



Equipment

SALES OF ABOVE GROUND STORAGE TANK EQUIPMENT,
PETROLEUM TANK TRUCK EQUIPMENT, LOADING RACK
& TERMINAL EQUIPMENT, HOSE ASSEMBLIES



PHONE 630.351.0885 / FAX 630.351.0898 / WWW.EPICEQ.COM

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Petroleum Tank Truck

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DC FUEL TRANSFER PUMPS



With the Fill-Rite DC Fuel Transfer Pumps, you can take reliability and pumping power wherever you need it. From portable use to tank and barrel mounting, DC pumps from Fill-Rite make transferring fluids safe and trouble-free where AC power is not available.

No matter what your fuel transfer needs are, Fill-Rite has the right products—Heavy Duty, Standard Duty, or Economy Duty pumps and meters.

PUMPS

FR1210C, FR1211C
FR4210, & FR4211
FR410 & FR411

REPAIR KITS

4200KTF8739
400KTF6862

H Heavy Duty Two Year Warranty



Model FR1210C 15 GPM

DC Rotary Vane Pump
Series 1200



Model FR1211C 15 GPM

DC Rotary Vane Pump with Meter
Series 1200



Model FR4210 20 GPM

DC High Flow Pump
Series 4200



Model FR4211 20 GPM

DC High Flow Pump
Series 4200



Model FR410 13 GPM

DC Diaphragm Pump
Series 400



Model FR411 13 GPM

DC Diaphragm Pump
Series 400



H Heavy Duty Two Year Warranty



Model FR700 20 GPM

AC Utility Rotary Vane Pump
Series 700B



Model FR701 20 GPM

AC Utility Rotary Vane Pump
Series 700B



Model FR310 35 GPM

AC Utility High Flow Rotary Vane Pump
Series 300



Model FR311 35 GPM

AC Utility High Flow Rotary Vane Pump
Series 300



Model FR450 13 GPM

AC Diaphragm Pump
Series 450



Model FR451 13 GPM

AC Diaphragm Pump
Series 450

PUMPS

FR700 & FR701
FR310 & FR311
FR450 & FR451

REPAIR KITS

700KTF2659
300KTF7794
400KTF6862

Ideal for stationary installations, such as tank or barrel mounting. With Fill-Rite products you get the accuracy, durability and reliability that you demand. You can find the right pump for your application for the right price from the complete family of Fill-Rite AC Fuel Transfer Pumps.

No matter what your fuel transfer needs are, Fill-Rite has the right products—Heavy Duty, Standard Duty, or Economy Duty pumps and meters.



H Heavy Duty Two Year Warranty



Model FR807C

**Series 800
3-Wheel Mechanical
Flow Meter**



Model FR807CMK

**Series 800
Meter Kit for AC and DC
Pump Products**

Fill-Rite's line of mechanical and digital flow meters are designed to meet the stringent demands of customers who need to monitor fuel usage accurately and dependably. Rugged construction, easy to read numbers, and the flexibility of horizontal or vertical positioning are just three features of these superior meters. Plus, all can be field-calibrated for the utmost accuracy, regardless of the fluid.

No matter what your fuel transfer needs are, Fill-Rite has the right products—Heavy Duty, Standard Duty, or Economy Duty pumps and meters.



Model FR901

**Series 900
4-Wheel Mechanical
Flow Meter**



Model FR820

**Series 820
Digital Flow Meter**

The new pulser-ready Fill-Rite 902 Cabinet Meter provides easier installation and maintenance, and a more efficient flow path.

Our new pulser-ready Fill-Rite 902 Cabinet Meter is a redesigned and greatly enhanced version of our already topnotch Fill-Rite 305 Meter.

First, the 902's cabinet is made of a more robust, 16-gauge metal, and powder coated to provide superior corrosion protection. We've redesigned the hood assembly to ensure easier installation and maintenance. Internal access is obtained by simply removing three screws and the reset knob. The tab in the meter lid has been removed to accommodate installation of the pulser head. There's a three-quarter-inch elbow so that the pulser can be wired directly into the junction box, and a new opening in the lid to accommodate easy wiring.

The external nozzle boot has been removed, and the nozzle is stored in the cabinet. The nozzle retainer now doubles as a switch lever, making it impossible for the unit to be ON when the nozzle is stowed.

There's also a more robust switch assembly. The linkage has fewer components, and the switch rod is thicker to prevent damage during operation. There are just three pipe joints to seal, and the inlet for all models is now on the bottom. There's also a larger, easier-to-read faceplate making all the pertinent information visible from the front of the meter.

NEW MODEL NUMBERS

- FR902R = Non-UL (Formerly 305RU)
- FR902LR = Non-UL, liter (Formerly 305LRU)
- FR902RU = UL Listed (Formerly FR305RU)
- FR902LRU = UL Listed, liter (Formerly FR305LRU)

902R SERIES FEATURES

- 3/4" elbow in junction box so pulser can be wired directly into junction box
- New opening to accommodate pulser wiring.
- Two openings in junction box, now 3/4" for easier wiring

FR902RU DETAILS

- 4-digit mechanical register
- 6 gpm–40 gpm
- Heavy-duty materials
- Powder coat finish
- Universal nozzle boot
- Compatible with:
 - Diesel fuel
 - Gasoline & gasoline/alcohol blends (up to 10% ethanol)
 - Fuel oil
 - Lubricating oil (up to 60W lubricating oil; not temperature dependant)



Tuthill

The Most Trusted name in Pumps & Meters **FILL-RITE.**

Series 300 & 700 AST Pumps



FILL-RITE

Description of Included Models

Model Number	Description
FR713	Series 700B (15-18 GPM) Utility Pump 1/3 HP 110 VAC - 60 Hz Motor. "Economy" pumping unit for use with AST remote dispensers configured with anti-siphon device, tank adapter, fittings and pipe from anti-siphon device to tank adapter. NO NOZZLE, HOSE OR NOZZLE BOOT INCLUDED.
303	Series 300 (20 GPM) 1/2 hp Utility Pump for Gasoline. "Economy" pumping unit for use with AST remote dispensers configured with anti-siphon device, tank adapter, fittings and pipe from anti-siphon device to tank adapter, 1/2 HP - 110/220 VAC 50/60 Hz motor. NO NOZZLE, HOSE OR NOZZLE BOOT INCLUDED.
313	Series 300 (30 GPM) 3/4 hp Utility Pump for Diesel. "Economy" pumping unit for use with AST remote dispensers configured with anti-siphon device, tank adapter, fittings and pipe from anti-siphon device to tank adapter, 3/4 HP - 110/220 VAC 50/60 Hz motor. NO NOZZLE, HOSE OR NOZZLE BOOT INCLUDED.

Lube Transfer



- Ready to use right out of the box
- For low pressure, medium to fast flow rate applications
- For conveniently dispensing oil from drums, barrels and totes
- Can also be used for evacuating waste oil

LP50P18Q115 115AC 18 QUARTS PER MIN.
LP50P36Q115 115AC 36 QUARTS PER MIN.
LP50P18Q12 12VDC 18 QUARTS PER MIN.

LP KIT

Flow	18 or 36qpm
Pressure	50psi

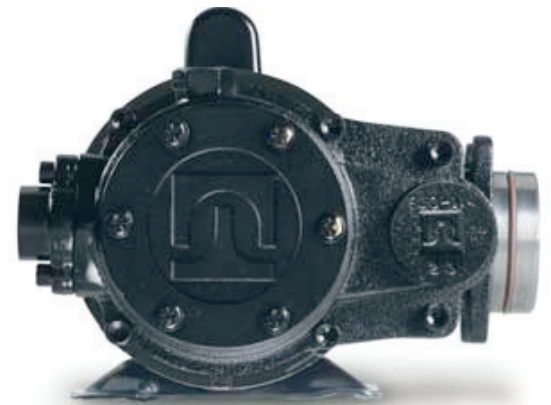


- Pump only
- For medium pressure, medium/high flow rate applications
- For refilling large reservoirs or drums
- Faster flow rates when time is of the essence

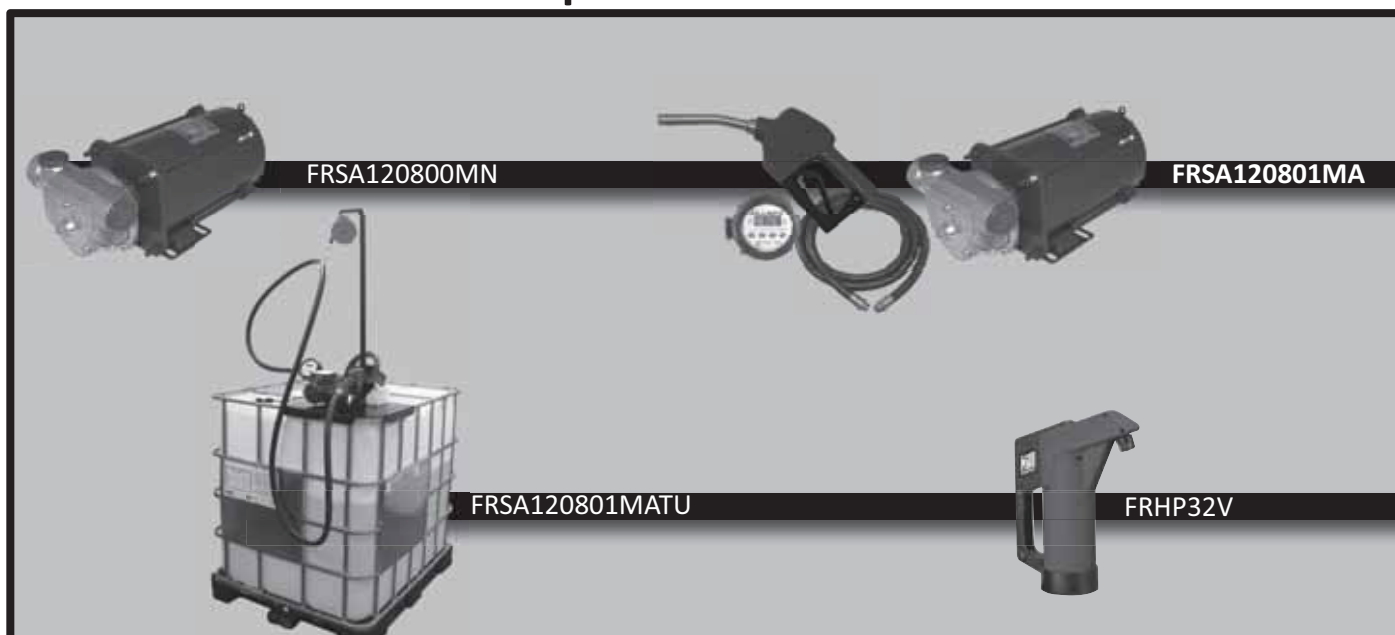
LP200P18Q 115AC 18 QUARTS PER MIN.

LP BULK TRANSFER

Flow	18 or 36qpm
Pressure	200psi



Diesel Exhaust Fluid Pumps



Model #	FRSA12 - 0800MN	FRSA12- 0801MA	FRSD12- 0800MN	FRSD12- 0801MA	FRSA12- 0801MATU	FRSD12- 0801MATU	FRHP32V	FRAP32V
Description	115 Volt AC Pump Only	115 Volt AC Pump Kit	12 Volt DC Pump Only*	12 Volt DC Pump Kit	115 Volt AC Tote Kit	12 Volt DC Tote Kit	Lever Piston	Air Pump
UPC Code 0-89404	21517-3	21518-0	21519-7	21520-3	21521-0	21522-7	21501-2	21502-9
Weight	20	45	20	45	80	80	N/A	N/A
Pallet Qty.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Warranty	2 Years	2 Years	2 Years	2 Years	2 Years	2 Years	1 Year	1 Year
GPM	8	8	8	8	8	8	11 oz.	6.5 oz.
Motor	½ HP 115 Volt AC	½ HP 115 Volt AC	½ HP 12 Volt DC	½ HP 12 Volt DC	½ HP 115 Volt AC	½ HP 12 Volt DC	N/A	N/A
Suction Pipe	N/A	N/A	N/A	N/A	N/A	N/A	1" Polymer	1" Polymer
Hose	N/A	¾" x 12'	N/A	¾" x 12'	¾" x 12'	¾" x 12'	N/A	N/A
Tank Adapter	N/A	N/A	N/A	N/A	N/A	N/A	2" Threaded	2" Threaded
Inlet	¾" BSPP**	¾" BSPP**	¾" BSPP**	¾" BSPP**	¾" BSPP**	¾" BSPP**	1"	1"
Outlet	¾" BSPP**	¾" BSPP**	¾" BSPP**	¾" BSPP**	¾" BSPP**	¾" BSPP**	¾"	¾"
Dispensing Nozzle	N/A	Stainless Steel ¾" Automatic	N/A	Stainless Steel ¾" Automatic	Stainless Steel ¾" Automatic	Stainless Steel ¾" Automatic	N/A	N/A
Meter	N/A	825 Series	N/A	825 Series	825 Series	825 Series	N/A	N/A
Hose Kit	N/A	N/A	N/A	N/A	N/A	N/A	KITHA32V or KITHA32VMN	KITHA32VMN
Rebuild Kit #	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTE: Optional 55 Gallon Drum Kit Available: KITFR55DU.



H Heavy Duty

Two Year Warranty



Model FR31 & FR43

Quart or Pint Stroke Pump
Series 30



Model FR37 & FR38

Gallon or Quart Volumetric Hand Pump
Series 30



Model FR112

Rotary Hand Pump
Series 100



Model FR112C

Rotary Hand Pump with Counter
Series 100



Model FR152

Piston Hand Pump
Series 5200



Model FR20

Piston Drum Pump
Series 20

Tough. Reliable. Long-lasting. Fill-Rite hand pumps deliver fluids quickly and easily. Whether you're transferring gasoline, oil or diesel, select from a variety of Fill-Rite hand pumps. You'll appreciate the trouble-free performance of these rugged hand pumps.

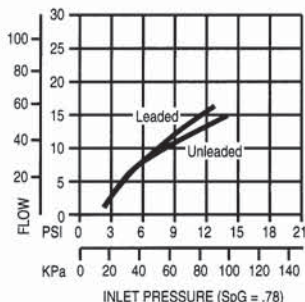
No matter what your fuel transfer needs are, Fill-Rite has the right products—Heavy Duty, Standard Duty, or Economy Duty pumps and meters.

HUSKY 1-GS

AUTOMATIC SHUT-OFF NOZZLE

Husky 1-GS Nozzle:

- Automatic shut-off nozzle for farm, 12V skid tank pumps, or larger pumps without air eliminators.
- Husky 1-GS nozzle shuts off - when the gas tank is full.
- Not to be used with gravity tanks. Not legal for retail dispensing.
- Nozzle is equipped with unique Flo-Stop device that shuts off nozzle if it falls from fill tank or raises above the horizontal.
- Inlet size 1" (3/4" reducer bushing optional)



SPECIFYING INFORMATION

Model Number	Fuel	Hold-open Clip	Weight Lbs. (kg.)	Thread
045704	Unleaded	yes	3.0 (1.36)	NPT
045708	Unleaded	no	3.0 (1.36)	NPT
045703	Leaded	yes	3.1 (1.39)	NPT
045707	Leaded	no	3.1 (1.39)	NPT
045716	Unleaded	yes	3.0 (1.36)	BSP
045715	Leaded	yes	3.1 (1.39)	BSP

CONSTRUCTION

Body	Die Cast Aluminum
Disc	Viton® (Fluorocarbon)
Packing	Double O-Ring seal protected by Fiber Reinforced Teflon
Lever	One piece contoured steel with hard plastic cover
Inlet	1" NPT, BSP

PATENTS AND LISTINGS

Patent Nos.	4,331,190	4,809,753
Listings	U.L.	U.L.C.

Viton® is a registered trademark of DuPont Dow Elastomers

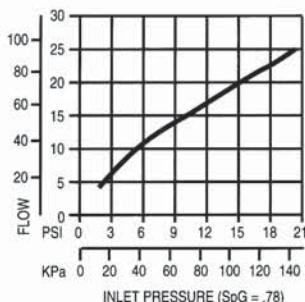


HUSKY 1-HS

AUTOMATIC SHUT-OFF NOZZLE

Husky 1-HS Nozzle:

- Truck stop nozzle with single poppet, high flow nozzle for up to 25 GPM dispensing.
- Full nozzle guard and lever cover protect vehicle and nozzle, and insulate customers' hands from the elements.
- Accu-Flo poppet allows accurate, "to-the-penny" fuel dispensing.



SPECIFYING INFORMATION

Model Number	Fuel	Hold-open Clip	Weight Lbs. (kg.)	Thread
026810	Diesel or Gasoline	yes	2.92 (1.32)	NPT
026812	Diesel or Gasoline	no	2.92 (1.32)	NPT
026838	Diesel or Gasoline	yes	2.92 (1.32)	BSP

CONSTRUCTION

Body	Die Cast Aluminum
Disc	Viton® (Fluorocarbon)
Packing	Double O-Ring Seal Protected by Fiber Reinforced Teflon
Lever	One piece contoured steel with hard plastic cover
Inlet	1" NPT, BSP

PATENTS AND LISTINGS

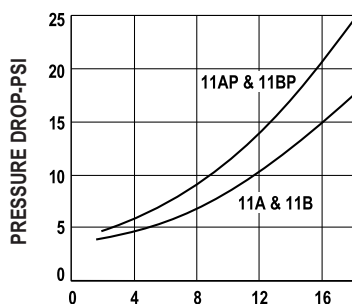
Patent Nos.	4,809,753
Listings	U.L. U.L.C.

Viton® is a registered trademark of DuPont Dow Elastomers



OPW 11A® AUTOMATIC NOZZLES

OPW 11A® Series nozzles are designed with today's consumer in mind. Small, trim, lightweight, easy and convenient to use, the OPW 11A® is a rugged performer that offers long life and reliable service.



11A-0100 Diesel With Green Cover

11AP-0400 Unleaded With Black Cover

**IN STOCK
CAN SHIP TODAY**

Body: aluminum

Lever & Lever Guard: Duratuff®

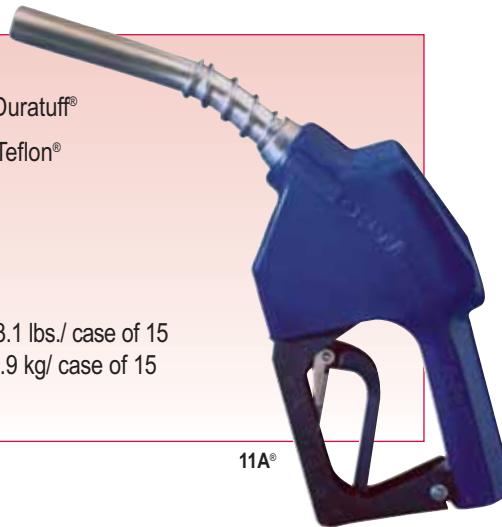
Packing: Graphite with Teflon®

Disc: Viton®

Spout: aluminum

Inlet Size: 3/4" NPT

Weight: 2.73 lbs. each, 43.1 lbs./ case of 15
1.25 kg each, 19.9 kg/ case of 15



11A®

Features

- ◆ **Two-Piece Spout** - the OPW spout offers the highest flow rates in the industry. Replacement Kits available from OPW.
- ◆ **"Accu-Stop"® flow control** - allows your customers to top off their tanks to the exact amount they want...easy to stop gasoline flow precisely.
- ◆ **Low-profile aluminum body** - lightweight, easier to handle, provides an attractive, image-enhancing appearance.
- ◆ **Unique Hand Insulators** - OPW offers both a full hand insulator and a unique two-piece option. Protects both nozzle and vehicle and insulates user's hand.
- ◆ **Hold-open rack is available for full service applications** - the one-hand control means easy setting to flow rate for customer convenience.
- ◆ **Duratuff® lever and lever guard** - for additional durability to protect against rough handling.
- ◆ **Blocker on lever guard** - to help prevent the nozzle from being jammed into open position with a foreign object.
- ◆ **Listed by Underwriters Laboratories, Inc.** - for gasoline, diesel, 15% ethanol/ methanol gasoline blends. UL and ULC Listed. Visit our website at: opw-fc.com for specific listings.
- ◆ **Low reliable shut-off** - specially designed to ensure proper shut-off as low as 3 gallons per minute.
- ◆ **Exclusive two-stage lever assembly** - provides a positive shut-off, even if held in wide-open position by user.
- ◆ **FlowLock™** - designed to shut-off automatically when the spout is tipped up, limiting spillage.
- ◆ **Design working pressure** - OPW products are designed to work at 50 PSI (3.45 bar) maximum pressure.

Available Colors

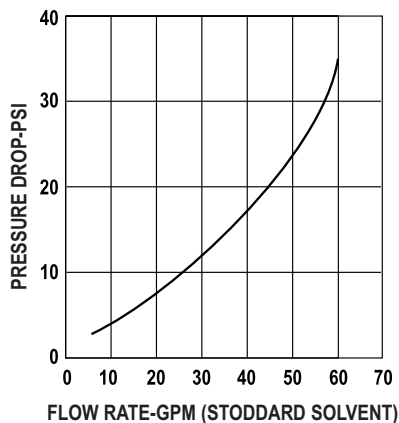
■ Black ■ Gold ■ Silver
 ■ Blue ■ Green ■ Yellow
 ■ Bright Red ■ Red
 (Color Chart on page 269)

Listings and Certifications

OPW 7H® AUTOMATIC SHUT-OFF NOZZLES

For Heavy-Duty, High-Flow Truck, Bus and Fleet Service

If you operate a full-service truckstop, refuel your own fleet or manage a cardlock refueling location, the low cost, long life and durability of the OPW 7H® high flow nozzle can help increase your productivity, sales and profits.



7H-0100 Diesel With Green Cover

IN STOCK
CAN SHIP TODAY

Materials

Body: aluminum

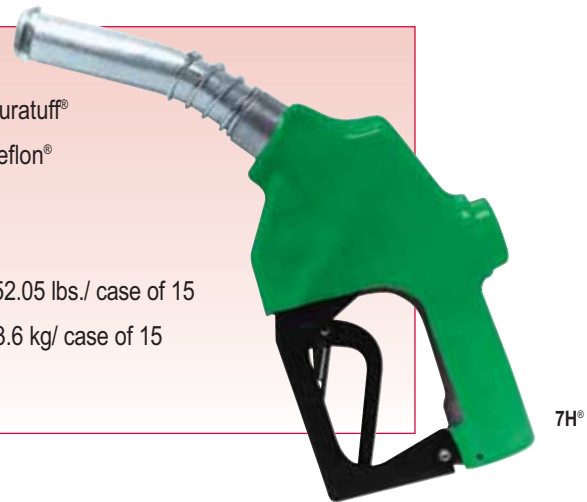
Lever & Lever Guard: Duratuff®

Packing: Graphite with Teflon®

Disc: Viton®

Inlet Size: 1" NPT

Weight: 3.35 lbs. each, 52.05 lbs./ case of 15
1.51 kg each, 23.6 kg/ case of 15



- ◆ **Spout retaining ring** - adds extra measure in securing nozzle spout in fill pipe.
- ◆ **Helps reduce spills** - a unique two-stage lever design ensures a positive shut-off, even if held wide open.
- ◆ **Three-position hold-open device** - one-finger control of hold-open mechanism means easy setting of flow rate.
- ◆ **Design working pressure** - OPW products are designed to work at 50 PSI (3.45 bar) maximum pressure.
- ◆ **Easily replaced spout** - simply remove three screws. Replacement kits are readily available from OPW.
- ◆ **Dash-pot action** - for smoother closing action and reduced line shock.
- ◆ **Dual poppets** - easy-to-open nozzle against high pressure.
- ◆ **FlowLock™** - designed to shut off automatically when the spout is tipped up, limiting spillage.
- ◆ **Low reliable shut-off** - specially designed to ensure proper shut-off as low as 5 gallons per minute.
- ◆ **Even, smooth spray pattern** - minimizes diesel foaming and false shut-offs.
- ◆ **Listed by Underwriters Laboratories, Inc.** - UL Listed. See our website at: www.opw-fc.com for specific listings.

⚠ WARNING

Do not use OPW 7H® nozzles with a hold-open device on pre-pay self-service installations. Use the OPW 7HB® or the 7H® without a hold-open device. Failure to comply is a violation of NFPA Code 30A, and may create a hazardous condition. Use of foreign objects to hold open automatic nozzles could result in shut-off failure and personal injury.

Listings and Certifications

BREAK AWAYS



C86N 3/4" SHEAR PIN
C860S 3/4" SNAP BACK



C100N 1" SEAR PIN
C1000S 1" SNAP BACK

BREAKAWAY DESCRIPTION

- Designed to pull apart maximum 300 lbs. pull force
- Durable plastic cover
- Minimal flow restriction
- Seals both ends of the breakaway
- Repairable with Catlow's C86R Repair Kit
- One year warranty

Accessories:

- A13 8" Whip Hose
- C86R Shear Pin and O'ring Repair Kit
- C86R-2 Shear Pin Only Kit
- C86BN-1 Replacement Plastic Cover
- B9 12" Whip Hose
- C100R Shear Pin and O'ring Repair Kit
- C86R-2 Shear Pin Only Kit
- C100BN-1 Replacement Hytrel Cover

PUMPFLEX II - JUMPER

3/4" X 8" SPACER HOSE COUPLED M X M NPT
1" X 10" SPACER HOSE COUPLED M X M NPT



SWIVELS



C720 3/4"



C720 1"

SWIVEL DESCRIPTION

- Lightweight and maintenance free
- 360 degree swivel rotation in middle joint and male end
- Mates with all standard and diesel hoses
- Moves freely and easily in any plane of space
- Does not affect existing hose length
- UL/ULC Listed

- Lightweight and maintenance free
- 360 degree swivel rotation in middle joint and male end
- Mates with all standard and diesel hoses
- Moves freely and easily in any plane of space
- Does not affect existing hose length
- UL/ULC Listed

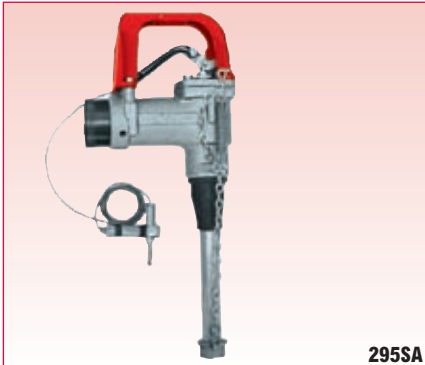
STRAIGHT SWIVELS M X F

PS34 3/4" SWIVEL
PS3410 3/4" M X 1" F
PS1034 1" M X 3/4" F
PS100MF 1" M X 1" F

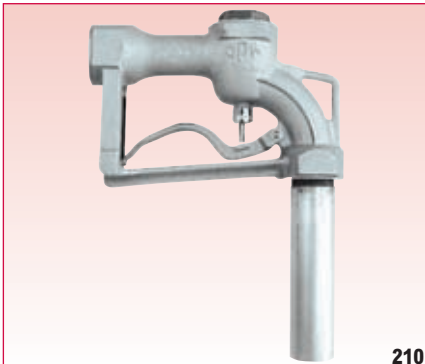




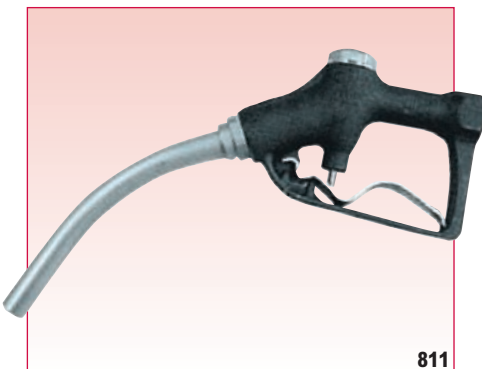
1290



295SA



210



811



BULK/MANUAL NOZZLE DESCRIPTIONS

AUTOMATIC BULK FUELING

1290 - Automatic shut-off for heavy-duty high-flow truck, bus and home fuel oil delivery. Right angle design, dual poppets and 2-position hold-open device. Available with 1½" inlet (NSN 4930-01-290-0756)

1290G - 1½" inlet designed to meet military specifications. Available in green anodized (1290G-0050; NSN 4930-01-352-1660) or tan anodized (1290GS-0050; NSN 4930-01-352-1661) with ground wire assembly and kamlok coupler with dust plug; 1290GS-AR50 tan anodized without kamlok coupler and dust plug also available.

OVERWING AIRCRAFT FUELING

295AF - Special heavy-duty fueling nozzle with knurled spout & spout protector ring. Gov't Nat'l. Stock # 4930-01-293-4472. With Air Force ground wire, plug meets MS 25384-5.

295SA - AVGAS fueling nozzle with 1", 1¼" & 1½" threaded inlets available. **RED** composite lever guard denotes AVGAS. Complete with built-in swivel, ground wire assembly & dust cap.

295SAC - AVGAS fueling nozzle with 1¼" & 1½" threaded inlets available. Complete with built-in swivel, ground wire assembly, dust cap & check valve.

295SAJ - JET FUEL fueling nozzle with unique spout design to prevent cross-fueling. **BLACK** lever guard denotes JET FUEL. Available in 1½" threaded inlet with built-in swivel, dust cap and ground wire included.

HIGH-FLOW BULK FUELING

190 - Right angle design, dual poppets, replaceable hold-open rack. Available in 1", 1¼", 1½" & 2" threaded inlets.

210 - Right angle design, dual poppets, replaceable hold-open rack, dash pot to minimize line shock. Available in 1¼" & 1½" threaded inlets.

295SC - Right angle design, dual poppets, replaceable hold-open rack, adjustable dash pot to minimize line shock; built-in swivel and check valve. Available in 1¼" & 1½" threaded inlets.

GENERAL DUTY

311AG - Typically used for overhead, underground or skid-mounted tanks. Dual poppets, dash pot, 1" threaded inlets with a straight spout and larger lever guard to meet military specifications. Gov't. Nat'l. Stock #: 4930-01-318-6091.

811 - Typically used for general duty automotive applications (not an automatic shut-off nozzle) with a built-in check valve. Spout conforms to EPA 15/16" diameter leaded spout requirements. Can be ordered with 13/16" and 1½" spouts.

Super Nozzles

The Ideal Commercial Delivery Nozzles

- The leading choice for heavy product, high volume deliveries.
- Reduced pressure drop allows for faster pumping speeds.
- Prevents closing shock to prolong truck equipment life.
- Feature leak-proof filling and no-drip operation.
- Original ball valve design and deadbolt locking handle.



Inlet Style	Inlet Thread	Outlet Thread	Part #
5 P.S.I. FEMALE	1 1/2"	1 1/2"	05921
5 P.S.I. FEMALE	1 1/2"	2"	05922
5 P.S.I. FEMALE	2"	1 1/2"	05923
5 P.S.I. FEMALE	2"	2"	05924

Description	Part #
Seal kit, no swivel parts	05933
Rebuild kit, seals and mechanical parts, no swivel parts	05934

SCULFLOW NOZZLES



Inlet Style	Inlet Thread	Outlet Thread	Part #
FEMALE	1 1/4"	UNIFIL	05062
FEMALE	1 1/4"	1 1/4"	05066
FEMALE	1 1/4"	1 1/2"	05070
FEMALE	1 1/2"	UNIFIL	05064
FEMALE	1 1/2"	1 1/4"	05068
FEMALE	1 1/2"	1 1/2"	05072
MALE	1 1/4"	UNIFIL	05100
MALE	1 1/2"	UNIFIL	05106

All units listed have 3 P.S.I. anti-drip valves, call for 5 P.S.I. part numbers. All units listed include swivels.
NOTE: 1 1/4" nozzles fit 1 1/4" hoses. 1 1/2" nozzles fit 1 3/8" hoses.



04311 1 1/4"
04312 1 1/2"
04314 2"



04336 1 1/4"
04338 1 1/2"
04341 2"



04324 1 1/4"
04325 1 1/2"
04328 2"



04352 1 1/2"
04351 2"



04316



04334



04323 1 1/4" NPT
04327 1 1/2" NPT
04346 Scully Thread

Nozzle Tightfill Hose Swivels

Increased Hose Flexibility and Freedom of Movement

- Advanced ball bearing design allows for easy rotation at all operating pressures.
- No nipple required to attach hose with male style swivels.
- Lightweight aluminum and zinc construction.
- Teflon high recovery seal and shielded bearings for optimum field performance.
- Wide variety of liquid product use.



Male COM Swivels



Male Inlet Threads



Female Inlet Threads



Female COM Swivels

Inlet Style	Inlet Pipe Size	Male Outlet Thread	Part #
FEMALE	1 1/4"	COM-A	05815
FEMALE	1 1/4"	1 1/4"	05817
FEMALE	1 1/4"	1 1/2"	05818
FEMALE	1 1/2"	COM-A	05816
FEMALE	1 1/2"	1 1/4"	05819
FEMALE	1 1/2"	1 1/2"	05820
MALE	1 1/4"	COM-A	05865
MALE	1 1/4"	1 1/4"	05863
MALE	1 1/2"	COM-A	05868
MALE	1 1/2"	1 1/4"	05866
MALE	1 1/2"	1 1/2"	05867
FEMALE	1 1/2"	COM-B	05824
FEMALE	2"	COM-B	05826
FEMALE	2"	2" COM-B	05828
MALE	2"	COM-B	05862
MALE	2"	2" COM-B	05874

COM-A outlet thread screws directly into the Sculflow Nozzle body only.

COM-B outlet thread screws directly into the Super Nozzle body only.

Description	Part #
Seal kit, to repair two "A" series swivels for Sculflow Nozzle	05859
Seal kit, to repair two "B" series swivels for Super Nozzle	05860

HOW TO ORDER

1 1/2"

SWIVEL COUPLERS

2"



GTP-919-1
GTP-919BSP



GTP-1768
Dust Plug
with Chain



GTP-917-1
GTP-917BSP



TL-1652
Dust Plug
with Chain

ACTUATORS FOR GTP-919-1



Female
GTP-920-1 NPT
GTP-920-4 BSP



GTP-1428
Dust Cap
with Chain



Male
GTP-920-2 NPT
GTP-920-3 BSP



GTP-1534 Optional Strainer for all 1 1/2" actuators, except GTP-920-3S 24 x 110 mesh stainless steel.
If you want the strainer and actuator assembly, order GTP-1510



Male
GTP-920-3S BSP
Stainless Steel

MALE ACTUATORS FOR GTP-917-1



GTP-918-1 1 1/2" NPT
GTP-918-3 1 1/2" BSP



GTP-918-2 2" NPT
GTP-918-4 2" BSP



GTP-1653
Dust Cap
with Chain



IN STOCK ! CAN SHIP TODAY

PETRO CLEAR

CIM-TEK

DESCRIPTION

40510P	70010-300-10	3/4" FILTER 10 MICRON
40530P	70012-300-30	3/4" FILTER 30 MICRON
40510P-AD	70016-400-10	3/4" FILTER 10 MICRON
40530P-AD	70016-400-30	3/4" FILTER 30 MICRON
40910P	70003-250AE-10	3/4" FILTER 10 MICRON
40810P-DV	70002-200E-10	3/4" FILTER 10 MICRON W/DRAIN
40910PA	70005-250AE-10	1" FILTER 10 MICRON
40810PA-DV	70004-200AE-10	1" FILTER 10 MICRON W/DRAIN
40930P	70095-260-30	3/4" FILTER 30 MICRON
40930PA	70089-250AE-30	1" FILTER 30 MICRON
51110P	70019-800-10	1" FILTER 10 MICRON
51130P	70020-800-30	1" FILTER 30 MICRON
.75N1-12	50003-200H-3/4	3/4" X 3/4" X 3/4" FILTER BASE
1.00N1-12	50002-200H-1	1" X 3/4" X 1" FILTER BASE
1.00N1-3/8-12	50004-200AH	1" X 1" X 1" FILTER BASE
TV2	60001	2" PREVENT FILL CAP



EMERGENCY VENTS

244 Series



Fig. 244O



Fig. 244OM

244O-0100AV	4" EMERGENCY VENT FEMALE NPT 8 OZ
244O-0170AV	4" EMERGENCY VENT FEMALE NPT 16 OZ
244O-0200AV	6" EMERGENCY VENT FEMALE NPT 8 OZ
244O-0400AV	6" EMERGENCY VENT FEMALE NPT 16OZ
244OM-0100AV	4" EMERGENCY VENT MALE NPT 8 OZ
244OM-0170AV	4" EMERGENCY VENT MALE NPT 16 OZ
244OM-0200AV	6" EMERGENCY VENT MALE NPT 8OZ
244OM-0400AV	6" EMERGENCY VENT MALE NPT 16OZ



749-0100AV 2" PRESSURE VACUUM VENT
8 OZ FEMALE NPT
749-0200AV 2" PRESSURE VACUUM VENT
12 OZ FEMALE NPT



354-0100AV 1.5" UP DRAFT VENT
354-0200AV 2.0" UP DRAFT VENT
354-0300AV 3.0" UP DRAFT VENT
354-0400AV 4.0" UP DRAFT VENT



NOTE: FOR SLIP ON TYPE ADD AN S. EXAMPLE 155S-0100AV

155-0100AV 3/4" DOUBLE OUTLET VENT
155-0200AV 1" DOUBLE OUTLET VENT
155-0400AV 1 1/2" DOUBLE OUTLET VENT
155-0500AV 2" DOUBLE OUTLET VENT
155-0600AV 3" DOUBLE OUTLET VENT



179MCI-2100AC 2" CAP MALE NPT
179CI-21001C 2" CAP FEMALE NPT

633 & 699F

Barrel Faucet

Ball Valve Type... "ball valve type" (quarter turn) brass barrel faucet. Used on barrels and small utility tanks for low pressure or gravity flow operation. Lockable with a padlock.



633-05001F 1" X 1"



699F-04001F 3/4" X 3/4"

699F-05001F 1" X 1"

699F-0600AF 1" X 3/4"

474

Emergency Barrel Faucet

474-0100AV 1" X 3/4"

474-0200AV 1" X 1"

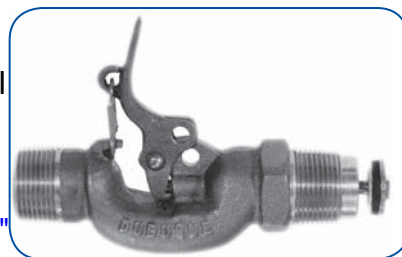


Size	Weight
1" x 3/4"	1.0 lbs
1" x 1"	1.0 lbs

574

Emergency Barrel Faucet

574-0100AV 1" X 1"



Size	Weight
1" M x 1" M	1.5 lbs

77

1/4" Expansion Relief Valve

Used on AST piping for relief of excessive pressure due to outside temperature rise. Valve allows product to return back to storage tank. Especially suited for existing pipeline and by-passing a valve that does not have expansion relief. Brass construction. Tube fittings are provided. Copper tubing is not supplied. 40 PSI pressure setting is approximate.

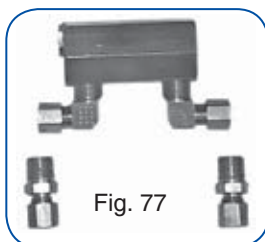


Fig. 77

Size	Weight
1/4"	.5 lbs

76DI & 78DI

1/2" Expansion Relief Valve

Used on AST piping for relief of excessive pressure. Valve allows product to return back to storage tank. Ductile iron construction.

Fig. 76DI...for **PRECISE** settings. Specify 25 or 50 PSI. Primarily for use with leak detection systems.

Fig 78DI...40 PSI = standard pressure setting. 25 and 100 PSI settings are available. Pressure settings are approximate.

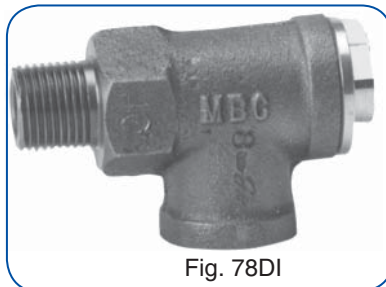


Fig. 78DI

Size	Weight
1/2"	0.75 lbs

516 Series



5 Gallon AST Spill Container

Installed on aboveground storage tanks for the purpose of containing small spills and drips from the fill nozzle. 5 gallon capacity. Steel construction. Lockable and white powder coat is standard. Black is also available. ULC listed.

Fig. 516...2" or 4". Female connection, no drain, centered.

Fig. 516D...2" or 4". Female connection, with drain, centered.

Fig. 516M...2" or 4". Male connection, no drain, centered.

Fig. 516MD...2" or 4". Male connection, with drain, centered.

Fig. 516MO...2" or 4". Male connection, no drain, offset.

Fig. 516MOD...2" or 4". Male connection, with drain, offset.

Fig. 516O...2" or 4". Female connection, no drain, offset.

Fig. 516OD...2" or 4". Male connection, with drain, offset.

Size	Weight
2" Female	17.0 lbs
4" Female	21.0 lbs
2" Male	17.0 lbs
4" Male	21.0 lbs



Fig. 516

517 Series

3½ Gallon AST Spill Container

Installed on aboveground storage tanks for the purpose of containing small spills and drips from the fill nozzle. 3½ gallon capacity. Steel construction. Lockable and white powder coated. ULC listed.

Fig. 517...spill containment. Male (NPT) x Male (NPT) connection.

Fig. 517F...spill containment. Female (NPT) x Female (NPT) connection.

Fig. 517WO...waste oil containment-Removable screen on inside of container so used filters, etc. can be allowed to drain. Male NPT riser connection.



Fig. 517



Size	Weight
2" (517, 517F, and 517WO)	10.5 lbs
4" (517, 517F, and 517WO)	11.0 lbs

518 Series

7½ Gallon AST Spill Container

Installed on aboveground storage tanks for the purpose of containing small spills and drips from the fill nozzle. 7½ gallon capacity. Lockable with drain valve and vented lid. Connects to 4" male (NPT) riser, and is white powder coated. Female NPT x Female NPT.

Fig. 518CC...same as 518 only with center tank mount opening.

Fig. 518M...2" or 4" Male. Offset only.



Fig. 518



Size	Weight
2"	20.0 lbs
4"	26.0 lbs

Construction Details

Body and lid (14 ga.)...steel
Drain Valve...brass
Drain O-ring...Vito

515 Series

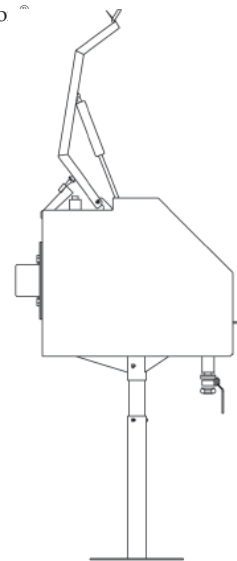
AST Remote Spill Container

For use on aboveground storage tanks for the purpose of containing fuel spillage during remote tank filling operations. 15 gallon capacity. 12 gauge steel construction. Lockable lid, and powder coated white for durability. 1" NPT drain with locking ball valve included. Choice of one or two fill ports, 2", 3", 4" or combination. 2" bung for pump. Only 2" and 3" are ULC Listed. Single column base is easily adjustable.

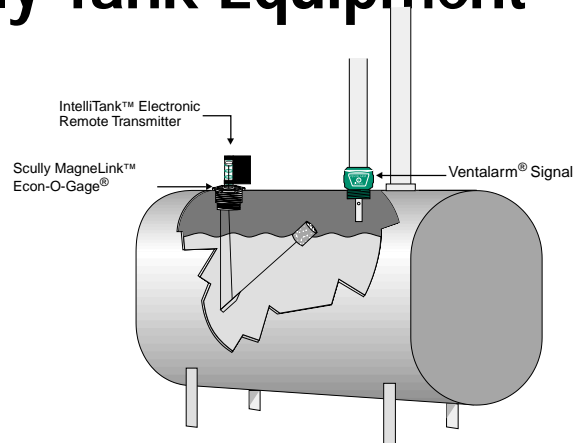
Fig. 515OEM...same as 515 but without the pedestal and no rear ports, with top fill openings and with 4, ½" weld taps on the back. The 515OEM is not ULC Listed.



Fig. 515



Scully Tank Equipment



Scully Tank Fill Signals

The Original Tank Fill Whistle Alarms

Scully tank fill signals are the original whistle-stops. They whistle when the tank is filling. When the whistle stops, the tank is full. The calibrated whistle stems allow for product expansion and may be cut for flat style tanks. A patented screen keeps the whistle chamber free from pipe scale and bugs. Scully fill alarms stop costly spills and prevent ruptured tanks while improving your delivery efficiency. They are completely reliable and accurate. A one time installation usually outlasts the life of the tank. Models are available for most every type of tank installation.

Ventalarm® Signals

The First and the Finest

- Since 1936! The original Ventalarm tank fill signal is built to last.
- Used for above and below ground tanks.
- Version for a 90° pipe elbow available.



Tank Opening	Vent Pipe	Model #	Part #
1 1/4"	1 1/4"	VS 201	00201
1 1/2"	1 1/2"	VS 202	00202
1 1/2"	1 1/4"	VS 240	00208
2"	1 1/4"	VS 521	00215
2"	1 1/2"	VS 530	00216
2"	2"	VS 270	00209
1 1/4" (90° Elbow)	1 1/4"	VS 230	00227
2"	1 1/2"	Cardinal Tank	00269
2"	2"	*16 1/2" - up to 2,000 gal.	00272
2"	2"	*21 3/4" - greater than 2,000 gal.	00274
2"	2"	For 275 gal. vertical and flat tanks	00275

* For cement vaulted tanks

285 Series

Line Strainers

Bottom Clean-Out... Y-type strainer used in pipelines to filter debris from flowing into and damaging equipment such as a pump or a meter. Strainer basket is removable for cleaning and/or replacement. Basket access is from the bottom.



Fig. 285



3" Fig. 285FDI



4" Fig. 285FDI

Fig. 285... cast iron body and cap, malleable iron yoke, 304 stainless strainer. 4" size available with 8, 14, or 100 mesh only. Threaded (NPT) connections.

Fig. 285AL... same as 285, but with aluminum body and cap, and stainless steel set screw and nut for yoke.

Fig. 285DI... same as 285, but with ductile iron body and cap.

3" Fig. 285FDI... same as 285, but with 150# raised-face flanged connections, ductile iron body and cap.

Companion flanges available, see Fig. 514.

4" Fig. 285FDI... same as 3" 285FDI, but with bolted clean-out cap. Companion flanges available, see Fig. 514.

Options/Weight

50 PSI operating pressure, except 4" 285FDI which is 125.

Specify mesh size when ordering:

Unless noted, all sizes in the 285 line strainer series are available with 6, 10, 20, 40, 60, 80 or 100 mesh stainless steel strainer.

Size	285 Weight (lbs)	285AL Weight (lbs)	285SS Weight (lbs)	285DI Weight (lbs)	285FDI Weight (lbs)
1½"	10.0	3.75	NA	NA	NA
2"	14.25	5.0	15.0	15.0	NA
3"	27.0	10.0	NA	27.5	41.0
4"	42.0	NA	NA	NA	93.0

286 Series

Line Strainers

Top Clean-Out... Y-type strainer used in pipelines to filter debris from flowing into and damaging equipment such as a pump or a meter. Strainer basket is removable for cleaning and/or replacement. Basket access is from the top. Fig. 286U is UL listed.



Fig. 286/286U



3" Fig. 286FDI



4" Fig. 286FDI

Construction Details

Fig. 286... cast iron body and cap, malleable iron yoke, 304 stainless strainer. Threaded (NPT) connections.

Fig. 286U... same as 286, but UL listed. 24 mesh strainer for No. 1 and 2 fuel oil. 14 mesh strainer for No. 4, 5 and 6 fuel oil.

3" Fig. 286FDI... same as 286, but with 150# raised-face flanged connections, ductile iron body and cap. Companion flanges available, see Fig. 514.

4" Fig. 286FDI... same as 3" 286FDI, but with bolted clean-out cap (no yoke). Companion flanges available, see Fig. 514.

Fig. 286 Options/Weight

50 PSI operating pressure, except 4" 286FDI which is 125.

Specify mesh size when ordering:

Unless noted, all sizes in the 286 line strainer series are available with 6, 10, 20, 40, 60, 80 or 100 mesh stainless steel strainer.

Size	286 Weight (lbs)	286U Weight (lbs)	286FDI Weight (lbs)
2"	17.25	17.25	NA
3"	38.0	NA	45.0
4"	NA	NA	93.0

Direct Reading Gauge—Type D



Part Number—
D-(size opening)-(tank depth)+(ext)-(list options)
Sample—D-2-48+12

What it is:

Top mounted liquid level gauge that can measure from 6 inches to 144 inches in depth. Bushing size can be 2", 1.5", or .75". Gauges are custom made in house to fit your tank. Can also accommodate for double walls and pipe risers.

Additional Options - Not included:

Audible Alarm Accessory: This add on feature can turn your mechanical gauge into an audible Hi or Lo level alarm.

LED At-A-Glance Accessory: Another add on feature. This can give your mechanical gauge remote reading capability.

Gauge Guard: A cover that protects the exposed plastic components on top of the gauge.

Replacement Parts -

D-Kit - Replaces all of the gauge components from the red lock nut and up. Includes: Red HDPE Plastic Nut, Duro Nitrile Gasket, Plastic Cellulose acetate inner and outer calibration.

DG-Kit-ALN - Replaces all of the gauge components from the red lock nut and up with upgraded parts. Includes: Aluminum Lock Nut, Duro Nitrile Gasket, Plastic Cellulose acetate outer calibration, Glass inner calibration.

Instructions for Operation:

This gauge is a simple volume reading tool. The top of the red indicator

The Therma Gauge—Type H



What it is:

Top mounted liquid level gauge that can measure from 6 inches to 144 inches in depth. Bushing size can be 2" or 1.5". Gauges are custom made in house to fit your tank. Can also accommodate for double walls and pipe risers. The Type H Gauge has a 2 piece bushing construction that allows you to aim your swing arm away from walls, corners, and other obstructions.

Additional Options - Not included:

Audible Alarm Accessory: This add on feature can turn your mechanical gauge into an audible Hi or Lo level alarm.

LED At-A-Glance Accessory: Another add on feature. This can give your mechanical gauge remote reading capability.

Gauge Guard: A cover that protects the exposed plastic components on top of the gauge.

Replacement Parts -

H-Kit - Replaces all of the gauge components from the red lock nut and up. Includes: Red HDPE Plastic Nut, Duro Nitrile Gasket, Plastic Cellulose acetate inner and outer calibration.

HG-Kit-ALN - Replaces all of the gauge components from the red lock nut and up with upgraded parts. Includes: Aluminum Lock Nut, Duro Nitrile Gasket, Plastic Cellulose acetate outer calibration, Glass inner calibration.

Instructions for Operation:

This gauge is a simple volume reading tool. The top of the red indicator

The Leak Gauge—Type K

Price Book Page 6

<http://www.ksentry.com/leak.htm>



Calibration: Consists of 3 pieces. Outer plastic piece, inner plastic piece, and a piece of paper in between. Optional glass inner piece is available.

Red Lock Nut: HDPE Plastic. Also available in aluminum or PVC.

Bushing: Aluminum bushing, can be 2", 1.5". Special package allows for a Stainless Steel Bushing also.

Internal Rods: Standard construction is aluminum rods. There are no other options for this gauge due to floatation.

76" and smaller Polypropylene Float
77" and taller Poly Coated Cork Float

Part Number—
K-(size opening)-(total length)-(list options)
Sample—K-2-48-Guard

What it is:

Top mounted liquid leak gauge that can measure from 6 inches to 170 inches in depth. Bushing size can be 2" or 1.5". Gauges are custom made in house to fit your tank. This gauge is designed to monitor either the interstitial space of a double wall containment system, or it can mount into an external monitoring pipe.

<http://www.ksentry.com/leak.htm>

Additional Options:

Audible Alarm Accessory: This add on feature can turn your mechanical visual gauge into an audible leak detection alarm. (*price book page 8*)
<http://www.ksentry.com/alarm.htm>

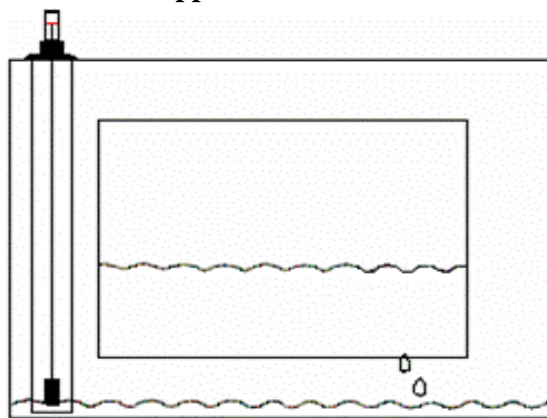
Gauge Guard: A cover that protects the exposed plastic components on top of the gauge. - <http://www.ksentry.com/replace.htm>

Material Choices and Limitations:

Standard choices are listed on picture to the left.

Due to floatation, this gauge does not have many material options. The leak gauge is rarely exposed to the liquid. If it is not compatible and it is exposed, the gauge must be replaced afterward.

Application Photo:



818 Series

Clock Gauge

Patent 5144836...for measuring liquid level in aboveground storage tanks. Gauge mounts on top of tank and is activated by a float connected to a cable. Readout is on a 12 hour clock face.

Small hand = feet or meters
Large hand = inches or centimeters. Gauge can be read 20-30 feet away to within $\frac{1}{8}$ ". Maximum measurement is 12 ft.

Fig. 818F...with female threads.

Fig. 818MET...with metric face.

Fig. 818MEF...with metric face and female threads.

Fig. 818MEB...with metric face and British pipe threads.

Fig. 818L...floating suction gauge. Indicates change in liquid level.



Fig. 818



Fig. 818MET

918 Series

Clock Gauge Alarm

Utilizes the Fig. 818 style clock gauge with a built-in high level warning alarm. Contains a battery powered, intrinsically safe, alarm unit that is mounted remote from gauge. Alarm is set for desired level during installation and can be reset at any time for a change in alarm level requirements. Patent Number 5144836 and 5649450.

Fig. 918F...with female threads.

Fig. 918MEB...with metric face and British pipe threads.

Fig. 918MET...with metric face.

Fig. 918MEF...with metric face and female threads.



Fig. 918MET

Construction Details

Body...aluminum with 2" NPT/BSP Male/Female connection
Float...stainless steel
Cable...stainless steel

Standard Features

1. Vapor tight construction.
2. Swivel 360° for desired orientation.
3. High level/low level decals for application on lens cover.
4. Standard float fits through a 2" schedule 40 pipe nipple.
5. Optional drop tube float fits through 2" schedule 40 and 80 pipe nipple and works with Fig. 419, 2" Morrison drop tube.

Options (must specify)

1. Metric face plate (range = 3 m, 60 cm).
2. Extension leader for extended mounting above the tank.

918TCP

Overfill Alarm

Provides an audible alarm for either a high or low level warning. Incorporates an alarm box and a single-point level sensor. Contains a battery powered, intrinsically safe, alarm unit that is mounted remote from gauge.

The single point level sensor is immersed in the tank through a 2" NPT Female opening and is supported by a nylon liquid tight cable connector, Teflon tubing and wire.

The high or low activation point is set at the factory. The order length should be equal to the distance from the top of the 2" tank opening to the desired activation level.

The low level activation point can be set up to 113". The interstitial monitor level can be set up to 113" as well. Available with either 0-53" probe or 53"-113" probe.



Fig.
918TCP

Construction Details

Gauge Unit...Fig. 818 clock gauge style (same standard and optional features). Fig. 918 gauge has alarm dial and internal switch. Alarm dial is accessible on the clock face. Electrical junction box and lead wires for remote mounting are also included.

Alarm Unit... Plastic weatherproof housing. 90 decibel high pitched "beep" cycle alarm. Features a push-button test switch. Powered by two 9 volt batteries (included). **Only alarm unit is UL Listed.**

Construction Details

Sensor...The single point level sensor is immersed in the tank through a 2" NPT female opening and is supported by a nylon liquid tight cable connector, Teflon tubing and wire.

Alarm Box... Weatherproof, intrinsically safe, 90 decibel alarm that operates on two 9-volt batteries. It features a membrane-type test/cancel button.

Only alarm box is UL Listed.

Float and Weight... Stainless steel.



MagneLink™ Econ-O-Gages®

The Low Priced Level Indicators

- Inexpensive and accurate level indicator.
- Large variety of sizes to fit most tanks.
- Leak-proof construction with non-rusting zinc casting.
- Dual bushing fits both 1½" and 2" tank openings.
- Communicates with the IntelliTank™ Electronic Automatic Fuel Reorder System.

Tank Depth	Model #	Part #
22" - 24"	EG 217	01424
26" - 27"	EG 216	01421
30"	EG 220	01434
37"	EG 218	01425
40"	EG 221	01435
42" - 44"	EG 215	01422
47" - 48"	EG 222	01436
64"	EG 223	01439
Replacement Vial and Gasket	ALL	10159
ULC Listed Vial and Gasket	ALL	11825



MagneLink™ Snorkel® Gauges

The Level Indicators with a Floating Burner Feed Line

- Takes clean, dry fuel from 1" below the surface.
- Ends ice and sludge clogged fuel lines - pays for itself when just one service call is eliminated.
- Provides a return line opening.
- Ideal for mobile homes and other low burner firing rates.
- Two piece assembly makes installation easier.
- One unit fits both 1½" and 2" tank openings.
- Communicates with the IntelliTank™ Electronic Automatic Fuel Reorder System.

Tank Depth	Model #	Part #
26" - 27"	TS 121	01415
42" - 44"	TS 120	01416
Replacement Tube	27"	10544
Replacement Tube	44"	10543
Replacement Vial and Gasket	ALL	10159
ULC Listed Vial and Gasket	ALL	11825



SCULLY GOLDEN GALLON GAUGES

IN STOCK CAN SHIP TODAY

READS IN GALLONS

Model Size	Part #
158 gallon-Highland, 60" depth	03173
192 gallon-Highland, 72" depth	03174
245 gallon, 48" depth	03177
270 gallon, 36" depth	03162
275 gallon, 44" depth	03101
275 gallon, 42" depth	03102
275 gallon, 27" depth	03105
300 gallon, 60" depth	03175
325 gallon, 39" - 43" depth	03163
330 gallon, 43" depth	03157
500 gallon, 26" depth w/ 11 ¹ / ₄ " ext.*	03180
500 gallon, 65" depth	03176

Model Size	Part #
520 gallon, 48" depth	03158
550 gallon-Twin 275s, 44" depth	03171
560 gallon, 48" depth	03159
1,000 gallon, 36" depth w/ 11 ¹ / ₄ " ext.*	03179
1,000 gallon, 48" depth	03160
1,000 gallon, 49.5" depth w/ 14 ¹ / ₂ " ext.*	03195
1,000 gallon, 50" depth w/ 11 ¹ / ₄ " ext.*	03184
1,000 gallon, 60" - 64" depth	03161
1,000 gallon, 47" depth w/ 11 ¹ / ₄ " ext.*	03191
2,000 gallon, 60" - 64" depth	03165
2,000 gallon, 48" depth w/ 11 ¹ / ₄ " ext.*	03193

READS IN INCHES

Model Size	Part #
22" depth	03130
24" depth	03129
30" depth	03126
32" depth	03125
34" depth	03124
36" depth, w/11 ¹ / ₄ " ext.* Convault D500 and 1000	03207
36" depth	03123
36" depth, 16th inch increments	03178
38" depth	03122
40" depth	03121
42" depth	03120
44" depth	03119
46" depth	03118

Model Size	Part #
47" depth	03144
48" depth	03117
50" depth	03116
52" depth	03115
54" depth	03114
56" depth	03113
60" depth	03111
60" depth w/ 6" extension	03146
60" depth w/ 4" extension	03145
62" depth	03186
64" depth	03187
66" depth	03188
70" depth	03190
72" depth	03139
108" depth	03197

4" API BOTTOM LOADING VALVES



5204 B/L VALVE
5204 NG B/L VALVE NO SIGHT GLASS



5204SFI B/L VALVE



880-500-03 B/L VALVE



880-500-02 B/L VALVE



880-500-04 B/L VALVE



5204LNG B/L VALVE NO SIGHT GLASS
5204L B/L VALVE WITH SIGHT GLASS

API Dust Caps



Part #	Description
F499	aluminum API cap with flat gasket
5000-25	nylon API cap with flat gasket, pad lockable arm
NEW 5205	aluminum API cap with quick release arm and chain



API Bottom Loading Valves

FEATURES AND BENEFITS

An API adaptor with a one-piece body, hard anodised indexable nose ring, flat bottom and product indicator. These valves set the standard in terms of design features and build quality, against which others will be judged.

- **Hard anodised replaceable nose ring** that can be indexed through four positions for extended life.
- **Flat bottom of valve body** to ensure complete product drainage and minimised contamination.
- **Product sight glass** fitted at lowest point of valve for visual check of product in pipe-work.
- **Two-stage fixed aluminium handle** gives positive indication of valve position.
- **Conforms to API RP1004** for total compatibility with API couplers.
- **Lightweight** die cast aluminium construction for increased payloads with strength.
- **Viton seals** are standard for compatibility with high-octane fuels and additives.
- **Hydrodynamic design** minimises pressure drop for high flow rates.
- **Stainless steel operating shaft, cam and poppet stem** for durability.
- **Top mounting** for hose interlock.



Replaceable
and indexable
hard anodised
nose ring

WEIGHT:
4.45 kg

APPROVALS:

- API RP1004
- CEN

When specifying Openable API Adaptors for your vehicle, the following points should be considered:

- F5002-041 Openable with sight glass.
- F5000-001 Non-Openable no sight glass
- F5001-001 Openable no sight glass

F5002-041



F5000-001



F5001-001



API ADAPTORS



861



Features

- High flow API adaptor with flat bottom for reduced product retention
- Light weight aluminum handle comes standard on all Civacon API Heads
- Super smooth lever action
- Innovated design for high flow and reduced product retention
- Precision manufactured for long dependable operation
- Quick strip for fast service turnaround, poppet seal replaced with valve mounted on the tank
- Lightweight with incredible strength
- Stainless Steel internals for strength and durability
- Conforms to API 1004 and EN13083
- Compatible with diesel, biodiesel, gasoline, ethanol and methanol

API Adaptor with Handle

891A	API Adaptor with Aluminum Handle, two-piece design, hard coated nose piece
891BA	API Adaptor with Aluminum Handle and sight glass, two-piece design, hard coated nose piece
861	API Adapter with Aluminum Handle, two-piece design.

API Adaptor without Handle

891N	API Adaptor non-openable, two-piece design, hard coated nose piece
891NB	API Adaptor non-openable with sight glass, two-piece design, hard coated nose piece

API ADAPTORS

F0552

API ADAPTOR 'Y' VALVE

FEATURES & BENEFITS

An API adaptor 'Y' Valve is designed for high speed unloading. This valve is truly one of a kind eliminating fabricated 'Y's', which increase pressure drop during loading and lower flow rates at unloading.

- **Viton® seals** are standard for compatibility with high-octane fuels and additives
- **All running surfaces are bushed** for smooth operation and extended life
- **Hard anodized** replaceable API nose piece
- **Flat bottom** of valve body ensures complete product drainage and minimizes contamination
- **Three Stage** coated cast iron lever
- **Conforms to API RP1004** for total compatibility with API couplers
- **Lightweight two piece cast aluminum** construction for increased payloads with strength
- **Hydrodynamic design** minimizes pressure drop for high flow rates
- **Stainless steel** operating shaft for corrosion resistance
- **Top mounting** for hose interlock
- **Mounting flange** meets 4" TTMA specification
- **Polished API Dust Cap** Included as standard



SPECIFY "EMCO WHEATON" FOR THE HIGHEST FLOW

OPTIONAL ACCESSORIES



F0557 OUTLET FLANGE ADAPTOR

- **Connects** to 4" TTMA discharge flange
- **Allows** use of Cam & Groove coupler and hose to unload tank compartment
- **Solid aluminum** construction
- **Outlet** options: 3" or 4" Cam & Groove

Tank Truck Flanged Sight Flow Indicators



Part #	Description
5200-SFI	4" TTMA Sight Flow Indicator
5200-SFI-3	3" TTMA Sight Flow Indicator



Part #	Description
400-SFI-AL	4" TTMA Sight Flow Indicator
3 1/4" Wide	



Part #	Description
TTF40SG	4" TTMA Sight Flow Indicator
1 3/4" Wide	

TTMA Series Flange Adapters



TTF4AL-4MT



TTF4AL-4EMT



TTF4AL-4FT

Part #	Description
TTF3AL-3MT	3" TTMA flange, 3" male NPT thread
TTF4AL-3EMT	4" TTMA flange, 3" male NPT extended length
TTF4AL-3FT	4" TTMA flange, 3" female NPT
TTF4AL-3MT	4" TTMA flange, 3" male NPT thread
TTF4AL-4EMT	4" TTMA flange, 4" male NPT extended length
TTF4AL-4FT	4" TTMA flange, 4" female NPT
TTF4AL-4MT	4" TTMA flange, 4" male NPT thread
TTF4ALHC-3MT	4" TTMA flange, 3" male NPT thread, hardcoated
TTF4ALHC-4MT	4" TTMA flange, 4" male NPT thread, hardcoated

Gravity Drop Adapters



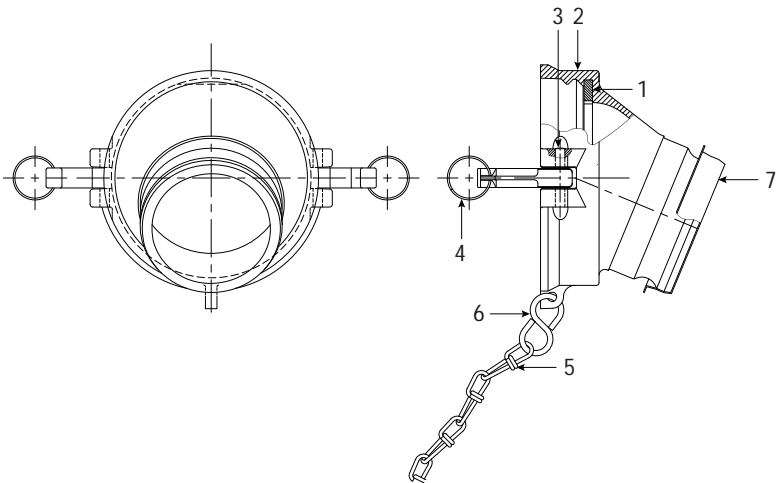
880-411-01



880-330-01

- 880-411-01
- 880-410-01
- 880-330-01
- 4" X 4" API REDUCER ADAPTER OULET 4" MALE ADAPTER
- 4" X 3" API REDUCER ADAPTER OULET 3" MALE ADAPTER
- 4 "X 4" API REDUCER ADAPTER OULET 4" FEMALE COUPLER

Male Gravity Drop Adapter Part List



#	Part Name	Part Number	#	Part Name	Part Number
1	Rubber Gasket	880-206-01	5	Double Loop Chain	880-115-02
2	4" Drop Adapter - Body Only	880-412-01	6	S-Hook	11110-01
3	Groove Pin	11125-07	7	Protective Closure	11065-08
4	Cam Arm & Pull Ring Assembly	774-116-03		3" Drop Adapter - Body Only	880-413-01

Part Number	Description
880-410-01	3" Male Cam & Groove
880-411-01	4" Male Cam & Groove
880-206-01	Gasket - API End

Air Interlock Valves

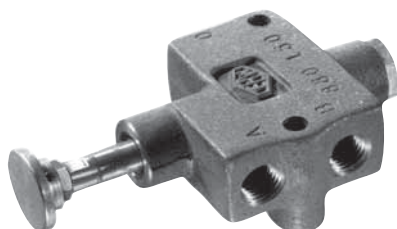


Three-Way Air Valves

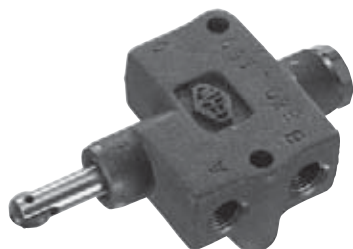
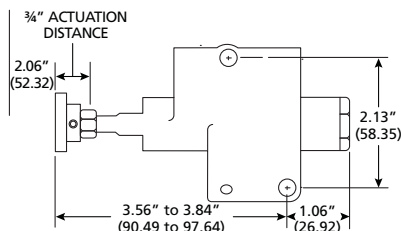
Play it safe with this lightweight valve that locks up the brakes on the trailer, preventing it from leaving the loading rack while connected to the loading arm. This three-way air valve can be used normally open or normally closed, has an adjustable stem, and comes with standardized TTMA and API mounting holes. The anodized aluminum valve is used on all API bottom loading adapters and all Vapor Check Valves.

Advantages

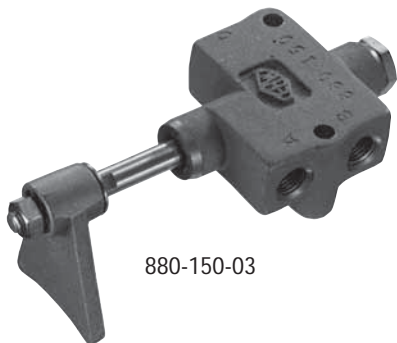
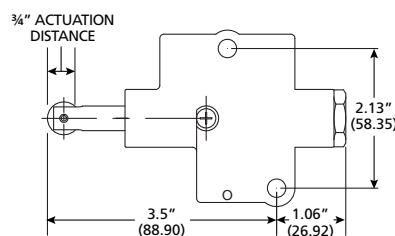
- Heat-treated, anodized aluminum construction.
- 1/4" NPT connection ports.
- Field serviceable.
- Adjustable stem button.



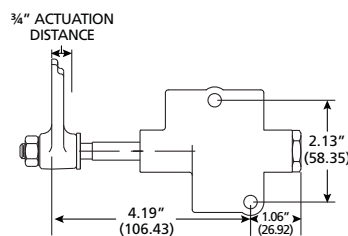
880-150-01



880-150-02



880-150-03



Model Unit	880-150-01	880-150-02	880-150-03
Width (Inches/Millimeters)	3.00/76.2	3.00/76.2	3.00/76.2
Length (Inches/Millimeters)	4.25/107.96	4.25/107.96	4.25/107.95
Pounds	0.69	0.69	0.69
Kilograms	0.31	0.31	0.31

Air Interlocks



100 Civacon



3419-0099 Schrader



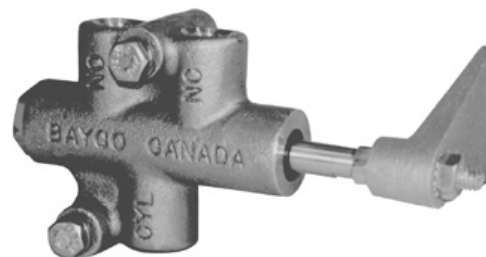
5000AI Bayco



5000AIR Bayco



5000AIS Bayco



5000AIV Bayco

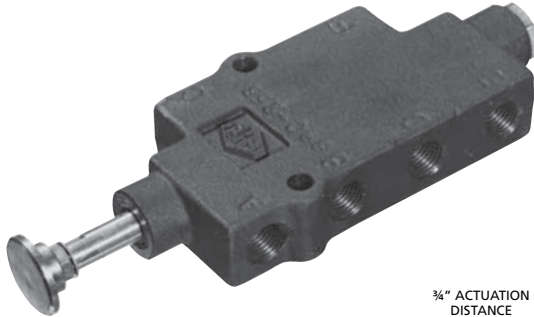
Air Interlock Valves



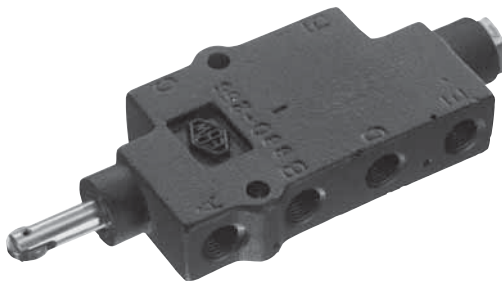
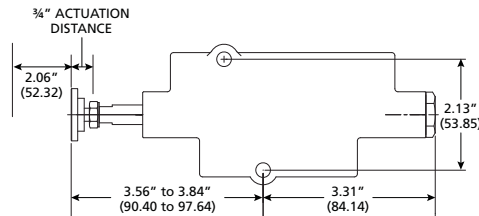
Six-Way Air Valves

These air interlock valves were designed to operate two different air systems at the same time. The lightweight valves are designed to lock the trailer brakes and open the air operated vapor valve at the same time. These six-way air valves can be used in the normally open (N/O) and normally closed (N/C) configurations of N/O, N/C, or N/O, N/O, or N/C, N/C positions. They have an adjustable stem and come standard with TTMA and API mounting holes.

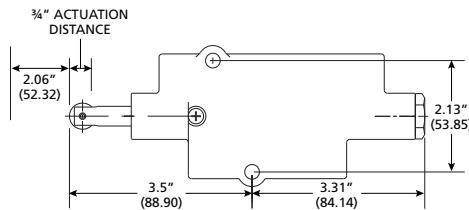
- Heat-treated, anodized aluminum construction.
- 1/4" NPT connection ports.
- Field serviceable.
- Adjustable stem button.



880-256-01

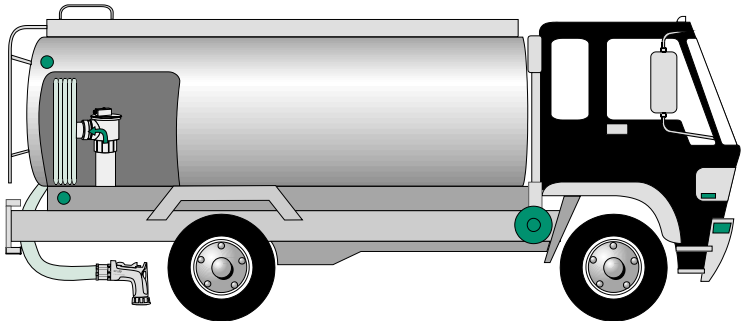


880-256-02



Model Unit	880-256-01	880-256-02
Width (Inches/Millimeters)	3.00/76.2	3.00/76.2
Pounds	0.69	0.69
Kilograms	0.31	0.31

Sculmatic® Vehicle Pumping System



Provides Optimum Speed and Delivery Control

The Sculmatic® system allows you to control the pumping speeds from your Sculflow or Super Nozzle. The system consists of a Mark IV® Angle Check Valve and a throttle actuator.

With the Sculmatic system, the truck engine is left idling until the driver opens the nozzle to begin delivery. The initial flow or idling pumping rate operates the Mark IV which triggers the throttle actuator. This increases the engine speed to the preset pumping rate for the balance of the delivery. When the driver closes the nozzle, the Mark IV senses a cessation of flow and releases the throttle actuator. This returns the engine to idle speed. The action is nearly instantaneous.

The Sculmatic system gives you complete control of your delivery operation while providing optimum pumping speeds. Scully also manufactures individual pumping control components for vehicles with limited pumping applications.

Mark IV® Flow Switch Angle Check Valve

Automatic Flow Control

- Pumping rate is controlled from the nozzle to permit high pumping speeds and delivery control.
- Check valve required by weights and measures.
- Flow control switch and check valve combined in one unit.
- Reduces hose pressure at idled speed and eliminates damaging surge and shock pressures.
- Available with electric or air switch.*
- Prevents hose reel movement.



Inlet	Outlet	Switch	Model #	Part #
2" FEMALE	2" GROOVED	ELECTRIC	SM 1000	06818
2" FEMALE	2" GROOVED	AIR	SM 1100	06817

Inlet	Outlet	Model #	Part #
2" NPT	2" GROOVED	SM 1200	06819

NOTE: The angle check valve can be modified to perform additionally as a flow switch. The unit has a 1/4" tapping on the inlet side for a pressure gauge or other use. It also has a hose pressure bleed valve as explained in the Mark IV specifications.

Specifications

- 1/4" Gauge port.
- Less than 3 P.S.I. pressure drop at 100 G.P.M.
- 1.5 P.S.I. cracking pressure at zero flow.





4" SUMP X TTMA
4" SUMP X VICTAULIC

F7001-041



F7000-041



F7011-041



F7010-041



EMERGENCY VALVES

880-4301-01 4" X 4" VICTAULIC OUTLET



880-431-01 4" X 4" TTMA OUTLET



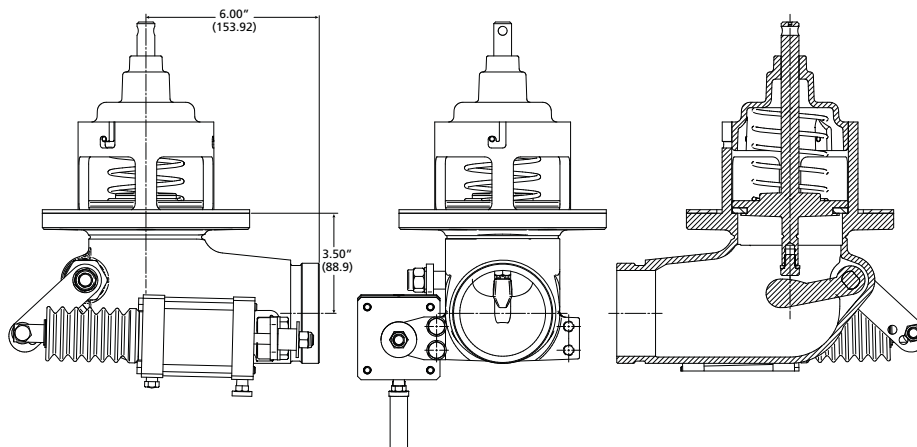
880-433-01 4" X 4" FLANGED OUTLET AIR OPERATED



880-432-01 4" X 4" VICTAULIC OUTLET AIR OPERATED



880-449-01 3" X 3" VICTAULIC OUTLET MECHANICAL
880-456-01 3" X 3" VICTAULIC OUTLET AIR OPERATED



603 Manual Series

Emergency Valves

For Tank Trucks... External shear section is provided on each valve. Valve is supplied with a U-bolt type cable clamp on the handle. Fusible metal plate (250° F) is equipped on each valve. Optional plunger bale available.

Fig. 603ALC... male adapter outlet with inlet screen. Available with dust cap and without.

Fig. 603ALV... elbow style valve with victaulic outlet. Aluminum body and cap, stainless steel spring, Buna-N disc. Teflon® and Viton® options available.

Fig. 603ATV... same as 603ALV, but "tee-style" valve with victaulic connections. Teflon® not available.

Fig. 603ALF... same as 603ALV, but with flanged outlet for 2", 3" and 4".

Fig. 603C... outlet companion flanges. Aluminum, TTMA flanges with optional gaskets.

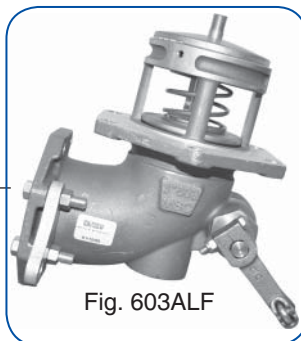


Fig. 603ALF



Fig. 603ALV



Fig. 603ATV



Fig. 603C



Fig. 603ALC

Options/Weight

2", 3" and 4" inlet screen available and sold separately.

Size	603ALV Weight (lbs)	603ATV Weight (lbs)	603ALF Weight (lbs)	603C Weight (lbs)	603ALC Weight (lbs)
2"	7.75	NA	7.75	NA	7.50
3" (3 x 3)	8.25	7.75	8.25	1.5	NA
4" x 4"	NA	NA	12.5	1.75	NA

603 Air Actuated Series

Emergency Valves

For Tank Trucks... Fits standard TTMA Sump. 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. Viton cylinder sleeve seals. 1/8" NPT air ports. 212° fusible port supplied. Body casting made from Aluminum. Quick exhaust fitting optional.

Fig. 603AAF... flanged. Available with Buna, Teflon® or Viton.

Fig. 603AAV... victaulic. Available with Buna, Teflon® or Viton.



4" Flanged



3" Flanged

Options

3" and 4" inlet screen available and sold separately.

Size	603AAF Weight (lbs)	603AAV Weight (lbs)
3"	6.7	7.2
4"	12.0	NA

CivaControl™ Air System

Take Control of Your Entire Tank System During Loading and Unloading

Fail Safe Operation

Our CivaControl Air System will provide a simple Control for the entire tank system during loading and unloading. CivaControl Air Systems bring together the control of Compartment Vents, Vapor Recovery Valves, Internal Valves, Overfill Detection and Vehicle Drive Away systems.

Tank Protection

Fully-sequenced operation ensures the tank can only be loaded or unloaded when the truck is in a totally ready condition.

Purpose Built

Specifically-designed, unique-function, heavy-duty pneumatic control valves ensures reliable performance in extreme operating conditions.

- Temperature range (-40° F to 150° F).
- Robust controls are ergonomically positioned for ease of operation.
- Available for tanks with 1 to 12 compartments.



CCP-1 used as a Load Valve to release the Guard Bar Lock over APIs. Pop-Up confirms Vapor Vents are "open."



Easy to Install

All valves are conveniently pre-mounted on a stainless steel panel for easy mounting in a central location.

Versatile

CivaControl Air Systems control the full spectrum of tank truck and tank trailer functions. Whether installed on petroleum transport trailers or tank trucks equipped with Civacon Manifolds, you're always in complete control. Conveniently mounted air pressure gauge and visual indicator advise the readiness of the system.

CivaControl Ordering Information

Number of Compartments	Part Number	Panel Length 'L'
1	CCP-1	4.5" Square
2	CCP-2	12.0"
3	CCP-3	12.0"
4	CCP-4	12.0"
5	CCP-5	12.0"
6	CCP-6	13.8"
7	CCP-7	17.2"
8	CCP-8	17.2"
9+	Consult Factory	

NOTE: CCP-1 has no Pressure Gauge.

Our Air Internal Valves set the standard for real world performance—maximum flow characteristics and the rugged reliability, with minimal maintenance, you expect from Civacon equipment.

Features

- Unique integrated design moves the mounting of the piston inside tank creating less wear, while reducing exposure to the environment.
- No moving parts in the flow path for superior flow rates, faster drops and maximum profits —Matches the performance of the costly 6" valve.
- Exclusive TSS™ triple seal system protects piston to deliver maximum reliability, minimal maintenance.
- Valve opens fully every time for faster product delivery.
- Cold climate field tested and rated at -40°F, plus 100,000 cycle testing assures real world reliability and maximum value.
- Pneumatic override allows for the valve to be opened in the event of pressure loss.
- Mounts to a standard 4" TTMA sump.
- Available in a variety of configurations for standard compatibility and easy installation.

VA5112
Mechanical Internal Valve



VA1050



VA6162

VA7162

Ordering Specifications

Air Internal Valve

VA5162	90° Elbow/Victaulic/TFE-O-Sil® Seat
VA6162	90° Elbow/Flanged/TFE-O-Sil® Seat
VA7162	Straight/Victaulic/TFE-O-Sil® Seat
VA8162	Straight/Flanged/TFE-O-Sil® Seat

3" Model Available

VA1050	90 Elbow/Victaulic/Viton GF Seat
VA2050	90 Elbow/Flanged/Viton GF Seat

- Pneumatic actuation can be “single acting” or “sequential”.
- Slotted tank flange to ease installation.
- Valve opens fully every time for faster product deliver.
- Cold climate field tested and rated at -40°F, plus 100,000 cycle testing assures real world reliability and maximum value.

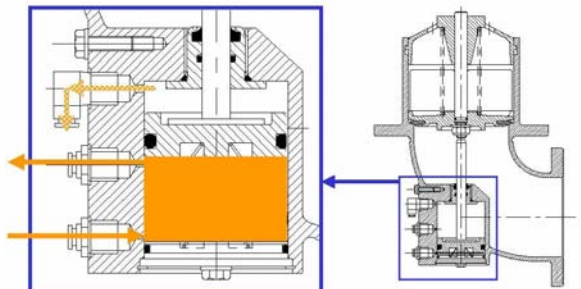
EMERGENCY VALVES

5" X 4" 90° HIGH FLOW AIR OPERATED E/V

FEATURES & BENEFITS

Low pressure drop, compact body, internal air cylinder, sequenced operation durability and stringent quality control ensure that this emergency valve offers a long and trouble free life.

- **Sequenced air cylinder** provides for positive open/closed indication
- **High quality** die cast body and component materials to international standards are used for durability and performance
- **Lightweight** aluminum construction for increased payloads
- **Stainless Steel** component parts
- **External shear groove** meets TTMA and NTTC DOT 406 to limit product spillage in the event of an accident
- **Closure** by self-centering plunger and durable stainless steel compression spring
- **Removable** cap enables seal change without removing valve from the tank truck
- **Parts** common to other valves in our range to minimize spares inventory
- **Manual** opening device for discharge of cargo in the event of an air failure
- **Hydrodynamic** body design minimizes pressure drop to give high flow rate
- **Viton® seals** are standard for compatibility with high-octane fuels and additives
- **Easy servicing** allows the air cylinder piston assembly to be replaced without removing the valve from the tank pipe-work
- **1/4" NPT** air ports



F7021-241

FLANGE X VICTAULIC



F7020-241

FLANGE X FLANGE

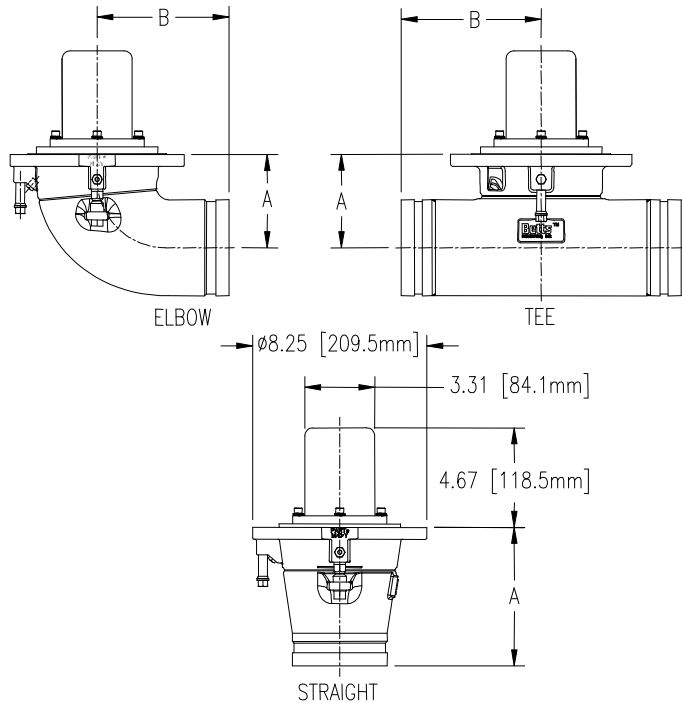


Emergency Valve

4" Aluminum Internal Air

INTERNAL AIR

Betts internal air emergency valve meets the requirements of an internal self-closing stop valve. Body is constructed of aluminum and incorporates a shear section that satisfies 49CFR178.345-8 tested per TTMA RP 84. The 1/8" NPT air inlet fitting separates with shear section to dump air pressure and insure the valve closes in case of an under-ride accident. Fusible plug installed in valve to dump air pressure if temperatures exceed 212°F.^{††} Valves are designed and manufactured to use Teflon[®] encapsulated seals for compatibility with a wide range of products. Other seal options are also available. Internal air cylinder saves space on exterior of valve providing maximum clearance for piping. Air cylinder is hard-coated with hard-anodized shaft. Valves are equipped with a stainless steel jackscrew that allows for manual operation of the valve in case of an air system failure. Rated 140 psi minimum burst pressure.



See section 30 Page 13B for 4" parts list.

Size	Assembly No.	Inlet Flange (4" Sump)		Outlet (4" TTMA)		Dimensions		Wt.	F _b -max Per TTMA RP86	Valve MAWP * Based on max tank pressure valve can open against w/ given air line pressure.
		B.C	8 Holes	B.C.	8 Holes	A	B			
4" Straight Grooved	EV46909ALTS	7.25" [184 mm]	.563" Dia. [14.3 mm]	4" GROOVED O.D. 4.5" [114.3 mm]		6.50" [165 mm]	N.A.	8.0 lb. [3.6 kg]	24,000 lb. [10,886 kg]	18 psi w/ 80 psi air line pressure
4" Straight Flanged	EV46910ALTS			5.88" [149 mm]	.438" Dia. [11.1 mm]	6.50" [165 mm]	N.A.	8.5 lb. [3.9 kg]		
4" Elbow Grooved	EV46911ALTS	7.25" [184 mm]	.563" Dia. [14.3 mm]	4" GROOVED O.D. 4.5" [114.3 mm]		4.38" [111.3 mm]	6.25" [158.8 mm]	8.7 lb. [4.0 kg]	44,400 lb. [20,140 kg]	25 psi w/ 100 psi air line pressure
4" Elbow Flanged	EV46912ALTS			4.88" [149 mm]	.438" Dia. [11.1 mm]	4.38" [111.3 mm]	5.00" [127.0 mm]	9.0 lb. [4.1 kg]		
4" Tee Grooved	EV46991ALTS	7.25" [184 mm]	.563" Dia. [14.3 mm]	4" GROOVED O.D. 4.5" [114.3 mm]		4.38" [111.3 mm]	6.63" [168.4 mm]	10.5 lb. [4.8 kg]	32,000 lb. [14,515 kg]	35 psi w/ 135 psi air line pressure
4" Tee Flanged	EV46992ALTS			4.88" [149 mm]	.438" Dia. [11.1 mm]	4.38" [111.3 mm]	5.13" [130.3 mm]	10.8 lb. [4.9 kg]		

* Values shown are test values. Actual values may vary due to service conditions.

** Last two letters of part number designate seal material. See material table at right for seal options.

†† Fusible plug melts at 212°F [100°C]. If valve is subject to higher temperatures, the fusible plug must be relocated to isolate fusible from heat.

CAUTION: Valve must be properly installed and maintained. Never bottom load through emergency valve without first opening valve. Failure to do so may result in damage to the tank and/or valve.

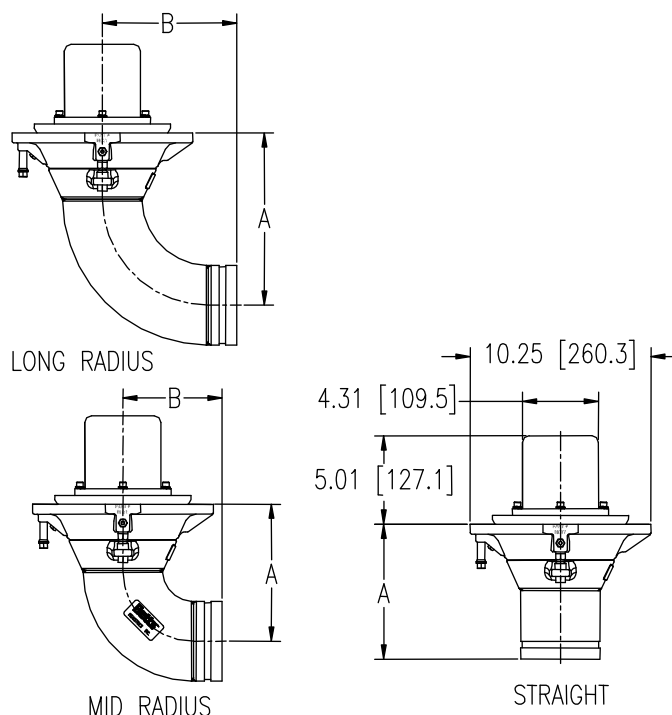
Part # Suffix	Description	Valve Temp. Range * ††
TS	Teflon product contact seals, nitrile interior seals, and polyurethane air piston seal.	-40°F to +220°F [-40°C to 104°C]
TS030	Teflon product contact seals, FKM "A" interior seals.	-20°F to +400°F [-29°C to 204°C]
TS038	Teflon product contact seals, fluorosilicone interior seals, and polyurethane air piston seal.	-50°F to +220°F [-45°C to 104°C]
VB	FKM "BLT" product contact seals w/ polyurethane air piston seal.	-20°F to +220°F [-29°C to 104°C]
VF	FKM "GFLT-s" product contact seals w/ polyurethane air piston seal.	-20°F to +220°F [-29°C to 104°C]

Emergency Valve

INTERNAL AIR

6" x 4" Aluminum Internal Air, with 4" Air cylinder

Betts internal air emergency valve meets the requirements of an internal self-closing stop valve. Body is constructed of aluminum and incorporates a shear section that satisfies 49CFR178.345-8 tested per TTMA RP 84. The 1/8" NPT air inlet fitting separates with shear section to dump air pressure and insure the valve closes in case of an under-ride accident. Fusible plug installed in valve to dump air pressure if temperatures exceed 212°F.[†] Valves are designed and manufactured to use Teflon[®] encapsulated seals for compatibility with a wide range of products. Other seal options are also available. Internal air cylinder saves space on exterior of valve providing maximum clearance for piping. 4" hard-coated air cylinder provides greater opening force than 3" version. Valves are equipped with a stainless steel jackscrew that allows for manual operation of the valve in case of an air system failure. Rated 140 psi minimum burst pressure.



See section 30 Page 14B for 6"x4" parts list.

Size	Assembly No.	Inlet Flange (6" Sump)		Outlet (4" TTMA)		Dimensions		Wt.	F _{b-max} Per TTMA RP86	Valve MAWP * Based on max tank pressure valve can open against w/ given air line pressure.
		B.C	12 Holes	B.C.	8 Holes	A	B			
6"x4" Straight Grooved	EV46913ALTS	9.25" [235 mm]	.563" Dia. [14.3 mm]	4" GROOVED O.D. 4.5" [114.3 mm]		7.63" [194 mm]	N.A.	14 lb. [6.4 kg]	22,900 lb. [10,387 kg]	21 psi w/ 80 psi air line pressure 25 psi w/ 100 psi air line pressure
6"x4" Straight Flanged	EV46914ALTS			5.88" [149 mm] .438" Dia. [11.1 mm]		7.25" [184 mm]	N.A.	14 lb. [6.4 kg]		
6"x4" long Rad. Elbow Grooved	EV46923ALTS	9.25" [235 mm]	.563" Dia. [14.3 mm]	4" GROOVED O.D. 4.5" [114.3 mm]		9.75" [248 mm]	8.13" [207 mm]	16 lb. [7.3 kg]	16,600 lb. [7,530 kg]	
6"x4" long Rad. Elbow Flanged	EV46924ALTS			5.88" [149 mm] .438" Dia. [11.1 mm]		9.75" [248 mm]	6.75" [171 mm]	16 lb. [7.3 kg]		
6"x4" mid Rad. Elbow Grooved	EV46943ALTS	9.25" [235 mm]	.563" Dia. [14.3 mm]	4" GROOVED O.D. 4.5" [114.3 mm]		7.75" [197 mm]	5.62" [143 mm]	15 lb. [6.8 kg]	22,300 lb [10,115 kg]	
6"x4" mid Rad. Elbow Flanged	EV46944ALTS			5.88" [149 mm] .438" Dia. [11.1 mm]		7.75" [197 mm]	6.22" [158mm]	15 lb. [6.8 kg]		

* Values shown are test values. Actual values may vary due to service conditions.

** Last two letters of part number designate seal material as shown on table to right.

†† Fusible plug melts at 212°F [100°C]. If valve is subject to higher temperatures, the fusible plug must be relocated to isolate fusible from heat.

CAUTION: Valve must be properly installed and maintained. Never bottom load through emergency valve without first opening valve. Failure to do so may result in damage to the tank and/or valve.

Part # Suffix	Description	Valve Temp. Range * ††
TS	Teflon product contact seals, nitrile interior seals, and polyurethane air piston seal.	-40°F to +220°F [-40°C to 104°C]
TS030	Teflon product contact seals, FKM "A" interior seals.	-20°F to +400°F [-29°C to 204°C]
TS038	Teflon product contact seals, fluorosilicone interior seals, and polyurethane air piston seal.	-50°F to +220°F [-45°C to 104°C]
VB	FKM "BLT" product contact seals w/ polyurethane air piston seal.	-20°F to +220°F [-29°C to 104°C]
VF	FKM "GFLT-s" product contact seals w/ polyurethane air piston seal.	-20°F to +220°F [-29°C to 104°C]

PRODUCT DROP ELBOWS

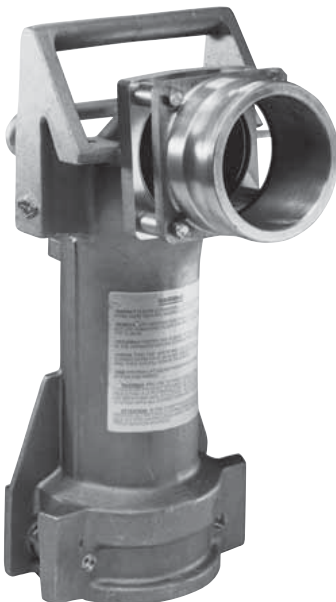
60TT 4" DROP ELBOW
60TTT 4" TALL DROP ELBOW



6500A 4" DROP AUTO LOCKING
6500XA 4" TALL DROP AUTO LOCKING



880-455-01 4" DROP ELBOW

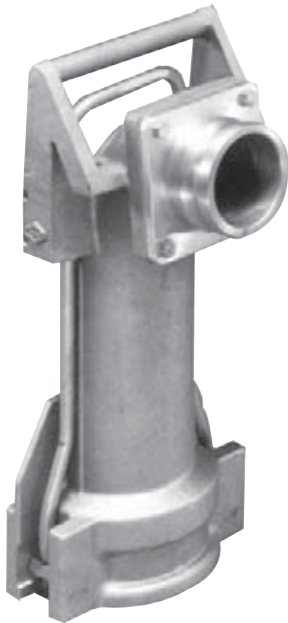


880-493-01 4" TALL DROP ELBOW



VAPOR RECOVER ELBOW

880-465-01 V/R ELBOW



1711VL V/R ELBOW



VR6100 V/R ELBOW



VR6500 AUTO LOCKING V/R ELBOW



VR6200 V/R ELBOW WITH OUTLET POPPET



COAXIAL ELBOWS



6400 COAXIAL ELBOW
6400X TALL COAXIAL ELBOW



60TTCS COAXIAL ELBOW
60TTC TALL COAXIAL ELBOW



880-490-01 TALL COAXIAL ELBOW



F298 COAXIAL ELBOW



880-491-01 COAXIAL ELBOW

Side Seal Drop Elbows



60AS 4" SIDE SEAL ELBOW



6000ASA 4" SIDE SEAL ELBOW

Side Seal Adapter



6000-SSA 4" SIDE SEAL ADAPTER



880-445-01 4" SIDE SEAL ADAPTER

VAPOR RECOVERY CHECK VALVES



301-300-02 4" X 4"



302-300-11 4" TTMA X 4" OULET



VR4100S 4" X 4"



VR4100F 4" TTMA X 4" OUTLET



VR4000 4" TTMA X 4" OUTLET



40 X 30-CSP-AL



304-200-04 V/R CAP



304-301-02 4" V/R CAP

Superior Sequential vapor Valve Technology Offers Real World Performance and Safety for Product Loading & Unloading

Civacon's 1985SV & 1986SV air-operated sequenced compartment vapor vent valves connects each tank compartment to the rollover rail vapor recovery system. When closed, they effectively seal the tank compartments during product transportation and open to allow full, unrestricted vapor flow during loading and unloading.

Features

- Sequential operation or stand alone versatility.
- Low-profile designs keep the vents below the overturn rail for better protection in a rollover situation.
- High-grade Viton® poppet disc gives these valves near universal product compatibility.
- 1995SV Style meets 4-inch TTMA mounting standard.
- Connects to a 3-1/2" I.D. vapor hose.
- Two 1/4-inch NPT outside airline connection ports.
- Stainless steel hardware for corrosion resistance.



Model 1985SV Shown



Model 1986SV Shown

Ordering Specifications

1985SV & 1986SV Valves

1985SV	Vapor Vent Valve for 20" Manhole (bolted)
1986SV	Vapor Vent Valve for 16" Manhole (threaded)

Sequential Vapor Vents

Sequential vapor vents are used for venting tank vapors during the bottom loading and unloading of petroleum tankers. These pneumatically activated vapor vents can either be installed to open in a sequence or to open independently in either 16" or 20" tank manholes.

Part #	Description
VR6030SQ	For 16" manhole, mounting ring attachment
VR6035SQ	For 20" manhole, 3" TTMA flange attachment
40193AL	VR6035 adapter flange for Parker style vents



VR6030SQ (16")



VR6035SQ (20")



40193AL

Inbreathing and Outbreathing Vents

- Installed in vapor plumbing as a safety device to relieve pressure or vacuum build up when vapor system is blocked during loading/unloading.
- 4" TTMA flange mounting (aluminum)
- stainless steel shaft and Buna seals
- see page 7 for tank truck gaskets

Part #	Description
VRP3500	outbreathing vent for MC306 (opens at no greater than 1 PSI pressure)
VRP3600	outbreathing vent for D0T406 (opens at no less than 1 PSI pressure)
VRV3501	inbreathing vent (opens at 1.5" Hg vacuum)



VRP3500



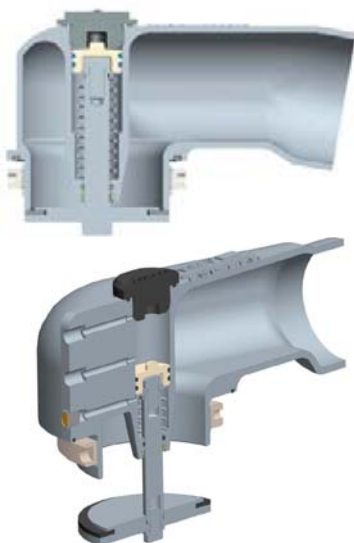
VRV3501

Civacon's Vapor Recovery Vent has improved flow along with pressure drop reduction. This design is retro-fittable and has a new rotation feature.

The Civacon T195SV & T196SV Vapor Recovery Vents are designed and tested to take the punishment of the temperature range rated at -40°F to 160°F (-40C to 71C). A new cap design threads into the top of the vent allows for a better seal and corrosion free design.

The new design retrofits the current 1985SV and 1986SV. The presence of a locking ring prevents additional leak paths that were created by the bolt on feature of the previous 1985SV. The locking ring allows more freedom for mounting the vent, you are no longer restricted to the normal TTMA bolt pattern.

Seals have been improved to be more compatible with chemicals that could potentially come into contact with them.



T196SV



T195SV



Features:

- Lightweight aluminum body
- Double Piston Seals
- Improved Seal Chemical Compatibility and Temperature Rating
- New Cap Design
- Added Exhaust Port to help vent close faster
- Improved Flow Rating and Pressure Drop Reduction
- New Rotation Features allows you to mount the vent from 0 - 45°
- Retrofits current 1985SV design.
- Locking Ring prevents additional leak paths from the Vapor System

Ordering Specifications:

T195SV - Vapor Recovery Vent, 20" Manhole

T196SV - Vapor Recovery Vent, 16" Manhole

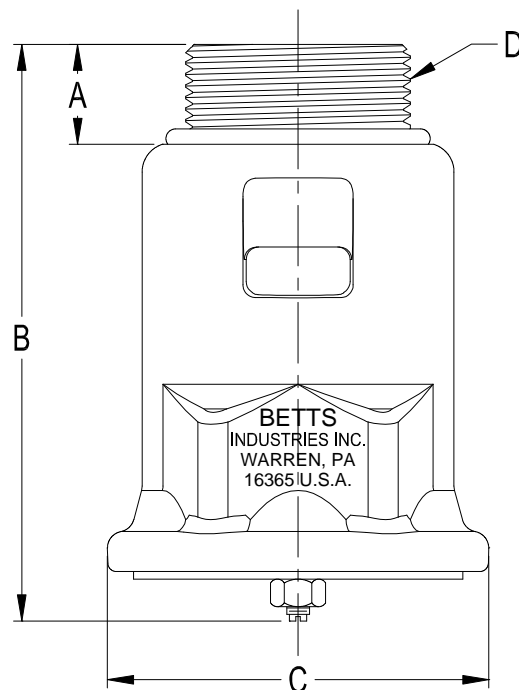


PRESSURE / VACUUM NORMAL VENT

- Dual Purpose Vent
- Roll Over Protection
- Compact Design
- Interior Mount

A normal vent designed for use on MC306 & DOT406 cargo tanks. Model 6496 has a pressure setting per 178.346-3(b)(2) of "not less than 1 PSIG" and a vacuum setting per 178.346-3(c)(2) "no more than 6 ounces" which allows for efficient recovery of vapors during closed system loading and off-loading. Unique roll over protection retains product at any attitude of rollover. Vent is flow tested and marked.

NOTE: While normal vents provide limited vapor venting during loading/unloading, it is recommended that positive vapor valves (typically air operated) be provided when loading/unloading with the manhole closed. If positive vapor valves are not used, insure normal vent is functioning properly or open manhole cover before beginning loading/unloading. Failure to do so may result in head reversals or other tank failure.



See Section 95 Page 1D for parts list and maintenance instructions.

Description	Assembly No.	Body Mat'l	Set Pressure**		Flow Capacity		Dimensions				Wt. (lbs).				
			Pressure (psig)	Vacuum (psig)	Out-breathing	In-breathing	A	B	C	D (Threads)					
FVA MC306 Normal Vent	6238AL*	Alum.	0.8 to 1.0	0.25 to 0.375	1,750 CF @ 3 psi	3,350 CFH @ 1 psi	.72"	4.16"	2.75"	1 ⁵ / ₈ -12UN	1.0 lb.				
	6238SL*	303 SS									2.5 lb.				
PPV DOT406 Normal Vent	6496AL*	Alum.	1.0 to 1.5	0.25 to 0.375	1,200 CFH @ 3 psi	3,350 CFH @ 1 psi					.72"	4.16"	2.75"	1 ⁵ / ₈ -12UN	1.0 lb.
	6496SL*	303 SS													2.5 lb.

Letter	Mat'l	Temp. Range
B	Buna-N	-40°F to +220°F
V	Viton®	-20°F to +400°F
EP	EPDM (Black)	-40°F to +260°F

* Add letters to part number to designate seal material. See material table at right for designation.

** Proper maintenance is required to ensure effective performance of normal vent. Dust, dirt, or residue will reduce the ability of the vent to hold required set-pressure.

Emission Collection Hood

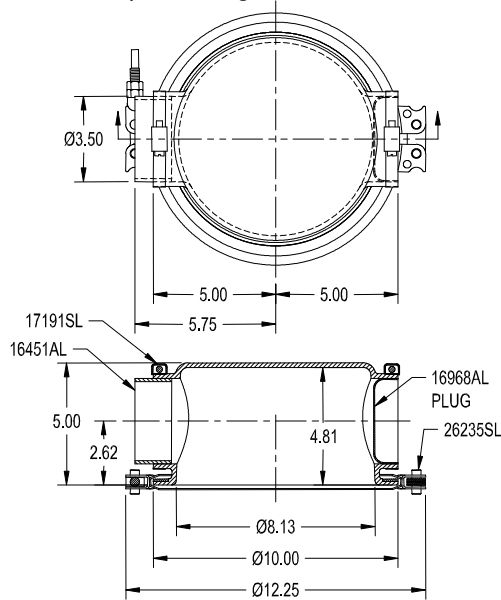
VENT ACCESSORIES

Use with Betts Push Type or Air Operated Vapor Valves

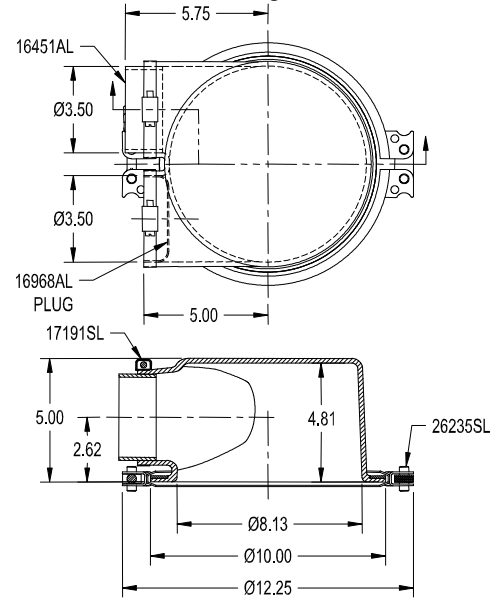
The Betts emission collection hood provides an economical means of connecting the positive vapor vent to the vapor rail. The hoods are made of ozone and ultraviolet resistant nitrile and are designed to collapse in case of rollover without adversely affecting the product retention of the cargo tank. The hoods for the 5" valve are provided with two outlets and one of them is plugged with an aluminum end cap. Hoods are available less the mounting clamp with suffix "001" added to the end of the assembly number.

Hoods for 5" Valve

VR45725BU – Vapor hood with provisions for two outlets 180° apart. Weight 3.7 lbs.

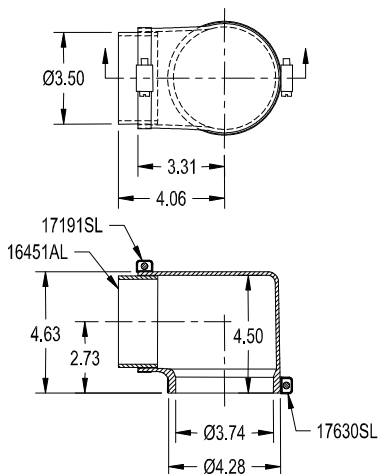


VR45742BU – Vapor hood with provisions for two outlets on same side. Weight 3.7 lbs.



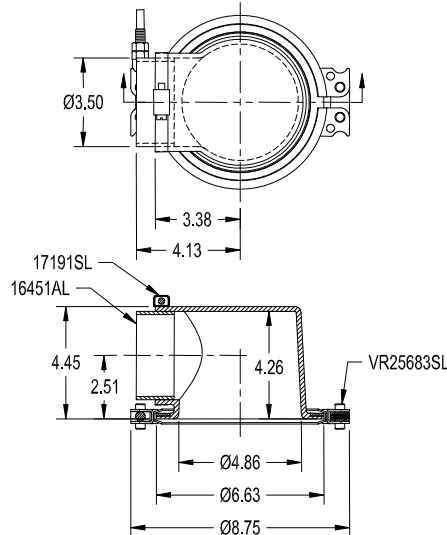
Hood for 3 1/2" Threaded Style

VR45962BU – Weight 1.0 lbs.



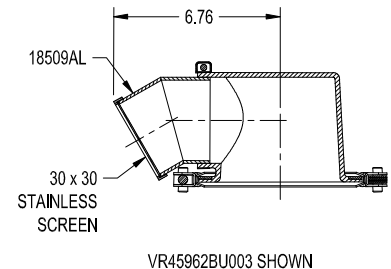
Hood for 3 1/2" Bolted Style

VR45784BU – Weight 2.3 lbs



Optional 30° Screened Outlet

Add suffix "003" to end of assembly number.



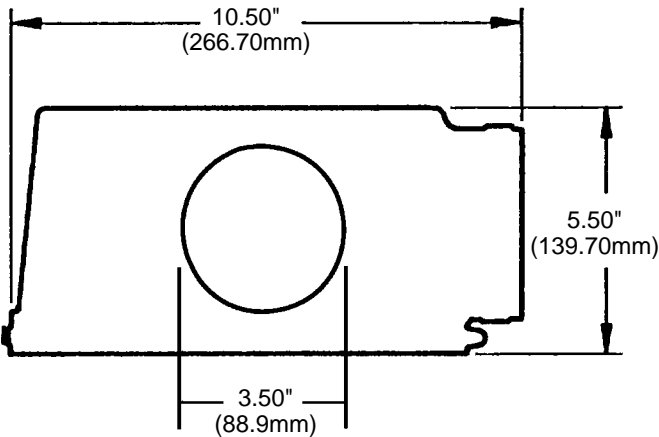
FEATURES AND BENEFITS

- **Used with F265 vents** to convert mechanical vent to vapor recovery.
- **Two 3" outlets**, 90° apart for flexibility of connection to vapor header or roll-over rail.
- **Collapsible hood.**



VAPOR RECOVERY
HOOD

PART NO.	DESCRIPTION	WEIGHT
F270-901	Vapor Hood - 5"	3.25 lbs.





16" MANHOLE – OFFSET STYLE

With Integral Relief Valve/10" Fill

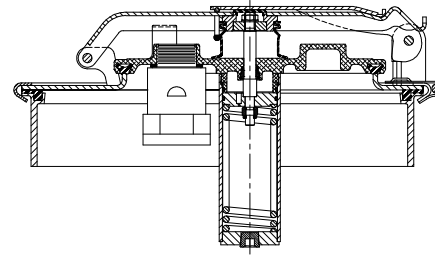
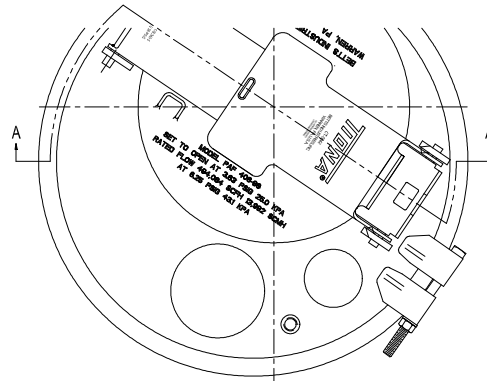
INTEGRAL RELIEF VALVE/10" FILL

LESS THAN 1 LITER LEAKAGE

SET PRESSURE ADJUSTMENT

INCREASED FLOW RATE

SECONDARY SAFETY LATCH



MODEL L816-STANDARD
MODEL L842-SELF LATCHING

Pressure Relief Valve setting 3.63 psig
Rated Pressure Actuated Emergency Venting: 494,084 cu. ft. free air per hour @ 6.25 psig
Rated Liquid Flow Capacity 1335 gpm @ 5.0 psig

PAF manholes with integral latch style surge suppression relief valves are designed for use on DOT406 and replacement on MC306 specification cargo tanks. Manholes are certified and marked in accordance with 49CFR178.345-5 with a test pressure of 36 psig. Manhole covers are 7 gage steel or stainless and are secured to the tank weld collar with a clamp ring and bolt which can be easily removed to provide access into the tank.

The integral 10" relief valve provides emergency pressure relief and meets the 1 liter surge leakage limit imposed by 49CFR178.345-10(b)(3)(ii). The relief valve also serves as a 10" latch style fill which can be easily opened to provide access for filling the tank or for inspection. Relief valves contain an adjustment feature to allow for fine-tuning of set pressure in the field. Other standard features include a heavy duty clamp ring, secondary safety latch and model 6496ALB pressure-vacuum vent mounted in the 10" relief valve cover.

Manholes are available with a self-latching feature that allows the 10" relief valve/fill cover to drop and securely latch upon movement of the tank if the cover is inadvertently left open. For self-latching model substitute L842 for L816 in assembly number.

NOTE: 3¹/₂" vent and Liquid Level Switch not included in assembly.

Cover Plate	Relief Valve	Clamping Ring, Bolt, Washer, Strongback, and Latch	Clamping Ring Nut	Normal Vent	Wt. (lb.)	Assembly No.
Steel Zinc Plt.	Alum.	Steel Zinc Plt.	Brass	Alum.	23.4	PPVL816BXB
Stnls 304	Alum.	Stnls 304	Stnls 304	Alum.	23.9	PPVL816CXB
Stnls 316	Alum.	Stnls 304	Stnls 304	Alum.	23.9	PPVL816DXB

NOTE: Manhole assemblies, as listed above, have Buna-N gaskets (suffix "B"). For variation in gasketing change last letter of assembly number as follows.

Suffix "V" indicates Viton collar gasket & Viton 10" fill gasket

Suffix "W" indicates White Hypalon collar gasket & White Hypalon 10" fill gasket

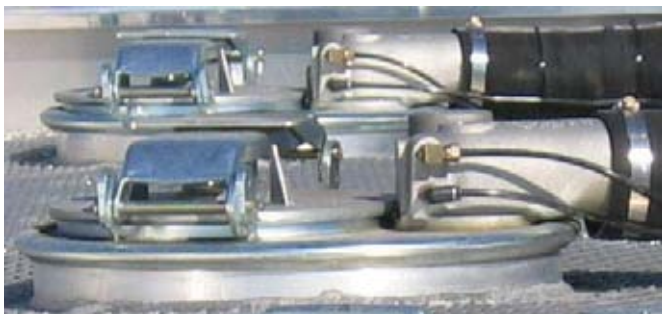
Suffix "T" indicates Teflon envelope collar gasket & Tef-Sil 10" fill o-ring

Manhole collars are available in aluminum, steel, and stainless steel. Please see parts page for correct numbers. When welding collars to tank, care should be exercised to insure collar remains flat and round.

Our Petroleum Manhole Covers Offer the Security, Access & Safety for Real World use. They Meet and Exceed Industry Standards.

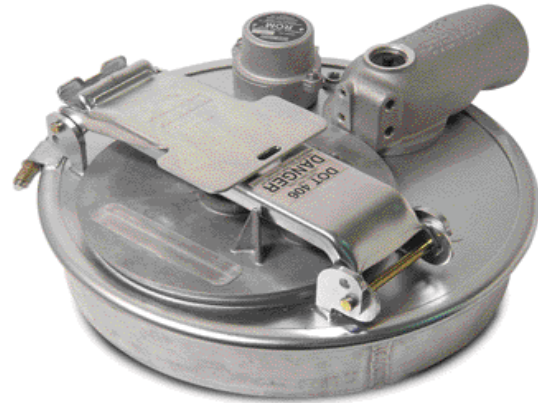
Civacon's Petroleum Manhole Covers are the perfect choice for all of your Petroleum cargo tank applications. Our Manhole Covers are ideal for use in new construction, or as a replacement cover for all DOT406 and older MC306 cargo tanks. They meet HM183 replacement requirements and 178.364-10 venting requirements. They're precision design and construction limits leakage in a roll-over situation to less than one liter, as required by standards. Each features a versatile 10" aluminum vent, which is set to open at not less than 3.63PSI, and, if needed, can be safely and easily disassembled for field repairs.

So, specify Civacon – our manhole covers set the industry standard for precision and durability. We offer models for both 16" and 20" manhole openings, in centered and offset fill cover styles. Easy, single ordering part numbers are available, for assemblies with and without weld rings.



16" Offset Model shown above

20" Centered Model shown at left



**16" Offset Model Shown Above
(with SV1986 and Sensor installed)**

Features

- All include (1) Model NV2001 Pressure / Vacuum Valve installed in fill cover.
- Emergency vent is 363,500 SCFH at 6.25PSI.
- Retrofits to existing weld rings.
- Reversible PAF opening (hinge) direction.
- Cover can be made self-latching in the field in minutes by adding our Part No. 6261 Latching Kit.
- Buna-N gaskets are standard – optional materials are available upon request.
- 10" vent can be safely and easily disassembled in the field for repairs.
- Offset Models include holes for the Vapor Valve and Overfill Detection Sensor, plus a 1/4-inch NPT weld coupling for a brass plug.
- Aluminum Weld Ring, 3-inch high x 1/4-inch thick, type 6061, included on models so designated.

Ordering Specifications

SSV111110	16" Offset Manhole with Weld Ring
SSV101110	16" Offset Manhole without Weld Ring
SST111100	16" Centered Manhole with Weld Ring
SST101100	16" Centered Manhole without Weld Ring
SSW101120	20" Offset Manhole with Weld Ring
SSW111120	20" Offset Manhole without Weld Ring
SSU101100	20" Centered Manhole with Weld Ring
SSU111100	20" Centered Manhole without Weld Ring
4754	16" Weld Ring only
4755	20" Weld Ring only

civacon

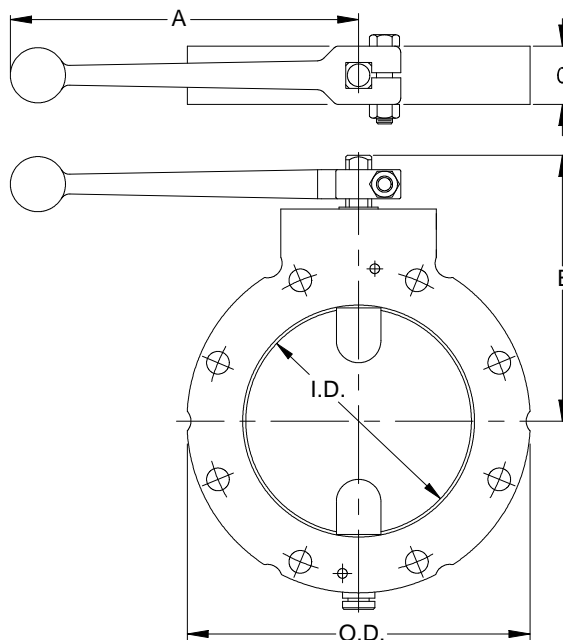
Wet-R-Dri Valve

TTMA STYLE

LIGHTWEIGHT

COMPACT

VERSATILE



Size	Standard Model	Wt.	Detent Model	Wt.	Standard Material		Max. Working Pressure	Temperature Range
	Assembly No.		Assembly No.		Body	Disc		
2"	WD200 AL B	2.4	WD201 AL B	2.4	Aluminum	Buna-N	75 PSI	See Chart Below
	WD200 GI B	4.6	WD201 GI B	4.6	Grey Iron			
3"	WD300 AL B	3.6	WD301 AL B	3.6	Aluminum	Buna-N	75 PSI	
	WD300 GI B	6.9	WD301 GI B	6.9	Grey Iron			
4"	WD400 AL V	4.5	WD401 AL V	4.5	Aluminum	Viton	75 PSI	
	WD400 GI V	8.3	WD401 GI V	8.3	Grey Iron			
5"	WD500 AL V	7.9	WD501 AL V	7.9	Aluminum	Viton	50 PSI	
6"	WD600 AL U	11.8	WD601 AL U	11.8	Aluminum	Urethane	50 PSI	
8"	WD800 AL U	17.3	WD801 AL U	17.3	Aluminum	Urethane	50 PSI	

NOTE: Standard drilling fits TTMA recommended standards.

Valves are available with the following options: Stainless steel liners and shafts, grease fittings installed in the drive and bearing shafts, and "E" Coating of aluminum valves (recommended for aluminum valves used in water service).

For repair kit, see Section 20, Page 5B.

Dimensions

Size	A	B	C	I.D.	O.D.	B.C.	Holes
2"	6 ³ / ₄	4 ¹ / ₄	1 ¹ / ₈	2 ¹ / ₄	3 ³ / ₄	3 ³ / ₄	6 ⁻⁷ / ₁₆
3"	6 ³ / ₄	4 ⁵ / ₈	1 ¹ / ₈	3 ³ / ₈	5 ⁵ / ₈	4 ⁷ / ₈	8 ⁻⁷ / ₁₆
4"	6 ³ / ₄	5 ¹ / ₈	1 ¹ / ₈	4 ³ / ₈	6 ⁵ / ₈	5 ⁷ / ₈	8 ⁻⁷ / ₁₆
5"	6 ³ / ₄	6 ³ / ₈	2 ¹ / ₈	5 ⁷ / ₁₆	7 ⁵ / ₈	7	12 ⁻⁷ / ₁₆
6"	12	7	2 ¹ / ₈	6 ¹ / ₈	8 ⁵ / ₈	8 ¹ / ₈	12 ⁻⁷ / ₁₆
8"	12	8	2 ¹ / ₂	8	10 ⁷ / ₈	10 ¹ / ₈	16 ⁻⁷ / ₁₆

Suffix for Disc Material

Buna-N		Viton	Urethane		EPDM
Black	White		Black	White	
B	WB	V	U	WU	E
-40°F	-40°F	-0°F	-40°F	-40°F	-50°F
+200°F	+200°F	+400°F	+200°F	+200°F	+300°F

NOTE: Temperature ranges based on published information and may vary due to actual operating conditions.

INSTALLATION:

The Wet-R-Dri Valve may be mounted in any position with handle located for easy operation. Valve, as assembled, opens by turning handle 1/4 turn counter clockwise (right hand operation). If clockwise rotation is desired (left hand operation) please specify. Care should be taken when mounting valve to be sure the I.D. of adjoining flanges or pipe is large enough to allow disc of valve to open freely. We suggest using our accompanying flanges and adapters shown in Section 20, Page 5A.

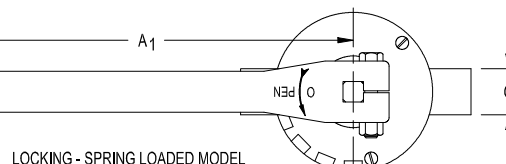
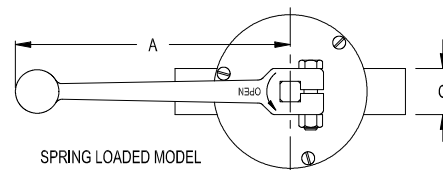
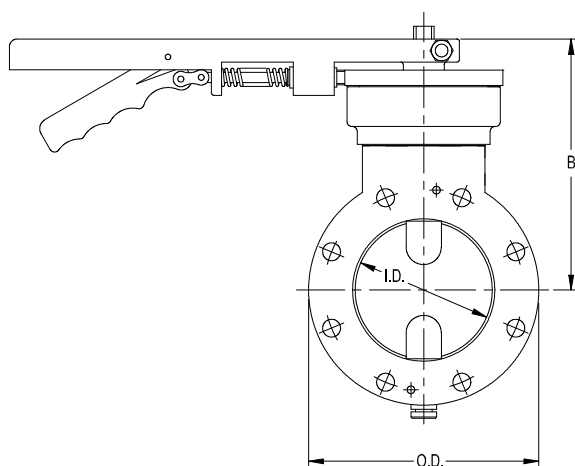
Wet-R-Dri VALVE

TTMA STYLE

LIGHTWEIGHT

COMPACT

VERSATILE



The Betts Wet-R-Dri Valve is designed for handling liquid, gaseous or dry products, and is available in a variety of sizes and models. This space saving valve is lightweight, easily maintained, and has a positive stop in the open and closed position. Both spring loaded valves provide an immediate and positive shut off. The locking type permits valve to be mechanically held open while the spring loaded type can be used for remote operation or as a dead man valve.

Size	Locking-Spring Loaded	Wt.	Spring Loaded	Wt.	Standard Material		Max. Working Pressure	Temperature Range
	Assembly No.		Assembly No.		Body	Disc		
2"	WD203 AL B	5.5	WD205 AL B	4.4	Aluminum	Buna-N	75 PSI	See Chart Below
	WD203 GI B	7.7	WD205 GI B	6.6	Grey Iron			
3"	WD303 AL B	6.7	WD305 AL B	5.6	Aluminum	Buna-N	75 PSI	
	WD303 GI B	10.0	WD305 GI B	8.9	Grey Iron			
4"	WD403 AL V	7.6	WD405 AL V	6.5	Aluminum	Viton	75 PSI	
	WD403 GI V	11.4	WD405 GI V	10.3	Grey Iron			
5"	WD503 AL V	11.0	WD505 AL V	9.9	Aluminum	Viton	50 PSI	

NOTES: Standard drilling fits TTMA recommended standards.

Valves are available with the following options: Stainless steel liners and shafts, grease fittings installed in the drive and bearing shafts, and "E" Coating of aluminum valves (recommended for aluminum valves used in water service).

For repair kit, see Section 20, Page 5B.

Dimensions

Size	A	A ₁	B	C	I.D.	O.D.	B.C.	Holes
2"	6 ³ / ₄	10 ¹ / ₈	6	1 ¹ / ₈	2 ¹ / ₄	3 ³ / ₄	3 ³ / ₄	6 ⁻ / ₁₆
3"	6 ³ / ₄	10 ¹ / ₈	6 ¹ / ₄	1 ¹ / ₈	3 ³ / ₈	5 ⁵ / ₈	4 ¹ / ₈	8 ⁻ / ₁₆
4"	6 ³ / ₄	10 ¹ / ₈	6 ³ / ₄	1 ¹ / ₈	4 ³ / ₈	6 ⁵ / ₈	5 ¹ / ₈	8 ⁻ / ₁₆
5"	6 ³ / ₄	10 ¹ / ₈	8	2 ¹ / ₈	5 ¹ / ₁₆	7 ⁵ / ₈	7	12 ⁻ / ₁₆

Suffix for Disc Material

Buna-N		Viton	Urethane		EPDM
Black	White		Black	White	
B	WB	V	U	WU	E
-40°F	-40°F	-40°F	-40°F	-40°F	-40°F
+200°F	+200°F	+200°F	+200°F	+200°F	+200°F

NOTE: Temperature ranges based on published information and may vary due to actual operating conditions.

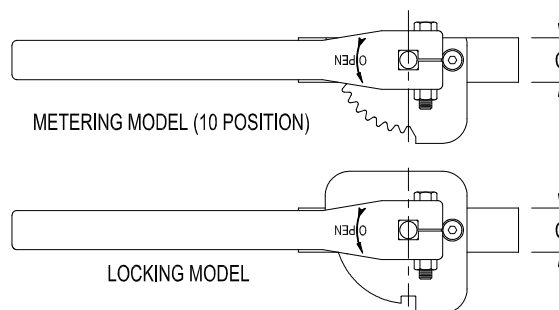
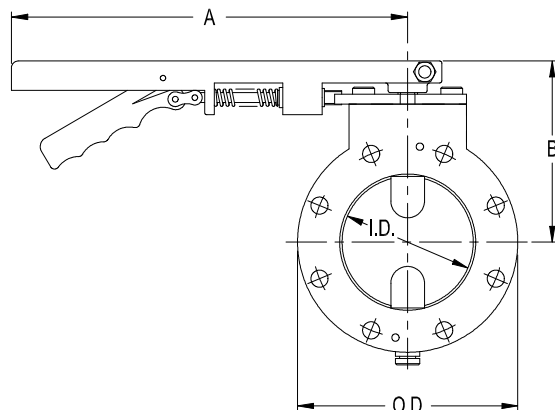
INSTALLATION:

The Wet-R-Dri Valve may be mounted in any position with handle located for easy operation. Valve, as assembled, opens by turning handle 1/4 turn counter clockwise (right hand operation). If clockwise rotation is desired (left hand operation) please specify. Care should be taken when mounting valve to be sure the I.D. of adjoining flanges or pipe is large enough to allow disc of valve to open freely. We suggest using our accompanying flanges and adapters shown in Section 20, Page 5A.

Wet-R-Dri VALVE

TTMA STYLE

LIGHTWEIGHT
COMPACT
VERSATILE



The Betts Wet-R-Dri Valve is designed for handling liquid, gaseous or dry products, and is available in a variety of sizes and models. This space saving valve is lightweight, easily maintained, and has a positive stop in the open and closed position. The Locking model has a 2 notch indexing plate which locks disc in the open or closed positions. The Metering model has a 10 notch indexing plate which allows disc to be positioned in 10 various positions.

Size	Locking Model	Wt.	Metering Model	Wt.	Standard Material		Max. Working Pressure	Temperature Range
	Assembly No.		Assembly No.		Body	Disc		
2"	WD202 AL B	3.3	WD204 AL B	3.1	Aluminum	Buna-N	75 PSI	See Chart Below
	WD202 GI B	5.5	WD204 GI B	5.3	Grey Iron			
3"	WD302 AL B	4.5	WD304 AL B	4.3	Aluminum	Buna-N	75 PSI	
	WD302 GI B	7.8	WD304 GI B	7.6	Grey Iron			
4"	WD402 AL V	5.4	WD404 AL V	5.2	Aluminum	Viton	75 PSI	
	WD402 GI V	9.2	WD404 GI V	9.0	Grey Iron			
5"	WD502 AL V	8.8	WD504 AL V	8.6	Aluminum	Viton	50 PSI	
6"	WD602 AL U	12.4	WD604 AL U	12.2	Aluminum	Urethane	50 PSI	
8"	WD802 AL U	17.9	WD804 AL U	17.7	Aluminum	Urethane	50 PSI	

NOTES: Standard drilling fits TTMA recommended standards.

Valves are available with the following options: Stainless steel liners and shafts, grease fittings installed in the drive and bearing shafts, and "E" Coating of aluminum valves (recommended for aluminum valves used in water service).

For repair kit, see Section 20, Page 5B.

Dimensions

Size	A	B	C	I.D.	O.D.	B.C.	Holes
2"	10 ¹ / ₈	4 ¹ / ₄	1 ¹ / ₈	2 ¹ / ₄	3 ³ / ₄	3 ³ / ₄	6 ⁻⁷ / ₁₆
3"	10 ¹ / ₈	4 ⁵ / ₈	1 ¹ / ₈	3 ³ / ₈	5 ⁵ / ₈	4 ⁷ / ₈	8 ⁻⁷ / ₁₆
4"	10 ¹ / ₈	5 ¹ / ₈	1 ¹ / ₈	4 ³ / ₈	6 ⁵ / ₈	5 ⁷ / ₈	8 ⁻⁷ / ₁₆
5"	10 ¹ / ₈	6 ³ / ₈	2 ¹ / ₈	5 ⁷ / ₁₆	7 ⁵ / ₈	7	12 ⁻⁷ / ₁₆
6"	12	7	2 ¹ / ₈	6 ¹ / ₈	8 ⁵ / ₈	8 ¹ / ₈	12 ⁻⁷ / ₁₆
8"	12	8	2 ¹ / ₂	8	10 ⁷ / ₈	10 ¹ / ₈	16 ⁻⁷ / ₁₆

Suffix for Disc Material

Buna-N		Viton	Urethane		EPDM
Black	White		Black	White	
B	WB	V	U	WU	E
-40°F	-40°F	-0°F	-40°F	-40°F	-50°F
+200°F	+200°F	+400°F	+200°F	+200°F	+300°F

NOTE: Temperature ranges based on published information and may vary due to actual operating conditions.

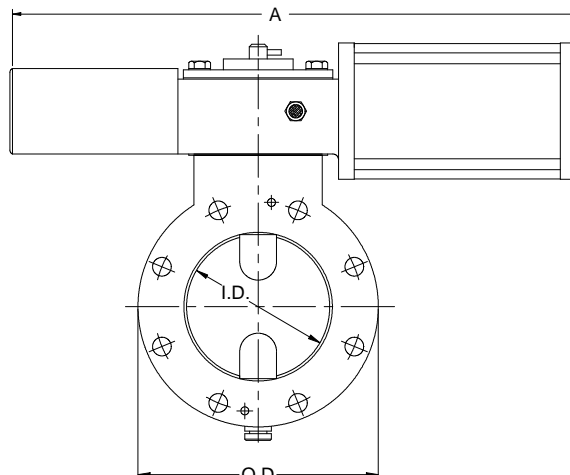
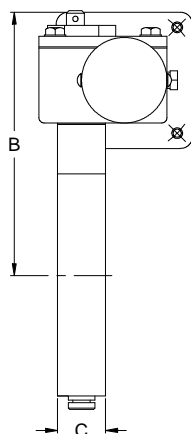
INSTALLATION:

The Wet-R-Dri Valve may be mounted in any position with handle located for easy operation. Valve, as assembled, opens by turning handle 1/4 turn counter clockwise (right hand operation). If clockwise rotation is desired (left hand operation) please specify. Care should be taken when mounting valve to be sure the I.D. of adjoining flanges or pipe is large enough to allow disc of valve to open freely. We suggest using our accompanying flanges and adapters shown in Section 20, Page 5A.

Wet-R-Dri VALVE

TTMA STYLE

LIGHTWEIGHT
COMPACT
VERSATILE



The Betts Wet-R-Dri Valve is designed for handling liquid, gaseous or dry products, and is available in a variety of sizes and models. This space saving valve is lightweight, easily maintained, and has a positive stop in the open and closed position. The air operated valve is opened and closed by air. The air-spring operated valve can be sold as either an air to open, spring return valve or as an air to close spring to open valve. Please specify.

Size	Air Actuated Model	Wt.	Air-Spring Model	Wt.	Standard Material		Max. Working Pressure	Temperature Range
	Assembly No.		Assembly No.		Body	Disc		
2"	WD217 AL B	5.9	WD219 AL B	6.4	Aluminum	Buna-N	75 PSI	See Chart Below
	WD217 GI B	8.1	WD219 GI B	8.6	Grey Iron			
3"	WD317 AL B	7.1	WD319 AL B	7.6	Aluminum	Buna-N	75 PSI	
	WD317 GI B	10.4	WD319 GI B	10.9	Grey Iron			
4"	WD417 AL V	8.0	WD419 AL V	8.5	Aluminum	Viton	75 PSI	
	WD417 GI V	11.8	WD419 GI V	12.3	Grey Iron			
5"	WD517 AL V	11.4	WD519 AL V	11.9	Aluminum	Viton	50 PSI	
6"	WD617 AL U	15.3	WD619 AL U	15.8	Aluminum	Urethane	50 PSI	
8"	WD817 AL U	20.8	WD819 AL U	21.3	Aluminum	Urethane	50 PSI	

NOTES: Standard drilling fits TTMA recommended standards.

Valves are available with the following options: Stainless steel liners and shafts, and "E" Coating of aluminum valves (recommended for aluminum valves used in water service).

For repair kit, see Section 20, Page 5B.

Dimensions

Size	A	B	C	I.D.	O.D.	B.C.	Holes
2"	13 ⁵ / ₁₆	5 ¹³ / ₁₆	1 ¹ / ₈	2 ¹ / ₄	3 ³ / ₄	3 ³ / ₄	6 ⁻⁷ / ₁₆
3"	13 ⁵ / ₁₆	6 ⁵ / ₃₂	1 ¹ / ₈	3 ³ / ₈	5 ⁵ / ₈	4 ⁷ / ₈	8 ⁻⁷ / ₁₆
4"	13 ⁵ / ₁₆	6 ¹¹ / ₁₆	1 ¹ / ₈	4 ³ / ₈	6 ⁵ / ₈	5 ⁷ / ₈	8 ⁻⁷ / ₁₆
5"	13 ⁵ / ₁₆	7 ⁷ / ₈	2 ¹ / ₈	5 ⁷ / ₁₆	7 ⁵ / ₈	7	12 ⁻⁷ / ₁₆
6"	13 ⁵ / ₁₆	8 ⁷ / ₁₆	2 ¹ / ₈	6 ¹ / ₈	8 ⁵ / ₈	8 ¹ / ₈	12 ⁻⁷ / ₁₆
8"	13 ⁵ / ₁₆	9 ³ / ₈	2 ¹ / ₂	8	10 ⁷ / ₈	10 ¹ / ₈	16 ⁻⁷ / ₁₆

Suffix for Disc Material

Buna-N		Viton	Urethane		EPDM
Black	White		Black	White	
B	WB	V	U	WU	E
-40°F	-40°F	-0°F	-40°F	-40°F	-50°F
+200°F	+200°F	+400°F	+200°F	+200°F	+300°F

NOTE: Temperature ranges based on published information and may vary due to actual operating conditions.

INSTALLATION:

The Wet-R-Dri Valve may be mounted in any position.

Care should be taken when mounting valve to be sure the I.D. of adjoining flanges or pipe is large enough to allow disc of valve to open freely. We suggest using our accompanying flanges and adapters shown in Section 20, Page 5A.

SCULLY INTELLICHECK 2-WIRE PROBES & MONITORS



09409L1 SCULLY 2-WIRE
FT150 FLOW-TECH 2-WIRE
1651-007 CIVACON 2-WIRE

09408L1 SCULLY 2-WIRE W/HOUSING
FT151 FLOW-TECH 2-WIRE W/HOUSING

08819 SCULLY 2-WIRE RETAIN
FT152 FLOW-TECH 2-WIRE RETAIN

09109 SCULLY 2-WIRE UPPER ONLY MONITOR
FT208 FLOW-TECH 2-WIRE UPPER & LOWER MONITOR

SCULLY GO-ANY-WHERE 5-WIRE PROBES & MONITORS



09209L1 SCULLY 5-WIRE PROBE
FT100 FLOW-TECH 5-WIRE PROBE
1300 CIVACON 5-WIRE PROBE

09209L1 SCULLY 5-WIRE PROBE W/HOLDER
FT101 FLOW-TECH 5-WIRE PROBE W/HOLDER

08687 SCULLY 5-WIRE MONITOR
FT103 FLOW-TECH 5-WIRE MONITOR

ROM II OVERFILL PROBES & MONITOR



1351-007 CIVACON PROBE
FT201 FLOW TECH PROBE



1051 CIVACON PROBE WITH HOUSING
FT202 FLOW TECH PROBE WITH HOUSING



3202 CIVACON MONITOR
FT204P FLOW TECH MONITOR



1000R CIVACON RETAIN PROBE
FT206 FLOW TECH RETAIN PROBE

API THERMITOR & OPTIC SOCKETS & FACEPLATES

THERMISTOR FACE PLATE ASSEMBLY



FLOW-TECH	SCULLY	CIVAICON
FT311	20770	4410
FT311SS		

THERMISTOR SOCKET & FACE PLATE ASSEMBLY

FT301	07720	4400
FT301SS		

NOTE: FT311SS & FT301 STAINLESS STEEL FACE PLATES ARE GUARANTEED FOR LIFE AGAINST WEAR!

OPTIC FACE PLATE ASSEMBLY



FLOW-TECH	SCULLY	CIVAICON
FT310	21790	4110
FT310SS		

OPTIC SOCKET & FACE PLATE ASSEMBLY

FT300	07974	4100
FT300SS		

NOTE: FT310SS & FT300SS STAINLESS STEEL FACE PLATES ARE GUARANTEED FOR LIFE AGAINST WEAR!

API FLOW FACE PLATE ASSEMBLY



FLOW-TECH	SCULLY	CIVAICON
FT305	07681	4500

API FLOAT SOCKET & FACE PLATE ASSEMBLY

FT302	08116	4600
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REPLACEMENT THERMISTOR & OPTIC CAPS

FT321	THERMISTOR CAP & CABLE
FT320	OPTIC CAP & CABLE

Dummy



SCULLY
FLOW-TECH

08298 DUMMY THERMISTOR
FT155 DUMMY THERMISTOR

Grounding Ball and Bolt



GROUNDING BALL

08274
FT451

SCULLY GROUNDING BALL
FLOW-TECH GROUNDING BALL



GROUND HOG BOLT

08560
FT450

SCULLY GROUND HOG BOLT
FLOW-TECH GROUND HOG BOLT



GROUNDING STUD

GS1
GS2

FLOW-TECH BRASS GROUNDING STUD
FLOW-TECH STAINLESS STEEL GROUNDING STUD

Cables and Glands



Cables and Glands

FT400
FT401
FT404
FT402

5 CONDUCTOR CABLE 100'
7-CONDUCTOR CABLE 100'
11-CONDUCTOR CALBE 100'
20-STRAIN RELIEF FITTINGS ONE BOX OF 20-PIECES

Checkmate Retain Overfill System 2-Wire Black and White

Checkmate Overfill Systems (top only)

FloTech brand overfill system kits provide everything needed to install a new overfill system on your tank. One through eight compartment kits are available off the shelf. FloTech brand kits provide everything needed to make a professional installation. Systems include; 1 FT208 monitor, 1 FT151 sensor per compartment, 1 FT404 cable and 1 FT402 (20pcs.) strain reliefs. **Sockets sold separately.**



FT2804 retain / overfill kit
(top only)

Part #	Description
FT2801	Checkmate, 1 compartment system (top only)
FT2802	Checkmate, 2 compartment system (top only)
FT2803	Checkmate, 3 compartment system (top only)
FT2804	Checkmate, 4 compartment system (top only)
FT2805	Checkmate, 5 compartment system (top only)
FT2806	Checkmate, 6 compartment system (top only)
FT2807	Checkmate, 7 compartment system (top only)
FT2808	Checkmate, 8 compartment system (top only)
FT2801-12	Checkmate, 1 compartment system (top only) - 12" probes
FT2802-12	Checkmate, 2 compartment system (top only) - 12" probes
FT2803-12	Checkmate, 3 compartment system (top only) - 12" probes
FT2804-12	Checkmate, 4 compartment system (top only) - 12" probes
FT2805-12	Checkmate, 5 compartment system (top only) - 12" probes
FT2806-12	Checkmate, 6 compartment system (top only) - 12" probes
FT2807-12	Checkmate, 7 compartment system (top only) - 12" probes
FT2808-12	Checkmate, 8 compartment system (top only) - 12" probes

Checkmate Retain / Overfill Systems (retain and overfill)

Systems include: 1 FT208 monitor, 1 FT151 overfill and FT152 retain sensor per compartment, 1 FT404-150 cable and 1 FT403 (30 pcs.) strain reliefs. **Sockets sold separately.**

Special length probes are available.



FT2814 retain / overfill kit
(retain and overfill)

Part #	Description
FT2811	Checkmate, 1 compartment system (retain and overfill)
FT2812	Checkmate, 2 compartment system (retain and overfill)
FT2813	Checkmate, 3 compartment system (retain and overfill)
FT2814	Checkmate, 4 compartment system (retain and overfill)
FT2815	Checkmate, 5 compartment system (retain and overfill)
FT2816	Checkmate, 6 compartment system (retain and overfill)
FT2817	Checkmate, 7 compartment system (retain and overfill)
FT2818	Checkmate, 8 compartment system (retain and overfill)
FT2811-12	Checkmate, 1 compartment system (retain and overfill) - 12" probes
FT2812-12	Checkmate, 2 compartment system (retain and overfill) - 12" probes
FT2813-12	Checkmate, 3 compartment system (retain and overfill) - 12" probes
FT2814-12	Checkmate, 4 compartment system (retain and overfill) - 12" probes
FT2815-12	Checkmate, 5 compartment system (retain and overfill) - 12" probes
FT2816-12	Checkmate, 6 compartment system (retain and overfill) - 12" probes
FT2817-12	Checkmate, 7 compartment system (retain and overfill) - 12" probes
FT2818-12	Checkmate, 8 compartment system (retain and overfill) - 12" probes

R/OM Type Retain / Overfill System Red and Black 2-Wire

These systems incorporate the preferred optic technology (red and black 2 wire) using top overfill as well as bottom retain sensors. Retain sensors inform the terminal if the compartments are empty or if product has been retained. Monitors include advanced diagnostic capabilities as well as translation abilities for all socket types (optic, thermistor or float). The system offers true load at any rack compatibility.

Retain / Overfill System (top only)

FloTech brand overfill system kits provide everything needed to install a new API compatible overfill system on your tank. One through six compartment kits are available off the shelf.

Systems include: 1 FT204P monitor, 1 FT202 sensor per compartment, 1 FT401 100' cable and 1 FT402 (20 pcs.) strain reliefs. **Sockets sold separately.**



*FT2104 retain / overfill kit
(top only)*

Part #	Description
FT2101	R/OM type, 1 compartment system (top only)
FT2102	R/OM type, 2 compartment system (top only)
FT2103	R/OM type, 3 compartment system (top only)
FT2104	R/OM type, 4 compartment system (top only)
FT2105	R/OM type, 5 compartment system (top only)
FT2106	R/OM type, 6 compartment system (top only)
FT2101-12	R/OM type, 1 compartment system (top only) - 12" probes
FT2102-12	R/OM type, 2 compartment system (top only) - 12" probes
FT2103-12	R/OM type, 3 compartment system (top only) - 12" probes
FT2104-12	R/OM type, 4 compartment system (top only) - 12" probes
FT2105-12	R/OM type, 5 compartment system (top only) - 12" probes
FT2106-12	R/OM type, 6 compartment system (top only) - 12" probes

Retain / Overfill Systems (retain and overfill)

FloTech brand overfill system kits provide everything needed to install a new API compatible retain/overfill monitor top and bottom system. One through six compartment kits are available off the shelf.

Systems include: 1 FT204P monitor, 1 FT202 sensor for each compartment, 1 FT206 retain sensor per compartment, 1 FT401 100' cable and 1 FT403 (30 pcs.) strain reliefs. **Sockets sold separately.**



*FT2004 retain / overfill kit
(retain and overfill)*

Part #	Description
FT2001	R/OM type, 1 compartment system (retain and overfill)
FT2002	R/OM type, 2 compartment system (retain and overfill)
FT2003	R/OM type, 3 compartment system (retain and overfill)
FT2004	R/OM type, 4 compartment system (retain and overfill)
FT2005	R/OM type, 5 compartment system (retain and overfill)
FT2006	R/OM type, 6 compartment system (retain and overfill)
FT2001-12	R/OM type, 1 compartment system (retain and overfill) - 12" probes
FT2002-12	R/OM type, 2 compartment system (retain and overfill) - 12" probes
FT2003-12	R/OM type, 3 compartment system (retain and overfill) - 12" probes
FT2004-12	R/OM type, 4 compartment system (retain and overfill) - 12" probes
FT2005-12	R/OM type, 5 compartment system (retain and overfill) - 12" probes
FT2006-12	R/OM type, 6 compartment system (retain and overfill) - 12" probes

API Optic System 5-Wire

series FT100 and FT101 sensors are compatible with Scully brand 5 wire optic sensors. FloTech API compatible overfill feature long service life and resistance to harsh environments typical on petroleum cargo tanks. Long service life and compatibility make FloTech the ideal choice for demanding cargo applications.

Optic Overfill Kits

FloTech brand overfill system kits provide everything needed to install a new API compatible overfill system on your tank. One through six compartment kits are available off the shelf.

Systems include: 1 FT103 monitor, 1 FT101 sensor per compartment, 1 FT400 100' cable and 1 FT402 (20 pcs.) strain reliefs. **Sockets sold separately.**



Part #	Description
FT1001	API compatible 1 compartment system (optic)
FT1002	API compatible 2 compartment system (optic)
FT1003	API compatible 3 compartment system (optic)
FT1004	API compatible 4 compartment system (optic)
FT1005	API compatible 5 compartment system (optic)
FT1006	API compatible 6 compartment system (optic)
FT1001-12	API compatible 1 compartment system (optic) - 12" probe
FT1002-12	API compatible 2 compartment system (optic) - 12" probe
FT1003-12	API compatible 3 compartment system (optic) - 12" probe
FT1004-12	API compatible 4 compartment system (optic) - 12" probe
FT1005-12	API compatible 5 compartment system (optic) - 12" probe
FT1006-12	API compatible 6 compartment system (optic) - 12" probe



PLUG-N-LOAD

Rev. A, May 2009

Civacon's retrofit kit, is a link to a fast installation and worry free future. The ROMLink™ gives you a hassle free installation which allows you to "Plug-N-Load".

The Civacon ROMLink™ "PLUG-N-LOAD" System represents a major revolution in the Overfill Detection World. Since the introduction of overfill electronics on petroleum and other product hauling tankers, OEM's, Installers, Repair Shops and End Users have been frustrated by the way in which electronics and other components are connected together in the system. Unless the crimps are installed with absolute precision, the longevity of the system is compromised.

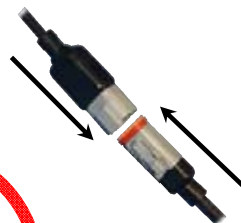
In the desire to eliminate this frustrating cycle, Civacon has developed the ROMLink™ "PLUG-N-LOAD" System. This system not only improves trouble points, but eliminates them.



Before



After



Features and Benefits

- Crimp Free Installation
- No Special Tools or Training Required
- Fits All Compartment Layout Configurations
- Can be added to existing trucks with overfill systems
- Completely Sealed harness system that will last in any environment
- Components color coded for easy identification

S E R I E S

1 1/2"

**MANUAL OR POWER
REWIND REELS**

To handle single 1" through 1-1/2" I.D. hose.

- A strong, heavy-duty reel.
- Gear-driven crank rewind or chain and sprocket drive powered by an electric, hydraulic or compressed air motor.
- Optional auxiliary crank rewind for power rewind reels.
- Choose EP or EPJ option.
- Comet brake, standard on power rewind without auxiliary crank.
- 90° ball bearing swivel joint with 1-1/2" female NPT threads and 2" vitaulic groove.
- Flanged riser with 1-1/2" female NPT threads.
- Other sizes and/or threads can be furnished and must be specified.
- Inlet, outlet riser, hub assembly are steel.
- Stainless steel, aluminum, at extra cost.
- Rollers (and their mounting brackets) are available. Must specify roller position.
- Mounting brackets are necessary.
- Chain Guard is available upon request, must be specified.
- Pressures to 600 psi (41 bar)
- Temperatures from -60°F to +175° F (-51° C to +79° C).
- Consult factory for other pressures & temps.

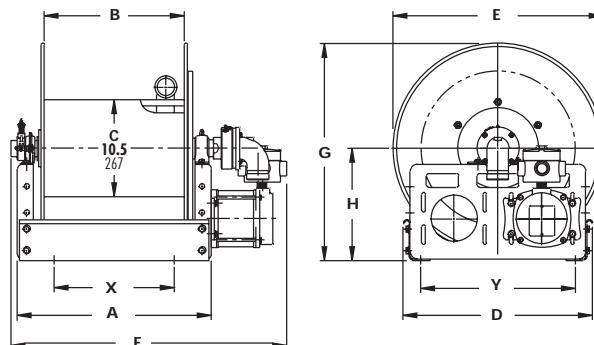


Series 1-1/2"
EPJ Option Shown

Hannay Reels®
The reel leader.

Parts Drawing – ISO 18

Model Number	Hose Capacity of Reel feet					Approx. Weight Crank Rewind lb.	Reel Dimensions*** inches										
	I.D. (in)	1" 2	1-1/4" 32	1-3/8" 3	1-1/2" 3		See Note 4										
For Power Rewind See Notes 4 & 5	O.D. (in)	1.58" 4	1.89" 4	2" 4	2.06" 2	NET	SHIP	A	B	D	E	F	F	G	H	X	Y
26-19-21		70 2	60	50	50	99 4	141 64	23 4	17.5 44	20.5 2	18.75 476	29.5 749	31.88	21.5 46	12.12 3	15 3	16.75 42
32-19-21		100 3	90 27	85 26	75 23	112	154 7	29.5 749	24 6	20.5 2	18.75 476	36.0 9 4	38.38 97	21.5 46	12.12 3	21.5 46	16.75 42
40-19-21		125 3	100 3	100 3	100 3	128	170 77	37.5 9 3	32 3	20.5 2	18.75 476	44.0	46.38 7	21.5 46	12.12 3	29.5 749	16.75 42
24-23-24		100 3	90 27	80 24	50	102 46	144 6	21 33	15.5 394	20.5 2	22.75 7	27.5 699	29.88 7 9	23.5 97	12.12 3	13 33	16.75 42
32-23-24		150 46	150 46	125 3	75 23	119 4	161 73	29.5 749	24 6	20.5 2	22.75 7	36.0 9 4	38.38 97	23.5 97	12.12 3	21.5 46	16.75 42
38-23-24		200 6	190	170 2	130 3	130 9	172 7	35 9	29.5 749	20.5 2	22.75 7	41.5 4	43.88	23.5 97	12.12 3	27 6 6	16.75 42
20-25-26		110 34	70 2	60	50	106 4	148 67	17 432	11.5 292	25.5 64	24.75 629	23.5 97	25.88 6 7	27.88 7	15.5 394	9 229	21.75 2
24-25-26		140 43	95 29	85 26	75 23	114 2	156 7	21 33	15.5 394	25.5 64	24.75 629	27.5 699	29.88 7 9	27.88 7	15.5 394	13 33	21.75 2
28-25-26		200 6	130 4	120 3	100 3	123 6	165 7	25.5 64	20.0	25.5 64	24.75 629	32.0 3	34.38 73	27.88 7	15.5 394	17.5 44	21.75 2
16-30-31		90 27	50	50	50	106 4	156 7	13 33	7.5 9	25.5 64	28.75 73	19.5 49	21.88 6	29.88 7 9	15.5 394	7.75 97	21.75 2
20-30-31		155 47	140 43	80 24	75 23	114 2	164 74	17 432	11.5 292	25.5 64	28.75 73	23.5 97	25.88 6 7	29.88 7 9	15.5 394	9 229	21.75 2
*22-30-31		185 6	160 49	100 3	100 3	118 4	168 76	19 4 3	13.5 343	25.5 64	28.75 73	25.5 64	27.88 7	29.88 7 9	15.5 394	11 279	21.75 2
*28-30-31		275 4	250 76	175 3	150 46	131 9	181 2	25.5 64	20.0	25.5 64	28.75 73	32.0 3	34.38 73	29.88 7 9	15.5 394	17.5 44	21.75 2
*24-33-34		275 4	190	175 3	175 3	129 9	179	20.5 2	15.5 394	31.5	31.75 6	27.25 692	29.63 7 3	33.62 4	17.75 4	13 33	27.75 7



POWER REWIND REELS FOR INVERTED INSTALLATION

To handle single 1-1/4" I.D. through 2" I.D. hose.

- Chain and sprocket drive powered by an electric, hydraulic, or compressed air motor.
- Comet brake, air caliper brake, standard.
- 90° ball bearing swivel joint with 1-1/2" female NPT and 2" groove.
- Optional 2" internals also available.
- Flanged riser with 1-1/2" female NPT threads.
- Inlet, riser, hub assembly are steel.
- Stainless steel or aluminum is available – consult factory.
- Optional auto chain tensioner is available – consult factory.
- Pressures to 600 psi (41 bar).
- Temperatures from -60° F to +175° F (-51° C to +79° C).
- Consult factory for other pressures & temps.



Parts Drawing – ISO 103

Model Number	Hose Capacity of Reel feet				Approx. Weight lb.		Reel Dimensions*** inches										
	I.D. (in)	1 1/4" 32	1 3/8" 3	1 1/2" 3	2"	NET	SHIP	A	B	C	D	E	F	G	H	X	Y
	O.D. (in)	1.81" 46	2"	2.06" 2	2.56" 6												
IV 24-33-34		180	170 2	170 2	—	175 79	200 9	22.25 6	15.5 394	10.5 267	32.37 22	41 4	29.5 749	33.88 6	18 4 7	20.25 4	24.25 6 6
IV 22-35-36		210 64	145 44	145 44	—	190 6	220	20.25 4	13.5 343	10.5 267	32.37 22	41.75 6	27.5 699	34.88 6	18 4 7	18.25 464	24.25 6 6
IV 18-39-40*		185 6	115 3	115 3	70 2	260	280 27	16.25 4 3	9.5 24	15.5 394	34.25 7	45.5 6	23.5 97	40.75 3	21.25 4	14.25 362	27 6 6
IV 20-39-40*		225 69	150 46	150 46	95 29	270 22	290 32	18.25 464	11.5 292	15.5 394	34.25 7	45.5 6	25.5 64	40.75 3	21.25 4	16.25 4 3	27 6 6
IV 16-45-46*		175 3	140 43	140 43	60	280 27	300 36	14.25 362	7.5 9	15.5 394	39 99	51 29	21.5 46	46.25 7	23.75 6 3	12.25 3	31.38 797
IV 18-45-46*		250 76	190	190	95 29	290 32	310 4	16.25 4 3	9.5 24	15.5 394	39 99	51 29	23.5 97	46.25 7	23.75 6 3	14.25 362	31.38 797

Notes:

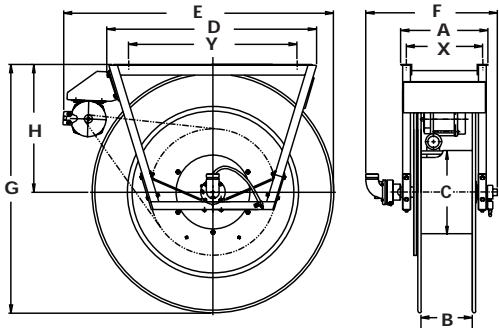
1. Specifications subject to change.
2. Upon request, reels can be supplied with drum lengths other than shown and with disc sizes in other diameters.
3. When ordering power rewind models, prefix model number with:
A = Air Rewind–Supplied with control valve and 18" hose.
EP = Electric Rewind (2/3HP)–12v and 24v DC rewind supplied with non-explosion proof switch and solenoid.
EPJ = Explosion Proof Electric Rewind (2/3 HP)–Supplied with explosion proof switch, solenoid, and junction box.
HD = Hydraulic Rewind–Not supplied with control valve.

4. Be sure to check dimensions and weights prior to ordering.

NOTICE: A Flexible Connector must be used between the inlet pipe and the inlet swivel joint.

* When ordering with 2" inlet/outlet, place a "2" after IV.
re: IV 220-39-40

*** x, y indicate mounting holes.



ACCESSORIES

Rewind Motors



9915.0014

Base mount E.P.
Electric Motor



9915.0003

Face mount E.P.
Electric Motor



Face mount Non-E.P.
DC Motor
(Shown with optional
mounting plate part no.
9923.0008)

Hydraulic Motors are reversible type. No other hydraulic components are furnished with the reel. A 4-way, three position control valve with motor spool is recommended but is **not** supplied.



9918.2600

Compressed Air Motors are supplied with a fingertip control valve with integral backpressure relief, and with flexible air line from control valve to rewind motor. We recommend using a lubricator and filter with air rewind motors, not supplied.



Electric Motors are reversible type for AC or DC operation. **Circuit breaker must be used with all DC electric motors.**

Note: All accessories for the above motors are available, but must be ordered separately.

Note: Standard motor voltages available. 12v and 24v DC, 115v AC, 230v AC single phase and 3-phase motors available on special order.

These assemblies are used to change the pinion shaft position on gear-drive crank rewind reels to meet space restrictions or for greater operator convenience. Units can be factory-installed, when specified with reel order, or supplied in kit form for field installation.

Assemblies are complete with drag-brake assembly, pinion, gear guard, brake handle and fasteners. Fits standard mounting holes on reel frame.

To Order: Specify Rewind Position for parts order or factory installation.



Horizontal
rewind unit



30° rewind unit



Vertical rewind unit



ACCESSORIES

"MD" Reversing Switch/Speed Controls (All Voltages)

Enclosed Reversing Switch, Relay Circuit Breaker & Variable Speed Control

Integrated reversing push-button rewind switch, variable speed control, relay and circuit breaker, all mounted in a weather resistant enclosure with mounting studs.

- **MD-12HDSR** designed for all 12V DC reels
- **MD-115HDSR** designed for Hannay 115/230V AC reels
- **24V DC** model also available



Model MD-12HDSR



Model MD-115HDSR

Circuit Breakers

Must be used with all DC electric rewind motors.

SDLM Manual Reset. Push-button must be pressed firmly to reset. Several amperage ratings are available to suit specific application.

CB-2 Mounting bracket for SDLM Breaker.



To Order: Specify SDLM and give Model Number of reel motor. Specify CB-2 bracket, if required.

Operating Switches for Electric Rewind Reels



90030

90030 sealed push-button momentary contact switch with rubber cap for 12 or 24 volt **DC** service.



P15A-00130

P15A-00130 Universal mounting bracket for EPS-1 switch.



EPS-1 explosion-proof cable momentary contact switch for remote control or for permanent mounting in the most convenient location. Supplied with 6 ft. of 3-wire cable, self-sealing fitting and terminals. Must be used with solenoid. (12 volt only)



P15A-00170

P15A-00170 Mounting bracket for use with Guidemaster.



PB-1 switch non-explosion-proof, 115v momentary contact switch.



EXPB-2A explosion-proof, push-button momentary contact switch for **DC** service only. Must be used with solenoid.

EXPBC-2B For use with **AC** motors.



ACCESSORIES

Brakes and Locks

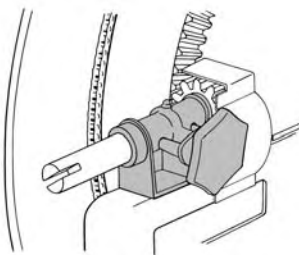


Cam-Lock Drag Brake

Molded plastic drag brake with cam lock lever designed for 1/2" and 1" manual reels. Corrosion proof and does not harm the hub. Infinitely adjustable for the desired drag tension to prevent cable or hose overrun. Instantly releases with the flip of a lever for drag free rewind.

To order, specify part number (see Price List H-0415-OAL).

For factory installation, specify Cam-Lock Drag Brake with reel order.

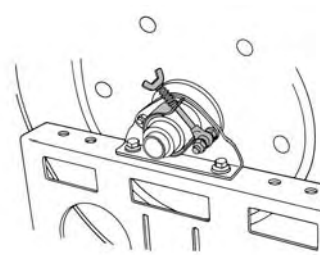


Pinion Brake

Adjustable spring tension applies braking pressure to pinion shaft on reels equipped with ring gear rewind mechanism.

To order, specify part number (see Price List H-0415-OAL).

For factory installation, specify Pinion Brake with reel order.

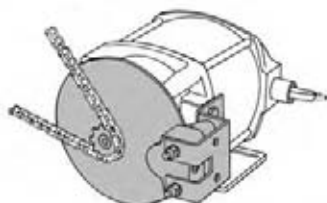


Comet Brake

Adjustable steel strap lined with brake pad material applies drag pressure to reel axle to control payout speed of the reel.

To order, specify part number (see Price List H-0415-OAL).

For factory installation, specify Comet Brake with reel order.

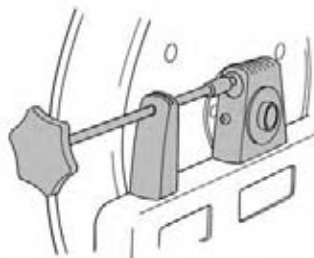


Caliper Brake

Clamps a disc on the motor shaft for positive locking of reels with power rewind. Can be operated manually, hydraulically or by compressed air.

To order, specify part number (see Price List H-0415-OAL).

For factory installation, specify Caliper Brake with reel order.



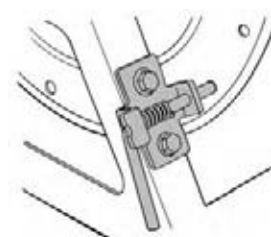
EH-820 Bearing/Brake Assembly

This assembly provides an alternate method of braking control on certain model reels. Assembly is installed in the back bearing position. Brake applies pressure to the reel axle to slow or lock the reel.

Can be factory installed, when specified with reel order, or supplied in kit form for field installation.

To order, specify part number (see Price List H-0415-OAL.)

For factory installation, specify Bearing Brake/Assembly with reel order.

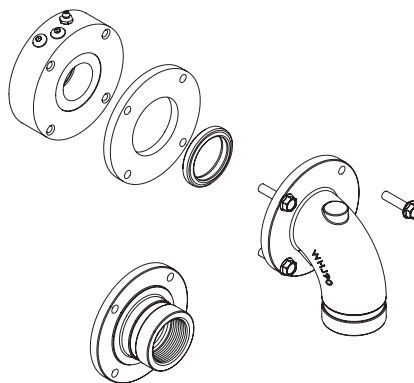


PL-1 Pin Lock

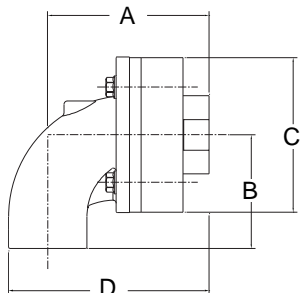
A positive, spring-actuated pin lock to prevent free-wheeling or recoil from pressure surges. May be factory-installed when specified on your reel order.

To order, specify part number (see Price List H-0415-OAL).

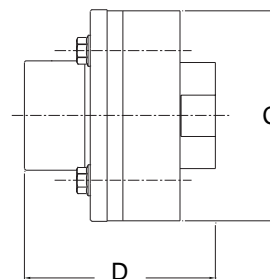
For factory installation, specify Pin Lock with reel order.



90°



Straight



90 Degree "WHJ" Swivel Joint Information

Model No.	Hannay P/N	Thread at Reel End	Inlet Style	Dimensions (Inches)			
				A	B	C	D
WHJ-1590 (Buna)	9930.4210	1-1/2" FNPT	1-1/2" FNPT & 2" Groove	4.81	3.38	4.63	6.00
WHJ-1590V (Viton)	9930.4220	1-1/2" FNPT	1-1/2" FNPT & 2" Groove	4.81	3.38	4.63	6.00
WHJ-1590-AL (Buna)	9930.4312	1-1/2" FNPT	1-1/2" FNPT & 2" Groove	4.81	3.38	4.63	6.00
WHJ-290V (Viton)	9931.4210	2" FNPT	1-1/2" FNPT & 2" Groove	5.25	3.38	4.63	6.44
WHJ-2290 (Buna)	9931.4521	2" FNPT	2" FNPT Only	5.25	3.25	4.63	6.69

STRAIGHT "WHJ" Swivel Joint Information

Model No.	Hannay P/N	Thread at Reel End	Inlet Style	Dimensions (Inches)			
				A	B	C	D
WHJ-15180 (Buna)	9930.4610	1-1/2" FNPT	1-1/2" FNPT & 2" Groove	---	---	4.63	4.19
WHJ-15180V (Viton)	9930.4611	1-1/2" FNPT	1-1/2" FNPT & 2" Groove	---	---	4.63	4.19
WHJ-15180-AL (Buna)	9930.4612	1-1/2" FNPT	1-1/2" FNPT & 2" Groove	---	---	4.63	4.19
WHJ-2180 (Buna)	9931.4721	2" FNPT	1-1/2" FNPT & 2" Groove	---	---	4.63	4.19
WHJ-22180 (Buna)	9931.4021	2" FNPT	2" FNPT Only	---	---	4.63	4.19

Spring Retractable Grounding Reels Series G 3000

Static discharge reels are used to ground equipment operating in hazardous atmospheres. When properly clamped to ground, the static discharge reel dissipates static electrical buildup, reducing the chances of sparking and the potential for explosion.

SPECIFICATIONS Includes cable installed on reel

MODEL	CABLE EXTENDED		Y	CABLE NOTES	WEIGHT	
	ft	m			lbs	kg
G 3050	50	15	N/A	Single 7 x 7 stranded steel*	12	5
G 3050 Y	50	15	2 @ 15' (5)	35' (9.2m) plus dual 15' (4.6m) for 'Y'* Total extension 50' (15m)	12	5
G 3050 N	50	15	N/A	Nylon covered cable**	12	5
GA3100 N	100	30	N/A	Hi-vis orange nylon covered cable**	22	10

*3/32" OD steel aircraft cable. DC resistance is approximately one ohm per 50 ft. of steel cable. **Nylon covered cable (1/8" O.D.). **Dimensions:** 8.62" x 3.35" x 8.81" (L x W x H). GA3100 N dimensions are 9.25" x 4.31" x 9 3/4" (L x W x H)

GA3100 N



G 3050 Y



G 3050

SD STATIC DISCHARGE SPRING RETRACTABLE REELS WITH GALVANIZED CABLE

WITH GALVANIZED CABLE				LESS CABLE & STOP		SIZE INDEX
MODEL	FT.	O.D.	APRX. LBS.	MODEL	APRX. LBS.	
SD-35	35	5/32"	18	-	-	1
SD-50	50	5/32"	20	SDL-50	18	1
SD-75	75	5/32"	31	-	-	2
SD-100	100	5/32"	32	SDL-100	28	2

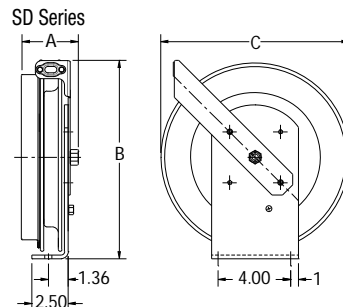
SD STATIC DISCHARGE SPRING RETRACTABLE REELS WITH STAINLESS STEEL CABLE

WITH STAINLESS STEEL CABLE				SIZE INDEX
MODEL	FT.	O.D.	APRX. LBS.	
SD-35-1	35	5/32"	18	1
SD-50-1	50	5/32"	20	1
SD-75-1	75	5/32"	31	2
SD-100-1	100	5/32"	32	2

"Y" branches are available at an additional cost, consult factory.

REEL DIMENSIONS

SIZE INDEX	A	B	C
1	4"	12"	11"
2	4"	15"	14 1/2"



Multi-Position
Arm Guide

Non-Sparking
Locking Ratchet





TX, TXD & TXSD Series

Sliding Vane Pumps

Reliability

Durable pumps for fast and quiet operation. Sliding vane design provides sustained performance and trouble free operation.

Unique Features

Adjustable relief valve protects pump from excessive pressure. Optional air operated relief valve offers easy hose and nozzle handling. T-type strainers are available to protect pumping systems from damage caused by welding slag and foreign matter in the piping and tanks.

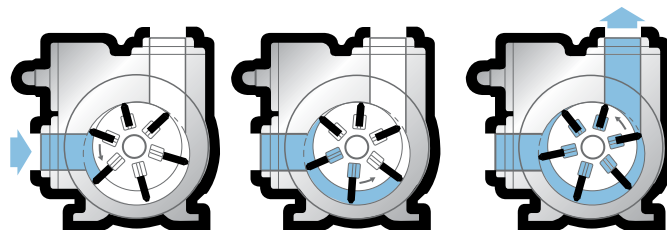
Sizing Options

Available in 1.5, 2, 2.5, 3, and 4-inch port sizes with flow rates from 10 to 500 U.S. gallons (2 to 113 m³/h) and pressures up to 125 psi (8.6 bar).

Applications

- | | |
|---------------------------|-------------------|
| ■ Fuel oil delivery truck | ■ Transport of |
| ■ Fleet refueling | · petro chemicals |
| ■ Lube oil | · gasoline |
| ■ Aviation refuelers | · biofuels |
| | · solvents |
| | · and many more |

TXSD models are equipped with a nickel-plated relief valve ideal for handling solvents, and FKM elastomers that are compatible with all Biodiesel and Ethanol blends.



How Blackmer's sliding vane action works



TX, TXD & TXSD Series Sliding Vane Pumps

Performance Data

Pump Model	TX1.5			TX(S)D2		TX(S)D2.5		TX(S)D3		TX4	
Rated Pump Speed	780	600	400	640	520	640	520	640	520	500	400
gpm	52	40	25	72	58	120	98	263	211	505	405
L/min	197	151	95	273	220	454	371	995	799	1,911	1,533
m ³ /h	12	9	6	16	13	27	22	60	48	115	92
hp	2.4	1.9	1.3	3.0	2.5	5.0	3.8	11.1	8.6	18.2	15
kW	1.8	1.4	1.0	2.2	1.9	3.7	2.8	8.3	6.4	13.6	11.2

* Appropriate capacities and horsepower (hp) are based on a 100 ssu (22 cP) fluid at 50 psi (3.4 bar) delivered pressure.

Refer to

Characteristic Curves for flow rates and torque requirements at other pressures and viscosities.

Maximum Operating Limits

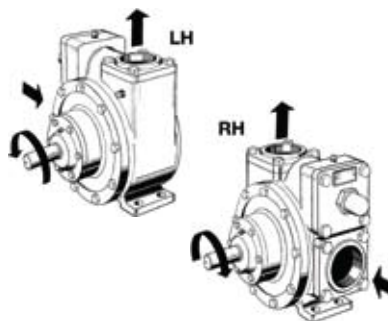
Pump Model	Nominal Flowrate		Pump Speed	Viscosity		Differential Pressure		Working Pressure		Temperature	
	gpm	L/min.	rpm	ssu	cP	psi	bar	psi	bar	°F	°C
TX1.5	56	212	780	20,000	4,250	125	8.6	175	12.1	300	149
TX(S)D2	87	329	780	20,000	4,250	125	8.6	175	12.1	300	149
TX(S)D2.5	157	594	780	20,000	4,250	125	8.6	175	12.1	300	149
TX(S)D3	270	1,022	640	20,000	4,250	125	8.6	175	12.1	300	149
TX4	505	1,911	500	20,000	4,250	125	8.6	175	12.1	240	116

Dimensions

Model		A	B	D	E	G	K	M	Q	S	T	AA	BB	DD		TT	Approx. Wt.	
TX1.5	in.	1 ¹ / ₈	1 ¹ / ₄	7 ¹³ / ₁₆	5 ¹ / ₁₆	3 ¹ / ₈	6 ¹ / ₂	4	8 ¹ / ₂	7	3 ⁹ / ₁₆	—	—	10 ³ / ₈		—	61	lbs.
	mm	—	—	198	129	79	165	102	216	178	90	—	—	264		—	28	kg
														1 ¹ / ₄ " HYD Motor Shaft	1" HYD Motor Shaft			
TX(S)D2	in.	1 ¹ / ₈	1 ¹ / ₄	8	5 ¹ / ₄	3 ¹ / ₂	6 ¹ / ₂	4	8 ¹¹ / ₁₆	6 ¹ / ₈	3 ⁷ / ₈	8 ³ / ₄	8 ⁵ / ₁₆	10 ⁷ / ₈	10 ⁹ / ₁₆	12 ¹ / ₈	70	lbs.
	mm	—	—	203	133	89	165	102	221	156	98	222	211	276	268	308	32	kg
TX(S)D2.5	in.	1 ¹ / ₈	1 ¹ / ₄	8 ³ / ₄	6	4 ⁷ / ₈	7	4	9 ⁵ / ₈	6 ¹³ / ₁₆	3 ¹⁵ / ₁₆	9 ¹ / ₂	8 ¹¹ / ₁₆	11 ⁵ / ₈	11 ⁵ / ₁₆	13 ⁵ / ₁₆	94	lbs.
	mm	—	—	222	152	124	178	102	244	173	100	241	221	295	287	338	43	kg
TX(S)D3	in.	1 ¹ / ₈	1 ¹ / ₄	9 ⁵ / ₈	6 ⁷ / ₁₆	4 ³ / ₈	7 ¹ / ₄	5 ³ / ₈	12 ¹³ / ₁₆	8 ⁹ / ₁₆	4 ¹⁵ / ₁₆	10 ¹¹ / ₁₆	9 ⁷ / ₁₆	12 ³ / ₈		15 ³ / ₈	152	lbs.
	mm	—	—	244	164	111	184	137	325	217	125	271	240	314		391	69	kg
TX4	in.	1 ¹ / ₂	3 ³ / ₈	11	8 ¹ / ₄	7	9 ¹ / ₂	6 ³ / ₈	15 ¹ / ₂	8 ¹ / ₂	6 ³ / ₈	—	—	—		—	295	lbs.
	mm	—	—	279	210	178	241	162	394	217	162	—	—	—		—	134	kg

Pump Rotation

Blackmer TX(S)D models are equipped with a double-ended drive shaft for either clockwise (RH) or counterclockwise (LH) rotation. Standard rotation for the TX1.5 is counterclockwise (LH) when viewed from the drive shaft. Standard rotation for the TX4 model is clockwise (RH).



Options

- FKM or PTFE O-rings
- Mechanical seals with stainless steel stationary seats
- Laminate vanes
- Pneumatic relief valve
- Hydraulic Motor Adapters
- Strainers



ROPER PUMPS

3600 Series

There must be 3600
easy ways to put
these ultra-reliable
workhorses to use.



Trouble-Free Versatility

Applications

- Mixing, blending, recirculating, and transferring heavy, viscous materials in either a fixed or mobile transfer application
- Ideal for gasoline, asphalt, molasses, ink, roofing compound, and oils

Features

- Heavy duty cast iron helical gear pumps
- Bi-directional, self-priming
- Differential pressures to 125 PSI
- Up to 468 GPM
- Standard operation up to 212°F
- Can be built to operate up to 450°F
- Maintenance-free durability

Options

- Through ports or angled ports; 2-sided or top and side configuration
- Threaded ports or flanged, tapped port connections
- Internal relief valve and integral gear reducer
- Outboard bearing, depending on drive and seal arrangements
- Materials - Iron and carbon Bearings; Stainless Steel Gears and Shafts; Delrin® Idler Gears for the 48 model

3600 Series [Click here for 3600 Series Angled Pumps](#)

Pump Model	Theoretical Capacity	Maximum Speed*	Maximum Flow at Maximum Speed (0 Discharge Pressure)	Maximum Pressure	Port Connection
3611/3711	.11GPR (416.4 CC/REV)	750 RPM	82.5 GPM (18.6 M ³ /HR)	125 PSI (8.6 Bar)	2" NPT
4611/4711	.11 GPR (416.4 CC/REV)	750 RPM	82.5 GPM (18.6 M ³ /HR)	125 PSI (8.6 Bar)	2" NPT
3617/3717	.17 GPR (643.5 CC/REV)	750 RPM	127.5 GPM (28.8 M ³ /HR)	125 PSI (8.6 Bar)	2" NPT
4617/4717	.17 GPR (643.5 CC/REV)	750 RPM	127.5 GPM (28.8 M ³ /HR)	125 PSI (8.6 Bar)	2" NPT
3622/3722	.22 GPR (832.8 CC/REV)	750 RPM	165 GPM (37.2 M ³ /HR)	125 PSI (8.6 Bar)	3" NPT
4622/4722	.22 GPR (832.8 CC/REV)	600 RPM	165 GPM (37.2 M ³ /HR)	125 PSI (8.6 Bar)	4" NPT
3632/3732	.32GPR (1211.33 CC/REV)	900 RPM	288 GPM (65.4 M ³ /HR)	125 PSI (8.6 Bar)	3" NPT
3635/3735	.35 GPR (1324.89 CC/REV)	600 RPM	222 GPM (50.4 M ³ /HR)	125 PSI (8.6 Bar)	3" NPT
3643/3743	.43 GPR (1627.73 CC/REV)	900 RPM	387 GPM (87.9 M ³ /HR)	125 PSI (8.6 Bar)	3" NPT
3648/3748	.52GPR (1817.0 CC/REV)	900 RPM	468 GPM (106.2 M ³ /HR)	125 PSI (8.6 Bar)	4" NPT
3658/3758	.58 GPR (2195.53 CC/REV)	600 RPM	348 GPM (81.6 M ³ /HR)	125 PSI (8.6 Bar)	4" NPT
4658/4758	.58 GPR (2195.53 CC/REV)	600 RPM	365 GPM (79.2 M ³ /HR)	125 PSI (8.6 Bar)	4" NPT

*Maximum speed may not be suitable for all applications. Please contact manufacturer to discuss operating conditions before purchasing.

Key Features

Characteristics

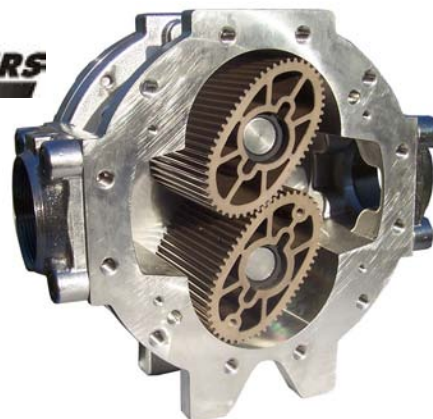
- Right angle port design
- Bi-directional rotation
- Iron or Carbon Bushing Options
- Mechanical Seal Options

Materials of Construction

- Cast Iron Housing
- Steel Shaft
- Bronze Bearings
- Hardened Iron Gears
- Delrin® Idler Gears for the 32 and 43 models



Lower Cost of Ownership!



Patented 'Wave Form' oval gear design:

FPP MODEL	L/C MODEL
TS15A	M5
TS20A	M7-M10
TS30A	M15-M25



Original design with irregular tooth dimensions

'Wave Form' tooth design patented in 2003.

Designed to be either mechanical or electronic drive (gland-less):



TS15AV06AT

with mechanical 7887 register

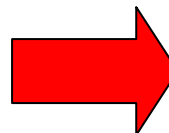


TS20AF46AX2UE

with EMR³ register & electronic preset valve

With 'Wave Form' internal pulser, the electronic register is installed **on flow meter case**, so the meter can be serviced **without removing the electronic register**.

- *It's smaller.*
- *It's easier to service.*
- *It's one meter for all refined fuels up to E15.*
- *It is Tuthill*



5"
smaller

VISIBLE REGISTERS
&
TICKET PRINTERS

Veeder Root Registers



7890 REGISTER WITH TICKET PRINTER



7887 REGISTER ONLY

FACTORY REBUILT REGISTERS IN STOCK



HOSES IN STOCK & CAN SHIP TODAY

Hose Product Information

Kanapower ST 120 LT



I.D., Inches	2	3	4
O.D., Inches	2.68	3.68	4.82
PITCH, Inches	.39	.59	.65
MINIMUM BENDING RADIUS 72°F, Inches	5.0	6.0	8.0
WORKING PRESSURE 72°F, P.S.I.	65	65	65
VACUUM RATING 72°F, In./Hg	29.8	29.8	29.8
WEIGHT, Lbs./Ft.	1.13	1.37	2.16
STANDARD LENGTH, Ft	60,100	60,100	60,100

Tank truck drop hose with grounding wire

Temperature Ranges: -30°F to 140°F

Applications: Tank truck gravity drop hose for such items as gasoline, naphtha, kerosene, light and heavy oil, diesel, and up to 15% ethanol mixture. Not for Biodiesel.

Features: Static grounding wire, 50% lighter than conventional rubber hose, external helix provides for easy drag, and rated for up to 40% aromatic content.

Construction: Nitrile rubber, rigid PVC helix, synthetic braiding, smooth bore, static grounding wire, corrugated O.D.

Static wire must be properly imbedded during fabrication and tested to assure static grounding of hose to a grounded system.

Tigervapor™ Vapor Recovery Hose Series TV

Check up to five results to perform an action.



- **General Applications :** Tank truck and terminal vapor recovery transfer
- **Construction :** Polyurethane hose with rigid PVC helix
- **Service Temperature :** -40°F (-40°C) to 150°F (65.5°C)
Actual service temperature range is application-dependent ^OD measured over helix.

Note : Service life may vary depending on operating conditions and type of fuels being conveyed.

<u>Item #</u>	<u>Nominal ID Size</u>	<u>Nominal OD Size</u>	<u>Min. Bend Radius at 68°F</u>	<u>Std. Length</u>	<u>Weight</u>
<input type="checkbox"/> TV202X100	2.02 Inches	2.46 Inches	3 Inches	60 ft.	0.51 lbs/ft
<input type="checkbox"/> TV303X100	3.03 Inches	3.57 Inches	3.5 Inches	60 ft.	0.78 lbs/ft
<input type="checkbox"/> TV404X100	4.04 Inches	4.61 Inches	4.5 Inches	60 ft.	1.1 lbs/ft

Tigerdrop™ Clear Drop Hose Series TDH

Check up to five results to perform an action.

Clear - "See-the-flow"



- **General Applications :** Tank truck gravity drop and terminal fuel transfer
- **Construction :** Polyurethane hose with polyester fabric reinforcement and rigid PVC helix
- **Service Temperature :** -40°F (-40°C) to 150°F (65.5°C)
Actual service temperature range is application-dependent ^

Note : Service life may vary depending on operating conditions and type of fuels being conveyed.

<u>Item #</u>	<u>Nominal ID Size</u>	<u>Nominal OD Size</u>	<u>Min. Bend Radius at 68°F</u>	<u>Std. Length</u>	<u>Weight</u>
<input type="checkbox"/> TDH303X100	3.03 Inches	3.78 Inches	6 Inches	20 ft. 100 ft.	1.2 lbs/ft
<input type="checkbox"/> TDH404X100	4.04 Inches	4.82 Inches	8 Inches	20 ft. 57 ft. 100 ft.	1.7 lbs/ft

COBRA™ FUEL OIL DELIVERY

Cobra Fuel Oil Delivery hose is designed for the delivery and transfer of fuels, oils, commercial gasoline, diesel, kerosene and related petroleum-based products for home delivery, marine, commercial and industrial service. It features an NBR/PVC cover with multiple spiral polyester reinforcement. This unique spiral construction adds strength and flexibility to the hose while making it easy to handle and kink resistant. The smooth, durable cover resists oil and abrasion and is less resistant to dragging, making it the driver's choice. This hose provides top performance and offers a constant working pressure of 250 psi in all sizes.

Note: A static wire is included on all sizes as a safety precaution



Cover Color: Red
Oil Resistance: High
Construction:
Tube: NBR, RMA Class A
Cover: NBR/PVC, RMA Class A
Reinforcement: High tensile spiral polyester cord
Temperature Range: -40°F to +212°F
-40°C to +100°C
Packaging: Reels

Resistance:



Branding:

Thermoid Cobra I.D. Fuel Oil Hose
WP 250 PSI Made In USA
Month/Year

Product Number	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Reinforcement Spirals	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)
22564642662	1 25.40	1.50 38.10	4	250 1.72	7.00 177.80	0.47 0.70
22564802662	1-1/4 31.75	1.78 45.24	4	250 1.72	8.75 222.25	0.59 0.88
22564882662	1-3/8 34.93	1.88 47.63	4	250 1.72	9.25 234.95	0.65 0.97
22564962662	1-1/2 38.10	2.09 53.18	4	250 1.72	10.50 266.70	0.80 1.19

HOSES IN STOCK

1 1/4" X 150'
1 3/8" X 150'
1 1/2" X 150'

CUSTOM SIZES AVAILABLE!

WE CUT & COUPLE OUR OWN HOSE!

PUMPFLEX® I – Softwall

Pumpflex I is designed for curb pump self-service stations and highly sensitive electronic fuel pumps. Pumpflex I is the longest lasting automotive refueling hose in use at service stations today. The durable construction of this hose resists deterioration from fuel in the tube. The cover stands up to the ravages of ozone and sunlight. Many hoses fail from cracking behind the nozzle end coupling within two to three years, but Pumpflex I will last longer under normal circumstances. Thermoid continues to use industry standard permanent chrome-plated brass couplings, while others do not. When you need a hose, use the best: Pumpflex I.

Note: Do not use reusable couplings with this product.



Cover Color: Black
Oil Resistance: High, Medium-High
Construction:
Tube: NBR/PVC, RMA Class A
Cover: Thermalon™, U/L approved, Class B
Reinforcement: Spiral polyester cord with static wire (Softwall)
Temperature range: -40°F to +180°F
-40°C to +82°C
Packaging: Reels, coupled lengths
Colored covers; contact customer service for minimum run requirements

Resistance:



Branding:

Thermoid Size Pumpflex I
Gasoline Hose UL Listed 97MO
Made In USA Month/Year

Product Number	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Reinforcement Spirals	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)
22462401662▲	5/8 15.88	1.03 26.19	2	200 1.38	3.75 95.25	0.27 0.40
22462481662	3/4 19.05	1.13 28.58	2	200 1.38	4.50 114.30	0.32 0.48
22464641662	1 25.40	1.50 38.10	2	150 1.03	7.00 177.80	0.62 0.92

▲ = Make To Order (MTO)

Coupled Lengths, Male x Male Permanent Fittings

HOSES IN STOCK

3/4" X 12' 3/4" X 14'
1" X 12' 1" X 14'

CUSTOM SIZES AVAILABLE!

3/4" X 17' 3/4" X 20'
1" X 17' 1" X 20'

WE CUT & COUPLE OUR OWN HOSES!

3/4" X 25' 3/4" X 50' 3/4" X 100'
1" X 25' 1" X 50' 1" X 100'

FARM HOSES WITH STATIC WIRE



Part Number Group TD	Description	UPC Code 0-89404	Models Affected	P.O.P. Packaged
FRH07512	¾" x 12' Hose with Static Wire, Spring Guards, and Threaded Fittings	19009-8	All Electric Pumps with ¾" Outlet	Yes
FRH07514	¾" x 14' Hose with Static Wire, Spring Guard, and Threaded Fittings	18095-2	All Products with ¾" Outlet	Yes
FRH07520	¾" x 20' Hose with Static Wire, Spring Guard, and Threaded Fittings	19208-5	All Products with ¾" Outlet	Yes
FRH10012	1" x 12' Hose with Static Wire, Spring Guard, and Threaded Fittings	19109-5	All Products with 1" Outlet	Yes
FRH10014	1" x 14' Hose with Static Wire, Spring Guard, and Threaded Fittings	18096-9	All Products with 1" Outlet	Yes
FRH10020	1" x 20' Hose with Static Wire, Spring Guard, and Threaded Fittings	19209-2	All Products with 1" Outlet	Yes

SWC609 TITANFLEX® PETROLEUM SUCTION HOSE - BLK CVR

- Corrugated petroleum suction and discharge hose designed for commercial gasoline, diesel and fuel oils.
- Extreme flexibility and superior bend radius.
- Unique non-kinking design increases service life.

Tube: Extruded Nitrile.
Reinforcement: Textile with dual wire helix.
Cover: Black specially compounded Nitrile.
Temperature: -40° to +180°F.

I.D.	O.D.	BEND RADIUS	WORKING PRESSURE PSI	WEIGHT LB/FT	VACUUM
1-1/2"	1-1/2"	1-1/2"	250	.72	Full
2"	2-9/16"	2"	250	.92	Full
2-1/2"	3-3/16"	2-1/2"	200	1.35	Full
3"	3-11/16"	3"	200	1.66	Full
4"	4-5/8"	4"	150	2.26	Full
6"	6-3/4"	8"	125	4.16	



SW333 PETROLEUM SUCTION HOSE

- High pressure petroleum suction and discharge hose designed for bottom loading of tank trucks and rail cars.
- Cover is oil, abrasion and ozone resistant.

Tube: Extruded Nitrile.
Reinforcement: Textile with wire helix.
Cover: Specially compounded Nitrile.
Temperature: -40° to +180°F.

I.D.	O.D.	BEND RADIUS	WORKING PRESSURE PSI	WEIGHT LB/FT	VACUUM
2"	2-9/16"	8"	250	1.22	Full
3"	3-3/4"	12"	250	2.29	Full
4"	4-3/4"	18"	250	3.28	Full
6"	6-29/32"	30"	250	5.69	Full



SW549 BIOPLUS PETROLEUM SUCTION HOSE

- For use in the transfer of diesel, B-100, biodiesel blends, gasoline, E-100, ethanol blends, and petroleum based products with up to 60% aromatic content.
- Ideal for tank truck, refinery, and other in-plant operations.
- Reduce inventory by stocking BIOPLUS to service multiple green fuel transfer applications.

Tube: Extruded specially compounded Nitrile.
Reinforcement: Textile with dual wire helix.
Cover: Specially compounded Nitrile.
Temperature: -30° to +180°F.

I.D.	O.D.	BEND RADIUS	WORKING PRESSURE PSI	WEIGHT LB/FT	VACUUM
1"	1-7/16"	4	150	.44	FULL
1-1/4"	1-11/16"	5	150	.53	FULL
1-1/2"	1-15/16"	6	150	.68	FULL
2"	2-1/2"	8	150	1.03	FULL
2-1/2"	3"	10	150	1.29	FULL
3"	3-1/2"	12	150	1.76	FULL
4"	4-9/16"	18	150	2.52	FULL
5"	5-11/16"	24	100	3.67	FULL
6"	6-3/4"	30	100	4.87	

BIOPLUS™
Petroleum Suction Hose
Part# SW549



Uni-Chem's composite hose design provides for the most flexible media transfer solution. Combined with a lightweight construction and uniformly crimped ends for maximum operator ease of handling.

Standard Chemical Service

Uni-Chem™ PG, PS, SG and SS composite hoses are specifically designed for in-plant liquid transfer operations as well as tank truck delivery and rail car loading. Constructed with multiple plies of polypropylene films and polyester vapor barrier these hoses can be operated at working pressure or full suction.

Uni-Chem™ PG, PS

P-Polypropylene Coated Steel Inner Helix
G-High Tensile Galvanized Carbon Steel Outer Helix or
S-316L Stainless Steel - Outer Helix

Uni-Chem™ SG, SS

S-316L Stainless Steel - Inner Helix
G-High Tensile Galvanized Carbon Steel Outer Helix or
S-316L Stainless Steel - Outer Helix

INS* ID	1	1.5	2	3	4	6	8
OUT* ID	1.5	1.9	2.4	3.4	4.4	7.0	9.4
Max WP PSI	250	250	250	250	250	250	250
Burst Pres PSI	1000	1000	1000	1000	1000	1000	1000
Bend Rad. Inches	4.0	5.0	6.0	7.9	11.9	22.0	30.0
Weight LB/FT	0.58	0.79	1.18	1.88	2.68	7.20	11.0
Max Lengths	100	100	100	100	100	100	100

Operating Temperature -40°F to +212°F / -40°C to +100°C

Special Chemical Service

Uni-FLON™ special chemical service hoses are built to meet the demands of today's highly aggressive media. Superior chemical resistance is achieved with a Teflon® PTFE, inner liner, reinforced with multiple plies of polyester and polypropylene films.

Uni-FLON™ SG

S-316L Stainless Steel - Inner Helix
G-High Tensile Galvanized Carbon Steel Outer Helix

Uni-FLON™ SS

S-316L Stainless Steel - Inner Helix
S-316L Stainless Steel - Outer Helix

INS* ID	1	1.5	2	3	4	6	8
OUT* ID	1.5	2.0	2.5	3.5	4.5	7.0	9.4
Max WP PSI	250	250	250	250	250	250	250
Burst Pres PSI	1000	1000	1000	1000	1000	1000	1000
Bend Rad. Inches	4.1	5.9	7.8	11.1	14.2	22.0	30.0
Weight LB/FT	0.6	0.8	1.6	2.4	3.2	7.2	11.0
Max Lengths	100	100	100	100	100	100	100

Operating Temperature -40°F to +250°F / -40°C to +121°C

Standard Petroleum Service

Uni-OIL™ GG standard petroleum service hoses are designed for the transfer of a wide range of petroleum products. Uni-OIL™ GG hoses are ideal for transfer of media from storage tanks and process piping to rail cars or tank trucks. Multiple plies of polypropylene films and fabrics are encased in a polyester vapor barrier for superior operation.

Uni-OIL™ GG

G-High Tensile Galvanized Carbon Steel Inner Helix
G-High Tensile Galvanized Carbon Steel Outer Helix

INS* ID	1	1.5	2	3	4	6	8
OUT* ID	1.5	2.0	2.5	3.5	4.5	7.0	9.4
Max WP PSI	250	250	250	250	250	250	250
Burst Pres PSI	1000	1000	1000	1000	1000	1000	1000
Bend Rad. Inches	4.1	5.1	6.1	8.2	14.0	22.0	30.0
Weight LB/FT	0.6	0.8	1.6	2.4	3.2	7.2	11.0
Max Lengths	100	100	100	100	100	100	100

Operating Temperature -40°F to +212°F / -40°C to +100°C

Special Petroleum Service

Uni-ZENE™ special service petroleum hose is designed to handle modern gasoline additives such as MTBE, ethanol and 100% benzene.

Uni-ZENE™ hoses are built with an effective combination of polyamide, polyester and polypropylene film and fabrics to meet the demands of today's additives.

Also recommended for all
JP aviation fuels.

Uni-ZENE™

G-High Tensile Galvanized Carbon Steel Inner Helix.
G-High Tensile Galvanized Carbon Steel Outer Helix.

INS* ID	1	1.5	2	3	4	6	8
OUT* ID	1.5	2.0	2.5	3.5	4.5	7.0	9.4
Max WP PSI	250	250	250	250	250	250	250
Burst Pres PSI	1000	1000	1000	1000	1000	1000	1000
Bend Rad. Inches	4.1	5.1	6.1	8.2	14.0	22.0	30.0
Weight LB/FT	0.6	0.8	1.6	2.4	3.2	7.2	11.0
Max Lengths	100	100	100	100	100	100	100

Operating Temperature -40°F to +250°F / -40°C to +121°C

Uni BioFuel 100 & Nova BioFuel 100



Uni BioFuel 100

Bio-diesel and Ethanol Service

Uni BioFuel 100, a special alternative fuel hose designed to handle all grades of bio-diesel, including 100% B100, neat biodiesel and E85 - 85% ethanol fuel blends.

Uni BioFuel hoses are built with a specialized combination of high performance films and fabrics designed to handle today's fully concentrated alternative fuels.

Uni BioFuel 100

G-High Tensile Galvanized Carbon Steel Inner Helix

G-High Tensile Galvanized Carbon Steel Outer Helix

Temperature Range: -40°F to +180°F

(intermittent, transfer service 250°F)

Part No	Inside I.D.	Outside I.D.	Max WP psi	Burst pres psi	Bend Radius (inch)	Weight/ lb/ft	Max Length
3UCBIOFUEL-01.00	1	1.5	250	1000	4.1	0.6	60
3UCBIOFUEL-08.00	1.5	2.0	250	1000	5.1	0.8	60
3UCBIOFUEL-02.00	2	2.5	250	1000	6.1	1.6	60
3UCBIOFUEL-03.00	3	3.5	250	1000	8.2	2.4	60
3UCBIOFUEL-04.00	4	4.5	250	1000	14.0	3.2	60
3UCBIOFUEL-06.00	6	7.0	250	1000	22.0	7.2	60
3UCBIOFUEL-08.00	8	9.4	250	1000	30.0	11.0	60

Nova BioFuel 100

Bio-diesel and Ethanol Service

A rubber hose designed to handle all grades of Bio-diesel and Ethanol. This is a flexible, full suction and discharge hose for in plant applications or for loading tank cars and trucks.

Construction:

Tube: Viton® chemical and heat resistant rubber

Reinforcement: Plies of polyester tire cord with helix wire

Cover: Smooth red weather and abrasion resistant nitrile rubber

Length: 100 ft.

Temperature Range: -20°F to +250°F.

Consult chemical resistance chart.

Not for steam service, can be open end steam cleaned



Part No.	I.D.	O.D.	Plies	WP psi	WT LBS/FT
4805BV-01000-00	1	1.51	2	200	0.69
4805BV-01250-00	1¼	1.76	2	200	0.83
4805BV-01500-00	1½	2.05	2	200	1.06
4805BV-02000-00	2	2.56	2	200	1.42
4805BV-02500-00	2½	3.06	2	200	1.73
4805BV-03000-00	3	3.60	2	200	2.21
4805BV-04000-00	4	4.67	4	200	3.46



T505OG - 240 PSI XLPE Tube Chemical Hose

WARNING
BEFORE USING
CHEMICAL HOSES
CONSULT CHEMICAL
RESISTANCE CHART
OR CONSULT
FACTORY.



APPLICATION

Suction and transfer service for a variety of chemicals and solvents. Will handle 90% of existing chemicals. See Chemical Resistance Chart on pages 58 – 66.

COVER

Green EPDM — abrasion and ozone resistant.

REINFORCEMENT

High tensile textile cords and **4** highly flexible steel helix wires.

TUBE

Transparent XLPE (cross-linked polyethylene).

TEMPERATURE RANGE

Normal recommended operating temperature is -4°F (-20°C) to 150°F (+65°C).

STANDARD LENGTH

100 feet

BRANDING

ALFAGOMMA – ITALY T505 16 BAR (240 PSI) – XLPE
CHEMICAL – S & D (in orange letters)

NOTE — Can be sterilized with water and 5% soda mix

IT IS ADVISABLE TO TEST THE TUBE MATERIAL UNDER ACTUAL SERVICE
CONDITIONS PRIOR TO USE.

NOTE: FOR MAXIMUM SERVICE LIFE, WE RECOMMEND THAT T505 HOSE BE
FLUSHED OUT AFTER EVERY USE.

Nominal Specifications

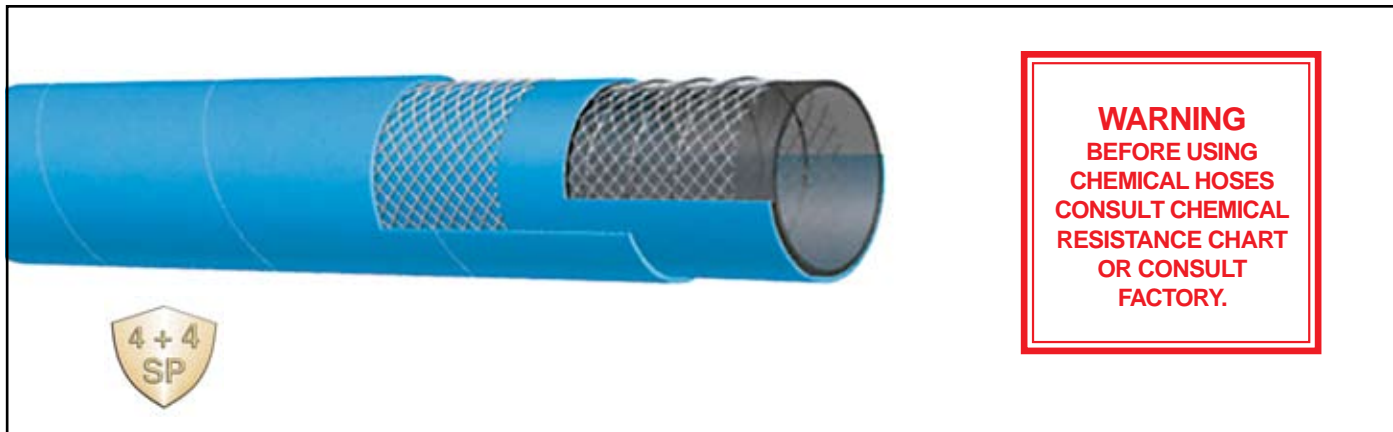
SERIES NO.	NOMINAL ID		NOMINAL OD		APPROX. WT. lbs./100 ft.	MAX. REC. WP (PSI)	MIN. BEND RADIUS (in.)
	(in.)	(mm)	(in.)	(mm)			
T505OG075	3/4	19	1.22	31	46	240	7 1/2
T505OG100	1	25	1.46	37	57	240	9
T505OG150	1 1/2	38	2.01	51	78	240	13 1/4
T505OG200	2	51	2.56	65	103	240	16 1/4
T505OG300	3	76	3.62	92	187	240	20 3/4
T505OG400	4	102	4.65	118	254	240	26 1/2

COUPLING SUGGESTIONS

Quick-Acting and combination nipples, preferably stainless steel, attached with bands.



T509OE - 240 PSI Alfachem UHMWPE Tube Chemical Hose



APPLICATION

Suction and transfer service for a variety of chemicals and acids. Will handle 98% of EXISTING CHEMICALS. See Chemical Resistance Chart on pages 58 – 66.

COVER

Blue EPDM — abrasion and ozone resistant.

REINFORCEMENT

Synthetic textile cords with **4** highly flexible steel helix wires.

TUBE

Transparent UHMWPE (Ultra High Molecular Weight Polyethylene).

TEMPERATURE RANGE

Normal recommended operating temperature is -4°F (-20°C) to 150°F (+65°C).

FEATURES

Meets FDA requirements

STANDARD LENGTH

100 feet

BRANDING

ALFAGOMMA – ITALY T509 16 BAR (240 PSI) – UHMWPE CHEMICAL – S&D (in orange letters)

NOTE: Can be Sterilized with 30 PSI saturated steam at 250°F for 30 minutes - **OPEN END**

IT IS ADVISABLE TO TEST THE TUBE MATERIAL UNDER ACTUAL SERVICE CONDITIONS PRIOR TO USE.

NOTE: FOR MAXIMUM SERVICE LIFE, WE RECOMMEND THAT T509 HOSE BE FLUSHED OUT AFTER EVERY USE.

Nominal Specifications

SERIES NO.	NOMINAL ID		NOMINAL OD		APPROX. WT. lbs./100 ft.	MAX. REC. WP (PSI)	MIN. BEND RADIUS (in.)
	(in.)	(mm)	(in.)	(mm)			
T509OE075	3/4	19	1.22	31	40	240	7 1/2
T509OE100	1	25	1.46	37	49	240	9
T509OE125	1 1/4	32	1.73	44	58	240	10 1/4
T509OE150	1 1/2	38	1.97	50	68	240	13 1/4
T509OE200	2	51	2.48	63	89	240	16 1/4
T509OE250	2 1/2	63	3.03	77	140	240	17 1/2
T509OE300	3	76	3.62	92	190	240	20 3/4
T509OE400	4	102	4.65	118	259	240	26 1/2

COUPLING SUGGESTIONS

Quick-Acting and combination nipples, preferably stainless steel, attached with bands.

SS124 AIRCRAFT FUELING HOSE

- Economically designed, ultra-flexible aircraft fueling hose.
- Meets or exceeds all requirements for aircraft refueling hose: API 1529/6th Edition 2005, Type C, Grade 1, NFPA 407, Maximum W.P. 150 PSI. Tested to 300 PSI.
- Lightweight construction allows easy handling for reel service.

Tube: Extruded specially compounded Nitrile.
Reinforcement: Textile.
Cover: Specially compounded Nitrile.
Temperature: -40° to +180°F.

I.D.	O.D.	REINFORCEMENT	WORKING PRESSURE PSI	WEIGHT LB/FT
1"	1 ⁹ / ₁₆ "	2 plies	150	.56
1 ¹ / ₄ "	1 ¹³ / ₁₆ "	2 plies	150	.66
1 ¹ / ₂ "	2 ¹ / ₁₆ "	2 plies	150	.79
2"	2 ⁹ / ₁₆ "	2 plies	150	1.01

Sold in coupled, tested, and certified lengths.



SS244 AIRCRAFT FUELING HOSE

- Designed to handle commercial and military aviation fuels.
- Excellent for top deck reel and platform type refuelers.
- High grade seamless extruded tube diminishes contamination of fuels and fuel systems.
- Meets or exceeds all requirements for aircraft fueling hose specified in API 1529/6th Edition 2005 Type C, Grade 2, NFPA 407, BS EN1361:1997/C, Maximum w.p. 300 PSI (20 bars), Hydrostatically tested to 600 PSI.

Tube: Extruded Nitrile.
Reinforcement: Textile.
Cover: Specially compounded Nitrile.
Temperature: -40° to +180°F.

I.D.	O.D.	REINFORCEMENT	WORKING PRESSURE PSI	WEIGHT LB/FT
1"	1 ¹¹ / ₁₆ "	4 plies	300	.64
1 ¹ / ₄ "	1 ¹⁵ / ₁₆ "	4 plies	300	.76
1 ¹ / ₂ "	2 ³ / ₁₆ "	4 plies	300	.91
2"	2 ¹¹ / ₁₆ "	4 plies	300	1.23
2 ¹ / ₂ "	3 ³ / ₁₆ "	4 plies	300	1.50
3"	3 ¹¹ / ₁₆ "	4 plies	300	1.85
4"	4 ⁷ / ₈ "	6 plies	300	2.80

Sold in coupled, tested, and certified lengths.



SW344 AIRCRAFT JAC-RISER HOSE

- Designed for aircraft refuelers equipped with moveable service platforms to act as a flexible connection between the platform and the refueling truck.
- Excellent for defueling applications.
- Meets or exceeds all requirements specified in API 1529/6th Edition 2005 Type E, Grade 2, & NFPA 407, BSEN1361:1997/E, Maximum w.p. 300 PSI, Hydrostatically tested to 600 PSI.

Tube: Extruded Nitrile.
Reinforcement: Textile with dual wire helix.
Cover: Specially compounded Nitrile.
Temperature: -40° to +180°F.

I.D.	O.D.	BEND RADIUS	WORKING PRESSURE PSI	WEIGHT LB/FT	VACUUM
1 ¹ / ₂ "	2 ⁵ / ₁₆ "	6"	300	1.34	Full
2"	2 ¹³ / ₁₆ "	8"	300	1.73	Full
3"	3 ⁷ / ₈ "	12"	300	2.75	Full
4"	4 ¹⁵ / ₁₆ "	16"	300	3.95	Full

Sold in coupled, tested, and certified lengths.



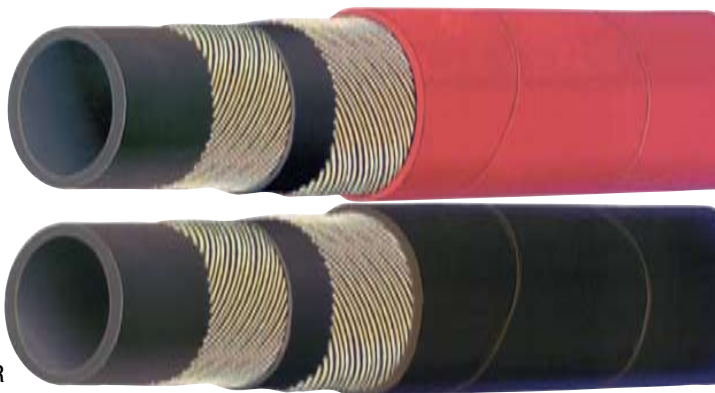
T331AH / T331AA - 250 PSI Chlorobutyl Steam Hose

Warning

Handling steam is very hazardous. If it is not properly controlled it can cause property damage, injury or even death. Selection for the proper application, usage, and maintenance will not only increase hose life but will insure safe operation for the user.

T331AH
RED COVER

T331AA
BLACK COVER



APPLICATION

- ★ The transfer of saturated and superheated steam up to 250 PSI and max 430°F in shipyards, chemical plants and industrial applications.

- ★ Proper draining of steam hose after each use will increase service life.

Not recommended for washdown applications where detergent or oils are present.

COVER

Red or black heat-resistant EPDM rubber. Wrapped cover fabric impression. Pin-pricked cover to allow venting.

REINFORCEMENT

High tensile spiral steel wire.

TUBE

Black Chlorobutyl. **Not for steam cleaner use.**

TEMPERATURE RANGE

-40°F (-40°C) to 430°F (+220°C)

STANDARD LENGTH

50 or 100 feet.

WORKING PRESSURE

Constant Pressure — 17 Bar (250 PSI)

Nominal Specifications

SERIES NO.	NOMINAL ID		NOMINAL OD		APPROX. WT. lbs./100 ft.	MIN. BEND RADIUS (in.)
	(in.)	(mm)	(in.)	(mm)		
T331AH/AA050	1/2	13	0.98	25	40	5
T331AH/AA075	3/4	19	1.26	32	52	7 1/2
T331AH/AA100	1	25	1.50	38	67	10
* T331AH/AA125	1 1/4	32	1.81	46	83	12 1/2
* T331AH/AA150	1 1/2	38	2.05	52	97	15
* T331AH/AA200	2	51	2.64	67	153	20

COUPLING SUGGESTIONS

Steel or malleable iron male insert NPT or female ground joint or washer type with spuds attached with 2 or 4 bolt interlocking clamps.

Redi-Lock® 300 - Non-Conductive 300 PSI Push-On Hose

- **NON-CONDUCTIVE**
- **MSHA APPROVED FLAME RESISTANT COVER**
- **EASY TO COUPLE**
- **LONG LENGTHS ON REELS**

APPLICATIONS:

- Low Pressure Pneumatic Systems
- Air Tools
- Water, Oil and Mild Chemical Solutions
- Robotic Welders

✱Not recommended for unleaded gasoline

Special colors available in Blue, Gray and Red. Call for availability and or minimum run requirements.

Cover: Black Nitrile/PVC

Reinforcement: Aramid Spiral Yarn

Tube: Nitrile

Oil Resistance: RMA - Class A

Branding: REDI-LOCK NON-CONDUCTIVE 300
PSI <size> MADE IN USA MSHA1C - 114/03

Packaging: MAXIMUM 2 PCS ON REEL

1/4" - 5/8" ID hoses supplied on plastic reels, 3/4"
ID hoses supplied on wooden reels



**NEW
PRODUCT**

Service Temperature Range: -30°F (-34°C) to 180°F (+82°C)

Part Number	Color	ID (Inches)	OD (Inches)	Working Pressure (PSI)	Approx. Weight (lbs/100')	Reel Length (ft.)
REDI-LOC-04X700	Black	1/4"	1/2"	300	10	700
REDI-LOC-06X700	Black	3/8"	5/8"	300	13	700
REDI-LOC-08X700	Black	1/2"	3/4"	300	16	700
REDI-LOC-10X700	Black	5/8"	29/32"	300	22.6	700
REDI-LOC-12X700	Black	3/4"	1 1/32"	300	26	700

Introducing Safety Bump™... The Solution To Transport Hose

An alternative choice to the traditional cam and groove caps and plugs, providing a comfortable handle for the driver's hand and a "bump" that extends beyond the hose fittings and ears, protecting them from damage.

Safety Bumps™, patent pending, are available in two, three and four inch, male and female models, in a hazardous/petroleum configuration with antistatic additive, a food grade with a food grade certified composite and a septic configuration all are made from a glass-filled composite.

*Save Your Drivers' Hands.
Protect Your Fittings and
Hose Trays.*



Item#	Part #	Description
77001	20SBM Male	Antistatic Poly
77002	20SBM-FG Male	Food Grd Poly
77003	20SBF Female	Antistatic Poly
77004	20SBF-FG Female	Food Grd Poly
77005	30SBM Male	Antistatic Poly
77006	30SBM-FG Male	Food Grd Poly
77007	30SBF Female	Antistatic Poly
77008	30SBF-FG Female	Food Grd Poly
77009	40SBM Male	Antistatic Poly
77010	40SBM-FG Male	Food Grd Poly
77011	40SBF Female	Antistatic Poly
77012	40SBF-FG Female	Food Grd Poly
77020	20SBM-S Male	Septic
77021	20SBF-S Female	Septic
77022	30SBM-S Male	Septic
77023	30SBF-S Female	Septic
77024	40SBM-S Male	Septic
77025	40SBF-S Female	Septic

**Food Grade
Available
in 2", 3" & 4"**



Safety Lock™ ... Eliminate Spills. Visually Confirm Ear Locking.

Eliminates spills due to imported cam lock ears opening up during deliveries.

Safety Locks™, patent pending, is an alternative product to the Velcro straps with an easy-to-install and easy-to remove, heavy duty "clip" which clicks into place over the ears.

Item#	Part #	Description
77015	20SBL	Safety Lock
77013	30SBL	Safety Lock
77014	40SBL	Safety Lock

PT is the recognized leader worldwide for cam and groove style hose couplings. Available in almost every alloy, PT has earned a reputation as a company that can offer a solution to almost any application.



PART A - ADAPTER

ADAPTER X FEMALE NPT THREAD

Sizes: 1/2" - 12"

Materials: AL, BR, SS, DI, HCA, CS, PP, NY, FDA

Made in U.S.A.



PART B - COUPLER

COUPLER X MALE NPT THREAD

Sizes: 1/2" - 12"

Materials: AL, BR, SS, DI, HCA, CS, PP, NY, FDA

Made in U.S.A.



PART C - COUPLER

COUPLER X HOSE SHANK

Sizes: 1/2" - 12"

Materials: AL, BR, SS, DI, HCA, CS, PP, NY, FDA

Made in U.S.A.



PART D - COUPLER

COUPLER X FEMALE NPT THREAD

Sizes: 1/2" - 12"

Materials: AL, BR, SS, DI, HCA, CS, PP, NY, FDA

Made in U.S.A.



PART E - ADAPTER

ADAPTER X HOSE SHANK

Sizes: 1/2" - 12"

Materials: AL, BR, SS, DI, HCA, CS, PP, NY, FDA

Made in U.S.A.



PART F - ADAPTER

ADAPTER X MALE NPT THREAD

Sizes: 1/2" - 12"

Materials: AL, BR, SS, DI, HCA, CS, PP, NY, FDA

Made in U.S.A.



PART V - COUPLER

DUST CAP

Sizes: 1/2" - 12"

Materials: AL, BR, SS, DI, HCA, CS, PP, NY, FDA

Made in U.S.A.



PART VI - COUPLER

DUST CAP W/LOCKING CAM ARMS

Sizes: 1 1/2" - 6"

Materials: AL, BR, SS, DI, HCA, PP, FDA

Made in U.S.A.



PART W - ADAPTER

DUST PLUG

Sizes: 1/2" - 12"

Materials: AL, BR, SS, DI, HCA, CS, PP, NY, FDA

Made in U.S.A.



PART CXA

COUPLER X ADAPTER

Sizes: 1" - 12" Coupler X 3/4" - 12" Adapter

Materials: AL, BR, SS, DI

Made in U.S.A.

* Also available in shorter version.



PART CXC

COUPLER X COUPLER

Sizes: 1 1/2 x 1 1/2" - 6x6"

Materials: AL, BR, HCA, SS

Made in U.S.A.



PART SA - SPOOL ADAPTER

ADAPTER X ADAPTER

Sizes: 1/2 x 1/2" - 6 x 8"

Materials: AL, BR, DI, HCA, SS

Made in U.S.A.



PART G ELBOW

COUPLER W/CHECK VALVE

COUPLER X FEMALE NPT THREAD

Sizes: 1" - 4"

Materials: AL, BR, DI, HCA, SS

Made in U.S.A.

Coupler →



Adapter →

Coupler →



Adapter →

Coupler x Adapter	Aluminum Part #	Aluminum Hard Coat Part #	Brass Part #	Malleable Iron Part #	Stainless Steel Part #
1" x 1 1/2"	1015-DA-AL	----	----	----	1015-DA-SS
1 1/2" x 1"	1510-DA-AL	----	----	----	1510-DA-SS
1 1/2" x 2"	1520-DA-AL	----	----	----	1520-DA-SS
2" x 1"	2010-DA-AL	----	----	----	2010-DA-SS
2" x 1 1/2"	2015-DA-AL	----	----	----	2015-DA-SS
2" x 2 1/2"	2025-DA-AL	----	----	----	2025-DA-SS
2" x 3"	2030-DA-AL	----	----	----	2030-DA-SS
2" x 4"	2040-DA-AL	----	----	----	2040-DA-SS
2 1/2" x 2"	----	----	----	----	2520-DA-SS
2 1/2" x 3"	----	----	----	----	2530-DA-SS
3" x 1 1/2"	3015-DA-AL	----	----	----	3015-DA-SS
3" x 2"	3020-DA-AL	3020-DA-ALH	3020-DA-BR	3020-DA-MI	3020-DA-SS
3" x 2 1/2"	3025-DA-AL	----	----	----	3025-DA-SS
3" x 4"	3040-DA-AL	----	3040-DA-BR	----	3040-DA-SS
3" x 6"	3060-DA-AL	----	----	----	3060-DA-SS
4" x 2"	4020-DA-AL	----	----	----	4020-DA-SS
4" x 2 1/2"	4025-DA-AL	----	----	----	4025-DA-SS
4" x 3"	4030-DA-AL	4030-DA-ALH	4030-DA-BR	4030-DA-MI	4030-DA-SS
4" x 5"	4050-DA-AL	----	----	----	----
4" x 6"	4060-DA-AL	----	----	----	4060-DA-SS
5" x 3"	5030-DA-AL	----	----	----	5030-DA-SS
5" x 4"	5040-DA-AL	----	----	----	5040-DA-SS
5" x 6"	5060-DA-AL	----	----	----	5060-DA-SS
6" x 3"	6030-DA-AL	----	----	----	6030-DA-SS
6" x 4"	6040-DA-AL	----	6040-DA-BR	6040-DA-MI	6040-DA-SS
6" x 5"	6050-DA-AL	----	----	----	6050-DA-SS
8" x 6"	8060-DA-AL*	----	----	----	----

* Two cam arm, "Andrews" design.

Coupler →



Adapter →

BOSS-LOCK

Coupler x Adapter	Aluminum Part #	Stainless Steel Part #
2" x 3"	ADA2030	RDA2030BL
2 1/2" x 2"	ADA2520	-----
2 1/2" x 3"	ADA2530	-----
3" x 2"	ADA3020	RDA3020BL
3" x 4"	ADA3040	RDA3040BL
4" x 2"	ADA4020	RDA4020BL
4" x 3"	ADA4030	RDA4030BL
6" x 4"	ADA6040	RDA6040BL
8" x 6"	ADA8060	-----

← Coupler



←

EZ BOSS-LOCK

Coupler x Adapter	Aluminum Part #	Stainless Steel Part #
2" x 3"	ADA2030EZ	RDA2030EZ
3" x 2"	ADA3020EZ	RDA3020EZ
3" x 4"	ADA3040EZ	RDA3040EZ
4" x 2"	ADA4020EZ	RDA4020EZ
4" x 3"	ADA4030EZ	RDA4030EZ
6" x 4"	ADA6040EZ	RDA6040EZ

PART CSP X CSP
*COUPLER X COUPLER
WITH PUSHROD*

Made in U.S.A.



Size	Item #	Part #
4"	87104040	40CSPx40CSP
4x3"	87274130	40CSPx30C
Pushrod for 40CSPx40CSP	87224030-3	CSP-3 Pushrod

633CPP 4 X 4 V/R CHECK VALVE
633CPP 4 X 3 V/R CHECK VALVE



PART CXASP
*COUPLER WITH
PUSHROD X ADAPTER*

Made in U.S.A.



Size	Item #	Part #
4x3"	87264030SP	40CX30ASP
4"	87264040SP	40CX40ASP

777 4" TOP SEAL FILL CAP

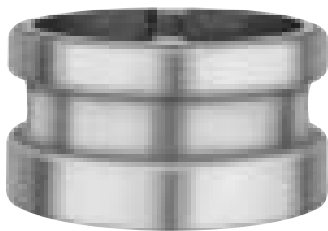


PART CSP
*COUPLER WITH
PUSHROD X SHANK*

Made in U.S.A.



Size	Item #	Part #
4x2"	87104020	40X20CSP
4x3"	87104030	40X30CSP
4"	87104000	40CSP
	87224030-2	CSP-2 Pushrod



Brass	
Item	Part
86344000B	TF40SAS w/ Int. Lug
86344000SP	TF40SAS w/o Int. Lug

Adapters and Couplers x 150# Flanged Drilling



Adapter x 150# ASA flange drilling

Coupler x 150# ASA flange drilling

EZ Boss-Lock
Coupler x 150# ASA flange drilling

Size	Alum Part #	Iron Part #	St. Stl. Part #
1"	---	---	100-AL-SS
1½"	---	---	150-AL-SS
2"	200-AL-AL	---	200-AL-SS
3"	300-AL-AL	300-AL-MI	300-AL-SS
4"	400-AL-AL	---	400-AL-SS
6"	600-AL-AL	---	600-AL-SS
8"	800-AL-AL*	---	---

Size	Aluminum Part #	Stainless Steel Part #
1"	---	100-DL-SS
1½"	---	150-DL-SS
2"	200-DL-AL	200-DL-SS
3"	300-DL-AL	300-DL-SS
4"	400-DL-AL	400-DL-SS
6"	600-DL-AL	600-DL-SS
8"	800-DL-AL*	---

Size	Stainless Steel Part #
1"	RDL100EZ*
1½"	RDL150EZ*
2"	RDL200EZ*
3"	RDL300EZ*
4"	RDL400EZ*
6"	RDL600EZ*

* welded fabrication

Adapters and Couplers x Round Tank Truck Flange

Flange gaskets are on page 7

Straight Design



Adapter x round tank truck flange

Coupler x round tank truck flange

Size	Aluminum Part #	Stainless Steel Part #
3"	300-ALT-AL	300-ALT-SS
3" x 4"	3040ALT-AL	---
4"	400-ALT-AL	400-ALT-SS
6"	600-ALT-AL	---

Size	Aluminum Part #
3"	300-DLT-AL
3" x 4"	3040DLT-AL
4"	400-DLT-AL
6"	600-DLT-AL

Angled Design



4" angled adapter x round tank truck flange

4" angled coupler x round tank truck flange

Size	Aluminum Part #	Description
4" x 4"	40022ALTAL	4" adapter at a 22½° angle from a round tank truck flange

Size	Aluminum Part #	Description
4" x 4"	40022DLTAL	4" coupler at a 22½° angle from a round tank truck flange

Adapters and Couplers with Straight Pipe Thread (NPSM)



Adapter

Boss-Lock Coupler

Size	Aluminum Part #
4"	400-AS-AL

Size	Aluminum Part #	Stainless Steel Part #
4"	ADS400	RDS400

Vegetable fiber gaskets are standard in threaded end. Replacement fiber gasket part # **400GAGFI**

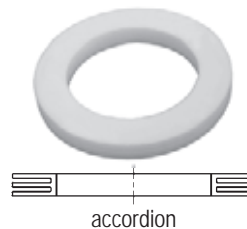
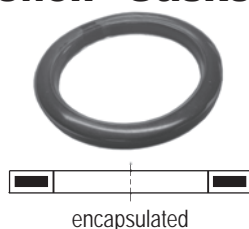
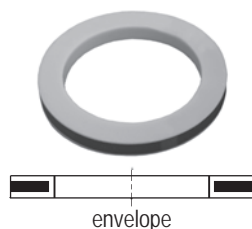
Cam and Groove Gaskets



- White neoprene and white Buna-N gaskets contain all FDA approved materials.

Size	Part #	Buna-N	Viton®-A	extra thick Buna-N	Ethylene Propylene	Neoprene	white Neoprene	white Buna-N	Silicone
		-BU	-VI	-THK	-EPR	-NE	-WNE	-WB	-SIL
½"	50-G								
¾"	75-G								
1"	100-G								
1¼"	125-G								
1½"	150-G								
2"	200-G								
2½"	250-G								
3"	300-G								
4"	400-G								
5"	500-G								
6"	600-G								
8"	800-G								

Teflon® Gaskets



- Teflon® white Buna filler (TFWB) and Teflon® encapsulated silicone (TES) contain all FDA approved materials.
- Teflon® accordion gaskets (TFACC) are recommended for use with viscous (thick) fluids only.
- Encapsulated gasket pressure ratings are reduced to **125 PSI** for ½" - 2½" at ambient temperature (70°F)
- Teflon® encapsulated Viton® (TEV) gaskets - maximum operating temperature **200°F**
- Teflon® encapsulated silicone gaskets (TES) gaskets - maximum operating temperature **225°F**
- Maximum operating temperatures for specific chemicals may be lower. Contact the Dixon Factory for specific recommendations.

**SAFETY
ALERT**

Size	Part #	Envelope				Encapsulated		Accordion
		Teflon® Buna filler	Teflon® Viton® filler	Teflon® white Buna filler	Teflon® Ethylene Propylene filler	Teflon® encapsulated silicone	Teflon® encapsulated Viton®	Teflon® accordion
		-TF	-TFVI	-TFWB	-TFEP	-TES	-TEV	-TFACC
½"	50-G							
¾"	75-G							
1"	100-G							
1¼"	125-G							
1½"	150-G							
2"	200-G							
2½"	250-G							
3"	300-G							
4"	400-G							
5"	500-G							
6"	600-G							

King Combination Nipples

NPT threaded end with knurled wrench grip

Size	Unplated Steel Part #	Opt Qty	Plated Steel Part #	Opt Qty	Brass Part #	Aluminum Part #	Opt Qty
1/2"	ST1		STC1		BST1	AST1	
3/4"	ST5		STC5		BST5	AST5	
1"	ST10		STC10		---	---	
1 1/4"	ST15		STC15		---	---	
1 1/2"	ST20		STC20		---	---	
2"	ST25		STC25		---	---	



knurled wrench grip

NPT threaded end no knurl

Size	Brass Part #	Aluminum Part #	Opt Qty	316 Stainless Steel Part #	Opt Qty	Hastelloy Part #
1/2"	---	---		RST1 *		---
3/4"	---	---		RST5 *		---
1"	BST10	AST10		RST10		---
1 1/4"	BST15	AST15		RST15		---
1 1/2"	BST20	AST20		RST20		---
2"	BST25	AST25		RST25		HST25

* made from casting



no knurl

Size	Unplated Steel Part #	Opt Qty	Plated Steel Part #	Opt Qty	Brass Part #
2 1/2"	ST30		STC30		BST30
3"	ST35		STC35		BST35
4"	ST40		STC40		BST40
5"	ST50		STC50		---
6"	ST60		STC60		---
8"	ST80		STC80		---
10"	ST100		STC100		---
12"	ST120		STC120		---

Size	Aluminum Part #	Opt Qty	316 Stainless Steel Part #
2 1/2"	AST30		RST30
3"	AST35		RST35
4"	AST40		RST40
5"	AST50		RST50
6"	AST60		RST60
8"	---		RST80



Short Hex Style
(series HN)



Long Pipe Style
(series AN)



Size	Part #
2"	A712S
2-1/2"	A7125S
3"	A713S
4"	A714S



Size	Part #
2"	A712
2-1/2"	A7125
3"	A713
4"	A714
5"	A715
6"	A716

Note: items will be discontinued as stock is depleted

Victaulic x Weld



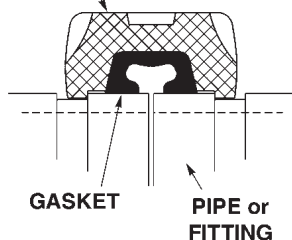
Size	Aluminum Part #	Carbon Steel Part #	316 Stainless Steel Part #
2"	AVN2000-200	VN2000-200	VNR2000-200 #
2-1/2"	AVN2500-200	VN2500-200	VNR2500-200
3"	AVN3000-200	VN3000-200	VNR3000-200
4"	AVN4000-200	VN4000-200	VNR4000-200



Nominal Size	Pipe O.D.	Max. PSI	Max End Load lbs.	Qty.	Bolts Size	Approximate Weight Lbs.	Part # w/ Buna-N gasket
1 1/2"	1.900"	500	1418	2	3/8" x 1-7/8"	1.5	L215BU
2"	2.375"	500	2215	2	3/8" x 1-7/8"	1.7	L02BU
2 1/2"	2.875"	300	3246	2	3/8" x 2"	2.2	L025BU
3"	3.500"	300	4811	2	1/2" x 2-1/2"	2.8	L03BU
4"	4.500"	300	6362	2	1/2" x 2-3/4"	3.7	L04BU
5"	5.563"	300	9722	2	5/8" x 3-1/4"	5.7	L05BU
6"	6.625"	300	13789	2	5/8" x 3-1/4"	7.4	L06BU

VICTAULIC GASKETS

GROOVED COUPLING



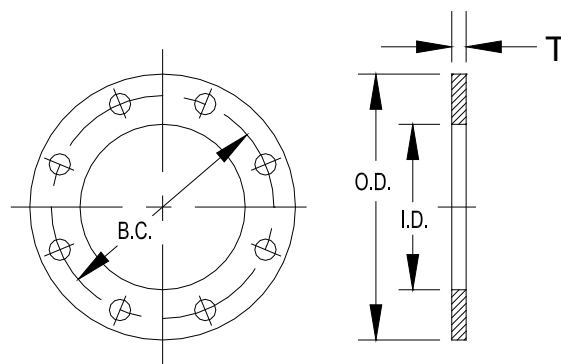
Size *Black Buna with orange stripe*

Size	Part #
1 1/2"	G150T
2"	G200T
2 1/2"	G250T
3"	G300T
4"	G400T
5"	G500T
6"	G600T
8"	G800T



Part #	Description
DBV-VB300	3" aluminum bolted clamp with Viton® B
DBV-VB400	4" aluminum bolted clamp with Viton® B
DBV-BN300	3" aluminum bolted clamp with buna-N
DBV-BN400	4" aluminum bolted clamp with buna-N
DBV-WB400	4" aluminum bolted clamp with white buna-N
G300VB	3" Viton® B grooved coupling gasket
G400VB	4" Viton® B grooved coupling gasket
G300T	3" buna-N grooved coupling gasket
G400T	4" buna-N grooved coupling gasket
G400N	4" white buna-N grooved coupling gasket

Betts flange gaskets are available in a variety of compounds to satisfy a wide range of service requirements and offer superior sealing characteristics. The full-face gaskets are ideal for low-torque sealing applications on sumps, valve flanges and piping flanges. Bolt hole patterns in accordance with TTMA recommended practice.



Style	Size	Part #	O.D.	I.D.	B.C.	# of Holes	Hole Dia.
Round Flange	2"	RGA201**	4.5" [114.3 mm]	2.63" [66.7 mm]	3.75" [95.3 mm]	6	.44" [11.2 mm]
	3"	RGA301**	5.63" [142.9 mm]	3.75" [95.2 mm]	4.88" [123.8 mm]	8	.44" [11.2 mm]
	4"	RGA401**	6.63" [168.3 mm]	4.75" [120.7 mm]	5.88" [149.2 mm]	8	.44" [11.2 mm]
	5"	RGA501CB	7.75" [196.9 mm]	5.56" [141.2 mm]	7" [177.8 mm]	12	.44" [11.2 mm]
	6"	RGA601**	9" [228.6 mm]	6.69" [169.7 mm]	8.13" [206.4 mm]	12	.44" [11.2 mm]
	8"	RGA801CB	10.88" [276.2 mm]	8.13" [206.4 mm]	10.13" [257.2 mm]	16	.44" [11.2 mm]
	12"	RGA1201CB	15.75" [400.1 mm]	12.81" [325.4mm]	14.5" [368.3 mm]	8	.63" [15.8 mm]
Drain Sump	3"	G15181**	7.25" [184.2 mm]	5" [127mm]	6.25" [158.8 mm]	6	.56" [14.2 mm]
	4"	G15266**	8.25" [209.6 mm]	6.25" [155.6mm]	7.25" [184.2 mm]	8	.56" [14.2 mm]
	6"	G25507**	10.25" [260.4 mm]	8.25" [209.6mm]	9.25" [235 mm]	12	.56" [14.2 mm]
Special Drain Sump	4"	G27229* Use on outlet of Internal Hydraulic Valve	8.25" [209.6 mm]	4.25" [108mm]	7.25" [184.2 mm]	8	.56" [14.2 mm]

** Insert two letter material code at end of part number to designate gasket material. Depending on gasket size, all materials may not be available.

Material Code	Material Description	Thickness (T)	Temp. Range
CB	Cork Buna	.09" [2.29 mm] Note: 8" & 12" Sump = .13" [3.3 mm]	14 to 231°F (-10 to 110°C)
BN	Nitrile (Buna-N)	.09" [2.29 mm]	-40 to 230°F (-40 to 110°C)
NA	Non-Asbestos Aramid fibers w/ NBR binder	.09" [2.29 mm]	-65 to 750°F (-54 to 399°C)
TD	PTFE w/ Inorganic Fillers (One piece solid gasket)	.063" [1.6 mm]	-350 to 520°F (-212 to 271°C)
TF	PTFE Envelope w/ Non-asbestos Core	.17" [4.3 mm]	-65 to 400°F (-54 to 204 °C)
TF-MIL	(Replaced w/ "TD" style)	(Replaced w/ "TD" style)	(Replaced w/ "TD" style)

Note: To achieve maximum sealing capability, proper installation procedure must be followed. PTFE gaskets require re-torque after initial installation. See maintenance manual MM-FG001.

F1 TOOL



F100 TOOL



F175 TOOL



style F
(pre-formed)

I.D. Size	302 Stainless Steel Part #	Galvanized Steel Part #	Pkg Qty
3/8" Wide / .020 Thick		3/8" Wide / .025 Thick	
13/16"	FS3	F3	100
1-3/8"	FS311	F311	100
5/8" Wide / .022 Thick		5/8" Wide / .025 Thick	
1"	FS4	F4	100
1-1/4"	FS5	F5	100
5/8" Wide / .022 Thick		5/8" Wide / .031 Thick	
1-1/2"	FS6	F6	100
1-3/4"	FS7	F7	100
2"	FS8	F8	100
2-1/4"	FS9	F9	100
2-1/2"	FS10	F10	50
2-3/4"	FS11	F11	50
3"	FS12	F12	50
3-1/2"	FS14	F14	50
4"	FS16	F16	25
4-1/2"	FS18	F18	25
5"	FS20	F20	25
6"	FS24	F24	25
7"	FS28	F28	25
8"	FS32	F32	25



style FO
(open end)

I.D. Size	302 Stainless Steel Part #	Galvanized Steel Part #	Pkg Qty
3/8" Wide / .020 Thick		3/8" Wide / .025 Thick	
13/16"	FOS3	FO3	100
1-3/8"	FOS311	FO311	100
2"	FOS316	FO316	100
3-1/8"	FOS325	FO325	100
5/8" Wide / .022 Thick		5/8" Wide / .025 Thick	
2"	FOS8	FO8	100
2-1/2"	FOS10	FO10	50
5/8" Wide / .022 Thick		5/8" Wide / .031 Thick	
3"	FOS12	FO12	50
3-1/2"	FOS14	FO14	50
4"	FOS16	FO16	50
4-1/2"	FOS18	FO18	50
5"	FOS20	FO20	25
6"	FOS24	FO24	25
7"	FOS28	FO28	25
8"	FOS32	FO32	25
9"	---	FO36	25
10"	---	FO40	25
12"	---	FO48	25
14"	---	FO56	10

Band and Buckle

Screw-action type tool for installing band and buckles.

- Material: plated steel
- Weight: 4.00 lbs.
- Length: 12"



Part #

51960

The band and buckle system is an economical method of securing fittings to large diameter rubber hose (2" and above).

Note: Do not use strapping and buckles made of different metals.

Example: Stainless steel strapping must be used with stainless steel buckles.



Strapping - 100 ft. per Box

Width	Thick	Material	Part #
3/8"	.025	stainless	SS375
1/2"	.031	stainless	SS500
5/8"	.031	stainless	SS625
3/4"	.031	stainless	SS750
3/8"	.025	galvanized	SG375
1/2"	.031	galvanized	SG500
5/8"	.031	galvanized	SG625
3/4"	.031	galvanized	SG750

Buckles

Width	Material	Part #	Box Qty
3/8"	stainless	CS375	100
1/2"	stainless	CS500	100
5/8"	stainless	CS625	100
3/4"	stainless	CS750	50
3/8"	galvanized	CG375	100
1/2"	galvanized	CG500	100
5/8"	galvanized	CG625	100
3/4"	galvanized	CG750	50



Caution!

Strapping edges can be extremely sharp!

All necessary precautions should be taken to prevent installer's hands from being cut during the assembly process.

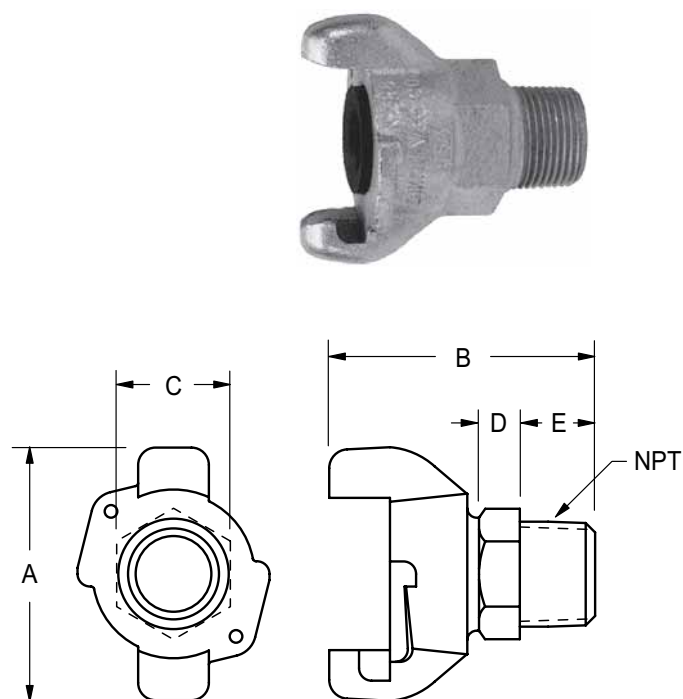
Male N.P.T. Ends

- Male NPT thread with hex for a wrench.
- Available in malleable iron, brass or 316 stainless steel (1/4" not available in Stainless Steel).
- Available in sizes 1/4" to 1".

	Malleable Iron		Brass		316 Stainless Steel
Size	Part #	pkg qty	Part #	pkg qty	Part #
1/4"	AMB1	25	ABB1	25	----
3/8"	AMB	25	ABB	25	RAMB
1/2"	AM2	50	AB2	50	RAM2
3/4"	AM7	50	AB7	50	RAM7
1"	AM12	50	AB12	50	RAM12

Dimensions

Size	A	B	C	D	E	NPT
1/4"	2 1/2"	2 9/16"	1"	7/16"	5/8"	1/4"
3/8"	2 1/2"	2 9/16"	1"	7/16"	5/8"	3/8"
1/2"	2 1/2"	2 11/16"	1 1/8"	3/8"	13/16"	1/2"
3/4"	2 1/2"	2 13/16"	1 3/8"	3/8"	7/8"	3/4"
1"	2 1/2"	2 7/8"	1 1/2"	3/8"	7/8"	1"



All dimensions are nominal.

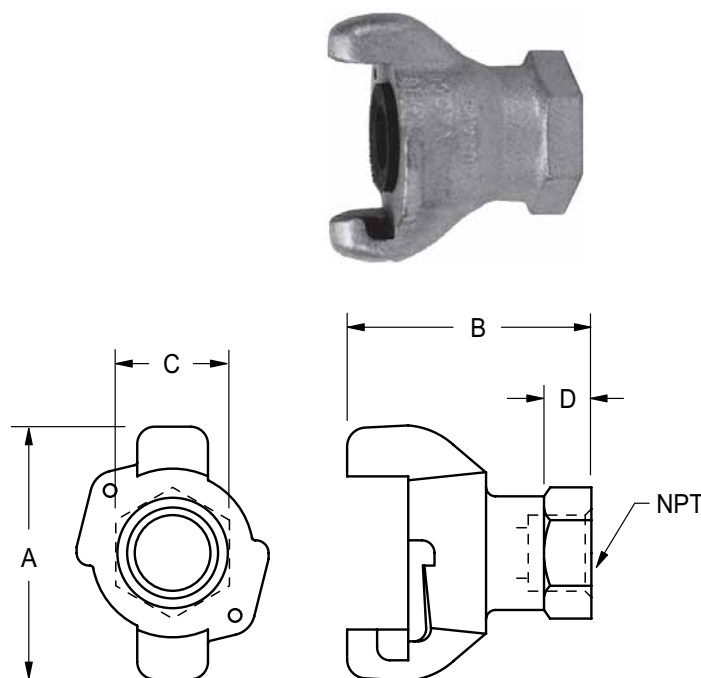
Female N.P.T. Ends

- Female NPT thread with hex for a wrench.
- Available in malleable iron, brass or 316 stainless steel (1/4" not available in Stainless Steel).
- Available in sizes 1/4" to 1".

	Malleable Iron		Brass		316 Stainless Steel
Size	Part #	pkg qty	Part #	pkg qty	Part #
1/4"	AMC1	25	ABC1	25	----
3/8"	AMC	25	ABC	25	RAMC
1/2"	AM3	50	AB3	50	RAM3
3/4"	AM8	50	AB8	50	RAM8
1"	AM13	50	AB13	50	RAM13

Dimensions

Size	A	B	C	D	NPT
3/8"	2 1/2"	2 7/16"	1 1/8"	3/8"	1/4"
1/2"	2 1/2"	2 7/16"	1 1/8"	3/8"	3/8"
5/8"	2 1/2"	2 7/16"	1 1/8"	3/8"	1/2"
3/4"	2 1/2"	2 1/2"	1 7/16"	3/8"	3/4"
1"	2 1/2"	2 1/16"	1 5/8"	3/8"	1"



All dimensions are nominal.

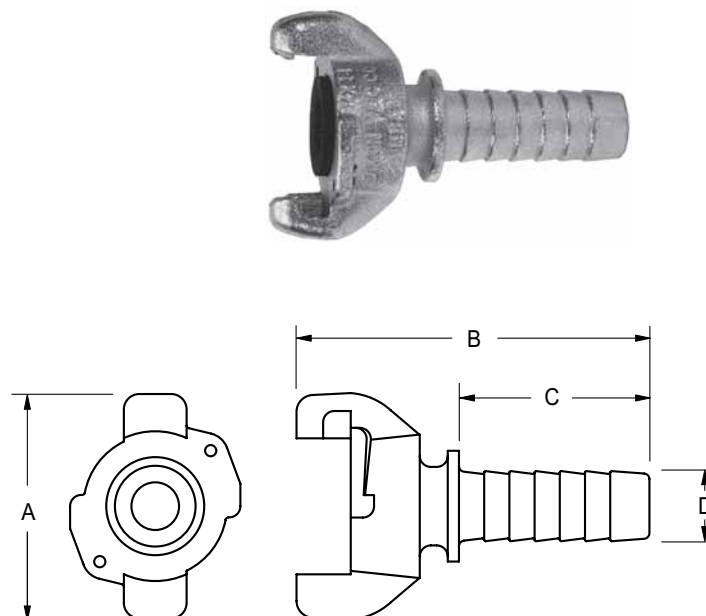
Hose Ends

- Shanks are long and deeply corrugated.
- Available in malleable iron, brass or 316 stainless steel (5/8" not available in Stainless Steel).
- Available in sizes 3/8" to 1".

	Malleable Iron		Brass		316 Stainless Steel
Size	Part #	pkg qty	Part #	pkg qty	Part #
3/8"	AMH	25	ABH	25	RAMH
1/2"	AM1	50	AB1	50	RAM1
5/8"	AM5	50	AB5	50	
3/4"	AM6	50	AB6	50	RAM6
1"	AM11	50	AB11	50	RAM11

Dimensions

Size	A	B	C	D
3/8"	2 1/2"	3 1/2"	1 11/16"	7/16"
1/2"	2 1/2"	3 7/16"	1 5/8"	17/32"
5/8"	2 1/2"	4 1/4"	2 7/16"	11/16"
3/4"	2 1/2"	3 15/16"	2 1/8"	25/32"
1"	2 1/2"	4 25/32"	2 13/16"	1 1/16"



All dimensions are nominal.

"AIR KING" Clamps

- Air King clamps should be used on all Air King shank fittings. Clamp fingers engage behind the universal head to anchor the coupling to the hose. The ridges on the underside provide additional retention.
- Available in zinc plated malleable iron in sizes 3/8" to 1".

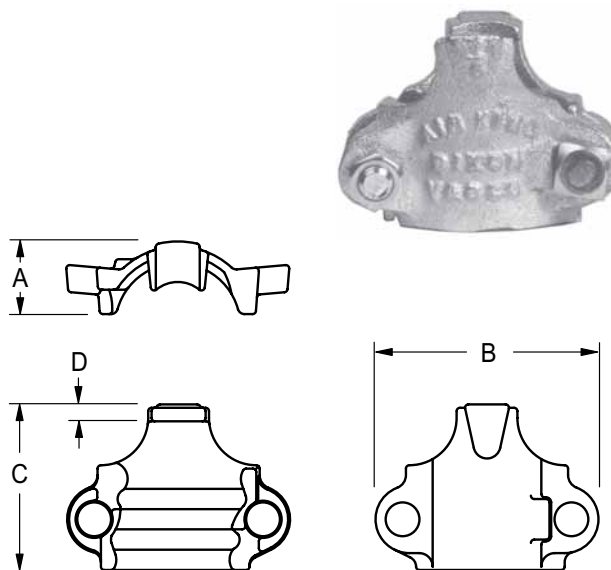
Size	Hose O.D.'s		Torque*	Part #	pkg qty
	From:	To:			
3/8"	11/16"	7/8"	6	CD	100
1/2"	1"	1 3/16"	6	A4	50
3/4"	1 1/8"	1 5/16"	12	A9	50
1"	1 5/16"	1 1/2"	12	A10**	50
1"	1 1/2"	1 13/16"	21	A14	50

* Recommended torque rating in ft. lbs.

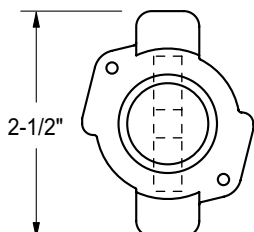
** Can be used with **AM6** and **AM11**.

Dimensions

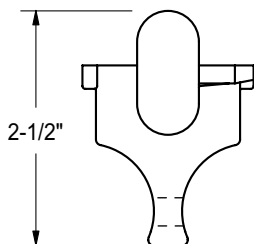
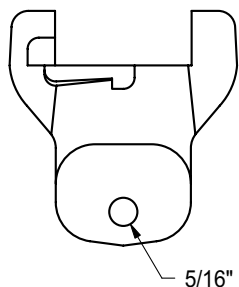
Size	A	B	C	D
3/8"	15/32"	1 3/8"	1 7/16"	1/8"
1/2"	11/16"	2 1/16"	1 17/32"	5/32"
3/4"	7/8"	2 1/2"	1 21/32"	1/8"
1"	7/8"	2 19/32"	1 15/16"	9/32"
1"	1"	3 1/32"	2 1/4"	5/32"



All dimensions are nominal.



- Blank end fittings have no outlet and are used to block the line at any coupling point.
- The end opposite the coupling head is flat, with an eye for a chain to secure the fitting when not in use.
- Available in malleable iron, brass and 316 stainless steel.



Malleable Iron		Brass		316 Stainless Steel
Part #	pkg qty	Part #	pkg qty	Part #
AM0	25	AB0	25	RAM0

All dimensions are nominal.



- Rubber temperature range: **-20° F to 160° F.**
- Neoprene temperature range: **-20° F to 190° F.**
- Neoprene is oil resistant.
- Same size for all coupling sizes.
- **Sold only in bags of 50.**

Washers	
Description	Part #
Rubber	AWR4
Neoprene	AWS6

"AIR KING" 4-Lug Quick Acting Couplings

Rubber Washer for 4-lug

Part #
AWR14
Fits all sizes

	Malleable Iron	Brass	
Size	Part #	Part #	pkg qty
1-1/4"	AM16	AB16	25
1-1/2"	AM21	AB21	25
2"	AM26	AB26	10
1-1/4"	AM18	AB18	25
1-1/2"	AM23	AB23	25
2"	AM28	AB28	20

Rated to 150 PSI



Hose Ends



Female N.P.T. Ends

Not to be used for steam service.

NOTE: Safety clips are same size for both 2-lug and 4-lug Universal Couplings.

See page 6.

Use safety clips on all Universal Coupling applications.

SAFETY
ALERT

Optional package
quantity shown

"BOSS" Clamps

Hose I.D. Size	Hose O.D.'s From: To:		Plated Malleable Iron		Stainless Steel		Brass	
			Part #	pkg qty	Part #	Torque**	Part #	Torque**
1-1/4"	1-32/64"	1-50/64"	BU18	10	--	40	--	--
1-1/4"	1-44/64"	1-56/64"	187*	10	--	21	--	--
1-1/4"	1-50/64"	2-6/64"	BU19	10	--	40	--	--
1-1/4"	1-56/64"	2-4/64"	206*	20	--	21	--	--
1-1/4"	2-8/64"	2-24/64"	B19	10	RB19	40	BB19	28
1-1/2"	1-52/64"	2"	BU22	10	--	40	--	--
1-1/2"	2"	2-14/64"	B22	10	--	40	--	--
1-1/2"	2"	2-8/64"	212*	10	--	21	--	--
1-1/2"	2-4/64"	2-16/64"	225*	10	--	40	--	--
1-1/2"	2-12/64"	2-24/64"	BU24	10	RB24	40	BB24	28
1-1/2"	2-24/64"	2-36/64"	B24	10	RB24	40	BB24	28
1-1/2"	2-36/64"	2-48/64"	B25	10	--	40	--	--
2"	2-16/64"	2-32/64"	250* †	10	--	40	--	--
2"	2-22/64"	2-34/64"	BU28	10	--	60	--	--
2"	2-32/64"	2-48/64"	275* †	10	--	40	--	--
2"	2-32/64"	2-50/64"	BU29	10	RB29	60	BB29	40
2"	2-48/64"	3-4/64"	B29	10	RB29	60	BB29	40
2"	2-48/64"	3-4/64"	306* †	10	--	60	--	--
2"	3-6/64"	3-28/64"	B30	5	--	60	--	--



4-Bolt Type
2 Gripping Fingers



4-Bolt Type
4 Gripping Fingers*

* 4 gripping fingers.

** Torque applies to plated malleable iron and stainless steel clamps.

- The bolts used in the "Boss" interlocking clamps are not standard bolts. They vary from standard bolts in their length, diameter, overall thread length and material hardness. These bolts can be retorqued, but it is **not** recommended that the bolts or clamps be reused, as they are designed for a single bend only. Dixon recommends using only factory supplied replacement bolts.
- Torque values for clamps are based on "dry bolts". The use of lubricant on bolts will adversely effect clamp performance.
- Do not lubricate nuts and bolts.
- Recommended torque rating in ft. lbs.

SAFETY
ALERT

SAFETY
ALERT

Optional package
quantity shown

NPT Threaded Pipe Fittings

Reducer Hex Bushings



150# iron
HB2010



galvanized
HB2010G



316 stainless steel
HB2010SS



forged steel
HB2010FS



brass
HB2010B

Male NPT	Female NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/4"	1/8"	HB2518	HB2518G	HB2518SS	HB2518FS	---
3/8"	1/8"	HB3818	---	---	---	---
3/8"	1/4"	HB3825	HB3825G	HB3825SS	HB3825FS	---
1/2"	1/8"	HB5018	---	---	---	---
1/2"	1/4"	HB5025	HB5025G	HB5025SS	HB5025FS	---
1/2"	3/8"	HB5038	HB5038G	HB5038SS	HB5038FS	---
3/4"	1/8"	HB7518	---	---	---	---
3/4"	1/4"	HB7525	HB7525G	HB7525SS	HB7525FS	---
3/4"	3/8"	HB7538	HB7538G	HB7538SS	HB7538FS	---
3/4"	1/2"	HB7550	HB7550G	HB7550SS	HB7550FS	---
1"	1/8"	HB1018	---	---	---	---
1"	1/4"	HB1025	HB1025G	HB1025SS	HB1025FS	---
1"	3/8"	HB1038	HB1038G	HB1038SS	HB1038FS	---
1"	1/2"	HB1050	HB1050G	HB1050SS	HB1050FS	---
1"	3/4"	HB1075	HB1075G	HB1075SS	HB1075FS	---
1-1/4"	1/2"	HB1250	---	---	---	---
1-1/4"	3/4"	HB1275	---	HB1275SS	HB1275FS	---
1-1/4"	1"	HB1210	HB1210G	HB1210SS	HB1210FS	HB1210B
1-1/2"	1/2"	HB1550	---	---	---	---
1-1/2"	3/4"	HB1575	HB1575G	HB1575SS	HB1575FS	HB1575B
1-1/2"	1"	HB1510	HB1510G	HB1510SS	HB1510FS	HB1510B
1-1/2"	1-1/4"	HB1512	HB1512G	HB1512SS	HB1512FS	HB1512B
2"	1/2"	HB2050	HB2050G	---	---	HB2050B
2"	3/4"	HB2075	HB2075G	HB2075SS	HB2075FS	HB2075B
2"	1"	HB2010	HB2010G	HB2010SS	HB2010FS	HB2010B
2"	1-1/4"	HB2012	HB2012G	HB2012SS	HB2012FS	HB2012B
2"	1-1/2"	HB2015	HB2015G	HB2015SS	HB2015FS	HB2015B
2-1/2"	1-1/2"	HB2515	---	---	---	---
2-1/2"	2"	HB2520	HB2520G	HB2520SS	HB2520FS	---
3"	1"	HB3010	---	---	---	---
3"	1-1/2"	HB3015	---	---	---	---
3"	2"	HB3020	HB3020G	HB3020SS	HB3020FS	HB3020B
3"	2-1/2"	HB3025	---	HB3025SS	HB3025FS	HB3025B
4"	1"	HB4010	---	---	---	---
4"	1-1/2"	HB4015	---	---	---	---
4"	2"	HB4020	HB4020G	HB4020SS	---	HB4020B
4"	2-1/2"	HB4025	---	---	---	---
4"	3"	HB4030	HB4030G	HB4030SS	HB4030FS	HB4030B
5"	4"	HB5040	---	---	---	---
6"	3"	HB6030	---	---	---	---
6"	4"	HB6040	---	---	---	---

NPT Threaded Pipe Fittings

45° Street Elbows



150# iron
SE45150



galvanized
SE45150G

- 304 stainless steel and additional sizes are available, consult the factory for pricing and availability

NPT	150# Iron Part #	Galvanized Part #
1/8"	SE4518	---
1/4"	SE4525	SE4525G
3/8"	SE4538	---
1/2"	SE4550	SE4550G
3/4"	SE4575	SE4575G
1"	SE45100	---
1-1/4"	SE45125	SE45125G
1-1/2"	SE45150	SE45150G
2"	SE45200	SE45200G
2-1/2"	SE45250	SE45250G
3"	SE45300	SE45300G
4"	SE45400	SE45400G

90° Street Elbows



150# iron
SE9015



galvanized
SE9015G



316 stainless steel
SE9012SS



forged steel
SE9010FS



brass
SE9012B

- 304 stainless steel and other sizes are available, consult the factory for pricing and availability

NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	SE9018	SE9018G	SE9018SS	---	---
1/4"	SE9025	SE9025G	SE9025SS	SE9025FS	---
3/8"	SE9038	SE9038G	SE9038SS	SE9038FS	---
1/2"	SE9050	SE9050G	SE9050SS	SE9050FS	---
3/4"	SE9075	SE9075G	SE9075SS	SE9075FS	SE9075B
1"	SE9010	SE9010G	SE9010SS	SE9010FS	SE9010B
1-1/4"	SE9012	SE9012G	SE9012SS	SE9012FS	SE9012B
1-1/2"	SE9015	SE9015G	---	SE9015FS	SE9015B
2"	SE9020	SE9020G	SE9020SS	SE9020FS	SE9020B
2-1/2"	SE90250	---	---	---	---
3"	SE90300	---	---	---	---
4"	SE90400	---	---	---	---
6"	SE90600	---	---	---	---

NPT Threaded Pipe Fittings

Threaded Both Ends Couplings



150# iron
RHC150



galvanized
RHC150G



316 stainless steel
RHC150SS



forged steel
RHC150FS



brass
RHC150B

- 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Female NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	RHC18	---	---	---	---
1/4"	RHC25	RHC25G	RHC25SS	RHC25FS	RHC25B
3/8"	RHC38	RHC38G	RHC38SS	RHC38FS	RHC38B
1/2"	RHC50	RHC50G	RHC50SS	RHC50FS	RHC50B
3/4"	RHC75	RHC75G	RHC75SS	RHC75FS	RHC75B
1"	RHC100	RHC100G	RHC100SS	RHC100FS	RHC100B
1-1/4"	RHC125	RHC125G	RHC125SS	RHC125FS	RHC125B
1-1/2"	RHC150	RHC150G	RHC150SS	RHC150FS	RHC150B
2"	RHC200	RHC200G	RHC200SS	RHC200FS	RHC200B
2-1/2"	RHC250	---	---	---	---
3"	RHC300	RHC300G	RHC300SS	---	---
4"	RHC400	RHC400G	RHC400SS	---	---
5"	RHC500	---	---	---	---
6"	RHC600	---	---	---	---

90° Threaded Elbows



150# iron
EL90150



galvanized
EL90150G



316 stainless steel
EL90150SS



forged steel
EL90150FS



brass
EL90150B

- 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Female NPT	Female NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	1/8"	EL9018	EL9018G	EL9018SS	---	---
1/4"	1/4"	EL9025	EL9025G	EL9025SS	EL9025FS	---
3/8"	3/8"	EL9038	EL9038G	EL9038SS	EL9038FS	---
1/2"	1/2"	EL9050	EL9050G	EL9050SS	EL9050FS	---
3/4"	3/4"	EL9075	EL9075G	EL9075SS	EL9075FS	---
1"	1"	EL90100	EL90100G	EL90100SS	EL90100FS	EL90100B
1-1/4"	1-1/4"	EL90125	EL90125G	EL90125SS	EL90125FS	---
1-1/2"	1-1/2"	EL90150	EL90150G	EL90150SS	EL90150FS	EL90150B
2"	2"	EL90200	EL90200G	EL90200SS	EL90200FS	EL90200B
2-1/2"	2-1/2"	EL90250	---	---	---	---
3"	3"	EL90300	---	EL90300SS	---	---
4"	4"	EL90400	---	EL90400SS	---	---
5"	5"	EL90500	---	---	---	---
6"	6"	EL90600	---	---	---	---

NPT Threaded Pipe Fittings

Female Tees



150# iron
FT15



galvanized
FT150G



316 stainless steel
FT150SS



forged steel
FT150FS



brass
FT15B

Female NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	FT18	---	---	---	---
1/4"	FT25	FT25G	FT25SS	FT25FS	---
3/8"	FT38	FT38G	FT38SS	---	---
1/2"	FT50	FT50G	FT50SS	FT50FS	---
3/4"	FT75	FT75G	FT75SS	FT75FS	FT75B
1"	FT10	FT100G	FT100SS	FT100FS	FT10B
1-1/4"	FT120	FT120G	FT120SS	FT120FS	---
1-1/2"	FT15	FT150G	FT150SS	FT150FS	FT15B
2"	FT200	FT200G	FT200SS	FT200FS	FT20B
2-1/2"	FT250	---	---	---	---
3"	FT30	---	---	---	---
4"	FT40	---	---	---	---
5"	FT500	---	---	---	---
6"	FT60	---	---	---	---

Bull Head Tees



150# iron
BHT1020

Female NPT	Female NPT	150# Iron Part #
1/2"	3/4"	BHT1575
1/2"	1"	BHT1510
3/4"	1"	BHT7510
1"	1-1/2"	BHT1015
1"	2"	BHT1020
1-1/2"	2"	BHT1520
2"	2-1/2"	BHT2025

NPT Threaded Pipe Fittings

Square Head Plugs



150# iron
SHP150



galvanized
SHP1510G



316 stainless steel
SHP100SS



forged steel
SHP150FS

- 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Size	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #
1/8"	SHP18	SHP18G	SHP18SS	---
1/4"	SHP14	SHP14G	SHP14SS	SHP14FS
3/8"	SHP38	SHP38G	SHP38SS	SHP38FS
1/2"	SHP50	SHP50G	SHP50SS	SHP50FS
3/4"	SHP75	SHP75G	SHP75SS	SHP75FS
1"	SHP100	SHP100G	SHP100SS	SHP100FS
1-1/4"	SHP125	SHP125G	SHP125SS	---
1-1/2"	SHP150	SHP150G	SHP150SS	SHP150FS
2"	SHP200	SHP200G	SHP200SS	---
2-1/2"	SHP250	SHP250G	SHP250SS	---
3"	SHP300	SHP300G	SHP300SS	SHP300FS
4"	SHP400	SHP400G	SHP400SS	---
5"	SHP500	---	---	---
6"	SHP600	SHP600G	---	---

Crosses



150# iron
MIC150

- 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Size	150# Iron Part #
1/8"	MIC18
1/4"	MIC25
3/8"	MIC38
1/2"	MIC50
3/4"	MIC75
1"	MIC100
1-1/4"	MIC125
1-1/2"	MIC150
2"	MIC200
2-1/2"	MIC250
3"	MIC300
4"	MIC400

NPT Threaded Pipe Fittings

Caps



150# iron
MICAP75



galvanized
MICAP75G



316 stainless steel
SSCAP75

- 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Size	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #
1/8"	MICAP18	---	SSCAP18
1/4"	MICAP25	---	SSCAP25
3/8"	MICAP38	---	SSCAP38
1/2"	MICAP50	MICAP50G	SSCAP50
3/4"	MICAP75	MICAP75G	SSCAP75
1"	MICAP100	---	SSCAP10
1-1/4"	MICAP120	---	SSCAP12
1-1/2"	MICAP150	---	SSCAP15
2"	MICAP200	---	SSCAP20
2-1/2"	MICAP250	---	---
3"	MICAP300	---	---
4"	MICAP400	---	---
5"	MICAP500	---	---
6"	MICAP600	---	---

Floor Flanges



iron
FF50

NPT	Iron Part #
1/4"	FF14
3/8"	FF38
1/2"	FF50
3/4"	FF75
1"	FF100
1-1/4"	FF120
1-1/2"	FF150
2"	FF200

Pipe Nipples



Male NPT	Overall Length	Carbon Steel Part #	316 Stainless Steel Part #
1/2"	2"	TN050X2	---
3/4"	2"	TN075X2	---
1"	2"	TN100X2	---
1 1/4"	2"	TN125X2	---
1 1/2"	2"	TN150X2	---
1/2"	3"	TN050X3	---
3/4"	3"	TN075X3	---
1"	3"	TN100X3	---
1 1/2"	3"	TN150x3	---
2"	3"	TN200X3	---
3"	3"	TN300X3	---
1/2"	4"	TN050X4	---
3/4"	4"	TN075X4	---
1"	4"	TN100X4	---
1 1/4"	4"	TN125X4	---
1 1/2"	4"	TN150X4	---
2"	4"	TN200X4	---
3"	4"	TN300X4	---
4"	4"	TN400X4	---
2"	5"	TN200X5	---
1/4"	6"	---	TN025X6SS
1/2"	6"	TN050X6	TN050X6SS
3/4"	6"	TN075X6	TN075X6SS
1"	6"	TN100X6	TN100X6SS
1 1/4"	6"	TN125X6	TN125X6SS
1 1/2"	6"	TN150X6	TN150X6SS
2"	6"	TN200X6	TN200X6SS
3"	6"	TN300X6	TN300X6SS
4"	6"	TN400X6	TN400X6SS
6"	6"	TN600X6	---
2"	8"	TN200X8	---
4"	8"	TN400X8	---
6"	8"	TN600X8	---

Close Nipples



Male NPT	Overall Length	Carbon Steel
1/4"	7/8"	CN025
3/8"	1"	CN037
1/2"	1-1/8"	CN050
3/4"	1-3/8"	CN075
1"	1-1/2"	CN100
1-1/4"	1-5/8"	CN125
1-1/2"	1-1/2"	CN150
2"	2"	CN200
2 1/2"	2 1/2"	CN250
3"	2-5/8"	CN300
4"	2-5/8"	CN400
6"	3-1/8"	CN600

150 LB. ASA Forged Flanges Lap-Joint

Size	Carbon Steel Part #
1"	LJ100
1¼"	LJ125
1½"	LJ150
2"	LJ200
2½"	LJ250
3"	LJ300
4"	LJ400
5"	LJ500
6"	LJ600
8"	LJ800
10"	LJ1000
12"	LJ1200

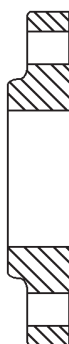
- raised shoulder with no raised face
- The lap joint flange is commonly called a Van Stone or a floating flange.



Slip-On

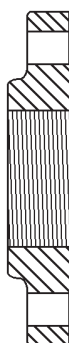
Size	Carbon Steel Part #	Stainless Steel Part #
1"	SO100	---
1¼"	SO125	---
1½"	SO150	SOR150
2"	SO200	SOR200
2½"	SO250	---
3"	SO300	SOR300
4"	SO400	SOR400
5"	SO500	---
6"	SO600	SOR600
8"	SO800	---
10"	SO1000	---
12"	SO1200	---

- square shoulder with raised face



NPT Threaded

Size	Carbon Steel Part #	Stainless Steel Part #
1"	T100	---
1¼"	T125	---
1½"	T150	TR150
2"	T200	TR200
2½"	T250	---
3"	T300	TR300
4"	T400	TR400
5"	T500	---
6"	T600	TR600
8"	T800	---
10"	T1000	---
12"	T1200	---



Gaskets

Size	Neoprene # Part	Klingsil® C-4401 # Part
1"	NG10	AG10
1¼"	NG15	AG15
1½"	NG20	AG20
2"	NG25	AG25
2½"	NG30	AG30
3"	NG35	AG35
4"	NG40	AG40
5"	NG50	---
6"	NG60	AG60
8"	NG80	AG80

- standard drop-ring type all 1/16" thick

Push-On Fittings

push-on fittings are intended for use with Lok-On (push-on style) hose only. No hose clamps or ferrules are needed. Lok-On fittings will properly grip Lok-On hose only when pushed all the way in, with the cut end of the hose completely concealed by the plastic cap.

NPTF Hose Barb Fittings



NPTF - male swivel hose barbs
National Pipe Tapered - dryseal

Hose ID	NPTF Thread	Part #
1/4"	1/4"	271-0404
3/8"	1/4"	271-0604
3/8"	3/8"	271-0606
1/2"	3/8"	271-0806
1/2"	1/2"	271-0808
3/4"	3/4"	271-1212



NPTF - male hose barbs
National Pipe Tapered - dryseal

Hose ID	NPTF Thread	Part #
1/4"	1/8"	BPN21
1/4"	1/4"	BPN22
1/4"	3/8"	BPN23
5/16"	1/8"	BPN251
5/16"	1/4"	BPN252
3/8"	1/8"	BPN31
3/8"	1/4"	BPN32
3/8"	3/8"	BPN33
3/8"	1/2"	BPN34
3/8"	3/4"	BPN36
1/2"	1/4"	BPN42
1/2"	3/8"	BPN43
1/2"	1/2"	BPN44
1/2"	3/4"	BPN46
5/8"	3/8"	BPN53
5/8"	1/2"	BPN54
5/8"	3/4"	BPN56
3/4"	1/2"	BPN64
3/4"	3/4"	BPN66
1"	3/4"	BPN86
1"	1"	BPN88



NPTF - female hose barbs
National Pipe Tapered - dryseal

Hose ID	NPTF Thread	Part #
1/4"	1/8"	BPF21
1/4"	1/4"	BPF22
1/4"	3/8"	BPF23
3/8"	1/8"	BPF31
3/8"	1/4"	BPF32
3/8"	3/8"	BPF33
3/8"	1/2"	BPF34
1/2"	1/4"	BPF42
1/2"	3/8"	BPF43
1/2"	1/2"	BPF44
1/2"	3/4"	BPF46
5/8"	1/2"	BPF54
3/4"	3/4"	BPF66

NPSM Swivel Hose Barb Fittings



female swivel hose barbs
gasket seat type

Hose ID	NPSM	Part #
1/4"	1/8"	280-0402
1/4"	1/4"	280-0404
3/8"	1/4"	280-0604
3/8"	3/8"	280-0606
3/8"	1/2"	280-0608
1/2"	1/2"	280-0808
3/4"	3/4"	280-1212



female swivel hose barbs
ball seat type

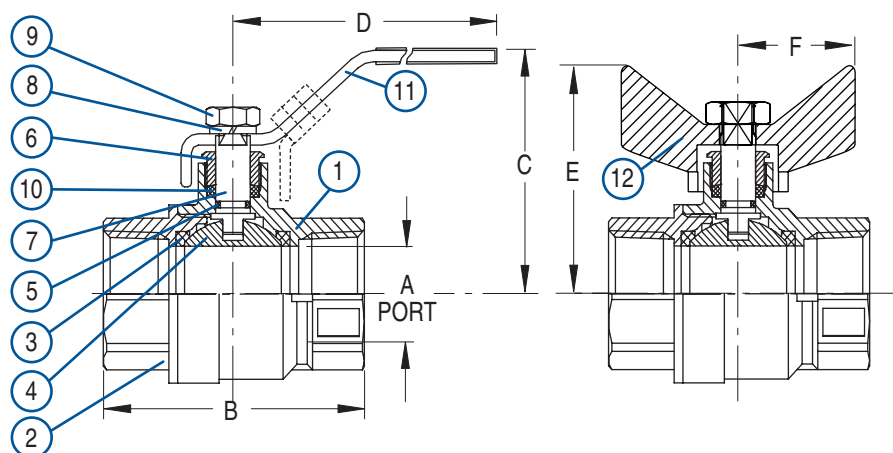
Hose ID	NPSM	Part #
1/4"	1/8"	BPFS21
1/4"	1/4"	BPFS22
1/4"	3/8"	BPFS23
3/8"	1/4"	BPFS32
3/8"	3/8"	BPFS33
1/2"	1/2"	BPFS44
1/2"	3/4"	BPFS46
3/4"	3/4"	BPFS66

BRASS FULL PORT BALL VALVES

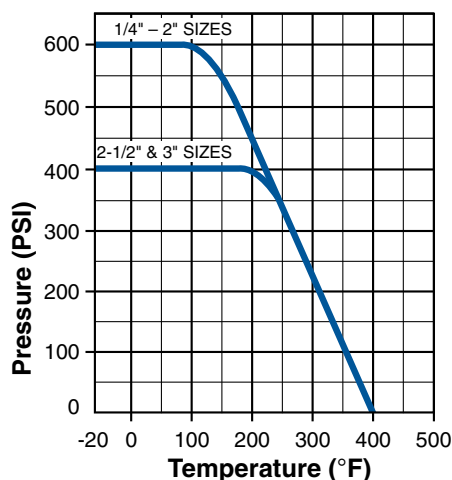


FEATURES AND SPECIFICATIONS

- Full Port Forged Brass
- 1/4" to 3" Sizes
- Pressure Rating:
(Cold- Non Shock)
1/4" — 2" 600 PSI WOG
2-1/2" — 3" 400 PSI WOG
(Saturated Steam)
1/4" — 2" 150 PSI
2-1/2" — 3" 125 PSI
- Two-Piece Body
- 1/4 Turn Open or Close
- Internal Entry Anti Blow-Out Stem
- Teflon Seats and Seals
- Adjustable Stem Packing Gland
- Hard Chromium Plated Solid Ball
- Threaded Ends to ANSI B2.1
- Conforms to Federal Spec WWV-35B



PRESSURE/TEMPERATURE CURVE



MATERIALS OF CONSTRUCTION

Item	Description	Material
1.	Body	Brass C37700
2.	Cap	Brass C37700
3.	Seat	Teflon
4.	Chrome Plated Ball	Brass C37700
5.	O-ring	BUNA-N
6.	Packing Nut	Brass C37700
7.	Stem	Brass C37700
8.	Lockwasher	Stainless Steel
9.	Handle Nut	Steel-Chrome Plated
10.	Stem Packing	Teflon
11.	Handle w/Vinyl Sleeve	Carbon Steel-Zinc Plated
12.	T-Handle	Aluminum

DIMENSIONS IN INCHES

Valve Size	Part Number			A	B	C	D	E	F	Cv*	Wt Lbs.
	w/ Std. Handle	w/ T Handle	w/ Lock Handle								
1/4	63500A	63500AT	63500AL	.393	1.73	1.67	3.55	1.75	1.00	7.5	.18
3/8	63500B	63500BT	63500BL	.393	1.75	1.67	3.55	1.75	1.00	7.5	.22
1/2	63500C	63500CT	63500CL	.551	2.28	1.81	3.55	1.75	1.00	16	.46
3/4	63500D	63500DT	63500DL	.748	2.44	2.01	4.50	2.00	1.25	43	.76
1	63500E	63500ET	63500EL	.944	2.97	2.21	4.50	2.00	1.25	58	1.12
1-1/4	63500F	—	—	1.181	3.43	2.52	5.74	—	—	105	1.74
1-1/2	63500G	—	—	1.496	3.86	2.80	5.74	—	—	160	2.32
2	63500H	—	—	1.850	4.29	3.11	5.74	—	—	325	3.30
2-1/2	63500J	—	—	2.44	5.44	4.29	8.25	—	—	475	7.54
3	63500K	—	—	2.99	6.42	4.84	8.75	—	—	780	11.14

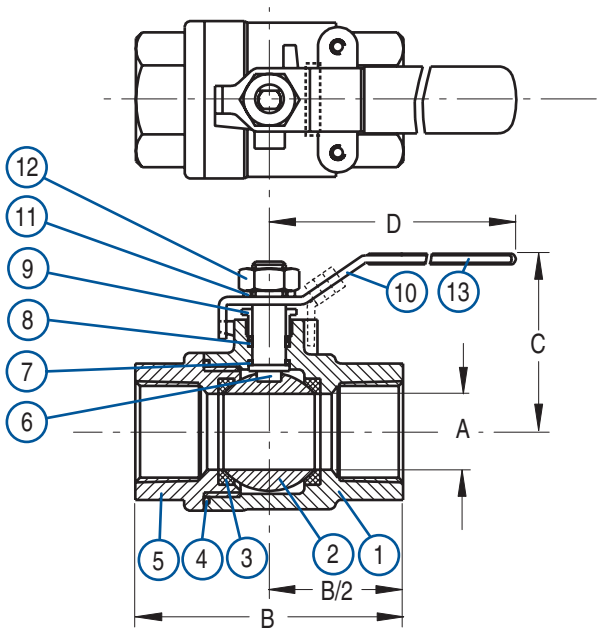
*Cv = Gallons of water per minute through the valve with a 1 psi pressure drop.

STAINLESS STEEL STANDAR PORT 2000 PSI BALL VAVLES



FEATURES AND SPECIFICATIONS

- 1/4" to 2" Sizes
- Adjustable Vee Style Stem Packing
- NTP Threaded Ends to ANSI B2.1
- Internal Entry Blow-Out Proof Stem
- Latch-Lock Handle
- Actuator Mounting Pad
- Pressure Rating: 1/4" – 1" 2000 PSI
1-1/4" – 2" 1000 PSI
- Temperature Range: -20° F – 450° F
- Meets WW-V-35 Design Specifications



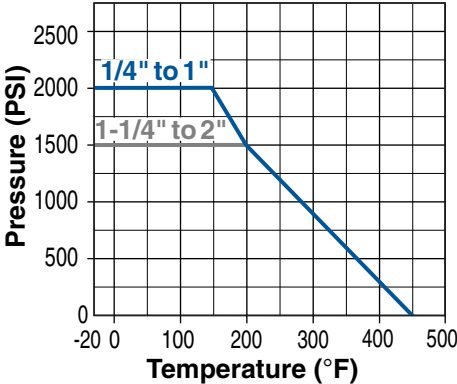
MATERIALS OF CONSTRUCTION

Item	Description	Material	Qty.
1.	Body	CF8M	1
2.	Ball	CF8M	1
3.	Seat	RTFE	2
4.	End Gasket	PTFE	1
5.	End Cap	CF8M	1
6.	Stem	316 SS	1
7.	Thrust Washer	RTFE	1
8.	Stem Packing	PTFE	1
9.	Gland Nut	304 SS	1
10.	Handle	304 SS	1
11.	Washer	304 SS	1
12.	Nut	304 SS	1
13.	Handle Sleeve	Vinyl	1

DIMENSIONS IN INCHES

Valve Size	Part Number	A	B	C	D	Weight Lbs.	Cv	Torque In.- Lb.
1/4	20300A	.38	2.00	1.97	3.78	.51	6	30
3/8	20300B	.46	2.00	1.97	3.78	.51	7	30
1/2	20300C	.50	2.40	1.97	3.78	.62	10	40
3/4	20300D	.59	2.67	2.09	3.78	.99	16	60
1	20300E	.79	3.26	2.52	4.92	1.47	24	115
1-1/4	20300F	1.00	3.54	2.60	4.92	1.98	47	160
1-1/2	20300G	1.26	4.09	3.11	6.70	3.15	90	220
2	20300H	1.50	4.60	3.27	6.70	5.17	125	300

PRESSURE/TEMPERATURE CURVE



3-Way Diversion Ball Valves

Female NPT x Female NPT



Features

Brass Valves

- Can be used with gasoline and diesel fuel
- Rated to **400 PSI** WOG
- Bronze body
- Chromium-plated ball
- RPTFE seats and stuffing box ring
- Stainless steel handle and nut with vinyl sleeve
- Adjustable packing gland
- Female NPT
- ½" - 1" available in full and standard port design (**BBV-TW**)

Features

Stainless Steel Valves

- Rated to **800 PSI** WOG
- Stainless steel body and ball
- Blow out proof stem
- RPTFE seats and stuffing box ring
- Stainless steel handle and nut with vinyl sleeve
- Adjustable packing gland
- Meets NACE MR-01-75
- Female NPT
- ½" - 1" available in full and standard port design (**SSBV-TW**)

Two Way Diverting Valves



2WAYBV200



2WAYBV300

- working pressure: **150 PSI**
- available in 2" and 3" standard and two-way flow
- female NPT outlets are standard
- optional flanges are available
- high flow rate; low pressure drop
- wetted parts are aluminum and stainless steel
- seals are FPM (Viton® and PTFE Teflon®)
- spindle can be disassembled even when ball valve is installed

Part #	Description
2WAYBV200	2", 2 way diverting ball valve
2WAYBV300	3", 2 way diverting ball valve

Carbon Steel Ball Valves

Female NPT x Female NPT

Features

- ¼" to 1" are rated to **2000 PSI** WOG
- 1¼" to 2" are rated to **1500 PSI** WOG
- Rated to **150 PSI** saturated steam
- For control of air, water, oil and gas in hose or pipe lines.
For other services contact the factory.
- RPTFE seats and seals
- Blow-out proof stem design
- Adjustable packing gland
- Chromium plated ball
- 1/4" - 3/8" available in full port design (**IBV..**)
- 1/2" - 2" available in standard port design (**IBV...**)



Bayonet Style Dry Disconnect Couplings

Couplers

Bayco brand BA and BS series bayonet dry disconnect fittings are designed for use in the fuel and lube oil service industry. These fittings are not designed to be interchangeable with other types of Dry Disconnects, however they are used with the Emco Wheaton™ Dry Break™ commonly found in these services.

Working Pressure:

- 2" **80 PSI @ 70°**
- 3" **80 PSI @ 70°**
- for pressure ratings at other temperatures contact the factory
- for information on repair kits visit us on-line at www.dixonvalve.com



coupler x straight female NPT - BC62-200



coupler x straight swivel female NPT - BSS62-200



coupler x straight swivel female NPT - BSS62-300



coupler x 90° swivel female NPT - BS62-200



coupler x 90° swivel female NPT - BS62-300

bayonet style coupler x straight female NPT

Size	Seal Material	Anodized Aluminum	
		Dixon #	Emco Wheaton™ #
2"	Buna	BC61-200	J72C-ABN0-B
2"	Viton®	BC62-200	J72C-AVN0-B

bayonet style coupler x straight swivel female NPT

Size	Seal Material	Anodized Aluminum	
		Dixon #	Emco Wheaton™ #
2"	Buna	BSS61-200	J72C-ABN1-B
2"	Viton®	BSS62-200	J72C-AVN1-B
3"	Buna	BSS61-300	J73C-ABN1-B
3"	Viton®	BSS62-300	J73C-AVN1-B

bayonet style coupler x 90° swivel female NPT

Size	Seal Material	Anodized Aluminum	
		Dixon #	Emco Wheaton™ #
2"	Buna	BS61-200	J72C-ABN2-B
2"	Viton®	BS62-200	J72C-AVN2-B
3"	Buna	BS61-300	J73C-ABN2-B
3"	Viton®	BS62-300	J73C-AVN2-B

Dust Plugs

- Composite (Polyeten PE-HD 300) plugs provide good protection against corrosion and withstands hot and cold environments.

composite dust plug for couplers

Size	Body Size	Polyeten PE-HD 300
2"	70 mm	DDDP150
3"	105 mm	DDDP300105



composite plug

Bayco brand BA and BS series bayonet dry disconnect fittings are designed for use in the fuel and lube oil service industry. These fittings are not designed to be interchangeable with other types of Dry Disconnects, however they are used with the Emco Wheaton™ Dry Break™ commonly found in these services.

Working Pressure:

- 2" **80 PSI @ 70°**
- 3" **80 PSI @ 70°**
- for pressure ratings at other temperatures contact the factory
- for information on repair kits visit us on-line at www.dixonvalve.com

bayonet style adapter x female NPT

Size	Seal Material	Stainless Steel	
		Dixon #	Emco Wheaton™ #
2"	Buna	BA31-200	J72A-BBN0-B / J72A-ABN0-B
2"	Viton®	BA32-200	J72A-BVN0-B / J72A-AVN0-B



adapter x female NPT - BA32-200

bayonet style adapter x female NPT

Size	Seal Material	Brass	
		Dixon #	Emco Wheaton™ #
3"	Buna	BA31-300	J73A-BBN0-B
3"	Viton®	BA32-300	J73A-BVN0-B



adapter x female NPT - BA31-300

bayonet style adapter x female NPT

Size	Seal Material	Aluminum	
		Dixon #	Emco Wheaton™ #
3"	Buna	BA61-300	J73A-ABN0-B
3"	Viton®	BA62-300	J73A-AVN0-B



adapter x female NPT - BA62-300

Dust Caps

- Composite (Polyeten PE-HD 300) caps provide good protection against corrosion and withstands hot and cold environments.



composite dust cap for adapters

Size	Body Size	Polyeten PE-HD 300
2"	70 mm	DDDC150
3"	105 mm	DDDC300105



composite cap







Dry Disconnects Aluminum Couplers²

Part #	OPW Part #	Description
 DBC61-150	1711D-AL15	1½" Buna seal, aluminum body / stainless steel internals *-same as 1761D-AL15
DBC61-200	1711D-AL20	2" Buna seal, aluminum body / stainless steel internals *-same as 1761D-AL20
DBC61-300	1711D-AL30	3" Buna seal, aluminum body / stainless steel internals*
DBC62-150	1712D-AL15	1½" Viton® seal, aluminum body / stainless steel internals *-same as 1762D-AL15
DBC62-200	1712D-AL20	2" Viton® seal, aluminum body / stainless steel internals *-same as 1762D-AL20
DBC62-300	1712D-AL30	3" Viton® seal, aluminum body / stainless steel internals*
DBC63-150	1763D-AL15	1½" Teflon® and Kalrez® seals, aluminum / stainless steel internals *
DBC63-200	1763D-AL20	2" Teflon® and Kalrez® seals, aluminum / stainless steel internals *
DBC63-300	1763D-AL30	3" Teflon® and Kalrez® seals, aluminum / stainless steel internals *
DBC64-150	1764D-AL15	1½" EPT seal, aluminum / stainless steel internals *
DBC64-200	1764D-AL20	2" EPT seal, aluminum / stainless steel internals *
DBC64-300	1764D-AL30	3" EPT seal, aluminum / stainless steel internals *
 DBC66-200	1766D-AL20	2" Chemraz® and Teflon® seals ¹ , aluminum / stainless steel internals *
DBC69-300	1769D-AL30	3" Viton® B seal, aluminum body / stainless steel internals *
DBS61-200	1711ES-0200	2" Buna seal, aluminum body / stainless steel internals *, 90° swivel
DBS62-200	1712ES-0200	2" Viton® seal, aluminum body / stainless steel internals *, 90° swivel

DBC62-200

DBS61-200

Stainless Steel Couplers²

Part #	OPW Part #	Description
 DBC71-150	1771D-SS15	1½" Buna seal, stainless steel *
DBC71-200	1771D-SS20	2" Buna seal, stainless steel *
DBC71-300	1771D-SS30	3" Buna seal, stainless steel * 
DBC72-150	1772D-SS15	1½" Viton® seal, stainless steel *
DBC72-200	1772D-SS20	2" Viton® seal, stainless steel *
DBC72-300	1772D-SS30	3" Viton® seal, stainless steel * 
DBC73-150	1773D-SS15	1½" Teflon® encapsulated silicone and Chemraz® seal, stainless steel *
DBC73-200	1773D-SS20	2" Teflon® encapsulated silicone and Chemraz® seal, stainless steel *
DBC73-300	1773D-SS30	3" Teflon® encapsulated silicone and Chemraz® seal, stainless steel * 
DBC74-150	1774D-SS15	1½" EPT seal, stainless steel *
DBC74-200	1774D-SS20	2" EPT seal, stainless steel *
DBC74-300	1774D-SS30	3" EPT seal, stainless steel * 
DBC76-150	1776D-SS15	1½" Chemraz® and Teflon® seals ¹ , stainless steel *
DBC76-200	1776D-SS20	2" Chemraz® and Teflon® seal ¹ , stainless steel *
DBC76-300	1776D-SS30	3" Chemraz® and Teflon® seal ¹ , stainless steel * 
DBC77-150	1777D-SS15	1½" Teflon® encapsulated Viton® and Chemraz®, stainless steel *
DBC77-200	1777D-SS20	2" Teflon® encapsulated Viton® and Chemraz® seal, stainless steel *
DBC77-150-GL	1777D-SS15-GL	1½" Teflon® encap. Viton® and Chemraz® seal, stainless steel *, greaseless
DBC77-200-GL	1777D-SS20-GL	2" Teflon® encap. Viton® and Chemraz® seal, stainless steel *, greaseless

WE HAVE IN STOCK BOTH OPW & BAYCO
DRY BREAK COUPLERS & ADAPTERS

Cam & Groove Style Dry Disconnect Couplings

Adapters

Compatible with most cam and groove style dry disconnects, the Bayco dry disconnect helps prevent spillage from normal or accidental disconnects. A spring loaded sealing device is designed to "snap" closed should the valve become disconnected with the poppet open, significantly limiting liquid loss.

- two-piece design for easy rebuilding of adapters
- fully interchangeable with Kamvalok (OPW trademark) style fittings
- aluminum fittings have aluminum nose piece and brass piston
- for pressure ratings at other temperatures, contact the factory
- for information on repair kits visit us on-line at www.dixonvalve.com

¹ stainless steel corrosion resistance is comparable to 304 stainless steel

Working Pressure:

- 1½" **210 PSI** @ 70°
- 2" **150 PSI** @ 70°
- 3" **120 PSI** @ 70°

adapter x female NPT

Female NPT	Adapter Size	Seal Material	Aluminum		Stainless Steel ¹	
			Dixon #	OPW #	Dixon #	OPW #
1½"	2"	Buna	DBA11-150	1611AN-AL15	DBA71-150	1671AN-SS15
2"	2½"		DBA11-200	1611AN-AL20	DBA71-200	1671AN-SS20
3"	4"		DBA11-300	1611AN-AL30	DBA71-300	1671AN-SS30
1½"	2"	Viton®	DBA12-150	1612AN-AL15	DBA72-150	1672AN-SS15
2"	2½"		DBA12-200	1612AN-AL20	DBA72-200	1672AN-SS20
3"	4"		DBA12-300	1612AN-AL30	DBA72-300	1672AN-SS30
1½"	2"	Teflon® Encap. Silicone	DBA63-150	1613AN-AL15	DBA73-150	1673AN-SS15
2"	2½"		DBA63-200	1613AN-AL20	DBA73-200	1673AN-SS20
3"	4"		DBA63-300	1613AN-AL30	DBA73-300	1673AN-SS30
1½"	2"	EPT	DBA64-150	1614AN-AL15	DBA74-150	1674AN-SS15
2"	2½"		DBA64-200	1614AN-AL20	DBA74-200	1674AN-SS20
3"	4"		DBA64-300	1614AN-AL30	DBA74-300	1674AN-SS30
1½"	2"	Kalrez®	DBA66-150	1616AN-AL15	DBA76-150	1676AN-SS15
2"	2½"		DBA66-200	1616AN-AL20	DBA76-200	1676AN-SS20
3"	4"		DBA66-300	1616AN-AL30	DBA76-300	1676AN-SS30
1½"	2"	Teflon®	---	---	DBA77-150	1677AN-SS15
2"	2½"	Encap. Silicone	---	---	DBA77-200	1677AN-SS20
3"	4"	Viton® B	---	---	DBA77-300	1677AN-SS30
3"	4"		DBA69-300	1619AN-AL30	---	---



adapter x female NPT - DBA71-200



adapter x female NPT - DBA11-300

jump size adapter x female NPT

Female NPT	Adapter Size	Seal Material	Aluminum	
			Dixon #	OPW #
2"	2"	Buna	DBA11-1520	---
2"	2"	Viton®	DBA12-1520	---

vapor adapter x female NPSM

Female NPSM	Adapter Size	Seal Material	Stainless Steel ¹	
			Dixon #	OPW #
3"	2"	Teflon®	DBAV73-2030	2173AVN



vapor adapter x female NPSM - DBAV73-2030

API 1004D3 BOTTOM LOADING COUPLER

The Safer, Cleaner, Faster Way To Load Your Transports

DESIGN PARAMETERS

Max Design Pressure:	125 psi (g), 8.6 bar (g)
Max Allowable Working Pressure*:	75 psi (g), 5 bar (g)
Max Flow Rate:	600 GPM, 135 M ³ /h
Temperature Range:	<ul style="list-style-type: none"> • Fluorocarbon -20F to 400F (-29C to 204C) • Buna -20F to 250F (-29C to 121C) • EPT -50F to 225F (-46C to 107C)
Weight:	21 lbs (9.5 kg)
Pressure Drop: (At Max Flow Rate)	2-5 psi (g), .24 bar (g)*

*Unit tested to 300 psi in closed position to withstand excessive thermal expansion pressures. Reference API standard RP-1004 for additional information.

MATERIALS

Body, Sleeve, Poppet:	Aluminum
Shaft, Cam Arms, Interlocks, Drive Link, Handle:	Stainless Steel
Cylinder:	Aluminum

SEAL REPLACEMENT KITS

SEAL REPLACEMENT KITS

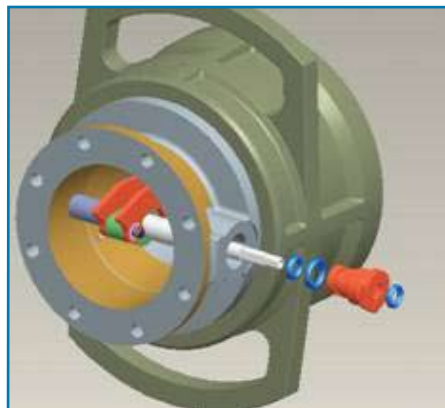
The 1004D3 SRK Seal Replacement Kit includes everything needed to replace all seals in the D3 API Bottom Loading Coupler. Seal replacement kits are always recommended as spare parts.

SEAL MATERIAL:	KIT PART #
Buna:	1004D3SRK - 0401
Fluorocarbon	1004D3SRK - 0402
EPT	1004D3SRK - 0404



1004D3

1004D3	Size	Seal
Large Handles Only	4"	01 = Buna
1005E3		02 = Fluorocarbon
Small Handles		04 = EPT



- Easy Dis-Assembly
- Easy Seal Replacement



1004DRN DRAIN ADAPTOR

- Allows operator to easily, safely drain loading arm
- Fits any API Bottom Loading Coupler



1004PA PARKING ADAPTOR

- Use to neatly store & secure loading arms while not in use
- Can be provided with standpost and/or proximity switch

1004D4 API BOTTOM LOADING COUPLER

The Safer, Cleaner, Faster Way To Load Transports

DESIGN PARAMETERS

Max Design Pressure:	125 psi (g), 8.6 bar (g)
Max Allowable Working Pressure*:	75 psi (g), 5 bar (g)
Max Flow Rate:	600 GPM, 135 M ³ /h
Temperature Range:	<ul style="list-style-type: none"> • Fluorocarbon -20F to 400F (-29C to 204C) • Buna-N -20F to 250F (-29C to 121C) • EPT -50F to 225F (-46C to 107C)
Weight:	21 lbs (9.5 kg)
Pressure Drop: (At Max Flow Rate)	2-5 psi (g), .24 bar (g)*

*Unit tested to 300 psi in closed position to withstand excessive thermal expansion pressures. Reference API standard RP-1004 for additional information.

SEAL REPLACEMENT KITS

The 1004D4 SRK Seal Replacement Kit includes everything needed to replace all seals in the D4 API Bottom Loading Coupler. Seal replacement kits are always recommended as spare parts.

SEAL MATERIAL:	KIT PART #
Buna-N	1004D4SRK - 0401
Fluorocarbon	1004D4SRK - 0402
EPT	1004D4SRK - 0404

MATERIALS

Body, Sleeve, Poppet:	Aluminum
Shaft, Cam Arms, Interlocks, Drive Link, Handle:	Stainless Steel
Cylinder:	Aluminum

SELECTION GUIDE

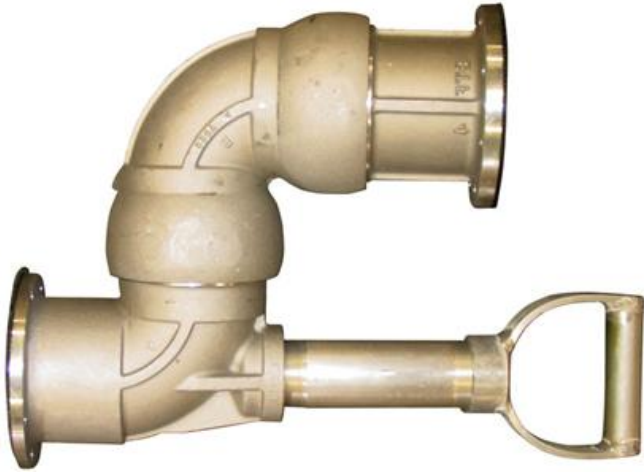
1004D4 - 04 02

Size
4"

Seal

- 01 = Buna-N
- 02 = Fluorocarbon
- 04 = EPT





3655FTDH 4" BOTTOM LOADING SWIVEL



3635FTDHB 4" BOTTOM LOADING SWIVEL



1004DRN DRAIN ADAPTER

1004PA COUPLER PARK
ADAPTER

Scully Plug and Cable Assemblies

For Safe Rack to Vehicle Connections

21818 THERMISTOR PLUG WITH 30' COILED CABLE GREEN
21831 OPTIC PLUG WITH 30' COILED CABLE BLUE

20769 THERMISTOR PLUG ONLY
21766 OPTIC PLUG ONLY



Scully Plugs and Cables are used to connect the Scully loading rack control monitor to the vehicle mounted socket. The plugs and cables are the pathway for the control unit/sensor signals which monitor the status of the overfill prevention sensors in the vehicle compartments during loading operations.

Scully plugs are made of heavy duty molded polyurethane with stainless steel contacts. The fuel resistant cables are available in 30' coiled or 20' straight styles. Scully plugs and cables are the product of years of industry experience and offer durable, efficient operation. Scully Plugs and Cables offer all these advantages:

- Extremely rugged design which can withstand harsh environments and mishandling.
- Non-removable socket locator pins fitted directly into the plug housing.
- Permanent socket locator pins that won't loosen or back out.
- Internal cable retention clamp to prevent cable pull-out or twisting.
- Molded glass-reinforced polycarbonate contact block with positive locator keyways for easy disassembly/reassembly.
- Molded arrow on plug housing for easy visual alignment with socket.
- Stainless steel electrical contact, spring loaded to insure proper contact with the truck socket pins.
- Virtually indestructible polyurethane plug shell, color coded to match Scully truck sockets.
- Heavy-duty stainless steel strain relief spring prevents the cable from bending or crimping.

scully

INTELLITROL™

Overfill Prevention Control Unit with
Optional Ground Verification and
Vehicle Identification Features.

Scully's Intellitrol System

is the most advanced terminal
overfill prevention and ground
verification system available today.
Intellitrol is the culmination of over
30 years experience in electronic
overfill prevention control.



Intellitrol is a state of the art microprocessor based system that provides:

- Overfill prevention, ground verification and vehicle identification in one compact state of the art explosion-proof enclosure.
- Scully Dynacheck® automatic and continuous self-checking circuitry.
- Automatic detection of two-wire optic/thermistor or five-wire optic vehicle sensors.
- Monitoring of up to 8 two-wire and 15 five-wire vehicle sensors.
- Complete visual diagnostic display of overfill sensors' status. Will not permit loading under any fault or wet sensor condition.
- Advanced optical bypass feature eliminates unauthorized system bypass.
- Complete compatibility with Scully Intellicheck® and Load-Anywhere® on-board systems and Scully's industry standard on-board systems, overfill prevention sensors or compatible signals from truck overfill prevention systems conforming to industry standards.¹
- Easy connection to vehicles with rugged high impact industry standard plug and cable units.

1. Per API Recommended Practice No. RP-1004 or European Draft Standard EN 296007.

Single Point Overfill Prevention Controllers

Featuring Dynacheck® Automatic and Continuous Self-Checking Circuitry



Model ST-15-ELK shown

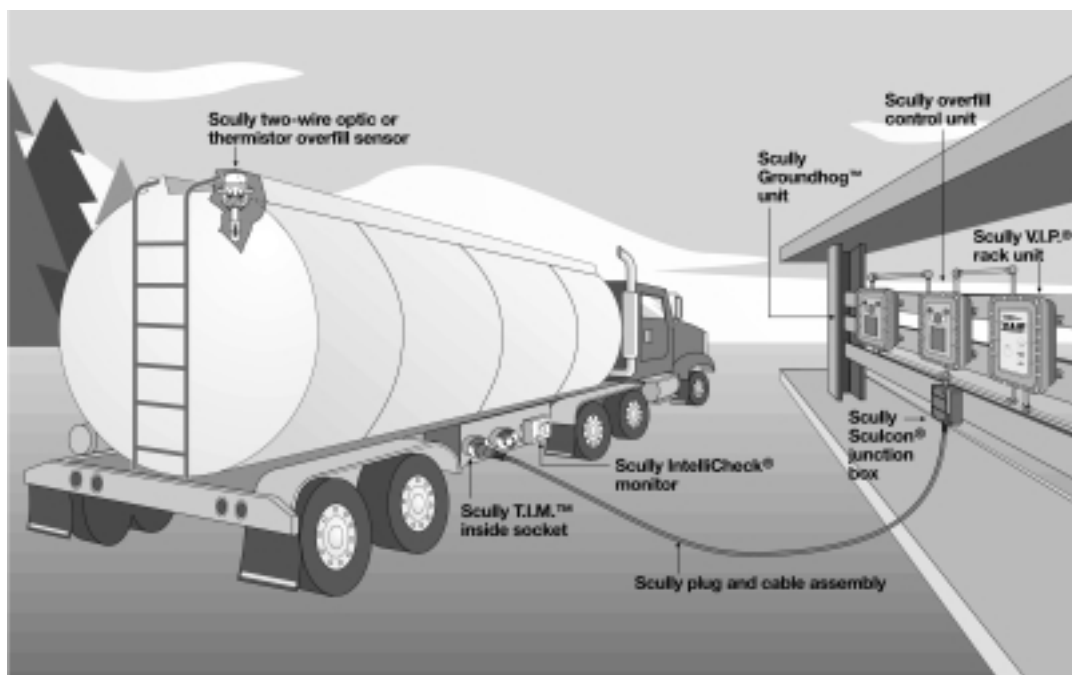
Description

The Scully single point overfill prevention controllers feature two-wire optic or thermistor sensing. They are mounted at a loading rack or fill station for connection to a single compartment tank vehicle.

Applications

- Tank Trucks
- Refuelers
- Rail Tank Cars
- Chemical Top and Bottom Loading

Principle of Overfill Protection





The Scully Groundhog™
Vehicle Static Grounding System

ELECTRONIC
PRODUCT
LINE



Featuring Dynacheck® – Automatic and Continuous Self-Checking Circuitry



Groundhog™
Ground Verification System

DESCRIPTION

Don't let unsure grounding methods leave you guessing. Transport vehicles should be properly tied to ground before and during the loading operation. There should never be any doubt that the grounding systems at your terminals are performing their proper function. Many systems give you little assurance of their operation. The Scully Groundhog™ gives you complete assurance that a proper ground tie-in is present. The Groundhog™ is a self-proving grounding system for maximum safety in loading operations.

The system consists of a rack mounted control housing with two installation methods. It can operate in conjunction with your existing Scully Overfill Prevention System or as an independent unit. Scully Signal Company has over 30 years of electronic liquid handling system experience along with the dependability, service and safety Scully is known for.

The Scully Groundhog™ grounding system can be used for a wide variety of loading applications for use with tank trucks, rail cars, and aircraft refuelers.

FEATURES AND BENEFITS

ONLY THE SCULLY GROUNDHOG™ OFFERS YOU ALL OF THESE ADVANTAGES:

- Self-Proving, the Groundhog™ monitors the grounding connection throughout the loading operation.
- Can be used in conjunction with your Scully Overfill Prevention System offering one quick connection for overfill protection and grounding verification.
- Can also be used as a completely independent grounding system with a special quick-release plug for grounding connection to a specially designed, vehicle mounted, electronic ball.
- Direct grounding tie point at gantry available.
- Immediately shuts down the loading operation if proper grounding is not present.
- CENELEC, FM, CSA approved models available.
- No manual checks are needed.
- Direct grounding tie point at gantry available.



CWH Series Counterweighted Hose Loader

Installation and operation are simple and efficient with OPW Engineered Systems hose loaders. Adjustable counterweights mounted on a pair of horizontal rails are simply moved until the desired balance point is located. This design provides for efficient handling and coupling to the tank adaptors.

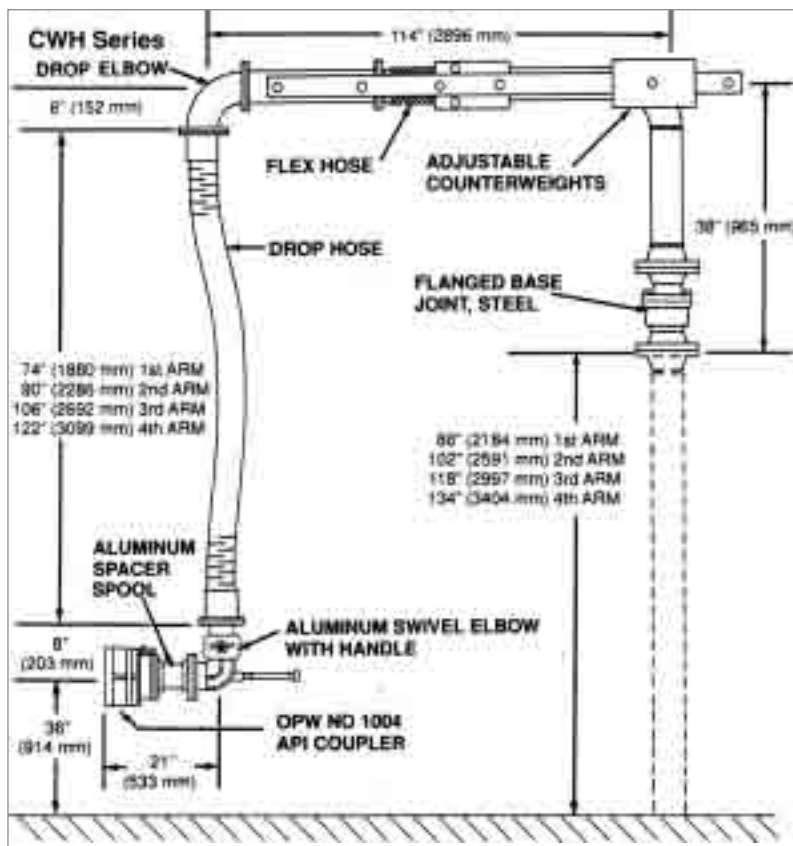
This popular hose loader features a flange-by-flange base swivel joint for reliable performance and ease of maintenance. A heavy-duty Endura™ split flange base swivel joint is standard on 4" arms. Construction is carbon steel with a drop hose for maximum flexibility and easy handling. Composite hose (standard) and stainless-steel hoses are available. Outboard swivel joint, spacer spool, and API coupler are aluminum on the standard model.

Standard horizontal reach is 114" to fully cover the API RP-1004 bottom-loading envelope, with up to four loading arms spaced 18" apart. Each loader should be mounted successively higher; 16" stagger is recommended to provide maximum crossover capability for efficient simultaneous compartment loading.

Optional reaches of 66", 78", 90", and 102" are also available, but full coverage of the API envelope may require moving the truck. Minimum recommended drop hose length is approximately 60".

Benefits

- Easily meets envelope requirements
- Counterbalance adjustment is smooth and easy
- Multiple-compartment loading capability saves time
- Simple, rugged construction



“A” Frame Hose Loader AFH-32-F

This spring-balanced hose loader offers the same advantages as the conventional “A” Frame arm, except flexible hose is used instead of rigid piping on the secondary arm.

Mounting heights for this style arm are shorter than those required for other hose loaders. This arm can be staggered to achieve crossover and conformance to the API envelope requirements. “A” Frame hose loaders are normally stored in an upright, near-vertical position, making it possible to load from both sides of the island.

In addition to bottom loading, the “A” Frame hose loader often is used as a vapor arm in fuel terminals and can be adapted for use in top-loading and unloading applications.

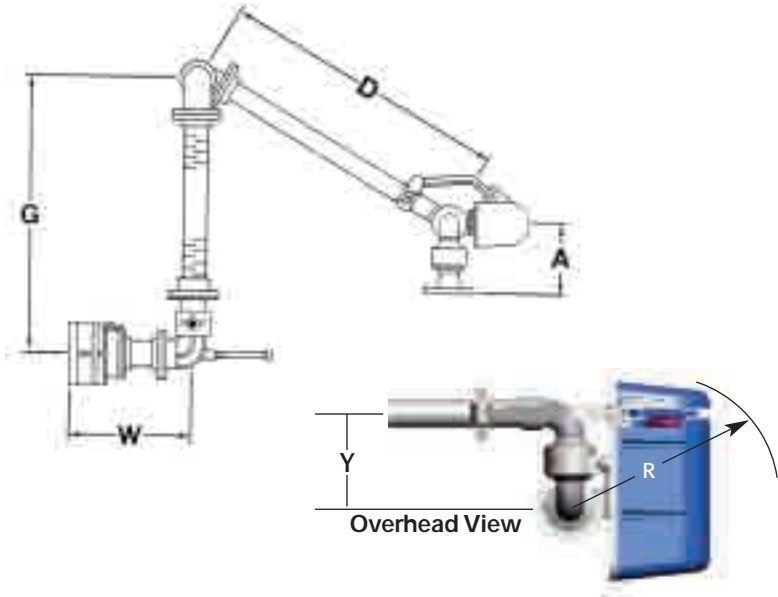
Minimum recommended drop hose length is approximately 60”



“A” Frame Hose Loaders can also be ideal for some top loading applications.

Features

- Low riser mounting height
- Available in 2", 3" and 4"
- Available in steel, stainless steel, aluminum, and specialty alloys
- Choice of flanged, threaded or all-welded construction



Dimensions*

Size		A		D		G		W		R		Y	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2"	51	8-5/8	219	60	1524	72	1829	15	381	17	432	8-1/8	206
3"	76	10-1/2	267	60	1524	72	1829	21	533	18-1/2	470	10-3/4	273
4"	102	11-3/4	298	60	1524	72	1829	21	533	20	508	12-3/4	324

*Custom dimensions also available.

“A” Frame Loader M-32-F

The “A” Frame is one of the more popular loading arm configurations. It provides good flexibility, long reach, and is convenient and easy to use. It adjusts for any changes in the elevation or tilting of the vehicle during loading or unloading. The arm stores neatly in the upright, near-vertical position, allowing it to swing around easily for loading from either side of the island.

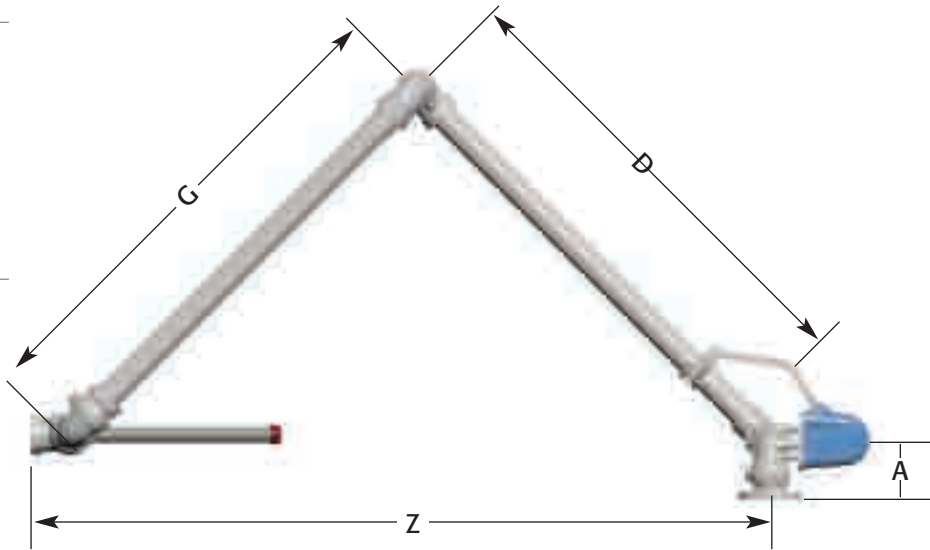
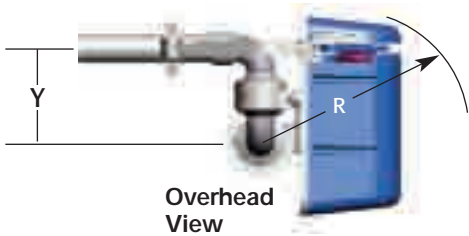
The “A” Frame’s compact storage envelope also allows these arms to be installed relatively close together, often on risers that are approximately the same height as the vehicle connection. They can also be mounted next to one another on staggered risers to achieve arm crossover for simultaneous loading of multiple compartment trucks.

Commonly used for tank-truck bottom loading, “A” Frame arms also can be used in top-loading and unloading installations. They are generally equipped with a dry-disconnect coupling, union, or other tight-fill fitting.

300-pound. inlet flange and seamless piping are suitable for handling liquefied petroleum gases, including propane and butane.

Benefits

- Easily stored away from vehicles
- For multiple product applications, it can be mounted close to another arm
- Can be stored safely to ensure safe clearance of vehicles
- Crossover easily can be achieved



Dimensions*

Size		A		D		G		Z		R		Y	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2"	51	8-5/8	219	60	1524	60	1524	90	2286	17	432	8-1/8	206
3"	76	10-1/2	267	60	1524	60	1524	90	2286	18-1/2	470	10-3/4	273
4"	102	11-3/4	298	60	1524	60	1524	90	2286	20	508	12-3/4	324

*Custom dimensions also available.

Spring Balanced
Hose Loader

Short Range SRH-32-F
Long Range LRH-32-F

OPW Engineered Systems spring-balanced hose loaders are available in both short-range and long-range versions. The short-range model has the torsion spring mounted back at the riser, while on the long-range units, the spring is located a short distance out on the arm. Like counterweighted hose loaders, spring-balanced hose loaders generally are stored at horizontal and only slightly upward or downward movement is required to align the coupler with the tank truck adaptor.

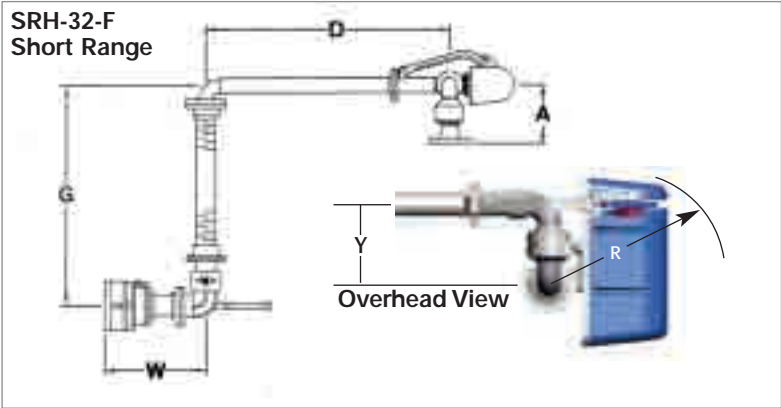
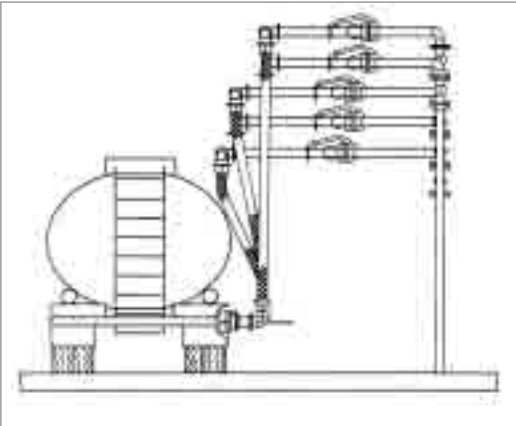
This type of arm, in the 4" size, is used in exactly the same manner as the counterweighted hose loader. An exception: the counterbalance mechanism is a torsion spring rather than weights. Four long-range hose loaders with a 114" reach, spaced 18" apart, will fully cover the API RP-1004 bottom loading envelope. The short-range loader with a 52" reach conforms to the API envelope, with three arms installed 24" apart.

Benefits

- Easily adjustable torsion spring
- Makes loading simple
- Easy to handle and move
- Easily meets API envelope requirements

Features

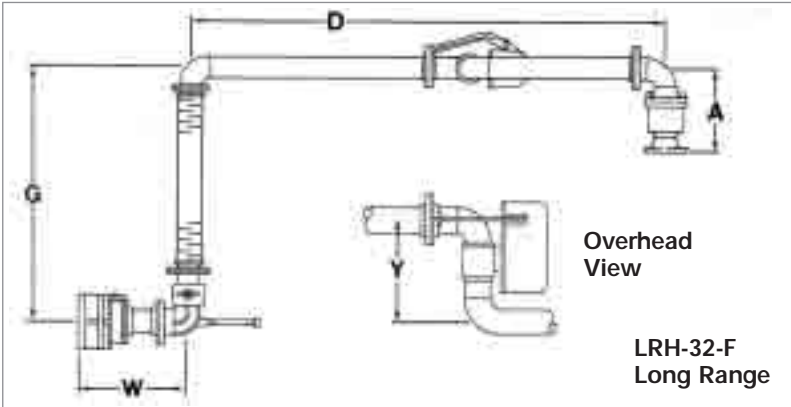
- Available in 2", 3" and 4"
- Available in carbon steel, stainless steel and aluminum
- Choice of flanged, threaded or all-welded construction



Dimensions*

Size		A		D		G		W		R	Y		
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2"	51	8-5/8	219	52	1321	104	2642	15	381	17	432	8-1/8	206
3"	76	10-1/2	267	52	1321	104	2642	21	533	18-1/2	470	10-3/4	273
4"	102	11-3/4	298	52	1321	104	2642	21	533	20	508	12-3/4	324

*Custom dimensions also available.



Dimensions*

Size		A		D		G		W		Y	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
3"	76	10-1/2	267	114	2896	104	2642	21	533	20-1/2	521
4"	102	18-1/8	460	114	2896	104	2642	21	533	20-1/2	521

*Custom dimensions also available.

Unsupported Boom-Type Bottom Loader

Designed to provide flexible long-range operation, this heavy-duty configuration is both reliable and easy to use. A minimum of five swivel planes of rotation offer complete flexibility in making tight connections for loading and unloading rail cars and tank trucks, and servicing aviation refuelers. The outboard swivel and arm adjusts for any changes in elevation or tilting that may result as the vehicle is loaded or unloaded.

The unsupported boom-type loader is extremely versatile and many variations are possible. It can be equipped with dry-disconnect coupler, union, quick coupling, or other customer-specified end fitting to make connections on the side, at the rear, or underneath the vehicle. The intermediate swivel is often inverted to achieve the low profile and clearances needed to connect to the underside of a rail car.

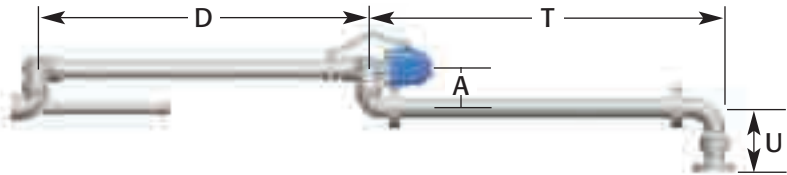
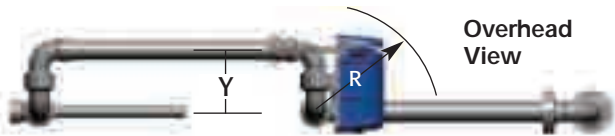
Typically installed at or near ground level, arms of varying lengths can be mounted on staggered risers to achieve crossover and neat compact storage of multiple arms in a confined space.

Benefits

- Easy to operate/maneuver
- Accommodates changes in elevation
- Can be stored safely to ensure safe clearance of vehicles
- Easy to connect under the vehicle
- Very flexible to compensate for vehicle misplacement
- Scissor-back storage means no wasted space

Features

- Low profile
- Long reach
- A minimum of five planes of rotation
- Compact storage
- Torsion-spring balanced
- Outboard two-plane swivel joint
- Available in 2", 3", 4" and 6"
- Available in steel, stainless steel, aluminum, and specialty alloys
- Choice of flanged, threaded or all-welded construction



Dimensions*

Size		A		D		T		U		R	Y		
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2"	51	8-1/8	206	66	1676	42	1067	8-5/8	219	17	432	8-1/8	206
3"	76	10-3/4	273	66	1676	42	1067	10-1/2	267	18 1/2	470	10-3/4	273
4"	102	12-3/4	324	66	1676	42	1067	11-3/4	298	20	508	12-3/4	324
6"	152	21-1/2	546	66	1676	42	1067	19	483	24-3/4	629	18-1/2	470

*Custom dimensions also available.

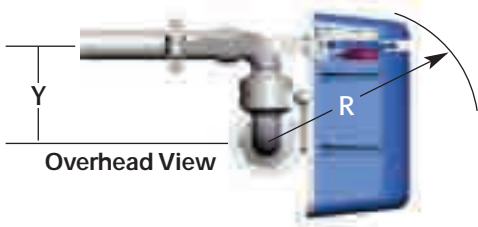
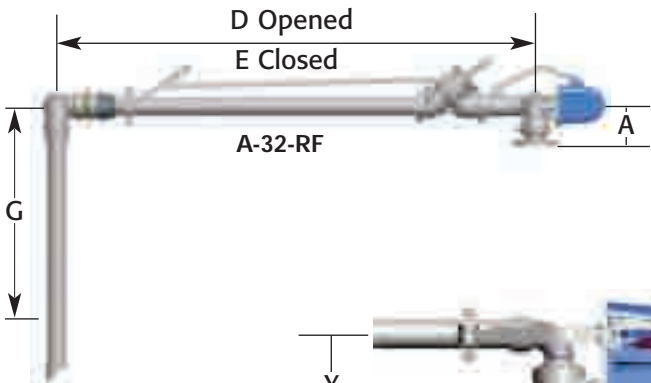
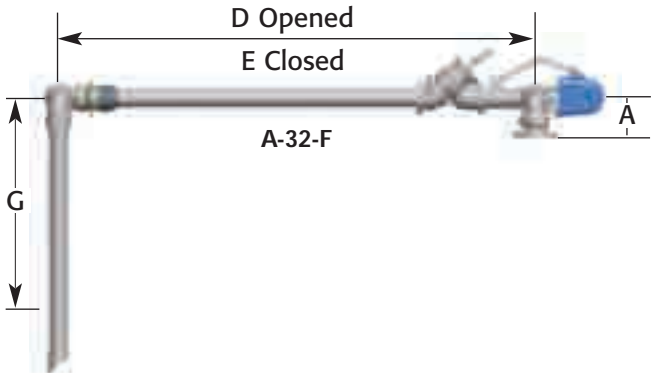
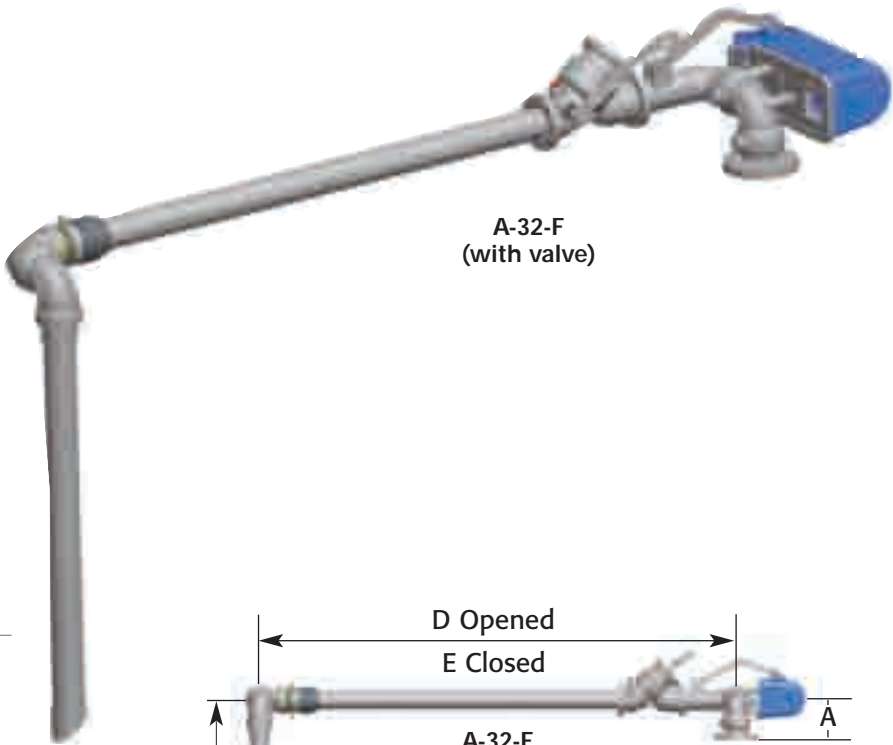
Slide Sleeve Arm A-32-F

The slide sleeve type of arm incorporates a slide-sleeve assembly that telescopes in and out to adjust for variations in the distance from the loading rack to the hauling vehicle. It is used primarily in small bulk plants and terminals for top loading gasoline, fuel oil, or other petroleum products. This durable, dependable and cost-effective loading arm is time-tested as a practical method of locating the drop tube accurately and easily.

The slide sleeve is a medium-duty unit designed for flow rates up to 15 ft/sec (4.5m/sec). Higher flow rates may tend to push the inner tube out beyond the loading point.

Benefits

- Good for applications where the vehicle type varies
- Telescoping primary arm
- Deadman-type loading valve



Dimensions*

Size		A		D		E		G		R		Y	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2"	51	5-5/8	143	126	3200	78	1981	48	1219	15-1/4	387	6-1/8	156
3"	76	6-7/8	175	131	3327	83	2108	48	1219	16	406	7-5/8	194
4"	102	8-1/8	206	135	3429	87	2210	48	1219	17-3/4	451	9-1/4	235

*Custom dimensions also available.

Single Arm Fixed Reach

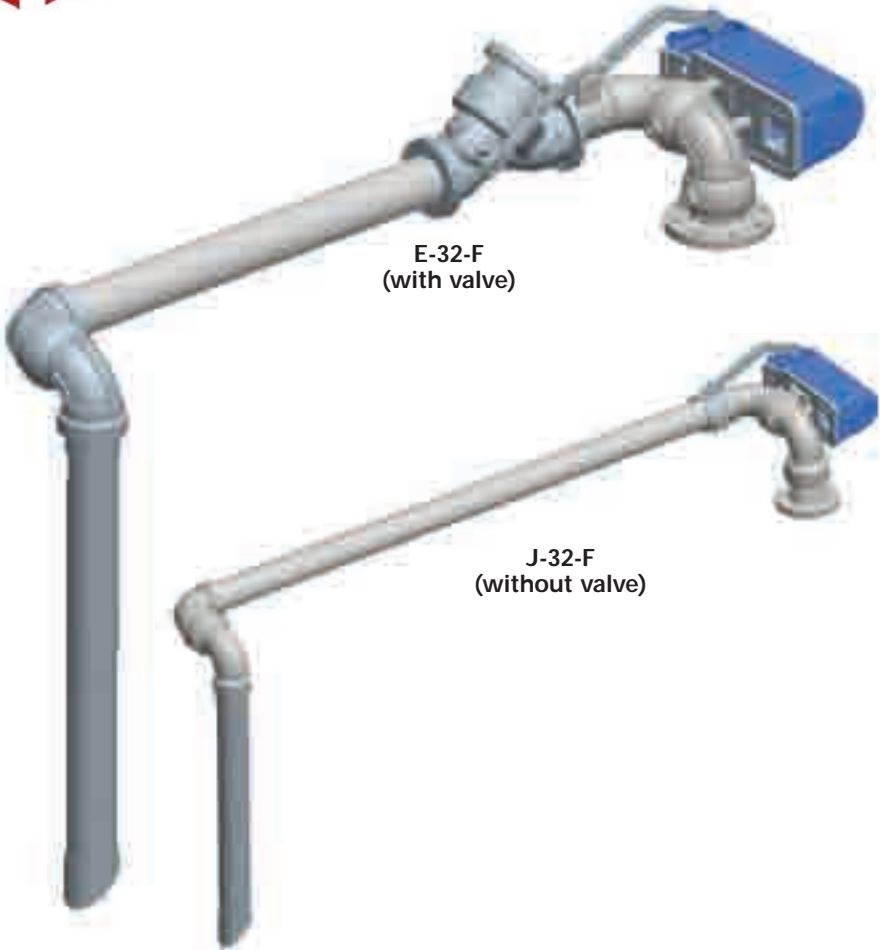
E-32-F, J-32-F

Primarily used to load and unload railcars through open domes in installations where the cars can be spotted accurately. The single arm configuration also can be used for tank-truck applications. Some allowance for mis-spotting is possible with the single arm and increases as the diameter of the hatch opening increases.

This simple arm incorporates only three swivel planes of rotation and is designed for use in top loading installations where the vehicle is located at a fixed distance from the riser pipe. The two swivel planes at the inlet permit both up-and-down and side-to-side movement of the assembly. The third swivel plane allows the drop pipe to remain vertical.

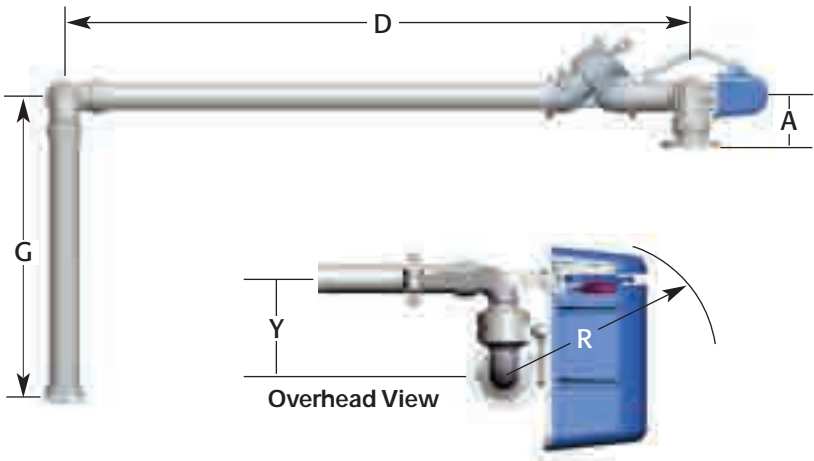
Valves can be located inboard or outboard to facilitate loading. With a valve located outboard, drippage of viscous products after loading can be minimized.

The single-arm loader is adaptable to tight-fill or closed-system loading when equipped with additional swivel planes of rotation and/or drop hose, along with required outboard coupling, union or fitting.



Benefits

- Adaptable to tight-fill or closed-system loading when equipped with additional swivel planes of rotation and/or drop hose, along with required outboard coupling, union or fitting
- Rail or truck applications
- Smooth, easy operation



Dimensions*

Size		A		D		G		R		Y	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2"	51	8-5/8	219	120	3048	48	1219	17	432	8-1/8	206
3"	76	10-1/2	267	120	3048	48	1219	18-1/2	470	10-3/4	273
4"	102	11-3/4	298	120	3048	48	1219	20	508	12-3/4	324

*Custom dimensions also available.

Unsupported Boom Arm GT-32-F

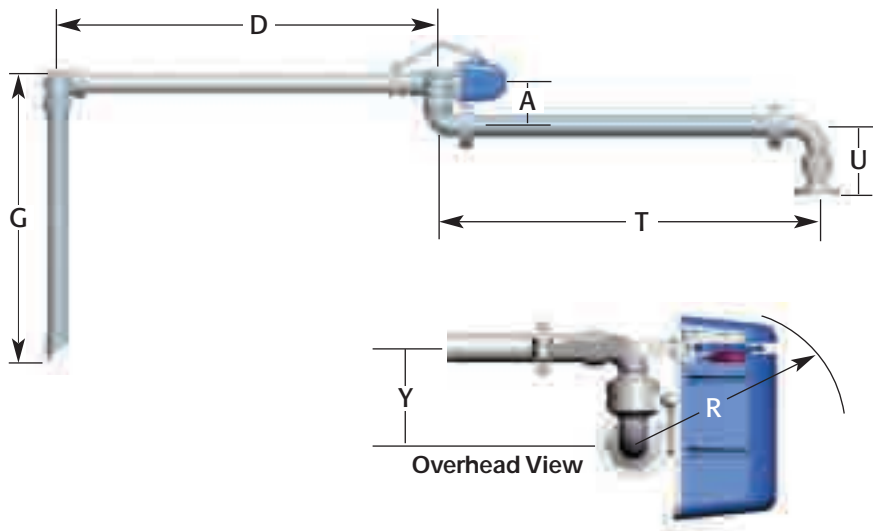
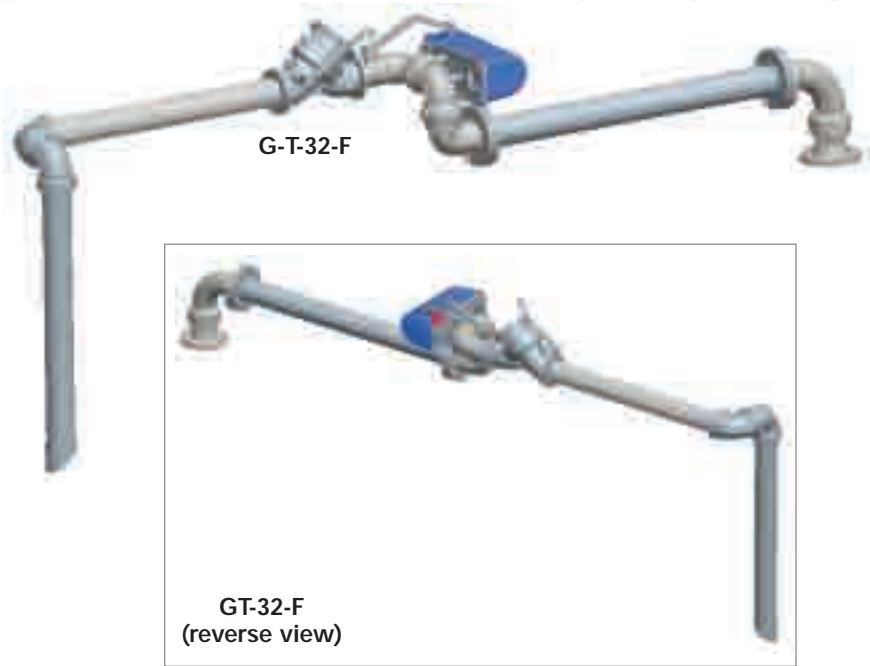
The unsupported boom arm is an excellent alternative for variable reach applications, especially in larger sizes where the outboard components are relatively heavy. It can be modified for closed-system loading and unloading, and is available in various design configurations to meet the needs of virtually any installation.

This popular-style loader is designed for those installations where it is undesirable or impractical to mount a supported boom arm. For example, many railcar sites have no support columns or overhead structures to which a supported boom can be attached.

The unsupported boom arm offers the same advantages as the supported boom arm, but maximum reach is somewhat less. It provides good flexibility for mis-spotting, and can be folded back against the rack for convenient, compact storage. When necessary, increasing the size of the base joint, or using a heavy-duty split flange swivel at the inlet, can extend total reach.

Features

- Available in 2", 3" and 4"
- Available in carbon steel, stainless steel, aluminum and specialty alloys
- Choice of flanged, threaded or all-welded construction



Dimensions*

Size		A		D		G		T		U		R		Y	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2"	51	8-1/8	206	78	1981	48	1219	48	1219	8-5/8	219	17	432	8-1/8	206
3"	76	10-3/4	273	78	1981	48	1219	48	1219	10-1/2	267	18-1/2	470	10-3/4	273
4"	102	12-3/4	324	78	1981	48	1219	48	1219	11-3/4	298	20	508	12-3/4	324

*Custom dimensions also available.

Scissor Type Arm C-32-F, H-32-F

Commonly used to handle high flow rates and withstand rough usage in tank-truck loading applications, the scissor arm also is an excellent choice for railcar-loading installations where cars are frequently mis-spotted.

This versatile arm is designed specifically for top-loading installations where a variable operating range is required. The secondary arm rotates 360 degrees in the horizontal plane, providing a spotting allowance of up to twice its length.

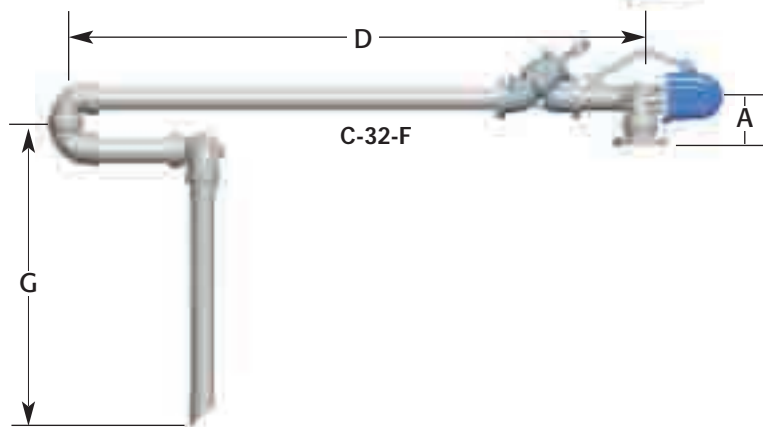
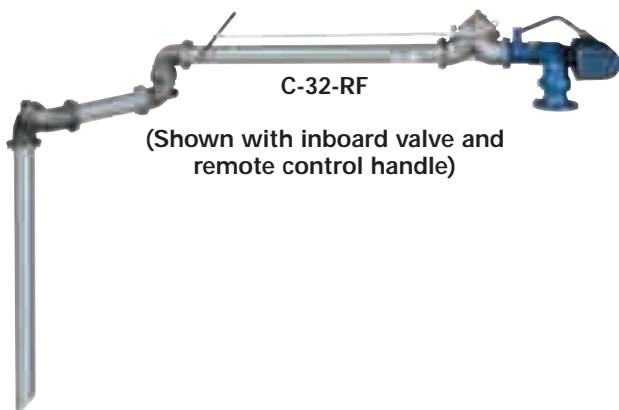
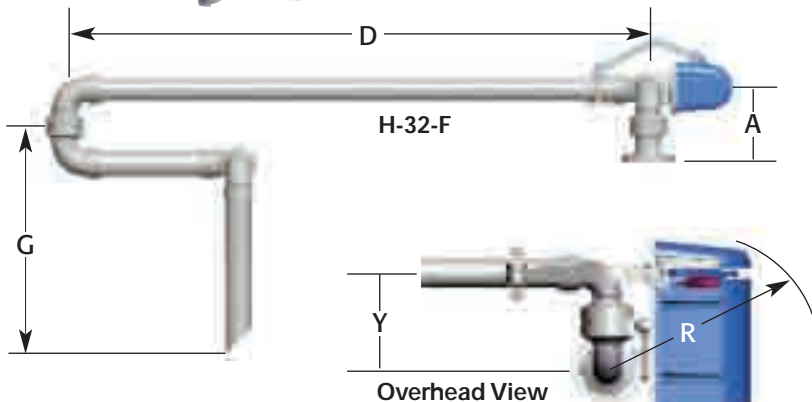
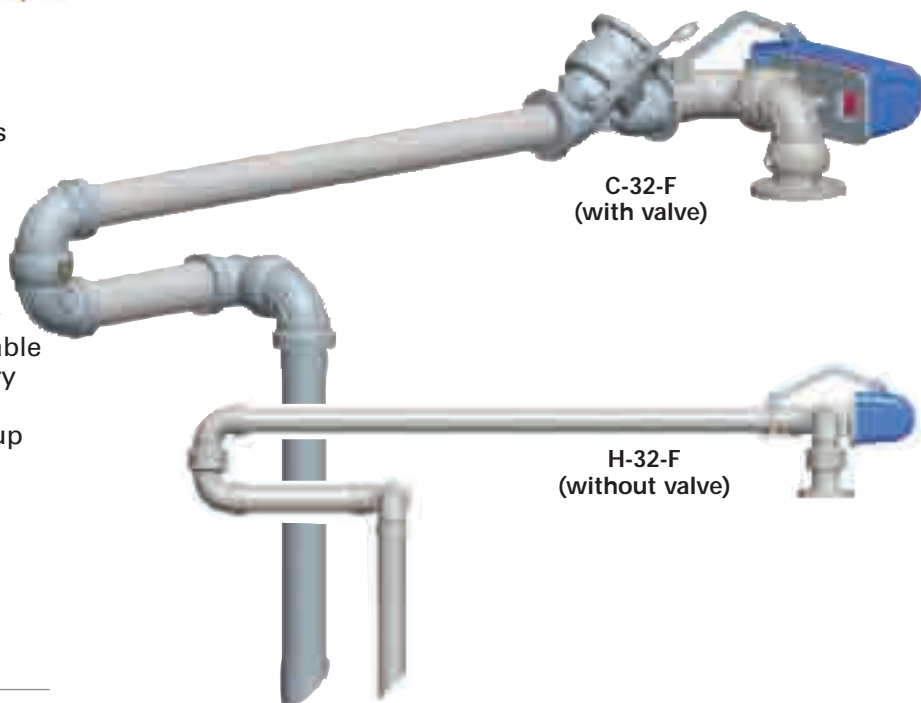
Note: The scissor-arm configuration is not recommended in 6" size in all steel or stainless steel due to the difficulties an operator would have handling the heavy outboard components.

Benefits

- Ideal for applications where spotting the vehicle is variable
- Adaptable to tight-fill or closed-system loading when equipped with additional swivel planes of rotation and/or drop hose, along with required outboard coupling, union or fitting

Features

- Available in 2", 3" and 4"
- Available in carbon steel, stainless steel and aluminum
- Choice of flanged, threaded or all-welded construction



Dimensions*

Size	A	D	G	K	M	R	Y
in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm
2" 51	8-5/8 216	84 2134	48 1219	8-1/8 206	24 610	17 432	8-1/8 206
3" 76	10-1/2 267	84 2134	48 1219	10-3/4 273	24 610	18-1/2 470	10-3/4 273
4" 102	11-3/4 298	84 2134	48 1219	12-3/4 324	24 610	20 508	12-3/4 324

*Custom dimensions also available.

Supported Boom Arm

B-32-F

This style arm provides dependable, low-maintenance service in high-usage installations. Due to the boom-mounted design, no heavy loads are placed on the swivel components to help minimize wear.

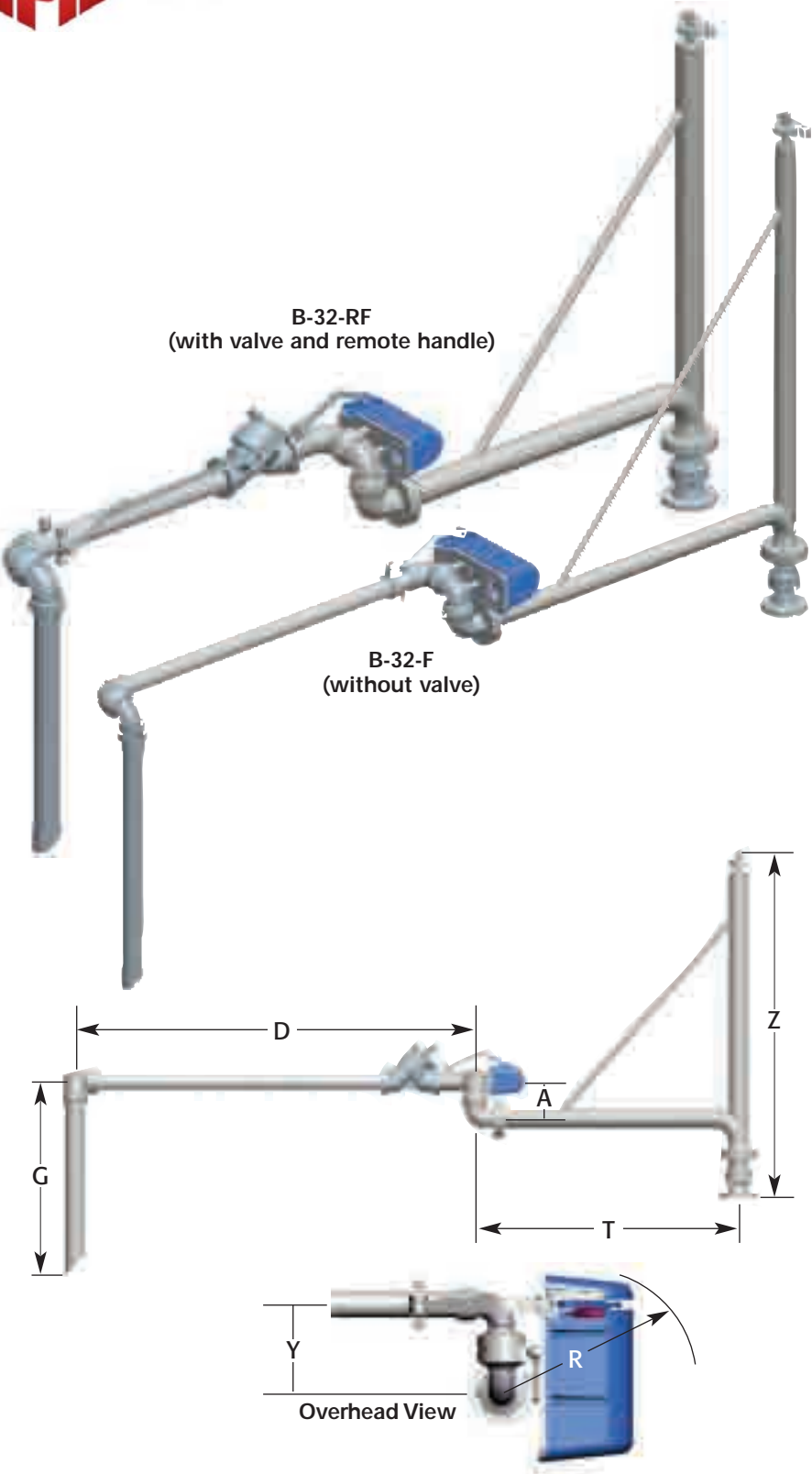
In simplest terms, the supported boom arm loader consists of a single-arm loader mounted on a swiveling boom that is attached to a permanent structure, with either a pillow block or flange bearing for added strength and support. This configuration provides maximum flexibility for mis-spotting and longer reach from the loading rack to the railcar or tank truck. Both the boom and the arm can be folded back against the rack for convenient, compact storage away from traffic flow.

A variety of boom designs and configurations are available to meet the needs of virtually any installation. Used for tank truck and railcar open-dome loading, supported boom arms can be modified for closed-system loading and unloading.

Optional valves – such as dry disconnect, ball, butterfly or loading – can be used because of the boom support.

Benefits

- Long reach
- Design flexibility means it can be used for any application
- Folded back on itself, it can be stored easily
- Optional valve and remote



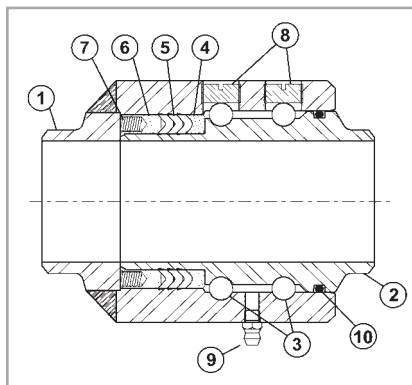
Dimensions*

Size		A		D		G		T		Z		R		Y	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2"	51	14-1/4	362	78	1981	48	1219	78	1981	84	2134	17	432	8-1/8	206
3"	76	17-3/4	451	78	1981	48	1219	78	1981	84	2134	18-1/2	470	10-3/4	273
4"	102	20-3/4	527	78	1981	48	1219	78	1981	84	2134	20	508	12-3/4	324

*Custom dimensions also available.

Swivel Joints

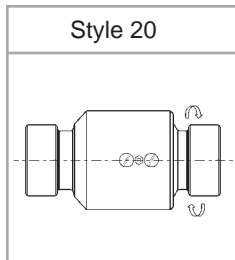
V-ring Type



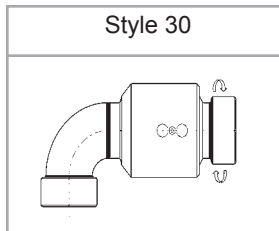
- 1) body
- 2) sleeve
- 3) ball bearings
- 4) seal retainer
- 5) V-ring (pressure) seal
- 6) spring retainer
- 7) spring
- 8) ball retainer screw
- 9) grease fitting
- 10) O-ring (dust) seal

single plane

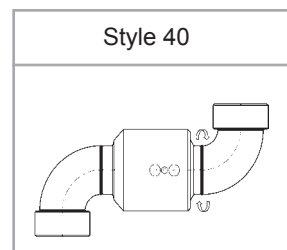
Style 20



Style 30

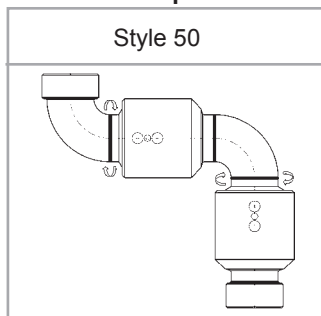


Style 40

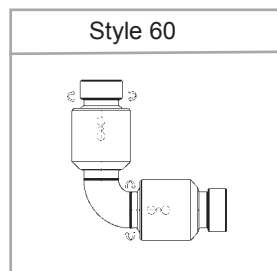


double plane

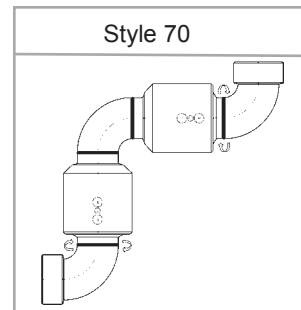
Style 50



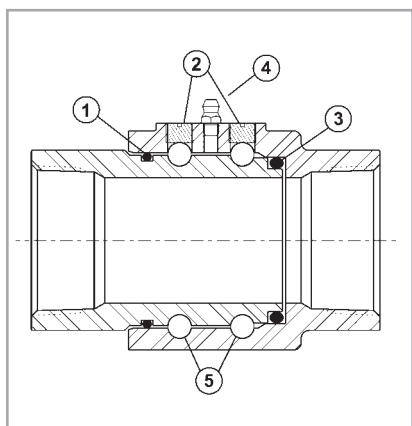
Style 60



Style 70



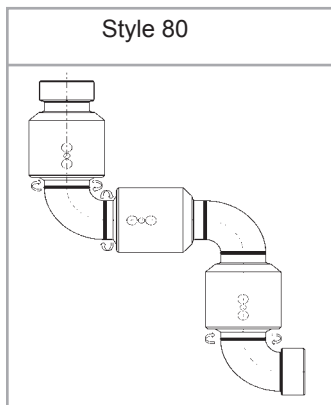
O-ring Type



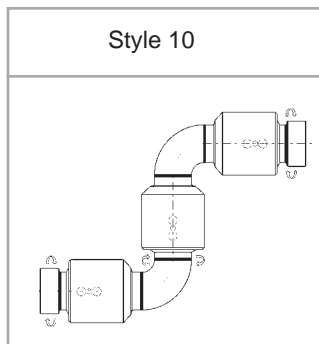
- 1) O-ring (dust) seal
- 2) ball retainer screw
- 3) O-ring (pressure) seal
- 4) grease fitting
- 5) ball bearings

triple plane

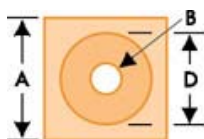
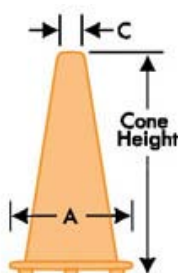
Style 80



Style 10



V-ring type available in carbon steel and stainless steel. O-ring type available in aluminum, brass, iron, steel and stainless steel. Sizes from 1" - 8". Pressures to 1,000 PSI.



TRAFFIC CONE SPECIFICATIONS:									
Model No.	Size	Wall Thickness Top	Wall Thickness Bottom	A	B	C	D	Weight Lbs.	Packed Per Carton
6 PVCS	6"	.056"	.090"	4 1/2"	-	7/8"	2 1/4"	1/4	100
12 PVCS	12"	.065"	.120"	8 1/4"	1 1/4"	2 3/16"	6 1/2"	1 1/2	30
18 PVCS	18"	.065"	.120"	11 3/8"	1 1/4"	2 3/16"	7 1/4"	3	20
18 PVCH	18"	.070"	.125"	11 3/8"	1 1/4"	2 3/16"	7 1/4"	4	20
18 PVCX	18"	.080"	.125"	13"	1 1/4"	2 3/16"	7 1/4"	7	14
28 PVCS	28"	.075"	.130"	15 1/4"	1 1/4"	2 3/16"	10 1/2"	7	10
28 PVCH	28"	.080"	.135"	15 1/4"	1 1/4"	2 3/16"	10 1/2"	10	10
28 PVCX	28"	.075"	.130"	15"	1 1/4"	2 1/2"	10 1/2"	12	10
28 PVCTL	28"	.075"	.130"	13"	1"	1 3/4"	7 1/2"	5	10
28 PVCTLS	28"	.080"	.135"	13 3/4"	1"	1 3/4"	7 1/2"	7	10
28 PVCTLH	28"	.080"	.135"	14 3/4"	1"	1 3/4"	7 1/2"	10	10
36 PVCS	36"	.075"	.130"	15 1/2"	1 1/4"	2 1/2"	10 1/2"	10	10
36 PVCH	36"	.075"	.130"	15"	1 1/4"	2 1/2"	10 1/2"	12	9

Gasoila® E-Seal Thread Sealant Soft-Set with PTFE



- Non-hardening, non-toxic, opaque, dark green paste designed specifically for ethanol blended gasoline including E10 and E85 (for 100% ethanol or 100% methanol applications - use Gasoila 100).
- Provides a positive seal on pipe threads, joints, fittings, hoses, nozzles, pump assemblies, oil burners, hydraulics, bolts, compressors, engines, motors, fuel lines and couplings.
- For use on brass, copper, stainless steel, aluminum, black pipe, tin and galvanized pipe.
- Excellent resistance to gasoline, ethanol blended gasoline such as E10 and E85, petroleum solvents, kerosene diesel oil, BioDiesel propane, butane, LPG, cutting oils, ammonia, aliphatic solvents, acids and steam.
- NOT for use on oxygen.
- Temperature Range: -100°F to 800°F (-74°C to 318°C).
- Pressure Range: Up to 10,000 psi when sealing liquids and up to 3,000 psi with gases.
- UL Classified.
- For use on NPT Threads.

FPC Stock Code	Container Size	Units per Case
GE04	1/4 pt. Brush	24
GE16	1 pt. Brush	12



WATER FINDER PASTE FOR RFG & BIO FUELS

GASOLIA# AP02
KOLOR KUT # M-3



SAR-GEL



ONE PIECE TANK STICKS

8'
14'
16'

FOLDING TANK STICKS

14'
16'



The Technology Inside...

MeltBlown Mat

Primary Use:

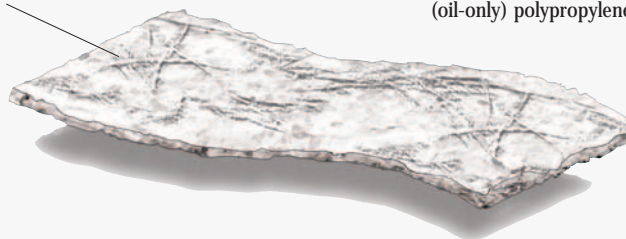
Oil Spills on Land or Water

Primary Benefit:

Quick, Effective Oil-Only Cleanup

MeltBlown

Single layer of hydrophobic
(oil-only) polypropylene.



Mats



Static-Dissipative Mat Also Available

MeltBlown Mats

☐ **White Oil-Only** (for oils, not water)

Item #	Description	Size	Units/Pkg	Absorbs/Pkg
WP100H	HeavyWeight Pads	15"x19"	100	33.4 gal.
WPK50H	HeavyWeight King Pads	30"x30"	50	52.8 gal.
WP100M	MediumWeight Pads	15"x19"	100	26.7 gal.
NEW WP100S	SingleWeight Pads	15"x19"	100	17.9 gal.
WP200S	SingleWeight Pads	15"x19"	200	35.7 gal.
WR150H	HeavyWeight Roll	30"x150'	1	63.4 gal.
WRS150H	HeavyWeight Split Rolls	15"x150'	2	63.4 gal.
WR150M	MediumWeight Roll	30"x150'	1	50.7 gal.
WRS150M	MediumWeight Split Rolls	15"x150'	2	50.7 gal.
WR300S	SingleWeight Roll	30"x300'	1	67.9 gal.
WRS300S	SingleWeight Split Rolls	15"x300'	2	67.9 gal.

Fleet Kit

Compact Kit has everything needed to handle small spills on the road. Packed in a sturdy Nylon bag for security on the go. Small size is ideal for use in fleet vehicles.

Kit Contents:

- 50 – 11" x 13" Pads (refills sold on page 5, 7 and 19)
- 2 – 3" x 4' Socks
- 2 – Yellow Temporary Disposal Bag & Tie
- 2 – Pair Nitrile Gloves
- 1 – Pair Safety Goggles
- 1 – Tub Plug 'N' Dike Putty
- 3 – Reflective Triangles
- 1 – Pack of Assorted Wooden Plugs
- 1 – Spill Kit Label



SPKO-FLEET

Absorbs
up to
8.6
Gallons

NEW

Fleet Kit

Item #	Description	Refill Kit (contents only)
NEW SPKU-FLEET	Fleet Kit/Universal	n/a
NEW SPKO-FLEET	Fleet Kit/Oil-Only	n/a
NEW SPKHZ-FLEET	Fleet Kit/HazMat	n/a
NEW A-YTOTE	Empty Tote Bag (see p37)	n/a

Trucker Kit

Handle All Types of Spills With This Portable Kit

This handy kit features a compact design that easily fits behind the seat of a truck for quick response. Ideal for the smaller types of spills that truckers encounter on a regular basis. Available in Universal, Oil-Only and HazMat versions.

Absorbs
up to
8.8
Gallons



Kit Contents:

- 20 – 15"x19" Pads
- 3 – 3"x4' Socks
- 1 – Disposal Bag & Tie
- 1 – Pair Nitrile Gloves
- 1 – Pair Safety Goggles

Trucker Spill Kit

Item #	Description	Refill Kit (contents only)
SPKU-TRK	Trucker Kit/Universal	n/a
SPKO-TRK	Trucker Kit/Oil-Only	n/a
SPKHZ-TRK	Trucker Kit/HazMat	n/a

5-Gallon HazMat Pouch Kit

Transporting Bottles, Vials or Containers Just Got Easier

LabPack any liquid up to moderate hazard, and the Yellow HazMat Particulate that is sandwiched between a heavy plastic liner and an absorbent spunbond layer will protect it. Use the included ties to close the top, seal inside the UN-approved 5-gallon overpack for transporting liquids, label it (included) and send it anywhere!

Refills sold separately: OP25 includes 5 pouches and 10 ties; OP210 includes 10 pouches and 20 ties.



SPKHZ-50P

Absorbs
up to
2.2
Gallons

NEW

5-Gallon HazMat Pouch Kit

Item #	Description	Units/Pkg	Absorbs/Pkg
NEW SPKHZ-50P	5-Gallon Pouch Kit/HazMat	1	2.2 gal.
NEW OP25	5-Gallon Pouch Kit Refill	5	11.0 gal.
NEW OP210	5-Gallon Pouch Kit Refill	10	22.0 gal.
NEW A5OVER	Empty 5-Gallon Pail w/ Screw-Top Lid	1	n/a

Specialty Kits

Mercury Spill Kit

This highly-effective Spill Kit provides outstanding mercury vapor control. Includes vapor suppressors, a mercury aspirator, PPE and mercury disposal containers. Kit requires no mixing.



MERC-KIT

Battery Acid Spill Kit

Contains everything needed to handle battery acid hazards — even PPE.

Kit Contents:

- 3 – 3" x 4' Socks
- 40 – 15" x 19" Pads
- 3 – 18" x 18" Pillows
- 1 – Pair Neoprene Gloves
- 1 – Pair Safety Goggles
- 2 – 2 lb. Acid Neutralizing Sorbent Shaker Cartons
- 2 – Yellow Disposal Bags & Ties

SPKHZ-BATT

Absorbs
up to
23.8
Gallons



Specialty Kits

Item #	Description	Refill Kit (contents only)
MERC-KIT	Mercury Spill Kit	n/a
NEW SPKHZ-BATT	Battery Acid Spill Kit	RSPKHZ-BATT
A20OVER	Empty 20-Gallon OverPak (see p37)	n/a

65-Gallon Spill Kit

Contents pre-packed in X-rated DOT-approved 65-Gallon OverPack (UN 1H2/X200/S). Available for Universal, Oil-Only and HazMat use. Content-only Refill Kit available.




Kit Contents:

- 40 – 15"x19" Pads
- 6 – 3"x8' Socks
- 10 – 3"x4' Socks
- 6 – 18"x18" Pillows
- 2 – Pair Nitrile Gloves
- 3 – Yellow Disposal Bags & Ties
- 1 – Spill Kit Label

SPKO-65



65-Gallon Spill Kits

Item #	Description	Refill Kit (contents only)
 SPKU-65	65-Gallon Kit/ Universal	RSPKU-65
 SPKO-65	65-Gallon Kit/ Oil-Only	RSPKO-65
 SPKHZ-65	65-Gallon Kit/ HazMat	RSPKHZ-65
A65OVER	Empty 65-Gallon OverPack (see p37)	n/a

50-Gallon Spill Kit

Contents pre-packed in X-rated DOT-approved 50-Gallon OverPack (UN 1H2/X125/S) with two wheels and built-in handle. Available for Universal, Oil-Only and HazMat use. Content-only Refill Kit available.




Kit Contents:

- 100 – 15"x19" Pads
- 6 – 3"x4' Socks
- 4 – 18"x18" Pillows
- 2 – Pair Nitrile Gloves
- 3 – Yellow Disposal Bags & Ties
- 1 – Emergency Response GuideBook
- 1 – 7" Epoxy Putty Stick
- 2 – 6" Light Stick
- 1 – Pair Safety Goggles
- 1 – Spill Kit Label

SPKHZ-50-WD



50-Gallon Spill Kits

Item #	Description	Refill Kit (contents only)
 SPKU-50-WD	50-Gallon Kit/ Universal w/ Wheels	RSPKU-50
 SPKO-50-WD	50-Gallon Kit/ Oil-Only w/ Wheels	RSPKO-50
 SPKHZ-50-WD	50-Gallon Kit/ HazMat w/ Wheels	RSPKHZ-50
A50OVER-WD	Empty 50-Gallon OverPack w/ Wheels (see p37)	n/a

30-Gallon Spill Kit

Contents pre-packed in X-rated DOT-approved 30-Gallon OverPack (UN 1H2/X100/S). Available for Universal, Oil-Only and HazMat use. Content-only Refill Kit available.




Kit Contents:

- 25 – 15"x19" Pads
- 4 – 3"x8' Socks
- 4 – 18"x18" Pillows
- 1 – Pair Nitrile Gloves
- 3 – Yellow Disposal Bags & Ties
- 1 – Pair Safety Goggles
- 1 – Emergency Response GuideBook
- 1 – Spill Kit Label

NEW SPKU-30



30-Gallon Spill Kits

Item #	Description	Refill Kit (contents only)
 NEW SPKU-30	30-Gallon Kit/ Universal	RSPKU-30 NEW
 NEW SPKO-30	30-Gallon Kit/ Oil-Only	RSPKO-30 NEW
 NEW SPKHZ-30	30-Gallon Kit/ HazMat	RSPKHZ-30 NEW
NEW A30OVER	Empty 30-Gallon OverPack (see p37)	n/a

20-Gallon Spill Kit

Contents pre-packed in X-rated DOT-approved 20-Gallon OverPack (UN 1H2/X75/S). Available for Universal, Oil-Only and HazMat use. Content-only Refill Kit available.




Kit Contents:

- 25 – 15"x19" Pads
- 4 – 3"x4' Socks
- 2 – 18"x18" Pillows
- 1 – Pair Nitrile Gloves
- 2 – Yellow Disposal Bags & Ties
- 1 – Pair Safety Goggles
- 1 – Spill Kit Label

SPKU-20



20-Gallon Spill Kits

Item #	Description	Refill Kit (contents only)
 SPKU-20	20-Gallon Kit/ Universal	RSPKU-20
 SPKO-20	20-Gallon Kit/ Oil-Only	RSPKO-20
 SPKHZ-20	20-Gallon Kit/ HazMat	RSPKHZ-20
A20OVER	Empty 20-Gallon OverPack (see p37)	n/a

Sorbent Socks For Fast Containment

Oil-Only Socks

HazMat Socks

Oil-Only Socks Absorb Oils, Repel Water

For oil-only cleanup, choose these Socks. By selectively absorbing oil and not water, these 100% polypropylene-filled Socks absorb more oil and can be left on the job longer.

What's Inside:



Use HazMat Socks for Caustic Fluids

These 100% polypropylene-filled Socks soak up nearly any type of caustic or unknown fluid — acids, bases, solvents and chemicals. Color-coded yellow so you know exactly what you're reaching for in an emergency spill situation.

What's Inside:



Oil-Only Socks

(for oils, not water)

Item #	Description	Size	Units/Pkg	Absorbs/Pkg
WS0410	Oil-Only Socks	3"x4'	10	8.33 gal.
WS0430	Oil-Only Socks	3"x4'	30	25.0 gal.
WS0815	Oil-Only Socks	3"x8'	15	25.0 gal.
WS01210	Oil-Only Socks	3"x12'	10	25.0 gal.

HazMat Socks

(for acids, bases & unknown liquids)

Item #	Description	Size	Units/Pkg	Absorbs/Pkg
YS0410	HazMat Socks	3"x4'	10	8.33 gal.
YS0430	HazMat Socks	3"x4'	30	25.0 gal.
YS0815	HazMat Socks	3"x8'	15	25.0 gal.
YS01210	HazMat Socks	3"x12'	10	25.0 gal.



ZTV20393 DUAL SIDED RIGID VINYL



ZTV0387 DUAL SIDED RIGID VINYL



ZTV0363 DUAL SIDED RIGID VINYL



ZTV1203 RIGID VINYL
ZEZ21203 STICK ON



ZTV1993 RIGID VINYL
ZEZ21993 STICK ON



80SMP97 PLACARD HOLDER



D-14-1-R STICK ON 4" X 13.5"



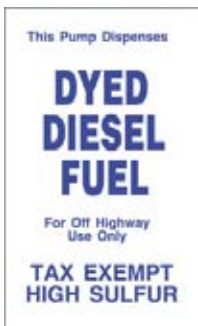
D-14-10-R STICK ON 4" X 13.5"



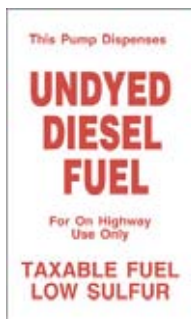
D-14-17-R STICK ON 4" X 13.5"



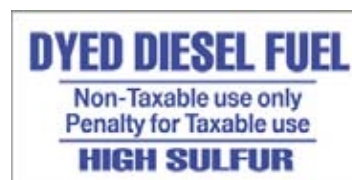
D-14-18-R STICK ON 4" X 13.5"



D-113 STICK ON 6" X 10"



D-114 STICK ON 6" X 10"



D-172 STICK ON 6" X 12"



D-173 STICK ON 6" X 12"



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BAYCO
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EBW
ROM/LIBERTY OVERFILL
DIXON VALVE
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& CORD SETS

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FUEL OIL DELIVERY
GASOLINE DROP
FOOD GRADE
S/S METAL LOADING HOSE
KURIYAMA
GOODYEAR
P/T COUPLING
CIVACON TWIN KAM

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RICHARDS INDUSTRIES
11A UNLEADED AUTOMATIC
CATLOW VAPOR NOZZLE
SCULLY NOZZLES
OVER WING AIRCRAFT

OPW
1290 AUTOMATIC DIESEL
1A UNLEADED AUTOMATIC
BREAKAWAYS
FUEL OIL NOZZLES

EBW
7H DIESEL AUTOMATIC
OPW VAPOR NOZZLE
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OVER WING AIRCRAFT

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