

## MECHATRON® "HC" Gravimetric Feeder



"Heavy duty and configurable" are terms which accurately describe the "HC" MECHATRON® feeder. The feeder is designed to accommodate feed rates in excess of 1,100 cubic feet per hour and headloads of up to 5,000 lbs. Gravimetric configurations of the "HC" feeder feature a cast aluminum and stainless steel frame, conical flexible hopper with external paddle agitation, AC drive packages, 3,300 lb., 6,600 lb., and 13,230 lb. scale configurations and fully integrated and pre-wired controls. Like all MECHATRON® feeders, "HC" feeders feature quick and easy disassembly from the non-process side.

### MATERIALS OF CONSTRUCTION:

#### Contact materials-

- 304 & 316 stainless steel and HDPE (feed screws and nozzles).
- Coni-Flex™ chemical duty gray and FDA approved white vinyl.
- Coni-Flex™ toner resistant and static dissipative black polyurethane.

#### Non-contact materials-

- 304 stainless steel and epoxy coated cast aluminum.

### FEED RATES:

- Helix diameters from 3.00" (76 mm) to 6.00" (152 mm) provide feed rates from 2.8 to 1,137 cubic feet (79 - 32,160 liters) per hour (theoretical).

### FEED SCREWS:

- 304 or 316 stainless steel construction.
- Single screw open flight or center-rod configurations.
- Full and half pitch configurations.

### CONI-FLEX™ FEED HOPPER:

- Removable 70 degree (from horizontal) conical flexible internal feed hopper.
- 2.9 cubic feet (83 liters) material storage capacity.

### HOPPER EXTENSIONS:

- 10 cubic feet (280 liters), 20 cubic feet (560 liters), and 50 cubic feet (1,400 liters) capacity with or without inlet and vent connections. Other optional sizes available.
- Dust tight 360 degree band clamp mounting.

### MOTOR SPECIFICATIONS:

- Industrial applications - single and dual, AC (TEFC) are available in 1 HP for agitation, 2 HP for helix or optionally at 3 HP for helix.
- 460 VAC, 3 PH, 60 Hz.
- Explosion proof and washdown motors are available options.

### MOUNTING CONFIGURATIONS:

- Frame and hanging mounts are available. Detail drawings may be requested from Schenck AccuRate.

### WEIGH MODULE SPECIFICATIONS:

- Three Schenck stainless steel, IP68 load cells. No summing box required.
- Weigh modules available in 3,300 lbs. (1,500 kg), 6,600 lbs. (3,000 kg), 13,230 lbs. (6,000 kg) - total capacities.

### PERFORMANCE:

- Gravimetric accuracies from  $\pm 1/4\%$  to 1% of feed rate setpoint typical at 2 sigma.

**NOTE:** Laboratory testing to determine specific material feeding accuracy is recommended and available from Schenck AccuRate.

# A Feeder You Can Quickly Reconfigure, Clean Or Service From The Non-Process Side.



**1** All components are accessible from the rear of the feeder instead of the discharge side. Simply remove the back cover, then loosen and remove the swivel stop bolt.



**2** Motor and drive assembly swings back for complete access to all internal components for easy cleaning, reconfiguration or maintenance.



**3** For easy removal of the helix and quill, loosen the four quill mounting screws. Remove small band clamp, allowing for fast helix style and diameter changes.



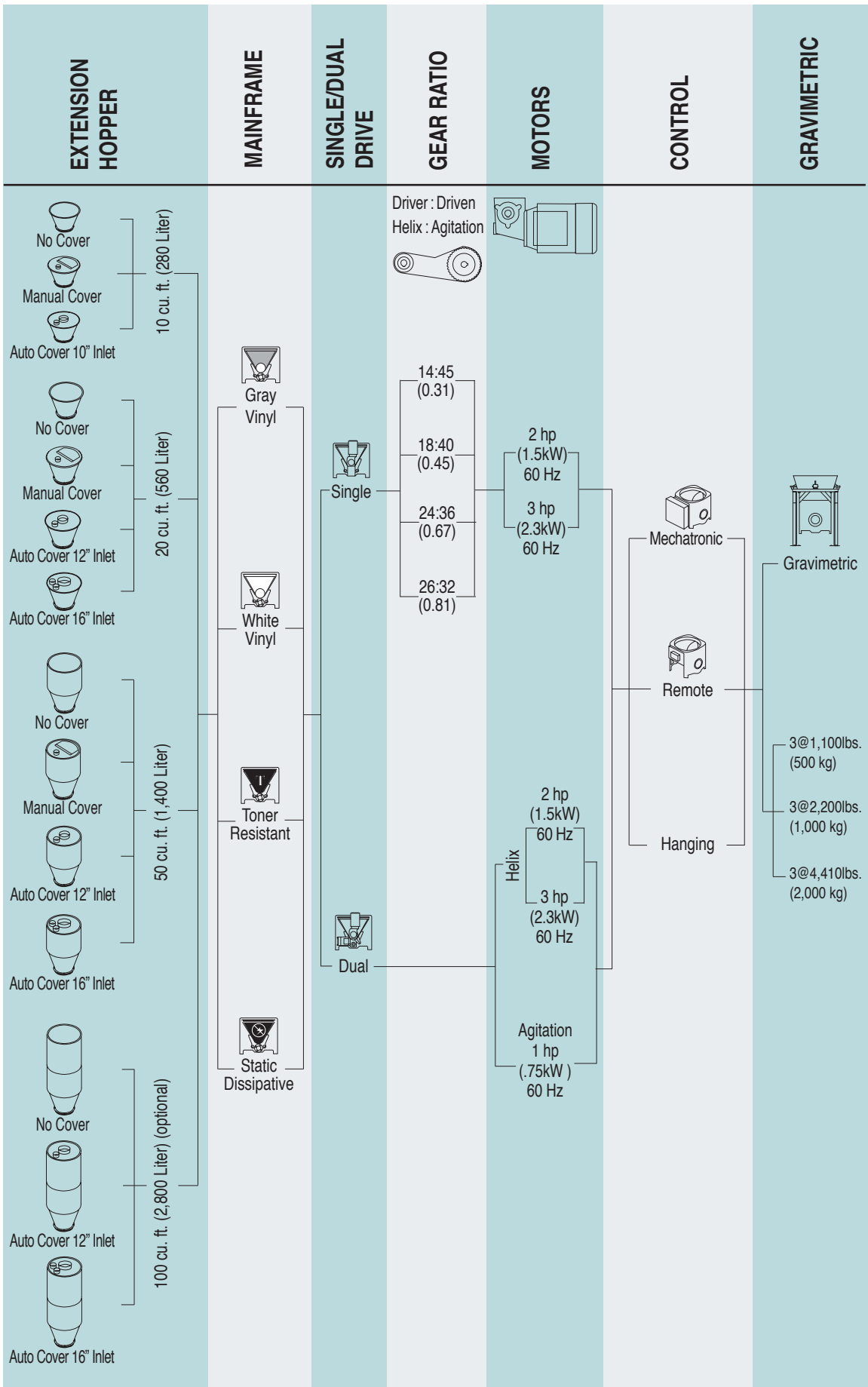
**4** Release band clamp on the top of the vinyl feed hopper.

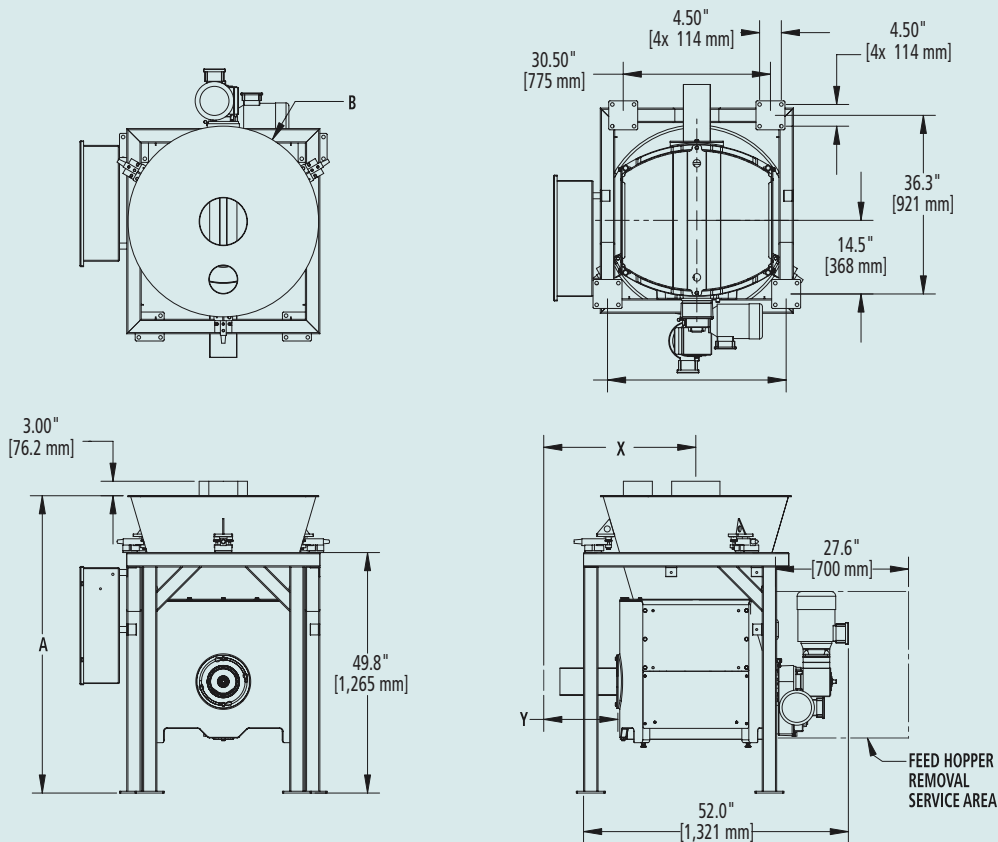


**5** Slide the feed hopper out for cleaning, replacement or maintenance.



**6** Replace feed hopper, helix and quill, reposition motor and drive assembly, tighten bolt, replace back cover and you're ready to run.





**EQUIPMENT CONFIGURATION**

	<b>WEIGHT</b>	<b>SYSTEM CAPACITY</b>
Feeder (dead load) .....	423 lbs. (192 kg) .....	2.9 cu. ft. (83 L)
Feeder + control + stand (total).....	785 lbs. (354 kg) .....	2.9 cu. ft. (83 L)
Feeder + 10 cu. ft. (280 L) extension hopper + cover (dead load).....	547 lbs. (247 kg) .....	12.9 cu. ft. (365 L)
Feeder + stand + control + 10 cu. ft. (280 L) extension hopper + cover (total).....	909 lbs. (410 kg) .....	12.9 cu. ft. (365 L)
Feeder + 20 cu. ft. (560 L) extension hopper + cover (dead load).....	613 lbs. (276 kg) .....	22.9 cu. ft. (648 L)
Feeder + stand + control + 20 cu. ft. (560 L) extension hopper + cover (total).....	975 lbs. (440 kg) .....	22.9 cu. ft. (648 L)
Feeder + 50 cu. ft. (1,400 L) extension hopper + cover (dead load).....	766 lbs. (345 kg) .....	52.9 cu. ft. (1,498 L)
Feeder + stand + control + 50 cu. ft. (1,400 L) extension hopper + cover (total).....	1,128 lbs. (509 kg) .....	52.9 cu. ft. (1,498 L)

NOTE: Single motor feeders were used for all weight calculations. Add 50 lbs. (23 kg) for dual drive feeders.

1. Standard infeed to discharge (X) is 31.5" (800 mm). Standard distance from face of feeder (Y) is 12" (305 mm) for 5" (127 mm) and 6" (152 mm) helixes and 13" (330 mm) for 3" (76 mm) and 3.5" (89 mm) helixes. Extensions are available in one inch increments.

2. System scale capacity: total (3 load cells) – 3,300 lbs. (1,500 kg), 6,600 lbs. (3,000 kg), 13,230 lbs. (6,000 kg)

3. Cover is available in auto refill (shown), manual refill, with blank cover, or with no cover. Cover may be rotated 360 degrees to meet application requirements.

**Standard inlet and vents:**

For 10 cu. ft. (280 L) hoppers = 10" (254 mm) inlet & 6" (152 mm) vent

For 20 cu. ft. (560 L), 50 cu. ft. (1,400 L) hoppers = 12" (305 mm) inlet & 8" (203 mm) vent or 16" (406 mm) inlet & (2) 8" (203 mm) vents

4. Electrical service requirements:  
Single Drive  
480V, 3 PH, 60 Hz, 6.0 amps full load current, 10 amp service is recommended

Dual Drive  
480V, 3 PH, 60 Hz, 12.0 amps full load current, 20 amp service is recommended

**EXTENSION HOPPER DIMENSIONS**

Capacity	Dim "A"	Dim "B"
10 cu. ft. (280 L)	62" (1,565 mm)	39.5" (1,003 mm)
20 cu. ft. (560 L)	74" (1,880 mm)	47" (1,194 mm)
50 cu. ft. (1,400 L)	110" (2,790 mm)	47" (1,194 mm)

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