

# AVERA ST. LUKE'S

## CASE STUDY



### FAST FACTS

#### **Location**

Aberdeen,  
South Dakota

#### **Industry**

Healthcare Center

#### **Campus Size**

330,000 square feet  
+ 30,000 sq ft  
planned expansion

#### **Project Year**

2014

### PROBLEM

Avera St. Luke's Hospital in Aberdeen, South Dakota was experiencing low delta T and a shortage of pumping capacity. The 330,000-square foot health-care center was unable to provide adequate cooling on hot days, and frequently had to enable larger chillers earlier than desired. A 30,000-square foot cancer center expansion was driving plans to replace a 10-year old 700 ton chiller with a new 900 ton chiller.

### SOLUTION

In August 2014, the hospital underwent a retrofit to combat their shortage of cooling capacity. Their solution was to install DeltaPValves throughout the campus at each air handling unit to improve system performance. Previous experience with Flow Control Industries' pressure independent control valves gave the facilities team confidence that the precision control they provide would guarantee a positive result.

### IMPACT

After installation, the impact was immediate. Delta T performance doubled, from 6 °F to 12 °F. Despite adding the new 30,000 square foot cancer center, the team avoided thousands of dollars in capital costs with the recovered cooling capacity and didn't need need to replace the original 700-ton chiller. While the original system was maxed out on an 86 deg F day, it now operates at only 68%, even with outside temperatures exceeding 100 deg F.