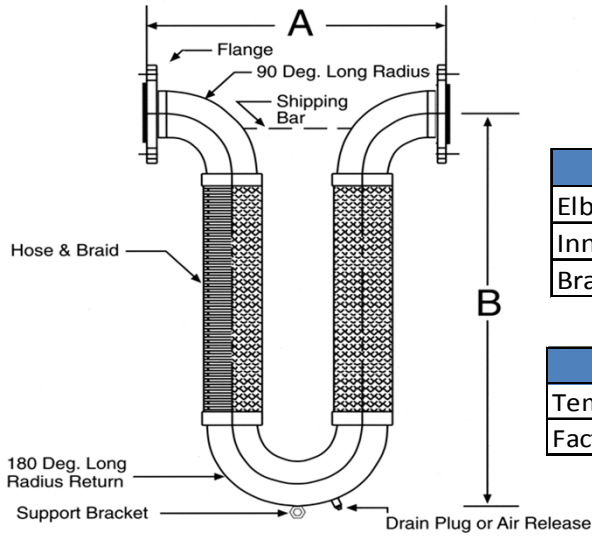


# ML EXPANSION LOOP

## 150# FLANGES




Materials	
Elbow & Fittings	Carbon Steel
Inner Corrugated Hose	321 Stainless Steel
Braid	304 Stainless Steel

Temperature/Pressure Correction						
Temp °F	70	200	300	400	500	600
Factor	1.00	0.92	0.86	0.82	0.77	0.73

ML Loop Flexible pipe loops from Flexicraft are an important alternative in adding flexibility to a piping system. Compared to hard pipe loops, they take up much less space and require fewer supports. Compared to traditional metal expansion joints, they have outstanding flexibility and no pressure thrust loads anchors. The movements below apply in all directions.

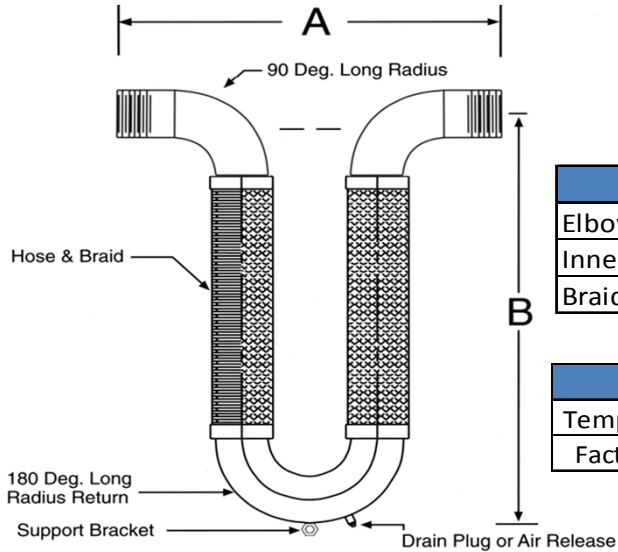
FOR STEAM SERVICE, CONTACT FACTORY

Dimensions				Pressure	Stiffness	Weight	Product No.
Size	Movement	A	B				
in	in	in	in	psi	lbs/in	lbs	
2	1.5	12.5	19	455	52	21	LOOPF30200
2	4	14.5	25	455	20	24	LOOPF80200
2.5	1.5	15.5	21	345	55	30	LOOPF30250
2.5	4	16	28	345	21	36	LOOPF80250
3	1.5	18.5	23	289	60	46	LOOPF30300
3	4	18.5	30	289	23	50	LOOPF80300
4	1.5	24.5	28	300	80	63	LOOPF30400
4	4	24.5	35	300	30	69	LOOPF80400
5	1.5	30.5	32	220	124	91	LOOPF30500
5	4	30.5	40	220	47	101	LOOPF80500
6	1.5	36.5	37	200	135	148	LOOPF30600
6	4	36.5	46	200	51	163	LOOPF80600
8	1.5	48.5	48	190	173	287	LOOPF30800
8	4	48.5	58	190	65	309	LOOPF80800
10	1.5	60.5	55	165	255	453	LOOPF31000
10	4	60.5	67	165	96	484	LOOPF81000
12	1.5	72.5	63	125	260	636	LOOPF31200
12	4	72.5	74	125	98	666	LOOPF81200

 <p><b>"Flexible Piping Solutions"</b></p> <p><b>PRINT CERTIFICATION:</b></p> <p>Certified Correct As Of: _____</p> <p>By: _____</p>	Proposal/Inquiry/Order No.:	NOTES:
	Customer Name:	
	Project Name:	
	Contractor:	
	If the ML Loops are oriented in a horizontal plane, a hanger should be used for support of the return elbow.	

# ML EXPANSION LOOP

MNPT THREADS




Materials	
Elbow & Fittings	Carbon Steel
Inner Corrugated Hose	321 Stainless Steel
Braid	304 Stainless Steel

Temperature/Pressure Correction						
Temp °F	70	200	300	400	500	600
Factor	1.00	0.92	0.86	0.82	0.77	0.73

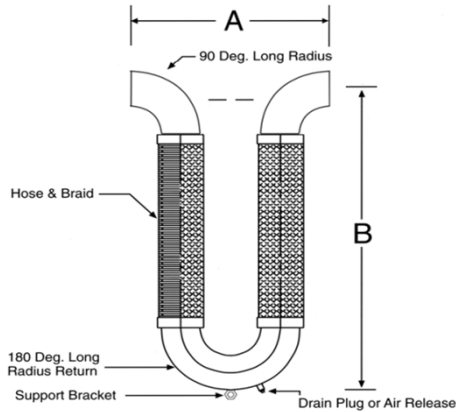
ML Loop Flexible pipe loops from Flexicraft are an important alternative in adding flexibility to a piping system. Compared to hard pipe loops, they take up much less space and require fewer supports. Compared to traditional metal expansion joints, they have outstanding flexibility and no pressure thrust loads anchors. The movements below apply in all directions.

FOR STEAM SERVICE, CONTACT FACTORY

Dimensions				Pressure	Stiffness	Weight	Product No.
Size	Movement	A	B				
0.5	1.5	10	13	1304	30	3.0	LOOPT30050
0.5	4	13	17	1304	11	5.5	LOOPT80050
0.75	1.5	9.25	13	880	31	3.0	LOOPT30075
0.75	4	13.25	18	880	12	5.5	LOOPT80075
1	1.5	11"	15	605	32	5.0	LOOPT30100
1	4	15"	20	605	13	8.0	LOOPT80100
1.25	1.5	12.5	16	572	44	7.0	LOOPT30125
1.25	4	15.75	21	572	17	10.0	LOOPT80125
1.5	1.5	15	17	527	47	10.5	LOOPT30150
1.5	4	18	23	527	18	14.5	LOOPT80150
2	1.5	18	19	455	52	15.0	LOOPT30200
2	4	20	25	455	20	18.0	LOOPT80200
2.5	1.5	21	21	345	55	23.0	LOOPT30250
2.5	4	22	28	345	21	29.0	LOOPT80250
3	1.5	24	23	289	60	39.0	LOOPT30300
3	4	24	30	289	23	45.0	LOOPT80300

 <p><b>"Flexible Piping Solutions"</b></p>	Proposal/Inquiry/Order No.:	NOTES:
	Customer Name:	
	Project Name:	
	Contractor:	
<p><b>PRINT CERTIFICATION:</b></p> <p>Certified Correct As Of: _____</p> <p>By: _____</p>	<p>If the ML Loops are oriented in a horizontal plane, a hanger should be used for support of the return elbow.</p>	

## ML EXPANSION LOOP WELD ENDS




Materials	
Elbow & Fittings	Carbon Steel
Inner Corrugated Hose	321 Stainless Steel
Braid	304 Stainless Steel

Temperature/Pressure Correction						
Temp °F	70	200	300	400	500	600
Factor	1.00	0.92	0.86	0.82	0.77	0.73

ML Loop Flexible pipe loops from Flexicraft are an important alternative in adding flexibility to a piping system. Compared to hard pipe loops, they take up much less space and require fewer supports. Compared to traditional metal expansion joints, they have outstanding flexibility and no pressure thrust loads anchors. The movements below apply in all directions.

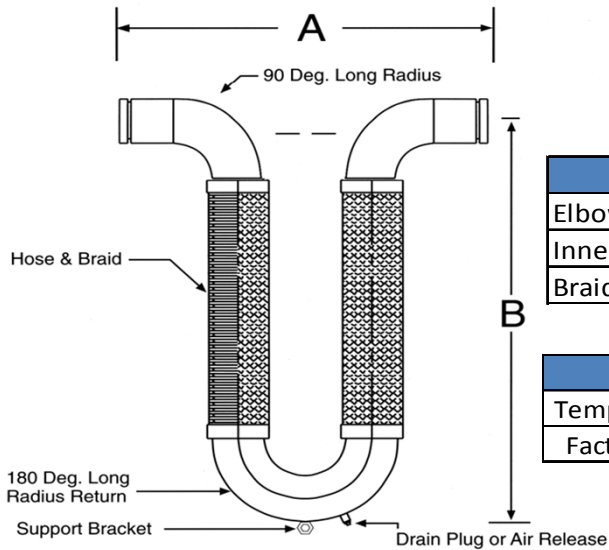
FOR STEAM SERVICE, CONTACT FACTORY

Dimensions				Pressure	Stiffness	Weight	Product No.
Size	Movement	A	B				
in	in	in	in	psi	lbs/in	lbs	
0.5	1.5	6	13	1304	30	2.5	LOOPW30050
0.5	4	9	17	1304	11	5	LOOPW80050
0.75	1.5	5.25	13	880	31	2.5	LOOPW30075
0.75	4	9.25	18	880	12	5	LOOPW80075
1	1.5	6	15	605	35	4	LOOPW30100
1	4	10	20	605	13	7	LOOPW80100
1.25	1.5	7.5	16	572	44	6	LOOPW30125
1.25	4	10.75	21	572	17	9	LOOPW80125
1.5	1.5	9	17	527	47	9	LOOPW30150
1.5	4	11.5	23	527	18	13	LOOPW80150
2	1.5	12	19	455	52	13	LOOPW30200
2	4	14	25	455	20	16	LOOPW80200
2.5	1.5	15	21	345	55	20	LOOPW30250
2.5	4	15.5	28	345	21	26	LOOPW80250
3	1.5	18	23	289	60	35	LOOPW30300
3	4	18	30	289	23	39	LOOPW80300
4	1.5	24	28	300	80	48	LOOPW30400
4	4	24	35	300	30	54	LOOPW80400
5	1.5	30	32	220	124	81	LOOPW30500
5	4	30	40	220	47	91	LOOPW80500
6	1.5	36	37	200	135	125	LOOPW30600
6	4	36	46	200	51	140	LOOPW80600
8	1.5	48	48	190	173	245	LOOPW30800
8	4	48	58	190	65	267	LOOPW80800
10	1.5	60	55	165	255	403	LOOPW31000
10	4	60	67	165	96	434	LOOPW81000
12	1.5	72	63	125	260	556	LOOPW31200
12	4	72	74	125	98	586	LOOPW81200

 <b>"Flexible Piping Solutions"</b>	Proposal/Inquiry/Order No.:	NOTES:
	Customer Name:	
	Project Name:	
	Contractor:	
PRINT CERTIFICATION: Certified Correct As Of: _____ By: _____	If the ML Loops are oriented in a horizontal plane, a hanger should be used for support of the return elbow.	

# ML EXPANSION LOOP

## GROOVED ENDS




Materials	
Elbow & Fittings	Carbon Steel
Inner Corrugated Hose	321 Stainless Steel
Braid	304 Stainless Steel

Temperature/Pressure Correction						
Temp °F	70	200	300	400	500	600
Factor	1.00	0.92	0.86	0.82	0.77	0.73

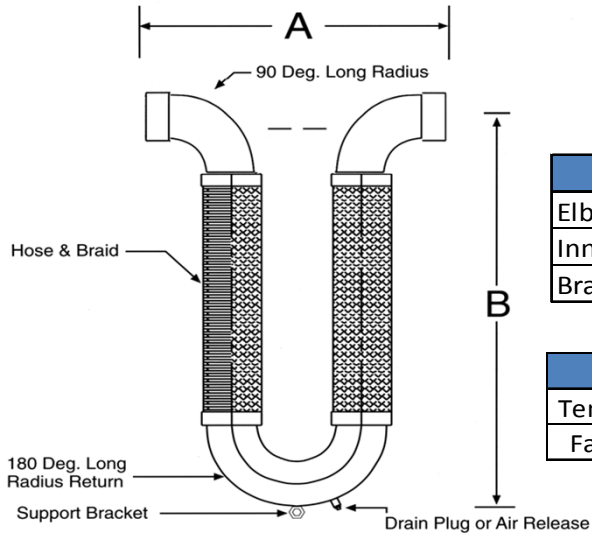
ML Loop Flexible pipe loops from Flexicraft are an important alternative in adding flexibility to a piping system. Compared to hard pipe loops, they take up much less space and require fewer supports. Compared to traditional metal expansion joints, they have outstanding flexibility and no pressure thrust loads anchors. The movements below apply in all directions.

FOR STEAM SERVICE, CONTACT FACTORY

Dimensions				Pressure	Stiffness	Weight	Product No.
Size	Movement	A	B				
2	1.5	18	19	500	52	15.0	LOOPG30200
2	4	20	25	500	20	18.0	LOOPG80200
2.5	1.5	21	21	387	55	23.0	LOOPG30250
2.5	4	21.5	28	387	21	29.0	LOOPG80250
3	1.5	24	23	288	60	39.0	LOOPG30300
3	4	24	30	288	23	43.0	LOOPG80300
4	1.5	30	28	232	80	54.0	LOOPG30400
4	4	30	35	232	30	60.0	LOOPG80400
5	1.5	36	32	191	124	89.0	LOOPG30500
5	4	36	40	191	47	99.0	LOOPG80500
6	1.5	42	37	165	135	135.0	LOOPG30600
6	4	42	46	165	51	150.0	LOOPG80600
8	1.5	56	48	212	173	264.0	LOOPG30800
8	4	56	58	212	65	286.0	LOOPG80800
10	1.5	68	55	175	255	430.0	LOOPG31000
10	4	68	67	175	63	461.0	LOOPG81000
12	1.5	80	63	160	260	592.0	LOOPG31200
12	4	80	74	160	98	622.0	LOOPG81200

 <p><b>"Flexible Piping Solutions"</b></p>	Proposal/Inquiry/Order No.:	NOTES:
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	Project Name:	
	Contractor:	
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## ML EXPANSION LOOP FEMALE SWEAT ENDS




Materials	
Elbow & Fittings	Copper
Inner Corrugated Hose	Bronze
Braid	Bronze

Temperature/Pressure Correction						
Temp °F	70	200	300	400	500	600
Factor	1.00	0.92	0.86	0.82	0.77	0.73

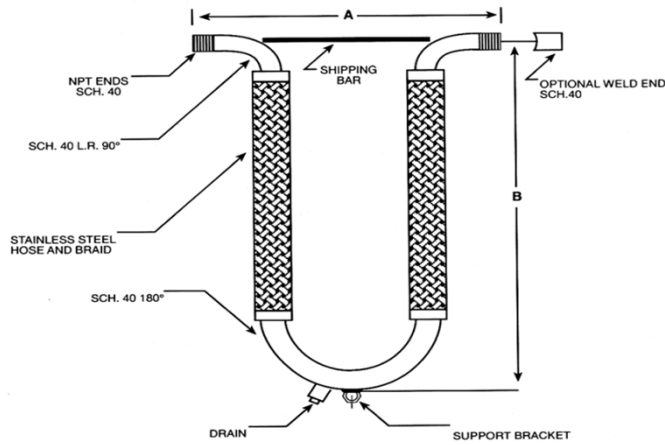
ML Loop Flexible pipe loops from Flexicraft are an important alternative in adding flexibility to a piping system. Compared to hard pipe loops, they take up much less space, require fewer supports, and are more economical. Compared to traditional metal expansion joints, they have outstanding flexibility and no pressure thrust loads that can add large stresses to anchors. The movements below apply in all directions.

Dimensions				Pressure	Stiffness	Weight	Product No.
Size	Movement	A	B				
in	in	in	in	psi	lbs/in	lbs	
0.5	1.5	5	11	706	30	2.0	LOOPS30050
0.5	4	8	15	706	11	2.5	LOOPS80050
0.75	1.5	6	15	577	31	2.0	LOOPS30075
0.75	4	9.5	19	577	12	2.5	LOOPS80075
1	1.5	6.5	16	470	35	2.5	LOOPS30100
1	4	10.25	21	470	13	3.0	LOOPS80100
1.25	1.5	7.75	17	361	44	3.5	LOOPS30125
1.25	4	11.25	22	361	17	4.0	LOOPS80125
1.5	1.5	9.25	18	329	47	4.0	LOOPS30150
1.5	4	11.75	24	329	18	4.5	LOOPS80150
2	1.5	11.25	21	317	52	9.0	LOOPS30200
2	4	14	26	318	20	12.0	LOOPS80200
2.5	1.5	13	21	272	55	12.0	LOOPS30250
2.5	4	15	27	272	21	18.0	LOOPS80250
3	1.5	14	23	201	60	18.0	LOOPS30300
3	4	16.5	29	201	23	24.0	LOOPS80300
4	1.5	18	26	142	80	26.0	LOOPS30400
4	4	22	32	142	30	31.0	LOOPS80400

 <b>"Flexible Piping Solutions"</b>	Proposal/Inquiry/Order No.:	NOTES:
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	Contractor:	
<b>PRINT CERTIFICATION:</b> Certified Correct As Of: _____ By: _____	If the ML Loops are oriented in a horizontal plane, a hanger should be used for support of the return elbow.	

# ML EXPANSION LOOP


CSA AGA



Materials	
Elbow & Fittings	Carbon Steel
Inner Corrugated Hose	321 Stainless Steel
Braid	304 Stainless Steel

ML Loops 2" and larger installed in any orientation other than hanging down must have the 180° return supported (see installation instructions).

Dimensions				Pressure psi	Movement in	Product No.
Size in	A in	B in	Ends W/T			
0.5	15	18	Weld	150	4	LOOPAGAW4050
0.5	15	18	Thread	150	4	LOOPAGAT4050
0.75	15.25	20	Weld	150	4	LOOPAGAW4075
0.75	15.25	20	Thread	150	4	LOOPAGAT4075
1	16	22	Weld	150	4	LOOPAGAW4100
1	16	22	Thread	150	4	LOOPAGAT4100
1.25	16.75	22	Weld	150	4	LOOPAGAW4125
1.25	16.75	22	Thread	150	4	LOOPAGAT4125
1.5	17.5	23	Weld	150	4	LOOPAGAW4150
1.5	17.5	23	Thread	150	4	LOOPAGAT4150
2	14	25	Weld	150	4	LOOPAGAW4200
2	20	25	Thread	150	4	LOOPAGAT4200
2.5	15.5	26	Weld	150	4	LOOPAGAW4250
2.5	21.5	26	Thread	150	4	LOOPAGAT4250
3	18	29	Weld	150	4	LOOPAGAW4300
3	26	29	Thread	150	4	LOOPAGAT4300
4	24	37	Weld	150	4	LOOPAGAW4400
4	32	37	Thread	150	4	LOOPAGAT4400

 <p><b>"Flexible Piping Solutions"</b></p> <p><b>PRINT CERTIFICATION:</b></p> <p>Certified Correct As Of: _____</p> <p>By: _____</p>	Proposal/Inquiry/Order No.: _____	<b>NOTES:</b>   If the ML Loops are oriented in a horizontal plane, a hanger should be used for support of the return elbow.
	Customer Name: _____	
	Project Name: _____	
	Contractor: _____	