

UNIVERSAL HARDNESS TESTER CV-990™

State-of-the-art closed loop system with internal video camera and motorized zoom objective

Technical specifications / Test procedures

Vickers acc. to DIN EN ISO 6507 and ASTM CV-991/992 CV-994/995 CV-997/998	Test load steps: 1 - 2 - 3 - 5 - 10 - 20 - 30 - 40 - 50 - 60 - 80 - 100 - 120 5 - 10 - 20 - 30 - 40 - 50 - 60 - 80 - 100 - 120 20 - 30 - 40 - 50 - 60 - 80 - 100 - 120
Brinell acc. to DIN EN ISO 6506 and ASTM CV-991/992 CV-994/995 CV-997/998	Test load steps: 1 - 2.5 - 5 - 6.25 - 10 - 15.625 - 30 - 31.25 - 62.5 - 100 125 - 187.5 - 250 2.5 - 5 - 6.25 - 10 - 15.625 - 25 - 30 - 31.25 - 62.5 - 100 - 125 - 187.5 - 250 - 500 - 750 25 - 31.25 - 62.5 - 100 - 125 - 187.5 - 250 - 500 - 750 - 1000 - 1500 - 3000
Possible test procedures	1/1 - 1/2.5 - 1/5 - 1/10 - 1/30 - 2.5/6.25 - 2.5/15.625 - 2.5/31.25 - 2.5/62.5 - 2.5/187.5 5/25 - 5/62.5 - 5/125 - 5/250 (more load steps available on request)
Rockwell CV-992/995/998	Acc. to DIN EN ISO 6508 and ASTM: all Rockwell scales with minor load 98.07 N (10); Standard Rockwell, e.g. HRA, HRB, HRC etc.; all Superficial Rockwell scales with minor load 29,42 N(3); Superficial ; Rockwell, e.g. HR15N, HR30T, HRY etc.
Vickers Depth Measurement (HVT) CV-992 CV-995 CV-998	30 - 100 30 - 50 - 100 - 120 30 - 100
Brinell Depth Measurement (HBT) CV-992 CV-995 CV-998	2.5/62.5 - 2.5/187.5 - 5/250 2.5/62.5 - 2.5/187.5 - 5/250 - 5/750 2.5/31.25 - 2.5/62.5 - 2.5/187.5 - 5/25 - 5/62.5 - 5/125 - 5/250 - 5/750 - 10/100 - 10/125 10/250 - 10/500 - 10/1000 - 10/1500 - 10/3000
Knoop (HK)	HK 1
Macro-Rockwell (HMR)	HMR 5/250
Ball indentation hardness (for plastics) Useable indentors	Acc. to DIN ISO 2039 T1 H 49 - 132 - 358 - 961 Rockwell Diamond cone 120° Rockwell 1/16" Brinell Ball 1mm - 2.5mm - 5mm - 10mm Vickers Diamond pyramide 136° Knoop Rhombical diamond pyramide Ball indentation Ball, 5mm
Test height	Approx. 320mm
Throat depth	250mm
Test load application	Electromotorical, closed-loop system, with load cell
Test load selection	Automatical, via programmable, digital panel
Hardness value display	Digital
Optical evaluation	Via internal color LCD screen with CCD camera. Evaluation by digital measuring lines; Evaluation without parallax error
Operating languages	English, German, French, Italian (selectable)
Digital panel	With many functions
Interfaces	RS-232 (bidirectional) and parallel
Objectives	2.5x (standard CV-997/998), 4x (standard CV-991/992/994/995), 2.5x, 4x, 10x, 20x (optional)
Magnification	All required magnifications included in basic machine already
Illumination	Stepless adjustable brightness of light
Power supply	230 V, 50 Hz (500 VA)
Net weight	Approx. 220kg (CV-991/992), Approx. 250kg (CV-994/995), Approx. 360kg (CV-997/998)

Standard delivery

- CV-990 main unit (model see table previous page)
- Power cable
- CV Instruments certificate
- Manual

Optional accessories

- Testing tables
- Objectives
- Motorised spindle with foot pedal
- Machine cover
- Spindle protection cover
- Certified test blocks
- Certified indentors & balls