

LaCam[®] - mobile laser profile measuring unit
for non-contact measurements of refractory linings in
metallurgical reaction and transport vessels

Technical scope of supply

- 1 -

LaCam[®] refractory lining measuring system - mobile

New laser profile measuring system based on a laser scanner of the new generation.

The **LaCam[®]** mobile refractory lining measuring system is built in a sturdy mobile housing so that location can be changed quickly.

Specifications

1. Laser measuring system

Principle of measurement	single shot time-of-flight
Real number of range points per frame	200,000
Measuring time per frame	20 s
Measuring range	2 – 20 m
Repeatability	± 5 mm
Max. surface temperature	1700 °C

Technical data of the scanner (laser measuring head)

Vertical scan angle	80° fixed
Horizontal scan angle	0° - 340° (selectable)
Laser wavelength	0.9 µm (near infrared)
Cooling of the head	Water cooling
Eye safety	class 1 laser product

2. Control and operator unit

The control and operator unit reads the measuring data of the laser measuring head and controls it. It is built in the mobile unit.

Industrial-type computer	CPU Pentium [®] 4, 2 GHz 512 MB RAM, PC 100 3.5" floppy disk drive, CD-RW combined version hard disk 40 GB (latest standard) network connections, USB-frontside 100 MBit Ethernet, system cable power supply
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¹A registered trademark of Intel Corporation.

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- 2 -

Display unit	TFT 12,1" (option IR-touchscreen)
Operating system	WINDOWS [®] 2000 Professional ²
3. Mobile unit	
Frame	stainless steel
Heat protection	double-screen aluminum
Displacement equipment	3 (4) heat-protected wheels
Transport dimensions	800 x 1600 x 700 mm (W x H x D) 800 x 1600 x 1300 (with 4 wheels) (in working condition: 2250 mm)
Weight	250 kg (including storage batteries)
Power supply module	ONLINE-system, line-independent operation of approx. 30 min

4. Documentation

The documentation of the unit will be threefold which will be given to the customer when the unit is placed into operation. The documentation includes the technical description of the system, an installation description, and a description of the software installed.

The following components are also included:

- Operating systems for all units
- Installation disks/CD Roms of the system software

5. Software

The system package of **LaCam[®]** refractory lining measuring system includes all software needed for operation of the unit (measuring and evaluation software, Microsoft's WINDOWS[®] 2000 Professional – multilingual², all as licensed original version).

²WINDOWS 2000 Professional is a registered trademark of Microsoft Corporation.

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- 3 -

