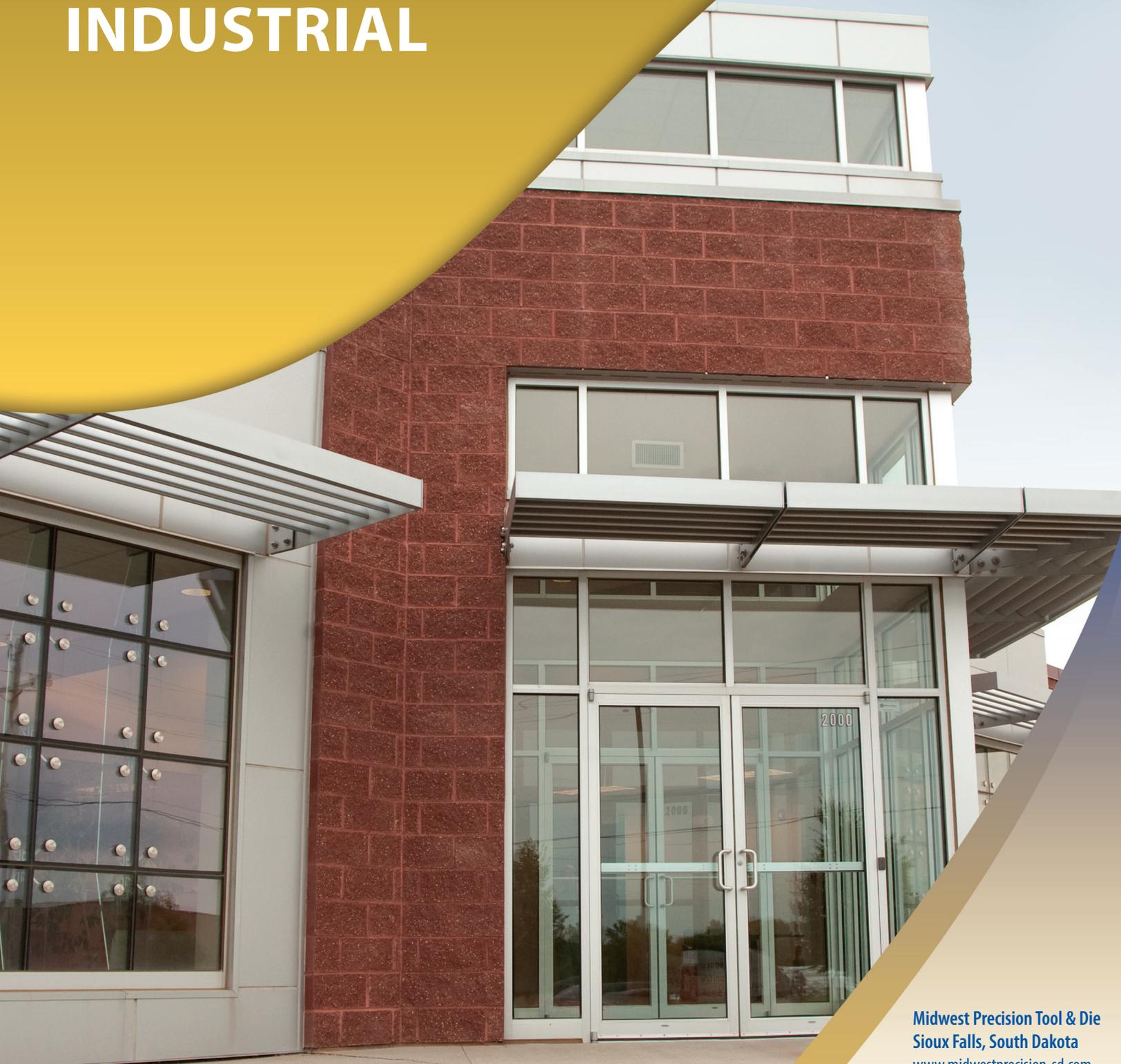


Climate Systems Inc.

INDUSTRIAL



Midwest Precision Tool & Die
Sioux Falls, South Dakota
www.midwestprecision-sd.com
Facility Type: Precision Custom
Manufacturing





“Climate Systems’ innovative approach to heat rejection in this manufacturing facility that is temperature controlled year round is incredibly efficient. The use of ambient air and other features provides our building with long-term future savings.”

– Burd McCoy, Owner
MIDWEST PRECISION TOOL & DIE

VERY HIGH TOLERANCE MACHINE SHOP —WHY HEAT REDUCTION

Midwest Precision utilizes a 60,000 square foot multi-million dollar tooling, machining and production facility. Multiple high tolerance machines that can achieve accuracy to an incredible .000040 (40 millionths) and create a huge amount of heat. Temperature control is essential to hold these tolerances.

INSPIRATION & INNOVATION

The twelve, one-ton packaged chillers that sat in the mezzanine were taking up valuable space, and the heat rejection inside the facility became a major concern. Climate Systems was brought in to implement Burd’s inspiration, which resulted in another innovation that utilized a chiller/dry cooler combination with DDC controls. The DDC controls allow for free cooling (heat rejection) through plate and frame heat exchangers when the ambient temperature allows. They also monitor the change over from the chiller to the dry cooler with numerous sensors that continually check the performance of the 20 different heat exchangers, for optimum control. Consistent water temperatures are critical for the EDM and milling machines to maintain accuracy. Climate’s use of advanced control keeps their entire system running efficiently and effectively.

SAVING ENERGY, INCREASING PROFITABILITY AND REDUCING DOWNTIME

Innovations do not always mean new inventions, sometimes it means finding a different way to apply existing technologies. Working together, Climate Systems and Midwest Precision Tool and Die developed a system that has resulted in increased reliability and reduced energy cost. That savings is put to good use as Midwest continues their incredible journey from a small business in 1991 to South Dakota Small Business of the Year in 2000 to a major supplier for aerospace, medical, military and prototype projects across the United States today.

