

# Overfill Prevention Valve

## The Guardian A1100

### Materials Description

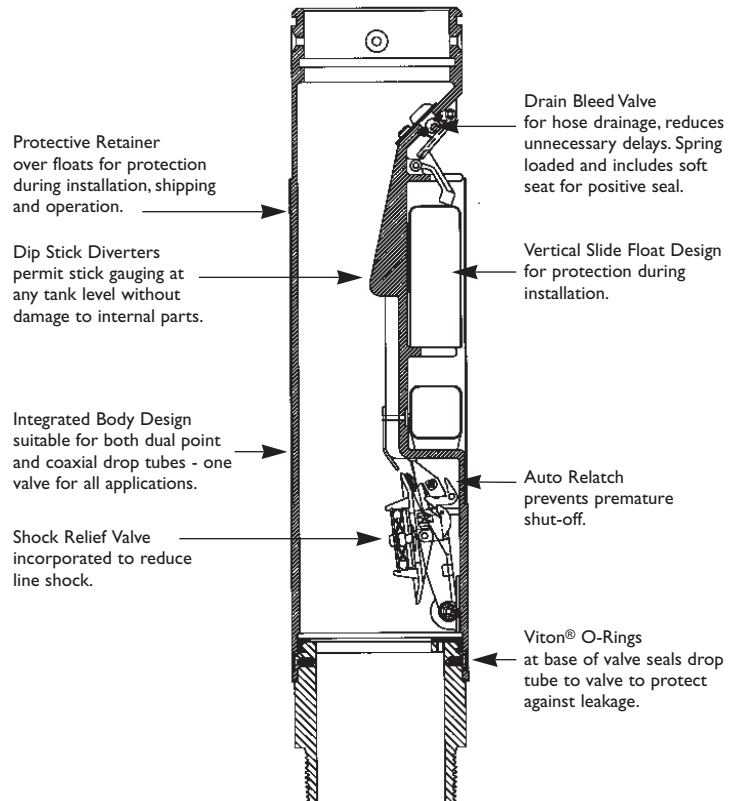
Body:	Aluminum
Floats:	HDPE
Seals:	Viton®

### Specifications

Weight:	4.3 lbs.
Diameter:	3.76"
Length:	18.0"

### Approvals

CARB  
 ULC  
 City of New York  
 City of San Diego



The Emco Wheaton A1100 is a two stage overfill prevention valve for use in both dual point and coaxial drop tubes. The A1100 is easily installed in a new or existing drop tube assembly for economical compliance with EPA regulations.

Unlike competitive items, the A1100 features an internal float design that eliminates any chance of the floats getting caught on tank walls or the riser pipe. This design also prevents float damage during installation.

Stick gauging is never a problem due to the Emco Wheaton designed stick diverter and automatic spring loaded poppet that retracts from the flow path when not in operation.

The drain bleed valve located at the top of the Guardian reduces hose drain time, helping to eliminate unnecessary delivery delays.

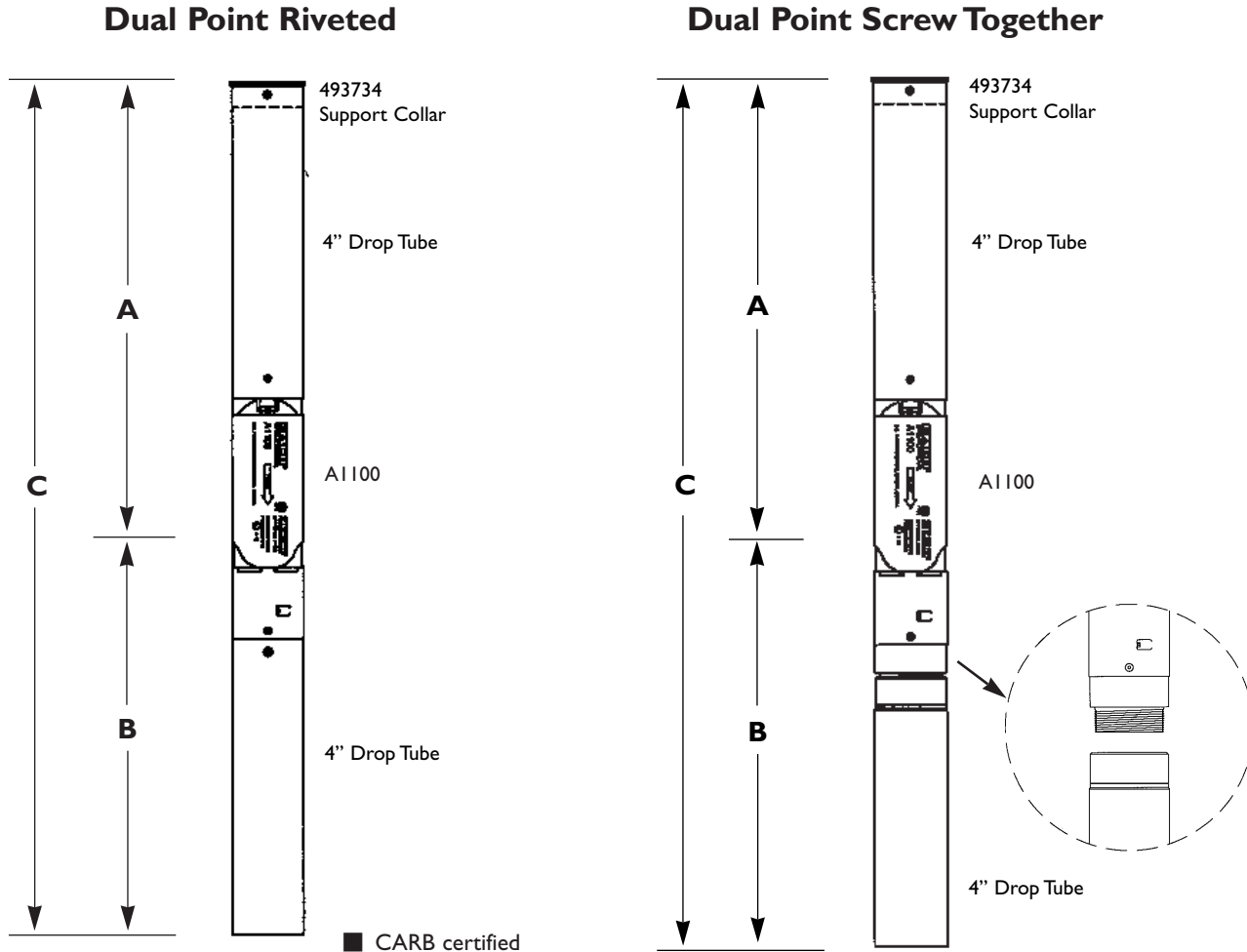
Viton® seals are used throughout the A1100.

The A1100 is compatible with all standard fuels. Special variants are available for most bulk chemical applications.

Viton® is a registered trademark of Dupont Dow Elastomers.

# Overfill Prevention Valve

## A1100 Guardian Overfill Prevention Valve Systems Stage I Vapor Recovery



OVERFILL PREVENTION  
SPILL CONTAINMENT

Model No.	Description	Upper Length A	Lower Length B	Overall Length C	Maximum Burial Depth	Nominal Tank Diameter	Weight
A1100-010	Valve Only	N/A	N/A	N/A	N/A	N/A	4.3 lbs.
A1100-055	Dual Point	77.1"	88.6"	165.8"	72.1"	96"	19.2 lbs.
A1100-056	Dual Point	89.1"	100.6"	189.8"	81.3"	120"	21.4 lbs.
A1100-057	Dual Point	89.1"	126.6"	215.8"	78.7"	144"	24.8 lbs.
A1100-058	Dual Point	127.1"	126.6"	253.8"	116.7"	144"	28.1 lbs.
A1100-055S	Dual Pt Screw Together	77.1"	91.8"	168.9"	72.1"	96"	21.5 lbs.
A1100-056S	Dual Pt Screw Together	89.1"	103.8"	192.9"	81.3"	120"	23.7 lbs.
A1100-057S	Dual Pt Screw Together	89.1"	129.8"	218.9"	78.7"	144"	27.1 lbs.
A1100-058S	Dual Pt Screw Together	127.1"	129.8"	256.9"	116.7"	144"	30.4 lbs.

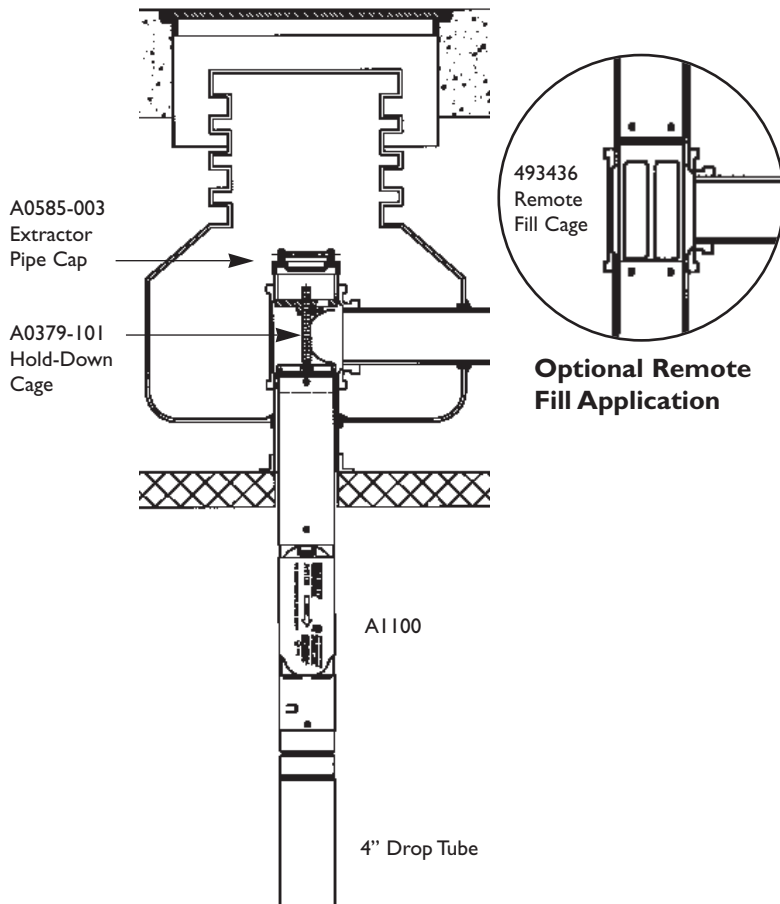
**Custom lengths available:** Please contact our customer service department.

Lengths A and B are measured from the shut-off point (flapper). Maximum burial depth assumes 95% shut-off and 6" clearance between top of drop tube and inside bottom of containment manhole lid.

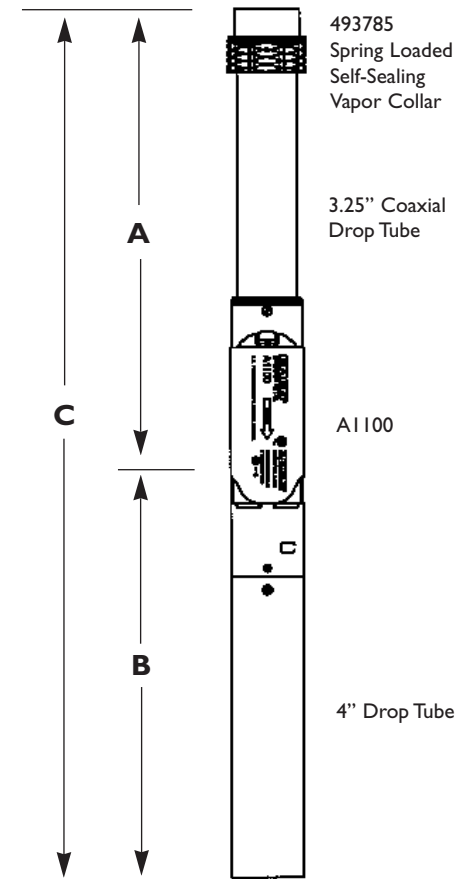
# Overfill Prevention Valve

## AI100 Guardian Overfill Prevention Valve Systems

### Conventional Screw Together with Hold-Down Cage Remote Fill Application



### Coaxial Stage I Vapor Recovery Self-Sealing



Model No.	Description	Upper Length A	Lower Length B	Overall Length C	Maximum Burial Depth	Nominal Tank Diameter	Weight
AI100-010	Valve Only	N/A	N/A	N/A	N/A	N/A	4.3 lbs.
AI100-054SC	Dual Pt Screw Together w/Cage	54.1"	109.8"	163.9"	N/A	N/A	26.0 lbs.
AI100-065	Coaxial	72.7"	88.6"	161.3"	67.6"	96"	20.4 lbs.
AI100-066	Coaxial	72.7"	100.6"	173.3"	63.3"	120"	22.8 lbs.
AI100-067	Coaxial	72.7"	126.6"	199.3"	60.8"	144"	25.3 lbs.
AI100-085	Coaxial Self Sealing	72.9"	88.6"	161.5"	67.6"	96"	20.9 lbs.
AI100-086	Coaxial Self Sealing	72.9"	100.6"	173.5"	63.3"	120"	23.3 lbs.
AI100-087	Coaxial Self Sealing	72.9"	126.6"	199.5"	60.8"	144"	25.8 lbs.

**Custom lengths available:** Please contact our customer service department.

Lengths A and B are measured from the shut-off point (flapper). Maximum burial depth assumes 95% shut-off and 6" clearance between top of drop tube and inside bottom of containment manhole lid.

# Drop Tubes



## A0020 Drop Tube

The Emco Wheaton A0020 Drop Tube is designed for use in both conventional non-vapor recovery and dual point vapor recovery systems. It is available in 3" and 4" diameters in a variety of lengths.

Model No.	Size	I.D.	O.D.	Length	Weight
A0020-004	4"	3.815"	3.915"	12'	12.0 lbs.
A0020-005	4"	3.815"	3.915"	15'	14.0 lbs.
A0020-007	4"	3.815"	3.915"	17'	15.3 lbs.
A0020-008	4"	3.815"	3.915"	14'	13.3 lbs.

**Adapter:** A0030-014, A0030-024

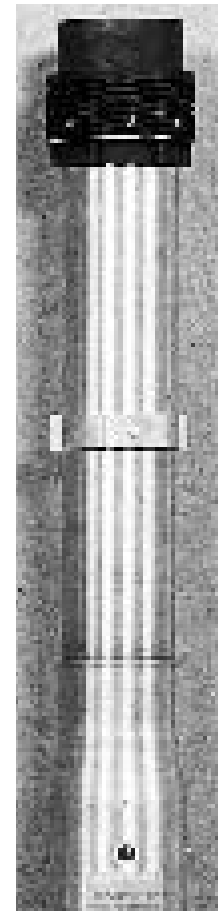
**Cap:** A0097-005

**Optional Items:**

Riser Collar Kit - 493391

Collar Gasket - 561683

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## A0088 Coaxial Drop Tube (Self-Sealing)

Emco Wheaton's exclusive A0088 Drop Tube is used in coaxial fill systems to provide a self-sealing vapor line. The spring-loaded assembly secures the tube against the adapter during normal storage. When the coaxial elbow is connected, the elbow pushes the tube down from the adapter to create a path for vapor return. Vapor recovery efficiency is rated in excess of 95%.

Model No.	Size	I.D.	O.D.	Length	Weight	Replaces
A0088-101	4"	3.815"	3.915"	12'	12.0 lbs.	A0070-101
A0088-116	4"	3.815"	3.915"	16'	16.0 lbs.	A0070-116
A0088-119	4"	3.815"	3.915"	14'	14.0 lbs.	A0070-127

**Adapter:** A0089-001

**Cap:** A0097-005

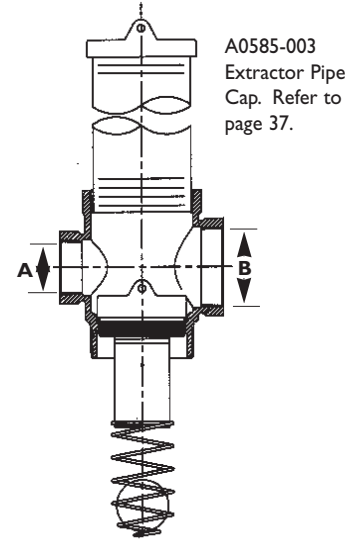
**Optional Item:**

Self-Sealing Coax Collar Kit - 493197

# Extractor Fittings

## A0079 Float Valve Extractor

The Emco Wheaton A0079 Extractor Assembly consists of a cast iron extractor body and an internal "bar style" cage. This cage holds any length of A0075 Ball Float (sold separately). The A0079 may be ordered with a variety of port combinations to accommodate tank venting and Stage II vapor recovery piping. The A0079 is also available without an extractor cage for applications that do not require the use of a ball float and is an economical alternative for direct manifold systems.



<b>Cross Style</b> Model No.	Top/Bottom Thread	Outlet Threads A & B	Cage Size	Weight
<b>Extractor with Cage</b>				
A0079-019	4"	3" x 2"	2"	10.5 lbs.
A0079-020	4"	2" x 2"	2"	9.6 lbs.
A0079-025	4"	3" x 3"	2"	10.9 lbs.
A0079-027	4" BSP	3" x 2" BSP	2"	10.5 lbs.
A0079-028	4" BSP	2" x 2" BSP	2"	9.6 lbs.
<b>Extractor Body only</b>				
A0079-043	4" BSP	2" x 2" BSP	N/A	8.5 lbs.
A0079-044	4" BSP	3" x 2" BSP	N/A	9.4 lbs.
A0079-050	4"	2" x 2"	N/A	8.5 lbs.
A0079-051	4"	3" x 2"	N/A	9.4 lbs.
A0079-052	4"	3" x 3"	N/A	9.8 lbs.

<b>Tee Style</b> Model No.	Top/Bottom Thread	Outlet Threads B	Cage Size	Weight
<b>Extractor with Cage</b>				
A0079-119	4"	3"	2"	9.8 lbs.
A0079-120	4"	2"	2"	8.5 lbs.
A0079-122	4" BSP	2" BSP	2"	8.5 lbs.
A0079-123	4" BSP	3" BSP	2"	9.8 lbs.
<b>Extractor Body only</b>				
A0079-150	4"	2"	N/A	7.4 lbs.
A0079-152	4"	3"	N/A	8.7 lbs.

**Optional Items:** Extractor wrench - A0560-003

## A0179 Extractor Cages

The Emco Wheaton A0179 Extractor Cages are available in two sizes, 2" and 3". They are compatible with the Emco Wheaton A0079 Extractor Valve and A0075 Ball Float.

Model No.	Description	Female Thread	Weight
A0179-002	2" Extractor Cage	2"	.50 lbs.
A0179-003	3" Extractor Cage	3"	.50 lbs.

## A0279 Extractor Cage Test Plug

The Emco Wheaton A0279 Extractor Cage Test Plug is designed for performing pressure decay tests on your underground piping and storage tank systems.

Model No.	Description	Weight
A0279-001	Test Plug	.50 lbs.



# Ball Floats

## A0075 Ball Float

The Emco Wheaton A0075 Ball Float Valves are designed to restrict product flow in the event of a UST overfill. The A0075 meets EPA requirements for a slow down device. Units incorporate a stainless steel ball and aluminum tube. Steel tubes and custom lengths are available upon request.

Model No.	Tube Diameter	Tube Length	Overall Length	Bleed Hole	Weight
A0075-001	2"	4.75"	9.52"	.125"	1.13 lbs.
A0075-002	2"	9.62"	14.39"	.125"	1.70 lbs.
A0075-004	2"	8.00"	12.77"	.125"	1.50 lbs.
A0075-006	2"	6.87"	11.64"	.062"	1.37 lbs.
A0075-010	2"	18.00"	22.77"	.125"	2.75 lbs.
A0075-013	2"	13.75"	18.52"	.125"	2.25 lbs.
A0075-015	2"	15.75"	20.75"	.125"	2.51 lbs.
A0075-017	2"	17.75"	22.52"	.125"	2.77 lbs.
A0075-018	2"	18.75"	23.52"	.125"	2.89 lbs.
A0075-019	2"	19.75"	24.52"	.125"	3.00 lbs.
A0075-022	2"	22.75"	27.52"	.125"	3.42 lbs.
A0075-044	2"	4.00"	8.77"	None	1.00 lbs.
A0075-066	2"	6.00"	10.77"	None	1.25 lbs.
A0075-112	2" BSP	12.00"	16.77"	.125"	2.00 lbs.



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See page 46 for cross references.

## A0078 Ball Float with Extractor Cage

The Emco Wheaton A0078 combination Ball Float and Extractor Valve Cage meet the EPA requirements for a 30 minute warning device. Units incorporate a stainless steel ball and aluminum tube. Steel tubes and custom lengths are available upon request.

Model No.	Tube Diameter	Tube Length	Overall Length	Bleed Hole	Weight
A0078-008	2"	8.75"	13.52"	.0625"	2.87 lbs.
A0078-010	2"	10.75"	15.52"	.0625"	3.13 lbs.
A0078-012	2"	12.75"	17.52"	.0625"	3.39 lbs.
A0078-013	2"	13.75"	18.52"	.0625"	3.52 lbs.
A0078-015	2"	15.75"	20.52"	.0625"	3.78 lbs.
A0078-018	2"	18.75"	23.52"	.0625"	4.17 lbs.
A0078-305	3"	5.13"	9.27"	.0625"	3.03 lbs.
A0078-308	3"	8.13"	12.27"	.0625"	3.80 lbs.
A0078-309	3"	9.75"	14.52"	.125"	4.28 lbs.
A0078-310	3"	12.75"	17.52"	.125"	5.04 lbs.
A0078-311	3"	11.13"	15.27"	.0625"	4.56 lbs.
A0078-312	3"	12.13"	16.27"	.0625"	4.82 lbs.
A0078-313	3"	13.75"	18.52"	.125"	5.30 lbs.
A0078-314	3"	14.13"	18.27"	.0625"	5.33 lbs.
A0078-315	3"	15.75"	20.52"	.125"	5.81 lbs.
A0078-316	3"	16.13"	20.27"	.0625"	5.84 lbs.
A0078-317	3"	17.75"	22.52"	.125"	6.32 lbs.
A0078-318	3"	18.13"	22.27"	.0625"	6.36 lbs.
A0078-319	3"	19.75"	24.52"	.125"	6.83 lbs.
A0078-321	3"	21.13"	25.27"	.0625"	7.12 lbs.



See page 46 for cross references.

# Standard Manholes

## A0717 Round Manholes

The Emco Wheaton A0717 multi-purpose manhole provides access to all types of underground storage or containment vessels and meets AASHTO H20 wheel loading.

- Open throat design for easy access
- Cast-in handle (18")
- Recessed handle (24" - 42")
- Euro or spring loaded recessed handle available on composite lids
- Custom skirt lengths are available.



Size	Model No.	Description	Skirt Type	Skirt I.D.	Overall Height	Lid Thickness	Lid Weight	Total Weight
8"	A0717-008	Manhole Ductile Iron Lid 8"	Poly	8.0"	12.0"	N/A	10 lbs.	16 lbs.
	A0717-108	Manhole Ductile Iron Lid 8"	Steel	8.0"	12.0"	N/A	10 lbs.	23 lbs.
12"	A0717-022	Manhole Ductile Iron Lid 12"	Poly	12.3"	12.0"	N/A	14 lbs.	24 lbs.
	A0717-122	Manhole Ductile Iron Lid 12"	Steel	12.3"	12.0"	N/A	14 lbs.	34 lbs.
18"	A0717-018	Manhole Ductile Iron Lid 18"	Steel	18.0"	10.0"	N/A	22 lbs.	45 lbs.
	A0717-118	Manhole Ductile Iron Lid 18"	Poly	18.0"	18.0"	N/A	22 lbs.	43 lbs.
	A0717-218	Manhole Steel Lid BD WT 18"	Steel	18.0"	10.0"	N/A	22 lbs.	45 lbs.
24"	A0717-024	Manhole Steel Lid 24"	Steel	24.0"	10.0"	3/8"	51 lbs.	67 lbs.
	A0717-124	Manhole Steel Lid BD WT 24"	Steel	24.0"	10.0"	3/8"	51 lbs.	67 lbs.
30"	A0717-030	Manhole Steel Lid 30"	Steel	28.1"	10.0"	3/8"	103 lbs.	132 lbs.
36"	A0717-036	Manhole Steel Lid 36"	Steel	34.3"	10.0"	1/2"	150 lbs.	193 lbs.
	A0717-136	Manhole 3/8" Steel Lid 36"	Steel	34.3"	10.0"	3/8"	120 lbs.	163 lbs.
38"	A0717-038	Manhole Steel Lid 38"	Steel	38.0"	10.0"	1/2"	184 lbs.	235 lbs.
	A0717-138	Manhole Composite Lid 38"	Steel	38.0"	10.0"	N/A	60 lbs.	101 lbs.
42"	A0717-042	Manhole Steel Lid 42"	Steel	42.3"	10.0"	5/8"	250 lbs.	310 lbs.
	A0717-142	Manhole Composite Lid 42"	Steel	42.6"	10.0"	N/A	90 lbs.	132 lbs.

## A0717 Square Manholes

The Emco Wheaton A0717 square manhole provides ease of access to a variety of tank hardware and monitoring equipment and carries an H20 load rating.

- Welded steel rim
- Stainless steel bolts and Buna N seal on watertight version



Model No.	Description	Skirt Type	Overall Height	Lid Thickness	Lid Weight	Total Weight
A0717-724	Manhole Steel Lid Square 24"	Steel	10.00"	3/8"	65 lbs.	86 lbs.
A0717-824	Manhole Steel Lid Square Watertight 24"	Steel	10.00"	3/8"	65 lbs.	86 lbs.

# Monitoring Well Manholes

## A0721 Monitoring Well Manholes

All Emco Wheaton Monitoring Well Manholes incorporate cast-in identification triangles in accordance with API recommendations and meet AASHTO H20 wheel loading.

- Painted ductile iron lid and rim with black triangle
- Optional galvanized or polyethylene skirt
- Water tight lid with buna seal
- Stainless steel bolts with retaining clips
- Alignment tabs for ease of replacement (8" and 12")
- Built-in handle (18")



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Size	Model No.	Description	Skirt Type	Overall Height	Skirt I.D.	Weight
8	A0721-008	Monitoring Well Manhole 8"	Poly	12.0"	8.0"	11.1 lbs.
	A0721-108	Monitoring Well Manhole 8"	Steel	12.0"	8.0"	15.2 lbs.
	A0722-008	Monitoring Well Manhole 8" with locking cap & collar	Poly	12.0"	8.0"	12.1 lbs.
12	A0721-001	Monitoring Well Manhole 12"	Poly	12.0"	12.3"	21.5 lbs.
	A0721-101	Monitoring Well Manhole 12"	Steel	12.0"	12.3"	27.0 lbs.
	A0721-119	Monitoring Well Manhole 12"	Steel	19.5"	12.3"	31.6 lbs.
	A0722-001	Monitoring Well Manhole 12" with locking cap & collar	Poly	12.0"	12.3"	22.5 lbs.
18	A0721-018	Monitoring Well Manhole 18"	Steel	10.3"	18.0"	44.5 lbs.
	A0721-118	Monitoring Well Manhole 18"	Poly	18.3"	18.0"	43.0 lbs.

### Replacement Parts

563980	Lid Ductile 12"	567100	Bolt 12", 18"	567150	Lid Ductile 8"
566334	O-ring 8", 12", 18" bolts	567148	Bolt 8"	567712	Lid Ductile 18"

## A0720 Locking Cap & Collar

The Emco Wheaton A0720 locking cap and collar is used to limit access and seal monitoring wells and can be threaded or solvent welded onto a 4" PVC monitoring well pipe. It displays the monitoring well designation and includes a padlock. The cap and collar are both made of durable ABS plastic.

Model No.	Description	Pipe Size	Weight
A0720-001	Locking Cap and Collar	4"	1.4 lbs.

### Replacement Parts

564029	Lock/Key Set A0720
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## A0724 Well Screen Slotted PVC

The Emco Wheaton A0724 Well Screen Slotted PVC is schedule 40 PVC tubing with .020 width slots and permanently attached end cap.

Model No.	Description	Size	Weight
A0724-413	Well Screen Slotted PVC	4" x 13'	27 lbs.



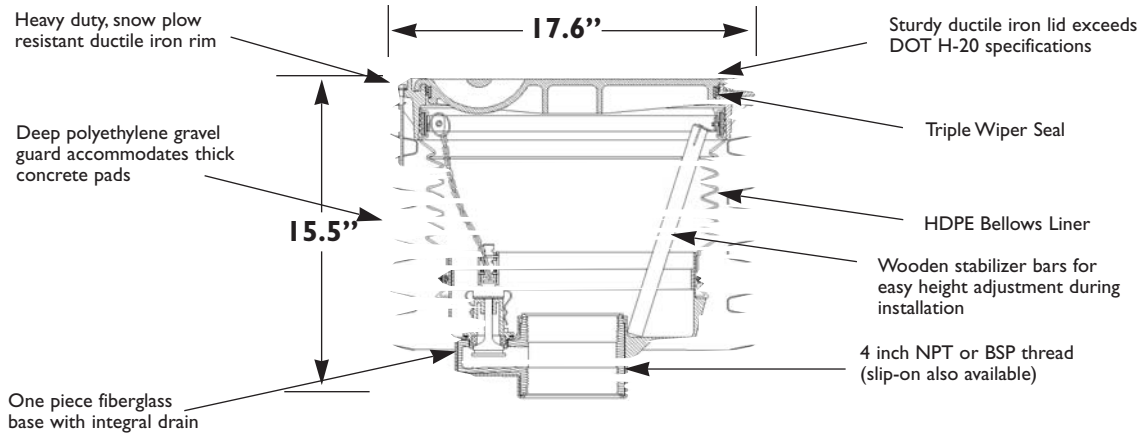
# Containment Manholes

## AI004 Super Heavy Duty Containment Manhole Snow Plow Proof/Water Resistant

The Emco Wheaton AI004 Containment Manhole features drainage channels in the rim to keep surface water out. This heavy-duty ductile iron rim is built to handle the abuse of snow plows. The AI004 threads directly on a 4" riser pipe and includes factory installed preset expansion bars to ease installation. The polyethylene bellows allow for tank movement or concrete pad settling. Drain valve opens downward maximizing sealing during tank testing. All lids meet AASHTO H20 wheel loading.

■ CARB certified  
ULC listed

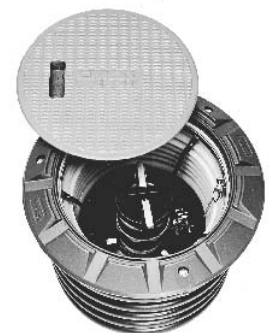
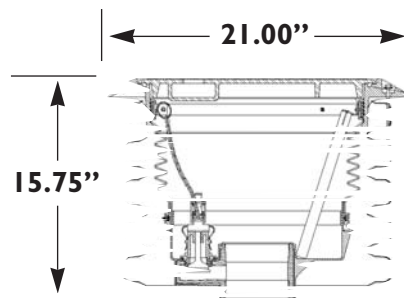
### AI004 Slimline



Model No.	Description	Rim Diameter	Lid Weight	Total Weight	Drain Type
A1004-010	Slimline, 4", 5 gallons	17.6"	20 lbs.	56 lbs.	Pull/Push
A1004-011	Slimline, 4", 5 gallons	17.6"	20 lbs.	56 lbs.	None
A1004-012	Slimline, 4" BSP, 5 gallons	17.6"	20 lbs.	56 lbs.	Pull/Push
A1004-013	Slimline, 4" BSP, 5 gallons	17.6"	20 lbs.	56 lbs.	None
A1004-107	Slimline, 4" Retrofit (Slip-On), 5 gallons	17.6"	20 lbs.	56 lbs.	None

See Page 32 for replacement parts

### AI004 Fatboy



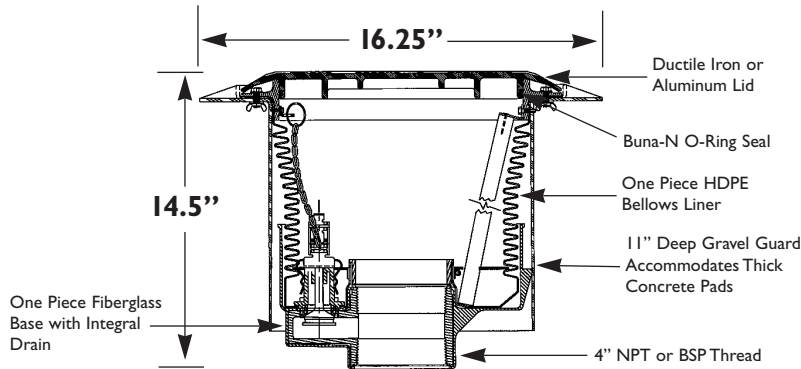
Model No.	Description	Rim Diameter	Lid Weight	Total Weight	Drain Type
A1004-003	Fatboy, 4", 5 gallons	21.0"	22 lbs.	82 lbs.	Pull/Push
A1004-004	Fatboy, 4", 5 gallons	21.0"	22 lbs.	82 lbs.	None
A1004-005	Fatboy, 4" BSP, 5 gallons	21.0"	22 lbs.	82 lbs.	Pull/Push
A1004-106	Fatboy, 4" Retrofit (Slip-On), 5 gallons	21.0"	22 lbs.	82 lbs.	None

See Page 32 for replacement parts

# Containment Manholes

## A1003 Thread-On Manhole

The Emco Wheaton A1003 Spill Containment Manhole meets EPA spill protection requirements. The thread on versions feature an internal drain assembly. The retrofit styles install easily on new or existing 3" or 4" tank riser pipes. Aluminum and ductile iron lids incorporate O-ring seals and meet AASHTO H20 wheel loading.



■ CARB certified ULC listed.



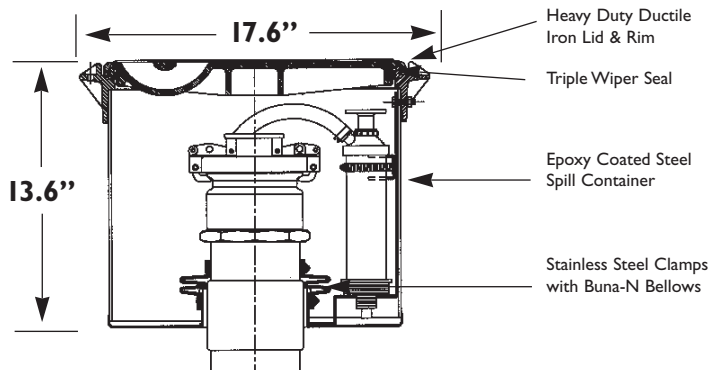
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Model No.	Description	Lid Type	Lid Weight	Total Drain Type	Weight
A1003-008	4"; 5 gallons	Aluminum	7.3 lbs.	Pull/Push	21.55 lbs.
A1003-017	4"; 5 gallons	Ductile Iron	21.0 lbs.	Pull/Push	33.80 lbs.
A1003-031	4" BSP; 5 gallons	Aluminum	7.3 lbs.	Pull/Push	21.55 lbs.

See Page 32 for replacement parts

## A1005 Slip-On Spill Containment

The Emco Wheaton A1005 Slip-on Style Containment Manhole features a stainless steel or epoxy coated steel containment body. The ductile iron lid and rim incorporate the exclusive triple wiper seal and are capable of supporting AASHTO H20 wheel loading. The Buna-N attachment bellows is UL-157 approved.



Model No.	Description	Lid Weight	Drain Type	Total Weight
A1005-001	4", 5 gallons	20.0 lbs.	None	60 lbs.
A1005-002	3", 5 gallons	20.0 lbs.	None	60 lbs.

See Page 32 for replacement parts

# Containment Manholes

## Spill Containment Accessories

### A0333 Hand Pump

The Emco Wheaton A0333 Hand Pump is a thermoplastic self-venting pump. The A0333-002 is acceptable for use with A1003, A1004 and A1005 Containment Manholes.

A0333-002 - Hand Pump Only

A0333-003 - Hand Pump with Mounting Bracket for A1005



## Replacement Parts

### A1003

Part No.	Description
493053	Pull Drain Assembly, Aluminum Bolt-down
493123	Lid & O-ring Aluminum
493508K	Pull/Push Drain Assembly Kit
493227	Anti-Theft Kit
493805	Lid and O-ring Ductile Iron
493820	Drain Wrench
562194	O-ring 493123 Lid



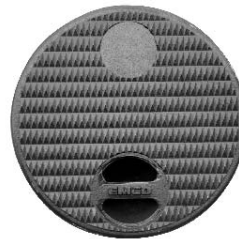
493508K Pull/Push Drain Assembly



493123 - Lid & O-ring Aluminum

### A1004

Part No.	Description
493508K	Pull/Push Drain Assembly
493806	Lid and Seal, Slimline
493820	Drain Wrench
493841	Lid, Rim and Seal, Slimline
565271	Rim Ductile, Fatboy
566332	Lid, Fatboy
567166	Seal 493806 Lid



493806 - Lid and Seal



566332 - Lid, Fatboy

### A1005

Part No.	Description
493806	Lid and Seal
493855	Bellows Assembly 4"
493856	Bellows Assembly 3"
567166	Seal 493806 Lid



493855 - Bellows Assembly