HYDROPRO™ UNIVERSAL STRAIGHT VALVE TESTER | USV

ROBUST. PRODUCTIVE. EASY TO USE.

The new HYDROPRO™ Universal Straight Valve Tester | USV can clamp a wide variety of straight-bodied valves and is designed to pair with the HYDROPRO™ Console for your valve testing needs.









ROBUST AND UNRIVALED QUALITY

Every component in the USV pressure circuit is OEM-certified to the maximum specified testing pressure of the system for increased quality, durability and safety.

Heavy-duty console walls are built with 12-gage steel to protect internal components from damage, making this tester rugged and durable for long life and reliable operation in industrial environments.

CE certified and available world-wide! All CALDER products are available for sale world-wide, including in the European Union and other locations where CE certification is required.

Patent Pending Safety Interlock system with interlocking knobs and valve handles that will not release the clamp pressure until the test pressure valve is opened and internal test pressure is released.

ISO 9001 certified manufacturing ensures all CALDER products are manufactured to the highest quality standards.

Standard 2-year warranty is the longest in the industry! We're confident in our quality, and we back it up! And – ask us how to extend your warranty out to 5 years . . .

VERSATILE, EASY TO USE & INCREDIBLY PRODUCTIVE

Patented Easy-Out Seal Plates in the USV clamping fixture allows seal plates to be changed quickly and easily without the need to mess with special tools, bolts, etc.

Rapid advance and retract for quickly widening or narrowing the gap between the patented Easy-Out Seal Plates to rapidly transition from smaller valves to larger valves.

Quick-fill water circuit supports quick fill water capability included with HYDROPRO™ Console, allowing operators to fill valves up fast to reduce overall test time.

Single cylinder hydraulic clamping securely clamps both sides of valve in one motion.

Ability to test multiple valves concurrently when paired with the Calder HydroPro™ Console.

Use a USV clamping fixture to test on one port of the console while setting up the next test piece on the other port.

Unique valve tilting option makes it easy to find the best orientation for loading the valve, and hydraulically tilts the clamp fixture 90 degrees from horizontal to vertical, ensuring removal of all air prior to pressurizing the system.

Intuitive control panel layout makes performing a test procedure efficient and easy on the operator.

Extensive operating manual contains easy to follow tips and includes step-by-step set up instructions for various valve testing operations.

Only shop air needed for clamp and tilt functionality.

Upgradable and expandable. Our modular, common-platform design ensures that all equipment and accessories are plug-and-play compatible to meet your changing business needs.

Unique clamp box cut-outs are designed to accommodate valves with actuators.



WHY CHOOSE CALDER



- The modular, highly configurable and field-upgradable design of the new CALDER tester platform is the most flexible and cost-effective way to manage all your valve testing requirements. It can grow and evolve your business
- The new CALDER test systems are designed to be more accurate and precise than other comparable products
- Unique to the valve testing industry, every CALDER component is OEM certified to the maximum pressure specification of the system, for enhanced safety, quality and durability
- © CALDER offers users the ability to simultaneously test multiple valves with one system
- Unmatched in the industry, all CALDER systems are backed by a 2 year warranty
- © CALDER has global reach and local support through CLIMAX's vast world-wide network
- © CALDER offers a complete line of Valve Repair Machines for lapping, grinding and specialized valve machining operations
- © CALDER offers a full portfolio of Test Barriers and Hydraulic Seal Clamps among other products
- CALDER offers SMARTEST™ intelligent data acquisition, analysis and control systems for use with our testers
- Custom turn-key system design services from the most experienced engineers and valve test experts in the business
- © Outrageously good customer service. We are available 24/7!



- © End-to-End Solutions; from products, consulting, engineering, custom design, training, start-up, after-sale service, spare parts, repair, and rentals, CALDER offers unmatched value in our industry
- All CALDER products are CE certified and manufactured in our ISO 9001 certified factory
- All CALDER products are proudly made in the USA

SPECIFICATIONS

			US\	/-2-25T			
(Se	ANSI Class						
-lange	Valve	150	300	600	900	1500	2500
ace F	Size (nominal)		Maxir	num Test Pi	ressure PSI	(Bar)	
Valve Coverage (Flat / Raised Face Flanges)	Inch (mm)	450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)
lat / F	0.5 (12.7)	1	√	√	√	√	√
ge (F	0.75 (19.1)	1	√	√	V	√	√
overa	1 (25.4)	1	√	√	√	√	√
ve C	1.5 (38.1)	V	√	√	V	√	
Va	2 (50.8)	1	√	√	√	√	
	Hydraulic ra	am: 25 tons	(22.7 tonne	s)			
	Maximum o	pening betv	veen seal pl	ates: 18 inc	hes (457.2 ı	mm)	
Suc	Minimum o	pening betw	een seal pla	ates: 4 inche	es (101.6 mi	m)	
icatic	Maximum ir	nside width:	14 inches (355.6 mm)			
Specifications		ximate overall dimensions: 50 L x 56 W x 43 H inches (1270 L x 142 2 H mm) - see dimensional drawing on page 4					
	Approximat	e machine v	veight: 1,30	0 lbs (591 k	g)		
	Approximat	e shipped w	eight: 1500	lbs (682 kg)		





SPECIFICATIONS



			US\	/-6-80T			
	ANSI Class						
(St	Valve	150	300	600	900	1500	2500
-lang	Size (nominal)		Maxir	num Test Pi	ressure PSI	(Bar)	
Valve Coverage (Flat / Raised Face Flanges)	Inch (mm)	450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)
Raise	1 (25.4)		√	√	√	√	√
lat / F	2 (50.8)	√	√	√	√	√	√
ge (F	3 (76.2)	√	√	√	√	√	√
overa	4 (101.6)	1	√	V	√	√	
ve C	5 (127)	1	1	√	1		
Va	6 (152.4)	√	√	√			
	Hydraulic ra	am: 80 tons	(72.6 tonne	s)			
	Maximum c	pening betv	veen seal pl	ates: 24 inc	hes (609.6	mm)	
suc	Minimum o	pening betw	een seal pla	ates: 4 inche	es (101.6 m	m)	
Specifications	Maximum ii	nside width:	18 inches (457.2 mm)			
		e overall dir H mm) - se				es (1168.4 L	x 1828.8
	Approximat	e machine v	veight: 2,30	0 lbs (1043	kg)		
	Approximat	e shipped w	eight: 2,500	lbs (1134 k	(g)		

			USV	-8-100T				
			ANSI Class					
(Se	Valve	150	300	600	900	1500	2500	
-lange	Size (nominal)		Maxir	num Test Pi	ressure PSI	(Bar)		
Valve Coverage (Flat / Raised Face Flanges)	Inch (mm)	450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)	
Raisec	1 (25.4)			√	√	√	√	
lat / F	2 (50.8)		V	√	√	√	√	
ge (F	3 (76.2)	√	V	√	√	√	√	
vera	4 (101.6)	V	V	√	√	√		
Ve C	5 (127)	√	V	√	√	√		
Val	6 (152.4)	√	V	√	√			
	8 (203.2)	√	V	√				
	Hydraulic ra	m: 100 ton:	s (90.7 tonn	es)				
	Maximum o	pening betv	veen seal pl	ates: 30 inc	hes (762 m	m)		
Suc	Minimum o	pening betw	een seal pla	ates: 6 inche	es (152.4 m	m)		
ficati	Maximum ir	nside width:	26-1/8 inch	es (663.6 m	m)			
Specifications		pproximate overall dimensions: 69 L x 82 W x 39 H inches (1752.6 L x 2082 / x 990.6 H mm) - see dimensional drawing on page 4						
	Approximat	e machine v	veight: 3,50	0 lbs (1588	kg)			
	Approximat	e shipped w	eight: 3,700) lbs (1678 l	(g)			

			USV-	12-150T					
			ANSI Class						
	Valve	150	300	600	900	1500	2500		
	Size (nominal)		Maxir	num Test Pi	ressure PSI	(Bar)			
valve Coverage (Flat / Raised Face Flanges)	Inch (mm)	450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)		
-ace	1 (25.4)				√	√	√		
sed I	2 (50.8)		√	√	√	√	√		
/ Ra	3 (76.2)		√	√	√	√	√		
(Flat	4 (101.6)	1	1	√	√	√	√		
erage	5 (127)	√	1	√	√	√			
Co	6 (152.4)	√	√	√	√	√			
Valve	8 (203.2)	√	1	1	√				
	10 (254)	√	1	√					
	12 (304.8)	1	√						
	Hydraulic ra	am: 150 ton:	s (136.1 ton	nes)					
	Maximum o	pening betv	veen seal pl	ates: 33 inc	hes (838.2	mm)			
suc	Minimum o	pening betw	een seal pla	ates: 5 inche	es (127 mm)			
ficati	Maximum inside width: 29-5/8 inches (752.5 mm)								
Specifications				3 L x 92 W x nal drawing		es (1854.2 L	. x 2336.8		
	Approximat	e machine v	veight: 4,80	0 lbs (2177	kg)				
	Approximat	e shipped w	eight: 5,000) lbs (2268 l	kg)				

			USV-	16-200T			
				ANSI	Class		
	Valve	150	300	600	900	1500	2500
	Size (nominal)		Maxir	num Test Pi	ressure PSI	(Bar)	
Valve Coverage (Flat / Raised Face Flanges)	Inch (mm)	450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)
ace F	2 (50.8)			√	√	V	√
sed F	3 (76.2)		√	√	√	V	√
/ Rai	4 (101.6)	V	√	√	√	√	√
(Flat	5 (127)	V	√	√	√	√	√
rage	6 (152.4)	V	√	√	√	√	
Cove	8 (203.2)	V	√	√	√		
Valve	10 (254)	V	√	√			
	12 (304.8)	V	√	√			
	14 (355.6)	√	√				
	16 (406.4)	√	√				
	Hydraulic ra	m: 200 ton:	s (181.4 ton	nes)			
	Maximum o	pening betv	veen seal pl	ates: 37 inc	hes (939.8 i	mm)	
ons	Minimum or	pening betw	een seal pla	ates: 5 inche	es (127 mm))	
icati	Maximum ir	side width:	29-1/2 inch	es (749.3 m	m)		
Specifications	Approximate 2692.4 W x					`	Lx
	Approximate	e machine v	veight: 6,80	0 lbs (3084	kg)		
	Approximat	e shipped w	eight: 7,000) lbs (3175 l	(g)		

All dimensions should be considered reference. Contact your CALDER Representative for precision dimensions. Specifications are subject to change without notice. There are no systems or components on this machine that are capable of producing hazardous EMC, UV or other radiation hazards. The machine does not use lasers nor does it create hazardous materials such as gasses or dust.

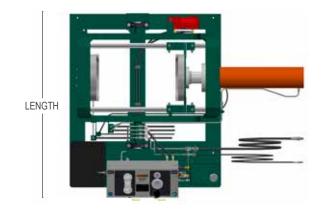
SPECIFICATIONS

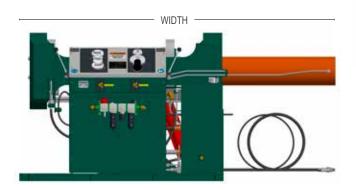


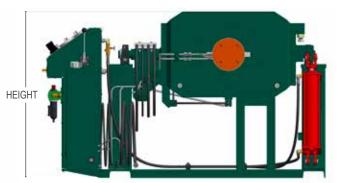
			USV-	24-300T			
	ANSI Class						
_	Valve	150	300	600	900	1500	2500
nges	Size (nominal)		Maxir	num Test Pi	ressure PSI	(Bar)	
/alve Coverage (Flat / Raised Face Flanges)	Inch (mm)	450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)
sed F	8 (203.2)	V	√	√	√	√	
/ Rai	10 (254)	V	√	√	√		
(Flat	12 (304.8)	V	√	√	√		
rage	14 (355.6)	V	√	√			
Cov	16 (406.4)	V	√	√			
Valve	18 (457.2)	V	√				
	20 (508)	√	√				
	24 (609.6)	V					
	Hydraulic ra	ım: 300 ton:	s (272 tonne	es)			
	Maximum o	pening betv	veen seal pl	ates: 45 inc	hes (1143 n	nm)	
Suc	Minimum or	pening betw	een seal pla	ates: 10 inch	nes (254 mn	n)	
icatio	Maximum ir	side width:	38 inches (965.2 mm)			
Specifications	Approximate 3327.4 W x					`	Lx
	Approximate	e machine v	veight: 20,0	00 lbs (9072	2 kg)		
	Approximate	e shipped w	eight: 20,50	00 lbs (9299	kg)		

			USV-	24-400T	I				
			ANSI Class						
	Valve	150	300	600	900	1500	2500		
nges,	Size (nominal)		Maxir	num Test Pi	ressure PSI	(Bar)			
valve Coverage (Flat / Raised Face Flanges)	Inch (mm)	450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)		
sed F	8 (203.2)	V	√	√	1	√	√		
/ Rai	10 (254)	V	√	√	√	√			
(Flat	12 (304.8)	V	√	√	√				
ərage	14 (355.6)	V	√	√	√				
Cove	16 (406.4)	V	√	√					
Valve	18 (457.2)	V	√						
	20 (508)	V	√						
	24 (609.6)	V	√						
	Hydraulic ra	ım: 400 tons	s (362.9 ton	nes)					
	Maximum o	pening betv	veen seal pl	ates: 46 inc	hes (1168.4	mm)			
Suc	Minimum o	pening betw	een seal pla	ates: 10 inch	nes (254 mn	n)			
icatie	Maximum ir	mum inside width: 38 inches (965.2 mm)							
Specifications	Approximate 3327.4 W x					`	Lx		
	Approximat	e machine v	veight: 20,0	00 lbs (9072	2 kg)				
	Approximat	e shipped w	eight: 20,50	00 lbs (9299	kg)				

Dimensional Drawing (see specifications for model specific dimensions)







All dimensions should be considered reference. Contact your CALDER Representative for precision dimensions. Specifications are subject to change without notice. There are no systems or components on this machine that are capable of producing hazardous EMC, UV or other radiation hazards. The machine does not use lasers nor does it create hazardous materials such as gasses or dust.

USV CONFIGURATIONS



To configure your HYDROPRO™ USV simply select from the options you need then contact your CALDER representative.

Easy-out seal plate holder (optional)———Clamp box

The HydroPro™ USV comes standard with 10,000 PSI (679 bar) rated hydraulic clamping components and plumbing, air-operated hydraulic pump rated to 10,700 PSI (738 bar) preset to 9850 PSI (679 bar), safety interlock systems, clamp pressure gauge, hydraulic reservoir, air regulator kit, quick water fill inlet line, hydraulic clamping chart and operators manual.

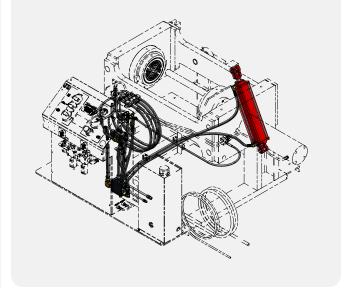
Seal plate (top) Clamp cylinder/ram Tilt cylinder (optional) Seal plate (bottom) Clamp control panel Tilt control (optional) Inlet to bottom plate 1/2 inch NPT Let to top plate 1/4 inch NPT Inlet air prep (shutoff, filter, lubricator)

HYDROPRO™ USV

Model	Part Number	Fixed seal plates	Easy- out holder	Non- tilt	Tilt
	90206	V		√	
USV-2-25T	90650	\checkmark			\checkmark
037-2-231	90652		√	√	
	90651		√		V
	88581	V		√	
USV-6-80T	88576	√			√
037-0-001	88591		√	√	
	88572		√		1
	88273	V		√	
USV-8-100T	88271	V			1
037-0-1001	88272		√	√	
	89021		√		1
	87991	V		√	
USV-12-150T	87989	V			1
037-12-1301	87990		√	√	
	87988		√		√
	88583	V		√	
USV-16-200T	88577	V			V
007-10-2001	88592		√	√	
	88573		√		V
	88586	V		√	
USV-24-300T	88578	V			V
U3V-24-3UUT	88593		√	√	
	88574		√		V

Model	Part Number	Fixed seal plates	Easy- out holder	Non- tilt	Tilt
	88590	\checkmark		$\sqrt{}$	
USV-24-400T	88579	V			√
USV-24-4001	88594		√	V	
	88575		V		V

Tilt – rotates clamped valve 90 degrees from the horizontal to vertical position



USV ACCESSORIES

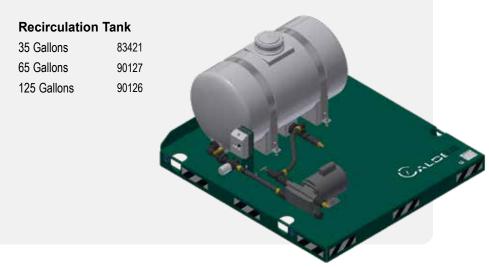


Our patented Easy-Out Seal Plate Holders allow quick change-out of seal plates from flanged to other valve end type connections without the use of special tools, bolts, nuts or gaskets.

Easy-out seal plates for FF/RF flanges, includes set of two plates (requires easy-out holder option)

Model	Part Number		
USV-6-80T	88666		
USV-8-100T	88357		
USV-12-150T	87996	2///	
USV-16-200T	88473		100
USV-24-300T	88671		
USV-24-400T	88671		

The **CALDER Recirculation Tank** offers a solution for supplying and storing fluid used for testing valves. The onboard pump supplies 3.3 gpm at 70 psi to the console. The return port on the tank allows connection to the drain line, to reclaim the fluid for the next test. The Recirculation Tank is compatible with the CALDER Universal Straight Valve Tester | USV and the Universal Flanged Valve Tester | UFV.



APPLICATIONS

Industries:

Oil & Gas (Upstream, Pipeline, Downstream) Power generation (Nuclear, Geothermal, Fossil) Military (Nuclear) Chemical processing Valve service industry Valve manufacturing

Typical Applications:

Gate Valve Testing Globe Valve Testing Check Valve Testing Ball Valve Testing Butterfly Valve Testing Blind Flanges Hydraulic Flange Seals Safety Relief Valve Testing

CALDER VALVE INSTITUTE AND CARE PROGRAM CALDER



CALDER VALVE INSTITUTE ™

CALDER has been teaching the fundamentals and fine points of valve testing operation for as long as we've been inventing and building the systems. CALDER VALVE INSTITUTE ™ offers:

- Training Institutes in Portland OR, Houston TX, Manchester UK, Düren Germany, and Dubai UAE, among others
- Safety training
- Machine set up and operation
- Technical tips and tools to improve operational performance and efficiency
- Hands on training and valve testing skill development

Whether it's a regularly scheduled course at one of our CALDER Institutes, or a custom curriculum

conducted at your facility, your valve test operators will benefit from courses developed by the most experienced and respected professionals in the business.



CALDER CARE ™ PROGRAM

Preventative maintenance and service package includes:

- Parts Replacement Guarantee All parts replaced for the term of the package
- Technical Assistance by Phone A CALDER CARE™ Hotline for 24/7 US-based expert advice from repair professionals
- On-Site Preventive Maintenance Yearly PM visit by a Certified CALDER Service Technician
- Extended Warranty Coverage CALDER is the only company in our industry with a standard 2 year warranty and offering extended warranty programs out to 5 years!



GLOBAL LOCATIONS



Call CALDER for:

RENTALS

On selected models. With 20+ worldwide rental depot locations, you are never far away from a CALDER system.

ON-SITE TRAINING

If you need training or on-site consultation, we're famous for it!

CUSTOM PROJECTS

Custom turn-key system design services from the most experienced engineers and valve test experts in the business!

Connect with us: f v in 8









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