### **National Conference on Weights and Measures**

15245 Shady Grove Road, Suite 130 • Rockville, MD 20850

Certificate Number: 02-079

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

For:

Weighing/Load Receiving Element

Models: SB Series

Capacity: 30 lb (15 kg) to 500 lb (220 kg)

e<sub>min</sub>: 0.005 Ib (0.025 kg) n<sub>max</sub>: See Below Platform: See Below

Accuracy Class: III

**Submitted by:** 

A & D Engineering. Inc. 1555 McCandless Drive Milpitas, CA 95035 Tel: (408) 263-5333 Fax: (408) 263-0119

Contact: Jesus Zapien

#### **Standard Features and Options**

Stainless steel weighing pan

Base unit material: SB-15K10: Stainless steel

SB-60K11, SB-100K12, SB200K12: Aluminum alloy die casting

Models	Capacity	e <sub>min</sub>	n <sub>max</sub>	Platform (mm)
SB-15K10	30 lb (15 kg)	0.005 lb (0.0025 kg)	6 000	250 x 250
SB-60K11	150 lb (60 kg)	0.05 lb (0.02 kg)	3 000	330 x 424
SB-100K12	200 lb (100 kg)	0.05 lb (0.025 kg)	4 000	390 x 530
SB-200K12	500 lb (220 kg)	0.1 lb (0.044 kg)	5 000	390 x 530

#### **Load Cells:**

A&D Load Cell Models: LC-131-15K, LC-132-60K, LC-133-100K, LC-133-200K (non-NTEP)

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.

Ronald D. Murdock Chairman, NCWM, Inc. Louis E. Straub

Chairman, National Type Evaluation Program Committee

Issue date: May 28, 2002

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.

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## A & D Engineering, Inc. Weighing/Load Receiving Element Model: SB Series

**Application:** For use as a general purpose scale weighing/load receiving element when interfaced with an approved and compatible indicating element.

<u>Identification:</u> The required information appears on an adhesive badge located on the side of the base plate near the level indicator.

**Sealing:** There are no sealable parameters in the weighing element. The complete device can be sealed at the indicator according to the instructions for the approved and compatible indicator used.

Test Conditions: Models SB 15K10 (30 lb capacity) and SB 200K12 (500 lb capacity) load receiving elements were submitted for the evaluation and attached to a Model AD-4328 indicating element (Certificate of Conformance Number 99-074). The emphasis of the evaluation was on device design, operation, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were performed. The load receiving elements were tested over a temperature range of –10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half scale capacity was applied to each of the load receiving elements over 100 000 times. The scales were tested periodically during this time.

The results of the evaluations and information provided by the manufacturer indicate the device complies with the applicable requirements specified in Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 2002 Edition

**Tested By:** S. Boyd (CA)

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