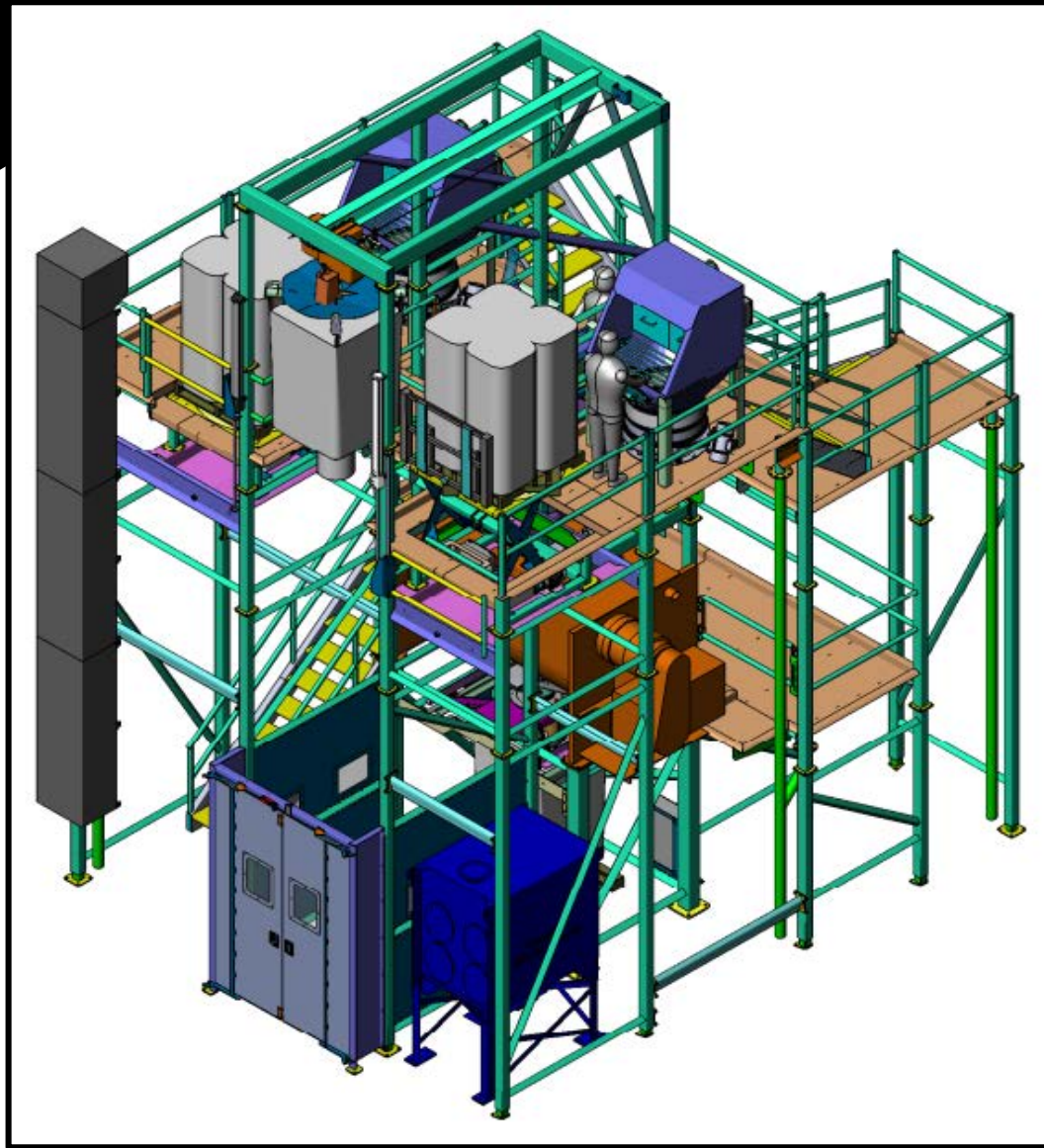


Powder Blending & Packaging System



Application Details:

NBE CSO: E951695002

Material: Powdered Drink Mix Blends

Bulk Density: Varies

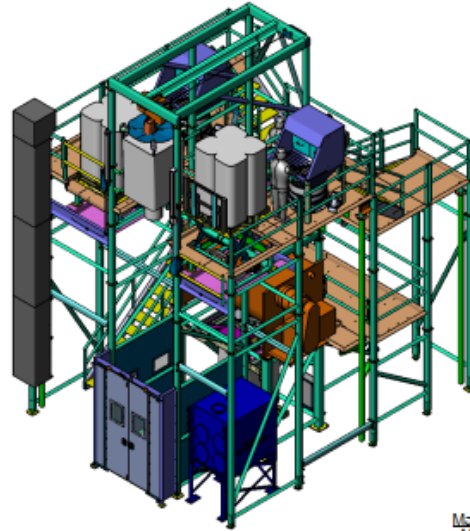
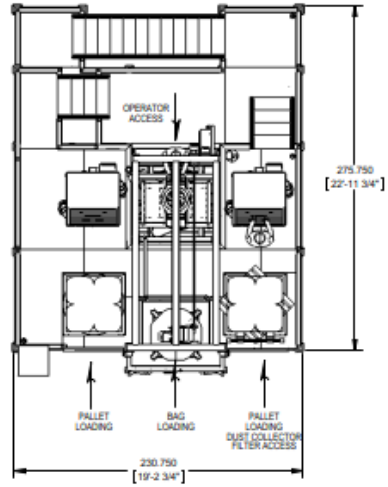
Particle Size: Varies

Flowability: Poor to Free Flowing

Area Classification: Class II, Div. 2, Group G

Rate: 3-4 batches per hour

Application Overview: A customer was building a new facility that had a room dedicated for use in their powder blending process. They contacted NBE to help develop a solution that will meet their process needs and fit inside the space they have available. The system needed to handle raw ingredients from supersacks as well as small bags. Recipes were based on even numbers of the raw material packages. All of the material must be discharged, screened to prevent any contaminants, and discharged into a horizontal ribbon blender. Attention must be paid to ergonomic handling of the materials, including the scissor lift for bag positioning, along with disposal of the empty packaging from the upper levels of the system. The finished blends were packaged in super sacks that will ultimately be used to supply their packaging line. NBE designed and manufactured a custom three-level platform to support all of the equipment in the available space. NBE coordinated with the customer's dust collection vendor once the system was assembled in our facility. The vendor came and installed the vent lines under the platform structure in our facility. The customer visited for a final inspection of the completed system assembly prior to shipment and was very pleased with the finished product.



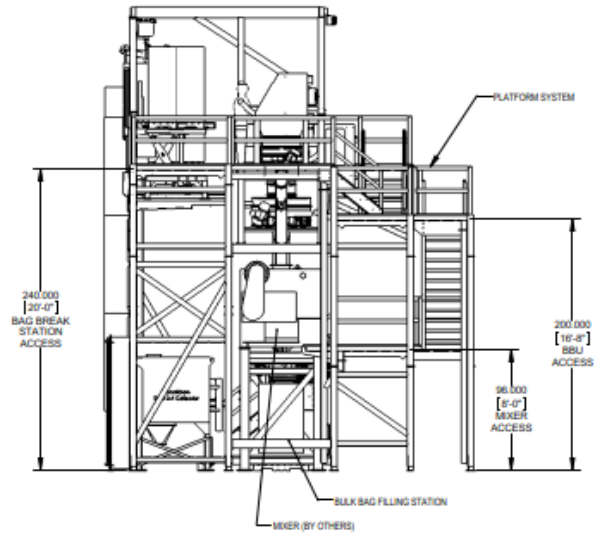
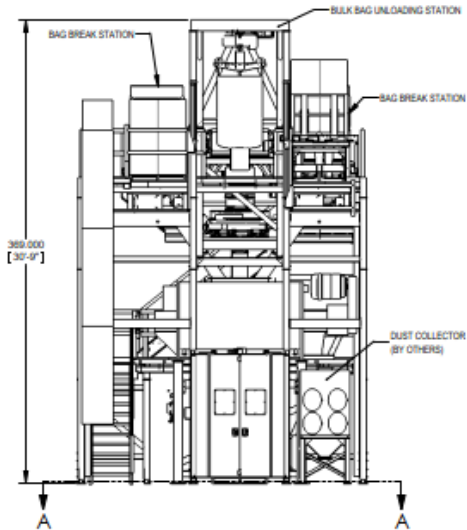
Material Information:

- Material Name: Various powders, granules (food ingredients)
- Bulk Density: Various
- Particle Size: Various
- Flowability: Various
- Material Characteristics: Various
- Process Rate: N/A

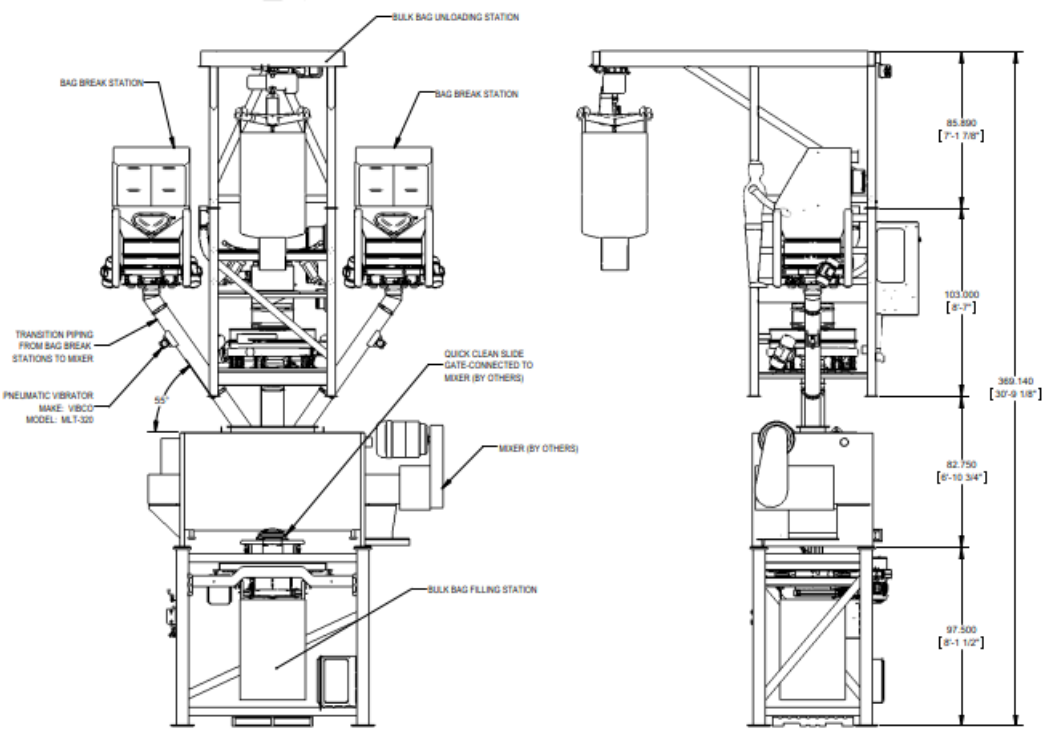
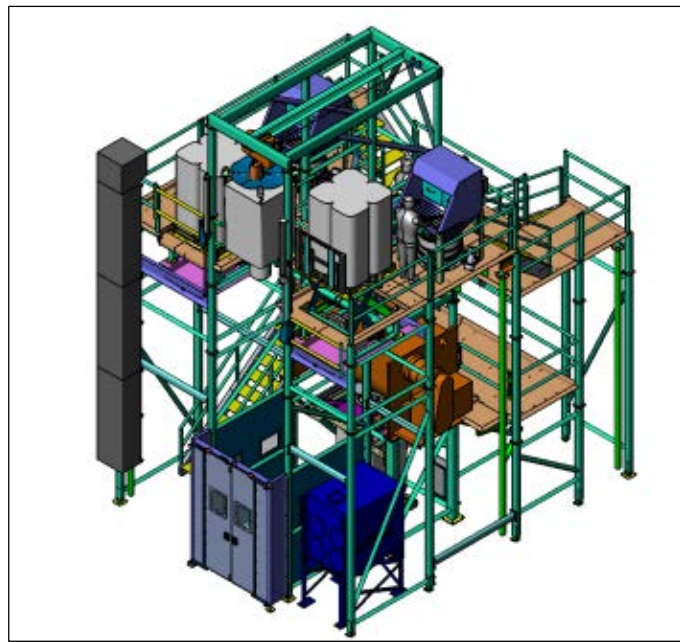
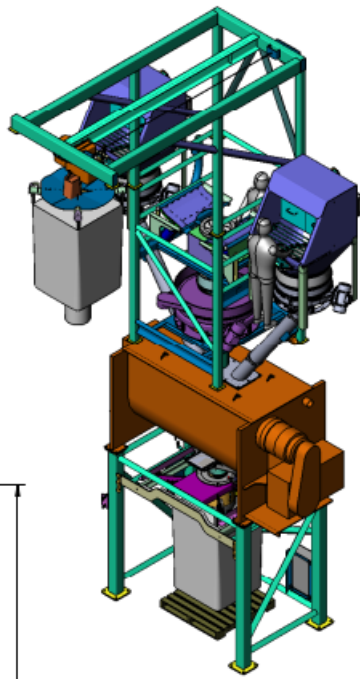
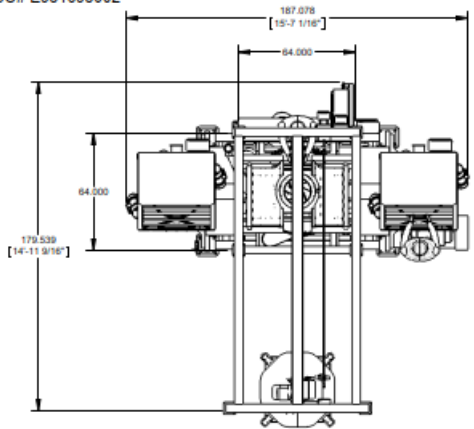
Bulk Bag Filling System Information:

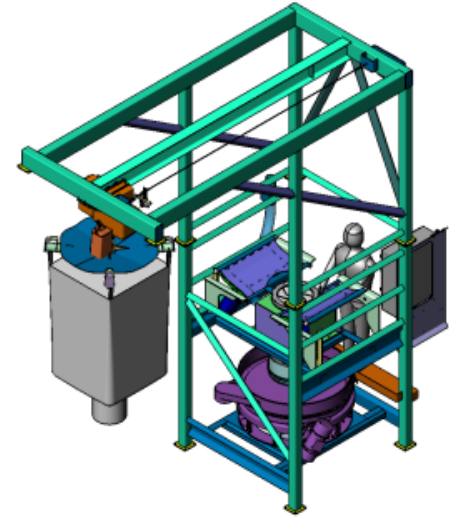
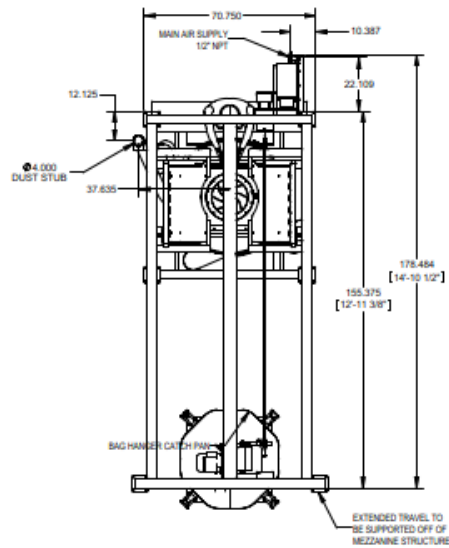
The bulk bag filling system contains the following components:

- Bulk Bag Unloading Station (1 each)
-See SHEET 4 for additional information
- Bag Break Station (2 each)
-See SHEET 5 for additional information
- Bulk Bag Filling Station (1 each)
-See SHEET 6 for additional information
- Lift Table Station (2 each)
-See SHEET 7 for additional information
- Platform System
-See SHEET 8 for additional information
- SSI/Marion Mixer, provided by customer
- Dust Collector and ducting, provided by customer



APPROVED: PROCEED AS DRAWN	UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED OR NOTED OTHERWISE.	MODEL CREATOR: B&B SYSTEMS DWG BY: B&B DATE: 11/20/2019
APPROVED WITH REVISIONS NOTED	NATIONAL BULK EQUIPMENT 12000 S WINDYBROOK DR., HOLLAND, MICHIGAN 49423	INGREDIENT HANDLING SYSTEM
NOT APPROVED: REVISE AND RESUBMIT	PHONE: (616) 399-2222 www.nbe.com	NOTE: NOT ALL ITEMS ARE TO SCALE
DATE: 11/20/2019	SCALE: 1:48	SHEET: 2 OF 11
		DRAWING NUMBER: A169595



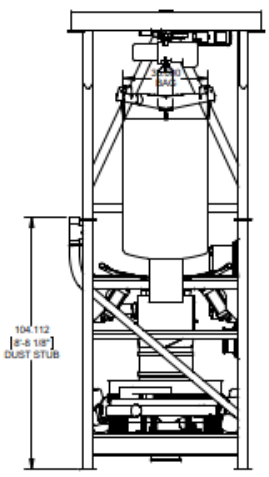
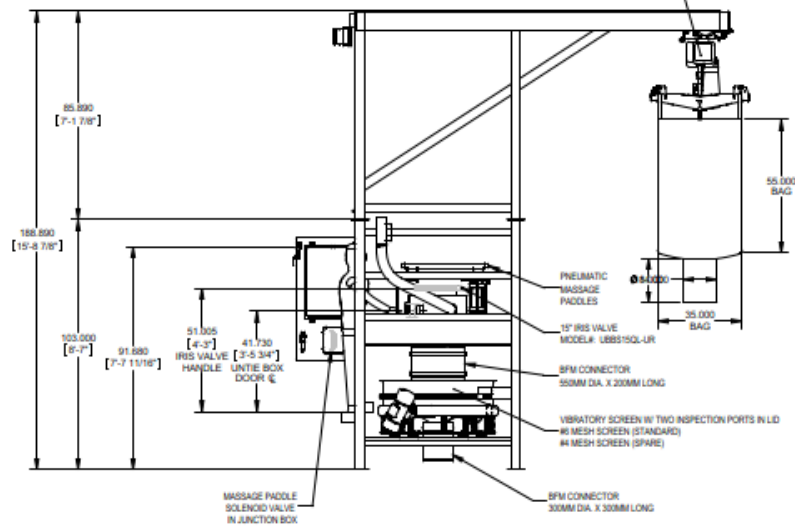


SINGLE SPEED ELECTRIC CHAIN HOIST AND TROLLEY
 HPMODEL, HARRINGTON, SERIES L-35
 CAPACITY: 2 TON, 30 FT LIFT CHAIN
 LIFTING SPEED: 14 FPM / TROLLEY SPEED: 40 FPM
 TFC HOIST MOTOR / TENV TROLLEY MOTOR

HOIST CONTROL BUTTONS
 LOCATED IN MAIN PANEL
 FLOOR LEVEL BUTTON BOX

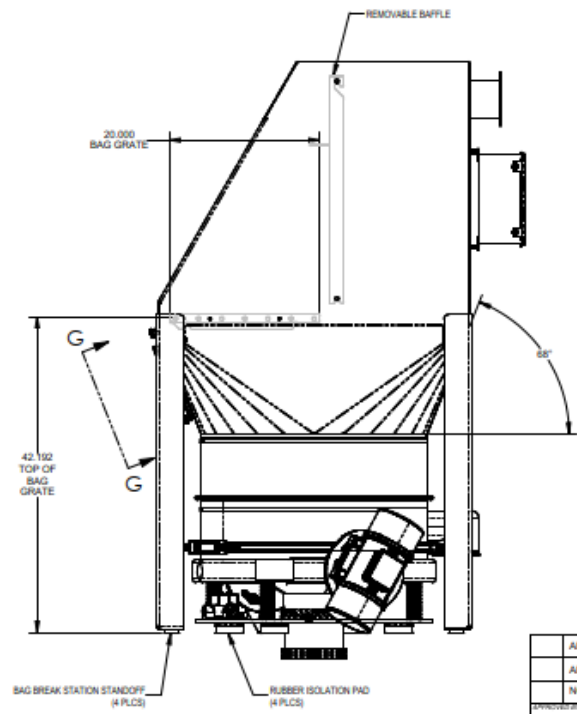
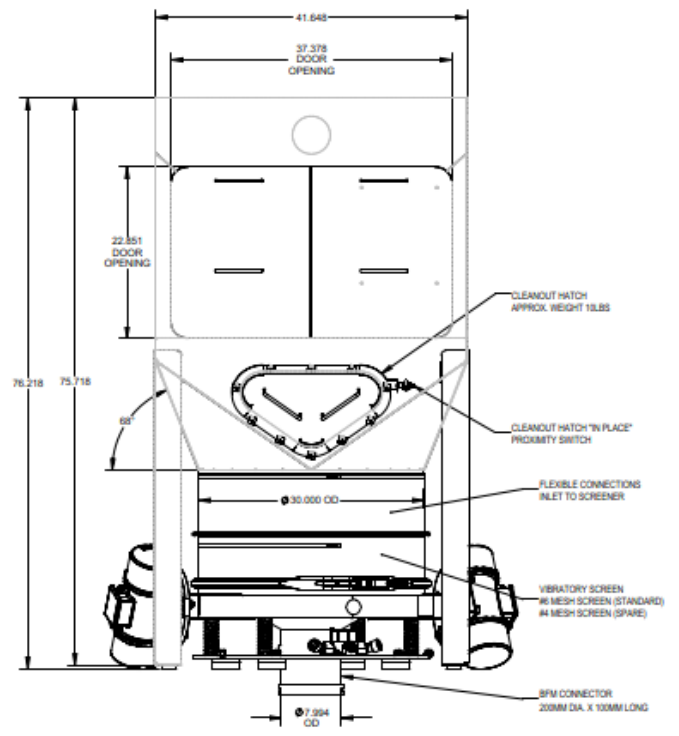
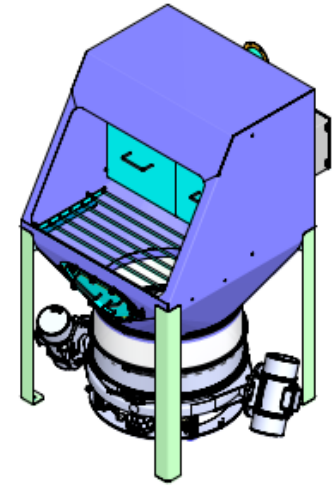
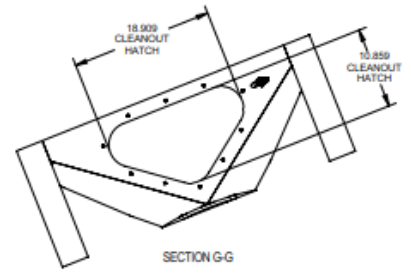
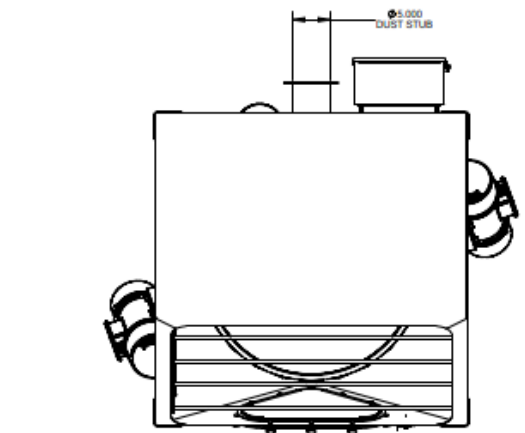
HAZARDOUS AREA CLASSIFICATION IMPROVEMENTS
 -THE HOIST WILL BE RECLASSIFIED FOR CLASS B BY 2 GROUPS P&Z
 AREA CLASSIFICATION
 -SPARKING DEVICES (MOTOR STARTER, TRANSFORMER, ETC.)
 ARE RELOCATED TO THE MAIN PANEL
 -THE UPPER LIMIT SWITCHES WILL BE UPGRADED TO A HERMETICALLY
 SEALED LIMIT SWITCH
 -THE HOIST WILL NOT BE NAME PLATED FOR THE HAZARDOUS AREA,
 BUT WILL MEET THE NEC REQUIREMENTS FOR THAT AREA

MATERIALS OF CONSTRUCTION
 ENAMEL COATED HOIST AND TROLLEY WHEELS
 NICKEL-PLATED CARBON STEEL CHAIN
 ZINC-PLATED HOOK & BLOCK ASSEMBLY, TROLLEY WHEELS, GUIDE ROLLERS



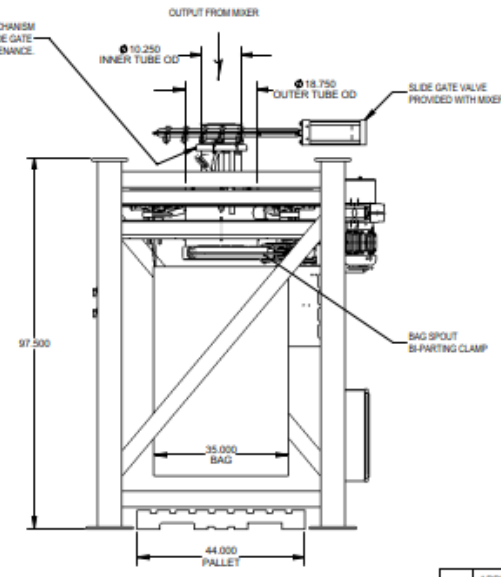
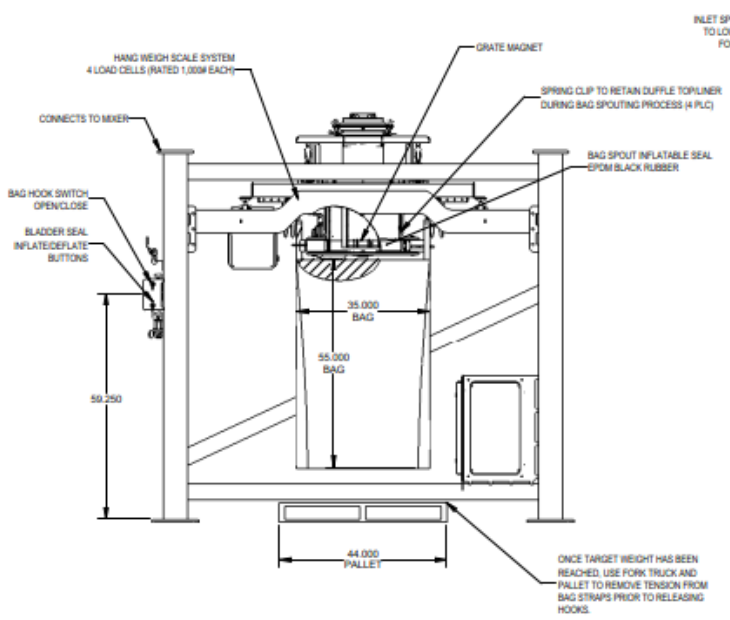
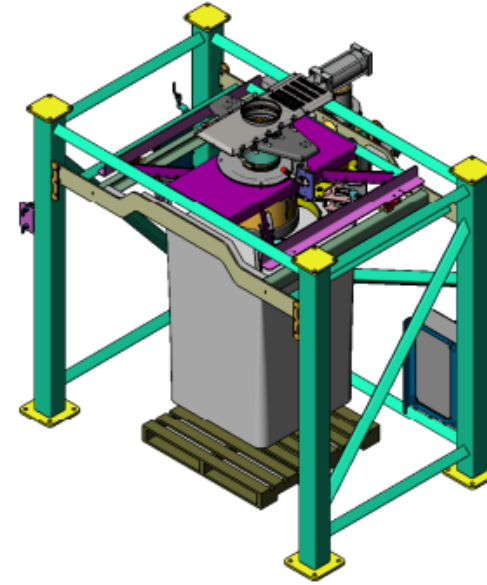
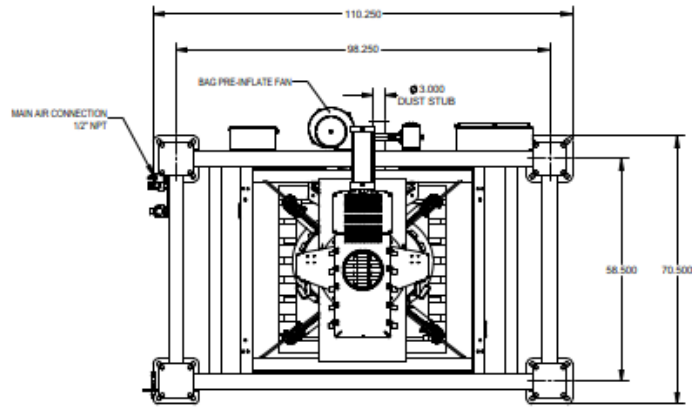
- Bulk Bag Unloader Information:**
 The bulk bag unloader system contains the following components:
- A frame constructed from structural tubing that is rated for a maximum capacity of 4,000 lbs.
 - 2 ton motorized hoist and trolley.
 - Crossbar bag hanger.
 - Pneumatic massage paddles.
 - Irs valve / Untie box.
 - Transition from untie box to vibratory screener.
 - Vibratory screener - #6 mesh (standard), #4 mesh screen (spare).
 - Dust stub for connection to dust collection system (by others).

APPROVED: PROCEED AS DRAWN	NATIONAL BULK EQUIPMENT 1248 S HOLLAND DR., HOLLAND, MISSISSIPPI 39048 PHONE: 601.538.2225 www.nbe.com	INGREDIENT HANDLING SYSTEM	
APPROVED WITH REVISIONS NOTED		SCALE: 1:24	SHEET: 4 OF 11
NOT APPROVED: REVISE AND RESUBMIT		DATE: 11/20/2024	DESIGNER: J. BLANK
APPROVED BY: J. BLANK		DATE: 11/20/2024	PROJECT: A169995



- Bag Break Station Information:**
 The bag break station contains the following components:
- Swing up door with lift-assist gas shocks.
 - Removable grate to support bags during opening and unloading.
 - Removable airflow baffles for ease of cleaning.
 - Dust stub for connection to dust collection system (by others).
 - Vibratory screener - #6 mesh screen (standard), #4 mesh screen (spare).

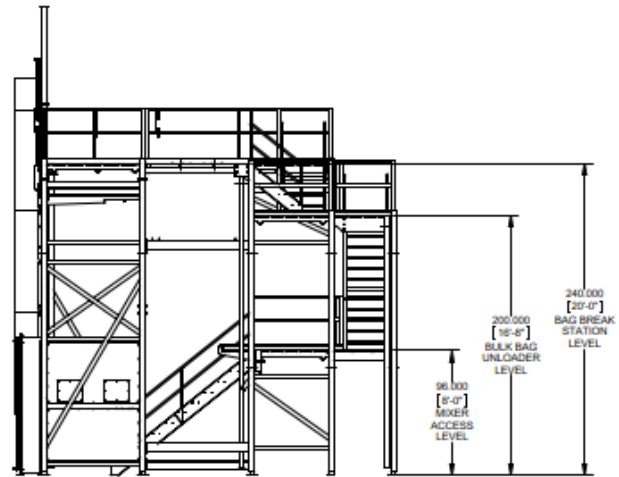
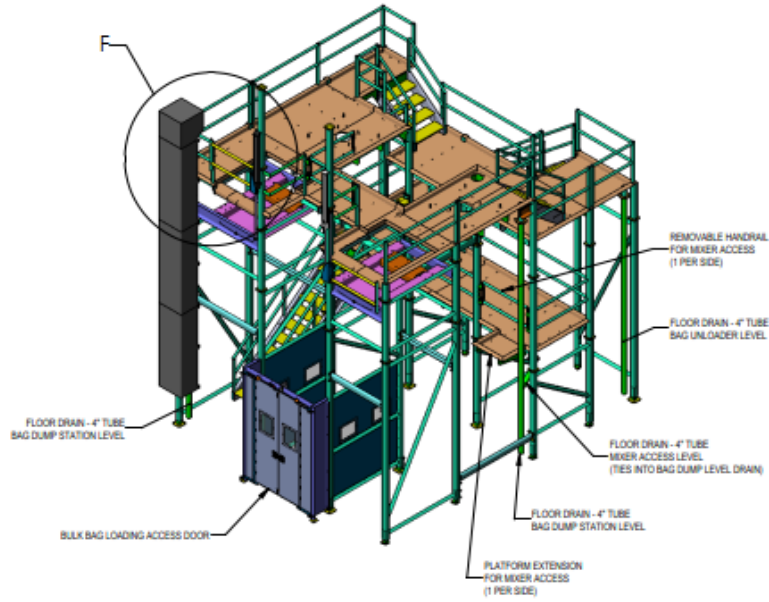
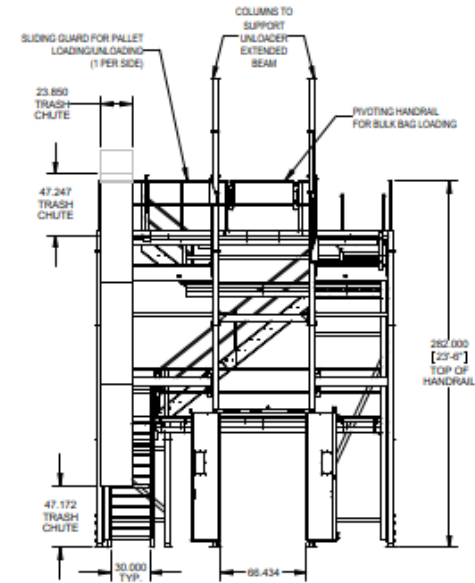
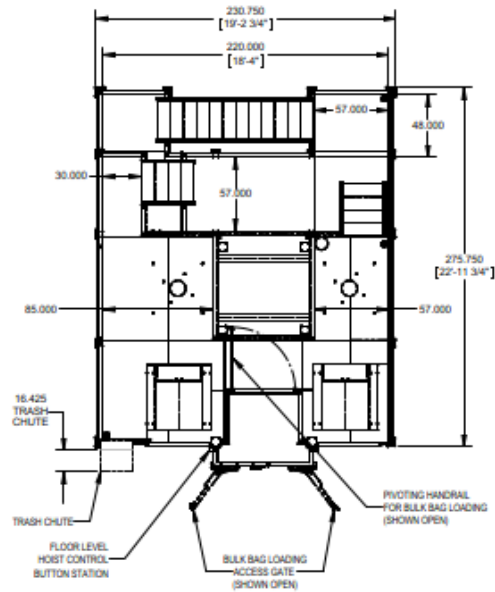
APPROVED: PROCEED AS DRAWN	NATIONAL BULK EQUIPMENT 1200 STANLEY DR., HOLLAND, MICHIGAN 49423 PHONE: (616) 369-2220 www.nbe.com	REVISIONS	DATE	BY	CHKD
APPROVED WITH REVISIONS NOTED		1			
NOT APPROVED: REVISE AND RESUBMIT					
NATIONAL BULK EQUIPMENT 1200 STANLEY DR., HOLLAND, MICHIGAN 49423 PHONE: (616) 369-2220 www.nbe.com		INGREDIENT HANDLING SYSTEM SHEET NO. ALL ITEMS SCALE: 1:2 SHEET 5 OF 11 DRAWING NUMBER: A169595			



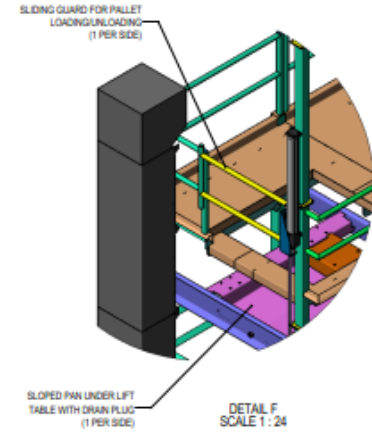
- Bulk Bag Filling Station Information:**
 The bulk bag filling station contains the following components:
- Bag pre-inflation fan
 - Stub for dust collection
 - Bag spout seal system: Bi-parting clamp with inflatable bladder seal
 - Pneumatic bag hook release
 - Hang weigh scale system

APPROVED: PROCEED AS DRAWN	DATE: 11/11/2016	SCALE: 1:16	SHEET: 6 OF 11	REVISED: A169595
APPROVED WITH REVISIONS NOTED	National Bulk Equipment INGREDIENT HANDLING SYSTEM 12838 STAINLESS DR., HOLLAND, MICHIGAN 49423 PHONE: (616) 399-2220 www.nbe-usa.com			
NOT APPROVED: REVISE AND RESUBMIT	MODEL CREATOR: BAW 01111613 DRAWN BY: MAF DATE: 11/11/2016 THIS DRAWING IS TO BE CONSIDERED AN OFFICIAL REPRESENTATIVE OF NATIONAL BULK EQUIPMENT, INC. ANY MODIFICATION OR SALE OF ANY PART OF THIS PRODUCT BY YOU OR ANY OTHER PARTY TO WHICH THE INFORMATION MAY BE SUPPLIED WITHOUT THE PRIOR WRITTEN CONSENT OF NATIONAL BULK EQUIPMENT, INC.			





LET	REVISION NOTES	NAME	DATE
A	ISSUED FOR APPROVAL	MAF	1/11/18
B	UPDATED PER CUSTOMER FEEDBACK	MAF	1/19/2018
C	UPDATED PER CUSTOMER FEEDBACK	MAF	1/26/2018
D	UPDATED PER CUSTOMER INPUT, ADDED EQUIPMENT ORDER	MAF	4/14/2018



APPROVED: PROCEED AS DRAWN
APPROVED WITH REVISIONS NOTED
NOT APPROVED: REVISE AND RESUBMIT

National Bulk Equipment <small>13088 STRANDED DR. HOLLAND, MICHIGAN 49424</small> <small>PHONE: (616) 398-0220 www.nbe-usa.com</small>		MODEL CREATOR: MAF DWG BY: MAF DATE: 1/11/2018
INGREDIENT HANDLING SYSTEM		SHEET: 8 OF 11 DRAWING NUMBER: A169595

