

Skirtboards *Cont.*

HEIGHT OF SKIRTBOARDS

The height of skirtboards must be sufficient to contain the material volume as it is loaded on the belt. Tables 12.36 and 12.37 list accepted, minimum skirtboard height for 20, 35° and 45 degree three-equal-roll troughing idlers. The requirement to control airborne dust driven off by the forces of loading material may require an increase in the height of skirtboard. In addition these systems may require the lengthwise extension of the skirtboard and its cover, as well as the use of mechanical systems for dust suppression and/or collection. The cross-sectional area of the skirtboard for dust control is often calculated on 250 fpm or less exit air velocity.

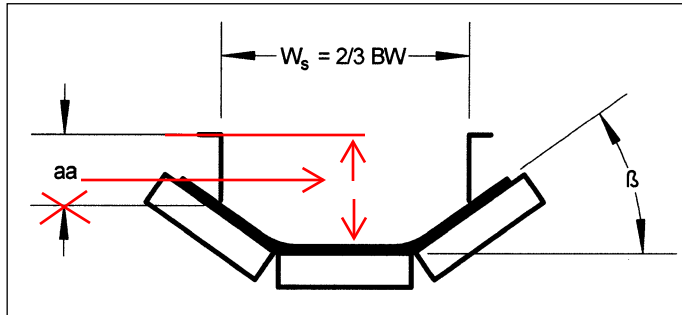


Figure 12.35
Minimum skirtboard height and width

Table 12.36
Minimum uncovered skirtboard height for 20° three equal roll troughing idler

		β = 20° Three Equal Roll Troughing Idlers								
		aa (in) = Minimum Uncovered Skirtboard height								
Belt Width (inches)		Lump Size, inches								
		2*	4	6	8	10	12	14	16	18
18		5.0	5.0	5.0						
24		5.5	5.5	6.0	6.6					
30		5.8	6.3	7.0	7.6	8.3				
36		6.7	7.3	8.0	8.6	9.3	10.0			
42		7.7	8.3	9.0	9.6	10.3	11.0	11.6		
48		8.7	9.3	10.0	10.6	11.3	12.0	12.6	13.3	
54		9.7	10.2	11.0	11.6	12.3	13.0	13.6	14.3	15.2
60		10.7	11.3	12.0	12.6	13.3	14.0	14.6	15.3	16.2
72		12.7	13.3	14.0	14.6	15.3	16.0	16.6	17.3	18.2
84		14.7	15.3	16.0	16.6	17.3	18.0	18.6	19.3	20.2
96		16.7	17.3	18.0	18.6	19.3	20.0	20.6	21.3	22.2

* For material that is all fines use skirtboard heights in 2-inch lump size column.

Table 12.37
Minimum uncovered skirtboard height for 35° and 45° three equal roll troughing idlers

		β = 35° and 45° Three Equal Roll Troughing Idlers								
		aa (in) = Minimum Uncovered Skirtboard height								
Belt Width (inches)		Lump Size, inches								
		2*	4	6	8	10	12	14	16	18
18		7.0	7.0	7.0						
24		7.5	7.5	8.0	8.6					
30		8.8	8.8	9.5	10.1	10.8				
36		9.7	10.3	11.0	11.6	12.3	13.0			
42		11.2	11.8	12.5	13.1	13.8	14.5	15.1		
48		12.7	13.3	14.0	14.6	15.3	16.0	16.6	17.3	
54		14.7	14.8	15.5	16.1	16.8	17.5	18.1	18.8	19.7
60		15.7	16.3	17.0	17.6	18.3	19.0	19.6	20.3	21.2
72		18.7	19.3	20.0	20.6	21.3	22.0	22.6	23.8	25.0
84		21.7	22.3	23.0	23.6	24.3	25.0	25.6	27.2	28.7
96		24.7	25.3	26.0	26.6	27.3	28.0	28.6	30.6	32.5

* For material that is all fines use skirtboard heights in 2-inch lump size column.