DIVELCO

La solution à votre mesure

/ Calibration

Ralston Instruments

Pressure Calibration Specialists

Connect Create Control Calibrate

MADE IN THE USA SINCE 1969

Visit **ralstoninst.com**

Made in the USA – The Ralston Way

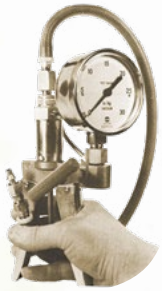
When precise, reliable pressure calibration is essential, trust Ralston Instruments. For over 39 years, we've engineered pressure calibration equipment and systems to serve a wide range of applications, saving time and taking the guesswork out of critical pressure testing, maintenance and repair functions.

Founded in 1969 by Doug Ralston, today Ralston Instruments continues to be a family owned company with a proud history of innovation. Responding to the demand for convenient, accurate ways to monitor and calibrate pressure in industries around the globe, Ralston invented the first hand held pneumatic pump in 1969, followed by the development of the first hydraulic hand pump in 1970.

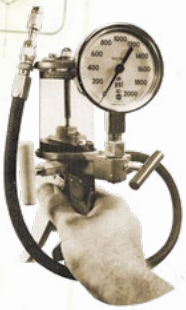
That passion for advancing pressure calibration components remains undiminished. In 1993, RI launched the first fully integrated system of Ralston Quick-test™ hoses and adapters. Designed for low volume, high pressure connections to virtually any device being tested, this unique design offers secure, time-saving connections without using a wrench or thread sealant. Ralston's integrated calibration pressure sources are the ultimate solution for performing differential or static pressure calibrations using nitrogen or compressed gas.

All Ralston products are made in the USA using superior design and manufacturing techniques. These products include hand pumps, compressed gas control devices, hoses, adapters and complete calibration kits.

When the job requires hand pumps that deliver pressure, hoses and adapters for fast, fail-safe connections, or precision calibration tools, Ralston Instruments provides the most exacting pressure control, even in remote locations.



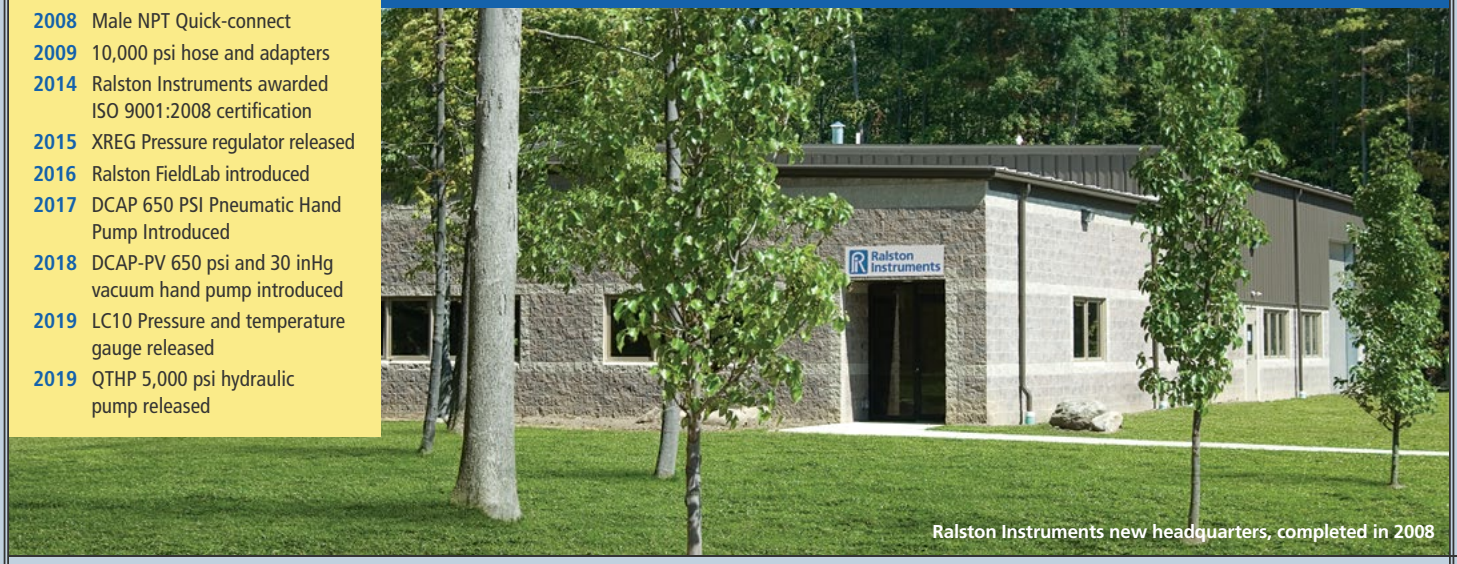
1969
First Pneumatic Hand Pump



1970
First Hydraulic Hand Pump

Ralston Milestones

- **1969** First Pneumatic Hand Pump
- **1970** First Hydraulic Hand Pump
- **1987** First Calibration Manifold
- **1993** First complete system of Ralston Quick-test™ hoses
- **2001** Pressure/Vacuum Hand Pump
- **2003** NitroPak
- **2006** Volume Controller
- **2008** Male NPT Quick-connect
- **2009** 10,000 psi hose and adapters
- **2014** Ralston Instruments awarded ISO 9001:2008 certification
- **2015** XREG Pressure regulator released
- **2016** Ralston FieldLab introduced
- **2017** DCAP 650 PSI Pneumatic Hand Pump Introduced
- **2018** DCAP-PV 650 psi and 30 inHg vacuum hand pump introduced
- **2019** LC10 Pressure and temperature gauge released
- **2019** QTHP 5,000 psi hydraulic pump released



Ralston Instruments new headquarters, completed in 2008

Our Approach to Pressure Calibration

Connect

We're your single source for all the adapters and hoses you'll ever need to perform easy, accurate calibrations in the field. Our Ralston Quick-test™ adapters set the industry standard for fast, leak-free connections to almost any pressure instrument, without tools or thread tape. For connections you can count on – count on Ralston.

Ralston Quick-test™ hose

Create

Whether you are calibrating low pressure differential transmitters, or static transmitters up to 5,000 psi, our extensive range of hand pumps features heavy-duty construction for field-tested reliability. Dual pressure ports eliminate the need to carry extra tees, hoses and fittings. Versatile and efficient, Ralston hand pumps let you create the pressure you need, wherever you need it.

Hydraulic hand pump

Control

When precision is important, one of our nitrogen calibration manifolds, volume controllers or nitrogen calibration sources is the answer. Using nitrogen or other compressed gas, these instruments deliver highly stable pressure control from 0.001 – 3,000 psi. From a single manifold to control a specific process, to an all-inclusive calibration kit, we engineer solutions to help you perform both differential and static pressure calibrations.

Portable calibration nitrogen source

Calibrate

Ralston offers complete calibration kits featuring everything you need for fast, fool-proof calibrations – from hand pumps or calibration manifolds, to our perfectly matched FieldLab Calibrators and Ralston Field Gauges, hoses, and adapters. Our field-tested configurations ensure reliable results regardless of the application.

Portable calibration volume controller

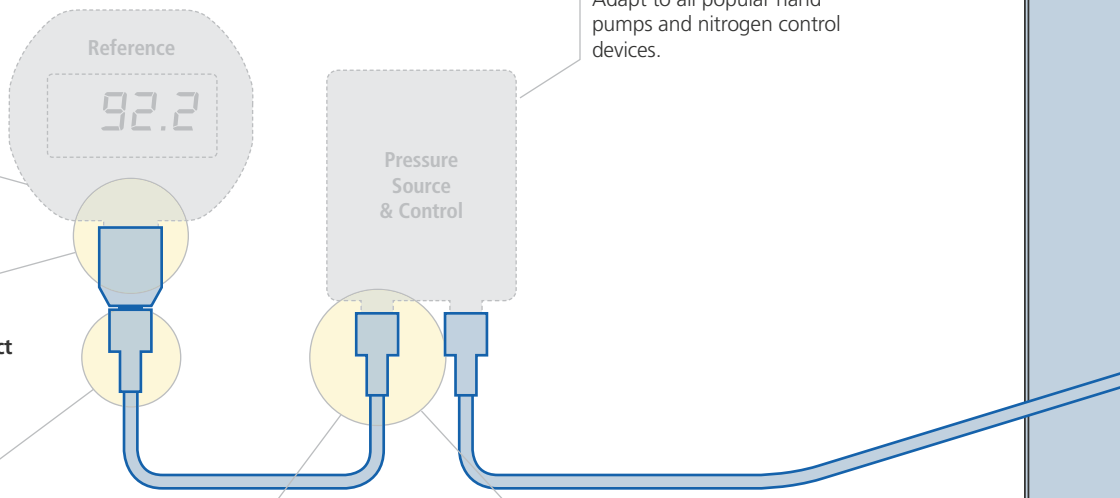
It starts with the Connection...

Ralston Quick-test™ system allows for a faster workflow when connecting and reconnecting to all standard process connections.

The most precise, economical and efficient calibrations start with the best connections. Only Ralston Instruments offers Ralston Quick-test™ fittings and hoses that attach and detach without a wrench or thread sealant, saving valuable time and reducing the need to stock multiple hoses or adapters. Equally important, all Quick-test fittings make leak-tight connections you can count on. The O-ring inside each fitting forms a secure seal capable of sustaining high pressure. Ralston Quick-test™ hoses are extremely lightweight and flexible yet have a working pressure of 6,900 psi (475 bar) and are engineered to perform in harsh environments.

Reference Connections
Connect to a pressure calibrator, pressure module or gauge directly or with a hose.

Female Quick-connect Gauge adapters
Connect to a gauge without a wrench or thread sealant.



Pressure Source & Control
Adapt to all popular hand pumps and nitrogen control devices.

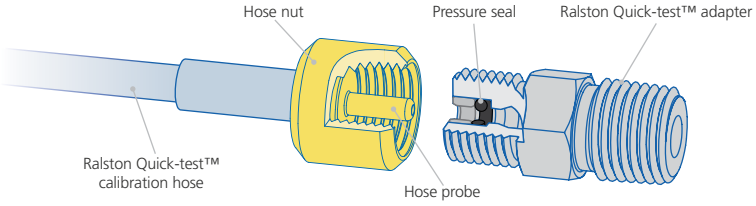
Ralston Quick-test™ Hose End
Connect to any Quick-test adapter.
(available in brass and stainless steel)

Male NPT Hose End
Connect to a different style Quick-connect or when connecting two pieces of equipment together permanently.

Tube Stub Hose End
Connect to any tube fitting or quick-connect but keep the benefits of the flexible, low volume Ralston hose.
(available in brass and stainless steel)

Leak Free Connections — Every Time
Ralston Quick-test™ connections use an integrated o-ring pressure seal for quick, leak-free connections every time — without the need for thread tape or a wrench!

How the Quick-test™ System works

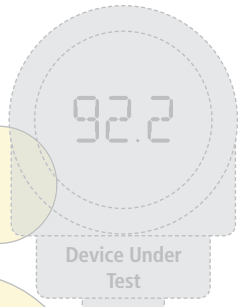


It couldn't be easier. Ralston Quick-test™ connections make thread sealant a thing of the past. All of our hoses adapt easily to tube fittings, NPT, BSPP and BSPT threads, pressure gauges, pressure transmitters and pressure calibrators. We have adapters for virtually any process connection.

Transmitter Adapters
Connect directly to a Rosemount®, Honeywell, ABB®, Yokogawa® or equivalent transmitter using the bleeder port.

Ralston Quick-test™ Adapters and Fittings
Install Quick-test adapters in all standard threads for quick hose connections. Use cap and chain models for permanent installation and leave capped when not in use.

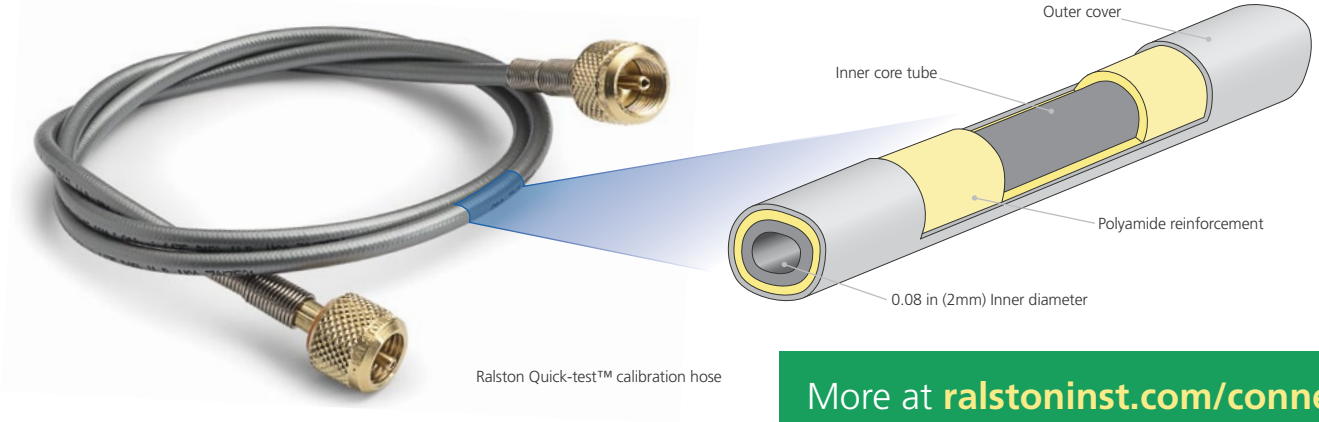
Valves & Verniers
Install a valve with an integrated Ralston Quick-test™ port on any process that needs quick access for calibration.



Male Quick-connect
Connect a Ralston Quick-test™ hose to a female NPT port without using a wrench or thread sealant.

Tube Fittings
Connect to Swagelok®, Parker®, SSP® or equivalent tube fittings without a wrench. The fitting seals with an o-ring instead.

Low volume, high pressure hoses
The small inner diameter and low volume of Ralston Quick-test™ hoses make this hose ideal for transmitting high pressure while consuming very little compressed gas or fluid. Whether pressure is created hydraulically or pneumatically, less media is needed to generate and sustain the pressure required. This design makes calibrations faster and easier to complete while delivering precise results.



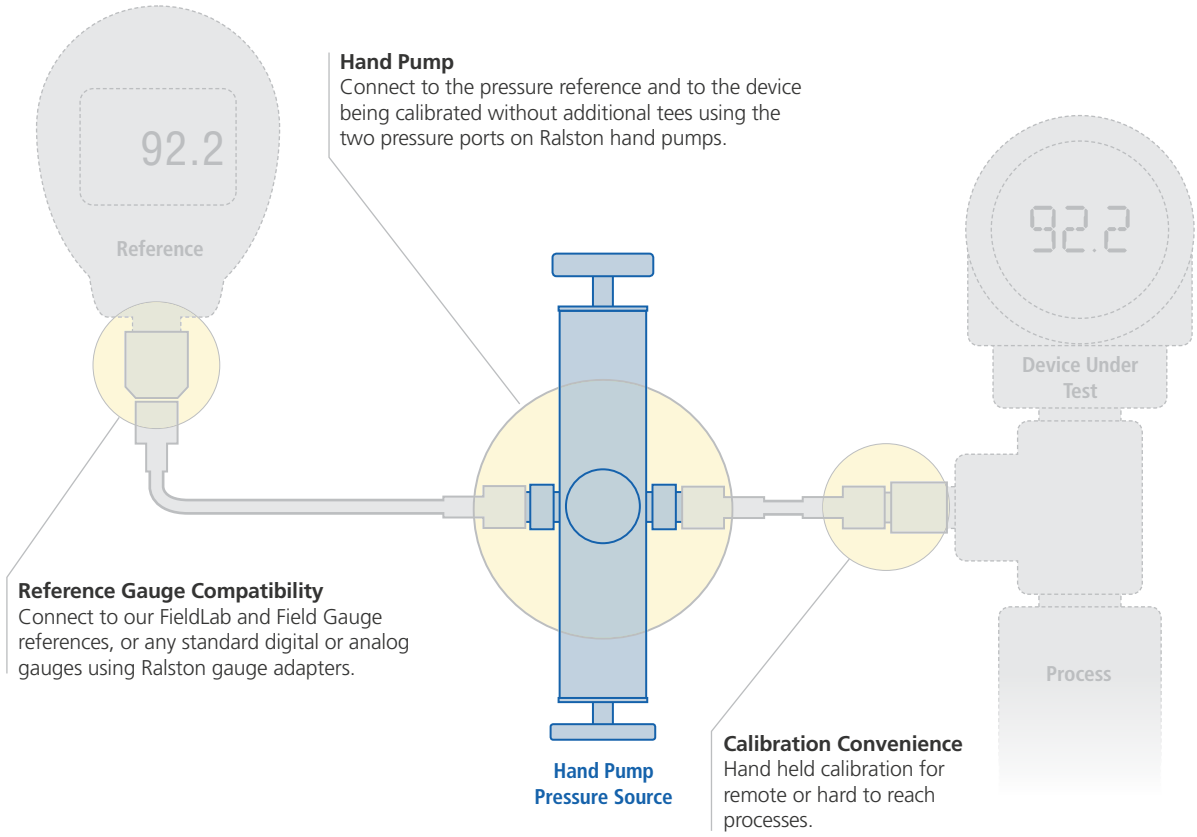
Ralston Quick-test™ calibration hose

More at **ralstoninst.com/connect**

Create the kind of pressure you need – whenever you need it.

Ralston offers the most comprehensive selection of hand pumps on the market.

Made in the U.S.A. and constructed of high quality parts, our hand pumps offer years of reliable performance even in the toughest field conditions. Ralston hand pumps feature two pressure ports, making it easy to connect to the pressure reference and to the device being calibrated without needing additional tees. The advanced design lets you change gauges, connect to one of Ralston Quick-test™ hose adapters or switch to a different process connection, all without using a wrench!



Hand Pump
Connect to the pressure reference and to the device being calibrated without additional tees using the two pressure ports on Ralston hand pumps.

Reference Gauge Compatibility
Connect to our FieldLab and Field Gauge references, or any standard digital or analog gauges using Ralston gauge adapters.

Hand Pump Pressure Source

Calibration Convenience
Hand held calibration for remote or hard to reach processes.

Creating the pressure you need - for any application

Vacuum
0 to 30 inHg Vac
(0 to 100 kPa Vac)

Media Air
Models DPPV, DCAP-PV

Example Applications
» Vacuum gauge calibration
» Vacuum switch testing

Low Pressure
0 to 125 psi
(0 to 860 kPa)

Media Air
Models DP0V, DPPV

Example Applications
» Differential pressure transmitter calibration
» Leak testing

Medium Pressure
125 psi to 650 psi
(860 kPa to 4.5 MPa)

Media Air
Models DCAP, DCAP-PV

Example Applications
» Relief valve testing
» Pressure gauge calibration

High Pressure
650 to 10,000 psi
(4.5 to 70 MPa)

Media Hydraulic fluid, water
Models QTHP, XTHP

Example Applications
» Pressure regulator adjustment
» Safety relief valve testing
» Hydrostatic testing

Pneumatic, hydraulic, or vacuum - Ralston is your best source for a full range of portable, dependable hand pumps. Comfortable scissor grips and fine adjustment pistons provide excellent pressure control across a wide spectrum of applications.

Ralston Hand Pump Features and Benefits

Powerful
Lightweight, portable, handheld pressure up to 5,000 psi

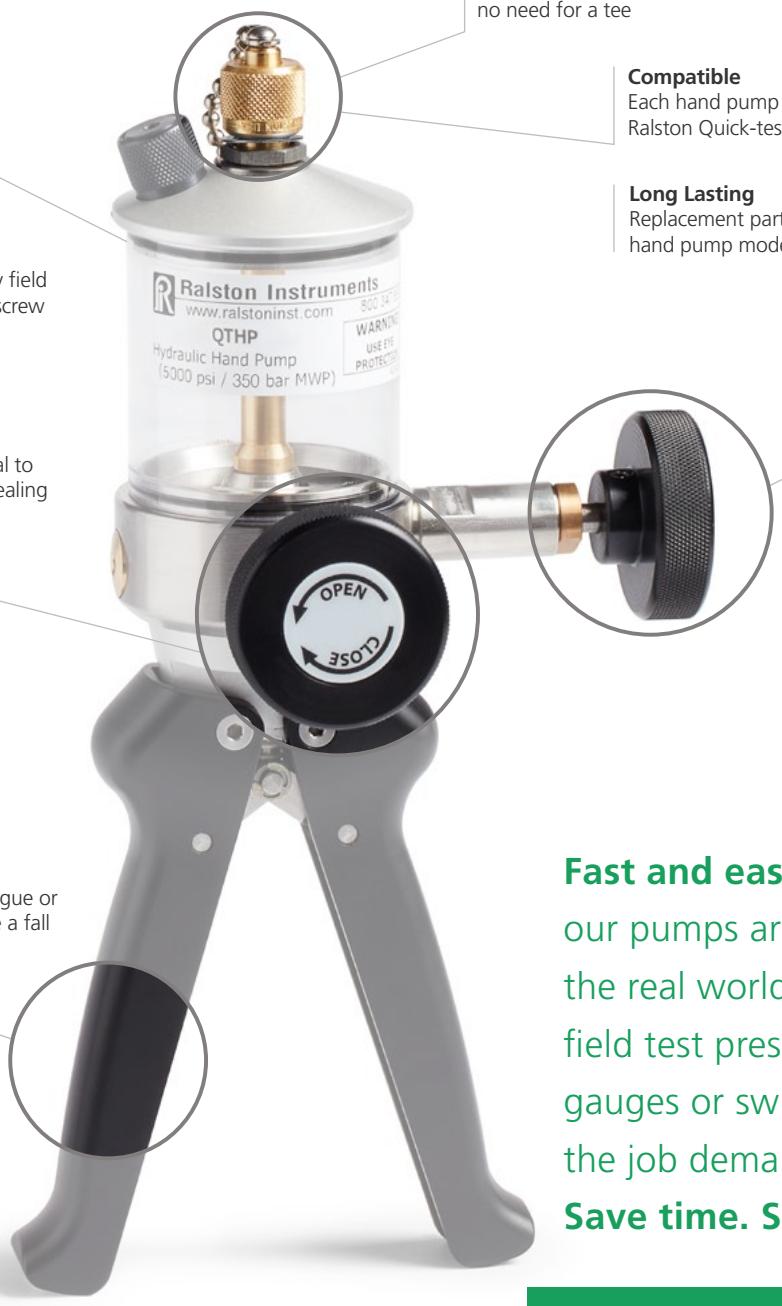
Flexible
Two pressure ports means no need for a tee

Compatible
Each hand pump is compatible with all Ralston Quick-test™ hoses and adapters

Long Lasting
Replacement parts and kits for all our hand pump models

Convenient
Simple design allows easy field maintenance with just a screw driver and a wrench

Precise
Make precise adjustments of pressure with bronze bearing for smooth control of pressure, even at high pressure



Control
Bleed/vent valve has metal to metal seat for excellent sealing at any pressure

Rugged
Metal handles do not fatigue or wear out, and will survive a fall

Fast and easy to operate, our pumps are engineered for the real world. It's simple to field test pressure transmitters, gauges or switches anywhere the job demands.

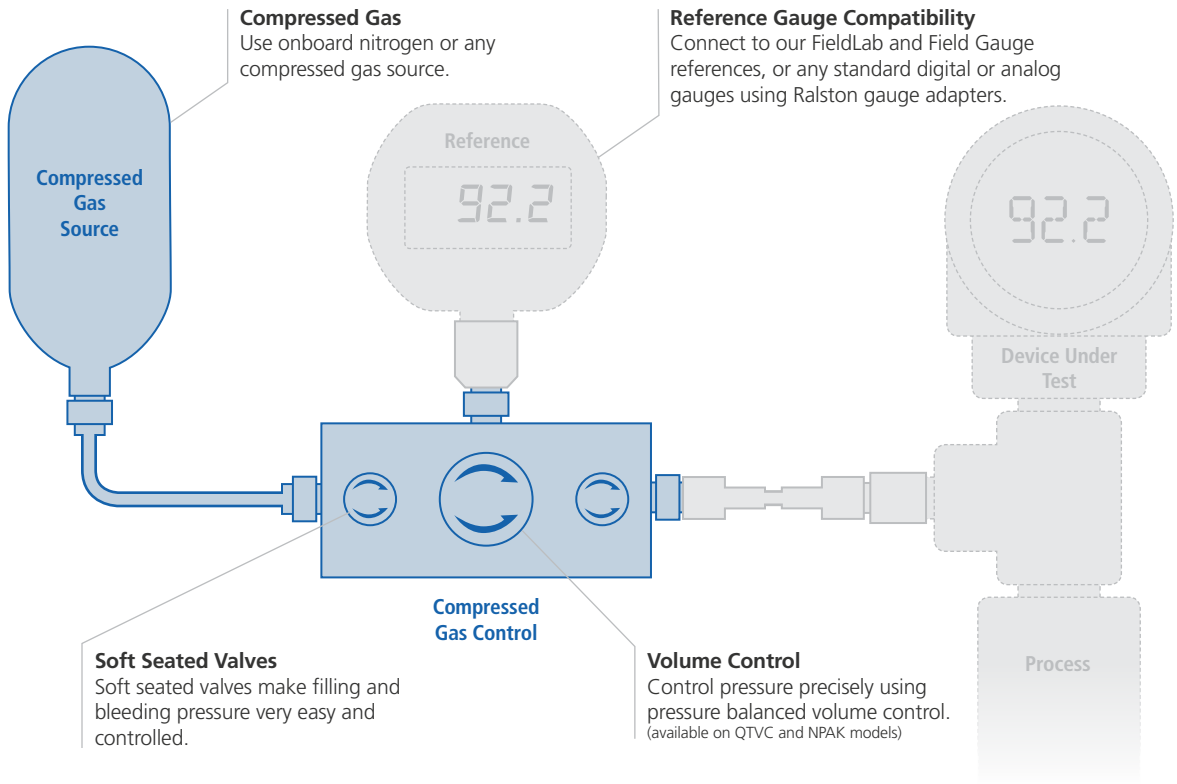
Save time. Save money.

More at **ralstoninst.com/create**

Control compressed gas precisely

In the shop or in the field, precision counts. Ralston Instruments offers more ways to control compressed gas than anyone in the industry. Intelligent engineering lets you connect any of our calibration manifolds, volume controllers or nitrogen sources quickly and reliably to your pressure reference and to the device being tested.

It's the smart approach to calibration



Controlling compressed gas for precise calibration at any pressure level

Vacuum

0 to 30 inHg Vac
(0 to 100 kPa Vac)

Media Vacuum
(supplied from vacuum pump)
Models QTVC

Example Applications
» Vacuum gauge calibration
» Absolute pressure measurement

Low Pressure

0 to 125 psi
(0 to 860 kPa)

Media Compressed gas
Models QTVC, NPAK

Example Applications
» Calibrating pressure gauges
» Pressure transmitter calibration

Medium Pressure

125 psi to 3,000 psi
(860 kPa to 20 MPa)

Media Compressed gas
Models QTCM, QTVC, NPAK

Example Applications
» Static pressure transmitter calibration
» Pressure gauge calibration

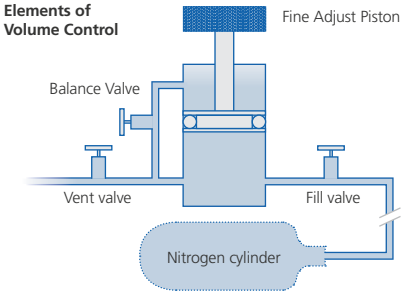
High Pressure

3,000 to 5,000 psi
(20 to 35 Mpa)

Media Compressed Gas
Models QSCM

Example Applications
» Safety relief valve testing
» Burst disc testing
» Pressure gauge calibration

Benefits of Volume Control over Pressure Regulation



A traditional pressure regulator and needle valves work by filling and bleeding the pressure which wastes a great deal of compressed gas. Because pressure regulators are designed to work with flowing gas or liquid they work very poorly when there is no flow. **A compressed gas control device actually changes the volume of a closed system to control the pressure.** This approach makes it more accurate and easier to use. The pressure balanced design of the QTVC and NPAK models provide higher precision due to smoother operation and larger piston diameter.

Fine Control Over Compressed Gas

QTCM
Calibration Manifold

QSCM
Calibration Manifold

Regardless of the process being controlled, Ralston Instruments makes a compressed gas control device to serve the purpose. Made in America using the highest grade parts, our manifolds are the most economical way of performing static pressure calibrations in the shop or in the field. Select a single manifold or opt for the convenience of a fully integrated calibration kit – either way, our units adapt to your needs.

Precision and Stability at Any Pressure with a Volume Controller

QTVC
Volume Controller

For the ultimate in accuracy with a wide pressure range, Ralston Volume Controllers provide highly stable pressure control from vacuum to 3,000 psi. Coupled with nitrogen or other compressed gas to control pressure, our Volume Controllers regulate pressure precisely without time consuming pumping. Ralston Volume Controllers are the next generation of calibration instruments.

Integrated Pressure Source and Volume Controller

NPAK
Nitrogen Calibration Source

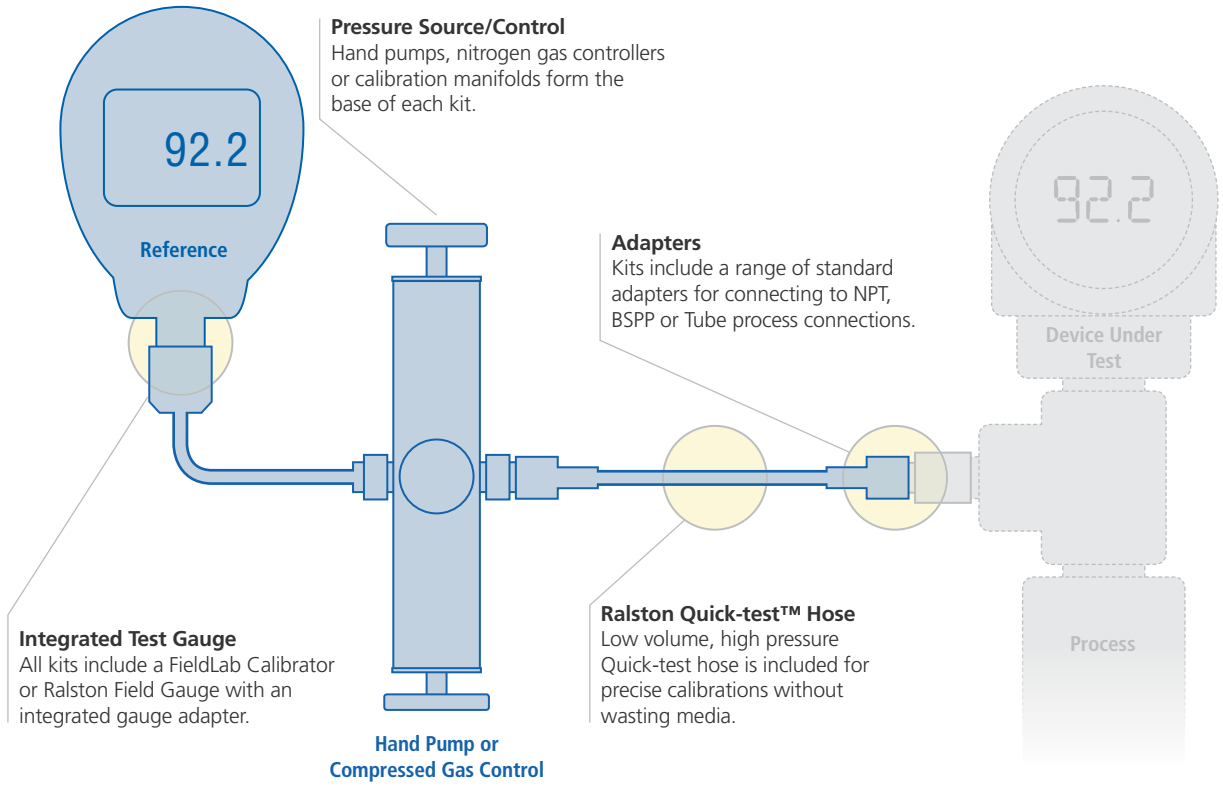
When you need to perform pressure calibration in remote locations, a Ralston Nitropak is your best option. This fully integrated calibration kit contains everything you need – from a compressed gas cylinder, pressure regulator, hoses, adapters all contained in an extremely rugged carrying case with rigid foam that keeps instruments securely in place. Set up takes seconds and precise pressure control is easy to achieve despite difficult or remote working conditions.

More at **ralstoninst.com/control**

Calibrate with confidence

Ralston gives you everything you need for virtually any calibration process with one of our fully integrated Calibration Kits. No more guess work, no more searching for the right adapters, no more carrying multiple gauges. The right Ralston kit puts it all together for you.

Whether your application calls for pneumatic pressure, hydraulic pressure, compressed gas or requires a volume controller, we'll make sure your instruments are perfectly matched. From hand pumps and manifolds to the correct reference gauge, with every hose and adapter for seamless connectivity, your kit features proven configurations.



Be prepared with the right combination of components for any calibration

Vacuum

0 to 30 inHg Vac
(0 to 100 kPa Vac)

Media Air
Models DPPV and DCAP-PV

Example Applications
- » Pressure and vacuum calibration with 1 unit
- » Clean room pressure transmitter calibration

Low Pressure

0 to 125 psi
(0 to 860 kPa)

Media Air
Models DP0V and DPPV

Example Applications
- » Differential pressure transmitter calibration
- » Leak testing

Medium Pressure

125 psi to 650 psi
(860 kPa to 4.5 MPa)

Media Air
Models DCAP and DCAP-PV

Example Applications
- » Safety relief valve testing
- » Pressure regulator adjustment

High Pressure

650 to 10,000 psi
(4.5 to 70 MPa)

Media Hydraulic fluid, Compressed gas, Water
Models QTHP, XTHP, QTCM, QSCM, QTVC, NPAK

Example Applications
- » Pressure gauge calibration
- » Burst disc testing
- » Static pressure transmitter calibration

Ralston has your solution with our pre-packaged calibration kits available with a choice of either a Ralston Field Gauge digital pressure gauge or a Ralston FieldLab Digital Pressure Calibrator. Our test gauges have ±0.25% full scale accuracy and are very durable.

Ralston Field Gauge
LC10 pressure gauge

FieldLab Digital
Pressure Calibrator

Hand Pump Calibration Kits

DP0V kits

DPPV kits

DCAP kits

DCAP-PV fits

QTHP kits

XTHP kits

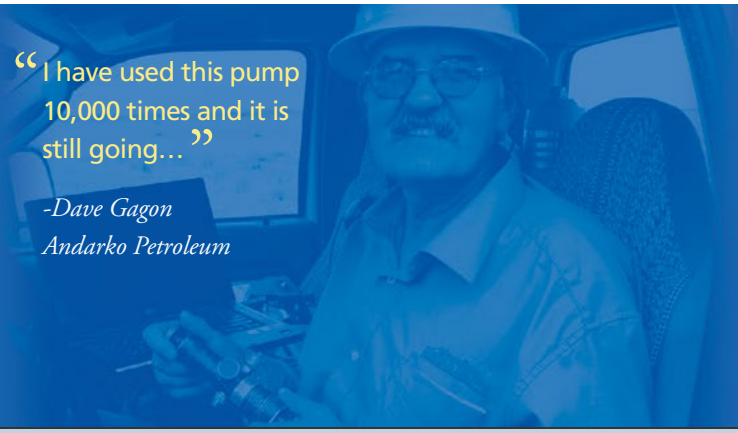
Nitrogen Pressure Control Kits

QTCM kits

QSCM kits

QTVC kits

NPAK kits



"I have used this pump 10,000 times and it is still going..."

-Dave Gagon
Andarko Petroleum

Built for immediate use and a long life

- Tested connections of pressure gauge, pressure source, connections and hoses
- Adapters available for a range of standard process connections
- Available carrying cases, bags, calibration oil
- Easy maintenance with basic tools
- Complete repair kits available

More at **ralstoninst.com/calibrate**