



United Calibration Corporation

Established 1964

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Certificate of Indirect Verification for Rockwell Hardness Tester

CERTIFICATE NO. IV-75091-1245

**The ZYX Company
Anytown, USA 99999**

Equipment Under Test : United Calibration Corp Tru-Blue II

Equipment S/N: 231310

Calibration Date: 18-Sep-03

Calibration Due Date: 18-Sep-04

Calibration Range: See Below

Accuracy: Per ASTM E 18-02

Temperature (Deg F): 75

Humidity (%): 51

This document certifies that the equipment identified above has been verified in accordance with the requirements of ASTM E 18-02, ISO 6508-2 and UC Procedure 165. The reference blocks (NIST SRMS) used for verification of the HRC scale are traceable to standards maintained by NIST. All other scales traceable to standards maintained by the David Ellis Co., Inc. Uncertainties expressed for this verification are calculated in accordance with UCC Proced UP-01 and use a coverage factor k=2. UNITED CALIBRATION CORPORATION maintains a quality system which meets the requirements of ISO/IEC Guide 17025, ANSI/NCSL Z540-1 and ISO-9002.

TEST BLOCK			INDENTOR	TEST RUNS					Uncertainty			
Scale	Hardness	S/N	ID	1	2	3	4	5	Mean	Range	Bias	of Verif (±)
HR15N	91.3	11P0159	28611-N	91.3	91.3	91.2	91.3	91.2	91.25	0.05	-0.08	0.31
HR15N	82.6	00P0425	28611-N	82.5	82.4	82.5	82.5	82.5	82.50	0.10	-0.11	0.31
HR15N	71.3	00P0663	28611-N	71.7	71.8	71.5	71.6	71.5	71.62	0.28	0.35	0.84
HR30N	80.2	11P0696	28611-N	80.7	80.7	80.7	80.8	80.8	80.72	0.14	0.53	0.75
HR30N	65.1	00P0410	28611-N	64.8	65.1	64.9	65.2	65.3	65.05	0.49	-0.08	0.59
HR30N	46.6	33P0218	28611-N	46.5	46.6	46.5	46.8	46.5	46.60	0.39	-0.03	0.43
HRBW	93.7	22P0539	TPB2-1/16(W)	94.2	94.1	94.1	94.3	94.3	94.18	0.17	0.44	0.93
HRBW	72.2	22Y3582	TPB2-1/16(W)	72.9	72.9	72.8	73.1	73.4	73.02	0.60	0.83	1.67
HRBW	46.4	22Y6251	TPB2-1/16(W)	47.7	47.4	47.7	47.7	48.0	47.69	0.57	1.30	2.42
HRC	62.9	33P0167	28944-C	63.1	63.2	63.2	63.1	63.2	63.15	0.10	0.29	0.61
HRC	46.2	33P0332	28944-C	46.2	46.4	46.4	46.4	46.4	46.36	0.18	0.12	0.48
HRC	26.4	33P0403	28944-C	26.6	26.5	26.6	26.5	26.7	26.57	0.20	0.17	0.60

Calibration results relate only to items tested or calibrated. Routine maintenance was performed at the time of verification. The Found' condition for the unit under test meets the requirements of ASTM E 18-02; no adjustments were required.

Performed By:

Phil Eusebi
Rockwell Technician

Approved Signatory:

Jere H. Watson
Technical Director

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