

U.S. ENGINEERING COMPANY

HEALTHCARE EXPERIENCE



U.S. ENGINEERING COMPANY

Mechanical Contractor Since 1893

WHO ARE WE?

INDUSTRY LEADERS. PROBLEM SOLVERS. RENOWNED MECHANICAL CONTRACTORS.

COMPANY INFORMATION

- Founded in **1893**.
- Selected **2013 Colorado Specialty Contractor of the Year** by ENR Mountain States.
- One of the top **design-build** mechanical contractors in the nation.

more than
120
years in business

OUR COMMITMENT

Patient health, staff comfort, and a positive public identity - the crucial priorities that U.S. Engineering puts first when it comes to the mechanical functionality of a hospital. Leveraging from years of experience working in active healthcare facilities, U.S. Engineering has a comprehensive understanding of decreasing operating costs, improving patients' environment, and delivering quality services that are founded on years of experience.

U.S. Engineering is dedicated to working with your team to co-author the facility solutions that are required to maintain a safe and healthy environment. Our cohesive approach delivers quantifiable facility solutions that contribute to portraying a positive public image.

When it comes to the condition of your facility, U.S. Engineering focuses on adapting to the culture of Swedish Medical Center and taking ownership of the health of your patients. **Every day, our employees focus on knowing and understanding the facilities in which we work, and dedicate time to assimilating your values into our services.**

Our team brings a vision of improving lives - taking a seamless approach in working with you to provide high performing buildings for the institutions that improve patients' health.

WORKING IN HEALTHCARE

► CERTIFIED HEALTHCARE CONSTRUCTORS (CHC)

When construction occurs in active facilities, it presents multiple risks to the patient that must be carefully assessed and managed. Understanding these risks, **U.S. Engineering's healthcare managers hold the Certified Healthcare Constructor (CHC) certification**, a national standard for assessing healthcare construction knowledge. For every employee who works in a hospital, U.S. Engineering requires a screening, background check, drug tests and the required immunizations.

► MOBILE INFECTION UNITS

With patients on top of mind, we utilize a mobile infection control unit - used to minimize the possibility of contamination. **The mobile infection unit makes it possible to protect the patients' health during all aspects of facility maintenance.** Having this capability is beneficial to our healthcare clients because it maintains the industry's air quality standards.

► FIELD LEADERSHIP

For every project, we identify and assign key personnel who have a proven track record and experience of working together on similar projects. **Our healthcare team follows a strict, well-defined quality control program to attain a uniform, high level of workmanship.**

► BUDGET MANAGEMENT

U.S. Engineering takes time to develop a customized project approach and **when it comes to budget, we pride ourselves on taking responsibility for the services we promise.** When we are involved early on, we can compare different system types, system components, and system delivery methods that align with the project's budget.

► IN-HOUSE RESOURCES

Using innovative technology, our extensive prefabrication abilities decrease our footprint in your facilities and minimizes potential disruptions to the patient care process. **Our in-house mechanical engineers bring a considerable amount of relevant industry experience to the team.** We have 100% 3D BIM Coordination capabilities for piping, plumbing, and sheet metal as an in-house service. Taking a lead role in the development of collision-free models, we work closely with key members of the design team as well as the general contractor and other subcontractors.

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OUR EXPERTISE

Hospitals are one of the most complex and challenging building types in the construction industry. With their elaborate mechanical systems, mission-critical functions, and ever-changing operational requirements, experience matters.

Our specialized Service & Solutions team is ready to assist with ongoing remodels, sustaining projects, and service and maintenance solutions.

Through education and experience, our project team has a full understanding of the impact that renovation and modernization activities have on patient safety. Infection control, fire and life safety, utility interruption planning and mitigation, project risk assessments, security and workplace safety are some of the skills that this team has mastered.

The method of procedures (MOP) for shutdowns is crucial to the functionality of the facility. Before any shutdowns, our team coordinates with the facility teams and all involved staff to preventively plan for the procedure and determine possible project challenges. The benefit of pre-task planning is the ability to have alternate plans and determine a communication plan for the facility.



more than
85
active healthcare
projects in the
last three years

RECENT HEALTHCARE EXPERIENCE

HEALTHONE

North Suburban Medical Center

The North Suburban Medical Center renovation project required replacing the entire Central Utility Plant (CUP) in the active hospital - a unique service that takes careful planning and coordination. The mechanical scope offered a challenge of completing construction in an active hospital, with minimum disruption. U.S. Engineering's extensive healthcare renovation experience was vital to overcoming this obstacle. To accomplish this, our CHC Certified Project Managers put the entire hospital on temporary boilers and chillers, in order to minimize any impacts on the facility. The new CUP will provide energy-efficient systems that will result in long-term operating costs.

Presbyterian St. Lukes

The Presbyterian St. Lukes project consisted of replacing two existing chillers with high-efficiency magnetic bearing centrifugal chillers, as well as replacing the existing chilled water pumps. The existing facility offered a challenge of completing the project without disruption, and the project team did so successfully. To accomplish this, the chillers were hoisted into place through a second story intake air louver.

UNIVERSITY OF COLORADO HEALTH

University of Colorado Hospital

This project consisted of renovating the first floor CT Scan Room at the University of Colorado Hospital. The work consisted in an active facility and required the knowledge and skills of our healthcare experts to successfully complete.

Poudre Valley Health System

This project was a complete interior demolition and remodel of a 22,800 sf medical office building for Poudre Valley Health Systems. U.S. Engineering Company's scope included installation of seven DX rooftop units with new distribution duct throughout the space. The installation also included the installation of twelve heat pump / fan coil split system units, a new Carrier V V T controls system, electric radiant panels and plumbing fixtures.

Medical Center of the Rockies

U.S. Engineering has completed a multitude of small contract projects at the Medical Center of the Rockies after serving as the mechanical contractor on the new hospital. The most recent project consisted of the 1st Floor Remodel, requiring extensive infection control and shutdown procedures.

RECENT HEALTHCARE EXPERIENCE

BANNER HEALTH

East Morgan County Hospital

This project is an expansion on the current East Morgan County Hospital. The expansion includes the birthing center, patient rooms, operation rooms and trauma rooms. Scope of work includes rooftop units, renovating the Central Utility Plant, as well as all piping, plumbing and sheet metal. All mechanical systems were prefabricated.

McKee Medical Center

U.S. Engineering has completed a variety of projects at the McKee Medical Center including; multiple AHU replacements, new steam piping, new chilled water piping, fuel oil piping, snowmelt systems, water control valves, and lab replacements

CHEYENNE REGIONAL

Cheyenne Regional Medical Center

The project includes a new two-story 41,000 sf dedicated Cancer Center and a two-story, 40,000 sf Emergency Department addition including a 14,000 sf renovation of the existing facility.

The mechanical systems involved in the two buildings include four stainless steel condensing boilers, one packaged process scroll chiller serving the Tomography and Linear Accelerator equipment, variable air volume zone systems, and DX comfort cooling systems and a complicated system of medical gas applications to service the hospital's needs.

OTHER HEALTHCARE EXPERIENCE

Aurora Medical Hospital
Banner Health East Morgan County
Boulder Community Hospital
Centura Saint Elizabeth Center
Children's Hospital Colorado East Tower
Children's Hospital Colorado South Campus
Christus St. Vincent
Colorado Plains Medical Center
Craig Hospital
Denver Health
Evans Army Community Hospital
Exempla Lutheran Hospital
Exempla Saint Joseph Hospital
Greeley Medical Center
Kaiser East Medical Offices
Littleton Adventist Hospital
McKee Medical Center

Medical Center of the Rockies
Memorial Hospital
North Suburban Medical Center
Parker Adventist Hospital
Penrose Medical Center
Platte Valley Medical Center
Porter Hospital
Poudre Valley Hospital
Presbyterian St. Luke's
Skyridge Medical Center
Saint Mary's Hospital
Saint Anthony North
Saint Francis Medical Center
University of Colorado Denver
University of Colorado Hospital

Services



Rapid Response

When it comes to healthcare facilities, there is no such thing as "down time," which is why we offer a rapid response service for systems needing **around-the-clock attention**. Our mobile team members are available 24/7, ready to address an emergency or planned outage. Whether a HVAC, plumbing, sheet metal or piping need, we are there.



Preventative Maintenance

Our goal is to constantly provide comfortable, safe, and healthy environments. Through preventative maintenance, we can **reduce your operating costs and deliver systems that run more efficiently**. For healthcare facilities, we adhere to the air quality standards and mitigation measures necessary for a hospital environment.



Plumbing Services

Our plumbing expertise goes far beyond fabrication and installation. We're there to **install, maintain, inspect, and repair** your plumbing systems throughout the life cycle. We understand the importance of maintaining a healthy plumbing system and provide full coverage backflow preventer service, line jetting, video line inspections and annual water conservation reporting; keeping up with ongoing regulatory healthcare standards.



Facility Staffing

At U.S. Engineering, we are invested in our clients – so much that we offer on-site facility staff to **deliver the day-to-day operations and maintenance tasks**. Our highly-trained technical staff hold themselves to the highest level of performance accountability and unifies their values with those of the customer.



Renovations & Retrofits

As hospitals evolve, their systems require improvements – performing construction in an active hospital takes unique expertise. From **complete mechanical renovations, to single unit change-outs**, U.S. Engineering considers all possible solutions that help optimize your building's cost. With in-house engineering, 3D scanning technology and BIM coordination, we can ensure that your hospital will have minimal disruption. At U.S. Engineering, we leverage years of healthcare experience, developing methods of procedure for necessary shutdowns that are crucial to the functionality of the facility.



Energy Solutions

The energy use of a healthcare facility is nearly three times that of a typical building due to its mission and schedule. Our engineers can **help benchmark energy use of various building systems in your facility and identify where energy and maintenance costs are being wasted**. We can work with your facility engineers to build and execute a plan to optimize building systems, whether through low-cost modifications to existing mechanical equipment or through deeper energy retrofits.