

# MechaTron<sup>®</sup> “MC” Feeder

- Volumetric and gravimetric configurations for feed rates up to 330 cu. ft. (9,300 liters) per hour
  - Agitation of a Coni-Flex<sup>™</sup> flexible conical hopper eases material handling
  - Disassembly from the non-process side of the feeder simplifies cleaning, servicing and reconfiguration
- Perfectly suited for dry material feeding applications in all process industries



## Materials of Construction

### Contact materials –

- 304 & 316 stainless steel, FDA-compliant nylon, PTFE, UHMW-PE (nozzle dependent).
- Coni-Flex<sup>™</sup> chemical duty gray and FDA-compliant white vinyl.
- Coni-Flex<sup>™</sup> chemical duty and static dissipative black polyurethane.

### Non-contact materials –

- 304 stainless steel and epoxy coated cast aluminum.

## Feed Rates

- Helix diameters from .75" (19 mm) to 3.5" (89 mm) provide feed rates from 0.05 to 330 cubic feet (1.4 to 9,300 liters) per hour (theoretical).

## Feed Screws

- 304 or 316 stainless steel construction.
- Single screw, open flight or center-rod configurations.
- Full or half pitch configurations.
- Extensions to 48" (1.2 meters) from the feeder face.

## Coni-Flex<sup>™</sup> Feed Hopper

- Removable 70 degree (from horizontal) conical flexible internal feed hopper.
- 1.2 cubic feet (35 liters) of material storage capacity.

## Hopper Extensions

- 2.5, 7.5, 13.2 and 19 cubic feet (75 to 540 liters) capacities with or without 10" (250 mm) inlet and 4" (100 mm) vent connections.

- Dust tight 360 degree band clamp mounting.

## Motor Specifications

- Industrial applications – single and dual AC (TEFC, 1/2 and 1 HP inverter duty) and DC (TENV, 1/2 HP) configurations.
- Sanitary applications – single and dual AC (TENV, 1 HP inverter duty) wash-down duty configurations.
- 230 VAC, 3 PH, 60 Hz.
- 460 VAC, 3 PH, 60 Hz.
- Explosion-proof motors available.

## Mounting Configurations

- Floor mount – 304 stainless steel tubular stand.
- Hanging mount – 304 stainless steel hanging flange.

## Weigh Module Specifications (Optional)

- Dual Schenck stainless steel strain gage load cells. No summing box required.
- Weigh modules available in 264 lbs. (120 kg), 440 lbs. (200 kg), 661 lbs. (300 kg) and 1,322 lbs. (600 kg) capacities.

## Performance

- Volumetric accuracies of  $\pm 2\%$  to 5% of feed rate setpoint typical at 2 sigma.
- Gravimetric accuracies of  $\pm 1/4\%$  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 Process.

**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 back panel and loosen bolt.



**2**

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



**3**

Helix is easily removed allowing for quick helix style and diameter changes.



**4**

Release band clamp lever for hopper removal.




























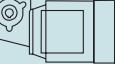
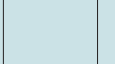









**5**

Hopper slides out for easy cleaning, replacement or maintenance.

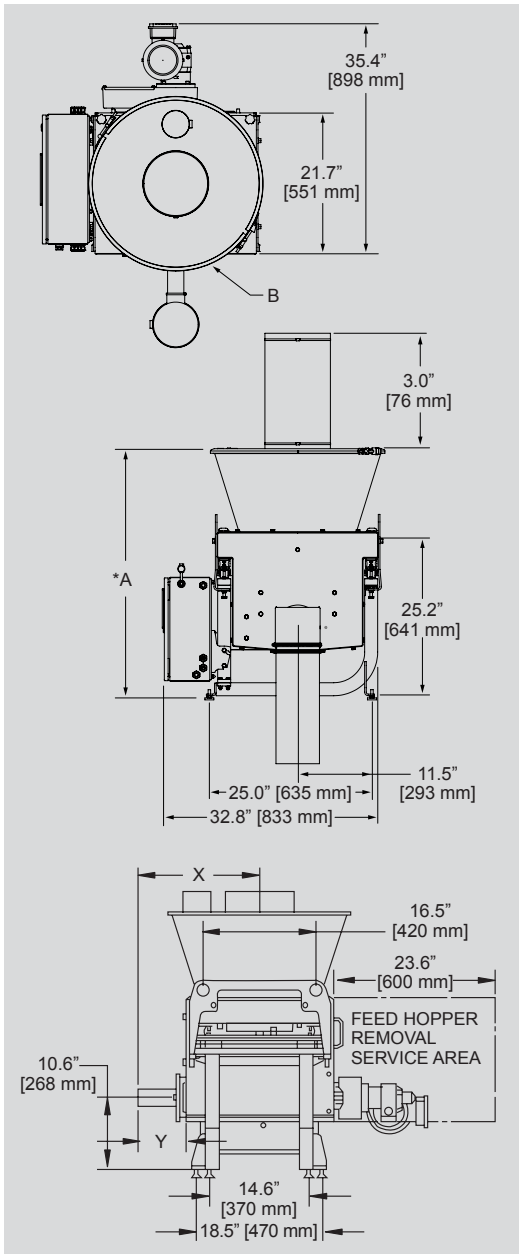


**6**

Reposition motor and drive assembly. Tighten bolt and you're ready to run – all in under two minutes.

EXTENSION HOPPER	MAINFRAME	SINGLE/DUAL DRIVE	GEAR RATIO	MOTORS	CONTROL	GRAVIMETRIC/ VOLUMETRIC
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">No Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">Manual Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">English Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">No Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">Manual Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">Din Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">English Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">No Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">Manual Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">Din Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">English Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">No Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">Manual Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">Din Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">English Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">No Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">Manual Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">Din Cover</span> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <span style="margin-left: 10px;">English Cover</span> </div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">  <p>Gray Vinyl</p> </div> <div style="margin-bottom: 10px;">  <p>White Vinyl</p> </div> <div style="margin-bottom: 10px;">  <p>Toner Resistant</p> </div> <div>  <p>Static Dissipative</p> </div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">  <p>Single</p> </div> <div>  <p>Dual</p> </div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;"> <p>14:45 (0.31)</p> </div> <div style="margin-bottom: 10px;"> <p>18:40 (0.45)</p> </div> <div style="margin-bottom: 10px;"> <p>24:36 (0.67)</p> </div> <div> <p>26:32 (0.81)</p> </div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">  <p>0.5 HP 60 Hz</p> </div> <div style="margin-bottom: 10px;">  <p>1 HP 60 Hz</p> </div> <div style="margin-bottom: 10px;"> <p>Helix</p> </div> <div style="margin-bottom: 10px;">  <p>1 HP 60 Hz</p> </div> <div style="margin-bottom: 10px;"> <p>Agitation</p> </div> <div>  <p>1 HP 60 Hz</p> </div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">  <p>Mechatronic</p> </div> <div style="margin-bottom: 10px;">  <p>Remote</p> </div> <div style="margin-bottom: 10px;">  <p>Hanging</p> </div> <div style="margin-bottom: 10px;">  <p>Remote</p> </div> <div>  <p>Hanging</p> </div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 10px;">  <p>Gravimetric</p> </div> <div style="margin-bottom: 10px;"> <p>2@132 lbs. (60 kg)</p> </div> <div style="margin-bottom: 10px;"> <p>2@220 lbs. (100 kg)</p> </div> <div style="margin-bottom: 10px;"> <p>2@331 lbs. (150 kg)</p> </div> <div style="margin-bottom: 10px;"> <p>2@661 lbs. (300 kg)</p> </div> <div>  <p>Volumetric</p> </div> </div>

# Dimensions



	<b>WEIGHT</b>	<b>HOPPER CAPACITY</b>
<b>Feeder</b> (Dead Load)	183 lbs. (83 kg)	1.2 cu. ft. (35 L)
<b>Extension Hoppers</b>		
75 L	16 lbs. (7 kg)	2.5 cu. ft. (75 L)
210 L	28 lbs. (13 kg)	7.5 cu. ft. (210 L)
375 L (2 pieces)	55 lbs. (25 kg)	13.2 cu. ft. (375 L)
<b>Covers</b>		
Without ext. hopper	14 lbs. (6.4 kg)	
75 L	16 lbs. (7 kg)	
210 L	26 lbs. (12 kg)	
375 L	26 lbs. (12 kg)	
<b>Totals</b>		
Feeder + cover	197 lbs. (89 kg)	
Feeder + 75 L + cover	215 lbs. (98 kg)	
Feeder + 210 L + cover	237 lbs. (108 kg)	
Feeder + 375 L + cover	264 lbs. (120 kg)	
Stand + Feeder + cover	282 lbs. (128 kg)	1.2 cu. ft. (35 L)
Stand + Feeder + 75 L + cover	298 lbs. (135 kg)	3.7 cu. ft. (110 L)
Stand + Feeder + 210 L + cover	321 lbs. (146 kg)	8.7 cu. ft. (245 L)
Stand + Feeder + 375 L + cover	348 lbs. (158 kg)	14.4 cu. ft. (410 L)

Weights based on a single drive gravimetric system.

## Notes:

- Standard infeed to discharge (X) is 19.7" (500 mm), with extensions to 59" (1,500 mm) in one inch increments. Standard distance from front face of feeder (Y) is 7" (178 mm) for helix diameter of 1.75" (44 mm) or larger and 8" (203 mm) for helix diameter of 1.38" (35 mm) or smaller.

- System scale capacity:

Total (2 Load Cells)	
264 lbs. (120 kg)	440 lbs. (200 kg)
661 lbs. (300 kg)	1,322 lbs. (600 kg)

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

## Standard inlet and vents:

	2.5 cu. ft. ext. hopper	7.5 & 13.2 cu. ft. ext. hopper
U.S.	10" Inlet - 4" Vent	10" Inlet - 4" Vent
European	150 DN Inlet - 100 DN Vent	200 DN Inlet - 150 DN Vent

- Gearmotors available: .5 hp (.37 kw) or 1 hp (.75 kw), TEFC, IP-55. Meets NEMA MG-1 (parts 30 & 31).

- Electrical service requirements:

230V, 3 phase, 16.2 amps max. full load current, 50/60 Hz  
-or-  
460V, 3 phase, 7.1 amps max. full load current, 50/60 Hz

## Schenck Process

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## Extension Hopper Dimensions

Capacity	Dim "A"	Dim "B"
2.5 cu. ft. (75 L)	37.7" (958 mm)	26.7" (677 mm)
7.5 cu. ft. (210 L)	49.8" (1,266 mm)	34.1" (866 mm)
13.2 cu. ft. (375 L)	61.7" (1,566 mm)	34.1" (866 mm)

\* Overall height of feeder is increased by 0.5" [12.7 mm] to 1.25" [31.8 mm] when using optional leveling feet.



All information is given without obligation. All specifications are subject to change. © by Schenck Process, 2021