

ROBUST. PRODUCTIVE. EASE OF 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™ Test Console for your valve testing needs.



ROBUST

All parts are designed to work at maximum specified testing pressures which allows you to perform all your tests with confidence.

Heavy-duty console walls built with 12 gage steel protects internal components from damage and allows console to be used in an industrial environment.

ISO 9001 certified ensures manufacturing to the highest quality standards.

CE certified for use in the European Union or any country where CE certification is required.

Safety interlock will not allow the operator to release the hydraulic clamp pressure while the valve under test is pressurized.

PRODUCTIVE

Easy-Out Seal Plates available which allow quick change-out holders of seal plates from flanged to other valve end type connections without the use of special tools, bolts, nuts or gaskets.

Ram rapid advance/retract on sizes 100 ton and larger speeds up the clamping process and reduces the overall test time.

Quick-fill water circuit supports quick fill water capability included with HYDROPRO™ Console and allows you to fill valves up fast to reduce overall test time.

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

EASE OF USE

Tilt option available which hydraulically tilts the clamp fixture from horizontal to vertical which ensures the valve is completely filled with water for testing.

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

Extensive operating manual contains easy-to-follow test procedures.

Only shop air needed to power the clamp and tilt.

USV-6-80T							
Valve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	ANSI Class					
		150	300	600	900	1500	2500
	Inch (mm)	Maximum Test Pressure PSI (Bar)					
		450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)
	1 (25.4)			√	√	√	√
	2 (50.8)		√	√	√	√	√
	3 (76.2)	√	√	√	√	√	√
	4 (101.6)	√	√	√	√	√	
	5 (127)	√	√	√	√		
	6 (152.4)	√	√	√			
Specifications	Hydraulic ram: 80 tons (72.6 tonnes)						
	Maximum opening between seal plates: 24 inches (609.6 mm)						
	Minimum opening between seal plates: 4 inches (101.6 mm)						
	Maximum inside width: 18 inches (457.2 mm)						
	Approximate overall dimensions: 46 L x 72 W x 44 H inches (1168.4 L x 1828.8 W x 1117.6 H mm) - see dimensional drawing on page 3						
	Approximate machine weight: 2,500 lbs (1134 kg)						
Approximate shipped weight: 2,700 lbs (1225 kg)							

USV-8-100T							
Valve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	ANSI Class					
		150	300	600	900	1500	2500
	Inch (mm)	Maximum Test Pressure PSI (Bar)					
		450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)
	1 (25.4)			√	√	√	√
	2 (50.8)		√	√	√	√	√
	3 (76.2)	√	√	√	√	√	√
	4 (101.6)	√	√	√	√	√	
	5 (127)	√	√	√	√	√	
	6 (152.4)	√	√	√	√		
	8 (203.2)	√	√	√			
Specifications	Hydraulic ram: 100 tons (90.7 tonnes)						
	Maximum opening between seal plates: 30 inches (762 mm)						
	Minimum opening between seal plates: 6 inches (152.4 mm)						
	Maximum inside width: 26-1/8 inches (663.6 mm)						
	Approximate overall dimensions: 69 L x 82 W x 39 H inches (1752.6 L x 2082.8 W x 990.6 H mm) - see dimensional drawing on page 3						
	Approximate machine weight: 3,500 lbs (1588 kg)						
Approximate shipped weight: 3,700 lbs (1678 kg)							

USV-12-150T							
Valve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	ANSI Class					
		150	300	600	900	1500	2500
	Inch (mm)	Maximum Test Pressure PSI (Bar)					
		450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)
	1 (25.4)				√	√	√
	2 (50.8)		√	√	√	√	√
	3 (76.2)		√	√	√	√	√
	4 (101.6)	√	√	√	√	√	√
	5 (127)	√	√	√	√	√	
	6 (152.4)	√	√	√	√	√	
	8 (203.2)	√	√	√	√		
	10 (254)	√	√	√			
	12 (304.8)	√	√				
Specifications	Hydraulic ram: 150 tons (136.1 tonnes)						
	Maximum opening between seal plates: 33 inches (838.2 mm)						
	Minimum opening between seal plates: 5 inches (127 mm)						
	Maximum inside width: 29-5/8 inches (752.5 mm)						
	Approximate overall dimensions: 73 L x 92 W x 43 H inches (1854.2 L x 2336.8 W x 1092.2 H mm) - see dimensional drawing on page 3						
	Approximate machine weight: 4,800 lbs (2177 kg)						
Approximate shipped weight: 5,000 lbs (2268 kg)							

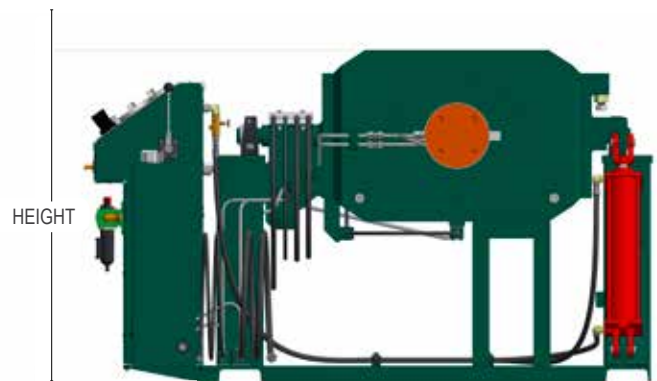
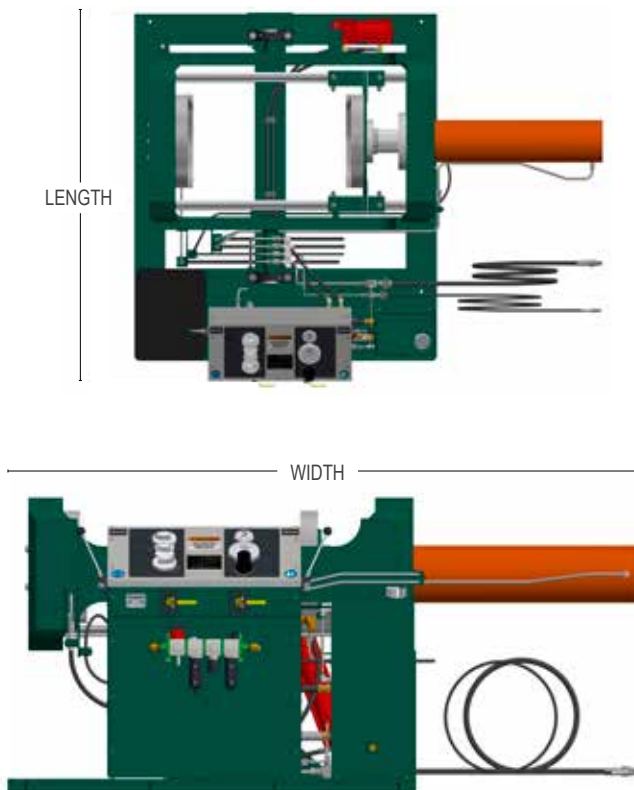
USV-16-200T							
Valve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	ANSI Class					
		150	300	600	900	1500	2500
	Inch (mm)	Maximum Test Pressure PSI (Bar)					
		450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)	9375 PSI (646 Bar)
	2 (50.8)			√	√	√	√
	3 (76.2)		√	√	√	√	√
	4 (101.6)	√	√	√	√	√	√
	5 (127)	√	√	√	√	√	√
	6 (152.4)	√	√	√	√	√	
	8 (203.2)	√	√	√	√		
	10 (254)	√	√	√			
	12 (304.8)	√	√	√			
	14 (355.6)	√	√				
	16 (406.4)	√	√				
Specifications	Hydraulic ram: 200 tons (181.4 tonnes)						
	Maximum opening between seal plates: 37 inches (939.8 mm)						
	Minimum opening between seal plates: 5 inches (127 mm)						
	Maximum inside width: 29-1/2 inches (749.3 mm)						
	Approximate overall dimensions: 78 L x 111 W x 48 H inches (1981.2 L x 2819.4 W x 1219.2 H mm) - see dimensional drawing on page 3						
	Approximate machine weight: 6,800 lbs (3084 kg)						
Approximate shipped weight: 7,000 lbs (3175 kg)							

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-24-300T						
Valve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	ANSI Class				
		150	300	600	900	1500
	Inch (mm)	Maximum Test Pressure PSI (Bar)				
		450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)
8 (203.2)	√	√	√	√	√	
10 (254)	√	√	√	√		
12 (304.8)	√	√	√	√		
14 (355.6)	√	√	√			
16 (406.4)	√	√	√			
18 (457.2)	√	√				
20 (508)	√	√				
24 (609.6)	√					
Specifications						
Hydraulic ram: 300 tons (272 tonnes)						
Maximum opening between seal plates: 46 inches (1168.4 mm)						
Minimum opening between seal plates: 10 inches (254 mm)						
Maximum inside width: 38 inches (965.2 mm)						
Approximate overall dimensions: 91 L x 131 W x 74 H inches (2311.4 L x 3327.4 W x 1879.6 H mm) - see dimensional drawing below						
Approximate machine weight: 20,000 lbs (9072 kg)						
Approximate shipped weight: 20,500 lbs (9299 kg)						

USV-24-400T						
Valve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	ANSI Class				
		150	300	600	900	1500
	Inch (mm)	Maximum Test Pressure PSI (Bar)				
		450 PSI (31 Bar)	1125 PSI (76 Bar)	2250 PSI (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)
8 (203.2)	√	√	√	√	√	√
10 (254)	√	√	√	√	√	
12 (304.8)	√	√	√	√		
14 (355.6)	√	√	√	√		
16 (406.4)	√	√	√			
18 (457.2)	√	√				
20 (508)	√	√				
24 (609.6)	√	√				
Specifications						
Hydraulic ram: 400 tons (362.9 tonnes)						
Maximum opening between seal plates: 46 inches (1168.4 mm)						
Minimum opening between seal plates: 10 inches (254 mm)						
Maximum inside width: 38 inches (965.2 mm)						
Approximate overall dimensions: 91 L x 131 W x 74 H inches (2311.4 L x 3327.4 W x 1879.6 H mm)- see dimensional drawing below						
Approximate machine weight: 20,000 lbs (9072 kg)						
Approximate shipped weight: 20,500 lbs (9299 kg)						

Dimensional Drawing (see specifications for model specific dimensions)

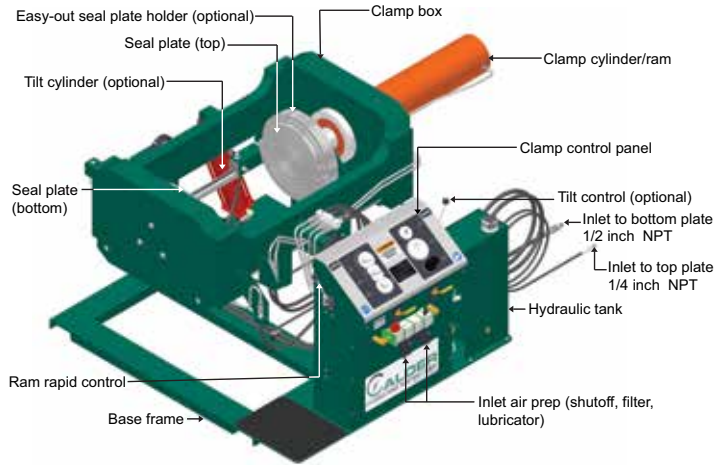


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CALDER USV CONFIGURATIONS

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

The HYDROPRO™ USV comes standard with hydraulic clamping with 10,000 PSI (689 bar) rated components and plumbing, air-operated hydraulic pump rated to 10,700 PSI (738 bar), and preset to 9850 PSI (679 bar), single hydraulic clamping cylinder, clamp pressure gauge, hydraulic reservoir, air regulator kit, quick water fill inlet line, hydraulic clamping chart and operators manual.



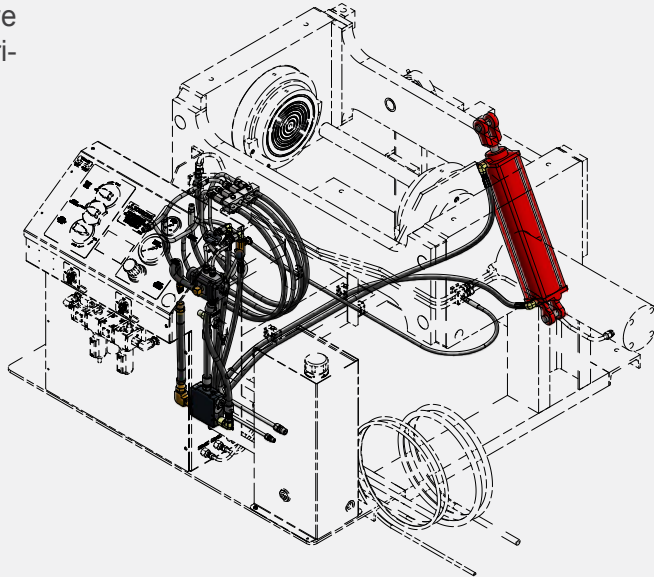
HYDROPRO™ USV

Model	Part Number	Fixed seal plates	Easy-out holder*	Non-tilt	Tilt
USV-6-80T	88581	√		√	
	88576	√			√
	88591		√	√	
	88572		√		√
USV-8-100T	88273	√		√	
	88271	√			√
	88272		√	√	
	89021		√		√
USV-12-150T	87991	√		√	
	87989	√			√
	87990		√	√	
	87988		√		√
USV-16-200T	88583	√		√	
	88577	√			√
	88592		√	√	
	88573		√		√
USV-24-300T	88586	√		√	
	88578	√			√
	88593		√	√	
	88574		√		√
USV-24-400T	88590	√		√	
	88579	√			√
	88594		√	√	
	88575		√		√

* Seal plates not included. Select seal plates separately from accessories list.

CALDER USV CONFIGURATIONS

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



Accessories for use with HYDROPro™ USV

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
USV-16-200T	88473
USV-24-300T	88671
USV-24-400T	88671



CALDER APPLICATIONS

Industries:

Oil & Gas (Upstream, Pipeline, Downstream)
Power generation (Nuclear, Geo-Thermal, 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 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 institute offers:

- Training Institutes in Portland OR, Houston TX, Manchester UK, Duren 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!

Call CALDER for:

RENTALS

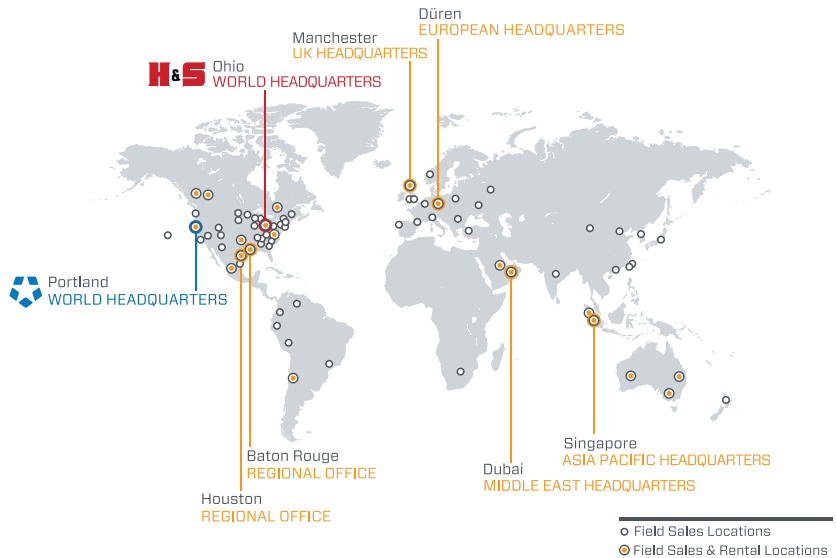
On selected models. With 20+ worldwide rental depot locations, you are never far away from a CALDER system.

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!



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