Consolidated

a Baker Hughes business

Consolidated[™] EVT[™] PRO 2.0

Electronic Valve Tester



Helping You Comply With Global Safety Standards

Protection from Harmful Chemical Releases

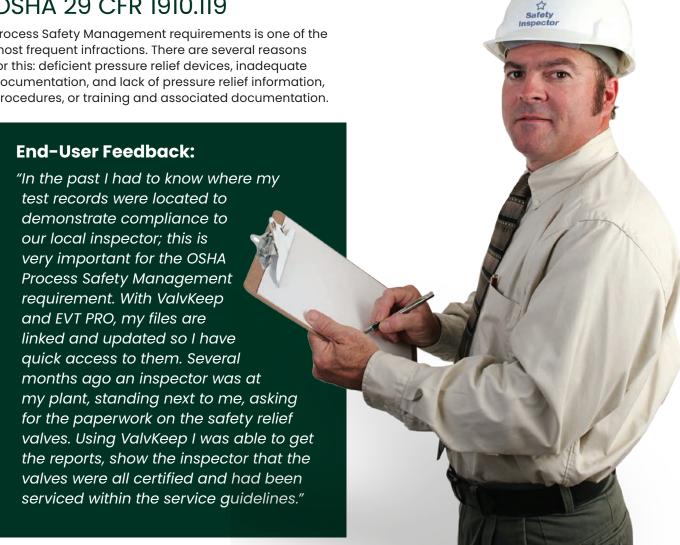
Global Safety Standards like OSHA's Process Safety Management (PSM) standard was published to help minimize the consequences associated from a catastrophic release of toxic, reactive, flammable, or highly explosive hazardous chemicals. This standard covers several areas, specifically relief and vent systems and devices. It requires that written procedures, inspection and testing, [and] appropriate job skills be deployed, [and that] records and management of change be in place. Failure to do these things may result in severe consequences.

The Compliance Solution

By integrating with Baker Hughes' ValvKeep™ and EVT PRO 2.0 lets you effectively manage the OSHA requirements. Since you can use the device to test any brand of pressure relief device, you don't need to manage multiple test suppliers. EVT PRO 2.0 and ValvKeep put all your documents in order, so test reports, procedures and other related documents are always available to meet compliance requirements. You are better prepared for audits and lessen the odds of receiving citations and penalties. EVT PRO 2.0's inplace functionality lets you keep plant operations going while it tests your valves.

Failure to comply with OSHA 29 CFR 1910.119

Process Safety Management requirements is one of the most frequent infractions. There are several reasons for this: deficient pressure relief devices, inadequate documentation, and lack of pressure relief information, procedures, or training and associated documentation.



Technologically Advanced Testing

Exact Set Pressure Measurement

Baker Hughes EVT PRO true in-place valve testing enables you to meet local safety requirements for periodic testing and documentation without shutting down processes or dismantling or removing valves from service. You get the true "hot set pressure" of the valve, since it is tested under actual operating conditions.

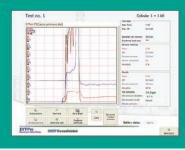
The EVT PRO device simultaneously examines two critical variables of the relief device—the upward force applied to the spindle and the actual system pressure. Using sophisticated sensors, including an acoustic device, EVT PRO testing accurately determines the pressure relief valve's set pressure. It can also immediately sense and automatically

close a relief device should it remain open during a test—a unique safety feature built into the software and hardware.

Along with its rugged yet lightweight test fixture, EVT PRO has state-of-the-art electronics and proprietary software, including an interface to ValvKeep valve maintenance and management software. You can view test results in both tabular form and colorful graphs that depict the exact set pressure, and historical data and tests are readily available 24/7 with ValvKeep software's database capabilities.

Exact Set Pressure Measurement

- Colorful and clear graphics assist the end user in seeing exact set pressures for the valve in test.
- Unique acoustic sensor feature provides confirmation of set pressure on force curves delivering confidence in each test.





Feature	Benefit
Inline Testing	Helps to Maximize Plant Uptime
Pre-Planning Outages	ID Problem Valves for Rapid Turnarounds
Portable and Lightweight	Can be Placed in Virtually Any Location in Any Plant Quickly and Easily
User Defined Report Ability	Get the Report You Need
Industrial Computer	Can be Taken Just About Anywhere in the Plant No Matter the Conditions
Bench Testing	Shop Testing for New and Repaired Valves
Auto Shutdown Safety Feature	Superb Safety Feature Allows for Closure of Valve Under Full-Lift circumstances
Interface to ValvKeep Software	Comprehensive Asset Management Tool Exclusive to Baker Hughes GTC's
Acoustic Indicator Device	Sensor Takes Guess Work out of Determining Set Pressure
ATEX/UL Certified	Intrinsic Safety Certified; Available on Certain Models
Test Gas, Liquid and Steam	Capable of Testing all Media
NBBI Accepted (Part 3, para 4.5.3)	National Board Compliance
ASME-Qualified	Meets ASME BPVC Requirements

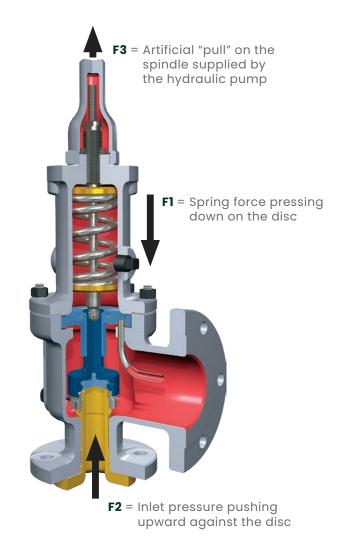
How EVT PRO Works

Force Balance Analysis: F3 + F2 = F1

Normally, with the pressure relief valve online, the much stronger force of its spring—F1—is all that is required to prevent system inlet pressure—F2—from forcing the valve open. However, should F2 increase beyond the operational limit of the system, the valve will first simmer and then discharge.

To prevent the valve from discharging during the EVT PRO test, the Baker Hughes-trained service technician introduces just enough pull on the spindle—F3—to balance the force of the spring. This causes the disc to only crack open or simmer.

At this point the GTC Technician can read the set pressure from the graphic display of the EVT PRO and determine if it is set properly.



EVT PRO and ValvKeep

Wide Scope of Documentation

Record keeping is important to providing proof of your efforts to comply with Global Safety Standards, OSHA included. The scope of documentation is wide, and the more accurately records are maintained, the better it is for audits. Using EVT PRO electronic diagnostics and ValvKeep software will lessen the stress of a Safety Inspection inspection and reduce the odds of receiving citations and penalties. As one well known safety organization, OSHA states, "OSHA's primary goal is correcting hazards and maintaining compliance, rather than issuing citations or collecting penalties."



EVT PRO 2.0 Technology

Some of the technology in the new EVT PRO 2.0 is a new time saving and patent pending claw clamp with microcontrolled fixture for quick connection to valves, a super-charged battery system for longer testing times, and advanced proprietary software for testing Baker Hughes valves and competitors.







Exclusively Available Through Your Local GTC

More than 125 Years of Expertise

Consolidated pressure and safety relief valves have been available for more than 125 years. The EVT PRO 2.0 diagnostic tool is the most technologically advanced Consolidated field test device ever. EVT PRO testing meets high standards for quality and accuracy.

Consolidated's Green Tag Center (GTC) network is the only place you can access the advanced EVT PRO 2.0 testing technology. It tests any brand or type of safety or pressure relief valve you have thereby saving you time in coordinating testing suppliers. Make one call to your neighboring GTC and your headaches will be solved. Your local GTC has the EVT PRO electronic diagnostics, ValvKeep valve management software and factory-trained and certified technicians to meet your testing and compliance needs.

Green Tag Center Network



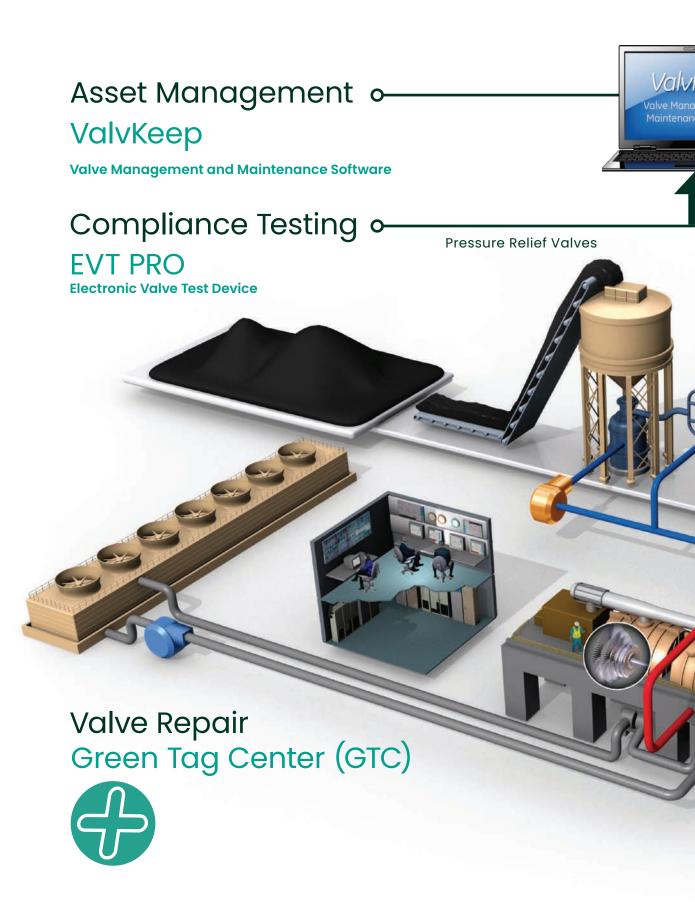
Our GTC Network Consists of More Than 80 Facilities Located in More Than 30 Countries Worldwide





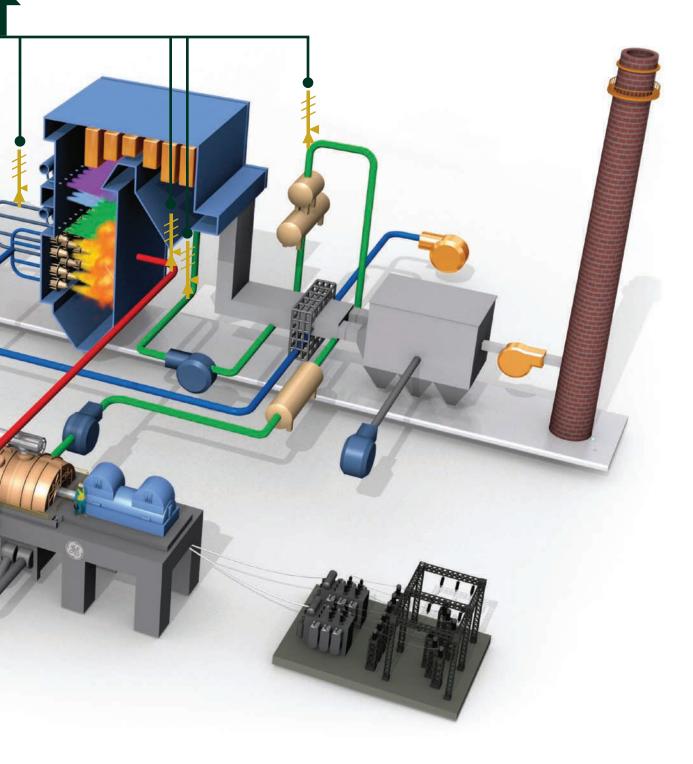


Integrated Performance Solution



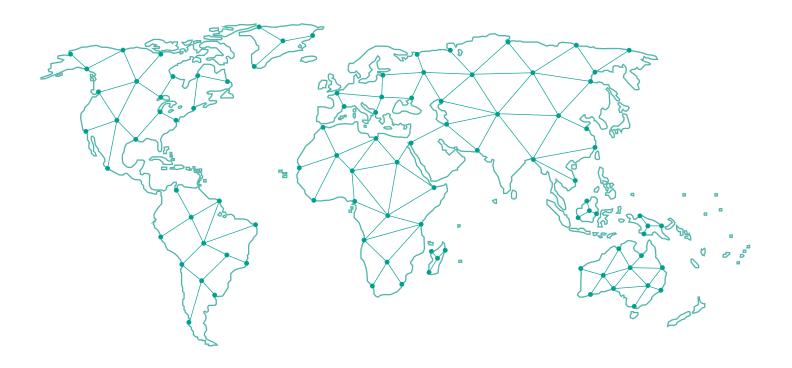


Coal-Fired Power Plant



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