



# TERMS, CONDITIONS AND LIMITED WARRANTY OF SALE

All prices, terms and conditions of sale are subject to change **ACCEPTANCE**, **ALTERATION AND** without prior notice. Buyer agrees to all terms and condi- CANCELLATION OF ORDERS tions of seller upon the placement of any and all purchase Orders for other than standard items or standard lengths may orders.

#### **GENERAL**

- All orders are subject to a minimum charge of \$100.00.
- All claims must be made within seven (7) days of receipt
- The company reserves the right at all times to reject any and all orders for any reason.

#### **PAYMENT TERMS**

- Net 30 days (to approved and qualified accounts).
- We reserve the right to hold shipments against past due accounts.
- Seller may require full or partial payment in advance if, in its sole judgement, the financial condition of the buyer does not justify the terms specified.
- All past due accounts are subject to a late payment charge of 1.5% per month, or maximum allowed by law if different, along with the expenses incidental to collection including reasonable attorney's fees.
- Returned checks are subject to a minimum \$50.00 charge.

#### FREIGHT TERMS

- All shipments will be made F.O.B. shipping point.
- No freight allowance on straight lengths of any 8", 10" and 12" suction hose. However, the dollar value can be used to obtain paid freight on other ordered items.
- Freight prepaid on \$3,000 on all combined products of Jason Industrial, Inc., including all industrial rubber products, all PVC hose, and all couplings and accessories to destinations within the continental U.S.
- Freight Prepaid on \$1,000 net on all couplings only.
- Orders with different numbers and dates may not be combined to make freight allowance.
- Prepaid orders requiring immediate delivery that must be shipped from different Jason locations may be subject to a freight surcharge. Such determination will be made at the time of order.
- Backorders will be shipped in the most practical fashion with charges consistent with our freight policy established with the original order.

not be cancelled after purchase has been committed, production scheduled or any costs incurred.

#### **RETURN OF DEFECTIVE MERCHANDISE**

Defective or failed material to be held at the buyer's premises until authorization has been granted by seller to return or dispose of merchandise. Merchandise to be returned for final inspection must be returned Freight Prepaid in the most economical way. Credit will be issued for material found to be defective upon our inspection based on prices at time of

#### MERCHANDISE SHIPPED IN ERROR

Buyer must notify seller immediately on any merchandise shipped in error. Upon notification, merchandise is to be returned to seller either via truck on a Freight Collect basis, via carrier of our choice, or via UPS on a Freight Prepaid basis. Buyer will be reimbursed for cost of merchandise, plus any additional freight which may have been incurred due to shipping error.

#### **MERCHANDISE ORDERED IN ERROR**

Standard packaged merchandise only may be returned, provided that the merchandise is in the original buyer's possession not more than 30 days. If merchandise is accepted for return, merchandise must be returned Freight Prepaid, and buyer will be charged a minimum of 15% rehandling charge, plus a chargeback for outbound freight charges if the original order was shipped prepaid. Returns are not accepted for any merchandise that is specifically manufactured to meet the buyer's requirement of either specifications or large quantity.

### **DELIVERY, DAMAGES, SHORTAGES**

Delivery to the initial common carrier shall constitute the delivery to the buyer. Our responsibility, insofar as transporation risks are concerned, ceases upon the delivery of the merchandise in good condition to such a carrier, and all the merchandise shall be shipped at the buyer's risk.

#### **GOODS DAMAGED IN SHIPMENT**

Upon receipt of shipment, any evidence of damage to original shipping package must be reported by the receiving party and a claim made with the delivering carrier upon receipt of shipment.

#### **CONCEALED DAMAGE**

Any evidence of damage to material shipped, upon the opening of the original shipping package, must be reported by the receiving party to and a claim made with the delivering carrier without delay.

#### LIMITED WARRANTY

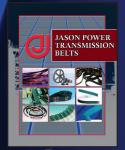
The merchandise or products sold or distributed by Jason Industrial, Inc. are warranted to our customers to be free from defects in material and workmanship at the time of shipment by us. All warranty claims shall be made within 90 days after we have shipped the merchandise. Our liability hereunder is limited to the purchase price of any merchandise proved defective, or, at our option, to the replacement of such merchandise

THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE CREATED UNDER APPLICABLE LAW INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF MERCHANT ABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL WE BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF PROFITS.

# **Jason** Industrial







Power Transmission Belts Catalog JB-8



Urethane Power Transmission Belts Catalog UB-4



Industrial Hose, Couplings, Accessories & Skirtboard Catalog HC-8



**Accu-Link®** Belts



Multi-Plus Dual Brand V-Belts / Sheaves & Bushings Catalog MPSB-1



Appliance Parts & Accessories Catalog APPL-2



Tiger Horsepower Synchronous Belts Supplement



Lawn & Garden Belts Catalog LG-1008



Flexonic<sup>®</sup> Self-Tensioning Belt



Megadyne Corporate Brochure



Megadyne Products Guide



Megadyne RPP Gold Belting



Fairfield, NJ



S.J.M. Belting - Wuxi, China



Carol Stream, IL



**TBMC - Greenville, SC** 



Tampa, FL



Megadyne America - Charlotte, NC

#### **Other Jason Industrial Locations:**

- Los Angeles, California
- Irving, Texas
- Sorocaba Sao Paulo Brazil
- Dorval, Quebec Canada
- Mississauga, Ontario Canada
- Edmonton, Alberta Canada
- Azcapotzalco, Mexico

Contact Jason Industrial for additional information. Visit us online at www.jasonindustrial.com

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# Jason Industrial Also Offers a Full Line of Belting!



- Synchronous Neoprene Timing Belts
- Urethane Belts
- Variable Speed V-Belts
- Metric Belts
- Multi-Rib V-Belts
- Double Multiple V-Belts
- MXV Super Duty Belts
- 400 Flat and Neoflex Belts



# **GENERAL INFORMATION**

#### Organizations Having Regulations or Specifications for Hose

#### **U.S. Government Agencies**

DOD Department of DefenseDOT Department of TransportationFDA Food and Drug Administration

**MSHA** Mine Safety and Health Administration

NHTSA National Highway Traffic Safety Administration
OSHA Occupational Safety & Health Administration

PHA Public Health Administration

**USCG** U.S. Coast Guard

**USDA** U.S. Department of Agriculture

#### **Canadian Agencies and Organizations**

**CGA** Canadian Gas Association

**CGSB** Canadian Government Specifications Board

RAC Rubber Association of CanadaCSA Canadian Specifications Association

#### **Other Organizations**

ABS American Bureau of Shipping

**ANSI** American National Standards Institute

API American Petroleum Institute

**ASTM** American Society for Testing and Materials

BIA Boating Industry Association
BSI British Standards Institute
CARB California Air Resource Board
CGA Compressed Gas Association
DIN Duetches Institut for Normung -

German Standards

DNV Det Norske VeritasEN European Norms

FM Factory Mutual ResearchFPS Fluid Power Society

**ISO** International Organization for Standardization

JIC Joint Industrial Council (now defunct)

JIS Japanese Industrial Standards
NAHAD National Association of Hose and

Accessories Distributors

NFPA National Fire Protection Association National Fluid Power Association

RMA Rubber Manufacturers Association
SAE Society of Automotive Engineers

TFI The Fertilizer Institute
UL Underwriters Laboratories

#### **RMA Oil Resistance Data**

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 the length of exposure. The RMA (Rubber Manufacturer's Association) has developed a classification of hose performance based on simple immersions in ASTM No. 3 oil (High Swell) at 212° F for 70 hours. Oil resistance classifications for rubber stocks are shown in the table below.

<b>Hose Physical Properties After Exposure to Oil</b>				
Classification	Volume Change MAX.	Tensile Strength Retained		
<b>Class A</b> (High Oil Resistance)	+25%	80%		
<b>Class B</b> (Medium-High Oil Resistance)	+65%	50%		
Class C (Medium Oil Resistance)	+100%	40%		

#### Minimum Hose Bend Radius Data (MBR)

The Bend Radius is the radius of the bent section of a hose measured to the innermost surface of the curved portion. It is important because the minimum bend radius is the maximum amount the hose can be bent without being kinked or damaged.



#### General formula to determine bend length:

Angle of Bend  $\times 2\pi = \text{minimum length of hose to make bend}$   $\times 2\pi = \text{minimum length of hose to make bend}$  $\times 7 = \text{minimum length of hose}$ 

**Example:** to make a 90° bend with a hose with a 2"I.D.

Given r = 4.5 inches  $90^{\circ}$  (2 x 3.14 x 4.5)

 $.25 \times 2 \times 3.14 \times 4.5 = 7$  inches

7 inches is the minimum length the hose can be bent without damaging it. Remember that the bend should take place over the entire minimum length and not a portion of it. In addition, the formula does not mean that 7 inches will be long enough to meet application needs. It only means that if the 90° bend takes place in less than 7 inches, the hose could be damaged.

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	COMI	MONLY USED RU	JBBER COMP	POUNDS	
ASTM Designation D1418	Common Name	Composition	ASTM Designation D1418	Common Name	Composition
CM	CPE Chl	orinated Polyethylene	IIR	Butyl	Isobutylene-isoprene
CR	Neoprene*	Chloroprene	IR	Polyisoprene	Isoprene, synthetic
CSM	Hypalon	Chloro-sulfonyl-	NBR	Buna N, Nitrile	Nitrile-butadiene
F60		polyethylene	NR	Natural	Isoprene - natural
ECO	Hydrin I Cl	Ethylene oxide and nloromethyl oxirane	SBR	SBR	Styrene-butadiene
EPDM		Ethylene Propylene Diene terpolymer	UHMWPE	Ultra-High Molecular Weight Polyethylene	Polyethylene
FKM	Fluoroelastomer F Viton	lexafluoropropylene vinylidene fluoride	XLPE	Cross-linked Polyethylene	Polyethylene and cross-linking agent

<sup>\*</sup> DuPont registered trademark

# **GENERAL INFORMATION**

#### I. Hose Selection

It is important to have all the required information to select the proper hose for any hose application. The acronym

**"STAMPED"** can be used to remember the required information as follows:

Size - Inside diameter (I.D.) and length. In some cases, the outside diameter (O.D.), also.

**T**emperature - Internal, external, minimum and maximum.

Application - What is the hose supposed to do?

Material - What type of product will be conveyed?

**P**ressure - What are the normal working and burst pressures?

**E**nds - Are couplings needed? What type, size and thread?

**D**elivery - When and where will it be needed? Special packaging required?



#### **II. Common Terms**

Term	Definition	Term	Definition
I.D.	Inside diameter of hose opening	Weight/ft.	Weight per foot of hose
O.D. Max W.P.	Outside diameter of hose  Maximum recommended working		The minimum radius to which the nose will bend before it is damaged
PSI	Pressure in pounds per square inch	Standard Lengths	The bulk length that the hose is stocked for distributors

#### III. Thread Chart

Abbreviation	Seal	System Name	Compatible Thread
GHT	Washer	Garden Hose Thread	GHT to GHT only
NST	Washer	National Standard Thread (Fire)	NST to NST only
NPSH	Washer	National Pipe Straight Hose	Male NPSH to Female NPSH Female NPSH to Male NPSH or Male NPT
NPT	Thread to Thread	National Pipe Tapered	Male NPT to Female NPT or Female NPSH
IPT		Iron Pipe Thread (generic)	Need more information

BECAUSE WE CONTINUALLY LOOK FOR WAYS TO IMPROVE OUR PRODUCTS, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS WITHOUT ADVANCE NOTICE.

### LOOK FOR THESE NEW & POPULAR JASON PRODUCTS IN THIS CATALOG!











ANTI-LEAK ALUMINUM CAM LOCK COUPLING



# **CARE, MAINTENANCE & STORAGE OF HOSE**

Hose has a limited life and the use must be alert to signs of impending failure, particularly when the conditions of service include high working pressures and/or the conveyance or containment of hazardous materials. The periodic inspection and testing procedures described here provide a schedule of specific measures which constitute a minimum level of user action to detect signs indicating hose deterioration or loss of performance before conditions leading to malfunction or failure are reached.

General instructions are also described for the proper storage of hose to minimize deterioration from exposure to elements or environments which are known to be deleterious to rubber products. Proper storage conditions can enhance and extend substantially the ultimate life of hose products.

**SAFETY WARNING:** Failure to properly follow the manufacturer's recommended procedures for the care, maintenance and storage of a particular hose might result in the failure to perform in the manner intended and might result in possible damage to property and serious bodily harm.

#### **General Care and Maintenance of Hose**

Hose should not be subjected to any form of abuse in service. It should be handled with reasonable care. Hose should not be dragged over sharp or abrasive surfaces unless specifically designed for such service. Care should be taken to protect hose from severe end loads for which the hose or hose assembly were not designed. Hose should be used at or below its rated working pressure; any changes in pressure should be made gradually so as not to subject the hose to excessive surge pressures. Hose should not be kinked or be run over by equipment. In handling the large size hose, dollies should be used whenever possible; slings or handling rigs, properly placed, should be used to support heavy hose used in oil suction and discharge service.

#### General Test & Inspection Procedures

An inspection and hydrostatic test should be made at periodic intervals to determine if a hose is suitable for continued service. A visual inspection of the hose should be made for loose covers, kinks, bulges, or soft spots which might indicate broken or displaced reinforcement. The couplings or fittings should be closely examined and, if there is any sign of movement of the hose from the couplings, the hose should be removed from service. The periodic inspection should include a hydrostatic test for one minute at 150% of the recommended working pressure of the hose. An exception to this would be the woven jacketed fire hose.\* During the hydrostatic test, the hose should be straight, not coiled or in a kinked position. Water is the usual test medium and, following the test, the hose may be flushed with alcohol to remove traces of moisture. A regular schedule for testing should be followed and inspection records maintained.

Safety Warning: Before conducting any pressure tests on hose, provision must be made to ensure the safety of the personnel performing the tests and to prevent any possible damage to property. Only trained personnel using proper tools and procedures should conduct any pressure tests.

- 1. Air or any other compressible gas must never be used as the test media because of the explosive action of the gas should a failure occur. Such a failure might result in possible damage to property and serious bodily injury.
- 2. Air should be removed from the hose by bleeding it through an outlet valve while the hose is being filled with the test medium.
- 3. Hose to be pressure tested must be restrained by placing steel rods or straps close to each end and at approximate 10' (3m) intervals along its length to keep the hose from "whipping" if failure occurs; the steel rods or straps are to be anchored firmly to the test structure but in such a manner that they do not contact the hose which must be free to move.

- 4. The outlet end of hose is to be bulwarked so that a blown-out fitting will be stopped.
- 5. Provisions must be made to protect testing personnel from the forces of the pressure media if a failure occurs.
- 6. Testing personnel must never stand in front of or in back of the ends of a hose being pressure tested.
- 7. If liquids such as gasoline, oil, solvent, or other hazardous fluids are used as a teat fluid, precautions must be taken to protect against fire or other damage should a hose assembly fail and the test liquid be sprayed over the surrounding area.

#### Storage

Rubber hose products in storage can be affected adversely by temperature, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents and radioactive materials.

The appropriate method for storing hose depends to a great extent on the size (diameter and length), the quantity to be stored, and the way in which it is packaged. Hose should not be piled or stacked to such an extent that the weight of the stack creates distortions on the lengths stored at the bottom.

Since hose products vary considerably in size, weight and length, it is not practical to establish definite recommendations on this point. Hose having a very light wall will not support as much load as could a hose having a heavier wall or hose having a wire reinforcement. Hose which is shipped in coils or bales should be stored so that the coils are in a horizontal plane.

Whenever feasible, rubber hose products should be stored in their original shipping containers, especially when such containers are wooden crates or cardboard cartons which provide some protection against the deteriorating effects of oils, solvents, and corrosive liquids; shipping containers also afford some protection against ozone and sunlight.

Certain rodents and insects will damage rubber hose products and adequate protection from them should be provided.

Cotton jacketed hose should be protected against fungal growths if the hose is to be stored for prolonged periods in humidity conditions in excess of 70%

The ideal temperature for storage of rubber product ranges from 50° to 70°F (10-21°C) with a maximum limit of 100°F (38°C). If stored below 32°F (0°C), some rubber products become stiff and would require warming before being placed in service. Rubber products should not be stored near sources of heat, such as radiators, base heaters, etc., nor should they be stored under conditions of high or low humidity.

To avoid adverse effects of high ozone concentration, rubber hose products should not be stored near electrical equipment that may generate ozone or be stored for any lengthy period in geographical areas of known high ozone concentration.

Hose should not be stored in locations where the ozone level exceeds the National Institute of Occupational Safety and Health's upper limit of 0.10 ppm. Exposure to direct or reflected sunlight-even through windows-should also be avoided. Uncovered hose should not be stored under fluorescent or mercury lamps which generate light waves harmful to rubber.

Storage areas should be relatively cool and dark, and free from dampness and mildew. Items should be stored on a first-in, first-out basis, since even under the best of conditions, an unusually long shelf life could deteriorate certain rubber products.

- \* Woven jacket fire hose should be tested in accordance with the service test provisions contained in the current edition of the National Fire Protection Association Bulletin No. 1962 -Standard for the Care, Use and Service Testing of Fire Hose.
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# FOR THE TRANSFER OF AIR, WATER & MODERATE CHEMICAL SOLUTIONS

4137 4138 EPDM RUBBER AIR HOSE - BLACK EPDM RUBBER AIR HOSE - RED

TUBE: EPDM

**REINFORCEMENT:** Spiral polyester yarn

**COVER:** EPDM Red or Black

**BRANDING:** Jason logo, size, PSI WP Country of Origin **TEMPERATURE RANGE:** -40°F (-40°C) to +200°F (+93°C) **FEATURES:** High temperature resistance, abrasion and ozone

resistant, very flexible and easy to handle.

**APPLICATION:** Economical general service air and water,

industrial, agricultural and construction applications.

**STANDARD LENGTHS:** 1/4" - 5/8" MAX 700' reels 3/4" - 1" MAX 600' reels





#### **BLACK**

Part Number	in.	I.D. mm.	in.	D.D. mm.	Rein. Spirals	Max PSI	W.P. BAR		ight KG/m	Min. Be	nd Radius mm.	Stock Item
4137-2025	1/4	6.35	0.49	12.45	2	200	13.8	0.09	0.13	1.50	38.10	✓
4137-2031	5/16	7.94	0.58	14.73	2	200	13.8	0.12	0.19	2.00	50.80	✓
4137-2038	3/8	9.53	0.68	17.27	2	200	13.8	0.16	0.24	2.25	57.15	✓
4137-2050	1/2	12.70	0.81	20.64	2	200	13.8	0.25	0.37	3.00	76.20	✓
4137-2063	5/8	15.88	1.00	25.40	2	200	13.8	0.29	0.43	3.75	95.25	✓
4137-2075	3/4	19.05	1.15	29.21	4	200	13.8	0.38	0.57	4.50	114.30	✓
4137-2100	1	25.40	1.37	34.80	4	200	13.8	0.51	0.76	7.00	177.80	✓
4137-3025	1/4	6.35	0.62	15.75	4	300	20.7	0.16	0.24	1.50	38.10	✓
4137-3031	5/16	7.94	0.62	15.75	4	300	20.7	0.14	0.21	2.00	50.80	✓
4137-3038	3/8	9.53	0.71	18.03	4	300	20.7	0.18	0.27	2.25	57.15	✓
4137-3050	1/2	12.70	0.84	21.43	4	300	20.7	0.25	0.37	3.00	76.20	✓
4137-3063	5/8	15.88	1.00	25.40	4	300	20.7	0.29	0.43	3.75	95.25	✓
4137-3075	3/4	19.05	1.15	29.21	4	300	20.7	0.41	0.61	4.50	114.30	✓
4137-3100	1	25.40	1.43	36.32	4	300	20.7	0.49	0.73	7.00	177.80	✓

#### RED

	т —									1		
Part		I.D.	C	).D.	Rein.		W.P.	Wei	_	Min. Be	nd Radius	
Number	in.	mm.	in.	mm.	Spirals	PSI	BAR	lb./ft.	KG/m	in.	mm.	Item
4138-2025	1/4	6.35	0.49	12.45	2	200	13.8	0.08	0.12	1.50	38.10	✓
4138-2031	5/16	7.94	0.58	14.73	2	200	13.8	0.11	0.16	2.00	50.80	✓
4138-2038	3/8	9.53	0.68	17.27	2	200	13.8	0.15	0.22	2.25	57.15	✓
4138-2050	1/2	12.70	0.81	20.64	2	200	13.8	0.24	0.36	3.00	76.20	✓
4138-2075	3/4	19.05	1.15	29.21	4	200	13.8	0.36	0.54	7.00	114.30	✓
4138-2100	1	25.40	1.37	34.80	4	200	13.8	0.49	0.73	1.50	177.80	✓
4138-3025	1/4	6.35	0.62	15.75	4	300	20.7	0.15	0.22	2.00	38.10	✓
4138-3031	5/16	7.94	0.62	15.75	4	300	20.7	0.13	0.19	2.25	50.80	✓
4138-3038	3/8	9.53	0.71	18.03	4	300	20.7	0.17	0.25	3.00	57.15	✓
4138-3050	1/2	12.70	0.84	21.43	4	300	20.7	0.24	0.36	4.50	76.20	✓
4138-3075	3/4	19.05	1.15	29.21	4	300	20.7	0.40	0.60	4.50	114.30	✓
4138-3100	1	25.40	1.43	36.32	4	300	20.7	0.49	0.73	7.00	177.80	✓

All sizes may not be stocked in all locations. Check with customer service for availability.

#### FOR THE TRANSFER OF AIR. WATER & MODERATE CHEMICAL SOLUTIONS

#### 4103

# RED PVC AIR HOSE MEDIUM OIL RESISTANT

TUBE: PVC, smooth, medium oil resistance, RMA Class C

**REINFORCEMENT:** Synthetic braid

**COVER:** PVC, smooth, black, medium oil resistant, RMA Class C **BRANDING:** ID XX" (XXmm) logo WP (PSI) 4103 Country of Origin **TEMPERATURE RANGE:** -15°F (-26°C) to +150°F (+66°C) **FEATURES:** Oil mist resistant tube, non-marking cover. Ozone,

weather and UV resistant

**APPLICATION:** General purpose use, including air, water and

mild chemical applications.

STANDARD LENGTHS: 500 ft.



Part Number	l. in.	D. mm.	in.	D.D. mm.	Rein. Braids	Max PSI	W.P. BAR	l	ight KG/m	Min. Bei in.	nd Radius mm	Stock Item
4103-0254	1/4	6.35	0.44	11.18	1	300	20.68	0.07	0.10	1.70	43.20	✓
4103-0314	5/16	7.94	0.50	12.70	1	300	20.68	0.08	0.12	2.10	53.30	✓
4103-0374	3/8	9.53	0.59	14.99	1	300	20.68	0.10	0.15	2.50	63.50	✓
4103-0504	1/2	12.70	0.75	19.05	1	300	20.68	0.16	0.24	3.30	83.80	✓
4103-0624	5/8	15.88	0.91	23.11	1	300	20.68	0.22	0.33	4.20	106.70	✓
4103-0754	3/4	19.05	1.05	26.59	1	300	20.68	0.28	0.42	5.00	127.00	✓
4103-1000	1	25.40	1.33	33.73	1	300	20.68	0.41	0.61	6.70	170.20	✓

Other colors are available with minimum production run.

4103 COUPLED 300 PSI PVC AIR HOSE COUPLED 1/4" MALE NPT x 1/4" MALE NPT

4120 COUPLED 300 PSI WP RUBBER AIR HOSE COUPLED 1/4" MALE NPT x 1/4" MALE NPT

TUBE: Smooth, medium oil resistance, RMA Class C

**REINFORCEMENT:** Synthetic braid

**COVER:** Smooth, red, medium oil resistant, RMA Class C

BRANDING: Logo Part No. WP (PSI)

**TEMPERATURE RANGE:** PVC: -15°F (-26°C) to +150°F (+66°C)

Rubber: -40°F (-40°C) to +200°F (+93°C)

**FEATURES:** Oil mist resistant tube, non-marking cover. Ozone,

weather and UV resistant

**APPLICATION:** Provides air to shop tools, nailers and agricultural equipment.

STANDARD LENGTHS: 50 ft.





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Part	1	.D.	C	D.D.	Rein.	Max W.P.	Weigh	nt	Min. Ben	nd Radius	Stock
Number	in.	mm.	in.	mm.	Braids	PSI BAR	lb./ft. K	G/m	in.	mm	Item
4103-037450	3/8	9.53	0.59	14.99	1	300 20.68	0.10	).15	2.50	63.50	<b>✓</b>
4120-037450	3/8	9.53	0.68	17.27	1	300 20.68	0.15	).20	2.75	69.85	✓

### FOR THE TRANSFER OF AIR, WATER & MODERATE CHEMICAL SOLUTIONS

### 4105

# YELLOW TPR AIR HOSE HIGH OIL RESISTANT

**TUBE:** TPR, Black, RMA Class A **REINFORCEMENT:** Synthetic braid

**COVER:** TPR (Nitrile/PVC), yellow, RMA Class A

**BRANDING:** ID XX" (XXmm) logo WP (PSI) 4105 (country of origin)

**TEMPERATURE RANGE:** -15°F (-26°C) to +176°F (+80°C)

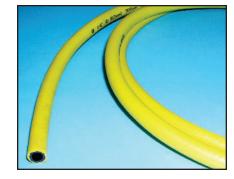
**FEATURES:** Non-marking cover, ozone, UV and weather resistant

High oil resistance.

**APPLICATION:** For air, oil and medium grade fuels used in

construction, shipyards, mining and agriculture.

**STANDARD LENGTHS:** 500 ft. reels



Part Number	I in.	.D. mm.	o in.	D.D. mm.	Rein. Braids	Max W PSI B	.P. AR		eight KG/m	Min. Be	nd Radius mm	Stock Item
4105-0254	1/4	6.35	0.44	11.18	1	300 20	0.68	0.07	0.10	1.70	43.20	✓
4105-0314	5/16	7.94	0.50	12.70	1	300 20	).68	0.08	0.12	2.10	53.30	
4105-0374	3/8	9.53	0.59	14.99	1	300 20	).68	0.10	0.15	2.50	63.50	✓
4105-0504	1/2	12.70	0.75	19.05	1	300 20	.68	0.16	0.24	3.30	83.80	✓
4105-0624	5/8	15.88	0.91	23.11	1	300 20	).68	0.22	0.33	4.20	106.70	
4105-0754	3/4	19.05	1.05	26.59	1	300 20	.68	0.28	0.42	5.00	127.00	✓
4105-1004	1	25.40	1.33	33.73	1	300 20	.68	0.41	0.61	6.70	170.20	

Other cover colors available. Requires minimum production run.

#### 4142

# COUPLED PNEUMATIC DEADMAN TWINLINE HOSE COUPLED 3/16 JIC FEMALE SWIVEL EACH END BULK PNEUMATIC DEADMAN TWINLINE HOSE

**TUBE:** TPR, black

**REINFORCEMENT:** Synthetic fabric

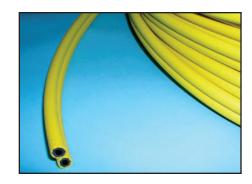
**COVER:** TPR, yellow color **BRANDING:** Country of Origin

**TEMPERATURE RANGE:** -25°F (-32°C) to +180°F (+82°C) **FEATURES:** Heavy duty, durable, oil resistant, siamese two line construction with bright yellow cover.

**APPLICATION:** Used to pneumatically engage or disengage the remote control on sandblast machines.

**STANDARD LENGTHS:** 50/55/66/131 Ft. Lengths Coupled;

Bulk 200 Ft. Coils



Part Number	in.	.D. mm.	in.	D.D.	Rein. Spirals	Max PSI	W.P. BAR	Wei	ght KG/m	Min. Ben in.	d Radius mm	Stock Item
4142-0193-050*	3/16	4.76	0.42	10.72	2	250	17.24	0.10	0.15	1.30	31.80	<b>√</b>
4142-0193-055*	3/16	4.76	0.42	10.72	2	250	17.24	0.10	0.15	1.30	31.80	✓
4142-0193-066*	3/16	4.76	0.42	10.72	2	250	17.24	0.10	0.15	1.30	31.80	✓
4142-0193-031*	3/16	4.76	0.42	10.72	2	250	17.24	0.10	0.15	1.30	31.80	✓
4142-0193-BULK	3/16	4.76	0.42	10.72	2	250	17.24	0.10	0.15	1.30	31.80	✓

<sup>\*</sup>Coupled 3/16 JIC (37°) Female swivel each end.

#### FOR THE TRANSFER OF AIR, WATER & MODERATE CHEMICAL SOLUTIONS

### 4805

# **WIRE REINFORCED HOSE**

**TUBE:** Nitrile blend, smooth, black **REINFORCEMENT:** Two wire braid

**COVER:** SBR, yellow, weather, fabric impression, pin pricked. **BRANDING:** Jason Logo 4805 WIRE AIR WP (PSI) (BAR)

Red Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -25°F (-32°C) to +200°F (+93°C) **FEATURES:** Oil mist resistant tube, high working pressure,

visible yellow cover

**APPLICATION:** For heavy duty air supply in mining, quarries, con

struction, industrial air placement, sandblasting and

heavy duty equipment rental.

**STANDARD LENGTHS:** 1/2" 100 ft., 3/4" through 4" 50 ft. and 100 ft.



Part		I.D.	0	).D.	Rein.	Max	w.P.	Wei	ight	Min. Be	nd Radius	Stock
Number	in.	mm.	in.	mm.	Spirals	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4805-0075-050	3/4	19.05	1.22	30.99	2	600	41.37	0.60	0.89	8.30	210.00	✓
4805-0100-050	1	25.40	1.49	37.85	2	600	41.37	0.80	1.19	11.00	280.00	✓
4805-0125-050	1-1/4	31.75	1.81	45.97	2	600	41.37	1.05	1.56	13.80	350.00	✓
4805-0150-050	1-1/2	38.10	2.04	51.82	2	600	41.37	1.24	1.85	16.50	420.00	✓
4805-0200-050	2	50.80	2.60	66.04	2	600	41.37	1.80	2.68	22.00	560.00	✓
4805-0250-050	2-1/2	63.50	3.15	80.01	2	600	41.37	2.40	3.57	27.50	700.00	✓
4805-0300-050	3	76.20	3.70	93.98	2	600	41.37	3.22	4.79	33.10	840.00	✓
4805-0400-050	4	101.60	4.88	123.95	2	600	41.37	4.70	6.99	44.10	1120.00	✓
4805-0050-100	1/2	12.70	0.91	23.11	2	600	41.37	0.36	0.54	5.50	140.00	✓
4805-0075-100	3/4	19.05	1.22	30.99	2	600	41.37	0.60	0.89	8.30	210.00	<b>✓</b>
4805-0100-100	1	25.40	1.49	37.85	2	600	41.37	0.80	1.19	11.00	280.00	✓
4805-0125-100	1-1/4	31.75	1.81	45.97	2	600	41.37	1.05	1.56	13.80	350.00	✓
4805-0150-100	1-1/2	38.10	2.04	51.82	2	600	41.37	1.24	1.85	16.50	420.00	<b> </b>
4805-0200-100	2	50.80	2.60	66.04	2	600	41.37	1.80	2.68	22.00	560.00	<b>  ✓  </b>
4805-0250-100	2-1/2	63.50	3.15	80.01	2	600	41.37	2.40	3.57	27.50	700.00	✓
4805-0300-100	3	76.20	3.70	93.98	2	600	41.37	3.22	4.79	33.10	840.00	✓
4805-0400-100	4	101.60	4.88	123.95	2	600	41.37	4.70	6.99	44.10	1120.00	✓

### 4318

#### **JACKHAMMER HOSE ASSEMBLY**

TUBE: SBR

**REINFORCEMENT:** Synthetic Textile Spirals

**COVER:** Yellow

BRANDING: Jason Logo 4318 WP (PSI) BP (PSI) I.D. (in.) x 50'

Country of Origin

**TEMPERATURE RANGE:** -25°F (-32°C) to +200°F (+93°C) **FEATURES:** Rugged wrapped cover, oil mist resistant tube

**APPLICATION:** Jackhammer applications

**STANDARD LENGTHS:** 50 ft. coupled lengths (coiled and tied)

Part Number	in.	I.D. mm.	o in.	.D. mm.	Rein. Spirals		W.P. ** BAR	Wei lb./ft.	ght KG/m	Min. Ben in.	d Radius mm	Stock Item
4318-0075-050	3/4	19.05	1.14	28.96	2	150	10.30	0.50	0.74	10.00	254.00	✓

<sup>•</sup> Safety clip and lanyard are not supplied. For safety reasons, please follow all OSHA regulations.

All sizes may not be stocked in all locations. Check with customer service for availability.

<sup>\*\*</sup>Assembly working pressure

### FOR THE TRANSFER OF AIR, WATER & MODERATE CHEMICAL SOLUTIONS

### 4302

### TEXTILE REINFORCED AIR HOSE

**TUBE:** Nitrile blend, smooth, black **REINFORCEMENT:** Synthetic fabric

**COVER:** SBR, yellow, fabric impression, pin-pricked **BRANDING:** Jason Logo 4302 Textile Air WP (PSI) (BAR)

Blue Mylar Stripe - barber pole

**TEMPERATURE RANGE:** -25°F (-32°C) to +200°F (+93°C)

**FEATURES:** Oil mist resistant tube, high working pressure, visible

yellow cover, weather, abrasion and ozone resistant

**APPLICATION:** For tough applications in mines and quarries

STANDARD LENGTHS: 50 ft.



Part		I.D.	C	).D.	Rein.	Max	c W.P.	Wei	ight	Min. Ben	d Radius	Stock
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4302-0050-050	1/2	38.10	2.04	51.82	2	400	27.58	1.24	1.85	16.50	420.00	
4302-0075-050	3/4	50.80	2.60	66.04	2	400	27.58	1.80	2.68	22.00	560.00	✓
4302-0100-050	1	76.20	3.70	93.98	2	400	27.58	3.22	4.79	33.10	840.00	✓
4302-0150-050	1-1/2	38.10	2.04	51.82	2	400	27.58	1.24	1.85	16.50	420.00	✓
4302-0200-050	2	50.80	2.60	66.04	2	400	27.58	1.80	2.68	22.00	560.00	

# 4305

# **TEXTILE REINFORCED AIR HOSE**

TUBE: Nitrile blend, smooth, black

REINFORCEMENT: Synthetic fabric, 2-ply

**COVER:** Nitrile/SBR blend, yellow color, fabric impression **BRANDING:** Jason Logo 4305 Textile Air WP (PSI) (BAR)

Blue Mylar Longitudinal Stripe

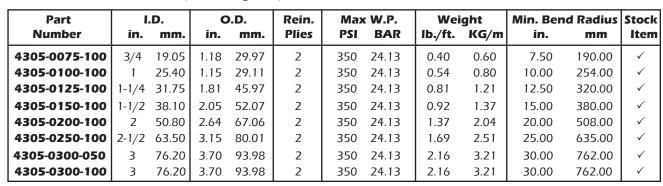
**TEMPERATURE RANGE:** -25°F (-32°C) to +200°F (+93°C) **FEATURES:** Oil mist resistant tube, visable yellow cover, weather, abrasion and ozone resistant

**APPLICATION:** For rugged air line service in mining, quarries,

construction, sandblasting, industrial air placement

and equipment rental.

**STANDARD LENGTHS:** 3/4" through 2-1/2" I.D. 100 ft., 3" I.D. 50 and 100 ft.





# CID/CHEMICAL HOSE

#### FOR IN-PLANT OR TANK TRUCK USE TO TRANSFER CHEMICALS & SOLVENTS

### 4430

### **CROSS-LINKED POLYETHYLENE SUCTION HOSE**

**TUBE:** Cross-linked polyethylene (XLPE), clear, smooth **REINFORCEMENT:** Synthetic fabric with wire helix

and copper static wire.

**COVER:** EPDM, green, fabric impression

**BRANDING:** Jason Logo 4430 XLPE CHEM WP (PSI) (BAR)

Blue Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -40°F (-40°C) to +150°F (-66°C) **FEATURES:** Versatile, handles 90% of todays chemicals\* which

chemical hoses.

**APPLICATION:** For in-plant or tank truck use to transfer chemicals and solvents.

STANDARD LENGTHS: 100 ft. VACUUM: All sizes are full vacuum



Part		I.D.	C	D.D.	Rein.	Мах	W.P.	Wei	ght	Min. Ben	d Radius	Stock
Number	in.	mm.	in.	mm.	Spirals	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4430-0075-100	3/4	19.05	1.19	30.23	2	200	13.79	0.36	0.54	6.00	152.40	✓
4430-0100-100	1	25.40	1.50	38.10	2	200	13.79	0.49	0.73	6.50	165.10	✓
4430-0125-100	1-1/4	31.75	1.75	44.45	2	200	13.79	0.55	0.82	9.00	228.60	✓
4430-0150-100	1-1/2	38.10	2.09	53.09	2	200	13.79	0.69	1.03	10.00	254.00	✓
4430-0200-100	2	50.80	2.61	66.29	2	200	13.79	0.98	1.46	12.00	304.80	✓
4430-0250-100	2-1/2	63.50	3.19	81.03	2	150	10.34	1.35	2.01	15.00	381.00	✓
4430-0300-050	3	76.20	3.75	95.25	2	150	10.34	1.90	2.83	16.00	406.40	✓
4430-0400-100	4	101.60	4.88	123.95	2	150	10.34	2.57	3.82	18.00	457.20	✓

<sup>\*</sup>Consult Chemical Resistance Chart

### 4433

# **UHMWPE CHEMICAL SUCTION HOSE**

**TUBE:** Ultra-high molecular weight polyethylene **REINFORCEMENT:** Synthetic fabric with wire helix

**COVER:** EPDM, corrugated, blue

**BRANDING:** Jason Logo 4433 UHMWPE CHEM WP (PSI) (BAR)

Orange Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -40°F (-40°C) to +150°F (-66°C)

**FEATURES:** Versatile, handles 98% of todays chemicals\* for suction

or discharge service, flexible.

**APPLICATION:** For in-plant or tank truck use to transfer chemicals

and acids.

STANDARD LENGTHS: 100 ft. **VACUUM:** All sizes are full vacuum



Part	1	.D.	·	).D.	Rein.	· ·	W.P.	Wei	_		nd Radius	
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4433-0075-100	3/4	19.05	1.14	28.96	2	200	13.79	0.38	0.57	6.00	152.40	✓
4433-0100-100	1	25.40	1.46	37.08	2	200	13.79	0.50	0.74	6.50	165.10	✓
4433-0125-100	1-1/4	31.75	1.77	44.96	2	200	13.79	0.58	0.86	9.00	228.60	✓
4433-0150-100	1-1/2	38.10	2.05	52.07	2	200	13.79	0.71	1.06	10.00	254.00	✓
4433-0200-100	2	50.80	2.64	67.06	2	200	13.79	1.01	1.50	12.00	304.80	✓
4433-0250-100	2-1/2	63.50	3.15	80.01	2	200	10.34	1.46	2.17	15.00	381.00	
4433-0300-100	3	76.20	3.86	98.04	2	200	10.34	1.97	2.93	16.00	406.40	✓

# **FOOD HOSE**

#### FOR IN-PLANT OR TANK TRUCK USE TO TRANSFER FOOD GRADE PRODUCTS

### 4460

### **BULK FOOD SUCTION HOSE**

**TUBE:** White Natural Rubber (NR), 3/16" thick, FDA Grade **REINFORCEMENT:** Multiple plies with steel wire helix

**COVER:** Natural rubber, corrugated, gray color

**BRANDING:** Jason Logo 4460 FDA I.D. 3/16" Tube Bulk Food S/D

Orange Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -40°F (-32°C) to +150°F (+66°C) **FEATURES:** Heavy abrasion resistant tube, extremely flexible **APPLICATION:** For suction, pneumatic or gravity transfer of flour,

sugar, syrup or edible grains (not for acetics).

**STANDARD LENGTHS:** 1-1/2" to 6" I.D. 100 ft., 6" to 14" I.D. 20 ft.



Part Number	in.	.D. mm.	in.	D.D. mm.	Rein. Plies	Max PSI	W.P. BAR	Wei lb./ft.	ght KG/m	Min. Ber in.	nd Radius mm	Stock Item
4460-0150-100	1-1/2	38.10	2.05	52.07	2	150	10.34	0.98	1.46	5.00	127.00	✓
4460-0200-100	2	50.80	2.66	67.56	2	150	10.34	1.37	2.04	6.00	152.40	✓
4460-0250-100	2-1/2	63.50	3.07	77.98	2	150	10.34	1.67	2.49	8.00	203.20	✓
4460-0300-100	3	76.20	3.62	91.95	2	150	10.34	2.14	3.18	10.00	254.00	✓
4460-0350-100	3-1/2	88.90	4.21	106.93	2	150	10.34	2.60	3.87	12.00	304.80	✓
4460-0400-100	4	101.60	4.72	119.89	2	150	10.34	3.14	4.67	20.00	508.00	✓
4460-0450-100	4-1/2	114.30	5.27	133.86	2	150	10.34	3.94	5.86	22.00	558.80	
4460-0500-100	5	127.00	5.71	145.03	2	150	10.34	4.67	6.95	24.00	609.60	✓
4460-0600-100	6	152.40	6.77	171.96	2	150	10.34	5.98	8.90	26.00	660.40	✓
4460-0450-060	4-1/2	114.30	5.27	133.86	2	150	10.34	3.94	5.86	22.00	558.80	
4460-0600-020	6	152.40	6.77	171.96	2	150	10.34	5.98	8.90	26.00	660.40	✓
4460-0650-020	6-1/2	165.10	7.32	185.93	2	150	10.34	6.84	10.18	28.00	711.20	
4460-0662-020	6-5/8	168.28	7.52	191.01	2	150	10.34	7.31	10.88	29.00	736.60	
4460-0688-020	6-7/8	174.63	7.80	198.13	2	150	10.34	7.81	11.58	30.00	762.60	
4460-0800-020	8	203.20	8.78	223.01	2	150	10.34	9.36	13.93	32.00	812.80	✓
4460-0862-020	8-5/8	219.08	9.33	236.98	2	125	8.62	9.64	14.35	36.00	914.40	
4460-1000-020	10	254.00	10.83	275.08	2	125	8.62	11.57	17.22	44.00	1117.60	
4460-1200-020	12	304.80	12.83	325.88	2	100	6.89	15.27	22.72	60.00	1524.00	
4460-1400-020	14	355.60	14.76	374.90	2	100	6.89	18.41	27.40	72.00	1828.80	

### 4465

# LIQUID FOOD SUCTION HOSE

**TUBE:** White Nitrile, FDA Grade

**REINFORCEMENT:** Multiple plies with steel wire helix

**COVER:** Nitrile, corrugated, gray

**BRANDING:** Jason Logo 4465 FDA Food S/D WP (PSI) (BAR)

White Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -25°F (-32°C) to +200°F (+93°C)

**FEATURES:** Handles a wide variety of food products, extremely flexible

**APPLICATION:** For suction or discharge of liquid food products,

including oily edibles, milk and beer.

STANDARD LENGTHS: 100 ft.



Part	I	.D.	C	D.D.	Rein.	Мах	W.P.	Wei	ght	Min. Ber	nd Radius	Stock
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4465-0150-100	1-1/2	38.10	2.05	52.07	2	150	10.34	1.10	1.64	4.00	101.60	✓
4465-0200-100	2	50.80	2.56	65.02	2	150	10.34	1.50	2.23	5.00	127.00	✓
4465-0300-100	3	76.20	3.56	90.42	2	150	10.34	2.30	3.42	6.00	152.40	✓
4465-0400-100	4	101.60	4.69	119.13	2	150	10.34	4.60	6.85	8.00	203.20	1

# **FOOD HOSE**

### FOR IN-PLANT OR TANK TRUCK USE TO TRANSFER FOOD GRADE PRODUCTS

# 4511

# **BRAIDED PVC/FDA HOSE**

**TUBE:** PVC, crystal clear, non-toxic, FDA Grade

**REINFORCEMENT:** Synthetic braid

**COVER:** PVC, crystal clear, non-toxic, FDA Grade

**BRANDING:** Jason logo WP (PSI) FDA Non-Toxic Country of Origin

**TEMPERATURE RANGE:** -14°F (-26°C) to +140°F (+60°C) **FEATURES:** One piece long length coils, smooth as glass tube.

Resists chemical, ozone and weather deterioration.

**APPLICATION:** Food and beverage dispensing, potable water, air breathing lines, packaging and equipment, lube lines and other visual flow applications.

**STANDARD LENGTHS:** 1/4" to 1" I.D. 300 ft., 1-1/4" to 2" I.D., 100 ft.



Part Number	in.	.D. mm.	in.	D.D. mm.	Rein. Braid	Maz PSI	ww.P.	We lb./ft.	ight KG/m	Min. Ber in.	nd Radius mm	Stock Item
4511-0251	1/4	6.35	0.45	11.43	1	250	17.24	0.04	0.06	n/a	n/a	<b>√</b>
4511-0311	5/16	7.94	0.47	11.94	1	250	17.24	0.05	0.07	n/a	n/a	✓
4511-0381	3/8	9.53	0.55	13.97	1	200	13.79	0.07	0.10	n/a	n/a	✓
4511-0501	1/2	12.70	0.69	17.53	1	150	10.34	0.10	0.15	n/a	n/a	✓
4511-0631	5/8	15.88	0.82	20.83	1	150	10.34	0.12	0.18	n/a	n/a	✓
4511-0751	3/4	19.05	0.99	25.15	1	150	10.34	0.18	0.27	n/a	n/a	✓
4511-1001	1	25.40	1.28	32.51	1	125	8.62	0.27	0.40	n/a	n/a	✓
4511-1251	1-1/4	31.75	1.61	40.89	1	100	6.89	0.44	0.65	n/a	n/a	✓
4511-1501	1-1/2	38.10	1.85	46.99	1	70	4.83	0.51	0.76	n/a	n/a	✓
4511-2001	2	50.80	2.39	60.71	1	60	4.14	0.74	1.10	n/a	n/a	✓

NOTE: Working pressure decreases as temperature increases.

# **FOOD HOSE**

### FOR IN-PLANT OR TANK TRUCK USE TO TRANSFER FOOD GRADE PRODUCTS

# 4600

# **SPRING WIRE PVC/FDA HOSE**

**TUBE:** PVC, clear and smooth, FDA Grade, meets 3-A standards

**REINFORCEMENT:** Electro-galavanized spring steel wire

**COVER:** PVC, crystal clear and smooth, FDA Grade, meets 3-A stds

**BRANDING:** None

**TEMPERATURE RANGE:** -14°F (-26°C) to +140°F (+60°C)

**FEATURES:** Crystal clear food grade PVC allows visual flow inspection.

Spring steel wire provides full vacuum rating and prevents

kinking and collapsing.

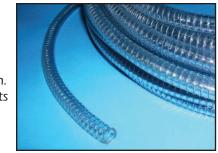
**APPLICATION:** Food and beverage dispensing, air water, coolant,

car wash, deionized water systems and other clear

flow applications.

**STANDARD LENGTHS:** 3/8" to 1" I.D. 100 ft., 1-1/4" to 4" I.D., 50 ft.

VACUUM RATING: Full vacuum all sizes



Part		I.D.	C	D.D.	Rein.	Max	w.P.	Wei	ght	Min. Bei	nd Radius	Stock
Number	in.	mm.	in.	mm.		PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4600-0380	3/8	9.53	0.63	16.00	Wire Spring	100	6.89	0.10	0.15	0.80	19.10	✓
4600-0500	1/2	12.70	0.71	18.03	Wire Spring	100	6.89	0.13	0.19	1.00	25.40	✓
4600-0630	5/8	15.88	0.90	22.86	Wire Spring	100	6.89	0.17	0.25	1.20	30.00	✓
4600-0750	3/4	19.05	1.06	26.92	Wire Spring	100	6.89	0.24	0.36	1.30	34.00	✓
4600-1000	1	25.40	1.31	33.27	Wire Spring	75	5.17	0.34	0.51	1.70	41.90	✓
4600-1250	1-1/4	31.75	1.61	40.89	Wire Spring	75	5.17	0.50	0.74	2.00	50.80	✓
4600-1500	1-1/2	38.10	1.85	46.99	Wire Spring	50	3.45	0.55	0.82	2.50	63.50	✓
4600-2000	2	50.80	2.36	59.94	Wire Spring	50	3.45	0.84	1.25	3.20	82.00	✓
4600-2500	2-1/2	63.50	2.97	75.44	Wire Spring	50	3.45	1.21	1.80	5.50	139.70	✓
4600-3000	3	76.20	3.51	89.15	Wire Spring	50	3.45	1.48	2.20	6.50	165.10	✓
4600-3500	3-1/2	88.90	4.09	103.89	Wire Spring	50	3.45	1.95	2.90	7.50	190.50	
4600-4000	4	101.60	4.57	116.08	Wire Spring	50	3.45	2.18	3.24	8.50	215.90	✓

NOTE: Working pressure decreases as temperature increases.

# PETROLEUM HOSE

#### FOR IN-PLANT OR TANK TRUCK USE TO TRANSFER PETROLEUM PRODUCTS

# 4415

# **OIL RETURN HOSE SAE 100 R4**

TUBE: Nitrile, black, smooth, RMA Class A

**REINFORCEMENT:** Synthetic fabric with wire helix

**COVER:** Neoprene, RMA Class B

**BRANDING:** Jason logo 4415 SAE 100R4 Return Line

Orange Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -40°F (-40°C) to +212°F (+100°C) **FEATURES:** Highly oil resistant tube to handle petroleum products with an aromatic content of 50%.

**APPLICATION:** For oil return lines of hydraulic systems in

industrial and agricultural applications.

**STANDARD LENGTHS:** 100 ft.

**VACUUM RATING:** Full vacuum all sizes



Part Number	in.	l.D. mm.	in.	D.D. mm.	Rein. Plies	Max PSI	W.P. BAR	Wei lb./ft.	ght KG/m	I -	d Radius mm	Stock Item
4415-0075-100	3/4	19.05	1.25	31.75	2	300	20.68	0.45	0.67	4.00	101.60	✓
4415-0100-100	1	25.40	1.47	37.34	2	250	17.24	0.50	0.74	4.50	114.30	✓
4415-0125-100	1-1/4	31.75	1.77	44.96	2	200	13.79	0.64	0.95	6.00	152.40	✓
4415-0150-100	1-1/2	38.10	2.05	52.07	2	150	10.34	0.80	1.19	6.50	165.10	✓
4415-0200-100	2	50.80	2.51	63.75	2	150	10.34	0.99	1.47	8.00	203.20	✓

### 4420

## **NITRILE PETROLEUM SUCTION HOSE**

TUBE: Nitrile, black, smooth, RMA Class A

**REINFORCEMENT:** Synthetic fabric with dual wire helix

**COVER:** Neoprene, RMA Class B

**BRANDING:** Jason logo 4420 Petroleum Suction WP (PSI) (BAR)

Red Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -25°F (-32°C) to +200°F (+93°C)

**FEATURES:** Smooth, highly oil resistant tube to handle gasoline and other petroleum products having an aromatic

content of 50%. Increased flexibility due to the

dual wire helix.

**APPLICATION:** For suction or discharge of petroleum-based products in truck and car operations.

STANDARD LENGTHS: 100 ft.

**VACUUM RATING:** Full vacuum all sizes



Part Number	in.	I.D. mm.	in.	D.D. mm.	Rein. Plies	Ma: PSI	x W.P. BAR	Wei lb./ft.	_	Min. Bendin.	d Radius mm	Stock Item
4420-0750-100	3/4	19.05	1.14	28.96	2	150	10.34	0.36	0.54	4.00	101.60	✓
4420-0100-100	1	25.40	1.38	35.00	2	150	10.34	0.49	0.73	6.00	152.40	✓
4420-0125-100	1-1/4	31.75	1.69	42.93	2	150	10.34	0.81	1.21	6.50	165.10	✓
4420-0150-100	1-1/2	38.10	2.00	50.80	2	150	10.34	0.91	1.35	7.00	177.80	✓
4420-0200-100	2	50.80	2.52	64.01	2	150	10.34	1.14	1.70	8.00	203.20	✓
4420-0250-100	2-1/2	63.50	3.06	77.72	2	150	10.34	1.76	2.62	12.00	304.80	✓
4420-0300-100	3	76.20	3.54	89.92	2	150	10.34	2.42	3.60	16.00	406.40	✓
4420-0400-100	4	101.60	4.60	116.84	2	150	10.34	2.69	4.00	18.00	457.20	✓
4420-0600-100	6	152.40	6.86	174.24	2	150	10.34	6.28	9.35	30.00	762.00	✓

# PETROLEUM HOSE

#### FOR IN-PLANT OR TANK TRUCK USE TO TRANSFER PETROLEUM PRODUCTS

### 8312 FUEL LINE AND VAPOR EMISSION HOSE SAE 30R7

**TUBE:** TPE, black, smooth

**REINFORCEMENT:** Synthetic braid

**COVER:** TPE, black, smooth

BRANDING: Jason logo 8312 I.D. Size SAE 30R7

Fuel/Vapor Line

**TEMPERATURE RANGE:** -29°F (-34°C) to +257°F (+125°C) **FEATURES:** Smooth cover and tube resistant to gasoline, oil and

grease. One piece reels.

**APPLICATION:** Used as fuel line in internal combustion engines. Can

also be used with diesel oil or lubrication oils.

STANDARD LENGTHS: 500 ft. reels



Part Number	in.	.D. mm.	o in.	D.D. mm.	Rein. Braid	Max PSI	W.P. BAR	Wei lb./ft.	_	Min. Ben in.	d Radius mm	Stock Item
8312-03-500	3/16	4.76	0.41	10.41	1	60	4.14	0.05	0.07	1.30	33.00	✓
8312-04-500	1/4	6.35	0.50	12.70	1	60	4.14	0.08	0.12	1.70	43.20	✓
8312-05-500	5/16	7.94	0.56	14.30	1	60	4.14	0.09	0.13	2.10	53.30	✓
8312-06-500	3/8	9.53	0.63	15.90	1	60	4.14	0.10	0.15	2.50	63.50	✓
8312-08-500	1/2	12.70	0.78	19.81	1	40	2.76	0.15	0.22	3.30	83.80	✓
8312-10-500	5/8	15.88	0.94	23.88	1	40	2.76	0.20	0.30	4.20	106.70	✓

#### 4419

### **CRUDE OIL WASTE PIT SUCTION HOSE**

TUBE: NBR, RMA Class A

**REINFORCEMENT:** Spiraled synthetic plies with steel wire helix

**COVER:** SBR, black, corrugated

**BRANDING:** Jason logo 4419 Crude Oil Waste Pit Suction - Do Not Use

for Refined Petroleum.

Orange Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -40°F (-40°C) to +150°F (+66°C) **FEATURES:** Flexible, resistant to abrasion and weathering

**APPLICATION:** Where full suction is required. Great for applications

handling crude oil, salt and fresh water, tank bottoms

and diesel fuels.

**STANDARD LENGTHS:** 100 ft.

VACUUM RATING: 30 in. Hg, all sizes



Part Number	in.	I.D. mm.	in.	D.D. mm.	Rein. Plies	Ma: PSI	x W.P. BAR	We lb./ft.	ight KG/m	Min. Be in.	nd Radius mm	Stock Item
4419-0150-100	1-1/2	2 38.10	1.97	50.04	2	150	10.34	0.77	1.15	3.00	76.20	✓
4419-0200-100	2	50.80	2.47	62.74	2	150	10.34	0.99	1.47	4.00	101.60	✓
4419-0300-100	3	76.20	3.52	89.41	2	150	10.34	1.76	2.62	5.00	127.00	✓
4419-0400-100	4	101.60	4.52	114.81	2	100	6.89	2.29	3.41	8.00	203.20	<b> </b>

# PETROLEUM HOSE

#### FOR IN-PLANT OR TANK TRUCK USE TO TRANSFER PETROLEUM PRODUCTS

### 4421

# **TANK TRUCK HOSE - RED CORRUGATED**

TUBE: NBR, RMA Class A

**REINFORCEMENT:** Spiraled synthetic plies with double wire helix

**COVER:** CR, RMA Class B (corrugated) - RED

**BRANDING:** Jason logo 4421 Petroleum Suction PSI (BAR)

White Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -30°F (-34°C) to +180°F (+82°C)

**FEATURES:** Extremely flexible, lightweight, resistant to abrasion,

weathering and exposure to oil.

**APPLICATION:** The transfer of petroleum products, including

gasoline under pressure or gravity flow.

**STANDARD LENGTHS:** 100 ft.

VACUUM RATING: 29 in. Hq, all sizes



Part Number	in.	I.D. mm.	in.	D.D. mm.	Rein. Plies	Max PSI	W.P. BAR	Wei lb./ft.	ght KG/m	Min. Ben	d Radius mm	Stock Item
4421-0200-100	2	50.80	2.52	64.01	2	150	10.30	1.18	1.76	4.00	101.60	✓
4421-0300-100	3	76.20	3.59	91.19	2	150	10.30	1.99	2.96	6.00	152.40	✓
4421-0400-100	4	101.60	4.61	117.09	2	150	10.30	2.66	3.96	9.00	228.60	✓

# 4417

# **LOW TEMP TANK TRUCK HOSE - CHANNELED**

TUBE: NBR, RMA Class A

**REINFORCEMENT:** Spiraled synthetic plies with double wire helix

**COVER:** CR, RMA Class B (channeled) - BLACK

**BRANDING:** Jason logo 4417 Boreal -67°F (-55°C) Petroleum Suction

PSI BAR - Orange Mylar Longitudinal Stripe

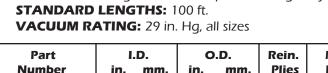
**TEMPERATURE RANGE:** -65°F (-54°C) to +180°F (+82°C)

**FEATURES:** Flexible to -65°F, resistant to abrasion, weathering and

exposure to oil.

**APPLICATION:** The transfer of petroleum products, including

gasoline under pressure or gravity flow.





Part Number	in.	.D. mm.	in.	D.D. mm.	Rein. Plies	Max PSI	W.P. BAR	Wei	ight KG/m	Min. Ben	d Radius mm	Stock Item
4417-0150-100	1-1/2	38.10	1.95	49.53	2	150	10.30	0.81	1.21	4.00	100.80	
4417-0200-100	2	50.80	2.53	64.26	2	150	10.30	1.18	1.76	4.00	100.80	✓
4417-0250-100	2-1/2	63.50	3.02	76.71	2	150	10.30	1.42	2.11	5.00	126.00	
4417-0300-100	3	76.20	3.55	90.17	2	150	10.30	1.83	2.72	6.00	151.20	✓
4417-0400-100	4	101.60	4.59	116.59	2	150	10.30	2.39	3.56	9.00	226.80	

# FOR TRANSFER OF BULK MATERIAL, ABRASIVES, CONCRETE AND CEMENT

# 4470

# **BULK MATERIAL SUCTION HOSE**

**TUBE:** 1/4" pure qum rubber, tan color

**REINFORCEMENT:** Synthetic fabric with wire helix and static wire

**COVER:** EPDM, fabric impression, corrugated, black

**BRANDING:** Jason logo 4470 Dry Bulk S/D WP (PSI) (BAR)

White Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -40°F (-40°C) to +180°F (+82°C)

**FEATURES:** Highly abrasion resistant 1/4" gum tube, flexible for tight

bends. Weather and ozone resistant. Static wire, when

properly grounded, dissipates static electricity

**APPLICATION:** For suction, discharge or gravity flow of abrasives

from manufacturing, sandblast recovery, mineral processing power plants and spill recovery.

**STANDARD LENGTHS:** All sizes, 100 ft.; 6" and 8", 50 ft.; 8", 20 ft.

VACUUM RATING: All sizes 28 in. Hg



Part Number	in.	l.D. mm.	o in.	.D. mm.	Rein. Plies	Max PSI	W.P. BAR	Wei	ight KG/m	Min. Bei	nd Radius mm	Stock Item
4470-0150-100	1-1/2	38.10	2.10	53.34	2	75	5.17	1.11	1.65	4.00	101.60	<b>√</b>
4470-0200-100	2	50.80	2.60	66.04	2	75	5.17	1.30	1.93	12.00	304.80	✓
4470-0250-100	2-1/2	63.50	3.11	78.99	2	75	5.17	1.65	2.46	17.00	431.80	✓
4470-0300-100	3	76.20	3.66	92.96	2	75	5.17	2.25	3.35	18.00	457.20	✓
4470-0400-100	4	101.60	4.69	119.13	2	75	5.17	2.93	4.36	24.00	609.60	✓
4470-0500-100	5	127.00	5.70	144.78	2	75	5.17	3.83	5.70	33.00	832.20	✓
4470-0600-100	6	152.40	6.73	170.94	2	75	5.17	5.00	7.44	40.00	1016.00	✓
4470-0800-100	8	203.20	9.13	231.90	2	60	4.14	10.05	14.96	32.00	812.80	
4470-0600-050	6	152.40	6.73	170.94	2	75	5.17	5.00	7.44	40.00	1016.00	✓
4470-0800-050	8	203.20	9.13	231.90	2	60	4.14	10.05	14.96	32.00	812.80	✓
4470-0800-020	8	203.20	9.13	231.90	2	60	4.14	10.05	14.96	32.00	812.80	✓

### 4425

#### **HOT AIR BLOWER HOSE**

TUBE: EPDM

**REINFORCEMENT:** Synthetic fabric with wire helix

**COVER:** EPDM, fabric impression, black **BRANDING:** Jason logo 4425 Hot Air 325°F White Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** Intermittent to +350°F (+177°C)

**FEATURES:** High heat resistant tube, very flexible

**APPLICATION:** Used to convey hot air from blower to tank

on bulk transport trucks.

STANDARD LENGTHS: 100 ft.

VACUUM RATING: All sizes full vacuum



Part Number	Ι.	I.D.	l	).D.	Rein. Plies	Max PSI	W.P.	Wei	ght KG/m	_	nd Radius	Stock
Number	in.	mm.	in.	mm.	Files	1,21	DAK	10./11.	KG/m	in.	mm	item
4425-0300-100	3	76.20	3.56	90.42	2	50	3.45	1.93	2.87	5.50	139.70	✓
4425-0400-100	4	101.60	4.60	118.84	2	50	3.45	2.65	3.94	7.00	177.80	✓

### FOR TRANSFER OF BULK MATERIAL, ABRASIVES, CONCRETE AND CEMENT

4323 3/16" TUBE DRY CEMENT, POWDER DISCHARGE HOSE 1/4" TUBE DRY CEMENT, POWDER DISCHARGE HOSE

**TUBE:** NR/SBR blend, black, static dissipating **REINFORCEMENT:** Synthetic fabric, 2-ply

**COVER:** SBR, fabric impression

**BRANDING:** Jason logo 4323 or 4324 Dry Bulk Discharge

White Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -40°F (-40°C) to +185°F (+85°C) **FEATURES:** Weather and ozone resistant cover, high abrasion resistant tube which resists cutting and gouges.

Can be rolled for transport and storage.

**APPLICATION:** For pneumatic discharge of dry powders,

dry cement or other dry materials.

STANDARD LENGTHS: All sizes, 100 ft.



				3/1	16" TUB	E THIC	CKNESS					
Part Number	in.	I.D. mm.	in.	.D. mm.	Rein. Plies	Max PSI	W.P. BAR	Wei lb./ft.	ght KG/m	Min. Bei	nd Radius mm	Stock Item
4323-0400-100 4323-0500-100	4 5	101.60 127.00	4.68 5.68	118.87 144.27	2 2	75 75	5.17 5.17	2.42 2.92	3.60 4.35	40.00 50.00	1016.00 1270.00	✓ ✓
1/4" TUBE THICKNESS												
4324-0400-100 4324-0500-100	4 5	101.60 127.00	4.84 5.84	122.94 148.34	2 2	75 75	5.17 5.17	3.23 3.80	4.81 5.65	40.00 50.00	1016.00 1270.00	✓ ✓

# 4427 CONCRETE PLACEMENT PLASTER AND GROUT HOSE

**TUBE:** Polybutadiene blend

**REINFORCEMENT:** Multi-plies of synthetic fabric

**COVER: SBR** 

**BRANDING:** Jason logo 4427 PSI (BAR) Concrete Plaster Grout

Orange Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -25°F (-32°C) to +180°F (+82°C)

**FEATURES:** Abrasion resistant tube and cover

**APPLICATION:** Used for plaster, concrete, grout applications like

dams, tunnels, swimming pools, etc.

**STANDARD LENGTHS:** 50 ft. lengths



Part Number	in.	I.D. mm.	in.	D.D. mm.	Rein. Plies	Max PSI	W.P. BAR	Wei lb./ft.	_	Min. Bend in.	l Radius mm	Stock Item
4427-0100-050	1	25.40	1.76	42.42	4	1000	68.90	0.65	0.97	n/a	n/a	
4427-0125-050	1-1/4	31.75	1.92	48.77	4	1000	68.90	0.79	1.18	n/a	n/a	
4427-0150-050	1-1/2	38.10	2.31	58.67	4	1000	68.90	1.14	1.70	n/a	n/a	
4427-0200-050	2	50.80	2.83	71.88	4	1000	68.90	1.43	2.13	n/a	n/a	✓
4427-0250-050	2-1/2	63.50	3.39	86.11	4	1000	68.90	1.87	2.78	n/a	n/a	✓
4427-0300-050	3	76.20	3.92	99.57	4	800	55.20	2.33	3.47	n/a	n/a	
4427-0400-050	4	101.60	4.94	125.48	4	700	48.30	3.10	4.61	n/a	n/a	
4427-0500-050	5	127.00	5.94	150.88	4	700	48.30	3.76	5.61	n/a	n/a	

# FOR TRANSFER OF BULK MATERIAL, ABRASIVES, CONCRETE AND CEMENT

4310 GUNITE HOSE

**TUBE:** 1/4" thick pure gum rubber, tan color

**REINFORCEMENT:** Synthetic fabric with incorporated static wire

**COVER:** EPDM, pin-pricked, tan

**BRANDING:** None

**TEMPERATURE RANGE:** -40°F (-40°C) to +185°F (+85°C) **FEATURES:** Superior abrasion resistant 1/4" gum tube, flexible. Cover is weather and abrasion resistant. The non-marking cover allows for work around buildings

and pool tiles.

**APPLICATION:** For conveyance of sand and cement to mixing qun.

**STANDARD LENGTHS:** 50 ft.



Part Number	in.	I.D. mm.	in.	D.D. mm.	Rein. Plies	Max PSI	W.P.	Wei lb./ft.	_	Min. Ben	d Radius mm	Stock Item
- Trainisci					1 1103			13710	110/111			100
4310-0150-050	1-1/2	38.10	2.38	60.33	2	150	10.34	1.10	1.64	15.00	380.00	✓
4310-0163-050	1-5/8	41.28	2.50	63.50	2	150	10.34	1.23	1.83	16.50	420.00	✓
4310-0175-050	1-3/4	44.45	2.63	66.68	2	150	10.34	1.52	2.26	17.50	445.00	
4310-0200-050	2	50.80	2.88	72.90	2	150	10.34	1.65	2.46	20.00	508.00	✓
4310-0250-050	2-1/2	63.50	3.88	98.30	2	150	10.34	2.30	3.42	25.00	635.00	✓

# 4312

### 2-PLY SANDBLAST HOSE

**TUBE:** SBR/NR blend, 1/4" thick, black, static dissipating

**REINFORCEMENT:** Synthetic fabric **COVER:** SBR/NR blend, pin-pricked

**BRANDING:** None

**TEMPERATURE RANGE:** -25°F (-32°C) to +185°F (+85°C)

FEATURES: Highly abrasion resistant tube to handle any blast grist.

Abrasion and weather resistant cover.

**APPLICATION:** For conveyance of highly abrasive materials in

sandblasting/cleaning and general maintenance in construction, shipyards, power plants and

equipment rental.

STANDARD LENGTHS: 50 ft.



Part	ı	l.D.	O	).D.	Rein.	Мах	W.P.	Wei	ght	Min. Ben	d Radius	Stock
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4312-0050-050	1/2	12.70	1.00	25.40	2	150	10.34	0.31	0.46	5.00	127.00	<b>√</b>
4312-0051-050	1/2	12.70	1.06	26.99	2	150	10.34	0.33	0.49	5.00	127.00	✓
4312-0052-050	1/2	12.70	1.13	28.58	2	150	10.34	0.38	0.57	5.00	127.00	✓
4312-0075-050	3/4	19.05	1.50	38.10	2	150	10.34	0.60	0.89	7.50	190.00	✓

# FOR TRANSFER OF BULK MATERIAL, ABRASIVES, CONCRETE AND CEMENT

# 4313

# LIGHTWEIGHT SANDBLAST HOSE

**TUBE:** SBR/NR blend, black, static dissipating

**REINFORCEMENT:** Synthetic fabric

**COVER:** SBR/NR blend, black

**BRANDING:** Jason logo 4313 LW Blast 1-7/8" O.D. WP (PSI) (BAR)

Green Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -25°F (-32°C) to +185°F (+85°C)

**FEATURES:** Lighter in weight than standard sandblast hose, but with the same high quality features. Utilizes couplings

or nozzle holders made to fit 1-7/8" O.D. hose.

**APPLICATION:** For the conveyance of highly abrasive materials

in sandblasting/cleaning operations.

STANDARD LENGTHS: 50 ft. or 100 ft. lengths



Part Number	l. in.	D. mm.	in.	D.D. mm.	Rein. Plies	Ma: PSI	x W.P. BAR	We lb./ft.	ight KG/m	Min. Ben in.	d Radius mm	Stock Item
4313-0125-050	1-1/4	31.75	1.88	47.63	2	150	10.34	0.83	1.24	10.00	254.00	✓
4313-0125-100	1-1/4	31.75	1.88	47.63	2	150	10.34	0.83	1.24	10.00	254.00	

### 4314

### **4-PLY SANDBLAST HOSE**

**TUBE:** SBR/NR blend, 1/4" thick, black, static dissipating

**REINFORCEMENT:** Synthetic fabric **COVER:** SBR/NR blend, pin-pricked, black

**BRANDING:** Jason logo 4314 4-Ply Blast WP (PSI) (BAR)

Green Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -25°F (-32°C) to +185°F (+85°C)

**FEATURES:** Highly abrasion resistant tube to handle manufactured coal slag, aluminum oxide or grit. Each O.D. is held to

coal slag, aluminum oxide or grit. Each O.D. is held to strict tolerances for ideal coupling compatibility. (RMA)

Cover is abrasion and weather resistant.

**APPLICATION:** For the conveyance of highly abrasive materials in sandblasting/cleaning operations used in construction, shipyards, steel mills and refineries.

**STANDARD LENGTHS:** 50 ft. or 100 ft. lengths



Part	I.	D.	С	).D.	Rein.	Мах	W.P.	Wei	ght	Min. Ber	nd Radius	Stock
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4314-0075-050	3/4	19.05	1.50	38.10	4	150	10.34	0.66	0.98	7.50	190.00	✓
4314-0100-050	1	25.40	1.88	47.63	4	150	10.34	0.80	1.19	10.00	254.00	✓
4314-0125-050	1-1/4	31.75	2.16	53.18	4	150	10.34	1.04	1.55	12.60	320.00	✓
4314-0150-050	1-1/2	38.10	2.38	60.33	4	150	10.34	1.25	1.86	15.00	380.00	✓
4314-0200-050	2	50.80	2.88	73.03	4	150	10.34	1.45	2.16	20.00	508.00	✓
4314-0075-100	3/4	19.05	1.50	38.10	4	150	10.34	0.66	0.98	7.50	190.00	✓
4314-0100-100	1	25.40	1.88	47.63	4	150	10.34	0.80	1.19	10.00	254.00	✓
4314-0125-100	1-1/4	31.75	2.16	53.18	4	150	10.34	1.04	1.55	12.60	320.00	✓
4314-0150-100	1-1/2	38.10	2.38	60.33	4	150	10.34	1.25	1.86	15.00	380.00	✓
4314-0200-100	2	50.80	2.88	73.03	4	150	10.34	1.45	2.16	20.00	508.00	✓

# FOR THE TRANSFER OF WATER, WASHDOWN, JETTING AND IRRIGATION

# 4450

# **RUBBER WATER SUCTION HOSE**

(J) 4450 WATER

TUBE: EPDM blend, smooth, black

**REINFORCEMENT:** Synthetic fabric with wire helix

**COVER:** EPDM blend, fabric impression **BRANDING:** Jason logo 4450 Water S/D

Yellow Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -25°F (-32°C) to +185°F (+85°C)

**FEATURES:** Resistant to water-based ag fertilizers and salt water. Flexible and economical. Cover is weather

and ozone resistant.

**APPLICATION:** For suction, discharge or gravity flow of water

in construction, mining, oil exploration, agriculture and equipment rental.

**STANDARD LENGTHS:** 1-1/4" to 5" I.D. 100 ft.; 6" I.D. 20 ft., 50 ft.

and 100 ft.; 10" and 12" I.D., 20 ft.

**VACUUM:** Sizes 1-1/4" to 10" I.D., 28 in. Hg; Sizes 12" and 14" I.D., 25 in. Hg

Part		.D.	С	D.D.	Rein.	Ma	x W.P.	We	ight	Min. Be	nd Radius	Stock
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4450-0100-100	1	25.40	1.38	35.00	2	150	10.34	0.49	0.73	6.00	152.40	✓
4450-0125-100	1-1/4	31.75	1.70	43.18	2	150	10.34	0.75	1.12	6.00	152.40	✓
4450-0150-100	1-1/2	38.10	1.96	49.78	2	150	10.34	0.80	1.19	6.50	165.10	✓
4450-0200-100	2	50.80	2.49	63.25	2	150	10.34	1.11	1.65	8.00	203.20	✓
4450-0250-100	2-1/2	63.50	2.99	75.95	2	150	10.34	1.75	2.60	10.00	254.00	✓
4450-0300-100	3	76.20	3.50	88.90	2	150	10.34	2.24	3.33	12.00	304.80	✓
4450-0400-100	4	101.60	4.53	115.06	2	150	10.34	2.79	4.15	18.00	457.20	✓
4450-0500-100	5	127.00	5.68	144.27	2	150	10.34	3.25	4.84	26.00	660.40	✓
4450-0600-100	6	152.40	6.54	166.12	2	150	10.34	5.75	8.56	31.00	787.40	✓
4450-0600-050	6	152.40	6.54	166.12	2	150	10.34	5.75	8.56	31.00	787.40	✓
4450-0600-020	6	152.40	6.54	166.12	2	150	10.34	5.75	8.56	31.00	787.40	✓
4450-0800-020	8	203.20	8.79	223.27	4	100	6.89	6.59	9.81	42.00	1066.80	✓
4450-1000-020	10	254.00	10.91	277.11	4	75	5.17	10.25	15.25	50.00	1270.00	✓
4450-1200-020	12	304.80	12.91	327.91	4	75	5.17	13.50	20.09	60.00	1524.00	✓
4450-1400-020	14	355.60	15.13	384.20	4	45	2.42	16.75	24.85	72.00	1828.80	

# 4360

### **PAPERMILL WASHDOWN HOSE**

TUBE: SBR, white

**REINFORCEMENT:** Synthetic fabric

**COVER:** SBR, white color

**BRANDING:** Jason logo 4360 WP (PSI) (BAR) Black Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -25°F (-32°C) to +185°F (+85°C)

**FEATURES:** Permanent built-on nozzle to reduce damage to papermill pulp screens. Cover is weather and

ozone resistant.

**APPLICATION:** For washdown service with hot water to +180°F (+82°C)

STANDARD LENGTHS: 50 ft.

Part	I.	I.D.		.D.	Rein.	Мах	W.P.	Wei	ght	Min. Ben	d Radius	Stock
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4360-0075-050	3/4	19.05	1.25	31.75	2	150	10.34	0.50	0.74	7.50	190.00	✓
4360-0100-050	1	25.40	1.44	36.51	2	150	10.34	0.55	0.82	10.00	254.00	<b>✓</b>
4360-0125-050	1-1/4	31.75	1.75	44.45	2	150	10.34	0.70	1.04	12.60	320.00	<b>✓</b>
4360-0150-050	1-1/2	38.10	2.06	52.39	2	150	10.34	1.00	1.49	15.00	380.00	✓



# FOR THE TRANSFER OF WATER, WASHDOWN, JETTING AND IRRIGATION

# 4352

### **RUBBER 2-PLY WATER DISCHARGE HOSE**

**TUBE:** SBR, smooth, black

**REINFORCEMENT:** Synthetic fabric **COVER:** SBR, fabric impression, black

**BRANDING:** Jason logo 4352 I.D. Water Discharge WP (PSI) (BAR)

Blue Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** -25°F (-32°C) to +185°F (+85°C)

**FEATURES:** Ideal for standard working pressure, lays flat and rolls

up for easy storage. Cover is weather and ozone resistant.

**APPLICATION:** For general construction, mine water discharge,

equipment rental.

**STANDARD LENGTHS:** 1-1/2" to 6-5/8" I.D. 100 ft.; 8", 10" and 12" I.D. 50 ft.



Part	I.	.D.	C	D.D.	Rein.	Max	c W.P.	Wei	ght	Min. Bei	nd Radius	Stock
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4352-0150-100	1-1/2	38.10	1.81	45.97	2	150	10.34	0.60	0.89	15.00	380.00	✓
4352-0200-100	2	50.80	2.31	58.67	2	150	10.34	0.84	1.25	20.00	508.00	✓
4352-0250-100	2-1/2	63.50	2.75	69.85	2	150	10.34	0.91	1.35	25.00	635.00	✓
4352-0300-100	3	76.20	3.38	85.85	2	150	10.34	1.12	1.67	30.00	762.00	✓
4352-0400-100	4	101.60	4.37	111.00	2	150	10.34	1.25	1.86	40.00	1016.00	✓
4352-0500-100	5	127.00	5.51	139.95	2	150	10.34	2.29	3.41	50.00	1270.00	✓
4352-0600-100	6	152.40	6.50	165.10	2	150	10.34	3.45	5.13	60.00	1524.00	✓
4352-0662-100	6-5/8	168.28	7.13	181.10	2	125	8.62	3.70	5.51	72.00	1828.80	
4352-0800-050	8	203.20	8.50	215.90	2	100	6.89	4.30	6.40	80.00	2030.00	✓
4352-1000-050	10	254.00	10.50	266.70	2	100	6.89	5.40	8.04	100.00	2540.00	✓
4352-1200-050	12	304.80	12.50	317.50	2	100	6.89	6.75	10.04	120.00	3058.00	✓

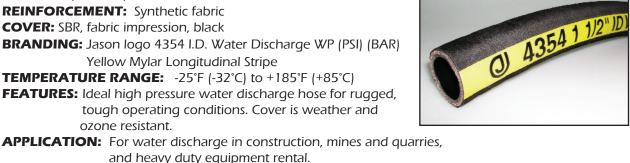
# 4354

#### RUBBER 4-PLY WATER DISCHARGE HOSE

**TUBE:** SBR, smooth, black

**REINFORCEMENT:** Synthetic fabric **COVER:** SBR, fabric impression, black

**STANDARD LENGTHS:** 1-1/2" to 6" I.D. 100 ft.; 8", 10" and 12" I.D. 50 ft.



Part	I.	.D.	0	.D.	Rein.	Max	W.P.	Wei	ight	Min. Be	nd Radius	Stock
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4354-0150-100	1-1/2	38.10	2.00	50.80	4	250	17.24	0.83	1.24	15.00	380.00	✓
4354-0200-100	2	50.80	2.56	65.02	4	250	17.24	1.11	1.65	20.00	508.00	✓
4354-0250-100	2-1/2	63.50	3.07	77.98	4	250	17.24	1.24	1.85	25.00	635.00	✓
4354-0300-100	3	76.20	3.58	90.93	4	225	15.51	1.50	2.23	30.00	762.00	✓
4354-0400-100	4	101.60	4.61	117.09	4	200	13.79	1.85	2.75	40.00	1016.00	✓
4354-0600-100	6	152.40	6.57	166.88	4	150	10.34	3.90	5.80	60.00	1524.00	✓
4354-0800-050	8	203.20	8.66	219.96	4	125	8.62	5.25	7.81	80.00	2030.00	✓
4354-1000-050	10	254.00	10.66	270.76	4	125	8.62	6.29	9.36	100.00	2540.00	✓
4354-1200-050	12	304.80	12.68	322.07	4	125	8.62	7.83	11.65	120.00	3058.00	✓

### FOR THE TRANSFER OF WATER, WASHDOWN, JETTING AND IRRIGATION

### 4705

### MUNICIPAL GRADE SJ MILL DISCHARGE HOSE

TUBE: SBR, smooth REINFORCEMENT: N/A

**COVER:** 100% polyester single jacket **BRANDING:** I.D. SJ Mill WP (PSI) (BAR)

**TEMPERATURE RANGE:** -25°F (-32°C) to +185°F (+85°C) **FEATURES:** Heavy-duty synthetic cover for better abrasion resistance and abuse. Higher working pressures.

**APPLICATION:** For water discharge service in rental yards, fleet service, municipal washdown, utility

dewatering.

STANDARD LENGTHS: 50 ft. or 100 ft.



Part	I.	D.	Cpln	g Bowl	Rein.	Serv	Press.	Test	Press.	We	ight	Min.	Bend Rad.	Stock
Number	in.	mm.	in.	mm.	Plies	PSI	BAR	PSI	BAR	lb./ft.	KG/m	in.	mm	ltem
4705-0150-050	1-1/2	38.10	1.81	46.04	n/a	230	15.86	600	41.37	0.23	0.34	n/a	n/a	✓
4705-0200-050	2	50.80	2.31	58.74	n/a	230	15.86	600	41.37	0.28	0.42	n/a	n/a	✓
4705-0250-050	2-1/2	63.50	2.81	71.44	n/a	200	13.79	550	37.92	0.39	0.58	n/a	n/a	$\checkmark$
4705-0300-050	3	76.20	3.38	85.73	n/a	200	13.79	550	37.92	0.50	0.74	n/a	n/a	✓
4705-0400-050	4 1	01.60	4.38	111.13	n/a	200	13.79	550	37.92	0.66	0.98	n/a	n/a	✓
4705-0150-100	1-1/2	38.10	1.81	46.04	n/a	230	15.86	600	41.37	0.23	0.34	n/a	n/a	✓
4705-0200-100	2	50.80	2.31	58.74	n/a	230	15.86	600	41.37	0.28	0.42	n/a	n/a	$\checkmark$
4705-0250-100	2-1/2	63.50	2.81	71.44	n/a	200	13.79	550	37.92	0.39	0.58	n/a	n/a	$\checkmark$
4705-0300-100	3	76.20	3.38	85.73	n/a	200	13.79	550	37.92	0.50	0.74	n/a	n/a	✓
4705-0400-100	4 1	01.60	4.38	111.13	n/a	200	13.79	550	37.92	0.66	0.98	n/a	n/a	✓

### 4504

### WINE RED PVC WATER DISCHARGE HOSE

TUBE & COVER: Wine Red PVC
REINFORCEMENT: Polyester yarn
BRANDING: Jason logo ID WP (PSI)

**TEMPERATURE RANGE:** -14°F (-26°C) to +150°F (+66°C)

**FEATURES:** Medium duty hose; rolls flat for storage. Homogeneous con-

struction eliminates tube and cover separation. Reinforced with polyester yarn, both tube and cover are extruded simultaneously to achieve maximum bonding.

**APPLICATION:** For general purpose water discharge in construction,

agriculture and drip irrigation. **STANDARD LENGTHS:** 300 ft.; 2" and 3" l.D. are also available in 50 ft. lengths.

300 ft. Bulk / 50 ft. Coupled (AB; Aluminum male x Female Brass Swivel Pin Lug NPSH) (CE; Aluminum Coupler x Male Adapter



Part Number	I.D. in. mm.	Wall Thickness in. mm.	Rein.	Max W.P. PSI BAR	Weight lb./ft. KG/m	Min. Bend Radius in. mm	Stock Item
4504-1500 4504-2000 4504-2500 4504-3000 4504-4000 4504-6000 4504-8000	1-1/2 38.10 2 50.80 2-1/2 63.50 3 76.20 4 101.60 6 152.40 8 203.20	0.076 1.93 0.076 1.93 0.079 2.01 0.081 2.01 0.062 2.06 0.112 2.84 0.124 3.15	n/a n/a n/a n/a n/a n/a n/a	85 5.86 85 5.86 75 5.17 70 4.83 70 4.83 50 3.45 45 3.10	0.21 0.31 0.25 0.37 0.29 0.43 0.39 0.58 0.60 0.89 1.15 1.71 1.20 1.79	n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
4504-2000-050AB 4504-2000-050CE 4504-3000-050AB 4504-3000-050CE	2 50.80 2 50.80 3 76.20 3 76.20	0.076 1.93 0.076 1.93 0.079 2.01 0.079 2.01	n/a n/a n/a n/a	85 5.86 85 5.86 70 4.83 70 4.83	0.25 0.37 0.25 0.37 0.39 0.58 0.39 0.58	n/a n/a n/a n/a n/a n/a n/a n/a	√ √ √

# FOR THE TRANSFER OF WATER, WASHDOWN, JETTING AND IRRIGATION

# 4703

#### DJ MILL DISCHARGE HOSE

**TUBE:** SBR, smooth, black **REINFORCEMENT:** N/A

**COVER:** 100% polyester double jacket **BRANDING:** I.D. x length double jacket

**TEMPERATURE RANGE:** -25°F (-32°C) to +185°F (+85°C) **FEATURES:** Double cover gives heavy duty abrasion resistance and increased service pressure. Economical, rolls flat

for storage.

**APPLICATION:** Municipal washdown or hydrant-to-truck water

supply line. Heavy duty equipment/pump rental, ship/deck washdown or fire brigade ship service.

**STANDARD LENGTHS:** 50 ft. or 100 ft. lengths



Part	I.D.	Cping Bowl	Rein.	Serv. Press	Test Press.	Weight	Min. Bend Rad	. Carton	Stock
Number	in. mm.	in. mm.	Plies	PSI BAR	PSI BAR	lb./ft. KG/m	in. mm	Qty.	Item
4703-1500	1-1/2 38.10	1.94 46.04	n/a	300 20.68	600 41.36	0.26 0.39	n/a n/a	6	✓
4703-2000	2 50.80	2.50 58.74	n/a	300 20.68	600 41.36	0.33 0.49	n/a n/a	4	✓
4703-2500	2-1/2 63.50	2.81 71.44	n/a	300 20.68	600 41.36	0.45 0.67	n/a n/a	3	✓
4703-1501	1-1/2 38.10	1.94 46.04	n/a	300 20.68	600 41.36	0.26 0.39	n/a n/a	1	✓
4703-2001	2 50.80	2.50 58.74	n/a	300 20.68	600 41.36	0.33 0.49	n/a n/a	1	✓
4703-2501	2-1/2 63.50	2.81 71.44	n/a	300 20.68	600 41.36	0.45 0.67	n/a n/a	1	✓

# 4703

# **COUPLED DJ MILL DISCHARGE HOSE**

All of the same great features and benefits as our bulk hose, and now with the added benefit of coupled assemblies.

Couplings are internally expanded, aluminum, hardcoated NPS or NST Male x Female rocker lug.



Part	1.	.D.	Thread	We	ight	Stock
Number	in.	mm.		(lb/ft.)	(kg/m)	ltem (√)
4703-1500-050ERNPS	1-1/2	38.10	NPS	15.00	22.32	✓
4703-1500-050ERNST	1-1/2	50.80	NST	15.00	22.32	✓
4703-2000-050ERNPS	2	63.50	NPS	20.00	29.76	✓
4703-2500-050ERNPS	2-1/2	76.20	NPS	25.00	37.20	✓
4703-2500-050ERNST	2-1/2	101.60	NST	25.00	37.20	✓

# FOR THE TRANSFER OF WATER, WASHDOWN, JETTING AND IRRIGATION

# 4380 NON-CONDUCTIVE FURNACE DOOR COOLANT HOSE

TUBE: EPDM, white, smooth, non-conductive

**REINFORCEMENT:** Synthetic fabric

**COVER:** Glass fiber ply impregnated with heat and flame-resistant

synthetic rubber.

**BRANDING:** None

**TEMPERATURE RANGE:** -40°F (-40°C) to +266°F (+130°C)

Cover to +575°F (+302°C)

**FEATURES:** Superior heat resistant cover. Resists heat, open flame

and splashes of white hot metal to +575°F (+302°C).

**APPLICATION:** Conveys cooling water to furnace doors in steel

mills, glass plants and similar operations.

STANDARD LENGTHS: 100 ft.



Part Number	l. in.	D. mm.	in.	D.D. mm.	Rein. Plies	Max PSI	W.P. BAR	Wei lb./ft.	ght KG/m	Min. Ben in.	d Radius mm	Stock Item
4380-0050-100	1/2	12.70	0.91	23.11	2	150	10.34	0.20	0.30	5.00	127.00	✓
4380-0075-100	3/4	19.05	1.19	30.23	2	150	10.34	0.30	0.45	7.50	190.00	✓
4380-0100-100	1	25.40	1.38	35.05	2	150	10.34	0.50	0.74	10.00	254.00	✓
4380-0125-100	1-1/4	31.75	1.75	44.45	2	150	10.34	0.90	1.34	12.60	320.00	✓
4380-0150-100	1-1/2	38.10	2.00	50.80	2	150	10.34	1.00	1.49	15.00	380.00	<b>/</b>
4380-0200-100	2	50.80	2.53	64.26	2	150	10.34	1.10	1.64	20.00	508.00	✓

# 4502

# **BLUE PVC WATER DISCHARGE HOSE**

**TUBE:** Blue PVC

**REINFORCEMENT:** Polyester yarn

**COVER:** Blue PVC

**BRANDING:** Jason logo WP (PSI)

**TEMPERATURE RANGE:** -14°F (-26°C) to +150°F (+66°C) **FEATURES:** Light and easy to handle; rolls flat for storage.

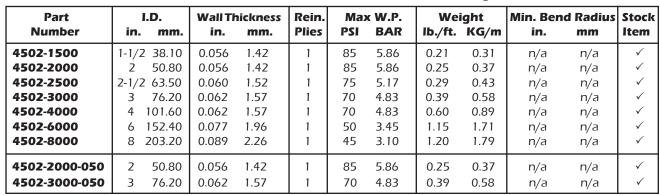
Homogeneous construction eliminates tube and cover separation. Reinforced with polyester yarn, both tube and cover are extruded simultaneously

to achieve maximum bonding.

**APPLICATION:** For general purpose water discharge in construction,

agriculture and drip irrigation.

STANDARD LENGTHS: 300 ft.; 2" and 3" I.D. are also available in 50 ft. lengths







# FOR THE TRANSFER OF WATER, WASHDOWN, JETTING AND IRRIGATION

# 4510

# **RED PVC WATER DISCHARGE HOSE**

TUBE: PVC, smooth, black

**REINFORCEMENT:** Synthetic fabric

**COVER:** PVC, smooth, red **BRANDING:** Country of origin

**TEMPERATURE RANGE:** -14°F (-26°C) to +150°F (+66°C) **FEATURES:** High working pressures, economical, easy to handle,

rolls flat. Manufactured for tough abuse. Cover is

weather ozone and UV resistant.

**APPLICATION:** For water discharge in construction, mining,

agriculture and heavy duty equipment rental.

STANDARD LENGTHS: 300 ft.



Part Number	in.	I.D. mm.	Wall Th in.	nickness mm.	Rein. Braid		W.P. BAR	Wei	ight KG/m	Min. Bend in.	l Radius mm	Stock Item
4510-1500	1-1/2	38.10	0.081	2.06	1	170	11.72	0.28	0.42	n/a	n/a	✓
4510-2000	2	50.80	0.089	2.26	1	170	11.72	0.30	0.45	n/a	n/a	✓
4510-2500	2-1/2	63.50	0.092	2.34	1	160	11.03	0.37	0.55	n/a	n/a	✓
4510-3000	3	76.20	0.098	2.49	1	160	11.03	0.46	0.68	n/a	n/a	✓
4510-4000	4	101.60	0.110	2.79	1	150	10.34	0.67	1.00	n/a	n/a	✓
4510-6000	6	152.40	0.121	3.07	1	150	10.34	1.08	1.61	n/a	n/a	✓
4510-8000	8	203.20	0.138	3.51	1	115	7.93	1.55	2.31	n/a	n/a	✓

# 4520\*

# YELLOW PVC WATER DISCHARGE HOSE WATER JETTING HOSE

TUBE: PVC, smooth, black

**REINFORCEMENT:** Synthetic fabric

**COVER:** PVC, smooth, yellow **BRANDING:** Country of origin

**TEMPERATURE RANGE:** -14°F (-26°C) to +150°F (+66°C) **FEATURES:** Stronger with a more abrasion resistant cover that

is very thick Withstands wear from dragging. Cover

is weather ozone and UV resistant.

**APPLICATION:** For heavy duty water discharge in construction,

mining and agriculture. Gives longer life due to heavier construction. The ideal culvert jetting hose that can be washed down and rolled flat for storage.

**STANDARD LENGTHS:** 1-1/2" to 6" I.D., 300 ft.; 8" I.D., 100 ft.



Part Number	in.	I.D. mm.	Wall Th in.	ickness mm.	Rein. Braid	Max PSI	W.P. BAR	Wei	ight KG/m	Min. Bend in.	l Radius mm	Stock Item
4520-1500*	1-1/2	38.10	0.090	2.29	1	250	17.24	0.48	0.71	n/a	n/a	<b>√</b>
4520-2000*	2	50.80	0.110	2.79	1	250	17.24	0.60	0.89	n/a	n/a	✓
4520-2500*	2-1/2	63.50	0.115	2.92	1	250	17.24	0.79	1.18	n/a	n/a	✓
4520-3000*	3	76.20	0.120	3.05	1	250	17.24	0.98	1.46	n/a	n/a	✓
4520-4000*	4	101.60	0.162	4.11	1	200	13.79	1.44	2.14	n/a	n/a	✓
4520-6000*	6	152.40	0.175	4.45	1	160	11.03	2.16	3.21	n/a	n/a	✓
4520-8000*	8	203.20	0.210	5.33	1	150	10.34	2.56	3.81	n/a	n/a	✓

<sup>\*</sup> Available until all stock has been depleted. Contact customer service.

# FOR THE TRANSFER OF WATER, WASHDOWN, JETTING AND IRRIGATION

#### 4654 SEPTIC AND AGRICULTURAL EPDM SUCTION HOSE

TUBE: EPDM

**REINFORCEMENT:** Polypropylene helix, green

**COVER:** EPDM, corrugated

**BRANDING: None** 

**TEMPERATURE RANGE:** -40°F (-40°C) to +175°F (+79°C)

**FEATURES:** EPDM rubber with polypropylene helix characterizing

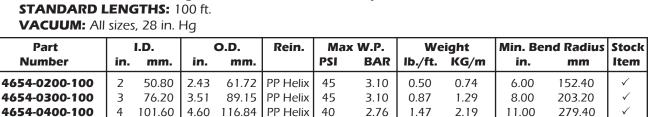
a smooth tube and corrugated cover.

**APPLICATION:** For suction or discharge in cesspool cleaning,

liquid waste, septic handling, construction and marine use. Ideal herbicide and pesticide transfer

hose for agriculture. Do not use with anhydrous ammonia.

STANDARD LENGTHS: 100 ft. VACUUM: All sizes, 28 in. Hq



2.07

2.65

#### 4601 **GREEN PVC WATER SUCTION HOSE** 4615 **CLEAR/WHITE HELIX PVC WATER SUCTION HOSE**

TUBE: PVC, smooth, green or clear **REINFORCEMENT: PVC helix** 

152.40

COVER: PVC, smooth to lightly corrugated, green or clear

**BRANDING:** None

4654-0600-100

**TEMPERATURE RANGE:** -14°F (-26°C) to +150°F (+66°C)

**FEATURES:** Lightweight and flexible with a smooth, non-restricting

tube. Use 4615 for visual flow inspection. Cover is

6.70 170.18 PP Helix

weather, ozone and UV resistant.

**APPLICATION:** Suction, discharge or gravity flow of water, salt water and mild diluted acids in construction,

agriculture, mining or equipment rental

STANDARD LENGTHS: 100 ft.

**VACUUM:** Sizes 3/4" to 2" I.D., 28 in. Hg; Sizes 2-1/2" to 6" I.D., 26 in. Hg



558.80

22.00

3.94



Part		I.D.	•	O.D.	Rein.	Max	c W.P.	Wei	ght	Min. Be	end Radius	Stock
Number	in.	mm.	in.	mm.		PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4601-0750	3/4	19.05	0.95	24.13	PVC Helix	100	6.89	0.16	0.24	2.00	50.80	✓
4601-1000	1	25.40	1.22	30.99	PVC Helix	100	6.89	0.20	0.30	5.00	127.00	✓
4601-1250	1-1/4	31.75	1.41	35.81	PVC Helix	100	6.89	0.26	0.39	6.00	152.40	✓
4601-1500	1-1/2	38.10	1.77	44.96	PVC Helix	100	6.89	0.35	0.52	7.00	177.80	✓
4601-2000	Ź	50.80	2.32	58.93	PVC Helix	100	6.89	0.54	0.80	9.00	228.60	✓
4601-2500	2-1/2	63.50	2.87	72.90	PVC Helix	80	5.52	0.70	1.04	11.00	279.40	✓
4601-3000	3	76.20	3.35	85.09	PVC Helix	75	5.17	0.93	1.38	14.00	355.60	✓
4601-4000	4	101.60	4.49	114.05	PVC Helix	60	4.14	1.48	2.20	18.00	457.20	✓
4601-6000	6	152.40	6.46	164.08	PVC Helix	50	3.45	2.89	4.30	31.00	787.40	✓
4615-0750	3/4	19.05	0.95	24.13	PVC Helix	100	6.89	0.16	0.24	2.00	50.80	<b>√</b>
4615-1000	1	25.40	1.22	30.99	PVC Helix	100	6.89	0.20	0.30	5.00	127.00	<b> </b>
4615-1250	1-1/4	31.75	1.41	35.81	PVC Helix	100	6.89	0.26	0.39	6.00	152.40	✓
4615-1500	1-1/2	38.10	1.77	44.96	PVC Helix	100	6.89	0.35	0.52	7.00	177.80	✓
4615-2000	Ź	50.80	2.32	58.93	PVC Helix	100	6.89	0.54	0.80	9.00	228.60	✓
4615-2500	2-1/2	63.50	2.87	72.90	PVC Helix	80	5.52	0.70	1.04	11.00	279.40	✓
4615-3000	3	76.20	3.35	85.09	PVC Helix	75	5.17	0.93	1.38	14.00	355.60	✓
4615-4000	4	101.60	4.49	114.05	PVC Helix	60	4.14	1.48	2.20	18.00	457.20	✓
4615-6000	6	152.40	6.46	164.08	PVC Helix	50	3.45	2.89	4.30	31.00	787.40	✓

### FOR THE TRANSFER OF WATER, WASHDOWN, JETTING AND IRRIGATION

# 4358 NITRILE/PVC OIL RESISTANT, RIBBED DISCHARGE HOSE

TUBE: NBR

REINFORCEMENT: N/A COVER: NBR/PVC, ribbed

**BRANDING:** None

**TEMPERATURE RANGE:** -20°F (-29°C) to +210°F (+99°C)

**FEATURES:** Oil resistant tube and cover. Resists heat and cold,

abrasion, ozone and UV. This hose is lightweight

and flexible.

**APPLICATION:** For use in industrial washdown, irrigation,

general dewatering, pump discharge and drainage

STANDARD LENGTHS: 100 ft. or 50 ft.



Part Number	in.	I.D. mm.	Wall Th	nickness mm.	Rein. Braid	Max PSI	W.P.	We lb./ft.	ight KG/m	Min. Bend in.	Radius mm	Stock Item
4358-0150-50	1-1/2	38.10	0.091	2.29	n/a	250	17.24	0.26	0.39	n/a	n/a	✓
4358-0200-50	2	50.80	0.109	2.77	n/a	250	17.24	0.34	0.51	n/a	n/a	✓
4358-0250-50	2-1/2	63.50	0.109	2.77	n/a	250	17.24	0.47	0.70	n/a	n/a	✓
4358-0300-50	3	76.20	0.114	2.90	n/a	250	17.24	0.65	0.97	n/a	n/a	✓
4358-0400-50	4	102.40	0.114	2.90	n/a	250	17.24	0.83	1.24	n/a	n/a	✓
4358-0150-100	1-1/2	38.10	0.091	2.29	n/a	250	17.24	0.26	0.39	n/a	n/a	✓
4358-0200-100	2	50.80	0.109	2.77	n/a	250	17.24	0.34	0.51	n/a	n/a	✓
4358-0250-100	2-1/2	63.50	0.109	2.77	n/a	250	17.24	0.47	0.70	n/a	n/a	✓
4358-0300-100	3	76.20	0.114	2.90	n/a	250	17.24	0.65	0.97	n/a	n/a	✓
4358-0400-100	4	102.40	0.114	2.90	n/a	250	17.24	0.83	1.24	n/a	n/a	✓

# 4502

# **BLUE PVC WATER DISCHARGE ASSEMBLIES**

**TUBE:** Blue PVC

**REINFORCEMENT:** Polyester yarn

**COVER:** Blue PVC

**BRANDING:** Jason logo WP (PSI)

**TEMPERATURE RANGE:** -14°F (-26°C) to +150°F (+66°C) **FEATURES:** Light and easy to handle; rolls flat for storage.

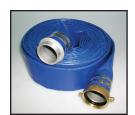
Homogeneous construction eliminates tube and cover separation. Reinforced with polyester yarn, both tube and cover are extruded simultaneously

to achieve maximum bonding.

**APPLICATION:** For general purpose water discharge in construction,

agriculture and drip irrigation.

**STANDARD LENGTHS:** 50 ft. lengths





**CUT • COUPLED • COILED • TIED** 

Part Number	Coupling	ID x Length	Max W.P.	Weight (Ea.)	Stock Item
4502-1500-050AB	1-1/2"AB Pin Lug (M x F)	1-1/2" x 50'	85 5.86	9 lbs.	✓
4502-2000-050AB	2"AB Pin Lug (M x F)	2" x 50'	85 5.86	12 lbs.	✓
4502-3000-050AB	3"AB Pin Lug (M x F)	3″ x 50′	70 4.83	22 lbs.	✓
4502-1500-050CE	1-1/2"AL Cam Lock (C x E)	1-1/2" x 50'	85 5.86	9 lbs.	✓
4502-2000-050CE	2"AL Cam Lock (C x E)	2" x 50'	85 5.86	12 lbs.	✓
4502-3000-050CE	3"AL Cam Lock (C x E)	3″ x 50′	70 4.83	22 lbs.	✓

# **SPRAY HOSE**

### 4182

# **MSHA MINE SPRAY HOSE**

**TUBE:** SBR, smooth, black

**REINFORCEMENT:** Two steel wire plies

**COVER:** Neoprene, fabric impression, pin-pricked, yellow **BRANDING:** Jason logo Mine Spray MSHA ICO215/00

1000 PSI WP 69 BAR

Black Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** 0°F (-18°C) to +200°F (+93°C)

**FEATURES:** Visible yellow color, flame retardant

**APPLICATION:** For dust control in underground water spray

operations.

STANDARD LENGTHS: 50 and 100 ft.



Part Number	l. in.	.D. mm.	in.	D.D. mm.	Rein. Plies	Max PSI	W.P. BAR	Wei lb./ft.	ght KG/m	Min. Bend in.	Radius mm	Stock Item
4182-0075-050	3/4	19.05	1.22	30.99	2	1000	68.95	0.60	0.89	8.30	210.00	✓
4182-0100-050	1	25.40	1.49	37.85	2	1000	68.95	0.80	1.19	11.00	280.00	✓
4182-0125-050	1-1/4	31.75	1.81	45.97	2	1000	68.95	1.05	1.56	14.00	355.00	✓
4182-0150-050	1-1/2	38.10	2.04	51.82	2	1000	68.95	1.24	1.85	16.50	420.00	✓
4182-0200-050	2	50.80	2.60	66.04	2	1000	68.95	1.80	2.68	22.00	560.00	
4182-0075-100	3/4	19.05	1.22	30.99	2	1000	68.95	0.60	0.89	8.30	210.00	✓
4182-0100-100	1	25.40	1.49	37.85	2	1000	68.95	0.80	1.19	11.00	280.00	✓
4182-0125-100	1-1/4	31.75	1.81	45.97	2	1000	68.95	1.05	1.56	14.00	355.00	✓
4182-0150-100	1-1/2	38.10	2.04	51.82	2	1000	68.95	1.24	1.85	16.50	420.00	
4182-0200-100	2	50.80	2.60	66.04	2	1000	68.95	1.80	2.68	22.00	560.00	

# **STEAM HOSE**

#### FOR THE TRANSFER OF SATURATED STEAM

4815

# **EPDM STEAM HOSE**

TUBE: EPDM, black

**REINFORCEMENT:** Steel wire

**COVER:** EPDM, black, pin-pricked, fabric impression

**BRANDING:** Jason logo 4815 EPDM 250 PSI WP Drain after use

White Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** To +450°F (+232°C)

**FEATURES:** High working pressure and high temperature rating.

Cover is pin-pricked to allow venting to eliminate blistering and cover separation. Cover is also weather

and ozone resistant.

**APPLICATION:** Convenyance of steam in chemical/petroleum, food,

lumber, pulp, processing industries.

STANDARD LENGTHS: 50 and 100 ft.



Part	I.	D.	С	D.D.	Rein.	Max	w.P.	Wei	ght	Min. Ben	d Radius	Stock
Number	in.	mm.	in.	mm.	Braids	PSI	BAR	lb./ft.	KG/m	in.	mm	Item
4815-0050-050	1/2	12.70	1.00	25.40	2	250	17.24	0.40	0.60	5.90	150.00	✓
4815-0075-050	3/4	19.05	1.25	31.75	2	250	17.24	0.51	0.76	8.30	210.00	✓
4815-0100-050	1	25.40	1.50	38.10	2	250	17.24	0.67	1.00	11.00	280.00	✓
4815-0125-050	1-1/4	31.75	1.81	46.04	2	250	17.24	0.87	1.29	14.00	355.00	✓
4815-0150-050	1-1/2	38.10	2.13	54.61	2	250	17.24	1.11	1.65	16.50	420.00	✓
4815-0200-050	2	50.80	2.64	67.07	2	250	17.24	1.80	2.68	22.00	560.00	✓
4815-0300-050	3	76.20	3.81	96.84	2	250	17.24	3.17	4.72	30.00	762.00	✓
4815-0050-100	1/2	12.70	1.00	25.40	2	250	17.24	0.40	0.60	5.90	150.00	✓
4815-0075-100	3/4	19.05	1.25	31.75	2	250	17.24	0.51	0.76	8.30	210.00	✓
4815-0100-100	1	25.40	1.50	38.10	2	250	17.24	0.67	1.00	11.00	280.00	✓
4815-0125-100	1-1/4	31.75	1.81	46.04	2	250	17.24	0.87	1.29	14.00	355.00	✓
4815-0150-100	1-1/2	38.10	2.13	54.61	2	250	17.24	1.11	1.65	16.50	420.00	✓
4815-0200-100	2	50.80	2.64	67.07	2	250	17.24	1.80	2.68	22.00	560.00	✓
4815-0300-100	3	76.20	3.81	96.84	2	250	17.24	3.17	4.72	30.00	762.00	

NOTE: Do Not Use Universal Couplings with Steam Hose.

# **STEAM HOSE**

#### FOR THE TRANSFER OF SATURATED STEAM

# 4818

# **BROMOBUTYL STEAM HOSE**

O) 4818 250 PSIDRAI

**TUBE:** Bromobutyl, black **REINFORCEMENT:** Steel wire **COVER:** EPDM, red, pin-pricked

**BRANDING:** Jason logo 4818 250 PSI WP Drain after use

White Mylar Longitudinal Stripe

**TEMPERATURE RANGE:** To +450°F (+232°C)

**FEATURES:** Withstands saturated and super-heated steam. Cover is

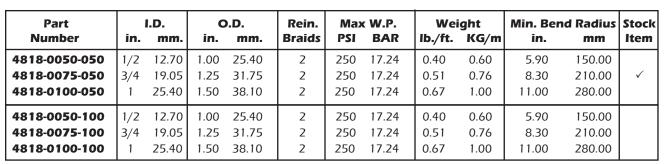
pin-pricked, weather and ozone resistant. Has same

characteristics as Chlorobutyl.

**APPLICATION:** Used in severe environmental conditions such as

refineries, chemical plants and shipyards to convey steam.

STANDARD LENGTHS: 50 and 100 ft.



NOTE: Do Not Use Universal Couplings with Steam 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 it's intended purpose, and may result in possible damage to property and serious bodily injury.

	ELA	ASTOMER / PL	ASTICS
NR	Natural Rubber	EPDM	Ethylene-propylene-diene-terpolymer
IR	Isoprene (synthetic)	FKM	Fluorocarbon rubber (Viton)
SBR	Styrene-butadiene	UHMW	Ultra High Molecular Weight Polyethylene
CR	Chloroprene (Neoprene*)	XLPE	Cross-linked polyethylene
NBR	Nitrile-butadiene (Buna-N)	CSM	Chloro-sulfonyl-polyethylene (Hypalon)
IIR	Isobutene-isoprene (Butyl)		

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<sup>\*</sup>Trademark of DuPont Inc.

	RESISTANC	ER	ATING
Е	EXCELLENT	C	ACCEPTABLE
G	GOOD	Х	UNSATISFACTORY
F	FAIR	Ν	NO DATA

Maximum temperature 100°F (38°C) unless otherwise specified.

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	~	SBR	~	NBR	~	CSM	EPDM	XLPE	UHMWPI		~	SBR	~	NBR	~	CSM	EPDM	XLPE	UHMWPI
	NR	S	CR	Z	IIR	S	ä	X	5		NR	SB	CR	Z	IR	S	ü	×	5
Acetal	C	C	C	Х	G	C	C	G	G	Ammonium Nitrate	G	Е	Е	Е	Ε	Е	E	Е	Е
Acetaldehyde	C	Х	F	Х	Е	C	G	Е	G	Ammonium Nitrite	Ε	Е	Е	Ε	Ε	E	Е	Е	Ε
Acetamide	C	C	G	G	Е	G	Е	Е	Е	Ammonium Persulfate	Е	Х	Е	Х	Ε	Ε	G	Е	Е
Acetate Solvents	C	Х	Х	Х	C	Х	C	Е	Е	Ammonium Phosphate	Е	Ε	E	Е	Ε	Ε	Ε	Е	Е
Acetic Acid, 10%	Х	Х	G	Х	G	G	G	Е	G	Ammonium Sulfate	Е	Е	Е	Е	Ε	Ε	Ε	Ε	Е
Acetic Acid, 30%	Х	Х	C	G	G	G	G	Е	Е	Ammonium Sulfide	Е	Е	Е	Е	E	Е	Е	Е	E
Acetic Acid, 50%	Х	Х	C	C	G	Х	G	Е	G	Ammonium Sulfite	Е	Е	Е	Е	E	Е	Е	Е	E
Acetic Acid, Glacial	Х	Х	C	Х	G	Х	Х	G	G	Ammonium Thiocyanate	Ε	Е	Ε	Ε	Ε	Ε	E	E	E
Acetic Anhydride	Х	Х	G	Х	Ε	G	Ε	Е	G	Ammonium Thiosulfate	Ε	Е	Ε	Ε	E	Ε	E	E	E
Acetic Ester (Ethyl Acetate)	Х	Х	Х	Х	G	Χ	G	Ε	Ε	Amyl Acetate	C	Х	Χ	Х	G	Χ	G	Х	Х
Acetic Ether (Ethyl Acetate)	Х	Х	Χ	Х	G	C	G	Е	Е	Amyl Acetone	Х	Х	Х	Х	G	Х	G	Е	E
Acetic Oxide (Acetic Anhydride)	Х	Х	Χ	Х	C	G	G	Е	Е	Amyl Alcohol	Ε	Е	Е	Ε	E	Ε	Е	Е	E
Acetone	C	C	F	Х	Е	F	Ε	Е	Е	Amylamine	C	G	Х	C	G	C	Х	Е	E
Acetophenone	C	Х	Χ	Х	Е	Χ	Ε	G	G	Amyl Borate	Х	Х	C	Ε	Х	C	Х	Е	E
Acetyl Acetone	Х	Х	Х	Х	G	Х	Ε	Е	Е	Amyl Chloride	Х	Х	Х	Х	Х	Х	Х	Е	Ε
Acetyl Chloride	Х	Х	Х	Х	C	Х	C	G	G	Amyl Chloronapthalene	Х	Х	Х	G	Х	Х	Х	Е	Ε
Acetylene	Ε	Ε	G	Ε	Ε	Ε	Ε	Е	Е	Amyl Napthalene	Х	Х	Х	Х	Х	Х	Х	Е	Ε
Acrylic Acid	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	G	Amyl Oleate	Х	Х	Х	Х	G	Х	G	Ε	Ε
Acrylonitrile	G	Х	Х	Х	Х	Х	Х	G	G	Amyl Phenol	Х	Х	Х	Х	Х	Х	Х	Ε	E
Adipic Acid	Ν	G	G	G	Ε	Ε	G	Ν	Ν	Anethole	Х	Х	Х	Х	Х	Х	Х	G	G
Air	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Aniline	Х	Х	Х	Х	Ε	Х	C	Ε	E
Air, +300°F	Х	Х	Х	Х	Ν	Х	Х	Ν	Ν	Aniline Dyes	C	C	C	C	G	C	G	Е	Е
Alcohols, Aliphatic	Е	G	Е	Е	Е	Ε	Е	Е	Е	Aniline Hydrochloride	Е	C	Х	C	C	Х	G	Е	Е
Alcohols, Aromatic	C	Х	C	C	Х	Х	Х	Е	Е	Animal Fats	Х	Х	G	Ε	G	F	C	Е	Е
Alk-Tri (Trichloroethylene)	Х	Х	Х	Х	Х	Х	Х	Х	Х	Animal Grease	Х	Х	G	G	C	C	G	Е	Е
Allyl Alcohol	Ε	G	Ε	Ε	Ε	Ε	Ε	Ε	Е	Animal Oils	Х	Х	Х	Ε	G	Х	C	Ε	E
Allyl Bromide	Х	Х	Х	Х	Х	Х	Х	G	G	Ansul Ether	Х	Х	Х	C	C	Х	C	Е	Е
Allyl Chloride	Х	Х	Х	Х	Х	Х	Х	G	G	Antifreeze (Ethylene Glycol)	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	E
Alum (Ammonium Potassium Sulfate)	Е	Ε	Е	Е	Е	Ε	Е	Е	Е	Antimony Trichloride	Х	Х	G	G	Ε	G	G	Е	G
Aluminum Acetate	Ε	C	G	G	G	G	G	Е	Ε	Antimony Pentachloride	Х	Х	Х	Х	C	Х	C	G	G
Aluminum	Е	Ε	Е	Е	Е	Е	Е	Е	Е	Agua Regia	Х	Х	Х	х	х	C	C	Х	G
Aluminum Chloride	Е	Ε	Е	Е	Е	Е	Е	Е	Е	Argon	Х	Х	Х	С	G	Х	Ε	Ν	N
Aluminum Flouride	Е	Ε	Ε	Е	Ε	Ε	Е	Е	Е	Arguad	Е	Е	Е	Ε	Е	Е	Ε	Е	Е
Aluminum Hydroxide	Е	Ε	Е	Е	Е	G	Е	Е	Е	Aromatic Hydrocarbons	Х	Х	Х	С	х	Х	Х	Е	Е
Aluminum Nitrate	Е	Ε	Е	Е	Е	Ε	Е	Е	Е	Arsenic Acid	Е	Е	Е	Ε	Ε	Ε	Ε	Ε	Е
Aluminum Phosphate	Е	Ε	Е	Е	Е	Е	Е	Е	Е	Arsenic Chloride	Х	Х	Ε	С	х	Х	G	Х	х
Aluminum Sulfate	G	Ε	Е	Е	Е	Ε	Е	Е	Е	Arsenic Trichloride	х	Х	Е	С	х	Х	G	х	x
Aminobenzene	Ν	Ν	Ν	Ν	Ν	Ν	Ν	N	G	Asphalt	х	Х	G	Е	х	х	G	G	G
Aminodimethylbenzene	N	Ν	Ν	Ν	Ν	Ν	Ν	N	N	ASTM Fuel A	х	х	Е	Е	х	G	х	Ν	N
Ammonia, Anhydrous	Е	C	Е	G	Е	G	E	Е	Е	ASTM Fuel B	х	Х	Х	Е	х	Х	х	Ν	N
Ammonia, Liquid	G	G	Е	Е	Е	Е	E	Е	Е	ASTM Fuel C	х	Х	Х	G	х	х	Х	Ν	N
Ammonia, In Water	G	G	G	G	G	G	E	E	E	ASTM Oil No. 1	Х	Х	E	E	Х	G	Х	Ε	E
Ammonium Carbonate	E	E	E	c	E	E	E	E	E	ASTM Oil No. 2	X	X	G	E	X	F	X	E	E
Ammonium Chloride	E	E	E	E	E	E	E	E	E	ASTM Oil No. 3	X	X	G	E	X	F	X	E	E
Ammonium Hydroxide	G	G	E	G	E	G	E	E	E	ASTM Oil No. 4	X	X	X	G	X	X	X	N	N
Ammonium Metaphosphate	E	E	E	E	E	E	E	E	E	Automatic Trans. Fluid	X	X	G	E	X	C	X	N	N
	<u> </u>			<u> </u>			<u> </u>									_			لنب

	NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE		NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE
Aviation Gasoline	X	Х	С	E	Х	Х	X	E	E	Carbon Dioxide	E	E	Е	E	E	E	E	E	E
Barium Carbonate	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Carbon Disulfide	Х	х	х	х	х	х	х	Ε	С
Barium Chloride	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Carbonic Acid	Ε	Е	Е	Е	Ε	Е	Ε	Е	E
Barium Hydroxide	Ε	Ε	Ε	Ε	Ε	Ε	Е	E	E	Carbon Monoxide	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	E
Barium Sulfate	E	E	E	E	E	E	E	E	E	Carbon Tetrachloride	X	X	X	C	G	X	G	C	С
Barium Sulfide	E	E	E	E	E	E	E	E	E	Carbon Tetrafluoride	X	X	X	C	X	X	X	C	С
Beer Beet Sugar Liquors	E E	E	G E	C E	E	E E	G E	N E	N E	Castor Oil Caustic Potash	C E	X G	G G	E E	G E	C E	G E	E E	E
Benzaldehyde	X	X	X	X	G	G	G	E	E	(Potassium Hydroxide)	_	)	)	_	_	_	_	-	1 - 1
Benzene (Benzol)	х	х	Х	Х	Х	Х	Х	Е	G	Caustic Soda	Е	G	G	G	Е	G	Е	Е	Е
Benzene Sulfonic Acid	Х	Х	Ε	C	Х	Х	Х	Ε	Е	(Sodium Hydroxide)									1
Benzine	Х	Х	G	Е	Х	Х	Х	Е	Е	Cellosolve	Х	Х	Е	G	G	G	G	Ε	E
Benzoic Acid	G	X	E	X	E	G	G	E	E	Cellulose Acetate	C	Х	C	X	G	C	G	G	G
Benzoic Aldehyde	X	X	X	X	X	X	X	E	E	Cellulube	C	X	X	X E	G G	X	E	E	E
Benzotrichloride Benzoyl Chloride	X	X	X	X	X	X	X	G	G G	China Wood Oil (Tung Oil) Chlorinated Solvents	X	X	G X	X	X	G X	G X	E G	G
Benzyl Acetate	X	X	X	X	G	G	G	E	E	Chlorine Dioxide	X	X	X	X	X	c	X	G	G
Benzyl Alcohol	G	G	C	Х	G	F	G	Е	Е	Chlorine Gas (Dry)	C	C	х	C	C	G	C	G	G
Benzyl Chloride	Х	Х	Х	Х	C	Х	Х	Ε	Ε	Chlorine, Water Solutions (2%)	C	Х	Х	Х	C	G	C	Ε	Ε
Bichromate of Soda	Х	Х	G	Х	Е	G	C	Е	Е	Chloroacetic Acid	G	Х	Х	Х	C	Х	C	Ε	E
(Sodium Dichromate)	_	_	_	_	_	_	_	_	_	Chloroacetone	X	X	Х	X	G	G	X	E	E
Black Sulfate Liquor	G	G	E	G	E	G	E	E	E	Chlorobenzene	X	X	X	X	X	X	X	G	G
Blast Furnace Gas Bleach	X	X	G C	C X	C X	G F	C G	E	E E	Chlorobutane Chlorobutadiene	X	X	X	X	X X	X	X X	G G	G
Borax Solution	G	G	E	c	E	E	E	E	E	Chloroform	×	X	X	X	X	X	X	G	G
Bordeaux Mixture	G	G	E	E	E	E	E	E	E	Chlorinated Hydrocarbons	X	X	X	X	X	X	X	G	G
Boric Acid	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Chloropentane	Х	Х	C	Х	Х	Х	Х	Ε	Е
Brake Fluid (HD-557)	Ν	Е	G	C	G	G	Е	Ν	Ν	Chlorophenol	Х	Х	Х	Х	Х	Х	Х	G	G
Brine	Е	Е	Е	Е	Е	Е	Е	Е	Е	Chloropropanone	Х	Х	Х	Х	C	Х	C	G	G
Bromine	Х	X	X	X	X	C	X	X	X	Chlorosulfonic Acid	X	X	X	X	X	C	X	G	G
Bromine Water	X	X	G X	C X	C X	E X	C X	E	E	Chlorothene (Trichloroethane)	X	X	X	X	X X	X	X X	G G	G
Bromobenzene Bunker Oil	X	X	۸ G	E	X	X	X	E	E	Chlorotoluene Chrome Plating Sltns.	X	X	X	X	X	X	G A	N	N
Butadiene	X	X	F	X	X	c	X	F	F	Chromic Acid	X	X	X	X	X	E	C	E	E
Butane	Х	х	Ε	Е	Е	G	Х	Е	Ν	Citric Acid	Ε	Ε	G	G	Е	Ε	Ε	Ε	Е
Butanoic Acid	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Coal Oil	Х	Х	G	Е	Х	Х	Х	Ε	Ε
Butter (Non F.D.A.)	C	C	G	Ε	Ε	Ε	G	Ε	Ε	Coal Tar	Х	Х	G	Ε	Х	G	G	Ε	E
Butyl Acetate	Х	Х	Х	Х	G	Х	C	G	G	Coal Tar Naptha	Х	Х	F	Ε	Х	Х	Х	Ε	E
Butyl Acrylate	X	X	X	X	X	X	X	G	G	Cobalt Chloride	E	E	E	E	E	E	E	E	E
Butyl Alcohol Butylamine	E G	E	E X	E	E	E	E	E	E E	Coconut Oil Cod Liver Oil	X	X	G G	E E	G E	G G	C E	E E	E
Butyl Benzene	Х	Х	X	Х	X	Х	Х	E	E	Coke Oven Gas	x	X	Х	X	F	Х	X	E	E
Butyl Bromide	X	X	X	X	X	X	X	G	G	Copper Arsenate	E	E	E	E	E	E	E	E	E
Butyl Butyrate	Х	Х	Х	Х	C	Х	G	G	G	Copper Chloride	Ε	Е	Е	Е	Е	Е	Е	Ε	Е
Butyl Carbitol	Х	Х	G	G	Е	Е	Е	Ε	Е	Copper Cyanide	Ε	Е	Е	Е	Ε	Е	Ε	Е	E
Butyl Cellosolve	Х	Х	G	G	Е	G	Е	Е	Е	Copper Hydroxide	F	G	Ν	Ν	Е	G	Ν	Ε	E
Butyl Chloride	X	X	X	X	C	X	C	G	G	Copper Nitrate	E	E	E	E	E	E	E	E	E
Butylene	X	X	C G	G G	X C	X G	X C	N E	F E	Copper Nitrite Copper Sulphate	E F	E	E E	E	E E	E E	E E	E E	E
Butyl Ether Butyl Ethyl Acetaldehyde	X	X	X	X	C	Х	Х	E	E	Copper Sulphide	C	E	E	E	E	E	E	E	E
Butyl Ethyl Ether	X	X	X	X	C	G	c	E	E	Corn Oil	X	X	C	E	E	G	C	E	E
Butyl Oleate	Х	х	х	Х	G	Х	G	Е	Е	Cottonseed Oil	Х	х	C	C	C	G	C	C	G
Butyl Phthalate	Х	Х	Х	Х	C	Х	C	Ε	Ε	Creosote (Wood)	Х	Х	C	G	Х	C	Х	Ε	Ε
Butyl Stearate	Х	Х	Х	G	C	Х	C	Ε	Ε	Creosote (Coal Tar)	Х	Х	C	G	Х	C	Х	Ε	E
Butyraldehyde	C	Х	Х	Х	Х	Х	Х	E	E	Cresols	Х	Х	C	C	Х	C	Х	Е	E
Butyric Acid	F	X	X	X	F	X	G	E	E	Cresylic Acid	X	X	C	C	X	C	X	E	E
Butyric Anhydride Calcium Acetate	C	X	X	C X	C E	G X	C E	E	E E	Crotonaldehyde Crude Oil	X	X	X F	X E	E X	X	C X	E E	E
Calcium Acetate  Calcium Bisulfate	E	E	^ E	E	E	E	E	E	E	Cumene	X	X	Х	C	^ C	X	X	E	E
Calcium Bisulfite	C	E	E	E	G	E	C	E	E	Cupric Carbonate	C	c	G	G	E	G	E	E	E
Calcium Carbonate	Е	Е	Е	Е	Е	Е	Е	Е	Е	Cupric Chloride	C	C	G	Е	Е	Е	Е	Е	Е
Calcium Bichromate	Ν	Ν	Ν	Ν	Ε	F	Ν	G	F	Cupric Hydroxide	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Calcium Chloride	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Cupric Nitrate	C	C	G	Ε	Ε	Ε	Ε	Ε	E
Calcium Hydroxide	E	G	E	E	E	G	E	E	E	Cupric Nitrite	C	C	G	E	E	E	E	E	E
Calcium Nitrato	X	X	X E	X E	G E	F E	G E	G E	G E	Cupric Sulfate	F	E	G v	E G	E	E	E	E	E
Calcium Nitrate Calcium Sulfate	E E	E E	E	E	E	E	E	E	E	Cyclohexane Cyclohexanol	X	X	X G	C	X X	X	X X	E E	E
Calcium Sulfide	E	E	E	E	E	E	E	E	E	Cyclohexanone	×	X	Х	Х	X	X	X	E	E
Calcium Sulfite	E	E	E	E	E	E	E	E	E	Cyclopentane	×	X	G	G	X	X	X	E	E
Caliche Liquor	E	E	G	C	E	E	E	E	E	Cyclopentanol	X	X	N	N	Х	X	N	E	E
(Crude Sodium Nitrate)								I		P-Cymene	Х	Х	Х	C	х	Х	х	Ε	Ε
Cane Sugar Liquors (Non F.D.A.)	Е	Е	Е	Ε	Е	Е	Ε	E	Ε	DDT In Kerosene	Х	Х	G	Ε	F	Х	х	Ε	Е
Carbitol	Х	X	G	G	Ε	G	G	Ε	E	Decaline	X	X	Х	X	Х	X	Х	Ε	E
Carbitol Acetate	X	X	X	X	G	X	G	E	E	Decane	X	X	X	G	X	X	X	E	E
Carbolic Acid (Phenol) Carbon Bisulfide	X N	X N	C N	X N	G N	C N	C N	E N	E N	Developing Fluid (pic)	G E	G G	G E	E E	G E	G E	E G	E N	E N
Car Dorr Distalliac	IN	1 14	IV	IN	1.0	1.0	14	14	1.0	Developing Fluid (pic)	L	J					ų	1 4	_''

Description		NR	SBR	CR	NBR	II.	CSM	EPDM	XLPE	UHMWPE		NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE
Demonstratinguages	DHSO Butylene				_			_		Ν	Diphenyl (Biphenyl)		_	Х				Х		
Dispute plantemine	Diacetone Alcohol	Х	Х	G	Х	Е	G	G	Е	Е	Diphenyl Oxide (Phenyl Ether)	Х	Х	Х	Х	Х	C	Х		
Transpringerhenees	1 '	Ν									1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									
Discontinuement	1 -										1 1 1 1									
Discondisonation	1 - 1										1 1 1 1									
District Continue	1																			
Disson-Information	1										1 -									
Damps filme	I .																			
Dougheymene	I .										1 -									
Dampignature	1 ,										· ·									
Daugi Sebushes											1									
Decisional Prospectation   C																				
Descriptions	-																			
Descriptionseriementer   N	1																			
Deschesolatione	1										1'									
Desire Desire   Desire Desire Desire   Desire Desire   Desire Desire   Desire Desire   Desire Desire Desire   Desire Desire   Desire Desire   Desire Desire Desire Desire   Desire Desire Desire   Desire Desire Desire   Desire Desire Desire   Desire Desire Desire Desire   Desire Desire Desire Desire Desire   Desire	1																			
Decisionarchance																				
Dischborderyingnee	Dichloroethane	Х	Х				Х	Х	Е	С	Ethers									
Dechlerofoscing	Dichloroethyl Ether	Х	Х	Х	Х		Х	Х	Ε	Ε	Ethyl Acetate	Х	Х	Х	Х	G	Х	C		E
Decinisone perspect   March   March	Dichloroethylene	Х	Х	Х	Х	C	Х	Х	Ε	х	Ethyl Acetoacetate	Х	Х	Х	Х	G	Х	G	Ε	E
Decision of Part   Decision of	Dichlorohexane	Х	Х	Х	Х	Х	Х	Х	Ε	Е	Ethyl Acrylate	Х	Х	Х	Х	C	Х	Х	G	G
Decision-programme	Dichloroisopropyl Ether	Х	Х	Х	Х	Х	Х	Х	Ε	Е	Ethyl Alcohol	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Е	E
Deckhorsopingspare	Dichloromethane	Х	Х	Х	Х	Х	Х	Х	Ε	Е	Ethyl Aldehyde	F	Ν	Ν	Ν	Ε	Ε	Ν	Ε	E
Discriptional part	Dichloropentane	Х	Χ	Х	Х	Х	Х	Χ	Ε	Е	Ethyl Benzene	Х	Х	Х	F	Х	Х	Х	G	G
Discript (Discript In Mylerne		Х	Х	Ν	Ν	Х	Х	Ν	Е	Е	Ethyl Benzoate									
Deletin in Nyleme	1	Ν			Ν						1 -									
Decision   Nyforce   X	-	Ν									1 -									
And Mater Spray	-										1 -									
Deets   Ol	-	Х	Х	G	G	Х	Х	Х	Е	E	*									
Deethyle Name	1			_	_		_				I -									
Deethy Benezere	1										1 *									
Diethy   Ether	1										1 *									
Diethyl Kerone	1										1 *									
Diethylphrhalate	-										1 2									
Diethy foolate	1										I -									
Deethy debacate	, ,										1 *									
Diethy Sulfate	-										I -									
Diethylfriamine	-										*									
Diethyshamine	-										1 *									
Detrylene Dioxide	-										1 *									
Dethylene Glycol	•						Х	G			1 *		Е							
Dihydroxyethyl Amine	Diethylene Glycol	Е	Ε	Е	Е	Ε	Е	Ε	Е	Е	1 -	Х	Х	Х	Х	Х	Х	C	C	c
Diriydroxyethyl Ether	Diethylenetriamine	G	G	C	G	Ε	C	Ε	Ε	Ε	Ethylene Trichloride	Х	Х	Х	Х	C	Х	Х	G	G
Disobuty/Rene	Dihydroxyethyl Amine	G	C	G	G	Е	C	G	Ε	Е	(Trichloroethylene)									1
Disobutyl Ketone	Dihydroxyethyl Ether	Ε	Ε	G	Ε	Ε	Ε	G	Ε	Е	Ethyl Formate	Х	Х	Х	Х	G	Х	C	Ε	E
Diisodecyl Adipate	Diisobutylene	Х	Χ	G	Е	Х	Х	Χ	Ε	Е	Ethyl Hexanol	Ε	Е	Е	Ε	Ε	Ε	Ε	Е	E
Diisodecyl Phthalate	Diisobutyl Ketone	Х	Х	Х	Х	G	Х	G	Ε	Е	Ethyl Methyl Ketone	C	Х	Х	Х	G	Х	G	Ε	E
Diisooctyl Adipate		Х	Х		Х						Ethyl Oxalate		Е				Х	G		
Diisoortyl Phthalate											1									
Diisopropanol Amine											1									
Diisopropyl Benzene	-										1 2									
Diispropyl Ether	1 1																			
Diisopropyl Ketone	1										,									
Dilauryl Ether	1 11																			
Dimethyl Ketone	1 11																			
Dimethyl Phthalate	-																			
Dimethyl Sulfate	-																			
Dimethyl Sulfide																				
Dimethylamine																				
Dimethylaniline	-																			
Dimethylbenzene	-																			
Dimethylformamide (DMF)	-																			
D.M.P. (Dimethyl Phenols)  N N N N N N N N N N N N N N N N N N N	-																			
Dinitrobenzene																				
Dinitrotoluene																				
Dioctyl Adipate (DOA)	I .																			
Dioctylamine	1										1									
Dioctyl Phthalate (DOP)																				
Dioctyl Sebacate (DOS)	1 -																			
Dioxane         X         X         X         X         X         G         Z         E         E         Freon 12         X         X         G         G         X																				
Dioxolane   X   X   X   X   C   X   G   E   E   Freon 13   E   E   E   E   E   E   E   E   E																				
	1																			
	1																			

	NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE		NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE
Freon 22	Х	Х	Х	Ε	Е	Х	Е	Е	E	Hydrogen Dioxide-10%	Х	Х	Ν	N	F	Ν	N	N	G
Freon 31	G	G	E	X	E	G	E	E	E	Hydrogen Gas	G	G	E	E	E	G	E	E	E
Freen 113	E	E	E	E	E	E	E	E	E	Hydrogen Peroxide, 10%	E	G	C	G	E	E	G	E	E
Freon 112 Freon 113	X C	X G	G E	G E	X	G E	X	E	E E	Hydrogen Peroxide , 10% Hydrogen Peroxide 30%	X X	X X	C X	X	C X	C X	C	E E	E
Freon 114	E	E	E	E	^ E	E	E	E	E	Hydrogen Peroxide 30%	x	X	X	X	X	X	C	G	G
Freon 115	E	E	E	E	E	E	E	E	E	Hydrogen Sulfide	X	X	A E	X	A E	G	E	E	E
Freon 142b	E	E	E	E	E	E	E	E	E	Hydroquinone	G	G	X	X	G	C	G	E	E
Freon 152a	E	E	E	E	E	C	E	E	E	Hypochlorous Acid	G	G	G	X	G	E	G	E	E
Freon 218	E	E	E	E	E	E	E	E	E	Ink Oil (Linseed Oil Base)	Х	Х	G	G	G	G	G	E	E
Freon C316	E	E	E	E	E	E	E	E	E	Insulating Oil	Х	Х	G	E	X	х	X	E	Ē
Freon C318	Е	Е	Е	Е	Е	Е	Е	Е	Е	lodine	х	х	Х	х	х	F	х	Е	E
Freon 13B1	Е	Е	Е	Е	Е	Е	Е	Е	Е	Iron Acetate	х	х	х	х	Е	х	G	Е	E
Freon 114B2	Х	C	Ε	G	Х	Е	Х	Е	Ε	Iron Hydroxide	C	С	Ε	G	Е	G	G	Ε	E
Freon 502	Ε	Ε	Ε	G	Ε	Е	Ε	Ε	Ε	Iron Salts	Ε	Ε	Ε	Ε	Ε	Ε	Е	Ε	E
Freon TF	C	G	Ε	Ε	Ε	Е	Ε	Ε	Ε	Iron Sulfate	Ε	Ε	Ε	Ε	Ε	Ε	Е	Ε	E
Freon T-WD602	C	G	G	Е	Е	G	G	Е	Ε	Iron Sulfide	Ε	Ε	Ε	Ε	Ε	Ε	Е	Е	E
Freon TMC	G	C	G	G	G	G	G	Ε	Ε	Isoamyl Acetate	Х	Х	Х	Х	Ε	Х	G	Ε	E
Freon T-P35	Е	Е	Е	Ε	Е	Е	Е	Е	Ε	Isoamyl Alcohol	Е	Е	Ε	Ε	Е	Ε	Е	Е	G
Freon TA	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	lsoamyl Bromide	Х	Х	Х	Х	Х	Х	Х	G	G
Freon TC	Х	G	Е	Ε	Е	Е	G	Е	Ε	lsoamyl Butyrate	Х	Х	Х	Х	C	Х	C	G	G
Freon MF	Х	G	C	Ε	Х	G	Х	Ε	Ε	Isoamyl Chloride	Х	Х	Х	Х	C	Х	Х	G	G
Freon BF	Х	Х	G	G	Х	G	Х	Ε	Ε	Isoamyl Ether	Х	Х	Х	Х	Х	Х	Х	Ε	E
Fuel A (ASTM)	X	X	G	E	X	F	X	E	E	Isoamyl Phthalate	Х	X	X	X	E	Х	G	E	E
Fuel B (ASTM)	Х	Х	F	E	Х	Х	Х	G	G	Isobutane	Х	Х	E	Е	Х	Х	Е	Ε	E
Fuel ASTM C	X	X	C	G	X	X	X	G	G	Isobutanol (Isobutyl Alcohol)	E	E	E	E	E	E	E	E	E
Fuel Oil	X	X	G	E	X	E	X	E	E	Isobutyl Acetate	X	X	X	X	E	X	G	E	E
Fumaric Acid	E	E	G	E	X	G	X	E	E	Isobutyl Aldehyde	C	X	X	X	G	X	G	E	E
Furan	X	X	X	X	C	X	C	E	E	Isobutyl Amine	G	C	X	X	G	C	G	E	E
Furfural Alcohol	X	X	C	X	G C	G C	G C	E	E E	Isobutyl Bromide	X E	X E	X G	X E	X E	X E	X E	G E	G E
Furfuryl Alcohol Gallic Acid	X E	E	G	X G	G	G	G	E	E	Isobutyl Carbinol	X	X	Х	X	X	X	X	G	G
Gasoline - Regular	X	X	E	E	X	C	Х	E	E	Isobutyl Chloride Isobutylene	X	X	X	X	A E	X	X	E	E
Gasoline - Regular Gasoline - Hi-Test	X	X	G	E	X	Х	X	E	E	Isobutyl Ether	x	X	X	X	X	X	X	E	E
Gasoline - Lead Free	X	X	G	G	X	X	X	E	E	Isocyanates	c	x	X	X	G	c	G	G	G
Gas, Coal	N	N	N	N	N	N	N	N	N	Isooctane	Х	X	E	E	Х	G	Х	E	E
Gas, High Octane	X	X	G	E	X	X	X	E	E	Isopentane	X	X	E	E	X	Х	X	G	G
Gelatin	E	E	E	E	E	E	E	E	E	Isopropyl Amine	G	С	E	G	E	С	G	E	Ē
Gluconic Acid	Х	Х	C	C	C	G	C	Е	Е	Isopropyl Acetate	Х	Х	х	Х	Е	C	G	Е	E
Glucose	Е	Е	G	G	Е	Е	G	Е	G	Isopropyl Alcohol (Iso-propanol)	Ε	Е	Е	Е	Е	Е	Е	G	G
Glue	Е	Е	Е	Е	Е	Е	Е	Е	Е	Isopropyl Amine	G	х	Е	С	G	С	G	Е	E
Glycerine (Glycerol)	Ε	Ε	Е	Ε	Е	Е	Е	Е	Ε	Isopropyl Benzene	Х	Х	Х	Х	Х	Х	Х	Ε	E
Glycols	Ε	Ε	Е	Е	Е	Е	Е	Е	Е	Isopropyl Chloride	Х	Х	Х	Х	Х	Х	Х	G	G
Grease	Х	Х	Ε	Х	F	Х	Ε	G	Ε	Isopropyl Ether	Х	Х	Х	C	Х	C	Х	Ε	E
Green Sulfate Liquor	Ε	Ε	G	Ε	Ε	Ε	Ε	Ε	Ε	Isopropyl Toluene	Х	Х	Х	Х	Х	Х	Х	Ε	E
Halium	Ε	Ε	Е	Ε	Е	Е	Е	Ν	Ν	Jet Fuels	Х	Х	G	Ε	Х	F	Х	Е	E
Halowax Oil	Х	Х	Х	Х	Х	Х	Х	Ε	Ε	Kerosene	Х	Х	C	Ε	Х	F	Х	Ε	E
Heptachlor in Petroleum Solvents	Х	Х	G	G	Х	Х	Х	Е	Е	Ketones	G	G	Х	Х	G	Х	Е	Е	E
Heptachlor in Petroleum Solvents,	Х	Х	G	G	Х	Х	Х	Е	E	Lacquer Solvents	Х	Х	Х	Х	Х	Х	Х	Е	E
Water Spray										Lactic Acid - Cold	G	G	Ε	Х	Ε	G	Х	C	N
Heptanal (Heptaldehyde)	Х	Х	Х	Х	Х	Х	G	Е	Ε	Lactic Acid - Hot	Х	Х	Х	Х	Ν	C	Х	Ν	N
Heptane	X	X	E	E	X	G	X	E	E	Lard	X	X	G	E	X	X	C	E	E
Heptane Carboxylic Acid	X	X	G	C	C	G	C	E	E	Lauryl Alcohol	E	E	E	E	E	E	E	E	E
Hexaldehyde	X	X	G	X	G	C	G	E	E	Lavender Oil	X	X	X	G	X	X	X	G	N
Hexane	X	X	E	E	X	F	X	E	E	Lead Acetate	Х	Х	G	G	E	X	G	E	E
Hexanol	E	E	E	E	E	E	E	E	E	Lead Nitrate	E	E	E	E	E	E	E	E	E
Hexene	X	X	G	G	X	G	X	E	E	Lead Sulfamate	G	G	E	G	E	G	E	E	E
Hexylamine	G	C	G G	G E	G X	C X	G C	E G	E G	Lead Sulfate	E	E X	E E	E E	E	E	E X	E E	E E
Hexylene Glycol	X E	X E	E	E	X E	E	E	E	E	Ligroin	X X	X	C	F	X E	X E	X G	E	E
Hexylene Glycol Hexyl Methyl Ketone	X	X	X	X	G	X	G	E	E	Lime Lindol (Tricresyl Phosphate)	X	X	Х	Х	E	G	E	E	E
Hi-Tri (Trichloroethylene)	X	X	X	C	X	X	X	G	G	Lindeic Acid	X	X	X	X	X	Х	X	N	N
Hydraulic Fluid (Petroleum)	X	X	G	E	X	G	X	E	E	Linseed Oil	x	X	G	E	E	C	G	E	E
Hydraulic Fluid	×	×	Х	X	E	Х	E	E	E	Liquid Petroleum Gas	x	X	G	E	X	G	Х	E	E
(Phosphate Ester Base)	l ^`	l ^`	( )	l ^`	-	``	-	-		Liquid Soap	E	E	E	E	E	E	E	E	E
Hydraulic Fluid	G	G	Е	Е	Е	Е	Е	Е	Е	Lubricating Oils	X	X	C	E	X	F	X	E	E
(Poly Alkylene Glycol Base)	ĺ	ĺ		-		-	-	-		Lye Solution	G	G	G	E	E	E	E	E	G
Hydraulic & Motor Oil	х	х	С	Е	х	G	Х	Е	Е	Mek	G	Х	Х	X	G	Х	G	E	G
Hydrobromic Acid	E	X	X	F	E	E	G	E	E	Magnesium Acetate	Х	X	Х	Х	E	Х	G	E	E
Hydrochloric Acid, 37%	E	Х	Х	X	F	X	X	E	E	Magnesium Carbonate	E	E	Ε	Ε	E	Ε	E	E	E
Hydrochloric Acid, 50%	Е	C	Х	Х	G	Е	C	Ε	Е	Magneseum Chloride	Ε	Е	Ε	Ε	Е	Ε	G	Ε	E
Hydrochloric Acid, 100%	G	C	Х	Х	C	G	C	Ε	Е	Magnesium Hydrate	Ε	G	Ε	G	Е	G	Ε	Ε	E
Hydrocianic Acid	G	F	Ε	F	G	Е	C	Ε	Е	Magneseum Hydroxide	Ε	Е	Ε	Ε	Е	Ε	G	Ε	E
Hydroflouric Acid	х	х	Х	Х	Е	Е	Х	C	Е	Magnesium Nitrate	Е	Е	Ε	Ε	Е	Ε	Е	Ε	E
Hydrogen Chloride	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Magnesium Sulfate	Е	Е	Ε	Ε	Е	Ε	Е	Ε	E
Anhydrous	I	I								Malathion 50 in Aromatic Solvents	х	х	C	C	х	Х	Х	Ε	E
<u> </u>									_	L				_			_		

Matter-Note   Section		NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE		NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE
Mainte-Paris   Main	Malathion 50 in Aromatic Solvents,							_	_		Nitrogen Tetraoxide			_					_	
Models Andrey Models	1										_									
Month Poster Surface	Maleic Acid	Х	Х	Х	F	Х	F	F	G	G	Nitropropane	C	C	C	Х	Ε	C	G	Ε	Ε
Managames Sufficie	Maleic Anhydride	Х	Х	C	Х	C	Х	C	Ε	Е	Nitrous Oxide Gas	Е	Ε	Е	Е	Е	Е	Ε	Ε	E
Morganese Surface	Malic Acid	Ε	G	C	G	Х	G	Х	Е	Е	Octadecanoic Acid	Х	Х	G	Е	G	Х	C	Ε	E
More properties Surface   C   C   C   C   C   C   C   C   C	Manganese Sulfate	Ε	Ε	Е					Е		Octane	Х	Х			Х	Х	Х		
Mercary (See 1)	Manganese Sulfide																			
Mestray Uppers											1 -									
Marchary Alexander   Reference   Reference											1 -									
Membruse X X S G L S G S S G S S G S S G S S S S G S S S S S G S S S S S G S S S S S G S S S S S G S S S S S S G S	-										1 -									
Methorse Add N N N N N N N N N N N N N N N N N N																				
Methorisch Acad	1 -																			
Mean-bund   P	1																			
Methyl Actorians	1																			
Methyl Act-sule		_	-	_	_	_	_	_	_	_										
Methyl Accept   C   X   C   X   G   F   E   C   C   C   C   C   C   C   C   C		F	Х	Х	Х	G	Х	G	Е	Е										
Methyl Benneme   Methyl Benneme   X   X   X   X   X   X   X   X   X	I	C							Е		I									
Meethy	Methyl Alcohol (Methanol)	Ε	Ε	Ε	Ε	Ε	Е	Ε	Ε	Е	Ortho-Dichlorobenzene	Х	Х	Х	Х	Х	Х	Х	Ε	Ε
Methyle May   Keanne	Methyl Benzene (Toluene)	Х	Х	Х	Х	Х	Х	Х	Ε	Ε	Orthoxylene	Х	Х	Ν	Ν	Х	Х	Х	Ε	G
Methyl Colisciones	Methyl Bromide	Х	Х	Х	G	G	Х	G	Е	Е	Oxalic Acid	F	F	G	F	Ε	G	Е	Ε	
Methylogolande	Methyl Butyl Ketone	Х	Х	Х	Х	G	Х	G	Ε		Oxygen, Cold	G	G	G	G	Ε	G	G	Ε	
Methyl Cyclohexone	Methyl Cellosolve	Х	Х	G							Oxygen, Hot	Х								
Methyler formine	-																			
Methylene Brownied		Х																		
Methyle Chloride   X																				
Methy Ferry   Grown   MENG   G   X   X   X   X   X   X   X   X	-																			
Methyl											1 '									
Methyl Hexanol																				
Methyl Methyl Kothyl Carbinol	1 *																			
Methyl sobuly (Carbinol   G	-										-									
Meetry Isobury   Ketone   MiRK	1 -										1									
Methyl Elber																				
Methyl Propyl Éthor																				
Methyl Propyl Ketone																				
Methyd Methyd Methyd Methyd Methyd Saley   Methyd																				
Methyl Salkcylate		Х	Х	Х	Х		G	Х	G		•	Х	Х	Е		Х	C	Х	Е	E
Mineral Spirits	Methyl Salicylate	Х	Х	Х	Х	G	Х	G	G	G	Petroleum, Crude	Х	Х	G	Ε	Х	Х	Х	Ε	Ε
Moter   Note	Mineral Oil	Х	Х	C	Е	Х	G	Х	Е	Е	Petroleum Ether (Naptha)	Х	Х	Е	Е	Х	Х	Х	Ε	E
Monochlorobenzene	Mineral Spirits	Х	Х	G	Ε	Х	Х	Х	Ε	Ε	Petroleum Oils	Х	Х	Ε	Ε	Х	C	Χ	Ε	Ε
Monochlorodiffuoromethane	Molten Sulfur	Х	Х	Ν	Ν	G	F	Х	Х	Ν	Phenol	F	F	F	Х	Ε	F	F	Ε	E
Freon 22	Monochlorobenzene	Х	Х	Х	Х		Х	Х	G	G	Phenolsulfonic Acid	Х	Х	C	Х	C	Х	C	G	
Monomerhylether		Х	Х	Е	Х	Е	Х	Е	Е	Е	1 -									
Monomethylether	, ,										''									
Monovinyi Acetate																				
Morpholine	-																			
Motor Oil - 40W											1 '									
Muriatic Acid	I .										'									
N-Octane    X	1										1 '									
Naphtha	I .										_									
Naphtlalene	I .																			
Naphthenic Acids	1																			
Natural Gas	The state of the s																			
Neon Gas	· ·								C		Piperidine			Х	Х	Х				G
Neu-Tri (Trichloroethylene)	Neatsfoot Oil	Х	Х	G	Ε	G	G	G	Ε	Е	Pitch	Х	Х	G	G	Х	C	Х	Ε	Ε
Nickel Acetate	Neon Gas	Е	Е	Е	Е	Е	Е	Х	Ν	Ν	Plating Solutions, Chrome	Х	Х	G	G	Ε	C	Ε	Ε	E
Nickel Chloride	Neu-Tri (Trichloroethylene)	Х	Х	Х	C	Χ	Х	Х	G	G	Plating Solutions, Others	Е	Ε	G	G	Ε	C	Е	Ε	E
Nickel Nitrate	Nickel Acetate	Х	Х	Х	Х			G	Ε	Е	Polyvinyl Acetate Emulsion (PVA)	C	C	G		Ε	G	E	Ε	
Nickel Plating Solution	I .										Polyethylene Glycol									
Nickel Sulfate         E	1										1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2									
Niter Cake         E	_																			
Nitric Acid, Conc (16N)	1										•									
Nitric Acid, Red Fuming         X	1																			
Nitric Acid - 10%																				
Nitric Acid - 13N         N	_																			
Nitric Acid - 13N + 5%         N	1																			
Nitric Acid - 20%         X         X         X         X         X         X         X         X         E         F         G         G         F         E         E         Potassium Dichromate         X         X         G         Z         E         E         G         G         E         E         E         G         G         E         E         E         G         G         E         E         E         G         G         E         E         E         E         G         G         E         E         E         E         G         G         E         E         E         E         G         G         E	1																			
Nitric Acid - 30%         X         E											1									
Nitric Acid - 30% - 70%         X         E	1																			
Nitrobenzene         X         X         X         X         X         X         X         X         X         E <t< td=""><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	1										1									
Nitroethane G G C X G G X E N Potassium Permanganate 5% X X X E X E E E	1										-									
	1																			
	1										_									

	NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE		NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE	
Potassium Sulfate	E	E	E	E	E	E	E	E	Ē	Stearic Acid	X	X	G	G	G	G	G	E	Ē	
Potassium Sulfide	E	E	E	E	E	E	E	E	E	Stoddards Solvent	Х	Х	c	E	X	X	Х	E	E	
Potassium Sulfite	Е	Е	Е	Ε	Е	Е	Е	Е	Е	Styrene	Х	Х	Х	Х	Х	Х	Х	Х	х	
Producer Gas	Х	Х	G	Ε	х	G	Х	Е	Е	Sugar Solutions (Sucrose - Non F.D.A.)	Е	Е	Е	Е	Е	Е	Е	Е	Е	
Propane	Х	Х	C	Ε	Х	G	Х	Ε	Ν	Suifamic Acid	C	C	G	G	Ε	G	Ε	Ε	Ε	
Propanediol	Е	Е	G	Ε	Ε	Е	Е	Ε	Е	Sulfite Liquors	G	G	G	G	Ε	Е	G	Ε	Е	
Propyl Acetate	Х	Х	Х	Х	G	Х	G	Ε	Е	Sulfonic Acid	Х	Х	C	Х	Х	C	Х	G	G	
Propyl Alcohol (Propanol)	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Е	Sulfur (Molten)	Х	Х	Х	Х	F	F	F	G	G	
Propyl Aldehyde	C	Х	Х	Х	G	Х	G	Е	Е	Sulfur Chloride	Х	Х	C	C	Х	G	Х	Е	G	
Propyl Chloride	Х	Х	C	Х	C	Х	C	G	G	Sulfur Dioxide	F	F	G	Х	G	G	F	G	G	
Propylene	Х	Х	Х	Х	Х	Х	Х	Ν	Ν	Sulfur Hexafluoride	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	
Propylene Diamine	G	G	G	G	Е	C	G	Е	E	Sulfur Trioxide	Х	Х	Х	Х	G	Х	C	G	G	
Propylene Dichloride	Х	Х	Х	Х	Х	Х	Х	G	G	Sulfuric Acid 60% (200F)	Х	Х	F	Х	F	G	G	Ε	Е	
Propylene Glycol	Е	Е	Е	E	E	E	Е	E	E	Sulfuric Acid - Conc.	Х	Х	Х	Х	Х	Ε	Х	Ε	X	
Pydraul Hydraulic Fluids	Х	X	X	X	G	X	G	G	G	Sulfuric Acid - Fuming	X	X	X	X	X	X	X	X	X	
Pyranol	Х	X	Х	C	X	X	X	E	E	Sulfuric Acid 25%	G	G	G	E	E	Ε	G	E	E	
Pyridine	Х	X	X	X	G	X	G	E	E	Sulfuric Acid 25% - 50%	G	X	X	F	E	Ε	E	E	E	
Pyroligneous Acid	C	C	G	C	G	G	G	E	E	Sulfuric Acid 50% - 96%	X	X	F	X	F	G	G	E	E	
Pyrrole	C X	G	X	X	G E	X G	C G	E G	E G	Sulfurous Acid Tall Oil	G	C	G	C E	G X	E	G	E	E	
Rape Seed Oil Red Oil (Crude Oleic Acid)	X	X	G G	G G	G	G	G	E	E	Tallow	X	X	G E	E	X	G X	X	E E	E	
Refrigerant 11 - Freon	X	X	C	E	Х	F	F	G	G	Tannic Acid	E	G	G	C	E	^ G	E	E	E	
Refrigerant 12 - Freon	X	X	G	E	X	X	X	G	G	Tar	X	Х	G	G	X	Х	X	E	E	
Refrigerant 22 - Freon	X	X	E	X	E	X	X	E	E	Tar Bituminous	X	X	C	G	X	X	X	N	N	
Richfield A Weed Killer, 100%	X	X	X	X	X	X	X	G	G	Tartaric Acid	E	E	G	E	E	E	G	E	E	
Richfield B Weed Killer, 33%	Х	X	G	G	G	C	X	G	G	Terpineol	X	X	X	X	C	X	C	G	G	
Rosin Oil	Х	Х	E	E	X	G	Х	E	E	Tertiary Butyl Alcohol	E	E	E	E	E	E	E	E	Ē	
Rotenone And Water	Е	Е	Е	Е	Е	Е	Е	Е	Е	Tetrachlorobenzene	х	Х	Х	Х	х	х	х	G	G	
Sal Ammoniac	Е	Е	Е	Ε	Ε	Е	Е	Ε	Е	Tetrachloroethane	Х	Х	Х	Х	Х	Х	Х	Ε	G	
Salicylic Acid	Ε	G	Х	Х	Ε	Ε	Ε	Ε	Е	Tetrachloroethylene	Х	Х	Х	Х	Х	Х	Х	Ε	Ε	
Sea Water	Е	Ε	Е	Ε	Ε	Е	Е	Ε	Е	Tetrachloromethane	Х	Х	Х	Х	Х	Х	Х	G	G	
Sewage	F	F	G	Ε	F	Ε	G	Ε	Е	Tetrachloronapthalene	Х	Х	Х	Х	Х	Х	Х	G	G	
Silicone of Soda (Sodium Silicate)	Ε	Ε	Е	Ε	Ε	Ε	Ε	Ε	Е	Tetraethylene Glycol	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Ε	Е	
Silicate Esters	Х	Х	Е	G	Х	Е	Х	Е	Е	Tetraethyl Lead	Х	Х	C	G	Х	Х	Х	Е	Е	
Silicone Greases	Ε	Ε	Ε	Ε	Ε	E	Ε	Ε	E	Tetrahydrofuran (THF)	Х	Х	Х	Х	Х	Х	Х	Ε	E	
Silicone Oil	Е	F	Е	Ε	Ε	Е	F	Ε	E	Thionyl Chloride	Х	Х	Х	Х	Х	Х	Х	Е	Ε	
Silver Nitrate	Е	Е	Ε	Е	Е	Е	Е	Е	E	Tin Chloride	E	Е	Е	Е	Е	Е	Ε	Ε	Е	
Skelly Solvent	Х	Х	G	E	Х	C	Х	E	E	Tin Tetrachloride	Ε	E	Ε	Ε	Ε	Ε	Ε	Е	E	
Skydrol Hydraulic Fluids	Х	Х	Х	Х	E	Х	Е	E	E	Titanium Tetrachloride	Х	Х	G	F	Х	F	F	Ε	G	
Soap Solutions	G	E	G	E	E	E	E	E	E	Toluene	X	Х	X	X	X	X	X	E	E	
Soda Ash	E	E	E	E	E	E	E	E	E	Toluene Diisocyanate (TDI)	C	C	X	C	E	X	E	E	E	
Soda, Caustic (Sodium Hydroxide)	E	G	E	G	E	E	E	E	E	Toxaphene	X	X	G	G	X	X	X	E	E	
Soda Niter (Sodium Nitrate)	E	E	G	G	E	G	E	E	E	Transformer Oils (Petroleum Base)	X	X	G	E	X	G	X	E	E	
Soda Niter (Sodium Nitrate) Sodium Acetate	E X	E	E X	E X	E X	E X	E G	E	E	Transformer Oils (Chlorinated Pheynyl Base Askerels)	Х	Х	Х	Х	Х	Х	Х	G	G	
Sodium Aluminate	E	X E	E	E	E	A E	E	E	E	Transmission Fluids, A	х	х	С	G	х	Х	Х	Е	Е	
Sodium Bicarbonate	E	E	E	E	E	E	E	E	E	Transmission Fluids, B	X	X	Х	C	X	X	X	E	E	
Sodium Bisulfate	E	E	E	E	E	E	E	E	E	Tributyl Amine	G	G	G	G	E	C	E	E	Ē	
Sodium Bisulfite	E	E	E	E	E	E	E	E	E	Tributyl Phosphate	Х	Х	X	X	G	X	G	E	Ē	
Sodium Borate	E	E	E	E	E	E	E	E	E	Tricetin	E	G	G	G	E	G	E	E	E	
Sodium Carbonate	Е	Е	Е	Ε	Ε	Е	Е	Ε	Е	Trichloroacetic Acid	C	G	Х	G	G	Х	G	Ε	N	
Sodium Chloride	Ε	Е	Е	Ε	Ε	Е	Ε	Ε	Е	Trichlorobenzene	Х	Х	Х	Х	Х	Х	Х	G	G	
Sodium Chromate	Х	х	C	Х	Ε	C	G	G	G	Trichloroethane	Х	Х	Х	Х	х	Х	Х	Ε	Е	
Sodium Cyanide	Ε	Е	Ε	Ε	Ε	Ε	Ε	Ε	Е	Trichloroethylene	Х	Х	Х	C	Х	Х	Х	G	х	
Sodium Dichromate	Х	Х	C	Х	Е	F	G	Е	Е	Trichloropropane	Х	Х	Х	Х	Х	Х	Х	Е	Е	
Sodium Flouride	Е	Е	Е	Е	Е	Е	Е	Е	Е	Tricresyl Phosphate (TCP)	Х	Х	Х	Х	Ε	Х	G	Е	Е	
Sodium Hydroxide	Ε	C	Ε	G	Ε	E	Ε	Ε	E	Triethanolamine (TEA)	G	G	Ε	G	Ε	Ε	G	Ε	E	
(Caustic Soda)										Triethylamine	G	G	Е	G	G	Е	G	Е	Ε	
Sodium Hypochlorite	F	Х	Х	Х	G	F	G	G	G	Triethylene Glycol	Е	Е	Е	Е	Е	Е	Ε	Е	Е	
Sodium Metaphosphate	Е	Е	G	Е	Е	G	Е	Е	E	Trinitrotoluene (TNT)	Х	Х	G	Х	Х	G	Х	Х	Х	
Sodium Nitrate	Е	Е	Ε	Ε	Ε	Е	Е	Ε	Е	Triphenyl Phosphate	Х	Х	C	Х	Е	C	G	Ε	Е	
Sodium Nitrite	Ε	E	Ε	Ε	Ε	Ε	Ε	Ε	E	Trisodium Phosphate	Ε	Е	E	E	Е	Ε	Ε	Ε	Е	
Sodium Perborate	C	X	G	X	E	X	G	E	E	Tung Oil	Х	Х	G	E	C	G	X	E	E	
Sodium Peroxide	G	G	G	G	E	G	E	G	G	Turbine Oil	X	X	G	G	X	G	X	E	E	
Sodium Phosphate	E	G	G	E	E	E	E	E	E	Turpentine	X	X	E	E	X	X	X	G	E	
Sodium Silicate	E	E	E	E	E	E	E	E	E	2, 4D With 10% Fuel Oil	X	X	E	E	X	X	X	E	E	
Sodium Sulfido	E	E	E E	E E	E E	E E	E	E	E E	Ucon Hydrolube Oils	X E	X	G E	E E	E E	X E	E	E	E	
Sodium Sulfide Sodium Sulfite	E	E E	E	E	E	E	E	E	E	Undecanol Unsymmetrical Dimethyl	X	E X	X	X	E	E	E E	C	C	
Sodium Suirite Sodium Thiosulfate	E	E	E	E	E	E	E	E	E	Hydrazine (UDMH)	^	<b> </b> ^	^	^	[ -	Е		_	-	
Soybean Oil	X	X	G	G	G	G	G	E	E	Uran	G	С	G	G	G	Ε	G	Ε	Е	
Stannic Chloride	E	A E	E	E	G	E	E	E	E	Urea	E	F	E	F	E	F	E	E	E	
Stannic Chloride Stannic Sulfide	E	E	E	E	E	E	E	E	E	Urethane Formulations	N	N	N	E	N	N	N	N	N	
Stannous Chloride	E	E	E	E	E	E	E	E	E	Uric Acid	N	N	N	N	N	N	N	N	N	
Stannous Sulfide	E	E	E	E	E	E	E	E	E	Varnish	X	X	G	G	X	F	X	E	E	
Steam - Below 350 Deg F	X	X	X	X	G	X	E	X	X	Vegetable Oils	Х	Х	G	E	E	G	C	E	E	

	NR	SBR	CR	NBR	IIR	CSM	EPDM	XLPE	UHMWPE	
Versilube	C	C	C	Ε	Е	Е	Е	Е	Ε	
Vinegar	Е	F	Ε	C	Ε	Ε	G	Ε	Е	
Vinegar Acid	Е	F	Е	F	Е	Е	G	Е	Е	
Vinyl Acetate	Х	Х	Х	Х	G	F	F	G	Х	
Vinyl Benzene	Х	Х	Х	Х	Х	Х	Х	G	G	
Vinyl Chloride	F	Х	Х	Х	Χ	Χ	Χ	Ε	Е	
Vinyl Cyanide	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	
Vinyl Ether	Х	Х	Х	Х	Χ	C	C	Ε	Е	
Vinyl Styrene	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	
Vinyl Toluene	Х	Х	Х	Х	Χ	Χ	Χ	G	G	
Vinyl Trichloride	Х	Х	Х	Х	Χ	Χ	Χ	Ε	Е	
V.M. & P. Naptha	Х	Х	Ε	Ε	Χ	Χ	Χ	Ε	Е	
Water, Fresh (Non F.D.A.)	Е	Е	Ε	Ε	Ε	Ε	Ε	Ε	Е	
Water Boiling	Ν	Ν	Ε	Ν	Ν	Ν	Ε	Ν	Ν	
Water, Salt	Е	Е	Ε	G	Ε	Ε	Ε	Ε	Е	
Whiskey	Е	Е	Ε	Ε	Ε	Ε	Ε	Χ	Ν	
White Liquor	Е	Е	Ε	Ε	G	Ε	C	Ε	Е	
White Oil	Х	Х	G	Ε	Χ	Χ	Χ	Ε	Е	
Wines	Е	Е	Ε	Ε	Ε	Ε	Ε	Χ	Ν	
Wood Alcohol	Е	Е	Ε	Ε	Ε	Ε	Ε	Ε	Е	
Xylene (Xylol)	Х	Х	Х	Х	Χ	Χ	Χ	C	C	
Xylidine	Х	Х	Х	Х	Х	Х	Х	G	G	
Zeolites	G	Е	Ε	C	C	Ε	Ε	Ε	Ε	
Zinc Acetate	C	Х	C	C	Е	C	G	Е	Е	
Zinc Carbonate	Е	Ε	Ε	Е	Е	Е	Е	Е	Е	
Zinc Chloride	Ε	Ε	Е	Е	Е	Е	G	Е	Ε	
Zinc Chromate	Ε	C	Е	Е	Е	C	Е	G	G	
Zinc Sulfate	Ε	Е	Ε	Ε	Ε	Ε	Ε	Ε	Ε	

	RESISTA	NCE	RATING
Е	EXCELLENT	C	ACCEPTABLE
G	GOOD	Х	UNSATISFACTORY
F	FAIR	N	NO DATA

Maximum temperature 100°F (38°C) unless otherwise specified.

The reader is cautioned that the above table is only a guide and should be used as such. The degree of resistance of an elastomer with a particular fluid depends on such variables as temperature, concentration, pressure, velocity of flow, duration of exposure, aeration, stability of fluid, etc. Also, variations in elastomer types and special compounding of stocks to meet specific service conditions have considerable influence on the results obtained.

**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 it's intended purpose, and may result in possible damage to property and serious bodily injury.

1-EXCELLENT 2-GOOD 3-LIMITED 4-UNSATISFACTORY

HOSE CONSTI	RUCTIO	N WITI	H TEMPER	ATURE		
MATERIAL	PVO	C (F°)	TP	PR (F°)	Т	PE (F°)
CONVEYED	68	104	68	104	68	104
Acetate solvents, crude	4	4	3	4	3	4
Acetate solvents, pure	4	4	3	4	3	4
Acetic Acid 0-1%	1	2	1	2	3	4
Acetic Acid 20 -30%	1	2	1	2	3	4
Acetic Acid 80%	2	2	1	2	4	4
Acetic Acid Vapors	1	2	1	2	3	3
Acetic Acid Glacial	2	3	2	3	4	4
Acetone	2	3	1	1	3	4
Alum	1	1	1	1	1	1
Aluminum Acetate	1 1	2 1	1	1	1	1
Aluminum Chloride Aluminum Flouride	1	1	'1	1	1 1	1
	1	ı	'1	1	1	1
Aluminum Hydroxide Aluminum Nitrate	1	2	'1	1	2	2
Aluminum Sulfate	1	1	'1	1	1	1
	1	ı	'1	ı	3	'
Ammonia - aqueous Ammonia - dry gas	2		2		3	
Ammonia - dry gas Ammonia - liquid	4		3		3	
Ammonium Nitrate	1	1	1	1	2	2
Ammonium Sulfate	1 1	1		1	2	2
Ammonium Sulfide	1	1	i :	1	1	1
Ammonium Thiocyanate	1	1		1	2	2
Amyl Alcohol	1 1	2		2	4	4
Amyl Chloride	4	4	4	4	4	4
Aniline	2	3	i i	2		
Animal Oils	1	1	l ;	1		
Apple - sauce/juice	1	1				
Aqua Regia	3	4	2	3		
Aromatic Hydrocarbons	3	3	1	1		
Arsenic Acid 80%	1	2	1	1	4	4
ASTM Fuel #1 Oil	1	1	1	1	2	2
ASTM Fuel #3 Oil	2	3	1	1	2	2
ASTM Fuel A	2	2	1	1	2	2
ASTM Fuel B	4	4	1	1	2	3
ASTM Fuel C	4	4	1	2	2	3
Baby Food	1	1				
Barium Carbonate	1	1	1	1	1	1
Barium Chloride	1	1	1	1	1	1
Barium Hydroxide	1	1	1	1	2	3
Barium Sulfate	1	1	1	1	1	1
Barium Sulfide	1	1	1	1	1	1
Barley	1	4				
Beer	1	1				
Beet Sugar - liquor	1	1				
Benzene	3	3	1	2	3	3
Benzene Sulfonic Acid 10%	1	1	1	1	4	4
Benzoic Acid	2	3	1	2	4	4
Benzol	4	4	2	3	3	4
Black Liquor	1	1	1	1		
Bleach 12.5% active CL	2	3	1	2	3	4
Borax	1	2	1	1	1	1
Bordeaux Mixture	1	1	1	1		

**1-EXCELLENT** 

2-GOOD

**3-LIMITED** 

**4-UNSATISFACTORY** 

HOSE CONST	RUCTIO	N WITH	I TEMPERA	ATURE		
MATERIAL CONVEYED	PV 68	C (F°) 104	TP 68	R (F°) 104	TPI 68	E (F°) 104
Boric Acid	1	1	1	1		
Brine	1	1	1	1	3	4
Bromic Acid	1	2	1	2	3	4
Bromine - liquid	4	4	3	4	4	4
Bromine - water	4	4	3	4	4	4
Butadiene	3	4				
Butane	1	1	1	1	1	1
Butter	2	3		_		_
Butyl Alcohol	1	2	1	2	1	2
Butyl Cellosolve	4	4	3	4		
Butyl Phenol	3	4	2 1	3 1	١,	,
Butylene Butyric Acid 20%	1 3	2 4	2	3	1 3	1
Calcium Bisulfate	1	1	1	1	1	1
Calcium Carbonate	;	1	1	1	'1	1
Calcium Chlorate	;	1	'i	1	2	3
Calcium Chloride	;	1	1	1	3	4
Calcium Hydroxide	l i	1	1	1	2	3
Calcium Hypochlorite	1	1	1	1	4	4
Calcium Nitrate	1	1	1	1	1	1
Calcium Sulfate	1	1	1	1	1	1
Cane Sugar Liquors	1	1				
Carbon Monoxide	1	1	1	1	1	1
Carbon Tetrachloride	4	4	2	3	3	4
Carbonic Acid	1	1	1	1	4	4
Carrots	1	1				
Castor Oil	1	1	1	1	1	1
Catsup	1	2				
Caustic Potash	1	1	1	1	3	4
Caustic Soda	1	1	1	1	3	4
Cellosolve	3	4	2	3	2	3
Cheese	1	2				
Chlorine Gas - dry	1	1	1	1	4	4
Chlorine Gas - moist	3	4	2	3	4	4
Character 2%	3 2	4	2	3	3	4
Chocolate Chrome Alum	1 1	3 1	1	1	1	1
	l '				'	1
Chromic Acid 25% Chromic Acid 50%	2 2	3 3	1	2 2	4	4
Citric Acid	1	1	· '	2		7
Coal Tar	· '	•	3	3		
Coconut Oil	3	4	1	1	1	1
Cola Beverage	1	1		•		-
Copper Chloride	1	2	1	1	1	1
Copper Cyanide	1	1				
Copper Nitrate	1	2	1	1	1	1
Copper Sulphate	1	2	1	1	1	1
Corn Oils	1	2				
Cottonseed Oil	2	3				
Creosote	4	4	3	4		
Creosole	4	4	3	4	3	4
Crude Oil Sour	1	1	1	1	1	1
Crude Oil Sweet	1	1	1	1	1	1
Demineralized Water	1	1	1	1	3	4
Detergents, synthetic	1	2	1	1		
Developers, photographic	1	1	1	1		.
Dextrose Discol Oils	1 2	2	1	1	1	1
Diesel Oils	3	4	1	2		

1-EXCELLENT 2-GOOD 3-LIMITED 4-UNSATISFACTORY

#### **HOSE CONSTRUCTION WITH TEMPERATURE** PVC (F°) **MATERIAL** TPR (F°) TPE (F°) **CONVEYED** Disodium Phosphate Distilled Water Eggs Emulsions, photographic Ethers Ethyl Alcohol Ehtyl Alcohol 50 - 98% Ethyl Chloride Ethylene Bromide Ethylene Glycol Ferric Chloride Ferric Nitrate Ferric Sulphate Fish Solubles Fixing Solutions, Photo. Flour Flourobic Acid Formic Acid 3% Formic Acid 10% Formic Acid 25% Formic Acid 50% Freon - 12 Fructose Fruit Pulps and Juices Fuel Oil Gas - cook oven Gas - natural (dry) Gas - natural (wet) Gasoline Gasoline - refined Gelatin Gin Glucose Glycerine Glycol Grape Juice Grapefruit Juice Grease Green Liquor (paper) Heptane Hexane Honey Hydrochloric 10% Hydrochloric 48% Hydroflouric 4% Hydroflouric 10% Hydroflouric 48% Hydroflouric 60% Hydrogen Hydrogen Peroxide 12% Hydrogen Peroxide 50% Hydrogen Peroxide 90% Isopropyl Alcohol JP 3,4,5 Kerosene Kraft Liquor (paper) Lacquer Thinner Lactic Acid 28%

**1-EXCELLENT** 

2-GOOD

**3-LIMITED** 

**4-UNSATISFACTORY** 

HOSE CONSTRUCTION WITH TEMPERATURE										
MATERIAL CONVEYED	PVC (F°) 68 104	TPR (F°) 68 104	TPE (F°) 68 104							
Lard	2 3									
Lard Oil	1 2									
Lauric Acid	1 1	1 1	3 4							
Lead Acetate	1 1	1 1	1 1							
Lemon Juice	1 2									
Lime Sulfur	1 1									
Linseed Oil	1 1	1 1	1 1							
Lubricating Oils	1 1	1 1	1 1							
Magnesium Carbonate	1 1	1 1	1 1 3 4							
Magnesium Hydroxide Mayonnaise	1 1	1 1	3 4							
Mercuric Chloride	2 2	1 1	2 3							
Mercury	2 2									
Methyl Acetate	4 4									
Methyl Alcohol	3 4	2 3	3 4							
Methyl Ethyl Ketone	4 4	2 3	3 4							
Milk	1 1									
Mineral Oils	1 2	1 1	1 1							
Molasses	1 1	1 1	1 1							
Naptha	4 4	1 1								
Napthalene	3 4	1 1								
Nickel Acetate	1 1	1 1								
Nicotine Acid	1 2	1 1	3 4 4 4							
Nitric Acid 10% Nitric Acid 40%	1 2 2 3	1 1	4 4							
Nitric Acid 40%	3 4	2 3	4 4							
Nitric Acid 68%	3 4	2 3	4 4							
Nitric Acid 70%	4 4	3 3	4 4							
Oats	1 4									
Oils, Petroleum	1 2	1 1	1 1							
Oleic Acid	2 3	1 1	4 4							
Oleum	4 4	4 4	4 4							
Orange Juice	1 1									
Oxygen	1 1									
Ozone	3 4									
Paraffin	1 2									
Peanut Butter	1 2									
Pentane	3 4									
Petrol Petroleum Ether	4 4 3 3	1 1								
Phosgene (gas)	1 2	' '								
Phosgene (liquid)	4 4									
Phophoric Acid 89%			4 4							
Phophorous (yellow)	2 3									
Picric Acid	4 4	4 4	4 4							
Pitch	2 3	1 1								
Plating Solutions	1 2									
Potassium Bicarbonate	1 1	1 1	1 1							
Potassium Bromate 10%	1 1	1 1	1 1							
Potassium Bromide	1 1	1 1	1 1							
Potassium Chloride	1 1	1 1	1 2							
Potassium Cyanide	1 1	1 1	1 1							
Potassium Flouride	1 1	1 1	1 2							
Potassium Nitrate Potassium Perborate		1 1	1 1 1							
Potassium Perdorate Potassium Sulfide	1 1									
Propane Propane	1 1									
Propyl Alcohol	1 2	i i	2 3							
Richfield A Weed Killer	1 2	· · · · · · · · · · · · · · · · · · ·								
Salt Water	1 1	1 1	2 3							
Shortening	2 3									
	l .		1							

**1-EXCELLENT** 

2-GOOD

**3-LIMITED** 

**4-UNSATISFACTORY** 

HOSE CONSTRUCTION WITH TEMPERATURE										
MATERIAL CONVEYED	PVC (F°) 68 104		PR (F°) 104	TPI 68	E (F°) 104					
Silver Nitrate	1 1	1	1	1	1					
Silver Plating Solution	1 2	1	1	1	1					
Soap	1 1	1	1	2	3					
Sodium Benzoate	1 2	1	1	1	1					
Sodium Bicarbonate	1 1	1	1	1	1					
Sodium Bromide	1 1	1	1	1	2					
Sodium Carbonate (soda ash)	1 1	1	1	1	2					
Sodium Chlorate	2 3	1	2	3	3					
Sodium Chloride	1 1	1	1	1	2					
Sodium Cyanide	1 1	1	1	1	1					
Sodium Dichromate	1 2	1	2	1	2					
Sodium Hydroxide 10% Sodium Hydroxide 35%	1 1 2	1	1	4	4 4					
Sodium Hydroxide 50%	1 3	1	2	т	т					
Sodium Nitrate		1	1	1	1					
Sodium Phosphate Acid	2 2	i	2	4	4					
Soya Beans	1 4		_							
Soya Oil	1 3									
Soybean Oil	1 1									
Stannis Chloride	1 1	1	1	1	2					
Stearic Acid	1 2									
Sugar - all forms	1 1									
Sulfur	2 2									
Sulfuric Acis 10%	1 2	1	1	3	4					
Sulfuric Acis 70%	1 2	1	1	4	4					
Sulfuric Acis 95%	3 3	1	2	4	4					
Sulurous Acid	2 3	1	2	4	4					
Tannic Acid	1 1	1	1	3	4					
Tartaric Acid	1 2	1	1	2	3					
Tetraethyl Lead	2 3			2	2					
Tin Chloride	1 1	1	1	1	1					
Toluol	4 4	2	2	3	4					
Toluene	4 4	2	2	3	4					
Tomatoes	1 1 4 4			2	4					
Tricholorethylene	3 4			3	4					
Triethanolamine Trimethyl Propane	3 4									
Trisodium Phosphate	1 1	1	1	1	1					
Turpentine	3 4	1	1	2	3					
Urea	1 2	1	1	1	1					
Urine	1 1	i	1	1	1					
Varnish	4 4	1	1	1	2					
Vegetable Oils	2 3									
Vinegar	1 2									
Water Acid - mine water	1 1	1	1	3	4					
Water - distilled	1 1	1	1	3	4					
Water - fresh	1 1	1	1	3	4					
Water - salt	1 1	1	1	3	4					
Whiskey	1 2									
White Gasoline	1 1	1	1	1	2					
White Liquor (paper)	1 1									
Wines	1 2		ا ا	_	_					
Xylene	4 4	1	1	2	3					
Xylol	4 4	1	1	2	3					
Yeast	1 2									
Yogurt Zing Chlorido	1 2		,	1	,					
Zinc Chloride Zinc Chromate	1 1	1	1	1 1	1 1					
Zinc Chromate Zinc Cyanide			1	1	1					
Zinc Cyanide Zinc Nitrate			1	1	1					
Zinc Nitrate  Zinc Sulfate	1 1	1	1	1	1					
	I ' '	'	.							

#### **COUPLING MATERIAL CORROSION RESISTANCE**

**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 it's intended purpose, and may result in possible damage to property and serious bodily injury.

#### **RESISTANCE RATING**

#### METAL

1 - EXCELLENT 2 - GOOD 3 - FAIR

X - NOT RECOMMENDEDC - CONTACT FACTORY

#### **NON-METAL**

A - ACCEPTABLE

X - NOT RECOMMENDEDC - CONTACT FACTORY

- **1.** Ratings given are based at +70°F (+21°C). Chemical compatibility varies greatly with temperature. For applications at temperatures other than +70°F (+21°C), contact the manufacturer for recommendations.
- **2.** Chemical resistance of a material does not necessarily indicate the suitability of a fitting in a given application due to variables such as improper clamp and coupling application, special hose construction, gasket material, etc.

#### SPECIAL CAUTION SHOULD BE TAKEN WHEN HANDLING HAZARDOUS MATERIALS.

	ALUMINUM	BRASS	CARBON STEEL	STAINLESS STEEL, 304	STAINLESS STEEL, 316	NAFON	POLYPROPYLENE		ALUMINUM	BRASS	CARBON STEEL	STEEL, 304	STAINLESS STEEL, 316	NATON	POLYPROPYLENE
Acetate Solvents ( Crude)	1	Х	2	1	1	Α	Х	Barium Carbonate	Х	2	2	2	2	Α	Α
Acetate Solvents ( Pure)	1	1	Х	1	1	Α	Х	Barium Chloride	C	2	C	Х	C	Α	Α
Acetic Acid (80%)	3	Х	Х	1	1	Х	Х	Barium Hydroxide	Х	2	2	2	2	Α	Α
Acetic Acid (50%)	2	Х	Х	2	1	Х	Х	Barium Sulfate	2	2	Х	2	2	Α	Α
Acetic Acid (20%)	2	Х	Х	2	1	Х	X	Barium Sulfide	Х	Х	2	2	2	Α	Α
Acetic Acid (10%)	2	Х	Х	1	1	Х	X	Beer	1	2	2	1	1	Α	Α
Acetic Anhydride	2	Х	2	2	2	Х	X	Benzaldehyde	2	2	Х	2	2	Х	Х
Acetone	1	2	2	1	1	Α	Х	Benzene, Benzol	1	2	2	2	2	Α	Х
Acetylene	1	X	2	1	1	Х	Х	Benzine	1	2	2	2	2	Α	Х
Alcohol - Amyl	2	2	2	2	2	Α	Х	Benzoic Acid	2	2	X	2	2	Х	Х
Alcohol - Benzyl	2	2	2	1	1	A	X	Black Liquor	Х	X	C	2	2	X	A
Alcohol - Butyl	1	2	2	1	1	X	X	Bleach	Х	C	Х	C	Х	Х	Α
Alcohol - Diacetone	1	1	2	2	2	X	X	(12.5% active Chlorine)	V	٦	٦	١, ١	,	V	
Alcohol - Ethyl	1 C	2 C	2 C	2 C	2 C	X	X	Borax Boric Acid	X 1	2 X	2 X	1 C	1 C	X X	A
Alcohol - Hexyl	C	C	c	c	C	X	x	Brine Acid	1	X	x	C	C	X	A
Alcohol - Isobutyl Alcohol - Isopropyl	2	2	2	2	2	X	x	Bromic Acid	X	x	ć	C	c	X	A
Alcohol - Methyl	2	2	2	2	2	X	x	Bromine Liquid	2	ć	c	Х	Х	X	X
Alcohol - Octyl	C	ć	ć	c	C	A	x	Butadiene, Butylene	2	2	2	2	2	X	x
Alcohol - Propyl	2	2	2	1	1	X	x	Butane	2	2	1	2	2	X	X
Aluminum Chloride	X	X	X	X	X	Α	A	Butyl Acetate	1	2	2	2	2	Α	X
Aluminum Fluoride	2	c	X	X	2	X	A	Butyric Acid	2	2	X	2	2	Α	A
Aluminum Nitrate	3	Х	Х	2	2	Α	Α	Calcium Bisulfate	X	c	Х	X	2	X	Α
Aluminum Potassium Sulfate	2	2	Х	Х	2	Х	Α	Calcium Bisulfide	c	c	c	C	2	Α	Α
Aluminum Sulfate	Х	Х	Х	С	2	Α	Α	Calcium Bisulfite	Х	Х	Х	c	2	Х	Α
Ammonia Anhydrous	1	Х	1	2	1	Α	х	Calcium Bromide	Х	2	Х	Х	Х	Х	Х
Ammonia Gas	Х	Х	1	1	1	Α	х	Calcium Carbonate	Х	2	2	1	2	Α	Α
Ammonia Nitrate	C	C	C	C	C	Х	c	Calcium Chloride	C	2	2	C	C	Α	Α
Ammonium Bifluoride	C	Х	Х	C	C	Х	Α	Calcium Hydroxide	Х	2	2	2	2	Α	Α
Ammonium Carbonate	2	Х	2	2	2	Α	Α	Calcium Hypochlorite	Х	Х	Х	Х	2	Χ	Α
Ammonium Casenate	C	C	C	C	C	Α	C	Carbon Bisulfide	1	Х	2	2	2	Α	Х
Ammonium Chloride	Х	Х	Х	Х	Х	Α	Α	Carbon Dioxide - Dry	1	1	2	2	2	Α	Α
Ammonium Hydroxide	2	Х	1	2	2	Α	Α	Carbon Dioxide - Wet	1	Х	3	2	2	Х	Α
Ammonium Nitrate	2	Х	Х	C	C	Α	Α	Carbon Disulfide	1	Х	2	2	2	Α	Х
Ammonium Phosphate	Х	Х	Х	1	2	Α	Α	Carbon Monoxide	1	1	2	1	1	Α	Α
Ammonium Sulfate	Х	Х	Х	Х	2	Α	Α	Carbon Tetrachloride	Х	C	2	1	C	Α	Х
Aniline	C	Х	Х	1	1	Х	Х	Carbonic Acid	1	2	2	2	2	Χ	Α
Arsenic Acid	Х	Х	Х	2	2	Х	Α	Castor Oil	2	2	2	2	2	Χ	Α
Asphalt	C	C	2	C	2	Χ	Х	Caustic Potash	Х	C	Х	C	2	Α	Α

## **COUPLING MATERIAL CORROSION RESISTANCE**

Ratings given are based at +70°F (+21°C).

	ALUMINUM	BRASS	CARBON STEEL	STAINLESS STEEL, 304	STAINLESS STEEL, 316	NATON	POLYPROPYLENE		ALUMINUM	BRASS	CARBON STEEL	STAINLESS STEEL, 304	STAINLESS STEEL, 316	NATON	POLYPROPYLENE
Caustic Soda								Isopropyl Ether	C	2	C	1	2	Α	Х
(see Sodium Hydroxide)	,	,	,	ارا	٠, ١	V		Jet Fuel (JP4, JP5)	2	1	2	2	2	X	X
Cellosolves Chlorine - Liquid	2 C	2 C	2 2	2 C	2	X X	A X	Kerosene Ketones	2	2	2	2	2	X A	X
Chloroform	C	C	X	C	c	X	x	Lactic Acid (25%)	3	2	X	C	C	Α	A
Chlorosulfonic Acid	C	Х	2	Х	Х	Х	х	Lactic Acid (80%)	2	2	Х	C	C	Α	Α
Clorox (5.5% bleach)	Х	C	Х	C	2	Χ	C	Lard Oil	2	C	3	2	2	Α	Α
Chromic Acid (50%)	2	Х	Х	3	C	X	Х	Lead Acetate	Х	Х	X	2	2	Х	Α
Citric Acid	3	X 3	X 2	3 2	C 2	X X	X	Lead Chloride	X	C	C X	2	2	X	C
Coke Oven Gas Copper Chloride	2 X	X	X	X	X	A	Â	Lead Sulfate Lime Sulphur	x	X	X	2	2	X X	C A
Copper Cyanide	X	X	C	2	2	X	c	Lonoleic Acid	2	X	X	2	2	X	A
Copper Sulfate	Х	Х	Х	C	2	Α	Α	Linseed Oil	2	2	2	2	2	Α	Α
Crysylic Acid	2	2	2	2	2	Χ	х	Lubricants (oil)	2	1	2	2	2	Α	Х
Cyclohexane	2	2	2	2	2	Α	Х	Magnesium Carbonate	2	C	C	2	2	Х	Α
Detergents	2	2	2	1	2	A	A	Magnesium Chloride	X	X	C	C	C	X	A
Dextrose Diesel Fuels	2	C 1	C 2	C 1	C 1	A A	A X	Magnesium Hydroxide Magnesium Nitrate	2	2	2	1 2	1 2	X X	A A
Diethylamine	2	c	X	2	2	X	Â	Magnesium Oxide	C	C	C	C	C	X	c
Disodium Phosphate	C	c	1	C	1	Α	Α	Magnesium Sulfate	2	c	c	2	2	Х	A
Ethers	2	2	2	1	1	Α	х	Maleic Acid	C	2	Х	C	2	Х	Α
Ethyl Acetate	C	C	2	2	2	Α	Х	Mercuric Chloride	Х	Х	Х	Х	C	Х	Α
Ethyl Chloride	C	C	2	C	1	Α	Х	Mercuric Cyanide	Х	Х	X	2	2	Х	Α
Ehylene Chloride	C	C 2	2	C	C 2	A A	X	Mercury Methane	X 1	X 1	2	1	1	A A	A
Ehylene Dichloride Ehylene Glycol	C 1	2	2 2	2	2	A	x	Methanol	2	2	2	1 2	1 2	A	X A
Ehylene Oxide	1	X	2	2	2	X	x	Methyl Bromide	X	C	2	2	2	X	X
Fatty Acids	1	3	X	C	1	Α	Α	Methyl Ethyl Ketone	2	2	2	2	2	Α	Х
Ferric Chloride	Х	Х	Х	Х	Х	Х	Α	Methyl Isobutyl Ketone	2	2	2	2	2	Α	Х
Ferric Hydroxide	C	C	C	1	1	Α	C	Methyl Metha crylate	2	C	Х	2	2	Х	Α
Ferric Nitrate (10 - 50%)	X	X	X	2	2	X	A	Methylene Chloride	C	2	2	C	C	A	X
Ferric Sulfate Ferrous Chloride	X	X X	X C	C X	C X	X X	A A	Milk Mineral oil	1 2	X 1	2	1	1 2	A A	A A
Ferrous Sulfate	2	2	X	2	ć	X	A	Muriatic Acid	X	C	C	X	X	X	A
Fluboric Acid	Х	C	1	C	C	Х	А	Napthalene	2	2	2	1	1	Α	Α
Formaldehyde (50%)	C	2	Х	1	1	Χ	Α	Napthalene	2	2	2	2	2	Α	Х
Formic Acid (Anhydrous)	1	Х	Х	C	C	Χ	Α	Nickel Chloride	Х	Х	Х	C	C	Х	Α
Freon 11	2	2	X	2	2	X	X	Nickel Sulfate	X	X	C	2	2	X	A
Freon 12 Freon 22	2	2	X	2	2 2	X X	X X	Nitric Acid (100%) Nitric Acid (50%)	1 X	X	X	2 2	C	X X	X
Fruit Juices	2	2	X	2	2	A	A	Nitric Acid (30%)	X	X	X	1	C	X	x
Fuel Oil	2	2	2	2	2	Α	х	Nitrobenzene	1	2	2	2	2	Α	Α
Furfural	2	2	2	2	2	Α	х	Oil - Castor	2	2	2	2	2	Α	Α
Gasoline - Refined	2	2	2	2	2	Α	X	Oil - Coconut	2	C	3	2	2	Α	Α
Gasoline - Sour	X	2	2	2	2	A	X	Oil - Corn	2	2	2	C 2	2	A	A
Gelatin Glucose	2	2	X 2	2	2	A A	A A	Oil - Cotton Seed Oil - Fuel	2	2	2	2	2	A A	A X
Glue	2	2	2	C	2	C	A	Oil - Linseed	2	2	2	2	2	Α	A
Glycerine	1	1	2	1	1	Α	Α	Oil - Mineral	2	1	2	1	2	Α	Α
Glycols	2	2	2	2	2	Α	Α	Oil - Silicon	2	1	2	2	2	Α	Α
Green Liquor	C	C	2	C	C	C	Α	Oil - Vegetable	2	2	2	1	1	Α	Х
Heptane	2	2	2	2	2	A	X	Oleic Acid	2	3	2	C	1	A	X
Hexane Hydrobromic Acid - 50%	2 X	2 X	2 X	1 X	1 X	A X	X A	Oleum Oxalic Acid	2	X C	2 X	2 X	2 X	X X	X A
Hydrobromic Acid - 30%	X	X	X	X	X	X	A	Oxygen	2	2	2	2	2	X	x
Hydrochloric Acid - 20%	X	Х	Х	Х	Х	X	Α	Palmitic Acid	2	3	3	2	2	Х	Α
Hydrochloric Acid - 38%	х	Х	Х	х	х	Х	А	Paraffin	2	2	2	2	2	Α	Α
Hydrocyanic Acid	2	Х	2	2	2	Х	Α	Perchloroethylene	2	2	2	C	C	Х	х
Hydrofluosilicic Acid-10 -50%	X	2	Х	Х	2	Х	C	Petrolatum	2	C	3	2	2	Α	C
Hydrogen Peroxide - 50%	C	X	X	C	C	X	A	Phenol (Carbonic Acid)	1	1	2	C	1	X	X
Hydrogen Sulfide Hydrogen Chloride (Dry Gas)	C X	C 2	C 2	X C	2 C	X X	A A	Phosphoric Acid (25-50%) Phosphoric Acid (50-85%)	X	X	X	C	C	X X	A A
Hydrogen Gas	1	1	C	1	1	X	A	Photographic Solutions	ć	c c	X	1	1	X	X
Hypo chlorous Acid	Х	Х	X	Х	Х	X	х	Phthalic Anhydride	C	2	2	1	1	Х	Х
lodine	1	Х	Х	Х	Х	Х	Α	Picric Acid	1	Х	Х	2	2	Х	C

## **COUPLING MATERIAL CORROSION RESISTANCE**

#### Ratings given are based at +70°F (+21°C).

Plating Solutions   Brass   C					-			
Brass		ALUMINUM	BRASS	CARBON STEEL	STAINLESS STEEL, 304	STAINLESS STEEL, 316	NATON	POLYPROPYLENE
Cadmium	_	_	_	_	_	7	_	^
Chrome (40%) Copper Cyanide Gold Copper Cyanide Gold Co C C C C C C X A A Gold Iron Lead Nickel C C C C C C C C X A A Nickel C C C C C C C C X A A Nickel C C C C C C I I I X A A Nickel C C C C C I I I X A A Nickel C C C C C I I I X A A Nickel C C C C C I I I X A A Nickel C C C C C I I I X A A Nickel Silver C C C C C I I I X A A C C C C C I I I X A A Nickel C C C C C I I I X A A Nickel Silver C C C C C I I I X A A Nickel C C C C C C I I I X A A Nickel Silver C C C C C C C C A A Nickel Silver C C C C C C C C A A Nickel Silver C C C C C C C C A A Nickel Silver C C C C C C C C A A Nickel Silver Notassium Acetate X X Z 2 C C C A A Potassium Bicarbonate (30%) X Z 2 Z I I I A A Potassium Chlorate (30%) X Z 2 Z I I I A A Potassium Chlorate (30%) X X Z 2 C C C A A Potassium Chlorate (30%) X X Z 2 C C C A A Potassium Chlorate (30%) X X Z 2 C C C A A Potassium Chlorate (30%) X X Z 2 C C C A A Potassium Chlorate (30%) X X Z 2 C C C A A Potassium Nitrate (80%) X X Z 2 C C C A A Potassium Nitrate (80%) X X Z 2 C C C A A Potassium Nitrate (80%) X X Z 2 C C C A A Potassium Nitrate (80%) X X C C X C C X A Potassium Nitrate (80%) X X C C X C C X A Potassium Nitrate (80%) X X C C X C C X A Potassium Nitrate (80%) X X C C X C C X A Potassium Nitrate (80%) X X C C X C C X A Potassium Nitrate (80%) X X C C X C C X A Potassium Nitrate (80%) X X C C X C C X A Potassium Nitrate (80%) X X C C X C C X A Potassium Nitrate (80%) X X C C X C X C C X A Potassium Nitrate (80%) X X C C X C X A Potassium Nitrate (80%) X X C C X C X C X A Potassium Nitrate (80%) X X C C X C X C X A Potassium Nitrate (80%) X X C C X C X C X A Potassium Nitrate (80%) X X C C X C X C X A Potassium Nitrate (80%) X X C C X C X C X A Potassium Nitrate (80%) X X C C X C X C X A Potassium Nitrate (80%) X X C C X C X C X A Potassium Nitrate (80%) X X Z C C C X A Potassium Nitrate (80%) X X Z C C C X A Potassium Nitrate (80%) X X Z C C C X A Potassium Nitrate (80%) X X X Z C Z Z Z Z Z Z Z X A Potassium Nitrate (80%) X X X Z Z Z Z Z Z Z Z X X A Potassium Nitrate (80%) X X								
Copper Cyanide								
Iron	1	C	C	C	C	C	Х	Α
Lead     C								
Nickel   C								
Silver   Tin								
Tin								
Potassium Acetate	Tin		C	C	C	3	Х	Α
Potassium Bicarbonate (30%)								
Potassium Carbonate (50%)								
Potassium Chlorate   30%	1							
Potassium Chloride (30%)	1							
Potassium Cyanide (30%)	1 ' '							
Potassium Dichromate   30%   Potassium Hydroxide   90%   Notassium Hydroxide   90%   Notassium Nitrate   80%   Notassium Permanganate   20%   Notassium Sulfate   10%   Notassium Sulfate   Notass	Potassium Chromate (30%)	2	2	C	2	2	Х	Α
Potassium Hydroxide (90%)								
Potassium Nitrate (80%)								
Potassium Permanganate (20%)	1 ' '							
Propane	1							
Propylene Glycol	Potassium Sulfate (10%)	1	2	2	1	1	Α	Α
Propylene Oxide (90%)         C         C         C         1         1         X         X           Pyrogallic Acid         2         A         A         X	1							
Pyridine	1							
Pyrogallic Acid	1 ' '							
Soap Solutions	*							
Sodium Acetate	Silver Nitrate					1		
Sodium Bicarbonate - 20%   2	· ·							
Sodium Bisulfate         X         C         2         C         C         A         A           Sodium Bisulfite         X         2         X         C         C         A         A           Sodium Borate         2         Z         2         X         C         C         A         A           Sodium Perborate - 10%         2         X         2         2         Z         X         A           Sodium Carbonate         X         2         2         Z         X         A         A           Sodium Chlorate - 50%         2         2         X         2         2         X         A           Sodium Chloride - 50%         X         X         X         2         2         X         A           Sodium Hydroxide - 70%         X         X         3         2         2         X         A           Sodium Hydroxide - 50%         X         X         3         1         C         X         A           Sodium Hydroxide - 50%         X         X         X         X         X         X         X         X         X         X         X         X         X         X <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
Sodium Bisulfite         X         2         X         C         C         A         A           Sodium Borate         2         2         3         2         2         A         A           Sodium Perborate - 10%         2         X         2         2         2         X         A           Sodium Perborate - 50%         2         2         X         2         2         X         A           Sodium Chlorate - 50%         2         2         X         2         2         X         A           Sodium Cyanide         X         X         2         2         C         C         A         A           Sodium Dichromate         2         X         2         2         2         X         A           Sodium Hydroxide - 50%         X         X         X         3         1         C         X         A           Sodium Hydroxide - 50%         X         X         2         2         1         1         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         X         <								
Sodium Perborate - 10%   Sodium Carbonate   X								
Sodium Carbonate         X         2         2         C         2         A         A           Sodium Chlorate - 50%         2         2         X         2         2         X         A           Sodium Cyanide         X         X         Z         C         C         A         A           Sodium Dichromate         2         X         Z         2         Z         X         A           Sodium Hydroxide - 70%         X         X         3         2         2         X         A           Sodium Hydroxide - 50%         X         X         3         1         C         X         A           Sodium Hydroxide - 30%         X         2         2         1         1         X         A           Sodium Hydroxohloride - 30%         X         2         2         C         C         X         A           Sodium Hydroxohloride - 30%         X         2         2         C         C         X         A           Sodium Hydroxohloride - 30%         X         X         X         X         X         X         X         X         X         X         X         X         X         X	Sodium Borate						Α	
Sodium Chlorate - 50%         2         2         X         2         2         X         A           Sodium Cyanide         X         X         Z         C         C         A         A           Sodium Dichromate         2         X         Z         2         Z         X         A           Sodium Hydroxide - 70%         X         X         3         2         2         X         A           Sodium Hydroxide - 50%         X         X         X         3         1         C         X         A           Sodium Hydroxide - 30%         X         2         2         1         1         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         X         X         X         X         X         X         Z         2         X         X         X         X         X </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Sodium Cyanide         X         X         2         C         C         A         A           Sodium Dichromate         2         X         2         2         2         X         A           Sodium Hydroxide - 70%         X         X         3         2         2         X         A           Sodium Hydroxide - 50%         X         X         3         1         C         X         A           Sodium Hydroxide - 30%         X         2         2         1         1         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         2         2         2         X         A           Sodium Hydroxide - 40%         1         2         2         2         X         X         X         X         X         X         X         X         X         X         X         X<								
Sodium Dichromate         2         X         2         2         Z         X         A           Sodium Hydroxide - 70%         X         X         3         2         2         X         A           Sodium Hydroxide - 50%         X         X         X         3         1         C         X         A           Sodium Hydroxide - 30%         X         2         2         1         1         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
Sodium Hydroxide - 50%         X         X         3         1         C         X         A           Sodium Hydroxide - 30%         X         2         2         1         1         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         2         2         C         C         X         A           Sodium Hydroxide - 30%         X         Z         2         C         C         X         A           Sodium Hydroxide - 50%         X         X         X         X         X         Z         Z         X         X         X         A         <	1	2	Х	2			Х	Α
Sodium Hydroxide - 30%         X         2         2         1         1         X         A           Sodium Hydrochloride - 30%         X         2         2         C         C         X         A           Sodium Hypochlorite         X         X         X         X         C         C         X         A           Sodium Hypochlorite         X         X         X         X         Z         C         C         X         A           Sodium Metaphosphate         X         X         X         X         Z         2         Z         X </td <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	•							
Sodium Hydrochloride - 30%         X         2         2         C         C         X         A           Sodium Hypochlorite         X         X         X         X         C         C         X         A           Sodium Metaphosphate         X         X         X         Z         2         Z         X         A         A         A         Sodium Point Provide         X         X         X         X         X         X         X         X         X         X         X         X         X         X         A         A         A         A         A         A         A         A         A         A         A         A         A         A         A         A         X         X <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	•							
Sodium Hypochlorite         X         X         X         X         Z         C         X         A           Sodium Metaphosphate         X         X         X         X         Z         Z         X         A	1							
Sodium Metaphosphate         X         X         X         Z         Z         X         X         X         Z         Z         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         Z         Z         X         X         A	•							
Sodium Perborate - 10%         2         X         2         2         Z         X         A           Sodium Peroxide - 10%         2         X         2         2         2         X         A           Sodium Silicate         1         2         2         2         2         A         A           Sodium Sulfiate         C         2         2         C         1         A         A           Sodium Sulfide - 50%         X         X         2         C         2         X         A           Sodium Thiosulphate         2         X         X         2         2         A         A           Stannic Chloride         X<	1						Х	Х
Sodium Peroxide - 10%         2         X         2         2         Z         X         A           Sodium Silicate         1         2         2         2         2         2         A         A           Sodium Sulfide - 50%         X         X         Z         C         2         X         A           Sodium Thiosulphate         2         X         X         2         2         A         A           Stannic Chloride         X <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
Sodium Silicate         1         2         2         2         2         A         A           Sodium Sulfate         C         2         2         C         1         A         A           Sodium Sulfide - 50%         X         X         Z         C         2         X         A           Sodium Thiosulphate         2         X         X         2         2         A         A           Stannic Chloride         X         X         X         X         X         X         X         X         X         A								
Sodium Sulfate         C         2         2         C         1         A         A           Sodium Sulfide - 50%         X         X         2         C         2         X         A           Sodium Thiosulphate         2         X         X         2         2         A         A           Stannic Chloride         X								
Sodium Sulfide - 50%         X         X         Z         C         Z         X         A           Sodium Thiosulphate         2         X         X         2         2         A         A           Stannic Chloride         X								
Stannic Chloride         X         A		Х	Х	2		2	Х	Α
Stannous Chloride         X         C         X         X         C         C         X         C         C         X         A	· ·							
Steam         C         C         C         C         C         X         C           Stearic Acid         2         3         3         2         1         A         A           Stoddard's Solvent         2         2         2         2         2         2         X         A           Sugar Liquors (Cane)         1         2         2         2         2         A         A           Sugar Liquors (Beet)         1         2         2         1         1         A         A           Sulfate Liquors         2         X         3         C         2         X         A           Sulfur Chloride         X         X         X         X         C         C         X         X           Sulfur Dioxide (Dry)         2         2         1         C         2         X         A								
Stearic Acid         2         3         3         2         1         A         A           Stoddard's Solvent         2         2         2         2         2         2         X         A           Sugar Liquors (Cane)         1         2         2         2         2         A         A           Sugar Liquors (Beet)         1         2         2         1         1         A         A           Sulfate Liquors         2         X         3         C         2         X         A           Sulfut Chloride         X         X         X         C         C         X         X           Sulfur Dioxide (Dry)         2         2         1         C         2         X         A								
Stoddard's Solvent         2         2         2         2         2         2         X         A           Sugar Liquors (Beet)         1         2         2         2         2         A         A           Sulfate Liquors         2         X         3         C         2         X         A           Sulfite Liquors         X         X         X         2         2         X         X           Sulfur Chloride         X         C         X         C         C         X         X           Sulfur Dioxide (Dry)         2         2         1         C         2         X         A								
Sugar Liquors (Beet)         1         2         2         1         1         A         A           Sulfate Liquors         2         X         3         C         2         X         A           Sulfite Liquors         X         X         X         2         2         X         X           Sulfur Chloride         X         C         X         C         C         X         X           Sulfur Dioxide (Dry)         2         2         1         C         2         X         A								
Sulfate Liquors         2         X         3         C         2         X         A           Sulfite Liquors         X         X         X         2         2         X         X           Sulfur Chloride         X         C         X         C         C         X         X           Sulfur Dioxide (Dry)         2         2         1         C         2         X         A								
Sulfite Liquors         X         X         X         2         2         X         X           Sulfur Chloride         X         C         X         C         C         X         X           Sulfur Dioxide (Dry)         2         2         1         C         2         X         A	1 - 1 - 1							
Sulfur Chloride         X         C         X         C         C         X         X           Sulfur Dioxide (Dry)         2         2         1         C         2         X         A	I -							
Sulfur Dioxide (Dry)  2 2 1 C 2 X A	1							
Sulfur Trioxide 2 2 2 C 2 X X								
		2	2	2		2	Х	Х

	ALUMINUM	BRASS	CARBON STEEL	STAINLESS STEEL, 304	STEEL, 316	NATON	POLYPROPYLENE
Sulfuric Acid to 10%	Х	2	Х	Χ	Χ	Х	Α
Sulfuric Acid - 100%	Х	Х	2	C	C	Х	Х
Sulfurous Acid	2	2	Х	Х	C	Х	Α
Tannic Acid	Х	C	Х	2	2	Х	Α
Tanning Liiquors	1	C	C	1	1	Х	Α
Tartaric Acid	C	C	C	1	1	Α	Α
Titanium Tetrachloride	Х	Х	2	C	2	Х	Χ
Toluene	1	1	1	1	1	Α	Χ
Tetrahydrofuran	Х	C	1	1	2	Α	Χ
Tomato Juice	2	C	3	2	2	Х	Α
Trichloroethylene	1	C	2	C	C	Α	Χ
Triethanolamine	2	Х	2	2	2	Α	Χ
Triethylamine	C	C	C	2	2	Α	Χ
Trisodium Phosphate	Х	2	2	1	1	Α	Α
Turpentine	2	Х	2	1	1	Х	Χ
Urea - 50%	2	C	2	2	2	Α	Α
Urine	C	C	2	1	1	Х	Α
Vinegar	2	Х	2	2	2	Х	Α
Water Acid (Mine)	Х	Х	Х	C	C	Х	Α
Water (Distilled)	Χ	2	Χ	2	2	Α	Α
Water (Sea)	2	2	Х	2	2	Α	Α
Whiskey	Х	2	2	1	1	Х	Α
White Liquor	2	C	Х	2	2	Х	Α
Wine	Х	2	Х	1	1	Х	Α
Xylene	2	2	2	2	2	Α	Х
Zinc Chloride	Χ	Х	Х	Х	2	Α	Α
Zinc Nitrate	C	C	C	2	2	Х	Α
Zinc Sulfate - 50%	Х	2	Х	1	1	Х	Α

## **TECHNICAL INFORMATION**

## DECIMAL & MILLIMETER EQUIVALENTS OF FRACTIONS AND VACUUM CONVERSION TABLE

		DEC	IMAL /	AND MIL	LIMETE	RE	QUIV	ALEN	rs of	FRACT	TONS	
		1 inch	= 25.4 n	nillimeters					1 inch	= 25.4 m	illimeters	
	Fractio	nal Inc	:h	Dec	imal			Fractio	nal Incl	h	Deci	mal
1/64	1/32	1/16	1/8	inch	mm		1/64	1/32	1/16	1/8	inch	mm
1				0.016	0.40		33				0.516	13.10
2	1			0.031	0.79		34	17			0.531	13.50
3				0.047	1.19		35				0.547	13.90
4	2	1		0.063	1.59		36	18	9		0.563	14.30
5				0.078	1.98		37				0.578	14.70
6	3			0.094	2.38		38	19			0.594	15.10
7				0.109	2.78	S	39				0.609	15.50
8	4	2	1	0.125	3.18	25.4 MILLIMETERS	40	20	10	5	0.625	15.90
9				0.141	3.57	Œ	41				0.641	16.30
10	5			0.156	4.00	1	42	21			0.656	16.70
11				0.172	4.40	=	43				0.672	17.10
12	6	3		0.188	4.80	5	44	22	11		0.688	17.50
13				0.203	5.20	M	45				0.703	17.90
14	7			0.219	5.60	1	46	23			0.719	18.30
15				0.234	6.00	7.	47				0.734	18.70
16	8	4	2	0.250	6.40	7	48	24	12	6	0.750	19.10
17				0.266	6.70	II	49				0.766	19.50
18	9			0.281	7.10	I	50	25			0.781	19.80
19				0.297	7.50	INCH	51				0.797	20.30
20	10	5		0.313	7.90	=	52	26	13		0.813	20.60
21				0.328	8.30	1	53				0.828	21.00
22	11			0.344	8.70		54	27			0.844	21.40
23				0.359	9.10		55				0.859	21.80
24	12	6	3	0.375	9.50		56	28	14	7	0.875	22.20
25				0.391	9.90		57				0.891	22.60
26	13			0.406	10.30		58	29			0.906	23.00
27				0.422	10.70		59				0.922	23.40
28	14	7		0.438	11.10		60	30	15		0.938	23.80
29				0.453	11.50		61				0.953	24.20
30	15			0.469	11.90		62	31			0.969	24.60
31				0.484	12.30		63				0.984	25.00
32	16	8	4	0.500	12.70		64	32	16	8	1.000	25.40

	VACUUM CONVERSION TABLE FOR WATER (SUCTION)												
ATM	PSI	Meter(s)	Feet	mm	In Hg	%							
0.1	1.40	1	3 ft. 3-3/8 in.	73.60	2.90	10							
0.2	2.80	2	6 ft. 6-3/4 in.	147.10	5.80	20							
0.3	4.20	3	9 ft. 10-1/8 in.	220.70	8.70	30							
0.4	5.70	4	13 ft. 1-1/2 in.	294.20	11.60	40							
0.5	7.10	5	16 ft. 4-13/16 in.	367.80	14.50	50							
0.6	8.50	6	19 ft. 8-3/16 in.	441.30	17.40	60							
0.7	10.00	7	22 ft. 11-9/16 in.	514.90	20.30	70							
0.8	11.40	8	26 ft. 2-15/16 in.	588.40	23.20	80							
0.9	12.80	9	29 ft. 6-3/8 in.	662.00	26.00	90							
1.0	14.20	10	32 ft. 9-11/16 in.	735.50	29.00	100							

# TECHNICAL INFORMATION TEMPERATURE CONVERSION

Look up reading in middle column (shaded). If in degrees Centigrade, read Farenheit equivalent in right-hand column; if in Farenheit degrees, read Centigrade equivalent in left-hand column.

 $^{\circ}F = (^{\circ}C \times 1.8) + 32$ 

 $^{\circ}C = (^{\circ}F - 32) \times .5556$ 

c	C F	F	c	C F	F	С	C F	F
-51	-60	-76	.6	33	91.4	22.2	72	161.6
-46	-50	-58	1.1	34	93.2	22.8	73	163.4
-40	-40	-40	1.7	35	95.0	23.3	74	165.2
-34	-30	-22	2.2	36	96.8	23.9	75	167.0
-29	-20	-4	2.8	37	98.6	24.4	76	168.8
-23	-10	14	3.3	38	100.4	25.0	77	170.6
-17.8	0	32	3.9	39	102.2	25.6	78	172.4
-17.2	1	33.8	4.4	40	104.0	26.1	79	174.2
-16.7	2	35.6	5.0	41	105.8	26.7	80	176.0
-16.1	3	37.4	5.6	42	107.6	27.2	81	177.8
-15.6	4	39.2	6.1	43	109.4	27.8	82	179.6
-15.0	5	41.0	6.7	44	111.2	28.3	83	181.4
-14.4	6	42.8	7.2	45	113.0	28.9	84	183.2
-13.9	7	44.6	7.8	46	114.8	29.4	85	185.0
-13.3	8	46.4	8.3	47	116.6	30.0	86	186.8
-12.8	9	48.2	8.9	48	118.4	30.6	87	188.6
-12.2	10	50.0	9.4	49	102.2	31.1	88	190.4
-11.7	11	51.8	10.0	50	122.0	31.7	89	192.2
-11.1	12	53.6	10.6	51	123.8	32.2	90	194.0
-10.6	13	55.4	11.1	52	125.6	32.8	91	195.8
-10.0	14	57.2	11.7	53	127.4	33.3	92	197.6
-9.4 -8.9	15 16	59.0	12.2	54 55	129.2	33.9	93 94	199.4
-8.3	17	60.8 62.6	12.8 13.3	56	131.0 132.8	34.4 35.0	94 95	201.2 203.0
-0.3 -7.8	18	64.4	13.5	57	134.6	35.0 35.6	96	203.0
-7.3	19	66.2	14.4	58	134.0	36.1	97	204.6
-6.7	20	68.0	15.0	59	138.2	36.7	98	208.4
-6.1	21	69.8	15.6	60	140.0	37.2	99	210.2
-5.6	22	71.6	16.1	61	141.8	37.8	100	212.0
-5.0	23	73.4	16.7	62	143.6	37.10	100	2.2.0
-4.4	24	75.2	17.2	63	145.4			
-3.9	25	77.0	17.8	64	147.2	43	110	230
-3.3	26	78.8	18.3	65	149.0	49	120	248
-2.8	27	80.6	18.9	66	150.8	54	130	266
-2.2	28	82.4	19.4	67	152.6	60	140	284
-1.7	29	84.2	20.0	68	154.4	66	150	302
-1.1	30	86.0	20.6	69	156.2	71	160	320
-0.6	31	87.7	21.1	70	158.0	77	170	338
0	32	89.6	21.7	71	159.8	82	180	356

#### **HOSE CONSTRUCTIONS**

Below are various hose constructions used in the Jason Industrial hose line. The applicable hose series for each construction is listed below each cutaway in numerical order.

#### 1-BRAID



4103 - Red PVC Air Hose

**4105** - Yellow/TPR Air Hose

**4805** - Wire Reinforced Hose (steel wire)

4815 - EPDM Steam Hose (steel braid)

4818 - Bromobutyl Steam Hose (steel braid)

8312 - Fuel Line Hose

#### 2-SPIRAL



4137 - EPDM Rubber Air

Hose - Black

**4138** - EPDM Rubber Air

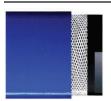
Hose - Red

4142 - Pneumatic Deadman Twinline

**4182** - MSHA Mine Spray (steel wire)

4302 - Textile Reinforced Air Hose

#### WATER LAYFLAT



4502 - Blue PVC Water Discharge Hose

**4520** - Yellow PVC Water Discharge Hose

4703 - DJ Mill Discharge Hose

**4705** - Municipal Grade SJ Mill Discharge Hose

#### 2-PLY RUBBER



4310 - Gunite Hose

4312 - 2-Ply Sandblast Hose

4313 - Lightweight Sandblast Hose

**4323** - 3/16" Tube Dry Cement Powder Discharge

**4324** - 1/4" Tube Dry Cement Powder Discharge

**4352** - Rubber 2-Ply Water Discharge

**4360** - Papermill Washdown

**4380** - Non-Conductive Furnace Door Coolant Hose

#### **4-PLY RUBBER**



4314 - 4-Ply Sandblast Hose

4354 - Rubber 4-Ply Sandblast Hose

4427 - Concrete Placement Hose

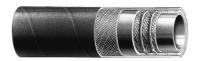
#### **PVC HOSE W/ PVC HELIX**



4601 - Green PVC Water Suction Hose

4615 - Clear/White PVC Water Suction Hose

#### 2-PLY W/ WIRE HELIX



4415 - Oil Return Hose SAE 100R4

**4417** - Low Temp Tank Truck Hose - Channeled (double helix)

4419 - Crude Oil Waste Pit Suction Hose

**4421** - Tank Truck Hose - Red Corrugated

4425 - Hot Air Blower

**4430** - Cross-Linked Polyethylene Suction Hose

4433 - UHMWPE Chemical Suction Hose

**4450** - Rubber Water Suction Hose (1-1/4" - 6" ID)

4460 - Bulk Food Suction

4465 - Liquid Food Suction

4470 - Bulk Material Suction Hose

#### **PVC HOSE W/ 1-BRAID**



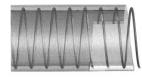
**4511** - Braided PVC/FDA Hose

#### **RUBBER HOSE W/ POLYPROPYLENE HELIX**



**4654** - Septic & Agricultural EPDM Suction Hose

#### **CLEAR PVC W/ GALVANIZED SPRING**



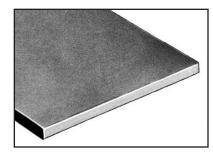
**4600** - Spring Wire PVC/FDA Hose

## **SKIRTBOARD RUBBER**

#### 6341

#### **SKIRTBOARD RUBBER**

- Abrasion and Weather Resistant
- 55-60 Durometer
- 1,000 PSI Tensile Strength, 300% Elongation
- Cut Widths (Not Extruded)
- Use with conveyor belt or as chute lining



PART NUMBER	GAUGE (in.) (mm.)	WIDTH (in.) (mm.)	ROLL LENGTH (ft.) (M)	WEIGHT 50 FT. ROLL (lbs.)	STOCK ITEM
6341-0803 6341-0804 6341-0805 6341-0806 6341-0807 6341-0808 6341-0812	1/4" 6.35 1/4" 6.35 1/4" 6.35 1/4" 6.35 1/4" 6.35 1/4" 6.35 1/4" 6.35 1/4" 6.35	3 76.20 4 101.60 5 127.00 6 152.40 7 177.80 8 203.20 10 254.00 12 304.80	50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24	19 25 32 36 45 48 64 85	\ \( \lambda \)
6341-1203 6341-1204 6341-1205 6341-1206 6341-1207 6341-1208 6341-1210 6341-1212	3/8" 9.53 3/8" 9.53 3/8" 9.53 3/8" 9.53 3/8" 9.53 3/8" 9.53 3/8" 9.53 3/8" 9.53	3 76.20 4 101.60 5 127.00 6 152.40 7 177.80 8 203.20 10 254.00 12 304.80	50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24	35 46 58 73 81 82 115	\( \frac{1}{4} \)
6341-1603 6341-1604 6341-1605 6341-1606 6341-1607 6341-1608 6341-1610 6341-1612	1/2" 12.70 1/2" 12.70 1/2" 12.70 1/2" 12.70 1/2" 12.70 1/2" 12.70 1/2" 12.70 1/2" 12.70 1/2" 12.70	3 76.20 4 101.60 5 127.00 6 152.40 7 177.80 8 203.20 10 254.00 12 304.80	50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24	45 60 75 97 105 109 150	\ \( \lambda \)
6341-2403 6341-2404 6341-2405 6341-2406 6341-2407 6341-2408 6341-2410 6341-2412	3/4" 19.05 3/4" 19.05 3/4" 19.05 3/4" 19.05 3/4" 19.05 3/4" 19.05 3/4" 19.05 3/4" 19.05	3 76.20 4 101.60 5 127.00 6 152.40 7 177.80 8 203.20 10 254.00 12 304.80	50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24	93 124 155 186 217 248 272 372	\frac{\frac}}}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}
6341-3203 6341-3204 6341-3205 6341-3206 6341-3207 6341-3208 6341-3210 6341-3212	1" 25.40 1" 25.40 1" 25.40 1" 25.40 1" 25.40 1" 25.40 1" 25.40 1" 25.40	3 76.20 4 101.60 5 127.00 6 152.40 7 177.80 8 203.20 10 254.00 12 304.80	50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24 50 15.24	110 146 183 219 256 292 365 438	\frac{\frac}}}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}
6341-0848 6341-1248 6341-1648 6341-2448 6341-3248	1/4" 6.35 3/8" 9.53 1/2" 12.70 3/4" 19.05 1" 25.40	48 1219.20 48 1219.20 48 1219.20 48 1219.20 48 1219.20	50 15.24 50 15.24 50 15.24 50 15.24 50 15.24	388 580 760 1100 1524	✓ ✓ ✓ ✓

Separate parts provide unique, quick coupling hose connections for liquids or solids. All parts are manufactured to meet or exceed MIL Spec C27487 and dimensionally conform to MIL Spec A-A-59326A. They will interchange with couplings manufactured to the same standards (excluding 1/2" and 8"). Female couplers are supplied with safety pins. Cam arms on aluminum couplings and brass couplings are brass, stainless steel arms provided on stainless steel couplings, polypropylene and nylon.

#### Working Pressures (maximum PSI) for Cam and Groove Couplers and Adapters

Metal coupling pressures are based on ambient temperature ( $+70^{\circ}F$  or  $+21^{\circ}C$ ) with standard NBR gasket. Plastic coupling pressures are based on ambient temperature ( $+70^{\circ}F$  or  $+21^{\circ}C$ ) with standard NBR gasket.

Size	Aluminum	Stainless Steel	Brass	Polypropylene
1/2		150		125
3/4	250	250	250	125
1	250	250	250	125
1-1/4	250	250	250	100
1-1/2	250	250	250	100
2	250	250	250	100
2-1/2	150	150	150	
3	125	125	125	75
4	100	100	100	60
5	75	75	75	
6	75	75	75	
8	50	50	50	

#### PART A MALE ADAPTER x FEMALE THREAD

Male end fits Coupler or Dust Cap. Female end thread is NPT.



_						
	Size	Aluminum	Brass	Black SCH.80		
	3126	Aluminum	307 Stairiless	316 Stainless	DI d33	Polypropylene
	1/2		A050S	A050SS		A050P
	3/4	A075A	A075S	A075SS	A075B	A075P
	1	A100A	A100S	A100SS	A100B	A100P
	1-1/4	A125A	A125S	A125SS	A125B	A125P
	1-1/2	A150A	A150S	A150SS	A150B	A150P
	2	A200A	A200S	A200SS	A200B	A200P
	2-1/2	A250A	A250S	A250SS	A250B	
	3	A300A	A300S	A300SS	A300B	A300P
	4	A400A	A400S	A400SS	A400B	A400P
	5	A500A				
	6	A600A	A600S	A600SS	A600B	
	8	A800A				

#### PART B FEMALE COUPLER x MALE THREAD

Female end fits male adapter or Dust Plug. Male end thread is NPT. Bowl has recess for washer replacement.



		PART	NUMBER		Black SCH.80
Size	Aluminum	304 Stainless	316 Stainless	Brass	Polypropylene
1/2		B050S	B050SS		B050P
3/4	B075A	B075S	B075SS	B075B	B075P
1	B100A	B100S	B100SS	B100B	B100P
1-1/4	B125A	B125S	B125SS	B125B	B125P
1-1/2	B150A	B150S	B150SS	B150B	B150P
2	B200A	B200S	B200SS	B200B	B200P
2-1/2	B250A	B250S	B250SS	B250B	
3	B300A	B300S	B300SS	B300B	B300P
4	B400A	B400S	B400SS	B400B	B400P
5	B500A				
6	B600A	B600S	B600SS	B600B	
8	B800A				

#### **PART C**

#### FEMALE COUPLER x HOSE SHANK

Female end fits male adapter or Dust Plug. Shank fits into hose ID. Bowl has recess for washer replacement.



Size	Aluminum	PART 304 Stainless	NUMBER 316 Stainless	Brass	Black SCH.80 Polypropylene
1/2		C050S	C050SS		C050P
3/4	C075A	C075S	C075SS	C075B	C075P
1	C100A	C100S	C100SS	C100B	C100P
1-1/4	C125A	C125S	C125SS	C125B	C125P
1-1/2	C150A	C150S	C150SS	C150B	C150P
2	C200A	C200S	C200SS	C200B	C200P
2-1/2	C250A	C250S	C250SS	C250B	
3	C300A	C300S	C300SS	C300B	C300P
4	C400A	C400S	C400SS	C400B	C400P
5	C500A				
6	C600A	C600S	C600SS	C600B	
8	C800A				

#### **PART D**

#### FEMALE COUPLER x FEMALE THREAD

Female end fits male adapter or Dust Plug. Female end thread is NPT. Bowl has recess for washer replacement.



	Size	Aluminum	PART 304 Stainless	NUMBER 316 Stainless	Brass	Black SCH.80 Polypropylene
	1/2		D050S	D050SS		D050P
	3/4	D075A	D075S	D075SS	D075B	D075P
	1	D100A	D100S	D100SS	D100B	D100P
,	1-1/4	D125A	D125S	D125SS	D125B	D125P
	1-1/2	D150A	D150S	D150SS	D150B	D150P
	2	D200A	D200S	D200SS	D200B	D200P
	2-1/2	D250A	D250S	D250SS	D250B	
	3	D300A	D300S	D300SS	D300B	D300P
	4	D400A	D400S	D400SS	D400B	D400P
	5	D500A				
	6	D600A	D600S	D600SS	D600B	
	8	D800A				

#### **PART E**

#### **MALE ADAPTER x HOSE SHANK**

Male end fits female coupler or Dust Cap. Shank fits into hose ID.



Size	Aluminum	PART 304 Stainless	NUMBER 316 Stainless	Brass	Black SCH.80 Polypropylene
1/2	T T	50506	FOFOCC		1
1/2		E050S	E050SS		E050P
3/4	E075A	E075S	E075SS	E075B	E075P
1	E100A	E100S	E100SS	E100B	E100P
1-1/4	E125A	E125S	E125SS	E125B	E125P
1-1/2	E150A	E150S	E150SS	E150B	E150P
2	E200A	E200S	E200SS	E200B	E200P
2-1/2	E250A	E250S	E250SS	E250B	
3	E300A	E300S	E300SS	E300B	E300P
4	E400A	E400S	E400SS	E400B	E400P
5	E500A				
6	E600A	E600S	E600SS	E600B	
8	E800A				

#### PART F MALE ADAPTER x MALE THREAD

Male end fits female coupler or Dust Cap. Male end thread is NPT.



			NUMBER		Black SCH.80
Size	Aluminum	304 Stainless	316 Stainless	Brass	Polypropylene
1/2		F050S	F050SS		F050P
3/4	F075A	F075S	F075SS	F075B	F075P
1	F100A	F100S	F100SS	F100B	F100P
1-1/4	F125A	F125S	F125SS	F125B	F125P
1-1/2	F150A	F150S	F150SS	F150B	F150P
2	F200A	F200S	F200SS	F200B	F200P
2-1/2	F250A	F250S	F250SS	F250B	
3	F300A	F300S	F300SS	F300B	F300P
4	F400A	F400S	F400SS	F400B	F400P
5	F500A				
6	F600A	F600S	F600SS	F600B	
8	F800A				

PART DC DUST CAP Fits male adapters.



Size	Aluminum	PART 304 Stainless	NUMBER 316 Stainless	Brass	Black SCH.80 Polypropylene
1/2		DC050S	DC050SS		DC050P
3/4	DC075A	DC075S	DC075SS	DC075B	DC075P
1	DC100A	DC100S	DC100SS	DC100B	DC100P
1-1/4	DC125A	DC125S	DC125SS	DC125B	DC125P
1-1/2	DC150A	DC150S	DC150SS	DC150B	DC150P
2	DC200A	DC200S	DC200SS	DC200B	DC200P
2-1/2	DC250A	DC250S	DC250SS	DC250B	
3	DC300A	DC300S	DC300SS	DC300B	DC300P
4	DC400A	DC400S	DC400SS	DC400B	DC400P
5	DC500A				
6	DC600A	DC600S	DC600SS	DC600B	
8	DC800A				

PART DP DUST PLUG Fits female coupler.



Size	Aluminum	PART 304 Stainless	NUMBER 316 Stainless	Brass	Black SCH.80 Polypropylene
1/2		DP050S	DP050SS		DP050P
3/4	DP075A	DP075S	DP075SS	DP075B	DP075P
1	DP100A	DP100S	DP100SS	DP100B	DP100P
1-1/4	DP125A	DP125S	DP125SS	DP125B	DP125P
1-1/2	DP150A	DP150S	DP150SS	DP150B	DP150P
2	DP200A	DP200S	DP200SS	DP200B	DP200P
2-1/2	DP250A	DP250S	DP250SS	DP250B	
3	DP300A	DP300S	DP300SS	DP300B	DP300P
4	DP400A	DP400S	DP400SS	DP400B	DP400P
5	DP500A				
6	DP600A	DP600S	DP600SS	DP600B	
8	DP800A				

#### REDUCING CAM AND GROOVE COUPLINGS AND ADAPTERS



Adapter x Female NPT

Aluminum	Stainless
A2015A	
A2030A	
A3020A	
A4030A	
	A2015A A2030A A3020A





Coupler x Female NPT

Size	Aluminum	Stainless
1-1/2 x 1	D1510A	
2 x 1-1/2	D2015A	
3 x 2	D3020A	
4 x 3	D4030A	





Coupler x Male NPT

Size	Aluminum	Stainless
1-1/2 x 1	B1510A	
2 x 1-1/2	B2015A	
3 x 2	B3020A	
3 x 4		
4 x 3	B4030A	

E



Adapter x Hose Shank

Size	Aluminum	Stainless
2 x 1-1/2	E2015A	
2 x 2-1/2	E2025A	
2 x 3	E2030A	
3 x 2	E3020A	
3 x 2-1/2	E3025A	
3 x 4		
4 x 2	E4020A	

C



Coupler x Hose Shank

Size	Aluminum	Stainless
2 x 1-1/2	C2015A	
3 x 2	C3020A	
3 x 4	C3040A	



Adapter x Male NPT

Size	Aluminum	Stainless
1-1/2 x 2	F1520A	
2 x 1-1/2	F2015A	
2 x 3	F2030A	
3 x 2	F3020A	
3 x 4		
4 x 3	F4030A	

#### AA



Adapter x Adapter

Size	Aluminum	Stainless
1 x 1		AA1010S
1-1/4 x 1-1	/4	AA1212S
1-1/2 x 1-1	/2 AA1515A	AA1515S
1-1/2 x 2		AA1520S
2 x 2	AA2020A	AA2020S
2 x 2-1/2	AA2025A	AA2025S
2 x 3	AA2030A	AA2030S
2 x 4		
2-1/2 x 2-1	/2 AA2525A	AA2525S
3 x 3	AA3030A	AA3030S
3 x 4	AA3040A	AA3040S
4 x 4	AA4040A	AA4040S
4 x 6		AA4060S

#### DA



Coupler x Adapter

Size	Aluminum	Stainless
2 x 1-1/2	DA2015A	
2 x 3	DA2030A	DA2030S
3 x 1-1/2		
3 x 2	DA3020A	DA3020S
3 x 4	DA3040A	
4 x 2	DA4020A	
4 x 3	DA4030A	DA4030S
4 x 6	DA4060A	
6 x 4	DA6040A	DA6040S

DD



Coupler x Coupler

Size	Aluminum	Stainless
1-1/2 x 1-1/2	DD1515A	DD1515S
2 x 2	DD2020A	DD2020S
2 x 3	DD2030A	
3 x 3	DD3030A	DD3030S
3 x 4	DD3040A	

#### **PART DCL**

#### **DUST CAP WITH LOCK OUT HANDLES**

Handles fold over top of cap. Hole provided for padlock or seal. Padlock or seal not furnished.



	PART NUMBER					
Size	Aluminum with SS Handles					
1-1/4	DCL125A	DCL125S				
1-1/2	DCL150A	DCL150S				
2	DCL200A	DCL200S				
2-1/2	DCL250A	DCL250S				
3	DCL300A	DCL300S				
4	DCL400A	DCL400S				
5	DCL500A					
6	DCL600A	DCL600S				

#### REPLACEMENT GASKETS FOR CAM AND GROOVE COUPLINGS

SIZE	BLACK NBR	YELLOW STRIPE BLACK EPDM	GAS O.D. (in.)	KET DIMEN I.D. (in.)	ISIONS THICKNESS (in.)
1/2	S050N		1-1/32	11/16	0.156
3/4	S075N	S073E	1-3/8	7/8	0.218
1	S100N	S100E	1-9/16	1-1/16	0.250
1-1/4	S125N		1-15/16	1-23/64	0.250
1-1/2	S150N	S150E	2-3/16	1-5/8	0.250
2	S200N	S200E	2-5/8	2	0.250
2-1/2	S250N		3-1/8	2-3/8	0.250
3	S300N	S300E	3-23/32	3	0.250
4	S400N	S400E	4-7/8	4	0.250
5	S500N		5-15/16	4-7/8	0.250
6	S600N		7-1/16	6	0.250
8	S800N		9-5/16	8-1/8	0.343

#### REPLACEMENT HANDLES FOR CAM AND GROOVE COUPLINGS

	1	1-1/4	1-1/2	2	2-1/2	3
BRASS STAINLESS STEEL LOCK OUT STAINLESS	HRP10B HRP10S	HRP12B HRP12S	HRP15B HRP15S LHP150S	HRP20B HRP20S LHP200S	HRP25B HRP25S LHP250S	HRP30B HRP30S LHP300S
LOCK GOT STAINLESS	4	5	6	8	LI II 2303	Li ii 3003
BRASS						

#### **ACCESSORIES FOR CAM AND GROOVE COUPLINGS**

		Part No.		Part No.
SAFETY PIN	FITS SIZES 1/2" THRU 5"	SPWS	FITS SIZES 6" AND 8"	SPXS
SECURITY CHAIN, STA	AINLESS STEEL; 12"	CH12S		

## PIN LUG COUPLINGS

Threaded couplings for suction or discharge of water or other fluids. Standard threading is NPSM; National Pipe Straight Hose. 1-1/2" and 2-1/2" are available with additional NST thread; American National Fire Hose Straight Thread. (NST does not interchange). Pin lugs are on all sizes of female end. 2-1/2" through 6" have pin lugs on male end.

#### **SET (M x F) PIN LUG SHANK COUPLINGS**



Size	Thread	Aluminum W Brass Swivel	Brass W Brass Swivel
1-1/2	NPSM	AB150	BR150
1-1/2	NST	AB150NST	BR150NST
2	NPSM	AB200	BR200
2-1/2	NPSM	AB250	BR250
2-1/2	NST	AB250NST	BR250NST
3	NPSM	AB300	BR300
4	NPSM	AB400	BR400
6	NPSM	AB600	BR600

Iron Pin Lug Couplings available by special order.

#### **FEMALE PIN LUG SHANK COUPLINGS**



Size	Thread	Aluminum W Brass Swivel	Brass W Brass Swivel
1-1/2	NPSM	AB150F	BR150F
1-1/2	NST	AB150NSTF	BR150NSTF
2	NPSM	AB200F	BR200F
2-1/2	NPSM	AB250F	BR250F
2-1/2	NST	AB250NSTF	BR250NSTF
3	NPSM	AB300F	BR300F
4	NPSM	AB400F	BR400F
6	NPSM	AB600F	BR600F

#### REPLACEMENT WASHERS FOR PIN LUG SHANK COUPLINGS

<b>COUPLING SIZE</b>	1-1/2	1-1/2 NST	2	2-1/2	2-1/2 NST	3	4	6
PART NO	HW150	HW150NST	HW200	HW250	HW250NST	HW300	HW400	HW600

## **UNIVERSAL AIR COUPLINGS**

#### **UNIVERSAL AIR COUPLINGS - 2 LUG**

Used to connect air lines from compressors or other air source to all types of pneumatic tools and equipment. All 2 lug head connections are of one size for easy interchange. Hose shank or threaded end is coupling size. Male and Female threads are NPT. Malleable iron plated. (European style universals available special order.)

#### Application of Universal Crowfoot Air Hose Couplings

Universal crowfoot couplings are recommended to be used in the transfer of air and or water. The application should be in an open system where the air or water is in motion (dynamic) and not in a closed pressurized (static) condition. This dynamic application involves continuous flow, therefore, back pressure would be relieved by the very nature of the application. The applicable system should contain pressure relief valves to relieve any excess pressure. Safety clips and safety cables should be installed on either side of the coupling connection.

The rated, maximum working pressure of Universal Crowfoot Air Hose Couplings is 150 psi (at ambient temperature [70°F]) for all parts: HE, ME, FE.

Universal Air Hose Couplings should NEVER be used for steam service.



**HOSE END** 

Hose End Size	Iron Part No
3/8	HE038
1/2	HE050
3/4	HE075
1	HE100

**Washer** for 2 Lug Universal



**MALE END** 

Hose End Size	Iron Part No
1/4	ME025
3/8	ME038
1/2	ME050
3/4	ME075
1	ME 100

Part No. UG2



**FEMALE END** 

Hose End Size	Iron Part No
1/4	FE025
3/8	FE038
1/2	FE050
3/4	FE075
1	FE 100

#### WHIPCHECK SAFETY CABLES

Prevent hose whip in case of accidental separation of coupling or clamp device.



#### **HOSE TO HOSE CABLE**

Cable	Hose I.D.	Part No
1/8" x 20"	1/2" to 1-1/4"	HHWC1
1/4" x 38"	1-1/2" to 3"	HHWC2



#### **HOSE TO TOOL CABLE**

Cable	Hose I.D.	Part No
1/8" x 20"	1/2" to 1-1/4"	HTWS1
1/4" x 38"	1-1/2" to 3"	HTWS2

## **UNIVERSAL COUPLINGS**

#### **UNIVERSAL AIR COUPLINGS - 4 LUG**



#### **HOSE END**

Hose End Size	Iron Part No
1-1/4	HE125
1-1/2	HE150
2	HE200

Washer for 4 Lug Universal Part No. UG4



#### **FEMALE END**

Hose End Size	Iron Part No
1-1/4	FE125
1-1/2	FE150
2	FE200

#### **UNIVERSAL AIR COUPLING ACCESSORIES**



#### **3 WAY CONNECTOR PART NO TWC**

Uses 3 sets of 2 lug connectors to provide an extra outlet from one air source. Malleable Iron Plated.



#### DEAD END PART NO BEC

Fits 2 lug head on universal couplings to block line. Hole in flat portion allows for securing dead end when not in use.

Malleable Iron Plated.

Safety Pin and Lanyard Part No. SPL

## **GROUND JOINT COUPLINGS**

#### **GROUND JOINT COUPLINGS**

An all purpose coupling, the female ground joint consists of a MALE STEM, WING NUT and FEMALE SPUD. The female spud has NPT threads to accept the NPT threads of a rigid connection or male NPT nipple. Widely used for air, water or steam, the ground joint is secured with an interlocking clamp.

By replacing the female spud of a ground joint coupling with a double or male spud, hose to hose ground joint connections or hose to rigid connections are simplified. Double spuds for hose to hose connections are threaded NPS MALE X NPS MALE. (GJ wing nut is also NPS). For hose to rigid connection, the male spud is threaded NPS MALE X NPT MALE.



GROUND JOINT FEMALE



**DOUBLE SPUD** 



**MALE SPUD** 

Hose Size*	Part No.	
1/2	GJ050F	
3/4	GJ075F	
1	GJ100F	
1-1/4	GJ125F	
1-1/2	GJ150F	
2	GJ200F	
2-1/2	GJ250F	
3	GJ300F	
4	GJ400F	
*Size also represents Wing Nut and Spud thread size.		

Spud Size	Double Spud Part No.	Male Spud Part No.
1/2	GDS050	GMS050
3/4	GDS075	GMS075
1	GDS100	GMS100
1-1/4	GDS125	GMS125
1-1/2	GDS150	GMS150
2	GDS200	GMS200

#### ANTI-LEAK ALUMINUM C x E CAM LOCK COUPLINGS



This new cam-lock employs a patented design that relies on two bands of rubber that act as a type of gasket surrounding two specific grooves on the cam-lock shank. When the hose wall is compressed against the bands of rubber, a preventive barrier is formed reducing the chance for leaks around the couplings.

Size	Part No.
2″ Part C	C200ALF
3″ Part C	C300ALF
2" Part E	E200ALF
3" Part E	E300ALF

## SANDBLAST COUPLINGS

#### SANDBLAST HOSE COUPLINGS

There are three active sandblast system couplings; HOSE ENDS which are used to make hose to hose connections or hose to blast pot connections, NOZZLE HOLDERS that accept the male threaded end of a sandblast nozzle, and the THREADED POT END that is connected to the combination air and abrasive mix from the sandblast pot. All three are available in aluminum, brass, or new glass reinforced nylon.



**HOSE ENDS** are sleeve type couplings that fit over the OD of the sandblast hose. They are secured to the hose with wood screws. Countersunk holes on the hose end ensure that the screws fit correctly and will not be snagged while the hose is in operation. Within the ID of the hose end is a corkscrew ridge that helps to twist the coupling onto the hose and more importantly, helps to minimize the force of blow-back. Hose-to-hose or hose-to-pot connections are made by the 2 lug crowfoot design. No matter what the hose size, the 2 log hose ends interchange for common connections.



**NOZZLE HOLDERS** are sleeve type couplings, secured to the hose with wood screws and have the same features as the sandblast hose end. The exception is that the end of the nozzle holder is NPT threaded to accept the sandblasting nozzle.



**THREADED POT ENDS** do not fit the hose, but rather are threaded (NPT or NPS) onto the sandblast pot. Once properly threaded to the discharge pipe on the pot, the 2 lug crowfoot design can now be connected to the 2 lug crowfoot design of the hose end. Now the pot can supply mix to the operator by way of the hose to the sandblast nozzle.

Hose	Hose Hose Quick End		Nozzle Holder			
ID	OD	Aluminum	Brass	Iron	Aluminum	Brass
3/4	1-1/2	Q1A	Q1B	Q1D	NH1A	NH1B
1	1-7/8	Q2A	Q2B	Q2D	NH2A	NH2B
1-1/4	2-5/32	Q3A	Q3B	Q3D	NH3A	NH3B
1-1/2	2-3/8	Q4A	Q4B	Q4D	NH4A	NH4B

Thread		Threaded I	Pot End
Size	Туре	Aluminum	Brass
1-1/4	NPT	SB1A	SB1B
1-1/4	NPS	SB10A	SB10B
1-1/2	NPT	SB2A	SB2B
1-1/2	NPS	SB20A	SB20B

Replacement GASKETS for metal hose end/pot end. One size fits all. Part No. QW

#### **LOCKING LEVER PUMP COUPLINGS**

- Full Vacuum Rated
- Type B Industrial
- Lock Pin Lever
- Galvanized

#### **FULL ASSEMBLY\***



Size (in.)	Part Number
2	BGA200
3	<b>BGA300</b>
4	<b>BGA400</b>
6	<b>BGA600</b>
8	<b>BGA800</b>

<sup>\*</sup> includes O-Ring

#### 30° Articulation

- NBR O-Ring
- Interchangeable
- Quick and Easy Connections

#### **LEVER RING\***



	Size (in.)	Part Number
ı	2	BLR200
ı	3	<b>BLR300</b>
ı	4	BLR400
1	6	BLR600
	8	BLR800

<sup>\*</sup> with safety clip

#### **MALE BALL x SHANK**



Size (in.)	Part Number
2	BMS200
3	BMS300
4	<b>BMS400</b>
6	<b>BMS600</b>
8	<b>BMS800</b>

#### **FEMALE SOCKET\* x SHANK**



Size	Part
(in.)	Number
2	BFS200
3	BFS300
4	<b>BFS400</b>
6	BFS600
8	BF\$800

<sup>\*</sup> includes O-Ring

#### **MALE BALL x THREAD\***



Size (in.)	Part Number
2	<b>BMT200</b>
3	<b>BMT300</b>
4	<b>BMT400</b>
6	<b>BMT600</b>
8	<b>BMT800</b>

\* NPT

#### **FEMALE SOCKET\* x THREAD\*\***



Size (in.)	Part Number
2	BFT200
3	BFT300
4	BFT400
6	BFT600
8	BFT800

<sup>\*</sup> includes O-Ring \*\* NPT

#### O-RING\*



Size (in.)	Part Number
2	BOR200
3	<b>BOR300</b>
4	<b>BOR400</b>
6	<b>BOR600</b>
8	BOR800

<sup>\*</sup> NBR



## **CLAMPS**

#### **DOUBLE BOLT HOSE CLAMPS**



Reusable, these clamps provide an efficient means of securing couplings for low pressure discharge or suction service. Double bolt hose clamps are sized for hose OD's from 1-5/8" through 17-1/2". As the bolts are tightened, the double-tongue saddles fill the gap between the bolt lugs preventing pinching of the hose OD. Fully tightened, the double bolt clamps secure the full circumference of the hose. Plated malleable iron.

Hose OD	Range		Hose OD R	Range	
From	То	Part No	From	То	Part No
1-5/8	1-15/16	DB049	7-11/16	8-3/16	DB818
1-7/8	2-3/8	DB060	8-1/4	8-7/8	DB875
2-3/8	3-7/16	DB076	8-15/16	9-7/8	DB988
3-1/2	3-11/16	DB094	9-15/16	11-3/8	DB1125
3-1/2	4	DB400	11-3/16	13	DB1275
4-1/16	4-7/16	DB463	12-3/16	14	DB1360
4-3/16	5	DB525	13-3/16	15	DB1450
5	5-1/2	DB550	15-1/16	17-1/2	DB1700
5-1/2	6-1/16	DB600			
6-1/8	6-7/8	DB675			
6-15/16	7-5/8	DB769			

#### **DOUBLE BOLT HOSE CLAMPS**



Clamps (for corrugated hose) manufactured in either clockwise (right hand) or counter clockwise (left hand) design, the spiral double bolt clamp fits between the convolutions on corrugated hose. When fully tightened, the wire secures the full circumference of the outside hose wall - not the convolutions, for a safe, economical and efficient securing method. Consult hose manufacturer for correct convolution direction. Direction of clamp spiral and hose convolution are the same.

Jason PVC Corrugated Suction Hose is manufactured with counter-clockwise convolutions.

Hose ID	1	2	2-1/2	3	4	
Part No*	SDB150	SDB200	SDB250	SDB300	SDB400	
Hose ID	5	6	8	10	12	
Part No*	SDB500	SDB600	SDB800	SDB1000	SDB1200	
* Specify clockwise -cw or counterclockwise- ccw						

## **CLAMPS**

#### 2, 4 AND 6 BOLT INTERLOCKING CLAMPS

These clamps are used on any fitting with a collar to engage the forward gripping fingers of the interlocking clamp. However, they are most commonly used on ground joint females and male collared nipples. Smaller sizes provide a safe and economical securing method for universal hose ends. The forward gripping fingers engage the collar preventing the shank or stem from pulling out. Tightening the bolts secures the clamp around the O.D. of the hose.







2 BOLT

4 BOLT

6 BOLT

Hose ID		OD From	Range To	<u> </u>	Number Of	Part No	Ref No
	In	Decimal	In	Decimal	Bolts	1 4.1 6 1 1 6	
3/8	11/16	0.69	3/4	0.75	2	2BS038	CD
1/2	15/16	0.94	1-1/16	1.06	2	2BC050	B4
1/2	1	1.00	1-1/8	1.13	2	2B S050	A4
1/2	1-1/16	1.06	1-3/16	1.19	2	2BC051	B5
3/4	1-1/8	1.13	1-5/16	1.31	2	2BS075	A9
3/4	1-3/16	1.19	1-5/16	1.31	2	2BC075	BU9
3/4	1-5/16	1.31	1-1/2	1.50	2	2BC076	В9
3/4	1-1/2	1.50	1-11/16	1.69	2	2BC077	B10
1	1-17/32	1.53	1-23/32	1.72	4	4BC100	BU14
1	1-13/32	1.41	1-9/16	1.56	4	4BC100A	156
1	1-7/8	1.88	2-1/16	2.06	4	4BC102	B15
1-1/4	2-1/16	2.06	2-1/4	2.25	4	4BC125	B19
1-1/2	2-3/32	2.09	2-9/32	2.28	4	4BC150	BU24
1-1/2	2-1/4	2.25	2-7/16	2.44	4	4BC151	B24
2	2-1/2	2.50	2-25/32	2.78	4	4BC200	BU29
2	3-3/32	3.09	3-7/16	3.44	4	4BC202	B30
2-1/2	3-1/2	3.50	3-15/16	3.94	4	4BC250	B34
3	3-13/16	3.81	4-3/16	4.19	4	4BC300	B35
3	4-1/16	4.06	4-7/16	4.44	4	4BC301	B39
4	4-1/4	4.25	4-13/16	4.81	6	6BC400	BS39

## **NIPPLES**

#### **COMBINATION HOSE NIPPLE**



CN's are used in a variety of fluid applications. They are available in unplated steel, plated steel, polypropylene, nylon glass and stainless steel. End (male) threads are NPT (will mate with foot valves, strainers, cam and groove part A, D etc.) and are the same size as shank.

Hose ID	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2
Part No							
Unplated	CN050	CN075	CN100	CN125	CN150	CN200	CN250
Plated	CN050P	CN075P	CN100P	CN125P	CN150P	CN200P	CN250P
Stainless	CN050S	CN075S	CN100S	CN125S	CN150S	CN200S	CN250S
Polypropylene*	CN050PP	CN075PP	CN100PP	CN125PP	CN150PP	CN200PP	CN250PP

Hose ID	3	4	5	6	8	10	12
Part No							
Unplated	CN300	CN400	CN500	CN600	CN800	CN1000	CN1200
Plated	CN300P	CN400P	CN500P	CN600P	CN800P	CN1000P	CN1200P
Stainless	CN300S	CN400S		CN600S			
Polypropylene*	CN300PP	CN400PP					

<sup>\*</sup> Black Schedule 80

## **NIPPLES**

#### **HEX AIR HOSE NIPPLES**

For air or many other applications, MS nipples are economical and reusable. The MS nipple accepts bands or clamps. However, each MS is especially designed with a collar behind the hex to engage the gripping fingers of an interlocking clamp. MS threads are NPT. Steel Plated. Use also as companion end of female ground joint.



Hose Size	Thread Size	Part No.	
1/4	1/4	MS4-4	
1/4	3/8	MS4-6	
3/8	1/4	MS6-4	
3/8	3/8	MS6-6	
3/8	1/2	MS6-8	
1/2	1/4	MS8-4	
1/2	1/2	MS8-8	
1/2	3/4	MS8-12	
3/4	3/4	MS12-12	
1	1	MS16-16	
1-1/4	1-1/4	MS20-20	
1-1/2	1-1/2	MS24-24	
2	2	MS32-32	
2-1/2	2-1/2	MS40-40	
3	3	MS48-48	
4	4	MS64-64	

#### **DOUBLE MALE HEX NIPPLES**



Made of heavy duty cast brass to change existing size and or thread.

Male Size	Male End Thread	Male Size	Male End Thread	Part No
1-1/2	NST	1-1/2	NPSM	DMN1615B
1-1/2	NST	1-1/2	NPT	DMN1617B
2-1/2	NST	1-1/2	NST	DMN2616B
2-1/2	NST	2	NPSM	DMN2620B
2-1/2	NST	2	NPT	DMN2622B
2-1/2	NST	2-1/2	NPT	DMN2625B

#### **TUBE MENDER**

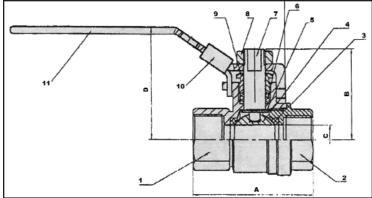


Type SM hose menders repair hose up to and including ID's of 12". After cutting out the damaged hose portion, insert each end of the mender (shanks) into the remaining good ends of the hose. Secure the SM type mender with bands or DB double bolt clamps. Each end will accommodate two or more bands or two clamps for an economical and efficient return to service. Plated Steel.

HOSE ID	1/2	3/4	1	1-1/4	1-1/2	2	
PART NO	SM050	SM075	SM100	SM125	SM150	SM200	
HOSE ID	2-1/2	3	4	6	8	10	12
PART NO	SM250	SM300	SM400	SM600	008M2	SM1000	SM1200

## BRASS BALL VALVES WITH LOCKING HANDLES





Part Number	Size	A mm	B mm	C mm	D mm	Thread
BV038BFLH	3/8	9.9	21.75	43.5	47.0	3/8 NPT
BV050BFLH	1/2	14.0	26.50	53.0	52.0	1/2 NPT
BV075BFLH	3/4	19.0	30.00	60.0	52.0	3/4 NPT
BV100BFLH	1	24.0	36.50	73.0	58.0	1 NPT
BV125BFLH	1-1/4	31.0	43.25	86.5	76.0	1-1/4 NPT
BV150BFLH	1-1/2	38.0	50.75	101.5	80.0	1-1/2 NPT
BV200BFLH	2	49.0	54.00	108.0	90.0	2 NPT
BV250BFLH	2-1/2	64.0	70.00	140.0	122.5	2-1/2 NPT
BV300BFLH	3	79.0	81.00	162.0	133.0	3 NPT
BV400BFLH	4	99.0	94.50	189.0	156.0	4 NPT

Ball Valve Schematic				
1	Valve Body	y Brass		
2	Valve Cap	Brass		
3	O-Ring	PTFE		
4	Ball Bra	ss, chrome-plated		
5	StemSpace	er/		
	Gasket	PTFE		
6	O-Ring	PTFE		
7	Stem	Brass		
8	Nut	Brass		
9	Сар	Brass		
10	Slide	304SS		
11	Handle	Carbon Steel		

- Sizes to 2" rated 600 WOG,
- 2-1/2", 3" and 4" rated 400 WOG
- Brass ball is chromium plated.
- Ball seat is Teflon\*

Hole size for lock placement is 5/16 inch (8.0mm) for all sizes of valves.

<sup>\*</sup>DuPont Registered Trademark

#### **HOSE BEND RESTRICTOR**



TAPERED DESIGN restricts bending where coupling is secured to hose. LONGER LENGTH covers more surface area to reduce stress. SMOOTH FINISH will not scratch equipment and gives better look to hose assembly. FRICTION FIT requires no adhesives or clamps to secure. Temperature range from - 40°F to 212°F; ideal for pressure washer service.

Part No.	ID in.	Length in.
HP7260	0.725	6.00

#### **SPLIT FACE FLANGE ALUMINUM**



Use with Material Handling hose modular systems. Inner corrugations fit snug over corrugated hose cover. Bolt hole drilling ASA 150.

Assemble without special tools; coupling is reusable. Requires gasket to properly seal flange-to-flange.

	SPLIT FLANGES JOINED						Flange	Weight Lbs.
Hos	se ID	Part	I	D	No. of	No.	<b>Bolt Hole</b>	2 Split Flange &
in.	mm	No.	in.	mm	<b>Bolt Holes*</b>	Side Bolts	I.D.	Side Bolts
4″	102	SFF0400A	4.96	126.0	6	1 x 2	0.75″	6.30
6″	153	SFF0600A	7.13	181.0	6	2 x 2	0.88"	9.90
8″	203	SFF0800A	9.06	230.0	6	2 x 2	0.88"	15.30
10"	254	SFF1000A	10.79	274.0	6	2 x 2	1.00"	25.30

<sup>\*</sup> ASA 150 standards has two more bolt holes at the point where the two side bolts join the split flanges.

#### **FOOT VALVES FOR WATER SUCTION HOSE**



Foot valves are used on the submersed end of the water suction hose to prevent the pump from losing it's prime when shut down. The foot valve stops the water from draining by a closing leather flapper gate. Each valve has a built in strainer that prevents debris from entering during operation. All sizes have NPS threads and complete valves are painted red.

Size	Part No.
1-1/2	FV150
2	FV200
2-1/2	FV250
3	FV300

Size	Part No.
4	FV400
6	FV600
8	FV800

#### STRAINERS FOR WATER SUCTION HOSE

Used on the submersed end of suction hose to prevent debris from entering the pump during operation. All threads are NPS (trash strainers are square hole).













**ROUND HOLE** 

**SQUARE HOLE** 

**TOP HOLE** 

**BOTTOM HOLE POLYPROPYLENE** 

Size	Round Hole Part No	Square Hole Part No	Tube Part No	Top Hole Part No	Bottom Hole Part No	Polypropylene Part No
1-1/2	RHS150	SHS150	TRHS150	THS150	BHS150	PS150
2	RHS200	SHS200	TRHS200	THS200	BHS200	PS200
2-1/2	RHS250	SHS250				
3	RHS300	SHS300	TRHS300	THS300	BHS300	
4	RHS400	SHS400				
6	RHS600	SHS600				
8	RHS800					

#### **HYDRANT ADAPTER BRASS**



For industrial utility and fire department applications, these adapters allow easy connections from hydrant to smaller size hose. Made of heavy duty cast brass with satin finish, all female ends are supplied with pin lug wrenching. All threads are V cut.

Female	Female	Male	Male End	
Size	Thread	Size	Thread	Part No
1-1/2	NPT	1-1/2	NST	HAB1516
1-1/2	NST	1-1/2	NPT	HAB1615
2	NPT	1-1/2	NST	HAB2016
2-1/2	NST	3/4	GHT	HAB075
2-1/2	NST	3/4	NPSM	HAB076
2-1/2	NST	1	NPSM	HAB100
2-1/2	NST	1-1/2	NPSM	HAB150
2-1/2	NST	1-1/2	NPT	HAB150NPT
2-1/2	NST	1-1/2	NST	HAB150NST
2-1/2	NST	2	NPSM	HAB200
2-1/2	NST	2	NPT	HAB200NPT
2-1/2	NST	2-1/2	NPT	HAB250NPT

Other thread combinations and particular city/municipal hydrant threads are available in brass with minimal factory order **Replacement Gasket HAG250** 

#### **HYDRANT CAP**



Heavy duty cast brass with chain.

Female End	Part Number
1-1/2 NST	CAP150BNST
2-1/2 NST	CAP250BNST

#### STRAIGHT STREAM BRASS NOZZLES



Made from cast brass with satin finish. Orifice tip sizes are standard. Special tip sizes and nozzle lengths are available in brass or aluminum with minimal factory order.

Size	Length	Size	Length
3/4	6"	1-1/2	10"
1	8″	2	12"
1-1/4	9″		

Thread Size	Туре	Tip Size	Part No	Thread Size	Туре	Tip Size	Part No
3/4	GHT	1/4	BN075	1-1/2	NST	1/2	BN150NST
3/4	NPSH	1/4	BN076	2	NPSH	9/16	BN200
1	NPSH	5/16	BN100	2-1/2	NPSH	3/4	BN250
1-1/4	NPSH	3/8	BN125	2-1/2	NST	3/4	BN251
1-1/2	NPSH	1/2	BN150				

#### **COMBINATION PLASTIC OR BRASS FOG NOZZLES**



Plastic nozzles are made of high impact bright red plastic with corrosion resistant metal parts. Brass nozzles are high quality heavy brass. These nozzles allow for straight stream or fog spray pattern in industrial, utility or commercial use.

Thread Size	Туре	Part No Plastic	Part No Brass
1-1/2	NPS	FN150	FN150B
1-1/2	NST	FN150NST	FN150BNST
2-1/2	NPS		FN250B
2-1/2	NST		FN250BNST

#### WHITE RUBBER NOZZLE



Reusable with splash guard protector. Molded from white EPDM rubber for temperatures to 200 F 3/4 SHANK SIZE **PART NO.** SOARC-075

#### SPANNER WRENCH FOR PIN LUG COUPLINGS



Made from ductile iron with easy grip handle, contour head to fit the coupling curve and special round hole to engage the pinlug.

Size	1-1/2	2	2-1/2	2 x 2-1/2	3	4
Part No	SW150	SW200	SW250	SW2025	SW300	SW400

#### UNIVERSAL SPANNER WRENCH



Ductile iron painted red. Complete with pry bar end and gas cock shut off/on feature. Other end used as pinlug or rocker lug wrenching.

PART NO. US-1

#### **ADJUSTABLE HYDRANT WRENCHES**



A complete tool for the fire hydrant operation. The pentagonal nut head is adjustable to fit hydrant valves to 1-3/4" for on/off operation. The head also operates pin lug or rocker lug connections from 1-1/2" to 6"

PART NO. HYD-1



Lighter in weight than the HYD-1 with the same adjustable features. Fits 1-3/4" pentagonal nuts. The head will operate hydrant cap and adapter pin or rocker lugs. Handle is plated.

PART NO. HYD-3

#### **NON CATALOGED HOSE REQUEST**

While Jason catalogs many useful hose products for a multitude of applications, there is always the possibility that we may not catalog a hose item you need. By filling out this form, we will give our factories and Jason the opportunity to quote your request.

Company Nam	e		Contact			
Address			Phone			
City			E-Mail			
Salesman			Fax			
Is there a hose	we can cross ove	er?				
Manufacturer			Part Number			
Please fill in the	e blanks:					
ID	OD	WP PSI	Burst PSI	Length		
Is this a suction  If a suction hos  What is the ma  What is the app	e, what vacuum ximum temperat plication? Include	arge hose?is required?	ol being conveyed? F Formation such as abrasional environment.			
What end conn	nections will be u	sed and how will	they be attached?			
Are there speci	al requirements	such as color, stat	ic wire(s), approvals or bra	anding/layline?		

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