

BIN UNLOADING EQUIPMENT

FARM DUTY



MOVE WITH EASE. MOVE WITH CONFIDENCE.

The performance of your handling system can be the difference between success and failure in your farm or agri-business. It can save or drain time and money. Planning and building an efficient handling system can help you better manage your costs. It can also be overwhelming with so many factors to consider. You cannot afford to make a mistake. Your profit depends on it.

At Norstar, we do more than build your conveyance equipment; we help you visualize, plan and design a handling system that is custom built to fit your needs. We partner you with experienced dealers and millwrights to fully equip and complete your system. We help make it simple to build a system that maximizes your efficiency and boosts your profit.

MOVE WITH EASE. MOVE WITH CONFIDENCE.

	FARM SERIES (FS) U-TROUGH UNLOADS	FARM SERIES TUBE UNLOADS	EXPRESS SERIES (EX) U-TROUGH UNLOADS	PLATINUM SERIES UNLOADS
UNLOAD SIZES	8", 11", 14"	8" or 10"	11" or 14"	11" or 14"
CAPACITY (BPH)	8" - up to 4,374 BPH 11" - up to 8,150 BPH 14" - up to 12,100 BPH	8" - up to 4,000 BPH 10" - up to 7,400 BPH	11" - up to 8,150 BPH 14" - up to 12,100 BPH	11" - up to 8,150 BPH 14" - up to 12,100 BPH
BIN DIAMETERS	14' - 60'	14' - 50'	14' - 90'	30' - 90'
SWEEP SIZES <small>(see below for more info)</small>	7 1/4" or 9"	7 1/4" or 9"	5 1/4", 7 1/4", 9", 10", 12"	10" or 12"

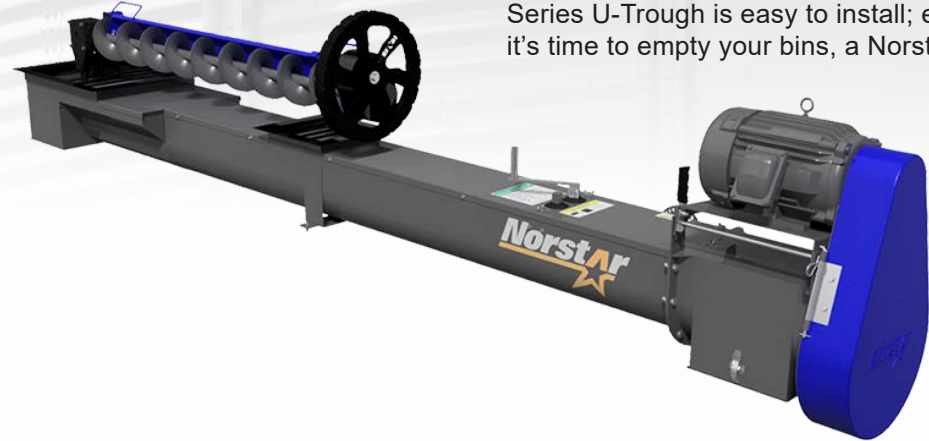
	FARM SERIES SWEEP <small>(for FS U-Trough & Tube)</small>	PORTABLE SWEEP	EXPRESS SWEEP <small>(for EX U-Trough)</small>	PLATINUM EXPRESS SWEEP
SWEEP SIZES	7 1/4" or 9"	5 1/4", 7 1/4" or 9"	10" or 12"	10" or 12"
CAPACITY (BPH)	7 1/4" - up to 2,650 BPH 9" - up to 4,940 BPH	5 1/4" - up to 1,200 BPH 7 1/4" - up to 3,000 BPH 9" - up to 6,500 BPH	10" - up to 3,000 BPH 12" - up to 6,500 BPH	10" - up to 3,000 BPH 12" - up to 6,500 BPH
BIN DIAMETERS	14' - 60' <small>(up to 50' for Tubes)</small>	14' - 50'	30' - 90'	30' - 90'
ZERO-ENTRY	Yes	No	Yes	No
CONTROL PANEL OPTIONS	N/A	N/A	Standard or Auto-Drive	Standard or Auto-Drive

FARM SERIES UNLOADS

FEATURES & BENEFITS

A TRIED AND TESTED CLEANOUT SOLUTION

Norstar's Farm Series U-Trough Unloads are utilized across the globe to achieve efficient cleanout in a variety of grain storage situations. The Farm Series U-Trough is easy to install; easy to operate; and reliable to run. When it's time to empty your bins, a Norstar Farm Series U-Trough is up to the task.



UNLOAD CAPACITY

▶ up to 12,100 BPH

SWEEP CAPACITY

▶ up to 4,940 BPH

COMPATIBLE BINS

▶ 14' - 60' dia.



BETTER 360° GRAIN FLOW:

Norstar's Widemouth Center Sump is the widest unload sump available in the market. Compared to longer sumps, the Widemouth allows more grain to flow into the sump during the FULL 360° rotation of the sweep.



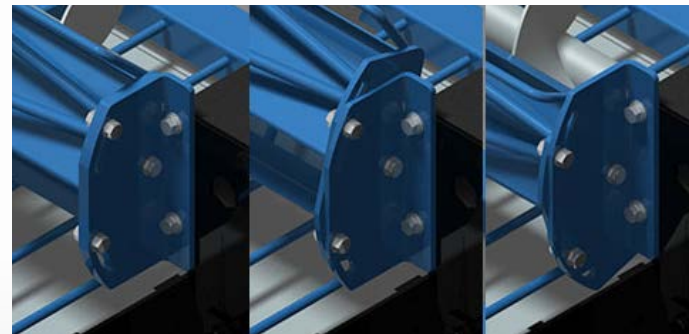
SAFE OPERATION:

The Norstar U-Trough drives the sweep flighting through a double gearbox. An internal shifting mechanism allows for safe management of the sweep from outside of the bin (Zero-Entry).



THE MOST RELIABLE SWEEP WHEEL:

Norstar's SureGrip™ Wheel comes STANDARD on all gear-driven sweeps, ensuring consistent forward motion into the grain pile. It features 16:1 gear reduction; a narrow design that prevents riding up on the pile and an 18" vulcanized rubber tread design for reliable traction.



ADJUST FOR OPTIMAL CLEANOUT:

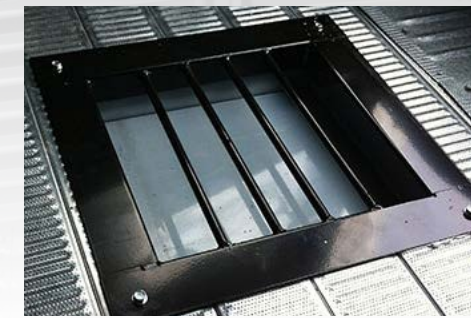
Norstar gear-driven sweeps can be adjusted for optimal cleanout. Simply loosen backboard mounting bolts, raise or lower the backboard to the desired sweep height and re-tighten the bolts. We recommend between 1/2" and 3/4" of gap off of the bin floor for best cleanout.

FEATURES & BENEFITS



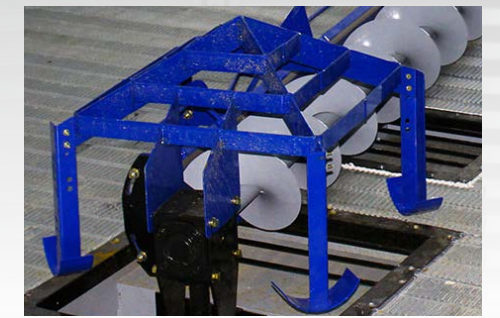
FAST INSTALL:

Pre-assembled in our factory, Norstar unloads can be installed faster than any other model on the market.



EMERGENCY SUMP:

Norstar offers an optional Emergency Sump that allows for unloading to continue if the center sump is blocked.



CLUMP BREAKER:

Norstar's Clump Breaker breaks up material at the center sump and helps prevent plugging/blockage.



NEW STANDARD FEATURE DEFLECTOR PLATE:

ALL Norstar gear-driven sweeps are now shipped with our Deflector Plate. The Deflector plate is mounted on the sweep backboard directly above the hanger bearing. The plate eliminates grain flow over the top of the hanger bearing and redirects it downwards and into the auger.



KEY FEATURES:

- 14 Ga Steel Construction
- 8", 11" or 14" U-Trough complete with center and intermediate sumps, gates and controls
- Permanently Installed 7 1/4" or 9" Gear-Driven Sweep w/ internal shifting mechanism
- Widemouth Center Sump for increased grain flow
- Rack & Pinion Gate Controls located at Powerhead
- Nylatron Gate Rollers (14'-48') Steel Rollers (50'- 60')
- SureGrip™ Gear Reduction Sweep Wheel for reliable forward sweep movement
- Powder Coated Finish
- Electric Powerhead
- Quick-Detach Motor Mount
- Thick-edge flighting for increased lifespan (8" and up)

WHY WE DON'T PUT A SCRAPER/BRUSH ON OUR SWEEP:

Your sweep moving forward into the grain pile **WITHOUT** being kicked or manually pushed is a priority for us. That is why we do not put any scraper or brush on the bottom of our backboard to eliminate the small amount of grain being left behind. Some of our competitors offer this but in reality these features act as a drag on the sweep and prohibit forward movement, making it necessary for you to enter the bin to push. Your safety and efficiency are our priority.

OPTIONAL FEATURES:

- Hydraulic Powerhead
- Electric or Hydraulic Incline Powerhead
- Electric Vertical Powerhead
- Emergency Sump w/ independent controls for use if center sump becomes blocked
- Clump Breaker for preventing clogging at center sump

BIN SWEEPS

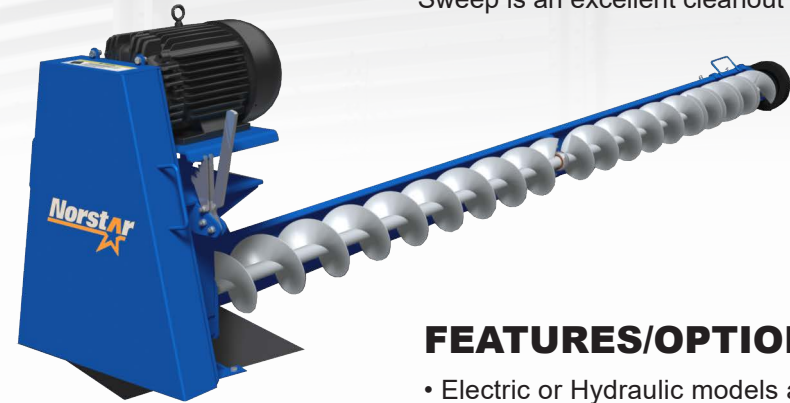
FEATURES & BENEFITS

FEATURES & BENEFITS

EX SERIES UNLOADS

PORTABLE SWEEPS

The Norstar Portable Sweep offers cost-efficiency and versatility with the ability to move the sweep from bin-to-bin as needed. Equipped with features like our Thick-Edge Flighting and our SureGrip™ Sweep Wheel, Norstar's Portable Sweep is an excellent cleanout solution.



CAPACITY

▶ up to 5,660 BPH

COMPATIBLE BINS

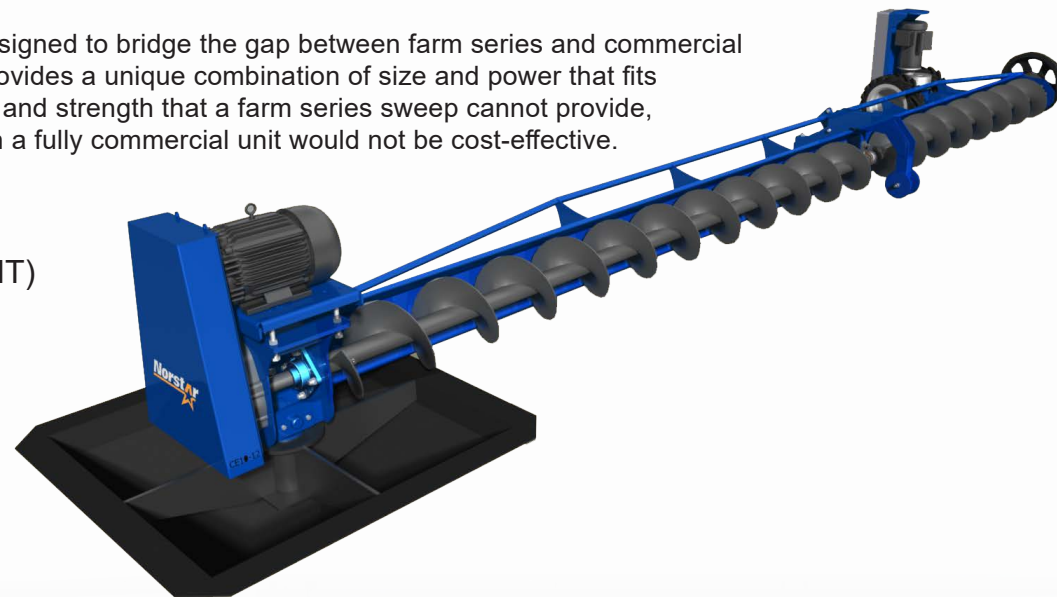
▶ 14' - 50' dia.

FEATURES/OPTIONS:

- Electric or Hydraulic models available
- 5 1/4", 7 1/4" or 9" flighting
- Capacities from 1,200 - 5,660 BPH
- Thick-edge flighting for increased lifespan (9" only)
- Standard Sweep Wheel
- SureGrip™ Wheel (optional)

EXPRESS SWEEP

Norstar's Express Sweep is designed to bridge the gap between farm series and commercial grade sweeps. The Express provides a unique combination of size and power that fits operations looking for capacity and strength that a farm series sweep cannot provide, at a price more accessible than a fully commercial unit would not be cost-effective.



CAPACITY

▶ up to 6,500 BPH (163 MT)

COMPATIBLE BINS

▶ 30' - 105' dia.

TRUE ZERO-ENTRY

▶ Yes (with Collector Ring)

FEATURES/OPTIONS:

- 10" or 12" sweep models
- Capacities up to 3,000 BPH/90 MT (10") or 6,500 BPH/195 MT (12")
- Motorized Tractor Drive w/ dual foam tires and adjustable weight load
- SureGrip™ 16:1 Gear Reduction Sweep Wheel
- Single-adjustment Carrier Wheel assembly
- Thickened edge flighting for increased lifespan
- Skeletonized backboard design for durability
- Adjustable Motor-Mount
- Standard or Auto-Drive Control Panel
- UL Listed Collector Ring Sump (Optional)

BUILT FOR INCREASED POWER AND UNLOADING CAPACITY

Norstar's EX (Express) U-Trough Unloads are designed to provide greater power and capacity during the unloading process. The EX is uniquely built to combine with our Express Sweep. The Express Sweep is propelled by a weighted tractor drive and our SureGrip™ wheel which ensures greater power working through the bin. 10" and 12" flighting options also allow the sweep to move product at greater capacity, increasing your efficiency.

SWEEP CAPACITY

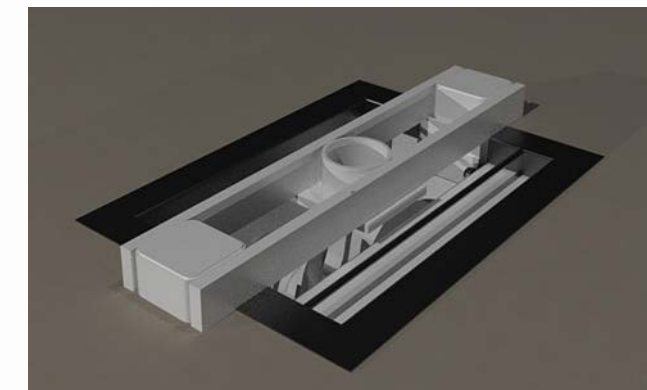
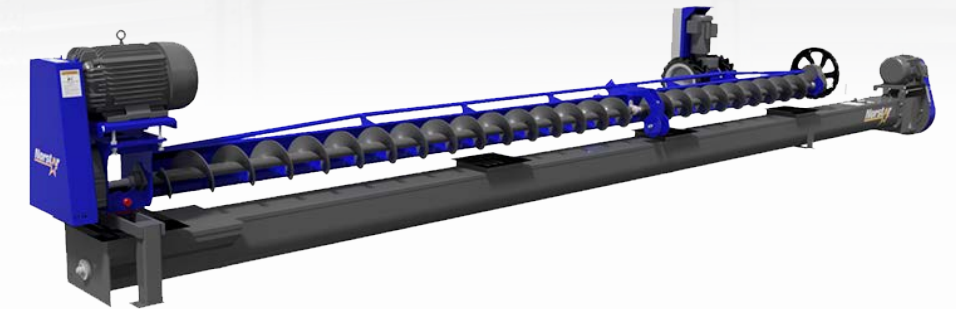
▶ up to 6,500 BPH (163 MT)

UNLOAD CAPACITY

▶ up to 12,100 BPH (363 MT)

COMPATIBLE BINS

▶ 30' - 90' dia.



EX SWEEP RECEIVER:

The sweep is mounted to the u-trough unload via a center receiver. The EX receiver is positioned at the center of the u-trough's initial sump which ensures even takeout during unload.



ADVANCED SWEEP POWER:

A Motorized Tractor Drive and our 18" SureGrip™ Gear Reduction Wheel ensure that your sweep is constantly moving forward into the grain pile for a thorough cleanout of your bin.

KEY FEATURES:

- Available for bin sizes from 14' - 90' in diameter
- 8", 11" or 14" U-Trough complete with center and intermediate sumps, gates and controls
- Express Sweep w/ Motorized Tractor Drive and SureGrip™ Wheel (10" or 12" models) for 30' - 90' bins
- Norstar Portable Motorized Sweep for 14' - 50' bins.
- Widemouth Center Sump
- Special receiver pivot for Express centered over sump
- Control Panel for efficient and safe sweep operation
- Thickened edge flighting for increased lifespan (8" and up)

OPTIONAL FEATURES:

- Emergency Sump w/ independent controls
- Standard or Auto-Drive Control Panel
- Sweep Tracks and Parking Plates for bin floor protection



CONTROL PANELS:

The EX is controlled/operated via a control panel. Users have the option of either a Standard or Auto-Drive Panel. The Auto-Drive model monitors the amperage of the sweep auger motor and drives the sweep forward or reverses accordingly.

PLATINUM SERIES

FEATURES & BENEFITS

A COMPLETE ZERO-ENTRY UNLOADING SYSTEM

The Platinum Series is an innovative sweep/unload system that fully integrates our U-Trough Unload and Express Sweep in a way that allows for Zero-Entry operation. The Platinum Series provides exceptional power, capacity and safe operation.

SWEEP CAPACITY

▶ up to 6,500 BPH (163 MT)

UNLOAD CAPACITY

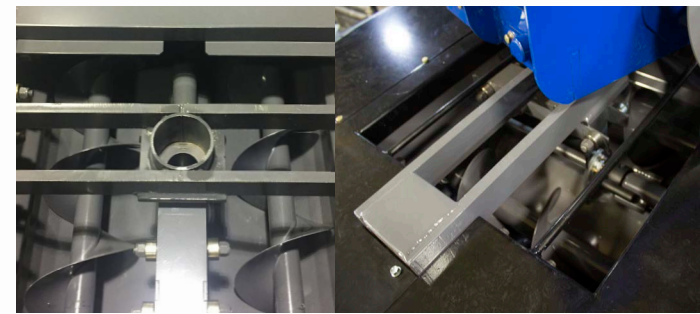
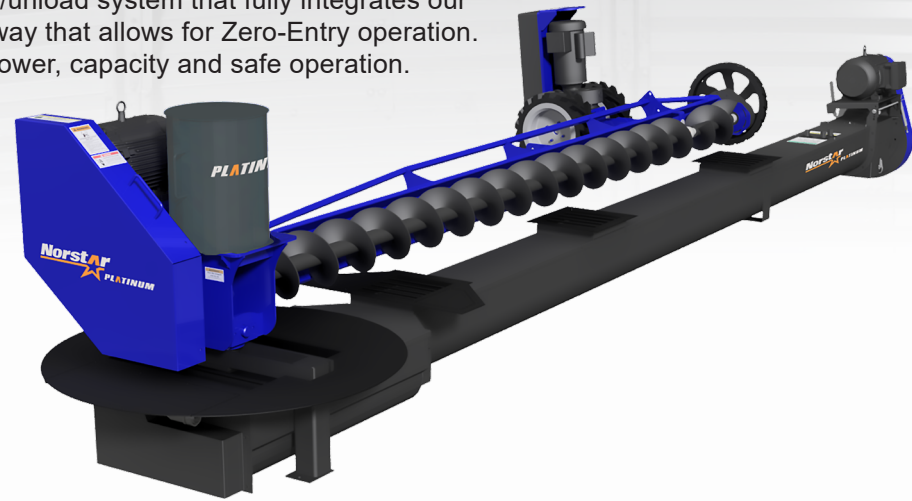
▶ up to 12,100 BPH (363 MT)

COMPATIBLE BINS

▶ 30' - 90' dia.

TRUE ZERO-ENTRY

▶ Yes



A FULLY INTEGRATED SYSTEM:

The sweep is mounted to the u-trough unload via a center receiver. The unit's Twin-Flight Center Sump allows for power cables to run up through the unload center sump to the sweep while maintaining maximum capacity at center sump.



HASSLE-FREE UNLOADING:

The Platinum Series comes standard with an Emergency Sump that allows for continued unloading in case the center sump becomes plugged.



PROVIDING ZERO-ENTRY OPERATION:

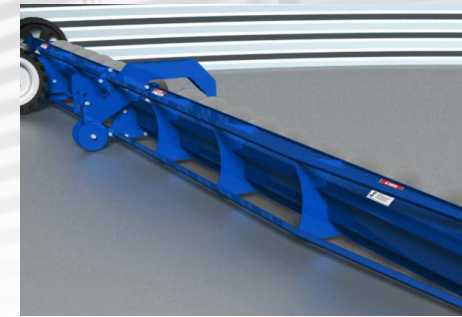
A UL Listed Collector Ring comes with every Platinum and is mounted on the powerhead above the bin floor. This allows power cables to be run to the sweep from underneath the bin floor and eliminates the risk of power cable twisting for safer operation.



RELIABLE SWEEP PERFORMANCE:

A Motorized Tractor Drive and our 18" SureGrip™ Gear Reduction Wheel ensure that your sweep is constantly moving forward into the grain pile, cleaning your bin.

FEATURES & BENEFITS



DURABLE BACKBOARD:

The skeletal frame allows the sweep to be wrapped in grain when buried, reducing load stress



THICK-EDGE FLIGHTING:

The thickened edge of the auger flight increases durability by 30% and grabs more grain for increased capacity.



MAINTENANCE ACCESS:

Easily access under-floor components via removable panels at Twin-Flight Sump and Emergency Sump.



SWEEP ONLY OPTION:

The Platinum can be used as a sweep-only solution. The Above-Floor Collector Ring allows the Platinum to be compatible with a variety of gravity unload solutions, including drag, belt and chain loop conveyance systems.

KEY FEATURES:

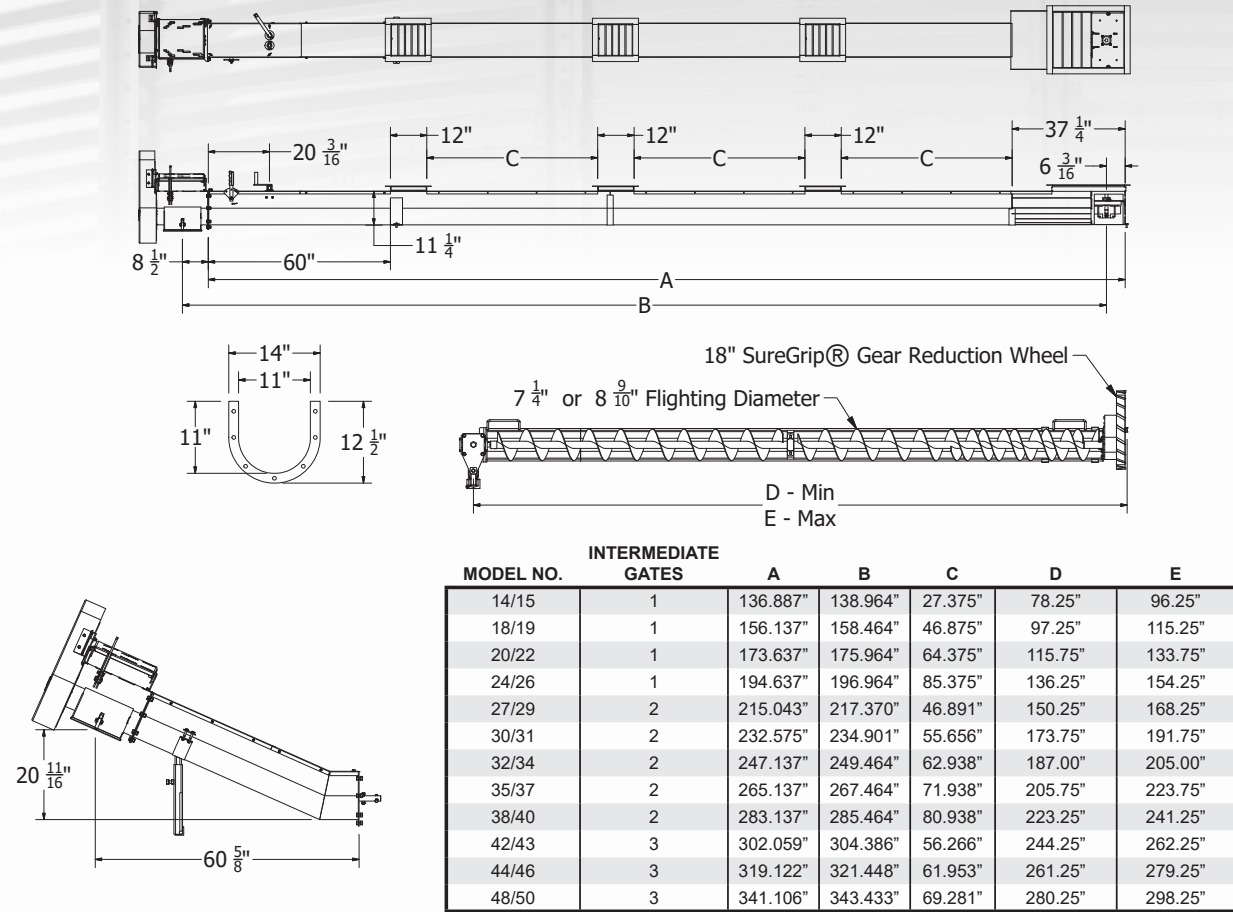
- Unload capacities up to 8,170 BPH/245 MT (11") or 12,100 BPH/363 MT (14")
- Standard Emergency Sump for reliable unloading
- Twin-Flight Center Sump with center sweep receiver
- Panel behind center sump for maintenance access
- Rack & Pinion Unload Gate Controls
- Sweep capacities up to 3,000 BPH/90 MT (10") or 6,500 BPH/195 MT (12")
- Exclusive UL Listed Above Floor Collector Ring (ATEX Collector Ring Available)
- Motorized Tractor Drive w/ dual foam tires and adjustable weight load
- SureGrip™ 16:1 Gear Reduction Sweep Wheel
- Single-adjustment Carrier Wheel assembly
- Thickened edge flighting for increased lifespan (Unload & Sweep)
- Skeletonized backboard design for durability
- Adjustable Motor-Mount
- Durable Powder Coat Finish
- Control Panel for efficient and safe sweep operation

OPTIONAL FEATURES:

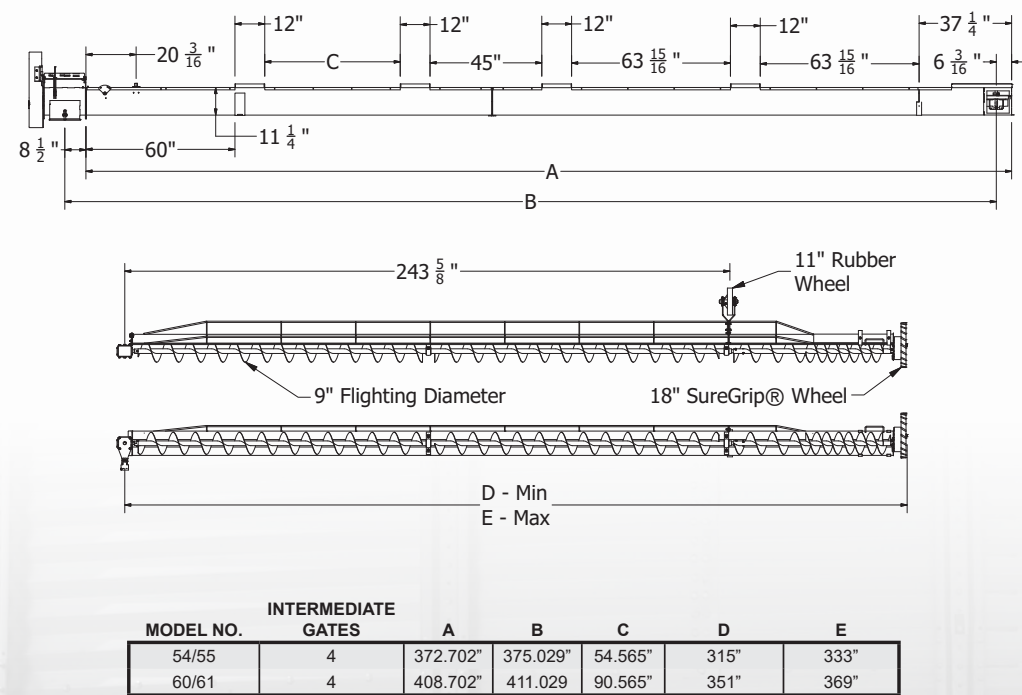
- Standard Control Panel
- Auto-Drive Control Panel
- Sweep Tracks and Parking Plates for bin floor protection



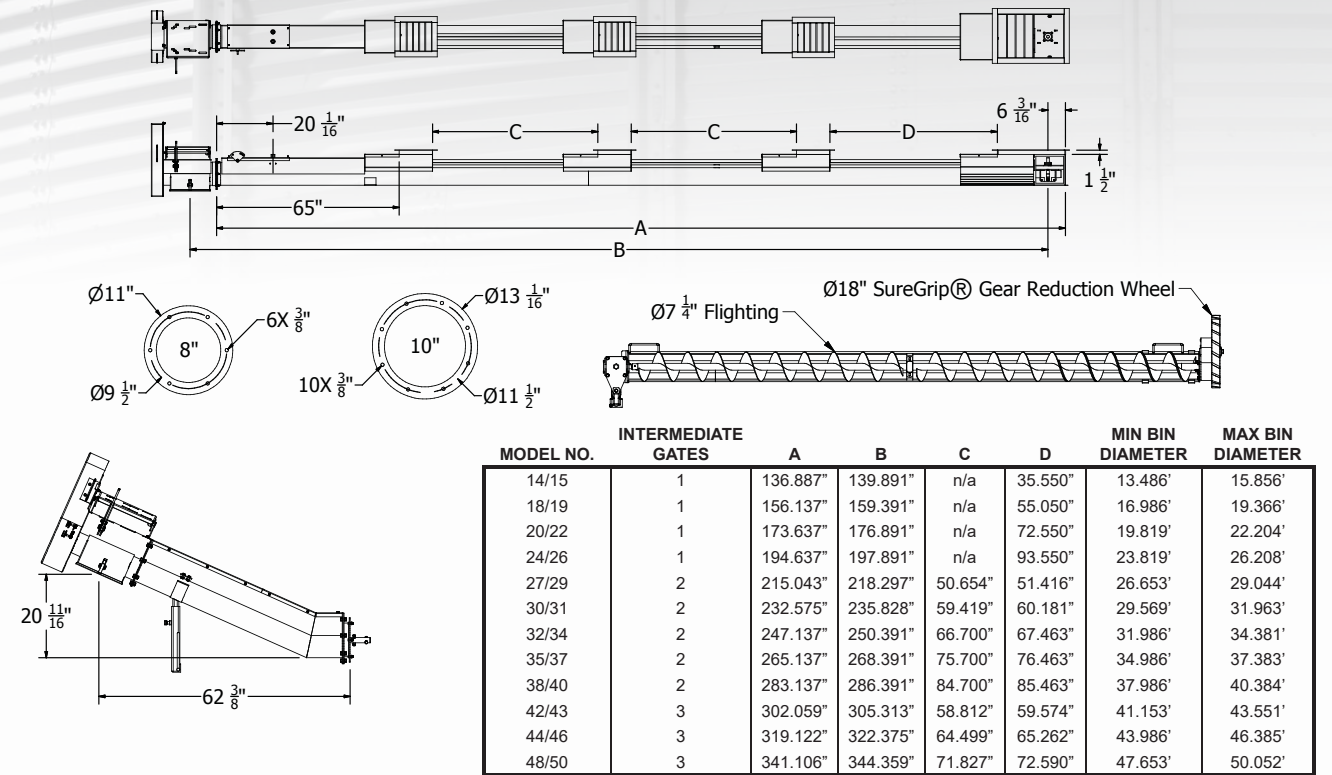
FARM SERIES U-TROUGH SPECS 14' - 50' BINS:



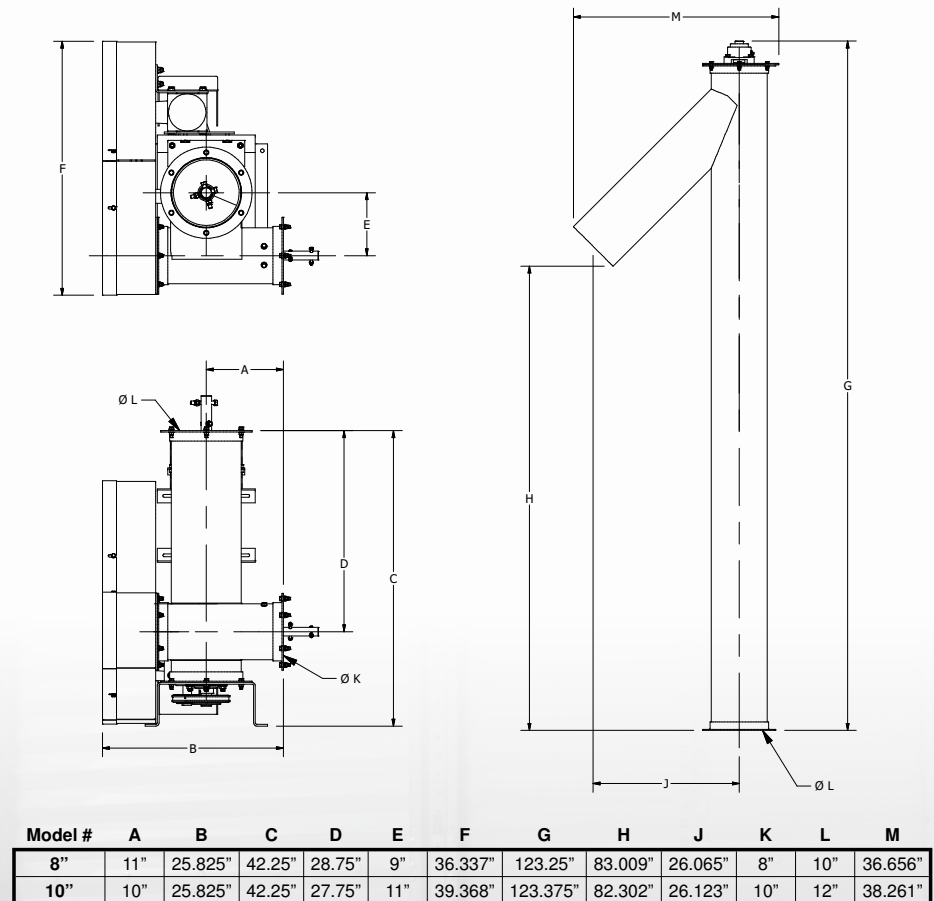
FARM SERIES U-TROUGH SPECS 54' - 60' BINS:



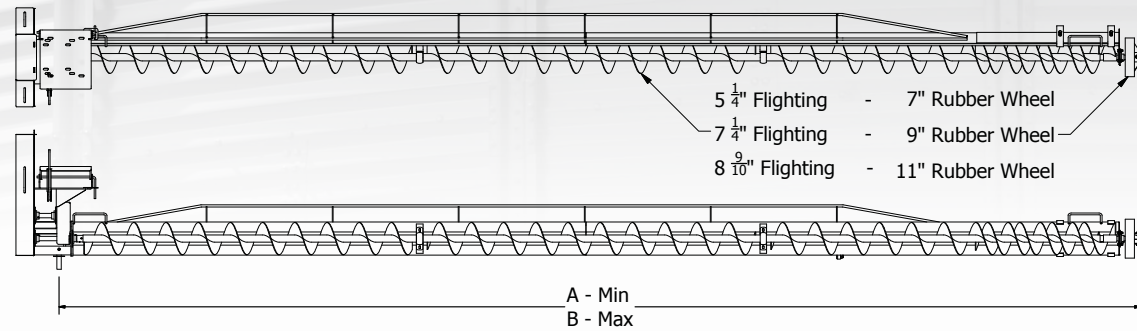
TUBE SPECS 14' - 50' BINS:



VERTICAL UNLOAD SPECS:



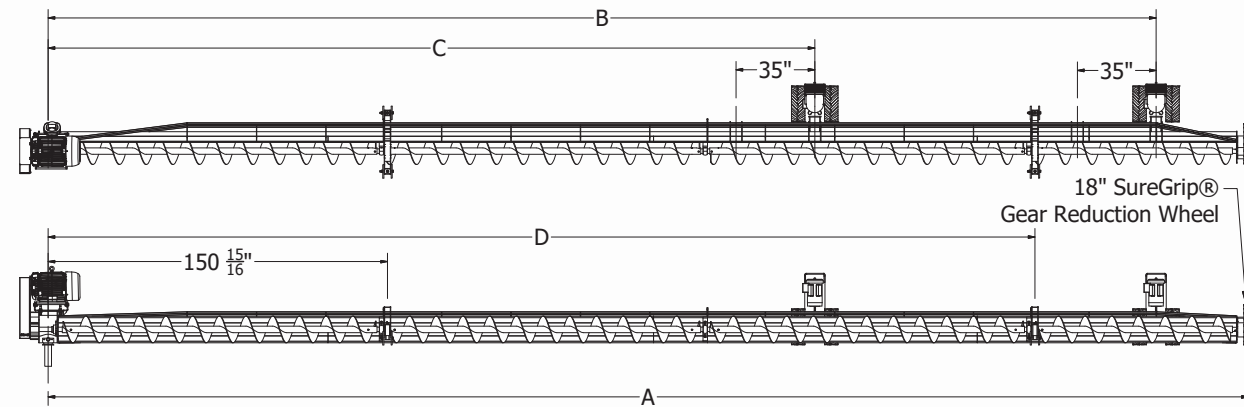
PORTABLE SWEEP SPECS:



MODEL NO.	A	B
PSX-14/15	77.531"	95.531"
PSX-18/19	96.531"	114.531"
PSX-20/22	115.031"	133.031"
PSX-24/26	135.531"	153.531"
PSX-27/29	149.531"	167.531"
PSX-30/31	173.031"	191.031"
PSX-32/34	186.281"	204.281"
PSX-35/37	205.031"	223.031"
PSX-38/40	222.531"	240.531"
PSX-42/43	243.531"	261.531"
PSX-44/46	260.531"	278.531"
PSX-48/50	279.531"	297.531"

'X' identifies size. For correct Model, Substitute 'X' with 5, 7 or 9.

EXPRESS SWEEP SPECS:



MODEL NO.	SECTIONS	A	B	C	D
CEX030	2	175.389"	136.531"	n/a	n/a
CEX033	2	193.389"	136.531"	n/a	n/a
CEX036	2	211.389"	169.375"	n/a	n/a
CEX042	2	247.172"	205.375"	n/a	n/a
CEX048	2	282.922"	242.125"	n/a	n/a
CEX054	2	318.735"	277.938"	n/a	n/a
CEX060	3	354.547"	280.500"	n/a	n/a
CEX072	3	426.235"	385.438"	280.500"	n/a
CEX075	3	444.110"	403.313"	280.500"	294.938"
CEX078	3	462.047"	421.250"	280.500"	294.938"
CEX090	4	533.610"	492.813"	341.000"	438.938"
CEX105	4	623.110"	582.313"	341.000"	438.938"

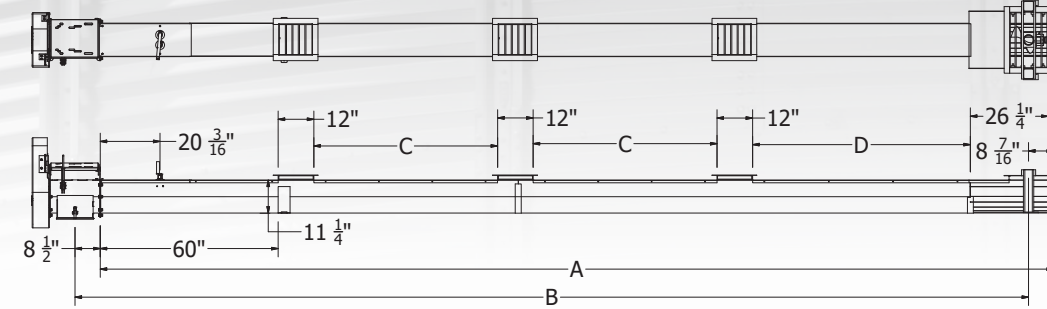
Recommended # of Support Wheels:
CEX036-CEX072 - 1
CEX075-CEX105 - 2

Recommended # of Drives:
CEX030-CEX060 - 1
CEX072-CEX105 - 2

'X' identifies size. For correct Model, Substitute 'X' with 10 or 12.

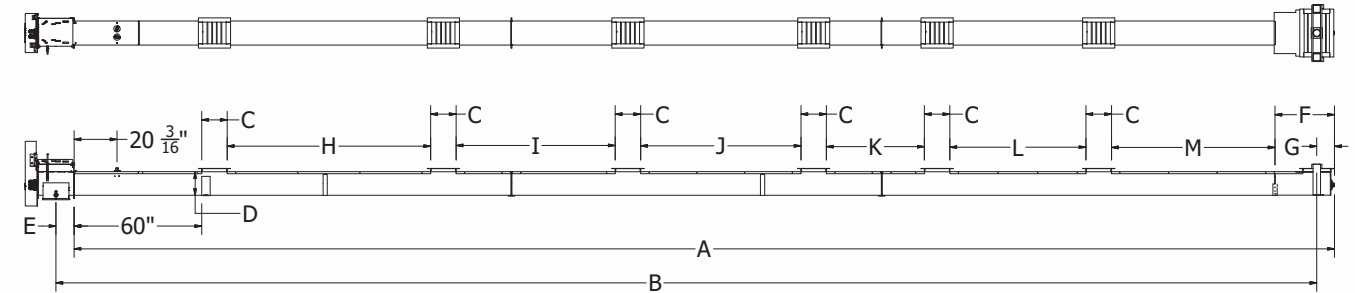
CE10 Flighting Diameter - 8.900"
CE12 Flighting Diameter - 11.875"

EX U-TROUGH SPECS 14' - 50' BINS:

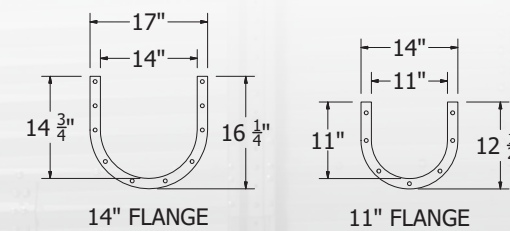


MODEL NO.	INTERMEDIATE GATES	A	B	C	D
14/15	1	138.868"	138.964"	n/a	38.828"
18/19	1	158.368"	158.464"	n/a	58.328"
20/22	1	175.868"	175.964"	n/a	75.828"
24/26	1	196.868"	169.964"	n/a	96.828"
27/29	2	217.274"	217.370"	46.890"	58.343"
30/31	2	234.805"	234.901"	55.656"	67.109"
32/34	2	249.368"	249.464"	62.938"	74.390"
35/37	2	267.368"	267.464"	71.938"	83.390"
38/40	2	285.368"	285.464"	80.938"	92.390"
42/43	3	304.290"	304.386"	56.265"	67.718"
44/46	3	321.352"	321.448"	61.953"	73.406"
48/50	3	343.336"	343.432"	69.281"	80.734"

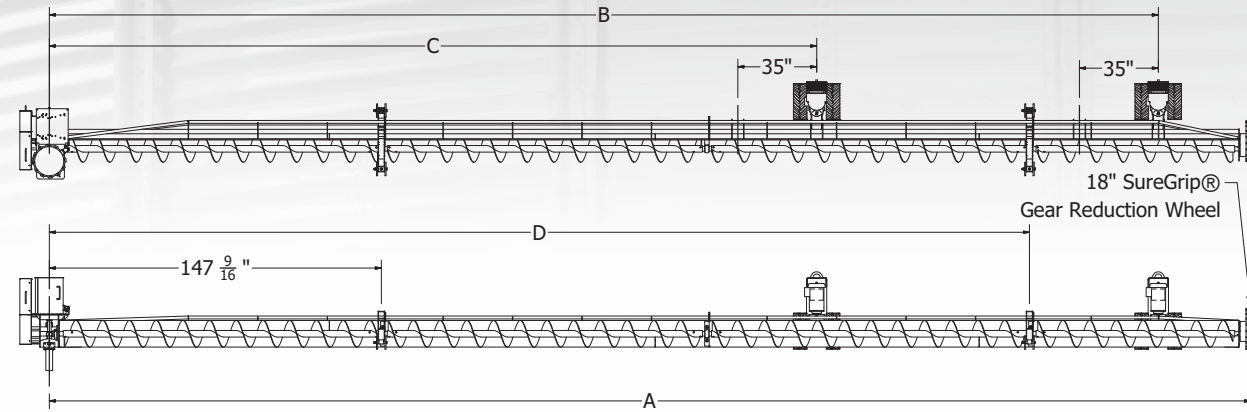
EX U-TROUGH SPECS 54' - 90' BINS:



MODEL NO.	SIZE	BIN DIA	INTER-MEDIATE GATES	A	B	C	D	E	F	G	H	I	J	K	L	M
UE11054	11"	54'	4	376.290"	376.500"	12"	11.25"	8.5"	27.938"	8.313"	54.565"	n/a	n/a	45"	63.938"	76.875"
UE11060	11"	60'	4	412.290"	412.500"	12"	11.25"	8.5"	27.938"	8.313"	90.565"	n/a	n/a	45"	63.938"	76.875"
UE11072	11"	72'	5	484.306"	484.516"	12"	11.25"	8.5"	27.938"	8.313"	74.298"	n/a	76.283"	45"	63.938"	76.875"
UE11075	11"	75'	5	502.306"	502.516"	12"	11.25"	8.5"	27.938"	8.313"	92.298"	n/a	76.283"	45"	63.938"	76.875"
UE11078	11"	78'	5	520.301"	520.511"	12"	11.25"	8.5"	27.938"	8.313"	110.293"	n/a	76.283"	45"	63.938"	76.875"
UE11090	11"	90'	6	592.301"	592.511"	12"	11.25"	8.5"	27.938"	8.313"	96.576"	73.717"	76.283"	45"	63.938"	76.875"
UE14054	14"	54'	4	378.153"	377.500"	14"	15"	9.5"	33.938"	10.188"	50.565"	n/a	n/a	45"	63.938"	68.748"
UE14060	14"	60'	4	414.153"	413.500"	14"	15"	9.5"	33.938"	10.188"	86.565"	n/a	n/a	45"	63.938"	68.748"
UE14072	14"	72'	5	486.169"	485.517"	14"	15"	9.5"	33.938"	10.188"	72.298"	n/a	72.283"	45"	63.938"	68.748"
UE14075	14"	75'	5	504.169"	503.517"	14"	15"	9.5"	33.938"	10.188"	90.298"	n/a	72.283"	45"	63.938"	68.748"
UE14078	14"	78'	5	522.164"	521.512"	14"	15"	9.5"	33.938"	10.188"	108.293"	n/a	72.283"	45"	63.938"	68.748"
UE14090	14"	90'	6	594.164"	593.512"	14"	15"	9.5"	33.938"	10.188"	92.576"	73.717"	72.283"	45"	63.938"	68.748"



EXPRESS PLATINUM SWEEP SPECS:



MODEL NO.	SECTIONS	A	B	C	D
EPX030	2	175.389"	136.531"	n/a	n/a
EPX033	2	193.389"	136.531"	n/a	n/a
EPX036	2	211.389"	169.375"	n/a	n/a
EPX042	2	247.172"	205.375"	n/a	n/a
EPX048	2	282.922"	242.125"	n/a	n/a
EPX054	2	318.735"	277.938"	n/a	n/a
EPX060	3	354.547"	280.500"	n/a	n/a
EPX072	3	426.235"	385.438"	280.500"	n/a
EPX075	3	444.110"	403.313"	280.500"	291.438"
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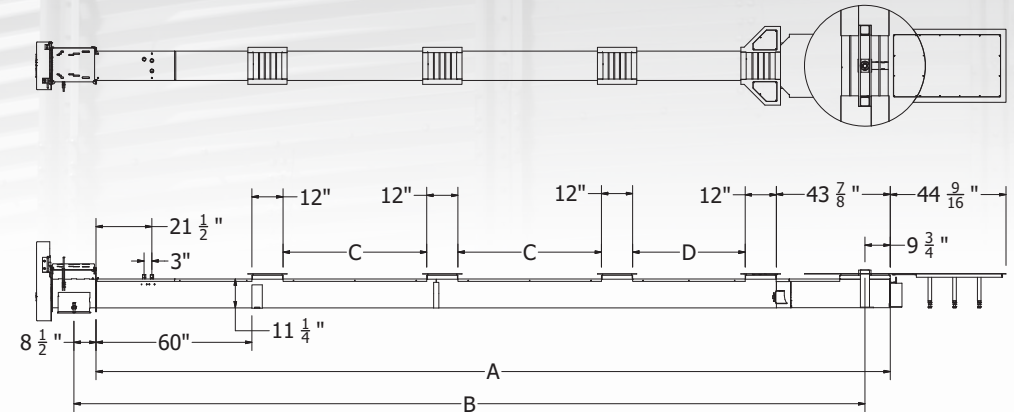
Recommended # of Support Wheels:
 EPX036-EPX072 - 1
 EPX075-EPX105 - 2

Recommended # of Drives:
 EPX030-EPX060 - 1
 EPX072-EPX105 - 2

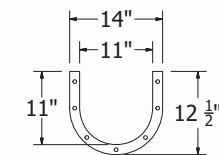
'X' identifies size. For correct Model, Substitute 'X' with 10 or 12.

CE10 Flighting Diameter - 8.900"
 CE12 Flighting Diameter - 11.875"

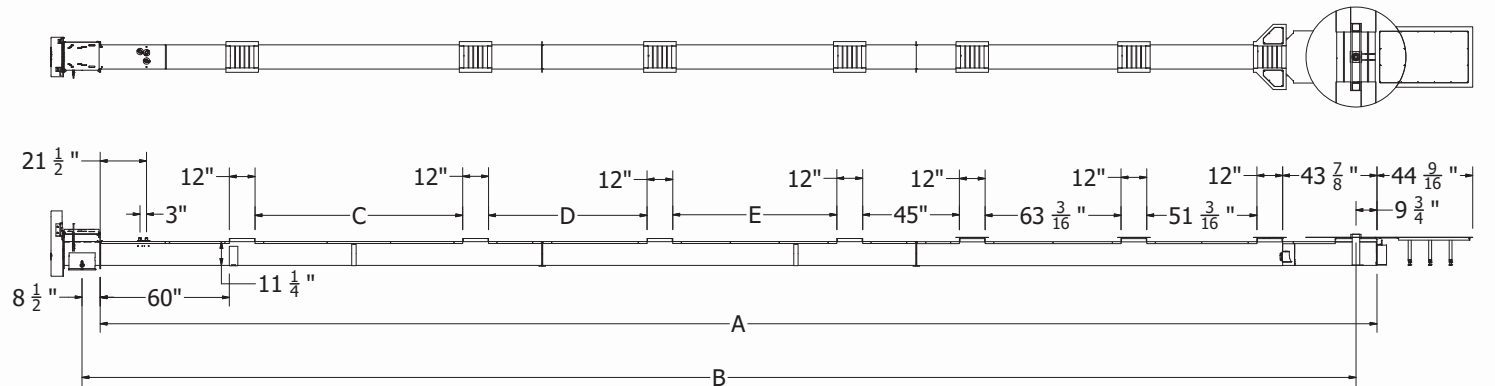
PLATINUM U-TROUGH SPECS 30' - 48' BINS:



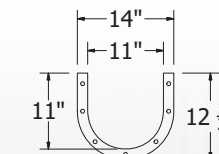
MODEL NO.	INTERMEDIATE GATES	A	B	C	D
UP11030	2	236.158"	234.919"	54.156"	42.156"
UP11033	2	250.721"	249.481"	61.438"	49.438"
UP11036	2	268.721"	267.481"	70.438"	58.438"
UP11042	3	305.685"	304.419"	55.271"	43.271"
UP11048	3	344.658"	343.419"	68.271"	56.271"



PLATINUM U-TROUGH SPECS 30' - 48' BINS:



MODEL NO.	INTERMEDIATE GATES	A	B	C	D	E
UP11054	4	377.786"	376.546"	54.565"	n/a	n/a
UP11060	4	413.786"	412.546"	90.565"	n/a	n/a
UP11072	5	485.802"	484.562"	74.298"	n/a	76.283"
UP11075	5	503.802"	502.562"	92.298"	n/a	76.283"
UP11078	5	521.797"	520.557"	110.293"	n/a	76.283"
UP11090	6	593.797"	592.586"	96.576"	73.717"	76.283"





Call 1.855.746.8200 or visit www.norstarmfg.com for more product information.

All illustrations, photographs and specifications found in this brochure are based on the latest information at the time of publication. Design and specification of products is subject to change without notice, please contact your local dealer for product information and availability.

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