



**TetraTek Products, Inc.**  
We Put It All Together

# TetraTek ColdMaster Walk-in Rooms

Modern and Technically Sophisticated  
Mechanically Cooled  
Temperature and Humidity  
Environmental and System Test Facilities

TetraTek Products, Inc., 501 South Reino Road, Unit 335, Newbury Park, California 91320, USA  
Telephone: 805-376-0540, Email: [applications@tetrattekproducts.com](mailto:applications@tetrattekproducts.com), Internet: <http://www.tetrattekproducts.com>

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## TetraTek ColdMaster Walk-in Rooms

Are Modern and Technically Sophisticated

State-of-the-art mechanically refrigerated environmental walk-in chambers from the leader in walk-in testing, TetraTek Products, Inc.

Organized over fifteen years ago to provide a single source test system integrator for these systems, we have over 30-years of experience in manufacturing environmental test equipment. In partnership with the leading manufacturer of prefabricated walk-in rooms in the Western United States, we offer the most modern and technically sophisticated mechanically cooled insulated structures available.

The TetraTek ColdMaster Walk-in Room is a stainless steel interior sectional urethane foam enclosure created to optimize your testing experience. These chambers provide the professional backdrop to show off your products and verify their proper operation in various temperature and humidity environments. They allow you to check proper system operation in a real world thermal, wet, or dry environment without leaving the comfort or security of your factory.

Each system is carefully considered to provide you with maximum performance consistent with easy maintainability and long term return on your investment.

Every component is selected for proven reliability and suitability. Machinery and instrumentation are industrial quality and high efficiency. Color digital displays, ethernet communication, solid state sensors and instrumentation, automatic monitoring, programmability, and extra precautions for dependability in refrigeration and system performance are standard.

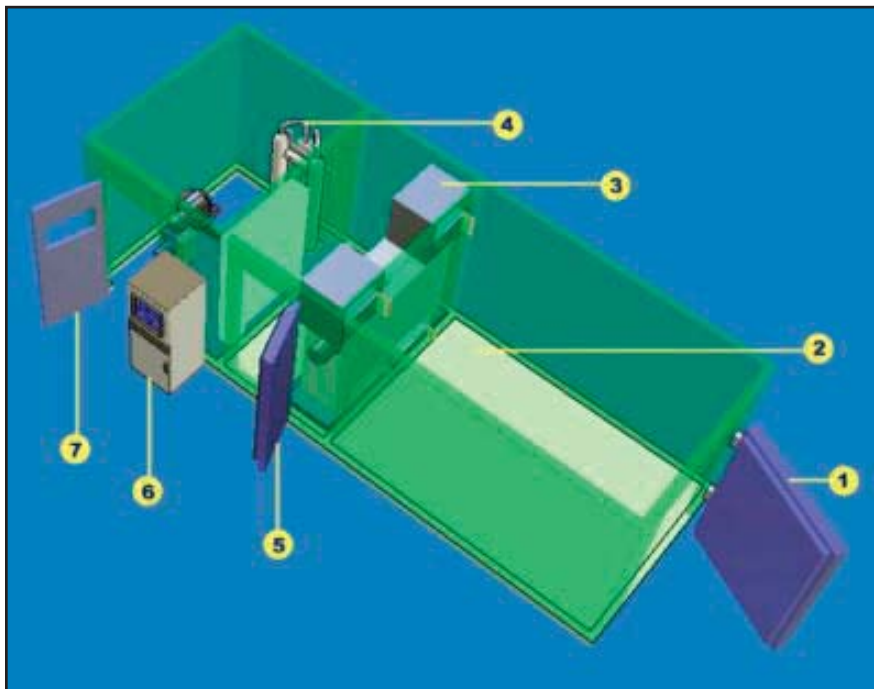
Each facility is matched to your requirements. We invite you to request a free analysis of your needs.





## TetraTek ColdMaster Walk-in Rooms

Include Advanced System Features



### Advanced control:

- ❖ Touch screen or PC based display.
- ❖ PLC or software and PC Control.
- ❖ Fully modulating cooling valves.
- ❖ Digital record keeping.
- ❖ Multiple high and low alarms.
- ❖ Time stamp of system events.
- ❖ Ethernet Interface.
- ❖ Stored programmable profiles.
- ❖ Complete Software listings.

### Advanced features:

1. A heated frame, in-fitting or flush, main door to positively seal the chamber workspace.
2. TetraTek's exclusive, triple compartment (workspace, conditioning & machinery,) construction.
3. Factory pre-assembled conditioning packages slip right in on site.
4. Industrial rated machinery packages mount directly to your concrete pad.
5. A thermally sealed access door allows easy inspection and maintenance of system conditioning equipment.
6. Touch screen color and PLC or PC-based software driven control systems automate record keeping and control.
7. An acoustically isolating door with a large window helps keep machinery noise out of your laboratory.

### Advanced construction:

- ❖ Rigid interlocking panel, Underwriters Laboratories Certified, closed cell urethane foam insulation.
- ❖ At least three heavy duty cam-action locks in each side wall.
- ❖ Interior stainless steel 20-gauge wall and ceiling panels and 16-gauge floor panels rated at 650 PSF.
- ❖ Exterior 24-gauge pre-painted galvanized steel wall panels with formed stainless steel floor trim coving.
- ❖ Built-in gaskets between all panels with RTV sealant applied during chamber installation.



## TetraTek ColdMaster Walk-in Rooms

Are Available in Many Configurations

### Standard temperature ranges available are:

- 0 to 60 C, single stage remote air or water-cooled refrigeration.
- 0 to 85 C, single stage remote air or water-cooled refrigeration.
- 20 to 85 C, single stage remote air or water-cooled refrigeration.
- 30 to 85 C, single stage remote air or water-cooled refrigeration.
- 65 to 85 C, cascade, two stage water cooled refrigeration.

### Standard humidity ranges available are:

- No humidity capability, temperature only.
- 20 to 95% RH, limited to 5 C dewpoint (mechanical dehumidification).
- 10 to 95% RH, limited to 0 C dewpoint (recirculating desiccant drier).
- 5 to 95% RH limited to -5 C dewpoint (compressed air desiccant drier).

### Standard access door sizes are:

- 30-inches wide x 78-inches high clear.
- 34-inches wide x 78-inches high clear.
- 42-inches wide x 78-inches high clear.
- 60-inches wide x 78-inches high clear.

### Standard interior workspace heights are:

- 6'-10" inside. No inside suspended ceilings or air ducts available.
- 7'-10" inside. Ceilings and ducts OK.
- 8'-10" inside. Ceilings and ducts OK.
- 9'-10" inside. Ceilings and ducts OK.

### Standard interior sizes available are:

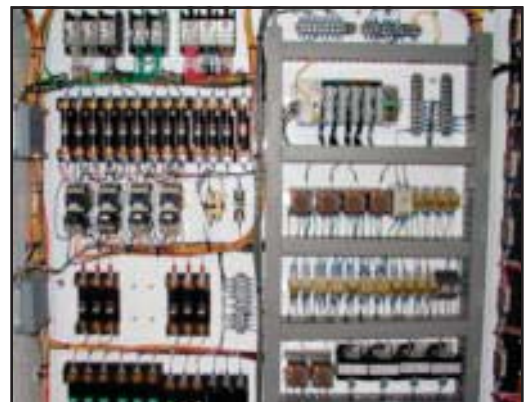
- The smallest size available is 7'-6" wide by 7'-6" deep inside.
- Sizes are available in increasing increments of 5.75 inches.
- Maximum standard size is 42'-6" wide by 42'-6" deep.
- Custom sizes are available.
- Custom and larger projects require measurement of your site.

### Chamber Air Flow Pattern:

The standard air flow system is a dual outlet, dual blower adjustable louver discharge on the rear upper wall and air return through two fixed horizontal registers mounted low on the same wall.

### Optional air patterns include:

- ❖ Fully perforated ceiling with lower rear wall air return.
- ❖ Partial perforated ceiling with lower side wall return ducts.
- ❖ Center ceiling supply duct with lower rear wall air return.
- ❖ Center ceiling supply duct with lower side wall return ducts.





# TetraTek ColdMaster Walk-in Rooms

Can Be Modified to Fit Your Exact Space and Needs

## Available Options include:

### Chamber Doors, Windows, and Accessories:

- ❖ Horizontally sliding power doors on Temperature Chambers above -20 C only.
- ❖ Bi-parting doors on Temperature Chambers above -20 C only.
- ❖ Clear Vinyl strip curtain interior doors on -0 to 60 C temperature models only.
- ❖ Man access doors 30 inches by 78 inches in the workspace.
- ❖ Dual door lighted airlock compartments for upset free man access during testing.
- ❖ Heated 15 inch x 20 inch wide windows in the chamber side walls or doors.
- ❖ Internal stainless steel cart bumper rails.
- ❖ Exterior chamber corner and door crash guard reinforcement and protection.
- ❖ Depressed floor to allow flush roll-in of products. Requires a special slab.
- ❖ Recessed interior vapor proof incandescent or fluorescent lights.
- ❖ National Sanitation Foundation Standard Number 7 construction.



### Feedthroughs:

- ❖ TetraTek exclusive square Plexiglass feedthroughs on >-20 C models.
- ❖ Permanent electrical and fluid bulkhead connectors.
- ❖ Round feedthroughs with plugs in 3 inch, 4 inch, and 6 inch sizes.

### Conditioning Systems:

- ❖ Variable speed, PLC controlled, air circulation blower motors.
- ❖ Outside air injection with positive motorized valve isolation.
- ❖ Compressed air desiccant drier dehumidification.
- ❖ Recirculating, regenerative, air drier dehumidification.
- ❖ TetraTek exclusive thermally clamped humidity generator system.
- ❖ Direct humidity sensing process sensors.
- ❖ Complete refrigeration gauges on all systems are Standard.



### Product Test Fixturing and Instrumentation:

- ❖ Stainless steel cantilever shelves, 16 inches or 20 inches wide.
- ❖ Roll-in product carriers and handling systems.
- ❖ Environmentally rated circuit board card cages.
- ❖ Product load and test simulation electronics.
- ❖ Ground fault sensing electrical receptacles.
- ❖ Product Ethernet and LAN connectors and cabling.
- ❖ Electronic, fluid, and hydraulic test systems.
- ❖ Data acquisition and product monitoring equipment.
- ❖ Chamber temperature and humidity circular chart recorder.
- ❖ Chamber temperature and humidity digital strip chart recorder.



### Information and Quotations from TetraTek:

You may wish to review our Industrial Equipment web site <http://www.tetratekproducts.com>.

We are happy to share our expertise with you. Quotations are prepared promptly based upon your specific needs. We also supply budget information for future planning purposes. If you need advice on a current or upcoming project, please contact us. In most cases, there is no charge.

