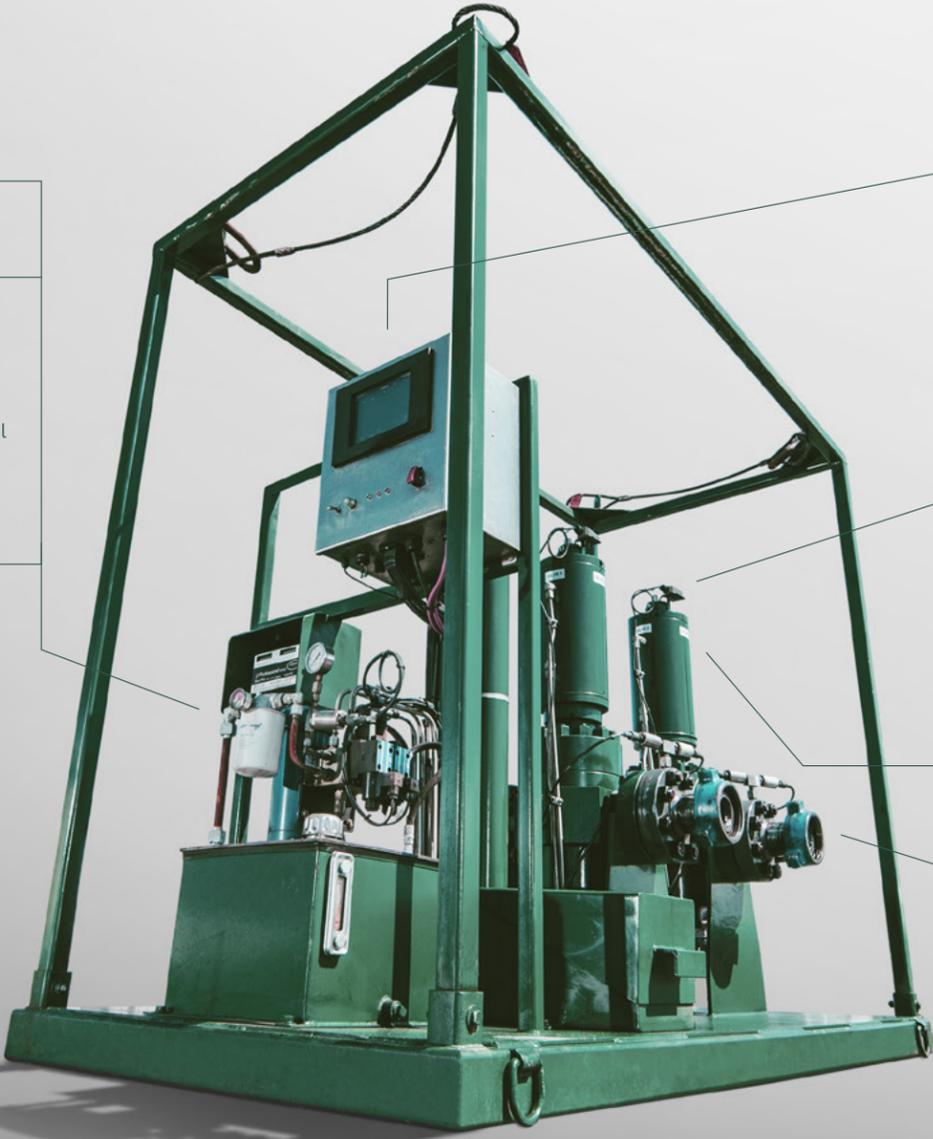


# KLX<sup>®</sup> FRAC RELIEF VALVE SYSTEM

ENGINEERED PRODUCT

**PRE-FIELD TESTING CAPABILITY**

Unlike conventional pop-off valves, the KLX Frac Relief Valve System can be tested prior to each stage of hydraulic fracturing operations in the field—enabling you to lessen the typical risk of valve failure and subsequent work to casing strings. All without recertification or replacement.



**DIGITAL CONTROLS**

The unit's digital controls and robust operating platform enable real-time data capture and analysis during frac operations, as well as programmable setting of pressure engagement parameters. Frac data can be reviewed or documented onsite, or after the job, and shared with other project stakeholders. Few other systems bring this level of intelligence to frac operations.

**FAST PRESSURE DUMP**

The system was designed to offer ZERO reduction of the unit's inside diameter running from the 1502 iron to the primary relief valve itself. This means that the system's pressure dump is almost instantaneous once it reaches the unit's pre-programmed parameters. Pressure release takes less than a quarter of a second.

**FULL AUTOMATION**

The KLX Frac Relief Valve System automatically opens and closes based on its pre-programmed settings—engaging at the pre-set ceiling range and closing upon reaching its pre-set low-pressure value, so fracturing can continue without delay. That means total protection of your well and frac iron with less expense, hassle and risk.

**BACK-UP**

The system was designed to eliminate the possibility of catastrophic pressure buildup during normal operation. It comes equipped with a secondary back-up valve that can be engaged to ensure zero downtime.

## GIVE HYDRAULIC FRACTURING OPERATIONS NEXT LEVEL EFFICIENCY, WHILE MAXIMIZING SAFETY, WITH THIS AUTOMATED ALTERNATIVE TO CONVENTIONAL POP-OFF VALVES.

The KLX Frac Relief Valve System helps reduce Non-Productive Time (NPT) by automatically releasing excess pressure in frac iron at pre-set levels—protecting the crew and wellbore then resetting itself again for immediate service.

Standard pop-off valves protect the crew, wellbore and reservoir. But their analog nature makes them inaccurate and inefficient—they can't be tested or monitored, risking the need for casing replacement. And they must be reset and re-certified via a full teardown after engagement (or thrown away) per the NACE MR-01-75 requirement.

Fully automated and digital, the KLX Frac Relief Valve System automatically engages at programmable pre-set levels which can be manually adjusted as needed—and then automatically resets again without the need for manual reset, replacement or re-certification.

It brings intelligence to a new part of the frac job—enabling digital control, real-time data capture during the operation and pressure relief settings that can be adjusted on the fly.

The unit brings more user confidence because the system can be tested multiple times during a job to give trip pressure accuracy. With a 15,000 psi pressure rating, fail-open design and a backup valve, your well—and your project schedule—will always stay protected. The unit runs on industry tested software, optimizing the review, analysis and communication of mission critical operating data. So don't settle for the old fashioned risk and delay of your everyday pop-off valve. Take pressure control to the next level with KLX Energy Services.

# DEDICATED R&D FOR TODAY'S OILFIELD

INVESTING IN MULTIPLE DEDICATED RESEARCH AND DEVELOPMENT FACILITIES, KLX ENERGY SERVICES IS COMMITTED TO ENGINEERING NEW INNOVATIONS THAT HELP OPERATORS RUN MORE EFFICIENTLY.

KLX Energy Services maintains three dedicated research and development locations nationwide. These facilities are each focused on a specific line of product development: downhole production service enhancement, technical services support and frac valve innovations. They're located in Lafayette, Louisiana; Denver, Colorado; and Powell, Wyoming.

Many oilfield service processes haven't changed much in the last 50 years. At KLX Energy Services, we're re-examining the way everyday operations are performed across the lifecycle of a well—looking for new value-added technology.

Our experienced field engineers understand what needs to happen in the field, and can approach new innovations with an eye for practical, real-world perspective. The real key to KLX Energy Services' most value-added field innovations is our customers. We listen carefully to the needs of operators in the field, and their various

challenges in eliminating avoidable NPT across every phase of the well's operation. As a result, we can arm our crews with exclusive, proprietary tools and technology not available through any other oilfield service partner. From new levels of pressure control automation to downhole tools that help better manage operational risk, we're dedicated to pushing what's possible in oilfield service efficiency. Market downturns don't affect our commitment to developing these new innovations. In fact, leaner times are when the industry most needs every operational and financial advantage possible.

# NEXT LEVEL READINESS



## ABOUT KLX ENERGY SERVICES

KLX Energy Services provides advanced operations support across the well's lifecycle, from site development and collaborative engineering to completion and production support. With proprietary tools, experienced crews and strategic locations in every basin—leading operators nationwide put KLX Energy Services on-site for everyday support that streamlines operations and maximizes production.

ADVANCED  
ENGINEERING AND  
DESIGN SUPPORT

SPECIALIZED  
FIELD  
EXPERTISE

ENGINEERED  
TOOLS AND  
TECHNOLOGIES

PRODUCTS /  
SERVICES FOR  
EVERY WELL PHASE

STRATEGIC  
LOCATIONS NEAR  
YOUR PROJECT

FOR MORE ON THE KLX® FRAC RELIEF VALVE SYSTEM, OR OTHER  
ENGINEERED PRODUCTS, VISIT [KLXENERGY.COM](http://KLXENERGY.COM) OR CALL 832.844.1015.



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