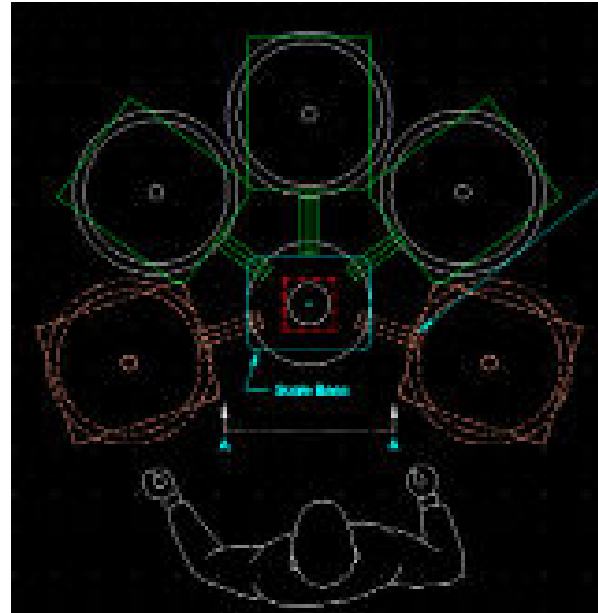


Metal Alloy Compounds Batching System



Summary

In order to meet customer requirements, a niche metal alloys company needed to improve their batch manufacturing efficiency, while still maintaining batch mix ratio and consistency. The process included mixing "micro batches" of metal compounds and adding them to larger quantity ingredients and forming into bricks. The bricks are then added to molten material in a vacuum furnace. Previously, all ingredients were manually weighed into a container on a precision balance. Cross created a Custom Batching System where hoppers dispense the compounds at adjustable feed rates onto a precision scale to its required target weight for each ingredient. This type of ingredient-recipe batching system can be applied anywhere powders or granular ingredients need to be added into a recipe mix, like food manufacturing, for example. Hand-adds and liquid ingredients could also be accommodated. Information on alternate ingredient counts, hopper sizes, and scale size, capacities, resolutions and product handling methods may be required in order to specify the system.

Benefit

The customer has recorded increased through-put, batch mix consistency and a better quality end product.

Engineering & Application Specifications

Material being handled: Metal compound granules

Ingredient weight range: Between 20g and 400g

Number of ingredients: Up to 5

Recipe weight range: Up to 2Kg

Recipe Count : 99

Resolution required: +/- 0.1g

Through-put: Each container filled within 1 minute