CAT 1

24

FUEL TANKER

LIQUID

API VALVES & ADAPTERS
API DUST CAPS
GRAVITY DROP ADAPTERS / COUPLERS
DROP ELBOWS / FILL ADAPTERS
FUEL INLET/OUTLETS
TTMA
COMPONENTS

VAPOR

DROP ELBOWS
POPPET ASSEMBLIES
VAPER RECOVERY COUPLERS
COMPONENTS



SEALFAST
THE SIMPLE SOLUTION





INDEX

LIQUID

- API Valves & Adapters 2, 3
- Gravity Drop Couplers & Adapters . 4, 5
- Drop Elbow & Adapters ..... 6 - 9
- TTMA 10
- Components 11

VAPOR

- Drop Elbow & Adapters ..... 12 - 13
- Vapor Recovery Couplers 14
- Components 15
- Repair Diagrams ..... 16 - 17
- TECHNICAL DATA ..... 18 - 21



TERMS OF SALE

TERMS:

1/2% 10 Days, net 30 Days

FREIGHT:

All shipments are made FOB Seal Fast Inc. or Point of Manufacturer. (Applies to shipments from Houston Warehouse Only) Freight prepaid on $1500 Net Couplings and accessories, $2500 PVC Tubing, Braided Tubing, Fire & Mill hose. Freight prepaid on $4000 Net Couplings, Rubber Hose, PVC Hose and Sheet Rubber with the exclusion of all PVC Suction including 6" and 8" PVC Suction ONLY orders. If combined with other items freight is prepaid at $3000 Net, otherwise these items will Not be applied toward prepaid freight. **Effective immediately, regardless of invoice value, all uncoupled cut lengths of hoses are shipped FOB Seal Fast Inc.** Seal Fast Inc. reserves the right to determine the most Economical shipping method on all prepaid shipments. **In addition, Seal Fast Inc. reserves the right to refuse any prepaid shipments exceeding 6% freight cost of the order unless items are added or subtracted to keep said freight cost at or below 6%.** Applies to Continental United States, excluding Alaska and Hawaii. **Any evidence of shortage must be reported to Seal Fast Inc. within 10 days. Any Damage to hose/hoses, etc. customer is responsible for filing a claim with the delivery carrier within 10 days. Seal Fast Inc. will not issue credit.**

ALL UPS prepay and add or collect shipments will endure a **$7.50** shipping and handling fee including All backorders. All drop shipments will endure a $5.00 fee.

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Products are warranted against defects in workmanship and defects in material. Products having such defects will be replaced or credited as Seal Fast elects. Liability is limited to the invoice value of the defective item. Our responsibility shall not exceed the original purchase price of the defective product. In any event, Seal Fast, Inc. shall not be held responsible for any special or consequential damages.

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Orders will be accepted subject to delays caused by accident, strike, fire or other causes beyond the control of the seller including failure of seller's suppliers to deliver. Prices, discounts and other specifications are subject to change without notice. All prices are subject to any applicable taxes imposed. The possessions of this price schedule is not to be construed as an offer to sell at the prices shown. Special price for volume quotes will be accepted in writing only.

PLEASE NOTE:

Extra care is taken in the preparation of this literature but Seal Fast, Inc. is not responsible for any inadvertent typographical errors or omissions.

SEAL FAST, INC.

**8609 City Park Loop,
Houston, TX 77013**

(713) 675-6324 or 800-231-0734 | FAX (713) 675-0146 or 800-681-1515 | E-mail sales@sealfast.com

DISCLAIMERS

Product Images

- Seal Fast makes every reasonable effort to show accurate product representation, however pictures are for reference only, and do not necessarily reflect the exact product you will receive.
- Seal Fast reserves the right to alter product appearance without notice. Some product features shown in pictures may no longer be available.

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- Seal Fast is continuously working to provide the best quality for the best price.
- We reserve the right to alter product specifications without notice.

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- Our Sales Team will do their best to assist in choosing the best product for a particular application. However, it is ultimately the customer's responsibility to determine the correct product for the correct application.
- Seal Fast will not be held liable for the abuse or misuse of our products in a manner in which they are not designed.
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- Seal Fast reserves the right to discontinue products at any time without prior notice.

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Custom Made Products

- All custom made product sales are final and Non-Refundable.

COUPLINGS +

API VALVES - BOTTOM LOADING/UNLOADING ADAPT



U.S. PAT# 5,622,201

USE WITH

USE WITH API VALVES

TTMA Flange - Solid Acrylic



Use w/Part# 106AH &106AHS



SIGHT GLASS

CORK GASKETS

- Heat-treated aluminum construction with a **Brass Ring**.
- One-piece heavy-duty poppet & SS trim for longer life.
- Multi-position short stroke aluminum handle w/Smooth rotation of less than 60°.
- Flat bottom body eliminate product accumulation after
- Large inside diameter for higher flow rate at 290 gallons per
- Meets API RP-1004 specifications with a standard 4" TTMA flange.
- Viton* Seals

*Viton is a registered trademarks of DuPont Dow Elastomers.

Size	ALUMINUM	
	Part #	List
4"	106AH	

API VALVES w/SIGHT GLASS - BOTTOM LOADING/UNLOADING ADAPTER



U.S. PAT# 5,622,201

- 4" Adapter Openable **Sight Glass - Bottom Loading.**
- Fluid Flow Sight Level
- Heat-treated aluminum construction with a **Brass Ring**.
- One-piece heavy-duty poppet & SS trim for longer life.
- Multi-position short stroke aluminum handle w/Smooth rotation of less than 60°.
- Flat bottom body eliminate product accumulation after
- Large inside diameter for higher flow rate at 290 gallons per
- Meets API RP-1004 specifications with a standard 4" TTMA flange.
- Viton* Seals

*Viton is a registered trademarks of DuPont Dow Elastomers.

Size	ALUMINUM	
	Part #	List
4"	106AHS w/Sight Glass	
sight glass	106SGK	

COUPLINGS +

API VALVES - BOTTOM LOAD ONLY



Use w/Part# 1004GH

- **Construction 1 pcs with TTMA 4" flange.**
- **Heat-treated aluminum construction with a brass ring.**
- **Meets API RP-1004 specifications.**
- **Viton* Seals**

***Viton is a registered trademarks of DuPont Dow Elastomers.**

Size	ALUMINUM	
	Part #	List
4"	106A	
repair kit	RK106	

API GRAVITY ADAPTER - COUPLER X FEMALE NPT

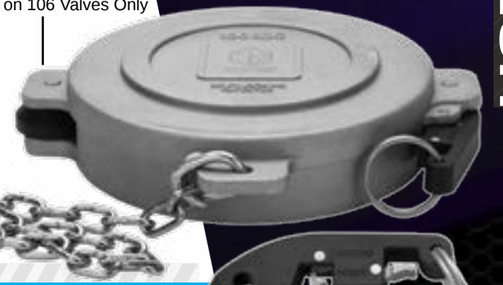


- **Aluminum w/Hard anodized to ensure the wear resistance of the contact surface.**
- **Convenient design for seal maintenance & replacement.**
- **Special treatment for crankshaft to avoid accidental impact force breaking.**
- **Easy for operator to push in.**
- **Ensure transmission safety when connecting**

Size	ALUMINUM	
	Part #	List
4" x 4"	1004ALVA2	

API DUST CAP USE ON 106 VALVES ONLY

Used on 106 Valves Only



- **Aluminum alloy construction w/Self-locking device.**
- **Meets API RP-1004 specification protects poppet face of API head.**
- **Nylon-Glass cam handle w/Self-locking feature reduces wear and is non-corrosive.**
- **Cam handle & lug designed for one hand operation.**
- **Buna-N gasket standard.**
- **Interchangeable with competitor's items made to the same specifications.**



1004CHRK - Replacement Handle



1004DR - Replacement Gasket for API Cap

Size	ALUMINUM	
	Part #	List
4"	1004DC	
RPL Handle	1004CHRK	
Gasket	1004DR	

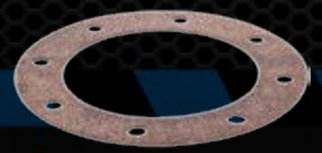
USE WITH

USE WITH API VALVES

TTMA Flange - Solid Acrylic



Use w/Part# 106AH &106AHS SIGHT GLASS on p.51



CORK GASKETS on p.51

GRAVITY DROP ADAPTER

Available w/Self Locking Handles



TYPE **GA**

- Attach directly against openable API's.
- Allows drop hose with standard Seal Fast cam and groove couplings to clamp on and transfer petroleum from the API valve.
- Meets API RP-1004 specifications.
- Heat treated aluminum alloy.
- With stainless steel self-locking handles.

Size	ALUMINUM w/SS Self Locking Handles	
	Part #	List
3"	1004GA-300ALSK	
4"	1004GA-400ALSK	
replacement gasket	1004GR	



TYPE **GA**

- Attach directly against openable API's.
- Allows drop hose with standard Seal Fast cam and groove couplings to clamp on and transfer petroleum from the API valve.
- Meets API RP-1004 specifications.
- Heat treated aluminum alloy.
- With brass handles.

Size	ALUMINUM w/Brass Handles	
	Part #	List
3"	1004GA-300B	
4"	1004GA-400B	
replacement gasket	1004GR	

GRAVITY DROP COUPLER

Available w/Self Locking Handles



TYPE **GB**

- Attach directly against openable API's.
- Allows drop hose with standard Seal Fast cam and groove couplings to clamp on and transfer petroleum from the API valve.
- Meets API RP-1004 specifications.
- Heat treated aluminum alloy.
- With stainless steel self-locking handles.

Size	ALUMINUM	
	Part #	List
3"	1004GB-300ALSK	
4"	1004GB-400ALSK	
replacement gasket	1004GR	

GRAVITY DROP ADAPTER - TWO PIECE

Available w/Self Locking Handles



see on p.49



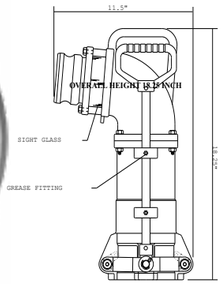
Size	ALUMINUM - Gravity Drop Two Piece			ALUMINUM - Adapter & Couplers		
	Part #	List	Features	Part #	List	Features
3"	1004GF-300AS		Male Adapter Straight	AF-300		Male Adapter Straight
3"	1004GF-301AS		Male Adapter Off-set	AF-301		Male Adapter Off-set
4"	1004GF-400AS		Male Adapter Straight	AF-400		Male Adapter Straight
3"	1004GF-300BLS		Female w/Sight Glass	BF-300		Female Coupler
4"	1004GF-400BLS		Female w/Sight Glass	BF-400		Female Coupler
3"	1004GF-300SB		Male Threaded w/Sight Glass 1004GF-300ASB	BF-300SK		Female Coupler w/Self Locking Handle
4"	1004GF-400SB		Male Threaded w/Sight Glass 1004GF-400ASB	BF-400SK		Female Coupler w/Self Locking Handle
3"	1004GF-300A		Male Adapter w/Out Sight Glass	MTF-300		Male Threaded
4"	1004GF-400A		Male Adapter w/Out Sight Glass	MTF-400		Male Threaded
3"	1004GF-300BL		Female Coupler w/Out Sight Glass	FTF-300		Female Threaded
4"	1004GF-400BL		Female Coupler w/Out Sight Glass	FTF-400		Female Threaded

Size	ALUMINUM - Gravity Drop Two Piece w/Sight - PARTS LIST			
	Part #	List	Features	
Kit	1004GF		Flange Gravity Drop Body	
Kit	1004SGK		Sight Glass Kit	(918SGK - same item as item # 1004SGK)

DROP ELBOW - 918 SERIES DUAL POINT "D" HANDLE

Overall Height = 18.25"





- Heavy duty aluminum alloy construction, center of gravity at handle, easy to operate.
- Push to couple, pull to release.
- Unique locking action that insure positive connection & uniform seal compression.
- 360 degree round sight glass window on top.
- 5 degree angled four bolt flange pattern with variety of different inlets to meet any requirement.

Weight: 14.5 lb

DETAILS	*ALUMINUM	
	Part #	List
Body Only	918B	
Inlet AF-300 w/ Sight Glass	918-300AS	
Inlet AF-400 w/ Sight Glass	918-400AS	
Inlet BF-400 w/ Sight Glass	918-400BS	

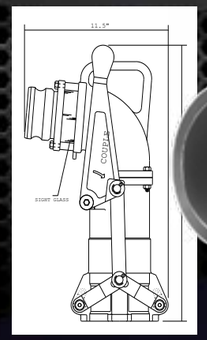
REPAIR PARTS		
	Part #	List
Gasket Connect Fill Adapter	901G	
Gasket Connect Fill Adapter Viton*	901G-V	
Sight Glass Kit	918SGK	
No Sight Glass Kit	918NSK	

*Tetrafluorethylene Resin by DuPont viton & teflon are regestered names.

INLET/OUTLET: Options see p.49 - or other assemblies available upon request

DROP ADAPTER - 919 SERIES DUAL POINT LEVER HANDLE

Overall Height = 19.25"



- Heavy duty aluminum alloy construction, center of gravity at handle, easy to operate.
- Unique locking action that insure positive connection and uniform seal compression.
- 360 degree round sight glass window on top.
- 5 degree angled four bolt flange pattern with variety of different inlets to meet any requirement.

DETAILS	*ALUMINUM	
	Part #	List
Body Only	919B	
Inlet AF-300 w/ Sight Glass	919-300AS	
Inlet AF-400 w/ Sight Glass	919-400AS	
Inlet BF-400 w/ Sight Glass	919-400BS	

REPAIR PARTS		
	Part #	List
Gasket Connect Fill Adapter	901G	
Gasket Connect Fill Adapter Viton*	901G-V	
Sight Glass Kit	918SGK	
No Sight Glass Kit	918NSK	

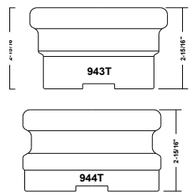
*Tetrafluorethylene Resin by DuPont viton & teflon are regestered names.

INLET/OUTLET: Options see p.49 - or other assemblies available upon request

FILL ADAPTER - TOP SEAL DUAL POINT

Female Thread available in 3" & 4"

- Integral internal wrenching lugs.
- Models incorporate dual notches in the base to accept locking clamp.
- Manufactured from durable materials as aluminum alloy & brass.
- Standard overall height 2-15/16".





943TA 944TA 943TB 944TB

DETAILS	ALUMINUM		BRASS	
	Part #	List	Part #	List
4" x 3"	943TA		943TB	
4" x 4"	944TA		944TB	

EXTENSION KIT - FOR 919 ELBOW





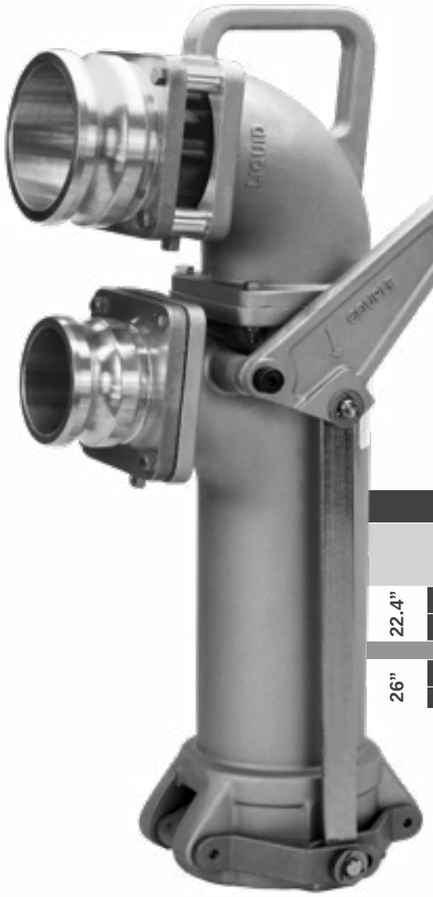


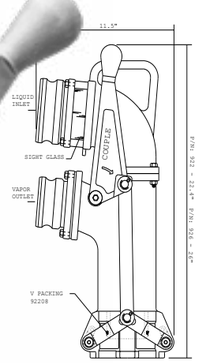
DETAILS	ALUMINUM	
	Part #	List
5" x 5" x 3"	919EK	

Size	CORK	
	Part #	List
Universal	818CG	

COAXIAL DROP ELBOW - 922 SERIES SINGLE POINT LEVER HANDLE

▸Overall Height: 922 = 22.4”
926 = 26”





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

*ALUMINUM				
	INLET LIQUID	OUTLET VAPOR	Part #	List
22.4”	Body Only	922B	922B	
	Inlet AF-400 w/ Sight Glass	AF-300	922-4AS-3A	
26”	Body Only	926B	926B	
	Inlet AF-400 w/ Sight Glass	AF-300	926-4AS-3A	

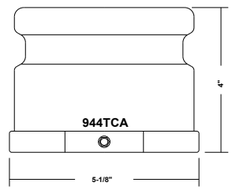
REPAIR PARTS	Part #	List
Gasket Connect Fill Adapter	901G	
Gasket Connect Fill Adapter Viton*	901G-V	
Sight Glass Kit	918SGK	
No Sight Glass Kit	918NSK	

*VITON is a registered trademark of DuPont Dow Elastomer

INLET/OUTLET: Options see p.49 - or other assemblies available upon request

FILL ADAPTER - TOP SEAL DUAL POINT

▸Female Thread available in 4”



- Integral internal wrenching lugs.
- Models incorporate dual notches in the base to accept locking clamp.
- Manufactured from durable materials as aluminum alloy & brass.
- Standard overall height 2-15/16”.

DETAILS	ALUMINUM	
	Part #	List
4” x 4”	944TCA	

FUEL INLET/OUTLET - ADAPTER Straight

USE WITH: 818, 918, 919, 922, 926, 1004GF Elbows or Gravity Drop

	Size	ALUMINUM Part #	List
Male Adapter Straight	2”	AF-200	
Male Adapter Straight	3”	AF-300	
Male Adapter Off-Set	3”	AF-301	
Male Adapter Straight	4”	AF-400	



FUEL INLET/OUTLET - COUPLER

USE WITH: 818, 918, 919, 922, 926, 1004GF Elbows or Gravity Drop

	Size	ALUMINUM Part #	List
Female Coupler Straight	3”	BF-300	
Female Coupler Straight	4”	BF-400	
Female Coupler Off-Set	3”	BF-300SK	
Female Coupler Straight	4”	BF-400SK	



FUEL INLET/OUTLET - MALE NPT

USE WITH: 818, 918, 919, 922, 926, 1004GF Elbows or Gravity Drop

	Size	ALUMINUM Part #	List
Male Threaded	3”	MTF-300	
Male Threaded	4”	MTF-400	



FUEL INLET/OUTLET - FEMALE NPT

USE WITH: 818, 918, 919, 922, 926, 1004GF Elbows or Gravity Drop

	Size	ALUMINUM Part #	List
Female Threaded	3”	FTF-300	
Female Threaded	4”	FTF-400	



FUEL INLET/OUTLET - CHECK POPPET VALVE

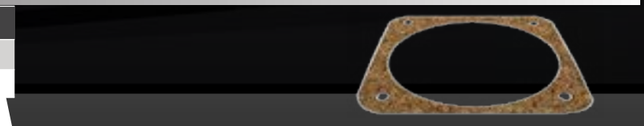
USE WITH: 818, 918, 919, 922, 926, 1004GF Elbows or Gravity Drop

	Size	ALUMINUM Part #	List
Check Poppet Valve	3”	AF-300CP	



CORK GASKET

Size	CORK Part #	List
Universal	818CG	



LIQUID COMPONENTS

MALE ADAPTER X TTMA



Size	ALUMINUM	
	Part #	List
3”	A300TTMAAL	
3” x 4”	A3040TTMAAL	
4”	A400TTMAAL	
6”	A600TTMAAL	

FEMALE COUPLER X TTMA



ALUMINUM	
Part #	List
C300TTMAAL	

C400TTMAAL	
C600TTMAAL	

VAPOR CAP



- Orange Color Coding
- Ny-glass lockable pull out handle w/SS arms.
- Can be locked from either side of handle.
- Ability to add safety chains to cap from either side.
- One hand operation to open or close.

WARNING: NOT FOR PRESSURE APPLICATIONS

Size	ORANGE NYLON		GASKET	
	Part #	List	Part #	List
4”	840DC		G-940DC	

PNEUMATIC AIR INTERLOCK VALVE



- Brass forged body w/All SS components.
- *Unique design with filter.
- Adjustable contact pad & shaft accommodates competitive API's and other application.
- 1/4" NPT installs pneumatic connection.
- Can be installed as normally closed or open valve.
- Can be installed as top side or bottom side (up side down) to connect API's bottom loading adapter or vapor recovery adapter.

Details	BRASS	
	Part #	List
Valve	800	
Repair Kit (Pad)	800-PA	
Repair Kit (Gasket)	800-RK	

SIGHT GLASS KIT



Details	Size	ACRYLIC	
		Part #	List
1 pcs Solid Acrylic	4”	1004SGK or 918SGK	

SIGHT GLASS - TTMA FLANGE



Details	Size	ACRYLIC	
		Part #	List
1 pcs Solid Acrylic	4”	ASG-400TF	

FEMALE NPT X TTMA



Size	ALUMINUM	
	Part #	List
3”	FNPT300TTMAAL	
4”	FNPT400TTMAAL	

MALE NPT X TTMA



ALUMINUM	
Part #	List
MNPT300TTMAAL	
MNPT400TTMAAL	

CORK GASKET - FUEL INLET/OUTLET



Details	CORK	
	Part #	List
Universal	818CG	

CORK GASKET - TTMA FLANGE



TTMA Flange Pattern

Size	CORK	
	Part #	List
4”	C-400TTMA	

DUST CAP - API USE ON 106 VALVES ONLY

Self Locking Handle

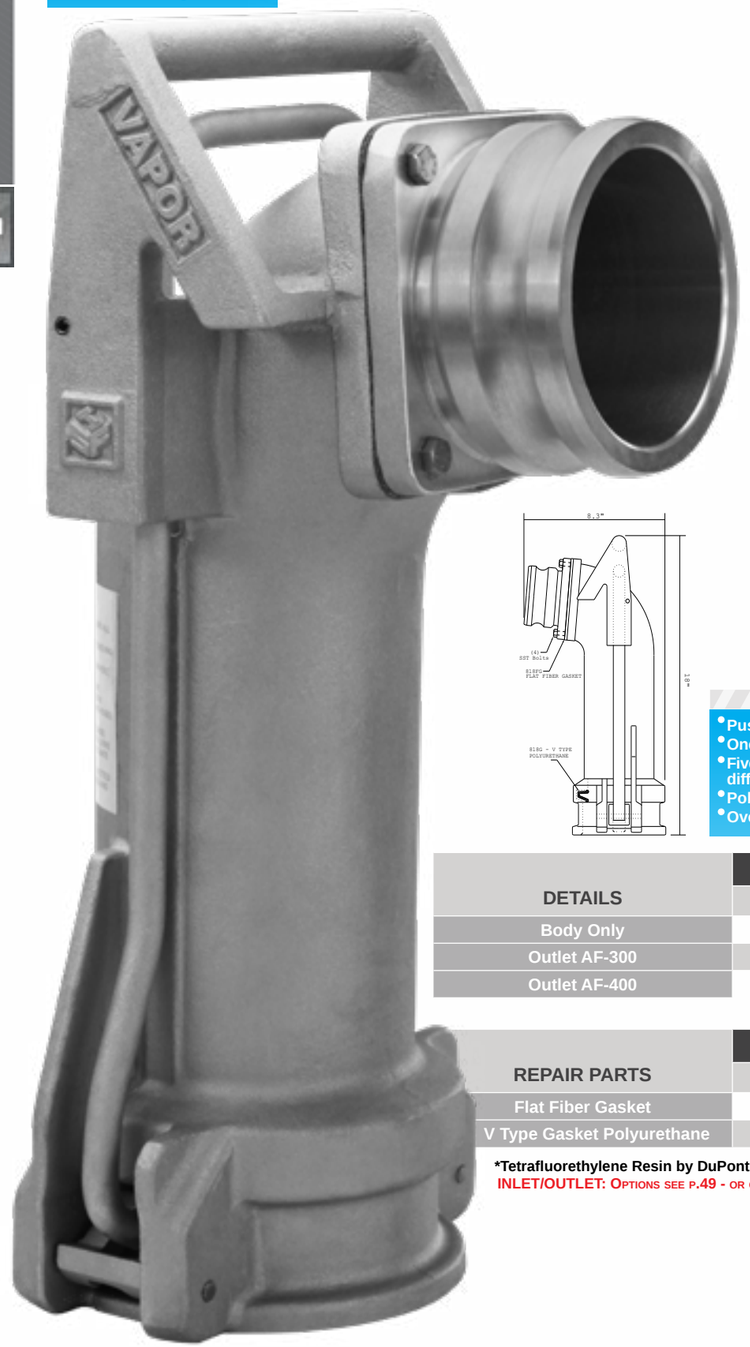
- Aluminum alloy construction w/Self-locking device - Buna-N gasket standard.
- Meets API RP-1004 specification protects poppet face of API head.
- Nylon-Glass cam handle w/Self-locking feature reduces wear & is non-corrosive.
- Cam handle & lug designed for one hand operation.
- Interchangeable w/Competitor’s items made to the same specifications.



Size	ALUMINUM	
	Part #	List
4”	1004DC	
RPL Handle	1004CHRK	
Gasket	1004DR	

DROP ELBOW - 818 SERIES DUAL POINT

Overall Height = 18”



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

DETAILS	*ALUMINUM	
	Part #	List
Body Only	818B	
Outlet AF-300	818-300A	
Outlet AF-400	818-400A	

REPAIR PARTS		
	Part #	List
Flat Fiber Gasket	818FG	
V Type Gasket Polyurethane	818G	

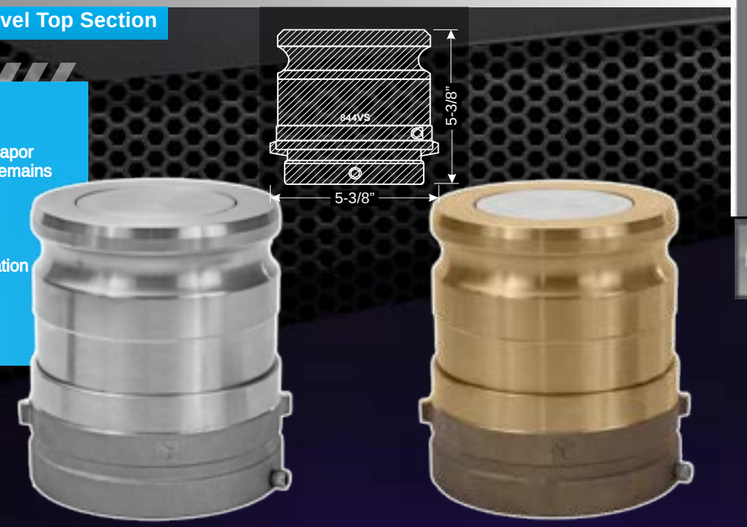
*Tetrafluorethylene Resin by DuPont viton & teflon are regestered names.

INLET/OUTLET: Options see p.49 - or other assemblies available upon request

POPPET ASSEMBLY ADAPTER - DUAL POINT SWIVEL ADAPTER

Poppet Assembly Is Integrated w/Swivel Top Section

- Lower profile design reduces the need to adjust the riser pipe & spill bucket.
- Swivel top section that rotates 360° w/Product or vapor elbow movement while the swivel bottom section remains securely sealed to riser pipe.
- Viton gasket & PTFE-silicone O-ring seals provide compatibility w/All current fuels and fuel additives, including the proposed ethanol additive. No lubrication required, complete w/SS Socket screws.
- Female thread available w/ 3” and 4” NPSH to meet all riser pipe requirements.



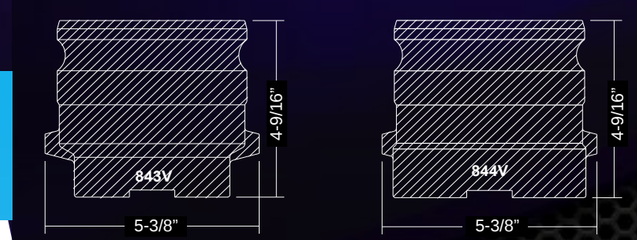
Size	ALUMINUM	
	Part #	List
4” x 3”	843VSA	
4” x 4”	844VSA	

Size	BRASS	
	Part #	List
4” x 3”	843VSB	
4” x 4”	844VSB	

POPPET ASSEMBLY ADAPTER - DUAL POINT POPPET ADAPTER

Female Thread available in 3” & 4”

- Low profile design overall height 4-9/16”.
- Models incorporate dual notches in the base to accept locking clamp.
- Poppeted adapter w/SS & stem for corrosion resistance.





Size	ALUMINUM		BRASS	
	Part #	List	Part #	List
4” x 3”	843VA		843VB	
4” x 4”	844VA		844VB	

VAPOR RECOVERY COUPLER w/PROBE

▸ Available w/Self Locking Handles

- CVR can be used with 833F, 843A-1, 843A, 844A-1 & 844A



Type **CVR**

SIZES	ALUMINUM		
	HANDLE	Part #	List
3”	Brass	CVR 300AL	
4”	Brass	CVR 400AL	
4” x 3”	Brass	CVR4030AL	

ALUMINUM		
HANDLE	Part #	List
SS-Self Locking	CVR 300ALSK	
SS-Self Locking	CVR 400ALSK	
SS-Self Locking	CVR 4030ALSK	

VAPOR ADAPTER W/POPPET X 3” or 4” FEMALE NPSH

▸ Use w/CVR 400AL or CVR 4030AL

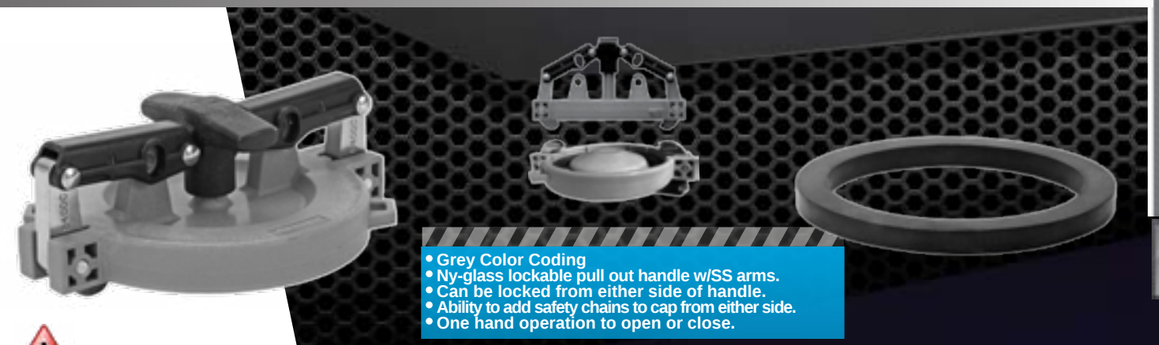
- Vapor adapter poppet with 4” Cam & Groove and 3” female NPSH



SIZES	ALUMINUM	
	Part #	List
4” x 3”	843A-1	
4” x 4”	844A-1	

HARDCOAT ALUMINUM	
Part #	List
843A	
844A	

FILL CAPS



- Grey Color Coding
- Ny-glass lockable pull out handle w/SS arms.
- Can be locked from either side of handle.
- Ability to add safety chains to cap from either side.
- One hand operation to open or close.

WARNING: NOT FOR PRESSURE APPLICATIONS

Size	GREY NYLON		GASKET	
	Part #	List	Part #	List
4”	940DC		G-940DC	

PNEUMATIC 3” VAPOR VALVE FOR 16” & 20” MAN HOLE COVER

- Poppet opens into tank to prevent leakage from surges or from overturned tank. 7.354 square inches of flow area.
- Hard anodized aluminum hood and low profile.
- Tapered seat design with Viton O-ring seal provides leaktight seal.
- SS spring, screws, bolts, and nuts resists corrosion.
- 1/4” NPT external pneumatic connection.
- P/N: 820P Installs easily off-set in 20” manhole or separate
- 3” TTMA size mounting ring.

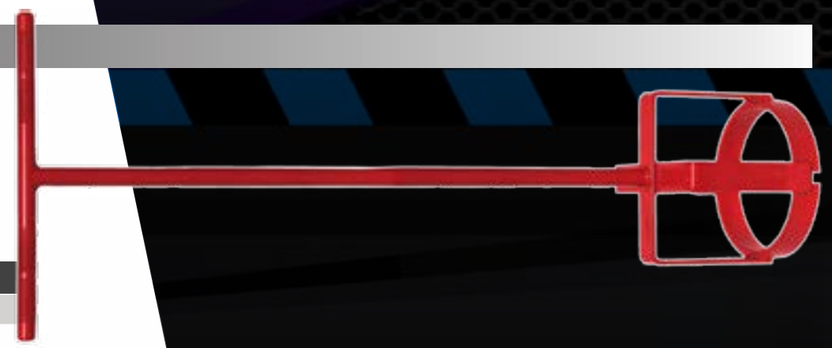


816P - 3” Vent

820P - 3” Vent

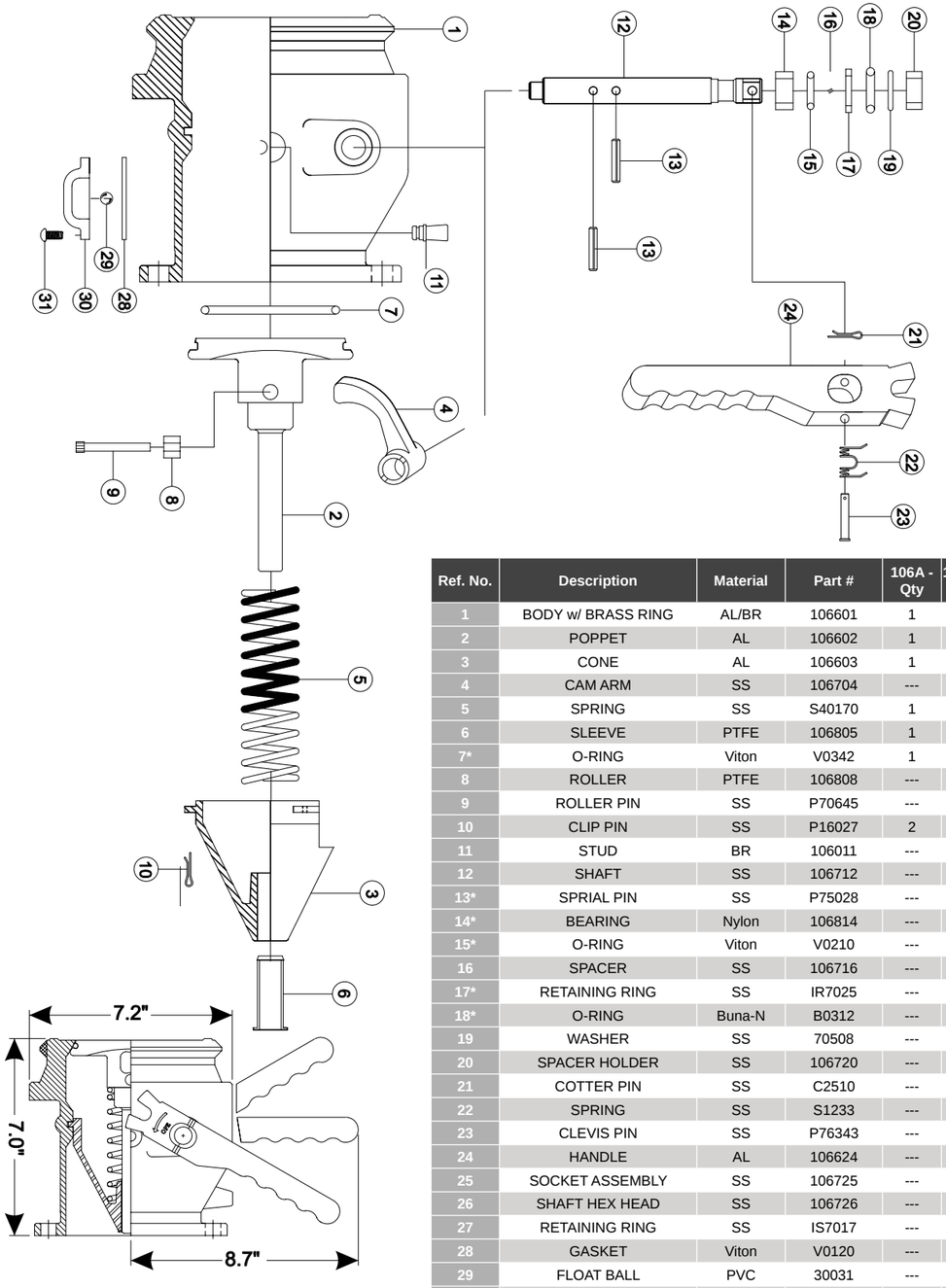
Size	ALUMINUM	
	Part #	List
3” x 16” Manhole	816P	
3” x 20” Manhole	820P	
Repair Kit	816P-RK	
Repair Kit	820P-RK	

FILL ADAPTER WRENCH



STEEL	
Part #	List
WT-890	

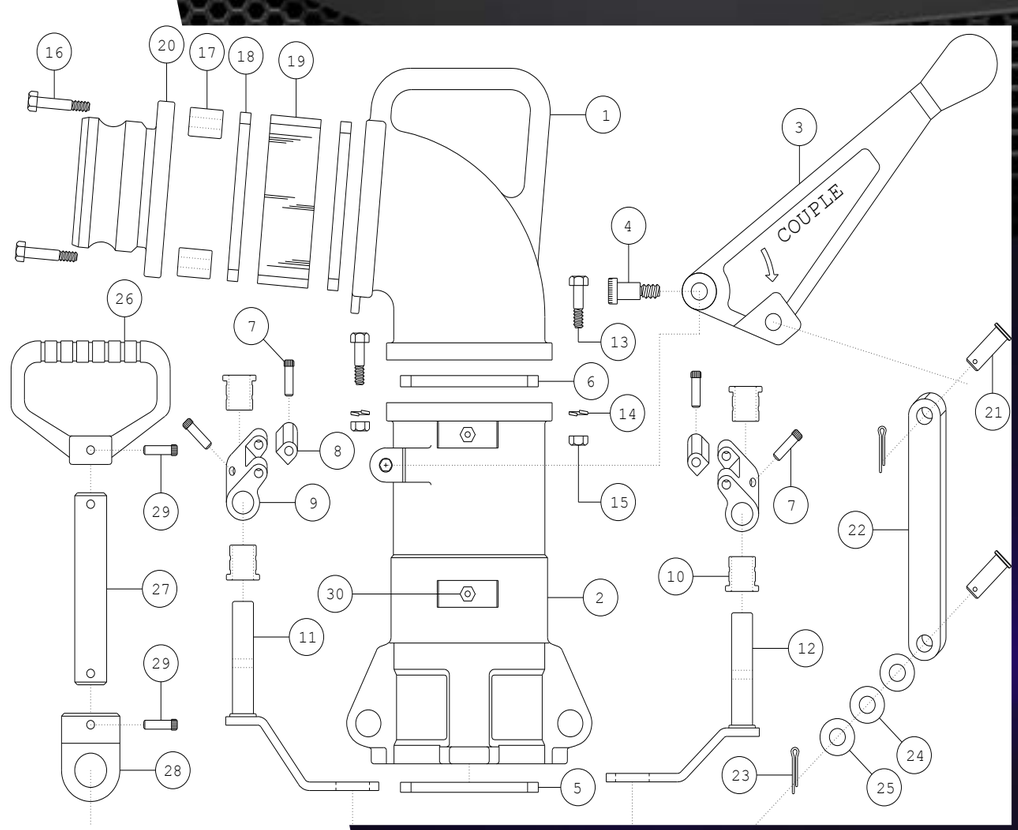
API VALVES - 106AH & 106AHS PARTS LIST



Ref. No.	Description	Material	Part #	106A - Qty	106AH - Qty	106AHS - Qty
1	BODY w/ BRASS RING	AL/BR	106601	1	1	1
2	POPPET	AL	106602	1	1	1
3	CONE	AL	106603	1	1	1
4	CAM ARM	SS	106704	---	1	1
5	SPRING	SS	S40170	1	1	1
6	SLEEVE	PTFE	106805	1	1	1
7*	O-RING	Viton	V0342	1	1	1
8	ROLLER	PTFE	106808	---	1	1
9	ROLLER PIN	SS	P70645	---	1	1
10	CLIP PIN	SS	P16027	2	2	2
11	STUD	BR	106011	---	1	1
12	SHAFT	SS	106712	---	1	1
13*	SPRIAL PIN	SS	P75028	---	2	2
14*	BEARING	Nylon	106814	---	1	1
15*	O-RING	Viton	V0210	---	1	1
16	SPACER	SS	106716	---	1	1
17*	RETAINING RING	SS	IR7025	---	1	1
18*	O-RING	Buna-N	B0312	---	1	1
19	WASHER	SS	70508	---	1	1
20	SPACER HOLDER	SS	106720	---	1	1
21	COTTER PIN	SS	C2510	---	1	1
22	SPRING	SS	S1233	---	1	1
23	CLEVIS PIN	SS	P76343	---	1	1
24	HANDLE	AL	106624	---	1	1
25	SOCKET ASSEMBLY	SS	106725	---	---	---
26	SHAFT HEX HEAD	SS	106726	---	---	---
27	RETAINING RING	SS	IS7017	---	---	---
28	GASKET	Viton	V0120	---	---	1
29	FLOAT BALL	PVC	30031	---	---	1
30	SIGHT GLASS	Acrylic	30030	---	---	1
31	SCREW	SS	73705	---	---	4

* Repair Kit RK106 Includes REF. NO.: 7, 13, 14, 15, 17 & 18

DROP ELBOW REPAIR - PARTS LIST FOR 918 & 919 ELBOWS



Ref. No.	Description	Material	Part #	Qty
1	Upper Body	Aluminum	29090	1
2	Lower Body	Aluminum	29019	1
3	Handle	Aluminum	29193	1
4	Shoulder screw	Steel Black	11210	1
5	Gasket Fill Adapter	Buna-N	901G	1
---	Gasket Fill Adapter	Viton	901G-V	option
6	Gasket Connect	Buna-N	902G	1
7	Pin	Stainless	76325	4
8	Cam	Stainless	79008	2
9	Cam Arm	Stainless	79009	2
10	Sleeve	Brass	31620	4
11	Left Linkage Arm	Stainless	92211	1
12	Right Linkage Arm	Stainless	92212	1
13	Bolt	Stainless	77938	4
14	Spring Washer	Stainless	77902	4
15	Hex Nut	Stainless	77906	4
16	Bolt	Stainless	77954	4
17	Space Holder	Aluminum	21925	4

Ref. No.	Description	Material	Part #	Qty
18	Gasket	Buna-N	903G	2
19	Sight Glass	Acrylic	900SG	1
20	Inlet Adapter-3A	Aluminum	AF-300AL	1
---	Inlet Adapter-4A	Aluminum	AF-400AL	option
---	Inlet Coupler-3B	Aluminum	BF-300AL	option
---	Inlet Coupler-4B	Aluminum	BF-400AL	option
---	Inlet Male Thread-3" NPT	Aluminum	MTF300AL	option
---	Inlet Male Thread-4" NPT	Aluminum	MTF400AL	option
21	Clevis Pin	Stainless	71232	2
22	Flat Linkage	Stainless	791911	1
23	Cotter Pin	Stainless	72520	2
24	Waved Washer	Stainless	71204	1
25	Flat Washer	Stainless	71203	2
26	"D" Handle	Aluminum	291802	1
27	Rod	Steele Nickle	191803	1
28	Connector	Stainless	791804	1
29	Pin	Stainless	76332	2
30	Grease Fitting	Brass Nickle	30505	2
31	Sight Glass Repair Kit	Includes 16,17,18,19	918SGK	1

CORROSION RESISTANCE OF COUPLING MATERIALS

CAUTION: The following data has been compiled from generally available sources end should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

RATINGS: 1. Excellent 2. Good 3. Fair Conditional x. Not Satisfactory **NOTES:** No rationg indicates no data available

AGENT	Mall. From Steel	Brass	Bronze	Aluminum	Glass	Stainless 410, 416, 430	Stainless 302, 202, 304, 308	Stainless 316	Monel
Acetate, Solvents, Crude		3				2	1	1	2
Acetate, Solvents, Pure		1	1	1		1	1	1	1
Acetic Acid	X	X	X	2	1	X	2	2	2
Acetic Acid Vapor	X	X		3		X	2	2	3
Acetic Anhydride	X	X		2		X	2	2	2
Acetone	1	1	1	1	1	1	1	1	1
Acetylene	1	2		1		1	1	1	2
Alcohols	1	2		1		1	1	1	1
Aluminum Sulfate	X	3	3	3	1	X	3	2	2
Alums	X	3	2	3	1	X	3	2	2
Ammonia Gas	1	X	3	1	3	1	1	1	X
Ammonium Chloride	1	3		1*		3	3	1	1
Ammonium Hydroxide	2	X		2		1	1	1	3
Ammonium Nitrate	1	X		2		1	1	1	3
Ammonium Phosphate (Ammoniacal)		X				1	1	1	2
Ammonium Phosphate (Neutral)		3				1	1	1	2
Ammonium Phosphate (Acid)		3				3	2	1	2
Ammonium Sulfate	1	3				2	1	1	2
Asphalt	1	2				2	1	1	1
Beer	2	2	1	1		X	1	1	1
Beet SugarLiquors	1	2		1		2	1	1	1
Benzene, Benzol	1	1	1	1	1	1	1	1	1
Benzine (petroleum-naphtha)	1	1		1		1	1	1	1
Borax	2	2				1	1	1	1
Boric Acid	X	3		1		3	2	1	1
Butane, Butylene	1	1	1	1		1	1	1	1
Butadiene		1				1	1	1	1
Calcium Bisulfate		X				X	2	1	X
Calcium Hypochlorite	3	3	3	X	3	X	3	2	3
Cane Sugar Liquors	1	2		1		2	1	1	1
Carbon Dioxide (Dry)	1	1		1		1	1	1	1
Carbon Dioxide (Wet & Aqueous Sol)	2	3		2		2	1	1	2
Carbon Disulfide	2	3		2		2	1	1	3
Carbon Tetrachloride	3	1	2	3	1	1	1	1	1
Chlorine (Dry)	2	2	2	1	2	2	2	2	1
Chlorine (Wet)	X	X	3	X	2	X	X	3	3
Chromic Acid		X	X	X	1	3	2	2	3
Citric Acid	X	3		1		3	X	1	2
Coke Oven Gas	1	3		2		1	1	1	2
Copper Sulfate	X	X		X		1	1	1	3
Core Oils		1	1			1	1	1	1
Cottonseed Oil	1	1	1	1		1	1	1	1
Creosote	2	3		1		1	1	1	1
Ethers	2	1		1		1	1	1	1
Ethylene Glycol	2	2				1	1	1	1
Ferric Chloride	X	X	X	X	1	X	X	X	X
Ferric Sulfate	X	X		X		1	1	1	3
Formaldehyde	2	2		2		1	1	1	1

*3 to X at high temperatures.

Chemical Chart is reprinted from 1996 RMA Hose Handbook

TECHNICAL DATA

CORROSION RESISTANCE OF COUPLING MATERIALS

CAUTION: The following data has been compiled from generally available sources end should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

RATINGS: 1. Excellent 2. Good 3. Fair Conditional x. Not Satisfactory **NOTES:** No rationg indicates no data available

AGENT	Mall. From Steel	Brass	Bronze	Aluminum	Glass	Stainless 410, 416, 430	Stainless 302, 202, 304, 308	Stainless 316	Monel
Formic Acid	X	2		X		X	2	1	2
Freon	3	1	1	1		1	1	1	1
Furfural	1	2		1		1	1	1	1
Gasoline (Sour)	3	3		3		3	1	1	X
Gasoline (Refined)	1	1	1	1		1	1	1	1
Gelatin	1	3		1		1	1	1	1
Glucose	1	1		1		1	1	1	1
Glue	1	3		1		1	1	1	1
Glycerine or Glycerol	1	2		1		1	1	1	1
Hydrochloric Acid	X	X	X	X	1	X	X	X	X
Hydrocyanic Acid	3	X		1		3	1	1	2
Hydrofluoric Acid	X	3	3	X	X	X	X	X	X
Hydrogen Fluoride		3				X	X	3	1
Hydrogen	1	1		1		1	1	1	1
Hyrogen Peroxide	X	X		1		1	2	1	2
Hydrogen Sulfide (Dry)	3	3		2		3	2	1	3
Hydrogen Sulfide (Wet)	3	3		2		3	2	1	3
Lacquers and Lacquer Solvents	3	2		1		1	1	1	1
Lactic Acid	X			3			3	2	1
Lime-Sulfur	2	X		2		1	1	2	
Linseed Oil	1	1		1			1	1	1
Magnesium Chloride	3	3		X		3	2	1	1
Magnesium Hydroxide	1	2		X		1	1	1	1
Magnesium Sulfate	2	2		3		1	1	1	1
Mercuric Chloride	3	X		X		X	X	3	X
Mercury	1	X		X		1	1	1	2
Milk	3	3		1		2	1	1	3
Molasses	2	X		2		2	1	1	1
Natural Gas	1	2		1		1	1	1	1
Nickel Chloride		X		X		X	3	2	2
Nickel Sulfate		3		X		3	2	1	1
Nitric Acid	X	X	X	3	1	2	2	2	X
Oleic Acid	2	3		1		2	2	1	1
Oxalic Acid	3	3		2		3	2	1	1
Oxygen	1	1	1	1		1	1	1	1
Palmitic Acid	1	3		1		2	2	1	1
Petroleum Oils (Sour)		3				3	1	1	X
Petroleum Oils (Refined)	1	1	1	1		1	1	1	1
Phosphoric Acid 25%	3	X		3	3	X	3	1	2
Phosphoric Acid 25-50%	X	X		X	3	X	X	2	2
Phosphoric Acid 50-85%	X	X		X	X	X	X	2	2
Picric Acid	3	X		3		2	1	1	X
Potassium Chloride	2	3		3		3	2	1	1
Potassium Hydroxide	3	X		X		1	1	1	1
Potassium Sulfate	2	2		1		1	1	1	1
Propane	1	1				1	1	1	1
Rosin (Dark)	1	2			1	1	1	1	1
Rosin (Light)		X		1		1	1	1	2

*3 to X at high temperatures.

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CORROSION RESISTANCE OF COUPLING MATERIALS

CAUTION: The following data has been compiled from generally available sources end should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

RATINGS: 1. Excellent 2. Good 3. Fair Conditional x. Not Satisfactory **NOTES:** No rationg indicates no data available

AGENT	Mall. From Steel	Brass	Bronze	Aluminum	Glass	Stainless 410, 416, 430	Stainless 302, 202, 304, 308	Stainless 316	Monel
Shellac		2		2		1	1	1	1
Sludge Acid		X				X	X	3	2
Soda Ash (Sodium Carbonate)	1	2		X		1	1	1	1
Sodium Bicarbonate	3	1		X		1	1	1	1
Sodium Bisulfate	X	3		3		X	1	1	1
Sodium Chloride	2	3	2	X	1	3	2	1	1
Sodium Cyanide	2	X		X		1	1	1	2
Sodium Hydroxide	3	X	3	X	X	2	2	2	1
Sodium Hypochlorite	X	X		X		X	3	2	3
Sodium Metaphosphate	X	3		1		2	1	1	1
Sodium Nitrate	1	3		1		1	1	1	1
Sodium Perborate	3	3		1		1	1	1	1
Sodium Peroxide	3	3		1		1	1	1	1
Sodium Phosphate (Alkaline)		3				1	1	1	1
Sodium Phosphate (Neutral)		2				1	1	1	1
Sodium Phosphate (Acid)		2				X	2	1	1
Sodium Silicate	1	3		X		1	1	1	1
Sodium Sulfate	1	2		3		1	1	1	1
Sodium Sulfide	1	X				1	1	1	2
Sodium Thiosulfate (Hypo)	3	X		X		1	1	1	2
Stearic Acid	3	3		3		2	2	1	1
Sulfate Liquors		X				1	1	1	2
Sulfur	2	X		2		2	2	1	3
Sulfur Chloride	X	X				X	3	2	2
Sulfur Dioxide (Dry)	2	1		1		1	1	1	1
Sulfur Dioxide (Wet)		X				X	2	1	X
Sulfuric Acid 10%	X	X	3	3		X	X	2	2
Sulfuric Acid 10-75%	X	X	X	X		X	X	X	2
Sulfuric Acid 75-95%	3	X	X	X		3	3	2	3
Sulfuric Acid 95%	2	X	X			2	2	2	X
Surlfurous Acid	X	X		X		X	3	2	X
Tannic Acid	3	3	1	X			1	1	1
Tar	1	2		1		2	1	1	1
Toluene, Toluol	1	1		1		1	1	1	1
Trichlorethylene	3	1		3		1	1	1	1
Turpentine		3		1		3	1	1	1
Varnish	2	2				1	1	1	1
Vegetable Oils	1	2		1		1	1	1	1
Vinegar	3	3		3		3	2	1	2
Water (Acid Mine Water)	3	X		3		2	1	1	3
Water (Fresh)	3	1		1		1	1	1	1
Water (Salt)	3	3	2	X		3	2	2	1
Whiskey	X	2				3	1	1	2
Wines	X	2				3	1	1	2
Xylene, Xylol	2	1		1		1	1	1	1
Zinc Chloride	X	X		X		3	2	1	1
Zinc Sulfate	3	3		3		3	2	1	1

*3 to X at high temperatures.

Chemical Chart is reprinted from 1996 RMA Hose Handbook

TECHNICAL DATA

OIL & GASOLINE RESISTANCE

Rubber hose is used to convey petroleum products both in the crude and refined stages. The aromatic content of refined gasoline is often adjusted to control the octane rating. The presence of aromatic hydrocarbons in this fuel generally has a greater effect on rubber components than do aliphatic hydrocarbons. Aromatic materials in contact with rubber tend to soften it and reduce its physical properties. For long lasting service, the buyer of gasoline hose should inform the hose manufacturer of the aromatic content of the fuel to be handled so that the proper tube compound can be recommended for the specific application.

The effects of oil on rubber depend on a number of factors that include the type of rubber compound, the composition of the oil, the temperature and time of exposure. Rubber compounds can be classified as to their degree of oil resistance based on their physical properties after exposure to a standard test fluid. In this RMA classification, the rubber samples are immersed in IRM 903 oil at 100°C for 70 hours. (See ASTM Method D-471 for a detailed description of the oil and the testing procedure.) As a guide to the user of hose in contact with oil, the oil resistance classes and a corresponding description are listed.

PHYSICAL PROPERTIES AFTER EXPOSURE TO OIL:

		VOLUME CHANGE MAXIMUM	TENSILE STRENGTH RETAINED
CLASS A	(HIGH OIL RESISTANCE)……....	**+25%**	**80%**
CLASS B	(MEDIUM/HIGH OIL RESISTANCE)……....	**+65%**	**50%**
CLASS C	(MEDIUM OIL RESISTANCE)……....	**+100%**	**40%**

CHEMICAL RECOMMENDATIONS

The materials being handled by flexible rubber hose are constantly increasing in number and diversity. T o assist in the selection of the proper elastomer for the service conditions encountered, the following table has been prepared. The reader is cautioned that it is only a guide and should be used as such, as the degree of resistance of an elastomer with a particular fluid depends upon such variables as temperature, concentration, pressure, velocity of flow, duration of exposure, aeration, stability of the fluid, etc. Also variations in elastomer types and special compounding of stocks to meet specific service conditions have considerable influence on the results obtained. When in doubt, it is always advisable to test the tube compound under actual service conditions. If this is not practical, tests should be devised that simulate service condtions or the hose manufacturer contacted for Recommendations.

The following table lists the more commonly used materials, chemicals, solvents, oils, etc. The recommendation are based on room temperature and pressure conditions normally recommended for the particular type of hose being used. Where conditions beyond this can be met readily, they have been so indicated; where conditions are not normal and cannot be readily met, the hose manufacturer should always be consulted. The table does not imply conformance to the Food & Drug Administration requirements of Federal or State Laws when handling food products.

TABLE OF CHEMICAL, OIL & SOLVENT RESISTANCE OF HOSE:

WARNING: The following data has been compiled from generally available sources and should not be relied upon without consulting and following the hose manufacturer's specific chemical recommendations. Neglecting to do so might result in failure of the hose to fulfill its intended purpose, and may result in possible damage to property and serious bodily injury.

RESISTANCE RATING

A - Good Resistance, usually suitable for service.

F - Fair Resistance, the chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.

C- Depends on Condition, moderate service may be possible if chemical exposure is limited or infrequent.

X- Not recommended, unsuitable for service.

I - Insufficient Information, not enough data available at the time of publication to determine rating.

RELASTOMERS/PLASTICS

NR- Natural Rubber
IR - Isoprene, synthetic
SBR - Styrene-butadiene
CR- Chloroprene
NBR - Nitrile-butadiene
IIR- Isobutene-isoprene
CSM - Chloro-sulfonyl-polyethylene
EPDM - Ethylene-propylene-diene-terpolymer
MQ - Dimethyl-polysiloxane
FKM- Fluoracarbon rubber
CM - Chloro-polyethylene
ECO/CO- Ephichlorohydrin
EXLPE- Chloro-sulfonyl-polyethylene

NOTES

NOTES