# Metalfab, Inc.

# **Bin Activators**

# **Bin Activators**

- Standard Bin ActivatorSanitary Bin Activator
- Pre-Steamer Bin Activator
- LVT Bin Activator

# Posibins<sup>™</sup> & Bins

- PB Posibin<sup>™</sup>
- PLBB (LVT) Posibin
- MLB Live Bin
- Self Standing Static Bin/Hopper

Portable (IBC) **Bin Unloaders** 

For Use with Powders • Pellets • Flakes • Chips • Agglomerates

# Metalfab....Bin Activators

With a Best in Class Design, Construction, and Performance Guarantee... the Metalfab Bin Activator completely eliminates the problems associated with the design and performance of other bin activators/dischargers

# Here's Why:

# Rugged, Durable Construction for Years of Trouble-Free Operation

Metalfab Bin Activators are designed and engineered to provide rugged, durable performance with minimal maintenance and maximum process uptime – **all at a competitive price**.

Built to withstand the repetitive forces of vibration and forces induced by the product load above them, Metalfab Bin Activators offer a host of unique design

> features – a dual baffle design, solid steel suspension arms, an endless beaded flexible sleeve, unitized vibrator/motor, and an unparalleled guarantee – that make them superior to all other bin activators/bin dischargers.

The unit's "perfect" cone profile is also highly efficient in promoting flow of product with minimal force requirements while maintaining a constant bulk density. This reduction in force results in minimal horse power consumption, lowering operating costs while adding to the life of the unit. Constant flow and consistent bulk density are keys to maintaining efficient operation and accuracy of downstream equipment, which cannot be attained with fluidizing dischargers.



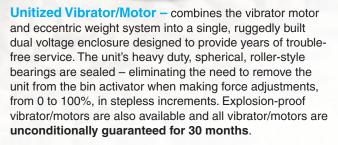
Unparalleled "No Excuse" Guarantee – every Metalfab Bin Activator is guaranteed to perform in accordance with specifications or the purchase price will be refunded, unconditionally!

# Superior Design Features that Deliver Unparalleled Process and User Benefits



Unique Metalfab Dual Baffle Design – features a primary and adjustable secondary baffle that delivers continuous flow of dry materials from storage without bridging, rat holing, plugging or jamming. The cone shaped, self-cleaning primary baffle is supported by tubular cross members that provide the strength required to support product head loads. The secondary cone shaped baffle is suspended from the same cross members that support the primary baffle, and the lower section of the suspension member is a threaded rod that allows the baffle to be adjusted vertically. This secondary baffle moves at a different amplitude than the bin activator body, creating motion in the product at the outlet which, in most cases, eliminates the need to "cycle" the vibrator. Endless Beaded Flexible Sleeve – is designed to dampen the vibration and seal off the gap between the bin activator and the non-vibrating mounting ring to eliminate spillage or release of fine particles into the air. The 7/16" thick sleeve has 3-ply reinforcement that is designed not to puncture, slip or leak, and raised edges that prohibit it from being pulled out under the sleeve clamps. Special flanged and bolted sleeve arrangements are available for positive pressures to 14.9 psi and negative pressures down to 10.0" mercury.







Suspension Arms – are made from a solid block of steel up to 3-1/2" square to provide maximum strength under the most severe operating conditions. Bolted at 90° to each other to ensure the bin activator will always remain attached to the bin and cannot move off center, each arm can support up to 500,000 lbs., virtually eliminating leakage or a catastrophic failure which can occur with other bin dischargers.

# A Wide Choice of Models to Accommodate Any

Metalfab Bin Activators are available in four different models to suit varying application requirements and budgetary needs. Available in carbon steel, 304 and 316 stainless steel (polished on sanitary models), with a wide variety of coatings, all Metalfab Bin Activators are supplied with a mounting ring which can either be welded or bolted to the bin.

# **Bin Activators**



# **Standard Bin Activators**

Standard Bin Activators feature a high efficiency vibrated cone with Metalfab's unique, internal cone-shaped dual baffles. The adjustable secondary baffle prevents plugging, jamming, and bridging, and allows for a constant flow of product upon demand while maintaining a constant bulk density of the product.

#### **Features/Benefits**

Widest Range of Available Sizes: from 2' to 16' diameter

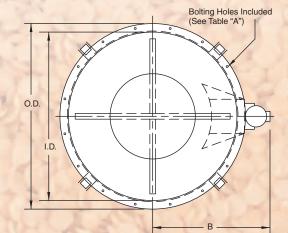
Rugged, Durable Features and Construction: shown on pages 2 and 3

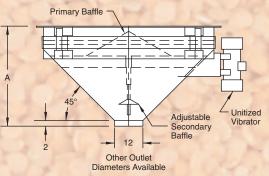
Construction Materials: carbon steel, 304 and 316 stainless, specialty coatings

## **Operating Characteristics**

Delivers long lasting performance with low maintenance, maximum process "uptime", and high standard quality – all at a competitive price

Prevents compaction of product to maintain a constant bulk density





#### **Table A**

Model #	Dia.	Bolt Holes	Hole Requirements
BA-2	2′	8	11/16 DIA. HOLES EQ. SPA. ON A 26-3/4 DIA. B.C.
BA-3	3′	12	11/16 DIA. HOLES EQ. SPA. ON A 38-3/4 DIA. B.C.
BA-4	4′	16	11/16 DIA. HOLES EQ. SPA. ON A 51 DIA. B.C.
BA-5	5′	16	11/16 DIA. HOLES EQ. SPA. ON A 63 DIA. B.C.
BA-6	6′	24	13/16 DIA. HOLES EQ, SPA. ON A 75-1/2 DIA. B.C.
BA-7	7′	30	1-1/8 DIA. HOLES EQ. SPA. ON A 87-1/2 DIA. B.C.
BA-8	8′	36	1-1/8 DIA. HOLES EQ. SPA. ON A 99-1/2 DIA. B.C.
BA-10	10′	36	1-1/8 DIA. HOLES EQ. SPA. ON A 123 DIA. B.C.
BA-12	12′	40	1-1/8 DIA. HOLES EQ. SPA. ON A 147 DIA. B.C.
BA-14	14′	48	1-1/8 DIA. HOLES EQ. SPA. ON A 172-1/2 DIA. B.C.
BA-16	16′	48	1-1/8 DIA. HOLES EQ. SPA. ON A 196 DIA. B.C.

### **Specifications**

Model #	Diameter	O.D.	I.D.	<b>A</b> *	В	No. of Hangers	T.E.N.V. HP
BA-2	2′	28-1/2	23-1/2	14-1/2	22-5/8	4	0.4
BA-3	3′	41-3/8	35-3/8	20-5/8	29-5/8	3	1.5
BA-4	4′	53-1/4	47-1/4	27-1/2	35-7/8	4	1.5
BA-5	5′	65-1/4	59-1/4	34-3/16	41-7/8	4	1.5
BA-6	6′	79-1/4	71-1/4	41-1/8	49-1/4	6	3.0
BA-7	7′	91-1/4	83-1/4	47-1/8	55-3/4	6	3.0
BA-8	8′	103	95	54-7/8	62	8	3.0
BA-10	10′	127	119	67-1/2	77-11/16	16	4.0
BA-12	12′	151	143	79	90-7/8	20	7.2
BA-14	14′	176	167-1/4	92-5/8	105-1/4	20	9.3
BA-16	16′	199	191	105	117-1/4	24	9.3

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# **Dry Bulk Discharge Requirement**



# **Sanitary Bin Activators**

Sanitary Bin Activators incorporate all of the same rugged, durable features and long lasting construction found in Metalfab's standard bin activator models. However, a number of added features – various polished finishes, seamless food grade sleeve, and continuous welds make our sanitary models suitable for food and other sanitary applications.

#### **Features/Benefits**

Widest Range of Available Sizes: from 2' to 16' diameter

Rugged, Durable Features and Construction: shown on pages 2 and 3

Seamless Food Grade Sleeve: white BUNA N

Continuous Contact Welds: ground smooth

**Optional Bolted and Gasketed Access Port** 

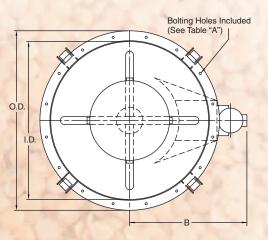
Construction Materials: 304 or 316 stainless with a variety of polished finishes

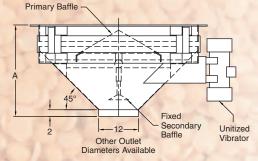
#### **Operating Characteristics**

Delivers long lasting performance with low maintenance, maximum process "uptime", and high standard quality – all at a competitive price

Designed for food and other sanitary applications

### Specifications





## **Table A**

	Model #	Dia.	Bolt Holes	Hole Requirements
	BA-2	2′	8	11/16 DIA. HOLES EQ. SPA. ON A 26-3/4 DIA. B.C.
	BA-3	3′	12	11/16 DIA. HOLES EQ. SPA. ON A 38-3/4 DIA. B.C.
	BA-4	4′	16	11/16 DIA. HOLES EQ. SPA. ON A 51 DIA. B.C.
	BA-5	5′	16	11/16 DIA. HOLES EQ. SPA. ON A 63 DIA. B.C.
	BA-6	6′	24	13/16 DIA. HOLES EQ. SPA. ON A 75-1/2 DIA. B.C.
	BA-7	7′	30	1-1/8 DIA. HOLES EQ. SPA. ON A 87-1/2 DIA. B.C.
	BA-8	8′	36	1-1/8 DIA. HOLES EQ. SPA. ON A 99-1/2 DIA. B.C.
	BA-10	10′	36	1-1/8 DIA. HOLES EQ. SPA. ON A 123 DIA. B.C.
	BA-12	12′	40	1-1/8 DIA. HOLES EQ. SPA. ON A 147 DIA. B.C.
1	BA-14	14′	48	1-1/8 DIA. HOLES EQ. SPA. ON A 172-1/2 DIA. B.C.
1	BA-16	16′	48	1-1/8 DIA. HOLES EQ. SPA. ON A 196 DIA. B.C.

Model #	Diameter	O.D.	I.D.	A*	В	No. of Hangers	T.E.N.V. HP
BA-2	2′	28-1/2	23-1/2	11	22-5/8	4	0.4
BA-3	3′	41	35-1/2	20-5/8	29-3/4	3	1.5
BA-4	4′	54	47-1/2	27-1/2	36	4	1.5
BA-5	5′	65	59-1/2	34-3/16	42	4	1.5
BA-6	6′	78	71-1/2	41-1/8	49-1/4	6	3.0
BA-7	7′	90	83-1/2	48	55-3/4	6	3.0
BA-8	8′	102	95-1/4	54-7/8	61-3/4	8	3.0
BA-10	10′	126	119	67-1/2	78-7/8	16	4.0
BA-12	12′	151	143	79	90	20	7.2
BA-14	14′	176	167-1/4	92-5/8	105-1/4	20	9.3
BA-16	16′	199	191	105	117-1/4	24	9.3



# **Pre-Steamer Bin Activator**

Pre-Steamer Bin Activators incorporate all of the same rugged, durable features and long lasting construction found in Metalfab's standard bin activator models with the addition of special steam injection. Used primarily in the pulp & paper industries, the Pre-Steamer Bin Activator is used to pre-steam wood chips as a precursor to feeding them into the digester. Pre-steaming the chips dramatically increases the throughput of the digester, resulting in reduced processing time, increased efficiency, lower operating costs, and improved mill profits.

### **Features/Benefits**

Widest Range of Available Sizes: from 6' to 16' diameter

Rugged, Durable Features and Construction: shown on Pages 2 and 3

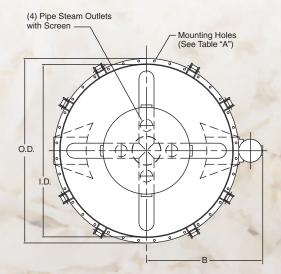
Special Steam Injection Inlets: for steam processing temperature of up to 250°F

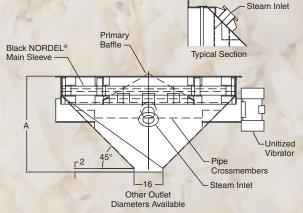
Construction: 304 or 316 stainless steel

## **Operating Characteristics**

Delivers long lasting performance with low maintenance, maximum process "uptime", and high product quality

Pre-steams wood chips in the storage bin before they enter the digester. Improves digester efficiency, flow into process, and pulp & paper quality with lower operating costs





#### **Table A**

Model #	Dia.	Bolt Holes	Hole Requirements
BA-6	6′	24	13/16 DIA. HOLES EQ, SPA. ON A 75-1/2 DIA. B.C.
BA-7	7′	30	1-1/8 DIA. HOLES EQ, SPA. ON A 87-1/2 DIA. B.C.
BA-8	8′	36	1-1/8 DIA. HOLES EQ, SPA. ON A 99-1/2 DIA. B.C.
BA-10	10′	36	1-1/8 DIA. HOLES EQ, SPA. ON A 123 DIA. B.C.
BA-12	12′	40	1-1/8 DIA. HOLES EQ, SPA. ON A 147 DIA. B.C.
BA-14	14′	48	1-1/8 DIA. HOLES EQ, SPA. ON A 172-1/2 DIA. B.C.
BA-16	16′	48	1-1/8 DIA. HOLES EQ, SPA. ON A 196 DIA. B.C.

#### **Specifications**

Model #	Diameter	O.D.	I.D.	<b>A</b> *	В	No. of Hangers	T.E.N.V. HP
BA-6	6′	79-1/4	71-1/4	39-1/8	49-1/4	6	3.0
BA-7	7′	91-1/4	83-1/4	45-1/8	55-3/4	6	3.0
BA-8	8′	103	95	52-7/8	62	8	3.0
BA-10	10′	127	119	65-1/2	77-11/16	16	4.0
BA-12	12′	151	143	77	90-7/8	20	7.2
BA-14	14′	175	167	91-1/4	105-1/4	24	9.3
BA-16	16′	199	191	103	117-1/4	32	9.3



# LVT (Low Vibration Transmission) Bin Activators

LVT (Low Vibration Transmission) Bin Activators feature all of the same rugged, durable features and long lasting construction found in Metalfab's standard bin activator models, including a primary conical baffle mounted in the bin activator to keep contents in continuous motion. However, unlike the standard bin activator, the LVT's hanger arms are replaced with threaded rods and low durometer isolators. The LVT's smaller size and reduced vibration makes it ideal for use with sensitive scaling systems and equipment, or for loss-in-weight gravimetric feeding.

#### **Features/Benefits**

Diameters: 3', 4', and 5'.

Rugged, Durable Features and Construction: shown on pages 2 and 3

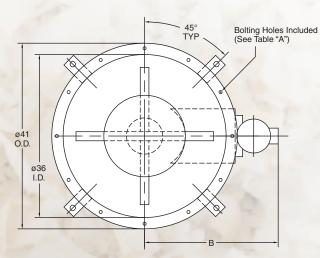
Construction Materials: carbon steel, 304 or 316 stainless, specialty coatings

# **Operating Characteristics**

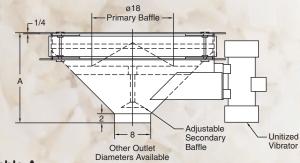
Reduced vibration makes it ideal for use with sensitive scaling systems and equipment

Uses threaded rod isolators for hanger arms (limited to bulk materials with densities less than 50 lbs./cu.ft.)

Delivers long lasting performance with low maintenance, maximum process "uptime", and high standard quality







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Model #	Dia.	Bolt Holes	Hole Requirements
BA-3	3′	12	11/16 DIA. HOLES EQ. SPA. ON A 38-3/4 DIA. B.C.
BA-4	4′	16	11/16 DIA. HOLES EQ. SPA. ON A 51 DIA. B.C.
BA-5	5′	16	11/16 DIA. HOLES EQ, SPA. ON A 63 DIA. B.C.

# Specifications

Model #	Diameter	O.D.	I.D.	A*	В	No. of Hangers	T.E.N.V. HP
BA-3	3′	40-1/2	35-1/2	22-5/8	28-5/8	4	0.4
BA-4	4'	53-1/4	47-1/4	29-1/2	36-3/4	4	1.5
BA-5	5′	65-1/4	59-1/4	36-3/16	42-3/4	4	1.5

# Posibins<sup>™</sup> and Bins

# **PB Posibins**<sup>™</sup>

PB Posibins feature a static cylindrical bin, on top of a standard, full size bin activator with rugged solid steel supporting arms and a unitized vibrator/motor to provide continuous movement of difficult to handle materials in the bin. A conical dual baffle design features a primary baffle mounted in the bin activator to keep contents in constant motion, and a unique secondary baffle above the discharge outlet that moves at a slightly different amplitude to promote flow of product without plugging, jamming or bridging.

# Features/Benefits

Diameters: from 3 ft. to 8 ft.

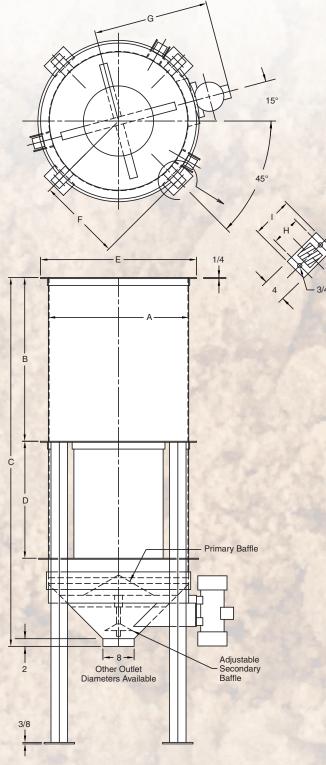
Capacity: from 25 to 750 cu. ft.

Construction Materials: carbon steel, 304 or 316 stainless, specialty coatings

### **Operating Characteristics**

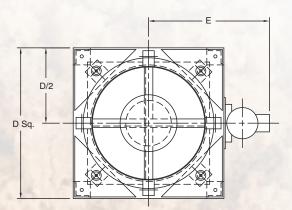
Provides positive, problem-free discharge for a wide range of difficult to handle materials in a variety of densities and particle sizes.

Specifications = 25 to 750 cu. It. capacity	Specifications -	- 25 to	750 cu.	ft. C	apacity
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Model #	Α	В	C*	D	E	F	G	н	1	HP
PB3-25	36	36	58-5/8	20-7/8	40	21-1/2	29-5/8	5	7	1.5
PB3-50	36	72	94-5/8	20-7/8	40	21-1/2	29-5/8	5	7	1.5
PB4-50	48	42	71-1/2	21-1/8	52	27-1/2	35-7/8	5	7	1.5
PB4-75	48	70	99-1/2	21-1/8	52	27-1/2	35-7/8	5	7	1.5
PB4-100	48	85	114-1/2	21-1/8	52	27-1/2	35-7/8	5	7	1.5
PB5-100	60	54	90-3/16	21-1/2	64	33-1/2	41-7/8	5	7	1.5
PB5-150	60	84	120-3/16	21-1/2	64	33-1/2	41-7/8	5	7	1.5
PB5-200	60	114	150-3/16	21-1/2	64	33-1/2	41-7/8	5	7	1.5
PB6-200	72	78	121-1/8	23	78	41	49-1/4	7	9	3.0
PB6-250	72	96	139-1/8	23	78	41	49-1/4	7	9	3.0
PB6-300	72	116	159-1/8	23	78	41	49-1/4	7	9	3.0
PB7-300	84	88	138	23	90	47	55-3/4	7	9	3.0
PB7-350	84	102	152	23	90	47	55-3/4	7	9	3.0
PB7-400	84	106	156	23	90	47	55-3/4	7	9	3.0
PB8-500	96	99	155-7/8	31	102	53	62	7	9	3.0
PB8-750	96	162	219	31	102	53	62	7	9	3.0





# **PLBB** Posibins<sup>™</sup>

PLBB (LVT) Posibins have a static cylindrical bin on top of a full size LVT bin activator with threaded rod supporting arms and low durometer isolators to improve vibration dampening. A conical dual baffle design features a primary baffle mounted in the LVT bin activator to keep contents in constant motion, and a unique secondary baffle at the final outlet that moves at a slightly different amplitude to provide flow of product without plugging, jamming or bridging. The PLBB (LVT) Posibin's smaller size and reduced vibration makes it ideal for use with scaling systems and equipment and for loss-in-weight gravimetric feeding.

## **Features/Benefits**

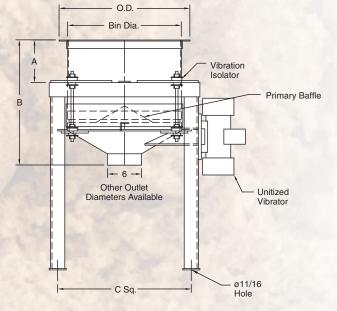
Diameters: 20", 24", 28", and 30"

Capacity: from 3 to 15 cu. ft.

Construction Materials: carbon steel, 304 or 316 stainless, specialty coatings

# **Operating Characteristics**

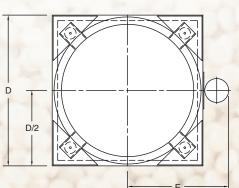
Provides positive, problem free discharge of a wide range of difficult to handle materials in a variety of densities and particle sizes with low vibration transmission. PLBB's are particularly suited to applications using sensitive gravimetric scale systems like Metalfab's "Better-Weigh<sup>®</sup>" Feeders.

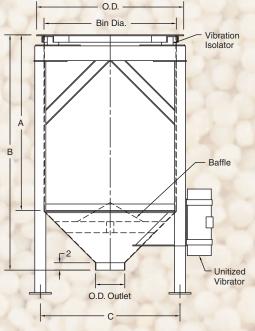


## Specifications

Model #	Capacity cu. ft.	Bin Dia.	O.D.	А	В*	С	D	E	O.D. Outlet	HP
PLBB20-3	3	20′	23	7-1/2	22	23-1/2	26-1/2	21-1/4	6	0.4
PLBB20-5	5	20′	23	9-1/2	34	23-1/2	26-1/2	21-1/4	6	0.4
PLBB24-8	8	24′	28	19	34-1/2	28	31-1/2	23-3/4	6	0.4
PLBB28-10	10	28′	32	16	32	32	35-1/2	25-3/7	6	0.4
PLBB30-15	15	30′	34	24-1/2	41	34	37-1/2	26-3/4	6	0.4







# **MLB Live Bins**

Metalfab Live Bins consist of a round metal bin with its own support frame, unitized vibrator/motor, and a single baffle supported immediately above the outlet. The bin and its entire contents are vibrated horizontally in response to the unbalanced weights of the vibrator to ensure the uninterrupted flow of material on demand, without bridging or rat holing. Live bins are particularly well suited for sanitary and pressure applications since there is no gap between vibrated and non-vibrated sections.

#### **Features/Benefits**

Diameters: from 20" to 60"

Capacity: from 3 to 100 cu. ft.

Construction Materials: carbon steel, 304 or 316 stainless, designs for pressures to 14.9 PSIG positive and pressures down to 10.0<sup>°</sup> mercury

Sanitary Construction: available

#### **Operating Characteristics**

Provides uninterrupted flow of material on demand without bridging or rat holing

# Specifications

Model #	Capacity cu. ft.	Bin Dia.	O.D.	А	В*	С	D	E	O.D. Outlet	HP
MLB20-3	3	20	23	17-1/2	23-1/2	23-1/2	26-1/2	21-1/4	6	0.4
MLB20-5	5	20	23	29-1/2	35-1/2	23-1/2	26-1/2	21-1/4	6	0.4
MLB24-8	8	24	28	29	36	28	31-1/2	23-3/4	6	0.4
MLB28-10	10	28	32	26	34-1/2	32	35-1/2	25-3/7	6	0.4
MLB30-15	15	30	34	34-1/2	43-1/2	34	37-1/2	28-1/2	6	1.5
MLB36-25	25	36	40	36	46	38-1/2	41	30-1/4	8	1.5
MLB48-50	50	48	52	48	61-1/2	50-1/2	53	36-1/4	8	1.5
MLB48-75	75	48	52	72	85-1/2	50-1/2	53	36-1/4	8	1.5
MLB60-100	100	60	64	60	77	62-1/2	65-1/2	42-1/2	8	1.5

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Shown with optional cross members for a feeder

# **Self-Standing Static Bins**

Static Bins are designed for storage of free-flowing bulk materials and non-vibrated discharge of product, and are available with four support legs or lugs.

# **Features/Benefits**

Diameter: 30" x 37-7/8" to 67" H

Capacities: 3, 5, 8, 10 and 15 cu. ft. and up

Construction Materials: carbon steel, 304 or 316 stainless, specialty coatings

Other Shapes, Sizes, and Capacities: available

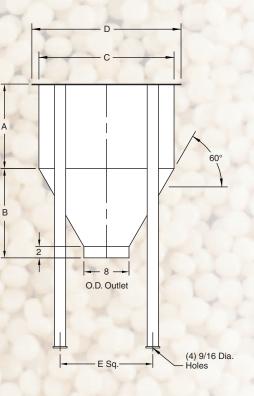
Options: Bolted and gasketed cover

# **Operating Characteristics**

Provides a safe, reliable way to store and discharge free flowing materials.

# **Specifications**

Model	Capacity cu. ft.	А	B*	С	D	E
SB3	3	6	15-7/8	24	26-1/2	16-1/2
SB5	5	15	15 15-7/8	24	26-1/2	16-1/2
SB8	8	11	21-1/16	30	32-1/2	21-3/16
SBIO	10	16	21-1/16	30	32-1/2	21-3/16
SB15	15	30	21-1/16	30	32-1/2	21-3/16





# **Portable (IBC) Bin Unloaders**

Portable (IBC) Intermediate Bulk Container Bin Unloaders consist of a steel platform, unitized vibrator/motor, and rugged steel framework that is mounted on vibration isolators. The top of the platform has four corner guide locators to assist forklift operators in properly positioning the (IBC) bin for product discharge. When a bin is set in place, the bin unloader's center cylindrical flanged tube and sponge elastomer seal engages the lower flange of the bin's outlet gate and compresses the seal. Once the gate is opened, the bin unloader's vibrator/motor transmits a gentle vibration to start the flow of product on a first-in, first-out basis while maintaining a constant bulk density of product leaving the bin.

#### **Features/Benefits**

Dimensions: 44" W x 50" D x 15-1/2" H

Capacity: handles IBC bins of 50, 75, and 100 cu. ft.

Construction Materials: carbon steel, 304 or 316 stainless, specialty coatings

Options: Rugged steel support stand, scale system, screw feeder, flexible screw conveyor, and explosion-proof unitized vibrator/motor

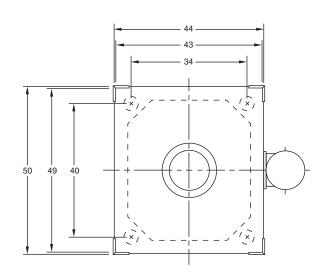
## **Operating Characteristics**

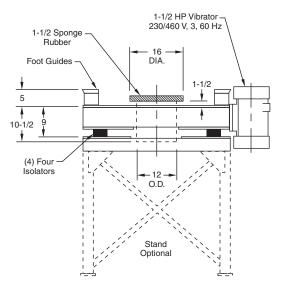
Provides flow of product on a first-in, first-out basis while maintaining a constant bulk density of product leaving the bin

For more information or literature on any of these products or services call **800-764-2999**, in NJ 973-764-2000, Fax: 973-764-0272, or e-mail: **sales@metalfabinc.com**.



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