Warranty **24 Months**

Included Battery

Included Calibration tool

Included RS 232C

Included PC Software

Included Statistics

optional Printer

Technical Highlights:

– Measures **all metal** samples (mass > 3kg, thickness > 8 mm)

– **Rebound** hardness tester

– ② **Impact type D** (standard) external, included

– **Accuracy: 1 %** at 800 HLD

– **Indicates:** Rockwell (B & C), Vickers (HV), Brinell (HB), Shore (HS), Leeb (HL) and **Tensile strength** (MPa)

– Tests at **any angle** (360°)

– Standard battery operated

– **Optional Sensors** available

Automatic recognition of the **impact sensor** connected to the HMP

Data Output to PC
RS 232C Output included, to print the internal memory

Software and cable to PC included

Measurement direction: all directions possible with automatic compensation

Printer
Optional: Thermo Mini **printer ATU-05: 355,– €**

Delivered in a **hard carrying case**

Impact DC-Type
AHMR DC: € 540,–
Short impact sensor to allow testing in narrow spaces or in holes or hollow objects

Impact DL-Type
AHMR DL: € 1330,–
For very narrow surfaces (ø 4.5 mm), e.g. slender or narrow grooves

Impact C-Type
AHMR C: € 540,–
25 % impact energy compared to type D for testing tiny or light objects or the suface of hardened layer

Impact D+15-Type
AHMR D+15: € 540,–
Slim front section for holes, grooves or re-entrant surfaces

Impact G-Typ
AHMR G: € 1 330,–
900 % impact energy compared to type D for big and heavy test objects with rough surfaces

Mobility:
The SAUTER HMM provides a professional and resilient measurement solution wherever required, i.e. production, product control, etc

Automatic unit conversion: The SAUTER HMP converts the measured results into all above mentioned popular **hardness** units and into **tensile strength** ($Ó_b$ MPa)

Statistics kit: Shows single measured value, average value, testing date, impact direction, impact time, etc.

Internal memory for **100 groups** (with up to 32 values forming the average value of the group)

Measuring ranges hardness:
HL with D Sensor (HLD): Min: 170 to Max: 960 HLD

Material		Impact sensor											
		D/DC		D+15		C		G		E		DL	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Steel and cast steel	HRC	20,0	68,5	19,3	67,9	20,0	69,5			22,4	70,7	20,6	68,2
	HRB	38,4	99,6					47,7	99,9			37,0	99,9
	HRA	59,1	85,8							61,7	88,0		
	HB	127,0	651,0	80,0	638,0	80,0	683,0	90,0	646,0	83,0	663,0	81,0	646,0
	HV	83,0	976,0	80,0	937,0	80,0	996,0			84,0	1.042,0	80,0	950,0
	HS	32,2	99,5	33,3	99,3	31,8	102,1			35,8	102,6	30,6	96,8
Cold work tool steel	HRC	20,4	67,1	19,8	68,2	10,7	68,2			22,6	70,2		
	HV	80,0	898,0	80,0	935,0	100,0	941,0			82,0	1.009,0		
Stainless steel	HRB	46,5	101,7										
	HB	85,0	655,0										
	HV	85,0	802,0										
Grey cast iron	HRC												
	HB	93,0	334,0					92,0	326,0				
	HV												
Nodular cast iron	HRC												
	HB	131,0	387,0					127,0	364,0				
	HV												
Cast aluminium alloys	HB	19,0	164,0			23,0	210,0	32,0	168,0				
	HRB	23,8	84,6			22,7	85,0	23,8	85,5				
Brass (Copper-zinc alloys)	HB	40,0	173,0										
	HRB	13,5	95,3										
Bronze (Copper-aluminium-tin alloys)	HB	60,0	290,0										
Wrought copper alloys	HB	45,0	315,0										

Measuring range tensile strength: $Ó_b$ from 374 to 2652 MPa (steel only)

Standard block for calibration included

Technical data:

- Min. sample weight
  Sensor D + others: 3 kg
  Sensor C: 1,5 kg
  Sensor G: 15 kg

on a solide and stable support

- Min. sample thickness (mm):
  Sensor G: 10 mm
  Sensor C: 1 mm
  Sensor D + others: 8 mm
- **Min. sample radius** (concave / convex):
  50 mm (with support ring: 10 mm)

Size: W 150 x D 74 x H 32 mm; **Weight:** 245 g

Supports rings for bended testing samples available – please enquire.

Power supply 2 x 1.5V AA batteries, Operation time: **100 h**

Power Management

- Auto-Power-Off function
- Low-Battery indicator

Model	Sensor	Resolution	Price, excl. VAT	ISO Calibration Certificate
HMP	Typ D	1 HL	**€ 1 655,–**	€ 120,–