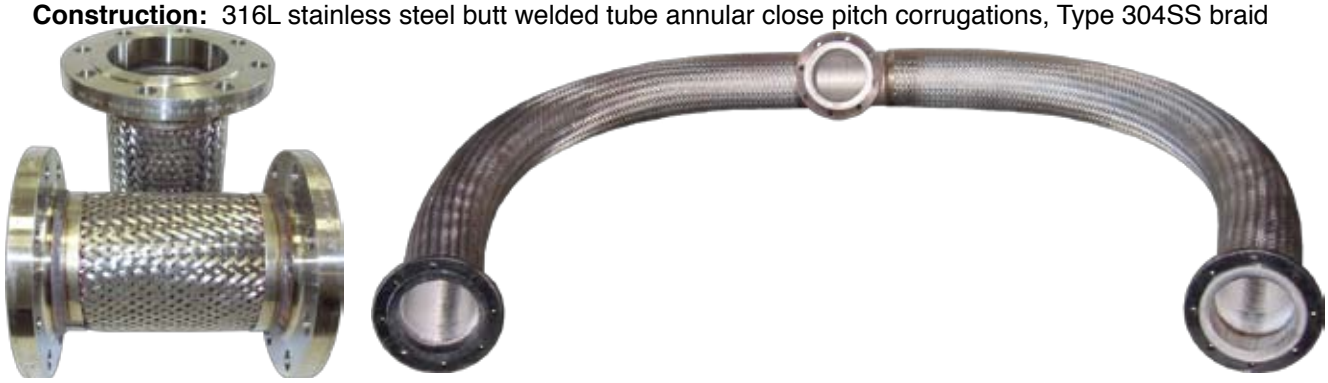
Stainless Steel and Metal Hose (Section III)

No. SS3161 - FLEXIBLE METAL HOSE WITH SINGLE BRAID

Construction: 316L stainless steel butt welded tube annular close pitch corrugations, Type 304SS braid



Part Number	Inside Diameter	Outside Diameter	Working Pressure PSI@70°F	Test Pressure PSI@70°F	Burst Pressure PSI@70°F	Constant Flexing	Static Bend	Min. live length for vibration	Weight LB/FT
SS3161-014	1/4”	.58”	2750	4125	11000	5”	1”	3-1/2”	.22
SS3161-038	3/8”	.70”	1960	2490	7840	5-1/2”	1-1/8”	4-1/4”	.31
SS3161-012	1/2”	.90”	1335	2003	5340	7-1/2”	1-1/2”	4-1/2”	.37
SS3161-034	3/4”	1.18”	1135	1703	4540	8-1/2”	2 1/8”	5-3/4”	.62
SS3161-100	1”	1.50”	795	1193	3180	10”	2-3/4”	7”	.81
SS3161-125	1-1/4”	1.81”	610	915	2440	11-1/2”	3-1/2”	7-1/4”	1.00
SS3161-150	1-1/2”	2.10”	535	800	2120	13”	4-1/2”	8”	1.41
SS3161-200	2”	2.74”	535	803	2140	15”	6”	9-1/2”	2.03
SS3161-250	2-1/2”	3.26”	395	593	1580	17”	6-1/2”	10-1/2”	2.42
SS3161-300	3”	3.83”	385	578	1540	21”	8-1/2”	11”	3.09
SS3161-350	3-1/2”	4.38”	315	472	1260	23”	10”	11-1/2”	3.53
SS3161-400	4”	4.88”	270	405	1080	27”	11”	12”	3.97
SS3161-600	6”	7.13”	170	255	680	37”	16”	14”	6.37
SS3161-800	8”	9.25”	235	353	940	42”	19”	16”	9.60
SS3161-1000	10”	11.25”	260	390	1040	56”	24”	18”	14.01
SS3161-1200	12”	13.37”	160	240	640	58”	28”	20”	16.30
SS3161-1400	14”	14.62”	150	225	600	66”	35”	22”	17.03
SS3161-1600	16”	16.62”	110	165	440	74”	40”	25”	18.44

Accord offers a complete line of annular corrugated metal hose in a wide variety of alloys, sizes and extra long unsegmented lengths. Our standard alloy is 316L stainless steel. Our standard stock sizes range from 1/4” -16” ID with larger sizes produced on order. Our staff will gladly assist you in the proper selection and application of standard flexible hose, special applications or prototypes. Accord is a fully equipped facility specializing in the fabrication of hose assemblies. 304 and 321 stainless steel available upon request.

SS3161 corrugated hose is made from strip metal. The strip metal is formed into tubes and the edges are inert-arc butt welded. The tube is then corrugated. Corrugated hose is pressure tight and suited to continuous flexing or vibration. Close pitch is standard.

The flexibility of corrugated metal hose is due to the spring-like quality of the corrugations. It will return to its original position when bending forces are removed. However, if the hose is bent beyond its minimum recommended bend radius, the hose will take on a permanent set. The SS3161 hose is designed to correct problems involving: vibration, temperature variations, misalignment, pipe line expansion and contraction, offset motion.

Lengths: Fabricated and fitted to client’s individual requirements.
Fittings: Specify when ordering.
Compliance: All assemblies 4” I.D. and larger are tested and marked in compliance with US Coast Guard regulations.
Conveyants Handled: Stainless steel corrugated flexible hose is suited for the widest range of industrial duties having superior qualities of flexibility, pressure and temperature capabilities, for conveying water for cooling or heating, steam, hydrocarbons, gases and a wide variety of chemicals.

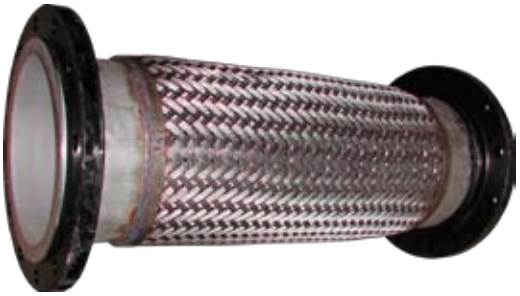
How To Order or Request For Quotation:

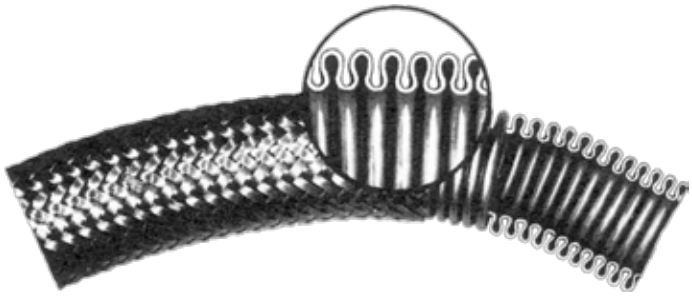
1. Specify Quantity
2. I.D. Size
3. Overall Length
4. Hose Type (Part No.)
5. Working Pressure
6. Temperature
7. Application
8. Media (conveyants)
9. Fittings - complete description should include type & metal alloy.
10. Special requirements

When products are required to conform to a particular regulation, specification or application this should be stated on the inquiry/order.

No. SS3162 - FLEXIBLE METAL HOSE WITH DOUBLE BRAID

Construction: 316L stainless steel butt welded tube annular close pitch corrugations, Type 304SS braid





Part Number	Inside Diameter	Outside Diameter	Working Pressure PSI@70°F	Test Pressure PSI@70°F	Burst Pressure PSI@70°F	Constant Flexing	Static Bend	Min. live length for vibration	Weight LB/FT
SS3162-014	1/4”	.58”	3935	5903	15740	5”	1”	3-1/2”	.30
SS3162-038	3/8”	.70”	2740	4110	10960	5-1/2”	1-1/8”	4-1/4”	.41
SS3162-012	1/2”	.90”	2350	3525	9400	7-1/2”	1-1/2”	4-1/2”	.50
SS3162-034	3/4”	1.18”	1800	2700	7200	8-1/2”	2 1/8”	5-3/4”	.84
SS3162-100	1”	1.50”	1365	2050	5460	10”	2-3/4”	7”	1.06
SS3162-125	1-1/4”	1.81”	1000	1500	4000	11-1/2”	3-1/2”	7-1/4”	1.30
SS3162-150	1-1/2”	2.10”	955	1430	3820	13”	4-1/2”	8”	1.81
SS3162-200	2”	2.74”	865	1298	3460	15”	6”	9-1/2”	2.73
SS3162-250	2-1/2”	3.26”	710	1065	2840	17”	6-1/2”	10-1/2”	3.19
SS3162-300	3”	3.83”	635	953	2540	21”	8-1/2”	11”	4.23
SS3162-350	3-1/2”	4.38”	585	878	2340	23”	10”	11-1/2”	4.79
SS3162-400	4”	4.88”	485	728	1940	27”	11”	12”	5.34
SS3162-600	6”	7.13”	300	450	1200	37”	16”	14”	8.11
SS3162-800	8”	9.25”	360	540	1440	42”	19”	16”	13.01
SS3162-1000	10”	11.25”	280	420	1120	56”	24”	18”	19.81
SS3162-1200	12”	13.37”	220	330	880	58”	28”	20”	22.81
SS3162-1400	14”	14.62”	190	285	760	66”	35”	22”	23.43
SS3162-1600	16”	16.62”	170	255	680	74”	40”	25”	24.65

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The flexibility of corrugated metal hose is due to the spring-like quality of the corrugations. It will return to its original position when bending forces are removed. However, if the hose is bent beyond its minimum recommended bend radius, the hose will take on a permanent set. The SS3161 hose is designed to correct problems involving: vibration, temperature variations, misalignment, pipe line expansion and contraction, offset motion.

Lengths: Fabricated and fitted to client’s individual requirements.
Fittings: Specify when ordering.
Compliance: All assemblies 4” I.D. and larger are tested and marked in compliance with US Coast Guard regulations.
Conveyants Handled: Stainless steel corrugated flexible hose is suited for the widest range of industrial duties having superior qualities of flexibility, pressure and temperature capabilities, for conveying water for cooling or heating, steam, hydrocarbons, gases and a wide variety of chemicals.

How To Order or Request For Quotation:

1. Specify Quantity
2. I.D. Size
3. Overall Length
4. Hose Type (Part No.)
5. Working Pressure
6. Temperature
7. Application
8. Media (conveyants)
9. Fittings - complete description should include type & metal alloy.
10. Special requirements

When products are required to conform to a particular regulation, specification or application this should be stated on the inquiry/order.

Chlorine Transfer Hose

Accord offers a complete line of annular corrugated metal hose in a wide variety of alloys, sizes and extra long unsegMonel 400 hose and braid
Meets Chlorine Institute specifications
Fully tested and prepared for shipping
Tough demanding applications such as chlorine transfer require a precision fabricated hose assembly that meets the requirements of The Chlorine Institute specifications 135-3 and Pamphlet 6. Accord fabricates Chlorine Transfer hoses utilizing Monel 400. Monel 400 has excellent resistance to dry chlorine gas. Hose assemblies are fabricated using a single or double layer of Monel braid. A stainless steel interlock casing is provided to protect the braid from damage. Chlorine Transfer hoses are supplied with fittings of Monel 400 Schedule 80 material in either pipe or with stub ends and steel floating flanges.

When specified, Chlorine Transfer assemblies are tested, cleaned, ends capped, bagged and tagged per The Chlorine Institute requirements.

Correction Factors for Elevated Temperatures of Type SS3161 & SS31612 Hose Assemblies

As the operating temperatures of a hose assembly increases the maximum working pressure decreases. Pressure ratings in the data sections of this catalog are valid at 70°F. For operating temperatures in excess of 70°F the maximum working pressure must be decreased according to the Correction Factors chart list below.

Correction Factors Chart

Apply to pressure rating for elevated temperatures.

Temperature F°	Stainless Steel
70	1.00
150	0.97
200	0.94
250	0.92
300	0.88
350	0.86
400	0.83
450	0.81
500	0.78
600	0.74
700	0.70
800	0.66
900	0.62
1000	0.60
1100	0.58
1200	0.55
1300	0.50
1400	0.44
1500	0.40

Maximum Service Temperature for 316 AISI Stainless Steel Type is 1500°F.

1. Determine maximum operating temperature.
2. Locate appropriate correction factor on chart.
3. Multiply correction factor by maximum working pressure at 70°F PSIG specified for desired product.

Flexible Metal Hose & Fitting Chemical Resistance Chart

Key: 1=Resistant, less than .00035" penetration/month; 2= Partially Resistant, between .00035" to .0035" penetration/month; 3=Non-Resistant, greater than .0035" penetration/month;
*** Notes:** *=subject to decomposition (forming HCl) in presence of moisture; **=subject to pitting at air line or when allowed to dry; ***=subject to attack in presence of H2SO4.

Material Handled	Concentration	Temp. (°F)	304SS & 321SS	316L	Carbon Steel	Bronze	Monel
Acetic Acid	5-20%	70	1	1	3	3	2
Acetic Acid	50%	70	1	1	3	3	3
Acetic Acid	50-80%	Boiling	3	2	3	3	3
Acetic Acid	80%	70	1	1	3	3	1
Acetic Acid	100%	70	1	1	3	3	1
Acetic Acid	100%	Boiling	3	2	3	3	2
Acetic Acid	100%@150lbs.	400	3	3	3	3	2
Acetic Anhydride		70	1	1	3	3	2
Acetic Anhydride		Boiling	1	1	3	3	2
Acetic Acid Vapors	30%	Hot	3	2	3	3	3
Acetic Acid Vapors	100%	Hot	3	3	3	3	2
Acetone		Boiling	1	1	3	1	1
Acetyl Chloride		Cold	2	2	3	2	1
Acetyl Chloride		Boiling	2	2	3	2	3
Acetylene Concentrated		70%	1	1	1	3	1
Acetylene Commercially Pure		70%	1	1	1	3	1
Acid Salt Mixture	10%	Boiling	1	1	3	3	3
Alcohol, Ethyl	70%	Boiling	1	1	1	1	1
Alcohol, Methyl		70	1	1	1	1	1
Alcohol, Methyl		150	3	2	3	1	1
Aluminum Molten		1400	3	3	3	3	3
Aluminum Acetate	Saturated	70	1	1	3	3	1
Aluminum Acetate	Saturated	Boiling	1	1	3	3	1
Aluminum Chloride	10% Qulescent	70	3	3	3	3	2
Aluminum Chloride	25% Qulescent	70	1	1	3	3	2
Aluminum Flouride		70	3	3	3	3	2
Aluminum Hydroxide	Saturated	70	1	1	1	1	1
Aluminum Sulphate	5%	150	1**	1	3	3	1
Aluminum Sulphate	10%	70	1**	1	3	3	1
Aluminum Sulphate	10%	Boiling	2	1	3	3	1
Aluminum Sulphate	Saturated	70	1**	1	3	3	1
Aluminum Sulphate	Saturated	Boiling	1	1	3	3	1
Aluminum Potassium Sulphate	(Alum) 2%-10%	70	1	1	3	2	2
Aluminum Potassium Sulphate	10%	Boiling	2	1	3	3	2
Aluminum Potassium Sulphate	Saturated	Boiling	3	2	3	3	2
Ammonia (Anhydrous)	All Concentration	70	1	1	1	1	1
Ammonia (Anhydrous)	Gas	Hot	3	3	3	3	
Ammonia Liquor		70	1	1	3	3	3
Ammonia Liquor		Boiling	1	1	3	3	3
Ammonium Bicarbonate		70	1	1	3	3	2
Ammonium Bicarbonate		Hot	1	1	3	3	2
Ammonium Bromide		70	2	1	3	3	2
Ammonium Carbonate	1 & 5%	70	1	1	1	3	3
Ammonium Chloride	1%	70	1	1	2	3	1
Ammonium Chloride	10%	Boiling	1**	1**		3	2
Ammonium Chloride	28%	Boiling	2**	1**		3	2
Ammonium Chloride	50%	Boiling	2**	1**		3	2
Ammonium Hydroxide	All Concentration	70	1	1	2	3	3
Ammonium Monophospate		70	1	1	2	3	2
Ammonium Nitrate	All Concentration Agitated	70	1	1	3	3	2
Ammonium Nitrate	All Concentration Aerated	70	1	1	3	3	2
Ammonium Nitrate	All Concentration Saturated	Boiling	1	1	3	3	2
Ammonium Oxalate	5%	70	1	1	2	3	
Ammonium Perchlorate	10%	Boiling	1	1	2	3	
Ammonium Persulphate	5%	70	1	1		3	3
Ammonium Phosphate	5%	70	1	1	2	3	3
Ammonium Sulphate	1% Aerated & Agitated	70	1	1	3	3	2
Ammonium Sulphate	5% Aerated & Agitated	70	1	1	3	3	2
Ammonium Sulphate	10% Saturated	Boiling	2**	1**	3	3	2
Ammonium Sulphite		70	1	1	3	3	3
Ammonium Sulphite		Boiling	1	1	3	3	3
Amyl Acetate Concentrate		70	1	1	2	1	1
Amyl Chloride		70	1	1	3	2	2
Aniline	3%	70	1	1	2	3	2

Flexible Metal Hose & Fitting Chemical Resistance Chart

Key: 1=Resistant, less than .00035" penetration/month; 2= Partially Resistant, between .00035" to .0035" penetration/month; 3=Non-Resistant, greater than .0035" penetration/month;
*** Notes:** *=subject to decomposition (forming HCl) in presence of moisture; **=subject to pitting at air line or when allowed to dry; ***=subject to attack in presence of H2SO4.

Material Handled	Concentration	Temp. (°F)	304SS & 321SS	316L	Carbon Steel	Bronze	Monel
Aniline Hydrochloride		70	3	3		3	3
Antimony Trichloride		70	3	3	3	3	3
Barium Carbonate		70	1	2	1	2	
Barium Chloride	5% & Saturated	70	1	1	3	2	2
Barium Hydroxide	Aqueous Solution	Hot	1	1	2		
Barium Nitrate	Aqueous Solution	Hot	1	1	2		
Barium Sulphate		70	1	1		1	2
Barium Sulfide	Saturated Solution	70	1	1	3	3	
Benzene(Benzol)		70	1	1	2	1	2
Benzene(Benzol)		Hot	1	1	2	1	2
Benzoic Acid		70	1	1	1	1	
Blood (Meat Juices)		Cold	1**	1	3		2
Borax	5%	Hot	1	1			
Borax	5%	Cold	1	1			
Boric Acid	5% Solution	70-Hot	1	1	3	1	2
Boric Acid	5% Solution	Boiling	1	1**	3	1	2
Boric Acid	Saturated Solution	70	1**	1**	3	2	2
Boric Acid	Saturated Solution	Boiling	1**	1**	3	3	2
Bromine, Bromine Water		70	3	3	3	3	3
Buttermilk		70	1	1	3	3	2
Butyl Acetate			1	1	2		2
Butyric Acid	5%	70-150	1	1	2		2
Butyric Acid	Aqueous Solution	Boiling	1	1	3	2	2
Calcium Carbonate		70	1	1	1		1
Calcium Carbonate		70	1	1	1		1
Calcium Chlorate	Dilute Solution	70-Hot	1	1	2		2
Calcium Chloride	Dilute or Concentrate Solution	70	2**	1**	3	2	3
Calcium Chlorohypochlorite	1% (Bleaching powder)	70	3	3	3	2	3
Calcium Chlorohypochlorite	5%	70	3	3	3	2	3
Calcium Hypochlorite	2%	70	2**	1**	3	2	3
Calcium Hydroxide	10-20%	Boiling	1	1	3	1	1
Calcium Suphate	Saturated	70	1	1	3	1	2
Carbonic Acid	Saturated Solution	70	1	1	3	1	3
Carbolic Acid C.P,		70	1	1	3	2	1
Carbolic Acid C.P,		Boiling	1	1	3	2	1
Carbonated Water			1	1	3	2	3
Carbon Bisulfide		70	1	1	2	2	2
Carbon Monoxide Gas		1400	1	1	1	3	1
Carbon Tetrachloride	C.P.	70	1	1	2	1	1
Carbon Tetrachloride	Dry C.P.	Boiling	1	1	2	1	2
Carbon Tetrachloride	Commercial + 1% Water		3**	3	3	2	2
Carnallite-Cold	Saturated Solution	Boiling	3	1**			
Cellulose			1	1			1
Chloracetic Acid			3	3	3	2	2
Chlorbenzol	Concentrate Pure Dry	70	1	1	2	2	2
Chloric Acid			3	3	3	3	3
Chlorine Gas	Dry	70	3	2	2	1	2
Chlorine Gas	Moist	70	3	3	3	3	3
Chlorinater Water	Saturated			3**	2**	3	
Chloroform		70	1	1	1	1	1
Chromic Acid	5% C.P.	70	1	1	3	3	3
Chromic Acid	10%	70	3	2	3	3	3
Chromic Acid	10% C.P.	Boiling	3	2	3	3	3
Chromic Acid	50% C.P.	70	3	2	3	3	3
Chromic Acid	50% C.P.	Boiling	3	3	3	3	3
Chromic Acid	Comm 50% (Cont. SO3)%	70	3	3	3	3	3
Chromic Acid	Comm 50% (Cont. SO3)%	Boiling	3	3	3	3	3
Chromic Acid							
Chromium Plating Bath		70	1	1	2		3
Citric Acid	5% Still	70-150	1	1	3	1	2
Citric Acid	15% Still	70	1	1	3	2	2
Citric Acid	5% or Concentrated	Boiling	2	1	3	2	3
Coffee		Boiling	1	1	3	1	1
Concentrated Crude		70	1	1	1	3	2

Flexible Metal Hose & Fitting Chemical Resistance Chart

Key: 1=Resistant, less than .00035" penetration/month; 2= Partially Resistant, between .00035" to .0035" penetration/month; 3=Non-Resistant, greater than .0035" penetration/month;
*** Notes:** *=subject to decomposition (forming HCl) in presence of moisture; **=subject to pitting at air line or when allowed to dry; ***=subject to attack in presence of H2SO4.

Material Handled	Concentration	Temp. (°F)	304SS & 321SS	316L	Carbon Steel	Bronze	Monel
Copper Acetate	Saturated Solution	70	1	1	3		2
Copper Chloride	1% Agitated	70	2**	1**	3	3	3
Copper Chloride	1% Agitated	158	3	3	3	3	3
Copper Chloride	1% Agitated	70	2**	1**	3	3	3
Copper Chloride	5% Agitated	70	3**	2**	3	3	3
Copper Chloride	6% Aerated	70	3**	3**	3	3	3
Copper Cyanide	Saturated Solution	Boiling	1	1		3	2
Copper Nitrate	1% Still, Agitated & Aerated	70	1	1	3	3	3
Copper Nitrate	5% Still, Agitated & Aerated	70	1	1	3	3	3
Copper Nitrate	50% Aqueous Solution	Hot	1	1	3	3	3
Copper Sulphate	5% Still, Agitated & Aerated	70	1	1	3	3	3
Copper Sulphate	Saturated Solution	Boiling	1	1	3	2	3
Creosote - Coal Tar		Hot	1	1	2	1	2
Creosote Oil		Hot	1	1	2	2	2
Cyanogen Gas		70	1	1			
Dichloroethane	Dry	Boiling	1	1	3	3	2
Dinitrochlorobenzene	Melted & Solidfied	70	1	1	3		
Dyewood Liquor		70	1**	1	3		2
Epsom Salt (Magnesium Sulfate)		Hot	1	1	3	1	2
Epsom Salt (Magnesium Sulfate)		Cold	1	1	3	1	2
Ethers		70	1	1	2	1	2
Ethyl Acetate	Con. Sol.	70	1	1	2	1	2
Ethyl Chloride		70	1	1	2	2	1
Ethylene Glycol		70	1	1	2	2	1
Ferric Chloride	1% Solution, Still	70	2**	1**	3	3	3
Ferric Chloride	1% Solution	Boiling	3	3	3	3	3
Ferric Chloride	5% Solution, Agitated, Aerated	70	3	3	3	3	3
Ferric Hydroxide	(Hydrated Iron Oxide)	701	1	1	3		2
Ferric Nitrate	1%-5% Quiescent or Agitated	70	1	1	3	3	3
Ferric Nitrate	1%-5% Aerated	70	1	1	3	3	3
Ferric Sulphate	1%-5% Quiescent or Agitated	70	1**	1	3	3	3
Ferric Sulphate	1%-5% Aerated	70	1**	1	3	3	3
Ferric Sulphate	10%	Boiling	1**	1	3	3	3
Ferrous Chloride	Saturated Sol.	70	3	1	3	2	
Ferrous Sulphate	Dilute Solution	70	1	1	3	2	3
Fluorine (Gas) Moist		70	3	3	3	3	3
Formaldehyde	40% Solution		1**	1**	2	1	1
Formic Acid	5% Still	70	2	1	3	2	2
Formic Acid		150	2	1	3	2	3
Fuel Oil	Containing Sulphuric Acid		3	2		3	2
Furfural		70	1	1	2	1	2
Gallic Acid		70-150	1	1	3		2
Gallic Acid	Saturated	212	1	1	3		2
Gasoline		70	1	1	2	1	1
Gelatin			1	1	3	1	1
Glue Dry		70	1	1	1	2	2
Glue Dry	Solution in Acid	70-140	2**	1	2	3	2
Glycerine		70	1	1	2	1	1
Hydrochloric Acid	All Concentration	70	3	3	3	3	3
Hydrocyanic Acid		70	1	1	3	3	2
Hydrofluoric Acid		70	3	3	3	3	1
Hydrofluosilic Acid		70	3	3	3	2	2
Hydrogen Peroxide		70	1**	1	3	3	2
Hydrogen Peroxide		Boiling	2**	1	3	3	2
Hydrogen Sulphide		70	1**	1	2	1	3
Hydrogen Sulphide	Wet	70	2**	1**	3	3	3
Hyposulphite Soda (Hypo)			1	1			
Ink		70	2**	1	3	3	1
Iodine		70	3	3	3	3	3
Iodoform		70	1	1	3		2
Kerosene		70	1	1	2	1	2
Lactic Acid	1%	70	1	1	3	2	2
Lactic Acid	1%	Boiling	1	1	3	3	2
Lactic Acid	5%	70	1	1	3	2	2

Flexible Metal Hose & Fitting Chemical Resistance Chart

Key: 1=Resistant, less than .00035" penetration/month; 2= Partially Resistant, between .00035" to .0035" penetration/month; 3=Non-Resistant, greater than .0035" penetration/month;
*** Notes:** *=subject to decomposition (forming HCl) in presence of moisture; **=subject to pitting at air line or when allowed to dry; ***=subject to attack in presence of H2SO4.

Material Handled	Concentration	Temp. (°F)	304SS & 321SS	316L	Carbon Steel	Bronze	Monel
Lactic Acid	5%	150	2	1	3	3	2
Lactic Acid		Boiling	2	1	3	3	2
Lactic Acid	10%	70	2	1	3	2	2
Lactic Acid	10%	150	2	1	3	2	2
Lactic Acid		Boiling	3	2	3	3	2
Lactic Acid	Concentrated	70	2	1	3	2	2
Lactic Acid	Concentrated	Boiling	3	2	3	3	2
Lead (Molten)	(Molten)	750	2	2		3	3
Lead	5% Acetate		1	1	3		2
Linseed Oil		70	1	1	2	2	1
Linseed Oil	3%	380	2	1	3	3	1
Magnesium Chloride	1% Quiescent	70	1**	1	3	2	1
Magnesium Chloride	1% Quiescent	Hot	3	2**	3	2	1
Magnesium Chloride	5% Quiescent	70	1**	1	3	2	1
Magnesium Chloride	5% Quiescent	Hot	3	2**	3	2	1
Magnesium Oxychloride		70	3	2**	3		
Magnesium Sulphate		Hot	1	1	3	1	1
Magnesium Sulphate		Cold	1	1	3	1	1
Malac Acid		Hot	2	1	3		2
Malac Acid		Cold	2	1	3		2
Mash		Hot	1	1			2
Mayonnaise		70	1**	1	3		2
Mercury			1	1	1	3	3
Mercuric Chloride	Dilute Solution	70	3	3	3	3	3
Methanol	Methyl Alcohol		1	1	2	1	1
Milk, Fresh, Sour			1	1	3	1	2
Mixed Acids		Cold	1	1	3	3	3
Molasses			1	1	2	1	1
Muriatic Acid		70	3	3	3	3	2
Mustard		70	1**	1**	3		2
Naptha	Crude	70	1	1	2	2	1
Naptha	Pure	70	1	1	2	2	1
Naphthalene Sulfonic Acid		70	1	1	3		1
Nickel Chloride Solution		70	1**	1**	3	2	2
Nitrating Solutions		Cold	2	2		2	3
Nitrating Solutions		Hot	2	2		2	3
Nickel Sulphate		Cold	1	1	3	1	1
Nickel Sulphate		Hot	1	1	3	1	1
Niter Cake	Fused		2	1	3		2
Nitric Acid	5%	Boiling	1	1	3	3	3
Nitric Acid	65%	70	1	1	3	3	3
Nitric Acid	65%	Boiling	2	2	3	3	3
Nitric Acid	Concentrated	70	1	1	3	3	3
Nitric Acid	65%	Boiling	3	3	3	3	3
Nitric Acid	Fuming Concentrated	70-110	1	1	3	3	3
Nitric Acid	Fuming Concentrated	Boiling	3	3	3	3	3
Nitrous Acid	5%	70	1	1	3	3	3
Oils	Crude	Cold	1**	1**	2	1	
Oils	Crude	Hot	1**	1**	2	1	
Oleic Acid		70-400	1**	1	2	2	2
Oxalic Acid	5%-10%	70	1	1	3	2	2
Oxalic Acid	5%-10%	Boiling	1	1	3	2	2
Oxalic Acid	10%	Boiling	3	3	3	2	2
Oxalic Acid	25%-50%	Boiling	3	3	3	2	1
Paraffin		Cold	1	2	1	1	
Paraffin		Hot	1	2	1	1	
Phenol (see Carbolic Acid)							
Petroleum Ether			1	1	2	3	2
Phosphoric Acid	1%	70	1*	1*	3	3	2
Phosphoric Acid	1%	Boiling	1*	1*	3	3	2
Phosphoric Acid	1%-45% lbs. Pressure	284	1	1	3	3	2
Phosphoric Acid	5% Quiescent or Agitated	70	1	1	3	3	2
Phosphoric Acid	5% Aerated	70	1	1	3	3	2
Phosphoric Acid	10% Quiescent	70	3	1	3	3	2

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Material Handled	Concentration	Temp. (°F)	304SS & 321SS	316L	Carbon Steel	Bronze	Monel
Phosphoric Acid	10% Agitated or Aerated	70	3	2	3	3	2
Phosphoric Acid	10%-50%	Boiling	1	1	3	3	2
Phosphoric Acid	80%	70	3	3	3	3	2
Phosphoric Acid	80%	230	3	3	3	3	2
Phosphoric Acid	85%	Boiling	3	3	3	3	2
Pictic Acid		70	1	1	3	3	3
Potassium Bichromate	25%	70	1	1		3	2
Potassium Bichromate	25%	Boiling	1	1		3	2
Potassium Bromide		70	2**	1**	3	2	2
Potassium Carbonate	1%	70	1	1	2	2	1
Potassium Carbonate		Hot	1	1	2	3	1
Potassium Chlorate	Saturated @ 212	Boiling	1	1	2	3	3
Potassium Chloride	1% Quiescent	70	1**	1**	3	2	1
Potassium Chloride	10% Agitated or Aerated	70	1	1	3	2	1
Potassium Chloride	5% Quiescent	70	1**	1**	3	2	1
Potassium Chloride	5% Agitated or Aerated	70	1	1	3	2	1
Potassium Chloride	5%	Boiling	1	1	3	2	1
Potassium Chromium Sulfate	5%	70	1**	1	3	2	
Potassium Chromium Sulfate		Boiling	3	3	3	3	
Potassium Cyanide		70	1	1	2	3	2
Potassium Ferricyanide	5%-25%	70	1	1	3		2
Potassium Ferricyanide	25%	Boiling	1	1	3		2
Potassium Ferrocyanide	5%	70	1	1	3		2
Potassium Hydroxide	5%	70	1	1	2+	2	1
Potassium Hydroxide	27%	Boiling	1	1	2+	2	1
Potassium Hydroxide	50%	Boiling	2	1	3	2	1
Potassium Hypochlorite		70					
Potassium Nitrate	1%-5% Still or Agitated	70	1	1	3	2	1
Potassium Nitrate	1%-5% Aerated	70	1	1	3	2	1
Potassium Nitrate	50%	70	1	1	3	2	1
Potassium Nitrate	50%	Boiling	1	1	3		1
Potassium Nitrate	Molten	1022	1	1	3		
Potassium Oxalate			1	1			
Potassium Permangenate	5%	70	1	1	2		3
Potassium Sulphate	1%-5% Still or Agitated	70	1	1	2	1	2
Potassium Sulphate	1%-5% Aerated	70	1	1	2	1	2
Potassium Sulphate		Hot	1	1	3	1	2
Potassium Sulphide	Salt		1	1	3		
Pyrogallic Acid			1	1	2		
Quinine Bisulphate	Dry		2	2	2		
Quinine Sulphate	Dry		1	1	3	2	2
Sea Water		70	1**	1**	3	2	1
Sewage			1**	1**		1	1
Silver Bromide			2**	1**	3	3	
Silver Chloride			3	3	3	3	3
Silver Nitrate			1	1	3	3	3
Soap		70	1	1	2	1	1
Sodium	Acetate (moist)		1**	1	3		2
Sodium Bicarbonate	All Concentration	70	1	1	3	2	1
Sodium Bicarbonate	5% Still	150	1	1	3	2	1
Sodium Bisulphate	Solution	70	1**	1**	3	2	2
Sodium Bisulphate	Saturated Solution	70	3	3	3	2	2
Sodium Bisulphate		68	3	1**	3	2	2
Sodium Carbonate	5%	70-150	1	1	2	2	1
Sodium Carbonate	5%-50%	Boiling	1	1	2	2	1
Sodium Carbonate	Molten	1650	3	3	3	3	1
Sodium Chloride	5% Still	70-150	1**	1	3	2	1
Sodium Chloride	20% Aerated	70	1**	1	3	2	1
Sodium Chloride	Saturated	70	1**	1	3	2	1
Sodium Chloride	Saturated	Boiling	2**	1	3	2	1
Sodium Cyanide		70	1	1	2	3	
Sodium Fluoride	5% Solution	70	2**	1**	3	1	1
Sodium Hydroxide		70	1	1	2	2	1
Sodium Hypochlorite	5% Still		2**	1**	3	2	3

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Sodium Hyposulphite		70	1**	1	3		1
Sodium Nitrate		Fused	1	1	2	1	2
Sodium Perchlorate	10%	70-150	1	1			
Sodium Perchlorate		Boiling	1	1			
Sodium Phosphate	5% Still	70	1	1	3	1	1
Sodium Sulphate	All Concentration	70	1	1	3	1	1
Sodium Sulphate	Saturated		2**	1	3	3	2
Sodium Sulphide	5%	70	1	1	3	2	2
Sodium Sulphite	10%	150	1	1	3	2	2
Sodium Thiosulphate	Saturated Solution	70	1	1**	3	3	1
Sodium Thiosulphate	Acid Fixing Bath (hypo)	70	1	1	3	3	2
Sodium Thiosulphate	25% Solution	70	1	1**	3	3	2
Sodium Thiosulphate	25% Solution	Boiling	1	1**	3	3	2
Stannic Chloride Solution		70	3	3	3	3	3
Stannic Chloride Solution		Boiling	3	3	3	3	3
Stannous Chloride	Saturated		3	1	3		3
Steam			1	1	3	1	1
Stearic Acid		70	1	1	3	2	2
Starch	Aqueous Solution		1	1			2
Strontium Hydroxide			1	1			
Strontium Nitrate	Solution	Hot	1	1	3		2
Sulphur	Moist	70	2**	1**	3	3	2
Sulphur	Molten	266	1	1	3	3	1
Sulphur	Molten	833	3	3	3	3	3
Sulphur Chloride	Dry		3	3	3	1	2
Sulphur Dioxide Gas	Gas (moist)	70	2	1	3	2	3
Sulphur Dioxide Gas	Gas (Moist)	575	1	1	3	1	2
Sulphuric Acid	5%-10%	70	3	3	3	2	3
Sulphuric Acid	5%-10%	Boiling	3	3	3	2	3
Sulphuric Acid	50%	70	3	3	3	3	3
Sulphuric Acid	50%	Boiling	3	1	3	3	3
Sulphuric Acid	Concentrated	70	1	3	3	3	3
Sulphuric Acid	Concentrated	Boiling	3	3	3	2	3
Sulphuric Acid	Concentrated	300	3	2	3	2	3
Sulphuric Acid	Fuming	70	3	2	3	2	3
Sulphurous Acid	Saturated	70	3	2	3	2	3
Saturated	60lb Pressure						
Saturated	Saturated 70-125lb pressure						
Saturated	150 lbs Pressure	375	3	2	3	2	3
Sulphurous Spray		70	3	3	3	3	3
Tannic Acid		70	1	1	3	1	3
Tannic Acid		150	1	1		1	3
Tanning Liquor		70	1	1			1
Tar			1	1	2	1	2
Tartaric Acid			1	1	3	1	2
Tin		Molten	3	3	3	3	
Trichloracetic Acid		70	3	3	3	2	3
Trichlorethylene	Dry	70	1**	1	3	1	1
Trichlorethylene	Moist					2	
Varnish		70	1	1	2	1	1
Water			1	1	2	1	1
Yeast			1	1		3	1
Zinc		Molten	3	3	3	3	3
Zinc Chloride	5% Still	70	1**	1**	3	3	2
Zinc Chloride		Boiling	2**	2**	3	3	2
Zinc Cyanide	Moist	70	1	1	3		
Zinc Nitrate Solution	Hot		1	1	3		
Zinc Sulphate			1	1	3	2	2