

State of California
Department of Food and Agriculture
Division of Measurement Standards

Certificate Number: 5658-11

Page 1 of 2

California Type Evaluation Program
Certificate of Approval
for Weighing and Measuring Devices

For:

Hopper Scale Weighing-Load Receiving Elements
Load Cell Electronic
Model: STAR Series, See Table Below
 n_{\max} : See Table Below
 e_{\min} : See Table Below
Accuracy Class: III L

Submitted by:

Sandman Inc. dba Star Concrete
1404 S. 7th St.
San Jose, CA 95112
Tel: (530) 668-8121
Fax: (530) 681-7761
Email: JerryBlatt@SBCglobal.net
Contact: Gerald R. Blatt

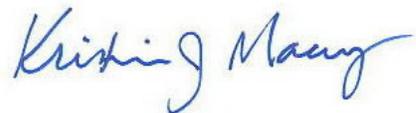
Standard Features and Options

Primary weight indications and motion detection are provided by an approved and compatible weight indicator.
Hopper construction material: Mild steel

Model	n_{\max}	e_{\min} (lb)	Capacity (lb)	Load Cells	Dimensions (inches)	Shape
STAR - AB	2 000	20	40 000	Four (4) 15K	112 High 190 Long 109 Wide	Rectangular with tapered bottom
STAR - CB	1 000	10	10 000	Four (4) 5K	65 High 108 Long 48 Wide	Rectangular with tapered bottom
STAR - WB	1 000	5	5 000	Two (2) 5K	43 High 92 Long 31 Wide	Rectangular with rounded sides

Load Cells: Rice Lake Model RL20000B (Certificate of Conformance Number 98-044A1)

This device was evaluated under the California Type Evaluation Program (CTEP) and was found to comply with the applicable requirements of California Code of Regulations for "Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.



Effective Date: May 27, 2011

Kristin J. Macey, Director

Sandman Inc. dba Star Concrete
Hopper Scale Weighing-Load Receiving Elements / Load Cell electronic
Model: STAR Series

Application: For use as construction material hopper scale weighing elements when used with approved and compatible indicating elements. The particular application for each model is:

STAR - AB - Aggregate Scale
STAR - CB - Cement Scale
STAR - WB - Water Scale

Identification: An identification plate containing all required information is riveted to each individual hopper.

Sealing: The load cell junction box may be sealed with a wire security seal. Additionally, sealing of metrological components are accomplished through the associated indicating element.

Test Conditions: Three hopper load-receiving elements (water, cement and aggregate) were submitted for evaluation. Each hopper was interfaced with a Rice Lake Model IQ+355 indicator (Certificate of Conformance Number 97-130A2). The emphasis of the evaluation was on device design, performance of the weighing elements, and marking requirements. The aggregate and cement hoppers were tested with 10 000 lb of known test weights with substitution of material up to 40 000 lb on the aggregate hopper. For the water hopper 2 500 lb of known test weights was used with substitution of water to 5 000 lb. Several increasing/decreasing load, discrimination, and return to zero tests were initially performed and then repeated after approximately 30 days and a minimum of 300 normal use weighments. Results of the evaluation indicate the devices comply with applicable requirements.

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2011 Edition

Tested By: K Jones (CA)

Aggregate Hopper



Cement Hopper



Water Hopper

