

## Checking for Correct Piece Weight: Smart+

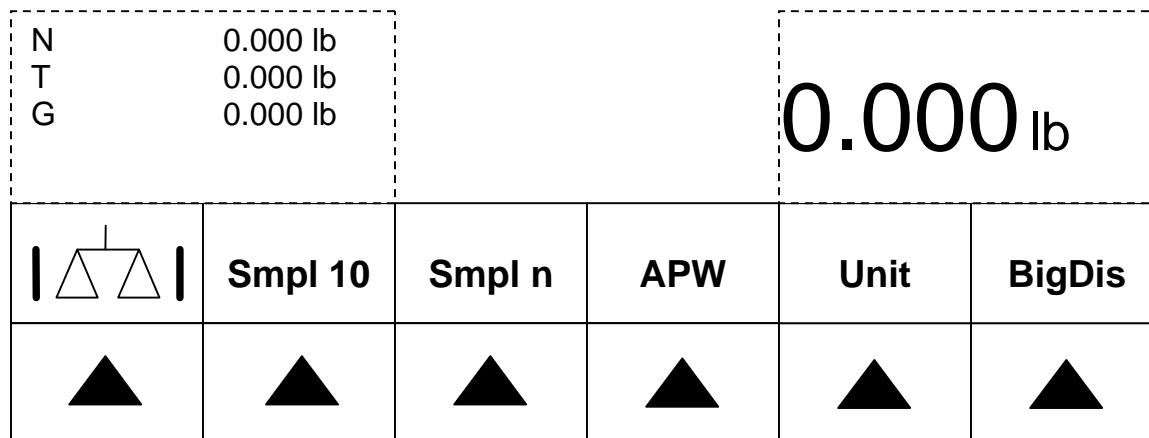
For the customer who samples parts when doing his counting and wants a measure of confidence that he is using the correct parts, or “good” parts, the Smart+ has the features to do this.

The Smart+ has the feature called “Piece Weight Tolerance +” and “Piece Weight Tolerance –”, with this feature we automatically test the sampled pieces against an average piece weight stored in the database.

We have two general applications: checking for “good” parts, where the operator samples parts during the counting operation to make sure that the parts are not going “out of spec”. The second application is the case where the operator benefits from testing the parts that he samples to test that the sample size is correct and that the average piece weight is within tolerance.

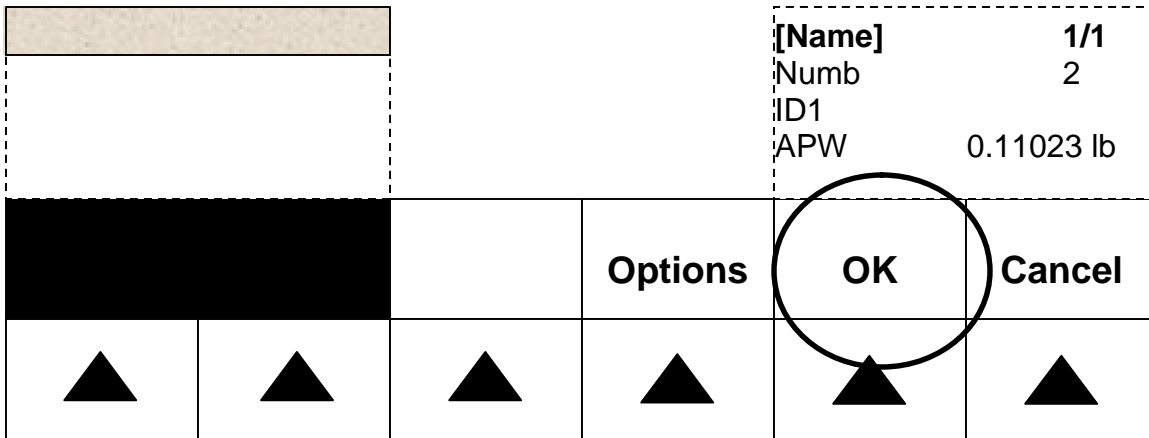
To use the piece weight tolerances we must know the average piece weight ahead of time, this value and the respective tolerances are stored in the Smart+ database. When the operator begins to count this part, he recalls the article from the database.

Operating Sequence: illustrated with one article in the database.

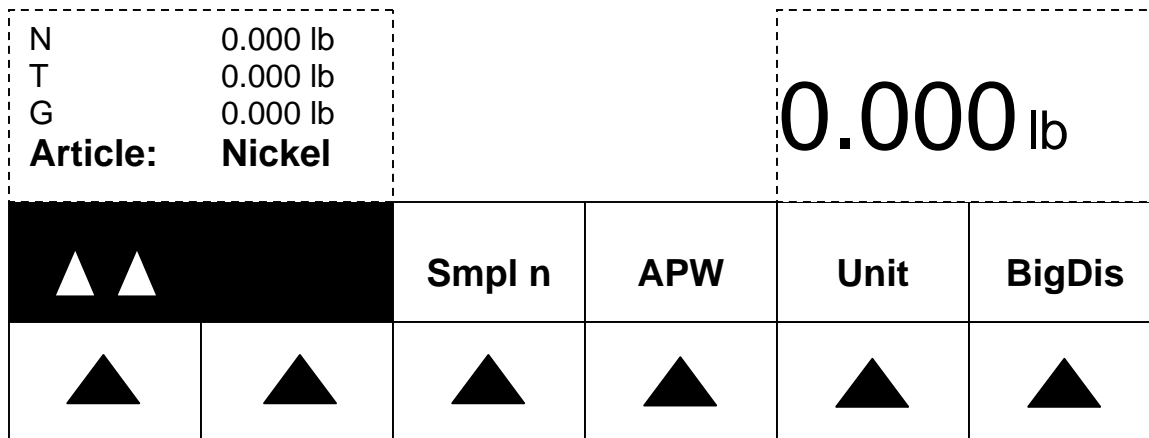


Touch the database key and select the article, nickel, from the database, then touch the OK key.



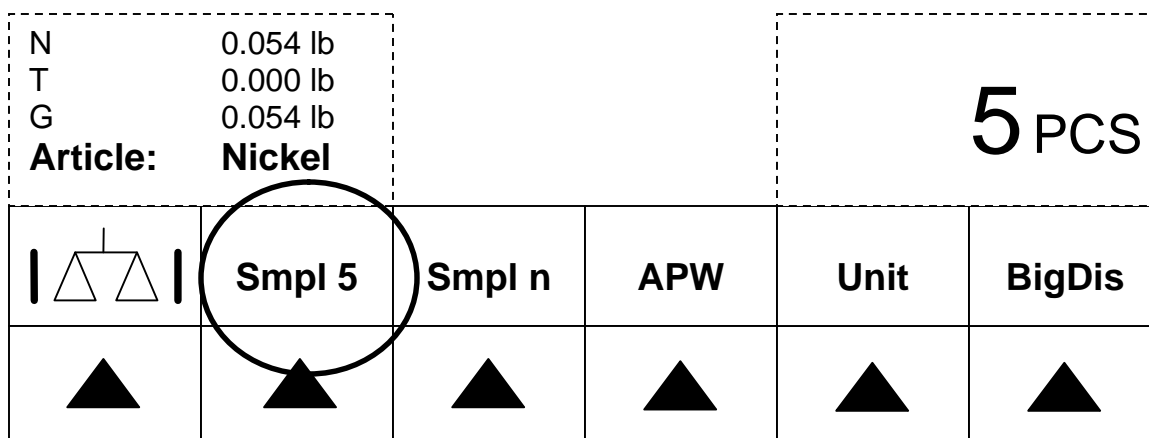


The article is recalled and the display shows the article name in the 4<sup>th</sup> line of the information screen. Notice that the fixed sample size softkey has changed from 10 to 5, this sample size of 5 came from the database.



The operator places five nickels (five cent coins) on the scale, which weighs 0.054 lb, and touches the "Smpl 5" key.

If the average piece weight is within tolerance, the scale will switch to count mode.



If the operator places the wrong sample quantity, say six pieces, or the wrong parts, say quarters, then the Smart+ will display out of tolerance message.

N	0.066 lb	<b>PW is out of tolerance !</b>			
T	0.000 lb	<b>Accept the PW anyway?</b>			
G	0.066 lb				
<b>Article:</b>	<b>Nickel</b>				
				<b>Yes</b>	<b>No</b>

If the operator selects NO, the Smart will return to weight and the operator can resample. If the operator selects Yes, the Smart+ will count with sample size of 5.

The APW in the database is not changed by the operator sampling.

Setup for this application demonstration.

In the database create an article:

- Name = Nickel
- Number = 2
- APW = 0.011023 lb (or 5 grams for nickels)
- Tare = 0.0
- Sample Size = 5
- PW Tol+ = 0.000220 lb Relative (tolerance is relative to the apw)
- PW Tol- = 0.000220 lb Relative

In the vision setup no changes are required from the default configuration. The “Smpl x” softkey is required so if this has been changed you need to set it back up.

END of demo.