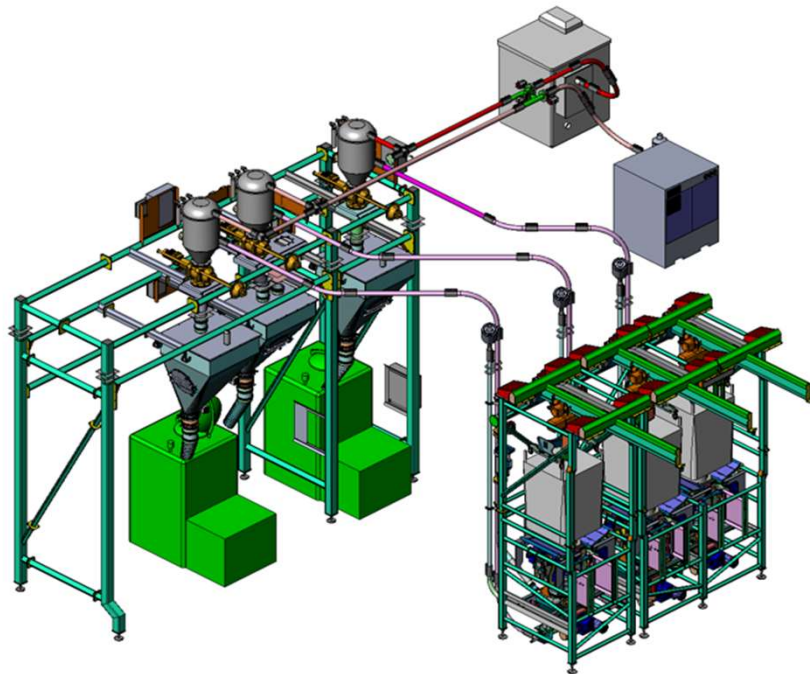


Ingredient Batching System

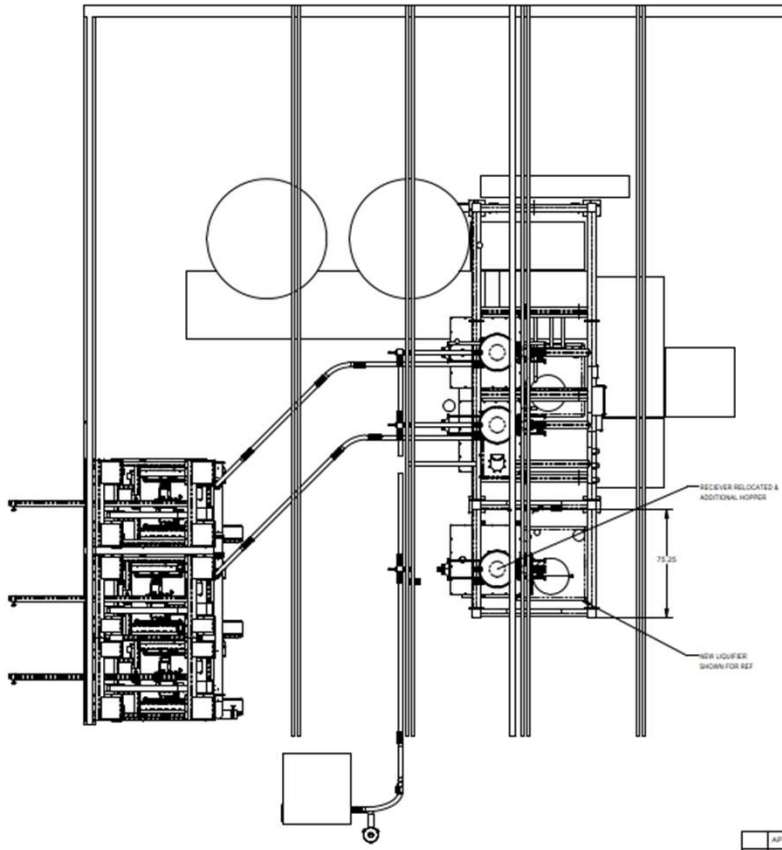
Application Details:

- NBE CSO: E701670006 and E602160022
- Material: Whey Powder/Skim Powder/Sugar
- Bulk Density: 33-45 lbs/cubic foot
- Particle Size: Powder
- Flowability: Average
- Area Classification: Class II, Div. 2
- Discharge Rate: 20 min batch cycle time
-

Application Overview: In 2016 NBE worked in conjunction with a local company that makes ice cream to develop an automated ingredient batching system. The system would discharge ingredients from supersacks and transfer them to a gain in weight hopper using a pneumatic conveying system. The ingredients would then discharge into a mix tank that creates the base product to make the ice cream. In 2021 the customer again reached out to NBE due to the massive growth that they had been experiencing. They needed to find a way to increase their throughput with minimal additional available space. The plan was to add a second mixer that would nearly double their possible throughput. To keep up with the new supply, NBE recommended modifications to increase the speed of the pneumatic conveying system, added three new weigh hoppers with larger capacity, and updated the system controls to account for the added flexibility. NBE also worked with the customer to make some smaller overall system improvements based on the previous five years of use.



REVISIONS		NAME	DATE
1	ISSUED FOR CONCEPTUAL REVIEW	SEB	11/3/2020
2	REPLACED ROTARY VALVE WITH COSA, INCREASE HOPPER SIZE	TB	1/5/2021



APPROVED: PROCEED AS DRAWN	National Bulk Equipment		EXPANSION CONCEPTUAL LAYOUT
APPROVED WITH REVISIONS NOTED	1000 ENTERPRISE DR. HOLLAND, MISSOURI 64501	PHONE: (816) 394-2222	WWW.NBE.COM
NOT APPROVED: REVISE AND RESUBMIT	PROJECT NO. 133		SHEET NO. 2 OF 3
			DATE: 1/5/2021
			PROJECT NO. A318081

