

ROCKWELL HARDNESS TESTER

SwissRock[®] SERIES



SR20

SEMI-AUTOMATIC HARDNESS TESTER

GNEHM[®]
A Swiss premium brand

INTRODUCTION

The GNEHM SR20 features a solid, rugged C-frame design, equipped with an integrated load cell and a closed-loop force feedback system that ensures precise application of test force. Starting a test procedure is quick and easy with a simple press of the START button on the 6,5" industrial touchscreen.

Results are conveniently stored, with the ability to save up to 150 readings for a job. The SR20 is capable of conducting Rockwell, superficial Rockwell and Brinell hardness tests, thanks to the versatility of the load-cell closed-loop system. The tester is easy to maintain and requires nearly no service.

BUILT TO LAST: RELIABILITY IN HARDNESS TESTING

The GNEHM SR20 stands out for its heavy-duty construction.

The automatic test cycle ensures that the correct load and dwell time are applied with every test, providing a dependable solution for accurate hardness measurement in industrial environments.



**PRECISION, SIMPLICITY &
AFFORDABLE.
THE PERFECT BALANCE**

KEY FEATURES

- The Load cell and closed-loop force feedback system, ensuring high accuracy readings with a maximum of only 0.25% error on load force.
- A wide range of scales are available for metals, plastics and carbon testing, including Rockwell scales: A, B, C, D, E, F, G, H, K, L, M, P, R, S, V, Rockwell Superficial scales: 15 N, 30 N, 45 N for scales T, W, X, Y and Brinell scales: HBW1/10, HBW1/30, HBW2.5/31.25, HBW2.5/62.5, HBW2.5/187.5, HBW5/25, HBW5/62.5, HBW5/125, HBW10/100.
- The 6,5" industrial touchscreen for clear display of hardness readings, dwell time countdown, and important settings, conversions and values.
- With continuous dialog about next steps in the process the software keeps you updated on what to do as a next step..

INTUITIVE & PRACTICAL SOFTWARE

The machines software offers practical, user-friendly multi-function keys for test setup, execution, storing, and uploading of test programs. Data can be easily exported manually or automatically via USB to a PC for further analysis in Excel.

The software also includes advanced features for extended statistical analysis, shape corrections for convex, concave, or ball-shaped specimens, and hardness conversion between Rockwell, Brinell, and Tensile strength based on ASTM E140 and ISO 18625 standards, with material-specific tables.



ADVANCED SOFTWARE FEATURES

DURABLE & RELIABLE PERFORMANCE

The GNEHM SR20 provides an expansive work area with a throat depth of 148mm and a maximum workpiece height of 220mm. Its solid, heavy-duty build ensures that it is capable of withstanding the demands of the toughest industrial environments. In comparison to other machines in its class, the GNEHM SR20 continues to deliver outstanding reliability and performance over time.

INDENTER COVER & WORKPIECE CLAMP

The tester is further equipped with an indenter protection cover and a spring-loaded workpiece clamp that holds the workpiece firmly against the anvil. This design eliminates the potential for workpiece and spindle hysteresis, while the adjustable clamp force ensures safe, damage-free testing even with softer materials.

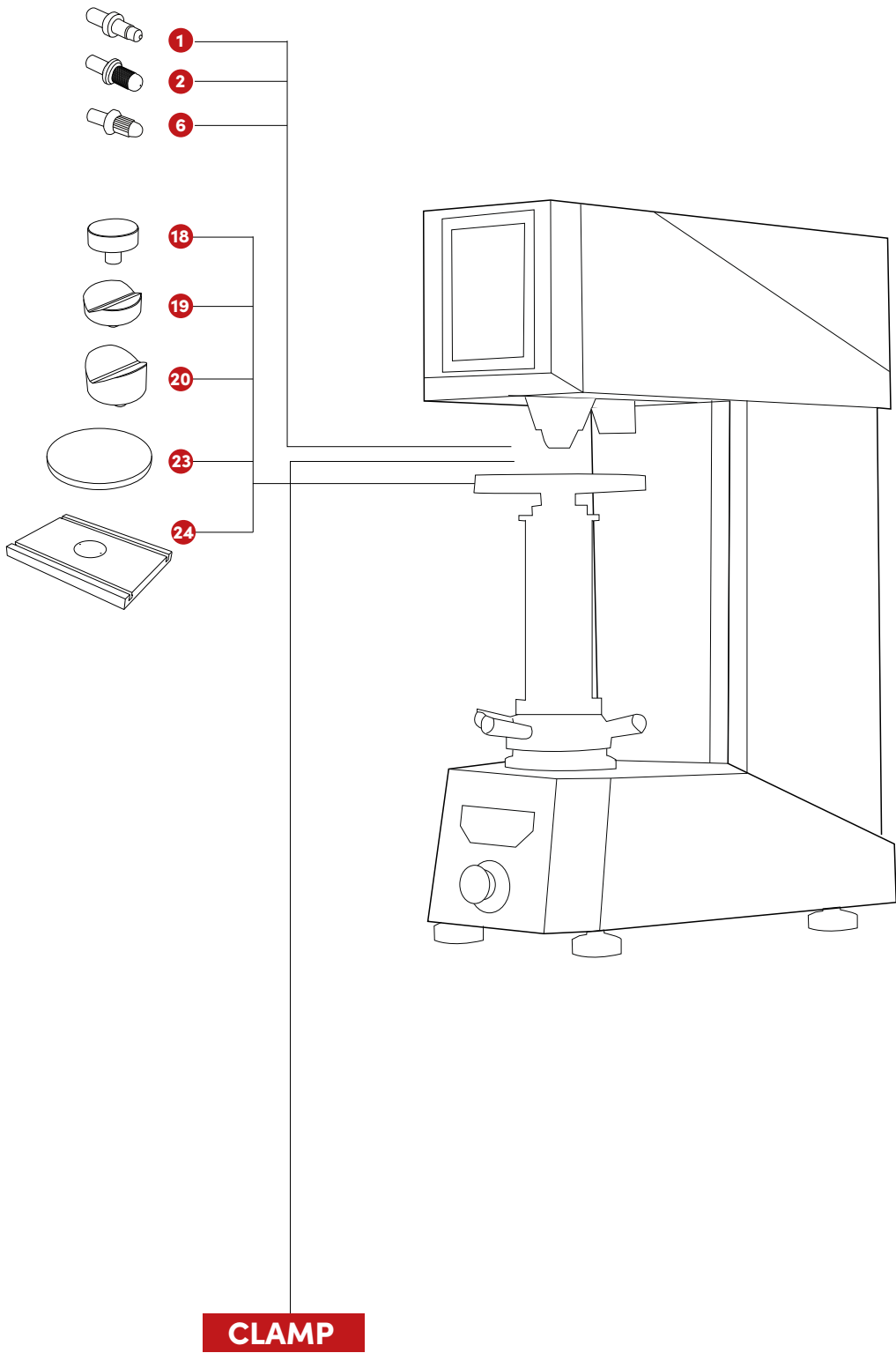
ROCKWELL TESTING PRECISION

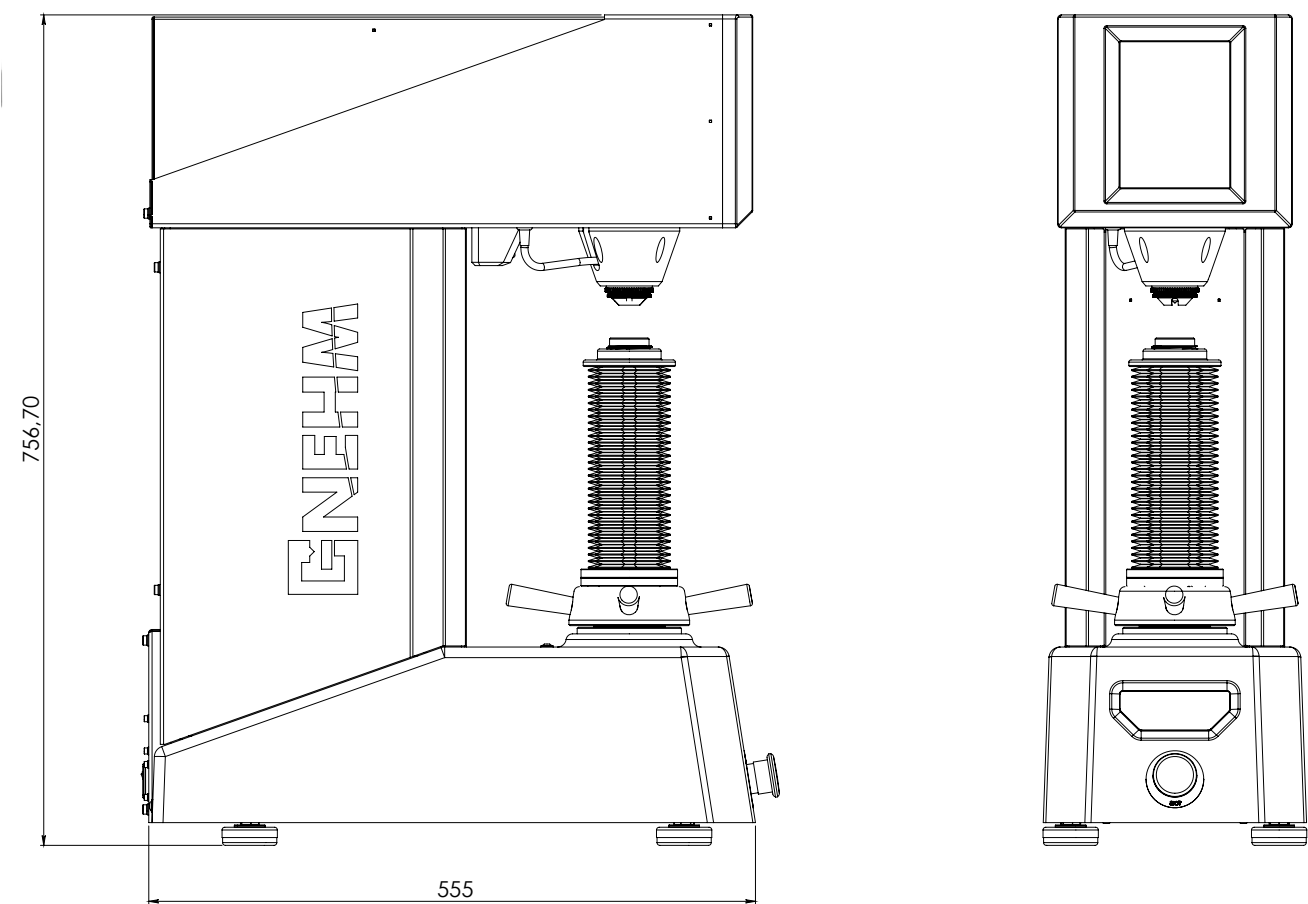
Tester model	SR20
Load system	
Full test load range	1kgf - 250kgf
Pre-load Rockwell	3kgf 10kgf
Load application system	Electronic Closed Loop
Force control	Load Cell Transducer
Load operation sequence	Automatic - Load Dwell Unload (auto start at reaching Pre Load)
Load application speed	Compliant to applicable standards
Load operation sequence	Fully automatic - Approach Load Dwell Unload (Objective)
Load application speed	60µm/sec (Compliant standards: JIS B 7725, ISO 6507-2, ASTM E92: 15 to 70µm/sec)
Load dwell time	1-999 seconds
Parameters & settings	
Rockwell scales	A B C D E F G H K L M P R S V
Rockwell Superficial scales	15N 30N 45N 15T 30T 45T 15W 30W 45W 15X 30X 45X 15Y 30Y 45Y
Brinell scales (Optional)	HBW1/2.5 HBW1/5 HBW1/10 HBW1/30 HBW2.5/6.25 HBW2.5/7.8125 HBW2.5/15.625 HBW2.5/31.25 HBW2.5/62.5 HBW2.5/187.5 HBW5/25 HBW5/31.25 HBW5/62.5 HBW5/125 HBW5/250 HBW10/100 HBW10/125 HBW10/250
Plastic ISO 2029-1/2	49 N, 132 N, 358 N, 961 N
Carbon	HR 2.5/7 HR 5/7 HR 5/15 HR 5/20 HR 5/40 HR 5/60 HR 5/100 HR 5/150 HR 10/20 HR 10/40 HR 10/60 HR10/100 HR 10/150
Conversion to other methods	All hardness scale conversions compliant to ISO & ASTM
Cylindrical and spherical shape	Offset for both available via touch panel
Go/No Go	Settings via touch panel
Electronics system	
Screen	Full colour screen 6.5" Portrait mode Touchscreen
Integrated controller	High performance industrial electronics
Connectivity	USB-2 front & rear connection
Storage	Memory for 999 readings / external via USB stick
Display information	Scale, test load setting, test result (hardness value), Go-No go settings (limits), results list, output channel, load progress indicator, dwelltime, light source on / off, results list selection, limit settings, conversion scales, start/stop button, calibration menu access.
Self diagnosis	Motors, switches, power supplies
Machine settings	Last settings memory
Calibration	Password controlled settings

Compliance	
Measuring system & operation	Comform to EN ISO 6508 ASTM E18 JIS B-7726
Certification	Factory calibration certificate or ISO 17025 accredited ILAC-MRA certificate
Electronic system	Meeting general global safety & European CE standards
General data	
Electric connectivity	Single phase AC100-240V 50/60Hz
Workspace dimensions	Workpiece height Max 220mm Depth from spindle middle 148mm
Dimensions	W245 x D580 x H760mm
Weight (net)	110kg

SR20 STANDARD ACCESSORIES		
1	100.SR1020.ACC	IND-RC635 Rockwell diamond Indenter, 6.35mm
		IND-RB635 Rockwell ball indenter, 1/16", 6.35mm
		HTB-HRC60 Test block +/- 60HRC
		HTB-HRC25 Test block +/- 25HRC
18		140.AV.105 Flat Anvil 60mm
19		140.AV.110 V-anvil 63mm
		PWCBL1 Powercable EU / Powercable US
		SERVTL2 Service Tools set
		ACCBOX2 Accesories packing Box
		INSMANENG English Instruction Manual, USB stick
		900.PB.20 Standard packing box for air/seafreight

SR20 OPTIONAL ACCESSORIES		
1	IND-RC635IA	Rockwell C Diamond Indenter. Ø6.35mm. ISO & ASTM certified
2	IND-RB16635IA	Rockwell Ball Indenter 1/16". Incl. 1 carbide ball. Ø6.35mm. ISO & ASTM certified
3	IND-RB18635IA	Rockwell Ball Indenter 1/8". Incl. 1 carbide ball. Ø6.35mm. ISO & ASTM certified
4	IND-RB14635IA	Rockwell Ball Indenter 1/4". Incl. 1 carbide ball. Ø6.35mm. ISO & ASTM certified
5	IND-RB12635IA	Rockwell Ball Indenter 1/2". Incl.1 carbide ball, Ø6.35mm. ISO & ASTM certified
6	IND-B6351IA	Brinell Indenter 1mm. Includes 1 carbide ball. Ø6.35mm. ISO & ASTM certified
7	IND-B63525IA	Brinell Indenter 2.5mm. Includes 1 carbide ball. Ø6.35mm. ISO & ASTM certified
8	IND-B6355IA	Brinell Indenter 5mm. Includes 1 carbide ball. Ø6.35mm. ISO & ASTM certified
9	IND-B63510IA	Brinell Indenter 10mm. Includes 1 carbide ball. Ø6.35mm. ISO & ASTM certified
10	RU-CB116IA	1/16" carbide ball. ISO & ASTM certified
11	RU-CB118IA	1/8" carbide ball. ISO & ASTM certified
12	RU-CB114IA	1/4" carbide ball. ISO & ASTM certified
13	RU-CB112IA	1/2" carbide ball. ISO & ASTM certified
14	RU-CB1IA	1.0mm carbide ball, only for ø6.35mm. ISO & ASTM certified
15	RU-CB25IA	2.5mm carbide ball, only for ø6.35mm. ISO & ASTM certified
16	RU-CB5IA	5.0mm carbide ball, only for ø6.35mm. ISO & ASTM certified
17	RU-CB10IA	10.0mm carbide ball, only for ø6.35mm. ISO & ASTM certified
18	140.AV.105	Flat anvil 60mm
19	140.AV.110	V-anvil 63mm
20	140.AV.130	V-anvil ø40mm 6-60mm
21	140.AV.132	V-anvil ø63mm 10-100mm
22	140.AV.124	V-Anvil ø80mm 3.3-20mm
23	150.TT.105	Rond Testing table 180mm, hardened Stainless steel, spindle fix
24	150.TT.150	Large test table 350x250mm
	150.MF.104	Mounting flange for large test table





All dimensions in these drawings are approximate and in millimeters. Working heights and workpiece accommodation may vary based on the stages and accessories used.

For more details, please contact our sales department.

Catalogue SR20 V1.4

Product specifications may evolve with new technologies and ongoing development.

We reserve the right to update or modify product specifications without prior notice. For the most current information, please contact our sales office.

GLOBAL SALES

GNEHM International LLC-FZ

Grandstand, 6th floor
Meydan Road, Nad Al Sheba
Dubai | UAE

+971 50 491 2588
info@gnehm-testing.com
www.gnehm-testing.com

SWITZERLAND (CH + FL) & AUSTRIA

GNEHM Härteprüfer AG

Bönirainstrasse 13
8800 Thalwil
Schweiz

+41 (0) 44 725 43 42
admin@gnehm-haertepreuer.ch
www.gnehm-testing.com

DEALER