



## Section A1 - UNDERBIN EQUIPMENT Complete Assemblies

Underbin equipment includes all bin unloading equipment at or below the bin floor and leading just beyond the outer wall of the bin. (See Figure 1 below.) It does not include bin sweeping equipment, power heads (auger motors), or secondary unloading equipment (located outside the bin).

Underbin unloading systems consist of six primary components: (1) hoppers (or wells), (2) control rods for opening and closing hopper slide gates, (3) control rod covers, (4) slide gate leverage devices (optional), (5) tube and auger extensions, and (6) miscellaneous accessories (including tube end caps, and wall plates).

Underbin equipment may be purchased as COMPLETE UNDERBIN UNLOADING SYSTEMS (see the first half of Section A--starting on the next page) or as MODULAR COMPONENTS (see the latter half of Section A).

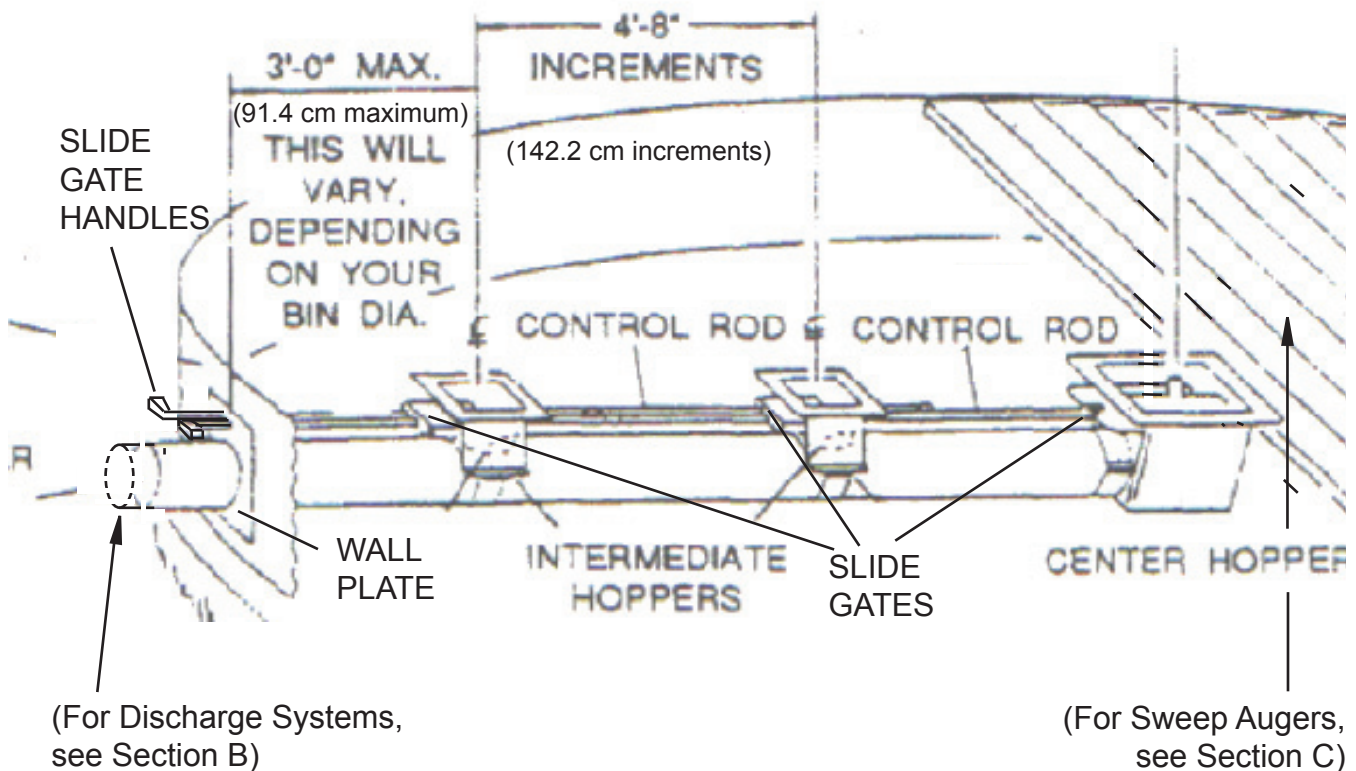


FIGURE 1: Underbin Unloading Equipment

Manufactured by



**NECO**

Division of GLOBAL Industries, Inc.  
9364 North 45th Street  
Omaha, Nebraska 68152







**COMPLETE UNDERBIN UNLOADING SYSTEMS: 8" (20.32 cm) Auger-Under Perforated Floor  
14' to 64' (4.27 to 19.51 m) Diameter Bins**

Part Number	Interm Hoppers	Bin Diameter feet (meters)	Weight lb (kg)	List Price	Subcomponents																									
					001216	019221	019698	019711	022264	022265	022266	022879	022880	022881	022882	035028	036318	036325	036366	036368	036369	036554	047178	047180	047181	047185				
019803	1	14-16 (4.27-4.88)	152 (69)		1	1	1	1	1							1	1	1					2				1	1		
019804	1	17-20 (5.18-6.10)	176 (80)		1	1	1	1	1	1																		3	1	
019805	1	21-24 (6.40-7.32)	190 (86)		1	1	1	1	1		1																	3	1	1
019806	1	25-28 (7.62-8.53)	204 (93)		1	1	1	1	1			1																4		
047126	2	29-32 (8.84-9.75)	260 (118)		1	2	2	1	1				1															1	5	1
047127	2	33-36 (10.06-10.97)	274 (125)		1	1	2	2	1								1	1	1									6		
047128	2	37-40 (11.28-12.19)	297 (135)		1	2	2	1	1					1														6	1	
047130	3	41-44 (12.5-31.41)	352 (160)		1	1	3	3	1	1				1														7	1	1
047132	3	45-48 (13.72-14.63)	376 (171)		2	1	3	3	1					2														8	1	
047134	3	49-52 (14.94-15.85)	398 (181)		1	1	3	3	1					1														8	1	1
047136	3	53-56 (16.15-17.07)	421 (191)			1	3	3	1						2													9		
047138	3	57-60 (17.37-18.29)	444 (201)			1	3	3	1																			9	1	
047139	4	57-60 (17.37-18.29)	460 (209)		1	4	4	1	1																			1	10	1
047141	3	61-64 (18.59-19.51)	469 (213)		1	3	3	1	1																			2	10	
047142	4	61-64 (18.59-19.51)	485 (220)		1	4	4	1	1																			2	11	

For SUBCOMPONENT DESCRIPTIONS, please see the following page.



**COMPLETE UNDERBIN UNLOADING SYSTEMS: 8" (20.32 cm) Auger-Under Perforated Floor  
14' to 64' (4.27 to 19.51 m) Diameter Bins**

SUBCOMPONENT DESCRIPTIONS:

- 001216 Tube, Center Vertical, 8"x12' / H18
- 019227 Hopper, Center Body Only, 6" / 8"
- 019698 Hopper, Intermediate, 8", AB-Cast in Concrete
- 019711 Bag of Hardware, 6" & 8" Intermediate Hopper
- 019735 Box of Parts with Wallplate, 8" Center Hopper
- 022264 L0006 8"x8' Ser-A Auger Extension
- 022265 L0006 8"x10' Ser-A Auger Extension
- 022266 L0006 8"x20' Ser-A Auger Extension
- 022879 L0006 8"x12' Ser-A Auger Extension
- 022880 L0006 8"x14' Ser-A Auger Extension
- 022881 L0006 8"x16' Ser-A Auger Extension

- 35028 B0009 8"x15" Connecting Sleeve
- 036318 Tube, Center vertical Extension 8"x14' / H20
- 036325 Bag of Hardware, Connecting Sleeve
- 036366 Tube, 14-gauge Galvanized 8"x8' Extension
- 036368 Tube, 14-gauge Galvanized 8"x10' Extension
- 036369 Tube, 14-gauge Galvanized 8"x20' Extension
- 036554 Tube, Center vertical Extension, 8"x16' / H22
- 047178 Control Rod 4'8" with coupling
- 047180 Control Rod adapter 6" with coupling
- 047181 Control Rod adapter 12" with coupling
- 047185 Control Rod adapter 24" with coupling

Conversion Table		
1' = foot or feet	17' = 5.182 meters	48' = 14.63 meters
" = inch or inches	18' = 5.486 meters	49' = 14.94 meters
	20' = 6.096 meters	52' = 15.85 meters
6" = 15.24 centimeters	21' = 6.401 meters	53' = 16.15 meters
8" = 20.32 centimeters	24' = 7.315 meters	56' = 17.07 meters
10" = 25.40 centimeters	25' = 7.62 meters	57' = 17.37 meters
12" = 30.48 centimeters	28' = 8.534 meters	60' = 18.29 meters
15" = 38.10 centimeters	29' = 8.839 meters	61' = 18.59 meters
24" = 60.96 centimeters	32' = 9.754 meters	64' = 19.51 meters
	33' = 10.06 meters	
4'8" = 1.422 meters	36' = 10.97 meters	
8' = 2.438 meters	37' = 11.28 meters	
10' = 3.048 meters	40' = 12.19 meters	
12' = 3.658 meters	41' = 12.5 meters	
14' = 4.267 meters	44' = 31.41 meters	
16' = 4.877 meters	45' = 13.72 meters	





SECTION A - UNDERBIN EQUIPMENT

Effective: 2011-11-1  
A-7

COMPLETE UNDERBIN UNLOADING SYSTEMS: 8" (20.32 cm) Auger-Cast in Concrete  
28' to 63'(8.53 to 19.2 m) Diameter Bins

Part Number	Interm Hoppers	Bin Diameter feet (meters)	Weight lb (kg)	List Price	001216	019227	019698	019735	019850	022265	022266	022879	022880	022881	022882	035028	036318	036325	036368	036369	036554	047063	047178	047180	047181	047185	019711
047267	2	28-31* (8.53-9.45)	313 (142)			1	2	1	2				1			1		1			1	5	5			1	2
047268	2	32-35 (9.75-10.67)	396 (180)		1	1	2	1	2					1		1						5	6				2
047269	2	36-39 (10.97-11.89)	361 (164)			1	2	1	2		1				1					1		6	6		1		2
047270	2	40-43 (12.19-13.11)	457 (208)		1	1	2	1	2		1				2				2	1		6	6		1	1	2
047271	3	40-43 (12.19-13.11)	418 (190)		1	1	3	1	3		1				2				2	1		6	7		1	1	3
047272	2	44-47 (13.41-14.33)	419 (190)		2	1	2	1	2		2				2				2			7	7		1		2
047273	3	44-47 (13.41-14.33)	445 (202)		2	1	3	1	3		2				2				2			7	8		1		3
047275	3	48-51 (14.63-15.54)	470 (213)		1	1	3	1	3		1	1			2				2	1		8	8		1	1	3
047277	3	52-55 (15.85-16.76)	493 (224)			1	3	1	3			2			2				2	2		8	9				3
047279	3	56-59 (17.07-17.98)	519 (236)			1	3	1	3						2				2	1		9	9			1	3
047280	4	56-59 (17.07-17.98)	545 (247)			1	4	1	4						2				2	1		9	10			1	4
047282	3	60-63 (18.29-19.2)	543 (546)			1	3	1	3						2				2	2		2	10	10			3
047283	4	60-63 (18.29-19.2)	573 (260)			1	4	1	4						2				2	2		2	10	11			4

SUBCOMPONENT DESCRIPTIONS:

001216 Tube, Center Vertical Extension 8"x12'  
 019221 Tube, 14-gauge Galvanized 8"x18' Extension  
 019227 Hopper, Center Body Only, 6" or 8"  
 019698 Hopper, 8" Intermediate, AB-Cast in Concrete  
 019735 Box of Parts, 8" Center Hopper with plate  
 019850 Slide Gate Garage, Center Hopper, 6"/8"  
 019851 Slide Gate Garage, Int Hopper, 6"/8"  
 022265 L0006 8"x10' Ser-A Auger Extension  
 022266 L0006 8"x20' Ser-A Auger Extension

022879 L0006 8"x12' Ser-A Auger Extension  
 022880 L0006 8"x14' Ser-A Auger Extension  
 022881 L0006 8"x16' Ser-A Auger Extension  
 022882 L0006 8"x18' Ser-A Auger Extension  
 035028 B0009 Sleeve, 8"x15" Connecting  
 036318 Tube, Center Vertical Extension 8"x14'  
 036325 Bag of Hardware, Connecting Sleeve  
 036368 Tube, 14-gauge Galvanized 8"x10' Extension  
 036369 Tube, 14-gauge Galvanized 8"x20' Extension

036554 Tube, Center Vertical Extension 8"x16'  
 047063 Form, Control Rod for CNC 6"/8"  
 047178 Control Rod 4.8" with coupling  
 047180 Control Rod adapter 6" with coupling  
 047181 Control Rod adapter 12" with coupling  
 047185 Control Rod adapter 24" with coupling  
 019711 Bag of Hardware 6" & 8" Intermediate Hopper

\*CNC=Cast in Concrete





**COMPLETE UNDERBIN UNLOADING SYSTEMS: 8" (20.32 cm) Auger-Cast in Concrete  
84' to 95' (25.6 to 28.96 m) Diameter Bins**

Part Number	Hoppers Intern	Bin Diameter feet (meters)	Weight lb (kg)	List Price	Subcomponents																				
					001216	019221	019698	019735	019850	019851	022265	022879	022880	022881	022882	035028	036318	036325	036368	036369	036354	047063	047178	047180	047185
047300	3	84-87 (25.6-26.52)	698 (317)		2	1	3	1	1	3	1	2				3		3	1	1	13	12	1	1	3
047301	4	84-87 (25.6-26.52)	724 (329)		2	1	4	1	1	4	1	2				3		3	1	1	13	13	1	1	4
047303	3	88-91 (26.82-27.74)	725 (329)		1	1	3	1	1	3	1	1	1	1		3	1	3	1	1	14	13			3
047304	4	88-91 (26.82-27.74)	751 (341)		1	1	4	1	1	4	1	1	1	1		3	1	3	1	1	14	14			4
047305	5	88-91 (26.82-27.74)	777 (353)		1	1	5	1	1	5	1	1	1	1		3	1	3	1	1	14	15			5
047308	4	92-95 (28.04-28.96)	776 (352)			1	4	1	1	4	1	1	2			3	2	3	1	1	15	14	1		4
047309	5	92-95 (28.04-28.96)	802 (364)			1	5	1	1	5	1	1	2			3	2	3	1	1	15	15	1		5

**SUBCOMPONENT DESCRIPTIONS:**

- 001216 Tube, Center Vertical Extension 8"x12'
- 001221 Tube, 14-gauge Galvanized 8"x18'
- 019227 Hopper, Center Body Only, 6" or 8"
- 019698 Hopper, 8' Intermediate, AB-Cast in Concrete
- 019735 Box of Parts, 8" Center Hopper with plate
- 019850 Slide Gate Garage, Center Hopper, 6"/8"
- 019851 Slide Gate Garage, Int Hopper, 6"/8"
- 022265 L0006 8"x10' Ser-A Auger Extension
- 022266 L0006 8"x20' Ser-A Auger Extension
- 022879 L0006 8"x12' Ser-A Auger Extension
- 022880 L0006 8"x14' Ser-A Auger Extension
- 022881 L0006 8"x16' Ser-A Auger Extension
- 022882 L0006 8"x18' Ser-A Auger Extension
- 035028 B0009 Sleeve, 8"x15" Connecting
- 036318 Tube, Center Vertical Extension 8"x14'
- 036325 Bag of Hardware, Connecting Sleeve
- 036368 Tube, 14-gauge Galvanized 8"x10' Extension
- 036369 Tube, 14-gauge Galvanized 8"x20' Extension
- 036554 Tube, Center Vertical Extension 8"x16'
- 047063 Form, Control Rod for CNC 6"/8"
- 047178 Control Rod 4'8" with coupling
- 047180 Control Rod adapter 6" with coupling
- 047181 Control Rod adapter 12" with coupling
- 047185 Control Rod adapter 24" with coupling
- 019711 Bag of Hardware 6" & 8" Intermediate Hopper

\*CNC=Cast in Concrete

**Conversion Table**

' = foot or feet	" = inch or inches	8' = 2.438 meters	10' = 3.048 meters	12' = 3.658 meters	14' = 4.267 meters	16' = 4.877 meters	18' = 5.486 meters	20' = 6.096 meters	88' = 26.82 meters	91' = 27.74 meters	92' = 28.04 meters	95' = 28.96 meters
6" = 15.24 centimeters												
8" = 20.32 centimeters												
10" = 25.4 centimeters												
12" = 30.48 centimeters												
24" = 60.96 centimeters												





**COMPLETE UNDERBIN UNLOADING SYSTEMS: 10" (25.40 cm) Auger-Under Perforated Floor  
14' to 68' (4.27 to 20.73 m) Diameter Bins**

SUBCOMPONENT DESCRIPTIONS:

- 022277 L0006 10"x8' Ser-A Auger Extension
- 022278 L0006 10"x10' Ser-A Auger Extension
- 022279 L0006 10"x20' Ser-A Auger Extension
- 022883 L0006 10"x12' Ser-A Auger Extension
- 022884 L0006 10"x14' Ser-A Auger Extension
- 022885 L0006 10"x16' Ser-A Auger Extension
- 022886 L0006 10"x18' Ser-A Auger Extension
- 035031 B0009, 10"x21" Connecting Sleeve
- 036331 Bag of Hardware, 10" Sleeve

- 046011 Center Hopper, 10" Low-Profile
- 046028 Intermediate Hopper Assembly, 10" Low-Profile
- 046038 Box of Parts, 10" Low-Profile, Center Hopper
- 047178 Control Rod, 4'8" with coupling
- 047180 Control Rod Adapter, 6" with coupling
- 047181 Control Rod Adapter, 12" with coupling
- 047185 Control Rod Adapter, 24" with coupling
- 047328 Tube, 12-gauge Galvanized, 10"x8'
- 023414 Hopper Top, Inlet Assy w/Rollers

- 047329 Tube, 12-gauge Galvanized, 10"x10'
- 047330 Tube, 12-gauge Galvanized, 10"x12'
- 047331 Tube, 12-gauge Galvanized, 10"x14'
- 047332 Tube, 12-gauge Galvanized, 10"x16'
- 047333 Tube, 12-gauge Galvanized, 10"x18'
- 047334 Tube, 12-gauge Galvanized, 10"x20'
- 023207 Adptr, 10" Tube, Roller Slide Gate
- 047003 BOP 10" HD Center Hopper

Conversion Table		
' = foot or feet	21' = 6.401 meters	57' = 17.37 meters
" = inch or inches	24' = 7.315 meters	60' = 18.29 meters
	25' = 7.62 meters	61' = 18.59 meters
6" = 15.24 centimeters	28' = 8.534 meters	64' = 19.51 meters
8" = 20.32 centimeters	29' = 8.839 meters	65' = 19.81 meters
10" = 25.4 centimeters	32' = 9.754 meters	68' = 20.73 meters
12" = 30.48 centimeters	33' = 10.06 meters	
24" = 60.96 centimeters	36' = 10.97 meters	
	37' = 11.28 meters	
48" = 1.422 meters	40' = 12.19 meters	
8' = 2.438 meters	41' = 12.5 meters	
10' = 3.048 meters	44' = 31.41 meters	
12' = 3.658 meters	45' = 13.72 meters	
14' = 4.267 meters	48' = 14.63 meters	
16' = 4.877 meters	49' = 14.94 meters	
17' = 5.182 meters	52' = 15.85 meters	
18' = 5.486 meters	53' = 16.15 meters	
20' = 6.096 meters	56' = 17.07 meters	







# Section A2 - UNDERBIN EQUIPMENT Modular Components

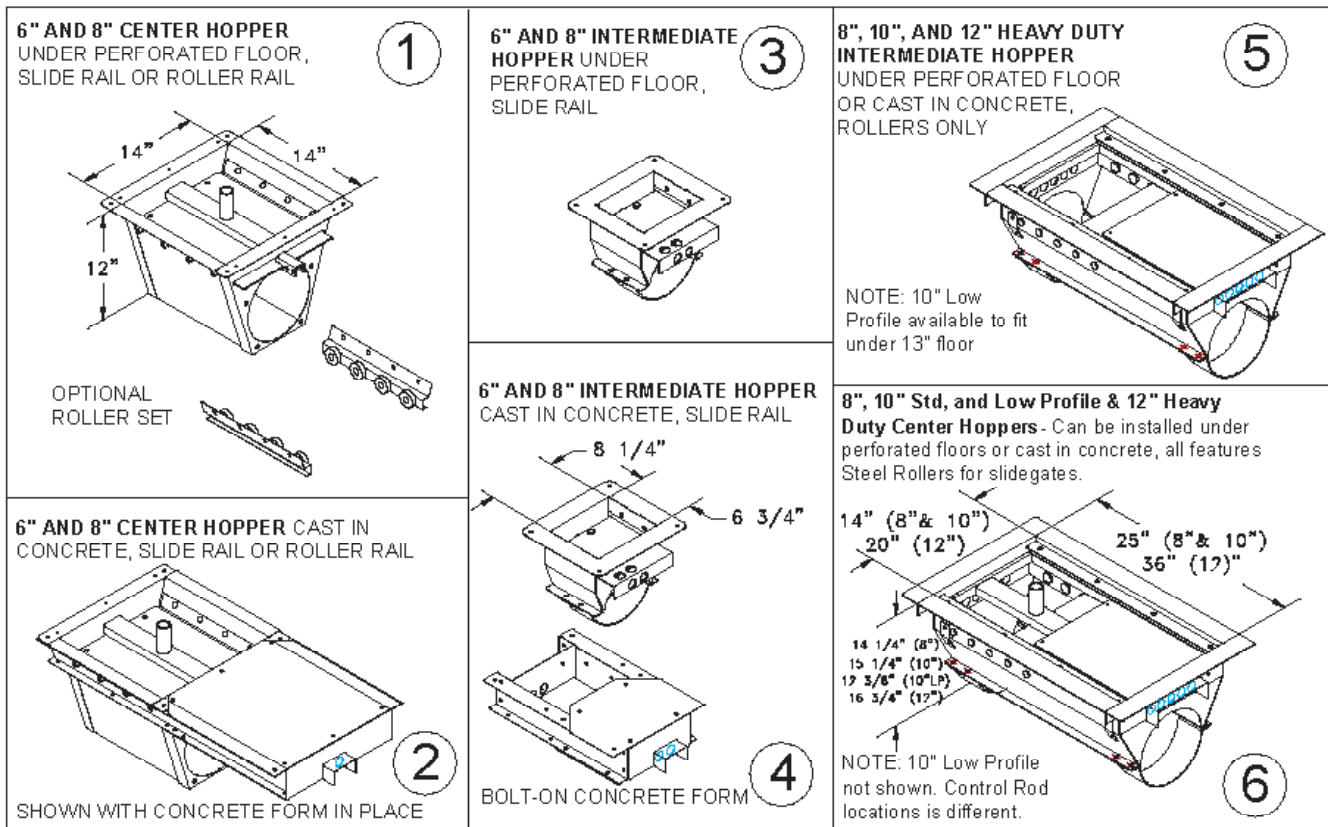
This section covers all underbin equipment up to the discharge head (power head). It includes hoppers (wells), tubes, augers (flights), control rods, concrete forms, wall plates, and related accessories.

## HOPPERS

•Each complete hopper consists of a hopper body, a box of parts (including tube size adaptor, wall plate, control rod guides, and control rod handles), and concrete forms for hoppers cast in concrete.

•All styles and variations are illustrated below.

•Dimensions for 6" and 8" hoppers are the same, and dimensions for heavy duty 8" and 10" hoppers are the same.



Please see the following page for metric equivalent values.

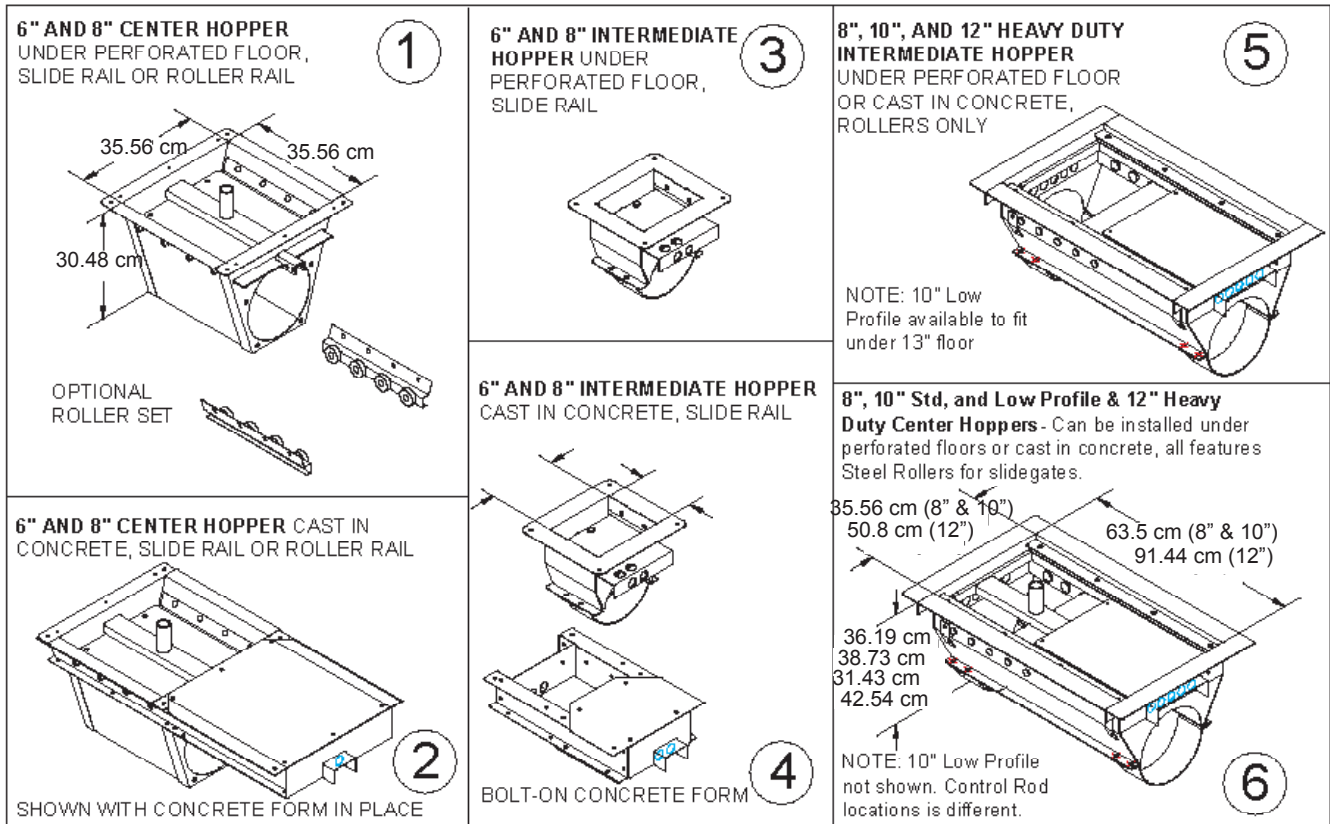
Manufactured by



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The figure below shows hopper dimensions in metric measurements.



Conversion Table	
'	= foot or feet
"	= inch or inches
6"	= 15.24 centimeters
8"	= 20.32 centimeters
10"	= 25.4 centimeters
12"	= 30.48 centimeters
13"	= 33.02 centimeters

Manufactured by



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## Hoppers—List Prices

Reference Number	Description	Part Number	List Price	Weight	
				lb	kg
<b>Center Hoppers</b>					
1	6" Center Hopper	047370		37	37
1	6" Center Hopper with Rollers	047372		42	19
2	6" Center Hopper, Concrete	047371		55	25
2	6" Center Hopper, Concrete with Rollers	047373		60	27
1	8" Center Hopper	047375		37	17
1	8" Center Hopper with Rollers	047377		42	19
2	8" Center Hopper, Concrete	047376		55	25
2	8" Center Hopper, Concrete with Rollers	047378		60	27
6	8" Heavy Duty Center Hopper with Rollers*	047380		79	36
7	10" Low Profile Center Hopper with Roller*	046039		66	30
6	10" Heavy Duty Center Hopper with Rollers*	047382		83	38
6	12" Heavy Duty Center Hopper with Rollers*	019237		171	78
<b>Intermediate Hoppers</b>					
3	6" Intermediate Hopper	019312		11	5
4	6" Intermediate Hopper, Concrete	047374		21	10
3	8" Intermediate Hopper	019313		12	6
4	8" Intermediate Hopper, Concrete	047379		22	10
5	8" Heavy Duty Intermediate Hopper with Rollers*	047381		69	32
7	10" Low Profile Intermediate Hopper with Rollers	046028		29	14
5	10" Heavy Duty Intermediate Hopper with Rollers	047383		71	32
5	12" Heavy Duty Intermediate Hopper with Rollers*	047384		73	33

\*Can be used under perforated floors or cast in concrete.

Recommended Number of Intermediate Hoppers		
Bin Diameter		Intermediate Hoppers
Feet	Meters	
14' - 25'	4.67 - 7.62	1
26' - 37'	7.93 - 11.28	2
38' - 42'	11.58 - 12.8	3
43' - 60'	13.11 - 18.29	4 or 5
61' - 84'	11.59 - 25.6	5 or 6
85' - 100'	25.91 - 30.48	6 to 8

Manufactured by



Division of GLOBAL Industries, Inc.  
9364 North 45th Street  
Omaha, Nebraska 68152



SECTION A - UNDERBIN EQUIPMENT

# All Hoppers

Whole Goods Hopper Part Numbers from Page A-2

Bill of Lading Items		Part Number	List Price	Weight		019237	019312	019313	047370	047371	047372	047373	047374	047375	047376	047377	047378	047379	047380	047381	047382	047383	047384	046039
				lb	kg																			
Hopper, Center Body 6"/8"		019227		26	12				1	1	1	1	1	1	1	1	1							
Box of parts, 6" Center hopper with wall plate		019734		11	5			1	1	1														
Box of parts, 8" Center Hopper with wall plate		019735		11	5									1	1	1	1							
Slide gate garage, Center Hopper 6"/8"		019850		18	8				1			1			1		1							
Roller Kit, Center Hopper 6"/8"		047001		5	3					1	1	1				1	1							
Hopper, Intermediate 6"		019693		11	5		1						1											
Hopper, Intermediate 8"		019698		12	6			1										1						
Slide gate garage, Intermediate Hopper 6"/8"		019851		10	5								1					1						
Hopper Top, Roller slide gate		023414		50	23														1	1	1	1	1	
Adapter, 8" Tube Roller Slide Gate		023206		28	13														1	1				
Adapter, 10" Tube Roller Slide Gate		023207		21	10																1	1		
Adapter, 12" Tube Roller Slide Gate		023217		23	11																			
Bag of Hardware, 6"/8" STD Intermediate hopper		019711		1	1								1					1						
Box of parts, 10" Center Hopper		047003		50	23																			
Box of parts 12" Center Hopper		046140		32	15																			
Adapter, 8" Heavy-duty Ctr Hopper with Rollers		047002		45	21																			
Hopper, Center 10" Low-profile		046011		52	24																			1
Box of parts 10" Low-profile Center Hopper		046038		14	7																			1
Bag of parts, 10" Intermediate Roller Slide Gate		048068																						1
Hopper, Center Body 12"		019238		139	63		1																	

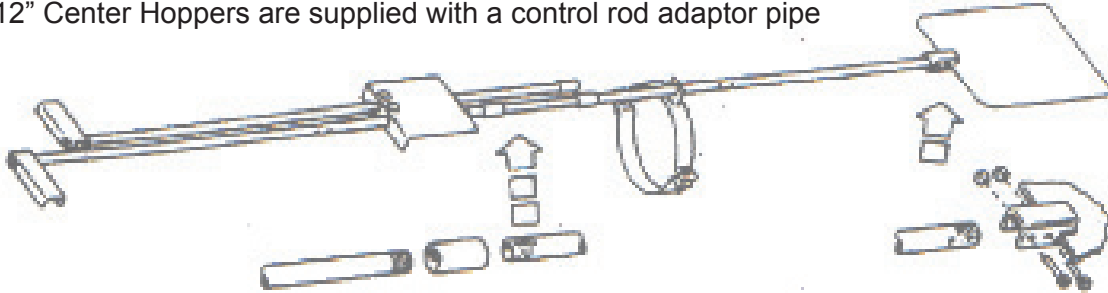


## Center Hopper Slide Gate Control Rods for 6" (15.24cm), 8" (20.32cm), 10" (25.40cm), and 12" (30.48cm) Modular Underbin Equipment

All underbin systems are designed to use 1/2" schedule-40 pipe sections to control both center and intermediate hopper slide gates. All rod sections are pre-drilled, threaded, and include couplings.

**NOTE:** Two control rod handles are packaged with each center hopper box of parts.

10" and 12" Center Hoppers are supplied with a control rod adaptor pipe



Center Hopper Control Rod Sets						Bill of Lading Items Center Hopper Control Rod Sets					
Bin Diameter				Part Number	List Price	Weight		047178 4'8" Section	047185 2' Section	047181 1' Section	047180 6" Section
Below Perforated Floor		Cast in Concrete				lb	kg				
Feet	Meters	Feet	Meters								
14-16	4.27-4.88	14-15	4.27-4.57	047863		7	3	1	1	1	
17-20	5.18-6.10	16-19	4.88-5.79	047864		8	4	2			1
21-24	6.40-7.32	20-23	6.10-7.01	047865		10	5	2	1		1
25-28	7.62-8.53	24-27	7.32-8.23	047866		12	6	3			
29-32	8.84-9.75	28-31	8.54-9.45	047867		14	7	3	1		
33-36	10.06-10.97	32-35	9.75-10.67	047868		16	7	4			
37-40	11.28-12.19	36-39	10.97-11.89	047869		17	8	4		1	
41-44	12.5-31.41	40-43	12.19-13.11	047870		19	9	4	1	1	
45-48	13.72-14.63	44-47	31.41-14.33	047871		21	10	5			1
49-52	14.94-15.85	48-51	14.63-15.54	047872		23	11	5	1		1
53-56	16.15-17.07	52-55	15.85-16.76	047873		24	11	6			
57-60	17.37-18.29	56-59	17.07-17.98	047874		26	12	6	1		
61-64	18.59-19.51	60-63	18.29-19.2	047875		28	13	7			
65-68	19.81-20.73	64-67	19.51-20.42	047876		29	13	7		1	
69-72	20.13-21.95	68-71	20.73-21.64	047877		31	14	7	1	1	
73-76	22.25-23.16	72-75	21.95-22.86	047878		33	15	8			1
77-80	23.47-24.38	76-79	23.16-24.08	047879		35	16	8	1		1
81-84	24.69-25.6	80-83	24.38-25.3	047880		36	16	9			
85-88	25.91-26.82	84-87	25.6-26.52	047881		38	17	9	1		
89-92	27.13-28.04	88-91	26.82-27.74	047882		40	18	10			
93-96	28.25-29.26	92-95	28.04-28.96	047883		41	19	10		1	

Part Number	Description	List Price	Weight	
			lb	kg
001076	1/2" Galvanized Pipe		1	1/2
019719	Control Rod Handle		1	1/2

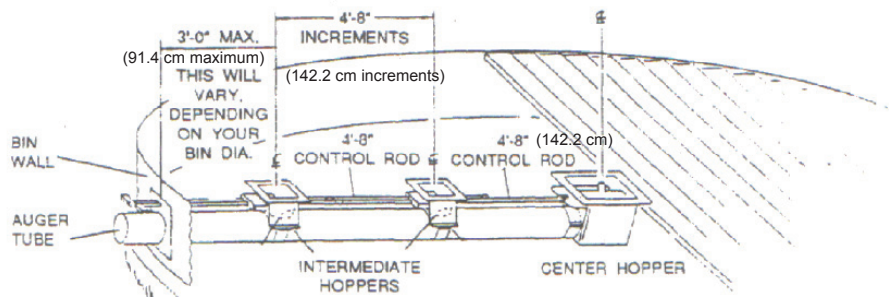


## Intermediate Hopper Control Rods for Standard Intermediate Hoppers

Intermediate control rods are built assuming a distance of about 30" from the bin wall to the center of first intermediate hopper. Spacing between intermediate hoppers should be 4'8" center-to-center. **Order one intermediate control rod for each intermediate hopper.**

Part Number	Description	List Price	Weight	
			lb	kg
047178	4'8" (142.2 cm) Intermediate Control Rod		4	2
019719	Handle, Control Rod		1/2	1/4

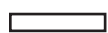

Conversion Table	
'	= foot or feet
"	= inch or inches
6"	= 15.24 centimeters
8"	= 20.32 centimeters
10"	= 25.4 centimeters
12"	= 30.48 centimeters



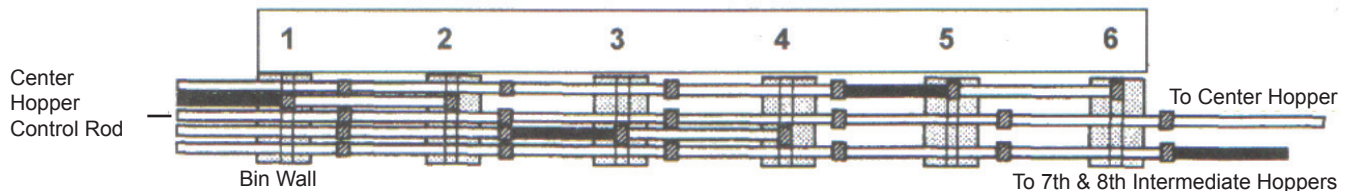
Hopper Gate Spacing

## Intermediate Hopper Control Rods for Heavy-duty Intermediate Roller Slide Gate Hoppers

Heavy-duty intermediate roller gate hoppers require a 3'4" control rod in place of the 4'8" rod section on the 1st, 3rd, 5th, and 7th intermediate hoppers (see diagram below). NECO recommends that each control rod assembly be used to control two hoppers at most. Up to four intermediate control rods can be used to control up to eight intermediate hoppers.

NOTE: Use a 4'8" (142.2 cm) control rod section (  ) except where 3'4" (101.6 cm) control rod section (  ) is required per diagram.

Intermediate Control Rods					
Part Number	Length		List Price*	Weight	
	feet	cm		lb	kg
048571	3'4"	101.6		3	1 1/2
047178	4'8"	142.2		4	2



**IMPORTANT!** Five control rod holes are drilled into the wall plate and each heavy-duty hopper. Always use the center hole for the center hopper control rod. When unloading grain **Always unload from the Center Hopper first!**

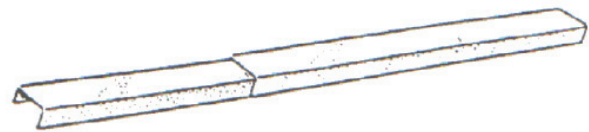
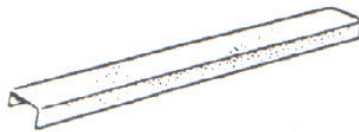


## Concrete Forms to cover Control Rods

Concrete forms telescope together and band on to the under-bin tube. To determine the approximate number of forms needed, measure from the center of the bin to the bin wall and divide by three (ignore fractions).

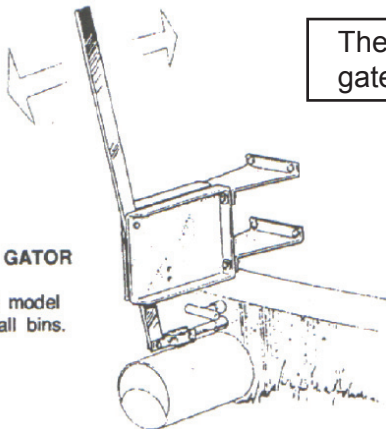
Part Number	Concrete Forms for Control Rods	List Price	Weight	
			lb	kg
047063	6" (15.24 cm) & 8" (20.32 cm) with Standard Hoppers		3	1½
048577	8" (20.32 cm) 10 (25.40 cm), & 12" (30.48 cm) with Heavy-Duty Hoppers		5	2½

Conversion Table
' = foot or feet
" = inch or inches
6" = 15.24 centimeters
8" = 20.32 centimeters
10" = 25.4 centimeters
12" = 30.48 centimeters



**NOTE:** The number of forms needed decreases by one for every two intermediate hoppers used. There are two sizes of form channels. The forms for 6" (15.24 cm) and 8" (20.32 cm) tube with standard hoppers are 3'4" (101.6 cm) long. The forms for 8" (20.32 cm), 10" (25.40 cm) and 12" (30.48 cm) tube with heavy-duty hoppers are 2'6" (76.2 cm) long.

## E-Z Gator and Rack-and-Pinion Slide Gate Leverage Devices

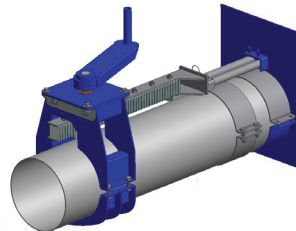


E-Z GATOR

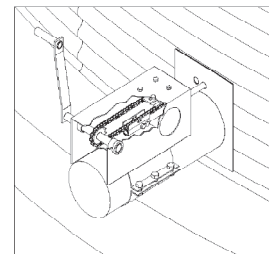
One model fits all bins.

Center Hopper Only

These optional accessories make slide gate operation easy and precise.



- OPTION: 8" RACK & PINION
- Add \$773 For Part # 051947
- Zinc Plated Gears
- 2000lb of Gate Pull
- Opens Center & Intermediate Gates
- Easily fits on Most Existing Units



Rack & Pinion Leverage Device

Part Number	Description	List Price	Weight	
			lb	kg
048576	E-Z Gator leverage device		26	12
048951	Rack & pinion device for 6" (15.24 cm) tubes		34	16
051947	Rack & pinion device for 8" (20.32) tubes		36	16
048667	Rack & pinion device for 10" (25.40) tubes		39	18
048953	Rack & pinion device for 12" (30.48) tubes		42	19



## Tube & Auger Extensions with Connections

To simplify ordering and stocking of underbin equipment, NECO offers preassembled under-bin auger extensions consisting of tube, auger, connecting sleeve, and stub shaft connector.

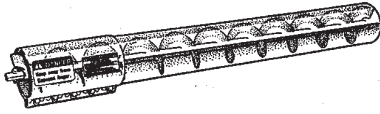
To determine quantity and length of underbin tube and auger extensions, use the following chart. Refer to the charts on the following page for part numbers, list prices, and weights of underbin extensions required.

**Note:** When using a Variable Height Inclined Unloader (page B-9) that steps up in size from 6" (15.24 cm) to 8" (20.32 cm), or from 8" (20.32 cm) to 10" (25.40 cm), the underbin tube must be 18" (45.72 cm) longer than the bin radius for clearance of control rod(s).

Bin Diameter															
Below Perforated Floor		Cast in Concrete		Recommended Underbin Extensions											
Feet	Meters	Feet	Meters	2'	4'	6'	8'	10'	12'	14'	16'	18'	20'		
14-16	4.27-4.88	14-15	4.27-4.57				1								
17-20	5.18-6.10	16-19	4.88-5.79					1							
21-24	6.40-7.32	20-23	6.10-7.01						1						
25-28	7.62-8.53	24-27	7.32-8.23							1					
29-32	8.84-9.75	28-31	8.54-9.45								1				
33-36	10.06-10.97	32-35	9.75-10.67									1			
37-40	11.28-12.19	36-39	10.97-11.89										1		
41-44	12.5-31.41	40-43	12.19-13.11					1	1						
45-48	13.72-14.63	44-47	31.41-14.33						2						
49-52	14.94-15.85	48-51	14.63-15.54						1	1					
53-56	16.15-17.07	52-55	15.85-16.76							2					
57-60	17.37-18.29	56-59	17.07-17.98							1	1				
61-64	18.59-19.51	60-63	18.29-19.2								2				
65-68	19.81-20.73	64-67	19.51-20.42								1	1			
69-72	20.1321.95	68-71	20.73-21.64									2			
73-76	22.25-23.16	72-75	21.95-22.86									1	1		
77-80	23.47-24.38	76-79	23.16-24.08										2		
81-84	24.69-25.6	80-83	24.38-25.3					1	1				1		
85-88	25.91-26.82	84-87	25.6-26.52						2				1		
89-92	27.13-28.04	88-91	26.82-27.74						1	1			1		
93-96	28.25-29.26	92-95	28.04-28.96							2			1		
97-100	29.57-30.48	96-99	29.26-30.18							1	1		1		
101-104	30.78-31.7	100-103	30.48-31.39								2		1		
105-108	32.0-32.92	104-107	31.7-32.61								1	1	1		
109-112	33.22-34.04	108-111	32.92-33.83									2	1		
113-116	34.44-35.36	112-115	34.14-35.05									1	2		
117-120	35.66-36.58	116-119	35.36-36.27										3		



# Tube & Auger Extensions with Connections



Specifications		
Tube Size	Flighting Dimensions	Connecting Shaft
6"	1½", 11 Gauge	1¼"
8"	1½", 11 Gauge	1¼"
10"	2", 11 Gauge	1½"
12"	2", ¼"	1½"

Tube Size	Outside Tube
6"	16 Gauge Galvanized
8"	14 Gauge Galvanized
10"	12 Gauge Galvanized
12"	12 Gauge Galvanized

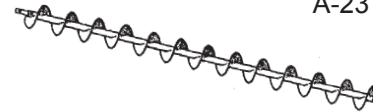
Tube & Auger Length		6" Standard Flighting 3/16"				6" Heavy-Duty Flighting ¼"			
		Part Number	List Price	Weight		Part Number	List Price	Weight	
Feet	Meters			lb	kg			lb	kg
2	0.6096	047017		22	10	048635		25	12
4	1.219	047018		36	17	048636		41	19
6	1.829	047019		50	23	048637		58	27
8	2.438	019836		64	29	048638		71	32
10	3.048	019837		78	36	048639		91	41
12	3.658	019838		92	42	048640		106	48
14	4.267	019839		106	48	048641		124	56
16	4.877	019840		120	55	048642		141	64
18	5.486	019841		134	61	048643		157	71
20	6.096	019842		148	67	048644		174	79

Conversion Table		8" Standard Flighting - 3/16"				8" Heavy-Duty Flighting - ¼"				10" Standard Flighting - 3/16"					
inches	cm	Part Number	List Price	Weight		Part Number	List Price	Weight		Part Number	List Price	Weight			
				Feet	Meters			lb	kg			lb	kg	lb	kg
¼	0.635														
1¼	3.175														
1½	3.81	2	0.610	047020		31	14	048645		35	16	047023		56	26
6	15.24	4	1.219	047021		60	27	048646		65	30	047024		80	37
8	20.32	6	1.829	047022		89	41	048647		97	44	047025		105	48
10	25.40	8	2.438	019825		118	54	048648		128	58	019843		133	61
12	30.48	10	3.048	019826		147	67	048649		160	73	019844		162	74
		12	3.658	019827		176	80	048650		191	87	019845		200	91
		14	4.267	019828		205	93	048651		212	96	019846		224	102
		16	4.877	019829		234	106	048652		255	116	019847		249	113
		18	5.486	019830		263	119	048653		287	130	019848		277	126
		20	6.096	019831		292	133	048654		318	144	019849		304	138

Tube & Auger Length		10" Heavy-Duty Flighting - 3/8"				12" Standard Flighting - 3/16"				12" Heavy-Duty Flighting - 3/8"			
		Part Number	List Price	Weight		Part Number	List Price	Weight		Part Number	List Price	Weight	
Feet	Meters			lb	kg			lb	kg			lb	kg
2	0.6096	048655		62	28	046156		73	33	047026		82	37
4	1.219	048656		93	42	046157		114	52	047027		131	60
6	1.829	048657		124	56	046158		155	71	047028		180	82
8	2.438	048658		159	72	046159		196	89	047029		230	104
10	3.048	048659		194	88	046160		237	108	047030		279	127
12	3.658	048660		238	108	046161		278	126	047031		328	149
14	4.267	048661		269	122	046162		319	145	047032		377	171
16	4.877	048662		300	136	046163		360	164	047033		426	193
18	5.486	048663		334	152	046164		400	182	047034		476	216
20	6.096	048664		368	167	046165		442	201	047035		525	237



# Auger Extensions Only with Connecting Shaft



SPECIFICATIONS		
Tube Size	Flighting Dimensions	Connecting Shaft
6"	1½", 11 Gauge	1¼"
8"	1½", 11 Gauge	1¼"
10"	2", 11 Gauge	1½"
12"	2", ¼" thick	1½"

Conversion Table	
inches	cm
¼	0.635
1¼	3.175
1½	3.81
6	15.24
8	20.32
10	25.40
12	30.48

Auger Length		6" Standard Flighting 3/16"				6" Heavy-Duty Flighting ¼"			
		Part Number	List Price	Weight		Part Number	List Price	Weight	
				lb	kg			lb	kg
Feet	Meters								
2	0.6096	022243		7	3	022659		10	5
4	1.219	022244		14	7	022630		19	9
6	1.829	022245		21	10	022631		29	13
8	2.438	022246		28	13	022632		38	17
10	3.048	022247		36	16	022633		49	22
12	3.658	022875		43	20	022905		59	27
14	4.267	022876		50	23	022906		68	31
16	4.877	022877		57	26	022907		78	36
18	5.486	022878		64	29	022908		87	40
20	6.096	022248		72	33	022662		98	45

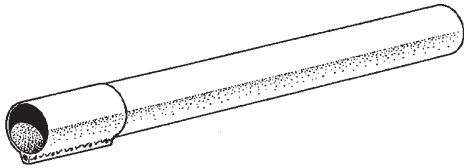
Auger Length		8" Standard Flighting - 3/16"				8" Heavy-Duty Flighting - ¼"				10" Standard Flighting - 3/16"			
		Part Number	List Price	Weight		Part Number	List Price	Weight		Part Number	List Price	Weight	
				lb	kg			lb	kg			lb	kg
Feet	Meters												
2	0.6096	022261		8	4	022634		12	6	022274		12	6
4	1.219	022262		16	7	022635		21	10	022275		24	11
6	1.829	022263		25	12	022636		33	15	022276		35	16
8	2.438	022264		32	15	022637		42	19	022277		46	21
10	3.048	022265		40	18	022638		53	24	022278		58	27
12	3.658	022879		48	22	022909		63	39	022883		70	32
14	4.267	022880		56	26	022910		74	34	022884		82	37
16	4.877	022881		65	30	022911		86	39	022885		93	42
18	5.486	022882		72	33	022912		95	43	022886		104	47
20	6.096	022266		80	36	022661		106	36	022279		116	53

Auger Length		10" Heavy-Duty Flighting - 3/8"				12" Standard Flighting - 3/16"				12" Heavy-Duty Flighting - 3/8"			
		Part Number	List Price	Weight		Part Number	List Price	Weight		Part Number	List Price	Weight	
				lb	kg			lb	kg			lb	kg
Feet	Meters												
2	0.6096	022639		18	8	022954		21	10	022292		28	13
4	1.219	022640		37	17	022955		34	16	022293		50	23
6	1.829	022641		54	25	022956		47	22	022294		71	32
8	2.438	022642		72	33	022957		61	28	022295		93	42
10	3.048	022643		90	41	022958		74	34	022296		115	52
12	3.658	022891		108	49	022959		88	40	022887		137	62
14	4.267	022894		127	58	022961		102	46	022888		159	72
16	4.877	022913		144	66	022962		115	52	022889		180	82
18	5.486	022914		161	73	022964		129	59	022890		202	92
20	6.096	022660		180	82	022966		142	65	022297		224	102



## Unloading Tubes with Connecting Sleeve

### Galvanized Tube

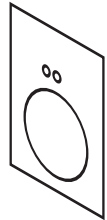


**Price Includes:** Galvanized Unloading Tube & Connecting Sleeve with Hardware.

OPTIONAL TUBE END CAPS			
Size		Part Number	List Price
inches	cm		
6	15.24	035402	
8	20.32	035403	
10	25.4	035404	
12	30.48	036441	



OPTIONAL WALL PLATES			
Size		Part Number	List Price
inches	cm		
6	15.24	048932	
8	20.32	048933	
10	25.4	019401	



Tube Length		6" 16-gauge Galvanized			
		Part Number	List Price	Weight	
Feet	Meters			lb	kg
2	0.6096	048579		14	7
4	1.219	048580		22	10
6	1.829	048581		30	14
8	2.438	048582		38	17
10	3.048	048583		46	21
12	3.658	048584		55	25
14	4.267	048585		63	29
16	4.877	048586		71	32
18	5.486	048587		80	36
20	6.096	048588		88	40

Tube Length		8" 14-gauge Galvanized			
		Part Number	List Price	Weight	
Feet	Meters			lb	kg
2	0.6096	048589		20	9
4	1.219	048590		33	15
6	1.829	048591		46	21
8	2.438	048592		59	27
10	3.048	048593		72	33
12	3.658	048594		85	39
14	4.267	048595		98	45
16	4.877	048596		111	51
18	5.486	048597		124	56
20	6.096	048598		137	62

Tube Length		10" 12-gauge Galvanized			
		Part Number	List Price	Weight	
Feet	Meters			lb	kg
2	0.6096	048599		41	19
4	1.219	048600		64	29
6	1.829	048601		86	39
8	2.438	048602		109	50
10	3.048	048603		131	60
12	3.658	048604		154	70
14	4.267	048605		177	80
16	4.877	048606		199	90
18	5.486	048607		222	100
20	6.096	048608		245	111

Tube Length		12" 12-gauge Galvanized			
		Part Number	List Price	Weight	
Feet	Meters			lb	kg
2	0.6096	048609		52	24
4	1.219	048610		79	36
6	1.829	048611		107	49
8	2.438	048612		134	61
10	3.048	048613		161	73
12	3.658	048614		189	86
14	4.267	048615		216	98
16	4.877	048616		244	110
18	5.486	048617		271	123
20	6.096	048618		299	136



## Underbin and All-Purpose Components of Items on Previous Page

Connecting Sleeve with Hardware			Sleeve Only		Hardware Only	
Size inches (cm)	Part Number	List Price	Part Number	List Price	Part Number	List Price
6" x 15" (15.24 x 38.10)	036327		035025		036325	
8" x 15" (20.32 x 38.10)	036328		035028		036325	
10" x 21" (25.40 x 53.34)	036329		035031		036331	
12" x 27" (30.48 x 68.58)	035969		035034		036602	

6" x 16-Gauge Galvanized					
Tube Length		Part Number	List Price	Weight	
Feet	Meters			lb	kg
2	0.6096	036350		8	4
4	1.219	036352		16	7
6	1.829	036354		24	11
8	2.438	036356		33	15
10	3.048	036358		41	19
12	3.658	001190		49	22
14	4.267	036306		58	27
16	4.877	036553		66	30
18	5.486	001200		74	34
20	6.096	036359		82	37

8" x 14-Gauge Galvanized					
Tube Length		Part Number	List Price	Weight	
Feet	Meters			lb	kg
2	0.6096	036360		13	6
4	1.219	036362		26	12
6	1.829	036364		39	18
8	2.438	036366		52	24
10	3.048	036368		65	30
12	3.658	001216		78	36
14	4.267	036318		91	41
16	4.877	036554		104	47
18	5.486	001221		117	53
20	6.096	036369		130	59

10" x 12-Gauge Galvanized					
Tube Length		Part Number	List Price	Weight	
Feet	Meters			lb	kg
2	0.6096	047325		22	10
4	1.219	047326		44	20
6	1.829	047327		67	31
8	2.438	047328		89	41
10	3.048	047329		111	51
12	3.658	047330		133	61
14	4.267	047331		156	71
16	4.877	047332		178	81
18	5.486	047333		200	91
20	6.096	047334		222	101

12" x 12-Gauge Galvanized					
Tube Length		Part Number	List Price	Weight	
Feet	Meters			lb	kg
2	0.6096	022312		27	12
4	1.219	022313		55	25
6	1.829	022314		82	37
8	2.438	022315		109	50
10	3.048	022316		136	62
12	3.658	036556		164	75
14	4.267	036557		191	87
16	4.877	036558		218	99
18	5.486	036574		246	112
20	6.096	036870		273	124



Conversion Table				
<b>Length Conversion</b> ' = foot or feet " = inch or inches  ¼" = 0.635 cm ½" = 1.27 cm ¾" = 1.905 cm 1" = 2.54 cm 1¼" = 3.175 cm 1½" = 3.81 cm 1¾" = 4.445 cm 2" = 5.08 cm 3" = 7.62 cm 3.2" = 8.128 cm 4" = 10.16 cm 5" = 12.7 cm 6" = 15.24 cm 7" = 17.78 cm 7½" = 19.05 cm 8" = 20.32 cm 9" = 22.86 cm  10" = 25.40 cm 11" = 27.94 cm 12" = 30.48 cm 13" = 33.02 cm 14" = 35.56 cm 15" = 38.10 cm 16" = 40.64 cm 18" = 45.72 cm 18.4" = 46.74 cm  20" = 50.8 cm 22" = 55.88 cm 24" = 60.96 cm 27" = 68.58 cm 28" = 71.12 cm 30" = 76.2 cm 30½" = 77.47 cm 32" = 81.28 cm 33" = 83.82 cm 36" = 91.44 cm 43" = 109.2 cm 52" = 132.1 cm 63" = 160 cm	1' = 0.3048 meters 2' = 0.6096 meters 3' = 0.9144 meters 4' = 1.219 meters 4'8" = 1.422 meters 5' = 1.524 meters 6' = 1.829 meters 7' = 2.134 meters 7'6" = 2.286 meters 8' = 2.438 meters 9' = 2.743 meters  10' = 3.048 meters 11' = 3.353 meters 12' = 3.658 meters 13' = 3.962 meters 14' = 4.267 meters 15' = 4.572 meters 16' = 4.877 meters 17' = 5.182 meters 18' = 5.486 meters 19' = 5.791 meters  20' = 6.096 meters 21' = 6.401 meters 22' = 6.706 meters 23' = 7.01 meters 24' = 7.315 meters 25' = 7.62 meters 26' = 7.925 meters 27' = 8.23 meters 28' = 8.534 meters 29' = 8.839 meters  30' = 9.144 meters 31' = 9.449 meters 32' = 9.754 meters 33' = 10.06 meters 34' = 10.36 meters 35' = 10.67 meters 36' = 10.97 meters 37' = 11.28 meters 38' = 11.58 meters 39' = 11.89 meters	40' = 12.19 meters 41' = 12.5 meters 42' = 12.8 meters 43' = 13.11 meters 44' = 13.41 meters 45' = 13.72 meters 46' = 14.02 meters 47' = 14.33 meters 48' = 14.63 meters 49' = 14.94 meters  50' = 15.24 meters 51' = 15.54 meters 52' = 15.85 meters 53' = 16.15 meters 54' = 16.46 meters 55' = 16.76 meters 56' = 17.07 meters 57' = 17.37 meters 58' = 17.68 meters 59' = 17.98 meters  60' = 18.29 meters 61' = 18.59 meters 62' = 18.9 meters 63' = 19.2 meters 64' = 19.51 meters 65' = 19.81 meters 66' = 20.12 meters 67' = 20.42 meters 68' = 20.73 meters 69' = 21.03 meters  70' = 21.34 meters 71' = 21.64 meters 72' = 21.95 meters 73' = 22.25 meters 74' = 22.56 meters 75' = 22.86 meters 76' = 23.16 meters 77' = 23.47 meters 78' = 23.77 meters 79' = 24.08 meters	80' = 24.38 meters 81' = 24.69 meters 82' = 24.99 meters 83' = 25.3 meters 84' = 25.6 meters 85' = 25.91 meters 86' = 26.21 meters 87' = 26.52 meters 88' = 26.82 meters 89' = 27.13 meters  90' = 27.43 meters 91' = 27.74 meters 92' = 28.04 meters 93' = 28.25 meters 94' = 28.65 meters 95' = 28.96 meters 96' = 29.26 meters 97' = 29.57 meters 98' = 29.87 meters 99' = 30.18 meters 100' = 30.48 meters  101' = 30.78 meters 102' = 31.09 meters 103' = 31.39 meters 104' = 31.7 meters 105' = 32 meters 106' = 32.31 meters 107' = 32.61 meters 108' = 32.92 meters 109' = 33.22 meters 110' = 33.53 meters  111' = 33.83 meters 112' = 34.14 meters 113' = 34.44 meters 114' = 34.75 meters 115' = 35.05 meters 116' = 35.36 meters 117' = 35.66 meters 118' = 35.97 meters 119' = 36.27 meters	120' = 36.58 meters 121' = 36.88 meters 122' = 37.19 meters 123' = 37.49 meters 124' = 37.8 meters 125' = 38.1 meters 126' = 38.4 meters 127' = 38.71 meters 128' = 39.01 meters 129' = 39.32 meters  <b>Power Conversion</b>  hp      kW 0.25 = 0.1861 0.5 = 0.3728 0.75 = 0.5593 1 = 0.7456 1.5 = 1.1185 2 = 1.4913 2.5 = 1.8642 2.65 = 1.976 3 = 2.2370 5 = 3.7284 7 = 5.2198 7½ = 5.5927 10 = 7.4569 15 = 11.1854 20 = 14.9139 30 = 22.37 40 = 29.83 50 = 37.28 60 = 44.74

Conversion Factors			
<b>Abbreviations</b>  ' = foot or feet " = inch or inches  lb = pound kg = kilogram  cm = centimeter m = meter  hp = horsepower kW = kilowatt hz = hertz	<b>Distance and Length</b>  centimeter x 0.394 = inches centimeter x 0.03281 = feet meter x 3.281 = feet  inches x 2.540 = centimeters feet x 30.48 = centimeters feet x 0.3049 = meters	<b>Weight and Mass</b>  pounds x 0.454 = kilogram  kilogram x 2.205 = pounds	<b>Power</b>  horsepower x 0.746 = kilowatts  kilowatts x 1.34 = horsepower