

### Rockwell Scales

Scale Name	Indenter	Major Load	Minor Load	Applications*
<b>Regular Rockwell Scales</b>				
HRA	Diamond	60 kg	10 kg	Cemented carbides, thin steel and shallow case hardened steel
HRB	1/16" ball	100 kg	10 kg	Copper alloys, soft steels, aluminium alloys, malleable iron
HRC	Diamond	150 kg	10 kg	Steel, hard cast irons, pearlitic malleable iron, titanium, deep case-hardened steel and the materials harder than HRB100
HRD	Diamond	60 kg	10 kg	Thin steel and medium case-hardened steel and pearlitic malleable iron
HRE	1/8" ball	100 kg	10 kg	Cast iron, aluminium and magnesium alloys, bearing metals
HRF	1/16" ball	60 kg	10 kg	Annealed copper alloys, thin soft white metals.
HRG	1/16" ball	150 kg	10 kg	Phosphor bronze, beryllium copper, malleable irons. Upper limit is HRG 92 to avoid possible flattening of the ball.
HRH	1/8" ball	100 kg	10 kg	Aluminium, Zinc, Lead
HRK	1/8" ball	150 kg	10 kg	Bearing metals and other very soft or thin materials. Use smallest ball and heaviest load that do not give and anvil effect
HRL	1/4" ball	60 kg	10 kg	[Same as HRK]
HRM	1/4" ball	100 kg	10 kg	[Same as HRK]
HRP	1/4" ball	150 kg	10 kg	[Same as HRK]
HRR	1/2" ball	60 kg	10 kg	[Same as HRK]
HRS	1/2" ball	100 kg	10 kg	[Same as HRK]
HRV	1/2" ball	150 kg	10 kg	[Same as HRK]
<b>Superficial Rockwell Scales</b>				
HR 15N	Diamond	15 kg	3 kg	Similar to C scale, but for thin materials
HR 30N	Diamond	30 kg	3 kg	[Same as HR15N]
HR 45N	Diamond	45 kg	3 kg	[Same as HR15N]
HR 15T	1/16" ball	15 kg	3 kg	Similar to B scale, but for thin materials
HR 30T	1/16" ball	30 kg	3 kg	[Same as HR15T]
HR 45T	1/16" ball	45 kg	3 kg	[Same as HR15T]
HR 15W	1/8" ball	15 kg	3 kg	Used for very soft materials
HR 30W	1/8" ball	30 kg	3 kg	Used for very soft materials
HR 45W	1/8" ball	45 kg	3 kg	Used for very soft materials
HR 15X	1/4" ball	15 kg	3 kg	Used for very soft materials
HR 30X	1/4" ball	30 kg	3 kg	Used for very soft materials
HR 45X	1/4" ball	45 kg	3 kg	Used for very soft materials
HR 15Y	1/2" ball	15 kg	3 kg	Used for very soft materials
HR 30Y	1/2" ball	30 kg	3 kg	Used for very soft materials
HR 45Y	1/2" ball	45 kg	3 kg	Used for very soft materials