

BulkBuster[™]

Bulk Bag Unloaders
Series 422



INSTALLATION AND OPERATIONS GUIDE

MANUAL NUMBER: DA010499

Revised: 6/14/99

Price: \$20.00

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NOTE: This section contains custom design information, such as material lists and drawings, which supersedes the standard design.

A Complete Solution

Dynamic Air BulkBuster™ bulk bag unloaders provide the solution for effectively emptying large bulk bags and getting the material where you want it in your process. Our experience in the handling of hundreds of different bulk solids assures you that we have the expertise to design a system that meets your strictest requirements.

From Powders to Fibers, We Empty the Bag

Every material has different handling characteristics. Some materials gravity feed easily, but most do not. That's why all bulk bag unloaders need to be engineered for your material. You need proven methods by an experienced company to assure you that your process will run smoothly to maximize uptime. Our many styles and proven designs give us a big advantage in meeting your special process requirements.

Accommodates All Bag Styles

It doesn't make any difference what size or type of bulk bag you are using. If we don't have a bulk bag unloader already designed for your application, we will custom design a new style to meet your specific needs. Variation in capacity, bag height and width dimensions, inlet and outlet sizes and variations in lifting loops are easily accommodated. In addition, we will prove it works for you, before it leaves our plant.

Highly Productive, Yet Safe and Dust Free

Safety is always a primary concern when handling and maneuvering extremely heavy and cumbersome bulk bags. Dynamic Air takes every precaution to ensure a safe and dust free operation. A heavy-duty framework provides the ultimate in stability and operator safety. Operator efficiency is also maximized due to the simplicity of our designs and ease of operation when lifting, positioning and emptying every bulk bag.



CAUTION:

OPERATING CONDITIONS

DYNAMIC AIR'S BULK BAG UNLOADER HAS A WELL-DESERVED REPUTATION FOR GIVING LONG AND DEPENDABLE SERVICE, EVEN UNDER SEVERE USE. HOWEVER, THE BULK BAG UNLOADER IS INTENDED FOR SPECIFIC OPERATING CONDITIONS ONLY WITH RESPECT TO AIR PRESSURE AND VOLUME. BECAUSE CONDITIONS FOR MATERIALS HANDLED, INSTALLATION, USE, AND MAINTENANCE OF SUCH PRODUCTS ARE CONTROLLED EXCLUSIVELY BY THE USER, DYNAMIC AIR DISCLAIMS ALL RESPONSIBILITY FOR DAMAGE OR INJURY RESULTING FROM THE USE OF THE BULK BAG UNLOADER . THEREFORE, THE USER ASSUMES ALL RESPONSIBILITY FOR ANY AND ALL CLAIMS ARISING DIRECTLY OR INDIRECTLY FROM THE PRODUCT AND/OR ITS USE.

Forklift Style Lifting Frame Provides Safe and Efficient Bag Handling

Heavy-duty bag lifting hoops with spring actuated safety latches assure positive containment of the bag loops (see Fig. 1).

A strong, tubular steel lifting frame with built-in forklift channels provides steady and secure bag lifting and positioning (see Fig. 2).

The lifting frame rests on four independent telescoping legs which are spring activated to automatically raise the bulk bag as it decreases in weight, providing optimum emptying (see Fig. 3).



Fig. 1



Fig. 2



Fig. 3

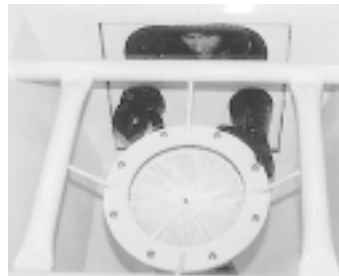
Glovebox Hopper Eliminates Operator Exposure to Material

A hopper can be provided with glove access and a viewport for bulk bags that must be untied and opened manually. Two inlets with attached rubber gloves allow opening of the bulk bag without any operator exposure to the material. A glass viewport with built-in "air wiper" provides a clear view for quick and easy bag opening (see Fig. 4).

An iris type valve with a flexible nylon sleeve can be used with the glovebox for applications where partial bag emptying is required. The operator can manually open and close the valve, pinching off the bulk bag discharge spout when the desired amount of material has been discharged (see Fig. 5 thru Fig. 7).



Fig. 4



The glovebox enables easy operation of the iris type nylon sleeve valve.

Fig. 5



In the open position, the sleeve is flexible to allow the bulk bag spout to be easily pulled through.

Fig. 6



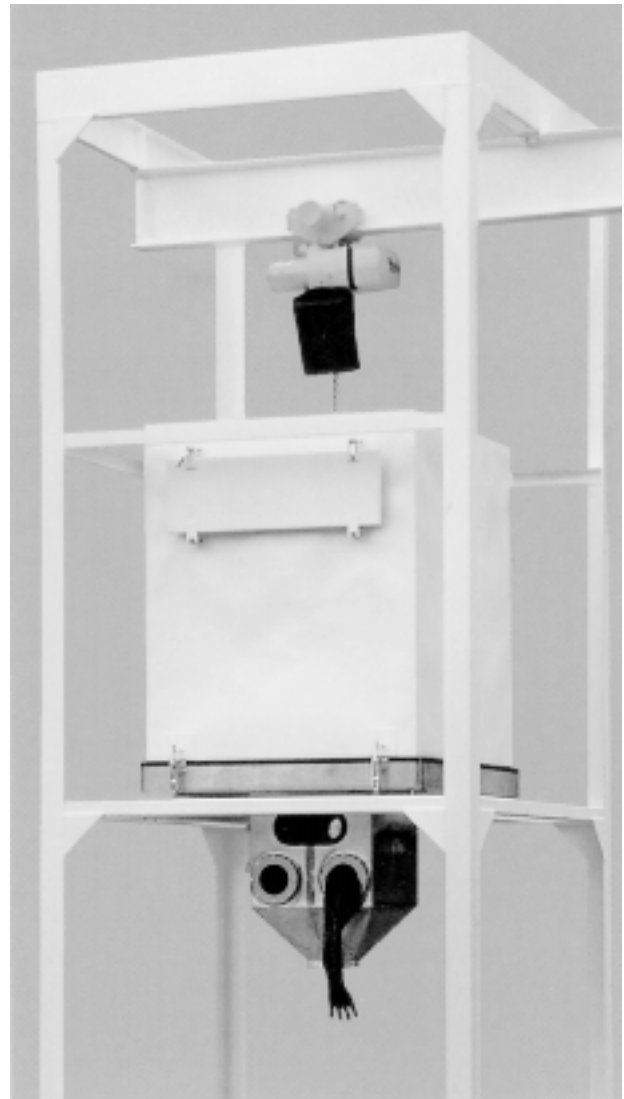
In the closed position, the sleeve tightly pinches off the bulk bag spout.

Fig. 7

Bulk Bag Unloader Assures Maximum Containment of Toxic Material

The BulkBuster™ bulk bag unloader shown in Fig. 8 includes a totally enclosed bulk bag lifting box with an access door to assure containment of toxic materials during bag lifting and emptying.

An electronic hoist enables one person to easily position the lifting box over the hopper. The discharge hopper includes a viewport and glovebox for opening the bulk bag without any direct operator exposure to the toxic material.



The bulk bag is totally enclosed in this lifting box and glovebox system.

Fig. 8

Slitter Automatically Pierces the Bulk Bag and Contains Dust

An air operated bulk bag slitter can be provided for bulk bags which must be pierced to open (see Fig. 9 and Fig. 10). The slitter blade is forced upward to pierce the bulk bag and allow material to discharge. The slitter also has a dust pickup collar to contain any dust during discharging and can include an inflatable cuff to assure a positive seal for bags that have an outer spout.



Fig. 9

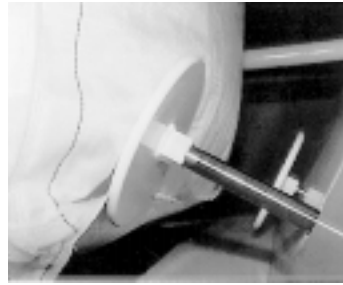


Shown to the left is a bulk bag slitter without an inflatable cuff and the slitter blade in the retracted position.

Fig. 10

Bag Jostlers, Vibrating Hoppers and Bin Aerators Promote Material Flow

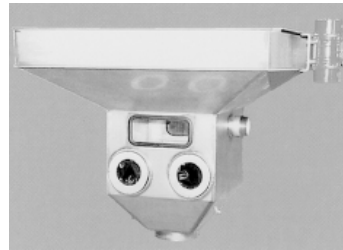
Optional air actuated bag jostlers can be provided to agitate and dislodge material from the bulk bag. They are programmed to operate in a sequence which best suits the particular application for maximum performance (see Fig. 11).



Air operated bag jostlers provide variable bag agitation.

Fig. 11

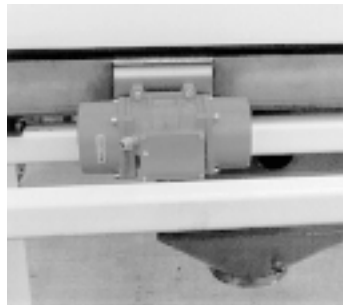
For very coarse granular materials, a vibrating hopper can be provided with a BulkBuster™ bulk bag unloader. The vibrating enhances gravity feeding for fast and complete material discharge (see Fig. 12 and Fig. 13).



Shown left is a vibrating hopper with viewport and glovebox.

Fig. 12

For very fine granular powders that tend to bridge or hang up, Vibra-Jet™ bin aerators can be provided to promote free flow of the material (see Fig. 14).



A vibrating hopper enhances gravity feeding of coarse materials.

Fig. 13



Vibra-Jet™ bin aerators enhance flow of fine granular materials.

Fig. 14

1. Mount the BulkBuster™ bulk bag unloader in a vertical position (see Fig. 1).
2. Do not weld any part of the bulk bag unloader housing (see Fig. 2). All supporting connections must be bolted to the support pads provided.
3. Customer to supply clean, dry compressed air at 90-115 PSIG for use with the air jostlers (if applicable).
4. Prior to connecting the air supply line to the bulk bag unloader, make sure that all compressed air supply lines are blown clean of metal chips and foreign debris that might cause premature failure of the solenoid valves.
5. Make sure during installation that adequate space is provided for maintenance and replacement of any worn or defective parts, should it be necessary.

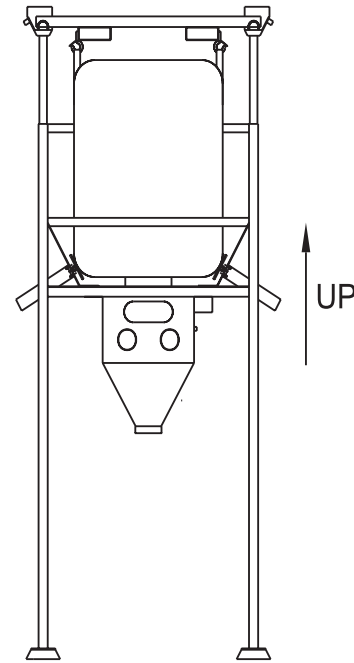
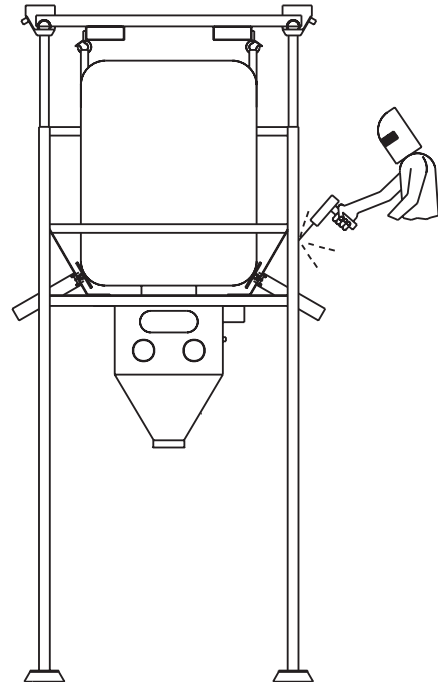


Fig. 1



DO NOT WELD

Fig. 2

6. Make sure that the bulk bag unloader is wired and piped according to all drawings provided.
7. A final electrical check of the bulk bag unloader should be performed to insure that the solenoid valves and electrical control assembly (if applicable) operate according to the bulk bag unloader Sequence of Operations.



DANGER:

TO PREVENT DAMAGE TO EQUIPMENT AND/OR POSSIBLE INJURY TO PLANT PERSONNEL, MAKE SURE COMPRESSED AIR SUPPLY IS DISCONNECTED FROM THE BULK BAG UNLOADER WHEN PERFORMING MAINTENANCE ON THE BULK BAG UNLOADER.

8. When the bulk bag unloader installation is complete, check for any air leaks and correct accordingly.



CAUTION:

OPERATING CONDITIONS

**MAXIMUM OPERATING PRESSURE FOR INFLATABLE CUFF
(IF APPLICABLE)
5 PSI**

**MAXIMUM OPERATING TEMPERATURE FOR INFLATABLE CUFF
(IF APPLICABLE)
150° F (65° C)**

To assist material discharge from the bulk bag, the pusher plates are alternately raised and lowered, thus jostling the bulk bag back and forth.

To raise a jostler plate, the 4-way solenoid valve is energized. With the solenoid valve energized, compressed air is directed to the "up" port of the air cylinder while exhausting the "down" port of the air cylinder. To lower the jostler plate, the 4-way solenoid valve is de-energized. With the solenoid valve de-energized, compressed air is directed to the "down" port of the air cylinder while exhausting the "up" port of the air cylinder.

Timing functions should be field adjustable, including variable on and off times for the solenoids. Timer sequencing should include energizing the first solenoid for the on time, de-energizing for the off time, and then energizing the next solenoid for the on time, etc. These, along with the adjustment of the speed control mufflers on the exhaust ports of the 4-way solenoid valve, allow the proper rising height of the jostler plate and the most efficient up and down speeds.



DANGER:

TO PREVENT DAMAGE TO EQUIPMENT AND/OR POSSIBLE INJURY TO PLANT PERSONNEL, MAKE SURE COMPRESSED AIR SUPPLY IS DISCONNECTED AND DEPRESSURIZED AND ALL ELECTRICAL POWER IS DISCONNECTED FROM THE BULK BAG UNLOADER BEFORE ANY MAINTENANCE IS PERFORMED.

<i>Symptom</i>	<i>Problem</i>	<i>Correction</i>
BULK BAG UNLOADER COMPRESSED AIR SUPPLY LINE LEAKS	• Compressed air supply line leaks	• Correct compressed air supply line leaks.
	• Solenoid valves installed backwards.	• Reinstall solenoid valves with the port marked "out" towards the piping leading into the bulk bag unloader.
	• Defective solenoid valve.	• Repair or replace solenoid valve.
	• Electrical failure	• Review electrical schematic and replace any defective parts.
JOSTLER(S) WILL NOT MOVE	• Compressed air supply line leaks.	• See "Bulk Bag Unloader Compressed Air Supply Line Leaks" symptom.
	• Damaged air cylinder(s).	• Repair or replace the air cylinder(s).

Recommended Spare Parts List

**BulkBuster™ Bulk Bag Unloader
Series 422**

Description	Recommended Quantity To Stock	Highly Recommended Quantity to Stock
<i>Controls for the BulkBuster™ Bulk Bag Unloader</i>		
Solenoid Valve	1	1
Printed Circuit Board	1	1
<i>Mechanical parts for the BulkBuster™ Bulk Bag Unloader</i>		
Air Cylinder	1	1

NOTE: Due to long lead times and part availability, the above parts may not be in Dynamic Air's stock.

Section numbers listed above are for standard material lists only. Any non-standard material lists appearing in the customs section should be referenced in place of standard material lists of identical nature listed above.

The following is a typical material list of all items which are provided by Dynamic Air. The reference numbers shown on this printout relate to reference numbers which will appear on its corresponding engineering drawing. Only the items shown on this material list will be provided by Dynamic Air, and all other items required for the installation of the BulkBuster™ bulk bag unloader must be supplied by the customer.

BILL OF MATERIAL

④

ASSEMBLY ITEM NUMBER: ①

ASSEMBLY DESCRIPTION: ②

ENGINEERING DRAWING NUMBER: ③

BUBBLE NUMBER	QUANTITY	UNIT OF MEASURE	ITEM NUMBER	DESCRIPTION	DRAWING NUMBER
⑤	⑥	⑦	⑧	⑨	⑩

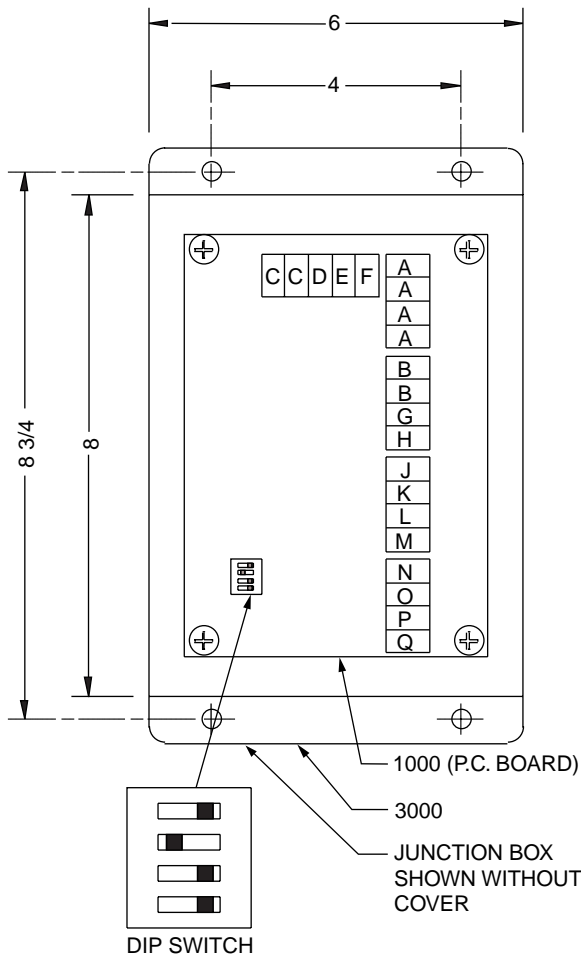
KEY TO REFERENCE NUMBERS

- | | | | |
|---|--|----|---|
| 1 | Dynamic Air item assembly number. | 6 | Quantity of item provided by Dynamic Air. |
| 2 | Item description for the assembly. | 7 | Unit of measure. |
| 3 | Engineering drawing number to be referenced for item number listed. | 8 | Dynamic Air item number of individual part. |
| 4 | Bill of Material page number. | 9 | Abbreviated item description. |
| 5 | Bubble number, to be used with the assembly's corresponding engineering drawing. | 10 | Drawing number for internal reference only. |

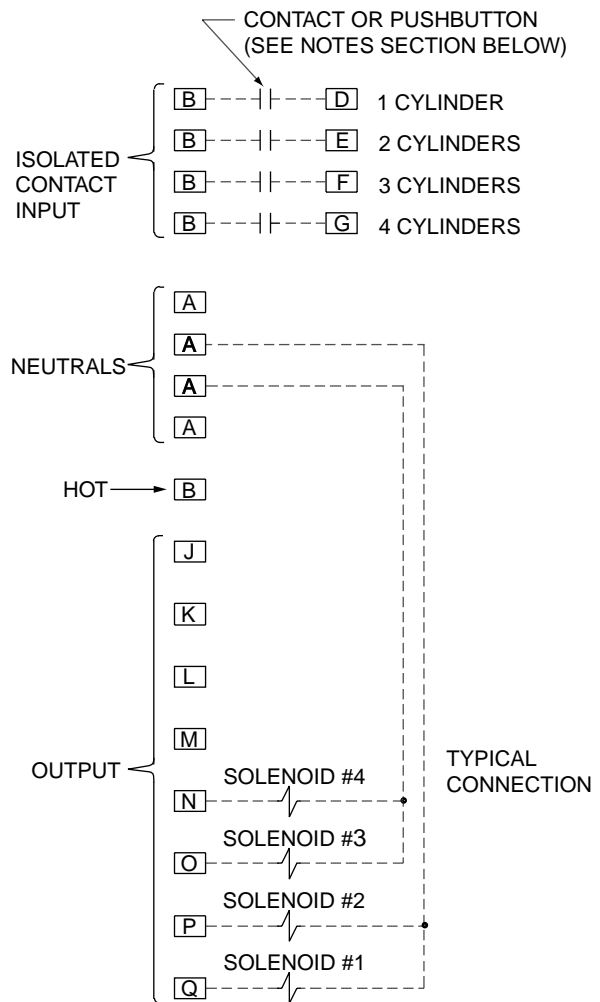
Recommended Wiring Schematic

BulkBuster™ Bulk Bag Unloader Series 422

P.C. BOARD BOX



TERMINAL WIRING

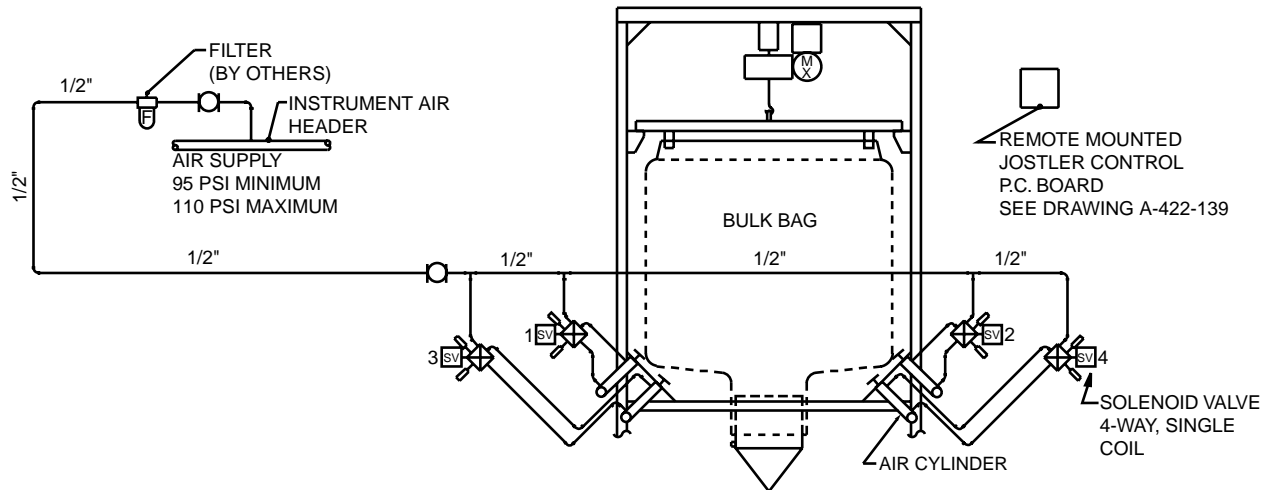


BULKBUSTER™ BULK BAG UNLOADER PCB SETTINGS

OFF TIME SETTINGS	DIP SWITCHES		ON TIME SETTINGS	DIP SWITCHES	
	1	2		3	4
3 Seconds Off	OFF	OFF	3 Seconds Off	OFF	OFF
5 Seconds Off	OFF	ON	5 Seconds Off	OFF	ON
7 Seconds Off	ON	OFF	7 Seconds Off	ON	OFF
11 Seconds Off	ON	ON	11 Seconds Off	ON	ON

NOTE: Install one isolated contact based on the maximum number of cylinders.

CONTROL COMPONENTS



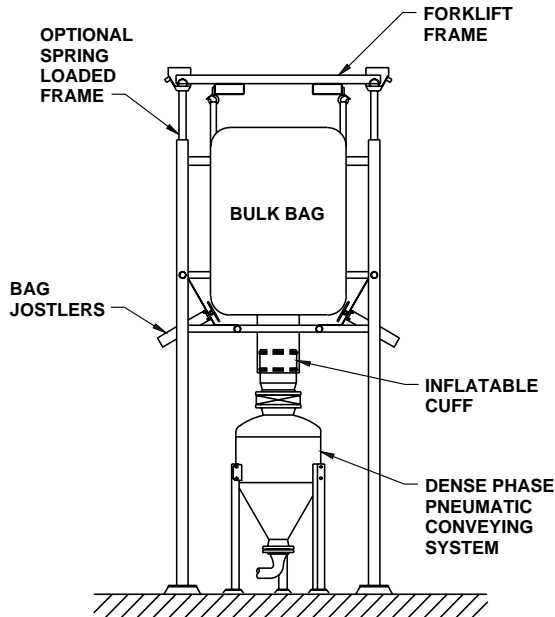
RECOMMENDED AIR SUPPLY PIPING DIAGRAM (COMPONENTS SUPPLIED BY CUSTOMER)

Sample Diagrams

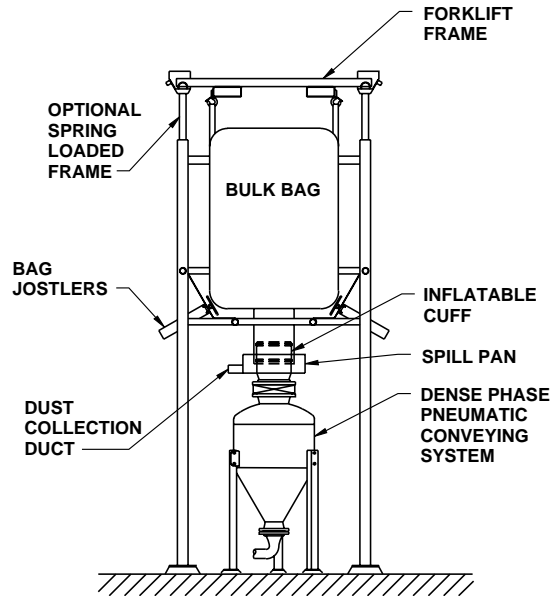
BulkBuster™ Bulk Bag Unloader
Series 422

Forklift Style Bulk Bag Unloading Systems

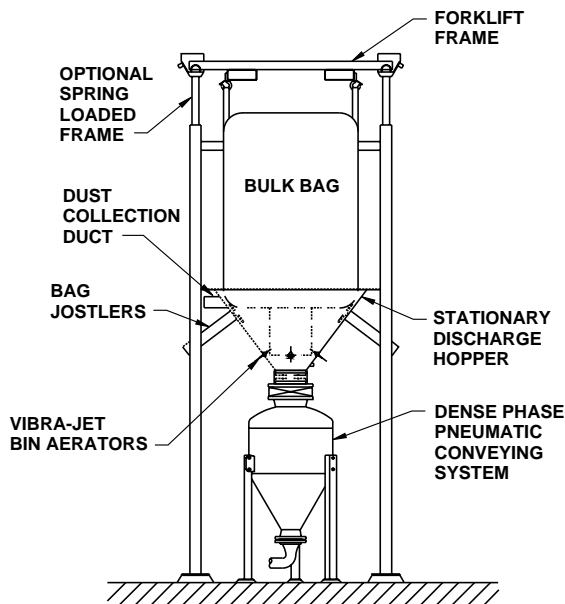
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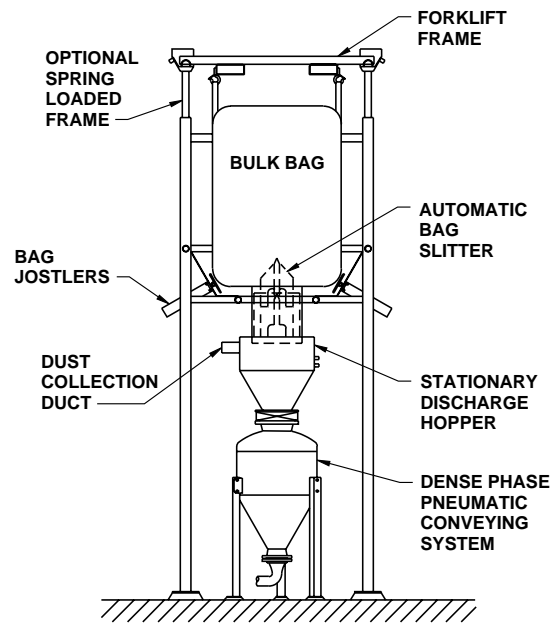
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Style F300



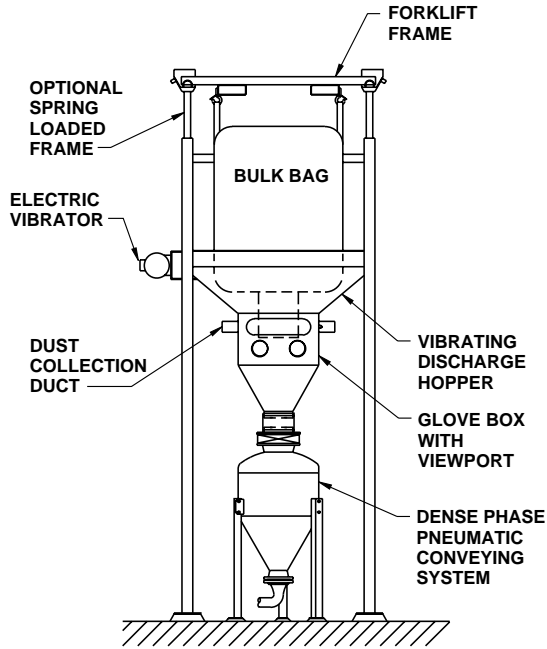
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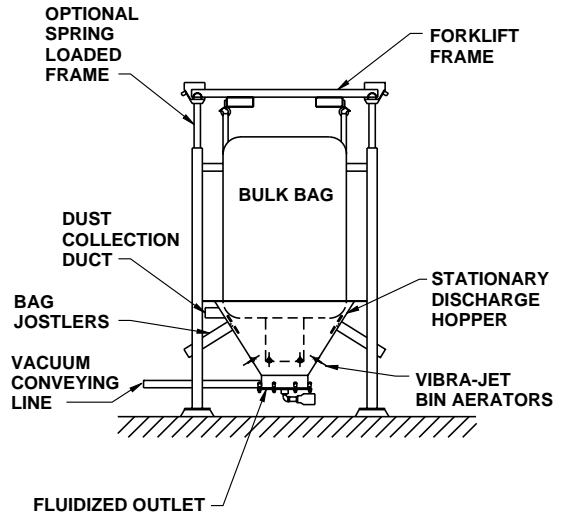
Sample Diagrams

BulkBuster™ Bulk Bag Unloader
Series 422

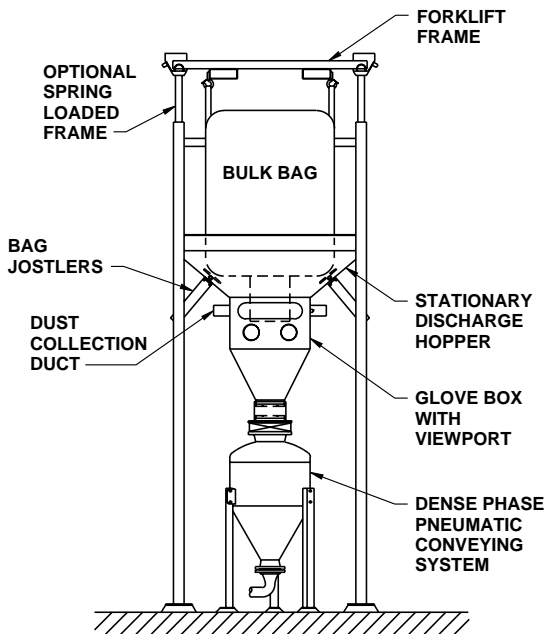
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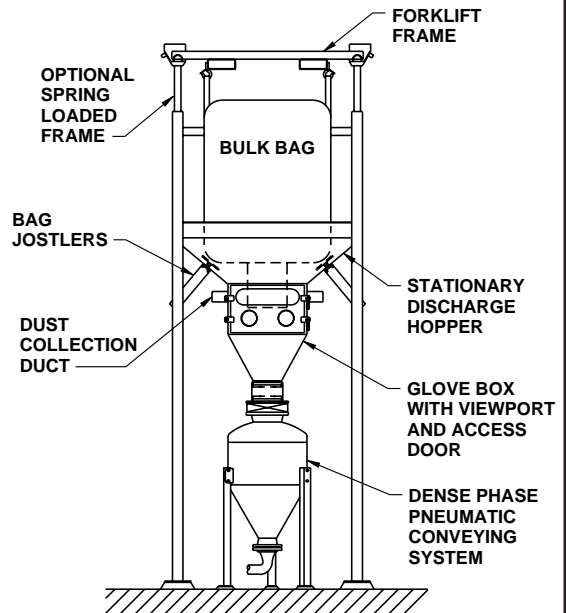
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Style F700



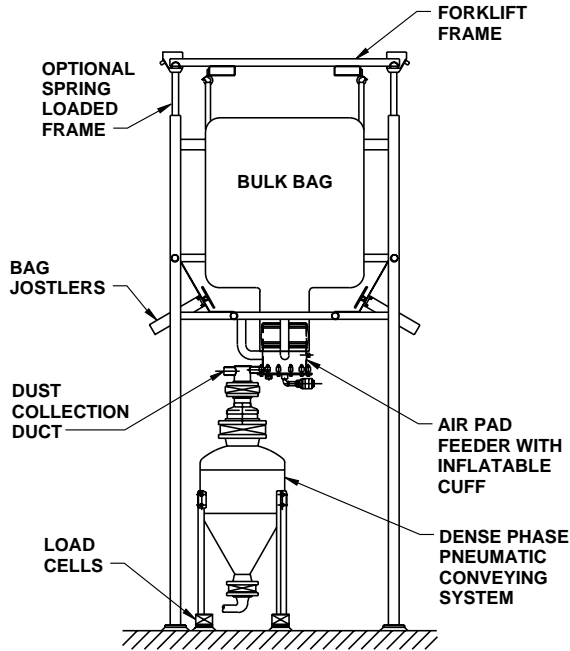
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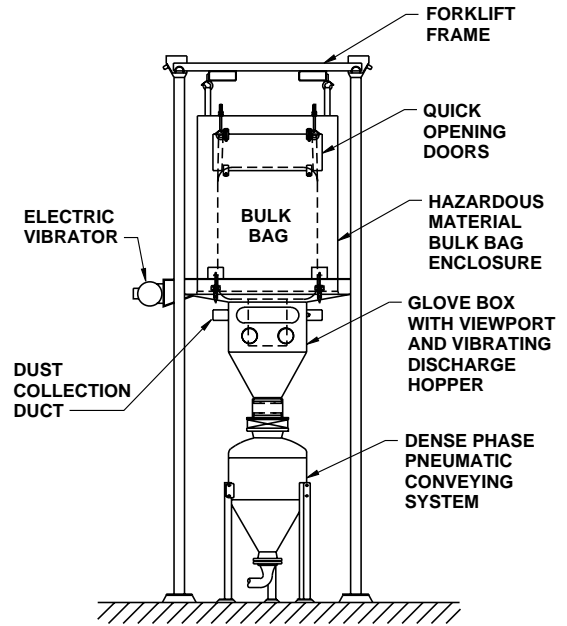
Sample Diagrams

BulkBuster™ Bulk Bag Unloader
Series 422

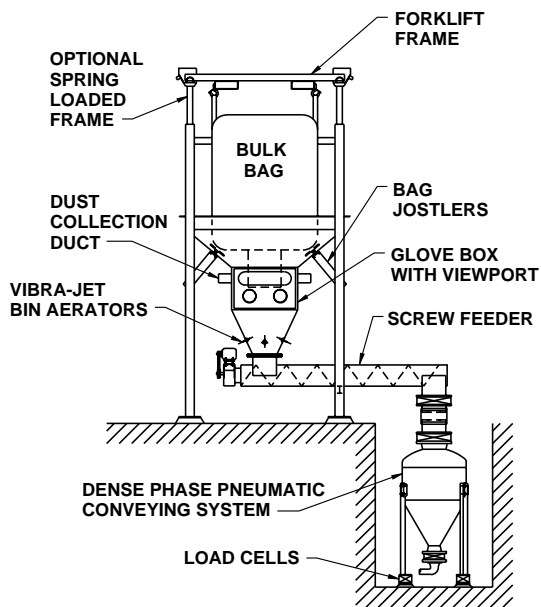
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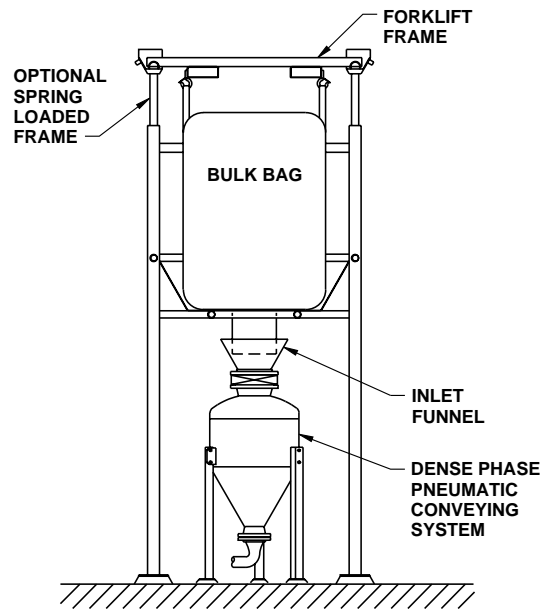
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Style F1100



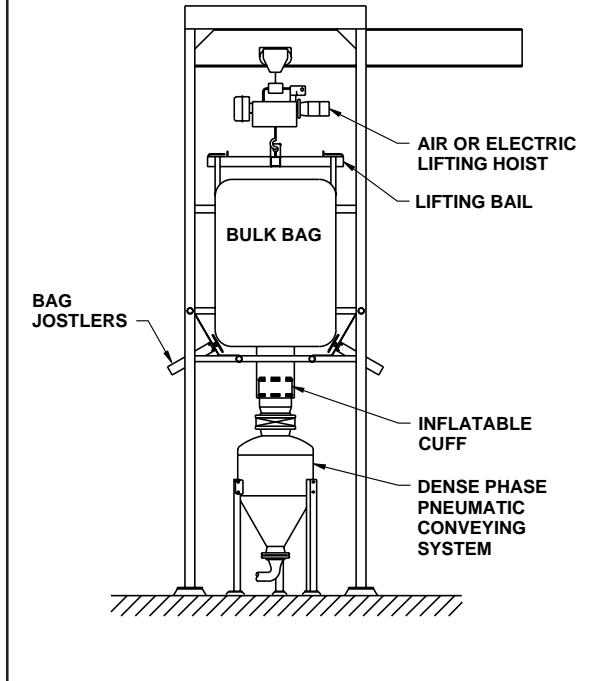
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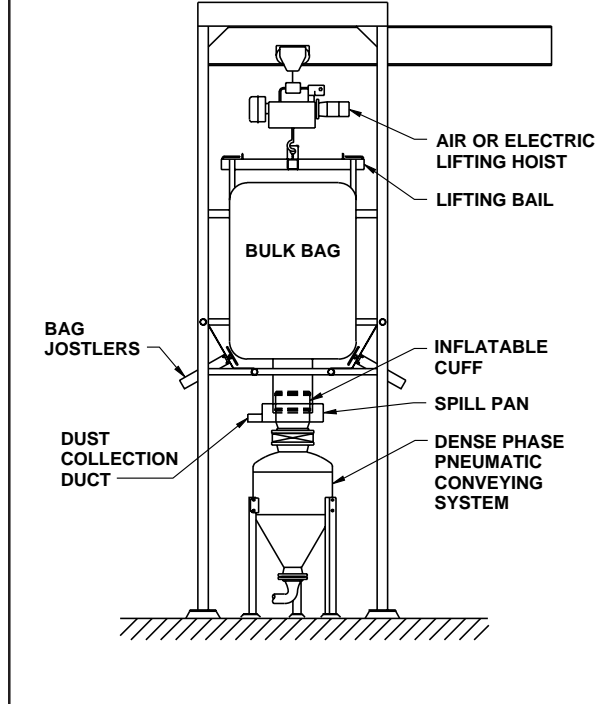
Sample Diagrams

BulkBuster™ Bulk Bag Unloader
Series 422

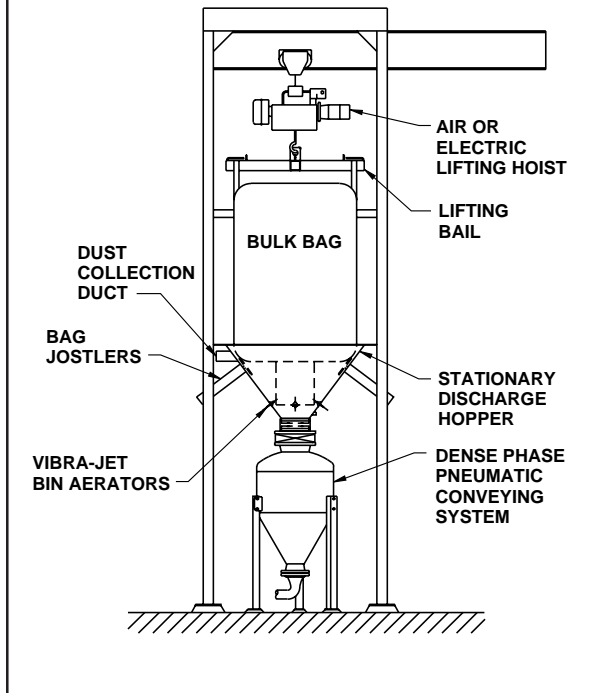
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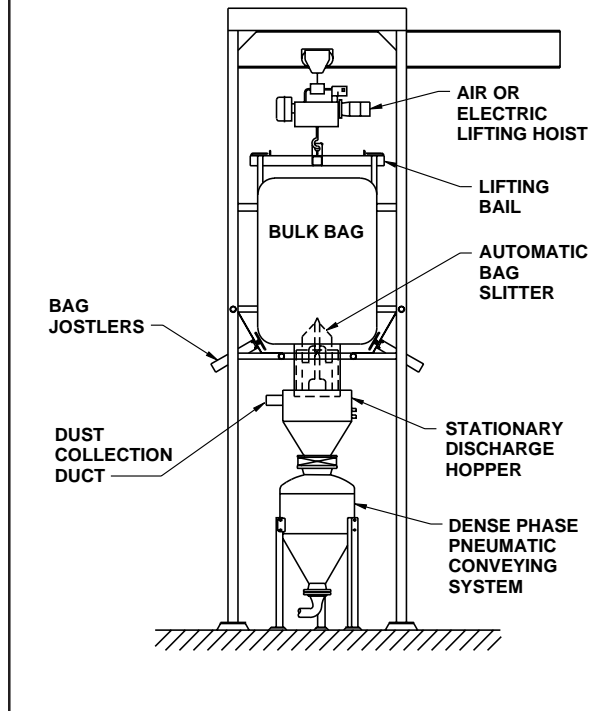
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Style H300



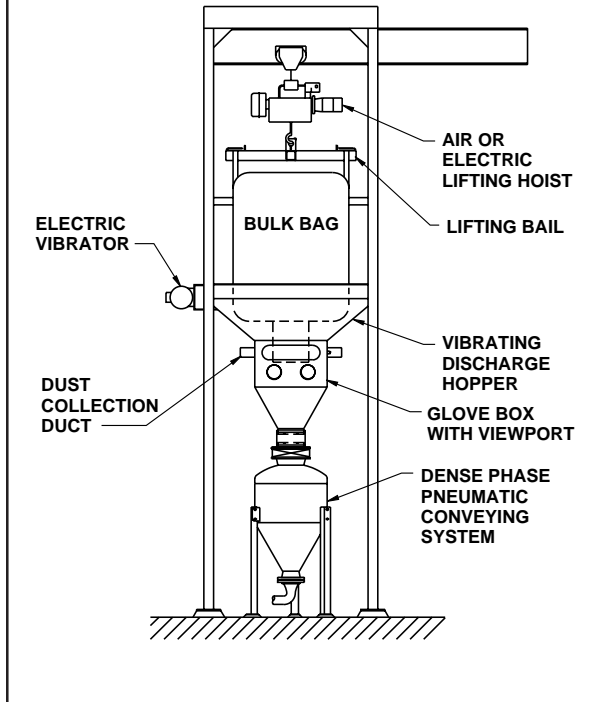
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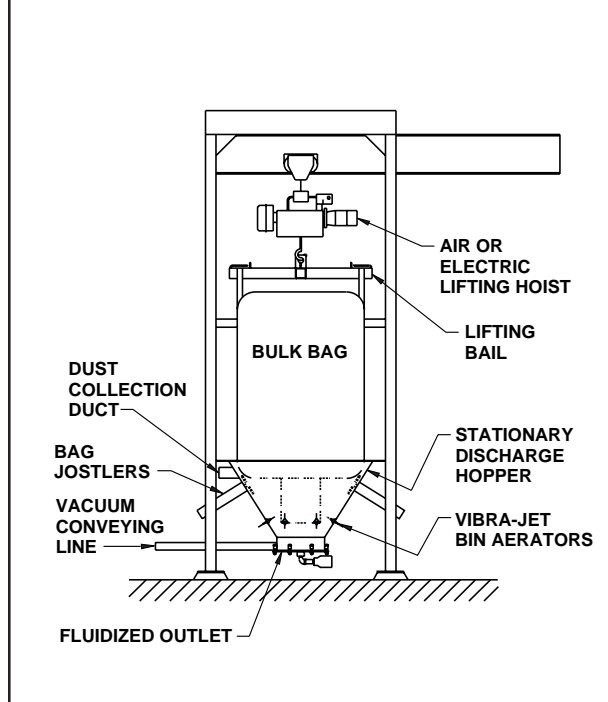
Sample Diagrams

BulkBuster™ Bulk Bag Unloader
Series 422

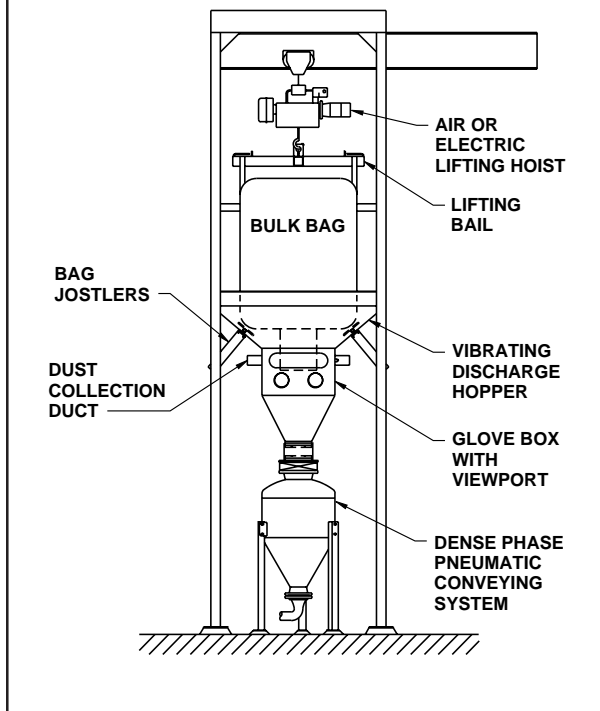
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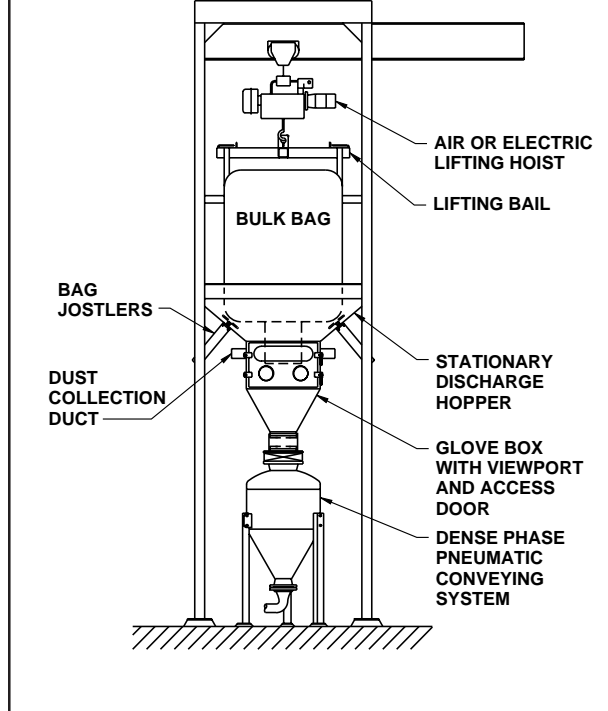
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Style H700



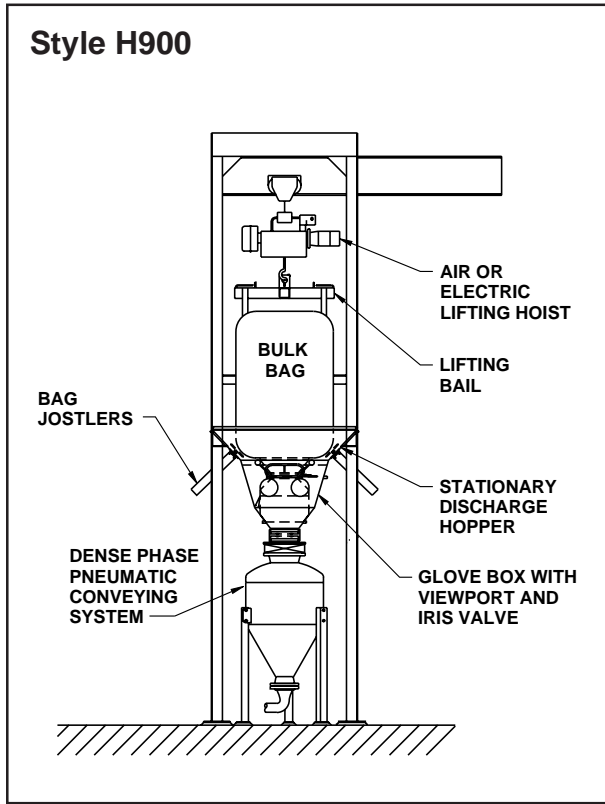
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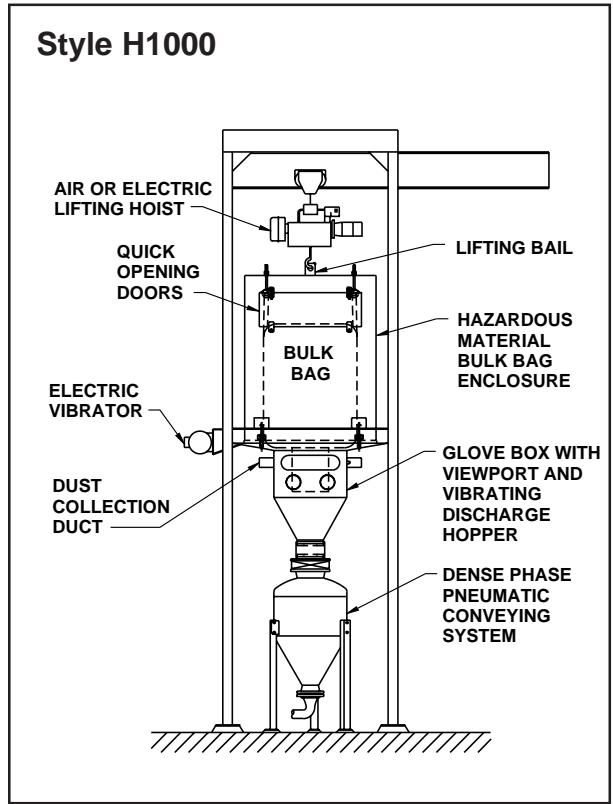
Sample Diagrams

BulkBuster™ Bulk Bag Unloader
Series 422

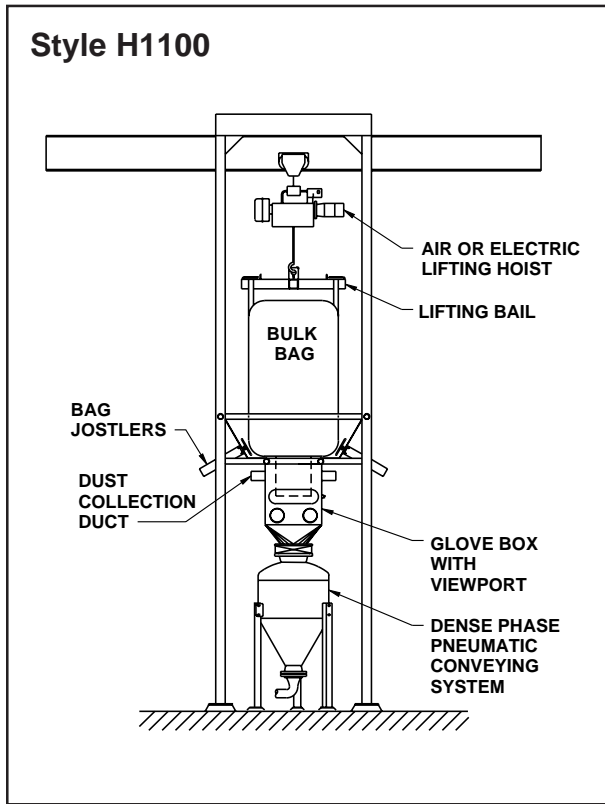
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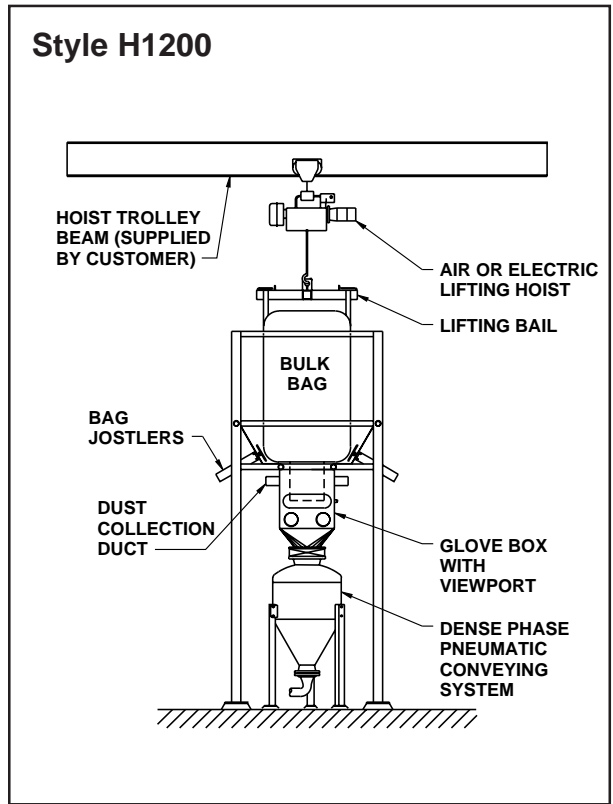
Style H1000



Style H1100



Style H1200



Should any questions arise with regard to installation and/or operation that is not covered in this manual, please call Dynamic Air's customer service department for further recommendations.

We highly encourage the use of our service department for a safe and successful application of the equipment you have purchased and to provide maximum service life. Dynamic Air can be reached at:

**Dynamic Air Inc.
1125 Willow Lake Boulevard
St. Paul, Minnesota 55110-5193
(651) 484-2900
FAX: (651) 484-7015**

Non-Standard Section

**BulkBuster™ Bulk Bag Unloader
Series 422**

This section contains custom design information which supersedes the standard design. All drawings and material lists in this section to replace the drawings and material lists of identical nature previously listed. If this section has no information, all components are standard.

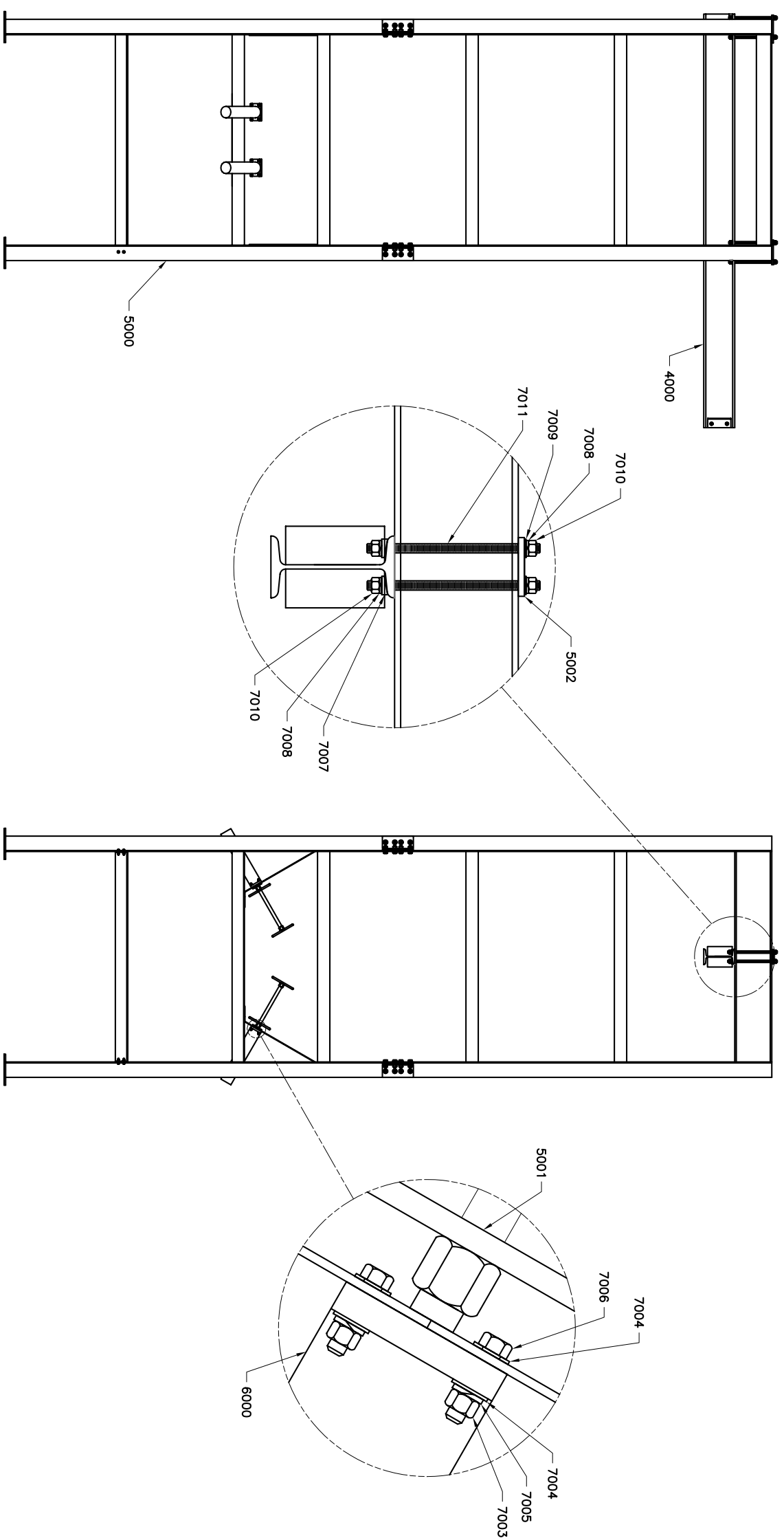
Item No.: 1086855

Description: BULKBUSTER ASSY, STL, 78IN SQ, HOIST STYLE

Drawing No.: B-422-679

Bubble No.	Quantity	U/M	Item No.	Description	Drawing No.
5000	1.00	EA	1086845	FRAME WLDT, STL, 68IN SQ, 303.75 OAH	I-422-783 A
5001	4.00	EA	1045775	PUSHER PL WLDT, BULK BAG STA, STL	A-422-112 E
6000	4.00	EA	1045744	AIR CYL, 3.25X15.50, FRONT FLG MT	---
7003	16.00	EA	1001477	NUT, HEX, FNISH, 3/8-16NC	---
7004	32.00	EA	1034323	WASHER, FLAT, 3/8 SAE, ZP STL	---
7005	16.00	EA	1001042	WASHER, HLCL SPR-LK, 3/8MED, ZP STL	---
7006	16.00	EA	1003028	SCR, 3/8-16X1.75, HEXHD CAP, G5, ZP	---

- NOTES:
1. WARNING DECALS MUST NOT BE REMOVED OR DEFACED DURING THE SERVICE LIFE OF THIS UNIT.
 2. ALL WELDS TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASE MATERIAL.
 3. ALL WELDS TO BE CONTINUOUS AND AIRTIGHT UNLESS NOTED.
 4. ALL SURFACES TO BE CLEAN OF WELD SPATTER AND FOREIGN MATERIALS.



BY	ECS	DATE	05/14/05	SCALE	3/16" = 1"
DESIGNED BY	JRS/MDC	ENGINEER	CJM	DATE	05/14/05
CHECKED BY		DATE		SCALE	
THIS DRAWING IS THE PROPERTY OF DYNAMIC AIR. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION OF EQUIPMENT WITHOUT THE WRITTEN PERMISSION OF DYNAMIC AIR. UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.					
NO.		DATE		REVISION	NOTE
1					
APPROVED BY: [Signature]					
BULK BAG STATION ASSEMBLY, 78" SQUARE					
DYNAMIC AIR Conveying Systems SAINT PAUL, MINNESOTA U.S.A.					
1080732					
SHEET 1 OF 1					
DRAWING NO. B-422-679					

TOLERANCE BLOCK
.XX - .12
XXX - .030
XXXX - .015
ANGLE - 0.5°

MATL: ASTM A36 STEEL OR BETTER
(36,000 PSI MIN YIELD STRENGTH)

PLATING: NONE

APPROX. WT: 3700 LBS.

EXTERIOR FINISHES: NONE

INTERIOR FINISHES: NONE

- NOTES:
1. ALL MATERIAL TO BE NEW, FREE OF PITS, SCALE OR ANY OTHER FOREIGN MATERIAL.
 2. REMOVE ALL BURRS AND BREAK ALL SHARP EDGES .010 MAX. ON MACHINED PARTS AND .060 MAX. ON WELDMENTS.
 3. ALL WELDS TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASE MATERIAL.
 4. ALL WELDS TO BE CONTINUOUS AND AIRTIGHT, UNLESS NOTED.
 5. WELD ALL SEAMS ONE SIDE ONLY (VISIBLE SIDE), UNLESS NOTED.
 6. ALL SURFACES TO BE CLEAN OF WELD SPATTER AND FOREIGN MATERIALS.
 7. USE MINIMUM BEND RADIUS ON ALL BENDS.

DESIGN NOTES (FOR DYNAMIC AIR USE ONLY)

HOIST CAPACITY 4,000 LBS.

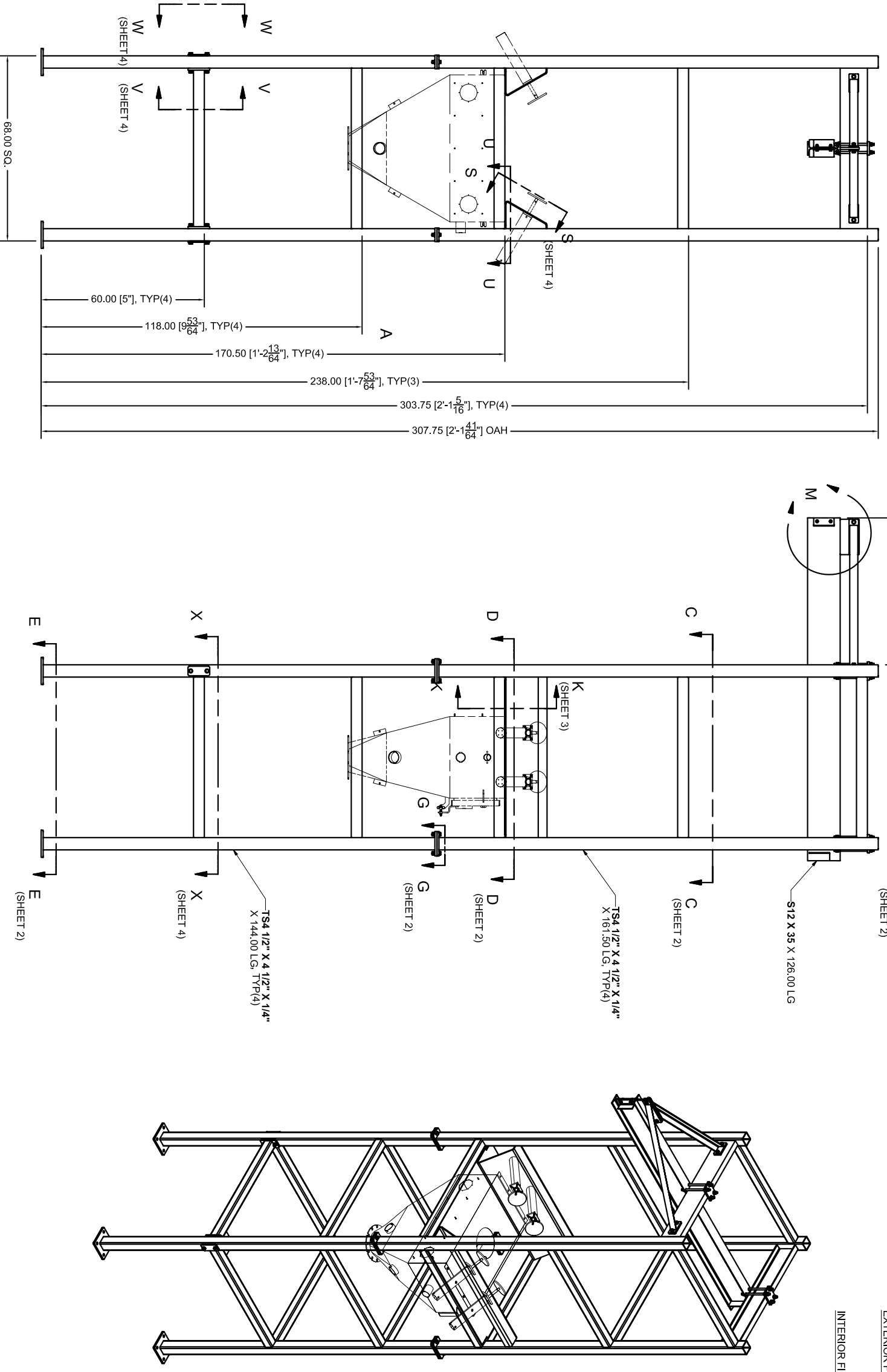
IMPACT LOADING 10%

DESIGN CODE UBC 97

SEISMIC ZONE 4

SERVICE LEVEL BASE SHEAR 0.27W

STRUCTURAL REVIEW 01/23/04 INITIALS: MJS

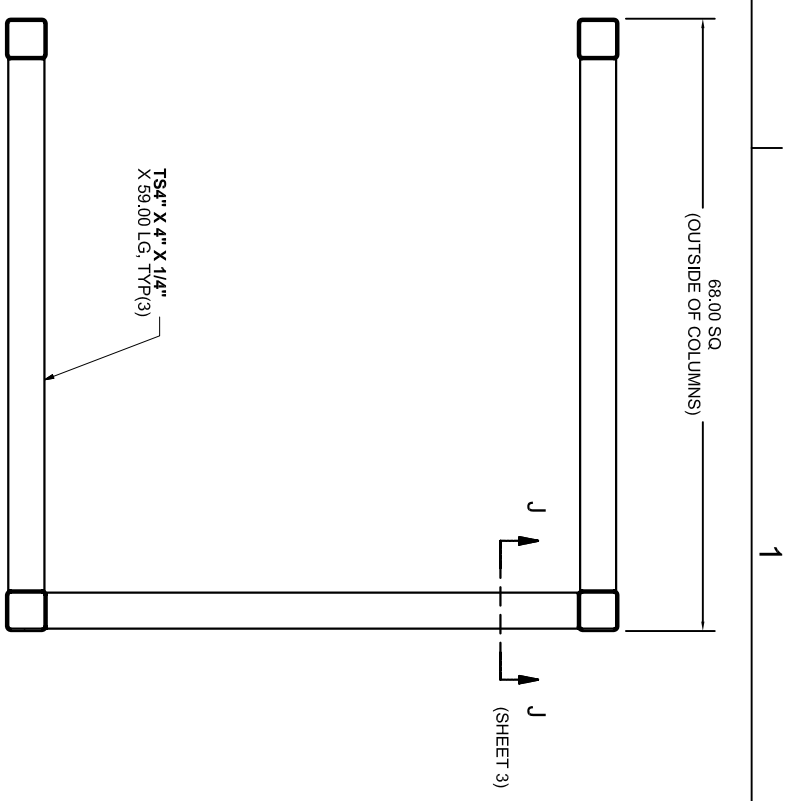
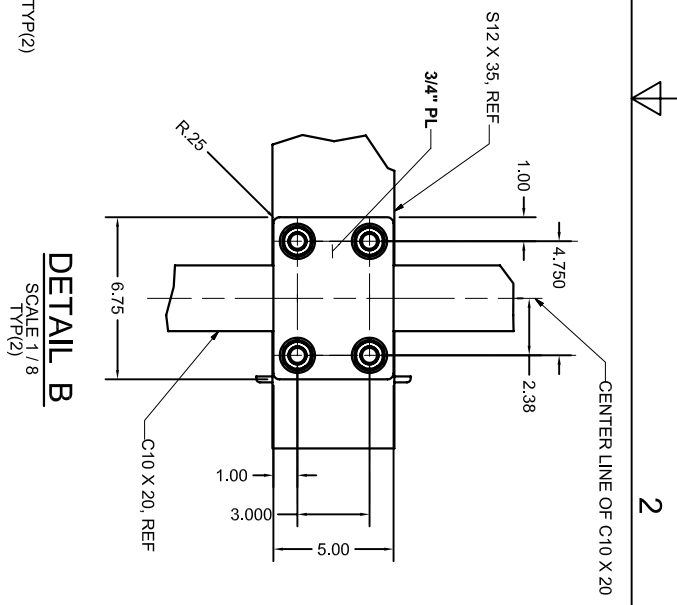
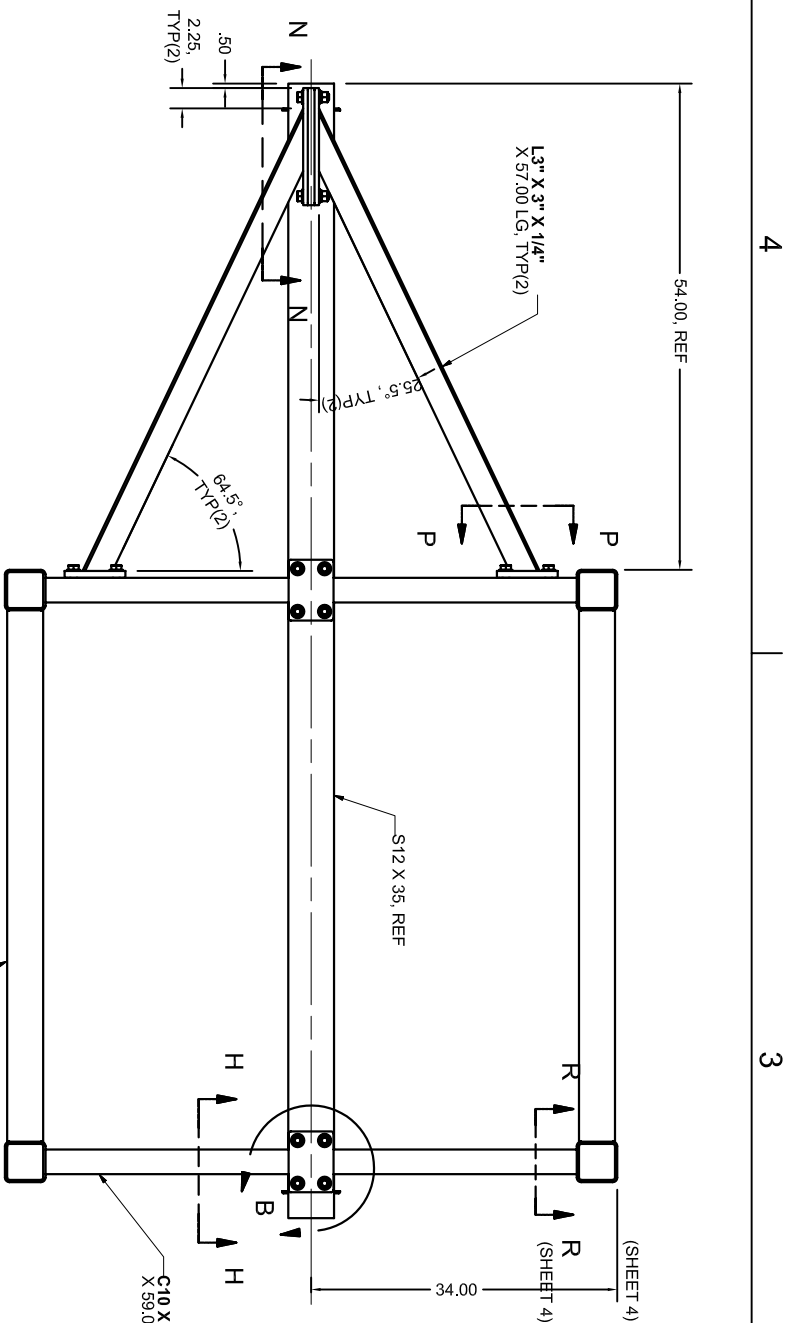


FOR DYNAMIC AIR USE, DO NOT RELEASE TO CUSTOMER.

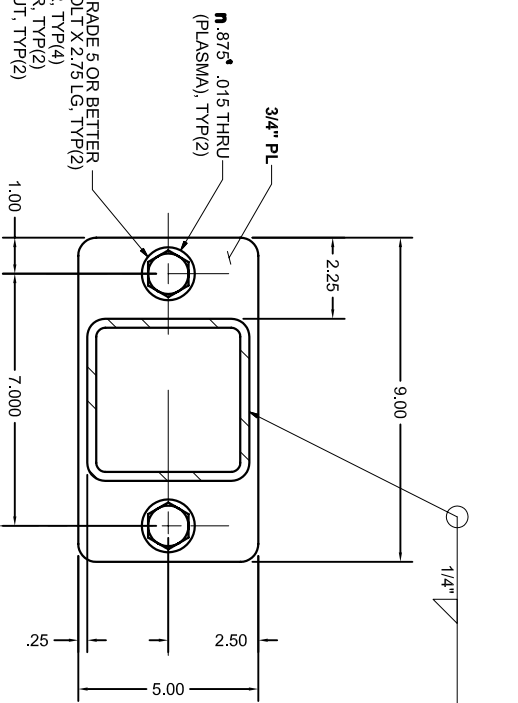
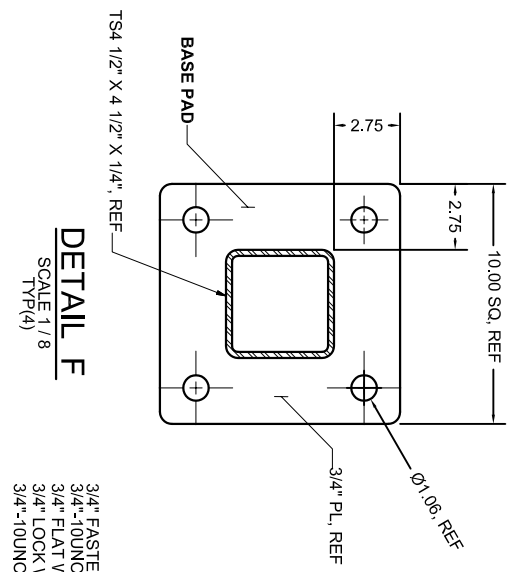
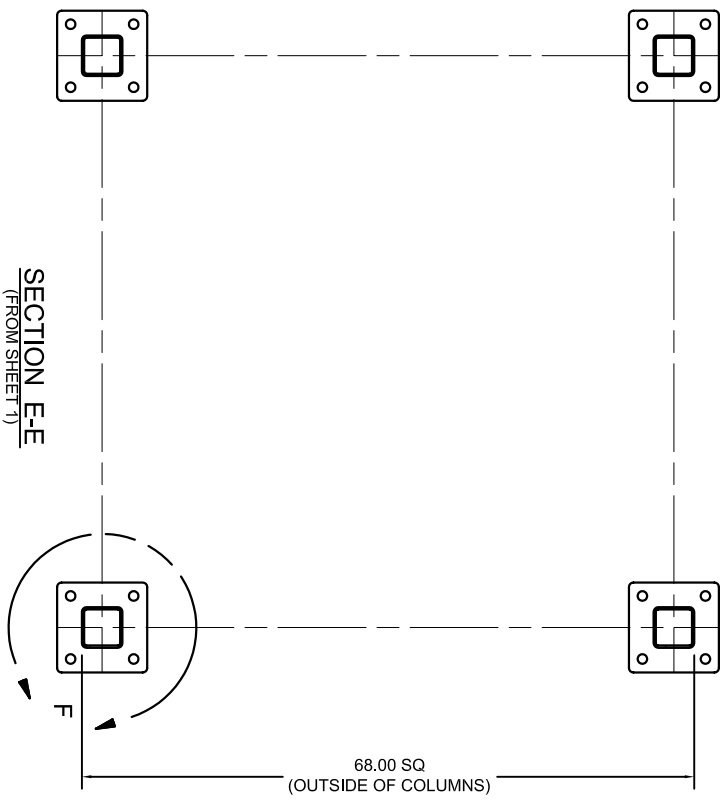
Preliminary: Do Not Release

1086845

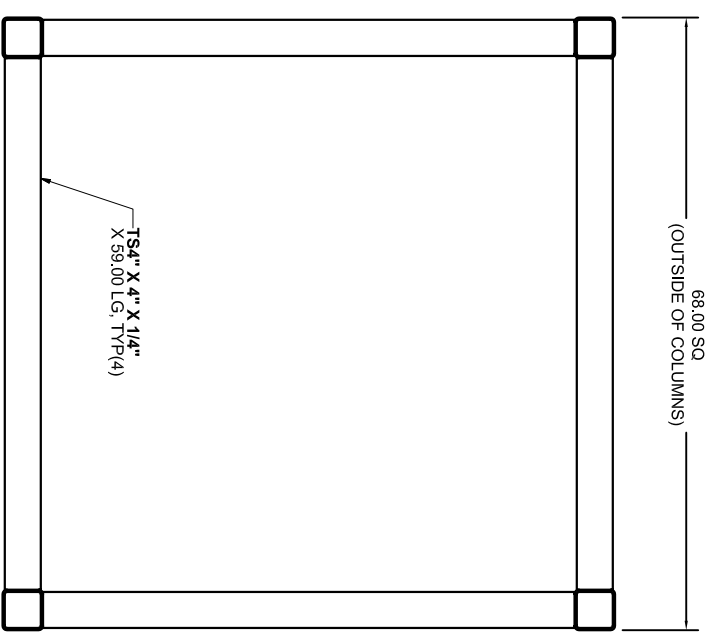
REV	DATE	BY	CHKD	DESCRIPTION
3/128-1	2/3/2004			
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN INCHES.				
THIS DRAWING IS THE PROPERTY OF DYNAMIC AIR. INCORPORATED. WHO CLAIMS PROPRIETARY RIGHTS IN THE MATERIAL DISCLOSED HEREIN. THIS DRAWING IS TO BE USED ONLY FOR THE PROJECT AND MAY NOT BE COPIED OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF DYNAMIC AIR.				
NO.	DATE	BY	CHKD	DESCRIPTION
A	2/27/2004			170.50 TYP(4) WAS TYP(2)
REVISION NOTE:				
SUPPORT FRAME WELDMENT BULK BAG STATION, END-TYPE TROLLEY				
DRAWN BY: PAUL WINKEL CHECKED BY:				
SHEET 1 OF 4 422-783.idw				
DYNAMIC AIR CONVEYING SYSTEMS 3111 N. PAUL WINKEL WENONA, IN 46786				



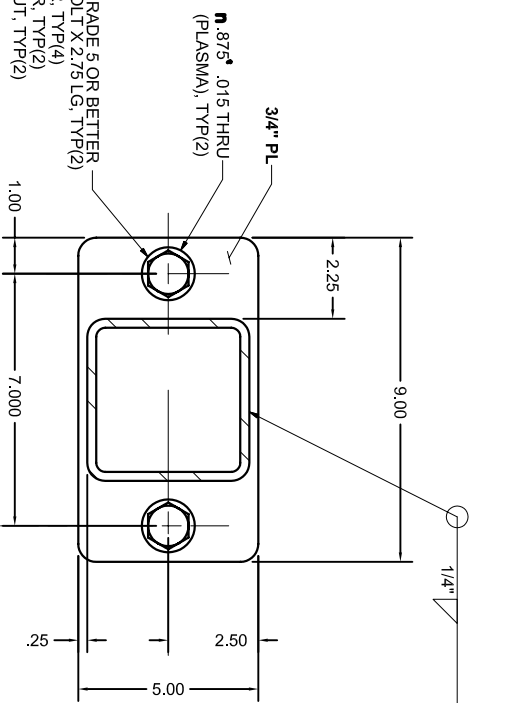
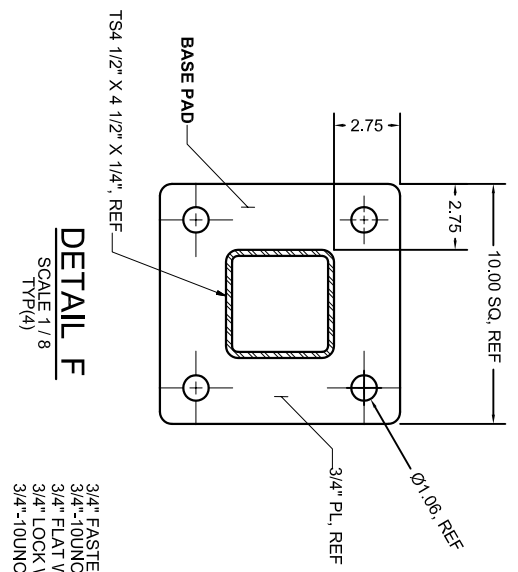
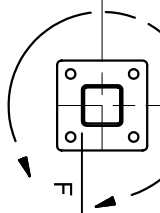
VIEW A-A
(FROM SHEET 1)
SCALE 3/64



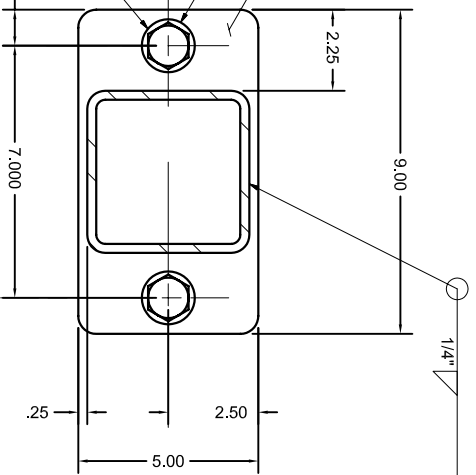
SECTION D-D
(FROM SHEET 1)
SCALE 3/64
TYP(2 LEVELS)



SECTION E-E
(FROM SHEET 1)
SCALE 3/64



SECTION G-G
(FROM SHEET 1)
SCALE 0.19 : 1
TYP(8)



REV.	DATE	BY	CHKD.	DESCRIPTION
1	2/3/2004	MDCCJRS	JVDV	SCALE 3/128=1
2	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
3	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
4	2/3/2004	MDCCJRS	JVDV	SCALE 3/64

REV.	DATE	BY	CHKD.	DESCRIPTION
1	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
2	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
3	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
4	2/3/2004	MDCCJRS	JVDV	SCALE 3/64

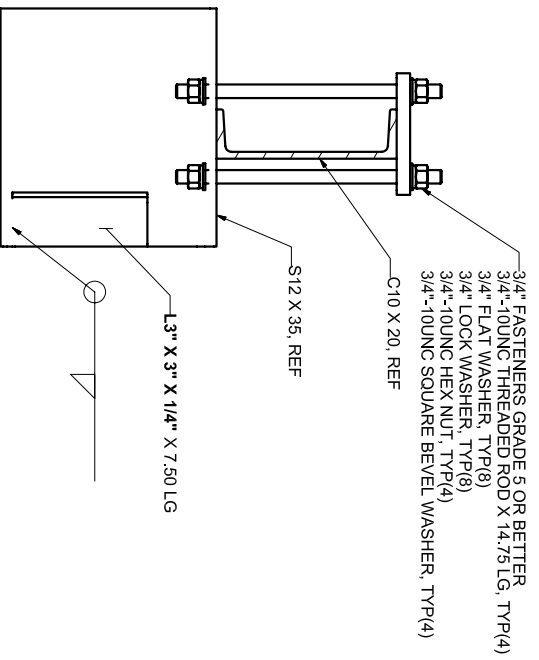
REV.	DATE	BY	CHKD.	DESCRIPTION
1	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
2	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
3	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
4	2/3/2004	MDCCJRS	JVDV	SCALE 3/64

REV.	DATE	BY	CHKD.	DESCRIPTION
1	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
2	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
3	2/3/2004	MDCCJRS	JVDV	SCALE 3/64
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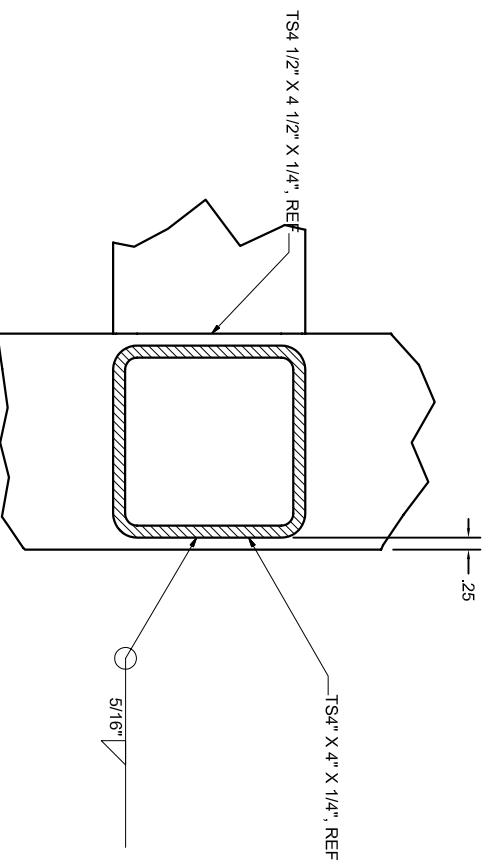
DYNAMIC AIR
CONVEYING SYSTEMS
S A I N T P A U L I , W I N N E S O T A U , S A
DRAWING NO. 422-783.idw

SUPPORT FRAME WELDMENT
BULK BAG STATION, END-TYPE TROLLEY

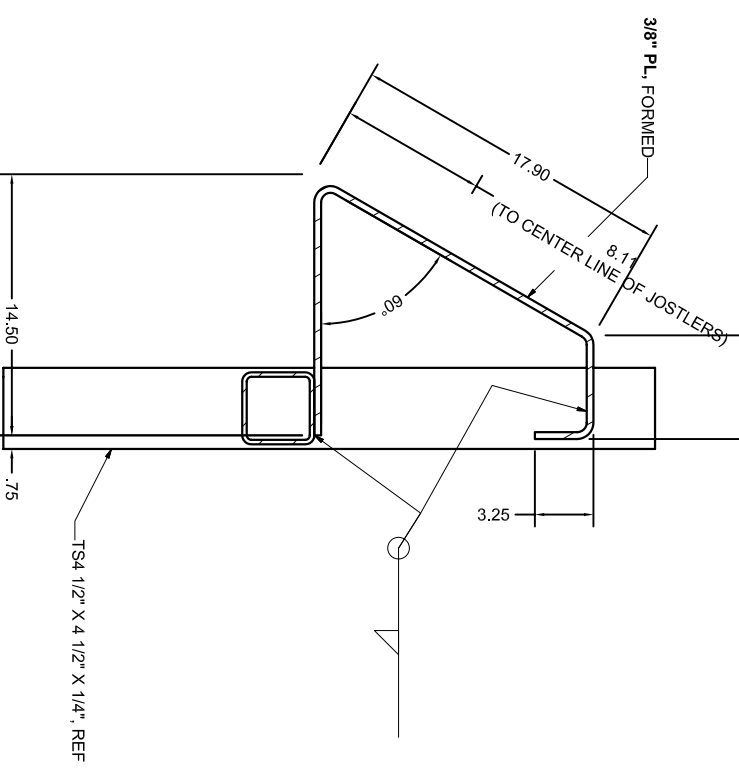
SHEET 2 OF 4
REV. A



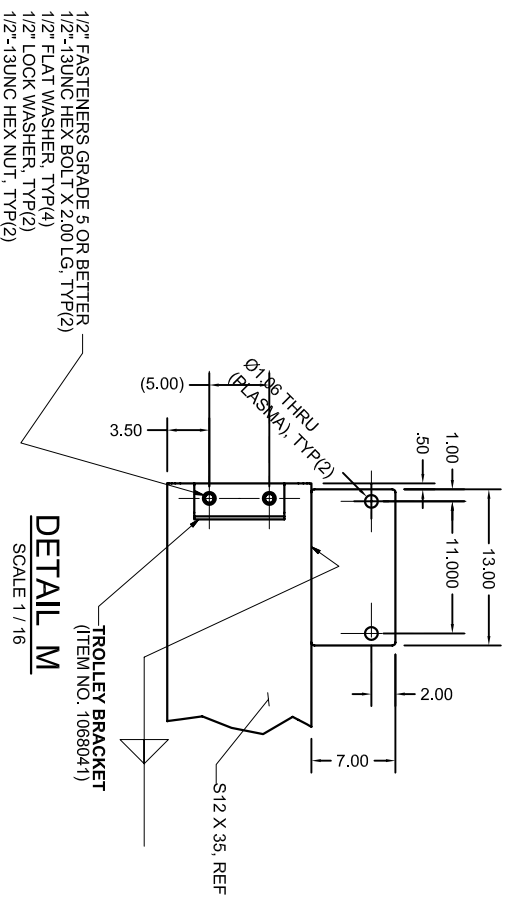
SECTION H-H
(FROM SHEET 2)
SCALE 0.09 : 1
TYP(2)



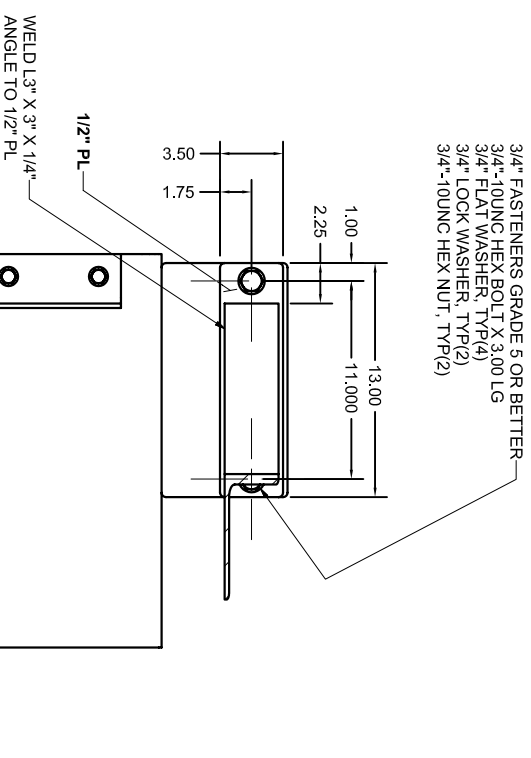
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(FROM SHEET 2)
SCALE 1/4
TYP(34)



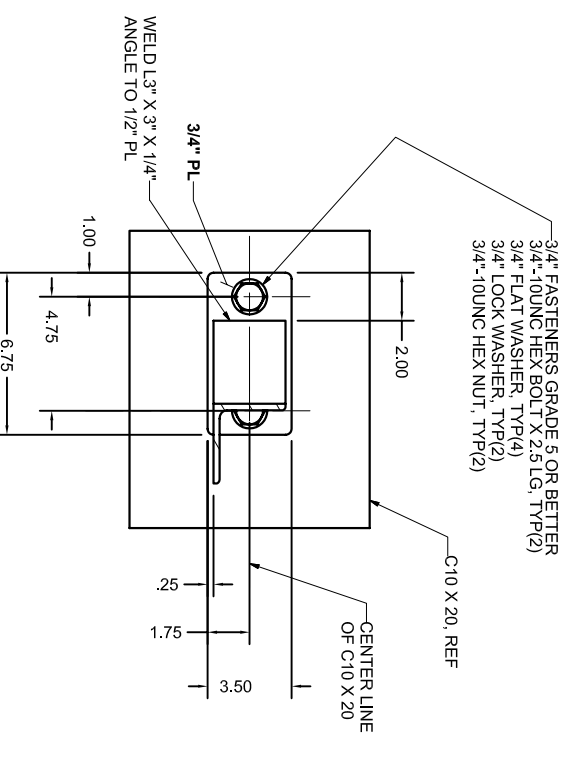
SECTION K-K
SCALE 0.09 : 1



DETAIL M
SCALE 1/16



SECTION N-N
(FROM SHEET 2)
SCALE 0.09 : 1
TYP(2)



SECTION P-P
(FROM SHEET 2)
SCALE 1/8
TYP(2)

REV.	DATE	BY	SCALE	SHEET NO.	TOTAL SHEETS	DESCRIPTION
1	2/9/2004	CLW	3/1/28=1	4	4	SUPPORT FRAME WELDMENT
2						BULK BAG STATION, END-TYPE TROLLEY

NO.	DATE	REVISION
1	2/27/2004	SEE SHEET 1 FOR REVISION NOTES

DESIGNED BY	DATE	INDEXED BY	DATE	REVISION NO.	REVISION NOTE
CLW		CLW		1	

NO.	DATE	REVISION
1		

NO.	DATE	REVISION
1		

NO.	DATE	REVISION
1		

NO.	DATE	REVISION
1		

A

B

4

3

2

1

A

B

4

3

2

1

DYNAMIC AIR
CONVEYING SYSTEMS

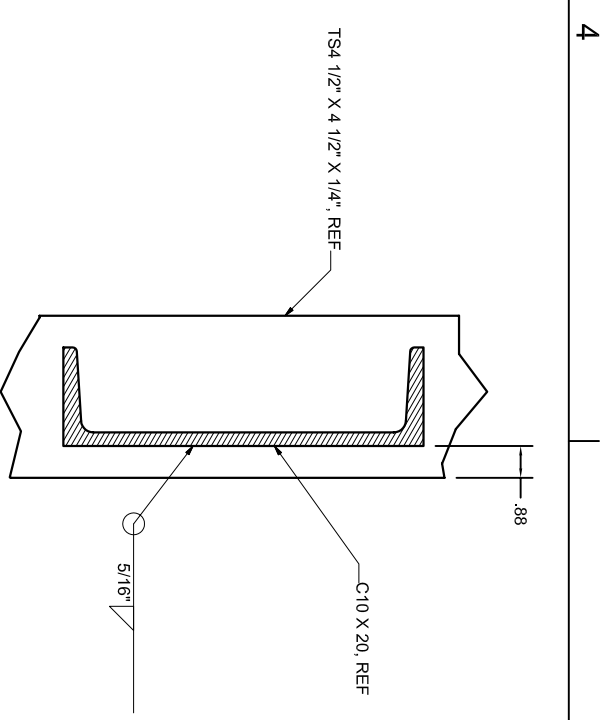
S A I N T P A U L I , M I N N E S O T A , U . S . A .

DO NOT SCALE

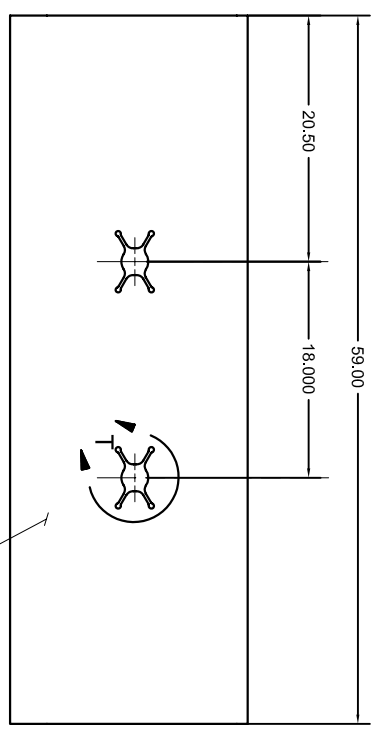
3 OF 4

422-783.idw

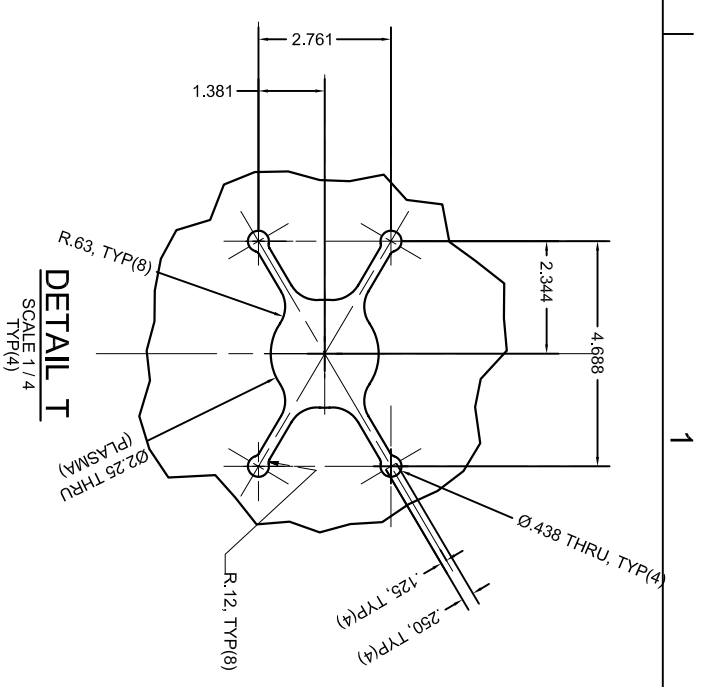
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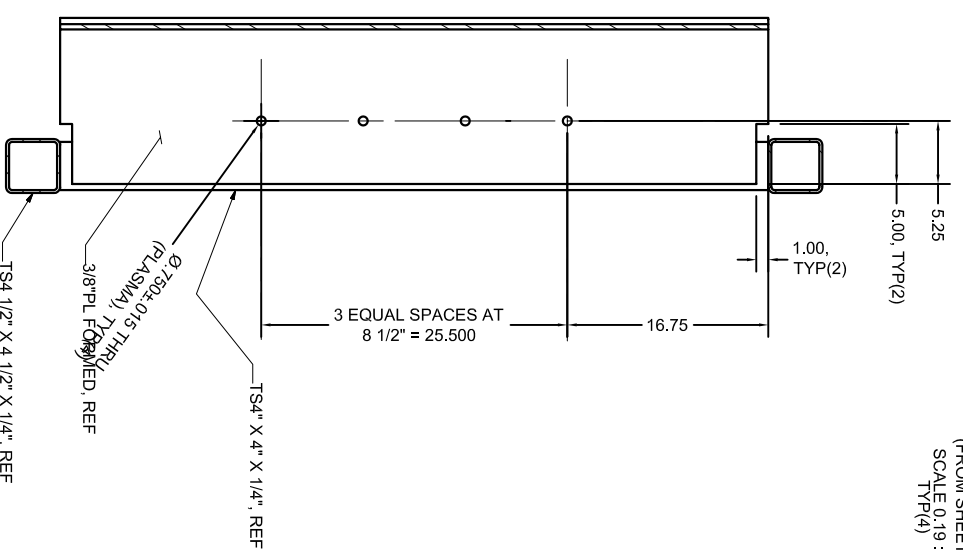
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(FROM SHEET 2)
SCALE 0.19 : 1
TYP(4)



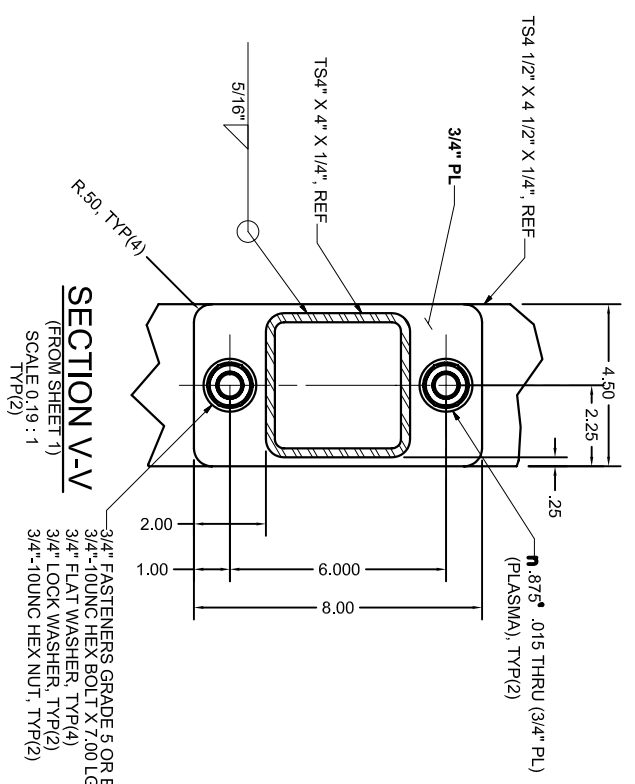
SECTION S-S
(FROM SHEET 1)
SCALE 1 / 16
TYP(2)



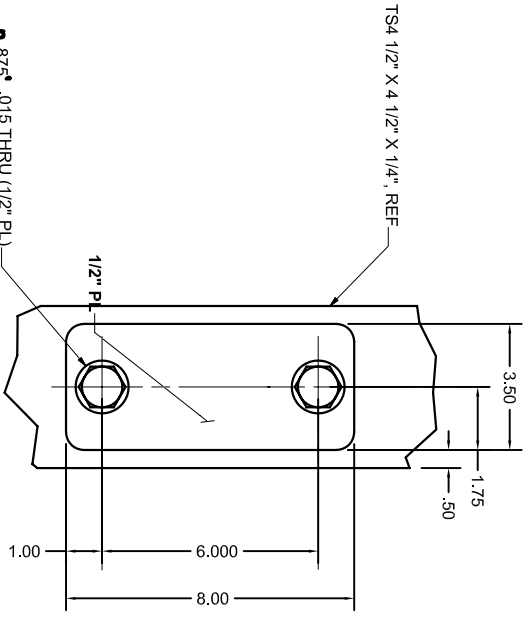
DETAIL T
SCALE 1 / 4
TYP(4)



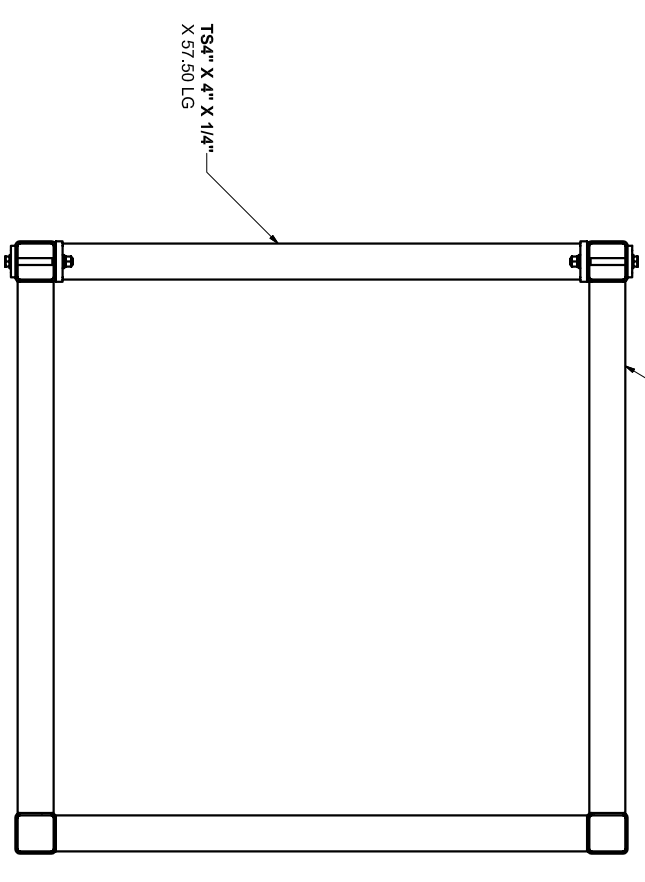
SECTION U-U
(FROM SHEET 1)
SCALE 1 / 16
TYP(2)



SECTION V-V
(FROM SHEET 1)
SCALE 0.19 : 1
TYP(2)



SECTION W-W
(FROM SHEET 1)
SCALE 0.19 : 1
TYP(2)



SECTION X-X
(FROM SHEET 1)
SCALE 0.05 : 1

REV	DATE	BY	CHKD	DESCRIPTION
1	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
2	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
3	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
4	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT

REV	DATE	BY	CHKD	DESCRIPTION
1	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
2	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
3	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
4	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT

REV	DATE	BY	CHKD	DESCRIPTION
1	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
2	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
3	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
4	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT

REV	DATE	BY	CHKD	DESCRIPTION
1	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
2	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
3	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT
4	2/3/2004	MDCC	CLW	REVISED FOR WELDMENT

DYNAMIC AIR
CONVEYING SYSTEMS

422-783.idw

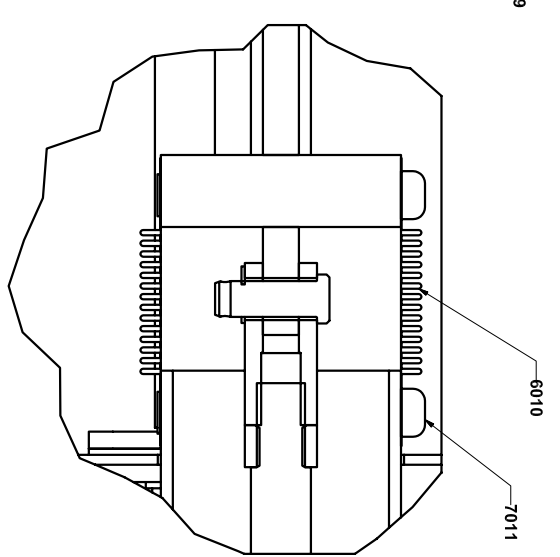
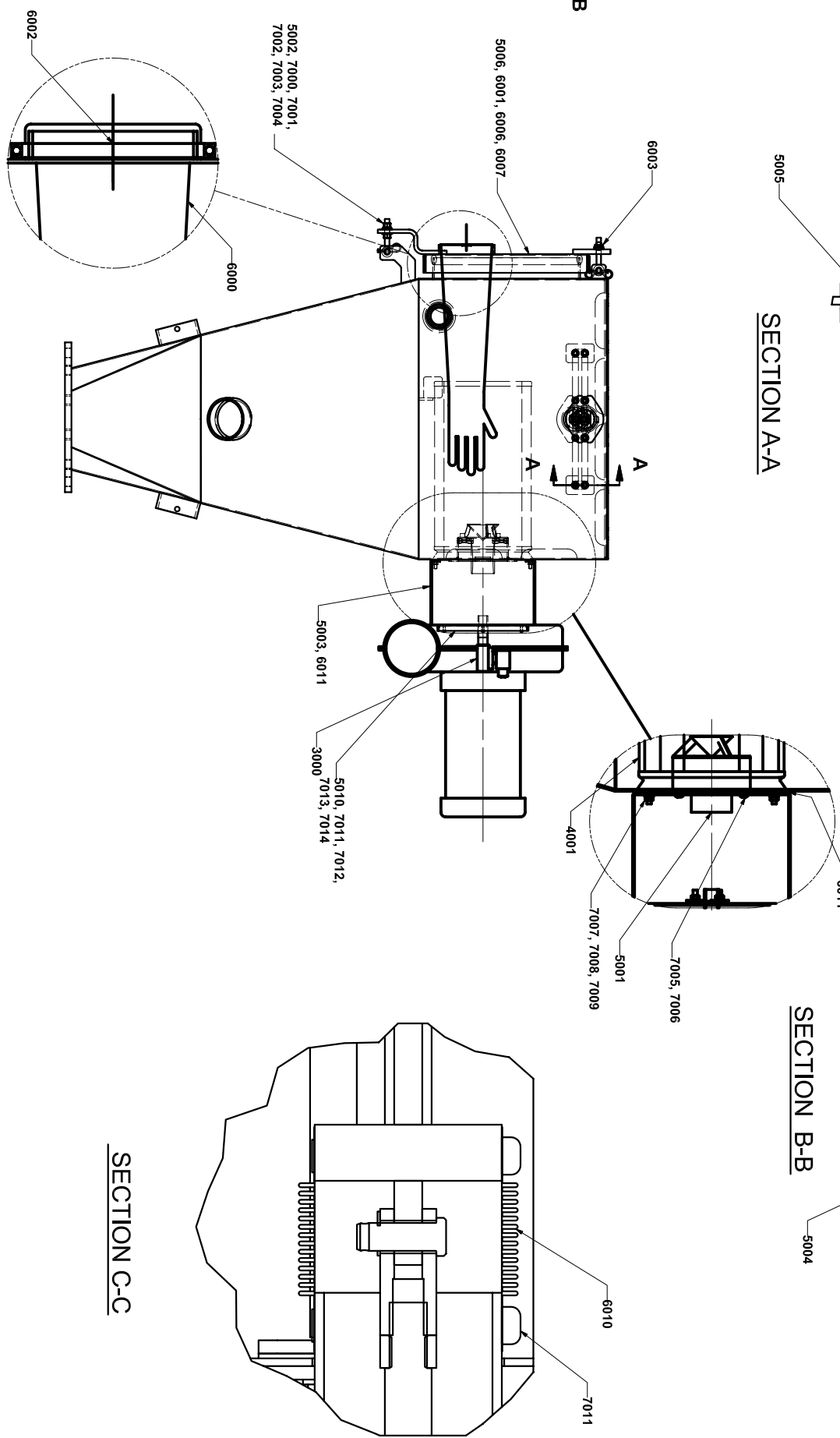
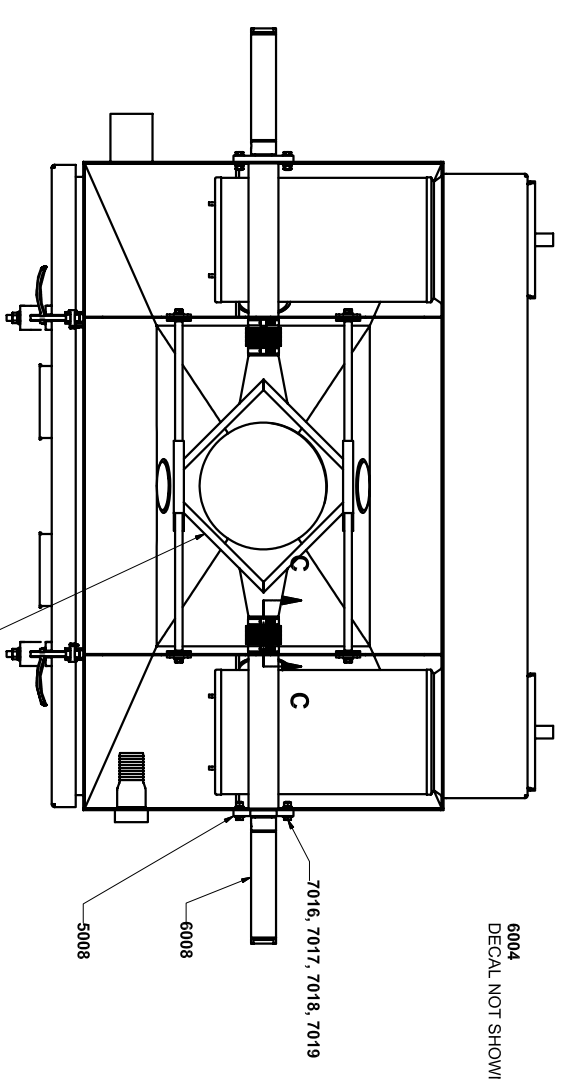
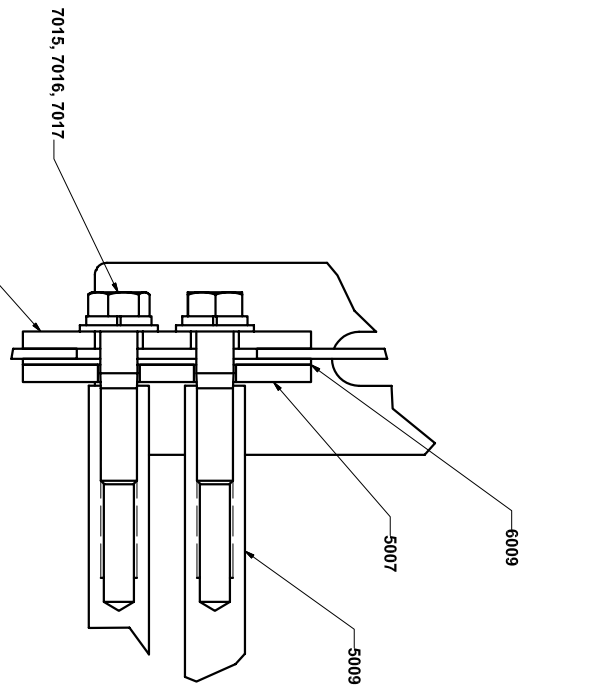
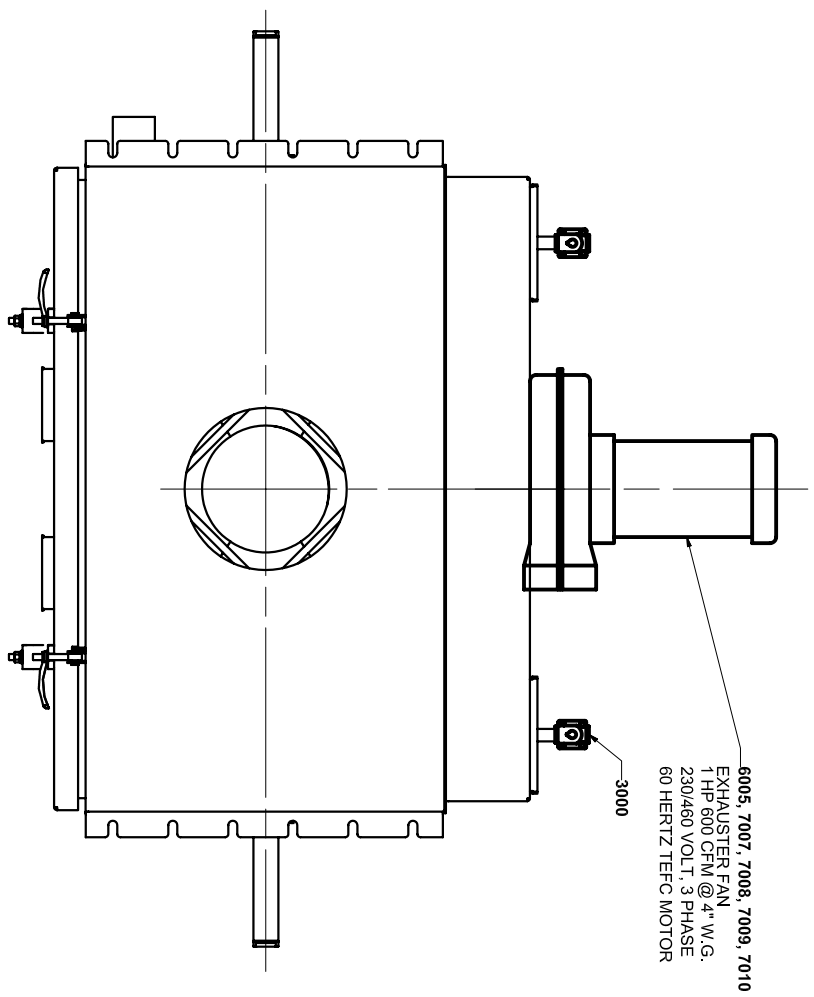
SHEET 4 OF 4

Item No.: 1086704

Description: GLOVE BOX ASSY, STL, 30X54, SPCL, N4/12

Drawing No.: I-422-675

Bubble No.	Quantity	U/M	Item No.	Description	Drawing No.
	2.00	EA	1077484	CLEVIS, .375 HOLE, 1/2-20THD, STL	---
3000	2.00	EA	1001766	SOL, 2WAY, 3/4 NC, N4, 4X, 12-120VAC	---
5000	1.00	EA	1086703	GLOVE BOX WLDT, STL, 30X58, 10IN FLG OUT	I-422-770 B
5001	2.00	EA	1036600	ADAPTER ASSY, CRTG, DIECAST ZINC ,W/SLOTS,	A-343-265 G
5002	4.00	EA	1081528	ROD END, CASTED, 1/2-13X4.00, 316SST	A-603-379 B
5003	1.00	EA	1080384	CLN A PLENUM WLDT, GLOVE BOX, STL	I-422-676 D
5004	2.00	EA	1079633	CLOSER ARM WLDT, STL, GLOVE BOX	I-422-577 D
5005	4.00	EA	1078171	ROD PLATE, STL, EXTERIOR SUPPORT	A-422-579 D
5006	1.00	EA	1080394	DOOR WLDT, STL, SPECIAL, GLOVE BOX	I-603-340 A
5007	4.00	EA	1078173	ROD PLATE, STL, INTERIOR SUPPORT	A-422-581 C
5008	2.00	EA	1080361	SUPPORT PL, AIR CYL MTG, STL	A-422-674
5009	4.00	EA	1080381	ROD, 304SST, .625 DIA, PINCH ARM, 27.44 LG	I-422-578 E
5010	2.00	EA	1080385	COVER PL, STL, 7.00X7.00 OPNG, 12GA	A-603-339 A
6000	1.00	EA	1046282	GLOVES, NPRN CTD STD, 1 PAIR	---
6001	11.20	FT	1034099	EXTRUSION, BLK EPDM, .120 HSG	A-603-105 G
6002	2.00	EA	1001434	CLAMP, WORM-GR HOSE, 5.63-6.50 DIA, SST	---
6003	2.00	EA	1007888	HANDLE, DOOR, 1/2-13, ZINC PLTD	---
6004	1.00	EA	1050563	LABEL, BULKBUSTER TM, BULK BAG	*-400-40
6005	1.00	EA	1045578	BLOWER, CW, 4HM, 1HP TEFC, 606@4SP	---
6006	6.76	FT	1036628	EXTRUSION, BLK EPDM, 70 DURO, .100 HSG	---
6007	115.00	SI	1036629	SHEET, POLYCARBONATE, 1/8THK, CLR	---
6008	2.00	EA	1080388	AIR CYL, 2X7, DBL ACTING, END NOSE MT,	---
6009	4.00	EA	1076733	GSKT, ROD PLATE, WHT FDA BUNA-N	A-422-580 B
6010	2.00	EA	1077616	BELLOWS, BLK NEOPRENE COATED, 2-1/2IN ID,	---
6011	10.00	FT	1011764	STRIP, PORON SPONGE RBR, 1/4 X 1/2, BLK	---
7000	4.00	EA	1001989	NUT, HEX, FN SH, 1/2-13NC, ZP STL	---
7001	6.00	EA	1034863	WASHER, FLAT, 1/2 SAE, ZP STL	---
7002	2.00	EA	1001041	WASHER, HLCL SPR-LK, 1/2MED, ZP STL	---
7003	4.00	EA	1054064	CLIP, HAIRPIN, ZP, .125X1-15/16	---
7004	4.00	EA	1007886	PIN, CLEVIS, .50X1.50, W/HEAD, ZP	---
7005	8.00	EA	1012412	RIVET, BLIND, 3/16, .37-.50GP, SST	---
7006	8.00	EA	1024489	WASHER, FLAT, .194ID, .437 OD, SST	---
7007	18.00	EA	1002840	WASHER, FLAT, 5/16 SAE, ZP STL	---
7008	14.00	EA	1002831	WASHER, HLCL SPR-LK, 5/16MED, ZP STL	---
7009	14.00	EA	1003342	NUT, HEX, FN SH, 5/16-18NC, ZP	---
7010	4.00	EA	1003510	SCR, 5/16-18X1, HEXHD CAP, G5, ZP	---
7011	4.00	EA	1003046	CLAMP, WORM-GR HOSE, 2.06-3.0 DIA	---
7012	16.00	EA	1008862	WASHER, FLAT, 1/4 SAE, ZP STL	---
7013	16.00	EA	1001188	WASHER, HLCL SPR-LK, 1/4MED, ZP STL	---
7014	16.00	EA	1001345	NUT, HEX, FN SH, 1/4-20NC, ZP STL	---
7015	8.00	EA	1003036	SCR, 3/8-16X2.5, HEXHD CAP, G5, ZP	---
7016	12.00	EA	1001042	WASHER, HLCL SPR-LK, 3/8MED, ZP STL	---
7017	16.00	EA	1034323	WASHER, FLAT, 3/8 SAE, ZP STL	---
7018	4.00	EA	1001477	NUT, HEX, FN SH, 3/8-16NC	---
7019	4.00	EA	1001066	SCR, 3/8-16X1.5, HEXHD CAP, G5, ZP	---



UNLESS OTHERWISE NOTED,
DIMENSIONS ARE IN INCHES.

REV.	DATE	BY	CHKD.	DESCRIPTION

DESIGNED BY	DATE	CHKD.	DESCRIPTION

REV.	DATE	BY	CHKD.	DESCRIPTION

REV.	DATE	BY	CHKD.	DESCRIPTION

REV.	DATE	BY	CHKD.	DESCRIPTION

REV.	DATE	BY	CHKD.	DESCRIPTION

REV.	DATE	BY	CHKD.	DESCRIPTION

REV.	DATE	BY	CHKD.	DESCRIPTION

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DIMENSIONS ARE IN INCHES.