MORRISON BROS. CO.

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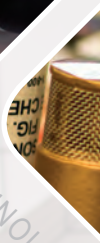
SERVICE • QUALITY PRODUCTS • INNOVATION • CUSTOM ASSEMBLY • ADVANCED TECHNOLOGY

PRODUCT CATALOG



Spanning three centuries, Morrison Bros. Co. is among North America's oldest manufacturing firms west of the Mississippi River. Established in 1855 and among the first 20th century producers of equipment for the oil industry, the Morrison trademark for quality products and service became well established. Now, early in the 21st century, our mission is to strengthen this tradition for the exclusive benefit of our distributors and those we serve in the energy business.

PRODUCT LINE... Morrison products are used primarily in the marketing segment of the petroleum industry, "downstream" from refining operations. Petroleum marketing systems include bulk terminal storage and handling, transportation, motor fueling, and related infrastructure which bring energy to the consumer. Morrison components and hardware are system-integrated and engineered for optimizing operation and providing conformance with fire safety and environmental requirements.

WARRANTY... All Morrison products are thoroughly tested before shipment and only material found to be defective in manufacture will be replaced or repaired at our discretion. Claims must be made within one year from the date of invoice. Morrison will not allow claims for labor or consequential damage resulting from purchase, installation, or misapplication of the product.

PRODUCT SAFETY... Morrison products are designed and manufactured to engineering standards which include safety protocols. Many Morrison products and system components are designed and built to meet certain life safety standards and codes. All of our products are designed and built to function as intended within a range of proper use. Sufficient knowledge, experience, and application thereof by those who specify, install, and operate this equipment is required to ensure proper use and performance. Improper use of Morrison equipment can lead to property damage, injury, and death.

MANUFACTURING... Morrison has a full range of manufacturing capabilities. From casting metal to finished product or assembly, a large percentage of our product line is completely manufactured in our facilities. This approach allows for better control of quality, schedule, and process knowledge resulting in greater long term value for Morrison distributors, suppliers, and employees.

SERVICE... The hallmark for Morrison service lies in our employees' relentless pursuit of customer satisfaction. From Sales and Customer Service to Engineering and Production, putting the customer first involves every level of the organization. Maintaining long term relationships through consistent and fair treatment will always be a top priority for the company.

NOTIFICATION REQUEST

Upon discovery of any possible safety risk involving Morrison product(s) and/or associated systems, please contact Morrison Bros. Co. immediately.

800.553.4840

This will enable the company to assist in proper evaluation and corrective action. In an emergency situation, seek safety and call 911.

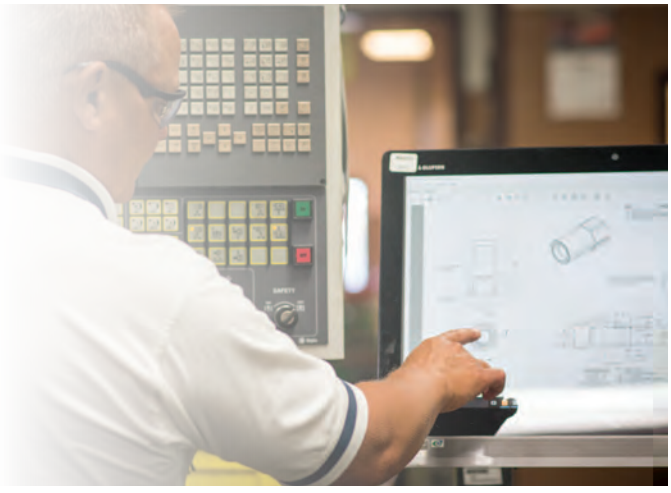


Table Of Contents

Valves & Fittings 1

Overfill Prevention Valves 1-8
Stick Port Adaptor 5
Solenoid Valves 9-11
Anti-Siphon Valves 12
Emergency Valves 13-16
Offsets 14
Ball Valves 17
Oil & Molasses Gate Valves 18
Barrel Faucets 18
Farm Tank Emergency Valves 19
Fusible Globe/Gate Valve 20
Oil Tank Filter Valve 20
Quick Closing Barrel Faucet 20
Check Valves 21-26
By-Pass Valve 24
Gate Valves 26-28
Extractors 28
Extractor Pipe Cap 29
Expansion Relief Valves 29-31
Suction Pipe Strainer 31
Foot Valves 31-32
Vertical Check Valves 32
Single Poppet Foot Valve with Expansion Relief 33
Frost Proof Drain Valves 33
Bushings & Pipe Plugs 34-35
150# Raised Face Companion Flange 36

Vents 37

Double Outlet Vents 37
Updraft Vents 38
Pressure Vacuum Vents 39-43
Vent Alarm 43
Flame Arrester/Open Vent 44
Flame Arrester/Pressure Vacuum Vent 44
End-of-Line, Open Air Deflagration Flame Arrester 45
Relief Cap Arrester 45
Emergency Vents 46-47
Flange Adaptor 48
Companion Flange 48
Pipe Nipple 48
Barge & Tanker Vents 49

Gauges & Alarms 51

Clock Gauges 51-53
Floating Suction Indicator 53
Clock Gauges & Alarms 54-57
Dual Point Clock Gauge 57
Liquid Level Gauge 57
Alarm Boxes 58
Alarm Box with Rotating Beacon 59
System Interface 60
Liquid Sensor 61

Adjustable Level Sensor....61
Alarm with Adjustable Sensor....62
Multi-Level Sensor....63-64
Oil/Water Sensor....65-66
Overfill & Interstitial Alarms....67
Electronic Tank Gauge....68-69
Electronic Tank Gauge Wireless Connectivity Accessories....70
Alarm and Sensor Accessories....71
Electronic Tank Gauge Cellular Gateway....72
Electronic Tank Gauge Outdoor Ethernet Switch Assemblies....72
Electronic Tank Gauge External I/O Expansion....73
Mechanical Tank Top Gauge....73
Mechanical Vertical Tank Gauges....74
Oil Gauging Tape....74

Spill Containers....75

Spill Containers....75-76
Remote Spill Containers....76-77
Remote Fill Boxes....78-81

Caps & Adaptors....83

Top Seal Adaptors....83
Top Seal Swivel Adaptor....83
Side Seal Adaptors....84
Top Seal Coaxial Adaptors....84
Top Seal Fill Caps....85
Side Seal Cap....85
Tank Monitor Caps & Kits....86
Hinged Style Fill Caps....87
Gauge Stick Port Cap & Adaptor....87
Threaded Style Gauge Stick Port Cap & Adaptor....88
Threaded Style Fill Cap & Adaptor....88
Fill Cap & Vent Combination....89
Threaded Style Fill Cap & Adaptor....89
Spin Secure Locking Fill Cap & Adaptor....90
Spin-Secure Vented Locking Fill Cap....90
Fill Pipe Extensions....91
Fill Hatch....91
Probe Caps....92
Vapor Recovery Adaptors....93
Vapor Recovery Swivel Adaptor....93
Vapor Recovery Cap....94
Fill Adaptor with Screen....94
Dry Disconnect Adaptors....94-95
Dry Disconnect Couplers....95
Cam-and-Groove-Fittings....96
Dust Caps....97
90° Check Valve Adaptor....97
Flange Adaptors & Couplers....98
Fill Tube....98
Drop Tubes....99
Diffusers....100

Table Of Contents

Nozzles & Swivels 101

Farm/Utility Nozzles 101
Manual Nozzles 101-105
Aircraft Refueling Nozzle 102
Bulk Fueling Nozzles 106
Automatic Shut-Off Nozzles 107
Automatic Shut-Off Nozzle for DEF 107
Hose Nozzle Swivels 108
Hose Swivels 108-109
Inlet Check 109
Outlet Check 109
Safe-T-Break® 110
Break-A-Way 110
Nozzle Cone 110
Hose Retrievers 111-113
Hosebun 114
Hose Hangers 114

Line Strainers 115

Bottom Clean-Out Line Strainers 115-117
Top Clean-Out Line Strainers 118-119

Dispenser Pedestals & Manholes 121

Dispenser Pedestals 121-122
Lightweight Manholes 123-124
Manholes 125
Limited Access Manholes 125
Square Knock-Down Manhole 126
Square Manholes 126

Environmental Equipment 127

Test Well Manhole 127
Monitoring Well Manholes 127
Watertight Test Well Manhole 128
Aboveground Well Protector 128
Test Well Plug 129
Test Well Cap & Adaptors 129

Transportation Equipment 130

Tank Truck Diagram 130
Tank Truck Emergency Valves (Manually-Operated) 131
Tank Truck Emergency Valves (Air-Actuated) 132
Tank Truck Emergency Valve Operator 133
Tank Truck Air-Actuated Emergency Valve Operator 133
Threaded Emergency Valve 133
Water Drain Valve 134
Flanged Aluminum Gate Valve 134
Four-Way Reversing Valves 135
Inverted Barge Vent Check Valves 135
Tank Car Coupling 136

Specialty Items 137
Provers (Test Measure) 137
Measurement Canada Provers 137
Provers (Test Measure for DEF) 138
Water or Gasoline Indicating Paste 138
Cup Case Thermometer 139
Brass Hammers 139
Spacer Spool 139

Appendix 140
Product Compatibility 140-141
EVR Approved Products 142-143
C.A.R.B. Approved Products 144
UL 2583 Listed Products 144

Tank Diagrams 145

Table Of Contents

Figure	Page
076DI	30
076S	29
077	31
078DI	30
087	20
110	20
122 Series	108
128 Series	33
137	22
137B	22
153B	49
153BSS	49
155 Series	37
155FA	37
157	31
158A	23
158B	23
174	24
178 Series	88
178GSP	88
178XA Series	129
179 Series	87
180M	90
180MTL/TL	90
184 Series	34
184D	34
184Q	35
184S Series	35
189G	106
189S	106
200 Series	101
203	133
207DI	136
215 Series	18
218	102
222 Series	108
222DEF	109
227C	105
229B	109
229F	109
231A & 231AP Series	103
231AF	104
231APM	103
231AW	104
232	105
234DI Series	27
235 Series	27
235DI Series	26
235RF	134
237, 238, & 438 Series	28
244 Series	46-47
244A	48
244C	48
244N	48
246A	21
246ADI	21
246DRF	21
272 Series	16
275	98
284B	117
284S	117
285 Series	115
285FDI Series	116
286 Series	118
286FDI	119
300 Series	101
300ALM Series	102
305 Series	83
305C	85
305GSP	87
305SA	83
305XA	129
305XP Series	86
307	89
307P	92
318 Series	125
318L	123
318XA	127
323 Series	93
323C	94
323SA	93
331 Series	26
334 Series	31
334BP	32
335A	32
335B Series	32
346DI Series	13
346SS	13
351S	44
352	45
354	38
354T	38
372	134
379	89
405 Series	84
405C	85
418 Series	125
418L	123
418LC	124
418XA Series	127
419	99
424	126
434 & 434S Series	121
435 & 435TM Series	122
446	14
449CVR Series	137
449SD Series	138
449SS Series	137
464	74
467	139
474	19
490 Series	138
507	133
507AO	133
514	36
515 Series	77
515OEM	76
516 Series	75
517 Series	75
518 Series	76
519	128
524 Series	126
528	110
529 Series	25
530	25
534DI Series	27

Figure	Page
535 Series	27
535DI Series	26
539 Series	100
560 Series	28
571 Series	91
574	19
578	29
578P Series	92
587	94
602 Series	107
602DEF	107
603 Series	131
603AA Series	132
603ALC	131
605	84
607 Series	139
609	110
609DEF	110
610 Series	111
610 & 611 Series	114
610BUN	114
610X Series	112
610XB Series	113
625B & 625S Series	139
633 & 699F Series	18
635 Series	14
636 Series	15
646	25
678XA	129
680XA	128
691 Series	17
691BSS	17
710 Series	9
710SS Series	10
711 Series	11
711NC Series	11
715 Series	78-81
718	57
735DC Series	97
735LAT & 735LBT	98
73590CA	97
748A Series	42

Figure	Page
748ALT	43
749 Series	39
749T	40
779 & 780 Series	45
800 Series	96
818 Series	51
818C Series	52
818MET Series	53
818I	53
821	91
910	12
912 Series	12
918 Series	54
918S/918D/918Q	58
918C Series	55
918AC	60
918DP Series	57
918MET Series	56
918S/924S Series	62
918SB/DB/QB	59
918TCP Series	67
922	43
924 Series	61
924LS	61
925 Series	63
925---W Series	65
926	94
927 Series	95
928 Series	95
934	33
939	20
948A	41
958	24
1218	68-69
1218 Accessories	70-73
1518	73
1618	74
5885	40
9095AA (2" & 3")	1
9095AM	2
9095C	3
9095DS	4

Figure	Page
9095SA	5
9095SPA	5
9095SS	6
9095X	7
FMMASO & FMMATO Series	8
M Series	135
PMC Series	135
CARB Approved Products	144
EVR Approved Products	142-143
Product Compatibility	140-141
Tank Diagrams	145-153
Tank Truck Diagram	130
UL 2583 Listed Products	144

9095 Series Selection Guide

	Model Series #	Tank Opening			Tight Fill Connection		Dry Disconnect Connection	Remote Fill Connection	Drop Tube Size			ULC Listed	CARB EVR Approved	Low Profile Tank	Fuel Compatibility					GPM Flow @ 10 PSI Pressure Drop
		2"	4"	6"	2"	3"	2"	2"	1½"	2"	3"				Aviation	E-85	DEF	B100	Methanol	
	9095AA		✓		✓	✓	✓	✓		✓		✓	✓* *Some models		✓	✓		✓		230
	9095AA			✓		✓		✓			✓	✓	✓* *Some models		✓	✓		✓		550
	9095C		✓		✓		✓	✓		✓			✓	✓		✓		✓		175
	9095C-A		✓		✓		✓	✓		✓			✓	✓	✓	✓		✓		175
	9095AM		✓					✓	✓† † Use threaded pipe			✓			✓	✓		✓	✓	230
	9095AM			✓				✓			✓† † Use threaded pipe	✓			✓	✓		✓	✓	550
	9095DS	✓			✓				✓† † Use threaded pipe					✓						26
	9095X		✓		✓			✓	✓ The 1100 and 6100 models are NOT drop tube compatible.			✓	✓* *Some models	✓	✓ Only the 2800 and 6800 models	✓		✓		230
	9095SA	✓			✓			✓	Models are NOT drop tube compatible.			✓		✓				✓		110
	9095SS	✓			✓				Models are NOT drop tube compatible.					✓			✓	✓		164

9095AA
Overfill Prevention Valve

The 9095AA series overfill prevention valve is designed to prevent the overfilling of storage tanks by providing a positive shut-off during a pressurized fill. The valve is installed at the fill port of a storage tank and can be set to the desired shut-off level by using standard length pipe nipples.

Features
- Installs directly onto a 4" or a 6" riser or top-mounted spill container
- Minimum shut-off height is 2" from the tank top
- 2.35" of float height adjustment
- Drop tube adaptor accepts 2" or 3" drop fill tubes (Morrison 419)
- Full flow to shut-off point
- Cushioned shut-off eliminates line shock
- Integral pressure relief feature allows for safe uncoupling at the completion of the fill operation
- Integral anti-siphon function

Operational Criteria
- Minimum 5 PSI flow requirements
- A tight fill connection is required
- The estimated flow rate for the 2" model is 230 GPM at 10 PSI pressure drop
- The estimated flow rate for the 3" model is 560 GPM at 10 PSI pressure drop

An optional manual test mechanism allows a technician to pull on the test line at any time during the filling process to actuate the float, stop the fill, and verify the valve is working properly.

Construction Details
Male quick disconnect... Passivated aluminum
Female adaptor... Ductile iron, powder coated
Shaft, linkage, and hardware... Stainless steel
Lower pipe nipple... E-coated steel
Drop tube adaptor... Passivated aluminum
Body... Passivated aluminum
Plunger and dashpot... Anodized aluminum
Float... Nitrophyl®-M

Certifications & Listings
ULC-S661-10 Listed; NFPA 30, 30A; UFC; IFC; PEI/RP 200, 600; Florida DEP EQ-851; CARB EVR Executive Order VR-402

NOTE
For use on clean liquids only.

Size	Maximum Pressure	Maximum Viscosity
2"	100 PSI	300 Centistokes
3"	100 PSI	300 Centistokes

	Item Number	Valve Size	Tank Opening	Inlet Size & Type	Weight (lbs)
Top Fill	9095AA0200 AV	2"	4"	Valve with 2" male quick disconnect	14.10
	9095AA4000 AV	2"	4"	Valve with 3" male quick disconnect	16.80
	9095AA5200AVEVR EVR	2"	4"	Valve with 2" male dry disconnect; EVR approved	21.0
	9095AA0300 AV	3"	6"	Valve with 3" male quick disconnect	21.0
Remote Fill	9095AA3200AVEVR EVR	2"	4"	Valve with 2" female threaded adaptor; EVR approved	14.10
	9095AA4200AVEVR EVR	2"	4"	Valve with 3" female threaded adaptor; EVR approved	21.25
	9095AA3300AVEVR EVR	3"	6"	Valve with 3" female threaded adaptor; EVR approved	30.0
Valve Only	9095AA9200AVEVR EVR	2"	4"	Valve with 2" female threads (less top adaptor); EVR approved	14.10
	9095AA9300AVEVR EVR	3"	6"	Valve with 3" female threads (less top adaptor); EVR approved	14.40
	Kits packaged in one box				
Kits	9095A-KIT91 AV	2"		Includes 9095AA0200 AV, 2" x 6' 419 drop tube, and 305C cap	0.50
	9095ATKIT91 AV	2"		Same as 9095A-KIT91 AV, with test mechanism	0.50
	9095ATM0100 AM	2" & 3"		Mechanical test mechanism kit (9095A & 909AA), valve top not included	0.50
	9095ATM0200 AK	2"		Mechanical test mechanism, includes 9095AA0200 top, with 2" male quick disconnect x 4" female threads	0.50
	9095ATM0300 AK	3"		Mechanical test mechanism, includes 9095AA0300 top, with 3" male quick disconnect x 6" female threads	0.50
	9095ATM3200 AK	2"		Mechanical test mechanism, includes 9095AA3200AVEVR top, with 2" female threads x 4" female threads	0.50
	9095ATM3300 AK	3"		Mechanical test mechanism, includes 9095AA3300AVEVR top, with 3" female threads x 6" female threads	0.50

**Consult Price List for BSP options.*
**9095A models have been replaced by 9095AA models.*

9095AM3200 (2")

9095AM

Overfill Prevention Valve (Methanol)

ULC LISTED

The 9095AM series overfill prevention valve is designed to prevent the overfilling of storage tanks by providing a positive shut-off during a pressurized fill. The valve is installed at the fill port of a storage tank and can be set to the desired shut-off level by using standard length pipe nipples.

Features

- Installs directly onto a 4" or a 6" riser or top-mounted spill container
- Minimum shut-off height is 2" from the tank top
- 2.35" of float height adjustment
- Full flow to shut-off point
- Cushioned shut-off eliminates line shock
- Integral pressure relief feature allows for safe uncoupling at the completion of the fill operation
- Integral anti-siphon function

Operational Criteria

- Minimum 5 PSI flow requirements
- A tight fill connection is required
- Use methanol-compatible threaded pipe (not supplied: drop tube nor upper pipe)
- Estimated flow rate for the 2" model is 230 GPM at 10 PSI pressure drop
- Estimated flow rate for the 3" model is 560 GPM at 10 PSI pressure drop

An optional manual test mechanism allows a technician to pull on the test line at any time during the filling process to actuate the float, stop the fill, and verify the valve is working properly.

Construction Details

Remote adaptor... Ductile iron, powder coated
Shaft, linkage and hardware... Stainless steel
Lower pipe nipple... E-coated steel
Drop tube coupler... Stainless steel
Body... Nickel plated aluminum

Certifications & Listings

ULC-S661-10 Listed; NFPA 30, 30A; UFC; IFC; PEI/RP200, 600; Florida DEP EQ-895

NOTE

For use on clean liquids only.

Size	Maximum Pressure	Maximum Viscosity
2"	100 PSI	300 Centistokes
3"	100 PSI	300 Centistokes

	Item Number	Valve Size	Tank Opening	Weight (lbs)
Remote Fill	9095AM3200 AV	2"	4"	14.10
	9095AM3300 AV	3"	6"	30.0

9095C
Overfill Prevention Valve (for low profile tanks)

The 9095C series overfill prevention valve is designed to prevent the overfilling of storage tanks by providing a positive shut-off during a pressurized fill. The valve is installed at the fill port of a storage tank.

Features
- Shut-off level can be set to within 1¼″ from the top of the tank
- Installs on a 4″ schedule 40 NPT male riser connection
- Standard drop tubes (Morrison 419) are easily attached with included drop tube adaptor
- Field adjustable float can be adjusted up to 5″ for precise shut-off level
- Aviation model includes additional float section
- Integral anti-siphon function
- Full flow to shut-off point
- Cushioned shut-off eliminates line shock
- Integral pressure relief feature allows for safe uncoupling at the completion of the fill operation

Operational Criteria
- Minimum 5 PSI flow requirements
- Typical flow rate is 175 GPM at 10 PSI pressure drop
- A tight fill connection required. Top fill, remote fill, and dry disconnect connections available

An optional manual test mechanism allows a technician to pull on the test line at any time during the filling process to actuate the float, stop the fill, and verify the valve is working properly.

9095C-AV 0200 AV
shown with optional 9095CTM0100 AM test mechanism

NOTE
For use on clean liquids only.

Size	Maximum Pressure	Maximum Viscosity
2"	100 PSI	300 Centistokes

	Item Number		Valve Size	Tank Opening	Inlet Size & Type	Weight (lbs)
Top Fill	9095C-0200 AV		2"	4"	Valve with 2" male quick disconnect	9.0
	9095C-5200AVEVR	EVR	2"	4"	Valve with 2" dry disconnect adaptor	9.64
	9095C-AV0200 AV		2"	4"	Aviation valve with 2" male quick disconnect	9.0
	9095CA5200AVEVR	EVR	2"	4"	Aviation valve with 2" dry disconnect	9.64
Remote Fill	9095C-3200AVEVR	EVR	2"	4"	Valve with 2" female threads	12.50
	9095CA3200AVEVR	EVR	2"	4"	Aviation valve with 2" female threads	12.50
Valve Only	9095C-9100AVEVR	EVR	2"	4"	Valve less top adaptor, 2" male threads, low profile	8.0
	9095C-9200AVEVR	EVR	2"	4"	Valve less top adaptor, 2" male threads	8.37
	9095CA9200AVEVR	EVR	2"	4"	Aviation valve less top adaptor, 2" male threads	8.37
	9095CTM0100 AM				Mechanical test mechanism	1.0

**9095CA models used with fuels with specific gravity less than 0.72.*

Construction Details
Adaptor… Passivated aluminum
Body… Passivated aluminum
Float... Nitrophyl®-M
Plunger and dashpot… Anodized aluminum
Upper tube... E-coated steel
Shut-off mechanism... Stainless steel
Shaft linkage hardware... Stainless steel

Certifications & Listings
NFPA 30, 30A; UFC; BOCA; SBCCI/SFC; PEI/RP 200, 600; CARB EVR Executive Order 402; Florida DEP EQ-900

9095DS

9095DS

Overfill Prevention Valve (for 2" tank opening applications requiring a drop tube)

The 9095DS series overfill prevention valve is designed to prevent the overfilling of storage tanks by providing a positive shut-off during a pressurized fill. The valve installs in a 2″ female-threaded opening at the fill port of a storage tank. The valve terminates the fill when the product reaches the preset level.

Features

- Full flow to shut-off point
- The shut-off height is factory preset (measured from the bottom of the attachment threads)
- Can be retrofitted to existing tanks
- Cushioned shut-off eliminates line shock
- Integral pressure relief feature allows for safe uncoupling at the completion of the fill operation
- A standard 1½″ male-threaded pipe can be attached as a drop tube
- Integrated mechanical test mechanism

Operational Criteria

- Minimum 10 PSI flow requirements
- Typical flow rates are 26 GPM at 10 PSI pressure drop and 60 GPM at 60 PSI pressure drop
- A tight fill connection is required

NOTE

For use on clean liquids only.

Size	Maximum Pressure	Maximum Viscosity
2"	100 PSI	150 Centistokes

	Item Number	Valve Size	Tank Opening	Inlet Size & Type	Weight (lbs)
with Part F	9095DS0200 AV	2"	2"	Valve with 2" shut-off height	8.50
	9095DS0400 AV	2"	2"	Valve with 4" shut-off height	9.0
	9095DS0600 AV	2"	2"	Valve with 6" shut-off height	9.50
with Part A	9095DS2200 AV	2"	2"	Valve with 2" shut-off height	8.50
	9095DS2400 AV	2"	2"	Valve with 4" shut-off height	9.0
	9095DS2600 AV	2"	2"	Valve with 6" shut-off height	9.50
less adaptor	9095DS9200 AV	2"	2"	Valve with 2" shut-off height	8.50
	9095DS9400 AV	2"	2"	Valve with 4" shut-off height	9.0
	9095DS9600 AV	2"	2"	Valve with 6" shut-off height	9.50

**Consult Price List for BSP options.*

Construction Details

Adaptor… Aluminum (Part A or Part F)
Body… Passivated aluminum
Float... Gasoline and diesel compatible
Plunger and dashpot… Brass
Tube and float guard... Passivated aluminum
Linkage... Stainless steel
Shut-off mechanism...Anodized aluminum

Certifications & Listings

NFPA 30, 30A; UFC; IFC; PEI/RP 200, 600

9095SA

Overfill Prevention Valve (for 2″ tank opening applications not requiring a drop tube)

ULC LISTED

The 9095SA series overfill prevention valve is designed to prevent overfilling liquid storage tanks by providing a positive shut-off during a pressurized fill.

Features

Direct Fill Installations

- Installs on tank top by threading onto a 2" male NPT riser
- Installs inside 2" Morrison 516 or 518 tank top spill container

Remote Fill Installations

- Valve has 2" female NPT inlet threads for installation piping to remote fill point
- Field adjustable shut-off range between 2" to 12"

Both Installations

- Full flow to shut-off point
- Cushioned shut-off eliminates line shock
- Integral pressure relief feature allows for safe uncoupling at the completion of the fill operation
- Integral anti-siphon function
- The vertical style float allows for installation in openings in close proximity to the tank wall

Operational Criteria

- Minimum 5 PSI flow requirements
- The estimated flow rate is 110 GPM at 10 PSI pressure drop
- A tight fill connection is required

NOTE

For use on clean liquids only.

Size	Maximum Pressure	Maximum Viscosity
2"	100 PSI	300 Centistokes

Item Number	Valve Size	Tank Opening	Inlet Size & Type	Weight (lbs)
9095SA0200 AV	2"	2"	Valve with 2" part F male adaptor	6.10
9095SA0500 AV	2"	2"	Valve with 2" part A female adaptor	6.10
9095SA9200 AV	2"	2"	Valve less top connection	6.10

**Consult Price List for BSP options.*

**9095S models have been replaced with 9095SA models.*

9095SA

Construction Details

Direct fill adaptor… Aluminum (Part A or Part F)
Body… Passivated aluminum
Plunger dashpot... Anodized aluminum
Float and float guard... Polypropylene
Float tube... Stainless steel

Certifications & Listings

ULC-S661-10 Listed; NFPA 30, 30A; UFC; IFC; PEI/RP 200, 600; Florida DEP EQ-858

9095SPA

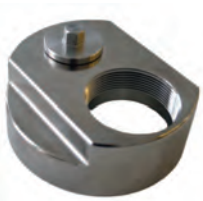
Stick Port Adaptor

The Morrison 9095SPA stick port adaptor is designed to facilitate the installation of a 2″ overfill valve on a 4″ tank opening and also allows for the use of a standard gauge stick. It is manufactured with two openings, one for the overfill valve and a second opening for the stick port.

Features

- Installs on a 4″ pipe nipple
- Off-set female threaded opening accepts a 2″ riser pipe cut to desired length
- Morrison 9095SA or 9095SS series overfill prevention valve installs on riser pipe
- Sealed gauge stick port has watertight removable cap
- Stick port opening accepts standard $^{13}/_{16}$″ tank gauge stick

Item Number	Description	Weight (lbs)
9095SPA4020 AA	4" female threads, 2" female threads, 1¼" stick port	8.20



9095SPA

9095SS with 9095SPA

Construction Details

Body... Aluminum, nickel plated
O-Ring… FKM
Gasket… Buna-N

9095SS
with 2″-16″ shut-off tube

9095SS
Overfill Prevention Valve (for 2″ tank opening applications not requiring a drop tube)

The 9095SS series overfill prevention valve is designed to prevent the overfilling of liquid storage tanks by providing a positive shut-off during a pressurized fill.

Features

Direct Fill Installations

- Installs on tank top by threading onto a 2" male NPT riser
- Installs inside 2" Morrison 516 or 518 tank top spill container

Remote Fill Installations

- Valve has 2" female NPT inlet threads for installations piping to a remote fill point
- Field adjustable float tube for setting the precise shut-off level (2″ to 96″ range)

Both Installations

- Stainless steel construction for increased compatibility with fuels, chemicals, and DEF
- Full flow to shut-off point
- Cushioned shut-off eliminates line shock
- Integral pressure relief feature allows for safe uncoupling at the completion of the fill operation
- Integral anti-siphon function
- The vertical style float allows for installation in openings in close proximity to the tank wall

Operational Criteria

- Minimum 5 PSI flow requirements
- Estimated flow rate is 110 GPM at 10 PSI pressure drop
- A tight fill connection is required

NOTE
For use on clean liquids only.

Size	Maximum Pressure	Maximum Viscosity
2"	100 PSI	300 Centistokes

	Item Number	Valve Size	Tank Opening	Inlet Size &Type	Weight (lbs)
with Part F	9095SS0200 AV	2"	2"	Valve with 2"-16" shut-off	8.20
	9095SS0400 AV	2"	2"	Valve with 2"-28" shut-off	8.20
	9095SS0600 AV	2"	2"	Valve with 2"-76" shut-off	8.20
with Part A	9095SS2200 AV	2"	2"	Valve with 2"-16" shut-off	8.20
	9095SS2400 AV	2"	2"	Valve with 2"-28" shut-off	8.20
	9095SS2600 AV	2"	2"	Valve with 2"-76" shut-off	8.20
less adaptor	9095SS9200 AV	2"	2"	Valve with 2"-16" shut-off	7.50
	9095SS9400 AV	2"	2"	Valve with 2"-28" shut-off	7.50
	9095SS9600 AV	2"	2"	Valve with 2"-76" shut-off	7.50
	9095SS9800 AV	2"	2"	Valve with 2"-96" shut-off	7.0

**Consult Price List for BSP options.*

Construction Details

Adaptor… Stainless steel (Part A or Part F)
Body… Stainless steel
Float... Polypropylene
Plunger and dashpot… Stainless steel
Float tube and float guard... Stainless steel
Shut-off mechanism... Stainless steel

Certifications & Listings

NFPA 30, 30A; UFC; IFC; PEI/RP 200, 600

9095X
Overfill Prevention Valve (2" integrated adaptor series)

The 9095X series is a top-fill overfill prevention valve designed to prevent the overfilling of storage tanks by providing a positive shut-off during a pressurized fill.

Features

- Fill adaptor and shut-off mechanism are factory-assembled for ease of field installation
- Straight female threaded adaptor facilitates valve installation to a precise set point
- Minimum shut-off height is 1" from the tank top
- Full flow to shut-off point
- Cushioned shut-off eliminates line shock
- Drop tube adaptor accepts 2" drop fill tubes (Morrison 419)
- Integral pressure relief feature allows for safe uncoupling at the completion of the fill operation
- Integral anti-siphon function
- 305C--2000 cap included with 1100 and 2200 models
- A tight fill connection is required for the valve to operate
- Aviation models (9095X-2800 and 6800) include three-part float

Operational Criteria

- Minimum 5 PSI flow requirements
- The estimated flow rate is 230 GPM at 10 PSI pressure drop
- A tight fill connection is required

An optional manual test mechanism allows a technician to pull on the test line at any time during the filling process to actuate the float, stop the fill, and verify the valve is working properly.

NOTE

For use on clean liquids only.

Size	Maximum Pressure	Maximum Viscosity
2"	100 PSI	300 Centistokes

9095X-1100 (2")
9095X-2200 (2")
9095X-6200 (2")
9095X-6800 (2")

Construction Details

Male quick disconnect... Passivated aluminum
Female threaded adaptor... Powder coated ductile iron and stainless steel
Shaft, linkage and hardware... Stainless steel
Lower pipe nipple... E-coated steel
Plunger dashpot... Anodized aluminum
Body... Passivated aluminum
Drop tube adaptor... Passivated aluminum
Float... Nitrophyl®-M

Certifications & Listings

ULC-S661-10 Listed; NFPA 30, 30A; UFC; IFC; PEI/RP 200, 600; Florida DEP EQ-858; CARB EVR Executive Order VR-402

Item Number	Valve Size	Drop Tube	Fill Connection	Application	Weight (lbs)
9095X-1100 AV	2"	No	Male quick disconnect	Generator base tanks with integrated spill container	6.50
9095X-6100 AV	2"	No	Female threads	Generator base tanks with integrated spill container	8.0
9095X-2200 AV	2"	Yes	Male quick disconnect	Low profile tanks; integrated spill container	15.0
9095X-6200AVEVR EVR	2"	Yes	Female threads	Low profile tanks; integrated spill container; EVR approved	10.50
9095X-2800 AV	2"	Yes	Male quick disconnect	General purpose and aviation	14.80
9095X-6800AVEVR EVR	2"	Yes	Female threads	General purpose and aviation; EVR approved	15.0
9095ATM1000 AK	Mechanical test mechanism for all 9095X series overfill valves				

FMMASO-91S AV

FMMASO & FMMATO Series

Overfill Prevention Valve for Used Oil Systems

ULC LISTED

The ASO series of valves is used to shut-off the air supply to an AOD (Air-Operated Diaphragm) pump when the liquid level approaches full capacity.

The ATO valve is used to turn on the air supply to an AOD pump when the liquid level approaches the full capacity.

Features

- Installs directly into a 2″ female threaded tank top opening
- Accepts ¼″ air lines
- When the ASO valve closes, the air supply is diverted to an audible whistle on the 91S and 91EXS models
- Operating temperature range is -10°F to 185°F
- Air flow capacity is 20 CFM @ 100 PSI. Maximum air pressure is 100 PSI
- Valve automatically resets as liquid is removed and the air pressure to the valve is turned off
- **FMMASO-91 and 91S** shut-off height is 6½″ from the tank top
- **FMMASO-91EX and 91EXS** shut-off height is 17⅜″ from the tank top

Item Number	Size	Signal	Weight (lbs)
FMMASO-91EX AV	2"	No	5.0
FMMASO-91EXS AV	2"	Yes	5.0
FMMASO-91 AV	2"	No	2.50
FMMASO-91S AV	2"	Yes	2.60
FMMATO-91 AV	2"	No	2.50

**Consult Price List for BSP options.*

Construction Details

Valve body and collar… Anodized aluminum
Float… Polypropylene
Float rod and valve spool… Brass
O-ring seals…FKM
Hardware… Stainless and plated steel

Certifications & Listings

ULC Listed; Florida DEP EQ-576

Patent 5007450

Valve with optional alarm for use on used oil evacuation systems which use an air-operated pump

710 Series
Solenoid Valves (Normally Closed)

Normally closed solenoid valves are used to help prevent the accidental siphoning of a product from a tank in the event of a leak downstream below the liquid level. Valves generally installed on the dispensing side of a fuel system pipeline. The valve opens upon the receipt of an electronic signal such as when a dispenser or pump is switched to the ON position.

Features

- Normally closed, hung piston design
- Installs in a horizontal pipeline in the upright vertical position
- Minimum operating temperature is -40°F
- Zero pressure differential
- Integral thermal relief allows the valve to relieve expansion pressure in the opposite direction of flow
- Continuous duty Class H standard coil operates at 120 volts
- Enclosure is watertight and rated for hazardous locations—NEMA 3, 4X, 7 and 9; groups C and D
- Additional coil voltages available
- Recommended for use with liquids having a maximum viscosity of 60 centistokes
- A strainer with a 100 mesh screen is recommended at the valve inlet
- **710F** has flanged body connections
- **710MO** has manual override feature. Available in sizes ranging from ¾″ to 2″ for operation during a power outage

Item Number	Size	Weight (lbs)
710---0075 1V	¾"	11.0
710---0100 1V	1"	13.0
710---0150 1V	1½"	16.0
710---0200 1V	2"	21.0
710---0300 1V	3"	44.0
710F--0150 1V	1½"	25.0
710F--0200 1V	2"	29.0
710F--0300 1V	3"	58.0
710MO-0075 1V	¾"	12.0
710MO-0100 1V	1"	14.0
710MO-0150 1V	1½"	17.0
710MO-0200 1V	2"	22.0

**Consult Price List and/or contact Customer Service for other options and voltages.*

710 (¾″)

710F (2″)

Construction Details

Body… Cast bronze
Seals… FKM, PTFE
Solenoid housed in an integral, watertight, explosion-proof shell

Certifications & Listings

CSA listed (File No. 108921, Model Z1314): Class I, Groups C and D; Class II, Groups E, F, and G; Class III, T3C

NOTE

Product can only be pumped in one direction, the direction of the flow arrow.

Not designed for use as an overfill prevention or process control valve.

710SS (1″) 710FSS (3″)

710SS Series

Solenoid Valves (Normally Closed)

Normally closed solenoid valves are used to help prevent the accidental siphoning of a product from a tank in the event of a leak downstream below the liquid level. Valves are generally installed on the dispensing side of a fuel system pipeline. The valve opens upon the receipt of an electronic signal such as when a dispenser or pump is switched to the ON position.

Features

- Normally closed, hung piston design
- Install in a horizontal pipeline in the upright vertical position
- Minimum operating temperature is -40°F
- Zero pressure differential
- Integral thermal relief allows the valve to relieve expansion pressure in the opposite direction of flow
- Continuous duty Class H standard coil operates at 120 volts
- Additional coil voltages available
- Enclosure is watertight and rated for hazardous locations—NEMA 3, 4X, 7 and 9; groups C and D
- Recommended for use with liquids having a maximum viscosity of 60 centistokes
- A strainer with a 100 mesh screen is recommended at the valve inlet
- **710FSS** has flanged body connections
- **710FSM** has manual override feature. Available in sizes ranging from ¾″ to 2″ for operation during a power outage

Construction Details

Body… 304 stainless steel
Seals… FKM, PTFE
Solenoid housed in an integral, watertight, explosion-proof shell

Certifications & Listings

CSA approved for hazardous locations: Class I, Groups C and D; Class II, Groups E, F, and G; Class III, T3C

Item Number	Size	Seal	Weight (lbs)
710SS-2075 1V	¾"	PTFE	13.0
710SS-2100 1V	1"	PTFE	15.0
710SS-2150 1V	1½"	PTFE	16.0
710SS-2200 1V	2"	PTFE	21.0
710SS-0300 1V	3"	PTFE	44.0
710SS-3300 1V	3"	PTFE	44.0
710FSS2150 1V	1½"	PTFE	25.0
710FSS2200 1V	2"	PTFE	29.0
710FSS0300 1V	3"	PTFE	58.0
710FSS3300 1V	3"	PTFE	58.0
710FSM2200 1V	2"	PTFE	30.0

**Consult Price List and/or contact Customer Service for other options and voltages.*

711
Solenoid Valve (Normally Open)

The 711 series solenoid valve is a high-flow, pilot-operated piston valve that is "normally open." This general purpose valve is for applications such as pressure systems, machine tools, water processing, and steam applications. The valve closes upon the receipt of an electronic signal.

Features
- 7.5 PSI pressure differential required to keep the valve in the open position
- Explosion and weather proof coil and housing
- 120V/60HZ standard; additional coil voltages available
- Must be installed in a horizontal pipeline with the coil in the upright and vertical position
- Recommended for use with liquids having a maximum viscosity of 60 centistokes
- A strainer with a 100 mesh screen is recommended at the valve inlet

Item Number	Size	Weight (lbs)
711---0075 1V	¾"	2.86
711---0100 1V	1"	5.50
711---0150 1V	1½"	8.60
711---0200 1V	2"	9.47
711---0300 1V	3"	40.0

**Consult Price List and/or contact Customer Service for other options and voltages.*

711 (¾")

Construction Details
Body… Forged brass
Cover… Forged brass
Seals… FKM

Certifications & Listings
UL Listed

711NC
Solenoid Valve (Normally Closed)

The 711NC series solenoid valve is a high-flow, pilot-operated piston valve that is "normally closed." This general purpose valve is for applications such as pressure systems, machine tools, water processing, and steam applications. The valve opens upon the receipt of an electronic signal such as when a dispenser or pump is switched to the ON position.

Features
- 7.5 PSI pressure differential required to keep the valve in the open position
- Explosion and weather proof coil and housing
- 120V/60HZ standard, additional coil voltages available
- Must be installed in a horizontal pipeline with the coil in the upright and vertical position
- Recommended for use with liquids having a maximum viscosity of 60 centistokes
- A strainer with a 100 mesh screen is recommended at the valve inlet

Item Number	Size	Weight (lbs)
711NC-0075 1V	¾"	2.86
711NC-0100 1V	1"	5.50
711NC-0150 1V	1½"	8.60
711NC-0200 1V	2"	9.47

**Consult Price List and/or contact Customer Service for other options and voltages.*

711NC (¾")

Construction Details
Body… Forged brass
Seals… FKM
Cover… Forged brass

Certifications & Listings
UL Listed

912 (½")

912 (¾")
horizontal priming tee

912 Series
Anti-Siphon Valves

Anti-siphon valves are used to help prevent the accidental siphoning of a product from a tank in the event of a leak downstream below the liquid level.

Features
- Valve functions in horizontal and vertical position
- Integrated thermal expansion relief
- Factory preset to several ranges of water column
- Maximum working pressure is 200 PSI
- Operating temperature range is -10°F to 200°F
- Normally closed setting
- Priming tees and assemblies are available

Item Number	Size	Description	Weight (lbs)
912-050500 AV	½"	0'-5' W.C.	0.87
912-051000 AV	½"	5'-10' W.C.	0.87
912-051500 AV	½"	10'-15' W.C.	0.87
912-052000 AV	½"	15'-20' W.C.	0.87
912-070500 AV	¾"	0'-5' W.C.	0.90
912-071000 AV	¾"	5'-10' W.C.	0.90
912-071500 AV	¾"	10'-15' W.C.	0.90
912-072000 AV	¾"	15'-20' W.C.	0.90
912-100500 AV	1"	0'-5' W.C.	1.55
912-101000 AV	1"	5'-10' W.C.	1.55
912-101500 AV	1"	10'-15' W.C.	1.55
912-102000 AV	1"	15'-20' W.C.	1.55
912-050510 AT	½"	Horizontal priming tee with plug	0.60
912-050511 AT	½"	Vertical priming tee with plug	0.60
912-070510 AT	¾"	Horizontal priming tee with plug	0.60
912-070511 AT	¾"	Vertical priming tee with plug	0.60
912-100510 AT	1"	Horizontal priming tee with plug	1.25
912-100511 AT	1"	Vertical priming tee with plug	1.25

**Consult Price List for BSP options.*

Construction Details
Body… 304/316SS wetted components
Disc… FKM

910 (1½")

910
Anti-Siphon Valve

Anti-siphon valves are used to help prevent the accidental siphoning of a product from a tank in the event of a leak downstream below the liquid level.

Features
- Compatible in suction or pressurized systems
- Unique spring design allows for optimum opening pressure
- High flow at optimum pumping pressures
- Four elevation ranges available
- Tamper-proof cap to ensure accurate elevation ranges
- 90° configuration for easy piping from tank top to grade level
- Integrated thermal expansion relief
- Normally closed setting

Item Number	Size	Description	Weight (lbs)
910---1000 AV	1½"	0'-5' W.C.	6.46
910---1100 AV	1½"	5'-10' W.C.	6.46
910---1200 AV	1½"	10'-15' W.C.	6.46
910---1300 AV	1½"	15'-20' W.C.	6.46
910---2000 AV	2"	0'-5' W.C.	5.42
910---2100 AV	2"	5'-10' W.C.	5.42
910---2200 AV	2"	10'-15' W.C.	5.42
910---2300 AV	2"	15'-20' W.C.	5.42

**Consult Price List for BSP options.*

Construction Details
Body... Ductile iron (e-coated)
Cap... Stainless steel
Spring... Stainless steel
Plunger... Stainless steel with FKM disc
Thermal expansion valve... Stainless steel with FKM seal

Certifications & Listings
cULus Listed

346DI Series
External Emergency Valves

This normally open valve is designed to shut off the flow of liquid in the event of a fire or excessive temperature. The fusible link holds the spring-actuated poppet in the open position.

Features

- Fully open design provides full flow when the valve is in the open position
- Cold non-shock pressure rated at 200 PSI W.O.G.
- Flanged model conforms to ANSI B16.42 specification for class 150# raised face flanges
- 165°F UL Listed fusible link standard (212°F available)
- **346FDI** has flanged body connection

Item Number	Size	Weight (lbs)
346DI-0400 AV	1½"	4.50
346DI-0500 AV	2"	6.50
346DI-0600 AV	3"	15.0
346DI-1000 AV *	¾"	7.30
346DI-1100 AV *	1"	7.30
346DI-1200 AV *	1¼"	7.0
346FDI0200 AV	2"	15.0
346FDI0300 AV	3"	27.0
346FDI0400 AV	4"	71.0

**1½" valve with factory-installed reducer bushings.*

346DI (1½")

346DI (1" with bushing)

346FDI (3")

Construction Details

Body, cap, and poppet… Ductile iron
Cap gasket… PTFE
Stem seal… PTFE encapsulated fluorocarbon elastomer

346SS
External Emergency Valve

This normally open valve is designed to shut off the flow of liquid in the event of a fire or excessive temperature. The fusible link holds the spring-actuated poppet in the open position.

Features

- Fully open design provides full flow when the valve is in the open position
- Cold non-shock pressure rated at 200 PSI W.O.G.
- 165°F UL Listed fusible link standard (212°F available)

Item Number	Size	Weight (lbs)
346SS-0100 AV	1½"	6.0
346SS-0200 AV	2"	7.0

346SS (1½")

Construction Details

Body, cap, poppet… Stainless steel
Cap gasket… PTFE
Stem seal… PTFE encapsulated fluorocarbon elastomer

NOTE

The valves shown on this page are not intended to be used as a "block valve."

446 (1")

446
Emergency Shut-Off Valve

The 446 series normally open valve is designed to shut off flow in the event of a fire or excessive temperatures. This emergency shut-off valve is installed in the fuel line from a storage tank to fuel burning equipment (e.g., back-up generators, boilers, and other flammable liquid burning appliances).

Features
- 165°F (73°C) fusible link activates spring closure
- ½", ¾", or 1" female NPT threaded connections
- Compact design reduces operational footprint requirement
- Operating pressure rated at 50 PSI
- Operating temperature range rated at -20°F (-28°C) to 125°F (51°C)

Item Number	Size	Weight (lbs)
446---0050 AV	½"	3.52
446---0075 AV	¾"	3.20
446---0100 AV	1"	3.40

Construction Details
Body... 316 stainless steel
Cap, shaft, tail fitting, poppet, and nut... 303 stainless steel
Lever arm... 304 stainless steel
Handle... 356-T6 aluminum
Spring... 17-7 stainless
O-ring and disc... FKM

Certifications & Listings
cULus Listed to ULC/ORD-C842—Valves for Flammable and Combustible Liquids

NOTE

This valve is not intended to be used as a "block valve."

635 (5")

635 (swivel)

635 Series
Offsets

Offsets are designed to simplify dispenser or suction pump installations where slight piping misalignments occur.

Features
- Low profile designed for maximum flow
- 1½" NPT female threads

Item Number	Thread Size	Offset Size	Weight (lbs)
635---0100 MAE	1½"	1"	2.04
635---0150 MAE	1½"	1½"	2.29
635---0200 MAE	1½"	2"	2.51
635---0250 MAE	1½"	2½"	2.75
635---0300 MAE	1½"	3"	3.0
635---0350 MAE	1½"	3½"	3.24
635---0400 MAE	1½"	4"	3.50
635---0450 MAE	1½"	4½"	3.72
635---0500 MAE	1½"	5"	3.96
635---0600 MAE	1½"	6"	4.45
635---0800 MAE	1½"	8"	5.66
635---0302 2S	Swivel only (1½" thread size)		1.09

**Consult Price List for other options.*

Construction Details
Body... Cast iron e-coated

635---S
Swivel... Steel

636 Series
Emergency Shut-Off Valves

Single poppet emergency shut-off valves are installed on fuel supply lines under dispensers to minimize collision and fire hazards at the dispenser. Often referred to as an "impact valve," it is designed to shut off the flow of product in the event of a dispenser impact or a fire involving the dispenser.

Features

- 2″ x 2″ size is low profile, simplifying the installation
- High flow capacity
- Fusible link melts and closes the valve at 165°F
- When properly anchored, the valve breaks upon impact at the integral shear grove, closing the valve
- Unibody design incorporates both boss-mount and post-mount for U-bolt mounting
- Top threaded connections available in male, female, or union top
- Integral test port allows the piping system to be tested without breaking piping connections
- BSP threaded option available
- **636DEF** has DEF compatible coating

636F (2″ x 2″)

636M (1½″ x 1½″)

636DEF (1″ x 1″)

Item Number	Size	Outlet	Weight (lbs)
636F--0000 AVU	1½" x 1½"	Female	6.0
636F--0100 AVU	2" x 1½"	Female	6.0
636F--0200 AVU	2" x 2"	Female	6.25
636M--0000 AVU	1½" x 1½"	Male	6.0
636M--0100 AVU	2" x 1½"	Male	6.0
636M--0200 AVU	2" x 2"	Male	6.25
636U--0000 AVU	1½" x 1½"	Union	7.25
636U--0100 AVU	2" x 1½"	Union	6.0
636DEF0000 AVU	1" x 1"	Female	7.60

**Consult Price List for other options.*

Construction Details

Body and shear section… Cast iron (e-coated)
Disc… FKM
O-rings… FKM
Gasket… Graphite
Shaft… Stainless steel
Handle… Aluminum

Certifications & Listings

UL Listed (except 636DEF model)

NOTE

The valves shown on this page are not intended to be used as a "block valve."

272DI (6″ x 4″)

Construction Details

272DI
Body and plunger... Ductile iron
Shaft... Stainless steel
Shaft packing... PTFE
O-ring... PTFE encapsulated FKM (4" x 3")
Spring... Stainless steel

272HDI (2″ x 2″)

Construction Details

272HDI, HDS, DLS
Body and plunger... Ductile iron
Shaft... Zinc plated steel
Shaft packing... PTFE
O-ring... PTFE encapsulated FKM
Spring... Stainless steel

272HLS (2″ x 2″)

Construction Details

272HO, HOL, HOS, HLS
Body and plunger... Brass
Shaft Packing... PTFE impregnated Fiber or PTFE
O-ring... FKM or PTFE
Spring... Stainless steel
Shaft... Zinc plated steel

272 Series

Internal Emergency Valves

Internal emergency valves are designed for installation at the bottom inlet/outlet of an aboveground storage tank (AST) where product flow must be stopped in the event of a fire or excessive heat. A fusible link holds the spring-loaded valve open until activated.

Features

- Adjustable hold-open mechanism
- 212°F UL Listed fusible link standard (165°F available)
- Shear section model provides added impact protection
- Locking models for added theft deterrent

Item Number	Size	Tank Connection	Body/Cap Material	Shear Section	Locking Mechanism	Weight (lbs)
272DI-0300 AV	4" x 3"	Flanged	Ductile Iron	No	No	34.15
272DI-0400 AV	6" x 4"	Flanged	Ductile Iron	No	No	42.50

Item Number	Size	Tank Connection	Body/Cap Material	Shear Section	Locking Mechanism	Weight (lbs)
272DLS0100 AV	2" x 2"	Male	Ductile Iron	Yes	Yes	6.50
272DLS0500 AV	3" x 3"	Male	Ductile Iron	Yes	Yes	11.50
272HDI0100 AV	2" x 2"	Male	Ductile Iron	No	No	6.22
272HDI0500 AV	3" x 3"	Male	Ductile Iron	No	No	9.66
272HDI0700 AV	4" x 4"	Male	Ductile Iron	No	No	16.75
272HDS0100 AV	2" x 2"	Male	Ductile Iron	Yes	No	7.0
272HDS0500 AV	3" x 3"	Male	Ductile Iron	Yes	No	9.68
272HDS0700 AV	4" x 4"	Male	Ductile Iron	Yes	No	16.30
272HDL0100 AV	2" x 2"	Male	Ductile Iron	No	Yes	7.0
272HDL0500 AV	3" x 3"	Male	Ductile Iron	No	Yes	10.0
272HLS0100 AV	2" x 2"	Male	Brass	Yes	Yes	7.0
272HLS0500 AV	3" x 3"	Male	Brass	Yes	Yes	11.46
272HLS0600 AV	4" x 3"	Male	Brass	Yes	Yes	16.56
272HO-0100 AV	2" x 2"	Male	Brass	No	No	6.50
272HO-0500 AV	3" x 3"	Male	Brass	No	No	11.20
272HO-0600 AV	4" x 3"	Male	Brass	No	No	16.30
272HO-0700 AV	4" x 4"	Male	Brass	No	No	19.76
272HOL0100 AV	2" x 2"	Male	Brass	No	Yes	7.46
272HOL0500 AV	3" x 3"	Male	Brass	No	Yes	11.60
272HOL0600 AV	4" x 3"	Male	Brass	No	Yes	16.30
272HOS0100 AV	2" x 2"	Male	Brass	Yes	No	6.78
272HOS0500 AV	3" x 3"	Male	Brass	Yes	No	9.68
272HOS0600 AV	4" x 3"	Male	Brass	Yes	No	17.0
272HOS0700 AV	4" x 4"	Male	Brass	Yes	No	19.76

**Consult Price List for other options.*

NOTE

The valves shown on this page are not intended to be used as a "block valve."

691 Series
Full Port Ball Valves

691 (¼")

691B (1")

691A (¼")

691FS (3")

Ball valves are used throughout fuel piping systems where a manual shut-off or "block valve" is required or desired.

Features
- Quarter turn operation
- Full port for maximum flow and minimum pressure drop
- Can be operated in partially open position for flow control
- Double seal allows the valve to be operated in both directions
- Blowout-proof stem
- 600 PSIG non-shock cold working pressure rating for ¼" to 2" size
- 450 PSIG non-shock cold working pressure rating for 2½" to 4" size
- 275 PSI maximum operating pressure for 691FS models
- Can be used for air service
- **691B** is lockable with a padlock
- **691A** is spring loaded auto return
- **691FS** is stainless steel and has 150# raise face flanges

Item Number	Size	Weight (lbs)
691---0100 1V	¼"	0.25
691---0200 1V	⅜"	0.28
691---0300 1V	½"	0.50
691---0400 1V	¾"	0.75
691---0500 1V	1"	1.0
691---0600 1V	1¼"	1.35
691---0700 1V	1½"	2.40
691---0800 1V	2"	3.40
691---0900 1V	2½"	7.40
691---1000 1V	3"	9.75
691---1100 1V	4"	15.0

Item Number	Size	Weight (lbs)
691B--0100 1V	¼"	0.66
691B--0200 1V	⅜"	0.63
691B--0300 1V	½"	0.82
691B--0400 1V	¾"	1.07
691B--0500 1V	1"	1.49
691B--0600 1V	1¼"	2.34
691B--0700 1V	1½"	2.74
691B--0800 1V	2"	4.15
691B--0900 1V	2½"	11.0
691B--1000 1V	3"	13.79
691B--1100 1V	4"	15.0

Item Number	Size	Weight (lbs)
691A--0100 1V	¼"	0.38
691A--0200 1V	⅜"	0.36
691A--0300 1V	½"	0.49
691A--0400 1V	¾"	1.05
691A--0500 1V	1"	1.40
691A--0600 1V	1¼"	2.06
691A--0700 1V	1½"	2.65
691A--0800 1V	2"	4.06
691FS-0200 1V	2"	18.0
691FS-0300 1V	3"	36.0
691FS-0400 1V	4"	54.0

Construction Details

Body... Forged brass
Ball... Hard chrome plated
Seal... PTFE

691FS
Body, cap, and ball... CF8M stainless steel
Seat...ME-PTFE (Molecularly Enhanced PTFE)

Certifications & Listings

691, 691A, and 691B
UL 842 Listed for flammable liquids; UL 125 Listed for LP gas shut-off; CSA listed (File No. 112439, Model S.95)

691FS
ANSI B16.5, B16.10, and B16.34 full compliance; Test standard: API 598

691BSS
Full Port Locking Ball Valve

691BSS (1")

Ball valves are used throughout fuel piping systems where a manual shut-off or "block valve" is required or desired.

Features
- Quarter turn operation
- Full port for maximum flow and minimum pressure drop
- Can be operated in partial open position for flow control
- Double seal allows the valve to be operated in both directions
- Blowout-proof stem
- 1000 PSIG non-shock cold working pressure
- Can be used for air service
- Lockable with a padlock

Item Number	Size	Weight (lbs)
691BSS0200 1V	⅜"	0.50
691BSS0300 1V	½"	0.70
691BSS0400 1V	¾"	1.16
691BSS0500 1V	1"	1.62
691BSS0700 1V	1½"	3.38
691BSS0800 1V	2"	6.11
691BSS1000 1V	3"	19.60

Construction Details

Body and ball... CF8M stainless steel
Seal... Pure PTFE

215ALH (2″)

215 Series
Oil & Molasses Gate Valves

These manually-operated shut-off valves are for use with heavy oils and other non-flammable viscous fluids stored in non-pressurized containers.

Features
- Lockable with a padlock up to and including 2″ size
- **215ALH** long handle option for greater leverage when dispensing
- **215AN** locknut option for easy orientation of spout direction
- **215AS** spring loaded self-closing model available

Construction Details
Body... Cast iron
Faceplate... Brass
Handle... Stamped steel
Long handle...Cast iron

WARNING: These faucets are intended for use with non-flammable viscous liquids stored in or dispensed from non-pressurized containers at ambient room temperature. Morrison Bros. is not responsible for the function or safety of this product if it has been altered in any way or used under conditions other than those stated above.

Item Number	Size	Spring	Long Handle	Locknut	Weight (lbs)
215A--0100 1V	¾"	No	No	No	1.50
215A--0200 1V	1"	No	No	No	2.0
215A--0400 1V	1½"	No	No	No	3.0
215A--0500 1V	2"	No	No	No	4.0
215A--0600 1V	3"	No	No	No	6.0
215A--0700 1V	4"	No	No	No	17.50
215ALH0400 1V	1½"	No	Yes	No	4.33
215ALH0500 1V	2"	No	Yes	No	4.67
215AN-0100 1V	¾"	No	No	Yes	2.0
215AN-0500 1V	2"	No	No	Yes	4.50
215AS-0100 1V	¾"	Yes	No	No	1.50
215AS-0500 1V	2"	Yes	No	No	4.0

633 (1″)

633MF (1″)

699F (1″)

633 & 699F Series
Barrel Faucets

Ball valve barrel faucets are installed on small tanks, utility tanks, overhead farm tanks, and drums as a gravity flow shut-off valve.

Features
- Lockable with a padlock
- Ball valve style for quick and easy quarter turn operation
- **633** is male threads by male threads
- **633MF** is male threads by female threads
- **699F** is male threads by female threads

Construction Details
Faucet... Brass
Handle and lock lever… Stainless steel

Item Number	Size	Weight (lbs)
633---0500 1F	1" M x 1" M	1.50
633MF-1100 1V	1" M x 1" F	1.50
699F--0400 1F	¾" M x ¾" F	1.25
699F--0500 1F	1" M x 1" F	1.75
699F--0600 AF	1" M x ¾" F	2.0

474
Farm Tank Emergency Valve

The farm tank emergency valve is designed to be installed in the bottom outlet of small tanks where product flow must be stopped in the event of a fire. Fusible link holds the spring-loaded valve open until activated.

Features
- Angle design
- Male threads install into the tank, female threaded outlet
- 5 PSI maximum pressure rating
- 165°F fuse link is UL Listed

Item Number	Size	Disc	O-Ring	Weight (lbs)
474---0100 AV	1" x ¾"	Buna-N	Buna-N	1.0
474---0200 AV	1" x 1"	Buna-N	Buna-N	1.0
474---0300 AV	1" x ¾"	FKM	FKM	1.0
474---0400 AV	1" x 1"	FKM	FKM	1.0
474---0500 AV	1" x ¾"	PTFE	FKM	1.0
474---0600 AV	1" x 1"	PTFE	FKM	1.0

474 (1" x 1")

Construction Details
Body... Brass
Disc... Buna-N (standard), FKM or PTFE
O-Ring... Buna-N (standard) or FKM

574
Farm Tank Emergency Valve

The farm tank emergency valve is designed to be installed in the bottom outlet of small tanks where product flow must be stopped in the event of a fire. Fusible link holds the spring-loaded valve open until activated.

Features
- Straight design
- Male threads install into the tank, male threaded outlet
- 5 PSI maximum pressure rating
- 165°F fuse link is UL Listed

Item Number	Size	Disc	O-Ring	Weight (lbs)
574---0100 AV	1" M x 1" M	Buna-N	Buna-N	1.50
574---0200 AV	1" M x 1" M	FKM	FKM	1.50
574---0300 AV	1" M x 1" M	PTFE	FKM	1.50

574

Construction Details
Body... Brass
Disc... Buna-N (standard), FKM or PTFE
O-Ring... Buna-N (standard) or FKM
Fusible link... 165°F

NOTE

The 474 and 574 require periodic inspection to ensure the shut-off mechanism is operating correctly. They are not intended to be used as a "block valve" and should not be opened under pressure.

939 (¼")

939
Fusible Globe/Gate Valve

Fusible globe/gate valve is used to shut off product flow in the event of fire.

Features
- 165°F fusible element integrated into the hand-wheel
- Recommended use with fuel oil and kerosene service
- 10 PSI maximum operating pressure ¼" to ¾" sizes
- 25 PSI maximum operating pressure 1" size
- Not intended for use as a block valve; intended as a normally open valve
- ¼", ⅜", and ½" are UL/ULC 842 Listed as a manually-operated shut-off valve for use with oil-burning equipment

Item Number	Size	Weight (lbs)
939---0050 1V	¼"	0.50
939---0100 1V	⅜"	0.50
939---0200 1V	½"	0.75
939---0300 1V	¾"	1.0
939---0400 1V	1"	2.25

Construction Details
Body, bonnet, and stem…
Brass

Certifications & Listings
Some models UL/ULC 842 Listed (see Features)

087

087
Oil Tank Filter Valve

The oil tank filter valve is used as a bottom outlet valve on residential fuel storage tanks.

Features
- Easy to open or close 90° turn ball valve
- Male threaded for easy installation into tank bottom opening

Item Number	Size	Weight (lbs)
087---0100 AV	½"	0.85

Construction Details
Valve... Brass
Handle... Plated steel

110 (¾")

110
Quick Closing Barrel Faucet

This valve is designed for use on barrels, drums, and small utility tanks for low pressure or gravity flow dispensing. The normally-closed valve must be held in the open position for dispensing.

Features
- Self-closing
- Lockable
- Built-in hook makes it easy to dispense into small containers
- Rated to 50 PSI

Item Number	Size	Weight (lbs)
110---0200 AF	¾"	1.25
110---0300 AF	1"	2.25

**Consult Price List for PTFE or FKM options.*

Construction Details
Body... Brass
Cap... Brass
Disc... Buna-N (FKM and PTFE available)
Spring... Stainless steel

Certifications & Listings
¾" and 1" models with Buna-N seals are UL Listed

246ADI
Swing Check Valve

246ADI (1½")

Swing check valves are designed to prevent backflow in horizontal piping systems, allowing liquid to flow in a single direction.

Features
- Durable metal-to-metal seats
- Thermal expansion relief available in 25 or 50 PSI settings
- 200 PSI cold non-shock pressure limit

Item Number	Size	Expansion Relief	Weight (lbs)
246ADI0150 AV	1½"	N/A	5.50
246ADI0200 AV	1½"	25	5.50
246ADI0250 AV	1½"	50	5.20
246ADI0300 AV	2"	25	5.50
246ADI0400 AV	3"	25	12.50
246ADI0500 AV	2"	N/A	5.50
246ADI0600 AV	3"	N/A	12.50
246ADI0800 AV	3"	50	12.50
246ADI0900 AV	2"	50	5.50

Construction Details
Body and cap... Ductile iron
Internal components... Ductile and stainless steel
Gasket... PTFE
Expansion valve... Stainless steel and FKM

246DRF
Swing Check Valve

246DRF (3")

Swing check valves are designed to prevent backflow in horizontal piping systems, allowing liquid to flow in a single direction.

Features
- Durable metal-to-metal seats
- Thermal expansion relief available in 25 or 50 PSI settings
- 200 PSI cold non-shock pressure limit
- 150# raised face flange connections

Item Number	Size	Expansion Relief	Weight (lbs)
246DRF0100 AV	3"	N/A	26.75
246DRF0200 AV	3"	25	26.75
246DRF0300 AV	3"	50	26.75
246DRF0400 AV	4"	N/A	71.0
246DRF0500 AV	4"	25	71.0
246DRF0600 AV	4"	50	71.0

Construction Details
Body and cap... Ductile iron
Internal components... Ductile and stainless steel
Gasket... PTFE
Expansion valve... Stainless steel and FKM

246A
Swing Check Valve

246A (1½")

Swing check valves are designed to prevent backflow in horizontal piping systems, allowing liquid to flow in a single direction.

Features
- Durable metal-to-metal seats
- Thermal expansion relief available in 25 or 50 PSI settings
- 200 PSI cold non-shock pressure limit

Item Number	Size	Expansion Relief	Weight (lbs)
246A--0100 AV	1½"	N/A	3.50
246A--0200 AV	2"	N/A	6.0
246A--0400 AV	3"	N/A	13.2
246A--0500 AV	1½"	25	3.5
246A--0600 AV	2"	25	6.0
246A--0800 AV	3"	25	13.20
246A--2100 AV	1½"	50	3.50
246A--2200 AV	2"	50	6.0
246A--2400 AV	3"	50	13.20

Construction Details
Body and cap... Brass
Internal components... Brass
Gasket... Nitrile composite
Expansion valve... Brass and FKM

**Consult Price List for PTFE and other options.*

137 (1½")

137
Angle Check Valve

Angle check valves are used to prevent backflow in supply lines or as a prime holding valve in suction system.

Features
- Soft seat
- Thermal expansion available (25 or 50 PSI approximate)

Item Number	Size	Weight (lbs)
137---0200 AV	1½"	4.25
137---0300 AV	2"	6.25
137---0400 AV	3"	13.50

**Consult Price List for BSP, PTFE, FKM, and expansion relief options.*

Construction Details
Body... Brass
Cap... Brass
Plunger... Brass
Spring... Stainless steel
Discs... Buna-N (FKM and PTFE optional)
Expansion valve... Brass with FKM

137B (2")

137B
Back Pressure Check Valve

Back pressure check valves are used to maintain line pressure and prevent backflow.

Features
- Metal-to-metal seats
- Thermal expansion available (25 or 50 PSI approximate)
- 5 to 7 PSI spring settings

NOTE
Opening pressure settings are approximate.

Item Number	Size	Weight (lbs)
137B--0300 AV	2"	6.25
137B--0400 AV	3"	13.50

**Consult Price List for other expansion relief options.*

Construction Details
Body... Brass
Cap... Brass
Plunger... Brass
Spring... Stainless steel
Expansion valve... Brass with FKM

158A
Vertical Check Valve

158A (3")

The single poppet, one-way check valves are used to prevent backflow in supply lines or as a prime holding valve in suction systems.

Features
- Soft seat
- Thermal expansion available (25 or 50 PSI approximate)
- ½ to 2 PSI spring setting

NOTE
Opening pressure settings are approximate.

Item Number	Size	Weight (lbs)
158A--0300 AV	¾"	1.25
158A--0400 AV	1"	1.75
158A--0600 AV	2"	5.75
158A--0800 AV	3"	15.0

**Consult Price List for PTFE, FKM, and expansion relief options.*

Construction Details
Body... Brass
Cap... Brass
Plunger... Brass
Spring... Stainless steel
Discs... Buna-N (FKM and PTFE available)
Expansion valve... Brass with FKM

158B
Back Pressure Check Valve

158B (3")

Back pressure single poppet, one-way check valves are used to maintain line pressure and prevent backflow.

Features
- Metal-to-metal seats
- Thermal expansion available (25 or 50 PSI approximate)
- 5 to 7 PSI spring settings for back pressure applications

NOTE
Opening pressure settings are approximate.

Item Number	Size	Weight (lbs)
158B--0300 AV	¾"	1.25
158B--0400 AV	1"	1.75
158B--0600 AV	2"	5.75
158B--0800 AV	3"	15.0

**Consult Price List for other expansion relief options.*

Construction Details
Body... Brass
Cap... Brass
Plunger... Brass
Spring... Stainless steel
Expansion valve... Brass with FKM

958 (½")

958
In-Line Check Valve

In-line check valves are used to prevent backflow in supply lines on storage tank systems.

Features

- Valve functions in horizontal or vertical (flow arrow must be pointing up) piping systems
- 200 PSI maximum working pressure
- -40°F to 300°F operating temperature range
- Optional thermal expansion relief feature is available

Construction Details

Body... Stainless steel
Seals... FKM

Item Number	Size	Expansion Relief	Weight (lbs)
958---0500 AV	½"	No	0.87
958---0700 AV	¾"	No	0.90
958---1000 AV	1"	No	1.50
958--10500 AV	½"	Yes	0.87
958--10700 AV	¾"	Yes	0.90
958--11000 AV	1"	Yes	1.50
958---1100 1V	1½"	No	1.62
958---1200 1V	2"	No	3.00

**Consult Price List for BSP options.*

174 (1½")

174
By-Pass Valve

By-pass valves are designed for applications where maximum pressure control is needed (e.g., bypassing a pump in order to reduce the pressure at the outlet).

Features

- Wide range of pressure settings available (20 to 75 PSI)
- Metal-to-metal seat
- Field adjustable +/- 5 to 10 PSI from set point
- Valve is normally closed. Opens when pressure overcomes the spring tension

Construction Details

Body and bonnet... Brass
Spring... Stainless steel
Stem packing... PTFE

Item Number	Size	Pressure Setting	Weight (lbs)
174---0100 AV	1½"	20	7.75
174---1300 AV	1½"	30	7.75
174---1400 AV	1½"	40	7.75
174---1500 AV	1½"	50	7.75
174---1600 AV	1½"	60	7.75
174---1750 AV	1½"	75	7.75
174---2200 AV	2"	20	9.50
174---2300 AV	2"	30	9.50
174---2400 AV	2"	40	9.50
174---2500 AV	2"	50	9.50
174---2600 AV	2"	60	9.50
174---2750 AV	2"	75	9.50

NOTE

Morrison 174 is NOT a "pressure regulating device."

646
Wafer Check Valve

The wafer check valve is designed to maintain unidirectional flow in horizontal piping systems where flanged connections are used.

Features
- Space-saving valve is only ¾″ wide
- Supplied with a removable eyebolt to assist in installing and aligning the valve in-between two 150# raised face flanges

Item Number	Size	Weight (lbs)
646---0100 AV	3"	4.25

646

Construction Details
Body… Nickel plated steel
Poppet… Stainless steel
O-ring seal… FKM

529 Series
Nipple Check Valves

Nipple check valves are one-way check valves used to prevent backflow.

Features
- Expansion relief activates below 15 PSI
- **529R** does not have expansion relief

NOTE

Morrison 529 is NOT intended for use with leak detection systems.

Item Number	Size	Weight (lbs)
529---0100 AV	2"	1.50
529R--0100 AV	2"	1.50

529

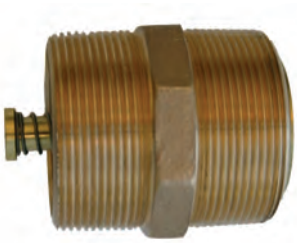
Construction Details
Body, spring, and poppet... Brass
O-ring... FKM

530
Nipple Check Valve

Nipple check valves are one-way check valves used to prevent backflow.

Features
- Expansion relief settings activate at precise settings

Item Number	Size	Expansion Relief	Weight (lbs)
530---0100 AV	2"	25 PSI	1.50
530---0300 AV	2"	50 PSI	1.50



530

Construction Details
Body and poppet... Brass
Spring... Stainless steel
O-ring... FKM

331

331 Series
Union Check Valves

Union check valves install inside pipe unions where space is limited and a check valve is desired.

Features
- Easy to install in new or existing unions
- **331S** includes screen

Item Number	Size	Weight (lbs)
331---0100 AV	1½"	0.25
331S--0100 AV	1½"	0.50

Construction Details
Body and spring... Brass
Disc... FKM

331S
Screen… 20 mesh brass

235DI (3″)

535DI (2″)
with expansion relief

235DI & 535DI Series
Gate Valves

Rising stem gate valves or "block valves" are used for manual flow control in petro-chemical liquid handling systems and bulk plants.

Features
- Double disc design provides positive shut-off when in the closed position
- 200 PSI WOG cold non-shock
- Female NPT threaded connections
- Valve can be left partially open to control flow rate
- **235BDI** and **535BDI** are lockable with a padlock
- **535DI** and **535BDI** includes integrated thermal expansion relief set at approximately 50 PSI

NOTE

Morrison 235DI/BDI series is not equipped with expansion relief capability. If expansion relief is needed, specify Morrison 535DI/BDI.

Construction Details
Body and bonnet... Ductile iron
Stem and discs... Brass
Packing and gasket... PTFE
Hand wheel... Aluminum, powder coated black

Item Number	Size	Weight (lbs)
235DI-0700 AV	1½"	4.50
235DI-0300 AV	2"	8.0
235DI-0400 AV	3"	16.50
235BDI0700 AV	1½"	5.75
235BDI0300 AV	2"	10.0
235BDI0400 AV	3"	18.0
535DI-0300 AV	2"	9.0
535DI-0400 AV	3"	18.0
535BDI0300 AV	2"	10.50
535BDI0400 AV	3"	18.50

234DI & 534DI Series
Flanged Gate Valves

Rising stem gate valves or "block valves" are used for manual flow control in petro-chemical liquid handling systems and bulk plants.

Features

- Double disc design provides positive shut-off when in the closed position
- 200 PSI WOG cold non-shock
- 150# raised face flanges
- Valve can be left partially open to control flow rate
- **234BDI** and **534BDI** are lockable with a padlock
- **534DI** and **535BDI** includes integrated thermal expansion relief set at approximately 50 PSI

234DI (2″) | 534BDI (3″) lockable with expansion relief

NOTE

Morrison 234DI/BDI series is not equipped with expansion relief capability. If expansion relief is needed, specify Morrison 534DI/BDI.

Item Number	Size	Expansion Relief PSI	Weight (lbs)
234DI-0150 AV	2"	--	20.0
234DI-0200 AV	3"	--	37.25
234BDI0150 AV	2"	--	21.50
234BDI0200 AV	3"	--	38.0
534DI-0125 AV	2"	25	20.0
534DI-0150 AV	2"	50	20.0
534DI-0200 AV	3"	25	33.0
534BDI0125 AV	2"	25	21.0
534BDI0150 AV	2"	50	21.0
534BDI0200 AV	3"	50	38.0
534BDI0225 AV	3"	25	38.0

Construction Details

Body and bonnet... Ductile iron
Stem... Brass
Discs and spreader... Brass
Packing and gasket... PTFE
Hand-wheel... Aluminum, powder coated black
Expansion relief... Brass with FKM quad-ring (Morrison 534DI/BDI)

235 & 535 Series
Brass Gate Valves

Rising stem gate valves or "block valves" are used for manual flow control in petro-chemical liquid handling systems and bulk plants.

Features

- Double disc design provides positive shut-off when in the closed position
- 200 PSI WOG cold non-shock
- Female NPT threaded connections
- Valve can be left partially open to control flow rate
- **235B** and **535B** are lockable with a padlock
- **535** and 535**B** includes integrated thermal expansion relief set at approximately 50 PSI

235 (1½″) | 535B (2″) lockable with expansion relief

NOTE

Morrison 234DI/BDI series is not equipped with expansion relief capability. If expansion relief is needed, specify Morrison 534DI/BDI.

Item Number	Size	Weight (lbs)
235---0100 AV	1½"	6.25
235---0200 AV	2"	10.0
235---0400 AV	3"	17.75
235B--0100 AV	1½"	6.25
235B--0200 AV	2"	10.0
235B--0400 AV	3"	17.75
535---0100 AV	2"	8.75
535---0300 AV	3"	17.50
535B--0100 AV	2"	10.0
535B--0300 AV	3"	19.0

**Consult Price List for PTFE options.*

Construction Details

Body, bonnet, stem, discs... Brass
Packing... PTFE impregnated fiber, PTFE
Hand wheel... Aluminum, powder coated black
Gasket... Nitrile composite, PTFE

237, 238 & 438 Series
Quick Opening Gate Valves

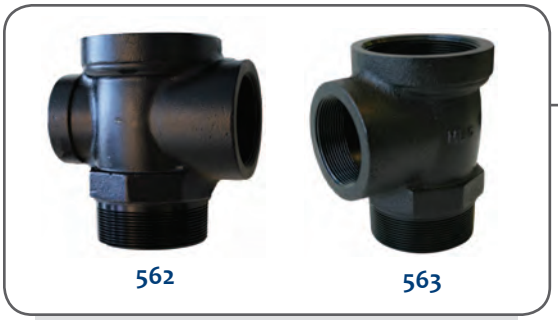
Quick opening gate valves or "block valves" are manually-operated double disc gate valves designed for use where simple lever action opens or closes the valve.

Features
- Rated to 200 PSI WOG cold non-shock
- Lever action may be used for throttling product flow
- **237** is not spring loaded
- **238** includes an external spring
- **438** includes an internal spring

Item Number	Size	Spring	Weight (lbs)
237---0100 AV	1¼"	None	4.0
237---0200 AV	1½"	None	6.5
237---0300 AV	2"	None	9.25
237---0500 AV	3"	None	22.0
238---0100 AV	1¼"	External	4.75
238---0200 AV	1½"	External	7.25
238---0300 AV	2"	External	9.25
238---0500 AV	3"	External	22.5
438---0100 AV	1¼"	Internal	5.0

**Consult Price List for PTFE options.*

Construction Details
Body and cap... Brass
Discs... Brass
Handle... Malleable iron
Shaft seal on 1¼"... Nitrile composite
All other sizes shaft seal... PTFE impregnated fiber packing
Gasket... Nitrile composite or PTFE



560 Series
Extractors

Installed on a 4" opening of an underground storage tank, extractors provide connections for vent lines to be manifolded. Available with ball float cage or without. Extractors installed on a 4" aboveground storage tank opening can provide added connections for retrofitting or upgrading with pressure vacuum vents, gauges, and vapor recovery adaptors.

Item Number	Size	Cage	Weight (lbs)
560---0100 AE	4" x 4" x 2" x 2"	Yes	18.25
560---0101 MBE EVR	4" x 4" x 2" x 2"	No	18.25
561---0100 AE	4" x 4" x 2"	Yes	15.0
561---0101 MBE EVR	4" x 4" x 2"	No	15.0
562---0100 AE	4" x 4" x 3" x 2"	Yes	17.50
562---0101 MBE EVR	4" x 4" x 3" x 2"	No	17.50
563---0100 AE	4" x 4" x 3"	Yes	15.50
563---0101 MBE EVR	4" x 4" x 3"	No	15.50
561P--0104 MP	4" x 2" extractor plug		2.95

Construction Details
Body… Cast iron (epoxy coated)
Cage… Brass
O-ring… Buna-N

Certifications & Listings
CARB Approval 90-09, CARB EVR Executive Order VR-402 (560, 561, 562 models);
CARB Approval 95-43, CARB EVR Executive Order VR-402 (563 models)

578
Extractor Pipe Cap

An extractor pipe cap is used as a cover for the extractor/float vent valve riser pipe. It is installed at grade level, normally inside a manhole.

Item Number	Size	Weight (lbs)
578---0100 AC	4"	2.75

Note: Probe cap with threaded port hole (578P) is also available. See Caps & Adaptors section.

578

Construction Details

Cap... Brass
Gasket... Buna-N
Pin (handle)... Plated steel

Certifications & Listings

CARB Approval 89-12

076S
Expansion Relief Valve

The 76S series expansion relief valves are installed in aboveground storage tank piping systems to allow excess pressure, caused by thermal expansion, to relieve back to the storage tank.

Features

- Compatible with line leak detection systems
- 90° configuration
- Precise settings of 25 or 50 PSI (specify)

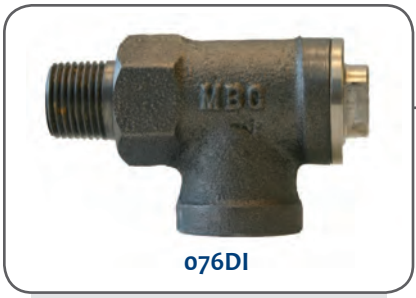
Item Number	Inlet Size	Outlet Size	Expansion Relief	Weight (lbs)
076S--0100 AV	½" M	½" F	25 PSI	1.50
076S--0200 AV	½" M	½" F	50 PSI	1.50

**Consult Price List for BSP options.*

076S (½")

Construction Details

Body and cap... Stainless steel
Relief fitting... Stainless steel with FKM



076DI

Construction Details

Body... Ductile iron
Cap... Stainless steel
Relief fitting... Stainless steel with FKM

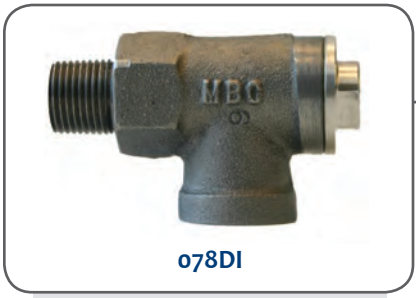
076DI
Expansion Relief Valve

The 76DI series expansion relief valves are installed in aboveground storage tank piping systems to allow excess pressure, caused by thermal expansion, to relieve back to the storage tank.

Features

- For use with most leak detection systems
- Unidirectional flow
- Precise settings of 25 or 50 PSI

Item Number	Size	Setting	Weight (lbs)
076DI-0100 AV	½"	25 PSI	0.75
076DI-0200 AV	½"	50 PSI	0.75



078DI

Construction Details

Body... Ductile iron
Cap... Stainless steel
Spring... Stainless steel
Ball... Stainless steel

078DI
Expansion Relief Valve

Designed for use on aboveground storage tank piping systems, expansion relief valves allow excess pressure, caused by thermal expansion, to relieve back to the storage tank.

Features

- Not for use with leak detection systems
- Unidirectional flow
- Approximate settings available: 25, 40, or 100 PSI

Item Number	Size	Setting	Weight (lbs)
078DI-0100 AV	½"	25 PSI	0.75
078DI-0200 AV	½"	40 PSI	0.75
078DI-0300 AV	½"	100 PSI	0.75

077
Expansion Relief Valve

Designed for use on aboveground storage tank piping systems, Morrison 77 series expansion relief valves allow excess pressure, caused by thermal expansion, to relieve back to the storage tank.

Features
- Not for use with leak detection systems
- Unidirectional flow
- Easily installed into existing piping systems
- Includes copper tube fitting (tube not included)
- 40 PSI pressure setting is approximate

Item Number	Size	Weight (lbs)
077---0200 AV	¼"	0.05

077

Construction Details
Body... Brass
Cap... Brass
Spring... Stainless steel
Ball... Brass
Connectors... Brass

157
Suction Pipe Strainer

Suction strainers are installed at the inlet of a suction line, normally at the bottom of the storage tank. The screen prevents debris from entering the line.

Item Number	Size	Weight (lbs)
157---0100 AS	1½"	1.13
157---0200 AS	2"	1.25

**See 334LP for smaller sizes.*

157 (2")

Construction Details
Body... Brass
Screen... 20 mesh stainless steel

334 Series
Single Poppet Foot Valves

The 334 series single poppet foot valves are designed to be used as prime-holding valves installed at the inlet of a suction line, normally at the bottom of the storage tank.

Features
- Metal-to-metal seat for long life
- Screen helps filter debris from collecting on the seats
- **334LP** is less poppet for use as a suction stub strainer

Item Number	Size	Weight (lbs)
334---0100 AV	¾"	1.0
334---0200 AV	1"	1.25
334---0300 AV	1½"	2.25
334---0400 AV	2"	4.75
334LP-0100 AV	¾"	1.0
334LP-0200 AV	1"	1.25

334 (1")

Construction Details
Body and poppet... Brass
Screen... 20 mesh stainless steel

335A (1½")

335A
Double Poppet Foot Valve

The 335A series double poppet foot valves are designed to be used as a prime-holding valve installed at the inlet of a suction line, normally at the bottom of the storage tank.

Features
- Dual seats provide twice the prime-holding capability as single poppet designs
- Screen helps filter debris from collecting on the seats
- Metal-to-metal seats ensure long life

Item Number	Size	Weight (lbs)
335A--0100 AV	1½"	4.50
335A--0200 AV	2"	6.50

Construction Details
Body, seat, and poppets... Brass
Screen... 20 mesh stainless steel

334BP (1½")

334BP
Single Poppet Vertical Check Valve

Generally used in suction systems, the Morrison 334BP check valve is designed for use as a prime-holding check valve in vertical piping systems.

Features
- Includes ⅛" test port with pipe plug

Item Number	Size	Weight (lbs)
334BP-0100 AV	1½"	2.50

Construction Details
All brass construction

335B (1½")

335B Series
Double Poppet Vertical Check Valves

Generally used in suction systems, the Morrison 335B series check valves are designed for use as a prime-holding check valve in vertical piping systems.

Features
- Dual seats provide twice the prime holding capability as single poppet designs
- **335BP** includes ⅛" test port with pipe plug

Item Number	Size	Weight (lbs)
335B--0100 AV	1½"	4.75
335B--0200 AV	2"	6.50
335BP-0100 AV	1½"	4.75
335BP-0200 AV	2"	6.50

Construction Details
All brass construction

934
Stainless Steel Single Poppet Foot Valve

Stainless steel single poppet foot valves are installed at the inlet of a suction line normally at the bottom of the storage tank as a prime holding valve.

Features

- Expansion relief (½", ¾", and 1" models only): 25 PSI
- Opening pressure: less than 1 PSI
- Maximum working pressure: 200 PSI
- Working temperature: -40°F to 300°F
- 20 mesh inlet screen used to help filter debris from collecting on the seats

Item Number	Size	Description	Expansion Relief	Weight (lbs)
934--10500 AV	½"	NPT Threads	Yes	0.87
934--10700 AV	¾"	NPT Threads	Yes	1.03
934--11000 AV	1"	NPT Threads	Yes	1.75
934--1500 AV	1½"	NPT Threads	No	2.28
934--2000 AV	2"	NPT Threads	No	3.89
934---0500 AS	½"	Suction pipe strainer only	No	0.20
934---0700 AS	¾"	Suction pipe strainer only	No	0.30
934---1000 AS	1"	Suction pipe strainer only	No	0.45
934---1500 AS	1½"	Suction pipe strainer only	No	0.64
934---2000 AS	2"	Suction pipe strainer only	No	0.95

**Consult Price List for BSP options.*

934 (½") 934 (¾") 934 (1")

Construction Details

Valve body... 304 stainless steel
Strainer body... 303 stainless steel
Screen... 304 stainless steel
Seals... FKM-GF

128 Series
Frost Proof Drain Valves

Installed at the low point of an aboveground storage tank, frost-proof drain valves allow for drainage of water and sediment from the bottom of the tank.

Features

- Frost-proof seat
- Pad-lockable
- Built-in wrench for opening or closing the valve
- **128** is brass
- **128DIS** is ductile iron

Item Number	Size	Weight (lbs)
128---0100 AV	1"	1.85
128DIS0100 AV	1"	1.85

128DIS (1")

Construction Details

128
All brass construction

128DIS
Body... Ductile iron
Cap... Stainless steel
Lock bonnet... Brass
Stem... Stainless steel
O-Ring... PTFE encapsulated FKM

184 (2″)

Construction Details

Body... Cast iron

Certifications & Listings

CARB EVR Executive Order VR-402

184 Series
Double Tapped Bushings & Pipe Plugs

Double tapped bushings are used to reduce tank or pipe opening thread size.

Features

- Male NPT threads (OD)
- Female NPT threads from the top down and from the bottom up
- Pipe plugs are solid cast iron with male threads

Item Number	Size	Weight (lbs)
184---0000 1B EVR	1½" x ¾" x ¾"	0.75
184---0100 1B EVR	2" x ⅜" x ⅜"	0.75
184---0110 1B EVR	1½" x ½" x ½"	0.75
184---0120 1B EVR	1¼" x 1" x 1"	0.75
184---0130 1B EVR	1½" x 1" x 1"	0.75
184---0200 1B EVR	2" x ½" x ½"	0.75
184---0300 1B EVR	2" x ¾" x ¾"	0.75
184---0400 1B EVR	2" x 1" x 1"	1.0
184---0500 1B EVR	2" x 1¼" x1¼"	0.75
184---0600 1B EVR	2" x 1½" x 1½"	0.75
184---0800 1B EVR	2½" x 1¼" x1¼"	1.25
184---0900 1B EVR	2½" x 1½" x 1½"	1.25
184---1000 1B EVR	2½" x 2" x 2"	1.25
184---1100 1B EVR	3" x 1" x 1"	1.50
184---1200 1B EVR	3" x 1¼" x1¼"	2.0
184---1300 1B EVR	3" x 1½" x 1½"	2.0
184---1400 MB EVR	3" x 2" x 2"	2.0

Item Number	Size	Weight (lbs)
184---1500 1B EVR	3" x 2½" x 2½"	2.0
184---1800 1B	3½" x 1½" x 1½"	2.25
184---1900 1B	3½" x 2" x 2"	2.50
184---2100 1B	3½" x 3" x 3"	2.25
184---2200 MB EVR	4" x 1" x 1"	3.75
184---2300 MB EVR	4" x 1¼" x1¼"	4.90
184---2400 MB EVR	4" x 1½" x 1½"	2.50
184---2500 MB EVR	4" x 2" x 2"	2.50
184---2600 1B EVR	4" x 2½" x 2½"	4.25
184---2700 MB EVR	4" x 3" x 3"	3.40
184---2800 MB	6" x 3" x 3"	8.0
184---2900 1B	6" x 4" x 4"	8.35
184---2900 1P	6" black pipe plug	8.0
184---3000 1P	4" black pipe plug	1.50
184---3100 1P	3" black pipe plug	3.0
184---3200 1P	2" black pipe plug	2.75
184---3300 1P	1½" black pipe plug	1.50
184---3400 1P	1" black pipe plug	0.25
184---3500 1P	¾" black pipe plug	0.15

184D (2″)

Construction Details

Body... Cast iron
Compression fittings... Brass

184D
Duplex Bushing

Duplex bushings are used to convert a single tank or pipe opening to two smaller threaded openings.

Features

- Male NPT threads (OD)
- Two female NPT threads from the top down
- One of the female threaded openings is also threaded from the bottom up
- Compression fittings available

Item Number	Size	Fittings	Weight
184D--0100 1B	2" x ⅜" x ⅜"	Yes	12 oz
184D--0200 1B	2" x ½" x ½"	Yes	11 oz
184D--0300 AB	4" x ¾" x ¾"	Yes	4.65 lbs
184D--0301 MB	4" x ¾" x ¾"	No	4.10 lbs
184D--0401 MB	4" x 1" x 1"	No	3.80 lbs

184Q
Quad Tapped Bushing

Quad tapped bushings are used to convert a single tank or pipe opening to two smaller threaded openings.

Features
- Male NPT threads (OD)
- Two female NPT threads from the top down and from the bottom up
- Compression fittings available

Item Number	Size	Weight (lbs)
184Q--4075 MB	4" x ¾" x ¾"	5.25
184Q--4100 MB	4" x 1" x 1"	5.25

184Q

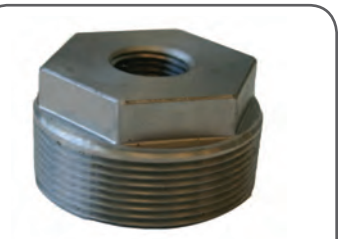
Construction Details
Body... Cast iron

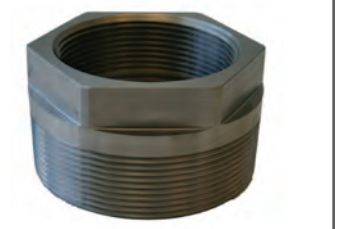
184S Series
Double Tapped Bushings & Pipe Plugs

Double tapped bushings are used to reduce tank or pipe opening thread size. Pipe plugs are used to plug female threaded opening in tanks and piping systems.

Features
- Male NPT threads (OD)
- Wrenching surface for easy installation or removal
- Female NPT threads from the top down and from the bottom up

Item Number	Size	Weight (lbs)
184S--0200 MB EVR	2" x ½" x ½"	0.75
184S--0300 MB EVR	2" x ¾" x ¾"	0.75
184S--0400 MB EVR	2" x 1" x 1"	0.75
184S--0500 MB EVR	2" x 1½" x 1½"	0.75
184S--2100 MB EVR	4" x ¾" x ¾"	4.25
184S--2200 MB EVR	4" x 1" x 1"	4.25
184S--2400 MB EVR	4" x 1½" x 1½"	4.25
184S--2500 MB EVR	4" x 2" x 2"	4.25
184S--2700 MB EVR	4" x 3" x 3"	4.25
184S--3000 MP	4" stainless steel plug	4.50
184S--3200 MP	2" stainless steel plug	0.75
912-050512 21	½" stainless steel plug	0.15
912-070512 MP	¾" stainless steel plug	0.20
912-100512 MP	1" stainless steel plug	0.30


184S (2")


184S (4")

Construction Details
Body... Stainless steel

Certifications & Listings
CARB EVR Executive Order VR-402

514 (3")

514
150# Raised Face Companion Flange

Companion flanges convert male threaded pipe connections to flanged connections.

Features

- Nuts, bolts, and gasket packages available
- Compatible with:
    - Morrison 234DI and 534DI gate valves
    - Morrison 246DRF swing check valves
    - Morrison 272DI and 346FDI emergency valves
    - Morrison 285FDI and 286FDI line strainers
    - Morrison 710F and 710FSS solenoid valves
    - Morrison 691FS ball valves

Construction Details

Body... Cast steel

Item Number	Size	Description	Weight (lbs)
514---0200 AF	2"	6" OD, (4) ¾" diameter holes on 4¾" BC	4.95
514---0300 AF	3"	7½" OD, (4) ¾" diameter holes on 6" BC	8.0
514---0400 AF	4"	9" OD, (8) ¾" diameter holes on 7½" BC	13.0

155 Series
Double Outlet Vents

T-style open vent directs vapors downward and is primarily used to vent small storage tanks.

Features
- Outlet ports on either side of the vent line for maximum air flow
- Rain resistant design
- Screen helps prevent debris and insects from entering the vent line
- **155** has female NPT threads
- **155S** is slip-on with a set screw

NOTE

Open vents will allow unrestricted evaporation of product.

Item Number	Size	Weight (lbs)
155---0100 AV	¾"	0.25
155---0200 AV	1"	0.50
155---0300 AV	1¼"	0.50
155---0400 AV	1½"	0.75
155---0500 AV	2"	1.0
155---0600 AV	3"	2.50
155S--0100 AV	¾"	0.25
155S--0200 AV	1"	0.50
155S--0300 AV	1¼"	0.50
155S--0400 AV	1½"	0.75
155S--0500 AV	2"	1.0
155S--0600 AV	3"	2.50

**Consult Price List for BSP options.*

155 (2")

155S (¾")

Construction Details
Body... Aluminum
Screens... 20 mesh stainless steel

155FA
Double Outlet Vent

T-style open vent directs vapors downward and is primarily used to vent small storage tanks.

Features
- Outlet ports on either side of the vent line for maximum air flow
- The cone shaped flash arrester prevents outside flames from entering the tank
- Female NPT threads
- Rain-resistant design
- Screens help prevent debris and insects from entering the vent line

Item Number	Size	Weight (lbs)
155FA-0500 AVAJ	2"	1.50

155FA

Construction Details
Body... Aluminum
Screens... 20 mesh stainless steel
Flash arrester... Anodized aluminum, perforated metal

WARNING: DO NOT FILL OR UNLOAD FUEL FROM A STORAGE TANK UNLESS IT IS CERTAIN THAT THE TANK VENTS WILL OPERATE PROPERLY. Morrison tank vents are designed only for use on shop fabricated atmospheric tanks which have been built and tested in accordance with UL 142, NFPA 30 & 30A, and API 650 and in accordance with all applicable local, state, and federal laws. In normal operation, dust and debris can accumulate in vent openings and block air passages. Certain atmospheric conditions such as a sudden drop in temperature, below freezing temperatures, and freezing rain can cause moisture to enter the vent and freeze which can restrict internal movement of vent mechnisms and block air passages. All storage tank vent air passages must be completely free of restriction and all vent mechanisms must have free movement in order to insure proper operation. Any restriction of airflow can cause excessive pressure or vacuum to build up in the storage tank, which can result in structural damage to the tank, fuel spillage, property damage, fire, injury, and death. Monthly inspection, and immediate inspection during freezing conditions, by someone familiar with the proper operation of storage tank vents, is required to insure venting devices are functioning properly before filling or unloading a tank.

354 (2")

Construction Details

Body and cap... Aluminum die cast
Screen... 40 mesh stainless steel

Certifications & Listings

CARB Approval 89-12 (1½" and 2" models)

354
Updraft Vent

An atmospheric updraft vent is installed on the top of storage tank vent pipes on underground and aboveground fuel storage tanks.

Features

- Directs vapors outward and upward in compliance with NFPA 30
- Protects the vent line from debris and insects
- Water-resistant rain cap diverts water away from the vent line
- Slip-on design with set screws for easy installation
- Internal drain channels water penetration out through weep hole

Item Number	Size (slip-on)	Venting Capacity (SCFH) (@ 2.5 PSI)	Weight (lbs)
354---0100 AV	1½"	27,650	0.75
354---0200 AV	2"	27,650	0.75
354---0300 AV	3"	59,000	1.50
354---0400 AV	4"	116,900	2.25

354T (2")

Construction Details

Body and cap... PTFE coated black aluminum
Screen... 40 mesh stainless steel

354T
Updraft Vent

Atmospheric updraft vents are installed on the top of storage tank vent pipes on underground and aboveground fuel storage tanks.

Features

- Compatible with DEF
- Directs vapors outward and upward in compliance with NFPA 30
- Protects the vent line from debris and insects
- Water-resistant rain cap diverts water away from the vent line
- Slip-on design with set screws for easy installation
- Internal drain channels water penetration out through weep hole

Item Number	Size (slip-on)	Venting Capacity (SCFH) (@ 2.5 PSI)	Weight (lbs)
354T--0200 AV	2"	27,650	0.75
354T--0300 AV	3"	59,000	1.50

NOTE

Open vents will allow unrestricted evaporation of product.

WARNING: DO NOT FILL OR UNLOAD FUEL FROM A STORAGE TANK UNLESS IT IS CERTAIN THAT THE TANK VENTS WILL OPERATE PROPERLY. Morrison tank vents are designed only for use on shop fabricated atmospheric tanks which have been built and tested in accordance with UL 142, NFPA 30 & 30A, and API 650 and in accordance with all applicable local, state and federal laws. In normal operation, dust and debris can accumulate in vent openings and block air passages. Certain atmospheric conditions such as a sudden drop in temperature, below freezing temperatures, and freezing rain can cause moisture to enter the vent and freeze which can restrict internal movement of vent mechanisms and block air passages. All storage tank vent air passages must be completely free of restriction and all vent mechanisms must have free movement in order to insure proper operation. Any restriction of airflow can cause excessive pressure or vacuum to build up in the storage tank, which can result in structural damage to the tank, fuel spillage, property damage, fire, injury, and death. Monthly inspection, and immediate inspection during freezing conditions, by someone familiar with the proper operation of storage tank vents, is required to insure venting devices are functioning properly before filling or unloading a tank. Normal vents such as pressure vacuum and updraft vents for aboveground storage tanks should be sized according to NFPA 30 (2008) 21.4.3

749 Series
Pressure Vacuum Vents

Pressure vacuum vents are installed on the top of underground and low volume aboveground storage tank vent pipes. Vent allows tank to "breathe" during filling and discharging operations. Pressure and vacuum poppets seal vapors in tank when pressure is equalized.

Features

- Screen protects the vent line from debris and insects
- Water-resistant rain cap diverts water away from the vent line
- Internal drain channels water penetration out through weep hole
- Directs vapors outward and upward in compliance with NFPA 30
- Conserves fuel
- Certified SCFH ratings
- Settings are approximate

749 (2")
with 3" threaded adaptor

Item Number	Size	Connection	Pressure Setting (oz./in²)	Vacuum Setting (oz./in²)	Venting Capacity (SCFH) (@ 2.5 PSI)	Weight (lbs)
749---0100 AV	2"	Threaded	8.0	0.5	8,500	1.0
749---0200 AV	2"	Threaded	12.0	0.5	8,500	1.0
749---1100 AV	3"	Threaded	8.0	0.5	8,500	1.55
749---1200 AV	3"	Threaded	12.0	0.5	8,500	1.55
749S--0100 AV	2"	Slip-on	8.0	0.5	8,500	1.0
749S--0200 AV	2"	Slip-on	12.0	0.5	8,500	1.0
749S--1100 AV	3"	Slip-on	8.0	0.5	8,500	1.55
749S--1200 AV	3"	Slip-on	12.0	0.5	8,500	1.55
749CRB0500 AV	2"	Threaded	8.0	0.5	11,000	1.45
749CRB0600 AV	2"	Threaded	3" W.C.	8" W.C.	11,000	1.95
749CRB1500 AV ♦	3"	Threaded	8.0	0.5	8,500	1.65
749CRB1600 AV ♦	3"	Threaded	3" W.C.	8" W.C.	11,000	1.65
749CRBS600 AV	2"	Slip-on	3" W.C.	8" W.C.	11,000	1.45
749CRBS1600 AV ♦	3"	Slip-on	3" W.C.	8" W.C.	11,000	1.95

**Consult Price List for BSP options.*

♦ *Meet the requirements of EPA 40 CFR part 63 for Gasoline Dispensing Facilities.*

Construction Details

Body... Aluminum
Pressure poppet... Aluminum
Adaptor... Aluminum
Vacuum poppet... Brass
Pipe seal... Buna-N
Screen... 40 mesh brass

Certifications & Listings

CARB Approval 95-14 (749CRB0500);
CARB Approval 95-15 (749CRB0600);
CARB Approval 96-19 (749CRBS0600)

NOTE

Morrison 749 P/V vent must only be used in conjunction with motor fueling and/or low capacity flow. Fluid handling in lines larger than that used for retail service stations can cause tank to rupture or implode.

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749T

749T
Pressure Vacuum Vent

The 749T provides the same functions as the 749 and is designed for use on underground and low volume aboveground tanks storing Diesel Exhaust Fluid (DEF) and other products requiring PTFE and stainless steel construction.

Features

- Screen protects the vent line from debris and insects
- Water-resistant rain cap diverts water away from the vent line
- Certified SCFH ratings

Item Number	Size	Connection	Pressure Setting (oz./in²)	Vacuum Setting (oz./in²)	Venting Capacity (SCFH) (@ 2.5 PSI)	Weight (lbs)
749T--0200 AV	2"	Slip-on	8.0	0.5	8,500	1.0

Construction Details

Hood body... PTFE coated aluminum
Body... HDPE
Pressure poppet... HDPE
Vacuum poppet... Stainless steel
Pipe seal... FKM
Screen... 40 mesh stainless steel

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5885

5885
Pressure Vacuum Vent

The 5885 Husky brand thread-on pressure vacuum vent is designed for installation on top of the vent pipe of an aboveground or underground storage tank. The poppets seal vapors in the tank when pressure is equalized.

Features

- Pressure range 2½ - 6″ water column
- Vacuum range 6 - 10″ water column
- Vents up to 7900 SCFH at 2 PSI

Item Number	Size	Weight (lbs)
5885--0100 AV EVR	2"	1.20

Construction Details

Body and cap...Aluminum
Screens... 40 mesh stainless steel
Set screws... Stainless steel

Certifications & Listings

UL Listed; CARB EVR Executive Order VR-402

2583

948A
Pressure Vacuum Vent

948A

The 948A pressure vacuum vent is designed for installation on top of the vent pipe of an aboveground or underground storage tank. The poppets seal vapors in the tank when pressure is equalized. The vent allows the tank to "breathe" during filling and discharging operations.

Features
- Conserves vapors
- Durable construction
- Easily replaceable seals extend life expectancy
- Outlasts other brands by many years of service
- Operating temperature -40°F to 130°F
- Full 2″ orifice for maximum flow rate
- Compatible with gasoline, ethanol (to E-85), and biodiesel (to B-20)

Item Number	Description	Weight (lbs)
948A--0200 AV ♦	2" Pressure vacuum vent 2.5"-6" WC pressure	7.70

♦*Meets the requirements of EPA 40 CFR part 63 for Gasoline Dispensing Facilities.*

Construction Details
Body... Anodized aluminum
Seals... Elastomer
Screens... Stainless steel
Handle... Stainless steel
Rainguard... Aluminum

Leak Rates & Settings
Pressure leak rate: Less than 0.05 SCFH @ 2.0" WC
Vacuum leak rate: Less than 0.21 SCFH @ 4.0" WC
Opening pressure: 2.5" to 6.0" WC
Opening vacuum: 6.0" to 10.0" WC

Flow Rates
36,720 SCFH @ 2.5 PSI Pressure
8,000 SCFH @ -0.5 PSI Vacuum

Certifications & Listings
UL 2583 Listed; Missouri Air Conservation Commission Approved for Rule 10 CSR 10.2.260 and 10.5.220

NOTE

UL 2583 was released in 2011 and became effective December 30, 2013. This listing covers requirements for mechanical type accessories that are typically intended for attachment to fuel storage tanks or their connecting pipes in fueling system applications.

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748A (2")

748A (3")

Construction Details

Body and hood… Aluminum
Seats... Passivated aluminum
Poppets… Brass
Screens… Stainless steel

748A Series

Pressure Vacuum Vents

This pressure vacuum vent is designed for installation on top of the vent pipe of an aboveground or underground storage tank. Poppets seal vapors in the tank when pressure is equalized. The vent allows the tank to "breathe" during filling and dispensing operations.

Features

- Directs vapors outward and upward in compliance with NFPA 30
- Tri-polar design for mounting exhaust hood in any of three positions
- Optional dryer connections accommodate the installation of desiccant dryers on vacuum connection
- Optional pressure discharge hood facilitates piping pressure relief to desired discharge point
- Settings are approximate

Size	Item Number	Pressure Setting (oz./in²)	Vacuum Setting (oz/in²)	Venting Capacity (SCFH) (@ 2.5 PSI)	Weight (lbs)
2"	748A--0100 AV	2.0	1.0	20,200	6.50
	748A--0200 AV	4.0	1.0	20,200	7.15
	748A--0300 AV	6.0	1.0	20,200	7.55
	748A--0400 AV	8.0	1.0	20,200	8.15
	748A--0500 AV	12.0	1.0	18,600	9.30
	748A--0600 AV	16.0	1.0	18,600	10.35
3"	748A--3100 AV	2.0	1.0	43,000	9.75
	748A--3200 AV	4.0	1.0	43,000	11.15
	748A--3300 AV	6.0	1.0	43,000	12.15
	748A--3400 AV	8.0	1.0	43,000	13.10
	748A--3500 AV	12.0	1.0	40,000	15.30
	748A--3600 AV	16.0	1.0	40,000	17.75

**Consult Price List for other options including male threaded dryer connection and female threaded pressure discharge hood.*

NOTE

Normal vents such as pressure vacuum and updraft vents for aboveground storage tanks should be sized according to NFPA 30 (2012) 21.4.3.

NOTE

This vent must be used in conjunction with an emergency vent. It is recommended that the opening pressure setting is set below that of the emergency vent so the normal vent operates first.

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748ALT
Pressure Vacuum Vent

The 748ALT pressure vacuum vent valve is used with aqua-ammonia and ag-chemical products allowing the tank to "breathe" during filling and dispensing operations. Pressure and vacuum poppets seal vapors in the tank when pressure is equalized.

Features
- Settings are approximate
- Conserves vapors
- Tri-polar design for mounting exhaust hood in any of three positions

Item Number	Size	Pressure Setting (oz./in²)	Vacuum Setting (oz/in²)	Venting Capacity (SCFH) (@ 2.5 PSI)	Weight (lbs)
748ALT0100 AV	2"	8.0	1.0	20,200	5.50
748ALT0200 AV	2"	16.0	1.0	18,000	5.50
748ALT0300 AV	2"	32.0	1.0	--	5.50

**Consult Price List for other options including male threaded dryer connection and female threaded pressure discharge hood.*

748ALT

Construction Details
Body and hood... Aluminum
Seats and poppets... PTFE coated aluminum
Screens... Stainless steel

922
Vent Alarm

The 922 pressure vacuum vent allows the tank to "breathe" during filling and dispensing operations. When the liquid level in the aboveground storage tank reaches the preset level, an audible whistle alarm is generated.

Features
- Functions as both a pressure vacuum vent and audible alarm while utilizing a single 2″ or 3″ tank opening
- Installs on the top of the vent pipe, generally 12 feet above grade
- 105 to 120 decibel whistle alarm (measured at a distance of 1 foot with a fill rate of 90 GPM)
- Fully mechanical alarm does not require electricity or batteries
- The alarm level can be set to activate at desired liquid level by adjusting the float device cable length
- Minimum fill rate of 20 GPM required for alarm to operate

WARNING

All emergency vents, fill connections, tank openings, and piping connections must be airtight. Alarm/vent airway must be free of any obstruction such as dirt or ice when filling or unloading tank. Emergency vent should be set at least 2 oz. higher than combination vent.

Item Number	Size	Venting Capacity (SCFH) (@ 2.5 PSI)	Weight (lbs)
922---0200 AA	2" - 8 oz	30,300	8.50
922---0300 AA	3" - 8 oz	43,020	6.30
922---0400 AA	2" - 6 oz	30,120	8.50
922---0500 AA	3" - 6 oz	44,160	6.30

**Consult Price List for BSP options.*

922 (3″)

Construction Details
Body... Anodized aluminum
Screens... Stainless steel
Rainguard... Aluminum
Seals... FKM
Ball... PTFE
Float... Stainless steel

Certifications & Listings
Florida DEP EQ-227

WARNING: DO NOT FILL OR UNLOAD FUEL FROM A STORAGE TANK UNLESS IT IS CERTAIN THAT THE TANK VENTS WILL OPERATE PROPERLY. Morrison tank vents are designed only for use on shop fabricated atmospheric tanks which have been built and tested in accordance with UL 142, NFPA 30 & 30A, and API 650 and in accordance with all applicable local, state and federal laws. In normal operation, dust and debris can accumulate in vent openings and block air passages. Certain atmospheric conditions such as a sudden drop in temperature, below freezing temperatures, and freezing rain can cause moisture to enter the vent and freeze which can restrict internal movement of vent mechanisms and block air passages. All storage tank vent air passages must be completely free of restriction and all vent mechanisms must have free movement in order to insure proper operation. Any restriction of airflow can cause excessive pressure or vacuum to build up in the storage tank, which can result in structural damage to the tank, fuel spillage, property damage, fire, injury, and death. Monthly inspection, and immediate inspection during freezing conditions, by someone familiar with the proper operation of storage tank vents, is required to insure venting devices are functioning properly before filling or unloading a tank. Normal vents such as pressure vacuum and updraft vents for aboveground storage tanks should be sized according to NFPA 30 (2008) 21.4.3.

351S
flame arrester with open vent

Construction Details

351S
Body and cover... Cast iron
Arrester plates... Stainless steel
Arrester grid housing... Brass

351S
Flame Arrester/Open Vent

Flame arresters provide a barrier that deters flames from passing through the normal vent line into a storage tank's vapor space.

Features

- Directs vapors outward and upward in compliance with NFPA 30
- Vent screen protects the vent line from debris and insects
- Water-resistant rain cap diverts water away from the vent line

Item Number	Description
351S--4000 AV	This product is being replaced by the 352 Flame Arrester

351S
flame arrester with pressure vacuum vent

Construction Details

748A
Body and hood... Aluminum
Poppets... Brass
Screens... Stainless steel

351S
Flame Arrester/Pressure Vacuum Vent

Flame arresters provide a barrier that deters flames from passing through the pressure vacuum vent line into a storage tank's vapor space.

Features

- When the Morrison 748A is combined with a Morrison 351S, it functions as a flame arrester and pressure vacuum vent

Item Number	Size	Pressure Setting ($oz./in^2$)	Vacuum Setting ($oz./in^2$)	Venting Capacity (SCFH) (@2.5 PSI)	Weight (lbs)
351S--0200 AV	2"	2.0	1.0	15,500	42.0
351S--0300 AV	2"	4.0	1.0	15,500	42.50
351S--0400 AV	2"	6.0	1.0	15,500	42.75
351S--0500 AV	2"	8.0	1.0	15,500	43.50
351S--0600 AV	2"	12.0	1.0	13,000	44.50
351S--0700 AV	2"	16.0	1.0	13,000	45.75
351S--4100 AV	2"	8.0	.50	--	32.0

**Consult Price List for other options including male threaded dryer connection and female threaded pressure discharge hood.*

WARNINGS: Do not use with acetylene, carbon disulfide, etheleneoxide or hydrogen gases. For use with normal hydrocarbon flames such as gasoline in air. Routine inspection is required to ensure airways are clear and free of debris. Blocked airways can cause structural deformation of the tank.

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352
End-of-Line, Open Air Deflagration Flame Arrester

End-of-Line flame arresters are designed to be installed at the end connection of a tank vent line. The flame arrester provides a protection barrier that deters a flame generated from a source outside of the tank from flashing through the vent into the vapor space of the tank.

Features
- 304 stainless arrester plates provide long term corrosion resistance and durability
- Easy access for visual inspection and periodic maintenance
- Full 2” and 3” NPT vent line air flow capacity
- Water-resistant cover sheds water away from the vent line

Item Number	Size	Venting Capacity (SCFH) (@2.5 PSI)	Weight (lbs)
352---0200 AV	2"	57,000	8.30
352---0300 AV	3"	117,000	16.20

NOTE

For petroleum storage tanks containing Group D* fluids.

**NFPA 70, the National Electrical Code, lists or defines hazardous gases, vapors, and dusts by “Groups.” Consult these resources for information on Group D fluids.*

352 (3")

Construction Details

Base... 356 tempered aluminum
Cover... Aluminum
Arrester plates... 304 stainless steel
Threaded hardware... 18-8 stainless steel

Certifications & Listings

UL 525 Listed–Standard for Flame Arresters–Edition 8

779 & 780 Series
Relief Cap Arrester

The relief cap and arrester are installed on flexible fabric fuel or water tank vent lines.

Features
- Hinged cap relieves pressure at 2″ of water column +/- 1″
- Arrester protects tank contents from fire during filling operations
- **780** includes flash arrester

Item Number	Size	Description	Weight (lbs)
779---0100 ACAA	2"	For use with fuels	0.50
779---0200 ACAA	2"	For use with potable water	0.50
780---0100 ACA	2"	For use with fuels	1.0
780---1100 ACA	2"	For use with potable water	1.0

779 780

Construction Details

Body and handle… Anodized aluminum
Cover… Stainless steel
Gasket… Buna-N or FDA Buna-N
Flash arrester… Anodized aluminum; 0.040 perforated metal

244OMA (2")

Construction Details

2" Vent

Body... Aluminum
Cover... Aluminum
O-Ring... FKM
Screen... 4 mesh stainless steel (optional)
Center Pin... Zinc plated steel

244OM (8")

Construction Details

3", 4", 5", 6", 8", 10" Vents

Body... Aluminum
Cover... Power coated cast iron
O-Ring... FKM-A, standard models
O-Ring... FKM-B, Model numbers ending in AVEVR
Screen... 3 mesh stainless steel (3",4",5" and 6") (optional)

Certifications & Listings

UL 2583 Listed ; (*10 inch 2.5oz vent is UL Listed, but NOT Listed to UL 2583)
When properly sized for the tank, this vent will conform to the requirements of NFPA 30, 30A; UL 142; ULC S601; IFC; PEI RP200; CARB EVR Executive Order VR-402

244 Series
Emergency Vents

EVR c UL US LISTED 2583

Emergency vents are installed on aboveground storage tanks as a code requirement. Emergency vents provide high capacity pressure relief if the tank is exposed to fire. When the internal tank pressure reaches the opening pressure of the vent, the weighted cover moves up on the center pin allowing air to escape.

Features

- Automatically resets after opening
- Durable powder coated cast iron covers (3" to 10")
- Certified SCFH flow capacities
- Theft deterrent screens available

Size	Item Number	Pressure Setting (oz./in²)	Venting Capacity (SCFH) (@ 2.5 PSI)	Mounting Connection	Weight (lbs)
2"	244OMA0020 AV	8.0	31,917	Male NPT	1.0
	244OMA0030AVEVR EVR	16.0	31,917	Male NPT	0.40

Consult Price List for BSP, screen, and other options.

Size	Item Number	Pressure Setting (oz./in²)	Venting Capacity (SCFH) (@ 2.5 PSI)	Mounting Connection	Weight (lbs)
3"	244OM-0050 AV	8.0	60,994	Male NPT	6.40
	244OM-0060 AV	16.0	60,994	Male NPT	11.0
	244OM-0060AVEVR EVR				
4"	244OM-0100 AV	8.0	131,700	Male NPT	10.0
	244OM-0170 AV	16.0*	131,700	Male NPT	19.0
	244OM-0170AVEVR EVR				
5"	244OM-0800 AV	8.0	190,087	Male NPT	15.0
	244OM-0900 AV	16.0*	190,087	Male NPT	28.0
	244OM-0900AVEVR EVR				
6"	244OM-0200 AV	8.0*	299,684	Male NPT	20.0
	244OM-0200AVEVR EVR				
	244OM-0400 AV	16.0*	299,684	Male NPT	37.0
	244OM-0400AVEVR EVR				
8"	244OM-0600 AV	8.0*	503,517	Male NPT	44.0
	244OM-0600AVEVR EVR				
	244OM-0700 AV	16.0*	503,517	Male NPT	63.0
	244OM-0700AVEVR EVR				

Consult Price List for BSP, screen, and other options.

WARNING: The Morrison 244 emergency vent is for "emergency pressure relief only" and must be used in conjunction with a "normal vent" or pressure vacuum vent such as a Morrison 354, 548,748, 749 or 922. This vent must be properly sized and selected for each specific tank application in order to meet the proper "venting capacity" requirements. See the Morrison Vent Guide for further instructions.

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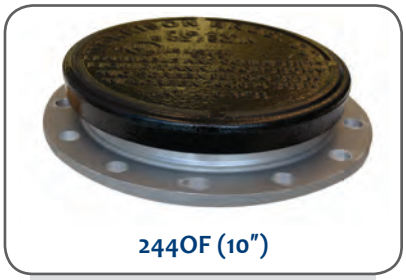
Size	Item Number	Pressure Setting (oz./in²)	Venting Capacity (SCFH) (@ 2.5 PSI)	Mounting Connection	Weight (lbs)
3"	244O--0050 AV	8.0	60,994	Female NPT	7.0
	244O--0060 AV	16.0	60,994		11.50
	244O--0060AVEVR EVR				
4"	244O--0100 AV	8.0	131,700	Female NPT	10.0
	244O--0170 AV	16.0	131,700	Female NPT	18.0
	244O--0170AVEVR EVR				
5"	244O--0800 AV	8.0	190,087	Female NPT	14.0
	244O--0900 AV	16.0	190,087	Female NPT	27.0
	244O--0900AVEVR EVR				
6"	244O--0200 AV	8.0	299,684	Female NPT	19.0
	244O--0200AVEVR EVR				
	244O--0400 AV	16.0	299,684	Female NPT	36.0
	244O--0400AVEVR EVR				
8"	244O--0600 AV	8.0	503,517	Female NPT	43.0
	244O--0600AVEVR EVR				
	244O--0700 AV	16.0	503,517	Female NPT	62.0
	244O--0700AVEVR EVR				

**Consult Price List for BSP, screen, and iron body options.*

244O (6")



244OF (10")

Size	Item Number	Pressure Setting (oz./in²)	Venting Capacity (SCFH) (@ 2.5 PSI)	Mounting Connection	Weight (lbs)
4"	244OF-0600 AV	8.0	131,700	Flanged	11.0
	244OF-0600 AVE				
	244OF-0170 AV	16.0	131,700	Flanged	20.0
	244OF-0170AVEVR EVR				
6"	244OF-0050 AV	8.0	299,684	Flanged	21.0
	244OF-0050AVEVR EVR				
	244OF-0075 AV	16.0	299,684	Flanged	38.0
	244OF-0075AVEVR EVR				
8"	244OF-0100 AV	8.0	503,517	Flanged	43.0
	244OF-0100AVEVR EVR				
	244OF-0200 AV	16.0	503,517	Flanged	67.0
	244OF-0200AVEVR EVR				
10"	244OF-0300 AV	2.5	881,670	Flanged	25.0
	244OF-0400 AV	8.0	890,275	Flanged	57.0
	244OF-0400AVEVR EVR				
	244OF-0500 AV	16.0	890,275	Flanged	103.0
	244OF-0500AVEVR EVR				

**Consult Price List for BSP and screen options.*

Size	Item Number	Flanged Kits	Weight (lbs)
4"	244OF-04080 AK	Includes 244OF-0600 AV vent, flange adaptor, gasket, and nuts/bolts	N/A
	244OF-04160 AK	Includes 244OF-0170 AV vent, flange adaptor, gasket, and nuts/bolts	N/A
6"	244OF-06080 AK	Includes 244OF-0050 AV vent, flange adaptor, gasket, and nuts/bolts	N/A
	244OF-06160 AK	Includes 244OF-0075 AV vent, flange adaptor, gasket, and nuts/bolts	N/A
8"	244OF-08080 AK	Includes 244OF-0100 AV vent, flange adaptor, gasket, and nuts/bolts	N/A
	244OF-08160 AK	Includes 244OF-0200 AV vent, flange adaptor, gasket, and nuts/bolts	N/A
10"	244OF-10025 AK	Includes 244OF-0300 AV vent, flange adaptor, gasket, and nuts/bolts	N/A
	244OF-10080 AK	Includes 244OF-0400 AV vent, flange adaptor, gasket, and nuts/bolts	N/A
	244OF-10160 AK	Includes 244OF-0500 AV vent, flange adaptor, gasket, and nuts/bolts	N/A

Construction Details

3", 4", 5", 6", 8", 10" Vents

Body... Aluminum

Cover... Power coated cast iron

O-Ring...FKM-A, standard models

O-Ring... FKM-B, Model numbers ending in AVE or AVEVR

Screen... 3 mesh stainless steel (3",4",5" & 6") (optional)

Certifications & Listings

UL 2583 Listed; (*10 inch 2.5oz vent is UL Listed, but NOT Listed to UL 2583)

When properly sized for the tank, this vent will conform to the requirements of NFPA 30, 30A; UL 142; ULC S601; IFC; PEI RP200; CARB EVR Executive Order VR-402

WARNING: DO NOT FILL OR UNLOAD FUEL FROM A STORAGE TANK UNLESS IT IS CERTAIN THAT THE TANK VENTS WILL OPERATE PROPERLY. Morrison tank vents are designed only for use on shop fabricated atmospheric tanks which have been built and tested in accordance with UL 142, NFPA 30 & 30A, and API 650 and in accordance with all applicable local, state and federal laws. In normal operation, dust and debris can accumulate in vent openings and block air passages. Certain atmospheric conditions such as a sudden drop in temperature, below freezing temperatures, and freezing rain can cause moisture to enter the vent and freeze which can restrict internal movement of vent mechanisms and block air passages. All storage tank vent air passages must be completely free of restriction and all vent mechanisms must have free movement in order to insure proper operation. Any restriction of airflow can cause excessive pressure or vacuum to build up in the storage tank, which can result in structural damage to the tank, fuel spillage, property damage, fire, injury, and death. Monthly inspection, and immediate inspection during freezing conditions, by someone familiar with the proper operation of storage tank vents, is required to insure venting devices are functioning properly before filling or unloading a tank. Normal vents such as pressure vacuum and updraft vents for aboveground storage tanks should be sized according to NFPA 30 (2008) 21.4.3

244A (4″)

244A
Flange Adaptor

Flange adaptors are welded to tank top openings in aboveground storage tanks creating a flanged emergency vent connection.

Features
- Pre-drilled for easy installation of emergency vent
- Gaskets, nuts, and bolts are available

Item Number	Size	Weight (lbs)
244A--0400 1A	4"	10.0
244A--0000 1A	6"	12.0
244A--0100 1A	8"	19.0
244A--0200 1A	10"	20.0

Construction Details
Body... Carbon steel

244C (8″)

244C
Companion Flange

This companion flange has female threads and is designed to convert a male threaded pipe nipple to a 150# raised face flange connection.

Item Number	Size	Weight (lbs)
244C--0100 1F	8"	27.0
244C--0200 1F	10"	36.0

Construction Details
Body... Cast iron

244N (4″ x 8″)
(TOE)

244N
Pipe Nipple

A steel pipe nipple has male threads on one end (T.O.E) or male threads on both ends (T.B.E).

Item Number	Size	Threads	Weight (lbs)
244N--0100 1N	4" x 8"	T.O.E	7.0
244N--0200 1N	6" x 8"	T.O.E	13.0
244N--0300 1N	8" x 12"	T.O.E	28.0
244N--0600 1N	4" x 8"	T.B.E	7.0
244N--0700 1N	6" x 8"	T.B.E	13.0
244N--0800 1N	8" x 12"	T.B.E	28.0
244N--1000 1N	8" x 8"	T.O.E	20.0
244N--1100 1N	8" x 8"	T.B.E	20.0

Construction Details
Body... Carbon steel—NPT

153B
Barge & Tanker Vent

153B

The 153B pressure vacuum vent is designed for installation on top of the vent pipe on barge fuel storage tanks. The vent allows the tank to "breathe" during filling and dispensing operations.

Features
- Normally closed to conserve vapor emissions

Item Number	Size	Pressure Setting (oz./in²)	Vacuum Setting (oz./in²)	Weight (lbs)
153B--0100 AV	2½"	1.5	1.5	25.20
153B--0200 AV	2½"	4.0	1.5	25.20
153B--0300 AV	2½"	8.0	1.5	25.20
153B--0400 AV	2½"	16.0	1.5	25.20
153B--0500 AV	2½"	32.0	1.5	25.20

Construction Details
Body and lever poppets... Brass

Certifications & Listings
U.S. Coast Guard approved No. 162.017/179

153BSS
Barge & Tanker Vent

153BSS

The 153BSS pressure vacuum vent is designed for installation on top of the vent pipe on barge fuel storage tanks. The vent allows the tank to "breathe" during filling and dispensing operations.

Features
- Normally closed to conserve vapor emissions

Item Number	Size	Pressure Setting (oz./in²)	Vacuum Setting (oz./in²)	Weight (lbs)
153BSS0100 AV	2½"	1.5	1.5	29.0
153BSS0200 AV	2½"	4.0	1.5	29.0
153BSS0300 AV	2½"	8.0	1.5	29.0
153BSS0400 AV	2½"	16.0	1.5	29.0
153BSS0500 AV	2½"	32.0	1.5	29.0

Construction Details
Body, cover, and poppets... 316 stainless steel

Certifications & Listings
U.S. Coast Guard approved No. 162.017/178

818 Series
Clock Gauge (Feet & Inches)

The Morrison 818 series clock gauges are designed to measure the liquid level in storage tanks up to 12 feet in measurement. The liquid level reading is displayed in feet and inches.

Features

- Gauge readout in feet and inches:
  - Hour hand (short hand) = feet
  - Minute hand (long hand) = inches
- Easy to install and calibrate in a 2″ tank top opening
- Easily read from 30 feet away
- Accurate to ⅛ of an inch
- Vapor tight and fog-free construction
- Gauge rotates 360° for placement in the desired orientation
- Visual indicator decals for high level (red) and low level (green) are included with the dial face cover
- Standard float fits through a 2″ schedule 40 pipe nipple
- Optional drop tube style float for use with drop tube reduces the risk of float entanglement when turbulent tank conditions occur (compatible with Morrison 419 2" models)
- **818T** and **818FT** series are compatible for use with Diesel Exhaust Fluid (DEF)

818
with standard float

818T
with drop tube float

Item Number	M/F	Float	Weight (lbs)
818---0100 AG	M	Standard	4.50
818---0100AGEVR EVR	M	Standard	4.50
818---0400 AG	M	Drop tube	4.50
818---0400AGEVR EVR	M	Drop tube	4.50
818F--0100 AG	F	Standard	4.50
818F--0100AGEVR EVR	F	Standard	4.50
818F--0400 AG	F	Drop tube	4.50
818F--0400AGEVR EVR	F	Drop tube	4.50
818T--0100 AG	M	Standard	4.50
818T--0400 AG	M	Drop tube	4.50
818FT-0400 AG	F	Drop tube	4.50

**Consult Price List for BSP options.*

Construction Details

818 & 818F
Body… Aluminum
Float… Stainless steel
Cable… Stainless steel

818T & 818FT
Body… PTFE coated aluminum
Float… Stainless steel
Cable… Stainless steel

Certifications & Listings

CARB EVR Executive Order VR-402;
Florida DEP EQ-873

818C

818C Series

Clock Gauge (Gallons & Liters)

The Morrison 818C series clock gauge is designed to measure and display product liquid levels in aboveground storage tanks up to 12 feet (3.7 meters) in height.

Features

- Gauge readout in gallons or liters
- Gallon/liter faceplates are made to order for specific horizontal, vertical, and rectangular tank sizes
- Easy to install and calibrate in a 2″ tank top opening
- Vapor tight and fog-free construction
- Gauge head rotates 360° making it easy for placement in the desired orientation
- A red area on the gauge face serves as a visual indicator when the tank reaches 90-100% full
- Standard float fits through a 2″ schedule 40 pipe nipple
- Optional drop tube style float for use with drop tube reduces the risk of float entanglement when turbulent tank conditions occur (compatible with Morrison 419 2" models)

Construction Details

Body… Aluminum
Float… Stainless steel
Cable… Stainless steel

Certifications & Listings

CARB EVR Executive Order VR-402; Florida DEP EQ-873

NOTE

Clock faces must be ordered with tank gauges and will be factory assembled.

Item Number	M/F	Float	Weight (lbs)
818C--0100 AG	M	Standard	4.50
818C--0100AGEVR EVR	M	Standard	4.50
818C--0400 AG	M	Drop tube	4.50
818C--0400AGEVR EVR	M	Drop tube	4.50
818CF-0100 AG	F	Standard	4.50
818CF-0100AGEVR EVR	F	Standard	4.50
818CF-0400 AG	F	Drop tube	4.50
818CF-0400AGEVR EVR	F	Drop tube	4.50

**See website or contact Customer Service for other options and custom orders.*

818MET Series
Clock Gauges (Meters & Centimeters)

818MEF

The Morrison 818MET series clock gauge is designed to measure and display product liquid levels in aboveground storage tanks up to 3.7 meters in height.

Features
- Easy to install and calibrate in a 5.08 centimeter (2″) tank top opening
- Gauge readout in feet and inches:
    - Hour hand (short hand) = meters (m)
    - Minute hand (long hand) = centimeters (cm)
- Accurate to .32 centimeters (⅛ of an inch)
- Easily read from 9 meters (30 feet) away
- Vapor tight and fog-free construction
- Gauge rotates 360° for ease of placement in the desired orientation
- Visual indicator decals for high level (red) and low level (green) are included with the dial face cover
- Standard float fits through a 2″ schedule 40 pipe nipple
- Optional drop tube style float for use with drop tube reduces the risk of float entanglement when turbulent tank conditions occur (compatible with Morrison 419 2" models)

Construction Details
Body… Aluminum
Float… Stainless steel
Cable… Stainless steel

Certifications & Listings
CARB EVR Executive Order VR-402; Florida DEP EQ-873

Item Number	M/F	Float	Weight (lbs)
818MET0100 AG	M	Standard	4.50
818MET0100AGEVR	M	Standard	4.50
818MET0400 AG	M	Drop tube	4.50
818MET0400AGEVR	M	Drop tube	4.50
818MEF0100 AG	F	Standard	4.50
818MEF0100AGEVR	F	Standard	4.50
818MEF0400 AG	F	Drop tube	4.50
818MEF0400AGEVR	F	Drop tube	4.50

**Consult Price List for BSP options.*

818I
Floating Suction Indicator

818I

The floating suction indicator is a mechanical means of displaying movement of the floating suction arm as the liquid level changes.

Features
- Easy to install and calibrate in a 2″ tank top opening
- Cable attaches to the floating suction arm
- Bright green and yellow face
- Vapor tight construction and fog-free construction
- Gauge rotates 360° for ease of placement in the desired orientation

Construction Details
Body… Aluminum
Cable… Stainless steel

Item Number	M/F	Weight (lbs)
818I--0000 AG	M	4.0

918
with standard float

918T
PTFE with drop tube float

918 Series
Clock Gauges & Alarms (Feet & Inches)

The Morrison 918 series clock gauges are designed to measure the liquid level in storage tanks up to 12 feet in measurement. The liquid level reading is displayed in feet and inches. The Model 918 audible alarm sounds when the liquid level in the tank reaches the user's specified level.

Features

- Easy to install in a single 2″ tank top opening
- Easy to calibrate
- Battery-powered audible alarm
- Gauge readout in feet and inches:
  - Hour hand (short hand) = feet
  - Minute hand (long hand) = inches
- Accurate to ⅛ of an inch
- Easily read from 30 feet away
- Vapor tight and fog-free construction
- Gauge rotates 360° for ease of placement in the desired orientation
- Visual indicator decals for high level (red) and low level (green) are included with the dial face cover
- Standard float fits through a 2″ schedule 40 pipe nipple
- Optional drop tube style float for use with drop tube reduces the risk of float entanglement when turbulent tank conditions occur (compatible with Morrison 419 2" models)
- **918T** and **918FT** series are compatible for use with Diesel Exhaust Fluid (DEF)

Construction Details

918 & 918F
Body… Aluminum
Float… Stainless steel
Cable… Stainless steel

918T & 918FT
Body… PTFE coated aluminum
Float… Stainless steel
Cable… Stainless steel

Certifications & Listings

Alarm unit is UL 913 Listed; 918 single channel alarm and clock gauge is Florida DEP EQ-527; CARB EVR Executive Order VR-402

Item Number	Size	M/F	Description	Float	Weight (lbs)
918---0000AGEVR EVR	2"	M	Clock gauge without alarm	Standard	6.20
918---0100 AG	2"	M	Clock gauge with alarm	Standard	6.30
918---0400 AG	2"	M	Clock gauge with alarm	Drop tube	6.30
918---2000AGEVR EVR	2"	M	Clock gauge without alarm	Drop tube	6.20
918F--0000AGEVR EVR	2"	F	Clock gauge without alarm	Standard	6.20
918F--0100 AG	2"	F	Clock gauge with alarm	Standard	6.30
918F--0400 AG	2"	F	Clock gauge with alarm	Drop tube	6.30
918F--2000AGEVR EVR	2"	F	Clock gauge without alarm	Drop tube	6.20
918FT-0400 AG	2"	F	Clock gauge with alarm	Drop tube	6.30
918FT-2000 AG	2"	F	Clock gauge without alarm	Drop tube	4.50
918T--0400 AG	2"	M	Clock gauge with alarm	Drop tube	6.30
918T--2000 AG	2"	M	Clock gauge without alarm	Drop tube	4.50
918S--1100 AA		N/A	Single channel alarm box; battery powered	N/A	1.13
918D--1100 AA		N/A	Dual channel alarm box; battery powered	N/A	1.13
918Q--1100 AA		N/A	Quad channel alarm box; battery powered	N/A	1.13

**See 918AC for AC-powered option.*

918C Series
Clock Gauges & Alarms (Gallons or Liters)

918C

The Morrison 918C series clock gauges are designed to measure the liquid level in storage tanks up to 12 feet in measurement. The liquid level reading is displayed in gallons or liters. The Model 918 audible alarm sounds when the liquid level in the tank reaches the user's specified level.

Features
- Easy to install in a single 2″ tank top opening
- Easy to calibrate
- Battery-powered audible alarm
- Gauge face displays level reading for specified tank in gallons
- Vapor tight and fog-free construction and design
- Gauge rotates 360° for ease of placement in the desired orientation
- A red area on the gauge face serves as a visual indicator when the tank reaches 90-100% full
- Standard float fits through a 2″ schedule 40 pipe nipple
- Optional drop tube style float for use with drop tube reduces the risk of float entanglement when turbulent tank conditions occur (compatible with Morrison 419 2" models)

Construction Details
Body… Aluminum
Float… Stainless steel
Cable… Stainless steel

Certifications & Listings
Alarm unit is UL 913 Listed; CARB EVR Executive Order VR-402

NOTE

Clock faces must be ordered with tank gauges and will be factory assembled.

Item Number	M/F	Description	Float	Weight (lbs)
918C--0000 AG	M	Clock gauge without alarm	Standard	6.20
918C--0000AGEVR EVR	M	Clock gauge without alarm	Standard	6.20
918C--0100 AG	M	Clock gauge with alarm	Standard	6.30
918C--0400 AG	M	Clock gauge with alarm	Drop tube	6.30
918C--2000 AG	M	Clock gauge without alarm	Drop tube	6.30
918C--2000AGEVR EVR	M	Clock gauge without alarm	Drop tube	6.30
918CF-0000 AG	F	Clock gauge without alarm	Standard	6.20
918CF-0000AGEVR EVR	F	Clock gauge without alarm	Standard	6.20
918CF-0100 AG	F	Clock gauge with alarm	Standard	6.30
918CF-0400 AG	F	Clock gauge with alarm	Drop tube	6.30
918CF-2000 AG	F	Clock gauge without alarm	Drop tube	6.30
918CF-2000AGEVR EVR	F	Clock gauge without alarm	Drop tube	6.30
918S--1100 AA	N/A	Single channel alarm box; battery powered	N/A	1.13
918D--1100 AA	N/A	Dual channel alarm box; battery powered	N/A	1.13
918Q--1100 AA	N/A	Quad channel alarm box; battery powered	N/A	1.13

**Products listed above include blank gallon or liter reading faces. Custom reading faces must be ordered separately but with the gauge. See website or contact Customer Service for other options and custom orders.*

**See 918AC for AC-powered option.*

918MET

918MET Series

Clock Gauges & Alarms (Meters & Centimeters)

EVR

The Morrison 918MET series clock gauge is designed to measure and display product liquid levels in aboveground storage tanks up to 3.7 meters in height. The 918 audible alarm sounds when the liquid level in the tank reaches the user's specified level.

Features

- Easy to install in a single 5.08 centimeter (2″) tank top opening, easy to calibrate
- Battery-powered audible alarm
- Gauge readout in meters and centimeters:
  - Hour hand (short hand) = meters (m.)
  - Minute hand (long hand) = centimeters (cm.)
- Gauge rotates 360° making it easy for the face to be read from the desired orientation
- Visual indicators for high level (red) and low level (green) are applied to the dial face cover
- Accurate to .32 centimeters (⅛ of an inch)
- Easily read from 9 meters (30 feet) away
- Vapor tight and fog-free construction
- Standard float fits through a 2″ schedule 40 pipe nipple
- Optional drop tube style float for use with drop tube reduces the risk of float entanglement when turbulent tank conditions occur (compatible with Morrison 419 2" models)

Construction Details

Body… Aluminum
Float… Stainless steel
Cable… Stainless steel

Certifications & Listings

CARB EVR Executive Order VR-402

Item Number	M/F	Description	Float	Wt. (lbs)
918MET0100 AG	M	Clock gauge with alarm	Standard	6.30
918MET0400 AG	M	Clock gauge with alarm	Drop tube	6.30
918MET0000AGEVR EVR	M	Clock gauge without alarm	Standard	6.30
918MET2000AGEVR EVR	M	Clock gauge without alarm	Drop tube	6.30
918MEF0100 AG	F	Clock gauge with alarm	Standard	6.30
918MEF0400 AG	F	Clock gauge with alarm	Drop tube	6.30
918MEF0000AGEVR EVR	F	Clock gauge without alarm	Standard	6.30
918MEF2000AGEVR EVR	F	Clock gauge without alarm	Drop tube	6.30
918S--1100 AA	N/A	Single channel alarm box*	N/A	1.13
918D--1100 AA	N/A	Dual channel alarm box*	N/A	1.13
918Q--1100 AA	N/A	Quad channel alarm box*	N/A	1.13

**Models are battery-powered. See 918AC for AC-powered option.*

918DP

918MET Series

Clock Gauges & Alarms (Meters & Centimeters)

EVR

The Morrison 918DP dual point clock gauge is designed to measure the liquid level in storage tanks up to 12 feet in measurement. The liquid level reading is displayed in feet and inches. Two set points are provided to signal alarms at both set points.

Features

- Gauge and dual alarm set points in one 2” tank opening
- Easy to install and calibrate
- Two normally open switches can be set at desired alarm set points
- Accurate to ⅛ of an inch
- Vapor tight construction
- Easy to read up to 30 feet
- Can be paired with Morrison 918D or 918Q battery-powered tank alarms and 918AC system interface

Construction Details

Body… Aluminum
Float… Stainless steel
Cable… Stainless steel

Certifications & Listings

Florida DEP EQ-861; CARB EVR Executive Order VR-402

Item Number	Description	Weight (lbs)
918DP-0000AGEVR EVR	Clock gauge with 2 set points, standard float, male threads, no alarm box	6.20
918DP-2000AGEVR EVR	Clock gauge with 2 set points, drop tube float, male threads, no alarm box	6.20
918DPF0000AGEVR EVR	Clock gauge with 2 set points, standard float, female threads, no alarm box	6.20
918DPF2000AGEVR EVR	Clock gauge with 2 set points, drop tube float, male threads, no alarm box	6.20
918D--1100 AA	Dual channel alarm box; battery powered	1.13
918Q--1100 AA	Quad channel alarm box; battery powered	1.13

**See 918AC for AC-powered option.*

718 Series
Liquid Level Gauge

The Morrison 718 liquid level gauge is designed for measuring liquid level in an aboveground storage tank. This gauge installs on top of the tank and is activated by a float connected to a cable.

Features

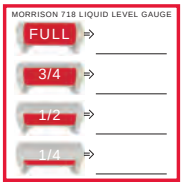
718
- Two models accommodate tank depths up to 72” and 108”
- Measurement readout is inches to empty
- 2” male NPT threads
- Float installs through a 2” female threaded opening or a schedule 40 riser
- Easy float length adjustment (1” or 2” increments)
- Vapor space sealed to prevent lens fogging
- UV resistant liquid level tape
- Approximately 12” of extra cable to accommodate installations with riser pipes

718G
- Gallon models accommodate tanks of specific dimensions
- Measurement readout is gallons to empty

718M
- This model accommodates tank depths up to 275CM
- Measurement readout is centimeters to empty
- Easy float length adjustment (2.54CM or 5.08CM increments)

718U
- This model measures ullage and accommodates tank depths up to 72”
- Measurement readout is inches to full

Tank label included with every gauge.



Item Number	Description	Gas Float	Diameter	Length	Width	Height	Weight (lbs)
718---7200 AG	For tanks up to 72"		N/A	N/A	N/A	72"	2.0
718---7250 AG	For tanks up to 72"	✓	N/A	N/A	N/A	72"	2.0
718--10800 AG	For tanks up to 108"		N/A	N/A	N/A	108"	2.0
718--10850 AG	For tanks up to 108"	✓	N/A	N/A	N/A	108"	2.0
718U--7200 AG	For tanks up to 72", ullage		N/A	N/A	N/A	72"	2.0
718U--7250 AG	For tanks up to 72", ullage	✓	N/A	N/A	N/A	72"	2.0
718G--27500 AG	275 gallon tank capacity		N/A	60"	27"	44"	2.0
718G--27550 AG	275 gallon tank capacity	✓	N/A	60"	27"	44"	2.0
718G--52000 AG	520 gallon tank capacity		48"	68"	N/A	N/A	2.0
718G--52050 AG	520 gallon tank capacity	✓	48"	68"	N/A	N/A	2.0
718G--56000 AG	560 gallon tank capacity		48"	72"	N/A	N/A	2.0
718G--56050 AG	560 gallon tank capacity	✓	48"	72"	N/A	N/A	2.0
718G-100000 AG	1,000 gallon tank capacity		64”	72”	N/A	N/A	2.0
718G-100050 AG	1,000 gallon tank capacity	✓	64”	72”	N/A	N/A	2.0
718G-100001 AG	1,000 gallon tank capacity		48”	128”	N/A	N/A	2.0
718G-100051 AG	1,000 gallon tank capacity	✓	48”	128”	N/A	N/A	2.0
718G-200000 AG	2,000 gallon tank capacity		64"	144"	N/A	N/A	2.0
718G-200050 AG	2,000 gallon tank capacity	✓	64"	144"	N/A	N/A	2.0
718M--27500 AG	For tanks up to 275CM		N/A	N/A	N/A	275CM	2.0
718M--27550 AG	For tanks up to 275CM	✓	N/A	N/A	N/A	275CM	2.0

**Consult Price List for CSI Lube Cube models.*

718 with standard float
(NOT for use with schedule 80 pipe)

718 with gasoline-compatible float
(can be used with schedule 40 and schedule 80 pipe)

718U

718G

Construction Details

Body... Cast aluminum
Spring... 301 stainless steel
Float... Polypropylene and aluminum
Shaft bushing... Stainless steel
O-ring... FKM
Cable... 30# braided microfilament
Lens cover... Lexan

918S

918D

918Q

918 Series Tank Alarm

Single, Dual, & Quad Channel Alarm Box

cULus LISTED

The Morrison 918 series alarm box is designed for applications requiring an intrinsically safe audible alarm and visual alarm indication upon activation of a simple switch input signal.

Features

- Visual alarm indicators lights turn red identifying which input channel is alarming
- Self-powered by long-life replaceable lithium battery
- Monitor up to four sensor signals
- User-defined alarm labels
- NEMA 4X water-resistant enclosure
- Compatible with Morrison 918 clock gauges and 924, 924LS, and 925 level sensors
- Can be installed remote from gauge or level sensor
- Low battery light turns yellow indicating battery power is low
- 90 dB audible alarm at 4 feet
- Modular contacts make it easy to connect a variety of dry contact simple switch devices
- In compliance with UL 913 and CSA 157 intrinsic safety standards
- Intrinsically safe for Class I, Division 1 and 2, Group D hazardous locations
- Internal ON/OFF power switch
- ON/OFF switch for audible alarm
- ON/OFF switch for auto-silence mode
- Normally open or normally closed selectable by input channel
- **918S** is a single input channel tank alarm box
- **918D** is a dual (2) input channel tank alarm box
- **918Q** is a quad (4) input channel tank alarm box

Item Number	Description	Weight (lbs)
918S--1100 AA	Single channel tank alarm box only	1.13
918D--1100 AA	Dual channel tank alarm box only	1.13
918Q--1100 AA	Quad channel tank alarm box only	1.13

Construction Details

Alarm box... Polycarbonate plastic
Battery... Lithium

Certifications & Listings

cULus 913 Listed; Florida DEP EQ-527; Intrinsically safe for Class I, Division 1 & 2, Group D hazardous locations

918 Series Tank Alarm with Rotating Beacon

Single, Dual, & Quad Channel Alarm Box

The Morrison 918 series alarm box with rotating beacon is designed for applications requiring an intrinsically safe audible alarm and 360° rotating visual beacon for alarm indication upon activation of a simple switch input signal.

Features

- 10 red LED lamps create strobe visual effect during alarm indication
- Audible alarm ON/OFF globally selectable
- Audible alarm auto-silence mode (10 minutes) ON/OFF globally selectable
- Normally open or normally closed selectable by input channel
- Internal ON/OFF power switch
- 90 dB audible alarm at 4 feet
- Self-powered by long-life replaceable lithium battery
- Low battery light turns yellow indicating battery power is low
- Simple push test button
- Alarm indication latched until alarm activation is acknowledged
- User-defined alarm labels
- NEMA 4X water-resistant enclosure
- Compatible with Morrison 918 clock gauges and 924, 924LS, and 925 level sensors
- Can be installed remote from gauge or level sensor
- Modular contacts make it easy to connect a variety of dry contact simple switch devices
- **918SB** is a single input channel tank alarm box
- **918DB** is a dual (2) input channel tank alarm box (input channel indicator light on front panel)
- **918QB** is a quad (4) input channel tank alarm box (input channel indicator light on front panel)

Item Number	Description	Weight (lbs)
918SB-1100 AA	Single channel tank alarm box only	2.04
918DB-1100 AA	Dual channel tank alarm box only	2.04
918QB-1100 AA	Quad channel tank alarm box only	2.04

918SB

918DB

918QB

Construction Details

Alarm box... Polycarbonate plastic
Battery... Lithium

Certifications & Listings

cULus 913 Listed; Florida DEP EQ-868; Intrinsically safe for Class I, Division 1 & 2, Group D hazardous locations

CE Ex II 3 G Ex ia IIA T4 Gc

918AC

Construction Details

Alarm box... Polycarbonate plastic

Certifications & Listings

Florida DEP EQ-834; UL/cUL 913 Listing for Ordinary Location with Hazardous Location Intrinsically Safe Input Circuits for Class I, Division 1, Group D

918AC
System Interface

c UL us LISTED

The Morrison 918AC system interface is an AC-powered console designed to monitor 1 to 4 simple input switch devices such as the Morrison 918, 924, and 925. Audible and or visual indication when an input switch is activated, the Morrison 918AC has the optional capability to add 1 to 4 configurable relay outputs to interface with remote audible and or visual indicators or other external simple switch-activated devices.

Features

- Power requirements are 100-240 VAC, +/-10%, 50/60 Hz
- Input sensors are simple switch devices
- Output relays are dry switch contact, form C SPDT, rated up to 5 AMPS at 240 VAC
- Enclosure is a NEMA 4X indoor/outdoor weather protected lockable box (non-hazardous location only)
- 95 dBA audible horn at two feet away
- Operating temperature of -40°F to 140°F
- Compatible with Morrison 924, 924LS, and 925 series level sensors

Expandability with Plug-n-Play Capabilities

- Intrinsically safe input modules expandable from 1 to 4 input channels
- Electromechanical output modules expandable from 0 to 4 output relays
- Input and output modules can be purchased separately

Configurability

- Audible alarm ON/OFF selectable by channel
- Auto silence ON/OFF selectable by channel
- Normally open (NO) or normally closed (NC) selectable on input and output
- Output relay activation selectable to one or more input channels
- Fail safe mode selectable to indicate power outage at console
- Red lens color interchangeable with optional amber or green

Item Number	Description	Inputs	Outputs	Weight (lbs)
918AC-1000 AI	System interface console	1	0	6.0
918AC-1100 AI	System interface console	1	1	6.0
918AC-1200 AI	System interface console	1	2	6.0
918AC-1300 AI	System interface console	1	3	6.0
918AC-1400 AI	System interface console	1	4	6.0
918AC-2000 AI	System interface console	2	0	6.0
918AC-2100 AI	System interface console	2	1	6.0
918AC-2200 AI	System interface console	2	2	6.0
918AC-2300 AI	System interface console	2	3	6.0
918AC-2400 AI	System interface console	2	4	6.0
918AC-3000 AI	System interface console	3	0	6.0
918AC-3100 AI	System interface console	3	1	6.0
918AC-3200 AI	System interface console	3	2	6.0
918AC-3300 AI	System interface console	3	3	6.0
918AC-3400 AI	System interface console	3	4	6.0
918AC-4000 AI	System interface console	4	0	6.0
918AC-4100 AI	System interface console	4	1	6.0
918AC-4200 AI	System interface console	4	2	6.0
918AC-4300 AI	System interface console	4	3	6.0
918AC-4400 AI	System interface console	4	4	6.0

924LS
Liquid Sensor

924LS

The Morrison 924LS is a float-actuated sensor capable of detecting the presence of liquid in containment areas.

Features
- ½" male NPT connection
- Flat surface provides stability when free-standing on flat containment surfaces
- ⅜" and ½" cable connector included
- Audible and visual alarm functionality when paired with Morrison 918AC system interface or 918S/D/Q tank alarm

Electrical Switch Ratings
- 5 watt resistive load, 100VAC-250mA max / 140VDC-350mA max

**Switch ratings are for resistive loads only.*
**Do not use for inductive loads.*

Item Number	Description	Weight (lbs)
924LS-0150 AS	Level sensor with 15' lead wire	0.80
924LS-0250 AS	Level sensor with 25' lead wire	1.0
924LS-0600 AS	Level sensor with 60' lead wire	1.0

Construction Details
Wires... PTFE coated in PTFE coated jacket
Float... Nitrophyl®-M
Shroud... 304 stainless steel

Liquid Detection Level
Normally Open (NO) 0.625 ± 0.125
Normally Closed (NC) 0.125 + 0.125 / - 0.0

Location Approval
UL Class I, Division 1, Group D when used in conjunction with the model 918AC and model 918S/D/Q

Certifications & Listings
Florida DEP EQ-862; National Work Group on Leak Detection Evaluations listed (www.nwglde.org)

924 Series
Adjustable Level Sensors

924 (12")

An adjustable and float-activated simple switch device, the Morrison 924 is used to monitor liquid level at a desired set point.

Features
- Level sensor in liquid storage tanks
- Four length ranges available
- Fully adjustable within range specified by model
- Installs into a 2" female threaded opening (½" NPT fitting at top of sensor)
- Normally open switch easily converted to normally closed operation
- Audible and visual alarm functionality when paired with Morrison 918AC system interface or 918S/D/Q tank alarm

Electrical Switch Ratings
- 100 watt resistive load, 300VAC - 700mA max / 350VDC - 1.0A max, SPST

**Switch ratings are for resistive loads only.*
**Do not use for inductive loads.*
**Compatible with 918S/D/Q alarm box and 918AC system interface or similar listed systems that are designed for use with sensing devices located in a hazardous location.*

Item Number	Description	Activation Length Minimum*	Activation Length Maximum	Overall Length	Weight (lbs)
924---0600 AS	6" Brass adjustable level sensor	1"	6"	13.35"	3.30
924---1200 AS	12" Brass adjustable level sensor	1"	12"	19.35"	3.60
924---2000 AS	20" Brass adjustable level sensor	1"	20"	27.35"	4.20
924---3000 AS	30" Brass adjustable level sensor	1"	30"	37.35"	4.40
924S--0600 AS	6" Stainless steel adjustable level sensor	1"	6"	13.35"	4.70
924S--1200 AS	12" Stainless steel adjustable level sensor	1"	12"	19.35"	5.0
924S--2000 AS	20" Stainless steel adjustable level sensor	1"	20"	27.35"	5.50
924S--3000 AS	30" Stainless steel adjustable level sensor	1"	30"	37.35"	5.70
925---0113 2B	Conduit junction box (NEMA 4)				0.50
925---0114 2B	Conduit junction box (NEMA 7, Group C & D)				2.25

**Activation length minimum may depend on specific gravity of liquid.*

Construction Details
Wires... PTFE jacketed
Floats... Nitrophyl®-M (924);
316 stainless steel (924S)
Tube... Brass (924);
304 stainless steel (924S)
Bushing... E-coated steel (924);
304 stainless steel (924S)

Certifications & Listings
Florida DEP EQ-862; National Work Group on Leak Detection Evaluations listed (www.nwglde.org)

918S--924S20 AK

918S/924S Series

Alarm with Adjustable Sensors

c UL us LISTED

This adjustable, float-activated simple switch device with integrated alarm box is used to monitor liquid level at a desired set point.

Alarm Box Features

- Audible and visual alarm indicators
- Self-powered by long-life replaceable lithium batteries
- Low battery visual indicator
- 90 dB alarm at four feet away
- Corrosion-resistant and water-resistant housing

Sensor Features

- Four stem length ranges available
- Fully adjustable within range specified by model
- Installs into a 2" female threaded opening (½" NPT fitting at top of sensor)
- Normally open switch easily converted to normally closed operation

Additional Features

- Level sensor in liquid storage tanks
- Activates audible alarm

Electrical Switch Ratings (level sensor)

- 100 watt resistive load, 300VAC - 700mA max / 350VDC - 1.0A max, SPST

Item Number	Description	Weight (lbs)
918S--92406 AK	6" Brass adjustable level sensor with alarm	4.80
918S--92412 AK	12" Brass adjustable level sensor with alarm	5.10
918S--92420 AK	20" Brass adjustable level sensor with alarm	5.70
918S--92430 AK	30" Brass adjustable level sensor with alarm	5.90
918S--924S06 AK	6" Stainless steel adjustable level sensor with alarm	4.70
918S--924S12 AK	12" Stainless steel adjustable level sensor with alarm	5.0
918S--924S20 AK	20" Stainless steel adjustable level sensor with alarm	5.50
918S--924S30 AK	30" Stainless steel adjustable level sensor with alarm	5.70

**Note: Alarm and sensor are packaged separately.*

Construction Details

Alarm box... Polycarbonate plastic
Wires... PTFE jacketed
Floats... Nitrophyl®-M (924); 316 stainless steel (924S)
Tube... Brass (924); 304 stainless steel (924S)
Bushing... E-coated steel (924); 304 stainless steel (924S)

Certifications & Listings

Florida DEP EQ-527 (918S); Florida DEP EQ-862 (924/924S); Intrinsically safe for Class I, Division 1 & 2, Group D hazardous locations; National Work Group on Leak Detection Evaluations listed (www.nwglde.org)

925 Series
Multi-Level Sensors

The Morrison 925 series multi-level sensor is a float-activated, simple switch device capable of sensing liquid levels from 1 to 5 specified set points.

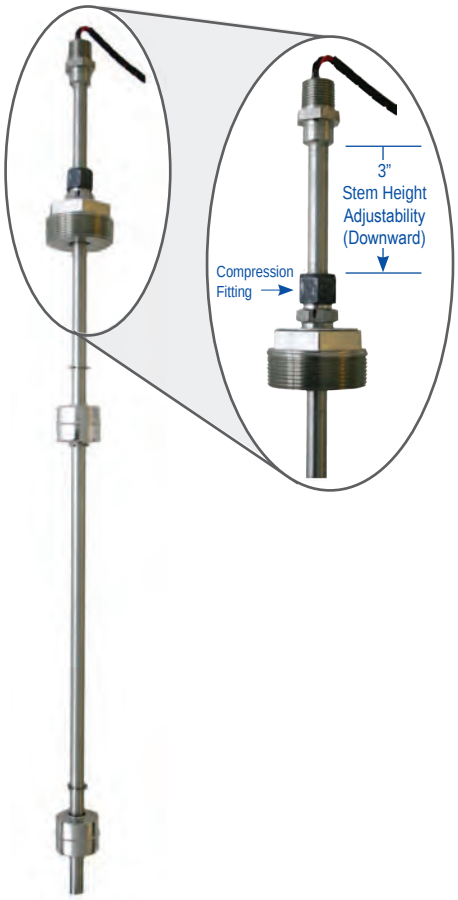
Features
- 1 to 5 user-specified liquid level set points (1⅛" minimum to 141¾" maximum set point range)
- 3” stem height adjustability (downward) to assist in desired set point alignment
- Installs into a 2” NPT female threaded opening (½" NPT fitting at top of sensor)
- 24” lead wire length
- Normally open or normally closed switch orientations available (specified at time of order)
- Audible and visual alarm functionality when paired with Morrison 918AC system interface or 918S/D/Q tank alarm

Electrical Switch Ratings
- 100 watt resistive load, 300VAC - 700mA max / 350VDC - 1.0A max, SPST

**Switch ratings are for resistive loads only*
**Do not use for inductive loads*

Ordering
- To order, please complete the **925 Multi-Level Sensor Order Form** and submit with your purchase order to Morrison Bros. Please note that each unit is made to order specifically to the requirements on the order form; longer lead times may apply.

Table containing item numbers can be found on the following page.



925S

Construction Details
Wires... PTFE jacketed
Floats... Nitrophyl®-M (925); 316 stainless steel (925S)
Stem... Brass (925); 304 stainless steel (925S)
Bushing... E-coated steel (925); 304 stainless steel (925S)

Certifications & Listings
Florida DEP EQ-862; National Work Group on Leak Detection Evaluations listed (www.nwglde.org); Third party EPA evaluated with both 918AC system interface and 918S/D/Q tank alarm

Item Number	Number of Floats	Stem Material	Stem Length	Weight (lbs)
925---1030 AS	1	Brass	3⅜" to 36"	5.0
925---1060 AS	1	Brass	Greater than 36" to 72"	8.50
925---1090 AS	1	Brass	Greater than 72" to 108"	10.50
925---1120 AS	1	Brass	Greater than 108" to 144"	13.0
925---2030 AS	2	Brass	3⅜" to 36"	5.0
925---2060 AS	2	Brass	Greater than 36" to 72"	8.50
925---2090 AS	2	Brass	Greater than 72" to 108"	10.50
925---2120 AS	2	Brass	Greater than 108" to 144"	13.0
925---3030 AS	3	Brass	3⅜" to 36"	5.0
925---3060 AS	3	Brass	Greater than 36" to 72"	8.50
925---3090 AS	3	Brass	Greater than 72" to 108"	10.50
925---3120 AS	3	Brass	Greater than 108" to 144"	13.0
925---4030 AS	4	Brass	3⅜" to 36"	5.0
925---4060 AS	4	Brass	Greater than 36" to 72"	8.50
925---4090 AS	4	Brass	Greater than 72" to 108"	10.50
925---4120 AS	4	Brass	Greater than 108" to 144"	13.0
925---5030 AS	5	Brass	3⅜" to 36"	5.0
925---5060 AS	5	Brass	Greater than 36" to 72"	8.50
925---5090 AS	5	Brass	Greater than 72" to 108"	10.50
925---5120 AS	5	Brass	Greater than 108" to 144"	13.0
925S--1030 AS	1	Stainless steel	3⅜" to 36"	5.0
925S--1060 AS	1	Stainless steel	Greater than 36" to 72"	8.50
925S--1090 AS	1	Stainless steel	Greater than 72" to 108"	10.50
925S--1120 AS	1	Stainless steel	Greater than 108" to 144"	13.0
925S--2030 AS	2	Stainless steel	3⅜" to 36"	5.0
925S--2060 AS	2	Stainless steel	Greater than 36" to 72"	8.50
925S--2090 AS	2	Stainless steel	Greater than 72" to 108"	10.50
925S--2120 AS	2	Stainless steel	Greater than 108" to 144"	13.0
925S--3030 AS	3	Stainless steel	3⅜" to 36"	5.0
925S--3060 AS	3	Stainless steel	Greater than 36" to 72"	8.50
925S--3090 AS	3	Stainless steel	Greater than 72" to 108"	10.50
925S--3120 AS	3	Stainless steel	Greater than 108" to 144"	13.0
925S--4030 AS	4	Stainless steel	3⅜" to 36"	5.0
925S--4060 AS	4	Stainless steel	Greater than 36" to 72"	8.50
925S--4090 AS	4	Stainless steel	Greater than 72" to 108"	10.50
925S--4120 AS	4	Stainless steel	Greater than 108" to 144"	13.0
925S--5030 AS	5	Stainless steel	3⅜" to 36"	5.0
925S--5060 AS	5	Stainless steel	Greater than 36" to 72"	8.50
925S--5090 AS	5	Stainless steel	Greater than 72" to 108"	10.50
925S--5120 AS	5	Stainless steel	Greater than 108" to 144"	13.0
925---0113 2B	Conduit junction box (NEMA 4)			0.50
925---0114 2B	Conduit junction box (NEMA 7, Group C & D)			2.25

925---W Series
Oil/Water Sensors

Float-activated simple switch device capable of sensing the accumulation of oil in oil/water separators.

Features

- 1 to 4 user-specified liquid level set points (1⅛" minimum to 141¾" maximum set point range)
- Set point configuration options:
    - 1-2 interface floats (sink in oil and fuel but float on water) set to normally closed switch orientation only
    - 0-2 standard floats (float on oil, fuel, and water) set to customer's specified orientation (normally open or normally closed)
- 1" stem height adjustability (downward) to assist in desired set point alignment
- Installs into a 2" NPT female threaded opening (½" NPT fitting at top of sensor)
- 24" lead wire length
- Audible and visual alarm functionality when paired with Morrison 918AC System Interface

Electrical Switch Ratings

- 100 watt resistive load, 300VAC - 700mA max / 350VDC - 1.0A max, SPST

**Switch ratings are for resistive loads only.*
**Do not use for inductive loads.*

Ordering

- To order, please complete the 925 Oil Water Sensor Order Form and submit with your purchase order to Morrison Bros. Please note that each unit is made to order specifically to the requirements on the order form; longer lead times may apply.

Table containing item numbers can be found on the following page.

925---W

Construction Details

Wires... PTFE jacketed
Floats... 316 stainless steel
Stem... Brass (925); 304 stainless steel (925S)
Bushing... E-coated steel (925); 304 stainless steel (925S)

Certifications & Listings

Florida DEP EQ-862; National Work Group on Leak Detection Evaluations listed (www.nwglde.org); Third party certification for 925 series sensors used with both 918AC system interface and 918S/D/Q tank alarm

Item Number	Number of Floats	Stem Material	Stem Length	Weight (lbs)
925---W10030 AS	1 Interface / 0 Standard	Brass	3⅜" to 36"	5.0
925---W10060 AS	1 Interface / 0 Standard	Brass	Greater than 36" to 72"	8.50
925---W10090 AS	1 Interface / 0 Standard	Brass	Greater than 72" to 108"	10.50
925---W10120 AS	1 Interface / 0 Standard	Brass	Greater than 108" to 144"	13.0
925---W11030 AS	1 Interface / 1 Standard	Brass	3⅜" to 36"	5.0
925---W11060 AS	1 Interface / 1 Standard	Brass	Greater than 36" to 72"	8.50
925---W11090 AS	1 Interface / 1 Standard	Brass	Greater than 72" to 108"	10.50
925---W11120 AS	1 Interface / 1 Standard	Brass	Greater than 108" to 144"	13.0
925---W12030 AS	1 Interface / 2 Standard	Brass	3⅜" to 36"	5.0
925---W12060 AS	1 Interface / 2 Standard	Brass	Greater than 36" to 72"	8.50
925---W12090 AS	1 Interface / 2 Standard	Brass	Greater than 72" to 108"	10.50
925---W12120 AS	1 Interface / 2 Standard	Brass	Greater than 108" to 144"	13.0
925---W20030 AS	2 Interface / 0 Standard	Brass	3⅜" to 36"	5.0
925---W20060 AS	2 Interface / 0 Standard	Brass	Greater than 36" to 72"	8.50
925---W20090 AS	2 Interface / 0 Standard	Brass	Greater than 72" to 108"	10.50
925---W20120 AS	2 Interface / 0 Standard	Brass	Greater than 108" to 144"	13.0
925---W21030 AS	2 Interface / 1 Standard	Brass	3⅜" to 36"	5.0
925---W21060 AS	2 Interface / 1 Standard	Brass	Greater than 36" to 72"	8.50
925---W21090 AS	2 Interface / 1 Standard	Brass	Greater than 72" to 108"	10.50
925---W21120 AS	2 Interface / 1 Standard	Brass	Greater than 108" to 144"	13.0
925---W22030 AS	2 Interface / 2 Standard	Brass	3⅜" to 36"	5.0
925---W22060 AS	2 Interface / 2 Standard	Brass	Greater than 36" to 72"	8.50
925---W22090 AS	2 Interface / 2 Standard	Brass	Greater than 72" to 108"	10.50
925---W22120 AS	2 Interface / 2 Standard	Brass	Greater than 108" to 144"	13.0
925S--W10030 AS	1 Interface / 0 Standard	Stainless steel	3⅜" to 36"	5.0
925S--W10060 AS	1 Interface / 0 Standard	Stainless steel	Greater than 36" to 72"	8.50
925S--W10090 AS	1 Interface / 0 Standard	Stainless steel	Greater than 72" to 108"	10.50
925S--W10120 AS	1 Interface / 0 Standard	Stainless steel	Greater than 108" to 144"	13.0
925S--W11030 AS	1 Interface / 1 Standard	Stainless steel	3⅜" to 36"	5.0
925S--W11060 AS	1 Interface / 1 Standard	Stainless steel	Greater than 36" to 72"	8.50
925S--W11090 AS	1 Interface / 1 Standard	Stainless steel	Greater than 72" to 108"	10.50
925S--W11120 AS	1 Interface / 1 Standard	Stainless steel	Greater than 108" to 144"	13.0
925S--W12030 AS	1 Interface / 2 Standard	Stainless steel	3⅜" to 36"	5.0
925S--W12060 AS	1 Interface / 2 Standard	Stainless steel	Greater than 36" to 72"	8.50
925S--W12090 AS	1 Interface / 2 Standard	Stainless steel	Greater than 72" to 108"	10.50
925S--W12120 AS	1 Interface / 2 Standard	Stainless steel	Greater than 108" to 144"	13.0
925S--W20030 AS	2 Interface / 0 Standard	Stainless steel	3⅜" to 36"	5.0
925S--W20060 AS	2 Interface / 0 Standard	Stainless steel	Greater than 36" to 72"	8.50
925S--W20090 AS	2 Interface / 0 Standard	Stainless steel	Greater than 72" to 108"	10.50
925S--W20120 AS	2 Interface / 0 Standard	Stainless steel	Greater than 108" to 144"	13.0
925S--W21030 AS	2 Interface / 1 Standard	Stainless steel	3⅜" to 36"	5.0
925S--W21060 AS	2 Interface / 1 Standard	Stainless steel	Greater than 36" to 72"	8.50
925S--W21090 AS	2 Interface / 1 Standard	Stainless steel	Greater than 72" to 108"	10.50
925S--W21120 AS	2 Interface / 1 Standard	Stainless steel	Greater than 108" to 144"	13.0
925S--W22030 AS	2 Interface / 2 Standard	Stainless steel	3⅜" to 36"	5.0
925S--W22060 AS	2 Interface / 2 Standard	Stainless steel	Greater than 36" to 72"	8.50
925S--W22090 AS	2 Interface / 2 Standard	Stainless steel	Greater than 72" to 108"	10.50
925S--W22120 AS	2 Interface / 2 Standard	Stainless steel	Greater than 108" to 144"	13.0
925---0114 2B	Conduit junction box (NEMA 7, Group C&D)			2.25

913

918TCP Series
Overfill & Interstitial Alarms

The Morrison 918TCP alarm and float level sensor can be set to provide an audible alarm for a high level or low level alarm or serve as an interstitial alarm.

Features

- Alarm activation point is field-adjustable within probe length range
- Intrinsically safe battery-powered alarm can be mounted remote from the tank
- The float sensor installs into a 2″ tank opening
- Low level activation or interstitial alarm point can be set up to 113″
- **918TCPS** coupler and adaptor assembly for easy sensor removal and inspection

Electrical Switch Ratings

10 watt resistive load, 200VAC/DC max / 500mA max

**Switch ratings are for resistive loads only.*
**Do not use for inductive loads.*

Item Number	Threads (M/F)	Description	Probe length	Weight (lbs)
918TCP0400 AA	M	Alarm assembly with sensor	5'	3.45
918TCP0500 AA	M	Alarm assembly with sensor	9½'	3.25
918TCP0400 AS	M	Sensor assembly (no alarm)	5'	4.60
918TCP0500 AS	M	Sensor assembly (no alarm)	9½'	4.60
918TCPS400 AA	M	Alarm assembly with probe and part F & D	5'	8.0
918TCPS500 AA	M	Alarm assembly with probe and part F & D	9½'	8.0
918TCPS800 AA	F	Alarm assembly with probe and part A & D	5'	7.80
918TCPS900 AA	F	Alarm assembly with probe and part A & D	9½'	8.0
918TCPS400 AS	M	Sensor assembly with part F & D	5'	6.60
918TCPS500 AS	M	Sensor assembly with part F & D	9½'	6.60
918TCPS800 AS	F	Sensor assembly with part A & D	5'	6.40
918TCPS900 AS	F	Sensor assembly with part A & D	9½'	6.40
918S--1100 AA	NA	Single channel tank alarm box only	NA	1.13
918D--1100 AA	NA	Dual channel tank alarm box only	NA	1.13
918Q--1100 AA	NA	Quad channel tank alarm box only	NA	1.13

918TCP 918TCPS

918S

Construction Details

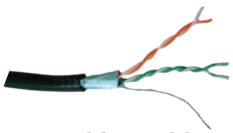
Float and weight assembly… Stainless steel
Tubing enclosure… PTFE
TCPS coupler, adaptor, and bushing… Stainless steel

Certifications & Listings

Alarm unit is UL 913 Listed; 918 clock gauge with 918S, 918D, or 918Q alarm is Florida DEP EQ-536

1218C

1218S



Belden Cable

Construction Details

Tank sensor body... Passivated aluminum

Cable and float... Stainless steel cable and float

System console... Polyester fiberglass

Certifications & Listings

UL/cUL 913 Listed; Listing for Tank Monitoring Equipment for Ordinary Location with Hazardous Location Intrinsically Safe Input Circuits for Class I, Division 1, Group D; Florida DEP EQ-872

1218
Electronic Tank Gauge

c UL us LISTED

The Morrison 1218 electronic tank gauge series monitors and displays the liquid level and/or volume of product stored in 1 to 4 aboveground storage tanks. The tank sensor utilizes a mechanical float to monitor the tank liquid level and electronically converts the tank level to display on the system console located within 1000' of the tank sensor.

System Console Features

- 4.3" diagonal color LCD display (480x272 pixels) with auto LED backlight adjustment
- System console displays liquid volume level in horizontal, rectangular, or vertical tanks
- Level units: feet and inches or centimeters (resolution to 1/10 of an inch)
- Volume units: gallons or liters
- Visual and audible alarm indication when alarm condition is activated
- 2 output relays—3 Amps @ 240 VAC
- Simple push to test or acknowledge alarm button
- USB port functionality—software updates and download event logs
- Configuration setup via Ethernet PC connection, Ethernet Network connection, or manually at console
- NEMA 4X (IP65) indoor/outdoor weather protected, lockable enclosure
- Optional remote secondary console with operational functionality
- Optional External Input/Output Expansion Module adds 6 inputs and 6 output relays

Tank Sensor Features

- 25' and 50' models available for use with system console
- 2 dry contact, intrinsically safe inputs available in tank sensor for additional simple switch inputs
- 25' tank sensor accuracy +/- 0.3"; 50' tank sensor accuracy +/- 0.6"
- DEF compatible

Configuration Options

- User defined tank identifications, alarm levels, and input alarm labels
- Up to 4 programmable liquid level alarm set points per tank
- Audible alarm ON/OFF and Auto-Silence ON/OFF is programmable by input channel
- Output relays programmable as normally activated or normally deactivated and for desired alarm activations
- Email address book supports email and SMS/text message alarm and status notifications
- Sloped tank and manifold tank functionality available for specific parameters
- Heartbeat power indicator is user selectable

Network Connectivity

- Ethernet port connection (RJ-45 connector)
- TCP/IP configured with static IP address or dynamically using DHCP and local host name
- HTTPS secure web-based interface with system console for remote viewing
- Multiple display system consoles can be networked by utilizing Ethernet functionality
- Option: Cellular Gateway connection

FuelCloud Connectivity

- Allows FuelCloud accounts to collect tank inventory information from any 1218 tank gauge console with internet service via FuelCloud web portal

Business Management System Connectivity

- Modbus RTU and TCP interface configuration

Reports
- System stores an event log (up to 1,000 events) and creates a downloadable report
- Event log can be downloaded via network Ethernet connection or via USB port inside system console

Specifications
- Operating temperature range: -40°F to 140°F (-40°C to 60°C); Humidity: 0% to 95% non-condensing
- System console dimensions (H x W x D): 9⅜" x 7⅞" x 4⅝"
- 100-240 VAC +/- 10%, 50/60 Hz

Materials of Construction
- Tank sensor body... Passivated aluminum
- Cable and float... Stainless steel cable and float
- Console enclosure... Polyester fiberglass

*1218S contains the following materials that will be exposed to vapors from stored product: Aluminum, stainless steel, Viton®, UHMW plastic, and steel.

Belden 7933A Cable
- Multi-Conductor - Category 5e Data Tuff® twisted pair cable
- .030" industrial grade sunlight- and oil-resistant PVC jacket
- 24 AWG Bonded-Pairs solid bare copper conductors
- Polyolefin insulation
- Overall Beldfoil® shield (100% coverage) with drain wire
- Operating temperature range: -40°C to 75°C (-40°F to 167°F)
- Code Compliance: UL (NEC, CEC/C)-CMR, NEMA 63.1 Category 5e, EU-ROHS, ELV, WEEE, BFR

Approvals
UL/cUL 913; UL/cUL 508; Listing for Tank Monitoring Equipment for Ordinary Location with Hazardous Location Intrinsically Safe Input Circuits for Class I, Division 1, Group D; Florida DEP EQ-872

Item Number	Description	Weight (lbs)
1218C-0200 AC	System console monitors up to 2 tanks	6.0
1218C-0400 AC	System console monitors up to 4 tanks	6.0
1218C-0000 AC	Remote console	6.0
1218S-2500 AS	25' tank sensor	8.0
1218S-5000 AS	50' tank sensor	11.0
1218S-2539 CC	1,000' spool Belden 7933A cable	N/A
1218S-2543 CC	50' spool Belden 7933A cable	N/A
1218S-2544 CC	100' spool Belden 7933A cable	N/A
1218S-2545 CC	500' spool Belden 7933A cable	N/A

Wireless Client

Wireless Access Point

Antenna

Long Range Wireless Base Station Kit

1218 Electronic Tank Gauge Wireless Connectivity Accessories

Wireless Client—UBIQUITI NanoStation locoM2

- 2+ mile wireless connection (line of sight) to one Wireless Client Device (1218C-0163 2C)
- 2,000'+ Wi-Fi connection (line of sight) to Wireless Access Point (1218C-0154 2A)
- Frequency range: 2.4 GHz
- Pole mounting kit included
- Weather-resistant enclosure for outdoor deployment
- 24V, 0.5A PoE adaptor included
- Operating temperature range: -30°C to 75°C (-22°F to 167°F)

Wireless Access Point—UBIQUITI UAP-AC-M-PRO

- Up to 600' Wi-Fi connection to mobile devices
- 2,000'+ Wi-Fi connection (line of sight) to one or more Wireless Client Devices (1218C-0163 2C)
- High-performance wide-area Wi-Fi with UniFi® Mesh Technology
- Frequency range: 2.4 GHz
- Pole or wall mounting options
- Weather-resistant enclosure for outdoor deployment
- 3x3 multiple-input multiple-output dual band technology
- Powered with an 802.3af compatible switch, UniFi PoE switch, or included PoE adaptor
- Operating temperature range: -40°C to 70°C (-40°F to 158°F)

Long Range Wireless Base Station Kit—UBIQUITI Rocket MZ Base Station & UBIQUITI AirMax Omni AMO-2G10 Antenna

- 2+ mile wireless connection (line of sight) to one or more Wireless Client Devices (1218C-0163 2C)
- Up to 600' Wi-Fi connection to mobile devices
- Frequency range: 2.35-2.55 GHz
- Pole mount included
- Weather-resistant enclosure for outdoor deployment
- Can provide a wireless connection to another Base Station with Antenna
- Provides base station with 360° of coverage
- Long range antenna signal strength, 10dBi
- 24V, 0.5A PoE adaptor included
- Operating temerature range: -30°C to 75°C (-22°F to 167°F)

Item Number	Description	Weight (lbs)
1218C-0163 2C	Wireless client	1.98
1218C-0154 2A	Wireless access point	0.36
1218C-0164 AK	Long range wireless base station kit	5.50

Certifications & Listings

CE, FCC, IC

918AC/1218 Alarm & Sensor Accessories

Remote Strobe Features

- Compact rotating warning light
- Single retaining screw allows for quick and easy access for inspection and relamping
- Water-resistant
- Indoor and outdoor applications

Remote Horn Features

- Produces a loud horn tone by the electro-mechanical vibration of a diaphragm (100dB at 10 feet)
- Excellent for general alarm in areas of high ambient noise levels
- Enclosed in a zinc die-cast housing and sealed with grey powder-coat paint
- Compact size and heavy-duty construction

Remote Horn with Strobe Features

- Units can either independently or simultaneously wired with the audible device
- Recommended for use in industrial applications and situations where effective visual warning is needed
- Compact size
- Indoor and outdoor applications

Conduit Junction Housing Features

- Act as pull and splice boxes
- Connect lengths of conduit
- Provide access to connectors for maintenance and future changes
- Act as pull outlets for connectors being installed
- ½" conduit connection

Item Number	Description	Voltage	Operating Current	Weight (lbs)
918AC-0156 2L	Remote strobe	120VAC 50/60HZ	0.22 amps	2.70
918AC-0154 AH	Remote horn	120VAC 50/60Hz	0.18 amps	1.50
918AC-0157 AHS	Remote horn with strobe	120 VAC 50/60HZ	0.24 amps	1.75
925---0113 2B	Conduit junction box	N/A	N/A	0.50
925---0114 2B	Conduit junction box	N/A	N/A	2.25

918AC-0156 2L

918AC-0154 AH

918AC-0157 AHS

925---0113 2B

925---0114 2B

Certifications & Listings

Remote Strobe
UL and cUL Listed

Remote Horn
UL and cUL Listed; CSA listed (File No. 005835, Model 350) and FM Approved

Remote Horn with Strobe
UL Listed; CSA listed (File No. 005835, Model VALS)

925---0113 2B
UL and cUL Listed; NEMA 4

925---0114 2B
UL Listed; NEC/CEC: Class I, Division 1 & 2, Groups C, D; Class II, Division 1, Groups E, F, G; Class II, Division 2, Groups F, G; Class III; ANSI Standard: C33.27; CSA listed (File No. 013046, Model GUAB); NEMA 3, 4, 7CD, 9EFG

1218C-0169 AG

1218 Electronic Tank Gauge Cellular Gateway

Provides a private internet connection (VPN) through 4G LTE cellular network (carrier can vary by location). The cellular gateway has a single Ethernet port which can be used to connect directly to a single device or to multiple devices through an Ethernet switch.

Components

- Lockable NEMA 4X enclosure
- Mounting bracket and connections for cellular device
- Power supply for cellular device
- Cellular device (provided by OptConnect; assembled by Morrison)
- Two (2) 4G LTE antennas

Specifications

- Operating temperature range: -40°F to 140°F (-40°C to 60°C)
- Humidity: 0% to 95% non-condensing
- System console dimensions (H x W x D): 9⅜" x 7⅛" x 4⅝"
- 100-240 VAC +/- 10%, 50/60 Hz
- Supports up to five (5) 1218C consoles

Item Number	Description	Weight (lbs)
1218C-0169 AG	Cellular Gateway Assembly	3.99

**Cellular device to be provided by OptConnect.*

OptConnect lease or purchase contracts available:

- *Two-year lease: $35/month*
- *Purchase: $295 plus $25 month-to-month*

Consult MBC Customer Service for additional details.

Construction Details

Console enclosure... Polyester fiberglass

Mounting bracket... zinc-coated steel (corrosion resistant)

1218C-0171 AS

1218 Electronic Tank Gauge Outdoor Ethernet Switch Assemblies

Connects multiple Ethernet devices together. Can be used to connect multiple devices to a network through a single Ethernet connection. The lockable enclosure is NEMA 4X indoor/outdoor weather protected.

Specifications

- Operating temperature range: -40°F to 140°F (-40°C to 60°C)
- Humidity: 0% to 95% non-condensing
- 100-240 VAC +/- 10%, 50/60 Hz

Item Number	Description	Weight (lbs)
1218C-0171 AS	Outdoor 5-Port Ethernet Switch Assembly	3.68
1218C-0172 AS	Outdoor 8-Port Ethernet Switch Assembly	3.84

Construction Details

Console enclosure... Polyester fiberglass

1218 Electronic Tank Gauge External I/O Expansion

The 1218C External Input/Output Expansion Module provides an additional 6 digital inputs (OrdLoc) and 6 relay outputs (up to 2A and 250VAC) to the 1218C Electronic Tank Gauge. The expansion module inputs and outputs are configured from the 1218C web interface. The lockable enclosure is NEMA 4X indoor/outdoor weather protected.

Specifications

- Operating temperature range: -40°F to 140°F (-40°C to 60°C)
- Humidity: 0% to 95% non-condensing
- 100-240 VAC +/- 10%, 50/60 Hz

Item Number	Description	Weight (lbs)
1218C-6600 AM	External Input/Output Expansion Module	3.68

1218C-6600 AM

Construction Details

Console enclosure... Polyester fiberglass

1518
Mechanical Tank Top Gauge

The 1518 mechanical tank gauge is designed to mount on top of horizontal and vertical tanks up to 25' in height and provides a readout in feet and inches.

Features

- Viewable up to 25' in tank height
- Easy to read from wide viewing angle
- Easy to install and calibrate
- Installs through 2" schedule 40 pipe or 2" tank bung
- Vapor tight to allow for standard tank pressure testing and sealing up to 5 PSI
- Vapor is contained to prevent lens fogging

Item Number	Description	Length	Weight (lbs)
1518--2500 AG	Mechanical tank top gauge	0-25'	15.0

**Model 1519 single point alarm option will be available in Fall 2018. It will be compatible with 918 battery and AC powered tank alarm boxes.*

1518

Construction Details

Body... Cast aluminum
Gears and gear cogs... Acetal
Hardware (including captive screws on front cover)... Stainless
Float... Stainless
Cable... Stainless

1618

1618
Mechanical Vertical Tank Gauges

The 1618 mechanical tank gauge is designed for vertical tanks up to 50' in height and provides a readout in feet and inches at ground level.

Features

- 30'+ line of sight viewing distance
- Easy to read from wide viewing angle
- Easy to install with single vertical pipe connection
- Easy to calibrate
- Installs through 2" schedule 40 pipe or 2" tank bung
- Vapor is contained to prevent lens fogging
- Mounting options
  - ° Foot base
  - ° Tank mount bracket for easy attachment to Uni-Strut Channel or other tank brackets

Item Number	Description	Length	Weight (lbs)
1618--3000 AG	Mechanical vertical tank gauge	0-30'	15.0
1618--4000 AG	Mechanical vertical tank gauge	0-40'	15.0
1618--5000 AG	Mechanical vertical tank gauge	0-50'	15.0
1618--0167 AB	Tank mount bracket	--	15.0

**Model 1619 single point alarm option will be available in Fall 2018. It will be compatible with 918 battery and AC powered tank alarm boxes.*

Construction Details

Body... Cast aluminum
Gears and gear cogs... Acetal
Hardware (including captive screws on front cover)... Stainless
Float... Stainless
Cable... Stainless
Pulleys... Cast aluminum

464 (½" x 33 ft)
complete with plumb bob

464
Oil Gauging Tape

Handheld gauging tapes are used to manually measure liquid levels in storage tanks.

Features

- Heavy-duty frame designed for years of rugged use
- All frames include grounding straps
- Standard tapes read from left to right in ⅛" increments
- Plumb bob length included in total measurement. (Plumb bobs sold separately.)

Item Number	Size	Description	Weight (lbs)
464---0100 1T	½" x 33 ft	Oil gauging tape complete less bob	1.50
464---0300 1T	½" x 50 ft	Oil gauging tape complete less bob	1.50
464---0500 1T	½" x 66 ft	Oil gauging tape complete less bob	2.50
464---0700 1T	½" x 75 ft	Oil gauging tape complete less bob	2.50
464---0900 1B	6¾"	Plum bob	1.25

** Consult Price List for metric gauge tapes and other options.*

Construction Details

Frame... Stainless steel
Tape... Plated steel or stainless steel
Plumb bob... Brass or stainless steel

517 Series
3½ Gallon AST Spill Containers

Tank top spill containers are designed to contain small spills that occur at the fill point of aboveground storage tanks.

Features
- 3½-gallon (13.25 liters) capacity
- Hinged cover is lockable with a padlock
- Centered connection
- **517** has male threaded inlet and outlet
- **517F** has female threaded inlet and outlet
- **517WO** includes removable screen for use as used oil collection point, male threads

Item Number	Size	Weight (lbs)
517---0100 AC	2"	9.0
517---0200 AC	4"	9.0
517---2500 ACPW	2½"	9.0
517F--0100 AC	2"	10.50
517F--0200 AC	4"	10.50
517F--2500 ACPW	2½"	9.0
517WO-0100 AC	2"	11.0
517WO-0200 AC	4"	11.0

517

Construction Details
Body… 16 gauge spun steel, powder coated white
Cover… 16 gauge steel, powder coated white

Certifications & Listings
CAN-ULC-S663-11 (for tanks having up to 5,000 liter capacity); Florida DEP EQ-345

516 Series
5 Gallon AST Spill Containers

Tank top spill containers are designed to contain small spills that occur at the fill point of aboveground storage tanks.

Features
- 5-gallon (18.94 liters) capacity
- Hinged cover is lockable with a padlock
- **516** has female threads and a centered connection
- **516D** has female threads and includes integral drain assembly
- **516M** has male threads
- **516O** has offset connection for space saving

Item Number	Size	Weight (lbs)
516---0200 ACPW	2"	17.0
516---0400 ACPW	4"	21.0
516D--0200 ACPW	2"	17.0
516D--0400 ACPW	4"	21.0
516M--0200 ACPW	2"	16.50
516M--0400 ACPW	4"	19.0
516MD-0200 ACPW	2"	17.50
516MD-0400 ACPW	4"	20.50
516MO-0200 ACPW	2"	17.0
516MO-0400 ACPW	4"	19.0
516MO-0400ACEVR EVR	4"	19.0
516MOD0200 ACPW	2"	17.50
516MOD0400 ACPW	4"	20.50
516O--0200 ACPW	2"	17.0
516O--0400 ACPW	4"	21.0
516O--0400ACEVR EVR	4"	21.0
516OD-0200 ACPW	2"	17.0
516OD-0400 ACPW	4"	21.0

**Consult Price List for black powder coated models.*

516 (4")

Construction Details
Body… 12 gauge spun steel, powder coated white
Cover… 14 gauge steel, powder coated white
Drain valve… Brass
Drain o-ring… FKM

Certifications & Listings
CAN-ULC-S663-11; Florida DEP EQ-725; CARB EVR Executive Order VR-402

518 (4″)

518 Series

7½ Gallon AST Spill Containers

Tank top spill containers are designed to contain small spills that occur at the fill point of aboveground storage tanks.

Features

- 7½-gallon (28.39 liters) capacity
- Hinged cover is lockable with a padlock
- Space saving offset design option
- **518** has female threaded offset connection
- **518CC** has female threaded centered connection
- **518M** has male threaded offset connection

Item Number	Size	Weight (lbs)
518---0100 AC	4"	26.0
518CC-0100 AC	4"	26.0
518M--0100 AC	4"	25.0
518M--0200 AC	2"	22.50

Construction Details

Body… 12 gauge spun steel, powder coated white
Cover… 14 gauge steel, powder coated white
Drain valve… Brass
Drain o-ring… FKM

Certifications & Listings

CAN-ULC-S663-11; Florida DEP EQ-345

515OEM (2″)

515OEM

15 Gallon Remote Spill Container (Tank or Wall Mount)

The 515OEM remote spill container provides containment of small spills during tank filling operations.

Features

- 15-gallon (56.78 liters) capacity
- Hinged lid opens upward, is pad-lockable, and is held open by a hydraulic cylinder
- 1″ locking drain valve
- Four mounting tabs on the back of the unit for easy wall or tank mounting
- Female threaded piping entries connect from the top of the container
- 2" female threaded pump return connection

Item Number	Size	Weight (lbs)
515OEM0200 AC	2"	145.0
515OEM0300 AC	3"	145.0
515OEM2200 AC	2" & 2"	145.0
515OEM2300 AC	3" & 3"	145.0

**Consult MBC Customer Service for other options.*

Construction Details

Container and lid… 12 gauge steel, powder coated white

Certifications & Listings

CAN-ULC-S663-11

LISTED

515 Series
15 Gallon Remote Spill Containers

The 515 series remote fill containers provide containment for small spills that may occur at the fill point during remote filling operations.

Features

- 15-gallon (56.78 liters) capacity
- Gas spring cylinder holds the lid in the up position when fueling
- Hinged lid is lockable with a padlock
- Weather-tight enclosure
- Vented cover
- 2" female threaded pump return connection
- Four-leg stand ships knocked down and requires minimal assembly
- Grade level to centerline connection height 30" to 48" (pedestal mount model)
- Grade level to centerline connection height 31" to 47" (four-leg stand model)
- Grade level to centerline connection height 15" to 22½" (low profile model)
- **515** has a 1" NPT drain with locking ball valve
- **515SD** has an integrated sump drain with ½" with locking ball valve

Item Number	Mounting Connection	Pipe Size	Weight (lbs)
515---0200 AC	Pedestal mount	2"	155.0
515---0300 AC	Pedestal mount	3"	156.0
515---0400 AC	Pedestal mount	4"	157.0
515---2200 AC	Pedestal mount	2" & 2"	159.0
515---2300 AC	Pedestal mount	3" & 3"	160.0
515---3200 AC	Pedestal mount	2" & 3"	160.0
515-ST0200 AC	Four-leg stand	2"	136.50
515-ST0300 AC	Four-leg stand	3"	138.0
515-ST0400 AC	Four-leg stand	4"	140.0
515-ST2200 AC	Four-leg stand	2" & 2"	147.0
515-ST2300 AC	Four-leg stand	3" & 3"	150.0
515-ST3200 AC	Four-leg stand	2" & 3"	148.50
515ST-0100 AS	Four-leg adjustable stand, powder coated		
515SD-0200 AC	Pedestal mount	2"	155.0
515SD-0300 AC	Pedestal mount	3"	156.0
515SD-0400 AC	Pedestal mount	4"	157.0
515SD-2200 AC	Pedestal mount	2" & 2"	159.0
515SD-2300 AC	Pedestal mount	3" & 3"	160.0
515SDST0200 AC	Four-leg stand	2"	--
515SDST0300 AC	Four-leg stand	3"	--
515SDST0400 AC	Four-leg stand	4"	--
515SDST2200 AC	Four-leg stand	2" & 2"	--
515SDST2300 AC	Four-leg stand	3" & 3"	--
515SD-0200 ACO	NO post or stand	2"	155.0
515SD-0300 ACO	NO post or stand	3"	156.0
515SD-0400 ACO	NO post or stand	4"	157.0
515SD-2200 ACO	NO post or stand	2" & 2"	159.0
515SD-2300 ACO	NO post or stand	3" & 3"	160.0
515STS0100 AS	Four-leg adjustable stand, stainless steel		
515STSL0100 AS	Four-leg low profile stand, stainless steel		

**Consult MBC Customer Service for other options.*

515
pedestal mount

515SD
pedestal mount

515-ST
four-leg stand

515SD
shown on **515STSL0000 AS**
*** Order low stand and fill box separately**

Construction Details

515
Box and lid... 12 gauge steel, powder coated white
Adjustable four-leg stand...Powder coated steel white or 10 gauge stainless steel
Adjustable post mount... Schedule 40, powder coated white
Ball valve... Brass
Gasket... PTFE

515SD
Box and lid... 12 gauge stainless steel
Adjustable four-leg stand... 10 gauge stainless steel
Adjustable post mount... Schedule 40, stainless steel
Ball valve... Stainless steel
Flange connection gasket... PTFE

Certifications & Listings

CAN-ULC-S663-11; Florida DEP EQ-535
**Low profile stand excluded from ULC Listing.*

715

715S

715 Series

Remote Fill Boxes - Top Connection

ULC LISTED

The 715 series remote fill box provides containment of small spills during tank filling operations.

Features

- 10-gallon (37.85 liter) capacity
- 3″ male NPT threaded top connection
- Vented and weatherproof
- Hinged door is lockable with a padlock
- Bottom sloped (right to left) toward drain and pump mounting location
- Vapor recovery mounting bracket integrated into the cabinet exterior
- Mating tank mount bracket supplied with fill box for easy installation
- Available with hand pump assembly, ball valve, quick disconnect check valve coupler/adaptor, dry disconnect adaptor, and dust cap/plug in 2″ or 3″ configuration
- All connection assemblies are factory installed and tested prior to shipping
- Also available:
    - DEF, Aviation, and E-85 models
    - Vapor recovery adaptor and cap
    - U-bolt kits
    - Post mount kits
    - Four-leg stand
    - Alarm panel mounting plate

Construction Details

715 box and door… 14-gauge steel, powder coated white
715S box and door… 14-gauge 304 stainless steel
Ball valve… Morrison 691 series brass or Morrison 691BSS stainless steel
Quick disconnect coupler and plug… Aluminum or stainless steel
Quick disconnect adaptor and cap... Passivated aluminum
Dry disconnect adaptor and cap… Aluminum, passivated aluminum, or stainless steel

Vapor recovery kit
Vapor recovery adaptor… Aluminum with FKM
Vapor recovery cap… Aluminum, powder coated orange
Hand pump... Steel construction, PTFE seals with FKM o-rings, or stainless steel with PTFE and FKM

Box dimensions
Width = 24.38"
Height = 28.88"
Depth = 19.19"

Certifications & Listings

CAN-ULC-S663-11; Florida DEP EQ-787

Item Number	Size	Description	Weight (lbs)
715--T00-0000-0	10 gal	No outlets	101.0
715--TT3-0000-0	3"—10 gal	Fill box only	101.0
715--TT3-2QBB-0	2"—10 gal	Female quick disconnect with plug	132.0
715--TT3-2MBB-0	2"—10 gal	Male quick disconnect with cap	132.0
715--TT3-3QBB-0	3"—10 gal	Female quick disconnect with plug	144.0
715--TT3-3MBB-0	3"—10 gal	Male quick disconnect with cap	144.0
715--TT3-2DBB-0	2"—10 gal	Dry-disconnect with cap	135.0
715--TT3-3DBB-0	3" —10 gal	Dry-disconnect with cap	148.0
715--TT3-2QB0-0	2"—10 gal	Female quick disconnect with cap	141.0
715--TT3-2MB0-0	2"—10 gal	Male quick disconnect with ball valve	--
715S-TT3-0000-0	3"—10 gal	Fill box only	101.0
715S-TT3-2QBB-0	2"—10 gal	Female quick disconnect with plug	132.0
715S-TT3-2MBB-0	2"—10 gal	Male quick disconnect	132.0
715S-TT3-3QBB-0	3"—10 gal	Female quick disconnect with plug	144.0
715S-TT3-3MBB-0	3"—10 gal	Male quick disconnect	144.0
715S-TT3-2DBB-0	2"—10 gal	Dry-disconnect with cap	135.0
715S-TT3-3DBB-0	3"—10 gal	Dry-disconnect with cap	144.0
715---VR30 AK	3"	Vapor recovery kit	7.0
715---VR40 AK	4"	Vapor recovery kit	7.0
715---P060 AK	60"	Post mount kit	--
715---S400 AS	--	Four-leg stand	--
715S--S400 SS	--	Four-leg stand, stainless steel	--
715---0373 2PPW	--	Alarm mounting plate	--

**Consult Price List for additional options.*

715 Series
Remote Fill Box - Back Connection

The 715 series remote fill box provides containment of small spills during tank filling operations.

Features

- 10-gallon (37.85 liter) capacity
- 3″ male NPT threaded back connection
- Vented and weatherproof
- Hinged door is lockable with a padlock
- Bottom sloped (right to left) toward drain and pump mounting location
- Vapor recovery mounting bracket integrated into the cabinet exterior
- Mounting bracket with slotted openings integrated top and bottom flush with the back
- Mating wall mount bracket supplied with fill box for easy installation
- Available with hand pump assembly, ball valve, quick disconnect check valve coupler/adaptor, dry disconnect adaptor, and dust cap/plug in 2″ or 3″ configuration
- All connection assemblies are factory installed and tested prior to shipping
- Also available:
    - DEF, Aviation, and E-85 models
    - Vapor recovery adaptor and cap
    - U-bolt kits
    - Post mount kits
    - Four-leg stand
    - Alarm panel mounting plate

Item Number	Size	Description	Weight (lbs)
715--TK3-0000-0	3"—10 gal	Box only	118.0
715--TK3-2QBB-0	2"—10 gal	Female quick disconnect with plug	149.0
715--TK3-2MBB-0	2"—10 gal	Male quick disconnect with cap	149.0
715--TK3-3QBB-0	3"—10 gal	Female quick disconnect with plug	161.0
715--TK3-3MBB-0	3"—10 gal	Male quick disconnect with cap	161.0
715--TK3-2DBB-0	2"—10 gal	Dry-disconnect with cap	152.0
715--TK3-3DBB-0	3"—10 gal	Dry-disconnect with cap	165.0
715---P060 AK	60"	Post mount kit	--
715S-TK3-0000-0	3"—10 gal	Box only	--
715S-TK3-2ESS-0	2"—10 gal	Dry-disconnect with cap	129.0
715S-TK3-2SSS-0	2"—10 gal	Female quick disconnect with plug	114.0
715S-TK3-3MBB-0	3"—10 gal	Male quick disconnect with cap	120.0
715S-TK3-3MS0-0	3"—10 gal	Male quick disconnect with cap	120.0
715S-TK3-3SS0-0	3"—10 gal	Female quick disconnect with plug	150.0
715S-TK3-3SSS-0	3"—10 gal	Female quick disconnect with plug	120.0
715---S400 AS	--	Four-leg stand	--
715S--S400 SS	--	Four-leg stand, stainless steel	--
715---0373 2PPW	--	Alarm mounting plate	--

**Consult Price List for additional options.*

715--TK

Construction Details

715--TK3 box and door… 14-gauge steel, powder coated white
715S-TK3 box and door… 14-gauge steel, stainless steel
Ball valve… Morrison 691 series brass or Morrison 691BSS stainless steel
Quick disconnect coupler and plug… Aluminum or stainless steel
Quick disconnect adaptor and cap... Passivated aluminum
Dry disconnect adaptor with cap… Aluminum, passivated aluminum or stainless steel
Vapor recovery adaptor… Aluminum with FKM
Vapor recovery cap… Aluminum, powder coated orange
Hand pump... Steel construction, PTFE seals with FKM o-rings or stainless steel with PTFE and FKM

Box dimensions
Width = 24.26"
Height = 33.07"
Depth = 22.20"

Certifications & Listings

CAN-ULC-S663-11; Florida DEP EQ-787

715F Series

Remote Fill Box - In-Wall with Back Connection

The 715F series remote fill box provides containment of small spills during tank filling operations. Each unit is supplied with wall mounting flanges for easy installation.

Features

- 7-gallon (26.5 liter) capacity
- 2″ male NPT threaded back connection
- Installs flush into a wall
- Vented and weatherproof
- Hinged door is lockable with a padlock
- Drain located bottom front center
- Available with hand pump assembly, ball valve, quick disconnect check valve coupler/adaptor, dry disconnect adaptor, and dust cap/plug in 2″ configuration
- All connection assemblies are factory installed and tested prior to shipping
- Also available:
    - Aviation and E-85 models

Item Number	Size	Description	Weight (lbs)
715F-TK2-0000-0	2"—7 gal	Fill box only	120.0
715F-TK2-2QBB-0	2"—7 gal	Female quick disconnect with plug	162.0
715F-TK2-2MBB-0	2"—7 gal	Male quick disconnect with cap	162.0
715F-TK2-2DBB-0	2″—7 gal	Dry-disconnect with cap	160.0
715FS-TK2-0000-0	2"—7 gal	Fill box only	--
715FS-TK2-2D00-0	2"—7 gal	Dry-disconnect with cap	--
715FS-TK2-2DBB-0	2"—7 gal	Dry-disconnect with cap	129.0
715FS-TK2-2ES0-0	2"—7 gal	Dry-disconnect with cap	129.0

**Consult Price List for additional options.*

Construction Details

Box and door… 14-gauge steel, powder coated white
Ball valve… Morrison 691 series brass or 691BSS series stainless steel
Quick disconnect coupler and plug… Aluminum or stainless steel
Quick disconnect adaptor and cap... Passivated aluminum
Dry disconnect adaptor and cap… Aluminum, passivated aluminum, or stainless steel
Hand pump... Steel construction, PTFE seals with FKM o-rings, or stainless steel with PTFE and FKM

Box dimensions
Width = 24.26" (Flange = 30")
Height = 32.51" (Flange = 38.50")
Depth = 19"

Certifications & Listings

CAN-ULC-S663-11; Florida DEP EQ-787

715 Series
Remote Fill Box - Bottom Connection

The 715 series remote fill box provides containment of small spills during tank filling operations.

Features

- 10-gallon (37.85 liter) capacity
- 2” or 3” bottom connection
- On-wall flush mount
- Hinged door is lockable with a padlock
- Integral grounding stud
- Vapor recovery mounting brackets
- Sloped bottom (right to left)
- Drain located in front
- Also available:
    - Four-leg stand
    - Alarm panel mounting plate

Item Number	Size	Description	Weight (lbs)
715--TB2-0000-0	2"—10 gal	Fill box only	--
715--TB3-0000-0	3"—10 gal	Fill box only	--
715--TB2-2MBB-0	2"—10 gal	Male quick disconnect	--
715--TB2-2QBB-0	2"—10 gal	Female quick disconnect with plug	--
715--TB3-3MS0-0	3"—10 gal	Male quick disconnect with cap	--
715--TB3-3QBB-0	3"—10 gal	Female quick disconnect with plug	--
715---S400 AS	--	Four-leg stand	--
715S--S400 SS	--	Four-leg stand, stainless steel	--
715---0373 2PPW	--	Alarm mounting plate	--

**Consult Price List for additional options.*

715---TB

Construction Details

Box and door… 14-gauge steel, powder coated white
Ball valve… Morrison 691 series brass or 691BSS series stainless steel
Quick disconnect coupler and plug… Aluminum or stainless steel
Quick disconnect adaptor and cap... Passivated aluminum
Dry disconnect adaptor and cap… Aluminum, passivated aluminum, or stainless steel
Hand pump... Steel construction, PTFE seals with FKM o-rings, or stainless steel with PTFE and FKM

Box dimensions
Width = 24.26"
Height = 28.71"
Depth = 19.19"

Certifications & Listings

CAN-ULC-S663-11; Florida DEP EQ-787

715

715 Series

Top Connection, 150# Raised Face Flange

The Morrison 715 Series remote fill box is a simple 10-gallon capacity cabinet that provides containment of small spills during tank filling operations. Each unit is supplied with tank mount brackets for easy installation on storage tanks.

Features

- 10-gallon (37.85 liter) capacity
- 3″ 150# raised face flange top connection
- Vented and weatherproof
- Hinged door is lockable with a padlock
- Bottom sloped (right to left) toward drain and pump mounting location; drains on left side
- Vapor recovery mounting bracket integrated into the cabinet exterior
- Vapor recovery adaptor, cap, and u-bolt kits are available
- Available with hand pump assembly, ball valve, quick disconnect check valve coupler/adaptor, dry disconnect adaptor, and dust cap/plug in 2″ or 3″ NPT configuration
- All connection assemblies are factory installed and tested prior to shipping
- Post mount kits are available in powder coated steel
- Four-leg stands are available in powder coated steel or stainless steel
- Alarm box mounting kit available in powder coated steel

Item Number	Size	Description	Weight (lbs)
715--TF5-0000-0	3"—10 gal	Fill box only	--
715S-TF5-0000-0	3"—10 gal	Fill box only	--
715---S400 AS	--	Four-leg stand	--
715S--S400 SS	--	Four-leg stand, stainless steel	--
715---0373 2PPW	--	Alarm mounting plate	--

Construction Details

Box and door... 14-gauge steel, powder coated white, or 304 stainless steel
Ball valve... Morrison 691 series brass or 691BSS series stainless steel
Quick disconnect coupler and plug... Aluminum or stainless steel
Quick disconnect adaptor and cap... Passivated aluminum
Dry disconnect adaptor and cap... Passivated aluminum or stainless steel

Vapor recovery kit
Vapor recovery adaptor... Aluminum with FKM
Vapor recovery cap... Aluminum, powder coated orange
Hand pump... steel construction, PTFE seals with PTFE o-rings, or stainless steel with PTFE and FKM

Box dimensions
Width = 24.38"
Height = 30.31" (Flange = 36.25")
Depth = 19.19"

Certifications & Listings

CAN-ULC-S663-11; Florida DEP EQ-787

305 Series
Top Seal Adaptors

305 (4")

Top seal adaptors are installed on underground and aboveground storage tank fill ports and riser pipes where a tight fill connection is required.

Features
- Accommodates Morrison and most brands of top seal caps
- Straight threads with gasket secure Morrison 419 drop tube onto the riser pipe
- 4" available with internal lugs for easy installation
- **305H and 305LH** have a higher profile
- **305L and 305LH** have internal lugs

Item Number	Size	Lugs	Height	Weight (lbs)
305---0000 AA	2"	Without	2⅝"	1.50
305---0000AAEVR EVR	2"	Without	2⅝"	1.50
305---0200 AA	4"	Without	2 5/16"	2.40
305---0200AAEVR EVR	4"	Without	2 5/16"	2.40
305L--0100 AA	4" x 3"	With	2 5/16"	2.50
305L--0200 AA	4"	With	2 5/16"	2.50
305H--0200 AA	4"	Without	2¾"	3.25
305LH-0200 AA	4"	With	2¾"	3.25

Construction Details
Body... Brass
Gasket... Buna-N

Certifications & Listings
CARB Approval 89-12 (4" top seal adaptor); CARB EVR Executive Order VR-402

305SA
Top Seal Swivel Adaptor

305SA

Top seal swivel adaptors are installed on underground storage tank fill ports and riser pipes where a tight fill connection is required. The top section rotates with the movement of the delivery hose while the bottom section remains securely in place.

Features
- Accommodates Morrison 305C locking fill caps
- Straight threads with gasket secure Morrison 419 drop tube onto the riser pipe
- Durable ball bearing and snap ring seal
- Low profile

Item Number	Size	Lugs	Height	Weight (lbs)
305SA-0200 AA	4"	Without	3 11/16"	5.50

Construction Details
Body and base… Brass
O-Ring… PTFE encapsulated FKM
Gasket… Buna-N
Set screws… Stainless steel

405

405 Series
Side Seal Adaptors

Side seal adaptors are installed on underground storage tank fill ports and riser pipes where a tight fill connection is required.

Features
- Accommodates Morrison 405C locking caps
- Straight threads with gasket secure Morrison 419 drop tube onto the riser pipe
- **405K** has cross-bar and kerosene label

Construction Details
Body... Brass
Gasket... Buna-N

Certifications & Listings
CARB Approval 89-12

Item Number	Size	Height	Weight (lbs)
405---0100 AA	4"	1⅝"	2.25
405K--0100 AA	4"	1⅝"	2.25

605

605
Top Seal Coaxial Adaptor

Top seal coaxial adaptors are installed on underground storage tank riser pipes. Filling and vapor recovery can be done through a single connection with a coaxial drop elbow.

Features
- Convert standard UST fill to Stage 1 Vapor Recovery
- Adaptor designed to mate with coaxial delivery nozzles
- Accomodates 4″ Morrison 305C top seal caps
- Secured to riser with set screw

Construction Details
Body... Brass

Item Number	Size	Height	Weight (lbs)
605---0100 AA	4"	4"	4.85

305C
Top Seal Fill Cap

Top seal caps are designed to mate with top seal adaptors when the adaptors are not in use.

Features

- Keeps water, dirt, and debris out of the tank
- Lockable with a padlock
- Vapor tight
- Low profile models when space is limited
- Easy to engage push-on or step-on (4″)
- Large, easy-to-grip pull ring makes it fast and easy to remove (4″)

Item Number	Size	Description	Gasket	Weight (lbs)
305C--0000 AC	2"	Low profile	Buna	0.75
305C--2000 AC	2"	Standard handle	Buna	0.75
305C--2000ACEVR EVR	2"	Standard handle	Buna	0.75
305C--0100 AC	4"	Low profile	Buna	2.0
305C--0100ACEVR EVR	4"	Low profile	Buna	2.0
305C--4100 AC	4"	Low profile	FKM	2.0

305C (2″)
low profile

305C (2″)
standard handle

305C (4″)

Construction Details

Body… Aluminum
Cam levers… Aluminum (4") or brass (2")
Gaskets… Buna-N or FKM

Certifications & Listings

CARB Approval 89-12; CARB EVR Executive Order VR-101 or VR-402

405C
Side Seal Cap

Side seal caps are designed to mate with side seal adaptors when the adaptors are not in use.

Features

- Keeps water, dirt, and debris out of the tank
- Lockable with a padlock
- Vapor tight
- Low profile design
- Easy to engage push-on or step-on
- Large, easy-to-grip pull ring makes it fast and easy to remove

Item Number	Size	Weight (lbs)
405C--0100 AC	4"	2.0

405C

Construction Details

Body and cam assembly… Aluminum
Gasket… Buna-N

Certifications & Listings

CARB Approval 89-12

305XP
(2" with ⅜" hole)

305XPA
(4" with ½" hole)

305XPV
(4" with two ⅜" holes)

Construction Details

Cap body... Aluminum
Cap cam levers... Aluminum (4"), brass (2")
Cap gaskets... Buna-N or FKM
Cable connector... Plastic
Adaptor body... Brass

305XPV
Vent tube... Copper

Certifications & Listings

CARB EVR Executive Order VR-102 or VR-402

305XP Series
Tank Monitor Caps & Kits

Tank monitor caps and adaptors are installed on tank monitor riser pipes to keep water and debris out while providing a liquid tight opening for the probe wire to pass through.

Features

- Keeps water, dirt, and debris out of the tank
- Lockable with a padlock
- Vapor tight
- Low profile models when space is limited
- Easy to engage push-on
- Large, easy-to-grip pull ring makes it fast and easy to remove

Item Number (Caps)	Size	Hole Size	Connector	Weight (lbs)
305XP-2100 AC	2"	⅜"	No	0.75
305XP-2200 AC	2"	⅜"	Yes	0.75
305XP-2200ACEVR EVR	2"	⅜"	Yes	0.75
305XP-2300 AC	2"	½"	No	0.75
305XP-2400 AC	2"	½"	Yes	0.75
305XP-2400ACEVR EVR	2"	½"	Yes	0.75
305XP-0100 AC	4"	⅜"	No	2.0
305XP-0100ACEVR EVR	4"	⅜"	No	2.0
305XP-0200 AC	4"	⅜"	Yes	2.0
305XP-0200ACEVR EVR	4"	⅜"	Yes	2.0
305XP-1100 AC	4"	½"	No	2.0
305XP-1200 AC	4"	½"	Yes	2.0
305XP-1100ACEVR EVR	4"	½"	No	2.0
305XP-1200ACEVR EVR	4"	½"	Yes	2.0
305XPV0100 AC	4"	2 x ⅜"	Yes	2.75

Item Number (Kits)	Size	Hole Size	Connector	Weight (lbs)
305XPA2100 AK	2"	⅜"	No	2.50
305XPA2200 AK	2"	⅜"	Yes	2.50
305XPA2200AKEVR EVR	2"	⅜"	Yes	2.50
305XPA2300 AK	2"	½"	No	2.60
305XPA2400 AK	2"	½"	Yes	2.60
305XPA2400AKEVR EVR	2"	½"	Yes	2.60
305XPA0100 AK	4"	⅜"	No	5.0
305XPA0100AKEVR EVR	4"	⅜"	No	5.0
305XPA0200 AK	4"	⅜"	Yes	5.0
305XPA0200AKEVR EVR	4"	⅜"	Yes	5.0
305XPA1100 AK	4"	½"	No	5.0
305XPA1200 AK	4"	½"	Yes	5.0
305XPA1100AKEVR EVR	4"	½"	No	5.0
305XPA1200AKEVR EVR	4"	½"	Yes	5.0
305XPV0100 AK	4"	2 x ⅜"	Yes	2.75

Kits include 305 Adaptors and Caps

Also includes vent tube

179 Series
Hinged Style Fill Caps

Hinged style fill caps are designed for tank filling applications where a tight fill connection is not required. The threaded body installs onto riser a pipe or directly into a tank bung.

Features
- Easy to open and close hinged operation
- Positive stop to prevent cover from contacting tank
- Lockable with a padlock
- Integrated venting when closed
- Your company name can be cast into the cover upon request
- **179** and **179CI** have female threads
- **179M** and **179MCI** have male threads

Item Number	Material	Size	Weight (lbs)
179---0100 AC	Aluminum	2"	0.75
179---0200 AC	Aluminum	2½"	1.0
179---0300 AC	Aluminum	3"	1.0
179---0400 AC	Aluminum	4"	2.0
179M--0100 AC	Aluminum	2"	0.75
179M--0200 AC	Aluminum	2½"	1.25
179CI-0100 AC	Cast iron	2"	2.50
179MCI0100 AC	Cast iron	2"	2.75

179CI (2")

179M (2")

Construction Details

Body... Cast iron (powder coated black) or aluminum
Cap... Cast iron (powder coated black) or aluminum
Hinge pin... Zinc plated steel

179 & 179M
Body... Aluminum
Cap... Aluminum
Hinge pin... Zinc plated steel

179CI & 179MCI
Body... Cast iron (powder coated black)
Cap... Cast iron (powder coated black)
Hinge pin... Zinc plated steel

305GSP
Gauge Stick Port Cap & Adaptor

The 305GSP provides an access port for manual gauging of aboveground storage tanks.

Features
- Lockable with a padlock
- Straight threads with gasket secure drop tubes into the riser pipe
- Clearly labeled "Gauge Stick Port" to ensure proper access
- Vapor and liquid tight
- Use with Morrison 419 drop tube
- Kit includes cap, adaptor, and label

Item Number	Size	Weight (lbs)
305GSP0000 AK	2"	2.50
305GSP2000AKEVR EVR	2"	2.50

305GSP

Construction Details

Adaptor... Brass
Cap... Aluminum
Gasket... Buna-N

178GSP

178GSP
Threaded Style Gauge Stick Port Cap & Adaptor

These adaptors are designed to identify and secure tank openings dedicated to gauging the product with a gauge stick. The adaptor permanently threads onto a riser pipe or pipe nipple and the cap threads onto an adaptor.

Features
- Lockable with a padlock
- Vapor tight when properly secured
- "Gauge Stick Port" cast into the cap
- Use with Morrison 419 2″ drop tube

Construction Details
Adaptor body... Brass
Cap... Aluminum
Gaskets... Buna-N

Item Number	Size	Weight (lbs)
178GSP0100 AC	2"	1.0

178 BB-IC (2″)

178 Series
Threaded Style Fill Cap & Adaptor

This cap and adaptor are designed for tank filling applications where a tight fill connection is not required. The adaptor permanently threads onto a riser pipe of fill nipple and the cap threads onto adaptor.

Features
- Lockable with a padlock
- Vapor tight when properly secured
- **178DT** is a drop tube adaptor designed with 2" straight pipe threads to secure a Morrison 419 drop tube to the fill riser

Construction Details
178
Adaptor body... Brass (BB), cast iron (IB) (powder coated black), or aluminum (AL)
Cap... Brass (BC), or cast iron (IC) (powder coated black), or aluminum (AL)
Gasket... Buna-N

178DT
Gasket... Buna-N

Item Number	Size	Body Material	Cap Material	Weight (lbs)
178---0100 AC	2"	IB	IC	2.0
178---0200 AC	2"	IB	BC	2.0
178---0300 AC	2"	BB	IC	2.0
178---0400 AC	2"	BB	BC	2.25
178---1200 AC	3"	BB	BC	4.25
178---1600 AC	4"	BB	BC	7.0
178AL-0900 AC	3"	AL	AL	1.54
178AL-1300 AC	4"	AL	AL	2.44
178DT-0300 AC	2"	BB	IC	2.0
178DT-0400 AC	2"	BB	BC	2.25

379
Fill Cap & Vent Combination

The Morrison 379 is designed for tank filling applications where a tight fill connection is not required. Atmospheric venting takes place through the fill opening.

Features
- Male threaded vent installs directly into a female threaded opening of a small storage tank
- Provides direct filling access point when the hinged fill cap is in the open position
- When closed, the screened opening protects the tank from debris and insects
- Lockable with a padlock

Item Number	Size	Weight (lbs)
379---0100 AC	2" NPT	1.25

379

Construction Details
Body… Aluminum
Screens… Brass

NOTE

Tank fill caps must not be used as a substitute for proper normal and emergency venting on tanks. It is essential that proper venting be provided in compliance with all applicable codes for every tank system.

307
Threaded Style Fill Cap & Adaptor

The 307 adaptor is designed for tank filling applications where a tight fill connection is not required. The adaptor permanently threads onto riser pipe and the cap threads onto the adaptor.

Features
- Vapor tight and water tight when properly secured
- Cap attached to the adaptor with a chain eliminates the possibility of dropping or losing the cap

Item Number	Size	Description	Weight (lbs)
307---0100 AC	2"	With adaptor and chain	1.75
307---0300 AC	2"	With chain and gasket only	0.75

307 (2")
with adaptor and chain

Construction Details
Body and cap... Brass
Gasket... Buna-N

180M

180M
Spin Secure Locking Fill Cap & Adaptor

This lockable fill cap is designed to prevent the theft of fuel from stationary storage tanks where a tight fill hose connection is not required.

Features
- Patented Spin-Secure locking design provides maximum fuel theft protection
- Threaded male riser adaptor sold with cap to convert female tank opening if needed
- Cap has built-in fusible material for thermal relief that vents at 195° (+/-10°)
- Cap is vapor tight when properly installed
- Can be ordered in “keyed alike” quantities

Item Number	Size	Key Code	Weight (lbs)
180M--2100 1C	2" NPT	1	2.10
180M--2200 1C	2" NPT	2	2.10
180M--2300 1C	2" NPT	3	2.10
180M--2400 1C	2" NPT	4	2.10

Construction Details
Cap... Zamack 3—silver zinc plated
Adaptor... Zamack 27—silver zinc plated
O-Ring... FKM

180MTL (male)

180TL (female)

180MTL & 180TL
Spin-Secure Vented Locking Fill Cap

This lockable fill cap is designed to prevent the theft of fuel from stationary storage tanks where a tight fill hose connection is not required.

Features
- Patented Spin-Secure locking design provides maximum fuel theft protection
- Adaptor has open air channels to allow tank to breathe as needed
- Provided with necessary adaptor. Please specify male or female when ordering cap
- 2” NPT cap opening with 1½” nozzle opening
- Can be ordered in “keyed alike” quantities

Item Number	Size	Male or Female	Key Code	Weight (lbs)
180MTL2100 1C	2" NPT	Male	1	2.15
180MTL2400 1C	2" NPT	Male	4	2.15
180TL-2100 1C	2" NPT	Female	1	1.50
180TL-2400 1C	2" NPT	Female	4	1.50

Construction Details
Cap... Hardened steel—silver zinc plated

571 Series
Fill Pipe Extensions

Fill pipe extensions are installed on the tank riser pipe to make up for adjustment in the grade level due to tank settlement. They thread in between the riser pipe and the fill adaptor.

Item Number	Size	Weight (lbs)
571---0100 AE	4" x 4" x 3½"	3.0
571S--0100 AE	4" x 4" x 2 7/16"	3.0

571

571S

Construction Details

Body... Cast iron

821
Fill Hatch

This 6” fill hatch fitting is designed to be welded on a liquid storage tank during the tank fabrication process. The primary function of this fitting is to provide an access point to fill or inspect the liquid level for used oil storage tanks.

Features

- Components are uncoated for easy weld installation and can be painted after they are installed
- Lockable with a padlock
- Hinged cover

Item Number	Size	Gasket	Weight (lbs)
821---0600 AH	6"	No	6.20
821---G600 AH	6"	Yes	6.30

821

Construction Details

Body... Steel
Cover... Iron

821---G
Gasket... Cork/Buna-N

Certifications & Listings

Gasket is UL Listed

307P
(2" with ⅜" port hole)

307P
Probe Cap

The 307P probe cap is designed for tank monitoring applications where a male threaded riser is provided and a thread-on style cap is required.

Features
- Vapor tight when properly secured

Item Number	Size	Description	Weight (lbs)
307P--0050 AC	2"	With ¼" NPT port hole	1.50
307P--0100 AC	2"	With ⅜" NPT port hole	1.50
307P--0200 AC	2"	With ⅜" cable connector	1.50
307P--1100 AC	2"	With ½" NPT port hole	1.50
307P--1200 AC	2"	With ½" cable connector	1.50

Construction Details
Cap... Brass
Gasket... Buna-N

578P

578PV

578P Series
Probe Caps

The 578P probe cap is designed for tank monitoring applications where a male threaded riser is provided and a thread-on style cap is required.

Features
- Vapor tight when properly secured
- **578PV** has two connectors—one for the vent tube (included) and one for a monitoring device cable

Item Number	Size	Port Hole Size	Weight (lbs)
578P--0100 AC	4"	⅜"	2.75
578P--0200 AC	4"	½"	2.75
578PV-0100 AK	4"	2 - ⅜"	3.0

Note: Probe Cap without port hole (578) is also available. See Valves & Fittings section.

Construction Details
Cap... Brass
Gasket... Buna-N
Pin (handle)... Plated steel

578PV
Vent tube... Copper

323 Series
Vapor Recovery Adaptors

Vapor recovery poppeted adaptors mate with vapor recovery elbows and couplings as a connection device to return fuel vapors from the tank to the delivery vehicle during the filling operation.

Features
- Self-guiding poppet
- **323B** has an air brake valve mount option for tank truck

Item Number	Adaptor Size	Threads	Disc	Weight (lbs)
323---0100 AA	4"	3"	Buna-N	3.50
323---0200 AA	4"	4"	Buna-N	3.50
323---0300 AA	4"	3"	FKM	3.50
323---0300AAEVR EVR	4"	3"	FKM	3.50
323---0400 AA	4"	4"	FKM	3.50
323---0400AAEVR EVR	4"	4"	FKM	3.50
323B--0050 AA	4"	3"	Buna-N	4.0
323B--0100 AA	4"	4"	Buna-N	4.25
323B--0200 AA	4"	4"	FKM	4.25

**Consult Price List for other options.*

323EVR (4" x 3")

323B (4" x 4")

Construction Details

Body... Anodized aluminum
Spring... Stainless steel
Disc... Buna-N or FKM
Stem... Stainless steel
Disc washer... Zinc plated steel
Poppet assembly... Stainless steel and PTFE (EVR models only)

Certifications & Listings

CARB Approval 89-12; CARB EVR Executive Order VR-402

323SA
Vapor Recovery Swivel Adaptor

This adaptor has the same features as the Morrison 323 vapor adaptor, only the top portion rotates with hose movement while the bottom section remains securely sealed.

Features
- Self-guiding poppet
- Ball bearing rotation
- Low profile

Item Number	Adaptor Size	Threads	Weight (lbs)
323SA-0200 AA	4"	4"	10.75

323SA (4" x 4")

Construction Details

Body and adaptor... Brass
Spring... Stainless steel
Disc... FKM
O-Ring... PTFE encapsulated FKM
Stem... Stainless steel
Disc washer... Zinc plated steel
Ball bearings... Brass

323C (4")

323C
Vapor Recovery Cap

Vapor recovery caps are designed to mate with vapor recover adaptors when the adaptors are not in use. The cap prevents vapors from escaping and prevents dirt and water from entering the tank.

Features
- Low profile
- Large diameter pull ring for easy removal
- Bright orange color
- Lockable with a padlock
- Vapor tight when installed on adaptor

Item Number	Size	Weight (lbs)
323C--0100 AC	4"	2.0
323C--0100ACEVR EVR	4"	2.0

Construction Details
Body… Die cast aluminum, powder coated
Gasket… Buna-N
Hardware… Stainless steel

Certifications & Listings
CARB Approval 89-12; CARB EVR
Executive Order VR-101 and VR-402

587

587
Fill Adaptor with Screen

Cam-and-groove adaptors and couplers are used in specialized applications where it is necessary and/or convenient to connect and disconnect components quickly.

Features
- Integrated screen catches foreign debris before it gets into the tank

Item Number	Size	Weight (lbs)
587---0100 AS	3"	1.0

Construction Details
Body… Aluminum
Gasket… Buna-N
Screen… Stainless steel (20 mesh)
Retaining ring... Stainless steel

926

926
Dry Disconnect Adaptor

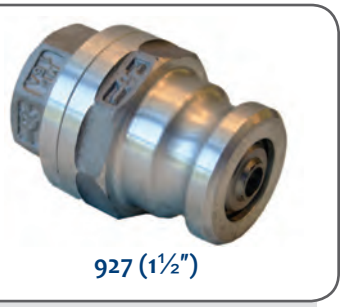
Dry disconnect adaptors and couplers are designed to connect fuel delivery transport truck hoses or nozzles to the fill pipe of an aboveground storage tank. Adaptors are generally mounted to the tank.

Features
- Minimizes spills and dripping of fuel at disconnect
- Compatible with bayonet-style dry disconnect couplers
- Quick and easy connect and disconnect

Item Number	Thread Size	Coupler Size	Weight (lbs)
926---0200 AA	2"	2"	2.75

Construction Details
Body and plunger… Brass
Disc… FKM

927 Series
Dry Disconnect Adaptors


927 (1½")

Dry disconnect adaptors and couplers are designed to connect fuel delivery transport truck hoses or nozzles to the fill pipe of an aboveground storage tank. Adaptors are generally mounted to the tank.

Features
- Minimizes spills and dripping of fuel at disconnect
- Compatible with other brands of cam-and-groove style dry disconnect couplers (such as the Morrison 928, PT Maxi-Dry® and OPW Kamvalok®)
- Quick and easy connect and disconnect
- Compatible with Morrison 735DC dust caps
- **927** is aluminum
- **927B** is brass
- **927S** is stainless steel

Construction Details
Body and tail piece… Anodized aluminum or stainless steel
Disc and gasket… FKM

Certifications & Listings
CARB EVR Executive Order VR-402

Item Number	Thread Size	Coupler Size	Weight (lbs)
927---0150 1A	1½"	2"	1.63
927---0200AAEVR EVR	2"	2½"	1.98
927---0300AAEVR EVR	3"	4"	3.50
927---0400AAVER EVR	4"	4"	3.50
927B--0200 AA	2"	2½"	4.25
927S--0150 1A	1½"	2"	3.79
927S--0200 1A	2"	2½"	5.93
927S--0300 1A	3"	4"	18.23

928 Series
Dry Disconnect Couplers

928 (1 ½")

Dry disconnect couplers and adaptors are designed to connect fuel delivery transport truck hoses or nozzles to the fill pipe of an aboveground storage tank. The dry disconnect coupler is generally installed on the fuel truck delivery hose.

Features
- Minimizes spills and dripping of fuel at disconnect
- Compatible with other brands of cam-and-groove style dry disconnect adaptors
- Quick and easy connect and disconnect
- **928** is aluminum
- **928S** is stainless steel

Construction Details
Body and tail piece… Anodized aluminum or stainless steel
Disc and gasket… FKM

Certifications & Listings
CARB EVR Executive Order VR-402

Item Number	Thread Size	Coupler Size	Weight (lbs)
928---0150 1C	1½"	2"	4.39
928---0150ACEVR EVR	1½"	2"	4.39
928---0200 1C	2"	2½"	5.98
928---0200ACEVR EVR	2"	2½"	5.98
928---0300 1C	3"	4"	12.61
928---0300ACEVR EVR	3"	4"	12.61
928S--0150 1C	1½"	2"	7.03
928S--0200 1C	2"	2½"	10.36
928S--0300 1C	3"	4"	23.23

800A

800B

800C

800D

800E

800F

800DC

800DP

800 Series
Cam-and-Groove-Fittings

Cam-and-groove adaptors and couplers are used in specialized applications where it is necessary to be able to connect and disconnect components quickly.

Features

- **Part A** female threads to male quick disconnect adaptor
- **Part B** male threads to female quick disconnect coupler
- **Part C** hose shank to female quick disconnect coupler
- **Part D** female threads to female quick disconnect coupler
- **Part E** hose shank to male quick disconnect adaptor
- **Part F** male threads to male quick disconnect adaptor
- **Part DC** dust caps
- **Part DP** dust plugs

Item Number	Size	Weight (lbs)
800A-A0000 1C	¾"	0.10
800A-A0100 1C	1"	0.14
800A-A0200 1C	1¼"	0.26
800A-A0300 1C	1½"	0.30
800A-A0400 1C	2"	0.30
800A-A0500 1C	2½"	0.64
800A-A0600 1C	3"	0.60
800A-A0700 1C	4"	1.36
800B-A0000 1C	¾"	0.30
800B-A0100 1C	1"	0.38
800B-A0200 1C	1¼"	0.68
800B-A0300 1C	1½"	0.78
800B-A0400 1C	2"	1.02
800B-A0500 1C	2½"	2.0
800B-A0600 1C	3"	2.0
800B-A0700 1C	4"	2.0
800C-A0000 1C	¾"	0.47
800C-A0100 1C	1"	0.52
800C-A0200 1C	1¼"	0.86
800C-A0300 1C	1½"	0.80
800C-A0400 1C	2"	1.14
800C-A0500 1C	2½"	2.0
800C-A0600 1C	3"	2.50
800C-A0700 1C	4"	4.0
800D-A0000 1C	¾"	0.25
800D-A0100 1C	1"	0.44
800D-A0200 1C	1¼"	0.76
800D-A0300 1C	1½"	0.84
800D-A0400 1C	2"	0.80
800D-A0500 1C	2½"	2.0
800D-A0600 1C	3"	2.0
800D-A0700 1C	4"	2.80

Item Number	Size	Weight (lbs)
800E-A0000 1C	¾"	0.26
800E-A0100 1C	1"	0.26
800E-A0200 1C	1¼"	0.39
800E-A0300 1C	1½"	0.54
800E-A0400 1C	2"	0.82
800E-A0500 1C	2½"	1.50
800E-A0600 1C	3"	1.66
800E-A0700 1C	4"	2.50
800F-A0000 1C	¾"	0.15
800F-A0100 1C	1"	0.24
800F-A0200 1C	1¼"	0.48
800F-A0300 1C	1½"	0.52
800F-A0400 1C	2"	0.60
800F-A0500 1C	2½"	0.86
800F-A0600 1C	3"	1.36
800F-A0700 1C	4"	2.50
800DCA0000 1C	¾"	0.20
800DCA0100 1C	1"	0.42
800DCA0200 1C	1¼"	2.0
800DCA0300 1C	1½"	0.74
800DCA0400 1C	2"	0.70
800DCA0500 1C	2½"	1.24
800DCA0600 1C	3"	1.40
800DCA0700 1C	4"	2.40
800DPA0000 1C	¾"	0.12
800DPA0100 1C	1"	0.16
800DPA0200 1C	1¼"	0.16
800DPA0300 1C	1½"	0.25
800DPA0400 1C	2"	0.38
800DPA0500 1C	2½"	0.59
800DPA0600 1C	3"	1.0
800DPA0700 1C	4"	2.0

*Items listed above are aluminum.
Consult Price List for brass, carbon steel, and stainless steel options.

Construction Details

Standard couplings… Aluminum (brass, carbon steel, and stainless steel are available)
Handles… Brass or stainless steel
Gaskets… Buna-N

800A-A0000 1C

Letter in this location indicates material of construction

- A = Aluminum
- B = Brass
- S = Stainless steel
- C = Carbon steel

735DC Series
Dust Caps

735DC (4″)

Dust caps are used with quick disconnect adaptors where it is necessary and/or convenient to be able to connect and disconnect components quickly.

Features
- Provides protection to cam-and-grove adaptor when not in service
- Dual cam arms secure the cap to the adaptor

Item Number	Size	Description	Weight (lbs)
735DC-2000ACEVR	2"	Aluminum EVR less chain and rings	1.0
735DC-2500ACEVR	2½"	Aluminum EVR less chain and rings	1.20
735DC-3000ACEVR	3"	Aluminum EVR less chain and rings	1.50
735DC-4000ACEVR	4"	Aluminum EVR less chain and rings	2.50
735DCA2000ACEVR	2"	Anodized aluminum EVR less chain and rings	1.0
735DCA2500ACEVR	2½"	Anodized aluminum EVR less chain and rings	1.10
735DCA3000ACEVR	3"	Anodized aluminum EVR less chain and rings	1.50
735DCA4000ACEVR	4"	Anodized aluminum EVR less chain and rings	2.50

**Consult Price List for other options.*

Construction Details
Body… Aluminum or anodized aluminum
Cam arms… Brass
Gasket… Buna-N

Certifications & Listings
CARB EVR Executive Order VR-402; US Military CID A-A-59326D

73590CA
90° Check Valve Adaptor

73590CA (2″)

The 73590CA cam-and-grove adaptor with check valve is used in specialized applications with limited space where it is necessary and/or convenient to be able to connect and disconnect tank filling components quickly.

Features
- Male quick connect adaptor mates with traditional quick disconnect fill couplers
- Integrated check valve and fill adaptor reduces product loss at disconnect
- Space saving 90° design fits into small spaces such as the Morrison 715 remote fill boxes

Item Number	Size	Description	Weight (lbs)
73590CA0200 AV	2"	90° check valve; male adaptor; female threads	2.0
73590CA0300 AV	3"	90° check valve; male adaptor; female threads	5.0

Construction Details
Body... Anodized aluminum
Plunger... Stainless steel
Disc... FKM

735LAT (4")

735LBT (4")

735LAT & 735LBT Series
Flange Adaptors & Couplers

Cam-and-groove adaptors and couplers are used in specialized applications where it is necessary and/or convenient to be able to connect and disconnect components quickly.

Features
- **735LAT** is a TTMA flange to male quick disconnect adaptor
- **735LBT** is a TTMA flange to female quick disconnect coupler

Item Number	Size	Description	Weight (lbs)
735LAT4000 1A	4"	4" flange to 4" male quick disconnect adaptor	2.0
735LAT6000 1A	6"	6" flange to 6" male quick disconnect adaptor	5.30
735LBT4000 AC	4"	4" flange to 4" male quick disconnect coupler	4.50
735LBT6000 AC	6"	6" flange to 6" male quick disconnect coupler	6.85

**Consult Price List for other sizes.*

Construction Details
Body… Aluminum or anodized aluminum

735LBT
Cam arms… Brass
Gasket… Buna-N

Certifications & Listings
US Military CID A-A-59326D

275

275
Fill Tube

Fill tubes can be used for various transfer and unloading applications. An adaptor is welded to the tube.

Features
- Lightweight
- Male NPT threads

Item Number	Size	Tube OD	Length	Weight (lbs)
275---0100 AA	2" NPT	1.875"	18"	1.50
275---0200 AA	3" NPT	2.875"	18"	--

Construction Details
Body and tube… Aluminum

419
Drop Tube

419 (2")

Drop tubes are installed in the riser at the fill connection or attached to the bottom of overfill prevention valves to direct product flow from the fill point to within 6" of the tank bottom.

Features
- Facilitates a submerged fill when properly installed
- Improves flow efficiency
- Reduces the build-up of vapors in the tank
- .062" wall thickness for durability
- Compatible with Morrison 539 diffusers
- Compatible with Morrison 9095AA, 9095C, and 9095X (certain models) series overfill prevention valves

Construction Details
Tube... Aluminum
Gaskets... Buna-N

Certifications & Listings
CARB Approval 95-19 (3" and 4" models); CARB EVR Executive Order VR-402 (2" and 3" models)

Item Number	Size	CARB	Weight (lbs)
419---0600 1T	2" x 4'	No	1.75
419---0700 1T	2" x 6'	No	2.50
419---1200 1T	2" x 8'	No	3.50
419---1100 1T	2" x 10'	No	4.50
419---0100 1T	2" x 12'	No	5.0
419---0200 1T	3" x 10'	No	6.60
419---1400 1T	3" x 12'	No	9.0
419---0900 1T	4" x 5'	No	6.0
419---0800 1T	4" x 7'	No	7.50
419---0300 1T	4" x 10'	No	9.0
419---0400 1T	4" x 12'	No	10.50
419---0500 1T	4" x 15'	No	12.0
419---1000 1T	4" x 4'	No	5.50
419---02041TEVR	2" x 4'	Yes	1.75
419---02061TEVR	2" x 6'	Yes	2.50
419---02081TEVR	2" x 8'	Yes	3.0
419---02101TEVR	2" x 10'	Yes	4.0
419---02121 EVR	2" x 12'	Yes	5.0
419---03081TEVR	3" x 8'	Yes	5.0
419---03101TEVR	3" x 10'	Yes	6.60
419---03121TEVR	3" x 12'	Yes	9.0

539TO
4" Telescopic Open

539EXT
Tube Extension

539AT
2" Threaded Style

539TC
4" Telescopic Closed

Construction Details

Body and plates... Aluminum or chromate conversion
O-Ring... PTFE encapsulated FKM (telescoping models)

Certifications & Listings

CARB EVR Executive Order VR-402

539 Series
Diffusers

EVR

The diffuser is designed for installation at the bottom end of a drop tube to reduce turbulence and vapor loss during the filling operation.

Features

- Does not increase filling time
- Reduces filter usage
- Catches rags left in drop elbow
- Tank filling, manual sticking, water detection, and cathodic protection can be accomplished without any change in procedure or routine (TC and TO models)
- **539AS, 539TC, and 539TO** are slip-on style
- **539AT** is threaded style
- **539EXT** is for extending short drop tubes
- **539TC** has a telescoping closed bottom
- **539TO** has a telescoping open bottom

Item Number	Gauge Stick	Anodized	CARB EVR Anodized	Weight (lbs)
539AS-0200 AD	No	No	No	1.10
539AS-0200ADEVR EVR	No	No	Yes	1.10
539ASA0200ADEVR EVR	No	Yes	Yes	1.10
539AS-0300 AD	No	No	No	1.10
539AS-0300ADEVR EVR	No	No	Yes	1.10
539AS-0400 AD	No	No	No	1.10
539ASA0300ADEVR EVR	No	Yes	Yes	1.10
539AT-0200 AD	Yes	No	No	1.10
539AT-0200ADEVR EVR	Yes	No	Yes	1.10
539AT-0300 AD	Yes	No	No	1.10
539AT-0300ADEVR EVR	Yes	No	Yes	1.10
539ATA0200ADEVR EVR	Yes	Yes	Yes	1.10
539ATA0300ADEVR EVR	Yes	Yes	Yes	1.10
539EXTC0400 AD	Yes	No	N/A	3.80
539EXTO0400 AD	Yes	No	N/A	3.80
539TC-0400 AD	Yes	No	N/A	1.10
539TC-0400 ADA	Yes	Yes	N/A	1.10
539TO-0400 AD	Yes	No	N/A	1.90
539TO-0400 ADA	Yes	Yes	N/A	1.90

**Consult Price List for BSP options.*

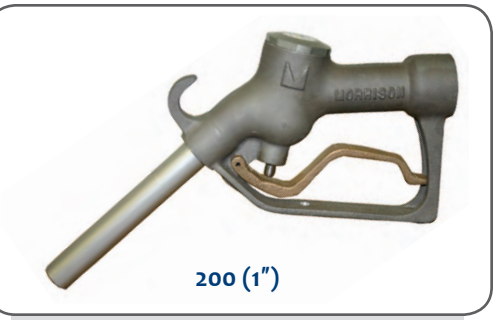
200 Series
Farm/Utility Nozzles

Used for gravity and low pressure fueling, the 200 series manual shut-off nozzles are lightweight and easy to operate.

Features
- Body has dual outlet threads to accept either leaded or unleaded spouts
- Replaceable spouts
- Maximum working pressure 25 PSI
- Nozzle trigger pinned in place
- **200S** is compatible with E-85

Item Number	Size	Spout Size	Weight (lbs)
200---0600 AN	¾"	13/16"	1.75
200---0700 AN	1"	13/16"	1.75
200---0800 AN	¾"	15/16"	1.75
200---0900 AN	1"	15/16"	1.75
200S--0600 AN	¾"	13/16"	1.75
200S--0700 AN	1"	13/16"	1.75
200S--0800 AN	¾"	15/16"	1.75
200S--0900 AN	1"	15/16"	1.75
200TMC0200 2N	¾"	None	1.50
200TMC0700 2N	1"	None	1.50

**Consult Price List for BSP options.*



200 (1")

Construction Details

Body... Aluminum
Disc... Buna-N
Stem... Brass
Stem seal... Buna-N o-ring
Spout leaded... Aluminum (15/16" OD)
Spout unleaded… Aluminum (13/16" OD)

200S
Disc... FKM
Stem... Stainless steel
Stem seal... FKM

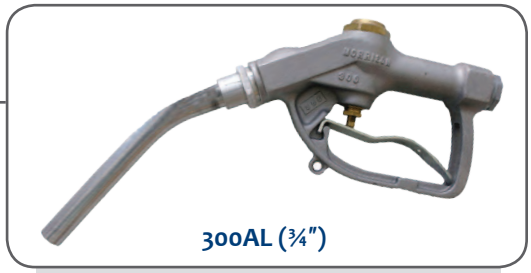
300 Series
Manual Nozzles

The 300 series manual shut-off nozzle is used for gravity and low pressure fueling.

Features
- 35 PSI maximum working pressure
- Heavy duty construction

Item Number	Size	Spout	Weight (lbs)
300---3100 AN	¾"	13/16"	4.25
300---3200 AN	1"	13/16"	4.25
300AL-3100 AN	¾"	13/16"	2.25
300AL-3200 AN	1"	13/16"	2.25
300AL-3300 AN	¾"	15/16"	2.25
300AL-3400 AN	1"	15/16"	2.25
300ATS4000 AN	1"	None	2.30
300ATS4400 AN	1"	15/16"	2.50

**Consult Price List for other options.*



300AL (¾")

Construction Details

300
Body and cap... Brass
Disc... FKM
Stem... Brass
O-ring... FKM
Spout... Brass

300AL
Body and cap... Aluminum
Disc... FKM
Stem... Aluminum
O-ring... FKM
Spout... Aluminum

300ATS
Body... Aluminum
Cap... Stainless steel
Disc... PTFE
Stem... Stainless steel
Packing... PTFE
Spout... Aluminum

300ALM

300ALM Series
Manual Nozzles

Used for gravity and low pressure fueling and water dispensing, the 300ALM is a manual shut-off nozzle.

Features
- 35 PSI maximum working pressure
- Heavy duty construction
- **300ALMM** includes arctic mitten expanded handle guard

Item Number	Size	Spout	Weight (lbs)
300ALM0500 AN	1"	$^{13}/_{16}$"	2.25
300ALM0600 AM	1"	$^{15}/_{16}$"	2.25
300ALMM100 AN	1"	$^{15}/_{16}$"	3.0

**Consult Price List for other options.*

Construction Details
Body... Anodized aluminum
Cap... Anodized aluminum
Disc... FKM or FDA Buna-N
Stem... Stainless steel
O-Ring... Buna-N
Spout unleaded... Brass ($^{13}/_{16}$" OD), aluminum ($^{13}/_{16}$" OD)

Certifications & Listings
Water nozzles to military drawing #13225E1707 and #13225E9094; Fuel nozzles to CID AA-52030, Type I, Size 1, Class A or B, Style 1

218

218
Aircraft Refueling Nozzle

Morrison's 218 manual shut-off nozzle is designed for overwing refueling of small aircraft.

Features
- Lightweight construction
- 100 mesh cone strainer included
- Ground cable assembly available
- Dual disc for easy open and cushioned closure
- Drag lugs for protection and durability

Item Number	Size	Description	Ground Cable	Weight (lbs)
218---0100 AN	1"	Buna-N	No	5.0
218---0200 AN	1"	Buna-N	Yes	5.0
218---0300 AN	1"	FKM	No	5.0
218---0400 AN	1"	FKM	Yes	5.0

Construction Details
Body... Aluminum
Cap... Aluminum
Strainer... Stainless steel
Discs... Buna-N or FKM

231A & 231AP Series
Manual Nozzles

The 231A and 231AP manual shut-off nozzle is primarily designed for fuel oil delivery.

Features
- Lightweight construction
- Dual disc for easy opening and cushioned closure
- Right angle design
- Drag lugs for protection and durability
- **231A** has integrated hold-open notches (**231AP** does not have hold-open notches)
- **231AP** includes 100 mesh stainless steel screen

Item Number	Size	Spout	Weight (lbs)
231A--0500 AN	1¼"	Yes	6.0
231A--0600 AN	1½"	Yes	6.0
231A--1500 AN	1¼"	No	5.25
231A--1600 AN	1½"	No	5.25
231AP-0500 AN	1¼"	Yes	6.25
231AP-0600 AN	1½"	Yes	6.25

**Consult Price List for PTFE options.*

231A (1½")

Construction Details
Body and cap... Aluminum
Internal components... Brass
Stem... Brass
Discs... FKM (PTFE available)
Packing... PTFE
Spout and adaptor... Brass (1⅜" OD)

231APM
Manual Nozzle

Morrison's 231APM manual shut-off nozzle is primarily designed for overwing refueling applications.

Features
- Lightweight construction
- Dual disc for easy opening and cushioned closure
- Right angle design
- Drag lugs for protection and durability
- Grounding cable assembly optional
- Tube cap, chain, and spring for spout protection
- 100 mesh stainless steel cone strainer

Item Number	Size	Ground Cable	Weight (lbs)
231APM1500 ANA	1¼"	Yes	6.50
231APM1600 ANA	1½"	No	6.50
231APM1700 ANA	1¼"	No	6.50
231APM1800 ANA	1½"	Yes	7.50

231APM (1¼")
with ground cable

Construction Details
Body and cap... Aluminum
Internal components... Stainless steel
Discs... FKM
Packing... PTFE
Spout... Anodized aluminum (1 7/8" OD)
Nozzle screen... Stainless steel, 100 mesh

Certifications & Listings
Meets Fuel and Oil Servicing Nozzle, Mil Spec, CID A-A-52030 Type I, Size 2, Class B, Style 2

231AF

231AF
Manual Nozzle

This manual shut-off nozzle is primarily designed for bulk petro-chemical dispensing.

Features
- Lightweight construction
- Dual disc for easy opening and cushion closure
- Right angle design
- Drag lugs for protection and durability
- Integrated hold-open notches

Item Number	Size	Discs	Weight (lbs)
231AF-0400 AN	1½"	PTFE	6.50
231AF-0600 AN	1½"	FKM	6.50

Construction Details
Body and cap... Aluminum
Internal components... Stainless steel
Discs... FKM or PTFE
Packing... PTFE
Spout... Anodized aluminum (1⅞" OD)

231AW

231AW
Manual Nozzle

The 231AW manual shut-off nozzle is primarily designed for use with potable water.

Features
- Lightweight construction
- Dual disc for easy opening and cushioned closure
- Right angle design
- Drag lugs for protection and durability
- Integrated hold-open notches

Item Number	Size	Weight (lbs)
231AW-0200 ANA	1½"	6.0

Construction Details
Body and cap... Anodized aluminum
Internal components... Stainless steel
Discs... Buna-N (FDA approved)
Packing... PTFE
Spout and adaptor... Aluminum (1½" OD)

232
Manual Nozzle

The 232 delivery nozzle is designed to allow product to be transferred freely to desired containment apparatus using a manually-operated lever to open and close the nozzle.

Features

- High flow design
- Used with pressure and/or gravity fill systems
- 100 PSI maximum pressure
- Replaceable hold-open notches
- Drag lugs protect and prolong nozzle life
- Replaceable spouts
- Replaceable trigger wear pin bushing
- Dash pot technology for line shock reductions and ease of operation
- PTFE surface coated dash pot and cap provides ultra-smooth operation
- O-ring seal at trigger stem eliminates packing nut tightening
- Expanded handle cage provides more hand clearance during operation

	Item Number	Inlet Thread Size	Description	Weight (lbs)
	232---0000 AN	1¼"	Manual nozzle less spout	3.07
	232---0100 AN	1¼"	Manual nozzle with aluminum spout	3.57
	232---0200 AN	1¼"	Manual nozzle with brass spout	4.29
Spouts	232---0116 21	1¼"	1.65"OD x 9" long aluminum spout	0.50
Spouts	231A--0105 AT	1¼"	1⅜" OD x 9" long brass spout and 1¼" adaptor	1.22

232 (1¼")

Construction Details

Body and cap... Aluminum
Internal components... 303 stainless steel
Discs and stem o-rings...FKM-GFLT
(good for low temperatures)
Trigger...High tensile cast aluminum
Wear pin bushing...UHMW polyethylene

227C
Manual Nozzle

Manual shut-off nozzle used for gravity and low pressure fueling.

Features

- Maximum operating pressure 35 PSI
- Hanging hook cast into body

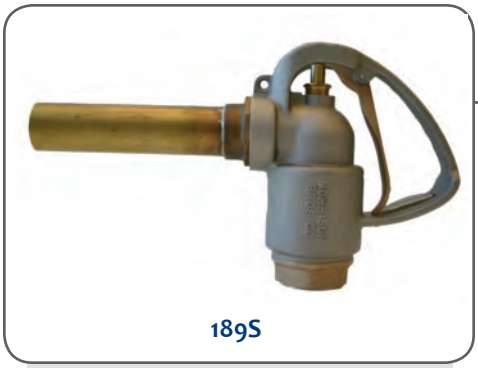
Item Number	Size	OD Tube	Weight (lbs)
227C--0100 AN	1"	1⅛"	4.50
227C--0300 AN	1"	13/16"	4.50

**Consult Price List for PTFE options.*

227C (1¼")

Construction Details

Body... Brass
Disc... Buna-N (PTFE optional)
Stem... Brass
Packing... PTFE
Spout leaded... Brass (1⅛" OD)
Spout unleaded... Brass (13/16" OD)



189S

189S
90° Bulk Fueling Nozzle

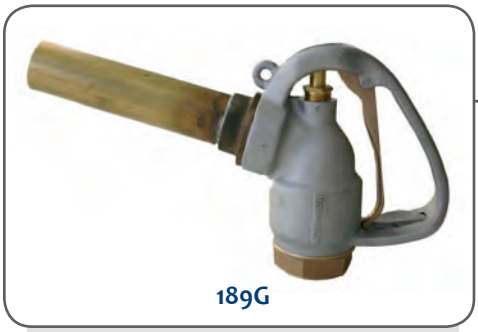
The 189S 90º manual shut-off nozzle is used in bulk fueling in pressure applications.

Features
- Dash pot design for easier opening action and cushioned closure
- Integrated hold-open notches
- Optional NPS straight tube adaptor facilitates longer custom length spouts for submerged filling
- 50 PSI working pressure
- 100 PSI cold non-shock maximum pressure

Construction Details
Body... Aluminum
Disc... FKM (PTFE optional)
Stem... Brass
Packing... PTFE
Spout... Brass (2 1/8" OD)

Item Number	Size	Weight (lbs)
189S--0100 AN	2" with 9" tube	11.0
189S--0200 AN	2" with 36" tube	14.30
189S--0500 AN	2" without tube	9.0

**Consult Price List for PTFE options.*



189G

189G
75° Bulk Fueling Nozzle

The 189G 75º manual shut-off nozzle is used in bulk fueling in gravity or low pressure applications.

Features
- Integrated hold-open notches
- Optional NPS straight tube adaptor facilitates longer custom length spouts for submerged filling

Construction Details
Body... Aluminum
Disc... FKM (PTFE optional)
Stem... Brass
Packing... PTFE
Spout... Brass (2⅛" OD)

Item Number	Size	Weight (lbs)
189G--0900 AN	2" with 9" tube	8.75
189G--1000 AN	2" with 36" tube	15.0
189G--1100 AN	2" without tube	6.50

**Consult Price List for PTFE options.*

602 Series
Automatic Shut-Off Nozzles

Husky brand automatic shut-off nozzles are designed for dispensing motor fuel in retail and commercial applications. The nozzle automatically shuts off when the tank is full.

Features

- **602** is a high volume truck nozzle with a three-notch hold-open clip and full grip guard
- **602GS** is a general service nozzle with a three-notch hold-open clip, full grip guard, and hanging hook
- **602X** is a conventional fueling nozzle with a three-notch hold-open clip and full grip guard
- **602XS** is a pressure-activated conventional fueling nozzle with a three-notch hold-open clip and full grip guard
- **602HVS** is a high volume pressure-activated nozzle with a black hand guard, spout bushing, hold-open clip, full grip guard, and waffle splash guard

Item Number	Size	Spout Size	Weight (lbs)
602---0700 1N	1"	15/16"	3.0
602GS-0100 1N	1"	15/16"	3.0
602GS-0200 1N	1"	13/16"	3.0
602HVS0100 1N	1"	15/16"	3.0
602X--0100 1N	¾"	15/16"	3.0
602X--0200 1N	¾"	13/16"	3.0
602XS-0100 1N	¾"	15/16"	3.0
602XS-0200 1N	¾"	13/16"	3.0

**Consult Price List for other options.*

Construction Details

Body... Aluminum

Certifications & Listings

UL Listed (602HVS model only)

602DEF
Automatic Shut-Off Nozzle for DEF

These automatic shut-off nozzles are designed for dispensing retail and commercial Diesel Exhaust Fluid (DEF).

Features

- Automatically shuts off when the tank is full
- Optional Miss-filling Prevention Device (MFPD) is permanently installed in DEF tank fill pipe. Eliminates the risk of accidental DEF filling or environmental contamination
- 11 GPM maximum flow rate

Item Number	Size	Miss-filling Device	Weight (lbs)
602DEF0000 1N	¾"	No	5.20
602DEFM000 1N	¾"	Yes	5.30

**Consult Price List for BSP options.*

Construction Details

Body... Stainless steel

122ALV (1¼")

122HWA

122BRV (1¼")

122WA

122 Series
Hose Nozzle Swivels

Hose nozzle swivels are installed between the hose and the inlet of the nozzle.

Features

- Improves operator handling
- Reduces hose wear
- Smooth 360° single plane rotation
- Durable construction
- Tested for electrical continuity per UL 567
- **122BRVS** have 1⅞"-16UN2A (Scully threads)

Item Number	Male Threads	Female Threads	Weight (lbs)
122ALV0100 AS	1"	1"	0.75
122ALV0200 AS	1¼"	1¼"	0.75
122ALV0230 AS	1½"	1¼"	0.75
122ALV0300 AS	1½"	1½"	0.75
122ALV0400 AS	2"	2"	1.10
122BRV0100 AS	1"	1"	1.85
122BRV0200 AS	1¼"	1¼"	1.85
122BRV0230 AS	1½"	1¼"	1.85
122BRV0300 AS	1½"	1½"	1.85
122BRVS0200 AS	1¼"	1¼"	1.25
122BRVS0300 AS	1½"	1½"	1.25
122HWA0100 ASA	1"	1"	0.50
122WA-0300 ASA	1½"	1½"	1.0

Construction Details

122ALV
Body... Anodized aluminum
Male end... Anodized aluminum
Female end... Anodized aluminum
O-rings... FKM

122BRV & 122BRVS
Body... Anodized aluminum
Male end... Brass
Female end... Brass
O-rings... FKM

122HWA
Female end... Anodized aluminum
Male end... Steel, plated
O-rings... FKM-FDA

122WA
Female end... Anodized aluminum
Male end... Steel, plated
O-rings... EPDM rubber or FKM

Certifications & Listings

122HWA...1" meets U.S. military specs. Drawings 8837317-03 and 13225E9138-1.
122WA...1½" meets U.S. military specs. Drawing 13225E9139-3.

222
(1" M x 1" F)

222 Series
Hose Swivels

Husky brand multi-plane hose swivels are installed between the nozzle and the dispensing hose.

Features

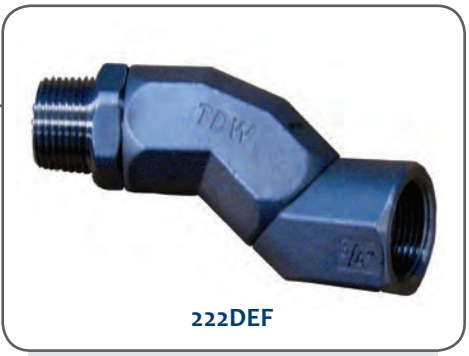
- Reduces hose damage and wear
- Improves operator handling
- **222** is high flow
- **222F, 222G, and 222J** are conventional fueling

Item Number	Size	Description	Weight (lbs)
222---0100 1S	1" M x 1" F	Dual plane hose nozzle swivel, dual joint, high flow	0.50
222F--0100 1S	¾" M x ¾" F	Dual plane hose nozzle swivel	0.50
222G--0100 1S	1" M x 1" F	Dual plane hose nozzle swivel, single joint	0.50
222J--0100 1S	1" M x ¾" F	Dual plane hose nozzle swivel	0.50

Construction Details

Body... Aluminum
O-rings... FKM and fluorosilicone

222DEF
Hose Swivel



222DEF

Installed between the nozzle and the dispensing hose, construction materials of this hose swivel are well-suited for use with Diesel Exhaust Fluids (DEF).

Features
- Reduces hose damage and wear
- Improves operator handling
- 50 PSI maximum pressure

Item Number	Size	Weight (lbs)
222DEF0000 1S	¾" M x ¾" F	0.25

Construction Details

Body... Stainless steel
O-ring... PTFE

229B
Inlet Check

229B

The 229B check valve is installed at the inlet of the nozzle.

Features
- Reduces spillage
- Helps contain residual amounts of product in the hose

Item Number	Size	Weight (lbs)
229B--0100 AV	1¼" M x 1¼" F	0.75

Construction Details

Body and plunger... Brass
O-ring... FKM
Disc... Buna-N

229F
Outlet Check

229F

The 229F check valve is mounted between the nozzle body and the spout.

Features
- Used to help prevent spillage of residual product in the nozzle by sealing product behind the check valve poppet

Item Number	Size	Weight (lbs)
229F--0300 AV	2"	3.0

Construction Details

Body and plunger... Brass
Disc... Buna-N

609 (¾" x ¾")

Construction Details

Body... Aluminum

609
Safe-T-Break®

Husky brand Safe-T-Breaks® are designed for conventional, farm, and consumer pump hoses to help protect against damages resulting when a motorist drives away from the dispenser with the nozzle remaining in the vehicle fuel port.

Features

- Reconnectable
- Scuff guard protected

Item Number	Size	Weight (lbs)
609---0100 1B	¾" F x ¾" F	1.15
609---0200 1B	1" F x 1" F	1.15

609DEF (¾" x ¾")

Construction Details

Body... Stainless steel

609DEF
Break-A-Way

Designed for conventional and consumer pump Diesel Exhaust Fluid (DEF) dispensing, this break-a-way helps protect against damages resulting when a motorist drives away from the dispenser with the nozzle remaining in the vehicle fuel port.

Features

- Integrated swivel design

**Not intended be to installed into the base of a nozzle.*

Item Number	Size	Weight (lbs)
609DEF0000 1B	¾" M x ¾" F	1.0

528 (1¼")

Construction Details

Body... Neoprene construction

528
Nozzle Cone

Nozzle cones are designed to install over nozzle spouts.

Features

- Creates a vapor tight seal when inserted into fill opening

Item Number	Size	Description	Weight (lbs)
528---0100 1C	1¼"	Fits 1⅜" O.D. Tube (#3)	0.50
528---0200 1C	1⅜"	Fits 1½" O.D. Tube (#3A)	0.50

610 Series
High Hose Retriever

The 610 hose retriever suspends the fueling hose above the dispenser and assists in keeping the hose off the drive.

Features
- Prevents the hose from kinking and tangling
- Retriever head rotates 360° assisting the operator in nozzle positioning
- Reduces safety hazards at the fueling point while reducing hose wear
- Standard base makes the anchoring process easier and less costly by eliminating the need to break concrete
- Two 10-pound counterweights connect via stainless steel cable
- Extra weight kits are available

610 Hinged Base (optional) is a heavy-duty base designed to simplify hose retriever installation and maintenance.

Features
- Reduces installation time
- Base is anchored to concrete; hinged retriever mount can be tilted to grade
- Inspection and service are easier and safer from grade level with the hinged base

Item Number	Description	Weight (lbs)
610---0000 AR	Hose retriever assembly, less weights and cable	7.10
610---0100 AR*	Hose retriever assembly, with weight kit	27.0
610B--0000 AR*	Hose retriever assembly, with weight kit and standard base	33.30
610H--0100 AR*	Hose retriever assembly, with ¾" to 1" 610 urethane hose hanger	30.50
610H--0125 AR*	Hose retriever assembly, with 1¼" hosebun	31.0
610H--0150 AR*	Hose retriever assembly, with 1½" hosebun	31.50
610H--0200 AR*	Hose retriever assembly, with 2" hosebun	32.50
610H--0300 AR*	Hose retriever assembly, with 3" hosebun	33.0
610HB-0100 AR*	Hose retriever with standard base and ¾" to 1" 610 urethane hose hanger	36.80
610HB-0125 AR*	Hose retriever with standard base and 1¼" hosebun	37.30
610HB-0150 AR*	Hose retriever with standard base and 1½" hosebun	37.80
610HB-0200 AR*	Hose retriever with standard base and 2" hosebun	38.80
610HB-0300 AR*	Hose retriever with standard base and 3" hosebun	39.30
610HH-0100 AR*	Hose retriever assembly, with 1" 611 aluminum hose hanger	30.50
610HH-0150 AR*	Hose retriever assembly, with 1¼" to 1½" 611 aluminum hose hanger	31.50
610HH-0200 AR*	Hose retriever assembly, with 2" 611 aluminum hose hanger	32.50
610HHB0100 AR*	Hose retriever with base, with 1" 611 aluminum hose hanger	36.80
610HHB0150 AR*	Hose retriever with base, with 1¼" to 1½" 611 aluminum hose hanger	37.80
610HHB0200 AR*	Hose retriever with base, with 2" 611 aluminum hose hanger	38.80
610HHBH0100 AR	Hose retriever with hinged base, with 1" 611 aluminum hose hanger	54.80
610HHBH0150 AR	Hose retriever with hinged base, with 1¼" to 1½" 611 aluminum hose hanger	55.80
610HHBH0200 AR	Hose retriever with hinged base, with 2" 611 aluminum hose hanger	56.80
610---0103 AK*	Single weight kit	11.0
610---0203 AK*	Double weight kit	21.0
610B--0100 WAPB	Standard base (threaded) assembly	5.30
610B--0200 AB	Hinged base assembly	24.0
610B--0300 AB	6x6 square base (slip-fit) assembly	8.65

**Includes weight kit.*

Note: Kits are also available. See Price List for more information.

610

Construction Details
610
Head... Cast iron (e-coated black)
Cable... Stainless steel
Pulley... Aluminum
Ball bearing swivel... Stainless steel
Installs on 2" Schedule 80 pipe (installer supplied)

610B
Standard Base

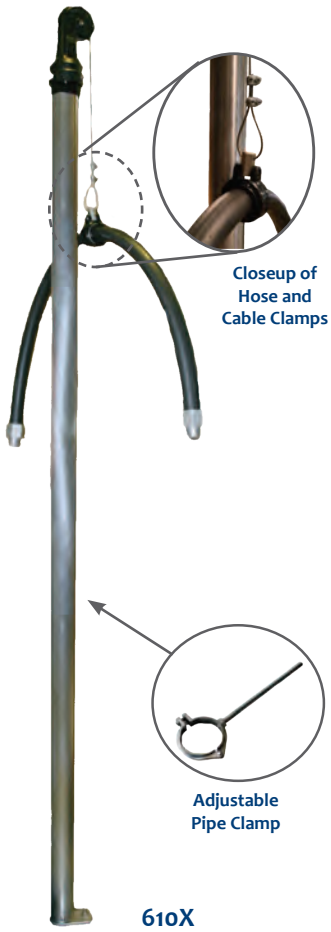
610B
Hinged Base

610B
6x6 Square Base

Construction Details
610B- Standard Base
Steel, powder coated black

610B- Hinged Base
Steel, powder coated black
Set screws... Stainless steel
Hinge... Stainless steel

610B- 6x6 Square Base
Steel, powder coated black
Set screws... Stainless steel



610X Series

Hose Retrievers

The 610X hose retriever assembly suspends the fueling hose above the dispenser eliminating kinks and tangles while keeping the hose off the drive.

Features

- Smooth operation—counterweight assemblies matched with specified hose diameters and lengths
- 360º rotating retriever head assists the operator in positioning the hose to the fueling point
- Easy to install—pre-cut pipe and all required components included
- Minimal maintenance—durable construction and minimal moving parts

Item Number	Size	Pipe	Description	Weight (lbs)
610X--0100 AR	90"	Aluminum	Hose retriever assembly with ¾" hose clamp for 12'-14' hose length	27.0
610X--0200 AR	110"	Aluminum	Hose retriever assembly with ¾" hose clamp for 15'-20' hose length	31.0
610X--0300 AR	90"	Aluminum	Hose retriever assembly with 1" hose clamp for 12'-14' hose length	31.0
610X--0400 AR	110"	Aluminum	Hose retriever assembly with 1" hose clamp for 15'-18' hose length	36.0
610X--0500 AR	90"	Aluminum	Hose retriever assembly less hose clamp, coaxial model 11'-13' hose	34.0
610X--0100 ARPB	90"	PC black	Hose retriever assembly with ¾" hose clamp for 12'-14' hose length	27.0
610X--0200 ARPB	110"	PC black	Hose retriever assembly with ¾" hose clamp for 15'-20' hose length	31.0
610X--0300 ARPB	90"	PC black	Hose retriever assembly with 1" hose clamp for 12'-14' hose length	31.0
610X--0400 ARPB	110"	PC black	Hose retriever assembly with 1" hose clamp for 15'-18' hose length	36.0
610X--0500 ARPB	90"	PC black	Hose retriever assembly less hose clamp, coaxial model 11'-13' hose	34.0

**Hose clamps not included with the coaxial model.*
**PC = Powder coated.*

Construction Details

Retriever head... Cast iron (e-coated black)
Cable and connectors... Stainless steel
Pulley... Aluminum
Ball bearing swivel... Stainless steel
Mounting base... Anodized aluminum
Pipe... Aluminum, schedule 40 or powder coated black
Counterweights... Steel
Hose clamp... Plastic (¾" or 1" sizes)
Adjustable pipe clamp... Cast iron (zinc plated)

610XB Series
Hose Retrievers

The 610XB includes a square base (rather than the post base used in the 610X) and does not include an adjustable pipe clamp.

Features

- Smooth operation—counterweight assemblies matched with specified hose diameters and lengths
- 360º rotating retriever head assists the operator in positioning the hose to the fueling point
- Easy to install—pre-cut pipe and all required components included
- Minimal maintenance—durable construction and minimal moving parts

Item Number	Size	Pipe	Description	Weight (lbs)
610XB-0100 AR	90"	Aluminum	Hose retriever assembly with ¾" hose clamp for 12'-14' hose length	42.0
610XB-0200 AR	110"	Aluminum	Hose retriever assembly with ¾" hose clamp for 15'-20' hose length	46.0
610XB-0300 AR	90"	Aluminum	Hose retriever assembly with 1" hose clamp for 12'-14' hose length	46.0
610XB-0400 AR	110"	Aluminum	Hose retriever assembly with 1" hose clamp for 15'-18' hose length	51.0
610XB-0500 AR	90"	Aluminum	Hose retriever assembly less hose clamp, coaxial model 11'-13' hose	49.0
610XB-0600 AR	110"	Aluminum	Hose Retriever Assembly less hose clamp, coaxial model 13'-15' hose	51.0
610XB-0100 ARPB	90"	PC black	Hose retriever assembly with ¾" hose clamp for 12'-14' hose length	42.0
610XB-0200 ARPB	110"	PC black	Hose retriever assembly with ¾" hose clamp for 15'-20' hose length	46.0
610XB-0300 ARPB	90"	PC black	Hose retriever assembly with 1" hose clamp for 12'-14' hose length	46.0
610XB-0400 ARPB	110"	PC black	Hose retriever assembly with 1" hose clamp for 15'-18' hose length	51.0
610XB-0500 ARPB	90"	PC black	Hose retriever assembly less hose clamp, coaxial model 11'-13' hose	49.0
610XB-0600 ARPB	110"	PC black	Hose retriever assembly less hose clamp, coaxial model 13'-15' hose	51.0

**Hose clamps not included with the coaxial models.*

**PC = Powder coated.*

Note: Packaged in two boxes. Hose not included.

610XB

Construction Details

Retriever head... Cast iron (e-coated black)
Cable and connectors... Stainless steel
Pulley... Aluminum
Ball bearing swivel... Stainless steel
Mounting base... Anodized aluminum
Pipe... Aluminum, schedule 40 or powder coated black
Counterweights... Steel
Hose clamp... Plastic (¾" or 1" sizes)

610BUN (1″)

610BUN
Hosebun™

The 610BUN Hosebun™ is the proper way to cradle a hose while suspended from a hose retriever. By providing support along the bend radius of the hose, the Hosebun™ prevents the hose from kinking

Features
- Easy to install
- Extends life of the hose

Item Number	Size	Description	Weight (lbs)
610BUN0100 1B	1"	Hosebun (black)	3.0
610BUN0125 1B	1¼"	Hosebun (black)	3.25
610BUN0150 1B	1½"	Hosebun (black)	3.75
610BUN0200 1B	2"	Hosebun (black)	4.0
610BUN0300 1B	3"	Hosebun (black)	4.25

**Consult Customer Service for other options.*

Construction Details

Hosebun™... Urethane
Sling... Nylon

610HGR (¾-1″)

611 (1″)

610 & 611 Series
Hose Hangers

The 610 and 611 hose hangers are the proper way to cradle a hose suspended from a hose retriever. By providing support along the bend radius of the hose, the hose hangers prevent the hose from kinking.

Features
- Easy to install
- Durable construction
- Economical
- Extends life of the hose

Item Number	Hose Size	Description	Weight (lbs)
610HGR0100 AH	¾" to 1"	610 urethane hose hanger with sling	3.50
611---0100 AH	1"	611 aluminum hose hanger with sling	3.0
611---0150 AH	1¼" - 1½"	611 aluminum hose hanger with sling	3.75
611---0200 AH	2"	611 aluminum hose hanger with sling	4.0

Construction Details

610
Hose hanger... Urethane
Sling... Nylon

611
Cast aluminum, powder coated
Hardware... Stainless steel
Spacers... Nylon (1¼"-2" size)
D-ring... Zinc plated
Sling... UV resistant polyester
Hose clamps with hose protectors...
Stainless steel

285 Series
Bottom Clean-Out Line Strainers

Bottom clean-out Y-type line strainers are used in horizontal pipelines to filter debris and protect downstream equipment.

Features
- 50 PSI operating pressure
- Strainer cylinder is removable for cleaning or replacement
- NPT female threaded connection

Size	Screen Mesh	285	285AL	285DI
1½"	6	285---0100 AS	285AL-0100 AS	--
2"	6	285---0200 AS	285AL-0200 AS	285DI-3000 AS
3"	6	285---0400 AS	285AL-0400 AS	285DI-3200 AS
1½"	10	285---0500 AS	285AL-0500 AS	--
2"	10	285---0600 AS	285AL-0600 AS	285DI-3400 AS
3"	10	285---0800 AS	285AL-0800 AS	285DI-3600 AS
1½"	20	285---0900 AS	285AL-0900 AS	--
2"	20	285---1000 AS	285AL-1000 AS	285DI-3800 AS
3"	20	285---1200 AS	285AL-1200 AS	285DI-4000 AS
1½"	40	285---1300 AS	285AL-1300 AS	--
2"	40	285---1400 AS	285AL-1400 AS	285DI-4200 AS
3"	40	285---1600 AS	285AL-1600 AS	285DI-4400 AS
1½"	60	285---1700 AS	285AL-1700 AS	--
2"	60	285---1800 AS	285AL-1800 AS	285DI-4600 AS
3"	60	285---2000 AS	285AL-2000 AS	285DI-4800 AS
1½"	80	285---2100 AS	285AL-2100 AS	--
2"	80	285---2200 AS	285AL-2200 AS	285DI-5000 AS
3"	80	285---2400 AS	285AL-2400 AS	285DI-5200 AS
1½"	100	285---2500 AS	285AL-2500 AS	--
2"	100	285---2600 AS	285AL-2600 AS	285DI-5400 AS
3"	100	285---2800 AS	285AL-2800 AS	285DI-5600 AS
1½"	None	285---6500 AS	285AL-5700 AS	--
2"	None	285---6600 AS	285AL-5800 AS	--
3"	None	285---6800 AS	285AL-6000 AS	--

**Consult Price List for other options.*

285 (1½")

285AL (2")

Construction Details

285
Body and cap... Cast iron
Yoke... Malleable iron
Strainer cylinder... 304 stainless steel
Gasket... Nitrile composite, Buna-N, PTFE

285AL
Body and cap... Aluminum
Yoke... Malleable iron
Strainer cylinder... 304 stainless steel
Gasket... Nitrile composite, Buna-N, PTFE

285DI
Body and cap... Ductile iron
Yoke... Malleable iron
Strainer cylinder... 304 stainless steel
Gasket... PTFE

	Size	Weight (lbs)
285	1½"	8.98
	2"	13.24
	3"	24.20
285AL	1½"	4.50
	2"	6.70
	3"	9.08
285DI	2"	13.88
	3"	27.50

285FDI (3")

285FDI Series

Bottom Clean-Out Line Strainers

Bottom clean-out Y-type line strainers are used in horizontal pipelines to filter debris and protect downstream equipment.

Features

- 50 PSI operating pressure
- Strainer cylinder is removable for cleaning or replacement
- 150# raised face flanged connections
- 4″ rated to 125 PSI operating pressure
- 4″ has bolt-on cover, does not have yoke

Construction Details

Body and cap... Ductile iron
Yoke... Malleable iron (3" only)
Strainer cylinder... 304 stainless steel
Gasket... PTFE

Item Number	Size	Screen Mesh	Weight (lbs)
285FDI1500 AS	3"	6	41.0
285FDI1600 AS	4"	6	93.0
285FDI1700 AS	3"	10	41.0
285FDI1800 AS	4"	10	93.0
285FDI1900 AS	3"	20	41.0
285FDI2000 AS	4"	20	93.0
285FDI2100 AS	3"	40	41.0
285FDI2200 AS	4"	40	93.0
285FDI2300 AS	3"	60	41.0
285FDI2400 AS	4"	60	93.0
285FDI2500 AS	3"	80	41.0
285FDI2600 AS	4"	80	93.0
285FDI2700 AS	3"	100	41.0
285FDI2800 AS	4"	100	93.0

284B
Bottom Clean-Out Line Strainer

Bottom clean-out Y-type line strainers are used in pipelines to filter debris and protect downstream equipment.

Features
- Rated to 200 PSI W.O.G. at 150°F
- Strainer cylinder is removable for cleaning or replacement

Item Number	Size	Mesh	Weight (lbs)
284B--1000 1S	½"	20	0.80
284B--1100 1S	¾"	20	1.20
284B--1200 1S	1"	20	1.80
284B--1300 1S	½"	40	0.80
284B--1400 1S	¾"	40	1.20
284B--1500 1S	1"	40	1.80
284B--2200 1S	½"	100	0.80
284B--2300 1S	¾"	100	1.20
284B--2400 1S	1"	100	1.80

284B (1")

Construction Details
Body and cap... Cast bronze
Gasket... FKM
Strainer cylinder... 304 stainless steel (through size 2"); 3/64" perforated 304 stainless steel (sizes 2½" and 3")

284S
Bottom Clean-Out Line Strainer

Bottom clean-out Y-type line strainers are used in pipelines to filter debris and protect downstream equipment.

Features
- Rated to 1440 PSI W.O.G. at 100°F
- Strainer cylinder is removable for cleaning or replacement

Item Number	Size	Mesh	Weight (lbs)
284S--1000 1S	½"	20	1.50
284S--1100 1S	¾"	20	5.0
284S--1200 1S	1"	20	6.0
284S--1300 1S	½"	40	1.50
284S--1400 1S	¾"	40	5.0
284S--1500 1S	1"	40	6.0
284S--2200 1S	½"	100	1.50
284S--2300 1S	¾"	100	5.0
284S--2400 1S	1"	100	6.0
284S--3000 1S	1½"	20	10.0
284S--3100 1S	2"	20	16.0
284S--3200 1S	3"	20	43.0
284S--3300 1S	1½"	40	10.0
284S--3400 1S	2"	40	16.0
284S--3500 1S	3"	40	43.0
284S--4200 1S	1½"	100	10.0
284S--4300 1S	2"	100	16.0
284S--4400 1S	3"	100	43.0

284S (¾")

284S (1½")

Construction Details
Body and cap... 316 stainless steel
Gasket... 304 stainless steel spiral wound
Strainer cylinder... 304 stainless steel

286 (2")

286 Series

Top Clean-Out Line Strainers

Top clean-out Y-type line strainers are used in horizontal pipelines to filter debris and protect downstream equipment.

Features

- 50 PSI operating pressure
- Strainer basket is removable and accessible from the top for cleaning or replacement
- NPT female threaded connection
- **286U** is UL Listed

Item Number	Size	Screen Mesh	Weight (lbs)
286---0100 AS	2"	6	16.62
286---0300 AS	3"	6	37.75
286---0400 AS	2"	10	16.62
286---0600 AS	3"	10	37.75
286---0700 AS	2"	20	16.62
286---0900 AS	3"	20	37.75
286---1000 AS	2"	40	16.62
286---1200 AS	3"	40	42.0
286---1300 AS	2"	60	16.62
286---1500 AS	3"	60	37.75
286---1600 AS	2"	80	16.62
286---1800 AS	3"	80	37.75
286---1900 AS	2"	100	16.62
286---2100 AS	3"	100	37.75
286---8300 AS	2"	--	17.0
286---8500 AS	3"	--	37.25
286U--0100 AS	2"	14	15.55
286U--0200 AS	2"	24	17.25

Construction Details

Body and cap... Cast iron
Yoke... Malleable iron
Strainer basket... 304 stainless steel
Gasket... Nitrile composite, Buna-N, PTFE

Certifications & Listings

286U
14 mesh strainer is UL Listed for No. 4, 5, and 6 fuel oil; 24 mesh strainer is UL Listed for No. 1 and 2 fuel oil

286FDI
Top Clean-Out Line Strainer

Top clean-out Y-type line strainers are used in horizontal pipelines to filter debris and protect downstream equipment.

Features

- 50 PSI operating pressure (3″)
- 125 PSI operating pressure (4″)
- Strainer basket is removable and accessible from the top for cleaning or replacement
- 150# raised face flanged connections

286FDI (3″)

Item Number	Size	Screen Mesh	Weight (lbs)
286FDI2200 AS	3"	6	45.0
286FDI2300 AS	4"	6	93.0
286FDI2500 AS	3"	10	45.0
286FDI2600 AS	4"	10	114.0
286FDI2800 AS	3"	20	45.0
286FDI2900 AS	4"	20	115.0
286FDI3100 AS	3"	40	49.0
286FDI3200 AS	4"	40	117.0
286FDI3400 AS	3"	60	45.0
286FDI3500 AS	4"	60	115.0
286FDI3700 AS	3"	80	45.0
286FDI3800 AS	4"	80	115.0
286FDI4000 AS	3"	100	45.0
286FDI4100 AS	4"	100	107.0

Construction Details

3"
Body and cap... Ductile iron
Yoke... Malleable iron
Strainer basket... 304 stainless steel
Gasket... PTFE

4"
Body and cap... Ductile iron
Strainer basket... 304 stainless steel
Gasket... PTFE
** 4" cover bolts to the body*

434 & 434S Series
Dispenser Pedestals

Dispenser pedestals provide a raised platform for dispensers and pumps in aboveground fueling systems.

Features
- Provides containment for small leaks
- AST pedestal sold with a dispenser-specific mounting platform
- Dispenser pedestal less entry penetrations for desired placement in the field
- Pre-drilled anchor holes
- Dispenser mounting platform overhangs the pedestal base minimizing the ability for water penetration
- Stabilizer bar kits included
- Connection boots available

434
(34" L x 21" W x 16⅛" H)

434S
(34" L x 21" W x 16⅛" H)

Construction Details

434
12 gauge steel, powder coated black

434S
12 gauge 304 stainless steel

Certifications & Listings

Florida DEP EQ-823

Item Number	Description	Single (S) or Dual (D) Products	Opening Size (L x W)	Dispenser/Pedestal selection guide	Weight (lbs)
434--12001 AK	AST pedestal base, platform, and stabilizer bar	S	14½" x 10"	Gasboy 215/216A	140.0
434--12002 AK	AST pedestal base, platform, and stabilizer bars	D	14½" x 10"	Gasboy 215/216A	140.0
434--14001 AK	AST pedestal base, platform, and stabilizer bar	S	22¼" x 12"	Gasboy Atlas 8700K, 8800K, 9100K, 9800K; Bennett Big Squirt/Big Fueler 3000 series (Pre August 2017)	125.70
434--14002 AK	AST pedestal base, platform, and stabilizer bars	D	22¼" x 12"	Gasboy Atlas 8700K, 8800K, 9100K, 9800K; Bennett Big Squirt/Big Fueler 3000 series (Pre August 2017)	125.70
434--17001 AK	AST pedestal base, platform, and stabilizer bar	S	28" x 15"	Wayne Century 3/G2200, Reliance G5200 and G6200, Select 3/G7200	122.20
434--17002 AK	AST pedestal base, platform, and stabilizer bars	D	28" x 15"	Wayne Century 3/G2200, Reliance G5200 and G6200, Select 3/G7200	122.20
434S-14001 AK	AST pedestal base, platform, and stabilizer bar	S	22¼" x 12"	Gasboy Atlas 8700K, 8800K, 9100K, 9800K; Bennett Big Squirt/Big Fueler 3000 series (Pre August 2017)	125.70
434S-14002 AK	AST pedestal base, platform, and stabilizer bars	D	22¼" x 12"	Gasboy Atlas 8700K, 8800K, 9100K, 9800K; Bennett Big Squirt/Big Fueler 3000 series (Pre August 2017)	134.87
434S-17001 AK	AST pedestal base, platform, and stabilizer bar	S	28" x 15"	Wayne Century 3/G2200, Reliance G5200 and G6200, Select 3/G7200	122.20
434S-17002 AK	AST pedestal base, platform, and stabilizer bars	D	28" x 15"	Wayne Century 3/G2200, Reliance G5200 and G6200, Select 3/G7200	131.37

**Consult Price List for connection boots.*

435
(21¼" L x 20" W x 33½" H)

435TM
(23½" L x 20½" W x 30" H)

435 & 435TM Series
Dispenser Pedestals

Dispenser pedestals provide a raised platform for dispensers and pumps in aboveground fueling systems. The Morrison 435 is an ideal containment mounting platform for the Wayne Reliance S1 dispenser.

Features

- Three (3) 1⅞" OD x 1$^{41}/_{64}$" ID conduit connections include ¾" rubber conduit bushings simplifies installation
- One (1) 3½" OD x 3" ID entry connection with boot for product line
- Four (4) dispenser mount holes with ⅜"-16 threads
- 13⅞" wide x 13" high access opening with removable cover
- Water-tested and liquid tight to 6" (8-gallon capacity)
- Eight (8) access panel screws
- Four (4) ½" pedestal anchoring holes
- Stabilizer bar kit is optional
- **435TM** incorporates tank mounting tabs on the back of the unit

Construction Details

Hardware... Zinc-plated steel
Couplings and counduit bushings... Elastomeric PVC
Access panel screws... Neoprene with rubber washers
Pump mounting gasket... EDPM foam

435
12 gauge steel, powder coated black

435TM
12 gauge steel, powder coated white

Item Number	Description	Stabilizer Bar	Pedestal Length	Length with Anchor Tabs	Pedestal Width	Pedestal Height	Weight (lbs)
435---0000 AK	Dispenser pedestal	0	17"	21½"	20"	33½"	99.0
435---0100 AK	Dispenser pedestal	1	17"	21½"	20"	33½"	108.0
435TM-0000 AK	Dispenser pedestal, tank mount	0	17"	23½"	20½"	30"	99.0
435TM-0100 AK	Dispenser pedestal, tank mount	1	17"	23½"	20½"	30"	108.0

318L
Lightweight Manhole

Lightweight manholes serve as a safer access port to below grade sumps and equipment in service stations driveways and other commercial applications.

Features
- Durable and lightweight
- Heavy-duty handle acts as a lift lug
- Stainless steel pry plate
- Anchor lugs secure skirt and ring in concrete

Item Number	Size* & Description	Gasket	Cover Diameter	Overall Height	Weight (lbs) (Cover only)	Weight (lbs) (Complete)
318L--3800 AMC	38" x 10" Non-bolted	Yes	38⅞"	12"	56.0	125.0
318L--3900 AMC	38" x 18" Non-bolted	Yes	38⅞"	20"	55.0	157.0
318L--4400 AMC	44" x 10" Non-bolted	Yes	44⅞"	12½"	89.0	172.0
318L--4500 AMC	44" x 18" Non-bolted	Yes	44⅝"	20"	89.0	188.0

**Size: Approximate cover diameter x skirt length*

Item Number	Size & Description	Cover Diameter	Weight (lbs) (Cover only)
318L--3812 ACC	38" 318L replacement cover	38⅞"	56.0
318L--4412 ACC	44" 318L replacement cover	44⅞"	89.0

318L (38" x 10")

Construction Details
Cover... Engineered laminate encapsulated with polyurea elastomer
Lift lug, handle, and pry-plate... Stainless steel
Ring... $^{3}/_{16}$" hot rolled angle iron
Skirt... 12 gauge hot rolled steel
Gasket... Polyisoprene rubber

Certifications & Listings
Meets H-20 load rating

418L
Limited Access Lightweight Manhole

Lightweight manholes serve as a safer access port to below grade sumps and equipment in service stations driveways and other commercial applications where water resistance is required.

Features
- Lightweight covers
- Heavy-duty handle acts as a lift lug
- Stainless steel pry plate
- Bolt down covers secured in place by 3 cap screws
- Gasket reduces surface water penetration
- Anchor lugs secure skirt and ring in concrete

Item Number	Size* & Description	Gasket	Cover Diameter	Overall Height	Weight (lbs) (Complete)	Weight (lbs) (Cover only)
418L--3800 AMC	38" x 10" bolt down	Yes	38⅞"	12"	126.0	56.0
418L--4400 AMC	44" x 10" bolt down	Yes	44⅞"	12½"	168.0	89.0
418L--4500 AMC	44" x 18" bolt down	Yes	44⅞"	20"	188.0	89.0

**Size: Approximate cover diameter x skirt length*

Item Number	Size & Description	Cover Diameter	Weight (lbs) (Cover only)
418L--3812 ACC	38" 418L replacement cover	38⅞"	56.0
418L--4412 ACC	44" 418L replacement cover	44⅞"	89.0

418L (38" x 10")

Construction Details
Cover... Engineered laminate encapsulated with polyurea elastomer
Lift lug, handle, and pry-plate… Stainless steel
Gasket… Polyisoprene rubber
Ring… $^{3}/_{16}$" hot rolled angle iron
Skirt… 12 gauge hot rolled steel
Bolts... Stainless steel

Certifications & Listings
Meets H-20 load rating

418LC (38" x 10")

418LC

Cam Style Lightweight Manhole

Lightweight manholes serve as a safer access port to below grade sumps and equipment in service stations driveways and other commercial applications where water resistance is required.

Features

- Lightweight cover
- Heavy-duty handle acts as a lift lug
- Cover secured in place by quarter turn cam style hold down mechanism
- Gasket seal between cover and ring
- Anchor lugs secure ring and cover in concrete

Construction Details

Cover… Engineered laminate encapsulated with polyurea elastomer
Lift lug, handle and pry-plate… Stainless steel
Cam assemblies… Nylon and stainless steel
Gasket…Polyisoprene rubber
Ring… $^{3}/_{16}$" Hot rolled angle iron
Skirt… 12 gauge hot rolled steel

Certifications & Listings

Meets H-20 load rating

Item Number	Size* & Description	Gasket	Cover Diameter	Overall Height	Weight (lbs) (Complete)	Weight (lbs) (Cover only)
418LC-3800 AMC	38" x 10" with cam arm	Yes	38⅞"	12"	126.0	56.0
418LC-3900 AMC	38" x 18" with cam arm	Yes	38⅞"	20"	158.0	56.0
418LC-4400 AMC	44" x 10" with cam arm	Yes	44⅞"	12½"	172.0	89.0
418LC-4500 AMC	44" x 18" with cam arm	Yes	44⅞"	20"	188.0	89.0

**Size: Approximate cover diameter x skirt length*

Item Number	Size & Description	Cover Diameter	Weight (lbs) (Cover only)
418LC-3812 ACC	38" 418LC replacement cover	38⅞"	56.0
418LC-4412 ACC	44" 418LC replacement cover	44⅞"	89.0

318 Series
Manholes

Manholes are designed for use as access ports in driveways where limited access or watertight conditions are not required.

Features
- **318TM** has "Tank Monitor" cast into cover
- **318VR** has "Vapor Recovery" cast into cover

Item Number	Size*	Description	Weight (lbs)
318---0100 AM	9" x 7"	Cast iron ring and cover, galvanized steel skirt	15.0
318---0200 AM	12" x 7"	Cast iron ring and cover, galvanized steel skirt	28.0
318---0400 AM	12" x 12"	Cast iron ring and cover, galvanized steel skirt	25.0
318---1100 AM	18" x 12"	Cast iron ring, steel cover, galvanized steel skirt	58.0
318---1200 AM	18" x 18"	Cast iron ring, steel cover, galvanized steel skirt	71.0
318---1300 AM	24" x 18"	Fabricated and painted steel ring, cover, and skirt	104.0
318TM-1100 AM	18" x 12"	Cast iron ring and cover, galvanized steel skirt	65.0
318TM-1200 AM	18" x 18"	Cast iron ring and cover, galvanized steel skirt	79.0
318VR-0400 AM	12" x 12"	Cast iron ring and cover, galvanized steel skirt	25.0

**Size = diameter x skirt length*

318 (12" x 7")

318TM (18" x 12")

318VR (12" x 12")

Construction Details
Cover... Cast iron (18" is steel)
Ring... Cast iron
Skirt... 22 gauge galvanized steel

Certifications & Listings
Meets H-20 load rating

418 Series
Limited Access Manholes

Manholes serve as access ports to below grade equipment where water resistance is required.

Features
- Limited access
- Water-resistant
- Plain cover
- Gasket seal between cover and ring
- **418TM** has "Tank Monitor" cast into cover

Item Number	Size*	Number of Bolts	Weight (lbs)
418---0200 AM	12" x 7"	2	31.0
418---1000 AM	18" x 12"	3	66.0
418---1100 AM	18" x 18"	3	69.0
418---1300 AM	24" x 18"	3	104.0
418TM-1100 AM	18" x 12"	3	72.0
418TM-1200 AM	18" x 18"	3	78.0

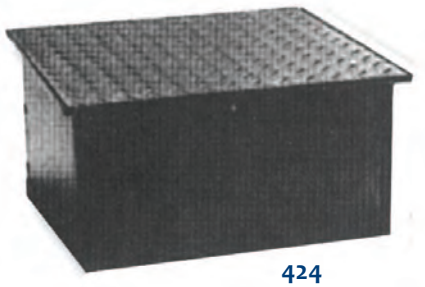
**Size = diameter x skirt length*

418 (12" x 7")

418TM (18" x 12")

Construction Details
Bolts... Stainless hex head; stainless flat head screws (18" size only)
Gasket... Buna-N
Cover... Steel tread plate
Ring... Cast iron; (24" is steel)
Skirt... 22 gauge galvanized (12"); 14 gauge (18" & 24")

Certifications & Listings
Meets H-20 load rating



424

424
Square Knock-Down Manhole

Square manholes provide access to underground storage tank equipment from grade level.

Features

- Knock-down style for space saving in warehouse and on service vehicle
- Four equal sides with 3 slots and tabs for easy assembly at job site

Item Number	Size	Weight (lbs)
424---0100 AM	24" x 24" x 10" deep skirt	97.0

Construction Details

Cover... ⅜" four-way steel floor plate
Sides... 14 gauge steel

524 (24″ x 24″ x 24″)

524H (24″ x 24″ x 24″)

524 Series
Square Manholes

Sqaure manholes provide access to underground storage tank or monitoring equipment from grade level.

Features

- Bolt-down cover with gasket resists surface water
- All welded construction
- **524H** has built-in handle for easy removal of cover

Item Number	Size	Weight (lbs)
524---0100 AM	24" x 24" x 12"	120.0
524---0200 AM	24" x 24" x 24"	128.0
524H--0200 AM	24" x 24" x 24"	128.0

Construction Details

Cover... ⅜" four-way steel floor plate
Sides... 14 gauge steel
Gasket... Buna-N

Certifications & Listings

Meets H-20 load rating

318XA
Test Well Manhole

Manholes provide grade level access to underground monitoring well equipment where limited access and water resistance is not required.

Features
- "Test Well" cast into cover

Item Number	Size*	Description	Weight (lbs)
318XA-0100 AM	9" x 7"	Cast iron ring and cover, galvanized steel skirt	15.0

**Size = diameter x skirt length*

318XA

Construction Details
Cover and ring... Cast iron
Skirt... 22 gauge galvanized steel

Certifications & Listings
Meets H-20 load rating

418XA Series
Monitoring Well Manholes

Limited access manholes provide water resistant grade level access to underground monitoring well equipment.

Features
- "Monitoring Well" cast into cover
- Large clean-out surface around the bolts
- Locating tab for ease of bolt alignment
- Easy to replace gaskets without tools or glue (7″, 9″, and 12″)
- API 615 equilateral triangle cast into cover

Item Number	Size*	Weight (lbs)
418XA-0500 AM	7" x 10"	8.0
418XA-0850 AM	8" x 8"	13.50
418XA-0900 AM	8" x 12"	15.0
418XA-0100 AM	9" x 7"	17.0
418XA-0300 AM	9" x 12"	20.0
418XA-0200 AM	12" x 7"	27.0
418XA-0400 AM	12" x 12"	30.0
418XA-1000 AM	18" x 12"	75.0
418XA-1100 AM	18" x 18"	78.0
418XAH0300 AM	9" x 12"	22.0
418XAP0500 AM	7" x 10"	8.0
418XAP0850 AM	8" x 8"	13.50
418XAP0900 AM	8" x 12"	17.0
418XAP0300 AM	9" x 12"	20.0
418XAP0200 AM	12" x 7"	27.0
418XAP0400 AM	12" x 12"	36.0
418XAP1200 AM	18" x 12"	75.0
418XAP1300 AM	18" x 18"	86.0
418XAW0300 AM	9" x 12"	23.0
418XAW0400 AM	9" x 12"	23.0
418XAW0700 AM	12" x 12"	29.0
418XAW0800 AM	12" x 12"	36.0

**Size = diameter x skirt length*

418XA

418XAW

Construction Details
418XA
Bolts... Stainless hex head
Gasket... Buna-N
Cover... Cast iron
Ring... Cast iron
Skirt... 22 gauge galvanized steel

418XAH
Same as 418XA, except with 14 gauge skirt and nylon washers

418XAP
Same as 418XA, except with cover painted white with black triangle

418XAW
Same as 418XA, except with 16 gauge continuously welded skirt with anchors

Certifications & Listings
Meets H-20 load rating

519 (12″)

519
Watertight Test Well Manhole

Limited access manholes provide grade level access to underground monitoring well equipment when watertight conditions are required.

Features

- Watertight one-piece cast ring and skirt
- Black triangle on white warning label permanently attached to cover
- "Test Well" permanently cast into cover on 12″ models
- "Monitoring Well" permanently cast into cover on 9″ models
- Stamp your well identification into the brass identification plate
- Easy to replace gasket installs in cover, no glue required
- Center bolt stays in the cover and includes an o-ring to keep surface water out
- Three-spoke spider provides center point for bolt to evenly tighten down the cover to the ring (spider is easily removeable)
- AMP models include black powder coated finish with white cover

Item Number	Size	Weight (lbs)
519---0100 AM	9"	32.0
519---0100 AMP	9"	32.0
519---0200 AM	12"	67.0
519---0200 AMP	12"	67.0

Construction Details

Body, ring, and cover… Cast iron
Gasket and o-ring… Buna-N
Center spoke… Brass
Bolt… Stainless steel

Certifications & Listings

Meets H-20 load requirements

680XA (6″ x 6″x 5’)

680XA
Aboveground Well Protector

Aboveground well protectors provide security and weather protection for monitoring wells that extend above grade level.

Features

- Hinged cover can be securely locked with a #3 Masterlock®
- Three integral stabilizer rods provided to simplify positioning the unit during installation

Item Number	Size	Wall Thickness (inches)	Weight (lbs)
680XA-4050 AP	4" x 4" x 5'	0.083	23.50
680XA-6050 AP	6" x 6" x 5'	0.125	51.0
680XA-8050 AP	8" x 8" x 5'	0.188	100.0

Construction Details

Body and cover… Steel, coated with an exterior grade primer

678XA
Test Well Plug

The test well plug provides a watertight, tamper-proof seal for monitoring wells.

Features
- Fits schedule 40 and .080 wall well casing (4″ requires two gaskets for .080 wall)
- Blaze orange increases visibility and is trademark of the Morrison plug
- Individually boxed
- All sizes accommodate a #3 Masterlock® padlock

Item Number	Size	Weight (lbs)
678XA-0000 AC	2"	0.50
678XA-0100 AC	4"	0.95
678XA-0200 AC	6"	1.0

678XA (2″)

Construction Details
Body... Nylon (plastic)
Wing bolt... Brass
Gasket... Buna-N
Lock lever... Stainless steel

178XA Series
Test Well Cap & Adaptors

The lockable cap and adaptor are designed for installation on the outside diameter of a 2″ or 4″ schedule 40 or 80 PVC well casing.

Features
- Watertight seal
- Lockable
- Easy to install
- "Test Well" cast into cap
- **178XA** serrated adaptor body cannot be removed once installed
- **178XAT** cap and adaptor are connected with a chain
- **178XB** threads onto threaded well screen

Item Number	Size	Weight (lbs)
178XA-0100 AC	2"	1.0
178XA-0400 AC	4"	4.60
178XAT0100 AC	2"	1.0
178XB-0100 AC	2"	1.0
178XB-0400 AC	4"	4.60

178XA (2″)

Construction Details
Cap... Aluminum
Body... Brass
Gasket... Buna-N

305XA
Test Well Cap & Adaptor

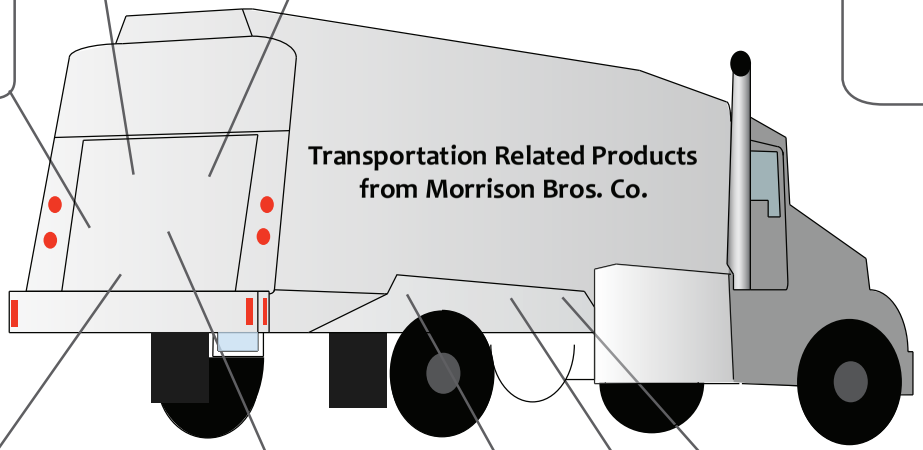
The adaptor is designed to install on the outside diameter of a 4″ schedule 40 or 80 PVC well casing and is secured in place with three knurled point head set screws.

Features
- Lockable
- Watertight
- Cam style cap is easy on and off
- Cap is labeled "Test Well No Fill"

Item Number	Size	Weight (lbs)
305XA-0100 AC	4"	2.25

305XA

Construction Details
Cap... Aluminum
Gasket... Buna-N
Pins... Stainless steel
Ring... Nickel plated steel
Adaptor... Aluminum



Emergency Valve Operators
507 & 507AO

Line Strainer
285AL

Vapor Recovery Adaptor & Cap
323B & 323C

Quick Couplings

Dust Cap
735DC

Male Adaptor
735LAT

Female Coupler
735LBT

Male Adaptor Check Valve
73590CA

Dust Plug
800DP

Dry Disconnect Couplers
928

Dry Disconnect Adaptors
926 & 927

Nozzles & Swivels
231A Nozzles
122ALV & 122BRVS Swivels

Nozzle Cone
528

Water Drain Valve
372

Emergency Valves
603ALF, 603ALV, 603ATV
Air Operated Emergency Valves
603AAF, 603AAV

603 Series
Tank Truck Emergency Valves (Manually-Operated)

Tank truck emergency valves provide a safe means of flow control in the outlet of tank truck compartments. The normally closed valves are manually opened to gravity drop product transported to underground storage tanks.

Features
- 90° space saving design
- Easily converted from left hand to right hand operation
- Integrated shear section breaks upon impact, closing the valve and containing the product in the tank
- 250°F fusible plate
- Optional inlet screen keeps debris out of the valve seats
- Optional plunger bail available
- Companion flanges available
- **603ALF** has flanged outlet connection
- **603ALV** has Victaulic™ outlet connection
- **603ATV** has two Victaulic™ outlet connections to facilitate dual drop points or manifolding

Item Number	Size	Disc	Weight (lbs)
603ALF0100 AV	2"	Buna-N	7.75
603ALF1300 AV	2"	FKM	7.75
603ALF0200 AV	3"	Buna-N	8.25
603ALF1400 AV	3"	FKM	8.25
603ALF0500 AV	4" x 4"	Buna-N	12.50
603ALF1700 AV	4" x 4"	FKM	12.50
603ALV0100 AV	2"	Buna-N	7.75
603ALV0700 AV	2"	FKM	7.75
603ALV0300 AV	3"	Buna-N	8.25
603ALV0900 AV	3"	FKM	8.25
603ALV2500 AV	4"	Buna-N	11.80
603ALV2700 AV	4"	FKM	11.80
603ATV0100 AV	3" x 3"	Buna-N	7.50
603ATV0200 AV	3" x 3"	FKM	7.50

**Consult Price List for other options.*

603ALF (3")

603ATV (2")

Construction Details
Body and cap… Aluminum
Plunger… Brass
Discs... Buna-N or FKM
Spring… Stainless steel

Options
2", 3", and 4" inlet screen (20 mesh stainless steel)

603ALC
Tank Truck Emergency Valve (Manually-Operated)

Tank truck emergency valves provide a safe means of flow control in the outlet of tank truck compartments. The normally closed valves are manually opened to gravity drop product transported to underground storage tanks.

Features
- 90° space saving design with integrated male adaptor outlet
- Integrated shear section breaks upon impact, closing the valve and containing the product in the tank
- 250°F fusible plate
- Inlet screen keeps debris out of the valve seats
- Includes plunger bail
- Male quick disconnect outlet connection
- Dust cap and chain assembly available

Item Number	Size	Weight (lbs)
603ALC0700 AV	2"	7.0

**Consult Price List for other options.*

603ALC

Construction Details
Body and cap… Aluminum
Plunger… Brass
Discs... Buna-N
Screen... 20 mesh stainless steel

603AAF (3″)

603AAV (4″)

603AA Series

Tank Truck Emergency Valves (Air-Actuated)

Tank truck emergency valves provide a safe means of flow control of in the outlet of tank truck compartments. The normally closed valves are opened and closed by compressed air.

Features

- Field replaceable Bimba® pneumatic cylinder
- Redundant (manual override) jackscrew allows product to be released in the event of an air system failure
- Tapered seat for positive seal
- 212°F fusible port supplied
- ⅛″ NPT air ports to accept common size airlines
- Mates with standard TTMA sumps
- **603AAF** has flanged outlet connection
- **603AAV** has Victaulic™ outlet connection

Item Number	Size	Disc	Weight (lbs)
603AAF0200 AV	3"	Buna-N	6.18
603AAF1400 AV	3"	FKM	6.18
603AAF0500 AV	4" x 4"	Buna-N	12.0
603AAF1700 AV	4" x 4"	FKM	12.0
603AAV0300 AV	3"	Buna-N	7.20
603AAV0900 AV	3"	FKM	7.20
603AAV2500 AV	4"	Buna-N	13.20
603AAV2600 AV	4"	Flourosilicone	13.20
603AAV2700 AV	4"	FKM	13.20

**Consult Price List for other options.*

Construction Details

Body and cap… Aluminum
Plunger… Brass
Discs... Buna-N, FKM, or Flourosilicone
Air cylinder sleeve seals… FKM

Options

3" and 4" inlet screen (20 mesh stainless steel)

507
Tank Truck Emergency Valve Operator

The lever action mechanically operates these spring-loaded emergency valves.

Features
- 210°F fusible plates
- Adjustable cable positions 1⅝″ or 2⅜″
- Threaded take-up for adjustment cable
- Accepts cable up to 3/16″ diameter
- Remote trip lever closes all open valves with a single movement from a remote location (near vehicle cab)

Item Number	Size	Weight (lbs)
507---0100 AO	1 compartment	6.0
507---0200 AO	2 compartment	8.0
507---0300 AO	3 compartment	11.50
507---0400 AO	4 compartment	13.25
507---0500 AO	5 compartment	15.0

507 (1 compartment)

Construction Details
Frame and levers... Steel (powder coated black)
Shaft... Plated steel

507AO
Tank Truck Air-Actuated Emergency Valve Operator

The lever action operates the air piston on these air-actuated emergency valves.

Features
- 210°F fusible plates
- Remote trip lever closes all open valves with a single movement from a remote location (near vehicle cab)

Item Number	Size	Weight (lbs)
507AO-0100 AO	1 compartment	7.0
507AO-0200 AO	2 compartment	10.0
507AO-0300 AO	3 compartment	13.0
507AO-0400 AO	4 compartment	15.0
507AO-0500 AO	5 compartment	17.0

507AO (5 compartment)

Construction Details
Frame and levers... Steel (powder coated black)
Shaft... Plated steel

203
Threaded Emergency Valve

The 203 series valves are straight body style tank truck emergency valves.

Features
- Integrated shear section breaks upon impact, closing the valve containing the product in the tank

Item Number	Size	Disc	Weight (lbs)
203---0150 AV	1½"	Buna-N	6.50
203---0200 AV	2"	Buna-N	7.50
203---0400 AV	1½"	FKM	6.50
203---0500 AV	2"	FKM	7.50

**Consult Price List for PTFE options.*

203 (1 ½″)

Construction Details
Body... Brass
Plunger... Brass
Spring... Stainless steel
Disc... FKM or PTFE
Handle... Malleable iron

372 (1″)

372
Water Drain Valve

Designed for use on tank trucks, the Morrison 372 allows water to be drained from the bottom of the tank.

Features
- Normally closed
- Manually operated
- Quick opening
- 90° design

Item Number	Size	Discs	Weight (lbs)
372---0100 AV	1" x 1"	Buna-N	2.50
372---0200 AV	1" x 1"	FKM	2.50

Construction Details
Body and plunger... Brass
O-Ring... FKM
Discs... Buna-N, FKM option

235RF (4″)

235RF
Flanged Aluminum Gate Valve

The Morrison 235RF is a lightweight aluminum rising stem gate valve used to provide flow control in fuel and water systems.

Features
- Lightweight design for transportation
- 125 PSI WOG rated
- TTMA flanges
- Quick rising stem
- Open/closed directional arrow cast into hand-wheel
- Valve can be left partially open to control flow rate
- Available in various manifold configurations

Item Number	Size	Weight (lbs)
235RF-0200 AVA	4"	17.0
235RF-0300 AVA	6"	35.0

Construction Details
Body... Anodized aluminum
Bonnet... Anodized aluminum
Stem... Brass
Discs... Brass

Certifications & Listings
Meets US Military CID-A-A-59379

M Series
Four-Way Reversing Valves

M (1″)

The M series is a directional flow control valve used to simplify the transfer of used oil to and from containers and lube trucks.

Features
- Unrestricted flow
- Simplifies installations by eliminating the need for multiple valves and pumps
- Two positions—"fill tank" or "empty tank"—for easy operation
- Four threaded mounting holes ($^{5}/_{16}$″) for flush mount installation
- 200 PSI maximum working pressure

Item Number	Number of Ports	Thread Size	Weight (lbs)
M075--0100 AVAS	4	¾" FNPT Ports	6.50
M100--0100 AVAS	4	1" FNPT Ports	6.50
M1150-0100 AVAS	4	1½" FNPT Ports	6.0
M200--0100 AVAS	4	2" FNPT Ports	6.0

Construction Details
Body and spool… Anodized aluminum
O-Ring… FKM
Hardware… Stainless steel

PMC Series
Inverted Barge Vent Check Valves

PMC

Inverted vent check valves protect tanks and bulkheads from pressure build-up during loading and unloading of liquid or dry cargo.

Features
- Vents fuel supplies on offshore supply vessels, tows, and tugs
- Ball float prevents sea water from contaminating the tank cargo

Item Number	Size	Material	Weight (lbs)
V15B--0000 1V	1½"	Brass	8.0
V20B--0100 1V	2"	Brass	9.0
V25B--0200 1V	2½"	Brass	10.0
V30B--0300 1V	3"	Brass	19.0
V40B--0400 1V	4"	Brass	26.0
V50B--0500 1V	5"	Brass	42.0
V60B--0600 1V	6"	Brass	50.0
V20C--0100 1V	2"	Cast iron	8.0
V25C--0200 1V	2½"	Cast iron	8.50
V30C--0300 1V	3"	Cast iron	17.0
V40C--0400 1V	4"	Cast iron	20.0
V50C--0500 1V	5"	Cast iron	34.0
V60C--0600 1V	6"	Cast iron	42.0

Construction Details
Body… Brass or cast iron
Screen rings… Brass
Screen… Galvanized steel
Ball Float… Stainless steel

Options
Brass hinged covers available

207DI

207DI

Tank Car Coupling

A tank car coupling provides an offloading connection for rail cars.

Features

- 5¼ -4″ threads mate to rail car outlet
- Spanner wrench available
- 30° design

Item Number	Outlet Size	Wrench	Weight (lbs)
207DI-0300 AC	3" NPT	Yes	5.25
207DI-0700 AC	3" NPT	No	5.75

Construction Details

Body... Ductile iron
Nut... Ductile iron
Wrench... Steel
Gasket... Buna-N

449SS Series
Provers (Test Measure)

Test measures provide an accurate standard of comparison for verifying the metered output of liquid dispensing equipment.

Features
- 5-gallon capacity with easy-to-read graduated neck (½ cubic inch increments)
- Calibrated to the latest OIML R-120, API and NIST handbook 105-3 standards
- Concave bottom prevents distortion

Accessories
- Carrying cases help maintain both the integrity and cleanliness of test measures during moving and storage
- Fits either a 5-gallon or 20-liter test measure

Item Number	Capacity	Description	Weight (lbs)
449SS-0500 1M	5 gal	Test measure	18.0
449SSC1500 1K	5 gal	Test measure with case	28.0
449SSLM2000 1M	20 liter	Test measure	--
449---0300 1C	--	Carrying case	--

**Consult Customer Service for other options including a model for the state of Hawaii.*

449SS (5 gallon)

Construction Details
All models of 449 series provers are made of 300 series stainless steel

Certifications & Listings
Built and calibrated to the latest OIML R-120, API and NIST handbook 105-3 standards

449CVR Series
Measurement Canada Provers

Test measures provide an accurate standard of comparison for verifying the metered output of liquid dispensing equipment.

Features
- Equipped with a high resolution 3″ neck with reducer
- 20-liter capacity
- Used with a mating vapor retention funnel to minimize vapor loss during testing

Item Number	Capacity	Description	Weight (lbs)
449CVRF000 1F	20 liter	Extra tall funnel	22.0
449CVRF020 1F	20 liter	Funnel	14.0
449CVRP200 1M	20 liter	Test measure	20.0

449CVRF (20 liter)

Construction Details
Funnel... Stainless steel with copper spout

All models of 449 series provers are made of 300 series stainless steel

Certifications & Listings
Measurement Canada recognized for retail fuel dispenser test equipment

NOTE

This equipment has been evaluated by Measurement Canada for accuracy performance when used to perform inspection of gasoline or diesel related fuel dispensers. The evaluation of equipment includes repeatability, linearity and stability. This equipment has been evaluated and approved to be used in lieu of closed loop testing equipment to reduce vapor loss effects while testing gasoline systems.

NOTE

The Funnel and Prover must be used together to meet Measurement Canada Requirements.

449SD (5 gal)

449SD Series

Provers (Test Measure for DEF)

Test measures provide an accurate standard of comparison for verifying the metered output of Diesel Exhaust Fluid (DEF).

Features

- 5-gallon capacity
- Includes a DEF magnetic misfiling prevention device
- Complies with an independent laboratory study for DEF Protocol 654001.001.027.00
- Specifically labeled for DEF to avoid cross contamination with other liquids

Item Number	Size	Description	Weight (lbs)
449SD-0500 1F	--	Funnel with DEF spout	28.0
449SD-0500 1M	5 gal	Test measure	--
449SDM0500 1P	--	Misfilling device	--

**Consult Customer Service for other options.*

Construction Details

All models of 449 series provers are made of 300 series stainless steel
Funnel... Stainless steel

Certifications & Listings

Built and calibrated to the latest OIML R-120, API and NIST handbook 105-3 standards

490A

490G 490W

490 Series

Water or Gasoline Indicating Paste

Applied to a gauge stick prior to sticking the tank, water and gasoline indicating paste is used to determine the presence of water or gasoline in a storage tank.

Features

- **490A** finds water level in gasoline, jet fuels, fuel oils, oils, and many solvents. Intersection line between white and red indicates water line in tank (12 per box)
- **490G** turns white at and below the gasoline level line when gasoline is present (24 per box)
- **490W** indicates water level by turning red at and below the water line level in gasoline or other hydrocarbon solvents (24 per box)

Item Number	Size	Weight (oz)
490A--0100 1P	1 oz tube	2.0
490G--0100 AP	2½ oz jar	4.0
490W--0100 AP	2½ oz jar	4.0

467
Cup Case Thermometer

A cup case thermometer is used to determine accurate liquid temperature.

Features
- 8″ mercury reading displayed in glass tube thermometer
- Operating range -20°F to 120°F
- Closed-bottom cup with removable tube and scale

Item Number	Weight (lbs)
467---0100 1T	0.25

467

625B & 625S Series
Brass Hammers

Brass hammers are designed for use in areas where hammer strikes cannot generate sparks due to potentially flammable vapors.

Features
- Durable hickory handles
- Yellow gripper for sure safe grip

Item Number	Size	Description	Weight (lbs)
625B--0100 AH	1 lb.	Brass ball peen hammer	1.50
625B--0200 AH	2 lb.	Brass ball peen hammer	2.50
625S--0100 AH	3 lb.	Brass sledge hammer	4.0
625S--0200 AH	10 lb.	Brass sledge hammer	11.0

625B (1 lb.)

625S (3 lb.)

Construction Details
Head... Brass

607 Series
Spacer Spools

TTMA flange-to-flange adaptor is used with API flanged couplers and adaptors.

Features
- 6″ face to face
- **607S** includes shear section

Item Number	Size	Weight (lbs)
607---0401 MC	4" x 4"	6.70
607S--0401 MC	4" x 4"	6.70

607

Construction Details
Body... Cast aluminum

Product Compatibility

Item Number and Description	E-85	Biodiesel	DEF	Methyl Alcohol
076S Expansion relief valve	x	x	x	x
076DI Expansion relief valve	x	x		x
078DI Expansion relief valve	x	x		x
122ALV Hose nozzle swivel (with Viton®)	x	x		
128DIS Frost proof drain valve	x	x		x
155 Double outlet vent	x	x		x
184 Series bushings	x	x		x
184S Series bushings	x	x	x	x
184S Series pipe plugs	x	x	x	x
200S Anodized farm nozzle	x	x		
222DEF Hose swivel	x	x	x	x
244 Series EVR emergency vents	x	x		x
246ADI Series swing check valves	x	x		x
246DRF Series swing check valves	x	x		x
272DI Series internal emergency valves	x	x		x
272HDI Series internal emergency valves	x	x		x
284S Line strainers	x	x	x	x
285 Line strainers (with Teflon®)	x	x		x
285DI Line strainers	x	x		x
305C Cap (2" and 4")	x	x		
305XPA1100AKEVR Tank monitor cap and adaptor kit	x			
318L Lightweight manholes	x	x	x	x
323 Adaptor (with Viton®)	x	x		
323C/323C EVR Cap	x	x		x
346DI Series external emergency valves	x	x		x
346FDI Series external emergency valves	x	x		x
346SS Series external emergency valves	x	x		x
351S Flame arrester	x			
354 Updraft vents	x	x		x
351S/748A Combination flame arrester/pressure vacuum vent				x
354T Updraft vents	x	x	x	x
418LC Lightweight manholes	x	x	x	x
434/435 Dispenser pedestals	x	x		x
446 Emergency shut-off valve	x	x		x
449SD Test measure provers			x	
464 Gauging tapes and plumb bobs	x	x	x	x
515 Series spill container	x	x		x
515SD Remote spill container	x	x	x	x
516 Series spill container	x	x		x
517 Series spill container	x	x		x
518 Series spill container	x	x		x
539 Diffuser, EVR series	x	x		
539TO and 539TC Anodized diffusers	x			x
560/561/562/563 Series extractors	x	x		
602DEF Automatic nozzles			x	
609DEF Breakaway			x	

Product Compatibility

Item Number and Description	E-85	Biodiesel	DEF	Methyl Alcohol
610 Hose retriever	x	x		x
635 Offset adaptor				
636DEF Shear valve			x	
646 Wafer check valve	x	x		x
691BSS Series locking ball valves	x	x	x	x
691FS Flanged Ball Valve				x
710SS Series (¾"-2") Solenoid valves for anti-siphon protection	x	x	x	x
710SS-3300 1V (3") Solenoid valves for anti-siphon protection	x	x	x	x
715 Remote fill box	x* with SS component	x		
715S Remote fill box	x	x	x	x* with SS component
718 Liquid level gauge	x	x		x
73590CA Check valve adaptor	x	x		
748 Series pressure vacuum vents	x	x		x
749 Series pressure vacuum vents	x	x		x
749T Pressure vacuum vent	x	x	x	x
800DCS Dust caps	x	x	x	x
818 Clock gauge	x	x		x
818FT Clock gauge	x	x	x	x
818T Clock gauge	x	x	x	x
910 Anti-siphon valve	x			
912 Anti-siphon valve	x	x	x	x
918 Clock gauge with alarm	x	x		x
918FT Clock gauge with alarm	x	x	x	x
918T Clock gauge with alarm	x	x	x	x
918TCP Overfill alarm	x	x		x
918TCPS Tank alarm	x	x	x	x
922 Combination vent/overfill alarm	x	x		x
924S Adjustable level sensor	x	x	x	x
925S Multi-level sensor	x	x	x	x
927 Dry disconnect adaptor (2" only)	x	x		
927S Dry disconnect adaptor	x	x	x	x
928S Dry disconnect coupler	x	x	x	x
934 Single Poppet Foot Valve with Expansion Relief			x	
948A Pressure vacuum vent	x	x		
958 In-line check valve	x	x	x	x
1218 Electronic tank gauge	x	x		x
1518 Mechanical tank top gauge	x	x		x
1618 Mechanical vertical tank gauge	x	x		x
9095AA Overfill prevention valve	x	x		
9095AM Overfill prevention valve				x
9095ATM Overfill prevention valve	x			
9095C Overfill prevention valve	x	x		
9095SS Overfill prevention valve	x †	x †	x	x †
9095SA Overfill prevention valve	x †			
9095X Overfill prevention valve	x	x		

† Cannot be used with a drop tube. Do not select these valves if your fuel requires a drop tube.

EVR Approved Products

Item Number	Size & Description
184---0000 1B	1½" x ¾" x ¾" Double tapped bushing
184---0110 1B	1½" x ½" x ½" Double tapped bushing
184---0120 1B	1¼" x 1" x 1" Double tapped bushing
184---0130 1B	1½" x 1" x 1" Double tapped bushing
184---0100 1B	2" x ⅜" x ⅜" Double tapped bushing
184---0200 1B	2" x ½" x ½" Double tapped bushing
184---0300 1B	2" x ¾" x ¾" Double tapped bushing
184---0400 1B	2" x 1" x 1" Double tapped bushing
184---0500 1B	2" x 1¼" x 1¼" Double tapped bushing
184---0600 1B	2" x 1½" x 1½" Double tapped bushing
184---0800 1B	2½" x 1¼" x 1¼" Double tapped bushing
184---0900 1B	2½" x 1½" x 1½" Double tapped bushing
184---1000 1B	2½" x 2" x 2" Double tapped bushing
184---1100 1B	3" x 1" x 1" Double tapped bushing
184---1200 1B	3" x 1¼" x 1¼" Double tapped bushing
184---1300 1B	3" x 1½" x 1½" Double tapped bushing
184---1400 MB	3" x 2" x 2" Double tapped bushing
184---1500 1B	3" x 2½" x 2½" Double tapped bushing
184---2200 MB	4" x 1" x 1" Double tapped bushing
184---2300 MB	4" x 1¼" x 1¼" Double tapped bushing
184---2400 MB	4" x 1½" x 1½" Double tapped bushing
184---2500 MB	4" x 2" x 2" Double tapped bushing
184---2600 1B	4" x 2½" x 2½" Double tapped bushing
184---2700 MB	4" x 3" x 3" Double tapped bushing
184S--0200 MB	2" x ½" x ½" Double tapped bushing, stainless steel
184S--0300 MB	2" x ¾" x ¾" Double tapped bushing, stainless steel
184S--0400 MB	2" x 1" x 1" Double tapped bushing, stainless steel
184S--0500 MB	2" x 1½" x 1½" Double tapped bushing, stainless steel
184S--2100 MB	4" x ¾" x ¾" Double tapped bushing, stainless steel
184S--2200 MB	4" x 1" x 1" Double tapped bushing, stainless steel
184S--2400 MB	4" x 1½" x 1½" Double tapped bushing, stainless steel
184S--2500 MB	4" x 2" x 2" Double tapped bushing, stainless steel
184S--2700 MB	4" x 3" x 3" Double tapped bushing, stainless steel
244O--0400AVEVR	6" 16oz./sq.in. Emergency vent, female thread
244O--0600AVEVR	8" 8oz./sq.in. Emergency vent, female thread
244O--0700AVEVR	8" 16oz./sq.in. Emergency vent, female thread
244OS-0170AVEVR	4" 16oz./sq.in. Emergency vent, female thread, with screen
244OS-0900AVEVR	5" 16oz./sq.in. Emergency vent, female thread, with screen
244OS-0200AVEVR	6" 8oz./sq.in. Emergency vent, female thread, with screen
244OS-0400AVEVR	6" 16oz./sq.in. Emergency vent, female thread, with creen
244OS-0600AVEVR	8" 8oz./sq.in. Emergency vent, female thread, with screen
244OS-0700AVEVR	8" 16oz./sq.in. Emergency vent, female thread, with screen
244OMA0030AVEVR	2" 16oz./sq.in. Emergency vent, male thread
244OM-0060AVEVR	3" 16oz./sq.in. Emergency vent, male thread
244OM-0170AVEVR	4" 16oz./sq.in. Emergency vent, male thread

Item Number	Size & Description
244OM-0900AVEVR	5" 16oz./sq.in. Emergency vent, male thread
244OM-0200AVEVR	6" 8oz./sq.in. Emergency vent, male thread
244OM-0400AVEVR	6" 16oz./sq.in. Emergency vent, male thread
244OM-0600AVEVR	8" 8oz./sq.in. Emergency vent, male thread
244OM-0700AVEVR	8" 16oz./sq.in. Emergency vent, male thread
244OMAS030AVEVR	2" 16oz./sq.in. Emergency vent, male thread, with screen
244OMS0060AVEVR	3" 16oz./sq.in. Emergency vent, male thread, with screen
244OMS0170AVEVR	4" 16oz./sq.in. Emergency vent, male thread, with screen
244OMS0900AVEVR	5" 16oz./sq.in. Emergency vent, male thread, with screen
244OMS0200AVEVR	6" 8oz./sq.in. Emergency vent, male thread, with screen
244OMS0400AVEVR	6" 16oz./sq.in. Emergency vent, male thread, with screen
244OMS0600AVEVR	8" 8oz./sq.in. Emergency vent, male thread, with screen
244OMS0700AVEVR	8" 16oz./sq.in. Emergency vent, male thread, with screen
244OF-0170AVEVR	4" 16oz./sq.in. Emergency vent, flanged
244OF-0050AVEVR	6" 8oz./sq.in. Emergency vent, flanged
244OF-0075AVEVR	6" 16oz./sq.in. Emergency vent, flanged
244OF-0100AVEVR	8" 8oz./sq.in. Emergency vent, flanged
244OF-0200AVEVR	8" 16oz./sq.in. Emergency vent, flanged
244OF-0400AVEVR	10" 8oz./sq.in. Emergency vent, flanged
244OF-0500AVEVR	10" 16oz./sq.in. Emergency vent, flanged
305---0000AAEVR	2" Adaptor, brass
305C--2000ACEVR	2" Cap, aluminum (anodized)
305GSP2000AKEVR	2" Cap/adaptor kit, anodized aluminum/brass
305---0000AAEVR	2" Monitoring adaptor, brass
305XP-2200ACEVR	2" Monitoring cap with ⅜" hole & ⅜" cable connector
305XP-2400ACEVR	2" Monitoring cap with ½" hole & ½" cable connector
305XPA2200AKEVR	2" Monitoring cap/adaptor kit with ⅜" hole & cable connector
305XPA2400AKEVR	2" Monitoring cap/adaptor kit with ½" hole & cable connector
305---0200AAEVR	4" Monitoring adaptor, brass
305XP-0200ACEVR	4" Monitoring cap with ⅜" hole & ⅜" cable connector
305XP-0100ACEVR	4" Monitoring cap with ⅜" hole
305XP-1100ACEVR	4" Monitoring cap with ½" hole
305XP-1200ACEVR	4" Monitoring cap with ½" hole & ½" cable connector
305XPA0100AKEVR	4" Monitoring cap/adaptor kit with ⅜" hole
305XPA1100AKEVR	4" Monitoring cap/adaptor kit with ½" hole
305XPA0200AKEVR	4" Monitoring cap/adaptor kit with ⅜" hole & cable connector
305XPA1200AKEVR	4" Monitoring cap/adaptor kit with ½" hole & cable connector
323---0300AAEVR	4" x 3" Vapor adaptor, aluminum (4" vapor, 3" riser thd.)
323---0400AAEVR	4" x 4" Vapor adaptor, aluminum
323C--0100ACEVR	4" Vapor recovery cap
419---02041TEVR	2" x 4' Aluminum drop tube
419---02061TEVR	2" x 6' Aluminum drop tube
419---02121TEVR	2" x 12' Aluminum drop tube
419---03101TEVR	3"x 10' Aluminum drop tube

Item Number	Size & Description
419---03121TEVR	3" x 12' Aluminum drop tube
419A--02041TEVR	2" x 4' Anodized aluminum drop tube
419A--02061TEVR	2" x 6' Anodized aluminum drop tube
419A--02121TEVR	2" x 12' Anodized aluminum drop tube
419A--03101TEVR	3" x 10' Anodized aluminum drop tube
419A--03121TEVR	3" x 12' Anodized aluminum drop tube
516O--0400ACEVR	4" 5 Gallon direct fill spill container, 4" offset female thread
516MO-0400ACEVR	4" 5 Gallon direct fill spill container, 4" offset male thread
539AS-0200ADEVR	2" AST diffuser, slip-on
539AS-0300ADEVR	3" AST diffuser, slip-on
539ASA0200ADEVR	2" AST diffuser, slip-on (anodized)
539ASA0300ADEVR	3" AST diffuser, slip-on (anodized)
539AT-0200ADEVR	2" AST diffuser, threaded
539AT-0300ADEVR	3" AST diffuser, threaded
539ATA0200ADEVR	2" AST diffuser, threaded (anodized)
539ATA0300ADEVR	3" AST diffuser, threaded (anodized)
560---0101 MBE	4" x 4" x 2" x 2" Extractor body
561---0101 MBE	4" x 4" x 2" Extractor body
562---0101 MBE	4" x 4" x 3" x 2" Extractor body
563---0101 MBE	4" X 4" X 3" Extractor body
735DC-2000ACEVR	2" Cap, aluminum
735DC-2500ACEVR	2½" Cap, aluminum
735DC-3000ACEVR	3" Cap, aluminum
735DC-4000ACEVR	4" Cap, aluminum
735DCA2000ACEVR	2" Cap, aluminum (anodized)
735DCA2500ACEVR	2½" Cap, aluminum (anodized)
735DCA3000ACEVR	3" Cap, aluminum (anodized)
735DCA4000ACEVR	4" Cap, aluminum (anodized)
818---0100AGEVR	2" Clock gauge, with standard float
818---0400AGEVR	2" Clock gauge, with drop tube float
818F--0100AGEVR	2" Clock gauge, female thread, with standard float
818F--0400AGEVR	2" Clock gauge, female thread, with drop tube float
818MEF0100AGEVR	2" Clock gauge, female thread, metric, with standard float
818MEF0400AGEVR	2" Clock gauge, female thread, metric, with drop tube float
818MET0100AGEVR	2" Clock gauge, metric, with standard float
818MET0400AGEVR	2" Clock gauge, metric, with drop tube float
818C--0100AGEVR	2" Gauge without custom face, with standard float
818C--0400AGEVR	2" Gauge without custom face, with drop tube float
818CF-0100AGEVR	2" Gauge w/o custom face, female thread, w/ standard float
818CF-0400AGEVR	2" Gauge w/o custom face, female thread, w/ drop tube float
918---0000AGEVR	2" Clock gauge without alarm, with standard float
918---2000AGEVR	2" Clock gauge without alarm, with drop tube float
918F--0000AGEVR	2" Clock gauge w/o alarm, female thread, w/ standard float
918F--2000AGEVR	2" Clock gauge w/o alarm, female thread, w/ drop tube float

Item Number	Size & Description
918MEF0000AGEVR	2" Clock gauge without alarm, female thread, metric with standard float
918MEF2000AGEVR	2" Clock gauge without alarm, female, metric, with drop tube float
918MET0000AGEVR	2" Clock gauge without alarm, metric, with standard float
918MET2000AGEVR	2" Clock gauge without alarm, metric, with drop tube float
918C--0000AGEVR	2" Clock gauge w/o custom face, w/o alarm, standard float
918C--2000AGEVR	2" Clock gauge w/o custom face, w/o alarm, drop tube float
918CF-0000AGEVR	2" Clock gauge w/o custom face, w/o alarm, female thread
918CF-2000AGEVR	2" Clock gauge w/o custom face, w/o alarm, female thread, drop tube float
927---0200AAEVR	2" Thread (2.5" cam-and-groove) dry disconnect adaptor (anodized aluminum)
927---0300AAEVR	3" Thread (4" cam-and-groove) dry disconnect adaptor (anodized aluminum)
927---0400AAEVR	4" Thread (4" cam-and-groove) dry disconnect adaptor (anodized aluminum)
928---0150ACEVR	1½" Thread (2" cam-and-groove) dry disc. coupler, alum.
928---0200ACEVR	2" Thread (2½" cam-and-groove) dry disc. coupler, alum.
928---0300ACEVR	3" Thread (4" cam-and-groove) dry disc. coupler, alum.
9095A-9200AVEVR	2" OPV base model, less top connection
9095A-9300AVEVR	3" OPV base model, less top connection
9095A-5200AVEVR	2" Direct fill OPV with 2" dry disconnect x 4" female thread adaptor
9095A-3200AVEVR	2" Remote fill OPV with 2" x 4" female thread bushing
9095A-4200AVEVR	2" Remote fill OPV with 3" x 4" female thread bushing
9095A-3300AVEVR	3" Remote fill OPV with 3" x 6" female thread bushing
9095AV9200AVEVR	2" OPV nickel plated base model, less top connection
9095AV9300AVEVR	3" OPV nickel plated base model, less top connection
9095AV5200AVEVR	2" Direct fill OPV nickel plated with 2" dry disc. x 4" female thread adaptor
9095AV3200AVEVR	2" Remote fill OPV nickel plated with 2" x 4" female thread bushing
9095AV4200AVEVR	2" Remote fill OPV nickel plated with 3" x 4" female thread bushing
9095AV3300AVEVR	3" Remote fill OPV nickel plated with 3" x 6" female thread bushing
9095AA9300AVEVR	3" OPV anodized aluminum base model, less top connection
9095AA3300AVEVR	3" Remote fill OPV anodized aluminum with 3" x 6" female thread bushing
9095C-9100AVEVR	2" OPV base model (for low profile tanks)
9095C-9200AVEVR	2" OPV base model
9095C-5200AVEVR	2" Direct fill OPV with 2" dry disconnect x 4" female thread adaptor
9095C-3200AVEVR	2" Remote fill OPV with 2" x 4" female thread bushing
9095CA3200AVEVR	2" Remote fill OPV with 2" x 4" female thread bushing (fuels with S.G. less than 0.72)
9095CA9200AVEVR	2" OPV base model (fuels with S.G. less than 0.72)
9095CA5200AVEVR	2" Direct fill OPV with 2" dry disconnect x 4" female thread adaptor (fuels with S.G. less than 0.72)

C.A.R.B. Approved Products

All of our products listed below have been tested and approved by the California Air Resources Board (CARB). The number following the product description is the C.A.R.B. approval number.

Item Number	Description	C.A.R.B. #
305	4" Top seal adaptor	89-12
305C	4" Top seal cap	89-12
305L Series	Top seal adaptor	89-12
317	2" Float vent valves	90-09
323	4" Vapor recovery adaptors	91-12
323C	4" Vapor recovery cap	89-12
354	1½" and 2" Updraft vent	89-12
405	4" Side seal adaptor	89-12
405C	4" Side seal cap	89-12
419	3" and 4" Drop tubes	95-19
560	Extractor fitting	90-09
561	Extractor fitting	90-09
562	Extractor fitting	90-09
563	Extractor fitting	95-43
578	4" Extractor pipe cap	89-12
749CRB0500 AV	Pressure/vacuum vent (8 oz./sq. in.)	95-14-A
749CRB0600 AV	Pressure/vacuum vent (3" water column)	95-15-A
749CRBS0500 AV	Pressure/vacuum vent (8 oz./sq. in.)	96-20
749CRBS0600 AV	Pressure/vacuum vent (3" water column)	96-19

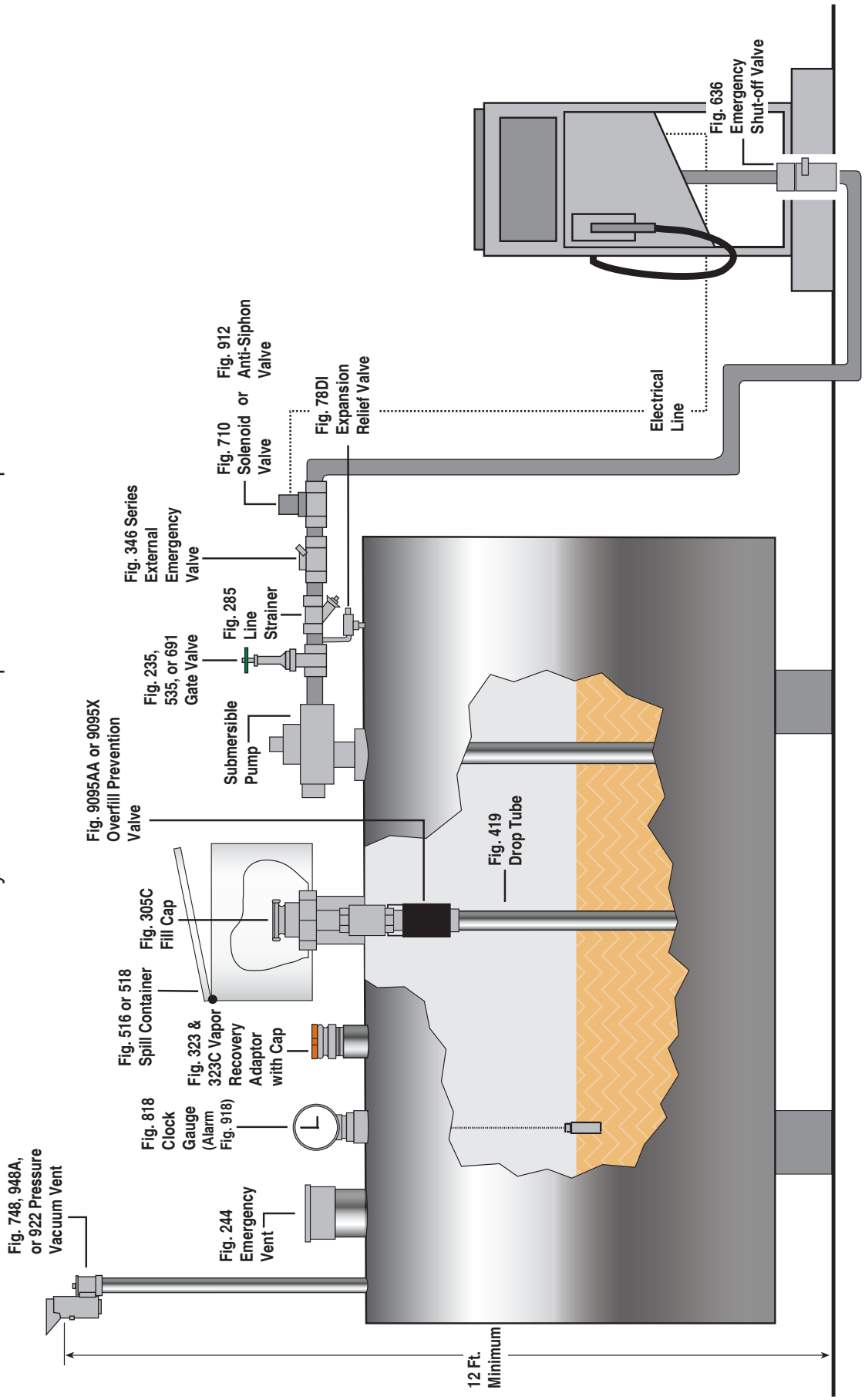
UL 2583 Listed Products

UL 2583 was released in 2011 and becomes effective December 30, 2013. This listing covers requirements for mechanical type accessories that are typically intended for attachment to fuel storage tanks or their connecting pipes in fueling system applications.

Item Number	Description
948A--0200 AV	2" Pressure vacuum vent (2½"-6" WC pressure)
244 Series	Emergency vents (10 inch 2.5oz vent is UL Listed, but NOT Listed to UL 2583)

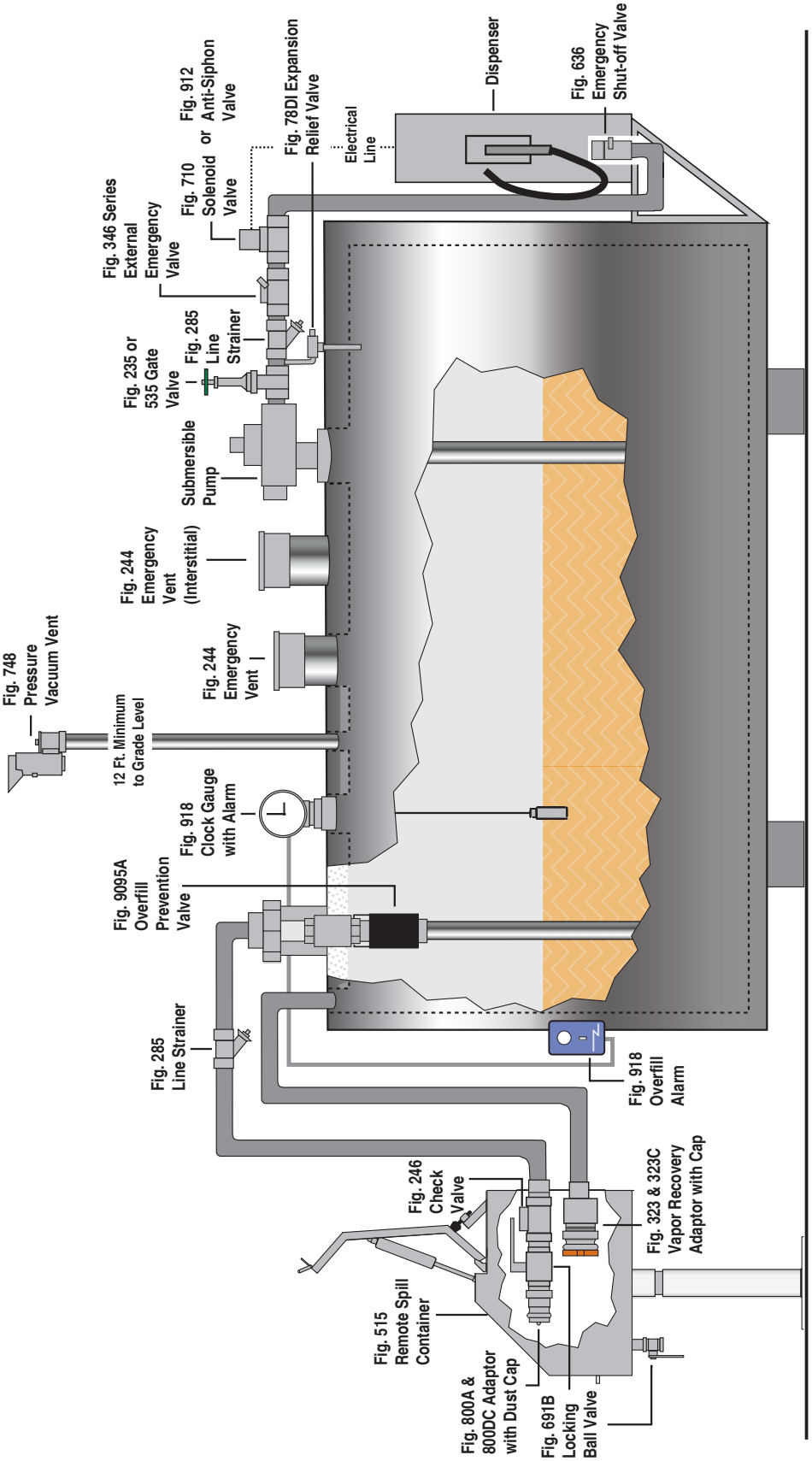
Aboveground Fuel Storage - Pressure System

Horizontal cylindrical tank with top fill and remote dispenser



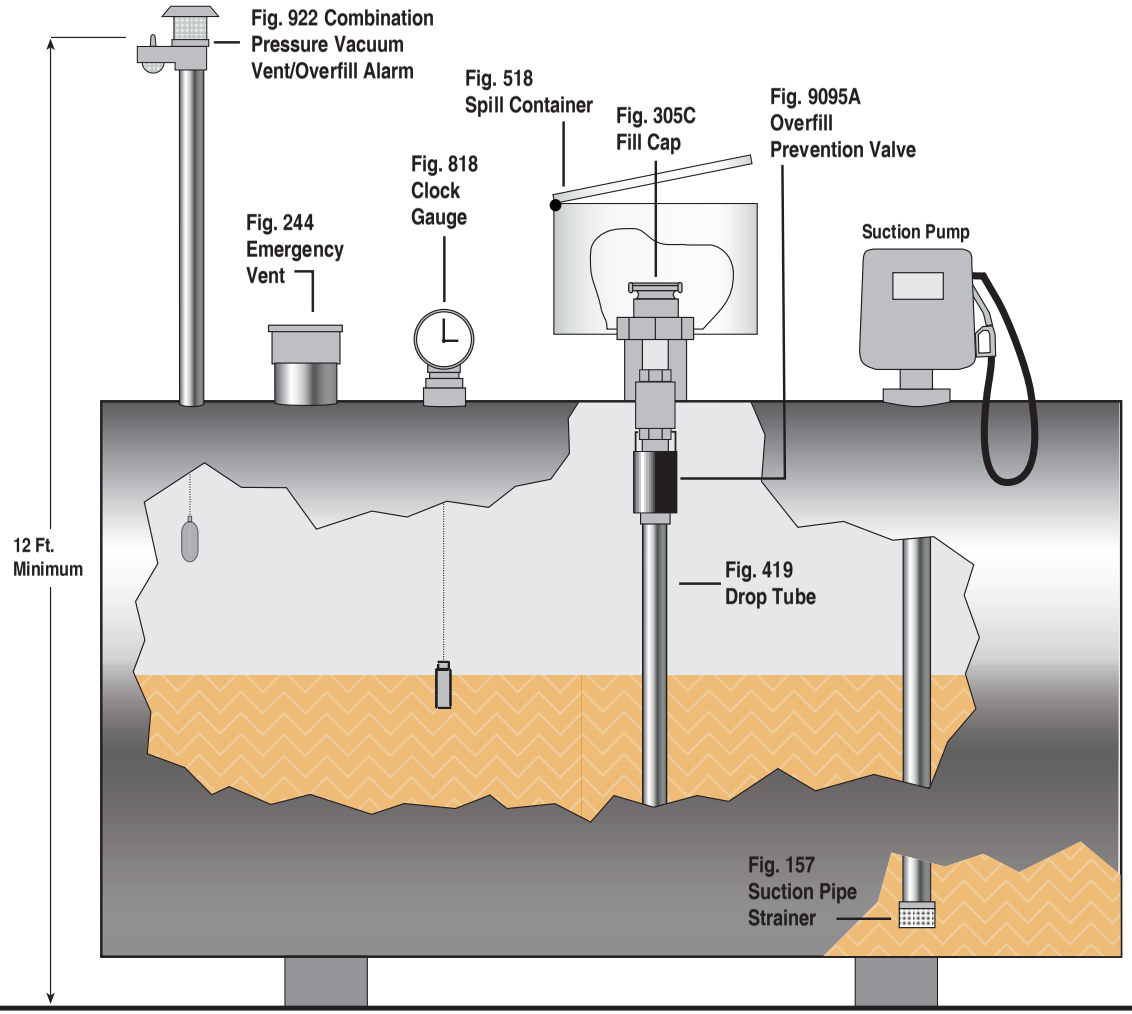
Aboveground Fuel Storage - Pressure System

Rectangular double-wall tank with remote fill and side mounted dispenser



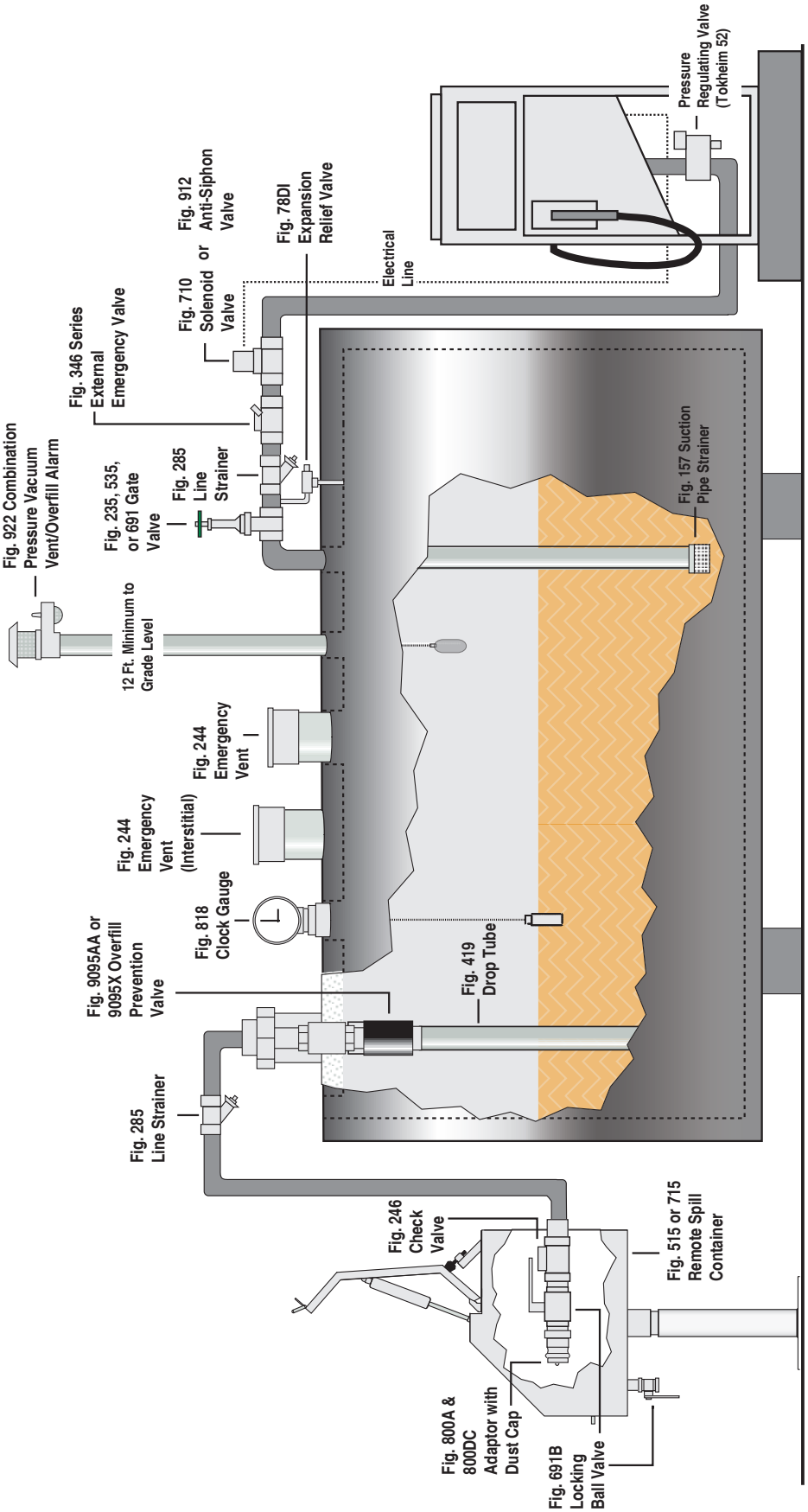
Aboveground Fuel Storage - Suction System

Horizontal cylindrical tank with top fill and top mounted pump

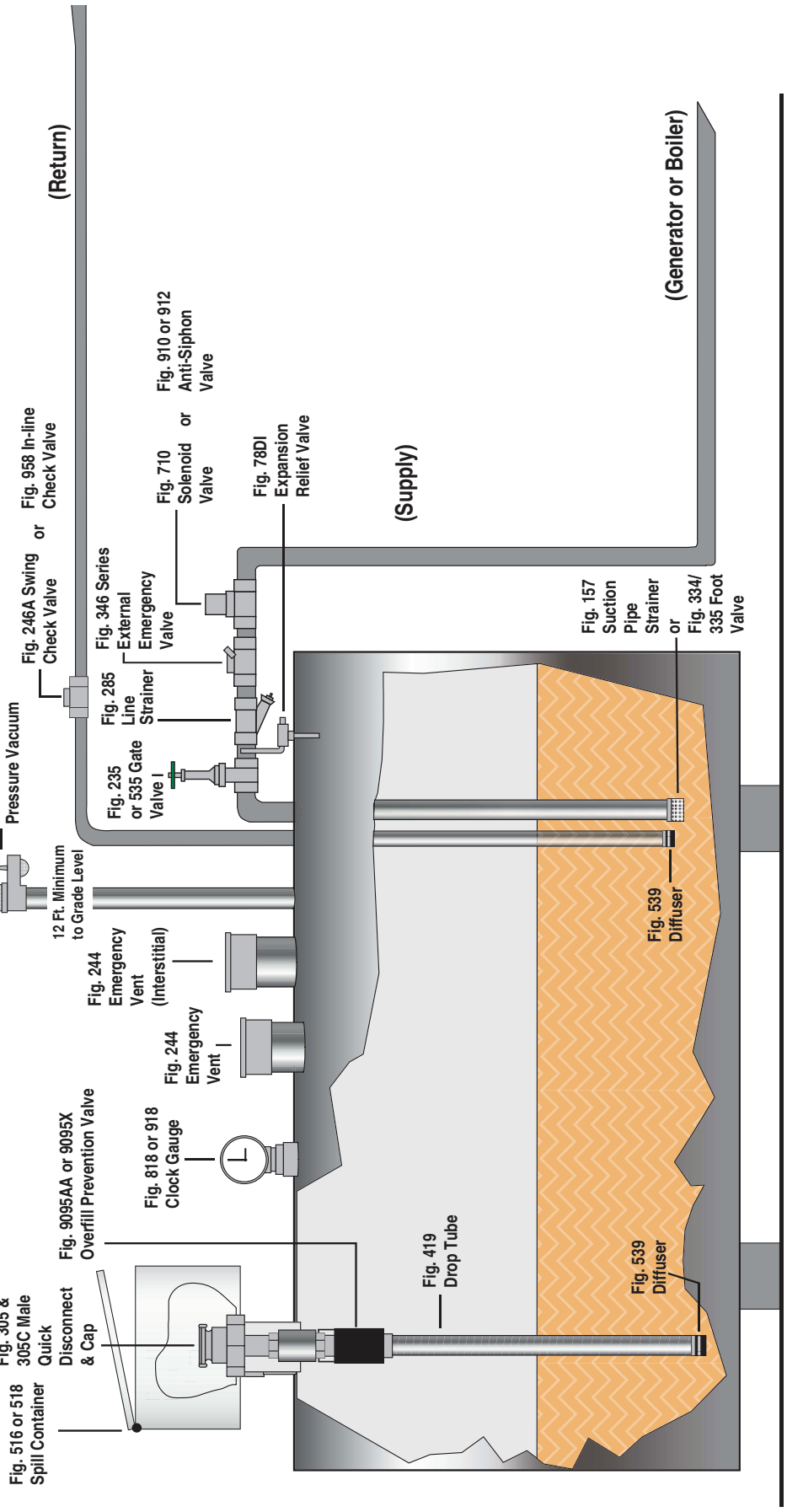


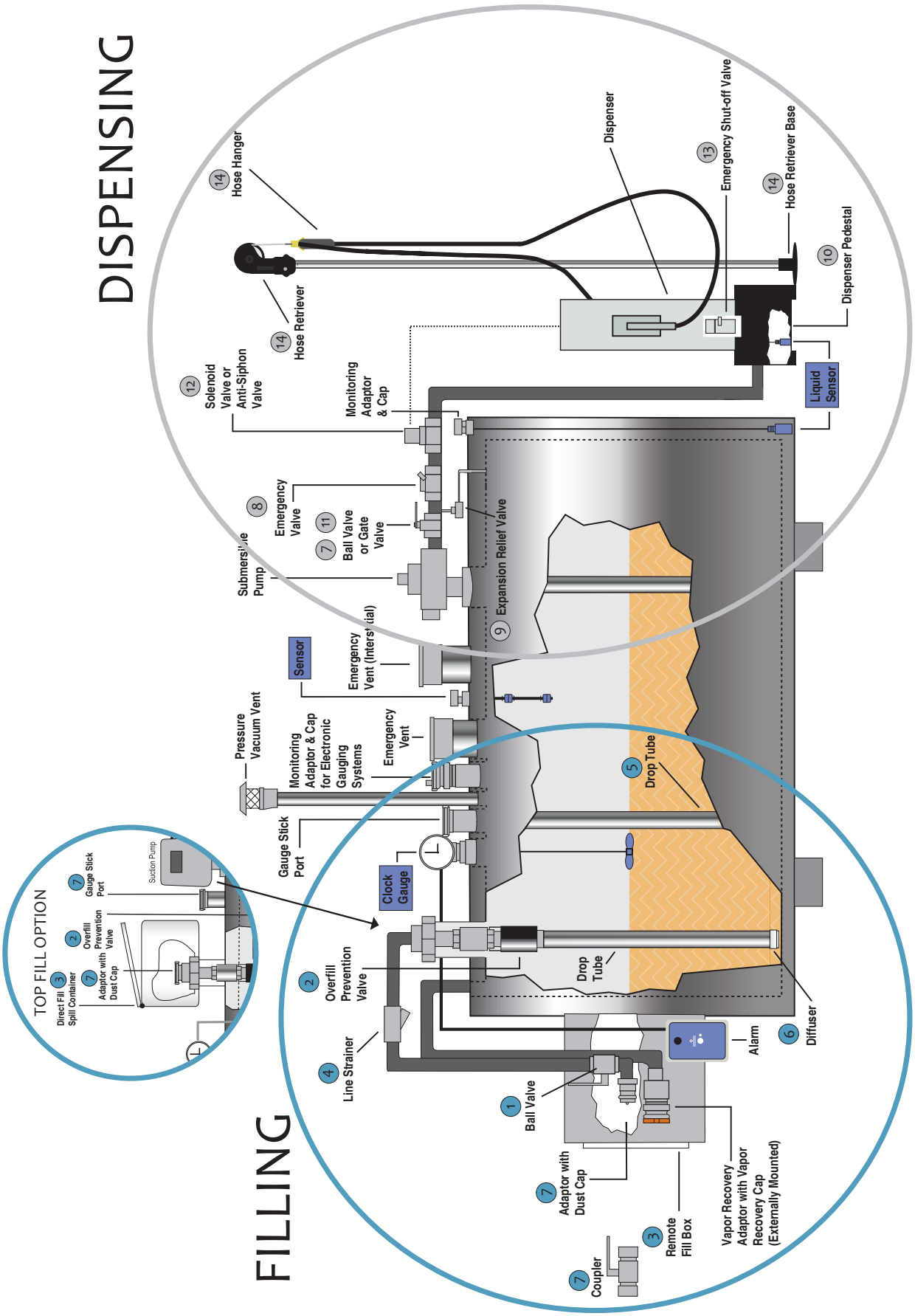
Aboveground Fuel Storage - Suction System

Rectangular double-wall tank with remote fill and remote pump



Emergency Generator or Fuel Oil Suction System



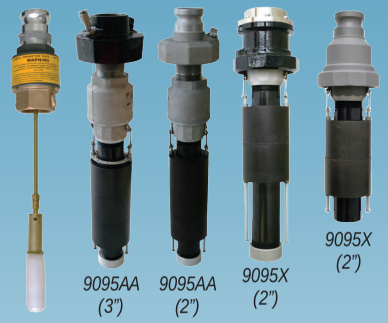

DISPENSING
FILLING
TOP FILL OPTION
14 Hose Hanger
14 Hose Retriever
Dispenser
13 Emergency Shut-off Valve
14 Hose Retriever Base
10 Dispenser Pedestal
12 Solenoid Valve or Anti-Siphon Valve
Monitoring Adaptor & Cap
Liquid Sensor
8 Emergency Valve
7 11 Ball Valve or Gate Valve
Submersible Pump
9 Expansion Relief Valve
Sensor
Emergency Vent (Interstitial)
Pressure Vacuum Vent
Monitoring Adaptor & Cap for Electronic Gauging Systems
Emergency Vent
5 Drop Tube
Gauge Stick Port
Clock Gauge
2 Overfill Prevention Valve
Drop Tube
4 Line Strainer
Alarm
6 Diffuser
1 Ball Valve
7 Adaptor with Dust Cap
3 Remote Fill Box
Vapor Recovery Adaptor with Vapor Recovery Cap (Externally Mounted)
7 Coupler
Suction Pump
7 Gauge Stick Port
2 Overfill Prevention Valve
3 Direct Fill Spill Container
7 Adaptor with Dust Cap

FILLING PRODUCTS

1 Ball Valves/Block Valves

691 691BSS 691A

2 Overfill Prevention Valves



9095S (2") 9095AA (3") 9095AA (2") 9095X (2") 9095X (2")

3 Spill Containment

515 715 (on four leg stand) 516 518

Other options: 515SD and 715 stainless steel models.

4 Line Strainers

284S 285 286

5 Drop Tubes

419 419A

6 Diffusers

539

7 Caps & Adaptors

323/323C 305 305GSP

927 928

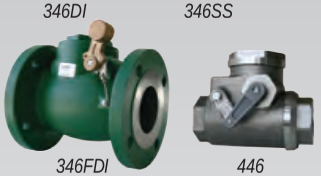
DISPENSING PRODUCTS

8 Ball Valves/Block Valves

691 691BSS 691A

9 Emergency Valves

346DI 346SS



346FDI 446

10 Expansion Relief Valves

78DI

11 Dispenser Pedestals

434

Other options: 434S & 435 models.

12 Gate Valves/Block Valves

234DI 235 235B 235DI 535 535B

13 Anti-Siphon/Solenoid Valves

910 912 710 711NC

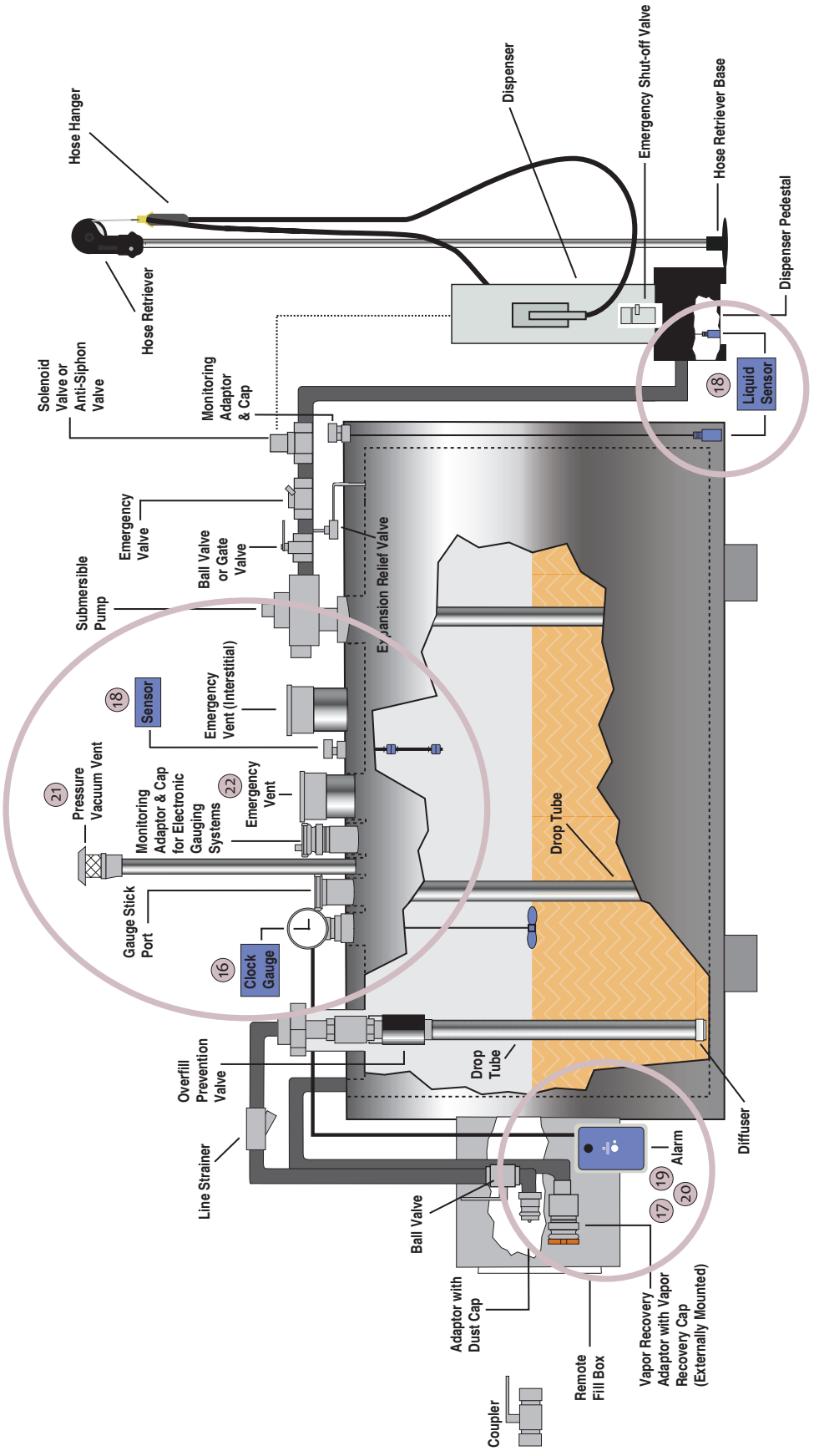
14 Emergency Shut-Off Valves

636DEF 636F

15 Hose Retriever

610 611 610B 610B

VENTING AND GAUGING



VENTING AND GAUGING PRODUCTS

16 Mechanical Clock Gauges and Alarms

818 918C 918DP

19 Battery Powered Tank Alarms

918S/D/Q 918SB/DB/QB

21 Pressure Vaccum Vents/Flame Arresters

948A 922 351S/748A

17 Electronic Tank Gauge

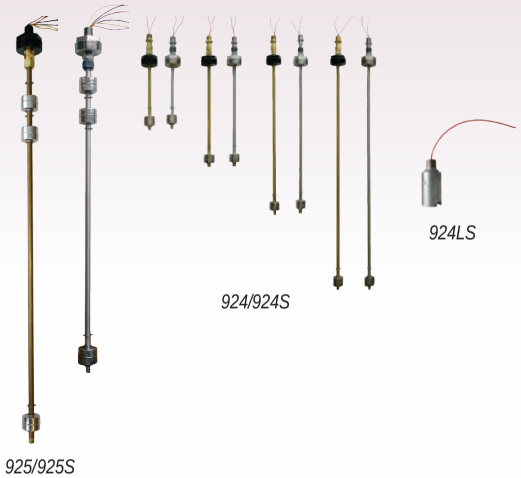
1218C 1218S

20 AC Powered Tank Alarms

918AC

748A 749

18 Sensors



925/925S 924/924S 924LS

22 a. Emergency Vents

244O 244OM 244OF

22 b. Open Air Vents/Flame Arresters

155 354 351S