

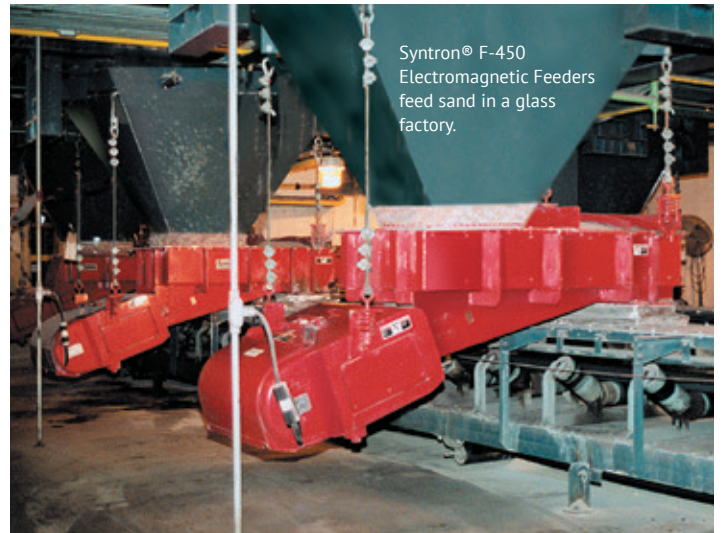
Syntron® Electromagnetic Feeders

Heavy-Duty Electromagnetic Feeders

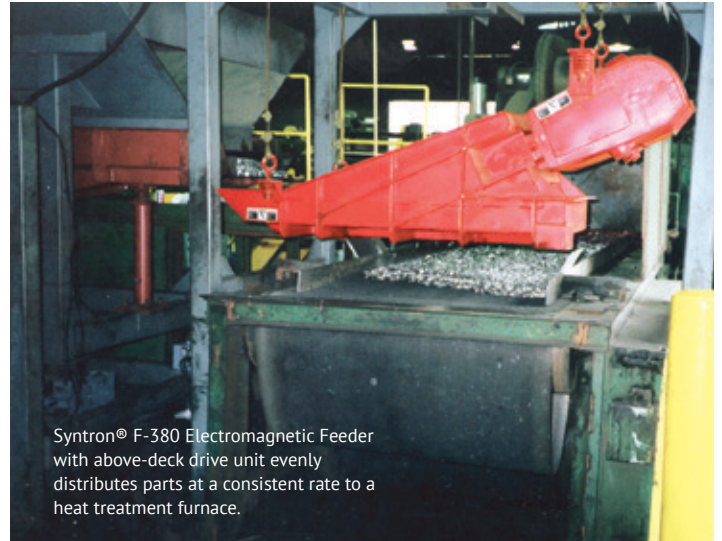
With thousands of units installed over the past 60 years, Syntron® Heavy-Duty Electromagnetic Feeders are the most recognized name in the industry. With models having capacities ranging from 25 to 1,600 tons per hour, these feeders are capable of handling a variety of materials from fine powder to large, coarse particles.

Syntron® Electromagnetic Feeders are two-mass sub-resonant tuned. When the natural frequency of a feeder is greater than the operating frequency (3600 VPM), the feeder is sub-resonant tuned, which makes the unit consistent and stable under changing headloads. The units can be supplied in various configurations including multiple-drive units for especially long or wide pans and above-deck drive units for applications where space under the trough is insufficient for the standard below-deck unit.

Utilizing the EVF control, Syntron® Electromagnetic Feeders will accept a three-phase input voltage while operating with a rectified ac sine wave to the feeder. This provides for three-phase load balancing to your plant electrical system and reduces the VA load required by the feeder. The units provide easily adjustable feed rates with an instantaneous response. (For more information on electromagnetic controls, see pages 14-16.)



Syntron® F-450
Electromagnetic Feeders
feed sand in a glass
factory.



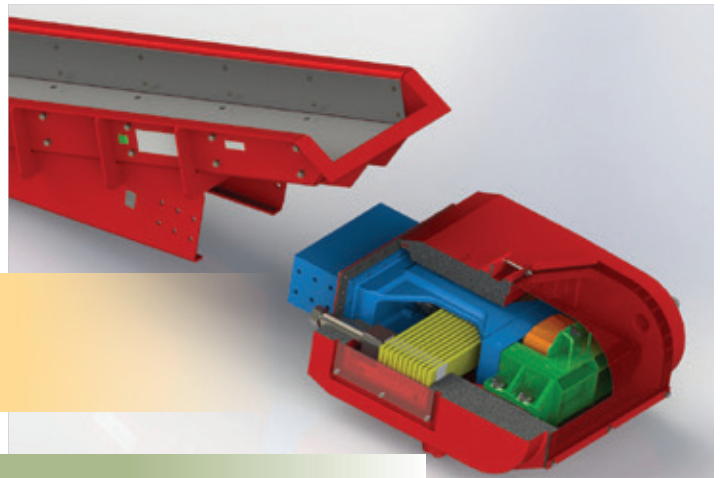
Syntron® F-380 Electromagnetic Feeder
with above-deck drive unit evenly
distributes parts at a consistent rate to a
heat treatment furnace.



Feeding gypsum with
Syntron® model F-380
Electromagnetic Feeder.

Syntron® Electromagnetic High Performance Feeder Features

- **Dust-tight and maintenance-free drive units:** Feeders have no mechanical parts to wear out, such as cams, eccentrics, belts and bearings - thus eliminating the need for lubrication.
- **Two-mass, spring-connected, sub-resonant tuned:** All movement is confined to the heavy-duty leaf springs which provide millions of cycles of service.
- **Stroke generated by electromagnetic field produced by coil.**
- **High Frequency:** 3600 VPM at 60 Hz or 50 Hz with EVF Control for maximum feed rate.
- **Stroke - .080 inches:** New "HP" units operate at .080" at 3600 VPM to provide 40% more output than traditional units at .060"
- **Troughs:** Engineered weldments designed to withstand the high acceleration and impact forces associated with vibratory feeding applications.
- **Bolt-in replacement trough liners:** Wide range of materials to best fit your applications are available including T-1A, AR-400, AR-500, Stainless Steel, UHMW Plastic, Rubber, Ceramic and Carbide Overlay.

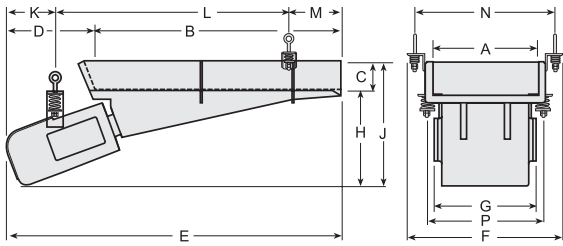


Syntron® Electromagnetic Feeders are ideal for use in a stationary operation such as a tunnel system from a surge pile. They are usually controlled from a remote point to provide the desired feed rate. In this application, a model FH-22 feeds limestone to a belt conveyor.



Electromagnetic Feeder Specifications

MODEL FH-22-HP (up to 180) tph



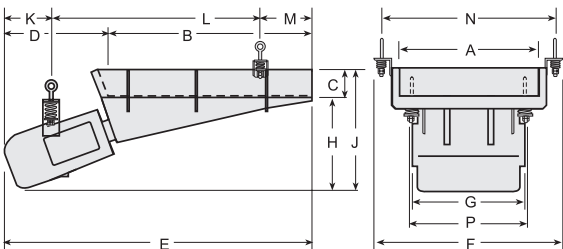
Approx. Trough W x L	Approx. Capacity tph	Approx. Current (460V)	Control Model	Net Wt. (lb)	Net Wt. (kg)	Approx. Ship Wt. (lbs) Feeder/Control	Approx. Ship Wt. (kg) Feeder/Control
12 x 60	50	5 amps	EVF-7.5D	480	217	575	260
18 x 42	125	5 amps	EVF-7.5D	460	208	555	251
24 x 42	180	5 amps	EVF-7.5D	480	217	575	260

Please request a certified drawing for installation.

◆ Based on feeder with 10° down slope, below-deck drive unit, installed with proper hopper transition and skirt board arrangement, feeding sand weighing 100 pounds per cubic foot. 240/480/600 Volt 60 Hz single-phase. 230/400/415 Volt 50 Hz single-phase. Above-deck and base mounting drive units are available.

	A	B	C	D	E	F	G	H	J	K	L	M	N	P
in	12	60	5	6 1/2	66 1/2	23	17 1/2	16 1/2	21 1/2	8 3/4	47 3/4	10 1/2	18 3/4	19 3/4
mm	305	1524	127	165	1689	584	445	419	546	210	1213	267	476	502
in	18	42	5	15 5/16	57 5/16	26 3/4	17 1/2	18	23	8 5/16	40	9	24 3/4	19 3/4
mm	457	1067	127	389	1456	679	445	457	584	211	1016	229	629	502
in	24	42	5	15 5/16	57 5/16	32 3/4	17 1/2	18	23	8 5/16	40	9	30 3/4	19 3/4
mm	610	1067	127	389	1456	832	445	457	584	211	1016	229	781	502

MODEL FH-24-HP (up to 235) tph



Approx. Trough W x L	Approx. Capacity tph	Approx. Current (460V)	Control Model	Net Wt. (lb)	Net Wt. (kg)	Approx. Ship Wt. (lbs) Feeder/Control	Approx. Ship Wt. (kg) Feeder/Control
18 x 60	125	7 amps	EVF-7.5D	600	272	650	294
24 x 48	235	7 amps	EVF-7.5D	600	272	650	294
30 x 36	200	7 amps	EVF-7.5D	600	272	650	294

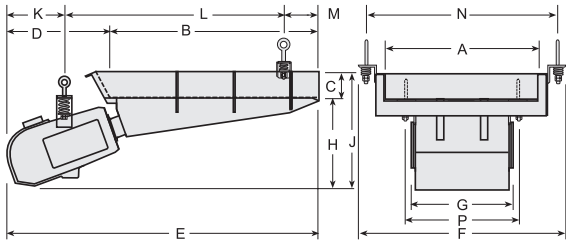
Please request a certified drawing for installation.

◆ Based on feeder with 10° down slope, below-deck drive unit, installed with proper hopper transition and skirt board arrangement, feeding sand weighing 100 pounds per cubic foot. 240/480/600 Volt 60 Hz single-phase. 230/400/415 Volt 50 Hz single-phase. Above-deck and base mounting drive units are available.

	A	B	C	D	E	F	G	H	J	K	L	M	N	P
in	18	60	5	6 5/16	66 5/16	28	19 5/8	18	23	8 5/16	47 1/2	10 1/2	24 3/4	24 3/4
mm	457	1524	127	160	1684	711	498	457	584	211	1207	267	629	629
in	24	48	5	12 5/16	60 5/16	32 3/4	19 1/4	18	23	8 5/16	41 7/8	10 1/8	30 3/4	19 3/4
mm	610	1219	127	313	1532	832	489	457	584	211	1064	257	781	502
in	30	36	5	8 5/16	54 5/16	38 3/4	19 1/4	18	23	8 5/16	37	9	36 3/4	19 3/4
mm	762	914	127	135	1380	984	489	457	584	211	940	229	933	502

Many other trough sizes are available. Capacities vary depending on drive unit location, material characteristics, material density, trough length and width, trough liner type, feeder installation, skirt boards and hopper transitions. Cad drawings are available. Please call Syntrol Material Handling for expert help with your application.

MODEL F-380-HP (up to 500) tph



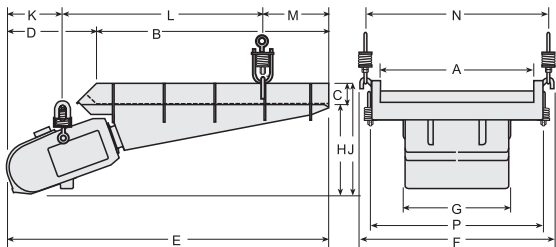
Approx. Trough W x L	Approx. Capacity tph	Approx. Current (460V)	Control Model	Net Wt. (lb)	Net Wt. (kg)	Approx. Ship Wt. (lbs) Feeder/Control	Approx. Ship Wt. (kg) Feeder/Control
24 x 60	250	18 amps	EVF-15D	1370	621	1400	635
30 x 60	500	18 amps	EVF-15D	1400	635	1450	657
36 x 48	500	18 amps	EVF-15D	1400	635	1450	657

Please request a certified drawing for installation.

◆ Based on feeder with 10° down slope, below-deck drive unit, installed with proper hopper transition and skirt board arrangement, feeding sand weighing 100 pounds per cubic foot. 240/480/600 Volt 60 Hz single-phase. 230/400/415 Volt 50 Hz single-phase. Above-deck and base mounting drive units are available.

	A	B	C	D	E	F	G	H	J	K	L	M	N	P
in	24	60	6	18 1/8	78 1/8	35 7/8	23 1/4	22 3/4	28 3/4	12 7/8	50 3/4	14 1/2	32 5/8	32
mm	610	1524	152	460	1984	911	591	578	730	327	1289	368	829	813
in	30	60	6	18 1/8	78 1/8	41 7/8	23 1/4	22 3/4	28 3/4	12 7/8	50 3/4	14 1/2	38 5/8	36
mm	762	1524	152	460	1984	1064	591	578	730	327	1289	368	981	91
in	36	48	6	24 1/8	72 1/8	47 7/8	23 1/4	22 3/4	28 3/4	12 7/8	50 3/4	8 1/2	44 5/8	26 1/4
mm	914	1219	152	613	1832	1016	591	578	730	327	1289	216	1133	666

MODEL F-480-HP (up to 1100) tph



Approx. Trough W x L	Approx. Capacity tph	Approx. Current (460V)	Control Model	Net Wt. (lb)	Net Wt. (kg)	Approx. Ship Wt. (lbs) Feeder/Control	Approx. Ship Wt. (kg) Feeder/Control
42 x 84	1100	31.5 amps	EVF-25D	4100	1859	4200	1905
48 x 72	1100	31.5 amps	EVF-25D	4000	1814	4100	1859

Please request a certified drawing for installation.

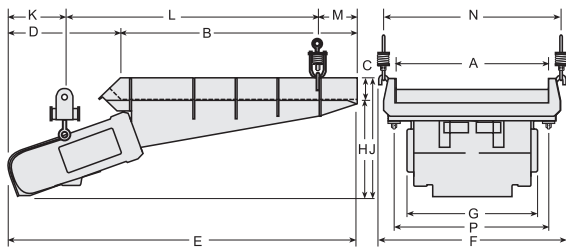
◆ Based on feeder with 10° down slope, below-deck drive unit, installed with proper hopper transition and skirt board arrangement, feeding sand weighing 100 pounds per cubic foot. 480/600 Volt 60 Hz single-phase. 400/415 Volt 50 Hz single-phase. Above-deck and base mounting drive units are available.

	A	B	C	D	E	F	G	H	J	K	L	M	N	P
in	42	84	7	23 15/16	107 15/16	54 3/8	33	30 11/16	37 11/16	17 7/16	71 1/2	19	50 3/4	51
mm	1067	2134	178	608	2742	1381	838	779	957	443	1816	483	1289	1295
in	48	72	7	28 1/16	100 1/16	60 3/8	33	27 13/16	34 13/16	17 1/2	61 5/8	21	56 3/4	57
mm	1219	1829	178	713	2542	1534	838	706	884	445	1565	533	1441	1448

Many other trough sizes are available. Capacities vary depending on drive unit location, material characteristics, material density, trough length and width, trough liner type, feeder installation, skirt boards and hopper transitions. Cad drawings are available. Please call Syntrol Material Handling for expert help with your application.

Electromagnetic Feeder Specifications

MODEL F-660



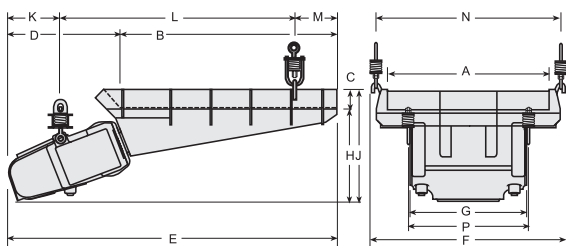
Approx. Trough W x L	Approx. Capacity tph	Approx. Current (460V)	Control Model	Net Wt. (lb)	Net Wt. (kg)	Approx. Ship Wt. (lbs) Feeder/Control	Approx. Ship Wt. (kg) Feeder/Control
60 x 90	1000	31.5 amps	EVF-25D	9200	4173	9300	4218

Please request a certified drawing for installation.

◆ Based on feeder with 10° down slope, below-deck drive unit, installed with proper hopper transition and skirt board arrangement, feeding sand weighing 100 pounds per cubic foot. 480/600 Volt 60 Hz single-phase. 400/415 Volt 50 Hz single-phase. Above-deck and base mounting drive units are available.

	A	B	C	D	E	F	G	H	J	K	L	M	N	P
in	60	90	8	40	130	72 ½	51 ½	39 ½	47 ½	21 ½	96	15 ½	69	63 ½
mm	1524	2286	203	1016	3302	1842	1308	1003	1207	546	2438	394	1753	1613

MODEL F-88



Approx. Trough W x L	Approx. Capacity tph	Approx. Current (460V)	Control Model	Net Wt. (lb)	Net Wt. (kg)	Approx. Ship Wt. (lbs) Feeder/Control	Approx. Ship Wt. (kg) Feeder/Control
72 x 96	1600	70 amps	EVF-60D	11400	5170	12000	5443

Please request a certified drawing for installation.

◆ Based on feeder with 10° down slope, below-deck drive unit, installed with proper hopper transition and skirt board arrangement, feeding sand weighing 100 pounds per cubic foot. 480/600 Volt 60 Hz single-phase. 400/415 Volt 50 Hz single-phase. Above-deck and base mounting drive units are available.

	A	B	C	D	E	F	G	H	J	K	L	M	N	P
in	72	96	8	49 9/16	145 9/16	87	51 ½	40 3/32	48 3/32	22 3/4	103 9/16	19 1/4	82	63 ½
mm	1829	2438	203	1259	3697	2210	1308	1018	1222	578	2630	489	2083	1613

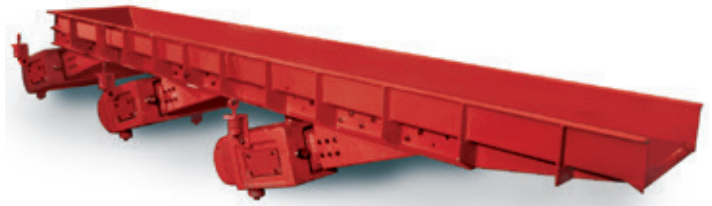
Many other trough sizes are available. Capacities vary depending on drive unit location, material characteristics, material density, trough length and width, trough liner type, feeder installation, skirt boards and hopper transitions. Cad drawings are available. Please call Syntron Material Handling for expert help with your application.

Multiple-Drive Electromagnetic Feeders

Syntron® Electromagnetic drive units can be combined to create feeders ideally suited for special applications. Multiple-drive units, positioned one behind the other, result in a long, vibrating conveyor. When an especially wide material layer is desired, multiple-drive units can be placed side by side on extra wide feeder troughs. The number of drive units required is determined by the trough width and length.

Dual-twin drive units – two sets of twin drive units, one set placed behind the other – provide both increased capacity and the ability to handle exceptionally heavy loads.

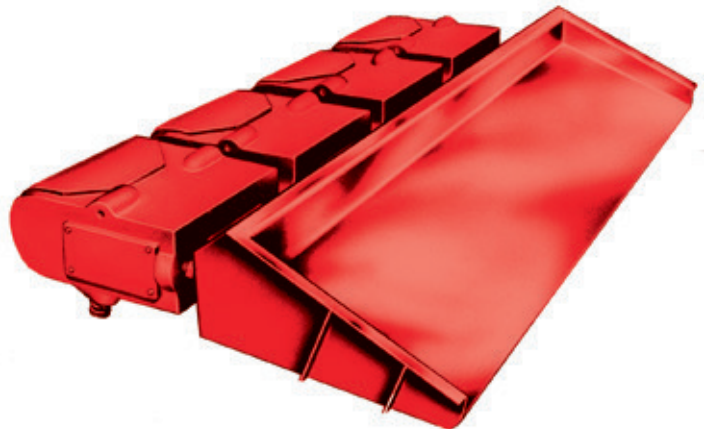
The material flow rate of all multiple-drive unit models can be easily regulated. A special control permits adjustment of all drive units simultaneously to control the flow rate of the entire feeder.



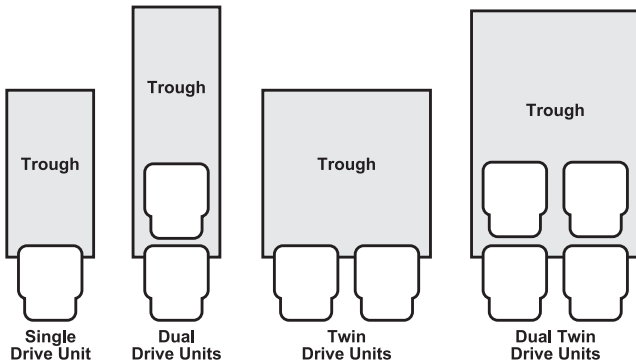
Sixteen foot, triple drive unit
Syntron® F-480 Electromagnetic
Feeder conveyor.



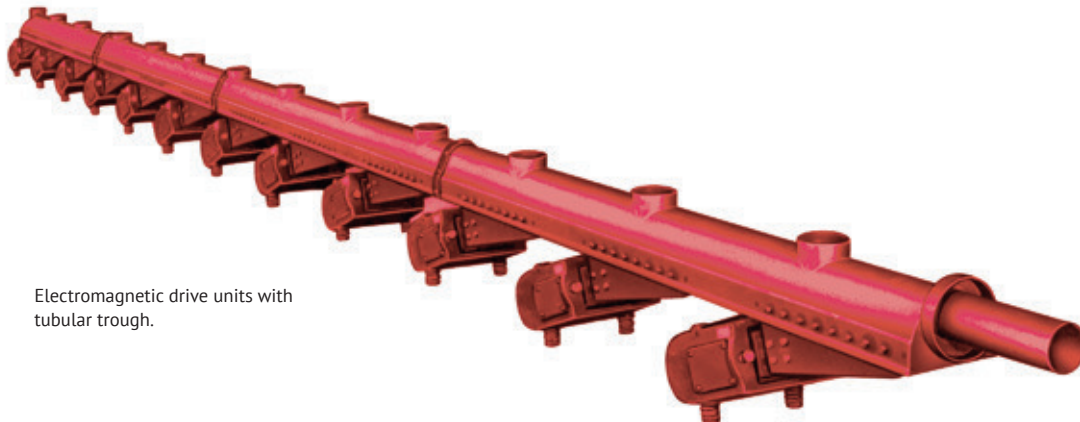
Syntron® F-660 Electromagnetic
Feeder with two drive units.



An eight-foot wide by twenty-four
inch long trough powered by four
Syntron® F-380 electromagnetic
drive units.



A selection of some of the available multiple-drive unit configurations.



Electromagnetic drive units with
tubular trough.