



# SCALE MANUFACTURERS ASSOCIATION

## Conformity Assessment - Production Meets Type Program

What is it?

Why is it needed?

What does it mean to me?

The Scale Manufacturers Association <sup>1</sup> (SMA) has developed and implemented a product conformity assessment program called "Production Meets Type". The PMT program is a voluntary program that is open to all national and international scale manufacturers. This program is structured to ensure continuing proof that each manufactured unit meets the performance requirements as agreed to when receiving certification from the National Type Evaluation Program <sup>2</sup> (NTEP). Being a voluntary program, manufacturers participate in support of their ongoing commitment to accuracy and product quality, thus ensuring the consumer an accurate weightment each time.

### What is Production Meets Type?

In all cases, the NTEP evaluation program tests a single or small number of samples submitted by the manufacturer. The samples are required to be representative of the "type" of scale or load cell that the manufacturer will make available for sale to the public. The samples are evaluated or tested to ensure compliance with performance and specifications to national requirements. This process is typically referred to as Type Approval Testing. Once a scale or load cell has passed all performance and specification requirements, a Certificate of Conformance is issued to the manufacturer for this specific model. The requirement to have a scale tested and certified under the NTEP program is written into most State laws.

Continued conformance with most of these requirements can be determined during initial verification testing conducted by State or Local Weights and Measures Inspectors. However, there are specific requirements that apply to scales that cannot be verified in the field. This is the scale's ability to conform to the Influence Factors requirement of the Specifications and Tolerance Handbook (NIST Handbook 44). Influence Factors are defined as external influence that can affect a scale's ability to provide a consistent and accurate weight reading. While there is several influence factors identified, the one of most concern is the influence of temperature. If not properly addressed during the design and manufacturing process, the ability of a scale or a load cell to maintain accurate weight readings can be largely influenced by relatively small changes in temperature.

The SMA Production Meets Type program was developed as a means for a manufacturer to state and continually ensure that production units comply with these influence factors.

To participate in this program, the manufacturer must perform ongoing testing to ensure continued product compliance to published measures of accuracy. To ensure effective program compliance, the manufacturer must undergo a facilities and capability audit conducted by an independent third party. This audit helps to assure that the manufacturer's processes are sufficiently controlled and quality control measures are in place and used to maintain these processes over time.



### Product Meets Type Logo

This logo is placed on products that have been registered under the SMA PMT program.

### Why Is PMT Needed?

Throughout the manufacturing life of a product, many changes may occur. These changes could include software revisions to add new features; the use of new electronic components intended to improve performance, or the replacement of an obsolete component with one that is "identical".

In addition to intentional changes, variations in a product's performance are often the result of variations from identical components or variations in the manufacturing process. These variations are often addressed in the product design and the manufacturer's process control system, but if left unchecked, these variations can lead to nonconforming performance levels.

Whatever the reason, changes to a product are inevitable. The NTEP program is an excellent program, but it currently has a few shortcomings. For example, once a scale has received a Certificate of Compliance, it is the manufacturer's responsibility to report design changes and to determine what constitutes a significant change. Once reported, the NTEP Director evaluates the changes<sup>3</sup> and determines if additional or follow-up testing is required to ensure continued compliance. While this is the written policy, delayed time to market and unnecessary costs are just a few reasons or excuses that a manufacturer may use to ignore it. These untested changes can affect the scale's ability to meet the influence factors requirements, and result in inaccurate weight readings.

#### **What Does PMT Mean To Me?**

The SMA Production Meets Type program is designed to take compliance levels to the next step. The NTEP evaluation of a new model ensures that the manufacturer is aware of the national requirements

and is capable of designing a product that meets these requirements. The Production Meets Type program takes over at this point and ensures that manufacturers not only have the ability to produce products that comply on an ongoing basis, but also ensures that they do so through the strict adherence to quality control processes and independent, third party audits of those processes and their implementation.

Participation in this program is completely voluntary, so the next time you are considering the purchase of a scale, ask the salesperson if it is registered under the SMA's Production Meets Type program. If it is, you can be assured that you are dealing with a manufacturer concerned about the accuracy of each and every weighment made on a scale bearing the company's name. It also ensures you and me, the consumer, will receive accurately weighed products in spite of changes to influence factors such as a change in temperature.

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## **SMA MEMBER MANUFACTURERS WHO HAVE RECEIVED SMA PRODUCTION MEETS TYPE CERTIFICATION**

**A&D Engineering, Inc.**  
**Avery Weigh-Tronix, Inc.**  
**Hobart Corporation**  
**HBM**  
**Mettler-Toledo, Inc.**  
**Vishay Transducers**

1. The Scale Manufacturers Association is a non-profit organization established by leaders in the scale industry in 1945 to provide a permanent instrumentality for coordinating the efforts of many individuals in the best interests of the public, the owners and users of scales, and scale manufacturers. The SMA can be contacted by calling (239) 514-3441 or fax (239) 514-3470 or on the Internet at [www.scalemanufacturers.org](http://www.scalemanufacturers.org).

2. The National Type Evaluation Program examines the design, features, operating characteristics, and performance of weighing and measuring devices to ensure compliance with national requirements. Essentially, it provides a central evaluation process that satisfies the requirements for rollout of measuring devices in all fifty states. In addition, NTEP acts as a clearinghouse for enforcement practices, using the expertise and input from both regulatory and industry representatives to develop consensus on appropriate standards and procedures. More information on NTEP can be found at [www.ncwm.net](http://www.ncwm.net).

3. This responsibility is clearly defined in the NTEP Policies and Procedures Section of NIST Publication 14 and is agreed to by every manufacturer who submits a product for certification.

The SMA Logo and the SMA Production Meets Type Logo are registered trademarks of the Scale Manufacturers Association.