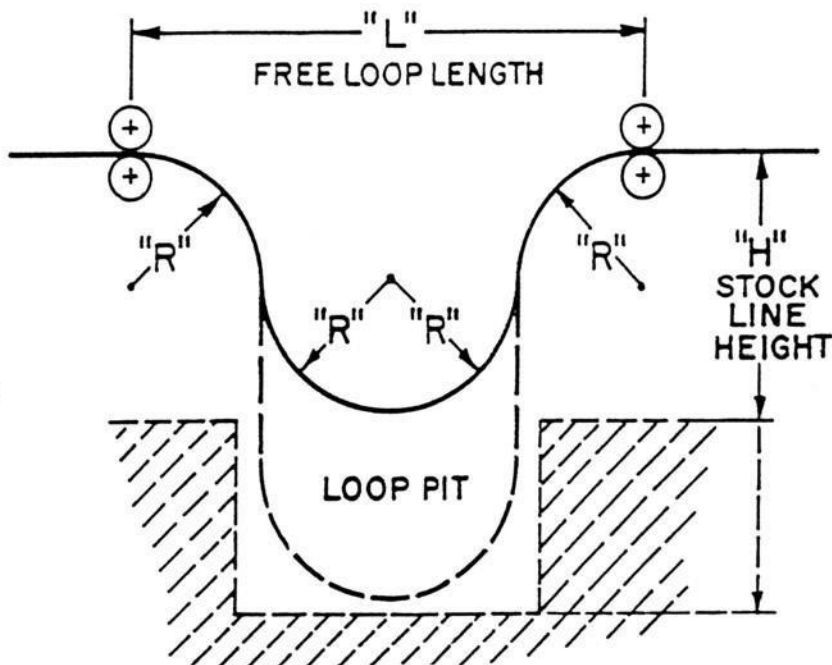




## Free Loop Area & Slack Material Availability for Mild Steel Coil Stock



"R" = Radius desirable to avoid distortion of material in the free loop, calculated at approximately 360 times the metal thickness.

$$R = \text{thk} \times 360$$

The chart below shows the length of loop in inches required for a given thickness and inches of slack material in a full loop.

Material Thickness	"L" Loop Length	Amount of Slack Material at Various Stock Line Heights "H"					
		30 in.	36 in.	42 in.	48 in.	54 in.	60 in.
.015 in.	48 in.	39 in.	51 in.	63 in.	75 in.	87 in.	99 in.
.031 in.	72 in.	35 in.	41 in.	53 in.	65 in.	77 in.	89 in.
.062 in.	96 in.	25 in.	36 in.	46 in.	55 in.	67 in.	79 in.
.093 in.	144 in.	22 in.	27 in.	34 in.	43 in.	52 in.	54 in.
.125 in.	180 in.	16 in.	26 in.	30 in.	37 in.	44 in.	48 in.
.187 in.	276 in.	15 in.	17 in.	19 in.	28 in.	39 in.	42 in.
.250 in.	360 in.	Materials beyond 3/16" thickness are often handled more effectively in a confined loop system. The engineering staff can recommend the most suitable system to individual application specifications.					
.312 in.	456 in.						

Slack material equals the amount of material in the loop less the free loop length.

**Note:** At least two (2) feed lengths of slack material should be made available in each application. Slack material availability actually decreases as the loop length is increased for a given stock line. The optimum slack availability, therefore, occurs at the minimum practical loop length for a given thickness. A loop pit (shown on diagram in dotted lines) can provide two (2) inches of additional slack material for each inch of depth, once "H" is equal to at least two (2) times "R".