

CAT 2

WRENCHES

ADJUSTABLE COMBINATION SPANNER
UNIVERSAL SPANNER
SPANNER - PIN LUG
HYDRANT NON - SLIP



SF | **SEALFAST**
THE SIMPLE SOLUTION



FIRE PROTECTION

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DISCLAIMERS

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

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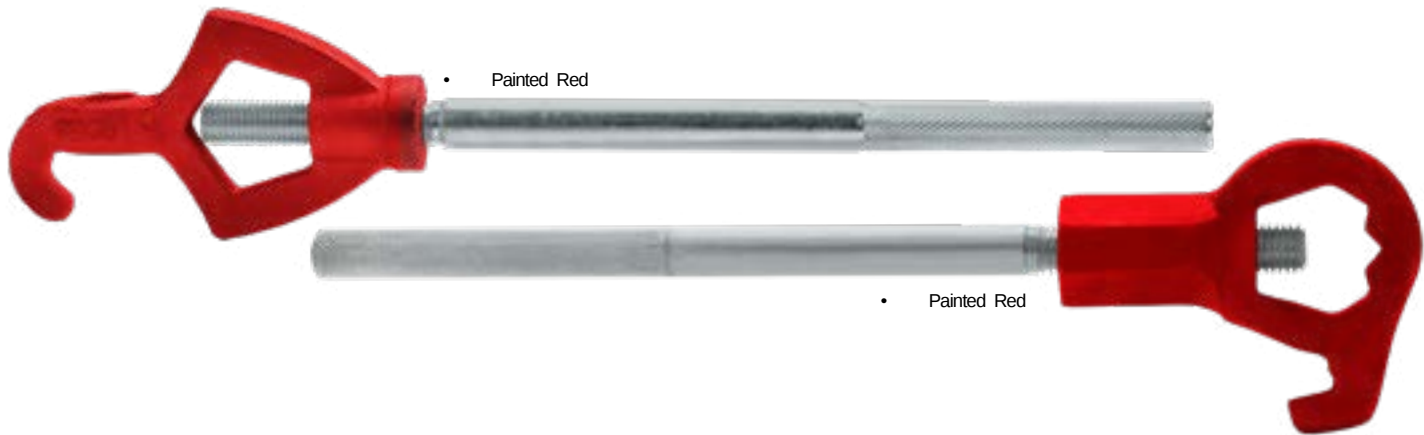
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- Seal Fast is constantly doing our best to maintain pricing levels. However, circumstances change and while many prices go down, others will increase.
- Please contact your sales associate for current pricing.

WRENCHES

ADJUSTABLE COMBINATION SPANNER



Steel Handle w/Zinc Plated Head	
Part #	List
2619050	
2618950	

UNIVERSAL SPANNER



Zinc Plated Iron	
Part #	List
2623350	

SPANNER WRENCH- FOR PIN LUG



Size	Zinc Plated Iron	
	Part #	List
1-1/2"	SW 150	
2"	SW 200	
2-1/2"	SW 250	
3"	SW 300	
4"	SW 400	

INDUSTRIAL MONITORS

SINGLE WATERWAY MONITOR

► GPM - (1250) | Height - 17 in / Width - 11.5 in | Weight - 54 lbs.



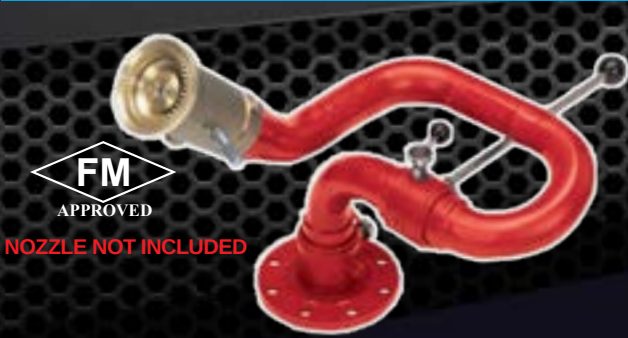
Details	Hardcoat Aluminum	
	Part #	List
4" Female NPT	649	
4" Flanged Inlet x 2-1/2" NST Outlet	649-1	

Features:
- FM Approved - GPM: Flow up to 1250 GPM. - Corrosion resistant bronze construction ideal for Marine, Offshore, Industrial or other corrosive environments. - Full 3" Waterway - Travel 90° above to 60° below Horizontal positive friction locks on both horizontal & vertical travel

SINGLE WATERWAY MONITOR

SEAMLESS BRASS
TUBE CONSTRUCTION

► GPM - (1250) | Height - 18 in / Width - 18 in | Weight - 45 lbs.



Details	Hardcoat Aluminum	
	Part #	List
4" Female NPT X 2-1/2" NST outlet	736	
4" Flange X 2-1/2" NST outlet	736-1	

Features:
- FM Approved - GPM: Flow up to 1250 GPM. - 2.5" Waterway - 360° horizontal & 135° vertical. - Travel 90° above to 45° below horizontal. - Positive friction locks on both horizontal & vertical travel. - Low friction loss.

SINGLE WATERWAY MONITOR

► GPM - (1250) | Height - 16 in / Width - 15 in | Weight - 56 lbs.



Details	Hardcoat Aluminum	
	Part #	List
4" Female NPT X 2-1/2" NST outlet	611	
4" Flange X 2-1/2" NST outlet	611-1	

Features:
- FM Approved - GPM: Flow up to 1250 GPM. - Corrosion resistant bronze construction ideal for Marine, Offshore, Industrial or other corrosive environments. - Full 3" Waterway. - Full 360° rotation w/Positive twist lock. - Vertical travel from 70° above to 70° below horizontal. Vertical travel is controlled by hand wheel w/Worm gear fully enclosed. - Worm Gear is protected from elements w/Double row Stainless Steel Ball Bearings at all rotation joints.

DUAL WATERWAY MONITOR

► GPM - (750) | Height - 18 in / Width - 14 in | Weight - 45 lbs.



Details	Hardcoat Aluminum	
	Part #	List
4" Female NPT X 2-1/2" NST outlet	636	
4" Flange X 2-1/2" NST outlet	636-1	

Features:
- FM Approved - GPM: Flow up to 1250 GPM. - 2.5" Waterway - 360° horizontal & 135° vertical. - Travel 90° above to 45° below horizontal. - Positive friction locks on both horizontal & vertical travel. - Low friction loss.

HYDRANT MOUNT

► Hydrant Mount

Details	Hardcoat Aluminum	
	Part #	List
4" ANSI Outlet Flange	699	

Features:
- Allows a monitor to be mounted on any 2-1/2" Hydrant Outlet.
- Adjustable Height: From 17" to 28" from ground.
- Length 9-1/2" from swivel to middle of flange 2-1/2" Swivel Inlet NST.



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
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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

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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

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RATINGS: 1. Excellent 3. Fair Conditional
2. Good 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:		
CLASS A	(HIGH OIL RESISTANCE).....	VOLUME CHANGE MAXIMUM +25% TENSILE STRENGTH RETAINED 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	

TECHNICAL DATA

ELASTOMERS

Commonly used Elastomers:						Special Elastomers:						
MATERIAL	NR lor IR	SBR	CR	NBR	IIR	CSM	EPDM	MQ	FKM	CM	ECO CO	XLPE
(Maximum Temperature 100° F (38°C) Unless Otherwise Specified												
Acetic Acid, Dilute, 10%	F	C	C	C	A	C	A	A	X	A	F	A
Glacial	C	X	X	X	F	C	F	F	X	A	X	A
Anhydride	C	C	F	F	F	A	I	C	X	A	X	A
Acetone	A	A	F	X	A	F	A	A	X	A	X	A
Acetylene	A	A	F	A	A	F	A	C	A	I	I	I
Air 150°F (65°C)	A	A	A	A	A	A	A	A		A	A	A
Aluminum Chloride 150°F (65°C)	A	A	A	A	A	A	A	A	A	A	A	A
Aluminum Fluoride 150°F (65°C)	A	A	A	A	A	A	A	F			A	A
Aluminum Sulfate 150°F (65°C)	A	A	A	A	A	A	A	A	A	A	I	A
Alums 150°F (65°C)	A	A	A	A	A	A	A	A		A	I	A
Ammonia Gas	A	A	A	A	A	A	A	A	X	A	I	A
Ammonium Chloride	A	A	A	A	A	A	A	C	A	A	A	A
Ammonium Hydroxide	C	F	F	F	A	A	A	A	A	A	I	A
Ammonium Nitrate	A	A	A	A	A	A	A	A		I	A	A
Ammonium Phosphate, monobasic	A	A	A	A	A	A	A	A		A	I	A
dibasic	A	A	A	A	A	A	A	A		I	I	A
tribasic	A	A	A	A	A	A	A	A		I	I	A
Ammonium Sulfate	A	A	A	A	A	A	A	A	A	A	I	A
Amyl Acetate	F	X	X	X	F	X	A	A	X	C	X	A
Amyl Alcohol	A	A	A	A	A	A	A	A	A	A	A	A
Aniline, Aniline Oil	X	X	C	X	A	X	C	C	A	C	X	A
Aniline Dyes	F	F	F	F	A	F	C	C			I	I
Asphalt	X	X	F	F	X	F	X		A		A	X
Barium Chloride 150°F (65°C)	A	A	A	A	A	A	A	A	A	A	A	A
Barium Hydroxide 150°F (65°C)	A	A	A	A	A	A	A	A	A	A	A	A
Barium Sulfide 150°F (65°C)	A	A	A	A	A	A	A	A	A	I	A	A
Beer	A	A	A	A	A	A	A	A	A	I	A	A
Beet Sugar Liquors	A	A	A	A	A	A	A	A	A	I	I	A
Benzene, Benzol	X	X	X	C	X	X	X	C	A	C	X	A
Benzine, petroleum ether and												
Benzine, petroleum naphtha	X	X	C	F	X	F	X	C	A		I	A
Black Sulfate Liquor	A	A	A	A	A	A	A	A		I	I	A
Blast Furnace Gas	C	C	A	C	C	C	C	C	A	I	I	A
Borax	A	A	A	A	A	A	A	A	A	I	I	A
Boric Acid	A	A	A	A	A	A	A	A	A	I	A	A
Bromine	X	X	X	X	X	C	X	F	A	C		F
Butane	X	X	F	A	X	A	X	A	A	A	A	A
Butyl Acetate	C	X	X	X	F	X	F	A	X	F	X	A
Butyl alcohol, butanol	A	A	A	A	A	A	A	A	A	F	I	A
Calcium bisulfate	C	C	A	A	F	A	F	C	A	A	I	A
Calcium chloride	A	A	A	A	A	A	A	A	A	A	A	A
Calcium hydroxide	A	A	A	A	A	A	A	A	A	A	A	A
Calcium hypochlorite	X	X	X	X	A	F	A	C	A	A	F	F
Caliche liquors	A	A	A	A	A	A	A				I	A
Cane sugar liquors	A	A	A	A	A	A	A	A	A	A	A	A
Carbolic acid, phenol	C	C	C	C	C	C	A	A	A	A		A

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TECHNICAL DATA

ELASTOMERS

Commonly used Elastomers:						Special Elastomers:						
MATERIAL	NR lor IR	SBR	CR	NBR	IIR	CSM	EPDM	MQ	FKM	CM	ECO CO	XLPE
(Maximum Temperature 100° F (38°C) Unless Otherwise Specified												
Carbon dioxide, dry/wet	A	A	A	A	A	A	A	A	A	A	A	A
Carbon disulfide	X	X	X	X	X	X	X	C	A	C		C
Carbon monoxide 150°C (65°C)	C	C	C	C	C	F	C	A	A	I		A
Carbon tetrachloride	X	X	X	C	X	X	X	C	A	C	F	A
Castor oil	A	A	A	A	A	A	A	A	A	A	A	A
Cellosolve acetate	F	F	X	X	A		A	C	C			A
CFC-12	X	X	A	A	F		F	X	A		A	I
China wood oil, tung oil	X	X	F	A	A	F	A	A	C		I	A
Chlorine, dry/wet	X	X	X	X	X	X	X	X	C	X	X	F
Chlorinated solvents	X	X	X	X	X	X	X	C	C	C		A
Chloroacetic acid	X	C	C	C	X	A	I	C	X			A
Chlorosulfonic acid	X	X	C	C	X	X	X	C	X			F
Chromic acid	X	X	X	X	C	A	I	C	C	A		F
Citric acid	A	A	A	F	A	A	A	A	A	A	A	A
Coke oven gas	C	C	C	C	C	A		A	X	A	X	C
Copper chloride 150°F (65°C)	C	A	F	A	A	F	A	A	A	A	I	A
Copper sulfate 150°F (65°C)	C	A	A	A	F	A	A	A	A	A	A	A
Corn oil	X	C	F	A	A	F	C	A	A	A	A	A
Cottonseed oil	X	C	F	A	A	F	C	A	A	A	I	A
Creosote, coal tar	X	X	F	A	X	F	X	C	F		X	A
Wood	X	X	F	A	X		X	C	A			A
Creosols, cresylic acid	C	X	X	C	C	F	X	C		F		A
Ethers	C	C	C	C	C	F	X	C	X	A		A
Ethyl acetate	F	X	X	X	F	X	F	F	X	F	X	A
Ethyl alcohol	A	A	A	A	A	A	A	A	A	A	A	A
Ethyl cellulose	F	F	F	F	F		F	C	X	F		A
Ethyl chloride	A	F	F	X	A	F	A	C	F	F	F	F
Ethylene glycol	A	A	A	A	A	A	A	A	A	A	A	A
Ferric chloride 150°F (65°C)	A	A	A	A	A	A	A	A	I	A	A	A
Ferric Sulfate 150°F (65°C)	A	A	A	A	A	A	A	A	A	A	A	A
Formaldehyde	A	A	C	A	A	A	A	A	A	A	F	A
Formic acid	A	A	C	F	A	A	A	A	X	A	F	F
Fuel oil	X	X	A	A	X	F	X	C	A	F	A	A
Furfural	X	C	C	X	A	F	C	C	X	A	X	A
Gasoline, Non Leaded	X	X	X	A	X	X	X		A	C	A	A
Gasoline, + MTBE	X	X	X	A	X	X	X	C	A	C	A	A
Hi-test-+ MTBE	X	X	X	A	X	X	X	C	A	C	A	A
Gelatin	A	A	A	A	A	A	A	A	A		A	A
Glucose	A	A	A	A	A	A	A	A	A		A	A
Glue	F	F	A	A	F	A	A	A	C		A	A
Glycerine, glycerol	A	A	A	A	A	A	A	A	A	A	A	A
Green sulfate liquor	A	A	A	A	A	A	A	A	A	A	A	A
HFC-134A	F	X	A	A	A	F	A		X	F		A

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TECHNICAL DATA

ELASTOMERS

Commonly used Elastomers:												Special Elastomers:											
MATERIAL	NR lor IR	SBR	CR	NBR	IIR	CSM	EPDM	MQ	FKM	CM	ECO CO	XLPE											
(Maximum Temperature 100° F (38°C) Unless Otherwise Specified																							
Hydraulic fluids																							
Petroleum	X	X	A	A	X	F	X			A	A												
Phosphate ester alkyl	X	X	C	X	A	X	A			A	X												
Phosphate ester arly	X	X	X	X	C	X	C			C	X												
Phosphate ester blends		X	X	X	X	X	X	C			C	X											
Silicate ester	X	X	C	C	X	C	X			C	C												
Water-Glycol	A	A	A	A	A	A	A		A	A	A												
Hydrobromic acid	C	X	C	C	A	A	A	C	A	A		I											
Hydrochloric acid	A	X	X	X	C	C	C	C	A	A	X	A											
Hydrocyanic acid	F	F	C	F	C	A	C	A	A			A											
Hydrofluoric acid	X	X	X	X	C	A	C	X	A	A		A											
Hydrofluosilicic acid	A	F	F	F	A		A	A	A	A		I											
Hydrogen Gas	F	F	A	A	A		A	A	A		A	A											
Hydrogen peroxide	X	X	C	C	C	C	C	A	A	A		I											
Hydrogen sulfide, dry	C	C	F	C	A	A	A	C	F			A											
wet	C	C	F	C	A	A	A	C	C		F	A											
Kerosene	X	X	F	A	X	C	X	C	A	A	A	A											
Lacquers	X	X	X	X	C	X	X		X		X	F											
Lacquers solvents	X	X	X	X	C	X	X		X		X	F											
Lactic acid	C	C	C	C	C	A	C	A	A			A											
Linseed oil	C	X	F	A	A	A	A	A	A	A	A	A											
Lubricating oil, crude	X	X	F	A	X	C	X	C	A		A	A											
refined	X	X	F	A	X	C	X	C		A	A	A											
Magnesium chloride 150°F (65°C)	A	A	A	A	A	A	A	A	A	A	A	A											
Magnesium hydroxide 150°F (65°C)	A	F	F	F	A	A	A	F	A	A	A	A											
Magnesium sulfate 150°F (65°C)	A	A	A	A	A	A	A	A	A	A	A	A											
Mercuric chloride	F	F	C	F	A	A	A	A	A		A	A											
Mercury	A	A	A	A	A	A	A	A	A		A	A											
Methyl alcohol, methanol	A	A	A	A	A	A	A	A	C	A	F	A											
Methyl chloride	C	C	C	C	C	X	C	X	A			F											
Methyl ethly ketone	X	X	X	X	F	C	A	C	X	C	X	A											
Methyl isopropyl ketone	X	X	X	X	F	C	C	C	X	F	X	A											
MTBE												A											
Milk	C	C	F	F	A	A	A	A	A	A	A	A											
Mineral oils	X	C	F	A	X	F	X	A	A	A	A	A											
Natural gas	C	C	A	A	C	A	X	C	A	A	A	A											
Nickel chloride 150°F (65°C)	A	A	A	A	A	A	A	A	A	A	I	A											
Nickel sulfate 150°F (65°C)	A	A	A	A	A	A	A	A	A	A	I	A											
Nitric acid, crude	X	X	X	X	C	C	X	X	C	A	X	F											
Diluted 10%	X	X	C	X	C	C	X	X	C	A	X	F											
Concentrated 70%	X	X	X	X	C	C	X	X	C	X	X	F											
Nitrobenzene	X	X	X	X	X	X	X	C	F	C	X	A											
Oleic acid	X	F	C	F	F	F	F	A	C	A		A											
Oleum spirits	X	C	C	C			I		C			I											

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TECHNICAL DATA

ELASTOMERS

Commonly used Elastomers:												Special Elastomers:											
MATERIAL	NR lor IR	SBR	CR	NBR	IIR	CSM	EPDM	MQ	FKM	CM	ECO CO	XLPE											
(Maximum Temperature 100° F (38°C) Unless Otherwise Specified																							
Oxalic acid	F	C	F	F	A	A	A	A	A	A	F	A											
Oxygen	F	C	A	C	A		A	A	A	A	F	A											
Palmitic acid	X	F	A	A	F	F	F	C	A	A	F	A											
Perchlorethylene	X	X	X	C	X	X	X	C	A	C	F	A											
Petroleum oils and crude 200°F (95°C)	X	X	F	A	X	C	X	C	A	C	F	A											
Phosphoric acid, crude	A	C	C	C	C	A	C	C	A	A		A											
pure 45%	A	C	C	C	C	A	C	C	A	A		I											
Picric acid, molten	C	C	C	C	C		I					I											
water solution	A	C	F	F	A	A	I	A	A			I											
Potassium chloride	A	A	A	A	A	A	A	A	A	A	A	A											
Potassium cyanide	A	A	A	A	A	A	A	A	A	A	A	A											
Potassium hydroxide	F	F	C	C	A	A	A	A	C	A	A	A											
Potassium sulfate	A	A	A	A	A	A	A	A	A	A	A	A											
Propane	X	X	F	A	X	F	X	A	A	A	A	A											
Sewage	C	C	F	A	C	A	C	C	A		I	A											
Soap solutions	A	A	F	A	A	A	A	A	A	A	A	A											
Soda ash, sodium carbonate	A	A	A	A	A	A	A	A	A	A	A	A											
Sodium bicarbonate, baking soda	A	A	A	A	A	A	A	A	A	A	A	A											
Sodium bisulfate	A	A	A	A	A	A	A	A	A	A	A	A											
Sodium chloride	A	A	A	A	A	A	A	A	A	A	A	A											
Sodium cyanide	A	A	A	A	A	A	A	A	A	A	A	A											
Sodium hydroxide	F	F	C	C	A	C	A	A	C	A	F	A											
Sodium hypochlorite	X	X	X	X	A	F	A	C	A	A	F	F											
Sodium metaphosphate	A	A	C	A	A	F	A	A	A	A	I	A											
Sodium nitrate	C	C	C	C	A	A	A	C		A	A	A											
Sodium perborate	C	C	C	C	A	A	A	A	A			A											
Sodium peroxide	C	C	C	C	A	A	A	C	A			A											
Sodium phosphate.monobasic	A	F	C	F	A	A	A	A	A	A		A											
dibasic	A	F	C	F	A	A	A	A				A											
tribasic	A	F	C	F	A	A	A	A				A											
Sodium silicate	A	A	A	A	A	A	A	A	A	A	I	A											
Sodium sulfate	A	A	A	A	A	A	A	A	A	A	A	A											
Sodium sulfide	A	A	A	A	A	A	A	A	A	A	I	A											
Sodium thiosulfate, “hypo”	A	A	A	A	A	A	A	A	A	A	I	A											
Soybean oil	X	C	F	A	A	A	A	A	A	A	A	A											
Stannic chloride	A	A	A	A	F	A	F	A	A	A	I	A											
Steam 450°F (230°C)	C	C	C	C	A	A	F	C	X		X	X											
Stearic acid	X	X	C	F	F	C	F	A	I		F	A											
Sulfur	F	F	A	F	A	A	A	F	A		F	C											
Sulfur chloride	X	X	C	C	X	A	X	C	A			A											
Sulfur dioxide , dry	C	C	C	C	C	A	C	A	A		I	I											
Sulfur trioxide, dry	X	C	C	C	C	F	C	A	A			I											
Sulfuric acid, 10%	A	A	A	A	A	A	A	A	A	A	A	A											

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TECHNICAL DATA

ELASTOMERS

Commonly used Elastomers:

Special Elastomers:

MATERIAL	NR lor IR	SBR	CR	NBR	IIR	CSM	EPDM	MQ	FKM	CM	ECO CO	XLPE
(Maximum Temperature 100° F (38° C) Unless Otherwise Specified)												
11%-75%	C	C	C	C	F	A	C	C	A	A	F	A
76%-95%	X	X	X	X	C	A	X	X	A	X	X	A
fuming	X	X	X	X	X	X	X	X	X	X	X	X
Sulfurous acid	C	C	C	C	C	A	C	C	A	A	C	A
Tannic acid	A	C	A	C	A	A	A	A	A	A	I	A
Tar	X	X	C	C	X	C	X	C	F		F	X
Tartaric acid	A	C	C	C	F	A	F	A	A	A	F	A
Toluene, toluol	X	X	X	C	X	X	X	C	A	C	X	A
Trichloroethylene	X	X	X	X	X	X	X	C	A	C	X	A
Turpentine	X	X	X	F	X	X	X	C	A	F	A	A
Vinegar	C	C	C	C	A	A	A	A	A	A		A
Water, acid mine	A	A	C	A	A	A	A	A	A	A	I	A
Water, fresh	A	A	C	A	A	A	A	A	A	A	A	A
distilled	A	A	C	A	A	A	A	A	A	A	A	A
Whiskey and wines	A	A	A	C	A	A	A	A	A	A	I	A
Xylene,xylol	X	X	X	C	X	X	X	C	A	X	X	A
Zinc chloride	C	C	C	C	A	A	A	A	A	A	I	A
Zinc sulfate	A	A	A	A	A	A	A	A	A	A	I	A

NOZZLES - SPECS

Nozzle Style & Size	Inlet PSI	Pressure KPA	Straight GPM	Stream IPM	30 GPM	30 IPM	60 GPM	60 IPM	90 GPM	90 IPM
	50	345	18	68	21	79	24	91	27	102
10464	75	517	22	83	25	95	28	106	32	121
1"	100	690	24	91	28	106	32	121	36	136
	50	345	45	170	50	189	55	208	60	227
10464	75	517	50	189	55	208	65	246	75	284
1-1/2"	100	690	55	208	60	227	75	284	85	322
	50	345	90	341	120	454	130	492	145	549
10464	75	517	100	379	140	530	150	568	180	681
2-1/2"	100	690	110	416	165	625	180	681	205	776

Threads Per Inch

1-1/2" Size	2.100 (NYFD)	1.990 (NST)	2.093 (NYCORP)	1.878 (NPSH)
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Threads Per Inch

	6"	7"	7-1/2"	8"
	3.058	3.13	2.990 (CHICAGO)	3.062
	3.093		3.062 (NST)	3.093
	3.125		3.125 (DETROIT)	3.140
	3.156			3.156
2-1/2"	3.187			3.312
	3.234			3.031 (NYFD)
	3.250			3.00 (NY CORP)
	3.312			2.841 (NPSH)
	3.062 (PITTSBURGH)			3.78 (CLEVELAND)

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