



TARNOS

Electromagnetic Vibrating Feeders Light Capacity

The leading brand in vibration



Foods

Snacks

Glass

Chemicals



Additives



Manufacturing Licences

FMC

Syntron®



Models

There are six models in our range of Light Capacity Electromagnetic Feeders, with maximum feed capacities from 600 kg to 20 tons per hour, as measured for dry sand with a density of 1.6 t/m^3 .

For controlling material flow in feeding and packaging operations.

Operating Principle

The TARNOS Electromagnetic Feeders for Light Capacity work are ideal for feeding bulk materials and parts.

The design of the Electromagnetic Feeders is based on a system of two masses coupled by means of an elastic component consisting of flexible leaf springs. The quantity of leaf springs fitted up determines the sub-resonant operation of the equipment. A rectified current excites the magnetic core, attracting the moving armature, which is attached to the trough. The energy accumulated in the leaf springs is used to return the system to its position of equilibrium.

This nearly sine, up-and-down vibrating action of the trough is transmitted to the material, making it move. That movement is repeated 3,000 times per minute at 50 Hz. The three smaller models FT-0, FT-01 and BF-01 operate at 110 or 220 volts, 50 Hz, single phase.

The other three models; BF-2, F-152 and F-212, can operate at 110, 220 or 380 volts, 50 Hz, single phase.

Mounting

These feeders can be positioned under storage hoppers and transition ducts to extract the material from them, or simply as conveyors.

The smallest feeders, up to and including BF-2, are normally installed supported on their rubber feet, with the drive located under the trough. These models have fibreglass elastic drive springs.

The larger F-152 and F-212 models can be installed hanging from cables, supported on their helical springs, or in a mixed arrangement. They are mounted with the drive below (under the trough) or above (over the trough) when space is restricted.

Packaging, screening and weighing.



Our Electromagnetic Feeders can vary the feeding rate instantly, thus providing the flexibility required by present-day production processes

The standard Control Unit is equipped with all the necessary electrical components

When the control box is connected to an electrical

Controllers

source and to the feeder, the equipment is ready for operation.

Other control systems:

- Two speed material flow control, manual or automatic.
- Flow rate control by means of a DC signal.
- Proportional flow control for several feeders, by means of a single rheostat.
- Flow control depending on the power consumption of a motor.
- Control with amplitude stroke regulator.

Features and Advantages

- Long service life
- Highly reliable
- Steady operation
- Quiet operation
- Dust-sealed drives
- Easy material flow regulation by using controller
- Smooth product handling
- Instant starting and stopping
- Encapsulated coils to avoid any moisture or dust damage
- Minimal maintenance

Trough models

The troughs can be supplied in carbon steel or stainless steel. They can also come PVC-coated, Teflon-coated or plus-lined when this is required for the application concerned. They can also be supplied with replaceable wearing plate or with dust-proof covers.

Various shapes of troughs:

- Flat bottom troughs
- Diagonal discharge for spreading the material over a fixed width
- Sealed tubular troughs
- Screening-Feeder for removing lumps, dust, etc.
- V-shaped troughs
- Half-round troughs for conveying circular parts or biscuits



Specifications and Dimensions

Which feeder to choose depends among other things on the maximum admissible weight for each drive. These weights are listed in the specifications table.

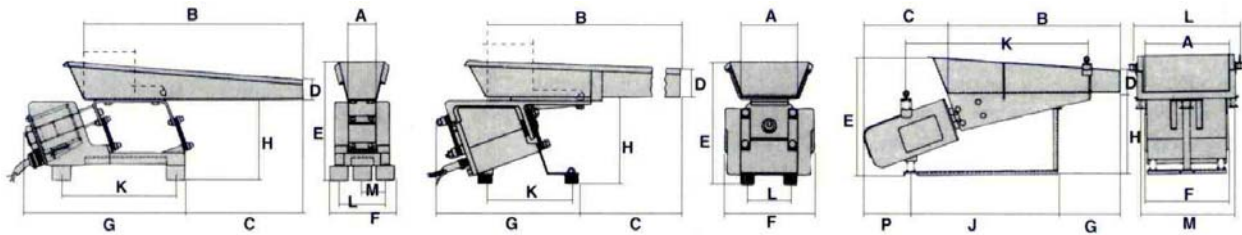
Specifications

Model	Power (W)	Intensity (Amp.)*	Weight (Kg) □	Max.Capacity. (T/h) ●	Max.Trough. weight (Kg)
FT-0	15	0,18	4,8	0,6	1,5
FT-01	20	0,4	15	2	2,7
BF-01	50	1,2	16	5	6
BF-2	80	2	30	7	9
F-152	100	1,2	36	12	12
F-212	125	2,2	64	20	23

* At 220 V 50 Hz

□ with standard trough

● based on dry sand with density 1,6 T/m³



DIMENSIONS (MILLIMETRES)

Model	Figure	A	B	C	D	E	F	G	H	J	K	L	M	P		
FT-0 ●	1 *	40	305	163	25	160	76	222	111	-	159	57	29	-		
		50	203	71												
FT-01	1 *	76	455	320	45	222	127	232	152	-	143	79	-	-		
		100	455	320												
		150	305	170												
BF-01	2 *	150	610	362	50	245	167	292	169	-	168	80	-	-		
		200	500	331												
		250	500	331												
		300	360	203												
BF-2	2 *	200	760	446	50	296	203	320	220	-	178	152	-	-		
		255	760	446												
		305	610	370												
		305	610	370												
F-152	3 *	250	915	135	75	365	203	474	310	423	752	384	303	153		
		150	915	135				461			677	284				
		200	915	135				401			677	334				
		300	750	213				389			677	434				
F-212	3 *	305	915	271	75	400	279	302	319	709	783	439	389	175		
		350	915	271				302			709	783			484	
		400	765	314				400			304	514			708	594
		450	600	334				245			304	514			608	584

* Standard trough ● Model FT-0 has two rubber feet on the rear and one on front.

To ascertain the right width for the trough, the maximum size of the product must be taken into account as well as the desired flow rate. As a rough guide, the working width should be two to three times the maximum particle size to be handled. For applications needing greater flow rates or trough sizes, see the information on Electromagnetic Feeders for heavy-duty.

CAUTION: These units are to be installed, operated and maintained in accordance with accompanying service instructions. Failure to follow these instructions may result in harm to people and/or things.

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The characteristics stated in this catalogue may be changed by TARNOS without prior notice.

VIBRATORS - FEEDERS - SCREENS - VIBRATING SIEVES - CONVEYORS - SPIRAL FEEDERS - FOUNDRY SHAKEOUTS - FLOW SWITCHES - BIN VIBRATORS - VIBRATING TABLES - AUTOMATIC PARTS FEEDERS - DOSING EQUIPMENT - TRAVELLING WATER SCREENS