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Automated Powder Dispenser

David Kolman

Detonator Production

June 18, 2015

Automated Powder Dispenser

- **Historically, powders have been dispensed manually**
 - Slow (small total masses with high accuracy)
 - Tedious
 - Ergonomically unfriendly
 - Spills
 - Manual upload of masses into SOMS
 - Variability between operators

Automated Powder Dispenser

- Automated powder dispenser improves speed while eliminating ergonomic challenges

Results

- Only slight modification of particle size (de-agglomeration rather than crystal break-up?)
- DA has approved use for 1E33 loaded cups

Results

- Analyzed the 1st, 2nd, 5th, 10th second-to-last and last samples from the dispenser (about 30 samples dispensed). Limited powder segregation between from the first and last dispensing.

Results

- **DA has approved use for 1E33 loaded cups**
- **Awaiting approval for IP**