

**METAL HOSE SELECTION FACTORS
CHART FOR LIVE LENGTH OF HOSE IN OFFSET**

| CENTERLINE RADIUS INCHES | INTERMITTENT OFFSET MOTION MAXIMUM DISTANCE FROM CENTERLINE | | | | | | | | | | | | | |
|--------------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" | 1-1/2" | 2" | 3" | 4" | 5" | 6" | 8" | 10" |
| 2 | 1-1/4 | 1-3/4 | 2-1/4 | 2-1/2 | 3-1/4 | 3-3/4 | 4-1/4 | 5-1/4 | 6-3/4 | 8 | 9-1/4 | 10-1/2 | 11-3/4 | 15 |
| 4 | 1-3/4 | 2-1/2 | 3 | 3-1/2 | 4-1/2 | 5 | 6-1/4 | 7-1/4 | 9 | 10-3/4 | 12 | 13-1/2 | 16 | 18-1/2 |
| 6 | 2-1/4 | 3-1/4 | 3-3/4 | 4-1/4 | 5-1/4 | 6-1/4 | 7-1/2 | 8-3/4 | 10-3/4 | 12-3/4 | 14-1/4 | 16 | 19 | 21-1/2 |
| 8 | 2-1/2 | 3-1/2 | 4-1/4 | 5 | 6 | 7 | 8-3/4 | 10 | 12-1/2 | 14-1/2 | 16-1/4 | 18 | 21-1/4 | 24-1/4 |
| 10 | 2-3/4 | 4 | 4-3/4 | 5-1/2 | 6-3/4 | 8 | 9-3/4 | 11-1/4 | 13-3/4 | 16 | 18 | 20 | 23-1/2 | 26-1/2 |
| 12 | 3 | 4-1/4 | 5-1/4 | 6 | 7-1/2 | 8-1/2 | 10-1/2 | 12-1/4 | 15 | 17-1/2 | 19-1/2 | 21-1/2 | 25-1/2 | 28-3/4 |
| 14 | 3-1/4 | 4-3/4 | 5-3/4 | 6-1/2 | 8 | 9-1/4 | 11-1/4 | 13-1/4 | 16-1/4 | 18-3/4 | 21 | 23-1/2 | 27-1/4 | 30-3/4 |
| 16 | 3-1/2 | 5 | 6 | 7 | 8-1/2 | 10 | 12-1/4 | 14 | 17-1/4 | 20 | 22-1/2 | 25 | 29 | 32-3/4 |
| 18 | 3-3/4 | 5-1/4 | 6-1/2 | 7-1/2 | 9 | 10-1/2 | 13 | 15 | 18-1/4 | 21-1/4 | 24 | 26 | 30-1/2 | 34 |
| 20 | 4 | 5-1/2 | 6-3/4 | 7-3/4 | 9-1/2 | 11 | 13-1/2 | 15-3/4 | 19-1/4 | 22-1/2 | 25 | 27-1/2 | 32-1/4 | 36-1/4 |
| 25 | 4-1/2 | 6-1/4 | 7-1/2 | 8-3/4 | 10-3/4 | 12-1/4 | 15 | 17-1/2 | 21-1/2 | 25 | 28 | 30-1/2 | 35-3/4 | 40 |
| 30 | 4-3/4 | 6-3/4 | 8-1/4 | 9-1/2 | 11-3/4 | 13-1/2 | 16-1/2 | 19 | 23-1/2 | 27-1/4 | 30-1/2 | 33-1/2 | 39 | 43-3/4 |
| 35 | 4-3/4 | 6-3/4 | 8-1/4 | 9-1/2 | 11-3/4 | 13-1/2 | 16-1/2 | 19 | 23-1/2 | 27-1/4 | 30-1/2 | 33-1/2 | 39 | 43-3/4 |
| 40 | 5-1/2 | 7-3/4 | 9-1/2 | 11 | 13-1/2 | 15-1/2 | 19 | 22 | 27 | 31-1/4 | 35 | 38-1/2 | 44-3/4 | 50 |
| 45 | 6 | 8-1/4 | 10 | 11-3/4 | 14-1/4 | 16-1/2 | 20-3/4 | 23-1/2 | 28-1/2 | 33-1/4 | 37 | 41 | 47-1/2 | 53 |
| 50 | 6-1/4 | 8-3/4 | 10-3/4 | 12-1/4 | 15 | 17-1/2 | 21-1/4 | 24-3/4 | 30 | 35 | 39 | 43 | 50 | 56 |
| 60 | 6-3/4 | 9-1/2 | 11-3/4 | 13-1/2 | 16-1/2 | 19 | 23-1/4 | 27 | 33 | 38-1/4 | 43 | 47 | 54-1/4 | 61 |
| 70 | 7-1/4 | 10-1/4 | 12-3/4 | 14-3/4 | 17-3/4 | 20-1/2 | 25-1/4 | 29 | 35-1/2 | 41-1/2 | 46 | 51 | 58-3/4 | 65-3/4 |
| 80 | 7-3/4 | 11 | 13-1/2 | 15-1/2 | 19 | 22 | 27 | 31 | 38 | 44 | 49-1/2 | 54 | 62-3/4 | 70 |
| 90 | 8-1/4 | 11-3/4 | 14-1/4 | 16-1/2 | 20-1/4 | 23-1/2 | 28-1/2 | 33 | 40-1/2 | 46-3/4 | 52 | 57-1/4 | 66-1/4 | 74-1/4 |
| 100 | 8-3/4 | 12-1/4 | 15 | 17-1/2 | 21-1/4 | 24-1/2 | 30 | 35 | 42-1/2 | 49-1/4 | 55 | 60-1/2 | 69-3/4 | 78-1/4 |
| 110 | 9-1/4 | 13 | 15-3/4 | 18-3/4 | 22-1/2 | 25-3/4 | 31-3/4 | 36-1/2 | 44-3/4 | 51-1/2 | 58 | 63-1/4 | 73-1/4 | 82 |
| 120 | 9-1/2 | 13-1/2 | 16-1/2 | 19 | 23-1/4 | 27 | 33 | 38-1/4 | 46-3/4 | 54 | 60-1/2 | 66 | 76-1/2 | 85-1/2 |
| 130 | 10 | 14 | 17-1/4 | 20 | 24-1/4 | 28 | 34-3/4 | 39-3/4 | 48-1/2 | 56 | 62-3/4 | 68-3/4 | 79-1/2 | 89 |

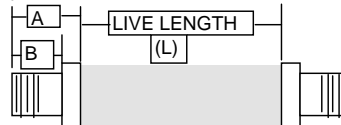
IMPORTANT NOTE:

The values shown are minimum live lengths for most centerline bend radii and total offset travel combinations. If the exact radius or travel are not shown on the chart, then the next larger value may be used or use lateral offset formula. The values as shown in the RED shaded portion are applicable to static bends only. The offset motion should never be greater than 1/4 (25%) of the centerline bend radius.

ASSEMBLY LENGTH (LIVE LENGTH AND OVERALL LENGTH)

After the hose is selected for the application, the live length and overall length of the assembly must be determined to complete the design. The live length is the flexible portion of an assembly and can be determined for the class of motion from the motion diagrams and for vibration.

After the live length has been determined, the over-all length is calculated by adding the dimensions for the end fittings. Refer to the fitting charts for fitting lengths. Add the "A" dimension for the braided hose or the "B" dimension for unbraided hose. Be sure to add fitting length for each end!



B) FITTING LENGTH
A) SEE FITTING CHART FOR DIMENSIONS