



# DOPLER

## GEAR COMPANY

Any greater thickness & hardness can be safely tested on indicated scale	ROCKWELL SUPERFICIAL HARDNESS TESTER			ROCKWELL HARDNESS TESTER		
	15N	30N	45N	A	D	C
	15 Kg.	30 Kg.	45 Kg.	60 Kg.	100 Kg.	150 Kg.
Case thickness in inches	Diamond "N" Penetrator			Diamond Penetrator		
0.006	92					
0.008	90					
0.010	88					
0.012	83	82	77			
0.014	76	80	74			
0.016	68	74	72	86		
0.018	No MIN	66	68	84		
0.020	No MIN	57	63	82	77	
0.022	No MIN	47	58	78	75	69
0.024	No MIN	No MIN	51	76	72	67
0.026	No MIN	No MIN	37	71	68	65
0.028	No MIN	No MIN	20	67	63	62
0.030	No MIN	No MIN	No MIN	60	58	57
0.032	No MIN	No MIN	No MIN	No MIN	51	52
0.034	No MIN	No MIN	No MIN	No MIN	43	45
0.036	No MIN	No MIN	No MIN	No MIN	No MIN	37
0.038	No MIN	No MIN	No MIN	No MIN	No MIN	28
0.040	No MIN	No MIN	No MIN	No MIN	No MIN	20

For example: a part is specified at 55-62 HRC with a case depth of 0.020"-0.030". It should **NOT** be checked with a "C" scale weight of 150 Kg. as that may break through the case and give a false reading.

Using the example, above convert the MIN hardness (55 HRC) to each scale and compare that to the MIN case depth (.020") requirement.

	15N	30N	45N	A	D	C
Approximate Equivalent	87.9	73	60.9	78.5	66.9	55
Approximate MIN Depth	<b>0.010</b>	<b>0.017</b>	<b>0.022</b>	<b>0.022</b>	<b>0.027</b>	<b>0.031</b>

Using this methodology, the MAX testing weight should be 30 Kg., or the 30N scale. The results of this testing could then be converted to the Rockwell "C" scale for part verification.