### VERSATILE, ROBUST, EASY TO USE.

The CALDER HYDROPRO™ **Hydraulic Flange Seals (HFS)** can efficiently clamp and seal a variety of flanged valves with unsurpassed quality and flexibility for your valve testing needs.









#### **VERSATILE**

Mobile flange sealing enables the user to test valves that have multiple flanges as well as valves that aren't straight, like elbow valves, 90's and T's.

Pair with the HYDROPRO™ Universal Flanged Valve Tester and HYDROPRO™ Console for sealing both ends of a valve and performing bi-directional testing.

Adjustable clamp arms are manually adjustable to suit various flange thicknesses and diameters, ensuring that each HFS is capable of clamping to a range of valve sizes.

Select from 9 models depending on clamping capabilities.

Pivoting seal plate enables the seal plate to

pivot and swivel during clamping for better sealing surface contact with the valve flange.

### ROBUST

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

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.

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. . .

#### **EASY TO USE**

Hydraulic ram quickly seals the flanged valves enabling the operator to conduct a test without using blind flanges.

Engineered to automatically seal on the valve flange when clamping pressure is applied.

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





### HYDRAULIC FLANGE SEALS

- 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
- C CALDER offers a full portfolio of Test Barriers and Hydraulic Seal Clamps among other products
- CALDER offers SMAR TEST ™ 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**

	HFS-2						
				ANSI	Class		
nges)	Valve	150	300	600	900	1500	2500
e Flai	Size (nominal)		Maxii	mum 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)
/ Rais	<b>1/2</b> 12.7)	√	√	√	√	1	<b>V</b>
(Flat	<b>3/4</b> (19.1)	√	√	√	√	√	√
rage	1 (25.4)	√	√	√	<b>V</b>	1	
Cove	1 <b>1/4</b> 31.8)	√	√	√			
Valve	1 <b>1/2</b> (38.1)	√	√	√			
ĺ	2 (50.8)	√					
S	Hydraulic C	lamping: 10	tons (9.1 to	nnes)			
Specs	Approximate	dimensions	: 7.7 L x 6.7	W x 14.5 H i	nch (196 L x	170 W x 36	B H mm)
	Approximate	e weight: ma	achine 26 lb	s (11.8 kgs)	/ shipped 50	0 lbs (22.7 k	gs)

	HFS-4							
				ANSI	Class			
ges)	Valve	150	300	600	900	1500	2500	
Flan	Size   (nominal)		Maxin	num Test Pr	essure 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)	
/ Rais	2 (50.8)	√	√	√	√	√		
(Flat	3 (76.2)	√	√	√	√			
erage	4 (101.6)	√	<b>V</b>					
Co								
Valve								
S	Hydraulic Clamping: 25 tons (22.7 tonnes)							
Specs	Approximate	dimensions:	12.6 L x 10.	9 W x 17.5 H	H inch (320 L	x 277 W x 4	145 H mm)	
Ľ	Approximat	e weight: ma	chine 68 lbs	(30.8 kgs) /	shipped wei	ght: 85 lbs (3	38.6 kgs)	

	HFS-6							
			ANSI Class					
nges)	Valve	150	300	600	900	1500	2500	
e Fla	Size (nominal)		Maxii	mum Test Pi	ressure PSI	(Bar)		
sed Fac	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)	
Valve Coverage (Flat / Raised Face Flanges)	2 (50.8)						√	
	3 (76.2)				√	√		
	4 (101.6)	√	√	√	√			
	5 (127)	√	√	√				
	6 (152.4)	√	√	√				
	Hydraulic Clamping: 55 tons (49.9 tonnes)							

	HFS-10							
			ANSI Class					
unges	Valve	150	300	600	900	1500	2500	
Se Fle	Size (nominal)		Maxi	mum Test Pr	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)	
/ Ra	3 (76.2)						√	
(Flat	4 (101.6)					√		
rage	5 (127)			√	√	√		
Cove	6 (152.4)		√	√	√			
Valve	8 (203.2)	√	√	√				
	10 (254)	√	√					
S	Hydraulic C	lamping: 10	0 tons (90.7	tonnes)				
specs	Approximate	dimensions	: 19.9 L x 22	.9 W x 27 H	inch (506 L )	582 W x 68	6 H mm)	

Approximate dimensions: 15.4 L x 17.7 W x 22.4 H inch (391 L x 450 W x 567 H mm)Approximate weight: machine 155 lbs (70.3 kgs) / shipped 200 lbs (30.7 kgs)

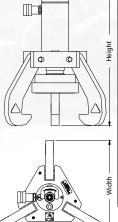


## HYDRAULIC FLANGE SEALS

HFS-14							
es)				ANSI	Class		
lange	Valve	150	300	600	900	1500	2500
ace F	Size (nominal)		Maxii	mum Test Pr	essure 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	8 (203.2)			√			
ge (F	10 (254)		√				
overa	12 (304.8)	<b>√</b>	√				
lve C	14 (355.6)	<b>V</b>					
Na Na							
(	Hydraulic C	lamping: 100	0 tons (90.7	tonnes)			
Specs	Approximate	dimensions:	25.1 L x 25	.1 W x 26.3 I	Hinch (638 L	x 638 W x 6	668 H mm)
,	Approximate	e weight: ma	nchine 493 l	bs (223 kgs)	/ shipped 5	50 lbs (249	kgs)

Г	HFS-16							
(Se			ANSI Class					
lang	Valve	150	300	600	900	1500	2500	
ace F	Size (nominal)		Maxi	mum 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 / I	8 (203.2)				√			
ge (F	10 (254)			√				
overa	12 (304.8)	√	√					
lve C	14 (355.6)	√	√					
PA	<sup>3</sup> 16 (406.4) √							
10	Hydraulic Clamping: 150 tons (136.0 tonnes)							
Specs	Approximate	dimensions	: 26 L x 28.6	W x 32 H in	ch (660 L x 7	726 W x 813	H mm )	
	Approximate weight: machine 879 lbs (399 kgs) / shipped 1,000 lbs (454 kgs)						4 kgs)	
	HFS-API-150T HFS-API-400T							

Dimensional Drawing (see specs for model specific dimensions)



HFS-API-100T						
		API Press	sure Class			
nges)		5M	10M			
/alve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	Maximum Test Pressure PSI (Bar)				
Raised	Inch (mm)	10000 PSI (689 Bar)	15000 PSI (1034 Bar)			
(Flat /	2 <b>1/1(6</b> 2 mm)		√			
rage	2 <b>9/1(6</b> 5 mm)					
Cove	4 <b>1/8</b> 105 mm)					
Valve	5 <b>1/%</b> 130 mm)					
	7 <b>1/1(6</b> 79 mm)					
	Hydraulic Clamping: 100 tons (90.7 tonnes)					
Specs	Approximate dimensions: 19.9 L x 22.9 W x 27 H (505 L x 582 W x 686 H)					
	Approximate we (227 kgs) / shipp					

HF3-API-1001						
		API Press	ure Class			
nges)		5M	10M			
Valve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	Maximum Test Pressure PSI (Bar)				
Raised	Inch (mm)	10000 PSI (689 Bar)	15000 PSI (1034 Bar)			
(Flat /	2 <b>1/1(5</b> 2 mm)		<b>V</b>			
rage	2 <b>9/1(6</b> 5 mm)		<b>√</b>			
Cove	4 <b>1/%</b> 105 mm)					
Valve	5 <b>1/%</b> 130 mm)					
	7 <b>1/1(6</b> 79 mm)					
	Hydraulic Clamping: 150 tons (136.0 tonnes)					
Specs	Approximate dimensions: 26.0 in L x 28.6 in W x 32 in H (660 L x 726 W x 813 H)					
	Approximate wei (399 kgs) / shipp					

9 lbs (399 kgs) / shipped 1,000 lbs (454 kgs)							
	HFS-API-400T						
	504-11	API Pressure Class					
nges)	51	5M	10M				
valve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	Maximum Test Pressure PSI (Bar)					
Raised	Inch (mm)	10000 PSI (689 Bar)	15000 PSI (1034 Bar)				
(Flat /	2 <b>1/1(6</b> 2 mm)						
rage	2 <b>9/1(6</b> 5 mm)						
Cove	4 <b>1/8</b> 105 mm)		√				
Valve	5 <b>1/8</b> 130 mm)	√					
	7 <b>1/1(6</b> 79 mm)	√					
	Hydraulic Clamping: 400 tons (362.9 tonnes)						
Specs	Approximate dime H (864 L x 914 W		x 36 W x 54				
	Approximate wei (907 kgs) / shipp						

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.

# **HFS CONFIGURATIONS**

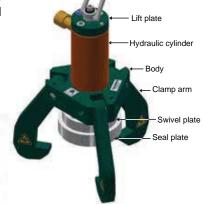
The Hydraulic Flange Seals, HFS comes standard with 10,000 PSI (679 bar) rated hydraulic clamping components and plumbing, adjustable clamp arms, nickel plated steel seal plate, lifting hoist rings, hydraulic clamping chart and operators manual.

### HFS with O-ring flange seal plate

· · · · · · · · · · · · · · · · · · ·	oou. plate
Model	PN
HFS-2	88524
HFS-4	88525
HFS-6	88527
HFS-10	88528
HFS-14	88529
HFS-16	88530

### HFS with ring groove seal plate

PN
89492
89493
89725



Hoist ring



