



## NATIONAL TYPE EVALUATION PROGRAM

# Certificate of Conformance

for Weighing and Measuring Devices

**For:**

Weighing/Load Receiving Element  
Bench  
Model: Enduro HCS-Sxxxx, HCS-Lxxxx, HCMS-Sxxxx  
and HCMS-Lxxxx  
 $n_{\max}$ : 5000  
 $e_{\min}$ : 0.01 lb (see page 2)  
Capacity: 50 lb to 1000 lb  
Platform: 18 in x 18 in, 18 in x 24 in and 24 in x 24 in  
Accuracy Class: III

**Submitted By:**

CAS USA Corporation  
99-A Murray Hill Parkway  
East Rutherford, NJ 07073  
Tel: 800-223-4227  
Fax: 201-933-9025  
Contact: William Moutenot  
Email: [bill@cas-usa.com](mailto:bill@cas-usa.com)  
Web site: [www.cas-usa.com](http://www.cas-usa.com)

**Standard Features and Options****Models:**

HCS-Sxxxx, HCS-Mxxxx, HCS-Lxxxx, HCMS-Sxxxx, HCMS-Mxxxx, HCMS-Lxxxx where:  
HCS is stainless steel, HCMS is for mild steel, S is for small platter 18 in x 18 in, M is for medium platter 18 in x 24 in, L is for large platter 24 in x 24 in, and xxxx designates capacity.

Example: EnduroHCS-S100 is a 100 lb device with an 18 in x 18 in platter.

**Load Cell Used:**

Doran Model 1260 (non-NTEP)

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

This device was evaluated under the National Type Evaluation Program and was found to comply with the applicable technical requirements of "NIST 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.

Stephen Benjamin  
Chairman, NCWM, Inc.

Kurt Floren  
Chairman, National Type Evaluation Program Committee

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1135 M Street, Suite 110 / Lincoln, Nebraska 68508

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Weighing/Load Receiving Element / Enduro HCS-Sxxxx, HCS-Lxxxx, HCMS-Sxxxx and HCMS-Lxxxx

Model	Capacity (lb)	$e_{min}$ (lb)	Platform Size (in)
Enduro HCS-S50	50	0.01	18 X 18
Enduro HCS-S100	100	0.02	18 X 18
Enduro HCS-S250	250	0.05	18 X 18
Enduro HCS-S500	500	0.1	18 X 18
Enduro HCS-S1000	1000	0.2	18 X 18
Enduro HCS-M50	50	0.01	18 X 24
Enduro HCS-M100	100	0.02	18 X 24
Enduro HCS-M250	250	0.05	18 X 24
Enduro HCS-M500	500	0.1	18 X 24
Enduro HCS-M1000	1000	0.2	18 X 24
Enduro HCS-L50	50	0.01	24 X 24
Enduro HCS-L100	100	0.02	24 X 24
Enduro HCS-L250	250	0.05	24 X 24
Enduro HCS-L500	500	0.1	24 X 24
Enduro HCS-L1000	1000	0.2	24 X 24
Enduro HCMS-S50	50	0.01	18 X 18
Enduro HCMS-S100	100	0.02	18 X 18
Enduro HCMS-S250	250	0.05	18 X 18
Enduro HCMS-S500	500	0.1	18 X 18
Enduro HCMS-S1000	1000	0.2	18 X 18
Enduro HCMS-M50	50	0.01	18 X 24
Enduro HCMS-M100	100	0.02	18 X 24
Enduro HCMS-M250	250	0.05	18 X 24
Enduro HCMS-M500	500	0.1	18 X 24
Enduro HCMS-M1000	1000	0.2	18 X 24
Enduro HCMS-L50	50	0.01	24 X 24
Enduro HCMS-L100	100	0.02	24 X 24
Enduro HCMS-L250	250	0.05	24 X 24
Enduro HCMS-L500	500	0.1	24 X 24
Enduro HCMS-L1000	1000	0.2	24 X 24

**Application:** For use in general purpose weighing applications interfaced with an approved and compatible indicator.

**Identification:** The required information is on a self-destructive label attached by adhesive affixed to the device under the platter.

**Sealing:** There are no metrological features in the weighing element, all changes are made through the indicator. The indicator is sealed according to the manufacturer's instructions for the particular indicator used.

**Test Conditions:** This certificate is issued based upon the following tests and upon information provided by the manufacturer. The emphasis of the evaluation was on the device design, operation, performance and compliance with influence factor requirements. For the purpose of this evaluation there were three Models the model HCS-L1000 (1000 lb x 0.2 lb 24" X 24") ,a model HCS-L250 (250 lb x 0.05 lb 24" X 24") , and a HCS-S50 (50lb x 0.01 24 x 24") weighing element were submitted. Several increasing/decreasing load tests and shift tests were performed. Additionally, tests were conducted using 100 VAC and 130 VAC power supply. The devices were tested over a temperature range of -10°C to 40°C (14°F to 104°F). A load of approximately one-half capacity was applied to the scales over 100 000 times. The scales were tested periodically during this time.

**Evaluated By:** A. McCoy (OH)

**Type Evaluation Criteria Used:** NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2012. NCWM, Publication 14: Weighing Devices, 2012.



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**Conclusion:** The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

**Information Reviewed By:** J. Truex (NCWM)

**Examples of Device:**

