

# Calender Emergency Stopping Distance

Use with Machine Safety, Chapter 296-806 WAC

This tool will allow you to determine if your calender meets the emergency stopping distance required by the rule. The size or arrangement of the rolls doesn't matter--they all have to stop within the specified limits unless there is no employee exposure to the hazard.

- You need to know the roll surface speed to use the chart. The roll surface speed is the distance (in feet) a point on the peripheral surface of the roll travels in one minute. You can determine the roll surface speed as follows:

$$\text{Roll Surface Speed (feet per minute)} = .262 \times \text{Roll Diameter (inches)} \times \text{rpm}$$

#### Examples:

- 24-inch diameter roll, 15 revolutions per minute.  
Roll surface speed =  $.262 \times 24 \times 15 = 94.32$  feet per minute
- 12-inch diameter roll, 40 revolutions per minute.  
Roll surface speed =  $.262 \times 12 \times 40 = 125.76$  feet per minute

- Step 1:** Find the roll surface speed (in feet per minute) on the horizontal axis of the chart (on the bottom).
- Step 2:** Draw a vertical line from the roll surface speed until it meets the sloped line between the shaded and un-shaded areas of the chart.
- Step 3:** Draw a horizontal line from that point to the vertical axis (on the left side) and read the maximum acceptable stopping distance.

#### Examples:

- A calender has a no-load roll surface speed of 125 feet per minute.  
The maximum stopping distance allowed is  $26\frac{1}{2}$  inches
- A calender has a no-load roll surface speed of 100 feet per minute.  
The maximum stopping distance allowed is 21 inches.



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## Calender Stopping Distances Chart

The shaded area of the chart below shows acceptable stopping distances for calenders. These distances are measured:

- With the rolls running empty at maximum operating speed.
- In inches of roll surface traveled
- From the instant the emergency stopping device is activated.

