

PDCA	Team Name: Diamond in the Rough	Topic: Dry Diamond Usage	Team Members: Brett Tipton, Chris Waugh, Matt Williams, Justin Hoschouer	Start Date: January 11, 2015		
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0. LINK TO STRATEGY: Improve Lives-Employees and Share Holders-Profitability and Growth

1. PROBLEM STATEMENT:
 Week 2, 2015 Charlotte factory used an average of 106 grams of dry lapping diamond grit per tray. The standard is 20 grams of dry lapping diamond grit per tray, per MI 1312-JBS 13. A deviation of 86 grams of dry lapping diamond grit per tray.

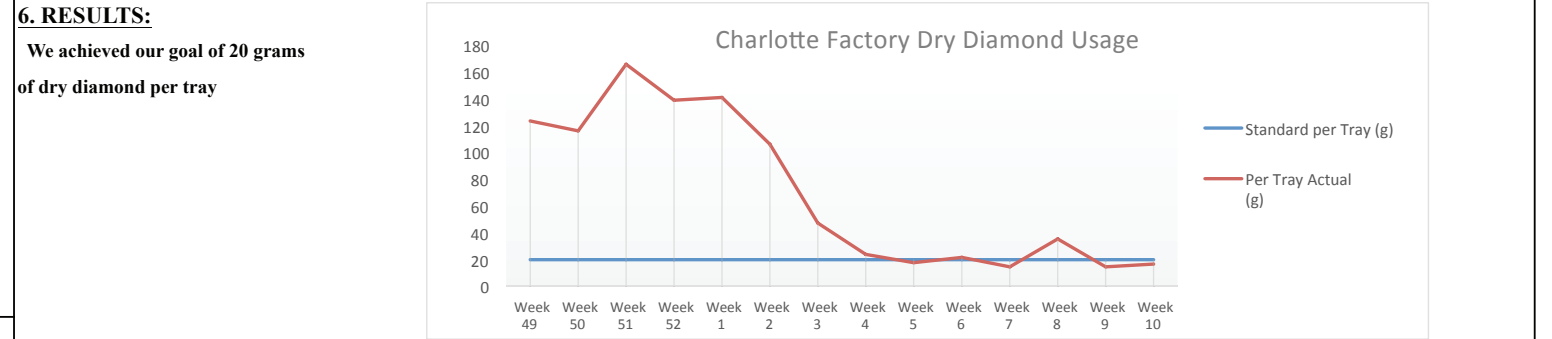
UNDERSTAND THE CIRCUMSTANCES:
 Asked operators what the standard is to use with dry diamond for lapping.
 -5 out of 7 operators did not know the standard was 20 grams of dry diamond per tray. -Different methods of measuring dry diamond.
 -Different beliefs in amount of dry diamond it took to get desired result. -Dry diamond was used to hit target not just matte finish.

Dispensing tool not adequate to achieve desired results while following standard 20 grams of dry diamond per tray.
 -Learned that the current tooling dispenses 20 grams of dry diamond over a 20 second period.
 -Learned that the process either needed more grams of dry diamond or dispensed at a slower feed rate.

Standard sequence influenced operators to fill 100+grams of dry diamond to allow them to fulfill their cycle with other processes.
Current dispensing tool holds 100+ grams of dry diamond.

GOAL STATEMENT:
By week 8, 2015 Charlotte Factory will be following the standard of 20 grams of dry diamond per tray.

4. ROOT CAUSES:	5. SELECTED COUNTERMEASURES	Who:	Start:	Target:	Finish
Tool inadequate	Jb welded the hole /countersink from the bottom and drilled .059" hole.	Matt	1/26/15	1/27/15	1/27/15
Tool inadequate	Yoketan funnel/scoop to other factories	Matt/Justin	1/26/15	2/3/15	2/3/15
Tool inadequate	Update funnel drawings and yoketan	Matt/Brett	2/10/15	2/23/15	2/23/15



2. CAUSE-EFFECT ANALYSIS:

Why is 20g standard not being followed?
 Standard did not produce desired result.

Why did standard not produce desired result?
 Dry diamond mixed with slurry was not adequate to give matte finish.

Why not adequate?
 Diamond grit not dispensed slow enough to mix correctly.

Why dispensed too quickly?
 Funnel hole too big.

7. SUSTAIN:

Updated JBS to new standard

Changed funnel drawing to new standard

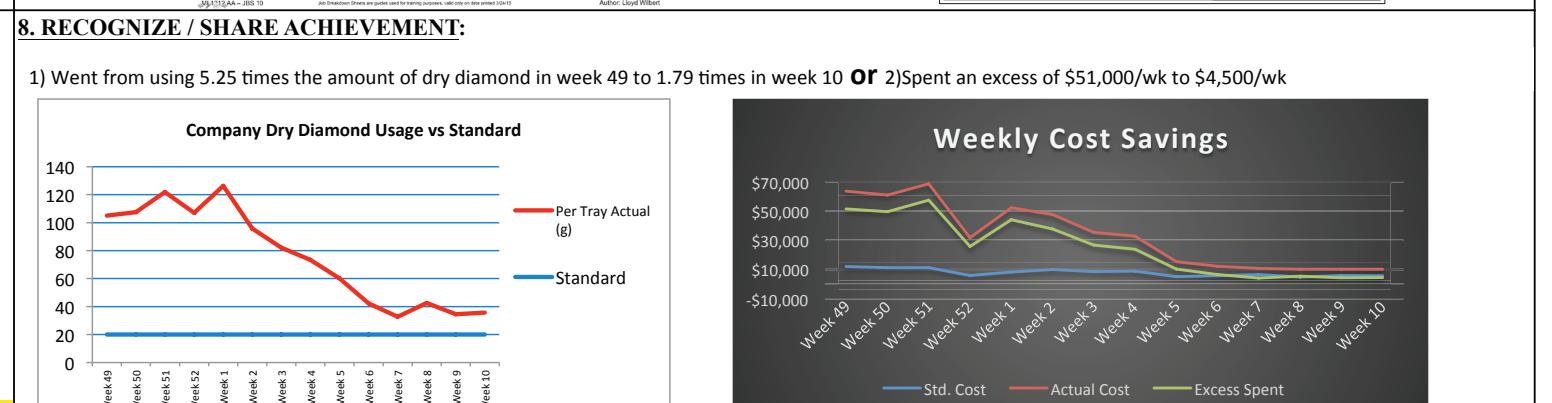
3. DATA COLLECTION (HYPOTHESES TESTING)

If we make the hole smaller in the bottom of the funnel, then 20 grams of dry diamond will distribute more evenly through the 2 min buff cycle and eliminate the shine and get a matte finish.

If we make the funnel size to only fit 20 grams of dry diamond, then operators won't be able to load more than standard.

If we put 20 grams of dry diamond into separate baggies for 2 weeks then the operators will have a physical visual of what the 20 gram standard is and develop a habit of following the standard.

If we show the operators that 1 scoop (20 grams) of dry diamond to buff a tray gets rid of shine and gives the parts a matte finish then the operator will gain a true belief that the standard and new system in place works.



Measurement equipment must go through calibration prior to being released to the production floor.