# National Conference on Weights and Measures

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Certificate Number: 06-010A1 Page 1 of 2

# National Type Evaluation Program Certificate of Conformance for Weighing and Measuring Devices

## For:

Weighing/Load Receiving Element, Counter/Bench Load Cell Electronic Models: HDXXXX-YYY & HDPXXYY-YYY\* Series n<sub>max</sub>: 5000 e<sub>min</sub>: 0.05 lb (0.02 kg) See Below Capacity: 250 lb (100 kg) to 600 lb (300 kg) See Below Platform: See Below Accuracy Class: III

#### Submitted by:

Rice Lake Weighing Systems 230 West Coleman Street Rice Lake, WI 54868 Tel: (715) 234-9171 Fax: (715) 234-6967 Contact: Paul A. Lewis, Sr.

## **Standard Features and Options**

\*The specific models designation for the HD & HDP Series covered by this certificate is HDXXXX-YYY and HDPXXXX-YYY where XXXX represents the scale dimensions in inches and the YYY represent the scale capacity in pounds. An "S" following the platform size designates stainless steel frame.

The scales may be set as smaller capacity than that listed on this CC, as long as the  $n_{max}$  is not increased and  $e_{min}$  is not decreased.

HDP Series: Portable with two or four wheel arrangement, level and column to mount the indicator on.

Capacity: HD & HDP Series: 250 lb x 0.05 lb to 600 lb x 0.2 lb (125 kg x 0.05 kg to 300 kg x 0.1 kg)

Platform size: HD & HDP Series Series: Up to  $36" \times 36" (1296 \text{ in}^2)$ (The scales may have platform areas up to but not larger than that evaluated at each capacity, with lengths or widths no greater than 125 percent of either dimension tested)

Frame: Mild or stainless steel Platform material: Stainless steel

Load cell used: HBM Model PW 16 (Certificate of Conformance Number 05-093), or compatible and NTEP certified equivalent load cells.

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

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C. Tenex

Don Onwiler Chairman, NCWM, Inc.

James C. Truex Chairman, National Type Evaluation Program Committee Issue date: May 17, 2006

Note: The National Conference on Weights and Measures does not "approve"," recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.

### Rice Lake Weighing Systems Weighing/Load Receiving Element Models: HDXXXX-YYY & HDPXXYY-YYY Series

**<u>Application</u>**: For use in general purpose weighing when interfaced with a compatible and NTEP certified electronic indicating element.

Identification: The required information is on an approved label located on the base of the weighing element.

<u>Sealing:</u> There are no sealable parameters located on the load receiving element. The scale calibration and set-up parameters are sealed through the indicating element.

**Test Conditions:** This certificate supersedes and replaces Certificate of Conformance 06-010 and is issued to include the option of portability by adding a column for mounting the indicating element and moving the scale, wheels mounted on the weighing/load receiving element and adding a level indicator. One configuration is with 4 wheels that may be locked to prevent movement. The other configuration is with 2 wheels on the back of the weighing/load receiving element in a manner that allows the scale to be tilted onto the wheels and rolled form one location to another. One weighing element, a Model HDP 3636-500 was evaluated in the laboratory using Rice Lake Weighing Systems Model IQ Plus 310A (Certificate of Conformance 91-132A3) Indicating Element. This weighing element was set up for most of the evaluation as 500 lb x 0.1 (250 kg x 0.05 kg), but was also re-configured as  $600 \times 0.2$  lb and tested to include the largest capacity for the family. Several increasing/decreasing load and shift tests were conducted. The scale was tested and then moved to another location and re-tested several times without re-calibrating. The scale was tested in this manner individually for each configuration of wheel attachment. No further evaluation was deemed necessary.

<u>Test Conditions Certificate of Conformance 06-010</u>: The emphasis of the evaluation was on the device design, marking, performance and compliance with influence factor requirements. Two weighing elements, a 250 lb x 0.05 lb (125 kg x 0.05 kg) and a 500 lb x 0.1 (250 kg x 0.05 kg), were evaluated in the laboratory using Rice Lake Weighing Systems Model IQ Plus 310A (Certificate of Conformance 91-132A3) Indicating Elements. Several increasing/decreasing load and shift tests were performed. A load of 300 lb was applied to the scales over 100,000 times. The permanence test was done with 300 lb instead of 250 lb in order to satisfy the permanence test requirement for the largest capacity. The devices were tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). The 500 lb scale was recalibrated to 600 lb x 0.2 (300 kg x 0.1 kg) and several increasing/decreasing load and shift tests were performed.

Evaluated By: W. West, A. McCoy, & T. Buck (OH) 06-010, 06-010A1

Type Evaluation Criteria Used: NIST Handbook 44, 2006 Edition; NCWM Publication 14, 2005 Edition

**Conclusion:** The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements.

Information Reviewed By: S. Patoray, L. Bernetich (NCWM)

Examples of HDP:



