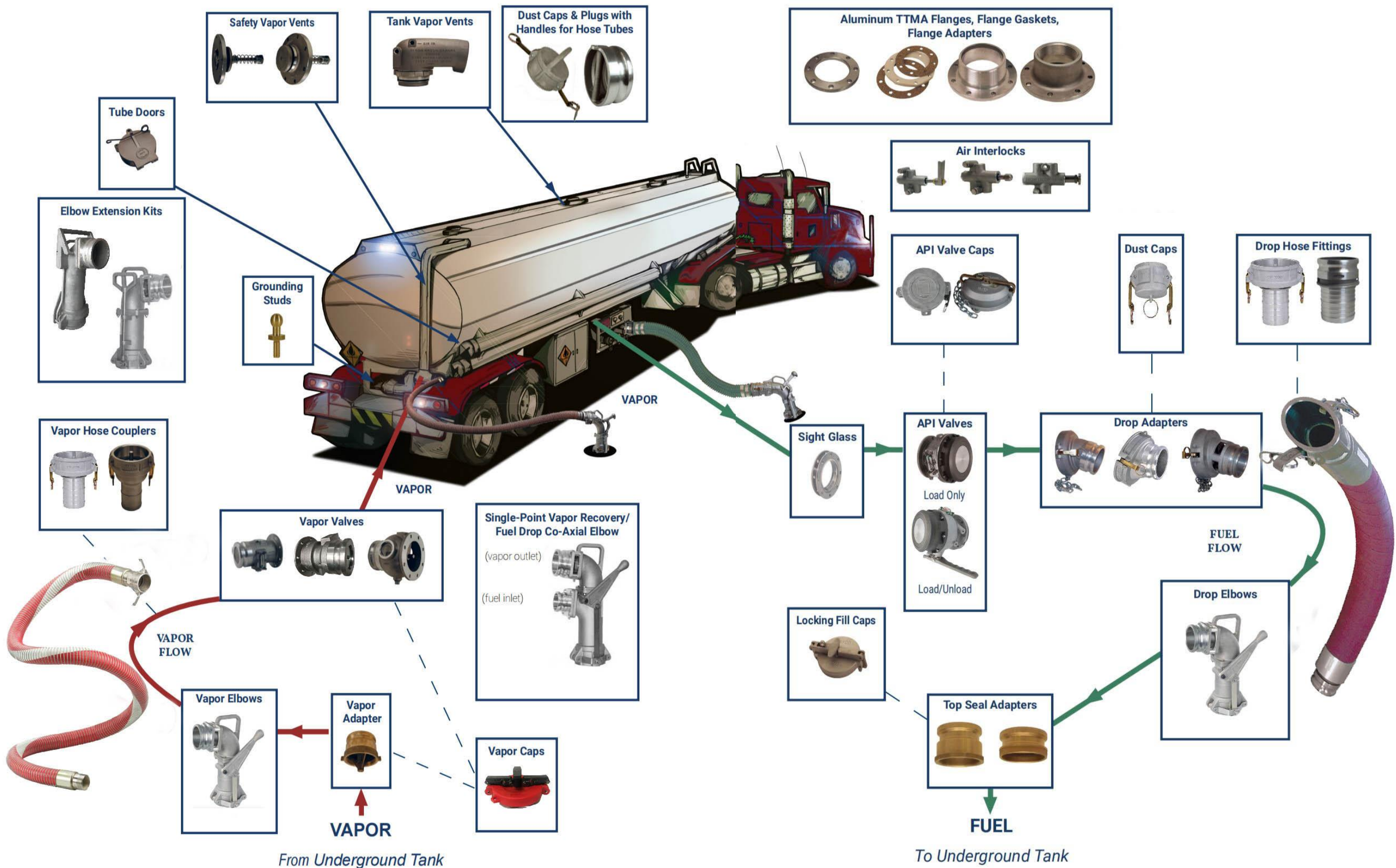




Oil Transfer System





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4”semi-auto



4”manulal

Applications	API couplers are used at the petroleum loading rack for bottom loading of petroleum tankers They are mounted to the rack loading arm, using the built in 4" TTMA flange connection. When the empty Petroleum tanker pulls into the loading rack to load, the API couplers are connected to the API valves on the tanker. The connection interface consists of a poppet and a plunger which ensures a positive spill free connection.
Features	1 .Modular design, allows various face seal combinations to be compatible with different alternative fuel/ performance levels andapplications. 2.No special tools need for maintenance, very easy. 3.Shaft seals can be changed without removing coupler from loading arm. 4. Locking 5 cam design for easy alignment and tight connection and safety interlock to help ensure coupler properly attached before valve opens. 5. Ball-end handle for easy, comfortable operation. 6. Bonded nose seal offers a long life and cannot be washed out.
Construction	1 .A356 T6 aluminum anodized hard coat body with aluminum handle and stainless steel hardware. 2. Viton seals. 3. Hardened 17-4PH stainless steel link, shaft, pin and crank. 4.Stainless steel cam.
Specifications	1 .Working pressure: 10bar(150psi). 2.1emperature Range:-20°F to 250<>F (-29°C to 121°C). 3.Made according to the API RP 1004(2003).

SIZE	Part NO.	Weight(kg)	FOB Price(US \$)
4"manulal	BLC-400M-AL	9.83	
4"semi-auto	BLC-400A-AL	8.91	

API Bottom Loading Coupler Instructions

- 1.The flange interface of the API bottom loading coupler is connected to the flange interface of the bottom loading arms and bolted.
- 2.Before installation, you must ensure that the flange interfaces of the two are level to avoid the difficulty of equipment operation.
- 3.Operation of connecting tank trucks:

① Need to use the operation handle of bottom loading arm and the operation handle of API bottom loading coupler(female) moving the API coupler (female) on the end of the bottom loading arm .

② Connecting it to the coupler (male) on the tanker.

③ After connecting(Semi-automatic API automatically lock coupler (male), Manual models need to push the manual locking sleeve to lock the coupler(male)), rotate 180 degrees in the (open) direction on the API bottom loading operating handle to open poppet, and, the sealing poppet of the coupler on the tanker is driven, making the couplers at both ends open at the same time.

④ So,the quick dry connection device is in a fully open working state, which can perform bottom loading action of the liquid medium.
4. Device separation operation

① When the loading and unloading operation is completed, move the handle in the closing direction indicated by the arrow on the API bottom loading coupler (female) handle, drive the spindle to rotate 180 degrees to close the poppet, it will also close coupler(male) on the tanker.Therefore the coupler at both ends is off (The semi-automatic APIcoupler presses the latch releasae handle to quickly separate the couplers at both ends. Manual models push the manual locking sleeve to separate the coupler).

② So, the quick dry connection device is in a completely closed non-working state. Then, put the API bottom loading coupler (female) back to the original position, and put the dust cup cover on the coupler (male).

Note:

1.The above operation should be gentle to avoid collision

2.If the API Bottom loading coupler is not fully docked, Please don’t use the brute force rotation the operation handle to avoid damage to the accessories.

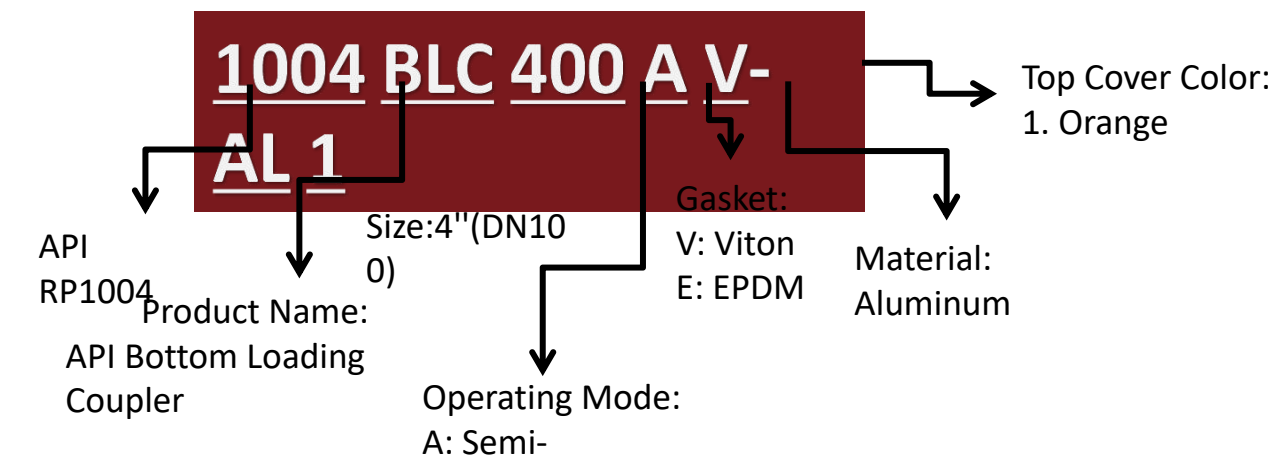
API Bottom Loading Couplers, 4” semi-auto



Installation, Operating

1.Installation of warning	API Bottom Loading Couplers, 4” semi-auto
2.Installation preparation	
3.Product size for installation	
4.Install on the loading arm	
5.Installation operation indication diagram	Installation, operation and maintenance instructions
6.Operation cautions	
7.API coupler structure drawing and accessories description	

Part Number Description



API Coupler is designed to solve the connection solution of bottom charging loading arm.

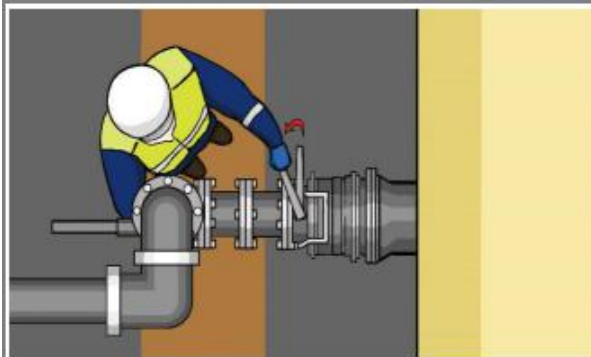
- ◆ TTMA inlet flange, export conforms to the American petroleum institute API RP1004, EN13083, to reach the standard of each brand interface matching each other.
- ◆ The testing of open and close reach for 250,000 times
- ◆ Authentication: TUV Explosion-proof Certification, certification of directive 2014/34 / EU
- ◆ Unique conical mouth design ensures that in the process of loading, easy alignment, close connection and the lateral force resistance, reduce fluid loss when disconnected
- ◆ Unique design of claw and fitted with double seal to ensure the safety
- ◆ Double seal is fitted at the handle connection to prevent dust from entering the valve body, to ensure the durability of the product
- ◆ The seals are made of fluorinated rubber, which has higher wear resistance and corrosion resistance and longer service life.
- ◆ All aluminum parts have been hard anodization, other parts are made of stainless steel material
- ◆ Quickly lock, easy operation

5. Installation operation indication diagram



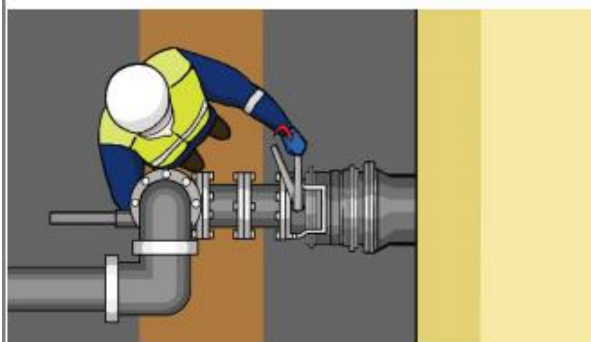
(1) API Coupler Connection Diagram

The position of the operator is shown in the figure. The CENTER of API dry valve is aligned with the connection of the slot car. Hold the position of compound hose with one hand, control the direction with the handle of crane tube with the other hand, maintain the vertical stress, push the semi-automatic dry valve forward, and prompt the connection is finished after hearing the sound of "clang".



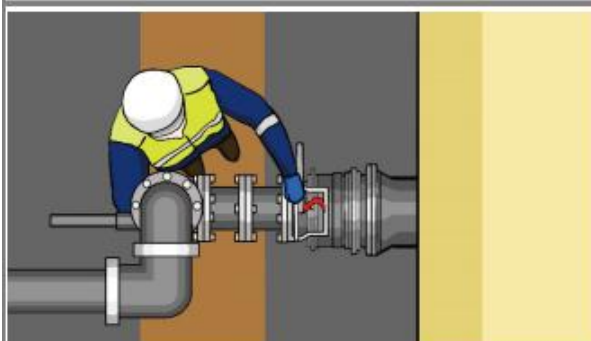
(2) Open the coupler

When the API coupler is connected. Open the coupler handle. When opening the handle of the coupler, it is required to open 30° first. Then fully opened to parallel with the coupler body after the medium flows for 15 seconds. It can extend the service life of the coupler.



(3) Close the coupler

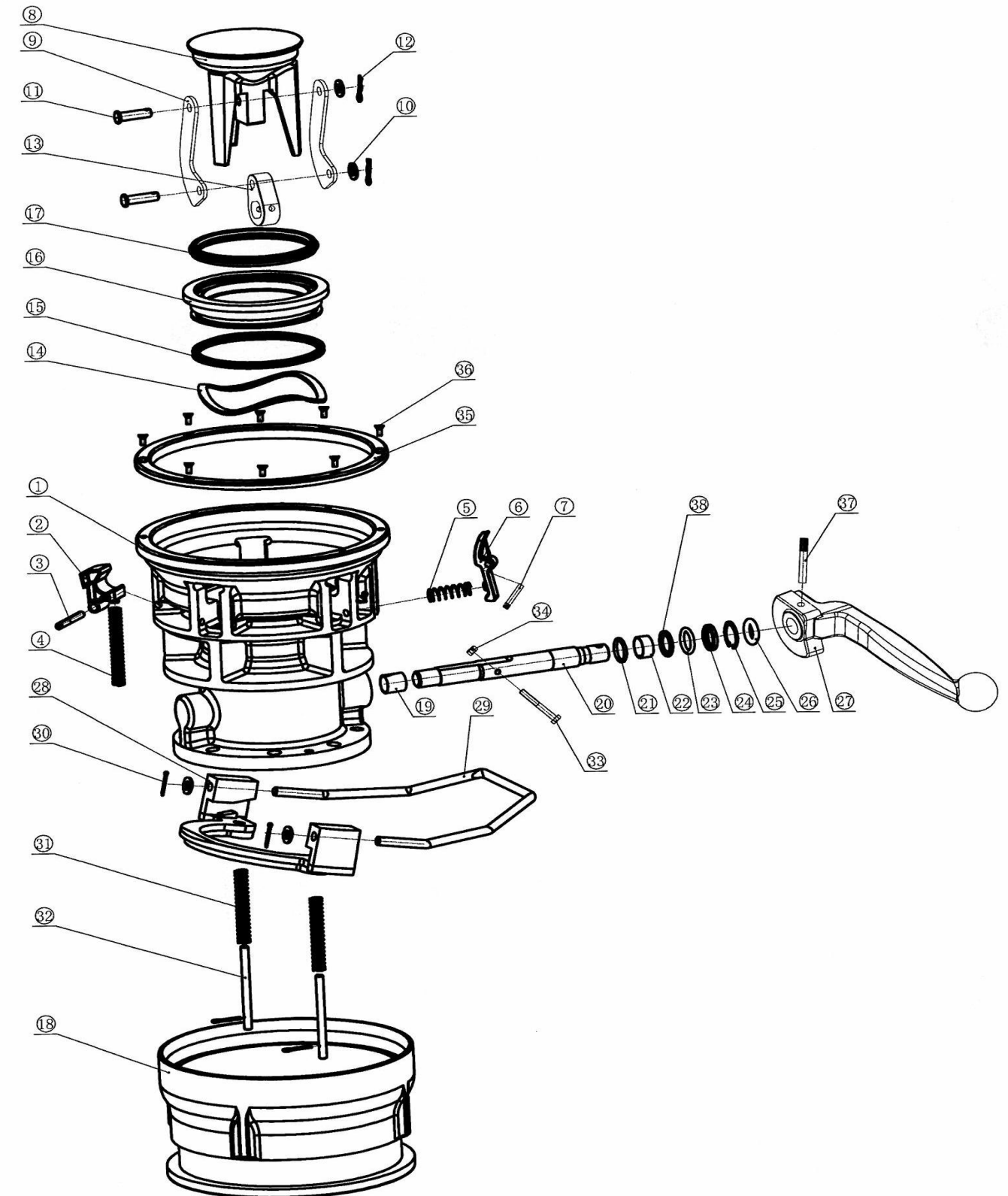
When unloading is complete, close the handle and make it 90° with the coupler body



(4) Separate the API coupler

Grasp the separation handle with your hand and pull outwards.

API coupler structure drawing and accessories description



API coupler structure drawing and accessories description

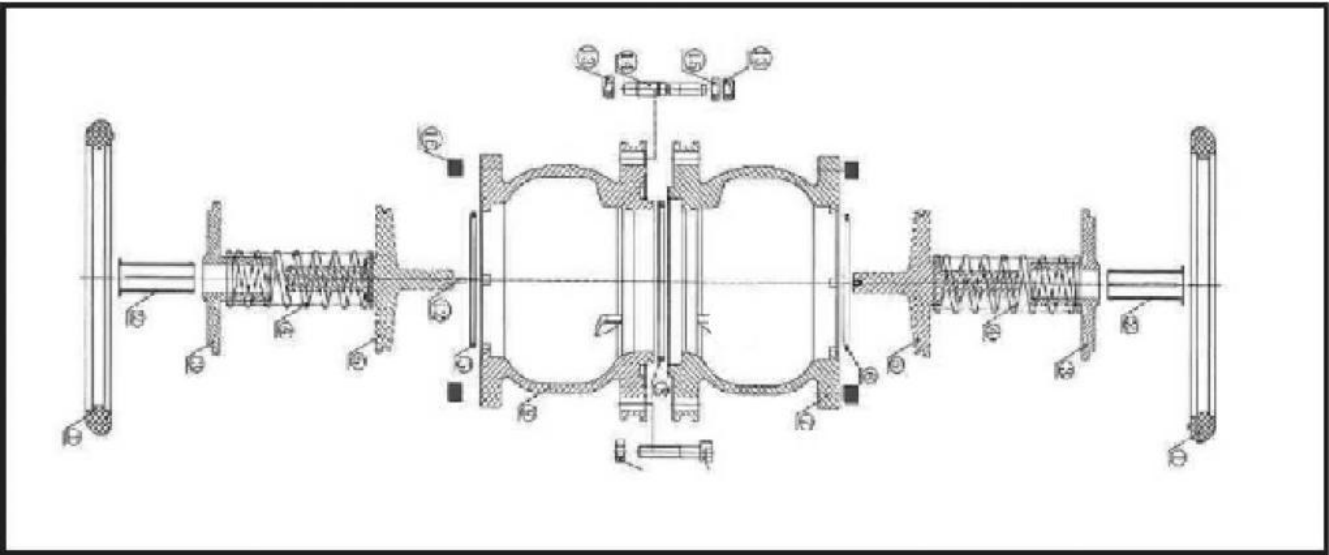
NO.	Part Name	QTY	Material
1	Body	1	A356 T6
2	Cam	5	SS316
3	Spirol Pin	5	SS304
4	Cam spring	5	SS304
5	Interlock Spring	1	SS304
6	Interlock	1	SS316
7	Knurling Pin	1	SS304
8	Poppet	1	A356 T6
9	High Pressure Link	2	17-4 PH
10	Flat washer	4	SS304
11	Clevis pin	2	SS304
12	Safety pin	4	SS304
13	Drive Link	1	SS316
14	Wave washer	1	17-7 PH
15	Nose seal	1	Viton
16	Cylinder	1	6061T6
17	Cylinder seal	1	Viton
18	Locking sleeve	1	A356 T6
19	Shaft end bearing	1	PTFE
20	Shaft	1	17-4 PH
21	O ring	1	Viton
22	Shaft head bearing	1	PTFE
23	O ring	1	Viton
24	Shaft washer	1	PTFE
25	Ring	1	65Mn
26	O ring	1	Viton
27	Operating Handle	1	A356 T6
28	Locking hold ring	1	A356 T6
29	Retreating wrench	1	SS304
30	Split pin	2	SS304
31	Retreating wrench spring	2	SS304
32	Retreating wrench spring mandrel	2	SS304
33	Hexagon Bolt Grade C	1	SS304
34	Type 1 all-metal hexagon lock nut	1	SS304
35	Head face protect jacket	1	6061
36	Socket head cap screw M4	8	SS304
37	Roller pin	1	SS304

Remarks: No.14,15,17,21,23 easily worn.



SIZE	Part NO.	FOB Price(US \$)
4"	BWM00-AL	

Applications	1 .Coupling is desianed to minimize spillage and damage associated with pull away incidents.
Construction	1 .Aluminium body 2.Viton or NBR seals
Specifications	1. Maximum operating pressure: 15bar 2. Made according to the API RP 1004(2003) 3. Available size: 4"



Features

- 1. Designed to be installed within a hose string where the coupling will have a length of hose attached to both sides
- 2. Coupling automatically senses an excessive load, closes the valves and disconnects
- 3. Release is executed when force causes bolts to break

Double Flange Coupling



Application	1 .Connecting with oil vapor recovery part and bending flange couplings. 2.Material: Aluminum
Construction	1. 4"ANSI Flange with 4"ANSI Flange.

Aluminium Dry Disconnect Coupler



SIZE	Coupler ID Size	Part Number	FOB Price(US \$)
2"	70mm	DDC200-AL	
3"	119mm	DDC300-AL	
4"	164mm	DDC400-AL	

Features

- ◆ Dry disconnect coupling also called dry break coupling or dry break coupler, is a unique hose connection device providing an automatic mechanism to seal off both the hose and the fixed pipe end when the hose is disconnected. Dry Disconnect Couplings are optimized for safe handling of liquid and vapor with minimum spill during connection and disconnection.
- ◆ It all works on the following principle: the two coupling halves, usually a male part (fixed coupling that is tank unit or adapter) and a female part (hose coupling that is hose unit or coupler) are in separate state locked by a lockina mechanism, so that no medium can escape.When the two halves are initially connected with each other tightly before the locking mechanism can be opened and it provides media a flow channel within the clutch free. Conversely before separating the two coupling halves closed again only and thus the flow channel is closed.

Construction

- 1 .Corrosion resistance
- 2.High strength
- 3.Sturdiness

Specifications

- 1 .Working pressure: 20bar
- 2.Made according to NATO standard S7ANAG 3756
- 3.Optional seals: EPDM, NBR, VITON
- 4..Available size: 2" 3" 4"

Aluminium Dry Disconnect Adapter



SIZE	Adapter OD Size	Part Number	FOB Price(US \$)
2"	70mm	DDA200-AL	
3"	119mm	DDA300-AL	
4"	164mm	DDA400-AL	

Features

- ◆ Dry disconnect coupling also called dry break coupling or dry break coupler, is a unique hose connection device providing an automatic mechanism to seal off both the hose and the fixed pipe end when the hose is disconnected. Dry Disconnect Couplings are optimized for safe handling of liquid and vapor with minimum spill during connection and disconnection.
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Construction

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Specifications

- 1 .Working pressure: 20bar
- 2.Made according to NATO standard S7ANAG 3756
- 3.Optional seals: EPDM, NBR, VITON
- 4..Available size: 2" 3" 4"

SS316 Dry Disconnect Coupler



Dry disconnect Fitting 1"



Dry disconnect Fitting 2"



Dry disconnect Fitting 3"



Dry disconnect Fitting 4"

SIZE	Coupler ID Size	Part Number	FOB Price(US \$)
1"	56mm	DDC100-SS	
2"	70mm	DDC200-SS	
3"	119mm	DDC300-SS	
4"	164mm	DDC400-SS	

Dry Disconnect Adapter



Adapter X Female NPT 1"



Adapter X Female NPT 2"



Adapter X Female NPT 4"

SIZE	Adapter OD Size	Part Number	FOB Price(US \$)
1"	56mm	DDA100-SS	
2"	70mm	DDA200-SS	
3"	119mm	DDA300-SS	
4"	164mm	DDA400-SS	

Features

- ◆ Dry disconnect coupling also called dry break coupling or dry break coupler, is a unique hose connection device providing an automatic mechanism to seal off both the hose and the fixed pipe end when the hose is disconnected. Dry Disconnect Couplings are optimized for safe handling of liquid and vapor with minimum spill during connection and disconnection.
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Construction

- 1 .Corrosion resistance
- 2.High strength
- 3.Sturdiness

Specifications

- 1 .Working pressure: 20bar
- 2.Made according to NATO standard S7ANAG 3756
- 3.Optional seals: EPDM, NBR, VITON
- 4..Available size: 1" 2" 3" 4"

Dry Disconnect Adapter-Flange



Class150 Standard			
SIZE	Adapter OD Size	Part Number	FOB Price(US \$)
1"	56mm	DDA100-SS	
2"	70mm	DDA200-SS	
3"	119mm	DDA300-SS	
4"	164mm	DDA400-SS	
EN1092 Standard			
SIZE	Adapter OD Size	Part Number	FOB Price(US \$)
1"	56mm	DDA100-SSEN	
2"	70mm	DDA200-SSEN	
3"	119mm	DDA300-SSEN	
4"	164mm	DDA400-SSEN	

Features

- ◆ Dry disconnect coupling also called dry break coupling or dry break coupler, is a unique hose connection device providing an automatic mechanism to seal off both the hose and the fixed pipe end when the hose is disconnected. Dry Disconnect Couplings are optimized for safe handling of liquid and vapor with minimum spill during connection and disconnection.
- ◆ It all works on the following principle: the two coupling halves, usually a male part (fixed coupling that is tank unit or adapter) and a female part (hose coupling that is hose unit or coupler) are in separate state locked by a lockina mechanism, so that no medium can escape.When the two halves are initially connected with each other tightly before the locking mechanism can be opened and it provides media a flow channel within the clutch free. Conversely before separating the two coupling halves closed again only and thus the flow channel is closed.

Construction

- 1 .Corrosion resistance
- 2.High strength
- 3.Sturdiness

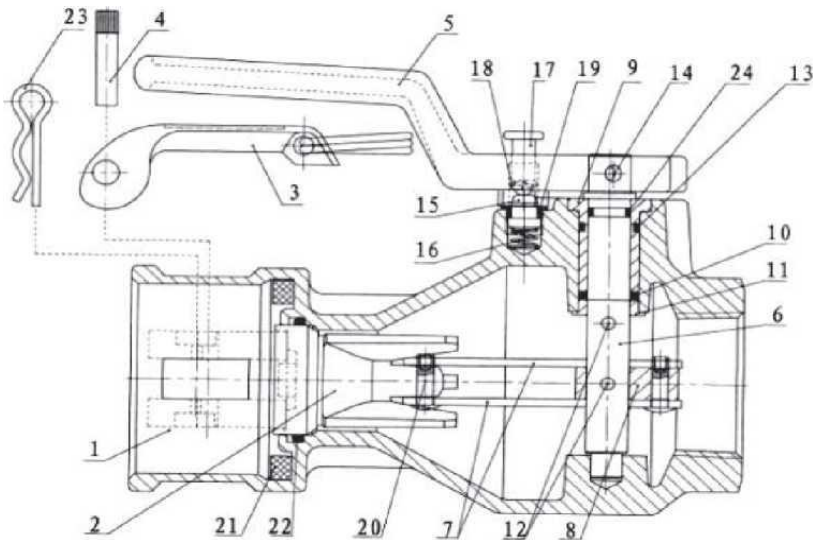
Specifications

- 1 .Working pressure: 20bar
- 2.Made according to NATO standard S7ANAG 3756
- 3.Optional seals: EPDM, NBR, VITON
- 4..Available size: 2" 3" 4"

Camlock Dry Disconnect Coupler



Coupler X Female NPT		
Size	Aluminum/BUNA	FOB Price (US \$)
1-1/2'	761D-150	
2"	761D-200	
3"	761D-300	
Size	Stainless steel/leflon	
1-1/2"	773D-150	
2"	773D-200	
3"	773D-300	



NO.	Description	Qty	Material	NO.	Description	Qty	Material
1	Body	1	NBR	13	O-ring	1	NBR
2	Poppet	1	SS304	14	Pin	1	SS304
3	Cam Arm	2	NBR	15	Stub	1	SS304
4	Cam Pin	2	NBR	16	Spring	1	Spring Steel
5	Handle	1	SS304	17	Button	1	SS304
6	Shaft	1	SS304	18	C-Ring	1	65Mn
7	Link	2	65Mn	19	Hex Nut	2	SS304
8	Cam	1	SS304	20	Rivet	2	
9	Bushing	1	Spring Steel	21	Gasket	1	NBR
10	O-ring	1	SS304	22	O-ring	1	NBR
11	Retainer	1	SS304	23	Safety Pin	2	SS304
12	Roll Pin	2	NBR	24	O-ring	1	NBR

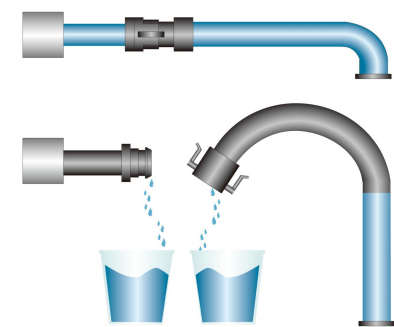


Coupler X Female NPT		
Size	SS /BUNA	FOB Price (US \$)
1-1/2'	761D-150-SS	
2"	761D-200-SS	
3"	761D-300-SS	
Size	Stainless steel/leflon	
1-1/2"	773D-150-SS	
2"	773D-200-SS	
3"	773D-300-SS	

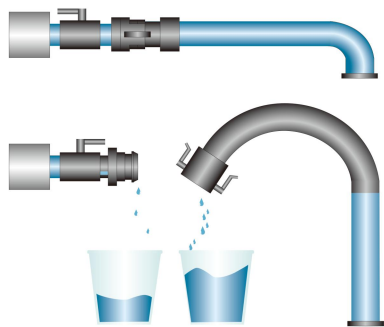


Q: What's the point of Dry-Disconnect adapter?

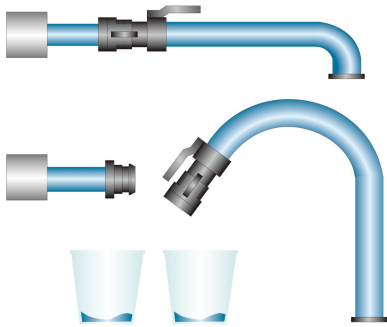
A: In the past, the open quick connector met the rapid connection demand of the chemical industry, but the on-site waste, pollution and other problems were not followed up to solve.



The usual open quick connector
A large amount of liquid is released when the joint is released.

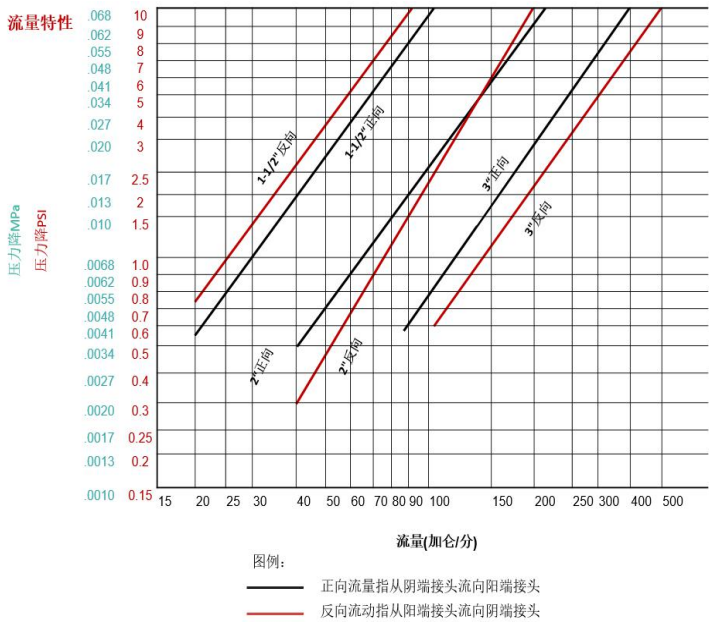


Open quick joint with ball valve
There will still be when the joint and ball valve come off
More fluid leaks out.

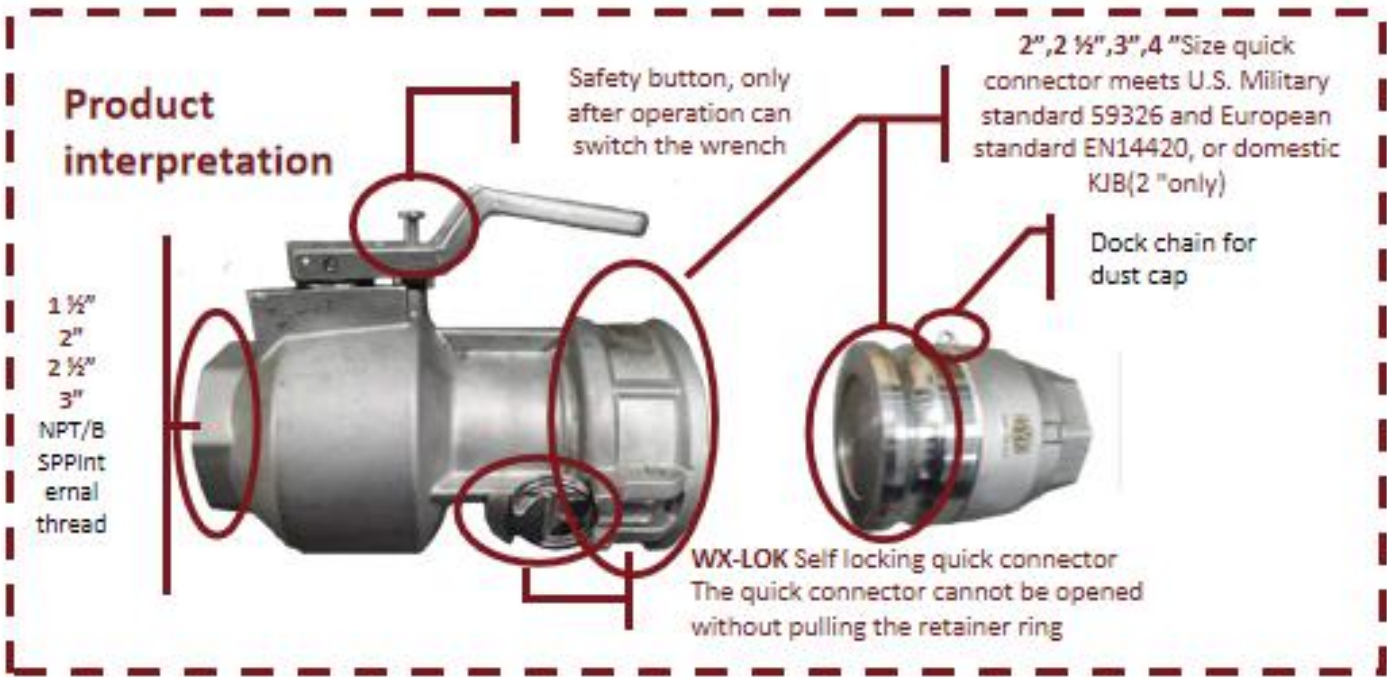
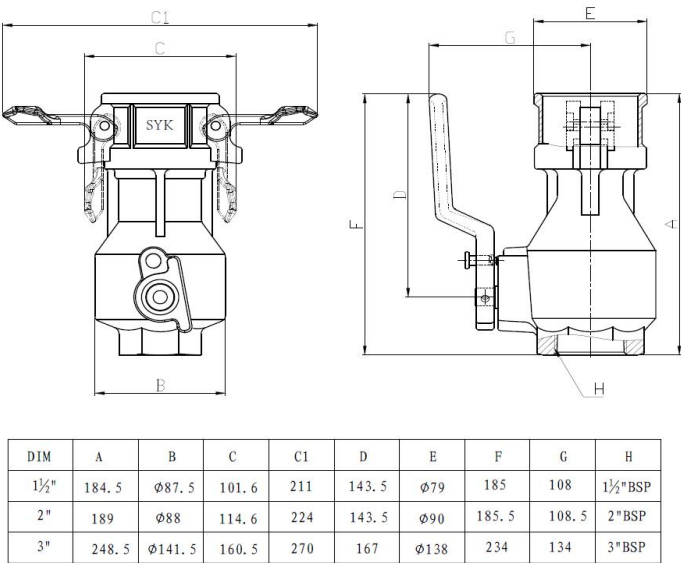


Kai arm - dry quick connection
After disconnecting, it can almost completely eliminate the pipe line
Possibility of spillover of residual liquid.

Flow characteristic



Outline dimension drawing





Construction	1. Boday: Aluminum body 2. Handle: Brass handles/stainless steel handles
Features	1. Feature of Gravity Drop Adaptor and Coupler 2. Attach directly against openable API's 3. Allow drop hose with standard camlock coupling to clmap on and transer petroleum form API Valvet 4. Heat treated aluminum alloy

Part No.	Description	FOB Price (US \$)
1004GA-300	4"Coupler x 3"adaptor	
1004GA-400	4"Coupler x 4"adaptor	
1004GA-300H	4"Coupler x 3"adaptor Heavt duty	
1004GA-400H	4"Coupler x 4"adaptor Heavt duty	
1004GA-300M	4"Coupler x 3"Male NPT	
1004GA-400M	«'Couplerox4HMaleNPT	
1004GA-300MB	4nCoupler x 3"Male BSP	
1004GA-400MB	4"Coupler x 4"Male BSP	
1004GA-300S	4"Coupler x 3"adaptor with sight	
1004GA-400S	4"Coupler x 4"adaptor with sight	
1004GA-300V	4"Coupler x 3"adaptor with vavle	
1004GA-400V	4"Coupler x 4"adaptor with vavle	
1004GA-400C	4"Coupler x 4" Coupler	

Series of API GRAVITY DROP(Adapter)

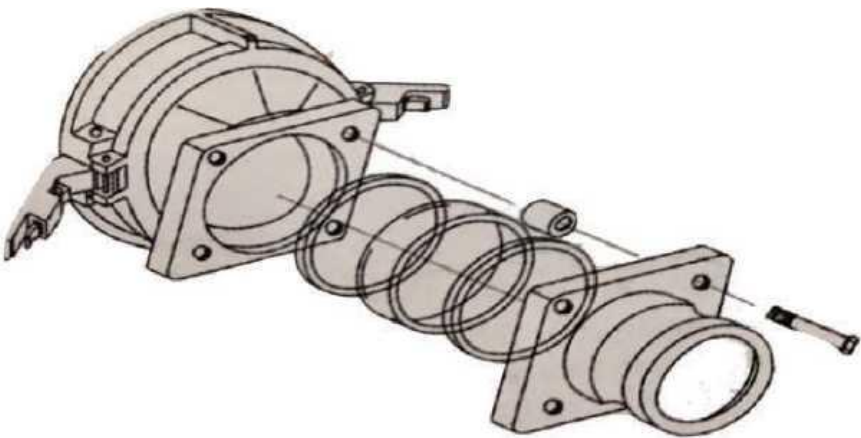


Construction	1 .Body: Aluminum body 2.Handle: Brass handles/stainless stee handles
Features	1 .Attach directly against openable API's. 2. Al lows drop hose with standard Seal Fast cam and groove couplings to clamp on and transfer petroleum from the API valve. 3. MeetsAPI RP-1004 specificationsspecificationspetroleum form API Valvet 4. Heat treated aluminum alloy 5. With stainless steel handles or brass handles.

Size	Part No.	FOB Price (US \$)
4"x 3"	1004GB-300	
4"x 4"	1004GB-400	



Part No.	Description	FOB Price (US \$)
1004GF-300AS	3nMale Adapter Straight	
1004GF-301AS	3"Male Adapter Off-set	
1004GF-400AS	4"Male Adapter Straight	
1004GF-300BLS	3"Female W/Sight Glass	
1004GF-400BLS	4HFemale W/Sight Glass	
1004GF-300ASB	3HMale W/Sight Glass	
1004GF-400ASB	4"Male W/Sight Glass	
1004GF-300A	3"Male Adapter W/Out Sight Glass	
1004GF-400A	4"Male Adapter W/Out Sight Glass	
1004GF-300BL	3"Female W/Out Sight Glass	
11004GF-400BL	4"Female W/Out Sight Glass	



Construction	Specifications
1. Boday: Aluminum body 2. Handle: Aluminum 3.Inlet and outlet connection :Aluminum 4. Hardware: Stainless steel 5. Gasket connectNBR 6. Flat/Waved washer: Stainless steel 7.Sight Glass:PMMA	1. Heavy duty aluminum alloy construction 2. Center of gravity at handle, easy to operate 3. Push to couple, pull to release 4. Five degree angled four bolt flange pattern with varietyof different inlets to meet any requirement 5. Unique locking action that insure positive connection and uniform seal compression at fill adapte 6.360 degree round sight glass window on top



Part No.	Size	FOB Price (US \$)
DVR300AL	3"	
DVR400AL	4"	
DVR4030AL	4"x3"	



Part No.	Size	FOB Price (US \$)
CVR300AL	3"	
CVR400AL	4"	
CVR4030AL	4"x3"	

Curved Coupler

90°Coupling DxA



Size	Part No.
2"	90DA200-AL
3"	90DA300-AL
4"	90DA400-AL
5"	90DA500-AL
6"	90DA600-AL

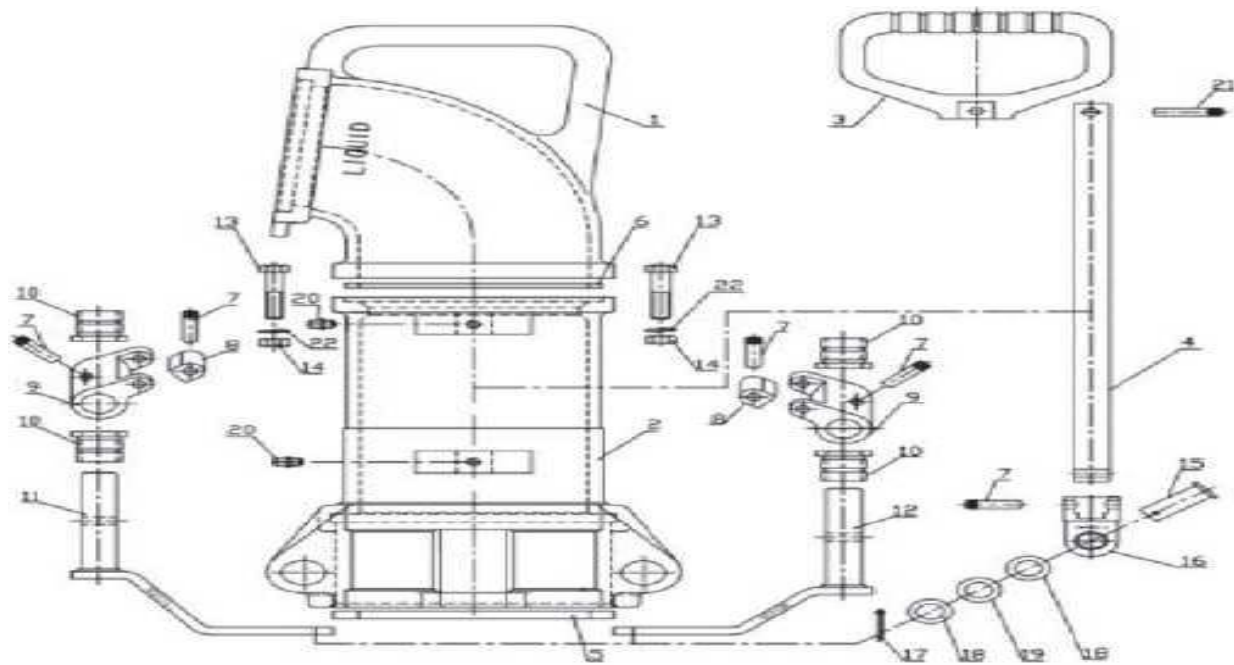
45°Coupling DxA



Size	Part No.
2"	45DA200-AL
3"	45DA300-AL
4"	45DA400-AL
5"	45DA500-AL
6"	45DA600-AL



Part No.	Description	FOB Price (US \$)
918B	Bodz Only	
918-300AS	Inlet AF300 W/Sight Glass	
918-400AS	Inlet AF400 W/Sight Glass	
918-300BS	Inlet BF300 W/Sight Glass	
918-400BS	Inlet BF400 W/Sight Glass	
918-300MS	Inlet MTF300 W/Sight Glass	
918-400MS	Inlet MTF400 W/Sight Glass	
918-300FS	Inlet FTF300 W/Sight Glass	
918-400FS	Inlet FTF400 W/Sight Glass	
918-300A	Inlet AF300 W/O Sight Glass	
918-400A	Inlet AF400 W/O Sight Glass	



Construction

- 1 .Boday: Aluminum body
- 2. Handle: Aluminum
- 3.Inlet and outlet connection :Aluminum
- 4. Hardware: Stainless steel
- 5. Gasket connect:NBR
- 6. Flat/Waved washer: Stainless steel
- 7.Sight Glass:PMMA

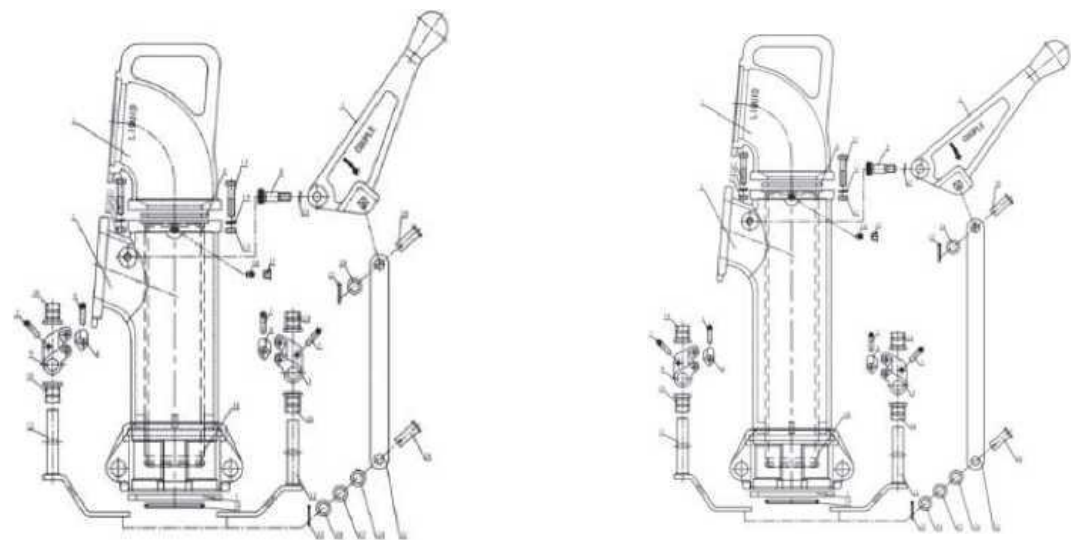
Specifications

- 1. Heavy duty aluminum alloy construction
- 2. Center of gravity at handle, easy to operate
- 3. Push to couple, pull to release
- 4. Five degree angled four bolt flange pattern with varietyof different inlets to meet any requirement
- 5. Unique locking action that insure positive connection and uniform seal compression at fill adapte
- 6.360 degree round sight glass window on top

Series of Elbow (Drop Elbow-922 Series Single Point)



Part No.	Description	FOB Price (US \$)
	Lnlet Liquid	
922B	Bodz Only	
922-400AS/300A	AF400 W/Sight Glass	
922-400AS/300CP	AF400 W/Sight Glass	
922-400A/300A	AF400 W/O Sight Glass	
922-300AS/300A	AF300 W/Sight Glass	
922-300AS/300CP	AF300 W/Sight Glass	
922-300A/300A	AF300 W/O Sight Glass	
922-400BS/300A	BF400 W/Sight Glass	
922-400BS/300CP	BF400 W/Sight Glass	
922-400B/300A	BF400 W/O Sight Glass	
922-400MS/300A	MTF400 W/Sight Glass	
922-400M/300A	MTF400 W/O Sight Glass	
922-400FS/300A	FTF400 W/Sight Glass	
922-400F/300M	FTF400 W/O Sight Glass	



Construction

- 1. Boday: Aluminum body
- 2. Handle: Aluminum
- 3.Inlet and outlet connection :Aluminum
- 4. Hardware: Stainless steel
- 5. Gasket connectNBR
- 6. Flat/Waved washer: Stainless steel
- 7.Sight Glass:PMMA

Specifications

- 1. Heavy duty aluminum alloy construction
- 2. Center of gravity at handle, easy to operate
- 3. Unique locking action that insure positive connection and uniform seal compression at fill adapter.
- 4. Product port (liquid inlet) on top and vapor port on bottom to eliminate vapor interference when draining product
- 5.360 degree round sight glass on top for easy monitoring.
- 6.5 degree angled four bolt flange pattern with variety of different inlets and outlets to meet any requirement
- 7. Coaxial elbows meet stage 1 & 2 vapor recovery standards

Series of Elbow (818 Vapor Elbow-Dual Point)



Part No.	Description	FOB Price (US \$)
818B	Body Only	
818-300A	Outlet AF300	
818-400A	Outlet AF400	
818-300CP	Outlet AF300CP	
818-300B	Outlet BF300	
818-400B	Outlet BF400	

Construction

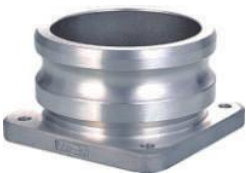
- 1. Boday: Aluminum body
- 2. Handle: Aluminum
- 3.Inlet and outlet connection :Aluminum
- 4. Hardware: Stainless steel
- 5. V Type Gasket: PU
- 6. Flat washer: Oil seal

Specifications

- 1.One piece aluminum alloy construction .easy to operate
- 2. Push to couple, push and squeeze to release.
- 3. Five degree angled four bolt flange pattern with variety of different outlets to meet any requirement
- 4. Polyurethane V type gasket
- 5.Overall height 18"

Flange

Male Adaptor x



Aluminum	
Size	Part No.
3H	AF300
4"	AF400

Female Coupler x



Aluminum	
Size	Part No.
3H	BF300
4°	BF400

Female Thread x



Aluminum	
Size	Part No.
3H	FTF300
4"	FTF400

Male Thread x FI



Aluminum	
Size	Part No.
3"	MTF300
4"	MTF400



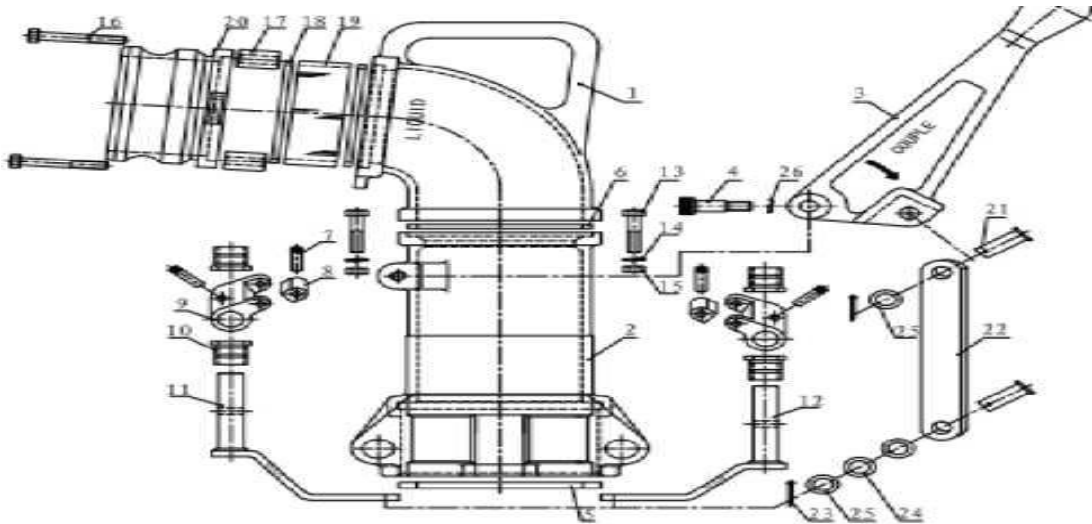
Part No.	Description	FOB Price (US \$)
919B	Bodz Only	
919-300AS	Inlet AF300 W/Sight Glass	
919-400AS	Inlet AF400 W/Sight Glass	
919-300BS	Inlet BF300 W/Sight Glass	
919-400BS	Inlet BF400 W/Sight Glass	
919-300MS	Inlet MTF300 W/Sight Glass	
919-400MS	Inlet MTF400 W/Sight Glass	
919-300FS	Inlet FTF300 W/Sight Glass	
919-400FS	Inlet FTF400 W/Sight Glass	
919-300A	Inlet AF300 W/O Sight Glass	
919-400A	Inlet AF400 W/O Sight Glass	

Construction

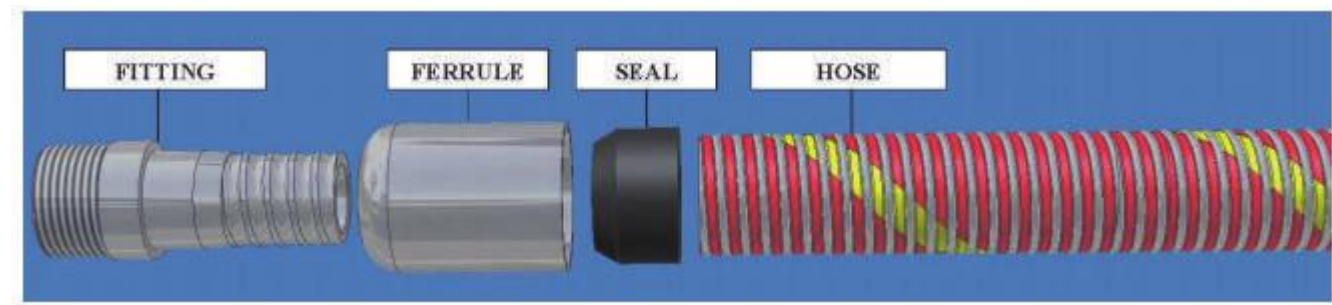
- 1. Boday: Aluminum body
- 2. Handle: Aluminum
- 3. Inlet and outlet connection :Aluminum
- 4. Hardware: Stainless steel
- 5. Gasket connect: NBR
- 6. Flat/Waved washer: Stainless steel
- 7.7.Waved Washer:Steel and stainless steel
- 8.Sight Glass:PMMA

Specifications

- 1. Heavy duty aluminum alloy construction
- 2. Center of gravity at handle, easy to operate
- 3. Five degree angled four bolt flange pattern with varietyof different inlets to meet any requirement.
- 4. Unique locking action that insure positive connection and uniform seal compression at fill adapte
- 5.360 degree round sight glass window on top



No.	Description	Material	Qty
26	Waved Washer	CS	1
25	Flat Washer	SS304	3
24	Waved Washer	SS304	1
23	Cotter Pin	SS304	2
22	Flat Linkage	SS304	1
21	Clevis Pin	SS304	2
20	nletAdapter-3A	Aluminum	1
	Inlet Adapter-4A	Aluminum	1
	Inlet Coupler-3B	Aluminum	1
	Inlet Coupler-4B	Aluminum	1
	Inlet Male Thread-3" NPT	Aluminum	1
	Inlet Male Thread-4" NPT	Aluminum	1
19	Sight Glass	Acrylic	1
18	Gasket	NBR	2
17	Space Holder	6061	4
16	Bolt	SS304	4
15	Hex Nut	SS304	4
14	Spring Washer	SS304	4
13	Bolt	SS304	4
12	Right Linkage Arm	SS304	1
11	Left Linkage Arm	SS304	1
10	Sleeve	HPb59-1	4
9	Cam Arm	SS304	2
8	Cam	SS304	2
7	Pin	SS304	4
6	Gasket Connect	NBR	1
5	Gasket Fill Adapter	NBR	1
4	Shoulder screw	CS	1
3	Handle	ZL101A	1
2	Lower Body	ZL101A	1
1	Upper Body	ZL101A	1



Composite Hose



Features	1 .Maxmium work pressure: 1.6MPa 2.1emperature Range:-30°C to 80°C(-220F to +176°F) 3.Media: Oil and Chemstry
Construction	1. Inner wire: Hot Galvanized steel, SS 304 or SS316 nner interlayer: Polypropylene ,PTFE 2. Cover: PVC 3.Outer wire: Hot galvanized steel, Ss 304 or SS316 It can be used for transferring almost liquid.

Technology date

Part No.	I.D.		Weight	Maxmium W.P.	Minimum Bending Radius
	inch	mm			
GH-100	1	25	1.35	1.6	200
GH-150	2001/1/2	40	1.8	1.6	200
GH-200	2	50	2.45	1.6	225
GH-250	2002/1/2	65	3.2	1.6	225
GH-300	3	80	4.2	1.6	350
GH-400	4	100	4.9	1.6	400
GH-600	6	150	12.9	1.6	575
GH-800	8	200	20.1	1.6	800
GH-1000	10	250	26.5	1.6	1000
GH-1200	12	300	31.8	1.6	1200



Carbon Steel Floating End TTMA Flange		
Size	Part No.	FOB Price (US \$)
2"	KC-200S-FF	
3"	KC-300S-FF	
4"	KC-400S-FF	



Carbon Steel Weld End TTMA Flange		
Size	Part No.	FOB Price (US \$)
2"	KC-200S-F	
3"	KC-300S-F	
4"	KC-400S-F	

Aluminum Male Camlock



Size	Part No.
2"	E-200S-AL
3"	E-300S-AL
4"	E-400S-AL

Aluminum Female Cam lock



Size	Part No.
2"	C-200S-AL
2.5"	C-250S-AL
3M	C-300S-AL
4"	C-400S-AL

SS316 Male Camlock

	Size	Part No.
	2n	E-200S-SS
	3n	E-300S-SS
	4"	E-400S-SS

SS316 Female Camlock

	Size	Part No.
	2"	C-200S-SS
	3"	C-300S-SS
	4"	C-400S-SS

Aluminum Male

	Size	Part No.
	2°	MT-200S-AL
	3°	MT-300S-AL
	4"	MT-400S-AL

SS316 Male Thread

	Size	Part No.
	2°	MT-200S-SS
	3"	MT-300S-SS
	4"	MT-400S-SS

Steel KC with spiral hose

	Size	Part No.
	2°	KC-200S-S
	3°	KC-300S-S
	4"	KC-400S-S

Grooved KC with spiral hose shank

	Size	Part No.
	2°	E-200S-AL
	3H	E-300S-AL
	4"	E-400S-AL

Aluminum Camlovk With Jackscrew

	Size	Part No.
	2"	C-200S-AL
	2,,X3,'	C-3020S-AL
	3"	C-300S-AL
	4"	C-400S-AL

Carbon Steel Ferrule

	Size	Part No.
	1-1/2"	CHCF-150-S
	2"	CHCF-200-S
	2-1/2"	CHCF-250-S
	3H	CHCF-300-S
	4H	CHCF-400-S

SS316 Ferrule

	Size	Part No.
	1-1/2"	CHCF-150-SS
	2"	CHCF-200-SS
	2-1/2"	CHCF-250-SS
	3"	CHCF-300-SS
	4"	CHCF-400-SS

Aluminum Ferrule

	Size	Part No.
	1-1/2"	CHCF-150-AL
	2"	CHCF-200-AL
	3H	CHCF-300-AL
	4"	CHCF-400-AL

VITON Gasket

	Size	Part No.
	2"	CHCG-200-NR
	3"	CHCG-300-NR
	4"	CHCG-400-NR

NBR Gasket

	Size	Part No.
	2"	CHCG-200-NR
	3"	CHCG-300-NR
	4"	CHCG-400-NR



Oil Transfer System



Series of Vapor Valve

Manhole Cover

oil vapor recovery

4" API Valves

Bottom Valves



Pneumatic Vapor Valve for 16" and 20" Man Hole Cover



Part No.	Size	FOB Price (US \$)
816P	3"	



Part No.	Size	FOB Price (US \$)
820P	3"	

Construction

- 1. Body: Aluminum
- 2. Parts:Stainless steel

Specifications

- 1. Poppet opens into tank to prevent leakage from sugges or from overturned tank. 7.345 square inches of flow area.
- 2. Hard anodized aluminum hood and low profile
- 3. Tapered seat design wih viton O-ring seal provides leadtight seal.
- 4.Stainless steel spring,screws,bolts, and nuts resists corrosion.
- 5.1/4"NPT EXTERNAL PNEUMATIC CONNECTION.
- 6.P/N: 820P Installs easily off-set in 20" manhole or separate 3" TTMA size mounting ring.

Manhole Cover



Part No.	Size	FOB Price (US \$)
1016-MHC	16"	
1020-MHC	20"	

Construction

- 1. Robust construction
- 2.Integrated breather vent
- 3.Integrated emergency pressure relie fvalve
- 4.Galvanized steel
- 5.Integrated locking mechanism

Specifications

- 1. the SK4500AI manhole cover, covers the demands of the ADR2007 regulation and the adopted standards EN13317, EN13314

Pneumatic Vapor Valve for 16" and 20" Man Hole Cover



Part NO.	SIZE	Description	FOB Price (US \$)
8434A	4" x 3"	Aluminum	
843A	4" x 3"	Hardcoat Aluminum	



Part NO.	SIZE	Description	FOB Price (US \$)
VRF-400-AL	4"		



Part NO.	SIZE	Description	FOB Price (US \$)
VRM-400-AL	4"		

Construction

- 1.Body: Aluminum body

Specifications

- 1. Use with CVR400ALor CVR4030AL
- 2. Vapor adapter poppeted with 4' Cam&Groove and 3' female NPT

Lockable 4" DUST CAP for Vapor Recovery



Part NO.	SIZE	Description	FOB Price (US \$)
840DC	4"	Red/Orange color Coding	

Construction

- 1. Body: Ny-glass
- 2. Handle:stainless steel

Specifications

- 1. Ny-glass lockable pull out handle with stainless steel arms.
- 2. Can be locked from either side of handle
- 3. Ability to add safety chains to cap from either side
- 4.One hand operation to open or close

API Valve



Part NO.	SIZE	Description	FOB Price (US \$)
APIAP-400-AL	4"		



Part NO.	SIZE	Description	FOB Price (US \$)
APIAPB-400-AL	4"	with a brass ring	
APIA-400-AL	4"	W/O sight glass and handle	

Construction

- 1. Body: Aluminum body
- 2. Nose ring: aluminum
- 3. Hardware: Stainless steel
- 4. Fixed handle: aluminum
- 5.Seals: Viton or NBR

Specifications

- 1 .Heat-treated aluminum construction
- 2. Large inside diameter for higher flow rate at 290 gallons per minute
- 3. Heat treated high strength aluminum one-piece heavy-duty poppet and stainless steel trim for longer life
- 4. Multi-position short stroke aluminum handle with smooth rotation of less than 60°
- 5. Meets API RP-1004 specifications with a standard 4" TTMA flange

1004DC Dust Cap



Part NO.	SIZE	Description	FOB Price (US \$)
APIAP-400-AL	4"		

Construction

- 1. Body:Aluminum
- 2. Handle :stainless steel

Specifications

- 1 .Aluminum alloy constnction with stainless steel handle device
- 2. Meets API RP-1004 sepcification protects poppet face of API head
- 3. Nylon-glass cam handle with stainless steel feature reduces wear and is non-corrosive
- 4. Cam hanld and lug designed for one hand operation.
- 5. Buna-N gasket standard.6.interchangeable with competitor's items made to the same specifications.

Pneumatic Air Interlock Valve A.P.I



Part NO.	Description	FOB Price (US \$)
800	Valve	

MB Aluminum



Size	Part No.
2H	MB-50-AL
3"	MB-80-AL
4°	MB-100-AL

VK Brass



Size	Part No.
2H	VK-50-BR
3H	VK-80-BR
4°	VK-100-BR

VB Aluminum



Size	Part No.
2H	VB-50-ALL
3"	VB-80-AL
4"	VB-100-AL

MK Brass



Size	Part No.
2n	MK-50-BR
3"	MK-80-BR
4"	MK-100-BR

DIN 2817 Safety Clamp



Size	Part No.
ND50*8	AL SS
ND50*10	AL SS
ND75*8	AL SS
ND100*8	AL SS
ND100*10	AL SS

Brass Male Hose Tail BSPP



Size	Part No.
2n	GA-200-BR
3H	GA-300-BR
4"	GA-400-BR



Part NO.	SIZE	Description	FOB Price (US \$)
VA6000	5Hx 4"	Grooved Elbow Crude Oil	
		Emergency Valve W/Viton	

Construction

- 1.5""x 4"" Air Operated Emergency Valve is suitable for both petroleum and crud applications.
- 2. Uniquely engineered with no moving parts in the flow path for a superior flow rate. Also designed with an independent external exhaust,which isolates the valve exhaust from the rest of the system. This valve is compatible with diesel,biodiesel, gasoline, ethanol and methanol. The Viton GFLT seal provides ultimate product compatibility.
- 3. This valve features an integrated air inlet that allows the unit to close if it becomes sheared in the result of an accident. It incorporates a frangible shear groove per 49CFR178.345-8 tested per TTMA RP 84. A factory installed fusible plug that will melt at a temperature of 212° F(100° C) allowing the valve to deplete air pressure. Also included is a mechanical jack screw for manual operation in the event of air pressure loss.
- 4. Performance Emergency Valve conforms with API 1004 and EN 13083 standards.

Frature

- 1. Designed for crude and petroleum applications
- 2. No moving parts in flow path for superior flow rates and faster drops Independent external exhaust
- 3. Viton GFLT Seal for superior compatibility Mechanical jack screw allows product to be off-loaded in the event of air pressure loss
- 4. MeetsAPI 1004 and EN 13083 standards
- 5. Compatible with 4" TTMA sumps
- 6. Compatible with diesel, biodiesel, gasoline, ethanol and methanol Hard coat anodized aluminum and stainless steel components
- 7. Available in a variety of configurations
- 8.operating Pressure Crude: Minimum 70 psi (4.83 bar) line pressure
- 9.operating Pressure Petroleum: Minimum 30 psi (2.06 bar) line pressure



Body	Female Thread with TMMA Flange W/Sight Glass
RCFTS-400API	Assembly with API Adapter
RCFTS-400FTF	Assembly with Female Thread

Construction

- 1.Boday:Aluminum
- 2.Stainless steel spring on the adapter

Specifications

- 1.Provides a greater flow for heavy crude oil
- 2.Safe and reliable- valves will not open unless fittings are properly connected