

AMGEN LABORATORY

GENERAL SCOPE COMMENT:

This project was to construct a "contract" lab within an existing structure. The exhaust system(s) had to be capable of handling various corrosive and toxic by-products. This meant that with the "flip" of a switch, and turning a few dials, the various labs had to be capable of going from a positive pressure lab to a negative pressure lab in a matter of seconds or, visa-versa, without endangerment to its occupants.

Location Project : **Boulder, COLORADO**

General Contractor: **C.G. Construction**

Project Architect: **McFall-Konkel-Kimball**



Design-Build-Contractor

Rogers & Sons, Inc.

4775 Fox Street * Denver, CO 80216 * FAX 296-3060 * Phone 296-2999

| | |
|-------------------------------------|----------------------------|
| Project Evaluation: | Private Information |
| Square Footage of Structure: | 9,810 |

Type of Comfort System(s):

- * Boiler
- * Chiller
- * Pumps
- * Fume hood exhaust(s) acid resistant ducting
- * Complex Steffa control systems

ITN ENERGY

Project Address: 8130 Shaffer Parkway, Jefferson County, Colorado

General Contractor: ROUPP Construction

Project Architect: INTERGROUP Architects

Project Engineer: BELFAY Engineering



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Project Evaluation:

Private Information

Square Footage of Structure:

18,521

Type of Comfort System(s):

- * 30 Gas/Electric RTU's Totaling 127.5 tons with related supply & return ducting
- * 4 Make up Air Systems Totaling 1.025.000 BTUH with related ducting and interlocks
- * 10 exhaust systems, consisting of fume hoods, Heresite coated fans, PVC coated ducting, Toilet exhaust systems, pump room exhaust, numerous custom hoods, etc...
- * Reinstallation of owner's ventilation for the composite router shop.
- * Installation of owner's hepa filter / fan units.
- * Installation of owner's duct collection system
- * Gas piping from the loads to 6 separate meters.

OEA, Inc.

Rogers and Sons, Inc. was sought out by this owner due to our reputation for providing design-build capabilities for unusual and difficult projects. The need was to provide a cooling system for a new production line of complex Laser Cutters and Welders. The problem was that the load could vary from 1.5 tons of cooling to 50 tons of cooling. This in itself was not all that unusual, but the pressures that could be developed at these low flows of liquid would be very high for normal hydronic pumping and piping. We solved the low flow challenge by using a storage system that would negate the chiller cycling. The high pressure circulation challenge was met by careful selection of flow-setter valves, pipe, isolation valves and fittings. The pumping challenge was addressed by utilizing a specially selected group of Grundfos pumps with internal relief devices. The satisfaction for OEA and Rogers and Sons, Inc. worked to perfection without unnecessary "tweaking" and adjustments. This reflects as much on the owner as the design-build contractor. For without accurate researching of the new production line and providing Rogers & Sons, Inc. with the correct and accurate equipment loads this level of perfection cannot be achieved.

Project Address: **34501 E. Quincy Aurora, CO 80015**



Design-Build-Contractor

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Project Evaluation:

Private Information

Square Footage of Structure:

Type of Comfort System(s):

- | | |
|---|--|
| * Evaporative Chille(s) & Condensing Units | * Chilled Water Piping |
| * Storage Tanks | * Refrigeration & Chilled Piping Insulation |
| * Expansion Tanks & Air Purgers | * Temperature Controls |
| * Primary & Secondary Pumps | * Glycol Anti-Freeze Protection |
| * By-Passes For Lazer Welders | * Hydronic Testing & Balancing |
| * Refrigeration Piping | |