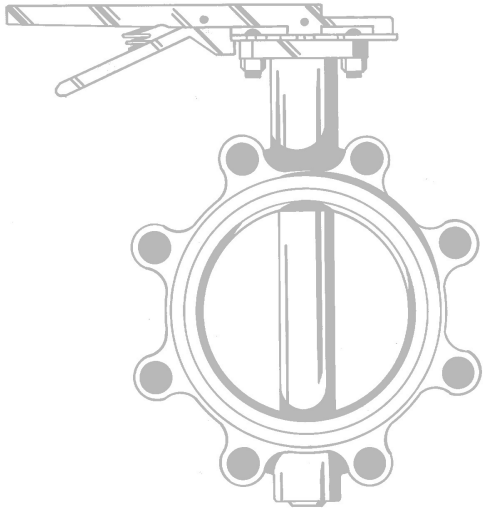


Reference Material

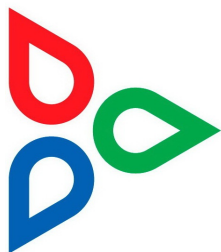
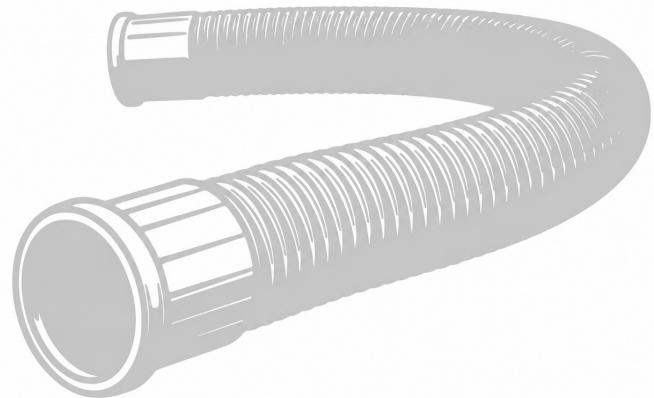


IFW Products LLC
Boise, Idaho 83714 USA

Office 208.314.7475

Fax 208.672.3003

ifwproducts.com
info@ifwproducts.com



IFWPRODUCTS_{LLC}

FIRE • WATERWORKS & IRRIGATION • INDUSTRIAL

Index

Chemical Compatibility	3 – 6
Fire Hose Threads	7
Hose Thread Compatibility	8
Conversion Tables	9
Decimal Equivalents	10
Water Head & Discharge Tables.....	11
Hose Friction Loss	12
Temperature Conversions.....	13
Pipe Dimensions	14
Abbreviations.....	15
Glossary	16 – 17
UPS Transit Times	18

Chemical Compatibility

The accompanying hose fitting data has been compiled from generally available sources, but should not be considered an all inclusive or exhaustive listing. In all cases, any inquiries as to the suitability of a particular combination of hose fitting, hose and expected chemical or contaminant should be addressed to the manufacturer(s) of the hose and fittings.

All ratings are based on 70° F. Chemical compatibility varies greatly with temperature; for applications at temperatures other than 70°, consult manufacturer for recommendations.

Chemical resistance of a material does not necessarily indicate the suitability of a fitting for all uses, due to such variables as hose construction, gasket material, and the type and method of attaching clamps. ***Special caution must be taken when handling hazardous materials.***

Key To Ratings:

A = Excellent • B = Good • C = Fair • F = Unsatisfactory • — = Contact Factory

Alcohols	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Amyl	B	B	B	B	C	C
Benzyl	B	B	A	A	F	C
Butyl	A	B	A	A	C	C
Diacetone	A	A	B	B	F	C
Ethyl	A	B	B	B	F	C
Isopropyl	B	B	B	B	C	C
Methyl (Methanol)	B	B	B	B	C	C
Octyl	—	—	—	—	C	—
Propyl	B	B	A	A	F	C
Triethanolamine	B	F	B	B	C	F

Aromatics	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Benzene	A	B	B	B	C	F
Benzyl Chloride	F	—	C	B	A	C
Nitrobenzene	B	—	B	B	B	B
Phenol	A	A	—	A	F	F
Styrene	A	A	A	A	A	—
Toluene	A	A	A	A	C	F
Xylene	B	B	B	B	C	F

Chemical Compatibility

A = Excellent • B = Good • C = Fair • F = Unsatisfactory • — = Contact Factory

Caustics	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Ammonium Hydroxide (Sat.).	B	F	B	B	C	C
Potassium Hydroxide (90%) .	F	F	F	—	F	C
Sodium Hydroxide (50%)	F	F	A	—	F	C
Sodium Hypochlorite	F	F	—	—	F	C

Chlorinated Solvents	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Carbon Tetrachloride.	F	—	A	—	C	F
Chloroform.	—	—	—	—	F	F
Methyl Dichloride	—	—	—	—	C	F
Perchlorethylene	B	B	—	—	F	F
Trichlorethylene.	A	—	—	—	C	F

Esters	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Amyl Acetate	A	A	A	A	B	B
Butyl Acetate	A	B	B	B	C	F
Ethyl Acetate	—	—	B	B	C	F
Methyl Acetate.	A	—	A	B	A	F

Hydrocarbons	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Butane	B	B	B	B	F	F
Cyclohexane	B	B	B	B	C	F
Fuel Oil	B	B	B	B	C	F
Gasoline (Refined)	B	B	B	B	C	F
Grease.	—	A	—	A	—	—
Heptane	B	B	B	B	C	F
Hexane	B	B	A	A	C	F

Chemical Compatibility

A = Excellent • B = Good • C = Fair • F = Unsatisfactory • — = Contact Factory

Organic Acids	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Acetic Acid (80%)	C	F	A	A	F	F
Acetic Acid (50%)	B	F	B	A	F	F
Acetic Acid (20%)	B	F	B	A	F	F
Acetic Acid (10%)	B	F	A	A	F	F
Citric Acid	C	F	—	—	F	C
Formic Acid (Anhyd.)	A	F	—	—	F	C
Lactic Acid (80%)	B	B	—	—	C	C
Lactic Acid (25%)	C	B	—	—	C	C
Maleic Acid	—	B	—	B	F	C
Oleic - Acid	B	C	—	A	C	F
Oxalic Acid (Sat.)	B	—	F	F	F	C
Stearic Acid	B	C	B	A	C	C
Tannic Acid	F	—	B	B	F	C

Miscellaneous	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Ammonia, Liquid	A	—	B	A	B	A
Aniline	—	F	A	A	F	F
Beer	A	B	A	A	C	C
Bleach	F	—	—	F	F	C
Borax	F	B	A	A	F	C
Carbon Disulfide	A	F	B	B	C	F
Chlorine (liquid)	—	—	—	C	F	F
Detergents	B	B	A	B	C	C
Hydrogen Peroxide (50%) . . .	—	F	—	—	F	C
Linseed Oil	B	B	B	B	C	C
Phenol (carbolic acid)	A	F	B	B	F	B
Soap Solutions	B	B	B	B	C	C
Tomato Juice	B	—	B	B	F	C
Turpentine	B	F	A	A	F	F
Urine	—	—	A	A	F	C
Vinegar	B	F	B	B	F	C
Water (distilled)	F	B	B	B	C	C
Water (sea)	B	B	B	B	C	C
Wine	F	B	A	A	F	C

Chemical Compatibility

A = Excellent • B = Good • C = Fair • F = Unsatisfactory • — = Contact Factory

Hydrocarbons	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Kerosene.....	B	B	B	B	F	F
Ligroin.....	F	—	—	A	F	A
Methane.....	A	A	A	A	C	F
Mineral Oil	B	A	A	B	C	C
Naptha	B	B	B	B	C	F
Propane	A	A	B	B	F	F
Stoddard Solvent	B	B	B	B	F	C

Inorganic Acids	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Carbonic Acid	A	B	B	B	F	C
Chromic Acid (50%)	B	F	C	—	F	F
Hydrochloric Acid (38%)	F	F	F	F	F	C
Hydrochloric Acid (20%)	F	F	F	F	F	C
Nitric Acid (100%)	A	F	B	—	F	F
Nitric Acid (50%)	F	F	B	—	F	F
Nitric Acid (30%)	F	F	A	—	F	F
Phosphoric Acid (50-85%) ...	F	F	—	—	F	C
Sulphuric (100%)	F	F	—	—	F	F
Sulphuric Acid (up to 10%) ..	F	B	F	F	F	C

Ketones & Aldehydes	Aluminum	Brass	Stainless Steel		Nylon	Polypropylene
			304	316		
Acetone	A	B	A	A	C	F
Benzaldehyde.....	B	—	B	B	A	F
Formaldehyde (50%)	—	B	A	A	F	C
Furfural	B	B	B	B	C	F
Methyl Ethyl Ketone	B	B	B	B	C	F
Methyl Isobutyl Ketone.....	B	B	B	B	C	F

Fire Hose Threads

The hose threads in the accompanying tables are the most commonly used threads. However, we can supply almost any distinct or special thread you may require. Contact us for additional information.

National Standard Thread

Size	ODM	TPI
3/4"	1.3750"	8
1"	1.3750"	8
1-1/2"	1.9900"	9
2"	2.5156"	8
2-1/2"	3.0686"	7-1/2
3"	3.6239"	6
4"	5.0109"	4
4-1/2"	5.7609"	4
5"	6.2600"	4
6"	7.0250"	4

National Pipe Straight Hose

Size	ODM	TPI
3/4"	1.0353"	14
1"	1.2951"	11-1/2
1-1/4"	1.6399"	11-1/2
1-1/2"	1.8788"	11-1/2
2"	2.3582"	11-1/2
2-1/2"	2.8410"	8
3"	3.4670"	8
4"	4.4660"	8
4-1/2"	4.9850"	8
5"	5.5281"	8
6"	6.5848"	8

Pacific Coast Thread

Size	ODM	TPI
3/4"	1.0625"	11
1"	1.3125"	11-1/2
1-1/4"	1.8600"	11
1-1/2"	2.1000"	11
2"	2.5500"	10
2-1/2"	3.0350"	7-1/2

Chemical Hose Thread

Size	ODM	TPI
3/4"	1.3750"	8
1"	1.3750"	8

Underwriters Tip Thread

Size	ODM	TPI
1-1/2"	2.1875"	12

Garden Hose Thread

Size	ODM	TPI
3/4"	1.0625"	11-1/2

Canadian Standards Association

Size	ODM	TPI
2-1/2"	3.1250"	5

U.S. Navy Thread

Size	ODM	TPI
3/4"	1.0625"	11-1/2
1"	1.2951"	11-1/2
1-1/4"	1.6399"	11-1/2
1-1/2"	1.8788"	11-1/2
2"	2.3582"	11-1/2
2-1/2"	3.0686"	7-1/2
3"	3.6239"	6
4"	4.9082"	6

Hose Thread Compatibility

Abbreviation	System Name	Remarks
GHT	G arden H ose T hread	Not compatible with any other system. Uses washer seal.
IPT	I ron P ipe T hread	Generic name for all pipe threads.
NST (NH)	American Standard Fire Hose Coupling Thread (N ational S tandard T hread, also referred to as N ational H ose thread)	Not compatible with any other system. Uses washer seal.
NPT	American Standard Taper Pipe Thread (N ational P ipe T aper)	Thread seal; use pipe sealant or PTFE tape as appropriate. Male NPT fitting is compatible with female NPSH thread.
NPSH	American Standard Straight Pipe for Hose Couplings (N ational P ipe S traight H ose)	Uses washer seal. Female NPSH thread will accept male NPT thread.

Female Thread	Male Thread			
	GHT	NST (NH)	NPT	NPSH
GHT	✓	—	—	—
NST (NH)	—	✓	—	—
NPT	—	—	✓	—
NPSH	—	—	✓	✓

Conversion Tables

Pressure Equivalents

	PSI	kg/cm ²	kPa	bar
PSI	1	0.07031	6.89476	0.06895
kg/cm ²	14.223	1	98.0665	0.980665
kPa	0.145038	0.010197	1	0.01
bar	14.5038	1.01972	100	1

Volume Equivalents

	m ³	ft ³	Gallons	Liters
m ³	1	35.3147	264.172	1000
ft ³	0.028317	1	7.48052	28.31687
Gallons	0.003785	0.13368	1	3.7854
Liters	0.001	0.03531	0.26417	1

Weight Equivalents

	lbs.	kgs.	oz.	g
lbs.	1	0.45359	16	453.592
kgs.	2.2046	1	32.15	1000
oz.	0.0625	0.02834	1	28.349
g	0.00205	0.001	0.3527	1

Linear Equivalents

	in	mm	ft	cm	m
in	1	25.4	0.83	2.54	0.025
mm	0.03937	1	0.00328	0.1	0.001
ft	12	304.8	1	30.48	0.3048
cm	0.3937	10	0.0328	1	0.01
m	39.37	1000	3.281	100	1

Decimal Equivalents

Fractions of an Inch				Decimal
			1/64	.015625
		1/32	.....	.03125
			3/64	.046875
	1/16	.....	.....	.0625
			5/64	.078125
		3/32	.....	.09375
			7/64	.109375
1/8	.....	.....	.....	.125
			9/64	.140625
		5/32	.....	.15625
			11/64	.171875
	3/16	.....	.....	.1875
			13/64	.203125
		7/32	.....	.21875
			15/64	.234375
1/4	.....	.....	.....	.25
			17/64	.265625
		9/32	.....	.28125
			19/64	.296875
	5/16	.....	.....	.3125
			21/64	.328125
		11/32	.....	.34375
			23/64	.359375
3/8	.....	.....	.....	.375
			25/64	.390625
		13/32	.....	.40625
			27/64	.421875
	7/16	.....	.....	.4375
			29/64	.453125
		15/32	.....	.46875
			31/64	.484375
1/2	.....	.....	.....	.5

Fractions of an Inch				Decimal
			33/64	.515625
		17/32	.....	.53125
			35/64	.546875
	9/16	.....	.....	.5625
			37/64	.578125
		19/32	.....	.59375
			39/64	.609375
5/8	.....	.....	.....	.625
			41/64	.640625
		21/32	.....	.65625
			43/64	.671875
	11/16	.....	.....	.6875
			45/64	.703125
		23/32	.....	.71875
			47/64	.734375
3/4	.....	.....	.....	.75
			49/64	.765625
		25/32	.....	.78125
			51/64	.796875
	13/16	.....	.....	.8125
			53/64	.828125
		27/32	.....	.84375
			55/64	.859375
7/8	.....	.....	.....	.875
			57/64	.890625
		29/32	.....	.90625
			59/64	.921875
	15/16	.....	.....	.9375
			61/64	.953125
		31/32	.....	.96875
			63/64	.984375
1	.....	.....	.....	1.0

Water Head & Discharge Tables

Water Heads & Equivalent Pressures

Pressure is often expressed in feet of head in pumping applications. One foot of water at 62° F is equal to 0.433 PSI.

Feet	PSI	Feet	PSI	Feet	PSI	Feet	PSI
5	2.17	60	25.99	160	69.29	500	216.55
10	4.33	70	30.32	170	73.63	550	238.15
15	6.50	80	34.65	180	77.96	600	259.85
20	8.66	90	38.98	190	82.27	650	281.45
25	10.83	100	43.31	200	86.62	700	303.16
30	12.99	110	47.64	250	108.27	750	324.75
35	15.16	120	51.97	300	129.93	800	346.47
40	17.32	130	56.30	350	151.58	900	389.78
45	19.49	140	60.63	400	173.24	1000	433.00
50	21.65	150	64.96	450	194.85		

Water Discharge Table

This table is designed to provide theoretical water flow values for a given pressure. This information is for reference purposes only; actual flow will depend on hose ID tolerances, the type of fittings or couplings used, and accessories used with your particular hose assembly.

PSI at Hose Inlet	Nominal Hose ID in Inches / Flow in gallons per minute (GPM) for 100' Hose Length							
	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"
20	26	47	76	161	290	468	997	2895
30	32	58	94	200	360	582	1240	3603
40	38	68	110	234	421	680	1449	4209
50	43	77	124	264	475	767	1635	4748
60	47	85	137	291	524	846	1804	5239
75	53	95	154	329	591	955	2035	5910
100	62	112	180	384	690	1115	2377	6904
125	70	126	203	433	779	1258	2681	7788
150	77	139	224	478	859	1388	2958	8593
200	90	162	262	550	1004	1621	3455	10038

Hose Friction Loss

When water flows through hose, there is always a loss of pressure. This pressure loss is created by the friction between the moving water and the lining of the fire hose, as well as friction between the water particles. The figures presented below are theoretical values; actual friction loss will vary depending on the age and condition of the hose.

Flow in GPM	Friction Loss in PSI per 100' of Rubber or Vinyl Hose								
	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"
10	13.5	3.5	0.3	—	—	—	—	—	—
20	50	12.5	1.2	—	—	—	—	—	—
30	105	26	2.5	—	—	—	—	—	—
40	—	44	4.5	1	—	—	—	—	—
60	—	92	10	2.5	1.4	—	—	—	—
80	—	—	16	4.8	1.9	—	—	—	—
100	—	—	26	6	3	1	—	—	—
125	—	—	37	10	4	1	—	—	—
150	—	—	54	13.5	6	2	—	—	—
175	—	—	—	18	8	3	—	—	—
200	—	—	—	24	10	4	—	—	—
225	—	—	—	30	12	4.5	—	—	—
250	—	—	—	37.5	15	6	—	—	—
275	—	—	—	45	17.5	7	—	—	—
300	—	—	—	54	21	8	2	—	—
325	—	—	—	65	24.5	9.5	2.5	—	—
350	—	—	—	78	28	11	2.5	—	—
400	—	—	—	96	36	14	3	1	—
450	—	—	—	—	45	17.5	4	1.5	—
500	—	—	—	—	55	21	5	2	—
550	—	—	—	—	—	25.5	6	2	—
600	—	—	—	—	—	30	7	2.5	—
650	—	—	—	—	—	35	8.5	3	—
700	—	—	—	—	—	40.5	9.5	3.5	1
750	—	—	—	—	—	46	11.5	4	1
800	—	—	—	—	—	53	12.5	4.5	1.5
850	—	—	—	—	—	—	14.5	5	1.5
900	—	—	—	—	—	—	16	5.5	2
950	—	—	—	—	—	—	17.5	6	2
1000	—	—	—	—	—	—	19	6.5	2.5
1100	—	—	—	—	—	—	23	8	3
1200	—	—	—	—	—	—	27.5	9.5	4
1300	—	—	—	—	—	—	32.5	11	4.5
1400	—	—	—	—	—	—	38	13	5
1500	—	—	—	—	—	—	43	15	6
1750	—	—	—	—	—	—	59	20	8
2000	—	—	—	—	—	—	77	26.5	10.5
2500	—	—	—	—	—	—	—	41.5	16.5

Temperature Conversions

C°	F°	C°	F°	C°	F°	C°	F°
1000	1832	235	455	76	168.8	9	48.2
950	1742	230	446	74	165.2	8	46.4
900	1652	225	437	72	161.6	7	44.6
850	1562	220	428	70	158.0	6	42.8
800	1472	215	419	68	154.4	5	41.0
750	1382	210	410	66	150.8	4	39.2
700	1292	205	401	64	147.2	3	37.4
650	1202	200	392	62	143.6	2	35.6
600	1112	195	383	60	140.0	1	33.8
550	1022	190	374	58	136.4	0	32.0
500	932	185	365	56	132.8	-1	30.2
480	896	180	356	54	129.2	-2	28.4
460	860	175	347	52	125.6	-3	26.6
440	824	170	338	50	122.0	-4	24.8
420	788	165	329	48	118.4	-5	23.0
400	752	160	320	46	114.8	-6	21.2
390	734	155	311	44	111.2	-7	19.4
385	725	150	302	42	107.6	-8	17.6
380	716	145	293	40	104.0	-9	15.8
370	698	140	284	38	100.4	-10	14.0
360	680	135	275	36	96.8	-11	12.2
350	662	130	266	34	93.2	-12	10.4
340	644	125	257	32	89.6	-13	8.6
330	626	120	248	30	86.0	-14	6.8
320	608	115	239	28	82.4	-15	5.0
310	590	110	230	26	78.8	-16	3.2
300	572	105	221	24	75.2	-17	1.4
295	563	100	212	22	71.6	-18	-0.4
290	554	98	208.4	20	68.0	-19	-2.2
285	545	96	204.8	19	66.2	-20	-4.0
280	536	94	201.2	18	64.4	-22	-7.6
275	527	92	197.6	17	62.6	-24	-11.2
270	518	90	194.0	16	60.8	-26	-14.8
265	509	88	190.4	15	59.0	-28	-18.4
260	500	86	186.8	14	57.2	-30	-22.0
255	491	84	183.2	13	55.4	-32	-25.6
250	482	82	179.6	12	53.6	-34	-29.2
245	473	80	176.0	11	51.8	-36	-32.8
240	464	78	172.4	10	50.0	-38	-36.4
						-40	-40.0

C° = Degrees Celsius. 1 unit is 1/100 of the difference between the temperature of melting ice and boiling water at standard temperature and pressure.

F° = Degrees Fahrenheit. 1 unit is 1/180 of the difference between the temperature of melting ice and boiling water at standard temperature and pressure.

Pipe Dimensions

The table below details the dimensions of seamless and welded steel pipe that meets the requirements of ASA B36.10 and B36.19.

Nominal Pipe Size	OD	Pipe Schedule Wall Thickness							
		10	20	30	Standard	40	60	Extra Strong	80
1/8"	.405"	.049"	—	—	.068"	.068"	—	.095"	.095"
1/4"	.540"	.065"	—	—	.088"	.088"	—	.119"	.119"
3/8"	.675"	.065"	—	—	.091"	.091"	—	.126"	.126"
1/2"	.840"	.083"	—	—	.109"	.109"	—	.147"	.147"
3/4"	1.050"	.083"	—	—	.113"	.113"	—	.154"	.154"
1"	1.315"	.109"	—	—	.133"	.133"	—	.179"	.179"
1-1/4"	1.660"	.109"	—	—	.140"	.140"	—	.191"	.191"
1-1/2"	1.900"	.109"	—	—	.145"	.145"	—	.200"	.200"
2"	2.375"	.109"	—	—	.154"	.154"	—	.218"	.218"
2-1/2"	2.875"	.120"	—	—	.203"	.203"	—	.276"	.276"
3"	3.500"	.120"	—	—	.216"	.216"	—	.300"	.300"
3-1/2"	4.000"	.120"	—	—	.226"	.226"	—	.318"	.318"
4"	4.500"	.120"	—	—	.237"	.237"	—	.337"	.337"
5"	5.563"	.134"	—	—	.258"	.258"	—	.375"	.375"
6"	6.625"	.134"	—	—	.280"	.280"	—	.432"	.432"
8"	8.625"	.148"	0.250"	.277"	.322"	.322"	.406"	.500"	.500"
10"	10.75"	.165"	0.250"	.307"	.365"	.365"	.500"	.500"	.594"
12"	12.75"	.180"	0.250"	.330"	.375"	.406"	.562"	.500"	.688"
14"	14.00"	.250"	.312"	.375"	.375"	.438"	.594"	.500"	.750"
16"	16.00"	.250"	.312"	.375"	.375"	.500"	.656"	.500"	.844"
18"	18.00"	.250"	.312"	.438"	.375"	.562"	.750"	.500"	.938"

Abbreviations

Adj	Adjustment or adjustable	MSS	Manufacturers' Standardization Society
AGA	American Gas Association	NFPA	National Fire Protection Association
ANSI	American National Standards Institute	NHT	National Hose Thread
API	American Petroleum Institute	no.	Number
APWA	American Public Works Association	NPSH	National Pipe Straight Hose thread
ASME	American Society of Mechanical Engineers	NPT	National Pipe Thread
ASTM	American Society for Testing and Materials	NRS	Non-rising stem
AWWA	American Water Works Association	NSF	National Sanitary Foundation
		NST	National Standard Thread
CHT	Chemical Hose Thread	o.d.	Outside diameter
Conn.	Connection	ODM	Outside diameter of male
		OSHA	Occupational Safety and Health Administration
D	Depth	oz.	Ounce
Dept.	Department		
dia.	Diameter	pg.	Page
DJRL	Double jacket rubber lined	PSI	Pounds per square inch
		PSIG	Pounds per square inch, gauge
F	Fahrenheit	Ref.	Reference
FDC	Fire department connection	RF	Raised face
FF	Flat face	RMA	Rubber Manufacturers Association
F x F	Female x female	RS	Rising stem
F x M	Female x male		
FM	Factory Mutual	Sch.	Schedule
ft	Foot or feet	SJRL	Single jacket rubber lined
ft3	Cubic feet	sq.	Square
gal.	Gallon	TPI	Threads per inch
GHT	Garden Hose Thread	Typ.	Typical
GPM	Gallons per minute		
		UL	Underwriters Laboratories
H	Height	ULC	Underwriters Laboratories of Canada
i.d.	Inside diameter	UV	Ultraviolet
in.	Inch		
IPS	Iron Pipe Size	W	Width
		WOG	Water – oil – gas
lb.	Pound	WP	Working pressure
LM	Lower male	wt.	Weight
		"x"	By
M x M	Male x Male		
max.	Maximum		
min.	Minimum		

Glossary of Terms

Adapter – Any device that allows fire hose couplings to be interconnected with couplings of different sizes, threads, or mating surfaces.

Angle Valve – A type of globe valve used primarily as a hose valve.

Ball Valve – A quarter turn valve used primarily for on-off applications.

Burst Pressure – The pressure at which hose ruptures.

Butterfly Valve – A quarter turn valve used to regulate flow, characterized by a disc that rotates on a stem.

Camlock Fitting – A type of quick connecting hose fitting that is characterized by unthreaded male and female ends that push into one another to form a connection.

Cap – A device with female threads designed to seal off and protect male threads.

Check Valve – A valve designed to prevent reverse water flow.

Clamp – A metal fitting, band, or wire used around the outside of a hose end to secure a coupling, fitting, or nipple.

Coupling – Device attached to the end of a hose that allows a connection to be made. Often used in pairs, i.e. a male and female end. Also see: Fitting.

Double Jacket – A hose construction consisting of two woven jackets over a synthetic lining.

Dry Hydrant System – A non-pressurized fire department outlet connection used to draft water from a pond or lake.

Fire Department Connection – A connection through which the fire department can pump water into a sprinkler or standpipe system.

Fire Hose – A flexible conduit constructed with one or more woven jackets and an approved non-permeable lining.

Fire Hydrant – A connection to a water main for the purpose of supplying water to fire hoses or other fire protection apparatus. Also see Wall Hydrant.

Fitting – Common term for any adapter or part used to allow connect between various types of hose, pipes, or valves.

Flange – A plate or ring used to joint two parts of a piping system.

Flow Rate – A volume of fluid per unit of time passing a given cross-section of a flow passage in a given direction.

Friction Loss – Pressure loss caused by friction between moving water and the interior surface of a hose or pipe.

Gate Valve – A multi-turn straightway valve with a wedge disc designed for use as an isolating or end-of-line hose valve.

Hose – A flexible conduit designed to carry fluids from one place to another.

Hose Nozzle – A device intended for discharging water for manual suppression or extinguishment of a fire.

Hose Rack – A device used to store folded fire hose.

Hose Reel – A circular device used to store fire hose.

Jacket – The exterior woven textile reinforcement of a fire hose.

Lining – The innermost part of a hose, comprised of a continuous synthetic rubber or thermoplastic tube.

Glossary of Terms

Mill Hose — A flexible conduit constructed with a woven jacket and a non-permeable lining, designed for low pressure applications.

Nipple — See adapter or pipe nipple.

Nominal — A dimensional value assigned for purposes of convenient designation.

Nozzle — A device used at the end of a hose line to restrict flow in order to build up pressure and generate velocity to produce a water stream.

Pipe Nipple — A short piece of pipe, usually threaded at both ends, used to connect with other fittings as part of a piping system.

Plug — A device with male threads designed to seal off and protect female threads.

Pressure Gauge — A mechanical instrument used to measure fluid or air pressure.

Proof Test — A non-destructive test applied to fire hose to determine its reliability. Proof test pressure is double the service test pressure.

Reducer — See adapter.

Safety Factor — A ratio used to establish the working pressure of a hose, based on the burst pressure. For example, low pressure water hose is usually rated to have a burst pressure of 3 times its working pressure. This is typically expressed as a 3:1 safety factor.

Serration — The part of a hose shank or barb that grips the hose tube.

Service Test — A test in which the fire hose is tested under actual working conditions.

Shank — The part of a fitting or coupling that is inserted into the hose. Also referred to as a barb.

Single Jacket — A hose construction consisting of one woven jacket over a synthetic lining.

Strainer — A device that is used at the end of a hose or in a pipeline to filter debris or foreign matter from the line.

Surge — A rapid increase and decrease of internal pressure.

Working Pressure — The pressure at which a system functions, also referred to as operating pressure.

Wye — A type of hose fitting that divides one hose line into two.

UPS Transit Times

Typical UPS Ground shipping times are outlined below. Keep in mind that this information is a general guideline only...if you need more precise information concerning transit times to your location or specific zip code, contact us and we'll be happy to assist you.

Transit Time in Business Days for UPS Orders Shipped From Boise, Idaho 83714

Alabama	4
Alaska	4
Arizona	3
Arkansas	4
California	2
Colorado	2
Connecticut	5
Delaware	4
Florida	5
Georgia	4
Hawaii	3
Idaho (southern)	1
Idaho (northern)	2
Illinois	4
Indiana	4
Iowa	3
Kansas	3
Kentucky	4
Louisiana	4
Maine	5
Maryland	4
Massachusetts	5
Michigan (upper peninsula)	5
Michigan (remainder of state)	4
Minnesota	4
Mississippi	4
Missouri	3
Montana (western)	2
Montana (eastern)	3
Nebraska	3
Nevada (northwest)	1
Nevada (remainder of state)	2
New Hampshire	5
New Jersey	5
New Mexico	3
New York	5
North Carolina	5
North Dakota	3

Ohio	5
Oklahoma	3
Oregon (eastern)	1
Oregon (northwest, incl. Portland)	2
Oregon (southwest)	3
Pennsylvania	4
Rhode Island	5
South Carolina	5
South Dakota	3
Tennessee	4
Texas (except south/west counties)	3
Texas (south/west counties)*	4
Utah (Salt Lake City area)	1
Utah (remainder of state)	2
Vermont	5
Virginia	5
Washington	2
West Virginia	5
Wisconsin	4
Wyoming	2

* El Paso, TX transit time is 3 days.