



# Syntron® Light Industry Feeders & Vibrators

**Syntron** Material Handling

Look to Syntron Material Handling for exceptional value and performance in bulk material handling. For over 80 years, we've partnered with our customers to solve material handling requirements in the most demanding and diverse industries and applications. Proven, low-maintenance and built to last, our Syntron® line – backed by our expert team of engineers and application specialists – sets the standard for quality, performance and reliability.

Syntron Material Handling is committed to complete customer satisfaction, with fast, efficient solutions for most bulk handling applications. From state-of-the-art electronic data capabilities, to expert sales and engineering support specialists, we're focused on ensuring a smooth design, production and installation process – from start to finish. Once you're up and running, our customer service and field service teams are on call for technical service and support.

**Syntron®**  
Light Industry Feeders

Versatile, efficient feeding solutions for a broad range of processing applications from the most common to the most challenging bulk materials. Syntron® Light Industry Feeders are on the job around the world, around the clock, maximizing productivity with proven, reliable feeding solutions.

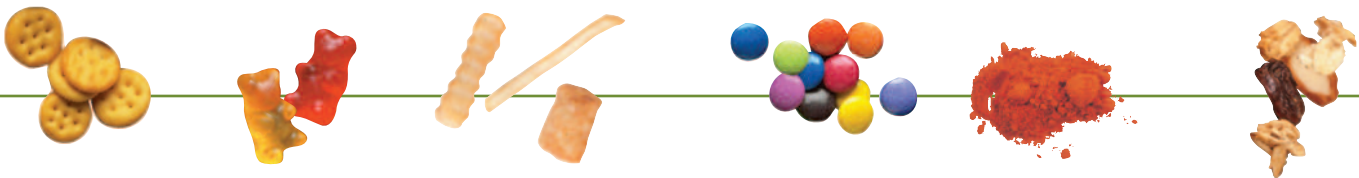


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# feeding

The controlled flow of materials from bulk storage or from one process to another to achieve optimum efficiency.



## Syntron® Vibrating Feeders for Light Industry

**Ideal for metering bulk material flow in feeding, mixing and packaging operations.**

Syntron® Vibrating Feeders for light industry offer unmatched flexibility and reliability, making them ideally suited for a number of applications and materials. They are typically used in feeding, mixing, blending, batching, grinding, packaging, flaking, freezing and drying applications. Whether the material is hot or cold, fine or coarse, dry or damp, light or heavy, these versatile units handle it with ease and efficiency.

With over 80 years of performance-proven history, Syntron feeders are well known for their outstanding performance in bulk material handling. Syntron feeders are subresonantly tuned to maintain stroke consistency and speed stability, thus delivering higher capacities at controlled feed rates. Other standard features include robust design, tuneability, and the capability to work consistently under varying headloads.

Syntron Vibrating Feeders feature electromagnetic design, offering excellent durability and reliability. With no mechanical parts to wear out or require lubrication, downtime and maintenance are extremely rare, even under difficult or abusive environmental conditions.

Capacities range from 1,250 pounds to 25 tons per hour, based on granular material weighing 100 pounds per cubic foot, and are configured for high-speed tuning to handle special applications. Low-frequency models operate at 1,800 vpm and offer higher amplitude. All other models operate at 3,600 cycles per minute on a 60 Hz power supply. All Syntron feeder models conform to OSHA noise standards and can be provided in accordance with FDA or USDA specifications for use in the food, pharmaceutical and cosmetic industries. Feeder solutions for heavy material loads are also available.

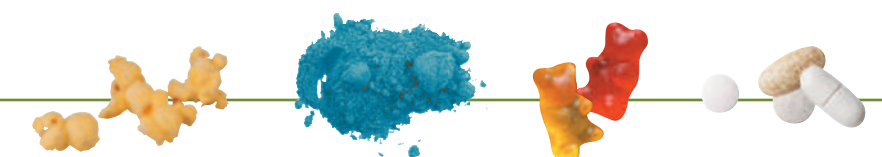
Material flow is easily adjusted with a Syntron control. A wide range of standard and special control arrangements is available to meet specific handling requirements.



*Syntron Model BF-2 Feeders feed potato chips from a modular distribution system to weigh scales in a typical snack food packaging application.*



*Ideal for controlling bulk material in mixing, blending, batching, grinding and packaging operations, the ten standard Light Industry Electromagnetic Vibrating Feeder models operate with maximum capacities ranging from 1,250 pounds to 25 tons per hour, based on material weighing 100 pounds per cubic foot.*





## F-Series Feeders

Syntron® F-Series Feeders are designed for robust feeding, high head loads, stability and tuneability. These little feeders deliver big performance.

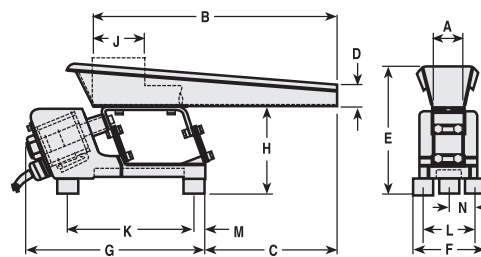
### Model F-T0

Syntron® FT-0 feeder with standard 1-1/2 x 12-inch trough has a maximum capacity of 1,250 pounds per hour. This dependable feeder is ideal for applications demanding top performance at budget prices. Common applications include metering small quantities of dry materials or conveying small parts.

Trough Type	A	B	C	D	E	F	G	H •	J	K	L	M	N	
Std. Flat Pan	(in)	1 1/2	12	6 3/8	1	6 3/8	3	9 1/2	4 3/8	-	6 1/4	2 1/4	1 1/2	1 1/8
	(mm)	38	305	162	25	162	76	241	111	-	159	57	13	29
Spec. Flat Pan	(in)	2	8	2 7/8	1	6 3/8	3	9 1/2	4 3/8	-	6 1/4	2 1/4	1 1/2	1 1/8
	(mm)	51	203	73	25	162	76	241	111	-	159	57	13	29
Spec. V-Shape	(in)	-	12	6 3/8	1 1/8	5 1/2	3	9 1/2	4 3/8	-	6 1/4	2 1/4	1 1/2	1 1/8
	(mm)	-	305	162	29	140	76	241	111	-	159	57	13	29
Spec. Tubular	(in)	1 dia	12	6 3/8	-	5 3/4	3	9 1/2	4 3/8	1 3/4 sq	6 1/4	2 1/4	1 1/2	1 1/8
	(mm)	25	305	162	-	146	76	241	111	44	159	57	13	29

Feed Rate ■ : 1250 lb per hour  
Current Input \* : 115 V 60 cycle @ 0.35 amps

Approx Net Weight Feeder: 10-1/2 lb  
Control Selection: Pages 20-21  
Approx Shipping Weight Feeder and Control: 28 lb



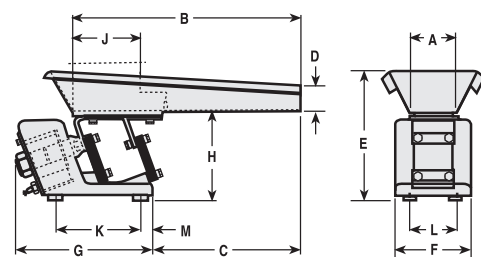
### Model F-T01

Syntron F-T01 feeder with standard 3 x 18-inch flat pan trough has a maximum capacity of two tons per hour. Wider troughs handle larger capacities.

Trough Type	A	B	C	D	E	F	G	H •	J	K	L	M	
Std. Flat Pan	(in)	3	18	12 5/8	1 3/4	8 5/8	5	9 1/8	5 7/8	-	5 5/8	3 1/8	13/16
	(mm)	76	457	321	44	219	127	232	149	-	143	79	21
Spec. Flat Pan	(in)	4	18	12 5/8	1 3/4	8 5/8	5	9 1/8	5 7/8	-	5 5/8	3 1/8	13/16
	(mm)	102	457	321	44	219	127	232	149	-	143	79	21
Spec. Flat Pan	(in)	6	12	6 5/8	1 1/4	8 3/8	5	9 1/8	5 7/8	-	5 5/8	3 1/8	13/16
	(mm)	152	305	168	32	213	127	232	149	-	143	79	21
Spec. V-Shape	(in)	-	18	12 5/8	2	8 7/8	5	9 1/8	5 7/8	-	5 5/8	3 1/8	13/16
	(mm)	-	457	321	51	225	127	232	149	-	143	79	21
Spec. Tubular	(in)	3 dia	18	12 5/8	-	9 7/8	5	9 1/8	5 7/8	6	5 5/8	3 1/8	13/16
	(mm)	76	457	321	-	251	127	232	149	152	143	79	21

Feed Rate ■ : 2 tons per hour  
Current Input \* : 115 V 60 cycle @ .9 amps

Approx Net Weight Feeder: 33 lb  
Control Selection: Pages 20-21  
Approx Shipping Weight Feeder and Control: 50 lb



- Feed rate based upon granular material weighing 100 pounds per cubic foot and feeder with standard flat pan.
- Height H with standard cushion rubber mount. For other mounting options, see Available Rubber Mountings chart on page 16.
- \* Unit can be ordered to operate from virtually any commercial power supply up to 230 volts. A step-down transformer is required when operating voltage is 460 volts. Please specify the voltage required and either 50 or 60 Hz at time of order.

### Model F-T02

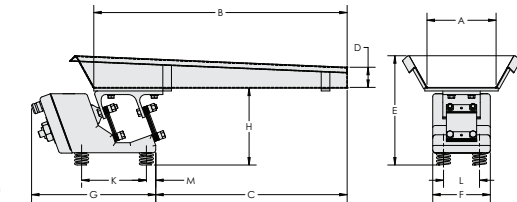
The Syntron® F-T02 feeder comes with all the standard features and benefits you've come to rely on from Syntron light capacity feeders, **PLUS** a higher stroke (.090 inches) that yields twice the travel speed of other Syntron units. The F-T02 is ideal for a whole range of applications, including high-stroke scale feeding, hard to feed materials, and traditional bulk feeding from hoppers. The Syntron F-T02 feeder with standard 6 x 18-inch flat pan trough has a maximum capacity of ten tons per hour. ■ Wider troughs handle larger capacities.



Trough Type	A	B	C	D	E	F	G	H •	J	K	L	M	
Std. Flat Pan	(in)	6	18	12 5/8	2	9 11/16	5	10 1/2	6 3/4	-	5 5/8	3 1/8	13/16
	(mm)	152	457	321	51	246	127	267	171	-	143	79	21

Feed Rate ■ : 10 tons per hour  
Current Input \* : 115 V 60 cycle @ 1.5 amps

Approx Net Weight Feeder: 42 lb  
Control Selection: Pages 20-21  
Approx Shipping Weight Feeder and Control: 65 lb



- Feed rate based upon granular material weighing 100 pounds per cubic foot and feeder with standard flat pan.
- Height E and H with standard coil spring mount. For other mounting options, see Available Rubber Mountings chart on page 16.
- \* Unit can be ordered to operate from virtually any commercial power supply up to 230 volts. A step-down transformer is required when operating voltage is 460 volts. Please specify the voltage required and either 50 or 60 Hz at time of order.
- ▲ Other trough sizes are available. Contact the factory for assistance.

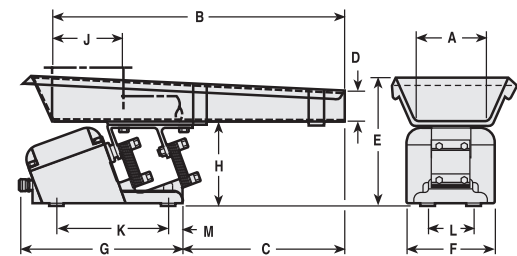
### Model F-010

Syntron® F-010 feeder with standard 5 x 20-inch trough has a maximum capacity of four tons per hour. ■

Trough Type	A	B	C	D	E	F	G	H •	J	K	L	M	
Std. Flat Pan	(in)	5	20	13	2	9	6	11 5/16	6	-	7 3/4	3 1/8	1
	(mm)	127	508	330	51	229	152	287	152	-	197	79	25
Spec. Flat Pan	(in)	5	24	15	2	9	6	11 5/16	6	-	7 3/4	3 1/8	1
	(mm)	127	610	381	51	229	152	287	152	-	197	79	25
Spec. Flat Pan	(in)	6	18	12	2	9	6	11 5/16	6	-	7 3/4	3 1/8	1
	(mm)	152	457	305	51	229	152	287	152	-	197	79	25
Spec. Tubular	(in)	3 dia	18	12	-	10	6	11 5/16	6	6 sq	7 3/4	3 1/8	1
	(mm)	76	457	305	-	254	152	287	152	152	197	79	25

Feed Rate ■ : 4 tons per hour  
Current Input: 115 V 60 cycle @ 2.0 amps

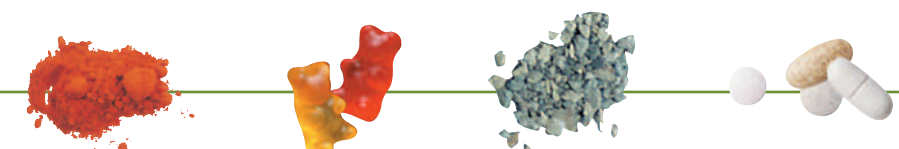
Approx Net Weight Feeder: 41-1/2 lb  
Control Selection: Pages 20-21  
Approx Shipping Weight Feeder and Control: 65 lb



- Feed rate based upon granular material weighing 100 pounds per cubic foot and feeder with standard flat pan.
- Height H with standard cushion rubber mount. For other mounting options, see Available Rubber Mountings chart on page 16.
- \* Unit can be ordered to operate from virtually any commercial power supply up to 230 volts. A step-down transformer is required when operating voltage is 460 volts. Please specify the voltage required and either 50 or 60 Hz at time of order.

The actual capacity of all Syntron Vibrating Feeders varies according to the density of the bulk material being handled and the feeder trough size.

Syntron feeders can be furnished with above-trough drives if required; base mounting is the most common arrangement on light industry feeders.



# feeder models and specifications, cont'd.

## Model F-152

With a capacity of 12 tons per hour, the Syntron® F-152 feeder carries heavier troughs and greater head loads than smaller models such as model BF-2. This unit is commonly used in blending, mixing and packaging operations in industries such as glass and plastic applications. Base or suspension mounting is available, and above-deck drives are an option.

### Below-Deck Drive

Trough Type	A	B	C	D	E	F	G	H	J	K	L	M	
Std. Flat Pan	(in)	10	36	5 1/2	2 1/2	15 3/4	8 1/8	16 1/8	11 3/4	19 3/8	29 3/8	14 3/4	13 1/2
	(mm)	254	914	140	64	400	206	410	298	492	746	375	343
Spec. Flat Pan	(in)	6	42	2 1/2	2 1/2	15 3/4	8 1/8	19 1/8	11 3/4	19 3/8	26 3/8	10 3/4	12
	(mm)	152	1067	64	64	400	206	486	298	492	670	273	305
Spec. Flat Pan	(in)	8	36	5 1/2	2 1/2	15 3/4	8 1/8	16 1/8	11 3/4	19 3/8	29 3/8	12 3/4	13 1/2
	(mm)	203	914	140	64	400	206	410	298	492	746	324	343
Spec. Flat Pan	(in)	12	30	8 1/2	2 1/2	15 3/4	8 1/8	13 1/8	11 3/4	19 3/8	29 3/8	16 3/4	15
	(mm)	305	762	216	64	400	206	333	298	492	746	425	381
Spec. Tubular	(in) 3 dia.	36	2 1/8	3	14 1/2	8 1/8	16 1/8	10 1/2	16	22 7/8	-	12	
	(mm)	76	914	54	76	368	206	410	267	406	581	-	305
Spec. Tubular	(in) 4 dia.	24	8 1/8	4	15 1/2	8 1/8	10 1/8	10 1/2	16	22 1/8	-	12	
	(mm)	102	610	206	102	394	206	257	267	406	562	-	305
Spec. Tubular	(in) 6 dia.	18	11 1/8	6	17 1/2	8 1/8	7 1/8	10 1/2	16	20 7/8	-	12	
	(mm)	152	457	283	152	445	206	181	267	406	530	-	305

### Above-Deck Drive

Trough Type	A	B	C	D	E	F	G	H	J	K	L	
Spec. Flat Pan	(in)	6	24	8 1/4	32 1/4	14 1/2	4	21 1/2	7	14	12	10 3/4
	(mm)	152	610	210	819	368	102	546	178	356	305	273
Spec. Flat Pan	(in)	6	36	1 1/8	39 7/8	14	4	25	7	14	12	10 3/4
	(mm)	152	914	29	1013	356	102	635	178	356	305	273
Spec. Flat Pan	(in)	8	16	13 3/8	32 1/8	15	5	19 5/8	7	14	12	12 3/4
	(mm)	203	406	340	816	381	127	498	178	356	305	324
Spec. Flat Pan	(in)	8	24	8 1/4	35	14 1/2	4	21 1/2	7	14	12	12 3/4
	(mm)	203	610	210	889	368	102	546	178	356	305	324
Spec. Flat Pan	(in)	8	36	1 1/8	39 7/8	14	4	25	7	14	12	12 3/4
	(mm)	203	914	29	1013	356	102	635	178	356	305	324
Spec. Flat Pan	(in)	10	16	12 1/4	31	14 1/2	4 1/2	18 1/2	7	14	12	14 7/8
	(mm)	254	406	311	787	368	114	470	178	356	305	378
Spec. Flat Pan	(in)	10	24	8 1/4	35	14 1/2	4 1/2	21 1/2	7	14	12	14 3/4
	(mm)	254	610	210	889	368	114	546	178	356	305	368
Spec. Flat Pan	(in)	12	24	8 1/4	35	14 1/2	4 5/8	21 1/2	7	14	12	16 3/4
	(mm)	305	610	210	889	368	117	546	178	356	305	425
Spec. Flat Pan	(in)	14	16	12 1/2	31	14 1/2	4	18 1/2	7	14	12	18 3/4
	(mm)	356	406	318	787	368	104	470	178	356	305	476

Feed Rate ■: 12 tons per hour  
Approx. Current Input \* :115 volt, 60 cycle, 2.5 amps

Approx. Net Weight, Feeder: 95 lb  
Control Selection: Pages 20-21  
Approx. Ship. Weight, Feeder and Control: 140 lb

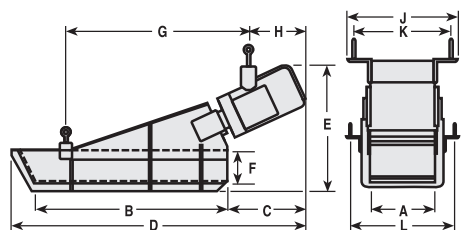
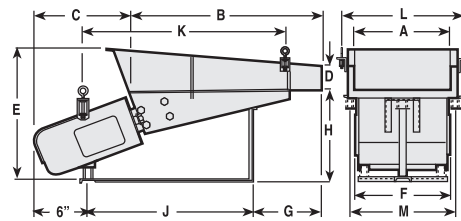
- Feed rate based upon granular material weighing 100 pounds per cubic foot and feeder with standard flat pan.
- \* Unit can be ordered to operate from virtually any commercial power supply up to 575 volts. Please specify the voltage required and either 50 or 60 Hz at time of order.
- ▲ Other trough sizes are available. Contact the factory for assistance.

The actual capacity of all Syntron Vibrating Feeders will vary according to the density of the bulk material being handled and the feeder trough size.

Syntron feeders can be furnished with above-trough drives if required; base mounting is the most common arrangement on light industry feeders. Both base and suspension mounting configurations are available for models F-152 and F-212.



Syntron F-152 Feeder



## Model F-212

Syntron® F-212 feeder offers the same design features as model F-152, but with a maximum capacity of 20 tons per hour. This proven, rugged unit is ideal for heavy-duty applications. Model F-212 can be supplied with either base or suspension mounting. Above-deck drives are an option.

### Below-Deck Drive

Trough Type	A	B	C	D	E	F	G	H	J	K	L	M	
Std. Flat Pan	(in)	12	36	8 3/8	3	17 5/8	12	17 1/4	12 5/8	20 1/4	26 1/2	16 3/4	15
	(mm)	305	914	213	76	448	305	438	321	514	673	425	381
Spec. Flat Pan	(in)	8	42	2 3/8	3	17 5/8	12	20 1/4	12 5/8	20 1/4	26 1/2	12 3/4	15
	(mm)	203	1067	60	76	448	305	514	321	514	673	324	381
Spec. Flat Pan	(in)	16	30	11 3/8	3	17 5/8	12	14 1/4	12 5/8	20 1/4	27	20 3/4	15
	(mm)	406	762	289	76	448	305	362	321	514	686	527	381
Spec. Flat Pan	(in)	18	24	14 3/8	3	17 5/8	12	11 1/4	12 5/8	20 1/4	27	22 3/4	15
	(mm)	457	610	365	76	448	305	286	321	514	686	578	381
Spec. Tubular	(in) 10 dia.	24	12	10	23 3/4	12	8 7/8	11 3/4	20 1/4	25 1/2	-	15	
	(mm)	254	610	305	254	603	305	225	298	514	648	-	381
Spec. Tubular	(in) 8 dia.	30	9	8	21 3/4	12	11 7/8	11 3/4	20 1/4	24 1/2	-	15	
	(mm)	203	762	229	203	552	305	302	298	514	622	-	381
Spec. Tubular	(in) 6 dia.	36	6	6	19 3/4	12	14 7/8	11 3/4	20 1/4	20 1/2	-	15	
	(mm)	152	914	152	152	502	305	378	298	514	521	-	381
Spec. Tubular	(in) 4 dia.	42	5 3/8	4	18 5/8	12	14 3/4	12 5/8	25 3/4	23 1/2	-	15	
	(mm)	102	1067	137	102	473	305	375	292	654	597	-	381

### Above-Deck Drive

Trough Type	A	B	C	D	E	F	G	H	J	K	L	
Spec. Flat Pan	(in)	8	36	9	45	18	5 1/2	32 1/4	8 1/4	15	12	13
	(mm)	203	914	229	1143	457	140	819	210	381	305	330
Spec. Flat Pan	(in)	10	30	12	45	18	5 1/2	29 1/4	8 1/4	15	12	15
	(mm)	254	762	305	1143	457	140	743	210	381	305	381
Spec. Flat Pan	(in)	10	36	9	48	18	5 1/2	32 1/4	8 1/4	15	12	15
	(mm)	254	914	229	1219	457	140	819	210	381	305	381
Spec. Flat Pan	(in)	12	24	15	42	18	5 1/2	26	8 3/8	15	12	17
	(mm)	305	610	381	1067	457	140	650	213	381	305	432
Spec. Flat Pan	(in)	12	30	12	45	18	5 1/2	30 1/4	8 1/4	15	12	17 1/8
	(mm)	305	762	305	1143	457	140	768	210	381	305	435
Spec. Flat Pan	(in)	12	36	9	48	18	5 1/2	32 1/4	8 1/4	15	12	17 1/8
	(mm)	305	914	229	1219	457	140	819	210	381	305	435
Spec. Flat Pan	(in)	16	24	15	42	18	5 1/2	26 1/4	8 1/4	15	12	21
	(mm)	406	610	381	1067	457	140	667	210	381	305	553

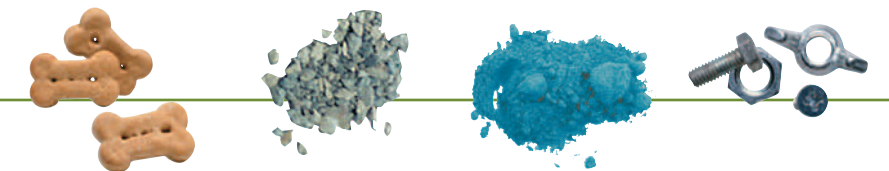
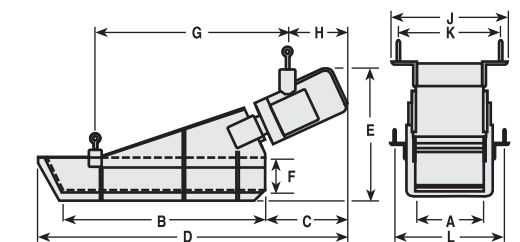
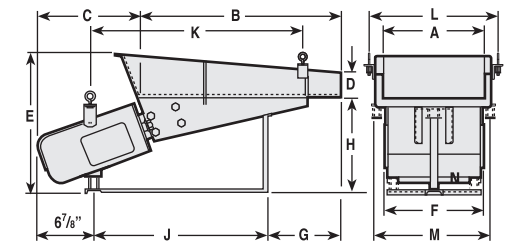
Feed Rate ■: 20 tons per hour  
Approx. Current Input \* :115 volt, 60 cycle, 4.5 amps

Approx. Net Weight, Feeder: 170 lb  
Control Selection: Pages 20-21  
Approx. Ship. Weight, Feeder and Control: 265 lb

- Feed rate based upon granular material weighing 100 pounds per cubic foot and feeder with standard flat pan.
- \* Unit can be ordered to operate from virtually any commercial power supply up to 575 volts. Please specify the voltage required and either 50 or 60 Hz at time of order.
- ▲ Other trough sizes are available. Contact the factory for assistance.



Syntron F-212 Feeder





## BF-Series Feeders

### Model BF-01

Syntron® BF-01 feeder gives you maximum feed control through instantaneous material flow cutoff. Rated at a maximum capacity of 5 tons per hour, when equipped with standard 6 x 24-inch trough. Since the electromagnetic drive has an IP66 Rating, it can be cleaned with steam or water without damaging the electrical components.

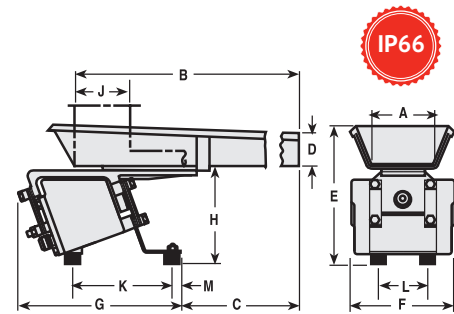
Trough Type	A	B	C	D	E	F	G	H	J	K	L	M	
Std. Flat Pan	(in)	6	24	15 5/16	2	9 11/16	6 9/16	10 3/4	6 11/16	-	6 9/16	3 1/8	9/16
	(mm)	152	610	389	51	246	167	273	170	-	167	79	14
Spec. Flat Pan	(in)	5	20	13 5/16	2	9 11/16	6 9/16	10 3/4	6 11/16	-	6 9/16	3 1/8	9/16
	(mm)	127	508	338	51	246	167	273	170	-	167	79	14
Spec. Flat Pan	(in)	8	20	13 5/16	2	10 11/16	6 9/16	10 3/4	7 11/16	-	6 9/16	3 1/8	9/16
	(mm)	203	508	338	51	271	167	273	195	-	167	79	14
Spec. Flat Pan	(in)	10	20	13 5/16	2	10 11/16	6 9/16	10 3/4	7 11/16	-	6 9/16	3 1/8	9/16
	(mm)	254	508	338	51	271	167	273	195	-	167	79	14
Spec. Flat Pan	(in)	12	14	9 1/16	2	10 11/16	6 9/16	10 3/4	7 11/16	-	6 9/16	3 1/8	9/16
	(mm)	305	356	230	51	271	167	273	195	-	167	79	14
Spec. Tubular	(in)	3 dia	24	15 5/16	-	10 5/8	6 9/16	10 3/4	6 5/8	7 sq	6 9/16	3 1/8	9/16
	(mm)	76	610	389	-	270	167	273	168	178	167	79	14
Spec. Tubular	(in)	4 dia	20	9 13/16	-	11 5/8	6 9/16	10 3/4	6 5/8	8 sq	6 9/16	3 1/8	9/16
	(mm)	102	508	249	-	295	167	273	168	203	167	79	14

Feed Rate ■: 5 tons per hour  
Current Input: 115 V 60 cycle @ 2.3 amps

Approx Net Weight Feeder: 35 lb  
Control Selection: Pages 20-21  
Approx Shipping Weight Feeder and Control: 60 lb



Syntron BF-01 Feeder



### Model BF-2

Syntron® BF-2 feeder offers the same innovative features as the smaller model BF-01, but with a higher feeding capacity of 9 1/2 tons per hour. ■

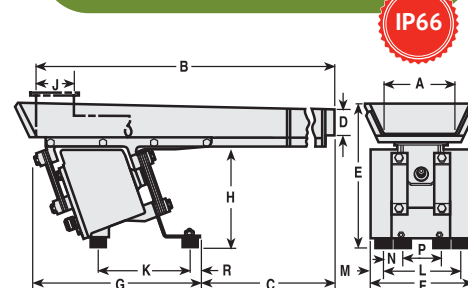
Trough Type	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R
Std. Flat Pan	(in)	8	30	17 5/8	2	11 3/8	8	12 5/8	7 5/16	-	7	6	1	1 1/2	3 3/4
	(mm)	203	762	448	51	289	203	321	186	-	178	152	25	38	76
Spec. Flat Pan	(in)	10	30	17 5/8	2	11 3/8	8	12 5/8	7 5/16	-	7	6	1	1 1/2	3 3/4
	(mm)	254	762	448	51	289	203	321	186	-	178	152	25	38	76
Spec. Flat Pan	(in)	12	24	14 5/8	2	11 3/8	8	12 5/8	7 5/16	-	7	6	1	1 1/2	3 3/4
	(mm)	305	610	371	51	289	203	321	186	-	178	152	25	38	76
Spec. Flat Pan	(in)	14	24	14 5/8	2	11 3/8	8	12 5/8	7 5/16	-	7	6	1	1 1/2	3 3/4
	(mm)	356	610	371	51	289	203	321	186	-	178	152	25	38	76
Spec. Tubular	(in)	3 dia.	30	17 5/8	-	12 3/8	8	12 5/8	7 5/16	8 sq.	7	6	1	1 1/2	3 3/4
	(mm)	76	762	448	-	314	203	321	186	203	178	152	25	38	76
Spec. Tubular	(in)	4 dia.	24	14 5/8	-	13 3/8	8	12 5/8	7 5/16	8 sq.	7	6	1	1 1/2	3 3/4
	(mm)	102	610	371	-	340	203	321	186	203	178	152	25	38	76
Spec. Tubular	(in)	6 dia.	18	11 5/8	-	15 3/8	8	12 5/8	7 5/16	9 sq.	7	6	1	1 1/2	3 3/4
	(mm)	152	457	295	-	391	203	321	186	229	178	152	25	38	76

Feed Rate ■: 9 1/2 tons per hour  
Approx. Current Input ■: 115 volt, 60 cycle 4.0 amps

Approx. Net Weight, Feeder: 90 lb  
Control Selection: Pages 20-21  
Approx. Ship. Weight, Feeder and Control: 100 lb



Syntron BF-2 Feeder



### Model BF-3

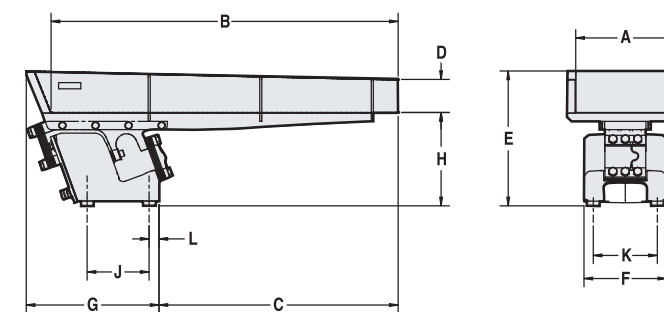
The Syntron® BF-3 feeder is an exciting new addition to Syntron Material Handling's existing line of products by offering a single drive solution for larger trough sizes. The BF-3 utilizes a sealed, sanitary design capable of handling a diverse range of feeding applications while providing solutions for industries such as food, pharmaceutical, material handling and packaging.

Trough Type	A	B	C	D	E	F	G	H	J	K	L	
Std. Flat Pan	(in)	12	42	28 15/16	4	16 5/16	10	16 1/16	11 5/16	7 1/2	7 3/4	1 3/16
	(mm)	305	1,067	735	102	414	254	408	287	191	197	30
Spec. Flat Pan	(in)	8	48	31 15/16	4	16 5/16	10	19 1/16	11 5/16	7 1/2	7 3/4	1 3/16
	(mm)	203	1,219	811	102	414	254	484	287	191	197	30
Spec. Flat Pan	(in)	10	48	31 15/16	4	16 5/16	10	19 1/16	11 5/16	7 1/2	7 3/4	1 3/16
	(mm)	254	1,219	811	102	414	254	484	287	191	197	30
Spec. Flat Pan	(in)	10	38	24 15/16	4	16 5/16	10	16 1/16	11 5/16	7 1/2	7 3/4	1 3/16
	(mm)	254	965	633	102	414	254	408	287	191	197	30
Spec. Flat Pan	(in)	12	48	31 15/16	4	16 5/16	10	19 1/16	11 5/16	7 1/2	7 3/4	1 3/16
	(mm)	305	1,219	811	102	414	254	484	287	191	197	30
Spec. Flat Pan	(in)	14	30	21 15/16	4	16 5/16	10	15 15/16	11 5/16	7 1/2	7 3/4	1 3/16
	(mm)	356	762	557	102	414	254	405	287	191	197	30
Spec. Flat Pan	(in)	16	30	12 15/16	4	16 5/16	10	15 15/16	11 5/16	7 1/2	7 3/4	1 3/16
	(mm)	406	762	329	102	414	254	405	287	191	197	30

Feed Rate ■: 25 tons per hour  
Current Input\*: 115 V 60 cycle @ 10 amps

Approx Net Weight Feeder: 150 lb  
Approx Shipping Weight Feeder and Control: 180 lb

- Feed rate based upon granular material weighing 100 pounds per cubic foot and feeder with standard flat pan.
- \* Unit can be ordered to operate from virtually any commercial power supply up to 575 volts. Please specify the voltage required and either 50 or 60 Hz at time of order. Contact the factory for assistance.
- ▲ Other trough sizes are available. Contact the factory for assistance.

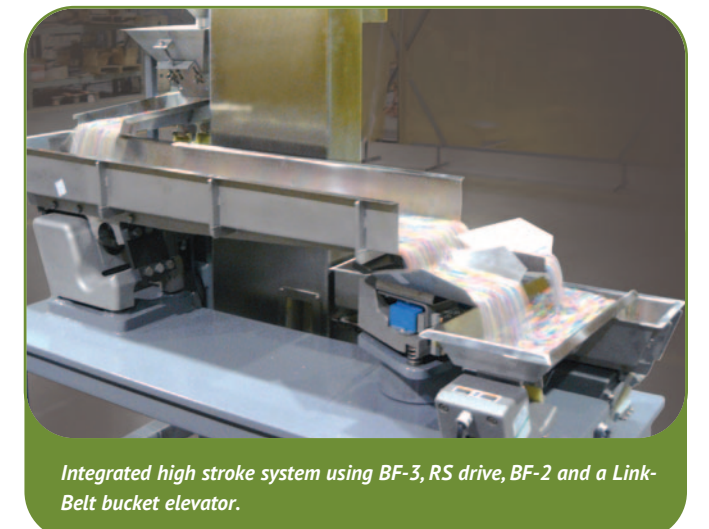


Syntron BF-3 Feeder



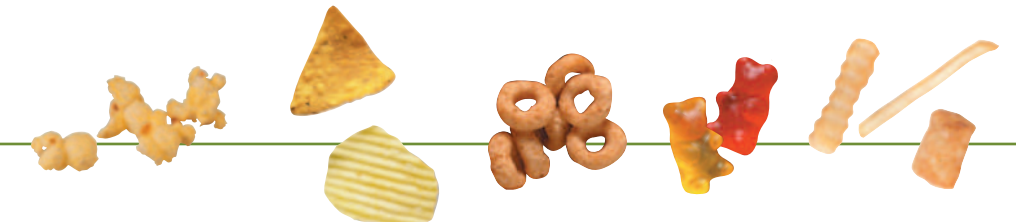
### Features

- Designed for high speed feeding up to 60 ft per minute ■
- Sanitary design eliminates contamination during washdown
- Drive design is IP 66 compliant
- CSA Approved and CE Incorporable
- Feeder capable of operating at .090" stroke with a trough carrying weight ranging from 20 to 40 pounds
- Other trough sizes available – contact the factory for assistance
- Externally adjustable tuning



Integrated high stroke system using BF-3, RS drive, BF-2 and a Link-Belt bucket elevator.

- Feed rate based upon granular material weighing 100 pounds per cubic foot and feeder with standard flat pan.
- Height H with standard cushion rubber mount. For other mounting options, see Available Rubber Mountings chart on page 16.
- \* Unit can be ordered to operate from virtually any commercial power supply up to 460 volts. Please specify the voltage required and either 50 or 60 Hz at time of order.
- ▲ Other trough sizes are available. Contact the factory for assistance.





## Model BF-4

BF-4 feeders can achieve product travel speeds up to 50 feet (15 meters) per minute. Continuous welds on stainless steel troughs provide extra sanitation for food and pharmaceutical applications.

### Features

- Long trough overhang for optimum feeder positioning minimizes product drop and degradation
- Electromagnetic drive allows adjustable vibration control and gentle product handling
- Product travel speeds up to 50 fpm (15 mpm)
- Adjustable stroke—up to .150 inches (4 mm)—maintains feed rate of difficult-to-handle or sticky products
- Continuous welds on stainless steel troughs provide extra sanitation in FDA applications

The actual capacity of all Syntron Vibrating Feeders varies according to the density of the bulk material being handled and the feeder trough size.

- IP66 rated drive is ideal for washdown applications
- Excellent for cold room applications
- Externally adjustable air gap for simple, easy tuning
- Low noise level; approximately 70 db for high-frequency models and 60 db for low-frequency models (while running empty)
- Trough options include:
  - Straight, diagonal or peripheral type discharges
  - Trough covers to prevent contamination

## Model BF-4

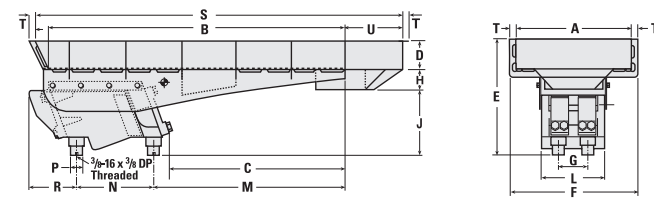
	A	B	C	D	E	F	G	H	J	L	M	N	P	R	S	T	U	V	W
<b>Typical peripheral type discharge</b>	(in) 20	51	30 3/8	5	19 5/16	22 1/8	5	3 1/2	11 1/8	11 1/8	33 1/4	13	2	8 1/8	63 5/16	1 1/4	10	-	-
	(mm) 508	1,295	772	127	491	562	127	89	283	279	845	330	51	206	1,608	32	254	-	-
<b>Typical straight type discharge</b>	(in) 14	73	48	5	19 11/16	16 3/16	5	1 1/2	13 15/16	11	51 3/16	13	2	7	75 5/16	1 1/4	11	4	3/4
	(mm) 356	1,854	1,219	127	500	411	127	38	354	279	1,300	330	51	178	1,913	32	279	102	19

Many other trough sizes available.

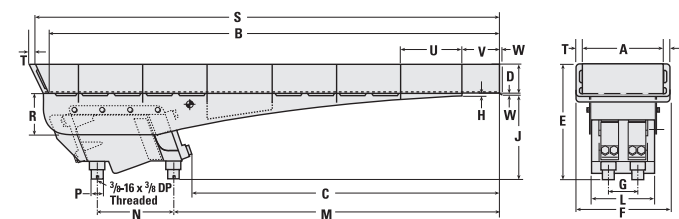
Feed Rate ■: 11 tons per hour  
 Approx. Ship. Wt: 500 lb (267 kg)  
 Control Selection: Pages 20-21  
 Approx. Net Wt, Feeder: 400 lb (181 kg)  
 Approx. Current Input:  
 @ 230 V, 50 Hz or 60 Hz, 9 amps  
 Available for:  
 115 V, 230 V, 460 V, 3600 VPM @ 60 Hz  
 208 V, 230 V, 380 V, 3000 VPM @ 50 Hz

■ Based on material weighing 25 lb per ft<sup>3</sup> on a 20-inch wide trough.

Typical peripheral type discharge



Typical straight type discharge



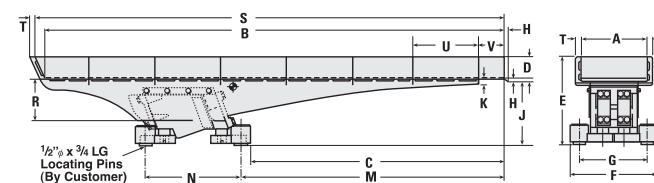
## Model BF-4 Low Frequency

### Straight Discharge BF-4-LF (Low Frequency)

	A	B	C	D	E*	F	G	H	J*	K	M	N	R	S	T	U	V
inches	16	115	66	5	20 3/8	20 1/2	16	3/4	14 5/8	1 1/2	68 1/4	21 5/8	9 1/2	117 5/16	1 1/4	15	4
mm	406	2,921	1,676	127	518	521	406	19	371	38	1,734	549	241	2,980	32	381	102

Many other trough sizes available.

Feed Rate ■: 12 tons per hour  
 Approx. Ship. Weight: 555 lb (252 kg)  
 Approx. Net Wt, Feeder: 455 lb (206 kg)  
 Control Selection: Pages 20-21  
 Approx. Current Input: 230 V, 50 Hz or 60 Hz, 9 amps  
 Available for:  
 230 V, 460 V, 1800 VPM @ 60 Hz  
 208 V, 230 V, 380 V, 2000 VPM @ 50 Hz



- Based on material weighing 25 lb per cu ft on a 20-inch wide trough.
- Height dimension E and J varies with trough weight.

## Model HV-10 Features

### Suitable for a Wide Range of Applications:

- Trough Weight 4-12 lb.
- 50/60 Hz Design
- Stable Footprint
- IP-66
- Wide Range of Input Voltage
- CSA Certified
- Low Profile Design

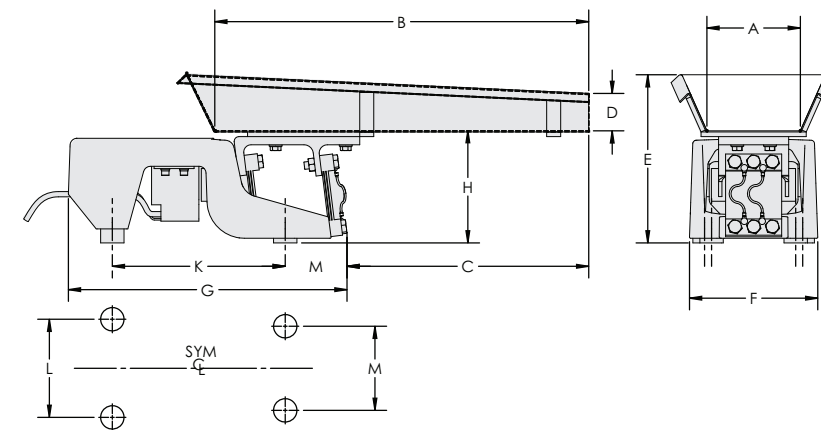
### Great for Use in Food Processing and Packaging:

- Low Product Degradation
- Uniform Material Flow at Discharge
- Multiple Mounting Configurations
- Sanitary Design
- Single Tool Air Gap Adjustment
- Super Resonant Tuning
- Wash Down Capable
- Open Magnet Design
- Linear Speed Control

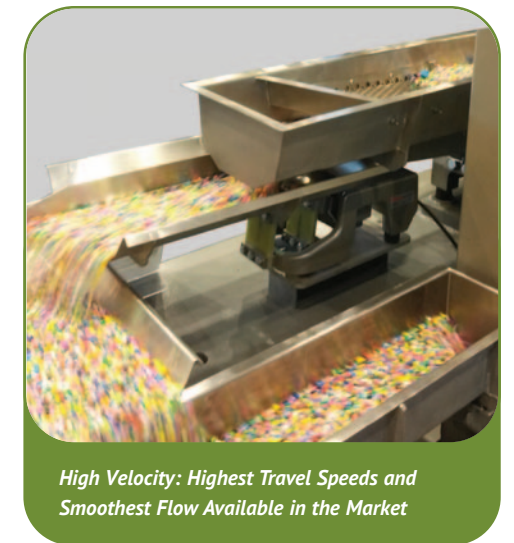
## Model HV-10

Trough Type		A	B	C	D	E*	F	G	H*	K	L	M
Std. Flat Pan	(in)	6	24	12 15/16	2	9	6 7/8	14 13/16	6	9 1/4	5 1/4	4 1/2
	(mm)	152	610	329	51	229	175	376	152	235	133	114
Spec. Flat Pan	(in)	5	20	10 15/16	2	9	6 7/8	14 13/16	6	9 1/4	5 1/4	4 1/2
	(mm)	127	508	278	51	229	175	376	152	235	133	114
Spec. Flat Pan	(in)	8	20	10 15/16	2	10	6 7/8	14 13/16	7	9 1/4	5 1/4	4 1/2
	(mm)	203	508	278	51	254	175	376	178	235	133	114
Spec. Flat Pan	(in)	10	20	10 15/16	2	10	6 7/8	14 13/16	7	9 1/4	5 1/4	4 1/2
	(mm)	254	508	278	51	254	175	376	178	235	133	114
Spec. Flat Pan	(in)	12	14	6 11/16	2	10	6 7/8	14 13/16	7	9 1/4	5 1/4	4 1/2
	(mm)	305	356	170	51	254	175	376	178	235	133	114

### HV-10



\* Reference page 19 Mounting Codes





## Standard troughs

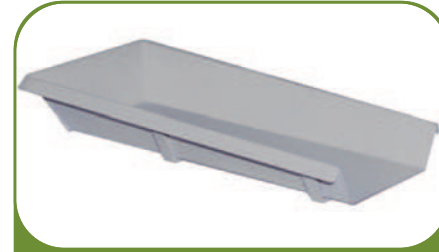
All Syntron® Light Industry Electromagnetic Vibrating Feeders are furnished with mild steel or stainless steel troughs. Mild steel troughs are painted or powder coated inside and outside with a high-quality polyurethane.

To meet food and pharmaceutical requirements, troughs are available in a variety of stainless steel finishes. A glass-beaded finish on stainless steel troughs is available for non-food applications.

Special coating can be applied to trough interiors. These include non-stick fluoropolymer, Urethane, rubber and others. Stainless steel and glass trough liners are also available to provide flat conveying surfaces. In addition, covers and/or downspouts are available.

The rule of thumb for trough selection suggests that the maximum dimension of the largest particle to be handled should not exceed one-third to one-half the trough width. Contact your Syntron Material Handling Sales Engineer or Application Specialist for a complete review of your application.

Modifications or additions to feeder troughs should not be made without first consulting Syntron Material Handling.



*Flat Pan troughs are furnished as standard equipment for general purpose feeding. The trough bottom width is constant for its entire length. Straight or tapered walls are available.*

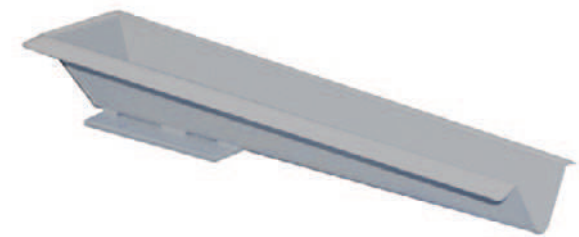
## Special trough styles



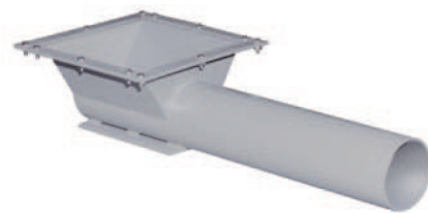
*Tapered Width troughs provide nominal material concentration at discharge.*



*Diagonal Discharge troughs are used to spread the material discharge over the width of a belt or bucket lift positioned at 90 degrees.*



*V-Shaped troughs are used to discharge granular materials in a concentrated, narrow stream.*



*Tubular troughs are used when sealed conveying or feeding is required.*

## Special trough styles and drive configurations

Syntron Material Handling Solutions offers a wide variety of troughs including custom-designed troughs engineered specifically to meet your application requirements.

Customer applications that require extra-wide or long troughs can be met through the use of multiple drive feeders. Troughs for extra-width feeding can be furnished with glass or stainless steel liners. These liner materials are desirable for a uniform bulk material spread and to meet sanitary handling requirements. Trough sizes for wide multiple-drive feeders vary from 12 to 36 inches in length and from 12 inches to 12 feet in width. The number of drive units required for the trough depends upon its overall size.

With long, tubular troughs, pure clean materials can be conveyed without atmospheric contamination. Poisonous, dusty materials can be conveyed without danger to processing personnel. Hot materials can be conveyed without the danger of burning belts or maintenance concerns.

For moving bulk materials over extended distances, multiple drives for extra-length troughs offer several advantages. The extra drives ensure uniform product movement when the unit is fitted with troughs of any desired length and capacity. They can be equipped with open, flat-pan troughs with or without removable covers, or tubular dust-tight troughs. Troughs can be provided in hot rolled steel or stainless steel.

For difficult applications where product drop is a concern, feeders constructed with the drive units above the trough are available.

The bulk material flow rate of all Syntron® multiple-drive feeders can be easily regulated. Control units for multiple-drive feeders are as easy to operate as the control unit for a single-drive feeder.

All Syntron feeders are low maintenance. There are no bearings, rollers, pulleys and chains to lubricate and replace; no drive belts to stretch and slip; no mechanical wearing parts. Syntron Vibrating Feeders have been selected for hundreds of installations because of their versatility. The low-profile design requires minimum headroom. Base mounting and suspension mounting configurations are available.



*Syntron F-T01-3 multiple drive feeder with tubular trough.*



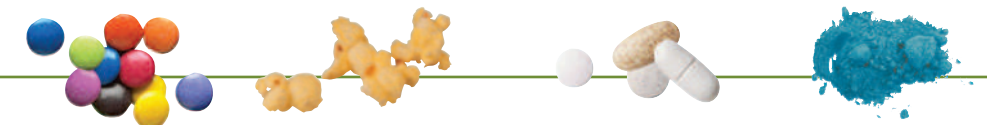
*Syntron F-152 with covered trough.*



*Syntron F-152 with divided trough.*



*A wide, spreader feeder, using three Syntron F-010 drives.*





# Syntron® vibra drive units

Syntron® Vibra Drive Units provide directional vibratory conveying movement to a track, trough or any responsive surface. They are designed for use with packaging machines or special process equipment requiring a metered flow of bulk materials or parts.

Vibra drive units are small, compact, electromagnetic drives encased in dust-tight housings. The mounting bracket has pre-drilled holes for easy attachment to the mass to be vibrated. Drive type and number of drives is determined by the width, length and the weight of the mass to be vibrated.

Below-deck, base mounting is standard for all units. Controls are available to operate a single-drive unit or multiple-drive configurations.

Vibra Drive Units operate from either 115 or 230 volt, single-phase, 50 or 60 cycle power. Models BF-2, BF-3, BF-4 and BF-4 LF vibra drive units also operate from 460 volt; all other units require a step-down transformer when operating voltage is 460 volt.

Syntron Vibra Drives are designed for easy adjustment, including external tuning on most models.



Custom designed sandwiching processes rely on Syntron drives to ensure consistent, controlled delivery and smooth, gentle cookie, wafer or cracker handling.

Syntron vibra drive units are isolated from the surrounding building and supports by rubber mountings for most models. Three types of rubber mountings are available. The BF-4 drive features sandwich mounts. The F-T02, BF-4 LF and the Velocity® RS drives feature coil springs.

## Available Rubber Mountings

Dimensions in inches

	No. 1 Standard Cushion			No. 2 Sandwich Type			No. 3 Special Double Stud		
	A	B	C	A	B	C	A	B	C
F-T0	1	11/16	3/4	1	3/4	3/4	1	3/4	3/4
F-T01	1	1/4	5/16	1	5/16	3/4	1	5/16	3/4
F-010	1	3/16	1/4	1	1/4	3/4	1	1/4	3/4
F-T02	1 1/4	5/16	9/16	1 1/4	9/16	3/4	1 1/4	5/16	3/4
HV-10	1 1/4	3/4	3/4	1 1/4	1	3/4	1 1/4	3/4	3/4
BF-01	1	11/16	3/4	1	3/4	3/4	1	3/4	3/4
BF-2	1 1/4	3/4	3/4	1 1/4	1	3/4	1 1/4	3/4	3/4
BF-3*	1 9/16	17/32	5/8	1 9/16	17/32	5/8	1 9/16	17/32	5/8

Standard rubber mounts are solid rubber (no metal inserts or studs on bottom).

■ F-T02 comes standard with coil spring mounts. Dimension A = 1<sup>15</sup>/<sub>64</sub>; Dimension B = 1<sup>1</sup>/<sub>16</sub>.

\* All BF-3 Isolators are 5/16-18 thread.



Syntron vibra drives are used by many different industries. Here, an F-T01 drive in a parts handling application.

## F-Series Vibra Drives

Syntron® Vibra Drives are designed for easy adjustment, including external tuning on most models.



Model F-T0 will handle up to a 3 1/2-pound mass with up to .060 stroke.



Model F-T01 will handle up to a 7 pound mass with up to .060 stroke.



Model F-T02 will handle up to a 9 pound mass with up to .090 stroke.



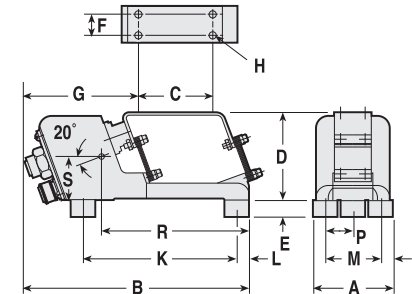
Model F-010 will handle up to a 13 pound mass with up to .060 stroke.

### Drive Dimensions (inches, mm)

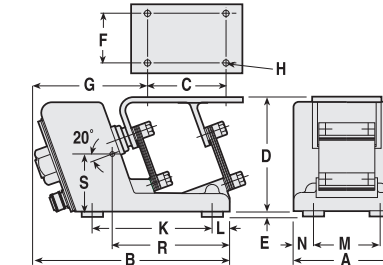
Model		A	B	C	D	E •	F	G	H	J	K	L	M ▲	N	P	R ■	S ■	T
F-T0	(in)	3 1/4	8 3/4	3	3 9/16	1 1/16	1	4 1/4	7/32 dia	-	6 1/4	1/2	2 1/4	1/2	1 1/8	5 1/2	1 7/16	-
	(mm)	82.6	222.3	76.2	90.5	17.5	25.4	107.9	5.6	-	158.8	12.7	57.2	12.7	28.6	139.7	36.5	-
F-T01	(in)	5	9 1/8	3 3/4	5 3/8	1/4	1 3/4	5 1/4	1 1/32 dia	-	5 5/8	1 3/16	3 1/8	1 5/16	-	5 1/2	2 1/2	-
	(mm)	127	231.8	95.3	136.5	6.4	44.5	133.4	8.7	-	142.9	20.6	79.4	23.8	-	139.7	63.5	-
F-T0-2	(in)	5	10 7/8	3 3/4	5 3/8	1 1/16	1 3/4	6 21/32	1 1/32 dia	-	5 3/8	1 3/16	3 1/8	1 5/16	-	5 11/16	2 1/2	-
	(mm)	127	276.2	95.3	136.5	27	44.5	169.1	8.7	-	142.9	20.6	79.4	23.8	-	144.5	63.5	-
F-010	(in)	6	10 7/8	3 3/4	5 9/16	3/16	1 3/4	7 1/8	1 1/32 dia	3/4	7 3/4	1	3 1/8	1 7/16	-	6 3/8	2 5/16	-
	(mm)	152.4	276.2	95.3	141.3	4.76	44.5	181	8.7	19	197	25.4	79.4	36.5	-	161.9	58.7	-

- Height E depends upon rubber mounting selected. See Available Rubber Mountings chart on page 16.
- ▲ Model F-T0 has two 1-inch dia. rubber feet on the rear and one on front. Models F-T01, F-010, BF-01 and BF-2 have two feet on the rear and two on front. Models F-T02, BF-4-LF and Velocity® RS drives feature coil spring isolators as standard components.
- Center of mass—this point should coincide with the center of trough mass at a 20° working angle.

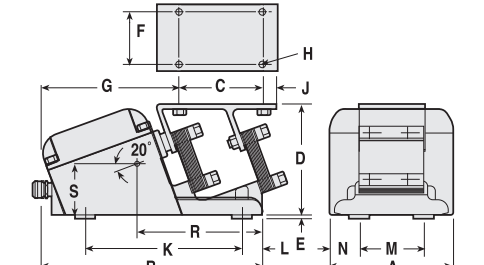
### Model F-T0



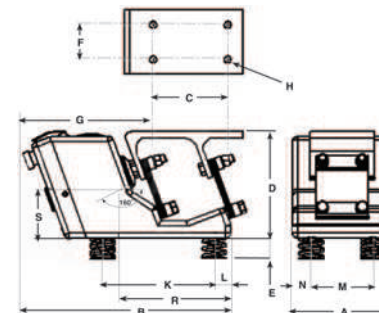
### Model F-T01



### Model F-010



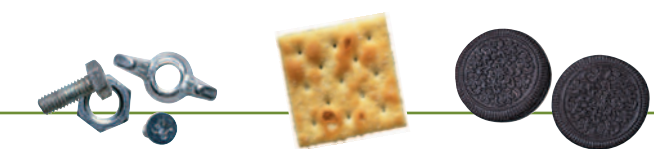
### Model F-T02



## Specifications

	F-T0	F-T01	F-T02	F-010
Approx. Power Consumption*	15 Watts	20 Watts	30 Watts	50 Watts
Approx. Current Input*	.35 amps	.9 amps	1.5 amps	2.0 amps
Approx. Net Weight, Drive	9 1/2 lb	21 lb	33 lb	33 1/2 lb

\* Unit can be ordered to operate from virtually any commercial power supply up to 230 volts. A stepdown transformer is required when operating voltage is 460 volts. Please specify the voltage required and either 50 or 60 Hz at time of order.





## BF-Series Vibra Drives

IP66



Model BF-01 will handle a 12 pound mass with up to .060 stroke.



Model BF-2 will handle a 20 pound mass with up to .090 stroke.



Model BF-3 will handle a 40 pound mass with up to .090 stroke.



Model BF-4 will handle a 90 pound mass with up to .090 stroke.



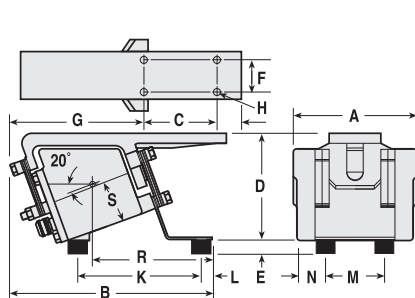
Model BF-4 LF drive will handle up to 110 pound mass with up to .120 stroke.

### Drive Dimensions (inches, mm)

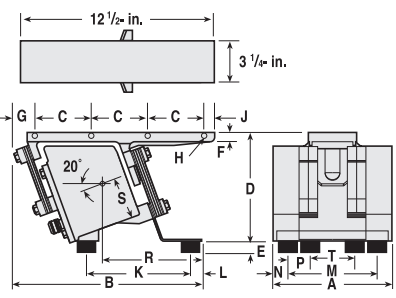
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	
BF-01	(in)	6 9/16	10 3/4	3 3/4	5 11/16	11/16	1 3/4	7 1/4	11/32 dia	1/2	6 9/16	9/16	3 1/8	1 23/32	-	6 3/4	2 1/4	-
	(mm)	167	273	95	144	17	44	184	9	13	167	14	79	44	-	171	57	-
BF-2	(in)	8	12 5/8	4	7 5/16	3/4	5/16	1 1/4	5/16 -18 *	5/16	7	3/4	6	1	1 1/2	7 1/4	2 3/4	3
	(mm)	203	321	102	178	19	8	32	-	8	178	19	152	25	38	184	70	76
BF-3	(in)	10	17 1/8	4	9 21/32	17/32	1	4	1/2 -13 *	11/16	7 1/2	1 3/16	7 3/4	1 1/8	-	6 19/32	4 15/16	-
	(mm)	254	43	102	245	14	25	102	-	17	191	30	197	29	-	167	125	-
BF-4	(in)	11 1/8	24 45/64	4 3/4	11 1/64	1 5/8	3/4	4 27/64	1/2 -13 *	2 39/64	13	1 5/16	5	3 1/16	-	8 9/32	-	-
	(mm)	283	628	121	280	41	19	112	-	66	330	33	127	78	-	210	-	-
BF-4 LF	(in)	20 1/2	26	4 3/4	8 3/4	4 5/8	3/4	4 27/64	1/2 -13 *	2 39/64	21 21/32	2 1/4	16	2 1/4	7	3 13/16	-	-
	(mm)	521	660	121	221	117	19	112	-	66	550	57	407	57	178	97	-	-

- Height E depends upon rubber mounting selected. See Available Rubber Mountings chart on page 16.
- Center of mass—this point should coincide with the center of trough mass at a 20° working angle.
- \* Has 4 holes, drilled and tapped, on each side of mounting plate.
- ◆ BF-4 LF drive features radially-adjustable isolation mounts. Dimensions given are suggested locations of isolation mounts.
- ▲ Height dimension E varies with trough weight.

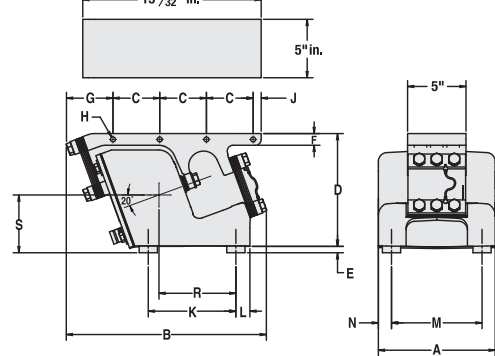
### Model BF-01



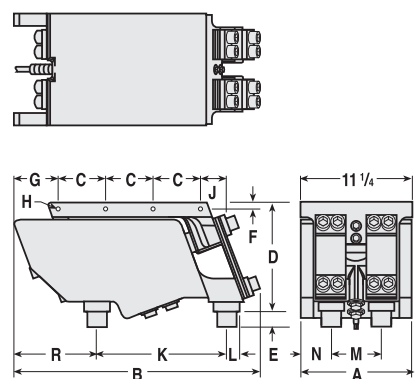
### Model BF-2



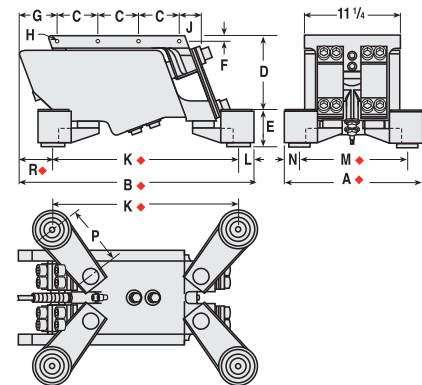
### Model BF-3



### Model BF-4



### Model BF-4 Low Frequency



## Specifications

	Model BF-01	Model BF-2	Model BF-3	Model BF-4	Model BF-4 LF
Approx. Power Consumption	50 Watts	80 Watts	-	-	-
Approx. Current Input	2.3 amps★	4.5 amps	10.0 amps	18.0 amps▼	9.0 amps□
Approx. Net Weight, Drive	30 lb	67 lb	133 lb	310 lb	345 lb

- ★ Unit can be ordered to operate from virtually any commercial power supply up to 230 volts. A step-down transformer is required when operating voltage is 460 volts. Please specify the voltage required and either 50 or 60 Hz at time of order.
- ▼ 18 amps @ 115 V 50 or 60 Hz; 11 amps @ 208 V 60 Hz; 9 amps @ 220/230 V 60 Hz or 220/240 V 50 Hz; 4.5 amps @ 440/460/480 V 60 Hz or 380 V 50 Hz; 3.5 amps @ 575 V 60 Hz.
- 9.0 amps @ 230 V 50-60 Hz; 4.5 amps @ 460 V 60 Hz or 380 V 50 Hz.

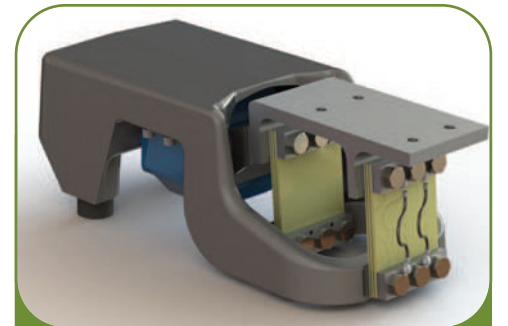
## HV-10 Feeder Drive

### Suitable for a Wide Range of Applications:

- Trough Weight 4-12 lb.
- CSA Certified
- Wide Range of Input Voltage
- Stable Footprint
- IP-66
- 50/60 Hz Design
- Low Profile Design

### Great for Use in Food Processing and Packaging:

- Low Product Degradation
- Wash Down Capable
- Single Tool Air Gap Adjustment
- Multiple Mounting Configurations
- Linear Speed Control
- Sanitary Design
- Uniform Material Flow at Discharge
- Open Magnet Design
- Super Resonant Tuning



High Velocity: Highest Travel Speeds and Smoothest Flow Available in the Market

### Drive Dimensions (inches, mm)

Model	A	B	C	D	E	F	G	H	J	K	L	M	N
HV-10	6 7/8	14 7/8	3 3/4	5 7/16	1/4	1 3/4	11 1/16	11/32	3/4	9 1/4	3 5/16	5 1/4	4 1/2
	175	378	95	138	6	44	281	9	19	235	84	133	114

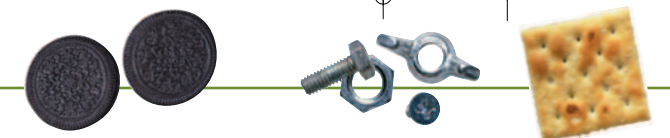
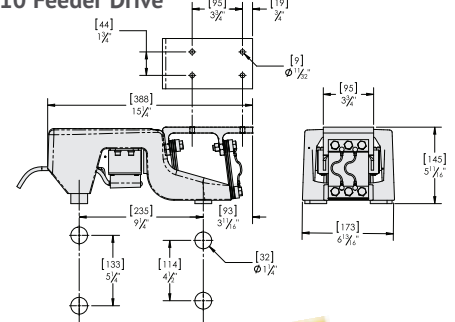
Feature	Benefit
IP-66	Great for use in Clean In Place environments
Open Design	Easy to Integrate and Setup
Interchangeable Trough	Can Interchange with any FT-01, FT-02, F-010 and BF-01 for immediate increased capacity
Uniform Material Flow	Great for use in sorting, blending and coating
Extreme Travel Speed	Double capacity compared to most feeders
Low Vertical Acceleration	Low Degradation to Fragile Material

Part Numbers 6501-060-[Voltage Code] [Frequency Code] [Mounting Code]  
 Eg. 6501-060-16N - 115V /60HZ, Standard Rubber Feet

Voltage Code	Frequency Code	Mounting Code
1 - 115 Volt	5 - 50HZ	N - Standard Rubber Foot
2 - 220/230 Volt	6 - 60HZ	M - 1/4-20 Male Thread *
3 - 380 Volt		F - 1/4-20 Female Thread *
4 - 460 Volt		C - Coil Spring Feet **

\*Add 1/4" to overall height  
 \*\*Add 3/4" to overall height

### HV-10 Feeder Drive





Syntron® Vibrating Feeders are furnished with a standard control to vary the flow of material through the feeder by adjusting the amplitude of the feeder pan. Standard control units include an operating switch, fuse and adjustable control to vary the amplitude.

Controls are available for 115, 230 or 460 volts, 50 or 60 cycle power and are

available for operation at other voltages upon request. Control units for multiple feeder applications are available. For special electrical standards, custom control enclosures can be provided. In addition to the standard controls listed here, Syntron Material Handling can provide control systems built to meet your requirements.

Velocity® RS drives can be provided with a separate, standard RC control (see pages 20-21) and are also available with a self-contained rectifier. Units with a self-contained rectifier operate at full stroke.

Control Model	Volts	Amps	Enclosure	Approvals	Intermittent Contacts	Intensity	Soft Start	Voltage Regulation	RC Output	AC Output
Power Pulse RC WT	115/230	5	Nema 4	cUL	●	Potentiometer			●	
Power Pulse AC WT	115/230	5	Nema 4		●	Potentiometer				●
Conductor DC 15	115	15	Nema 4	cUL	●	POT / 4-20mA	●	●	●	●
Conductor DC 28	230	8	Nema 4	cUL	●	POT / 4-20mA	●	●	●	●
Conductor DC 118	115	18	Nema 12	cUL	●	POT / 4-20mA	●	●	●	●
Conductor DC 218	230	18	Nema 12	cUL	●	POT / 4-20mA	●	●	●	●
Conductor 420	340/480	4-20	Nema 4	cUL	●	POT / 4-20mA	●	●	●	
Conductor 518	575	4-18	Nema 4	cUL	●	POT / 4-20mA	●	●	●	
Conductor CH 15	115	15	Open Chassis	cUL	●	POT / 4-20mA	●	●	●	●
Conductor CH 28	230	8	Open Chassis	cUL	●	POT / 4-20mA	●	●	●	●

● Standard in the model listed

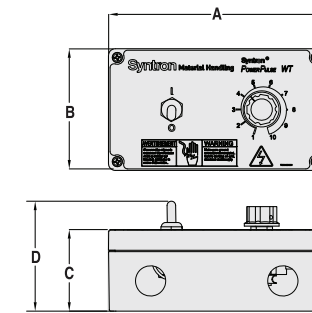
\* Conductor controls are also available in open chassis models for ease in mounting in your system controls.

Note: Some open chassis models have reduced amperage capability. Contact Syntron Material Handling for details.

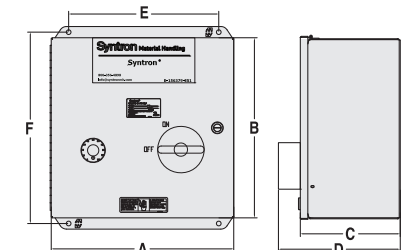
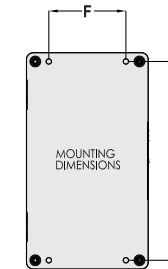


## Control Dimensions

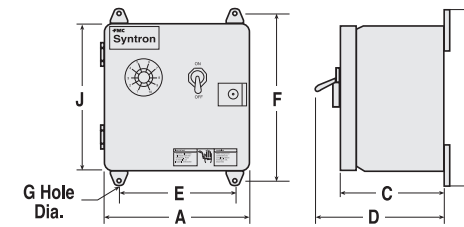
Control Model	A		B		C		D		E		F		G		H		J		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
Power Pulse WT	6 1/4	160	3 1/2	89	2 1/4	57	3 1/4	82	5 3/4	146	2 1/4	57	-	-	-	-	-	-	1 1/4	5
<b>Conductor Series</b>																				
15 & 28 Enc.	8	203	9 1/2	242	4 3/4	121	5 5/8	143	6 1/4	159	8 5/8	219	5/16	8	-	-	8	203	7	3.18
118 & 218 Enc.	8	203	10	254	4 3/4	121	5 5/8	143	6 1/4	159	8 5/8	219	5/16	8	-	-	8	203	8	3.63
420 & 518 Enc.	12 1/4	310	12 1/4	310	6	152	7 13/16	198	10	254	12 3/4	324	0.3	7.92	-	-	12	303	18.5	8.4
15 & 28 Open Chassis	3 15/16	100	3 13/16	96	3 1/16	78	-	-	3 1/4	82	3 1/4	82	0.18	4.5	-	-	-	-	0.58	0.26



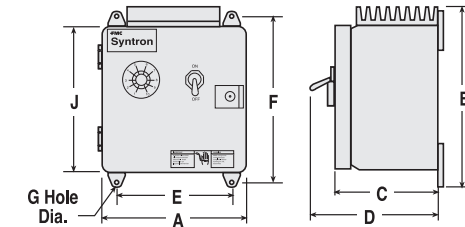
Power Pulse WT



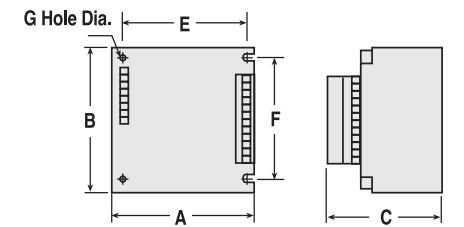
Conductor 420, Conductor 518



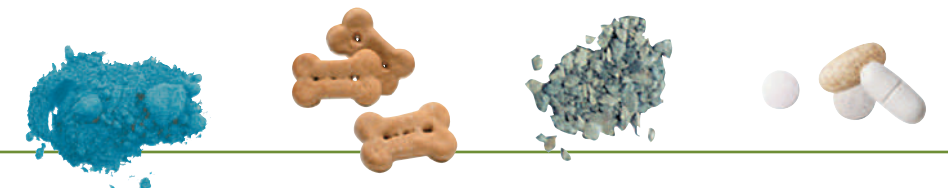
Conductor DC 15, Conductor DC 28



Conductor DC 118, Conductor DC 218



Open Chassis Conductor 15 and Conductor 28





## Syntron® volumetric feeder machines

Total control in material handling for feeding, blending or packaging

Simple design and flexible control account for the efficient, economical performance of Syntron® Volumetric Feeder Machines, and the growing industrial preference for them. These units can feed most dry bulk materials and can be supplied to conform to FDA and USDA specifications. Six Syntron Volumetric Feeder Machine models are available.

Syntron Volumetric Feeder Machine designs include four basic components: a supply hopper, a hopper vibrator, a vibrating feeder and the supporting frame. Supply hoppers are usually fabricated from mild steel but are available in stainless steel. Most supply hoppers are conical; however, rectangular hoppers are an option. Adjusting the gate height between the hopper and feeder trough regulates material depth for most models. Material depth for model FM-T0 is regulated by hopper tilt.

Arching, plugging or bridging of materials in the hopper is prevented through incorporation of a Syntron electromagnetic vibrator. The hopper vibrator features a variable power control, assuring free flow of material to the feeder trough. Vibrating feeders on the Syntron Volumetric Feeder Machines operate at 3,600 vpm (at 60 Hz) and trough options include flat pan (standard), V-shaped, tubular or screening troughs of mild or stainless steel.

Because of their simple design, Syntron Volumetric Feeder Machines are dependable and have an exceptionally long service life. There are no moving parts such as motors, belts, gears, valves, connecting arms or sliding rods to wear or lubricate. For dust-tight sealing, special covered or tubular troughs feature flexible seals on the discharge end of the supply hopper. In addition, flexible seals that seal the top of the supply hopper to an overhead chute, as well as removable dust covers for the supply hopper are available.



*Syntron Volumetric Feeder Machine with conical supply hopper.*

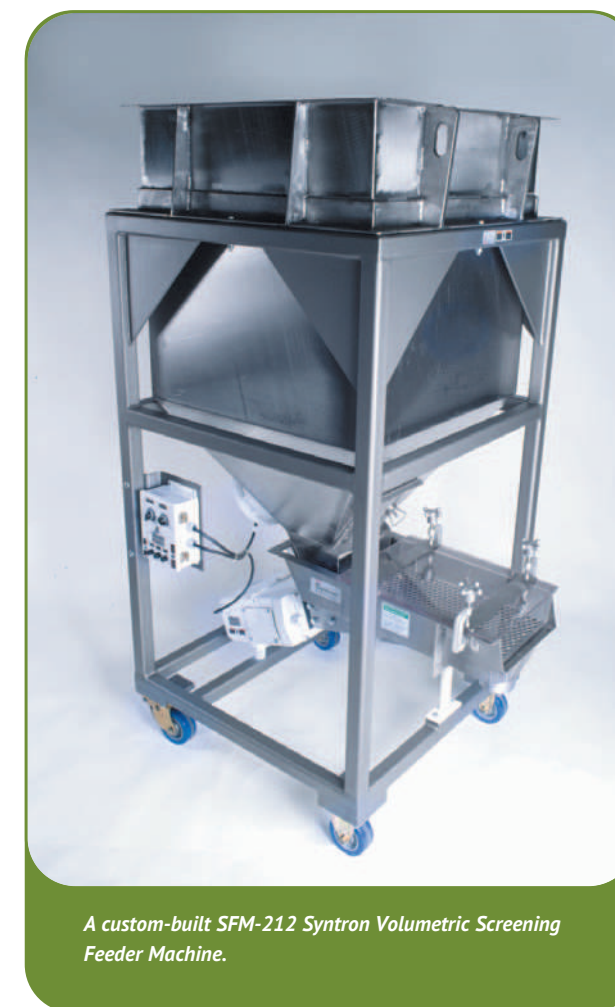
Drives on Syntron® vibrating feeders are available with dust-proof, dust-tight and waterproof construction. These units are virtually noiseless, meeting applicable OSHA specifications. Even at maximum feed, a hum is the only indication that the machine is operating.

Syntron Volumetric Feeder Machines are supplied with electric controls that can be mounted separately at any desired location. Standard controls contain operating switches, rectifiers and rheostats. The electric control regulates the feed rate by varying the vibrating intensity of the electromagnetic feeder. A graduated dial on the control panel permits variation of the flow speeds. Timers are also available to provide intermittent feed.

Capacities of Syntron Volumetric Feeder Machines vary with different materials. Lighter and finer materials result in less capacity and heavier materials result in higher capacities.



*Syntron Volumetric Feeder Machine with customized rectangular hopper.*



*A custom-built SFM-212 Syntron Volumetric Screening Feeder Machine.*

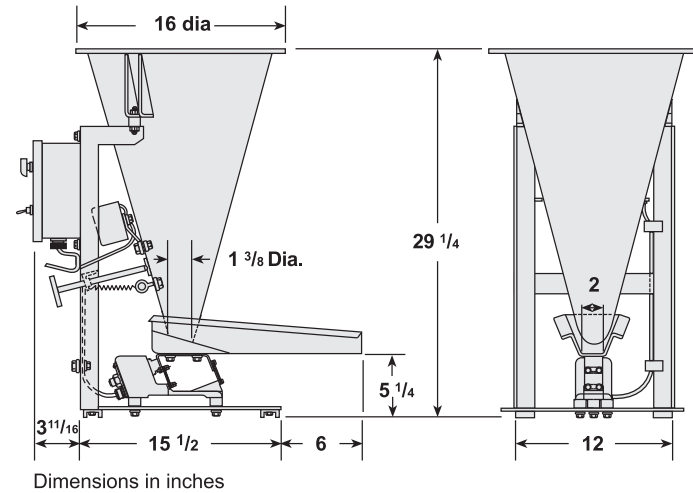




# volumetric feeder machine models and dimensions

## Model FM-T0-3/4

Syntron® Model FM-T0-3/4 is one of the smallest, most economical volumetric feeder machines available. This dependable unit is usually preferred for light-capacity, continuous-use operation. This model features a 3/4 cubic foot supply hopper, a V-2 hopper vibrator, an F-T0 vibrating feeder with 2 x 16-inch flat pan trough and a solid-state control. Configured for 115 volt, single-phase 50 or 60 cycle power. Operating at 230 or 460 volts requires a step-down transformer. Optional equipment includes a stainless steel supply hopper and/or feeder trough, trough and hopper covers.



WITH STANDARD 2-INCH X 16-INCH FLAT PAN TROUGH

**MAXIMUM MATERIAL CAPACITY**  
(sand @ 100 lb C/F) .625 TPH

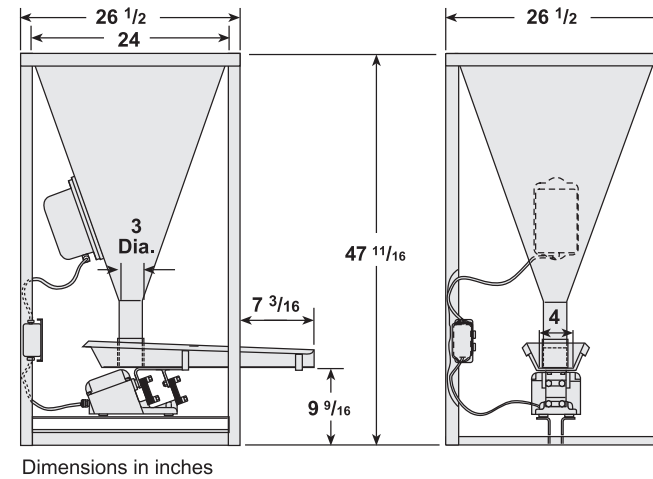
### SPECIFICATIONS

Power Consumption* 30 Watts	Net Weight, machine 55 lb
Current Input* 1.20 amps	Net Weight, Control 9 lb
*115 volt, 60 cycle	Shipping Weight, Both 125 lb
Control (inches) - 6 <sup>15</sup> / <sub>16</sub> W x 9 <sup>1</sup> / <sub>2</sub> H x 3 <sup>5</sup> / <sub>8</sub> D	



## Model FM-010-3

Syntron® Model FM-010-3, while similar in design to the FM-T01-1, has a larger capacity. This machine is furnished with a 3 cubic foot supply hopper, a V-20 hopper vibrator and a separate solid-state control. Model FM-010-3 includes an F-010 vibrating feeder with 4 x 24-inch flat pan trough. The FM-010-3 operates on 115, 230 or 460 volt, single-phase, 50 or 60 cycle power. A 460-volt power configuration requires a step-down transformer. Optional equipment includes stainless steel supply hoppers and feeder troughs and plastic, mild steel or stainless steel covers for trough and hopper. Hoppers are available in conical or rectangular design.



WITH STANDARD 4-INCH X 24-INCH FLAT PAN TROUGH

Maximum Material Capacity  
(sand @ 100 lb C/F) 4 TPH

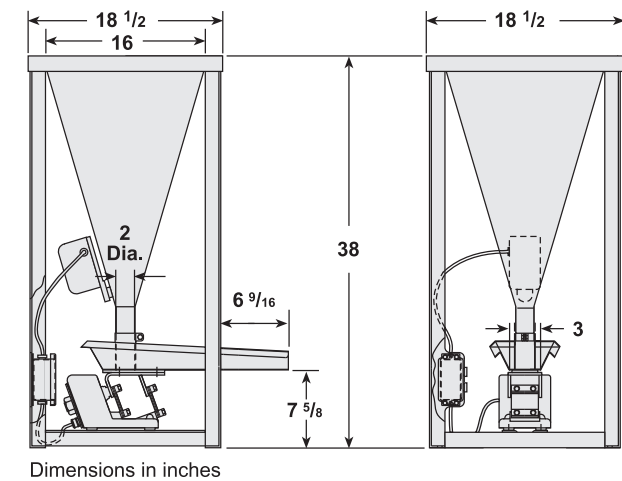
### SPECIFICATIONS

Power Consumption* 125 Watts	Net Weight, machine 180 lb
Current Input* 4.0 amps	Net Weight, Control 9 lb
*115 volt, 60 cycle	Shipping Weight, Both 340 lb
Control (inches) - 6 <sup>15</sup> / <sub>16</sub> W x 9 <sup>1</sup> / <sub>2</sub> H x 3 <sup>5</sup> / <sub>8</sub> D	



## Model FM-T01-1

Syntron Model FM-T01-1, with a separate solid state control as standard equipment, has wider application than any other medium-capacity volumetric feeder machine in the Syntron line. This unit features a 1 cubic foot supply hopper, V-4 hopper vibrator and F-T01 vibrating feeder with a 3 x 18-inch flat pan trough. Configured for 115 or 230 volt, single-phase, 50 or 60 cycle power. Operating at 460 volt requires a step-down transformer. Optional equipment includes a stainless steel supply hopper and/or feeder trough, and stainless steel covers for trough and hopper.



WITH STANDARD 3-INCH X 18-INCH FLAT PAN TROUGH

**MAXIMUM MATERIAL CAPACITY**  
(sand @ 100 lb C/F) 2 TPH

### SPECIFICATIONS

Power Consumption* 75 Watts	Net Weight, machine 100 lb
Current Input* 1.75 amps	Net Weight, Control 9 lb
*115 volt, 60 cycle	Shipping Weight, Both 160 lb
Control (inches) - 6 <sup>15</sup> / <sub>16</sub> W x 9 <sup>1</sup> / <sub>2</sub> H x 3 <sup>5</sup> / <sub>8</sub> D	



## Model FM-152-3

Model FM-152-3, while similar in design to the FM-T01-1, also has a larger capacity. It is furnished with a 3 cubic foot supply hopper, a V-20 hopper vibrator and a separate solid-state control. Model FM-152-3 features an F-152 vibrating feeder with an 8 x 28-inch flat pan trough. It operates on 115, 230 or 460 volt, single-phase 50 or 60 cycle power. Optional equipment includes stainless steel supply hoppers and/or feeder troughs and special 6, 10 or 18 cubic foot supply hoppers with conical or rectangular design. Call the factory for assistance in selecting Syntron FM-152-3 volumetric feeders.

WITH STANDARD 8-INCH X 28-INCH FLAT PAN TROUGH

Maximum Material Capacity  
(sand @ 100 lb C/F) 7 TPH

### SPECIFICATIONS

Power Consumption* 175 Watts	Net Weight, machine 225 lb
Current Input* 4.5 amps	Net Weight, Control 9 lb
*115 volt, 60 cycle	Shipping Weight, Both 440 lb
Control (inches) - 6 <sup>15</sup> / <sub>16</sub> W x 9 <sup>1</sup> / <sub>2</sub> H x 3 <sup>5</sup> / <sub>8</sub> D	



Custom designed FM-152-3 feeder machine with rectangular supply hopper.

Capacities of Syntron Volumetric Feeder Machines vary with different materials. Lighter and finer materials result in less capacity and heavier materials result in higher capacities.



**Model FM-212-3**

Syntron® FM-212-3 offers economical, high-capacity performance. Standard construction includes a 3 cubic foot supply hopper, a V-20 hopper vibrator, a separate solid-state control and a powerful F-212 vibrating feeder with a 10 x 24-inch flat pan trough. Configured for 115, 230 or 460 volt, single-phase, 50 or 60 cycle power. Optional equipment includes stainless steel supply hoppers and/or feeder troughs and special 6, 10 or 18 cubic foot supply hoppers, with conical or rectangular design.



FM-212 feeder machine with custom rectangular supply hopper.

**WITH STANDARD 10-INCH X 24-INCH FLAT PAN TROUGH**

Maximum Material Capacity  
(sand @ 100 lb C/F) 20 TPH

**SPECIFICATIONS**

Power Consumption*200 Watts	Net Weight, machine	475 lb
Current Input* 6.5 amps	Net Weight, Control	9 lb
*115 volt, 60 cycle	Shipping Weight, Both	600 lb
Control (inches) – 6 15/16 W x 9 1/2 H x 3 5/8 D		

**Model FM-22-50**

Syntron FM-22-50 is a high-capacity unit. The supply hopper has a 50-cubic foot-capacity. A V-50 hopper vibrator moves bulk material to the 12 x 36-inch flat pan trough of an F-22 vibrating feeder. A solid-state control is mounted separately. Configured for 115, 230 or 460 volt, single-phase, 50 or 60 cycle power. Optional features include special hoppers up to 100 cubic foot capacity, stainless steel supply hoppers and/or feeder troughs. Call the factory for assistance in selecting and specifying Syntron FM-22-50 volumetric feeders.

**WITH STANDARD 12-INCH X 36-INCH FLAT PAN TROUGH**

Maximum Material Capacity  
(sand @ 100 lb C/F) 30 TPH

**SPECIFICATIONS**

Power Consumption*450 Watts	Net Weight, machine	1,700 lb
Current Input* 14.5 amps	Net Weight, Control	11 lb
*115 volt, 60 cycle	Shipping Weight, Both	2,000 lb
Control (inches) – 6 15/16 W x 9 1/2 H x 3 5/8 D		

Capacities of Syntron Volumetric Feeder Machines vary with different materials. Lighter and finer materials result in less capacity and heavier materials result in higher capacities.

**Syntron® Vibrators**

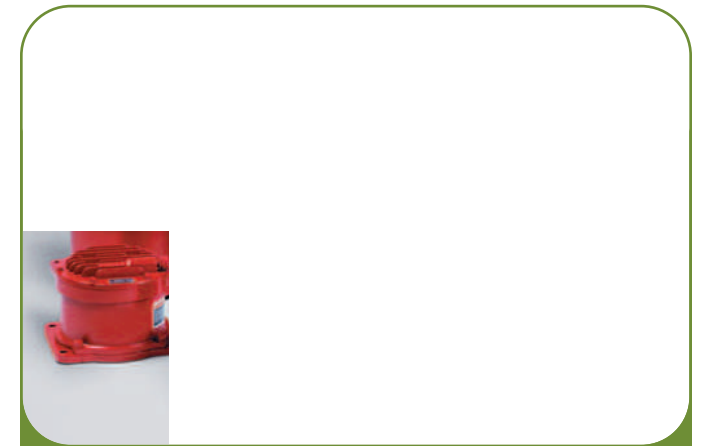
Syntron® Vibrators offer an efficient, cost-effective means to maintain free flow of product from bins, hoppers and chutes, with a direct and positive result on the bottom line. Whether the need is to ensure constant, uninterrupted material flow, or to eliminate the necessity for manual manipulation of a bin, hopper or bulk material, Syntron Vibrators increase productivity and reduce production costs.

Syntron offers 2 types of vibrators – electromagnetic and electric rotary. The vibrators provide product flow solutions for just about any industry, application or environment. Compact yet mighty, Syntron Vibrators are designed for years of high-performance, trouble-free continuous or intermittent operation, with the broadest selection of models and power ranges available.



Syntron® Electric Rotary Vibrators by Visam

Syntron Electric Rotary Vibrators are motor driven for reduced noise levels. These rugged vibrators are totally enclosed for reliable operation in dusty, dirty or moist environments. Adjustable eccentric weights allow easy adjustment of force to suit varying applications.



Syntron® Electromagnetic Vibrators

Syntron Electromagnetic Vibrators are ideal for continuous or intermittent operation. An easily adjustable control assures optimum and variable material flow. Dependable Syntron Electromagnetic Vibrators are virtually maintenance-free because the electromagnetic design eliminates moving parts. Most models come standard with fully-enclosed dust-tight and watertight construction.





## Syntron® Electromagnetic Vibrators

Keep Your Materials Flowing Efficiently and Economically

Syntron® Electromagnetic Vibrators from Syntron Material Handling offer an economical means of maintaining the flow of bulk materials from bins, hoppers and chutes. They come with an easily adjustable control which provides flexibility and assures optimum flow for the type of material being handled. Furthermore, Syntron Electromagnetic Vibrators can be operated continuously or intermittently depending upon the specific requirements.



*Syntron® Electromagnetic Vibrators are available in a wide variety of sizes and force ratings.*

To assure the highest standard of quality, Syntron Electromagnetic Vibrators are factory tested and adjusted for optimum performance. Most models come standard with totally enclosed, dust-tight and waterproof construction. Since these vibrators have no rotating or sliding parts, they are virtually maintenance-free.

Syntron Electromagnetic Vibrators come with the technical expertise of Syntron Material Handling's application staff, who have been providing productive solutions for a wide variety of material handling problems for more than 80 years. Call Syntron Material Handling Application Specialists and request a data sheet or download one from our website at [www.syntronmh.com](http://www.syntronmh.com). Syntron Electromagnetic Vibrators may also be ordered online at [www.syntronmh.com](http://www.syntronmh.com).

### Features and Benefits

- Electromagnetic design
  - No rotating or sliding parts; maintenance-free
  - Ideal for continuous or intermittent operation
- Adjustable control
  - Varies vibration force with simple turn of control knob
- Urethane encapsulated magnet assemblies
  - Provides protection from moisture and other contaminants
  - Prevents wire degradation
- Productivity enhancing performance
  - No need for manual labor to unclog bins or to keep material flowing
- Simple design, durable, rugged construction
  - Safe, reliable performance for years of service
- Wide range of sizes
  - Accommodates your specific application
- Low noise models available
  - Quiet, reliable operation



*Syntron® model V-41 Electromagnetic Vibrator installed on a stainless steel bin.*



*Syntron® model V-20 Electromagnetic Vibrators maintain the flow of pasta from bins to packaging lines.*



*This Syntron® model V-85 Electromagnetic Vibrator is maintaining flow of dust particulates from the collecting hopper of an electrostatic precipitator.*





## Syntron® Electromagnetic Vibrator Models

Syntron® V-2 and V-4 Electromagnetic Vibrators are two of the smallest industrial vibrators available. These versatile vibrators can be controlled electrically with a separate control. When these vibrators are operated without a control, they can be mechanically controlled by turning an easily accessible adjusting screw. Increased amplitude can be obtained by using rectified AC power. Flexibility and ease of installation are common to both models and the Model V-4 is available with a dust-tight case.

Models V-9 and V-20 are compact in size, but at 3600 vpm, they pack enough vibratory “punch” to excel in a wide range of applications. Each is available with a separate dust-tight case.

Typical applications for the above models include installations on small bins, handling lightweight materials, or in counting, sorting or packaging operations.

### Impact and Cushioned Vibrator Compact Models

Models V-50, V-85 and V-180 are “solid” impact vibrators. These units use a metal striking block to produce positive impact.

Models V-41, V-51, V-86 and V-181 are “cushioned” impact vibrators, which utilize a rubber striking block to produce positive impact. Their high power/low noise characteristics make them ideal for use in confined areas with nearby workers. Physical dimensions and electrical specifications are identical to the “solid” impact type vibrators. Dust-tight and waterproof construction are standard for both versions.

### Open Models

Models V-75 and V-500 feature a power-packed, solid impact, open-type design. They are used on difficult, heavy-duty applications. The V-500 is one of the largest magnetic vibrators available. Both the V-75 and V-500 are available with a separate dust-tight case.

### Self-Contained Models

Models V-9 through V-500 require separate controls unless specifically ordered as self-contained units. Self-contained units include a built-in rectifier and they always operate at full force. Self-contained units are recommended only where no force adjustment is required. Models V-41 and V-500 are not available as self-contained units.



V-2



V-4



V-9, V-20



V-41



V-50  
V-51



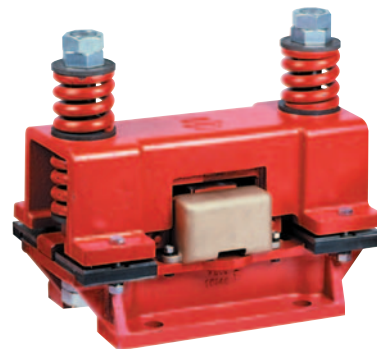
V-75



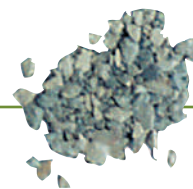
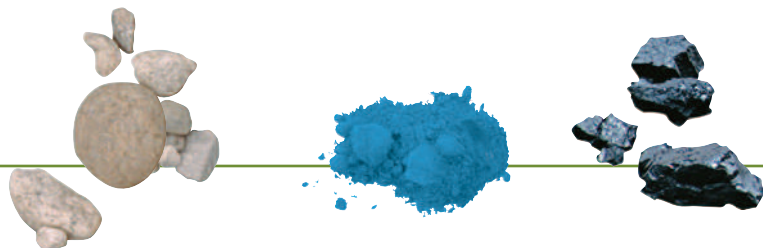
V-85  
V-86



V-180  
V-181

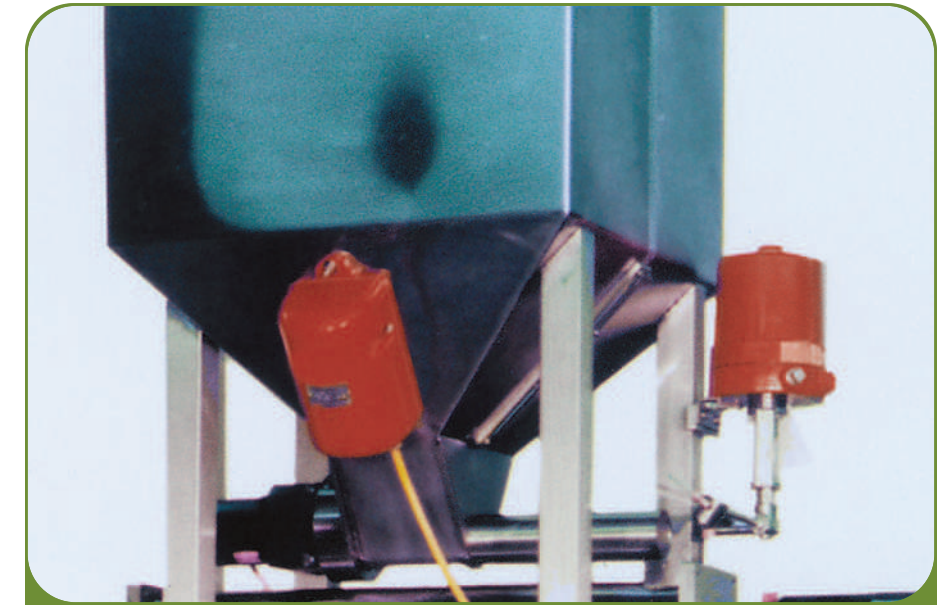


V-500



## Selecting the Proper Syntron® Electromagnetic Vibrator

The primary consideration in vibrator selection is the thickness of the bin or chute wall. Once the proper vibrator model has been selected from the Application Tabulation Table, compare the capacity in the tapered portion of the bin with the rated capacity shown in the table. If the rated capacity is exceeded, multiple vibrators may be required, depending on the material being handled. Stiffeners used to reinforce the bin or chute may also affect the selection or preferred location of the vibrator. Please contact Syntron Material Handling for a copy of our data sheet and assistance with selection of appropriate units in these applications.



Syntron® model V-20 Electromagnetic Vibrator ensures controlled feed from hopper to extruder.

### Application Tabulation

Model	Wall Thickness*	No. Vibrators Needed per Capacity in Tapered Portion of Bin/Hopper
V-2	24 ga (0.5 mm)	1 ft <sup>3</sup> (0.03 m <sup>3</sup> )
V-4	22 ga (0.8 mm)	1 ft <sup>3</sup> (0.03 m <sup>3</sup> )
V-9	20 ga (1 mm)	3 ft <sup>3</sup> (0.08 m <sup>3</sup> )
V-20	1/16 in (1.5 mm)	10 ft <sup>3</sup> (0.28 m <sup>3</sup> )
V-41	1/8 in (3 mm)	20 ft <sup>3</sup> (0.57 m <sup>3</sup> )
V-51	1/8 in (3 mm)	30 ft <sup>3</sup> (0.85 m <sup>3</sup> )
V-50	1/4 in (6 mm)	1 per 5-ton (4.5 metric ton)
V-86	1/4 in (6 mm)	1 per 5-ton (4.5 metric ton)
V-75	5/16 in (8 mm)	1 per 20-ton (18.1 metric ton)
V-85	5/16 in (8 mm)	1 per 20-ton (18.1 metric ton)
V-181	5/16 in (8 mm)	1 per 30-ton (27.2 metric ton)
V-180	3/8 in (10 mm)	1 per 50-ton (45.4 metric ton)
V-500	1 in (25 mm)	1 per 100-ton (90.7 metric ton)

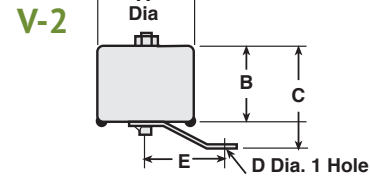
\* Wall thickness is critical to proper vibrator selection; if in doubt, call Syntron Material Handling for assistance.





# Electromagnetic Vibrators

## Electromagnetic Vibrator Specifications and Dimensions

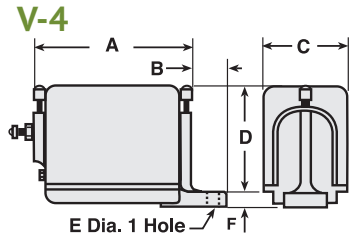


### Specifications

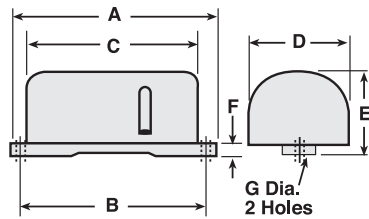
Model	Weight		Input Amps		Speed (vpm 50 Hz)			Speed (vpm 60 Hz)		
	lb	kg	115V	230V	Without Control	AC Control	RC Control	Without Control	AC Control	RC Control
V-2	2 1/2	1.1	0.3	0.18	6,000	6,000	3,000	7,200	7,200	3,600
V-4	4 1/2	2.0	0.9	0.45	6,000	6,000	3,000	7,200	7,200	3,600

### Dimensions

Model	A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
V-2	2 7/8	73	2 1/4	57	3 1/16	78	1 3/32	10	2 3/8	60	--	--
V-4	5 5/8	143	1 1/4	32	3	76	3 3/4	95	1 7/32	13	1/2	13



## V-9, V-20



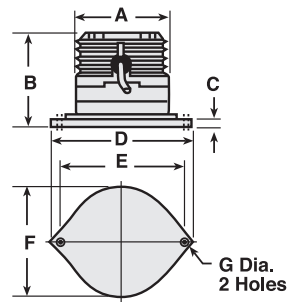
### Specifications

Model	Weight		Input Amps			Speed	
	lb	kg	115V	230V	460V	(vpm 50 Hz)	(vpm 60 Hz)
V-9	9 1/2	4.3	1.2	0.75	NA	3,000	3,600
V-20	14	6.4	2.0	1.0	0.5	3,000	3,600

### Dimensions

Model	A		B		C		D		E		F		G	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
V-9	10 1/4	260	9 1/4	235	8	203	4 1/4	108	4 1/16	103	9/16	14	7/16	11
V-20	10 1/4	260	9 1/4	235	8	203	5 1/8	130	4 5/16	110	1/2	13	7/16	11

## V-41



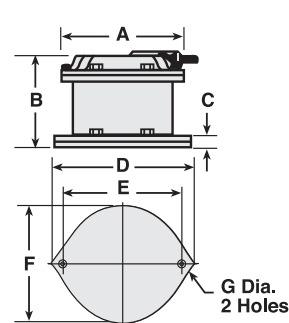
### Specifications

Model	Weight		Input Amps			Speed	
	lb	kg	115V	230V	460V	(vpm 50 Hz)	(vpm 60 Hz)
V-41	25	11.3	3.5	1.75	0.88	3,000	3,600

### Dimensions

Model	A		B		C		D		E		F		G	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
V-41	6 1/4	159	6 1/2	165	7/16	11	9 3/8	238	8 1/4	210	7 3/8	187	1 7/32	13

## V-50, V-51



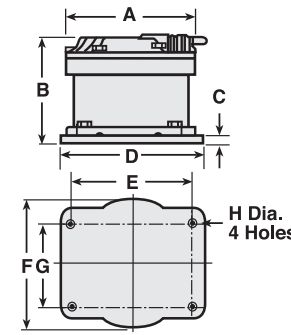
### Specifications

Model	Weight		Input Amps			Speed	
	lb	kg	115V	230V	460V	(vpm 50 Hz)	(vpm 60 Hz)
V-50, V-51	40	18.1	4.5	2.3	1.2	3,000	3,600

### Dimensions

Model	A		B		C		D		E		F		G	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
V-50	9 1/2	241	7 1/4	184	1 5/16	24	10 3/4	273	9 1/4	235	9 3/4	248	1 1/16	17
V-51	9 1/2	241	7 1/4	184	1 5/16	24	10 3/4	273	9 1/4	235	9 3/4	248	1 1/16	17

## V-85, V-86



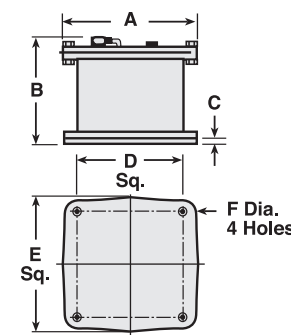
### Specifications

Model	Weight		Input Amps			Speed	
	lb	kg	115V	230V	460V	(vpm 50 Hz)	(vpm 60 Hz)
V-85, V-86	79	35.8	7.0	3.5	1.8	3,000	3,600

### Dimensions

Model	A		B		C		D		E		F		G		H	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
V-85	10 7/16	265	8 3/4	222	5/8	16	11 1/2	292	10	254	10 5/8	270	7	178	1 1/16	17
V-86	10 7/16	265	8 3/4	222	5/8	16	11 1/2	292	10	254	10 5/8	270	7	178	1 1/16	17

## V-180



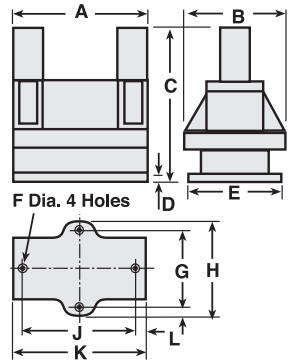
### Specifications

Model	Weight		Input Amps		Speed	
	lb	kg	230V	460V	(vpm 50 Hz)	(vpm 60 Hz)
V-180, V-181	220	100	12.0	6.0	3,000	3,600

### Dimensions

Model	A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
V-180	15 3/16	386	11	279	1 1/16	17	12	305	15 1/4	387	1 3/16	21
V-181	15 3/16	386	11	279	1 1/16	17	12	305	15 1/4	387	1 3/16	21

## V-75



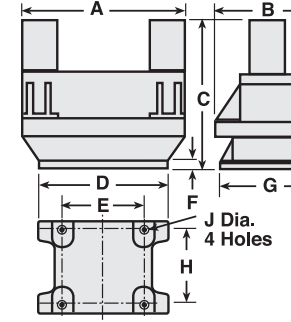
### Specifications

Model	Weight		Input Amps			Speed	
	lb	kg	115V	230V	460V	(vpm 50 Hz)	(vpm 60 Hz)
V-75	113	51	16.0	8.0	4.0	3,000	3,600

### Dimensions

Model	A		B		C		D		E		F		G		H		J		K		L	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
V-75	13	265	10	254	12 3/8	314	1/2	13	8	203	1 1/16	17	6 1/2	165	8	208	11 1/2	292	13	330	3/4	19

## V-500



### Specifications

Model	Weight		Input Amps		Speed	
	lb	kg	230V	460V	(vpm 50 Hz)	(vpm 60 Hz)
V-500	700	318	35.0	17.5	3,000	3,600

### Dimensions

Model	A		B		C		D		E		F		G		H		J	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
V-500	25 3/4	654	14 1/2	368	23 3/4	603	20	508	13	330	1 1/8	29	14	356	11 1/2	292	1 9/16	40

When ordering, specify 50 or 60 Hz operation. Refer to control information, page 10. For other voltage requirements, contact Syntron Material Handling.

# Controls

Syntron® Vibrating Feeders are furnished with a standard control to vary the flow of material through the feeder by adjusting the amplitude of the feeder pan. Standard control units include an operating switch, fuse and adjustable control to vary the amplitude.

Controls are available for 115, 230 or 460 volts, 50 or 60 cycle power and are

available for operation at other voltages upon request. Control units for multiple feeder applications are available. For special electrical standards, custom control enclosures can be provided. In addition to the standard controls listed here, Syntron Material Handling can provide control systems built to meet your requirements.

Velocity® RS drives can be provided with a separate, standard RC control (see pages 20-21) and are also available with a self-contained rectifier. Units with a self-contained rectifier operate at full stroke.

Control Model	Volts	Amps	Enclosure	Approvals	Intermittent Contacts	Intensity	Soft Start	Voltage Regulation	RC Output	AC Output
Power Pulse RC WT	115/230	5	Nema 4	cUL	●	Potentiometer			●	
Power Pulse AC WT	115/230	5	Nema 4		●	Potentiometer				●
Conductor DC 15	115	15	Nema 4	cUL	●	POT / 4-20mA	●	●	●	●
Conductor DC 28	230	8	Nema 4	cUL	●	POT / 4-20mA	●	●	●	●
Conductor DC 118	115	18	Nema 12	cUL	●	POT / 4-20mA	●	●	●	●
Conductor DC 218	230	18	Nema 12	cUL	●	POT / 4-20mA	●	●	●	●
Conductor 420	340/480	4-20	Nema 4	cUL	●	POT / 4-20mA	●	●	●	
Conductor 518	575	4-18	Nema 4	cUL	●	POT / 4-20mA	●	●	●	
Conductor CH 15	115	15	Open Chassis	cUL	●	POT / 4-20mA	●	●	●	●
Conductor CH 28	230	8	Open Chassis	cUL	●	POT / 4-20mA	●	●	●	●

● Standard in the model listed

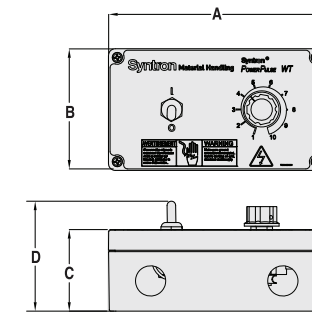
\* Conductor controls are also available in open chassis models for ease in mounting in your system controls.

Note: Some open chassis models have reduced amperage capability. Contact Syntron Material Handling for details.

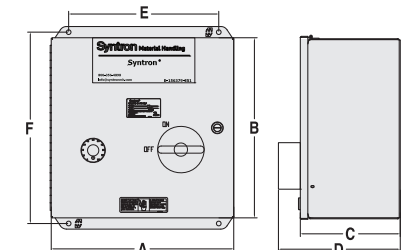
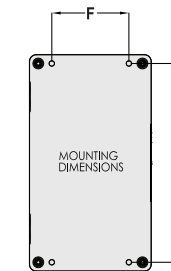


## Control Dimensions

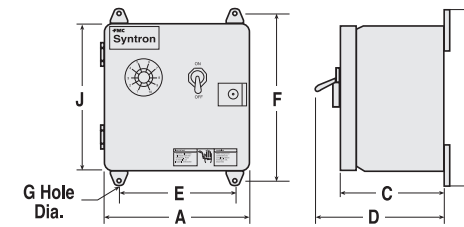
Control Model	A		B		C		D		E		F		G		H		J		Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
Power Pulse WT	6 1/4	160	3 1/2	89	2 1/4	57	3 1/4	82	5 3/4	146	2 1/4	57	-	-	-	-	-	-	1 1/4	5
<b>Conductor Series</b>																				
15 & 28 Enc.	8	203	9 1/2	242	4 3/4	121	5 5/8	143	6 1/4	159	8 5/8	219	5/16	8	-	-	8	203	7	3.18
118 & 218 Enc.	8	203	10	254	4 3/4	121	5 5/8	143	6 1/4	159	8 5/8	219	5/16	8	-	-	8	203	8	3.63
420 & 518 Enc.	12 1/4	310	12 1/4	310	6	152	7 13/16	198	10	254	12 3/4	324	0.3	7.92	-	-	12	303	18.5	8.4
15 & 28 Open Chassis	3 15/16	100	3 13/16	96	3 1/16	78	-	-	3 1/4	82	3 1/4	82	0.18	4.5	-	-	-	-	0.58	0.26



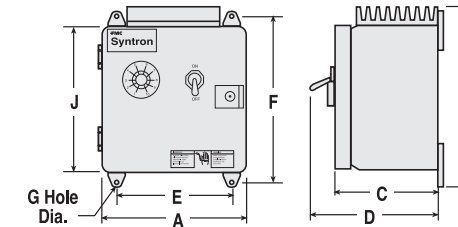
Power Pulse WT



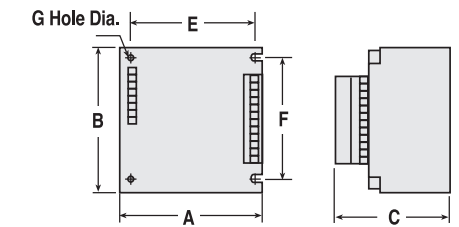
Conductor 420, Conductor 518



Conductor DC 15, Conductor DC 28



Conductor DC 118, Conductor DC 218



Open Chassis Conductor 15 and Conductor 28

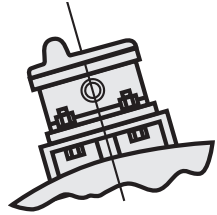


## Mounting Syntron® Electromagnetic Vibrators

Correct location of electromagnetic vibrators is of prime importance in obtaining maximum efficiency from the selected model. Note: Operate vibrators on hoppers only when the hopper is open to flow. Otherwise, vibration may pack the hopper contents.

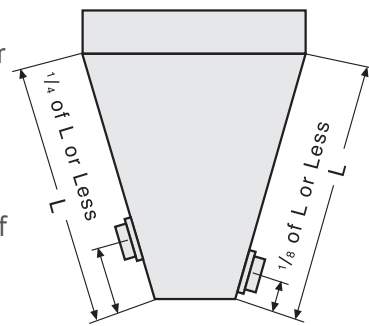
### Curved Surfaces

To mount a vibrator to a curved surface, select a bracket made from a channel section or a bent plate. A center gusset is required for all totally enclosed vibrators, and two blocks of sufficient height to contact the curved surface are required for Models V-75 and V-500. The selected gusset or blocks must be securely welded to the underside of the bracket and curved surface. This arrangement is required to stiffen the mounting and transmit vibrations directly to the hopper contents. Mounting bolt heads can be welded to the underside of the bracket.



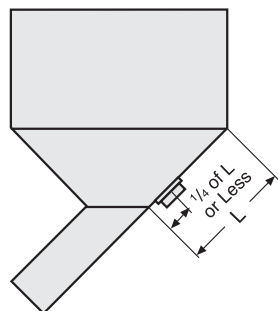
### Rectangular Hoppers

Mount vibrator and mounting channel as for a conical hopper or a curved surface. If a stiffener obstructs mounting, mount the vibrator in the middle of the panel next to the stiffener. If required, a second vibrator should be mounted on the opposite face at a slightly higher elevation.



### Hopper with Sloping Discharge

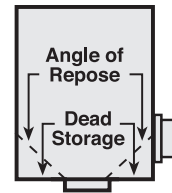
Mount the vibrator on the center line of the hopper, as close to the discharge as possible. An additional vibrator may be required on the discharge chute.



Note: Drawings illustrate typical installations. Specific installations may require slight variations. For other applications not covered here, please consult factory for recommendations.

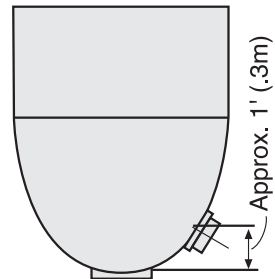
### Rectangular or Cylindrical Bins with Flat Bottom and Center Discharge.

Mount directly to the side of the bin, just below the point where the materials' natural angle of repose intersects the side, as shown.



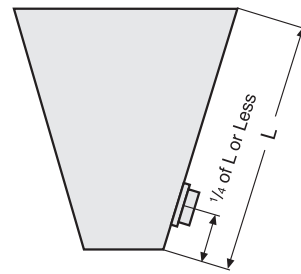
### Parabolic Bins or Hoppers

Mount the vibrator within one foot of each discharge opening and in line with center of opening.



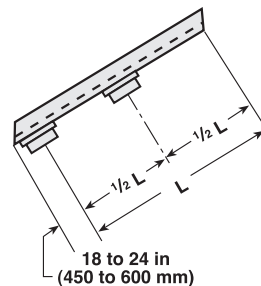
### Conical Hoppers

Mount the vibrator to the hopper (as for a curved surface) 12 to 18 inches (300 to 450 mm) or less from the discharge.



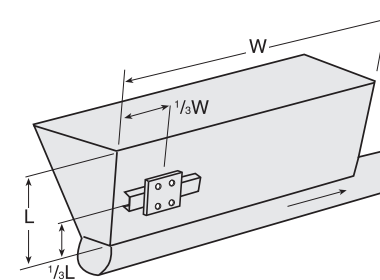
### Inclined Chutes

Chutes less than 10 to 12 feet (3 to 3.6 m) long are usually equipped with just one vibrator located well below the center. Allow for the vibrator to be moved about one foot (300 mm) in either direction. On chutes requiring more than one vibrator, the first one should be located 18 to 24 inches (450 to 600 mm) from the outlet. The second unit should be mounted about half-way between the first vibrator and the upper end. Allow for the vibrators to be moved about one foot (300 mm) in either direction.



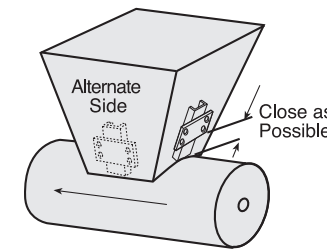
### Screw Feeder

Screw conveyors feed from the back of the hopper. Vibrator should be 1/3 from the inlet. If two vibrators are used, place second vibrator on opposite side, 1/3 from the discharge. Do not operate the vibrator at the discharge end until the back of the bin is empty and the vibrator at the inlet is shut off.



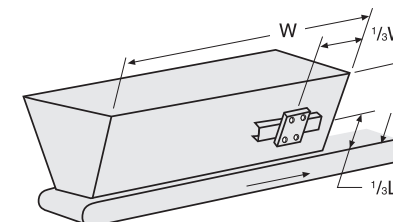
### Short Screw Feeder

Place vibrator as close as possible to feeder.



### Long Bin

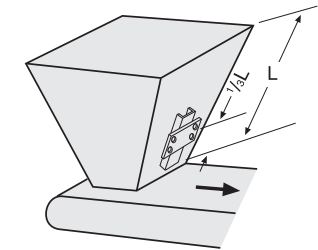
Belt conveyors feed from the front of the hopper. Vibrator should be 1/3 from front. If two vibrators are used, place one on the opposite side and 1/3 from back. Do not operate the back vibrator until the front is empty and the front vibrator is shut off.



Note: Drawings illustrate typical installations. Specific installations may require slight variations. For other applications not covered here, please consult factory for recommendations.

### Belt Conveyor and Standard Bin

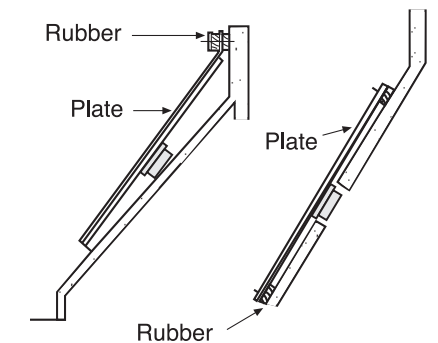
Mount vibrator on the belt discharge side of the hopper. Follow mounting instructions for the appropriate bin type on page 12.



### Concrete Hopper or Lined Wooden Hopper

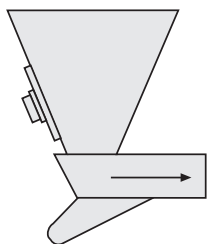
For wooden hoppers lined with thin sheet metal, attach vibrator mounting bolts to the hopper lining.

For concrete hoppers, secure a steel plate across the top inside of the hopper, to the discharge opening along the side to which the vibrator will be mounted. At about one-quarter or less of the distance from the discharge to the vertical side, cut an opening to allow the vibrator to be bolted to the steel plate.



### Vibrating Feeder and Standard Bin

Mount vibrator on the feeder infeed side of the hopper. Follow mounting instructions for the appropriate bin type on page 12.



## Syntron® Electric Rotary Vibrators by Visam

**Rugged construction, reliable performance to assure the efficient flow of bulk materials**

Syntron® Electric Rotary Vibrators from Syntron Material Handling provide a safe, reliable, cost-effective way to maintain the flow of materials. Motor-driven to provide virtually noiseless operation (most models 76 db or less\*), these vibrators help facilitate material flow from the smallest bin, hopper or chute to the largest silo, screens, feeders, grizzly feeders, conveyors, fluid beds, shake-outs, helical elevators, etc. Additionally, they are totally enclosed to eliminate concerns over environmental factors such as dust, dirt and rain. Syntron Electric Rotary Vibrators can be used to pack material in drums and bags as well as to consolidate material in pipe and precast industries, in vibrating screen applications and many other industrial environments. High stroke/low frequency models are especially suitable for hard-to-handle materials such as sawdust, cinder or clay content materials.

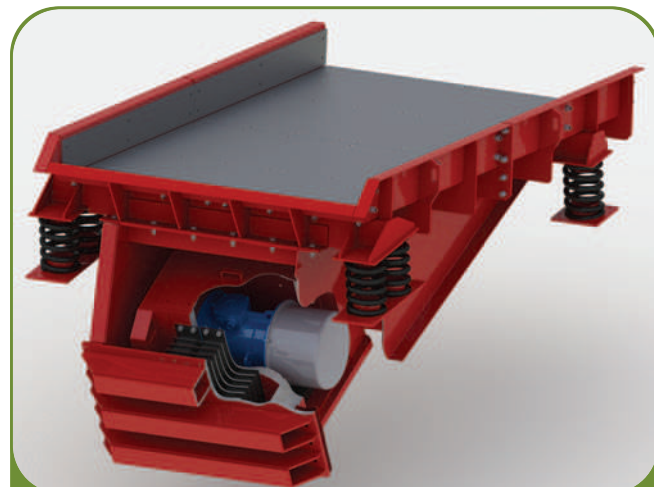
Syntron Electric Rotary Bin Vibrators also come with the technical expertise of Syntron Material Handling's application staff, who have been providing productive solutions for a wide variety of material handling problems for more than 80 years.

\* At 3 feet (1 meter) on A scale



### Features and Benefits

- Motor driven for reduced noise level
- High force to weight ratio
- Adjustable eccentric weights allow easy change of force to suit varying applications
- Orbital action facilitates material flow in hopper & chute applications
- Terminal box for easy connection and change of voltage (on 3 phase models) or direction of rotation
- Units sealed to IP66 except the AMV which is IP65
- Rugged, durable construction for many years with safe, reliable performance
- Wide range of sizes to accommodate your specific application
- Class F (Inverter Duty) windings are standard
- All units are tropical duty for high humidity applications / locations
- Standard construction suitable for operation in -4 to +104 degree F ambient temperature locations
- Internal thermal detection is standard on larger units
- Each vibrator fully tested after assembly
- All units are designed for heavy and continuous duty at the maximum centrifugal force
- Wide range with centrifugal forces up to 50,000 lbs



Electric Rotary Vibrators in Primary Feeder Application

## Selecting the Proper Syntron® Electric Rotary Vibrator for Rotational and Elliptical Applications

### Bins or Hoppers

In order to move material in a bin or hopper, the friction between the material and the bin wall must be broken. Once the friction is broken, the material cannot cling to the sides of the bin and it will flow out through the discharge. For most applications, the vibrator force needed to accomplish this is simply calculated as follows:

- Calculate the weight of the material in the transition or sloping part of the bin. Normally, this is the only place where the friction between the material and the bin side has to be broken. Do not calculate the total weight, only what is in the transition part of the bin.
- For conical bins, calculate as follows:  
 $.261 \times \text{dia.}^2 \times \text{height} \times \text{material density in lb/ft}^3 \text{ (kg/m}^3\text{)}$
- For rectangular bins, calculate as follows:  
 $\text{Length} \times \text{width} \times \text{height} \times 1/3 \times \text{material density.}$

When the weight (lb) has been calculated, divide the weight by 10 to get the force or impact needed from the vibrator (lbf). For example: The conical part of a 25-ton bin contains 7000 lb Divide 7,000 by 10 to get the force (lbf) or impact needed from the vibrator. Find a suitable vibrator on pages 20 - 29.

Additional considerations when sizing vibrators to bins:

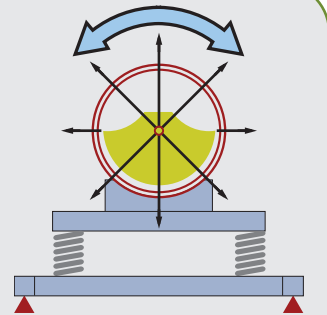
- If the bin side angle is less than 30 degrees, select a larger vibrator.
- If the bin has a vertical section, select a larger vibrator.
- If the bin wall is extra thick select a larger vibrator.
- On very sticky and hard to move materials, it is better to use two small vibrators instead of one large one (size the two smaller ones by dividing the required force in half).

### Vibrating Tables for Packing Materials

Dense materials respond best to high-frequency vibration (3600 rpm or more), while light, fluffy or flaky materials respond best to low-frequency vibration (1800 rpm or less).

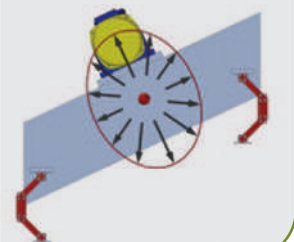
### ROTATIONAL

obtained with  
1 Electric Vibrator



### ELLIPTICAL

obtained with  
1 Electric Vibrator  
(not in center of gravity)



For packing or settling materials, use a vibrator with an impact force of one-and-a-half to two times larger than the weight of the material plus container. Find a suitable vibrator in the tables on pages 20 - 29.

### Vibrating Screens

For self-cleaning screen, use a vibrator with a centrifugal force (impact) four times the weight of the material plus the weight of the screen.

Note: Coarse, lumpy, sticky or wet materials respond best to high-frequency vibration; powdery and dry materials to low-frequency vibration.

### Consolidating Concrete

For three-inch "slump" concrete, use a vibrator with the same force (impact) as the weight of concrete and form. For one- to two-inch slump concrete, an additional 30 to 50 percent impact is needed. For dry mixes (zero slump) increase the impact by 100 to 200 percent.

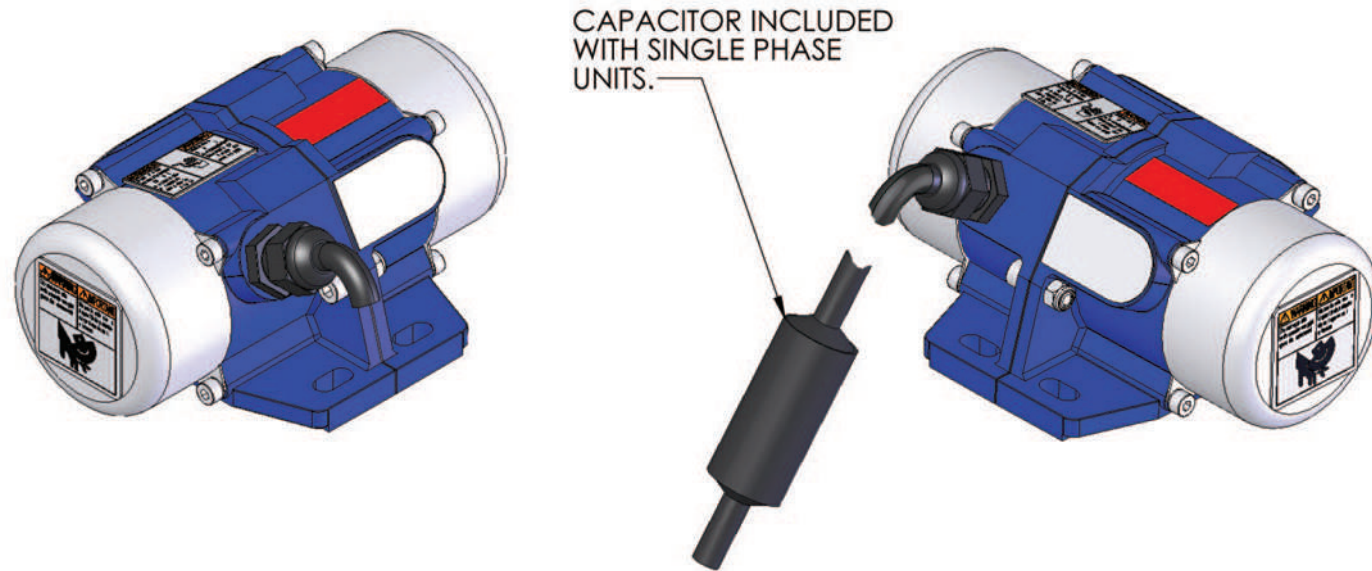
### Chutes

The force required of the vibrator is equal to the weight of the chute plus the vibrator plus the maximum material in the chute. See page 30 for more information.

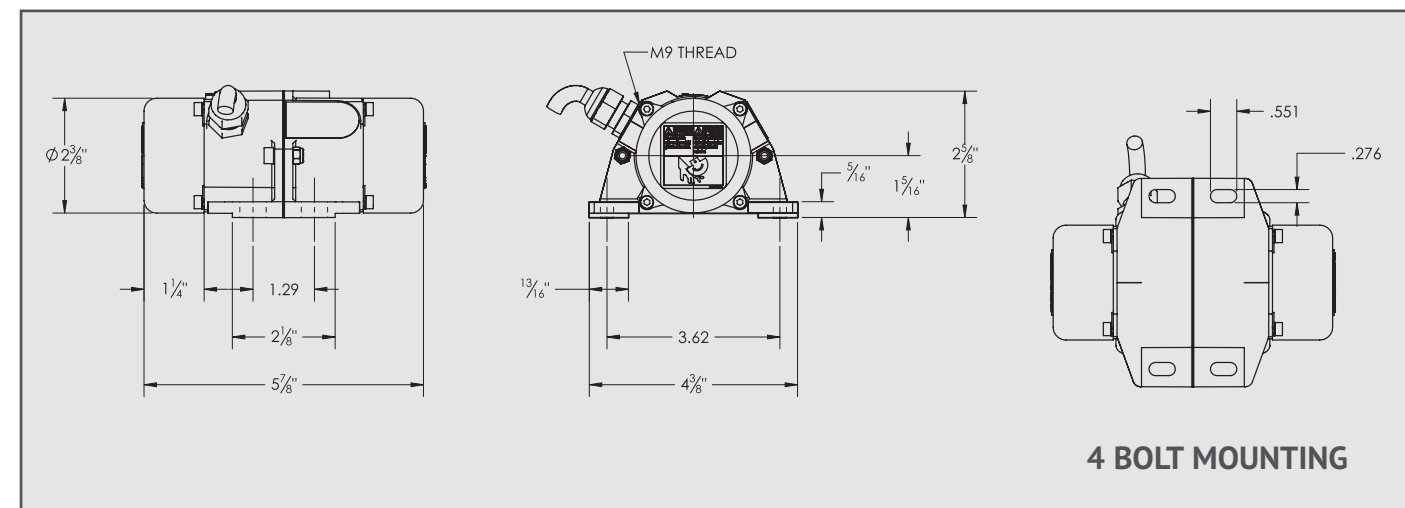


# Electric Rotary Vibrators

## AMV Electric Rotary Vibrator Specifications and Dimensions



SMH Model	SMH Part Number	Description	Weight (lbs)		Centrifugal Force (lbs)		Static Moment (lb*in)		RPM		Amps	
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
<b>4 BOLT</b>												
AMV1-70BN	6515-040-BN	110 - 120V 60hz Single Phase	3 3/4	3 3/4	-	68	0.18	0.18	-	3,600	-	0.26
AMV1-70BM	6515-040-BM	220 - 240V 60hz Single Phase	3 3/4	3 3/4	-	68	0.18	0.18	-	3,600	-	0.13
AMV2-70BO	6515-040-BO	440 - 460V 60hz 3-Phase	3 3/4	3 3/4	-	68	0.18	0.18	-	3,600	-	0.07
AMV1-50AM	6515-040-AM	220 - 240V 50hz Single Phase	3 3/4	3 3/4	47	-	0.18	0.18	3,000	-	0.11	-
AMV2-50AQ	6515-040-AQ	380 - 415V 50hz 3-Phase	3 3/4	3 3/4	47	-	0.18	0.18	3,000	-	0.06	-



## SPV Electric Rotary Vibrator Specifications and Dimensions



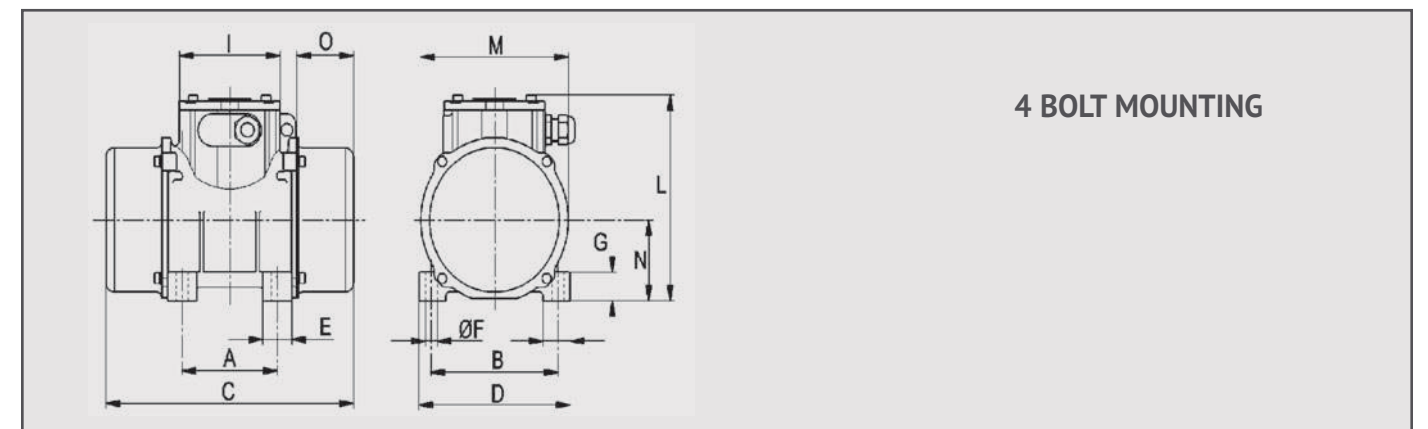
**3,600 RPM, 60Hz - 115V**

**2-Pole (Single Phase)**

### Specifications

SMH Model	SMH Part Number	Weight (lbs)	Centrifugal Force (lbs)	Static Moment (lb*in)	Max Input Power (kw)	Max Current Amps	Temp Class (°C)
<b>4 BOLT</b>							
VV03N/2	6515-107-030	12.35	385.8	1.04	0.155	1.5	120
VV05N/2	6515-107-050	13.23	471.8	1.3	0.155	1.5	120
VV10N/2	6515-107-100	19.84	683.4	1.82	0.27	2.3	120
VV15N/2	6515-107-115	30.42	1080.3	2.95	0.48	4.2	120
VV25N/2	6515-107-125	43.21	1697.6	4.6	0.7	6.5	120

OVERALL REFERENCE DIMENSIONS (inches)													
SMH Part Number	"A"	"B"	"C"	"D"	"E"	"ØF"	"G"	"H"	"I"	"L"	"M"	"N"	"O"
<b>4 BOLT</b>													
6515-107-030	2.44-2.91	4.17	8.23	4.92	1.201	0.354	0.945	0.906	3.66	5.94	4.84	2.4	1.77
6515-107-050	2.44-2.91	4.17	8.86	4.92	1.201	0.354	0.945	0.906	3.66	5.94	4.84	2.4	2.09
6515-107-100	3.54	4.92	8.86	5.98	1.299	0.512	1.102	1.181	3.66	6.81	5.67	2.87	2.13
6515-107-115	4.13	5.51	11.18	6.57	1.26	0.512	1.181	1.181	4.37	7.99	6.42	3.25	2.48
6515-107-125	4.72	6.69	12.13	8.07	1.496	0.669	1.575	1.299	4.37	8.44	7.52	3.6	2.48



## SPV Electric Rotary Vibrator Specifications and Dimensions

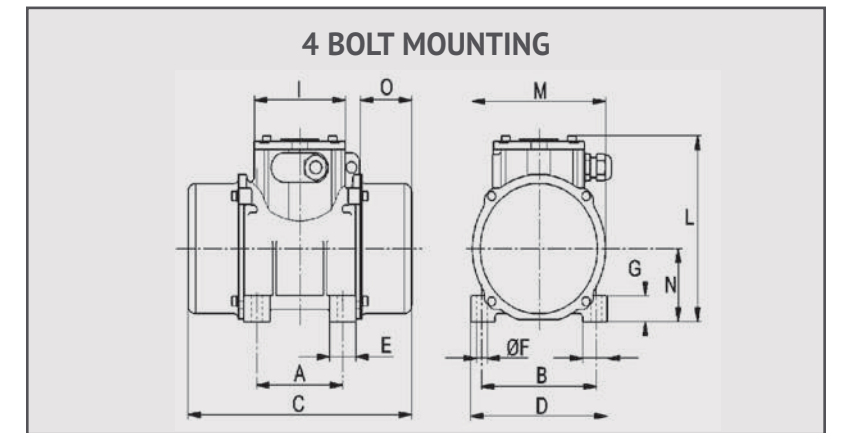


3,600 RPM, 60Hz - 460V

2-Pole (3 Phase)

3,600 RPM, 60Hz - 460V

2-Pole (3 Phase)



### Specifications

SMH Model	SMH Part Number	Weight (lbs)	Centrifugal Force (lbs)	Static Moment (lb*in)	Max Input Power (kw)	Max Current Amps	Temp Class (°C)
<b>4 BOLT</b>							
VV03N/2	6515-107-003	12.35	385.8	1.04	0.17	0.29	120
VV05N/2	6515-107-005	13.23	471.8	1.3	0.17	0.29	120
VV10N/2	6515-107-010	19.84	683.4	1.82	0.26	0.48	120
VV15N/2	6515-107-015	30.42	1080.3	2.95	0.47	0.71	120
VV22N/2	6515-107-022	32.63	1651.3	4.51	0.47	0.71	120
VV25N/2	6515-107-025	43.21	1697.6	4.6	0.65	0.95	120
VV35N/2	6515-107-035	55.12	2425.1	6.6	1.1	1.6	120
VV38N/2	6515-107-038	76.06	3306.9	9.03	1.9	2.8	200
VV39N/2	6515-107-039	78.26	4144.7	11.28	1.9	2.8	200
VV40N/2	6515-107-040	113.54	4960.4	13.45	2.1	2.9	200
VV45N/2	6515-107-045	222.67	7054.8	19.1	3.8	5.4	135
VV55N/2	6515-107-055	227.08	8377.6	22.65	3.8	5.4	135
VV67N/2	6515-107-067	399.04	14219.8	38.62	5.3	7.7	135
VV71N/2	6515-107-071	465.18	19841.6	53.9	8.8	12.3	135

OVERALL REFERENCE DIMENSIONS (inches)												
"A"	"B"	"C"	"D"	"E"	"ØF"	"G"	"H"	"I"	"L"	"M"	"N"	"O"
<b>4 BOLT</b>												
2.44-2.91	4.17	8.23	4.92	1.201	0.354	0.945	0.906	3.66	5.94	4.84	2.4	1.77
2.44-2.91	4.17	8.86	4.92	1.201	0.354	0.945	0.906	3.66	5.94	4.84	2.4	2.09
3.54	4.92	8.86	5.98	1.299	0.512	1.102	1.181	3.66	6.81	5.67	2.87	2.13
4.13	5.51	11.18	6.57	1.26	0.512	1.181	1.181	4.37	7.99	6.42	3.25	2.48
4.13	5.51	11.18	6.57	1.26	0.512	1.181	1.181	4.37	7.99	6.42	3.25	2.48
4.72	6.69	12.13	8.07	1.496	0.669	1.575	1.299	4.37	8.44	7.52	3.6	2.48
4.72	6.69	17.17	8.27	2.362	0.669	0.866	1.87	4.37	9.41	8.78	4.55	4.65
5.51	7.48	17.24	9.06	2.835	0.669	0.984	2.067	4.37	10.12	9.49	4.9	4.06
5.51	7.48	17.24	9.06	2.835	0.669	0.984	2.067	4.37	10.12	9.49	4.9	4.06
5.51	7.48	18.03	9.06	3.209	0.669	0.866	1.772	4.37	9.25	8.82	4.09	4
6.1	10.04	23.23	12.2	4.075	0.925	1.181	2.362	6.1	13.19	12.17	6.3	5.51
6.1	10.04	23.23	12.2	4.075	0.925	1.181	2.362	6.1	13.19	12.17	6.3	5.51
7.84	12.6	26.06	15.35	4.37	1.102	1.26	2.953	6.1	15	15.12	7.44	5.94
7.84	12.6	24.57	15.43	4.37	1.102	1.378	2.953	6.1	15.87	15.83	7.85	5.2



# Electric Rotary Vibrators

## SPV Electric Rotary Vibrator Specifications and Dimensions



1,800 RPM, 60Hz - 460V

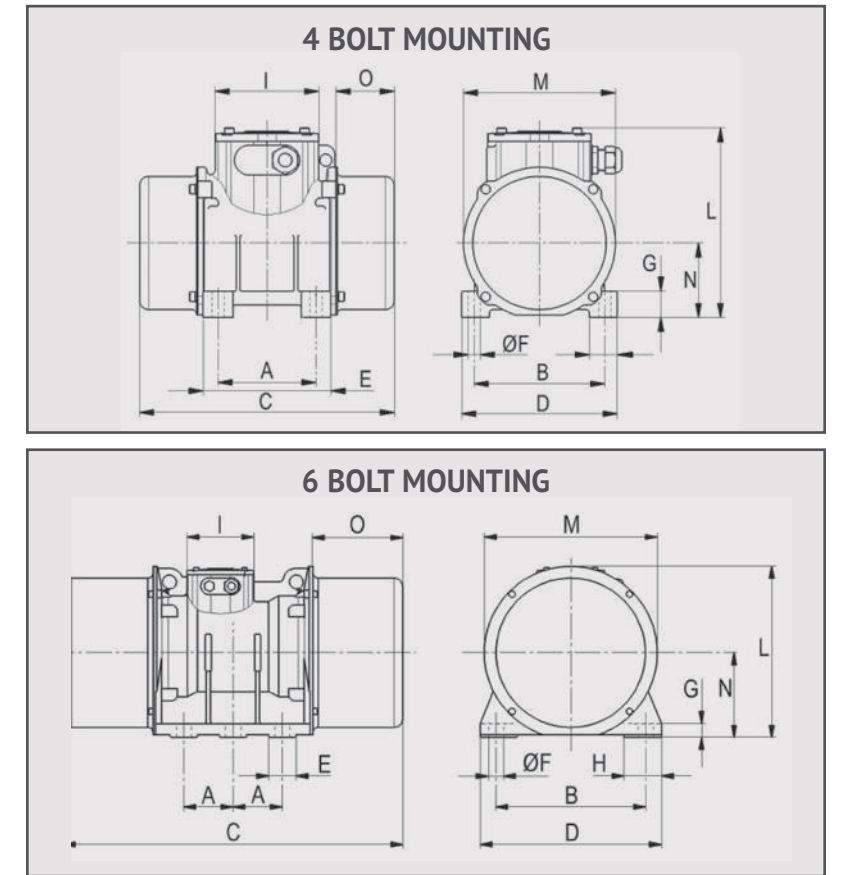
4-Pole (3 Phase)

### Specifications

SMH Model	SMH Part Number	Weight (lbs)	Centrifugal Force (lbs)	Static Moment (lb*in)	Max Input Power (kw)	Max Current Amps	Temp Class (°C)	Cable Entry (in)
<b>4 BOLT</b>								
VV03B/4	6515-069-003	12.3	92.6	1	0.09	0.19	120-C	.256-472
VV05B/4	6515-069-005	13.9	176.3	1.92	0.09	0.19	120-C	.256-472
VV06B/4	6515-069-006	14.5	264.5	2.87	0.09	0.19	120-C	.256-472
VV10B/4	6515-069-010	25.4	484.9	5.28	0.16	0.38	120-C	.256-472
VV20B/4	6515-069-020	39.7	925.7	10.07	0.33	0.57	120-C	.354-630
VV21B/4	6515-069-021	44.1	1322.4	14.4	0.33	0.57	120-C	.354-630
VV30B/4	6515-069-030	57.3	1719.1	18.66	0.62	0.93	120-C	.354-630
VV35B/4	6515-069-035	90.4	2204	23.95	0.64	0.9	120-C	.354-630
VV38B/4	6515-069-038	114.6	3085.6	33.58	1	1.43	120-C	.354-630
VV40B/4	6515-069-040	125.6	3857	41.91	1.2	1.83	150-C	.354-630
VV41B/4	6515-069-041	154.3	4518.2	49.11	1.4	2.2	170-C	.354-630
VV50B/4	6515-069-050	174.1	5510	59.96	1.6	2.9	150-C	.354-630
VV53B/4	6515-069-053	202.8	6942.6	75.49	1.9	3.3	135-C	.354-630
VV55B/4	6515-069-055	249.1	8375.2	91.11	2.4	3.7	135-C	.354-630
VV57B/4	6515-069-057	264.5	9477.2	103.08	2.7	4.4	135-C	.354-630
VV60B/4	6515-069-060	365.9	10909.8	118.62	3.2	4.8	135-C	.512-787
VV67B/4	6515-069-067	440.8	14546.4	158.18	5.7	8.6	135-C	.512-787
VV71B/4	6515-069-071	469.5	18072.8	191.77	7.6	10.9	135-C	.512-787
<b>6 BOLT</b>								
VV81B/4	6515-069-081	672.2	19836	215.71	8	11.3	135-C	.512-787

1,800 RPM, 60Hz - 460V

4-Pole (3 Phase)



OVERALL REFERENCE DIMENSIONS (inches)												
"A"	"B"	"C"	"D"	"E"	"ØF"	"G"	"H"	"I"	"L"	"M"	"N"	"O"
<b>4 BOLT</b>												
2.44-2.91	4.17	8.23	4.92	1.2	0.35	0.94	0.91	3.66	5.94	4.84	2.4	1.77
2.44-2.91	4.17	8.86	4.92	1.2	0.35	0.94	0.91	3.66	5.94	4.84	2.4	2.09
2.44-2.90	4.17	8.86	4.92	1.2	0.35	0.94	0.91	3.66	5.94	4.84	2.4	2.09
3.54	4.92	11.6	5.98	1.3	0.51	1.1	1.18	3.66	6.81	5.67	2.87	2.91
4.13	5.51	13.4	6.57	1.25	0.51	1.18	1.18	4.37	7.99	6.42	3.25	3.78
4.13	5.51	15	6.57	1.25	0.51	1.18	1.18	4.37	7.99	6.42	3.25	4.37
4.72	6.69	14.8	8.07	1.5	0.67	1.57	1.3	4.37	8.44	7.52	3.6	3.82
4.72	6.69	17.1	8.27	2.36	0.67	0.86	1.87	4.37	9.57	8.78	4.55	4.64
5.51	7.48	17.2	9.06	2.83	0.67	0.98	1.77	4.37	10.1	9.49	4.9	4.06
5.51	7.48	19.1	9.06	2.83	0.67	0.98	1.77	4.37	10.1	9.49	4.9	5
5.51	7.48	21.9	9.06	2.83	0.67	0.98	1.77	4.37	10.1	9.49	4.9	6.4
6.1	8.86	20.6	10.8	3.13	0.87	1.1	2.17	4.37	11.1	10.7	5.51	5.1
6.1	8.86	23.6	10.8	3.13	0.87	1.1	2.17	4.37	11.1	10.7	5.51	6.63
6.1	8.86	23.2	12.2	4.07	0.93	1.18	2.36	6.1	13.2	12.2	6.3	5.51
6.1	8.86	25.9	12.2	4.07	0.93	1.18	2.36	6.1	13.2	12.2	6.3	6.85
7.09	11	25.1	13.4	4.17	1.02	1.18	2.56	6.1	14.5	13.2	6.81	6.06
7.87	12.6	26.1	15.3	4.37	1.1	1.26	2.95	6.1	15	15.1	7.44	5.94
7.87	12.6	24.6	15.4	4.37	1.1	1.38	2.95	6.1	15.9	15.8	7.85	5.2
<b>6 BOLT</b>												
4.92	12.6	33.9	18.1	2.76	1.54	1.38	3.74	6.7	17.1	17.3	8.46	9.06

# Electric Rotary Vibrators

## SPV Electric Rotary Vibrator Specifications and Dimensions



1,200 RPM, 60Hz - 460V

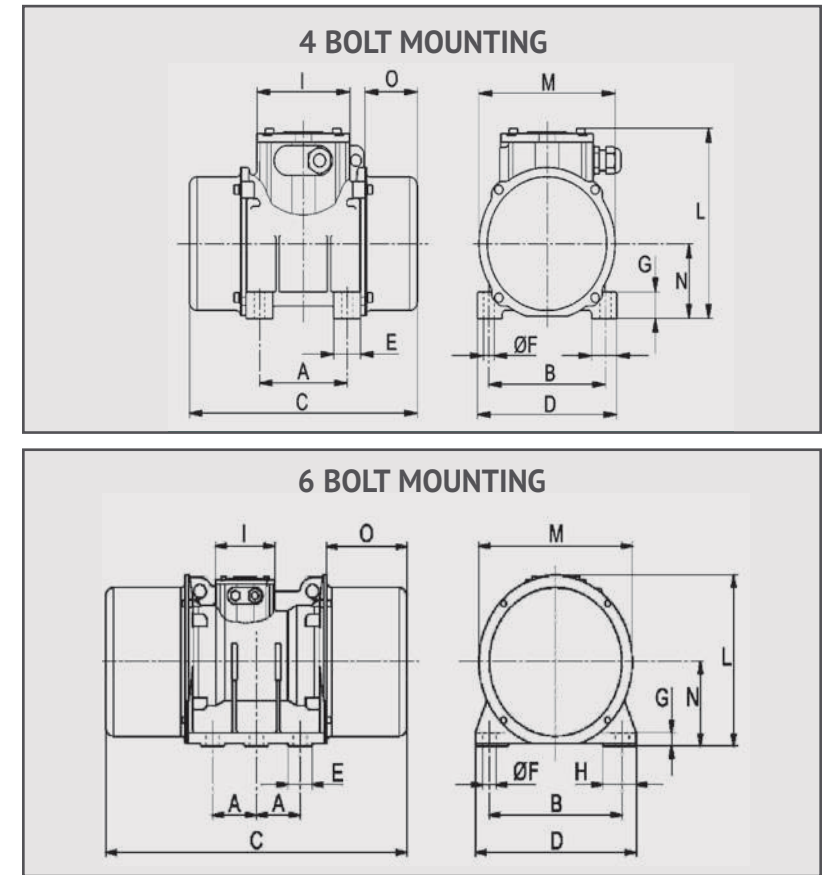
6-Pole (3 Phase)

### Specifications

SMH Model	SMH Part Number	Weight (lbs)	Centrifugal Force (lbs)	Static Moment (lb*in)	Max Input Power (kw)	Max Current Amps	Temp Class (°C)	Cable Entry (in)
<b>4 BOLT</b>								
VV10B/6	6515-065-010	21.15	110.2	2.69	0.13	0.29	120	0.564 - 1.041
VV11B/6	6515-065-011	27.1	308.5	7.54	0.31	0.29	120	0.564 - 1.041
VV20B/6	6515-065-020	41.87	634.7	15.53	0.2	0.48	120	0.781 - 1.388
VV30B/6	6515-065-030	46.28	661.2	16.14	0.36	0.65	120	0.781 - 1.388
VV35B/6	6515-065-035	103.58	1582.4	38.7	0.36	0.65	120	0.781 - 1.388
VV38B/6	6515-065-038	121.22	1983.6	48.5	0.72	1.3	135	0.781 - 1.388
VV40B/6	6515-065-040	134.44	2534.6	61.95	0.71	1.3	135	0.781 - 1.388
VV41B/6	6515-065-041	163.09	3306	81.3	0.95	1.9	170	0.781 - 1.388
VV50B/6	6515-065-050	187.34	3519.7	86.07	1.3	2.1	135	0.781 - 1.388
VV53B/6	6515-065-053	211.58	4848.8	119.31	1.6	2.7	200	0.781 - 1.388
VV55B/6	6515-065-055	264.48	55730.4	140.13	2	3.6	135	0.781 - 1.388
VV57B/6	6515-065-057	293.13	7052.8	173.54	2.3	4.1	135	0.781 - 1.388
VV60B/6	6515-065-060	396.72	8595.6	210.16	2.8	4.7	135	1.128 - 1.735
VV62B/6	6515-065-062	431.98	10358.8	254.84	3.5	5.8	135	1.128 - 1.735
VV65B/6	6515-065-065	484.88	11681.2	285.65	3.8	6.2	135	1.128 - 1.735
VV67B/6	6515-065-067	526.75	14105.6	344.91	4.7	7.6	135	1.128 - 1.735
VV71B/6	6515-065-071	628.14	17852.4	436.54	7.1	10.7	135	1.128 - 1.735
VV75B/6	6515-065-075	643.56	19174.8	468.91	7.7	12.1	135	1.128 - 1.735
<b>6 BOLT</b>								
VV81B/6	6515-065-081	755.97	21599.2	528.17	7.5	11.6	135	1.128 - 1.735
VV110B/6	6515-065-110	800.05	24244	592.65	9.6	15.4	135	1.128 - 1.735
VV130B/6	6515-065-130	848.54	26448	646.7	9.6	15.4	135	1.128 - 1.735

1,200 RPM, 60Hz - 460V

6-Pole (3 Phase)

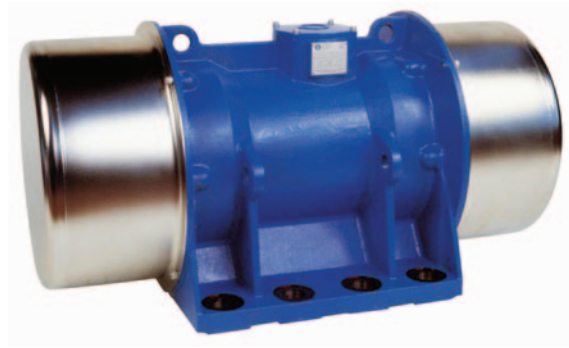


OVERALL REFERENCE DIMENSIONS (inches)												
"A"	"B"	"C"	"D"	"E"	"ØF"	"G"	"H"	"I"	"L"	"M"	"N"	"O"
<b>4 BOLT</b>												
3.54	4.92	10.03	5.98	1.29	0.512	1.102	1.18	3.66	6.81	5.66	2.87	2.12
3.54	4.92	7.67	5.98	1.29	0.512	1.102	1.18	3.66	6.81	5.66	2.87	2.91
4.13	5.51	13.38	6.57	1.26	0.512	1.181	1.18	4.37	7.99	6.41	3.24	3.58
4.72	6.69	14.8	8.07	1.49	0.669	1.575	1.29	4.37	8.44	7.52	3.6	3.81
4.72	6.69	17.16	8.26	2.36	0.669	0.866	1.87	4.37	9.56	8.78	4.54	4.64
5.51	7.48	17.24	9.05	2.83	0.669	0.984	1.77	4.37	10.11	9.48	4.9	4.05
5.51	7.48	19.13	9.05	2.83	0.669	0.984	1.77	4.37	10.11	9.48	4.9	5
5.51	7.48	21.92	9.05	2.83	0.669	0.984	1.77	4.37	10.11	9.48	4.9	6.39
6.1	8.85	20.55	10.82	3.13	0.866	1.102	2.16	4.37	11.14	10.66	5.51	5.09
6.1	8.85	20.55	10.82	3.13	0.866	1.102	2.16	4.37	11.14	10.66	5.51	5.09
6.1	10.03	25.9	12.2	4.07	0.925	1.181	2.36	6.1	13.18	12.16	6.29	6.85
7.08	10.03	27.48	12.2	4.07	0.925	1.181	2.36	6.1	13.18	12.16	6.29	7.63
7.08	11.02	28.74	13.38	4.17	1.024	1.181	2.55	6.1	14.52	13.22	6.81	7.87
7.87	11.02	31.1	13.38	4.14	1.024	1.181	2.55	6.1	14.52	13.22	6.81	9.05
7.87	12.59	28.97	15.35	4.37	1.102	1.26	2.95	6.1	15	15.11	7.44	7.4
7.87	12.59	32.91	15.35	4.37	1.102	1.26	2.95	6.1	15	15.11	7.44	9.37
7.87	12.59	33.62	15.43	4.37	1.102	1.378	2.95	6.1	15.86	15.82	7.85	9.72
4.92	12.59	33.62	15.43	4.37	1.102	1.378	2.95	6.1	15.86	15.82	7.85	9.72
<b>6 BOLT</b>												
4.92	14.96	33.93	18.11	2.75	1.535	1.378	3.74	6.69	17.1	17.28	8.46	9.05
4.92	14.96	39.44	18.11	2.75	1.535	1.378	3.74	6.69	17.1	17.28	8.46	11.81
4.92	14.961	39.44	18.11	2.75	1.535	1.378	3.74	6.69	17.1	17.28	8.46	11.81



# Electric Rotary Vibrators

## SPV Electric Rotary Vibrator Specifications and Dimensions

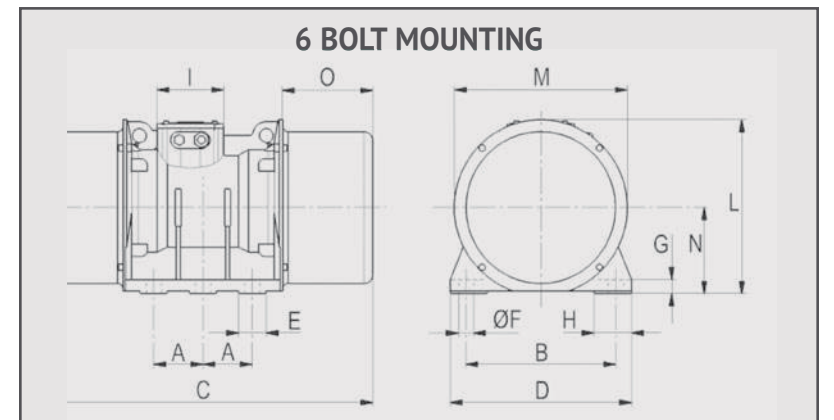
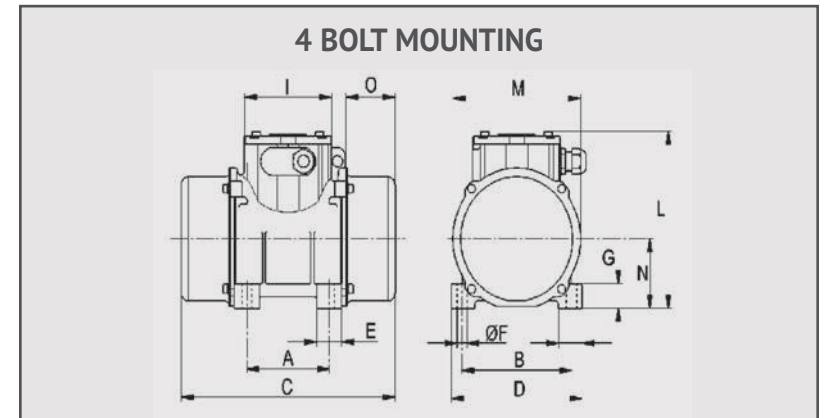


900 RPM, 60Hz - 460V

8-Pole (3 Phase)

### Specifications

SMH Model	SMH Part Number	Weight (lbs)	Centrifugal Force (lbs)	Static Moment (lb*in)	Max Input Power (kw)	Max Current Amps	Temp Class (-C)	Cable Entry (in)
<b>4 BOLT</b>								
VV20B/8	6515-095-020	42	359	14	0.23	0.71	120	.354-630
VV30B/8	6515-095-030	60	597	26	0.36	1	120	.354-630
VV35B/8	6515-095-035	79	1080	39	0.28	0.55	120	.354-630
VV38B/8	6515-095-038	101	1433	62	0.42	1.1	120	.354-630
VV40B/8	6515-095-040	126	1970	85	0.47	1.2	150	.354-630
VV50B/8	6515-095-050	181	3044	132	1	2.1	150	.354-630
VV53B/8	6515-095-053	205	3883	168	1.25	2.5	135	.354-630
VV55B/8	6515-095-055	293	4655	201	1.7	3.7	135	.354-630
VV60B/8	6515-095-060	443	6980	302	2.2	5	135	.512-787
VV62B/8	6515-095-062	478	8596	372	2.8	5.8	135	.512-787
VV65B/8	6515-095-065	533	9490	411	3.2	6.2	135	.512-787
VV67B/8	6515-095-067	577	11461	496	4.1	7.4	135	.512-787
VV71B/8	6515-095-071	705	14505	628	5.5	9	135	.512-787
<b>6 BOLT</b>								
VV81B/8	6515-095-081	930	22040	954	7	11.3	135	.512-787
<b>8 BOLT</b>								
VV141B/8	6515-095-141	1490	30856	1335	9.1	18.5	135	-
VV171B/8	6515-095-171	1567	38129	1650	10.5	18.9	135	-
VV221B/8	6515-095-221	2149	49590	2145	15.9	27.2	135	-



900 RPM, 60Hz - 460V

8-Pole (3 Phase)

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OVERALL REFERENCE DIMENSIONS (inches)												
"A"	"B"	"C"	"D"	"E"	"ØF"	"G"	"H"	"I"	"L"	"M"	"N"	"O"
<b>4 BOLT</b>												
4.13	5.51	13.39	6.57	1.26	0.51	1.18	1.18	4.37	7.99	6.42	3.25	3.58
4.72	6.69	14.8	8.07	1.5	0.67	1.57	1.3	4.37	8.44	7.52	3.6	3.82
4.72	6.69	17.17	8.27	2.36	0.67	0.87	1.87	4.37	9.41	8.78	4.55	4.65
5.51	7.48	19.29	9.06	2.83	0.67	0.98	2.07	4.37	10.12	9.49	4.9	5.08
5.51	7.48	22.05	9.06	2.83	0.67	0.98	2.07	4.37	10.12	9.49	4.9	6.46
6.1	8.86	23.62	10.83	3.13	0.87	1.1	2.46	4.37	11.14	10.67	5.51	6.63
6.1	8.86	25.79	10.83	3.13	0.87	1.1	2.46	4.37	11.14	10.67	5.51	7.72
6.1	10.04	25.91	12.2	4.07	0.93	1.18	2.36	6.1	13.19	12.17	6.3	6.85
7.09	11.02	28.74	13.39	4.17	1.02	1.18	2.56	6.1	14.53	13.23	6.81	7.87
7.09	11.02	31.1	13.39	4.17	1.02	1.18	2.56	6.1	14.53	13.23	6.81	9.06
7.87	12.6	28.98	15.35	4.37	1.1	1.26	2.95	6.1	15	15.12	7.44	7.4
7.87	12.6	32.91	15.35	4.37	1.1	1.26	2.95	6.1	15	15.12	7.44	9.37
7.87	12.6	33.62	15.43	4.37	1.1	1.38	2.95	6.1	15.87	15.83	7.85	9.72
<b>6 BOLT</b>												
4.92	14.96	39.45	18.11	2.76	1.54	1.38	3.74	6.69	17.11	17.28	8.46	11.81
<b>8 BOLT</b>												
5.51	18.9	40.94	22.44	3.54	1.77	1.61	5.31	6.69	21.14	21.18	10.55	9.45
5.51	18.9	44.09	22.44	3.54	1.77	1.61	5.31	6.69	21.14	21.18	10.55	11.02
5.51	20.47	45.28	24.02	3.54	1.77	1.5	5.71	9.84 x 8.27	24.09	23.39	11.69	11.73

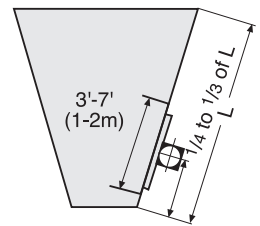
## Mounting Syntron® Electric Rotary Vibrators

Vibrator selection and installation is based upon individual application requirements. For vibration distribution, each electric rotary bin vibrator should be mounted midway, on a length of channel, welded with its legs against the side of the bin. All electric rotary bin vibrator models can be mounted with the shaft in any position from horizontal to near vertical. For maximum effectiveness, chutes requiring vibrators

should be independently isolated. In addition, the vibrator should be mounted midway on a channel located underneath the length of the chute.

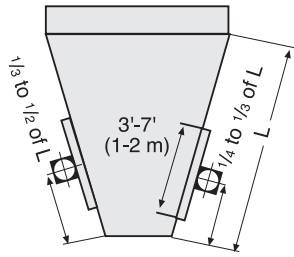
Note: For free-flowing bulk material installations, vibrators on hoppers should operate only when the hopper is open to flow. Otherwise, packing of material can result.

### Conical Hoppers



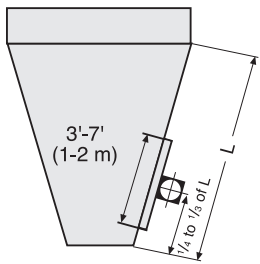
Mount vibrator by channel-iron stiffener 3 to 7 feet long (1-2 m) to hopper wall, one-fourth to one-third the distance from the discharge to the top. A second vibrator (if necessary) should be mounted diametrically opposite and approximately halfway up the bin wall.

### Rectangular Hoppers



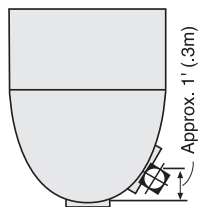
Mount as for conical hoppers on the centerline of one side. A second vibrator may be required if complete cleaning of all corners and sides is desired. To mount, follow instructions for conical hoppers.

### Rectangular Bins with Hopper Bottoms



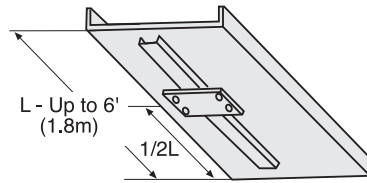
Usually requires larger force vibrators than conical or rectangular hoppers because of additional head load. Locate vibrator one-fourth to one-third the distance up sloping section of bin wall, and follow mounting instructions for conical hoppers.

### Parabolic Bins or Hoppers



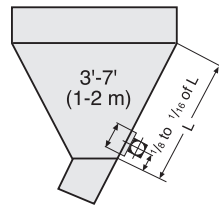
Mount vibrator within one foot of each discharge opening and in line with center of opening.

### Chutes



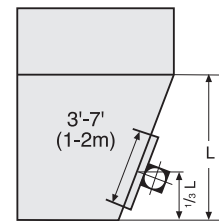
To move the material in a chute, the chute should be inclined to no less than half the "angle of repose" of the material (at least 10 degrees). On chutes from six to 10 feet (1.8 - 3 m) long, two vibrators are needed; one should be placed 18 - 24 inches (457 - 610 mm) from the discharge and the other approximately in the middle. Since chutes are very sensitive to vibration, a provision should be made to move the lower vibrator six inches (152 mm) in either direction. This could mean the difference between moving the material or not moving it. Vibrator shaft (eccentric weight) should be rotating in the direction of material flow.

### Bins with Sloping Discharge



Mount the vibrator one-sixteenth to one-eighth the distance up bin wall that is contiguous with the underside of chute. This lower mounting position puts vibrator close to bin discharge throat and assures vibration transference into chute.

### Bin or Hopper with Vertical Side



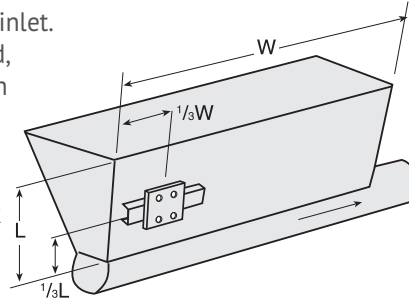
Mount vibrator on wall with the least slope. Follow mounting instructions for rectangular bins with hopper bottoms.

Note: Drawings illustrate typical installations. Specific installations may require slight variations. For other applications not covered here, please consult factory for recommendations.

## Mounting Syntron® Electric Rotary Vibrators, cont'd.

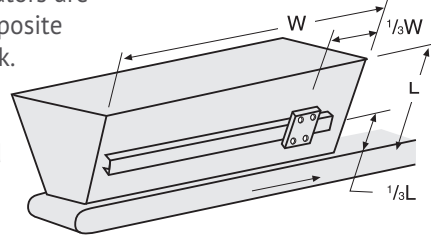
### Screw Feeder

Feeds from the back. Vibrator should be 1/3 from the inlet. If two vibrators are used, place second vibrator on opposite side, 1/3 from the discharge. Do not run the vibrator at the discharge until the back of the bin is empty and the vibrator at the inlet is shut off.



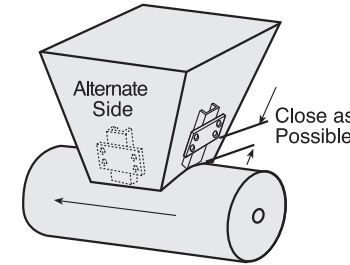
### Long Bin

Belt conveyor feeds from front. Vibrator should be 1/3 from front. If two vibrators are used, place one on opposite side and 1/3 from back. Do not operate the back vibrator until the front is empty and the front vibrator is shut off.



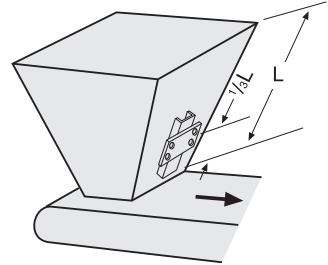
### Short Screw Feeder

Place vibrator as close as possible to feeder.



### Belt Conveyor and Standard Bin

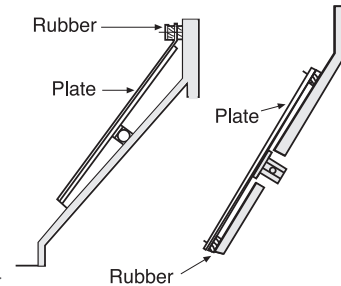
Mount vibrator on the belt discharge side of the hopper. Follow mounting instructions for the appropriate bin type on page 30.



### Concrete Hopper or Lined Wooden Hopper

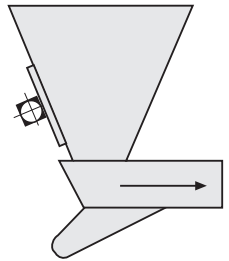
For wooden hoppers lined with thin sheet metal, attach vibrator mounting bolts to the hopper lining.

For concrete hoppers, secure a steel plate across the top inside of the hopper to the discharge opening along the side to which the vibrator will be mounted. At about 1/4 or less of the distance from the discharge to the vertical side, cut an opening to allow the vibrator to be bolted to the steel plate.



### Vibrating Feeder and Standard Bin

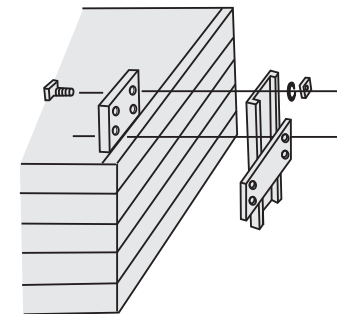
Mount vibrator on the feeder infeed side of the hopper. Follow mounting instructions for the appropriate bin type on page 30.



Note: Drawings illustrate typical installations. Specific installations may require slight variations. For other applications not covered here, please consult factory for recommendations.

### Wood Bin

Use steel plate on inside and bolt to outside mounting plate.





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