III - CAPACITY LIMITATIONS

All levelers have certain capacity limits (Figure 10), and it is important to understand their source. For specifics, contact Herr-Voss.

HERR-VOSS'S TYPICAL LEVELING RANGE			
HV Roll Size Dia.	Min. Ga.	Max. Ga.	Range
.875 Inch	.012 Inch	.036 Inch	3.0X
1.156 Inches	.016 Inch	.060 Inch	4.0X
1.500 Inches	.018 Inch	.075 Inch	3.4X
1.687 Inches	.024 Inch	.105 Inch	4.37X
1.750 Inches	.028 Inch	.135 Inch	4.80X
2.187 Inches	.036 Inch	.164 Inch	4.55X
2.687 Inches	.048 Inch	.209 Inch	4.35X
3.500 Inches	.067 Inch	.312 Inch	4.65X
4.500 Inches	.089 Inch	.437 Inch	4.90X
5.500 Inches	.119 Inch	.625 Inch	5.25X
6.500 Inches	.149 Inch	.812 Inch	5.44X

FIGURE 10. Capacities Based On Mild Steel, 45,000 PSI Yield Strength

The upper machine capacity limitation is essentially structural; though the operator may also run out of spindle, gearbox, or drive motor capability. Because an infinitesimal length variation in the strip can produce significant waviness or out-of-flat conditions, proper leveler design must be based on control of machine deflection — not structural failure of the equipment. Thus, the upper capacity limit is a machine deflection limit (Figure 11). Under extreme deflection conditions, due to overloading, the strip condition can be made worse rather than better by the leveler.

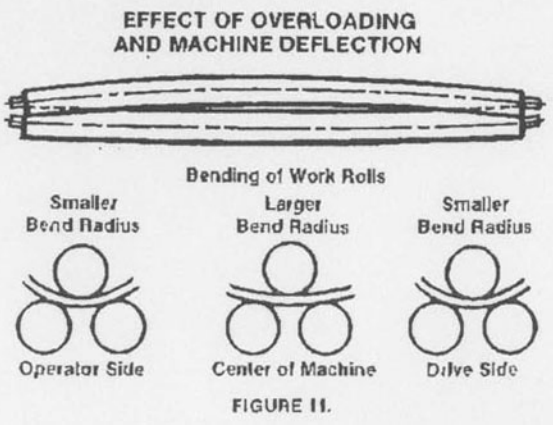

FIGURE 11.