



# Hegewald & Peschke

Meß- und Prüftechnik GmbH

## 1D measurement device “light”

For tubes, profiles, poles, bars, belts, cords, cuts...



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### General product description

The 1D measurement device “light” serves for the length measurement of long, narrow workpieces in the productions environment.

This product offers a cost-effective alternative exactly for such measurement tasks where a sliding calliper is too short and a measuring tape is too inaccurate. With the 1D measurement device “light”, linear dimensions can be gathered quickly and reliably in the simplest manner.

The concept of the new series “8” places great importance on flexibility and cost effectiveness.



### Essential characteristics

- Light-weight, cost-effective construction using high-quality components with deliberate renunciation of not immediately required things
- High-quality, robust measuring system by Magnescale®
- Precise and smooth-running linear guiding
- Universal modular system – the equipment can be individually arranged
- Long-lasting and robust – has proven itself for many years in harsh industrial environments at well-known customers



### Application examples



Length measurement on steel pipes



Length measurement on plastic pipes



Length measurement on bars



Length measurement on sheet metal strips



Length measurement on cardboard tubes



## 1D measurement device - basic device

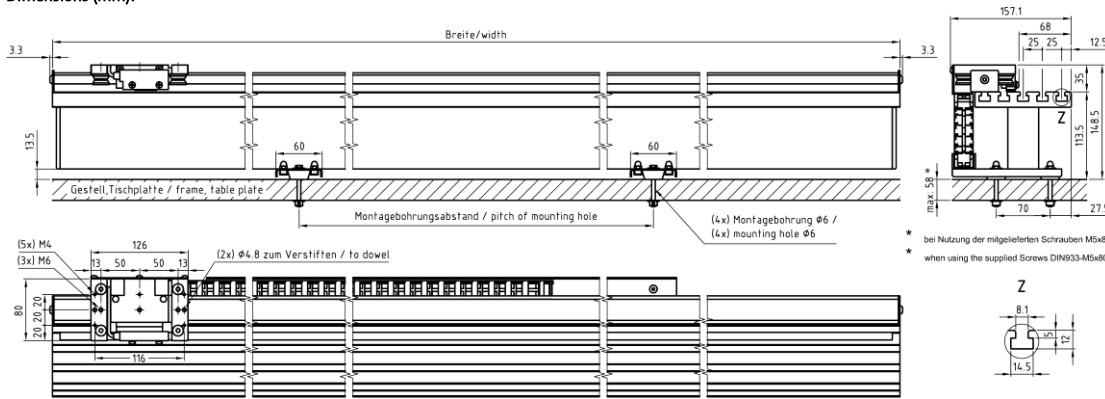
Universal basic device, consisting of:

- Basic carrier made of light metal with T-grooves and linear guiding.
- Movable measuring carriage (for attaching of stops, gauges, optics etc.).
- Magnetic incremental measuring system Magnescale® SL130/PL20C. Factory calibration with protocol.

**Measuring accuracy:**  $\pm (0.06\text{mm} + 0.02\text{mm} \times L)$ , L = measuring length in m  
**Without display device and accessories (required for operation).**

Item no.	Width	Measuring length	Workpiece weight max.	Pitch of mounting hole
33-011-098	1100 mm	950 mm	15 kg	620 mm
33-011-118	1300 mm	1150 mm	15 kg	700 mm
33-011-188	2000 mm	1850 mm	12 kg	1240 mm
33-011-238	2500 mm	2350 mm	10 kg	1460 mm
33-011-288	3000 mm	2850 mm	8 kg	1680 mm
33-011-308	3200 mm	3050 mm	6 kg	1780 mm
33-011-388	4000 mm	3850 mm	4 kg	2220 mm

Dimensions (mm):



## Accessories

### Display devices and software



Display unit LY72

**Display unit LG20-1:** Magnescale® Display unit with reset/pre-set function. One measuring channel can be connected. Mains adapter PSC23 required.

**Display unit LY72:** robust Magnescale® multifunctional display unit with large display, measured value plus error message, RS232 interface (HP Keysim required); up to three measuring channels can be connected. Mains adapter PSC23 required.



Display unit M3 with table base

**Display unit M3: digital** Display unit M3 (4.3-inch colour touchscreen, can be operated with gloves) incl. RS232 (HP Keysim required) and USB interface, connection adapter cable for Magnescale® measuring system; with USB cable and mains adapter and table base; no installation/no further software required for USB connection (standard keyboard driver for Windows®), HP KeySim for transfer of the displayed measured value via [Print] or external push-button (optional) into active application (e.g. MS-Excel®) and [Enter].

**PSC23:** Magnescale® tabletop mains adaptor for display units LG/LH/LY. Required for operation. Connection: 230V, max. 32VA.



LG20-1 with table bracket and protective cover

**LG20-1/LY72 with table bracket and mains adapter:** Complete set, consisting of display unit, mains adapter and console plate with adapter piece to fasten it to the table. Can be rotated and swivelled. Without protective cover.

**Protective cover:** Protects display unit, mains adapter and plug connections against damage and pollution. Steel sheet powder-coated with brackets and fastening elements. Can be combined with table bracket LG20/LY72.

**MC150 (low-cost alternative to LY72):** Industrial counter with RS232 interface. Reset/pre-set function. One measuring channel can be connected. Connection: 230V/ max. 30VA. Delivered completely with holder, mains adapter, protective cover and separate "RESET" and "DATA" key. Without alarm display in case of measuring system error!



MC150 with table bracket and protective cover

**HP KeySim:** Useful utility programme for direct transmission of the measured values via RS232 interface to any application running under MS-Windows® (e.g. MS-Excel®). An interface cable is included in the scope of delivery.

Item no.	
33-011-601	LG20-1 with table bracket and mains adapter
33-011-602	LY72 with table bracket and mains adapter
33-011-604	Display unit M3 with table base and mains adapter
32-001-502	protective cover for LG20 or LY72
18-100-01	Software HPKeySim RS232

with RS232  
 with RS232 & USB

## Measuring accessories



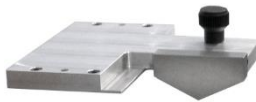
Device with measurement accessories "5"



Workpiece support 5



Fixed stop 5



Mobile stop 5



Combi mobile stop with line laser



Line microscope

### Workpiece supports/clamping

Item no.	Article description	Design/application
33-011-705	Workpiece support 5, L=16 mm	Universal workpiece support, prismatic 130°. Suitable for tubes up to D = 150 mm and many other profile shapes. Depending on the sag of the workpiece, two or more workpiece supports are needed. Attached to the basic carrier. material: PE.
33-011-735	Workpiece support 5, L= 350 mm	See above, but suitable for the formation of a continuous support for flexible workpieces, that don't have the stability for punctual bearing (cable, rubber profile or similar). Destined for the fix installation at the basic carrier (without lower centring)
33-011-750	Workpiece support 5, L= 500 mm	See above, but suitable for the formation of a continuous support for flexible workpieces, that don't have the stability for punctual bearing (cable, rubber profile or similar). Destined for the fix installation at the basic carrier (without lower centring)
33-011-706	Workpiece support 90° special L=16 mm	Prismatic shape 90° for rectangular workpieces up to approx. 100x100 mm, including fastening parts for fixing to the base support material: PE (natural),

Depending on requirements, the workpiece supports of the "5" series can be easily and flexibly combined for different specimen and measuring lengths:

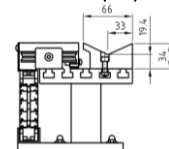
#### For measuring length

950 mm  
1150 mm  
1850 mm  
2350 mm  
2850 mm  
3050 mm  
3850 mm

#### Recommended combination:

2 x 500 mm = 1000 mm  
1 x 500 mm + 2 x 350 mm = 1200 mm  
3 x 500 mm + 1 x 350 mm = 1850 mm  
4 x 500 mm + 1 x 350 mm = 2350 mm  
5 x 500 mm + 1 x 350 mm = 2850 mm  
4 x 500 mm + 3 x 350 mm = 3050 mm  
7 x 500 mm + 1 x 350 mm = 3850 mm

#### Dimensions (mm):



### Fixed / reference stops

Item no.	Article description	Design/application
33-011-805	Fixed stop 5	Universal fixed stop with wide touching surface. Suitable for tubes up to D = 150 mm and many other profile shapes. Attached to the basic carrier.
33-011-806	Fixed stop 90° special	Prismatic shape 90° for rectangular workpieces up to 100x100 mm, including fastening parts for fixing to the base support

### Movable touch tools & optics

Item no.	Article description	Design/application
33-011-905	Mobile stop 5	Universal measuring stop with wide sensing surface. Suitable for pipes up to D= 150 mm and many other profile shapes. Attached to the measuring carriage. For quick referencing of the measuring device, the stop can be slid over the workpiece supports "5" (gap approx. 1 mm) without having to dismantle them.
33-011-906	Mobile stop 90° special	Prismatic shape 90° for rectangular workpieces up to 100x100 mm, including fastening parts for fixing to the base support
33-011-910	Combi mobile stop with line laser	Enables the measurement of the total length of bars, tubes, etc. by mechanical sensing as well as the measurement of any points along the workpiece optically via the line laser.
33-011-901	Line microscope for linear measurements	Consisting of eyepiece with crosshairs, precision guide with fine height adjustment, objectives 1:1 and 2.5:1, single illumination, base plate for attachment to movable measuring carriage.
33-011-186-BG02	Fine drive X-axis	For fine positioning of the measuring optics by means of an adjusting wheel. Useful as a supplement for optical mobile stops (line microscope 33-011-901, combi mobile stop 33-011-910).
on request	USB camera with eyepiece adapter and viewing software	
on request	LED ring light illumination, USB or mains operation	



## Accessories for workplace equipment

An ergonomically designed workplace with purposeful equipment is the basis for an efficient performance of tasks. In order to facilitate for you the design of your new measuring workplace as well as the procurement from a single source, we gladly offer you the suitable accessories from the portfolio of the German manufacturer "RAU. Arbeitsplatzeinrichtungen".

If a workbench is ordered together with a measurement device, then the required fastening bores are drilled into the work plate at the factory.



### Workbench

Work plate made of solid beech wood, glue-laminated finger joint, and thickness: 40 mm, surface protection by use of environmentally-friendly refined linseed oil.  
Welded construction for high stability and load capacity.  
Distributed load: max. 1250 kg.  
Powder-coating white aluminium (RAL9006)  
Workbenches with a width of 3000 mm have three pairs of feet (= 6 feet).  
Can be combined with roller set and/or height adjustment set.

Item no.	W x D x H in mm	Remark
038000-1-157B4S.12_RAL9006	1500 x 700 x 840	fits with measurement device -098, -118 and -188
038000-1-207B4S.12_RAL9006	2000 x 700 x 840	fits with measurement device -235, -288 and -305
038000-1-307B4S.12_RAL9006	3000 x 700 x 840	three pairs of feet, fits with measurement device -388



### Levelling

For levelling the working height of workbenches in frame design.  
Black. Slip resistant. Can be retrofitted.  
Content: 1 piece, suitable for one foot

Item no.	Content
09NA45	1 piece Order 4 or 6 pieces



### Height adjustment set 4, height adjustment set 6

Adjustment range 200 mm for total height of 840 - 1040 mm or 300 mm for total height of 840 - 1140 mm.  
Incl. levelling and anti-slip knob.  
Content: 1 set = 4 or 6 pieces, suitable for one workbench with 2 or 3 pairs of feet.  
Can be combined with roller set. Can be retrofitted.  
Powder-coating white aluminium (RAL9006)

Item no.	Adjustment range	Content
09HV200-4.12_RAL9006	200 mm	1 set = 4 pieces
09HV300-4.12_RAL9006	300 mm	1 set = 4 pieces
09HV200-6.12_RAL9006	200 mm	1 set = 6 pieces
09HV300-6.12_RAL9006	300 mm	1 set = 6 pieces



### Roller set 4LF, roller set 6LF

Steering rollers with locking device, roller Ø 125 mm, design height 150 mm, expander fastening.  
Distributed load of the workbench with roller set: max. 450 kg.  
Content: 1 set = 4 pieces or 6 pieces, suitable for one workbench with 2 or 3 pairs of feet  
Can be combined with height adjustment set. Can be retrofitted.

Item no.	Content	Remark
09RS125EP-4LF	1 set = 4 pieces	fits with workbench with 4 feet
09RS125EP-6LF	1 set = 6 pieces	fits with workbench with 6 feet



## Workbench with lowerable running gear

Workplate made of solid beech wood, glue-laminated finger joint, and thickness: 40 mm, surface protection by use of environmentally-friendly refined linseed oil.  
Welded construction for high stability and load capacity.  
2 Bock- and 2 steering rollers with locking device. Roller Ø 125 mm, design height 150 mm.  
Distributed load: max. 1250 kg, in extended position max. 450 kg.  
Powder-coating white aluminium (RAL9006)

Item no.	W x D x H in mm	Remark
058000-6-157B4F.12_RAL9006	1500 x 700 x 880	Suitable for measurement device -098, -118 and -188
058000-6-207B4F.12_RAL9006	2000 x 700 x 880	Suitable for measurement device -235, -288 and -305



## Backboard

Height 100 mm  
Assembled to the workbench on the rear side.  
Can be retrofitted.

Item no.	Width in mm
09BB1500	1500 (2 pieces = 3000)
09BB2000	2000



## Utensil cabinet

Double wing door with changeable door stop.  
Lockable.  
Welded on at the factory (not suitable for retrofitting).

Item no.	W x D x H in mm
03US.11_RAL9006	245 x 650 x 360



## Base frame drawer

Inside dimensions of drawer: W 490 x D 560 mm.  
Extraction mounted on roller bearings, extraction approx. 90 %. Bearing capacity: 50 kg.  
Lockable.  
Montage: Welded on at the factory (not suitable for retrofitting).

Item no.	W x D x H in mm	Colour
03200.1A.10_RAL5010	520 x 650 x 175	RAL5010 (gentian blue)
03200.1A.10_RAL9006	520 x 650 x 175	RAL9006 (white aluminium)



## Perforated plate for workbench assembly

With square system perforation.  
Including fastening set for workbench assembly.  
Can be retrofitted.

Item no.	Height x Width in mm
09L150DM.12_RAL9006	450 x 1500 (2 pieces = 3000)
09L200DM.12_RAL9006	450 x 2000



## Rack

Height 375 mm, depth 300 mm.  
Steel plate with raised edge on 3 sides.  
Assembled to the workbench.  
Can be retrofitted.

Item no.	Width in mm
09AL1500.12_RAL9006	1500 (2 pieces = 3000)
09AL2000.12_RAL9006	2000



## Roller shutter cabinet for CPU

Back board with cable entry (brush mounting included) as well as integrated device fan with ventilator and filter mat (ventilation and dust protection).  
For the positioning on the right or left hand side of the table frame.  
Welded on at the factory (not suitable for retrofitting).

Item no.	W x D x H mm	Colour
03300.1.12_RAL9006	360 x 650 x 620	RAL9006 (white aluminium)



## Sliding keyboard shelf 2

Assembled to the table frame.  
Can be retrofitted.

Item no.	W x D x H mm	Colour
03TA2.11_RAL9006	720 x 350 x 85	RAL9006 (white aluminium)



## Monitor housing

Suitable for monitors up to 26 inches.  
Lockable monitor compartment (inside dimensions W 705 x D 280 x H 530 mm) with viewing window (W 545 x H 495 mm). Cable entry integrated into the floor and device fan with dust protection filter.  
Open storage compartment under the monitor compartment (compartment height 140 mm), e.g. for keyboard.  
Optional positioning on the table board. Can be retrofitted.

Item no.	W x D x H mm	Colour
075500.11_RAL9006	720 x 300 x 710	RAL9006 (white aluminium)