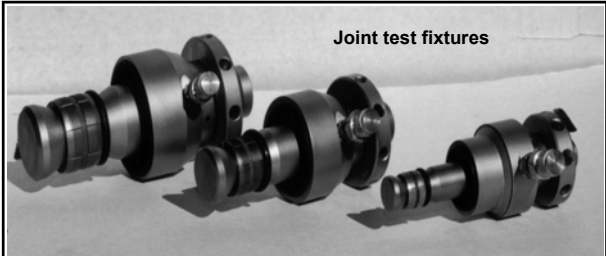




Tube Joint and Full Tube Testers



HydroProof Joint Test Fixtures are the easiest, most advanced system for hydro-testing individual tube-to-tubesheet joints without having to pre-fill the entire vessel prior to pressurizing.

Originally designed for Marine boiler applications, these light-weight tools are able to hydro-test at pressures up to 2000 psi for tube sizes from 3/4" to 2 1/2" OD.



Standard Boiler Models available to fit flat tube-plates and radiused drum configurations.

Corporate Headquarters

6298 Camino Verde
San Jose, CA 95119

Engineering & Manufacturing

2631 Highway J
Bourbon, MO 65441

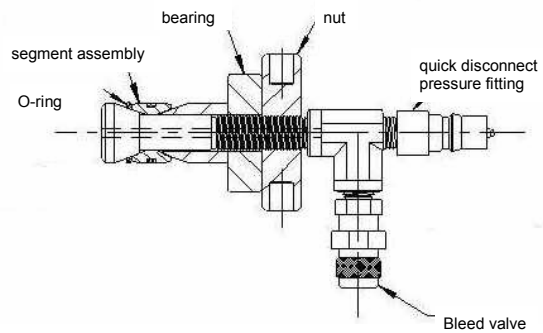
Sales

Phone: (573) 732-3318
Fax: (573) 732-9408
Email: sales@hpro.com

WORLD WIDE WEB
www.hpro.com



HydroProof Whole tube testers enable full length testing of tubes to pressures up to 2,000 psi



Testing is done by inserting one fixture in each end of tube to be tested, and secured into place by tightening the nut..

Tube is then flooded with water to purge air, and then pressurized to desired pressure using the HydroProof power supply.



For more information about HydroProof and other quality HydroPro products contact HydroPro, Inc. or your authorized HydroPro distributor

Tooling

- 5½ lbs for a 2" tool - easy to use and transport.
- For use on both curved drums and headers or flat tubesheets.
- Available for all ¾", 7/8", 1", 1½", 2" and 2½" O.D. tube sizes.
- Hydro-test to 2,000 psi.
- Setup takes less than one minute by only one operator.

System Applications

- Correctly determine initial expansion procedures from the start by establishing that the first joint is leak free.
- Periodic testing of expansion quality during fabrication or a re-tube.
- Ideal for partial tube replacement - Guarantees leak free joints prior to a full hydro test.
- Reduce the number of complete hydro tests required on any job.
- Full length tube testing fixtures available.

A Range of Sizes



HydroProof Sizing Chart

O.D.	Wall	Estimated I.D.	Tool Size -XXXX	Tool O.D.	Min. Range	Max. Range
1"	0.120	0.760	1800	0.708	0.715	0.815
	0.109	0.782				
	0.095	0.810	1950	0.768	0.775	0.875
0.083	0.834					
1½"	0.203	1.094	2700	1.063	1.080	1.200
	0.180	1.140				
	0.165	1.170	2900	1.142	1.160	1.280
	0.148	1.204				
	0.134	1.232	3100	1.220	1.240	1.360
	0.120	1.260				
0.109	1.282	4400	1.732	1.740	1.875	
0.095	1.310					
2"	0.220	1.560	3900	1.535	1.545	1.675
	0.203	1.594				
	0.180	1.640				
	0.165	1.670	4200	1.650	1.660	1.780
	0.148	1.704				
	0.134	1.732				
	0.120	1.760	4400	1.732	1.740	1.875
	0.109	1.782				
	0.095	1.810				

Determining your HydroProof Part Number

6200 - 14	X	XX	XXXX	Tool Size
	0: Flare Collar	00: Flat Collar	Tube I.D. Range	
	1: No Flare	05: Header Collar (8" - 12" dia.)	1"	1800
	2 - 9: As Needed	15: Drum (24" - 36" dia.)	.715" - .815"	1950
		30: Drum Collar (40" - 60" dia.)	.775" - .875"	
		Other values as needed	1½"	
			1.080" - 1.200"	2700
			1.160" - 1.280"	2900
			1.240" - 1.360"	3100
			2"	
			1.545" - 1.675"	3900
			1.660" - 1.780"	4200
			1.740" - 1.875"	4400

Example: For an application on a .203 wall, 1.594 I.D., Flat Collar without Flare:
Part Number = 6200 - 14100 - 3900

¾", 7/8", & 2½" Tools are available upon request.
Please speak with a qualified representative for more information.



HydroPro, Inc. Products

Hydraulic Expansion is the direct application of high internal hydraulic pressure within a tube in order to form a joint between a tube and tubesheet or parent tube. HydroPro products provide this expansive force in an accurately set, highly repeatable, and controlled manner.

HYDROPROOF



The HydroProof® is the simplest, yet most advanced system available for hydrotesting of both individual tube-to-tubesheet joints and full-length tubes.

Using water under pressure, this lightweight and durable (stainless steel) tool can hydrotest up to 2,000 psi for standard tube sizes from $\frac{1}{2}$ " to 3".

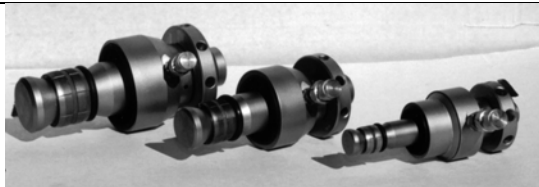
From curved drums and headers to flat tubesheets, setup time is less than one minute by just one operator.

For determining correct expansion procedures and periodic testing of expansion quality, the HydroProof is an essential part of any successful tube job.

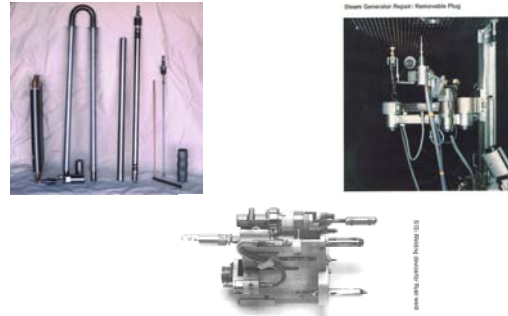
Benefits Include:

- Ideal for partial retubes - guarantee leak free joints prior to a full hydrotest.
- Reduce the number of complete hydrotests required on full retubes.
- Fits curved sheets and drums

Contact us for detailed information!



SPECIAL PRODUCTS



HydroPro's strength lies in its ongoing product development. HydroPro leads the way in process improvement through continued product improvement of the existing range of tube expansion tools/equipment to new and innovative ways to improve production of non-standard applications.

Our engineering/research and design center in Bourbon, MO can handle your specific tubular hydroforming needs. We are available for on-site process review and improvement or complete process design and implementation. We will work with your automation specialist and/or bring our own specialists on-board as-needed.

Benefits Include:

- 20+ years in the business
- Top engineering support
- Field engineering & technicians on-hand
- Existing supplier network in-place
- Over 85 years collective experience

Contact us for detailed information!

