

**PROBLEM**

Thermal bow is a temporary condition which may occur in metal doors due to an inside / outside temperature differential. This can occur when the direct rays of the sun strike a door surface. This condition, and the degree of bowing, depends on the door color, construction, length of exposure, temperature, etc. The bowing of the door pushes it against the frame stop and consequently exerts pressure on the door latching hardware, binding it against the strike.

**SOLUTION**

One solution is to take into consideration the direction of the sun, and the prolonged exposure in relationship to the door exterior. This condition can often be alleviated by painting the exposed surface a light color. With the exception of acoustic doors, another solution would be to modify the strike to allow more clearance between it and the latching hardware. A loose fit between the latch and strike on acoustic doors is not recommended due to the negative effect on the sound seals.

**NOTE**

This condition is not unique to Krieger doors. It occurs with all metal doors. American National Standards Institute and Steel Door Institute recognize this phenomenon as described in ANSI/SDI A250.8-2003.

Also, in some cases of extreme cold, this condition may also occur in reverse.

