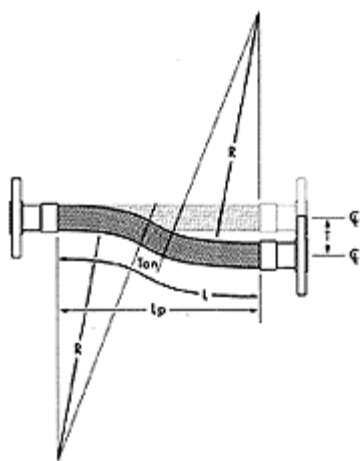




Lateral Offset Motion

This motion occurs when the hose centerline is moved in a plane perpendicular to the longitudinal axis with the end remaining parallel. Dynamic offset motion should never be more than 25% of the minimum centerline bend radius.

Minimum Live Length of Hose For Lateral Offset Motion														
Dynamic Lateral Offset Motion (in.) = T														
CENTERLINE BEND RADIUS (in.) = R	1/8	1/4	3/8	1/2	3/4	1	1-1/2	2	3	4	5	6	8	10
	2	1.3	1.8	2.2	2.5	3.1	3.7	4.5	5.3	6.8	8.0	9.3	10.4	12.7
3	1.6	2.2	2.7	3.1	3.8	4.4	5.5	6.4	8.0	9.4	10.8	12.0	14.5	16.8
4	1.8	2.5	3.1	3.5	4.4	5.0	6.2	7.3	9.0	10.6	12.1	13.5	16.0	18.5
5	2.0	2.8	3.4	4.0	4.9	5.6	6.9	8.0	10.0	11.7	13.3	14.7	17.5	20.0
6	2.2	3.1	3.7	4.3	5.3	6.1	7.5	8.8	10.9	12.7	14.4	15.9	18.8	21.5
7	2.3	3.3	4.0	4.7	5.7	6.6	8.1	9.4	11.7	13.6	15.4	17.0	20.0	22.9
8	2.5	3.5	4.3	5.0	6.1	7.0	8.7	10.0	12.4	14.5	16.3	18.0	21.2	24.1
9	2.7	3.7	4.6	5.3	6.5	7.5	9.2	10.6	13.1	15.3	17.2	19.0	22.3	25.3
10	2.8	3.9	4.8	5.5	6.8	7.9	9.7	11.2	13.8	16.0	18.1	19.9	23.4	26.5
11	2.9	4.1	5.0	5.8	7.1	8.2	10.1	11.7	14.4	16.8	18.9	20.8	24.4	27.6
12	3.1	4.3	5.3	6.1	7.4	8.6	10.5	12.2	15.0	17.5	19.7	21.7	25.3	28.7
13	3.2	4.5	5.5	6.3	7.7	8.9	11.0	12.7	15.6	18.2	20.4	22.5	26.3	29.7
14	3.3	4.6	5.7	6.5	8.0	9.3	11.4	13.2	16.2	18.8	21.1	23.3	27.2	30.7
15	3.4	4.8	5.9	6.8	8.3	9.6	11.8	13.6	16.8	19.4	21.8	24.0	28.0	31.7
16	3.5	5.0	6.1	7.0	8.6	9.9	12.1	14.0	17.3	20.0	22.5	24.8	28.9	32.6
17	3.6	5.1	6.2	7.2	8.8	10.2	12.5	14.5	17.8	20.6	23.2	25.5	29.7	33.5
18	3.7	5.3	6.4	7.4	9.1	10.5	12.9	14.9	18.3	21.2	23.8	26.2	30.5	34.4
19	3.8	5.4	6.6	7.6	9.3	10.8	13.2	15.3	18.8	21.8	24.4	26.9	31.3	35.3
20	3.9	5.5	6.8	7.8	9.6	11.0	13.5	15.7	19.3	22.3	25.0	27.5	32.0	36.1
22	4.1	5.8	7.1	8.2	10.0	11.6	14.2	16.4	20.2	23.4	26.2	28.8	33.5	37.7
24	4.3	6.1	7.4	8.5	10.5	12.1	14.8	17.1	21.0	24.4	27.3	30.0	34.9	39.3
26	4.5	6.3	7.7	8.9	10.9	12.6	15.4	17.8	21.9	25.3	28.4	31.2	36.3	40.8
28	4.6	6.5	8.0	9.2	11.3	13.0	16.0	18.5	22.7	26.3	29.5	32.4	37.6	42.2
30	4.8	6.8	8.3	9.5	11.7	13.5	16.5	19.1	23.5	27.2	30.5	33.5	38.8	43.6
35	5.2	7.3	8.9	10.3	12.6	14.6	17.9	20.6	25.3	29.3	32.8	36.0	41.8	47.0
40	5.5	7.8	9.5	11.0	13.5	15.6	19.1	22.0	27.0	31.3	35.0	38.5	44.6	50.0
45	5.9	8.3	10.1	11.7	14.3	16.5	20.2	23.4	28.7	33.2	37.1	40.7	47.2	53.0
50	6.2	8.7	10.7	12.3	15.1	17.4	21.3	24.6	30.2	34.9	39.1	42.9	49.7	55.7
60	6.8	9.5	11.7	13.5	16.5	19.0	23.3	27.0	33.0	38.2	42.8	46.9	54.3	60.9
70	7.3	10.3	12.6	14.5	17.8	20.6	25.2	29.1	35.7	41.2	46.1	50.6	58.6	65.6
80	7.8	11.0	13.5	15.5	19.0	22.0	26.9	31.1	38.1	44.0	49.3	54.0	62.5	70.0
90	8.3	11.7	14.3	16.5	20.2	23.3	28.5	33.0	40.4	46.7	52.3	57.3	66.3	74.2
100	8.7	12.3	15.1	17.4	21.3	24.6	30.1	34.7	42.6	49.2	55.0	60.3	69.8	78.2



a. The offset distance (T) for dynamic flexing should never exceed 25% of the centerline bend radius (R).

b. The gray shaded area of this chart may be used only for static offset applications.

c. When the offset motion occurs to both sides of the hose centerline, use total travel in the formula below; i.e. 2 times (T).

d. If the difference between (L) and (Lp) is significant, exercise care during installation to avoid stress on hose and braid at the maximum offset distance.

$$\text{Formula: } L = \sqrt{6RT + T^2}$$

$$L_p = \sqrt{L^2 - T^2}$$

$$T_m = \sqrt{9R^2 + L^2 - 3R}$$

L = Live hose length (inches)

Lp = Projected live hose length (inches)

R = Minimum centerline bend radius (inches)

T = Offset motion to one side of centerline (inches)

Tm = Maximum centerline offset for a given L and R