

# Medtronic

## C1S Designs, Installs Cleanroom to Support Medical Device Manufacturing

Medical device manufacturer Medtronic (MDT-NYSE), the global leader in medical technology, decided to relocate its operations from Mexico to its Fort Worth site. Before the company could move in, however, the existing facility had to be upgraded to include a 1,100 square foot ISO8 (Class 100k) cleanroom and several associated support spaces. Medtronic engaged C1S Group to provide engineering design services to re-imagine the space and then engaged C1S to complete the construction phase of the project.

C1S inspected the site to understand the as-built conditions and met with Medtronic to gain an understanding of specific requirements for the new spaces. C1S developed interior space plans detailing the new uses of the facility, including finishes for each new space.

C1S designed the cleanroom to ensure meeting the required class level certification at full operation. The C1S team applied low wall returns and utilized HEPA filtration to achieve a minimum ISO 8 condition during facility operations. C1S sized and selected a new rooftop unit (RTU) for the cleanroom area and completed intricate ductwork modifications for the existing air distribution system.

C1S's upgrade to the facility contained several associated support spaces Medtronic required, including a cleanroom gowning room, a cleanroom walkthrough room device, assembly, and open cubicle areas. The total renovated space encompasses more than 8,000 square feet.

When companies choose C1S they benefit from our extensive experience in the design and construction of cleanrooms and critical facility environments. By applying that expertise to a facility, C1S can deliver a turnkey solution on time and within budget.





### Project Fast Facts: Medtronic

C1S designed and constructed these new spaces for Medtronic in the existing facility:

- ISO8 [Class 100k] cleanroom—1100 sq. ft.
- Cleanroom gowning room—230 sq. ft.
- Cleanroom walkthrough room—100 sq. ft.
- Assembly area—3050 sq. ft.
- Assembly cubicle area—700 sq. ft.
- Palletizing/storage warehouse area—3000 sq. ft.
- Total Estimated updated area—8,180 sq. ft.

C1S designed and installed these component systems in the facility:

- Compressed air and nitrogen service lines to equipment and assembly work stations
- Structural reinforcement for new roof mounted equipment
- DDC control and monitoring system with:
  - Differential pressure readings for the cleanroom spaces
  - Sequence of operations for the RTU and Exhaust Fan System
- Electrical system for power and lighting
- Upgraded HVAC for assembly area
- New dedicated HVAC system for cleanroom

