

Stainless Steel Corrugated Hose and Braid, 304, 321 and 316

Universal UC3S--- hose is an industrial weight high quality corrugated hose which is available with a wide variety of fitting possibilities. UC3S--- is designed for applications which require high pressure ratings and flexibility.

Nominal Inside Dia. (inches)	Part Number	Outside Diameter (inches)	Weight Per Foot (lbs)	Nominal Wall Thickness	Working Pressure (PSIG)	Minimum C Bend Radius	
						Static (inches)	Intermittent (inches)
1/4"	UC3S---	0.540	0.200	.011 - .012"	3041	7/8"	5"
	U202S---	0.591	0.280		5929		
3/8"	UC3S---	0.705	0.300	.011 - .012"	2314	1 1/8"	5 1/2"
	U202S---	0.756	0.420		4508		
1/2"	UC3S---	0.870	0.360	.011 - .012"	1264	2"	7"
	U202S---	0.921	0.480		2464		
3/4"	UC3S---	1.211	0.640	.015 - .016"	1069	2 1/8"	8"
	U202S---	1.267	0.830		2084		
1"	UC3S---	1.531	0.880	.015 - .016"	722	2 3/4"	9"
	U202S---	1.587	1.100		1407		
1 1/4"	UC3S---	1.839	1.200	.015 - .016"	667	3 1/2"	11"
	U202S---	1.903	1.490		1300		
1 1/2"	UC3S---	2.164	1.470	.017 - .018"	600	3 3/4"	12"
	U202S---	2.228	1.860		1170		
2"	UC3S---	2.795	2.340	.017 - .018"	608	5"	15"
	U202S---	2.875	3.030		1185		
2 1/2"	UC3S---	3.260	2.940	.019 - .021"	464	7 3/4"	18"
	U202S---	3.340	3.680		904		
3"	UC3S---	3.910	3.760	.019 - .021"	315	8 3/4"	22"
	U202S---	3.990	4.570		614		
4"	UC3S---	4.880	3.804	.025"	303	12"	24"
	U202S---	5.010	4.840		590		
5"	UC3S---	6.010	4.670	.025"	252	15"	29"
	U202S---	6.150	6.120		491		
6"	UC3S---	7.130	5.530	.025"	203	17"	35"
	U202S---	7.260	7.190		396		
8"	UC3S---	9.250	7.520	.030"	257	20"	43"
	U202S---	9.500	9.900		501		
10"	UC3S---	11.250	14.380	.035"	285	25"	57"
	U202S---	11.500	20.560		555		
12"	UC3S---	13.380	15.980	.035"	180	29"	59"
14"	UC3S---	14.620	17.170	.035"	153	36"	67"
16"	UC3S---	16.620	19.090	.035"	114	41"	75"

Note: 6" and above are constructed with Braided Braid.

--- Substitute with grade of stainless 304, 321, 316

1/4 through 3" is helical design, 4" through 16" is annular design

See reverse side of the page for more information and ordering instructions

Specifications

Part numbers UC3S--- are single braided construction, U202S--- are double braided construction.

If the service conditions exceed 70°F the working pressure rating must be reduced by the following factors;

Temperature (°F)	Multiply By
70	1.00
150	.92
200	.89
300	.83
400	.81
500	.78
600	.75
700	.70
800	.66
900	.62
1000	.60
1100	.58
1200	.55
1300	.50
1400	.44
1500	.40

The maximum service temperature is 1500°F.

The working pressure is the maximum unrestrained operating pressure of the hose. It is established as 25% of the burst pressure for braided assemblies. The test pressure should not exceed 150% of the working pressure. All sizes are satisfactory for full vacuum.

The static bend radius is the minimum hose center line radius that the hose can be bent for installation purposes. No additional motions other than vibration can be imposed.

The intermittent bend radius is the minimum hose centerline radius that the hose can be bent for cyclic motions. These motions occur on a slow and constant basis such as thermal expansion.

Where flow velocity exceeds 150 ft/sec gas or 75 ft/sec liquid, a flexible fully interlocked liner should be used.

When the hose is installed in a bent condition, the working pressure should be reduced by 50% for a 90 degree bend, 25% for a 45 degree bend, and so on, proportional to the angle of the bend.

As a broad rule of thumb, pressure drop in a corrugated hose is approximately three times that in steel pipe.

The cycle life expectancy of a metal hose is affected by factors such as: bend radius, operating temperature, operating pressure and materials. Any change in one of these factors will result in a change in the cycle life of the metal hose assembly. Please consult Universal Metal Hose for the best hose recommendation.

The live length is the flexible portion of an assembly, and is used to determine the maximum allowable lateral offset the hose assembly can take. The overall length is calculated by adding the dimensions for the end fitting

Fitting Options

UC3S--- and U202S--- can be fitted with a wide variety of end fittings in both similar and dissimilar metals. Consult factory inside sales representative for details.

Testing

All hoses are leak tested at 100 PSIG with air under water. Other testing options are available. Consult factory for details.

Optional Materials

Universal also manufactures helically corrugated hose in Carbon Steel, Bronze, Inconel, and Monel.



Universal Metal Hose

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