

**Fixed operational and safety issues in laboratory air system.**

**Situation**

The Chemistry and Life Science Building airflow systems were energy inefficient and becoming less safe: 15 out of 34 fume hoods failed the certification test. This older equipment also lacked basic containment alarms.


In addition to safety concerns, the lab spaces were loud, uncomfortable, and very expensive to operate.

**Scope Detail**

Installation included:

- Installed VAV controls to CAV fume hoods
- Replaced existing VAV fume hood controls
- Replaced fast acting exhaust valve actuators, mono blade dampers, & room pressure controllers
- Installed new fresh air bleed dampers and controllers
- Installed Automatic Sash closers
- Sealed lab room envelope to improve pressure control
- Re-balanced the exhaust fans and static pressure control to decrease the noise level
- Certified fume hood safety & energy efficiency

**CSU - Pueblo**



**Industry:** Higher Education

**Location:** Pueblo, CO

**Annual Savings:** \$66,403

**Simple Payback:** 6.4 years

**Energy Savings:** 379,498 kWh/yr  
59,277 Therms/yr

**Solution Overview**

Turnkey retrofit of 39 Chemical Fume Hoods with new VAV controls and Auto Sashes.  
Converted 3 Labs from CAV to VAV.



***"Our campus customers welcome the fume hoods upgrade. We appreciate how well your team provided customer service while delivering on-time and on-budget"***

ESCO Engineering Manager\*

\* Reference available upon request

TEL provides laboratory and kitchen solutions that deliver a safer workplace environment, increased energy efficiency, and improved operational performance.

TEL is a world leading manufacturer of laboratory airflow controls and monitors. In North American, TEL also provides engineered turn-key retrofits, retro-commissioning, and other products for new and existing laboratories. For more information, please visit [www.tel-americas.com](http://www.tel-americas.com), or call us at 920.267.6111.