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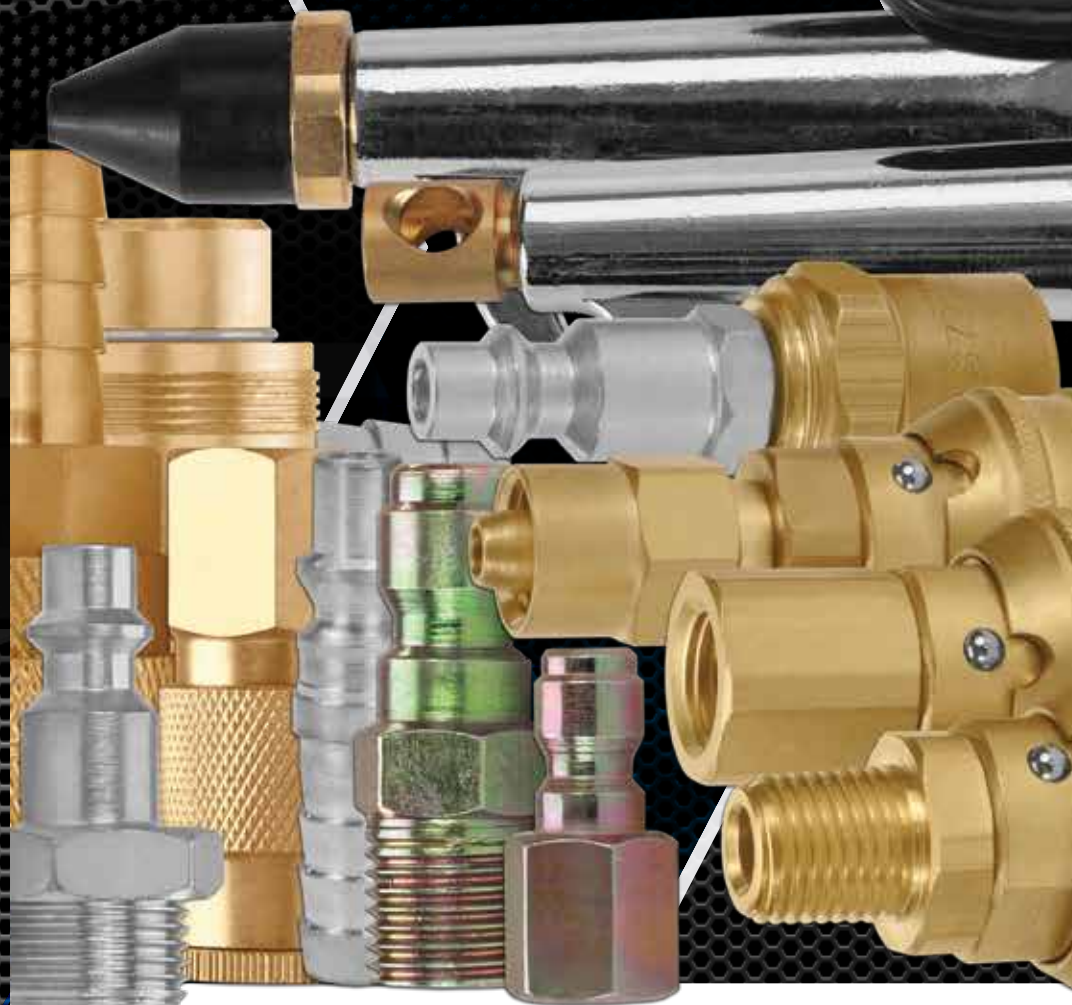
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**INDUSTRIAL
SOCKETS / PLUGS**

**AUTOMOTIVE
SOCKETS / PLUGS**

**PRESSURE WASHER
ACCESSORIES**

CLICK CONNECT



SF SEALFAST
THE SIMPLE SOLUTION

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TERMS OF SALE

DISCLAIMERS

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 1000 net couplings and accessories, \$1500 Net Couplings, PVC Tubing, Braided Tubing and Fire Hose. Freight prepaid on \$3000 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.

WARRANTY:

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.

RETURNED GOODS:

If for any reason you wish to return goods, please contact Seal Fast Inc. for prior authorization number. Goods must be returned within 30 days and must be in new and resaleable condition. Minimum handling charge is 15%.

All discrepancies in shipment / invoice must be reported within 10 days of receipt of goods.

PROMPTPAYMENT:

Orders receive preferred treatment when the account is paid promptly. Orders may be held up if any unpaid invoice exceeds 30 days.

MINIMUM INVOICE:

All invoices are subject to a minimum billing charge of 50.00 net. Returned checks are subject to a \$25.00 service charge.

GENERAL:

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.

STOCKING WAREHOUSES

SEAL FAST, INC.

5603 Harvey Wilson Dr.

Houston, TX 77020

(713) 675-6324 or 800-231-0734

FAX (713) 675-0146 or 800-681-1515

E-mail sales@sealfast.com

PORTER ASSOCIATES	ASPEN MARKETING, INC	THE WAGNER GROUP
1150 Boot Road	5160 Fox Street	125 State St.
Unit 1	Denver, CO 80216	P O Box 1683
Downingtown, PA 19335	(303) 455-8175	Elkhart, IN 46516
(610) 518-2301	(303) 477-6504 Fax	(574) 294-2769
		(574) 522-2083 Fax

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.

Product Specifications

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

Product Usage

- 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.
- Seal Fast cannot guarantee the integrity of an assembly if other manufacturers parts are used.

Product Availability

- Seal Fast reserves the right to discontinue products at any time without prior notice.

Product Pricing

- Seal Fast is constantly doing our best to maintain pricing levels. However, circumstances change and while many prices go down, others will increase.
- Please contact your sales associate for current pricing.

QUICK CONNECT

INDUSTRIAL

AUTOMOTIVE

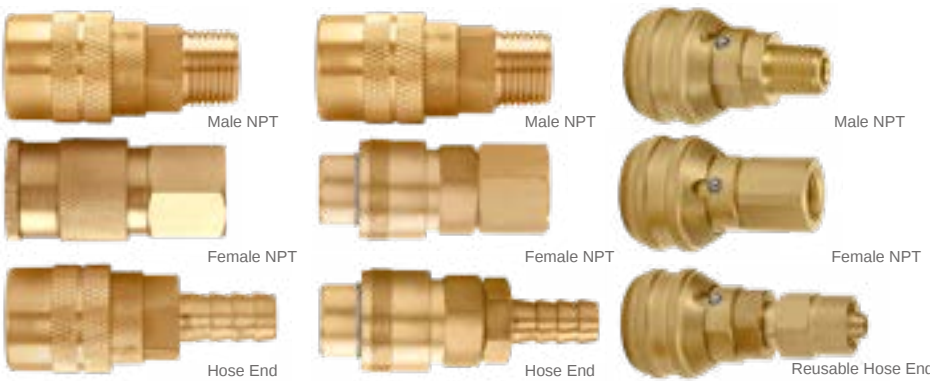
QUICK CONNECT

SOCKETS - 1/4" BODY

► Couplers shut-off when disconnected. Works w/MIL-C-4109F/A-A-59439 SYSTEMS. For use with compressed air only. Easy pull-to connect designs provides instantaneous connection of air lines.

1/4"-1/2"
Size Range

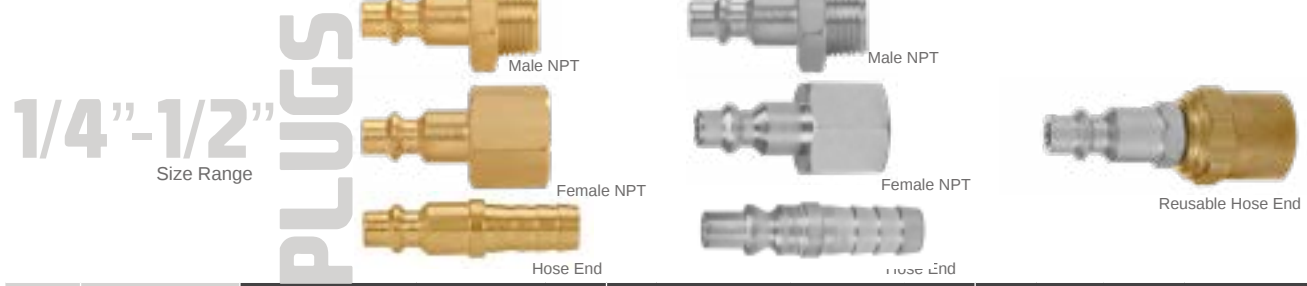
Seal material: NBR
Temperature Range: -40° F to 250° F
Working Pressure: 0 psi to 300 psi
4 Ball Design



Body Size	End Size	Over-all Dia.	Box Qty.	BRASS								
				Industrial Interchange								
				Semi-Auto			Auto			Auto Sleeve Lock		
				Length	Part #	List	Length	Part #	List	Length	Part #	List
1/4"	1/4" Male NPT	.98"	10	2.05"	AM-02AM		2.05"	AMA-02AM		"	AMASL-02AM	
1/4"	1/4" Female NPT	.98"	10	1.97"	AM-02AF		1.97"	AMA-02AF		"	AMASL-02AF	
1/4"	1/4" Shank	.98"	10	2.3"	AM-02AH		2.3"	AMA-02AH		"	AMASL-02AHRU	
3/8"	3/8" Male NPT	.98"	10	2.03"	AM-03AM		2.09"	AMA-03AM		"		
3/8"	3/8" Female NPT	.98"	10	1.97"	AM-03AF		1.97"	AMA-03AF		"		
3/8"	3/8" Shank	.98"	10	2.7"	AM-03AH		2.48"	AMA-03AH		"		
1/2"	1/2" Male NPT	.98"	10	2.07"	AM-04AM		2.07"	---		---	---	
1/2"	1/2" Female NPT	.98"	10	2.13"	AM-04AF		2.13"	---		---	---	
1/2"	1/2" Shank	.98"	10	2.7"	AM-04AH		2.7"	---		---	---	

PLUGS - 1/4" BODY

► Works w/MIL-C-4109F/A-A-59439 SYSTEMS. For use with compressed air only.



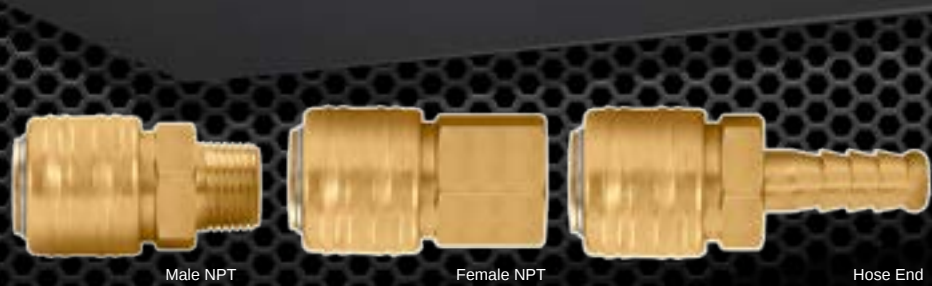
Body Size	End Size	BRASS					PLATED STEEL					PLATED STEEL / BRASS				
		Industrial Interchange														
		works w/ AM or AMA sockets					works w/ AM or AMA sockets					works w/ Auto Sleeve Lock sockets				
		Dia.	Box Qty.	Length	Part #	List	Dia.	Box Qty.	Length	Part #	List	Dia.	Box Qty.	Length	Part #	List
1/4"	1/4" Male NPT	.46"	40	1.65"	AN-02AM		.46"	40	1.65"	AN-02AMS		"		"		
1/4"	1/4" Female NPT	.46"	40	1.38"	AN-02AF		.46"	40	1.38"	AN-02AFS		"		"		
1/4"	1/4" Shank	.46"	40	1.89"	AN-02AH		.46"	40	1.89"	AN-02AHS		"		"	AN-02AHSRU	
3/8"	3/8" Male NPT	.46"	40	1.69"	AN-03AM		.46"	40	1.69"	AN-03AMS		"		"		
3/8"	3/8" Female NPT	.46"	40	1.5"	AN-03AF		.46"	40	1.5"	AN-03AFS		"		"		
3/8"	3/8" Shank	.46"	40	2.28"	AN-03AH		.46"	40	2.28"	AN-03AHS		"		"		
1/2"	1/2" Male NPT	.46"	40	1.73"	AN-04AM		.46"	40	1.73"	AN-04AMS		---	---	---	---	
1/2"	1/2" Female NPT	.46"	40	1.54"	AN-04AF		.46"	40	1.54"	AN-04AFS		---	---	---	---	
1/2"	1/2" Shank	.46"	40	2.28"	AN-04AH		.46"	40	2.28"	AN-04AHS		---	---	---	---	

SOCKETS - 1/4" BODY

► Couplers shut-off when disconnected. Works popular automotive fittings such as Amflo, Milton and others. For use with compressed air only. Easy pull-to connect designs provides instantaneous connection of air lines.

1/4"-3/8"
Size Range

Seal material: NBR
Temperature Range: -40° F to 250° F
Working Pressure: 0 psi to 300 psi
4 Ball Design



Body Size	End Size	BRASS				
		Dia.	Box Qty.	Length	Part #	List
1/4"	1/4" Male NPT	.98"	10	2.05"	AO-02AM	
1/4"	1/4" Female NPT	.98"	10	1.97"	AO-02AF	
1/4"	1/4" Shank	.98"	10	0.94"	AO-02AH	
3/8"	3/8" Male NPT	.98"	10	0.82"	AO-03AM	
3/8"	3/8" Female NPT	.98"	10	0.94"	AO-03AF	
3/8"	3/8" Shank	.98"	10	0.82"	AO-03AH	

PLUGS - 1/4" BODY

► Works with popular automotive fittings such as Amflo, Milton and others. For use with compressed air only.



Body Size	End Size	ZINC PLATED STEEL				
		Dia.	Hex Size	Length	Part #	List
1/4"	1/4" Male NPT	.98"	10	2.05"	AO-02PMS	
1/4"	1/4" Female NPT	.98"	10	1.97"	AO-02PFS	
1/4"	1/4" Shank	.98"	10	0.94"	AO-02PHS	
3/8"	3/8" Male NPT	.98"	10	0.82"	AO-03PMS	
3/8"	3/8" Female NPT	.98"	10	0.94"	AO-03PFS	
3/8"	3/8" Shank	.98"	10	0.82"	AO-03PHS	

QUICK CONNECT

PRESSURE WASHER

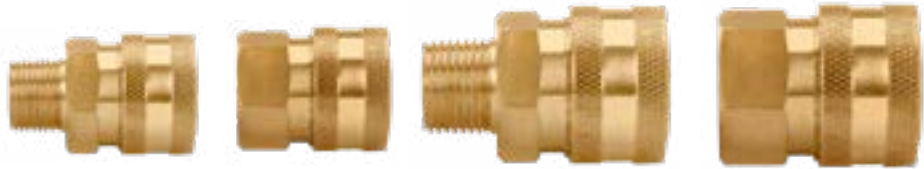
ACCESSORIES

PNEUMATIC

PRESSURE WASHER - STRAIGHT THRU QUICK CONNECT SOCKETS

► Couplers and plugs have no internal valves so there will be maximum flow. Water use only


SOCK



Body Size	End Size	BRASS					Features:
		Dia.	Hex Size	Length	Part #	List	
1/4"	1/4" Male NPT	.93"	0.82"	1.73"	2STM2-B		- 1/4" Rated pressure 5200 psi - 3/8" Rated pressure 2700 psi -Temp range -40° to 250°F - Standard seal Buna-n (Nitrile)
1/4"	1/4" Female NPT	.93"	0.82"	1.48"	2STF2-B		
3/8"	3/8" Male NPT	1.30"	0.94"	1.76"	3STM3-B		
3/8"	3/8" Female NPT	1.20"	0.94"	1.59"	3STF3-B		

PRESSURE WASHER- STRAIGHT THRU QUICK CONNECT PLUGS


PLUG



Body Size	End Size	ZINC PLATED STEEL					Features:
		Dia.	Hex Size	Length	Part #	List	
1/4"	1/4" Male NPT	.61"	0.54"	1.56"	ST2M2-S		- 1/4" Rated pressure 5200 psi - 3/8" Rated pressure 2700 psi -Temp range -40° to 250°F
1/4"	1/4" Female NPT	.75"	0.67"	1.45"	ST2F2-S		
3/8"	3/8" Male NPT	.68"	0.67"	1.70"	ST3M3-S		
3/8"	3/8" Female NPT	.95"	0.86"	1.64"	ST3F3-S		

PRESSURE WASHER ASSEMBLIES


► There is a bend retractor on each end with male solid by male swivel.



4000 PSI	Body Size	Length	End Size	Part #	List
	3/8"	50'	Coupled w/ Male X Male	PW40003850CL	
	3/8"	100'	Coupled w/ Male X Male	PW400038100CL	
	1/2"	50'	Coupled w/ Male X Male	PW40005050CL	
	1/2"	100'	Coupled w/ Male X Male	PW400050100CL	

6000 PSI	Body Size	Length	End Size	Part #	List
	3/8"	50'	Coupled w/ Male X Male	PW60003850CL	
	3/8"	100'	Coupled w/ Male X Male	PW600038100CL	
	1/2"	50'	Coupled w/ Male X Male	PW60005050CL	
	1/2"	100'	Coupled w/ Male X Male	PW600050100CL	

COUPLINGS



Body Size	End Size	Part #	List
3/8"	3/8" Female X 22mm X 14mm Swivel	PWC38	

COUPLINGS

RECOIL AIR HOSE - NYLON (Yellow)

► Temperature range: -20°F to 180°F WP: 200psi



ID	Swivel & Rigid NPT Thread	Length/Ft	Part #	List
1/4"	1/4"	12	N2512	
	1/4"	25	N2525	
	1/4"	50	N2550	
3/8"	3/8"	12	N3812	
	3/8"	25	N3825	
	3/8"	50	N3850	
	---	---	---	
	---	---	---	

INDUSTRIAL AIR/WATER HOSE ASSEMBLY (Red)

► Working pressure ratings are based on ambient temperature of 70° F & will vary inversely w/Temperature changes.

Construction:


- Cover EPDM / SBR mix compound
- Tube NBR / SBR Mix compound rubber



ID	Male NPT	Working PSI	Burst PSI	Length/Ft	Part #	List
3/8"	1/4"	200	600	25'	PA2525	
3/8"	1/4"	200	600	50'	PA2550	

BLOW GUNS - 1/4"


ID	Part #	List
Safety Blow Gun	AR-905	



ID	Part #	List
Rubber Tip Blow Gun	AR-905-C	




ID	Part #	List
Booster Tip Blow Gun	AR-905-A	



RECOIL AIR HOSE - POLYURETHANE (Blue)


► Temperature range: -20°F to 180°F WP: 120psi



ID	Swivel & Rigid NPT Thread	Length/Ft	Part #	List
1/4"	1/4"	10	P2510	
	1/4"	20	P2520	
	1/4"	30	P2530	
3/8"	3/8"	10	P3810	
	3/8" x 1/4"	10	P382510	
	3/8"	20	P3820	
	3/8" x 1/4"	20	P382520	
	3/8"	30	P3830	
	3/8" x 1/4"	30	P382530	

AIRSHIELD INDUSTRIAL AIR/WATERHOSE

► Flexible, lightweight handling w/Strain relief sleeves.



Brass Couplings Both Ends 1/4" NPT

ID	Length/ Ft	Working PSI	Red Part #	Blue Part #	List
1/4"	25'	300	SFASP 025-25	SFASPBL 025-25	
	50'	300	SFASP 025-50	SFASPBL 025-50	
3/8"	25'	300	SFASP 038-25	SFASPBL 038-25	
	50'	300	SFASP 038-50	SFASPBL 038-50	
1/2"	25'	300	SFASP 050-25	SFASPBL 050-25	
	50'	300	SFASP 050-50	SFASPBL 050-50	

Local: (713) 675-6324

4

National: (800) 231-0734

Local: (713) 675-6324

5

National: (800) 231-0734

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 rating indicates no data available
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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

TECHNICAL DATA

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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

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
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

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	RELASTOMERS/PLASTICS	
A - Good Resistance, usually suitable for service.	NR - Natural Rubber	EPDM - Ethylene-propylene-diene-terpolymer
F - Fair Resistance, the chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.	IR - Isoprene, synthetic	MQ - Dimethyl-polysiloxane
	SBR - Styrene-butadiene	FKM - Fluoracarbon rubber
C - Depends on Condition, moderate service may be possible if chemical exposure is limited or infrequent.	CR -Chloroprene	CM - Chloro-polyethylene
	NBR - Nitrile-butadiene	ECO/CO - Ephichlorohydrin
X -Not recommended, unsuitable for service.	IIR -Isobutene-isoprene	EXLPE - Chloro-sulfonyl-polyethylene
I - Insufficient Information, not enough data available at the time of publication to determine rating.	CSM - Chloro-sulfonyl-polyethylene	

NOTES

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