter for PSA 81 and PSA 82 batteries			2006089
PUA 82 motor vehicle power adapter for PSA 81, PSA 100			2006180
PSA 85 battery charger for PSA 82 battery pack			2006183
PSA 91 memory card MMC card (for PS 200 M monitor, item no. 319281)			305141
PSA 94 memory card SD card (for PS 200 M monitor, item no. 031225)			319911
PSA 95 memory card for PS 1000 X-Scan			2006184
PSA 92 data cable for data transfer between the monitor and PC			305142
PSA 93 headset for voice recording with the monitor			305143
PS 250 toolbox			2044482
PS 1000 toolbox			2006188
PS 1000 system toolbox		•	2006201

### Great services - the choice is yours.







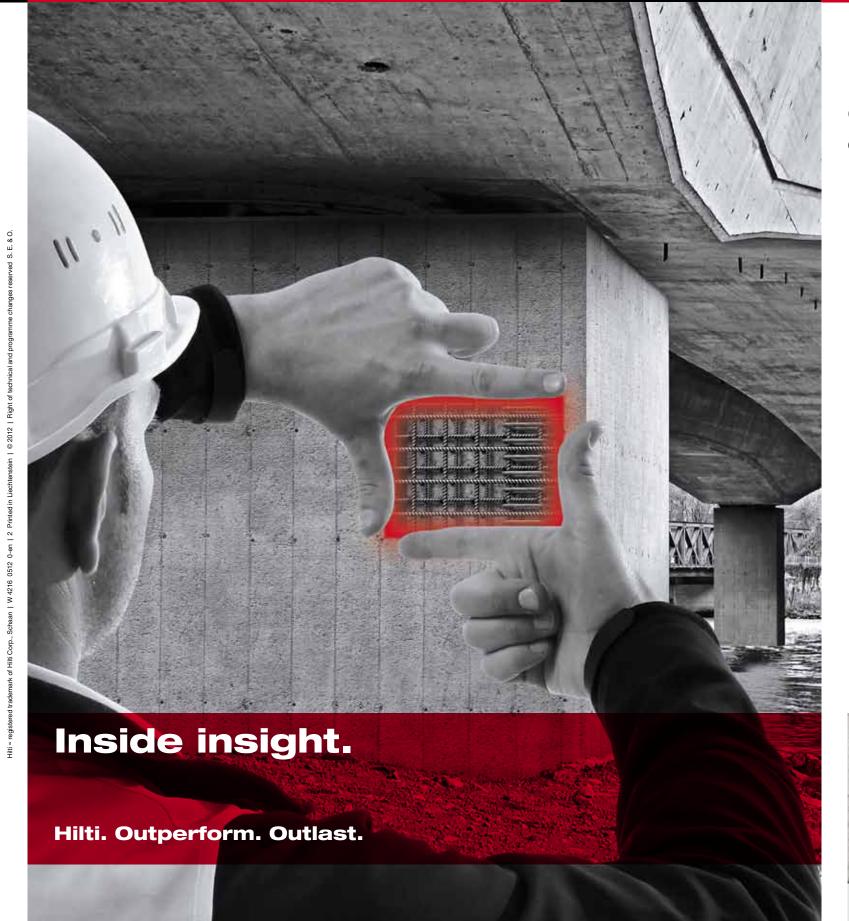
Outstanding services for a product lifetime.

The unique service package for those who

ices for a product Regular checks for reliable package for those who

# Hilti. Outperform. Outlast.

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Rebar detection and verification for acceptance inspections, changes of building use or post-installed rebar connections.



Measurement of depth of concrete cover for acceptance inspections, renovation work and quality checks.

• Non-destructive inspection and detec-

tion of concealed objects in steel-rein-

forced and prestressed concrete struc-

Detecting metal or plastic pipes and

### **Applications**

- Rebar verification and analysis
- Checking concrete cover over large areas for acceptance inspections and structural repair work

### Advantages

- Scans large areas of concrete quickly and easily
- Provides accurate depth of cover measurements for reinforcement at depths up to 100 mm
- Records scan data automatically over lengths of up to 30 meters
- Displays a clear 2D image of the reinforcement on the monitor for on-thespot structural analysis and depth of cover assessment or printing

### Highlights

### PC software for professional scan evaluation and data management Hilti PROFIS Ferroscan:

- Subsequent data analysis on a PC
- · Collective evaluation of several individual scans with the same parameters, use of various data formats, and much more
- · Production of statistics and assessment reports

Hilti PROFIS Ferroscan MAP:

- Capable of combining multiple scans for visual presentation (in 2D/3D views)
- Provides data evaluation and visualisation of areas up to 45 x 45 m

# Take a quick look beneath the surface.

The Hilti PS 250 Ferroscan system provides a non-destructive means of locating reinforcing bars and measuring their depth of concrete cover. This complete, easy-to-use cordless detection system, consisting of a scanner, monitor and PC software can also estimate the diameter of rebars found. Employing the induction principle, the scanner locates rebars accurately and reliably within concrete structures. The results of scans are displayed on the portable monitor unit as easily interpretable 2D-images for direct on-site data analysis. Alternatively, scan data can be transferred to a PC via an adapter or via the monitor unit for further analysis, creation of assessment reports and for archival purposes



# **Imagescan**

- Scans large areas of concrete in a grid
- Locates rebars at depths of up to 160 mm
- Produces clear, easily interpretable 2D images of the layout, for measurement of depth of concrete cover and for estimation of rebar diameter
- Multiple Imagescans can be combined for large-area analysis using the PC applica-

### Quickscan **Detection**

 Quickly measures the depth of cover over reinforcing bars located at depths of up to 100 mm, allowing their positions to be marked directly on the concrete surface

# Quickscan recording

- Scans long stretches of up to 30 m in length, quickly and easily
- · Records and evaluates the data automatically while indicating the average depth of cover, the number of bars found and the standard deviation
- Multiple Quickscans can be combined for large-area analysis using the PC applica-

# . 50 m

The two systems compared

# **Imagescan**

- Scans large areas of concrete in a grid Locates metal and plastic pipes as well
- as electric cables and conduits at depths of up to 300 mm in dry concrete
- · Detects objects located behind reinforcing mesh
- Shows objects in a 2D or 3D plan view and cross-sectional view for immediate

# Quickscan **Detection**

· Quickly locates various objects in concrete, allowing their positions to be marked directly on the working surface

# See for yourself, with real inside insight. The Hilti PS 1000 X-Scan system detects reinforcing bars, pre- and post-ten-

sioning tendons, metal pipes, plastic pipes, electric cables and glass-fiber cables in next to no time - even over large concrete areas. Equipped with three radar antennas, the PS 1000 scanner finds concealed objects at depths of up to 300 mm. Scan results are presented on the X-Scan display for immediate analysis or can be transferred to the PSA 100 monitor for further evaluation. Thanks to its ease of operation, on-site handling and the easily interpretable 3D images of concealed objects it produces, the Hilti PS 1000 X-Scan system simply takes non-destructive structural inspection into a new era.

# electric cables to avoid damage when Locating rebars for post-installed rebar connections

**Applications** 

### Advantages

- Locates objects of various kinds in concrete structures, even beneath reinforcing mesh
- Displays a clear, real-time 2D image directly on the Hilti PS 1000 display • Processed 2D and 3D plan view or cross-sectional images are displayed in color on the PSA 100 monitor unit for further on-the-spot evaluation of the data or printing

# lighlights

### X-Scan, because it's Xtra fast. A compact, cordless system consisting of scanner, monitor and PC software. Quickly ready for use, easy to operate and featuring high memory capacity for clearly interpretable color images of the objects concealed in concrete struc-

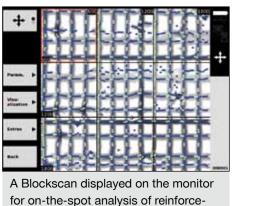
tures, allowing immediate analysis.

# Quickscan recording

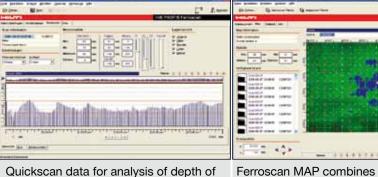
- Scans stretches of up to 10 m in length, quickly and easily
- Shows objects in 2D or 3D plan views and cross-sectional views
- · Handy extension available for easy floor

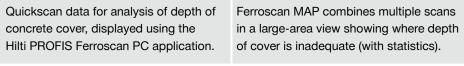
# Performance data

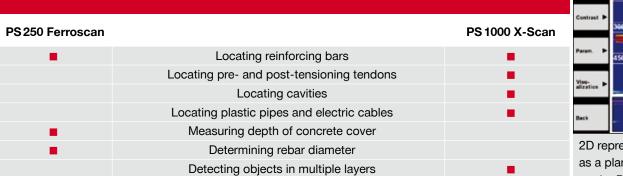
	PS 250 Ferroscan
Detection range	max. 160 mm, see op. instructions
Localization accuracy	± 3 mm, see op. instructions
Depth measurement accuracy	± 1 mm, see op. instructions
IP protection class	IP 54
Operating temperature range	-10 to + 50°C
Battery life, scanner / monitor	8 h with NiMH / 2 h with Li-ion battery pack
Dimensions / weight, scanner	260 x 132 x 132 mm / 1.4 kg
Dimensions / weight, monitor	292 x 208 x 65 mm / 2.3 kg



ment (location, depth, diameter).



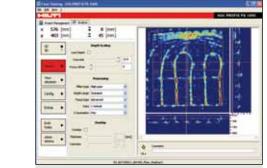




Estimating wall and slab thickness

2D representation of an Imagescan shown 3D Imagescan (plan views, cross-sectioas a plan view and cross-sectional views nal views) for on-the-spot visualization on the PS 1000 display.

and analysis on the PSA 100 monitor.



Advanced software with comprehensive evaluation and analysis features for the creation of reports and documentation.

# Performance data

	PS 1000 X-Scan
etection range	max. 300 mm, see op. instructions
ocalization accuracy	± 10 mm, see op. instructions
epth measurement accuracy	± 10 mm, see op. instructions
protection class	IP 54
perating temperature range	-10 to +50°C
attery life, scanner / monitor	4 h / 2 h with Li-ion battery pack
imensions / weight, scanner	318 x 190 x 143 mm / 2.5 kg
imensions / weight, monitor	292 x 208 x 65 mm / 2.3 kg
e reserve the right to make technical changes	