## **FLEXIBLE CONNECTORS**



# THREADED END METAL BRAIDED FLEXIBLE CONNECTOR

Flexible connectors are used to absorb thermal and seismic movement, absorb hydraulic shock, provide vibration and noise dampening, ease installation and correct minor misalignment of piping and components. They come in a variety of sizes, materials, and connection ends for numerous applications.

The inner hose is an annular (bellows) design. An annular hose is better suited for pump connections because it can better sustain torsion stress due to longitudinal expansion from rises in pressure. Metal wire braid on a hose assembly restrains against hose elongation under higher pressures and acts to dampen vibration. A heavy braid also increases abrasion resistance. Optimal braid coverage will contain the core under pressure and reduce the possibility of twisting and squirming.

The use of braided metal connectors for applications such as pumps, compressors and other mechanical equipment can enhance the overall operation of a system.

Braided connectors have the advantages of:

- · Longer service life
- · Increased pressure capacity
- Greater fatigue resistance due to flex
- · Increased temperature capacity of media
- · Greater protection of annular hose
- · Acceptance of thermal expansion



### **Pressure / Temperature**

C:	Pressure @ 70°F		
Size	Working PSI	Test PSI	
1/2	1040	1560	
3/4	600	900	
1	580	870	
1-1/4	450	675	
1-1/2	410	615	
2	450	675	

Pressure Factors for Above 70°F*				
°F	Factor	°F	Factor	
100	0.99	450	0.81	
150	0.96	500	0.77	
200	0.94	550	0.75	
250	0.92	600	0.73	
300	0.89	650	0.69	
350	0.86	800	0.64	
400	0.84	1000	0.60	

<sup>\*</sup> Multiply working pressure by pressure factor for temperature adjusted pressure rating.

### Part Numbers & Weight

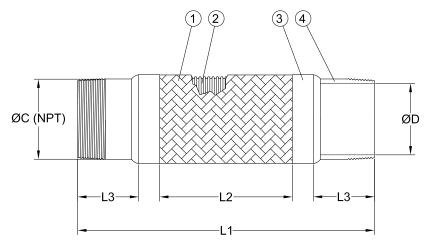
Size	Part Number	Approx. Wt (Lbs)
1/2	FNW30TD	0.38
3/4	FNW30TF	0.50
1	FNW30TG	0.75
1-1/4	FNW30TH	1.00
1-1/2	FNW30TJ	1.25
2	FNW30TK	2.13

<sup>\*</sup> NOT RECOMMENDED FOR STEAM SERVICE



## Figure 30T FLEXIBLE CONNECTORS

# THREADED END METAL BRAIDED FLEXIBLE CONNECTOR

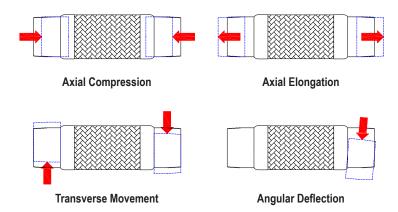


### **Dimensions (inches)**

Size	ØC (NPT)	ØD	L1	L2	L3
1/2	1/2-14	0.55	6.5	2.56	1.18
3/4	3/4-14	0.75	7.0	2.67	1.38
1	1-11.5	0.95	8.0	3.28	1.58
1-1/4	1-1/4-11.5	1.26	8.5	3.38	1.77
1-1/2	1-1/2-11.5	1.50	9.0	3.49	1.97
2	2-11.5	1.97	10.5	4.99	1.97

#### **Standard Materials**

Ref. No.	Description	Material
1	Hose Braid	304 Stainless Steel
2	Corrugated Hose	321 Stainless Steel
3	Braid Band	304 Stainless Steel
4	Male Pipe Thread	ASTM A53 Carbon Steel
5	Welding	Grade er308 Stainless



### **Braid Limits**

Size	Maximum Axial Compression	Maximum Axial Elongation	Maximum Transverse Movement	Maximum Angular Deflection
1/2	0.12"	0.12"	±0.08"	2°
3/4	0.12"	0.12"	±0.08"	2°
1	0.12"	0.12"	±0.08"	2°
1-1/4	0.12"	0.12"	±0.08"	1.5°
1-1/2	0.12"	0.12"	±0.08"	1.5°
2	0.16"	0.16"	±0.12"	1.5°

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