



Calibration Tools & Software



Ready-to-Use Calibration Solutions

Pump Systems Designed for Your Specific Requirements

AMETEK offers a variety of solutions for pressure generation and measurement. Our line of products for pressure generation includes everything from small pneumatic hand pumps to a precision, hydraulic pressure comparator capable of generating up to 15 000 psi / 1000 bar / 100 MPa.

All of our pumps may be ordered as part of a Pump System, complete with a Crystal Reference Indicator and delivered in a sturdy carrying case with custom insert.

Key Features & Options

- ▶ Easy to use fine adjustments.
- ▶ CPF[♦] Fittings and Hoses.
- ▶ Oil or water compatible.
- ▶ Wide pressure ranges.

[♦]U.S. Patent No. 8,794,677



A Better Way to Calibrate

Automate Your Calibrations: 7 to 10 Times Faster than a Deadweight Tester



FastCalXP Software

- ▶ 10 point up and down calibration in less than 3 minutes.
- ▶ Eliminates typing.
- ▶ Reduces calculation errors.
- ▶ Saves time on each calibration.
- ▶ Easy to use, fast to set up.

[Download a free 30-day trial here](#) ◀

GaugeCalHP Comparator

- ▶ Generates pressure up to 15 000 psi.
- ▶ Works with oil, water, or air.*
- ▶ Faster than any deadweight tester and most automated pressure controllers.
- ▶ Use in a lab or out in the field.

[Learn more here](#) ◀

(* up to 400 inH₂O)



Designed to Test

- ▶ Pressure Gauges
- ▶ Transmitters
- ▶ Transducers
- ▶ Chart Recorders

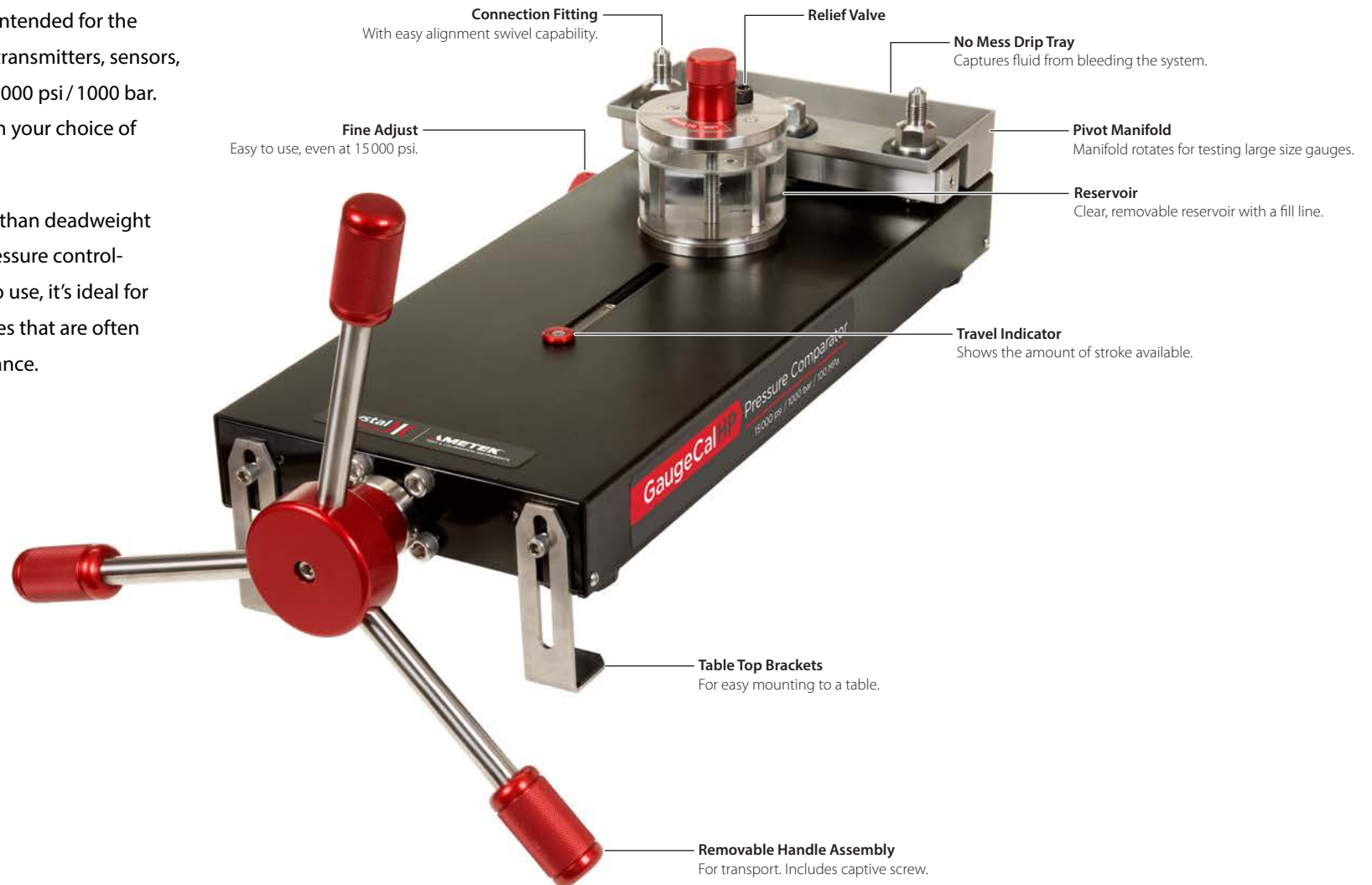
Precision Calibration

» **GaugeCalHP** is a self-contained, precision hydraulic pressure comparator intended for the calibration of pressure gauges, transmitters, sensors, and safety valves rated up to 15 000 psi / 1000 bar. You may fill the comparator with your choice of water or oil.

The GaugeCalHP is much faster than deadweight testers and most automated pressure controllers; and it's so quick and easy to use, it's ideal for calibrating those low cost gauges that are often overlooked for ISO9000 compliance.

Pump System 

[Learn more here](#) ◀



Portable Hand Pumps

» **T-600 Series** is a lightweight and portable hydraulic hand pump, specially designed for high pressure applications. A fine adjust allows precise control of pressure, while a vent valve provides quick and positive shut-off and pressure release. The pump is compatible with petroleum-based oils or hydraulic fluids.

Pump Systems **C H**

- ▶ Two outlet ports.
- ▶ Large reservoir.
- ▶ Easy-to-use fine adjust .
- ▶ Generates up to 5000 psi/350 bar.

[Learn more here](#) ◀



» **T-900 Series** pneumatic pressure pump features an extended range fine adjust for precise control of pressure. A built-in relief valve and dual pressure output enable safe and simple operation. The T-965 and T-975 are available with a button valve, making them capable of switching easily from pressure to vacuum generation.

Pump Systems **A B H**

- ▶ Lightweight, compact design.
- ▶ Two outlet ports.
- ▶ Adjustable stroke.
- ▶ Generates up to 580 psi/40 bar and vacuum.

[Learn more here](#) ◀

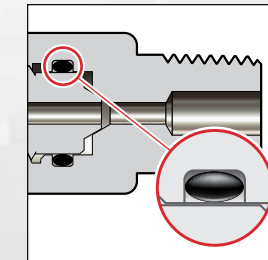


FITTINGS **FOR LIFE**™

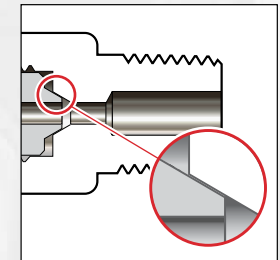


Crystal Pressure Fittings are machined in high-strength 316 Stainless Steel to operate with a 4:1 Safety Factor at 10 000 psi / 700 bar. A self-venting weep hole adds peace of mind, alerting you by leaking gas or test fluid *before* you fully disconnect from a pressurized system. Every pump and comparator is available in a CPF Version.

2 Ways to Seal

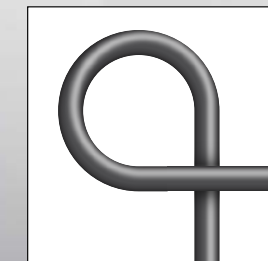


CPF to CPF O-ring seal.
Finger-tight up to 10 000 psi.

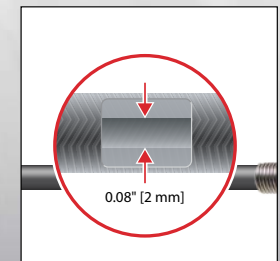


CPF to non-CPF metal seal.
Use a wrench to create a seal.

Flexible, Lightweight Hose



Minimum 1" (2.5cm) bend radius,
even under pressure.



Small inner hose diameter reduces
pumping effort and saves time.

Bench-mount Pressure Sources

» **P014** hydraulic jack pump is designed for high pressure oil applications. Its small size and light weight makes it a sensible, rugged and portable pressure generating solution.

Pump System **E**

- ▶ Generates 10 000 psi / 700 bar.
- ▶ Small, and light weight.
- ▶ Easy-to-use fine adjust.
- ▶ Four pressure output manifold.

[Learn more here](#) ◀



» **P018** hydraulic screw pump produces pressure with superior control. The adjustable reference pressure port lets you set your reference gauge at the best viewing angle.

Pump Systems **D**

- ▶ Generates 5000 psi / 350 bar.
- ▶ Easy-to-use fine adjust.
- ▶ Adjustable reference port.
- ▶ Compatible with water or oil.


[Learn more here](#) ◀



Calibration Solutions for a Wide Range of Industry Applications

AMETEK pressure measurement and calibration solutions are in use every day across the globe in industries like offshore oil drilling, oil and gas refineries and distribution, traditional and nuclear power generation, water supply and waste water treatment, manufacturing, aircraft maintenance, aerospace, marine, and food & beverage.

AMETEK reference indicators and pressure sources are perfect for testing:

Pressure Gauges, Transmitters 

Transducers, Flow Computers, Indicators,



Pressure Relief Valves, Valve Positioners,

Converters (I-P, P-I), Volume Correctors,


Leak Testing 

Chart Recorders, and

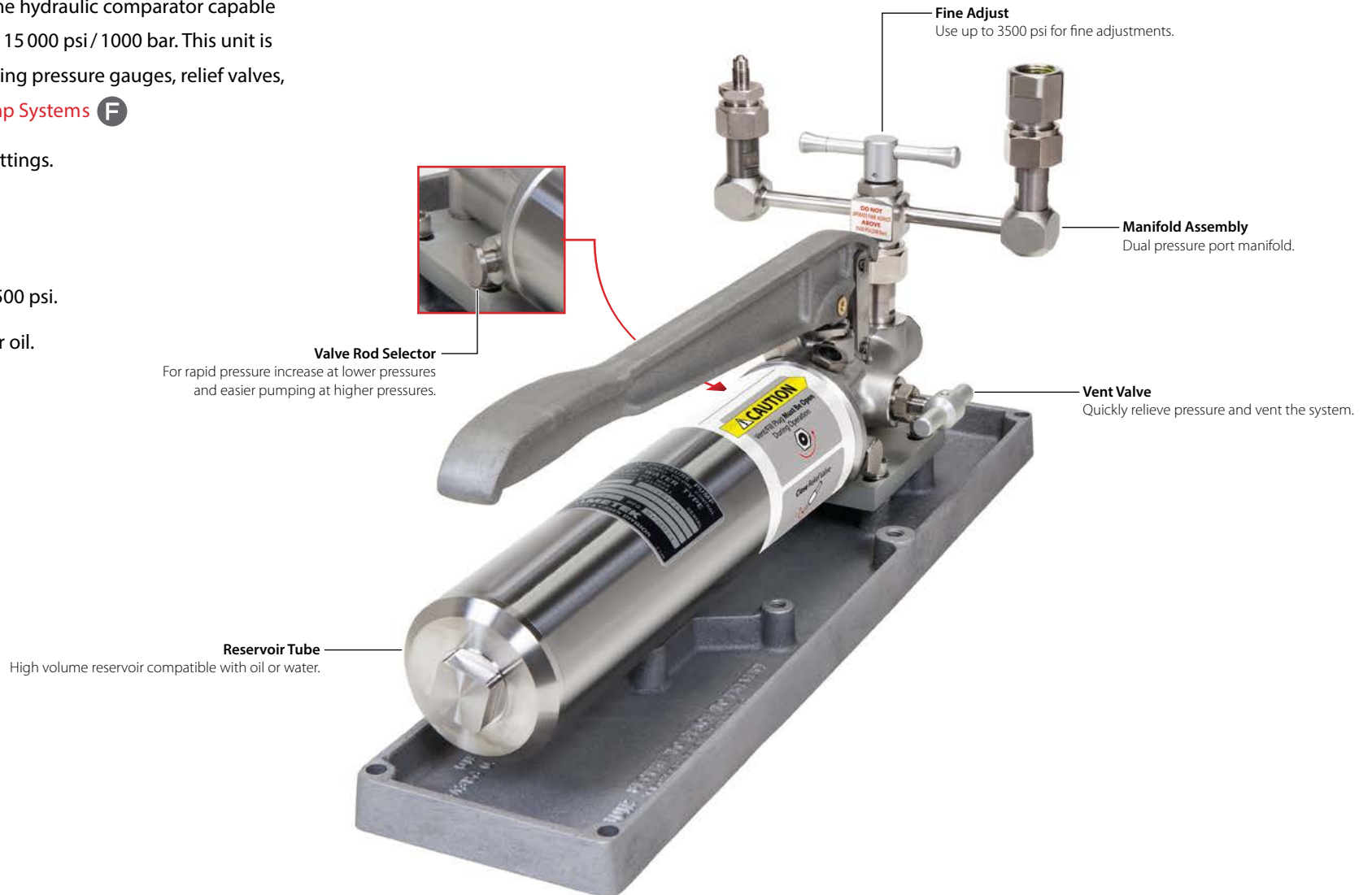
Pressure Switches.

High Volume Pressure Source

» **T-Series** is a high volume hydraulic comparator capable of producing pressure up to 15 000 psi / 1000 bar. This unit is ideal for testing and calibrating pressure gauges, relief valves, and pressure switches. **Pump Systems F**

- ▶ High and Low Volume Settings.
- ▶ Two outlet ports.
- ▶ Large fluid capacity.
- ▶ Fine Adjustment up to 3500 psi.
- ▶ Compatible with water or oil.

[Learn more here](#) ◀



Ordering Information

Any Pump System may be ordered with or without a reference indicator. The table below provides an explanation of the Pump System ordering scheme when ordering a system without an indicator. For details on ordering the Pump Systems with an indicator, see the indicator data sheet.

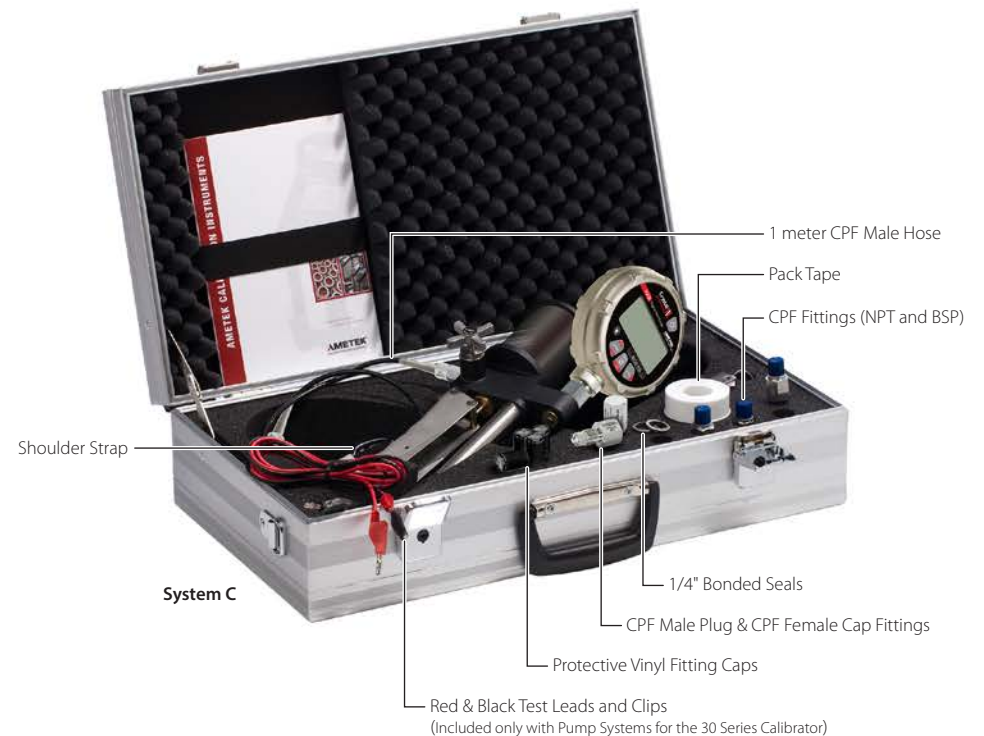
Reference Indicator	Reference Indicator Included	Pump System	Liquid*	Carrying Case**
nVision NV	No... -NONE	System A (T-960)-AXX	Full(omit)	Aluminum(omit)
30 Series..... IS30		System A (T-970)-AHX	Drained...-E	Waterproof ...-W
XP2iXP2I		System B (T-965)-BXX		
m1..... M1		System B (T-975)-BHx		
		System C (T-620)-CXX		
		System C (T-620H)-CHX		
		System D (P016 or P-018)-DOX		
		System D (P017 or P-018)-DWX		
		System E (P014)-EOX		
		System F (T-1)-FWB		
		System G (GaugeCalHP-oil)-GOX		
		System G (GaugeCalHP-water)-GWX		
		System H (T-620H and T-975)-HOX		

* Full is an option for Systems C, D, E, and H only. Drained is the only option for Systems F and G.

** The Waterproof Case is an option for Systems A, B, and C only. The Waterproof Case is the only option for Systems G and H.

Sample Part Numbers

- A** XP2I-NONE-AXX
System A (for XP2i) with an aluminum carrying case.
- B** NV-NONE-BXX-W
System B (for nVision) with a waterproof carrying case.
- C** 3KPSIXP2I-CXX
System C with a 3000 psi XP2i gauge in an aluminum case.
- D** IS30-NONE-DOX
System D (for 30 Series) filled with oil.
- E** NV-NONE-EOX-E
System E (for nVision) drained of fluid.
- F** 15KPSIXP2i-FWV-E
System F with a 15 000 psi XP2i gauge for use with water, drained.
- G** NV-NONE-GOX-E-W
System G (for an nVision) for use with oil, drained of fluid, in a waterproof case.
- H** IS30-NONE-HOX-E-W
System H (for 30 Series) drained of fluid, in a waterproof case.



Dear Calibration Professional,

You're already familiar with the family of high quality AMETEK calibrators and pressure gauges. Perhaps you even own one.

The same relentless pursuit of perfection invested in our gauges; and that spurred the design of CPF—the industry's safest test fitting line—also drives us to create top-quality pressure generation systems.

We know, just as you do, that the best calibrators are only as good as their support equipment.

Our pumps and Pump Systems deliver exactly what you need for field and lab calibration: reference indicators, fittings, hoses, and accessories, all packed inside sturdy and portable cases.

From rugged and effective pumps, to the best fittings and hoses, to time-saving software—we've thought of everything.

These are your tools for pressure calibration; the ones you use over and over, every day. Doesn't it make sense to buy the best?

Working for you,
The AMETEK Team

CrystalCalHP

Everything You Need for Ultra-Fast, Error-Free Calibrations

10-point up and down calibrations in under 3 minutes.

CrystalCalHP-PSI includes:

- ▶ **One** GaugeCalHP pressure comparator.
- ▶ **One** copy of FastCalXP calibration software, with footswitch.
- ▶ **Three** XP2i gauges with 0.1% of Reading accuracy.
- ▶ **One** Weatherproof carrying case.
- ▶ **All** the CPF fitting adapters you need.

Eliminates typing and guesswork—
automatically generates
calibration reports.

[Learn more here...](#) ◀



Crystal pressure **JOFRA** calibration **M & G** calibration

No part of this document may be reproduced or modified in any form or by any means, electronic or mechanical, without express written permission from AMETEK Incorporated. ©2015 AMETEK Incorporated