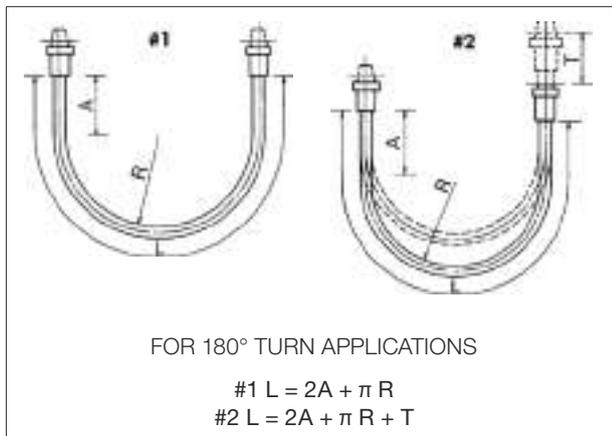


Occasionally an assembly will be required similar to the sketches to the right. The following equations are helpful in determining the correct length:



where:

L = overall length of the hydraulic hose assembly, in mm or inches.

A = allowance for a minimum straight section of hydraulic hose at each end of the assembly, measured from the outer end of each coupling, in mm or inches. These two straight sections are necessary to prevent excessive stress concentrations directly back of the couplings. See table below.

R = bending radius of the hose, in mm or inches. See hose specifications tables.

T = amount of travel, in mm or inches.

Often right angle adapters provide a convenient means of avoiding too small a bend radius.

Hose ID	in	1/4	5/16	3/8	1/2	5/8	3/4	1	1.1/4	1.1/2	2
	mm	6,4	7,9	9,5	12,7	15,9	19	25	31,8	38,1	50,8
Min "A"	in	5	5	5	6	6	7	8	9	10	11
	mm	127	127	127	152	152	178	203	229	254	279

Length Tolerance for Hydraulic Hose Assemblies and Specified Hose Lengths

For lengths from 0 up to and including 12" (305 mm)

Tolerance: $\pm 1/8" \pm 3 \text{ mm}$

For lengths $\geq 12" (305 \text{ mm}) < 18" (457 \text{ mm})$

Tolerance: $\pm 3/16" \pm 5 \text{ mm}$

For lengths $\geq 18" (457 \text{ mm}) < 36" (914 \text{ mm})$

Tolerance: $\pm 1/4" \pm 6 \text{ mm}$

For lengths $\geq 36" (914 \text{ mm}) < 48" (1219 \text{ mm})$

Tolerance: $\pm 3/8" \pm 10 \text{ mm}$

For lengths $\geq 48" (1219 \text{ mm}) < 72" (1830 \text{ mm})$

Tolerance: $\pm 1/2" \pm 13 \text{ mm}$

For lengths $\geq 72" (1830 \text{ mm})$

Tolerance: $\pm 1\%$

Elbow angle and angle of orientation

Tolerance: ± 3

Angle Couplings

A - To measure angle of offset of a hose assembly, point one end of coupling "A" (the nearest) to a vertical position downward. The angle can then be measured from the centreline of this vertical coupling in an anticlockwise direction to the centreline of coupling "B" (the far coupling) (see illustration). Relationships can then be expressed from 0° to 360°. If angle not given elbows are positioned at 0°.

