

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

For:

Bench Scale, Top Loading Balance
Digital Electronic
Model: GF Series
 n_{\max} and e_{\min} : (See Table on Page 2)
Platform: See Table on Page 2

Accuracy Class: II

Submitted by:

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Standard Features and Options

The GF Series has the following externally selectable units of measure using the "mode" push-button:
gram (g), ounce (OZ), pound (Lb), troy ounce (OZt).

Model suffix "G" indicates gram mode only, and "N" model includes all units of measure.

"The counting feature is not legal for trade", is labeled on the front of the scale
Counting and percent weighing on models without suffix and with "N" suffix
Semi-automatic zero setting mechanism (push-button)
Automatic zero setting mechanism (AZSM)
Initial zero setting mechanism (IZSM)
RS-232 serial interface
AC/DC adapter
Level indicator
Motion annunciator
Vacuum fluorescent display
Weight comparator mode

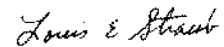
Load cell used: A&D Mode 2000468 (non-NTEP approved)

Temperature Range: 5 °C to 30 °C (41 °F to 86 °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.



Ross J. Andersen
Chairman, NCWM, Inc.



Louis E. Straub
Chairman, National Type Evaluation Program Committee
Issue date: February 7, 2003

**A&D Engineering
Bench Scale, Top Loading Balance
Model: GF Series**

Application: General purpose top loading balances. The counting feature is not legal for trade.

Identification: The manufacturer's identification, model number, and serial number are on a pressure sensitive, self-destructive label located on the right side of the scale.

Model	Capacity (g)	n_{\max}	e (g)	d (g)	Platform (mm)
GF-200	210	21 000	0.01	0.001	128 x128
GF-300	310	31 000	0.01	0.001	128 x 128
GF-1200	1 210	12 100	0.1	0.01	165 x 165
GF-2000	2 100	21 000	0.1	0.01	165 x 165
GF-3000	3 100	31 000	0.1	0.01	165 x 165
GF-6000	6 100	6 100	1	0.1	165 x 165

Sealing: The device can be sealed by threading a wire security seal through the RS-232 serial interface plate and scale housing. A switch located on the RS-232 serial interface printed circuit board allows access to calibration and configuration mode.

Test Conditions: A GF-300 and GF-6000 were submitted for evaluation. The emphasis of the evaluation was on device design and performance. Each scale was tested over a voltage range of 100 VAC to 130 VAC. Influence factor tests were conducted over a temperature range of 5 °C to 30 °C (41 °F to 86 °F). Additionally, a load of one-half capacity was placed on each scale more than 100 000 times. Tests were repeated periodically.

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: Dan Parks (CA)

Information Reviewed By: S. Patoray (NCWM)