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HORIZONTALITY AND SLOPES CONTROL

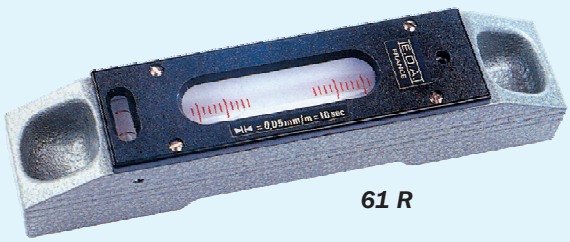
LEVELS & CLINOMETERS

Standard & Précision

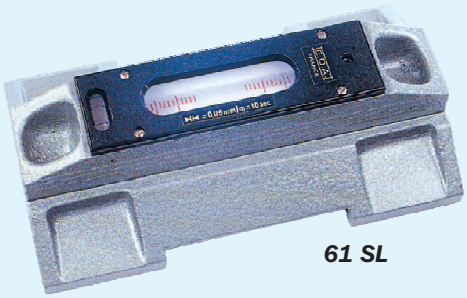
E.D.A.
FRANCE
AIR OR ELECTRONIC LEVELS AND CLINOMETERS

For over a century now our EDA products have been well-known in EUROPE, AMERICA and ASIA for their high quality/price profit. Our production is distributed under the brand name E.D.A. and is present in many catalogues word/wide. The reputation of our products has been built thanks to the high quality of the vials, the care brought to the ageing of the cast irons in order to preserve the levels of any deformation and the three time machining of them guarantees an extreme robustness and durability of the precision for long lasting. This method of manufacturing avoids mistakes and assures our customers major savings. New air levels associated to electronic increase the performances realising measures upto 100 times superior to the classical levels. Our complete range of material enable us to offer our customers top quality instruments matching all their problems. In addition to the products inserted in our catalogues, we can make special manufacture of level, clinometers and vials on request

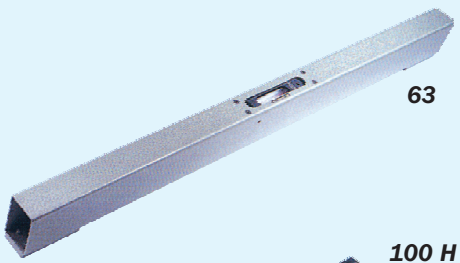
VERY HIGH PRECISION LEVELS
Supplied in a wooden box



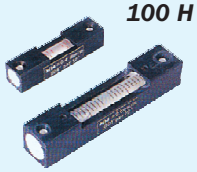
61 R



61 SL



63



100 H

61 R INSPECTION BLOCK LEVELS

Stabilized cast iron. Flat and vee bearing surfaces. Surfaces lapped, hardened for length 140 - 200 - 300 mm. 2 adjustable vials (only 1 vial for type 100 mm length). To avoid the loss of accuracy caused by sealing and ageing of the sealing compound, the vial is unsealed. The vial can expand without stress if variations of temperature.

Maximum clarity of bubbles. Exceptional resistance to shock. Ease of replacement of the 2 vials Same types of vials are used on 61 R length 140, 200, 300, 500 mm and 67R.

Sensitivity				Accuracy of the base for 200 mm	
NO	mm/m	in./10 in.	sec.	mm	in.
61 R 0,1	0,1	.001	20	0,01	.0004
61 R 0,05	0,05	.0005	10	0,005	.0002
61 R 0,04	0,04	.0004	8	0:004	.0002
61 R 0,02	0,02	.0002	4	0,002	.0001
61 R 0,01	0,01	.0001	2	0,002	.0001

61 MR INSPECTION BLOCK LEVELS WITH MAGNETIC BASE

Same characteristics as 61 R.

61 SL LEVELS WITH SPECIAL WIDTH

Width 110 mm for checking cylinders up to 500 mm, Width 200 mm for more.

63 LONG LEVELS

Length 1 up to 3 meters. Constructed of steal tube with flat cast iron bearing at ends.

100 H LITTLE SCREW ON LEVELS

.50 x 12 mm:
sensitivity: 1-2-0,4 mm/m. Entre-axe 42 mm. Anodized light metal.
.80 x 16 mm:
sensitivity: 1-0,4-0,1-0,05 mm/m. Entre-axe 70 mm. Anodized light metal.
. 100 x 22 mm:
sensitivity: 0,05-0,02 mm/m. Entre-axe 90 mm. Painted steel.

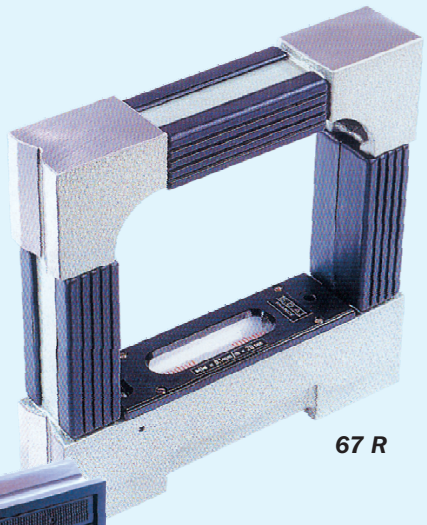
INSPECTION SQUARE BLOCK LEVELS
Supplied in a wooden box

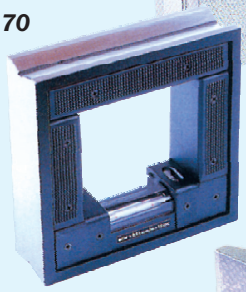
67 R INSPECTION SQUARE BLOCK LEVELS

Stabilized cast iron. Two sides with flat bearing surfaces and two sides with flat and vee bearing surfaces. Same characteristics as 61 R. Insulating handles. Spare vials: the same as for 61 R.

Dimensions: 200 x 200 x 40 mm - 300 x 300 x 40 mm.

Sensitivity				Accuracy of the base for 200 mm	
NO	mm/m	in./10 in.	sec.	mm	in.
67 R 0,4	0,4	.004	80	0,03	.00012
67 R 0,1	0,1	.001	20	0,01	.0004
67 R 0,05	0,05	.0005	10	0,005	.0002
67 R 0,04	0,04	.0004	8	0,004	.0002
67 R 0,02	0,02	.0002	4	0,002	.0001
67 R 0,01	0,01	.0001	2	0,002	.0001


67 R

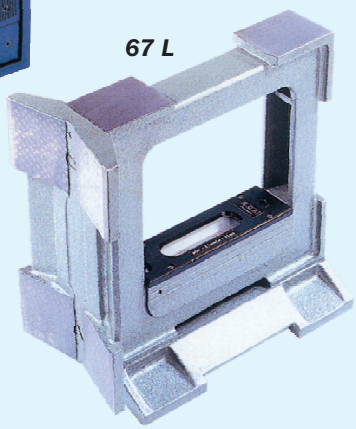

70

67 MR SQUARE BLOCK LEVELS MAGNETIC

Same characteristics as for n° 67R, with vertical flat and vee bearing surfaces magnetic. Dimensions: 200 x 200 mm.

67 SL LEVELS WITH SPECIAL WIDTH

Width 100 mm for checking cylinders up to 500 mm, Width 200 mm for more.


67 L

70 LITTLE SQUARE BLOCK LEVELS

Sensitivity: 0,1 mm/m, 0,04 mm/m. 2 vials not adjustable.

Dimensions: 100 x 100 mm and 150 x 150 mm.

Magnetic base on request.

MICROMETRIC LEVELS
Supplied in a wooden box

64 HIGH PRECISION MICROMETER BLOCK LEVELS

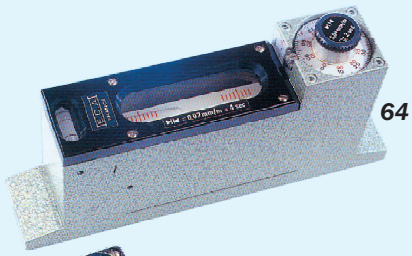
Flat and vee bearing surfaces, hardened and ground within 0,002 mm.

Précision : approximately: 0,001 mm for small variations in slope. For more important slopes : 3/1000 of the reading.

Dial : 1 div. = 0,01 mm/m.

Vertical scale: ± 10 mm/m.

Main vial: 1 div. = 0,02 mm/m.


64

65 MICROMETRIC BLOCK LEVELS

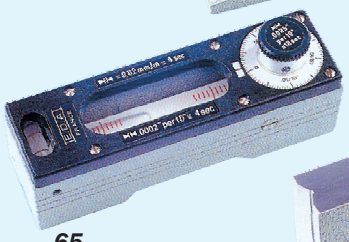
Flat and vee bearing surfaces, hardened and ground within 0,002 mm.

Dial : 1 div. = 0,05 mm/m.

Range: ± 10 mm/m.

Main vial: 1 div. = 0,02 mm/m ou 0,01 mm/m.

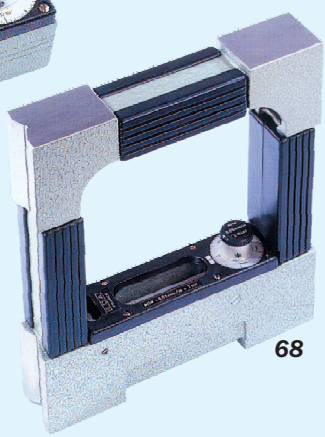
Length: 140, 200 and 300 mm.

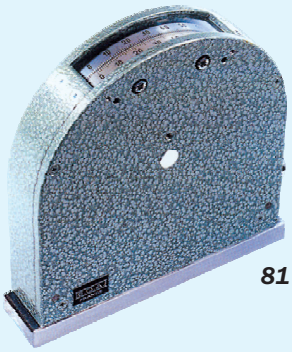

65

68 MICROMETER SOUARE BLOCK LEVELS

2 sides with flat bearing surfaces and 2 sides with flat and vee bearing surfaces. Same characteristics as for n° 65.

Dimensions: 200 x 200 x 40 mm and 300 x 300 x 40 mm.


68



81

CLINOMETERS

INSTRUMENTS FOR ANGLES MEASUREMENTS - Supplied in a wooden box

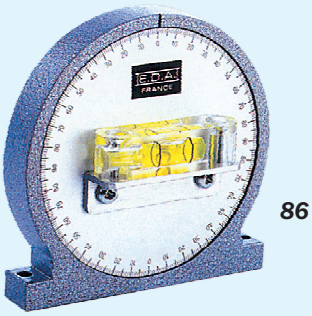
81 AUTOMATIC CLINOMETERS

Pendulum in the form of a drum. By means of 1/4 rotation knob, it is possible to hold the drum stationary for the purpose of reading. All working parts enclosed in a dust tight case. Flat plus vee bearing surfaces hardened and ground.

± 180° - Vernier I mn.

Maximum error between 2 readings: 2 mn. Dimension 150 x 30 x 156 mm.

Optinal accessories: Magnifier and magnetic base.



86

83 MICROMETRIC CLINOMETERS

For coarse setting, the worm is disengaged by depressing the micrometer knob. Flat plus bee base hardened and ground. Reading in degrees and minutes Range ± 180°. 1 division of the vial = 0,3 mm/m equals to 1 mn. Numbers degrees and numbers minutes from 0 to 180°.

Clockwise : blacks - anticlockwise : reds

Maximum error between 2 indications: 1,5 mn. Dimensions 150 x 30 x 124.

Optinal accessories: magnetic base 120 x 30 mm. Morse taper or standard taper.

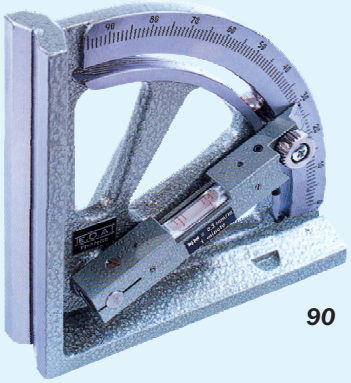
86 UNIVERSALS TILT LEVELS

1 division = 1°. Dimensions 100 x 15 x 100 mm. Supply in plastic bag.

Optinal accessories: Magnetic base - removable base

Length 100, 300, 500 and 1000 mm.

83



90

90 TILT LEVELS

2 flat plus vee bases. Fine setting. Vernier: 1 div. = 10 mn.

Vial: 1 div. = 1 mn. Dimensions 150 x 39 x 150 mm.

90 M MAGNETIC TILT LEVELS

ELECTRONICS

PRO 360 ELECTRONIC CLINOMETERS

The PRO 360 is a measuring tool that provides an immediate digital reading of all angles in a 360° circle. The aluminium frame is a rigid, light, ultra precise platform that allows the state-of-the-art sensor and its microprocessor circuit to provide unsurpassed accuracy by interval of 90° throughout the 360° range. Range 360° (90°x4), resolution ± 0,1 °.

Accuracy (1) 0,1° (0°to10°), (2) 0,2° maximum error (10° to 90°).

360

PRO 3600 ELECTRONIC CLINOMETERS

The PRO 3600 digital protractor is a real electronic level that provides you with an immediate digital indication of the angle made by its meter unit with horizon or all kinds of referenced surfaces vertical or horizontal. Range 360° (90°x4), resolution ± 0,03°. Accuracy (1) ± 0,05° (0° to 10°), (2) 0,10° (80° to 90°), (3) 0,201 (10, to 80°). The PRO 3600 also has an RS 232 compatible digital output which interface with computers, data loggers and printers.

5100 SENSOR WITH ANALOGIC OUTPUT

Range : 60° - Linear range 45° - Resolution 0,001° - Linéarity (1) 0° to 10°: 0,1°,

(2) 10° to 45° : 1° slope. - Repeatability 0,05° - Error for a transversal slope of 25° < 1°

Time constant 0,3 sec. - Passant band 1 Hz - Operating temperature -30° á +65°.

Precision

NSIC
Registered Firm

STANDARD LEVELS

110 STANDARD LEVELS WITH FLAT BASE
Adjustable and protected vial. One division = 1 mm/m.
Length: 100, 150 and 200 mm.

112 STANDARD LEVELS FLAT PLUS VEE BASE
Adjustable and protected vial. One division = 1 mm/m.
Length: 100, 150, 200, 250 and 300 mm.

114 MACHINIST LEVELS WITH 2 VIALS
Flat plus vee base ground, made of steel.
Main vial adjustable and protected, easy to replace.
Sensitivity: 1 div. = mm/m: 1 - 0,4 - 0,3 - 0,1 - 0,05.
Length 150, 200, 250 and 300 mm.

116 SHORT LEVELS
Flat plus vee base. Adjustable and protected vial.
Sensitivity: 1 div. = mm/m : 0,4 - 0,1 - 0,05.
Dimensions: 100 X 28 mm.

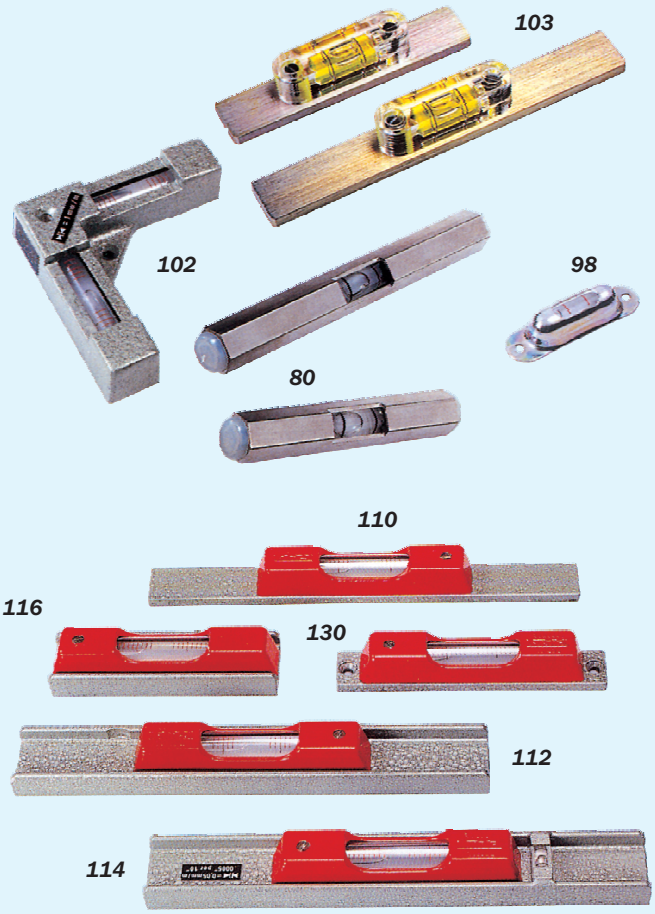
130 SCREW ON LEVELS
Sensitivity: 1 div. = mm/m: 1 - 0,4 - 0,1 - 0,05.
Dimensions: 120 X 20 mm.

80 POCKET LEVELS
Length 65, 90,150 mm.

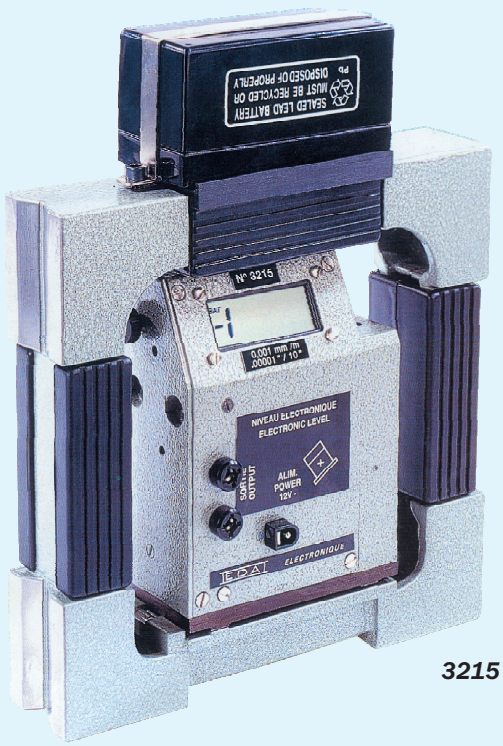
98 LITTLE SCREW ON LEVELS
Dimensions: 40 X 10 mm.

102 CROSS LEVELS
Sensitivity: 1 div. = mm/m: 1 - 0,4 - 0,1 - 0,02 - 0,05.
Dimensions: 80 X 80 mm.

103 LIGHT LEVELS unbreakable
Length 100, 150,200 mm.



VERY HIGH PRECISION ELECTRONIC LEVELS



3215 C

Electronic levels benefit from microelectronic technologies, information systems as well as from he experience of the bubble levels.
PRINCIPLES: A pendulum which is oscillation-damped without any mechanical resistance positions itself with extreme preciseness in relation to terrestrial gravity.
An electronic device conveys this difference in an electric signal which is in proportion to the deviation angle.
Electronic levels are 100 times more sensitive and stable than the best bubble levels.
Moreover, these apparatus can be put into operation easily and quickly.
As the electronic case integrates the display and the commands, these levels offer many possibilities.
They are perfectly suited to control the levelling, the surface evenness, the parallelism, and the squareness of plane or cylindrical surfaces, to measure deflection or stress.
Electronic levels are recommended for mechanical construction, aeronautics, shipbuilding, armaments, the surveillance of art works, fuelled power and atomic power stations, radar adjustment.
There are indispensable for the survey of surface evenness of MARBLE.
DETAILED TECHNICAL DOCUMENTS UPON REQUEST.