### HYDROPRO<sup>™</sup> HYDRAULIC FLANGE SEALS | HFS

05 2017 HFS

### 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<sup>™</sup> Universal Flanged Valve Tester and HYDROPRO<sup>™</sup> 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.



# WHY CHOOSE CALDER!

- C 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
- C The new CALDER test systems are designed to be more accurate and precise than other comparable products
- C 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

- The modular, highly configurable and field-upgradable design of the new Systems are backed by a 2 year warranty
  - C CALDER has global reach and local support through CLIMAX's vast world-wide network
  - C 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
  - C CALDER offers SMARTEST<sup>™</sup> 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

- C Outrageously good customer service. We are available 24/7!
- C 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
- C All CALDER products are CE certified and manufactured in our ISO 9001 certified factory
- C All CALDER products are proudly made in the USA



HFS-2								HFS-4											
	ANSI Class							ANSI Class											
les)	Valve	150	600	900	1500	2500		Valve	150	300	600	900	1500	2500					
Flang	Size (nominal)	150     300     600     900     1500     2500       Maximum Test Pressure PSI (Bar)							Size	Maximum Test Pressure PSI (Bar)									
ace		450 PSI	1125 PSI	2250 PSI	3375 PSI	5625 PSI	9375 PSI	ace F	(nominal)	450 PSI	1125 PSI	2250 PSI	3375 PSI	5625 PSI	9375 PSI				
sed F	Inch (mm)	(31 Bar)	(76 Bar)	(155 Bar)	(233 Bar)	(388 Bar)	(646 Bar)	Raised Face Flanges)	Inch (mm)	(31 Bar)	(76 Bar)	(155 Bar)	(233 Bar)	(388 Bar)	(646 Bar)				
/ Rai	1⁄2 (12.7)	√	√	√	√	√	$\checkmark$	/Flat /	2 (50.8)	$\checkmark$	√	$\checkmark$	$\checkmark$	√					
(Flat	3⁄4 (19.1)	√	√	1	√	√	$\checkmark$		3 (76.2)	$\checkmark$	V	√	√						
rage	1 (25.4)	√	√	1	√	√		Coverage	4 (101.6)	$\checkmark$	√								
Valve Coverage (Flat / Raised Face Flanges)	1 1⁄4 (31.8)	1	√	1				Cove											
Valve	1 ½ (38.1)	1	1	1				Valve											
	2 (50.8)	√																	
	Hydraulic C	lamping: 10	tons (9.1 to	nnes)				6	Hydraulic Clamping: 25 tons (22.7 tonnes)										
Specs	Approximate	dimensions	: 7.7 L x 6.7	W x 14.5 H i	nch (196 L x	170 W x 36	8 H mm)	Specs	Approximate dimensions: 12.6 L x 10.9 W x 17.5 H inch (320 L x 277 W x 445 H mm)										
Ľ	Approximate weight: machine 26 lbs (11.8 kgs) / shipped 50 lbs (22.7 kgs)							Ľ	Approximate weight: machine 68 lbs (30.8 kgs) / shipped weight: 85 lbs (38.6 kgs)										
			H	IFS-6							H	FS-10							
	ANSI Class							i							ANSI Class				
				ANSI	Class							ANSI	Class						
nges)	Valve	150	300	ANSI 600	Class 900	1500	2500	inges)	Valve	150	300	ANSI 600	Class 900	1500	2500				
e Flanges)	Size	150		600			2500	te Flanges)	Size	150			900		2500				
ed Face Flanges)	Size (nominal)	450 PSI	Maxi 1125 PSI	600 mum Test P 2250 PSI	900 ressure PSI 3375 PSI	(Bar) 5625 PSI	9375 PSI	ed Face Flanges)	Size (nominal)	450 PSI	Maxir 1125 PSI	600 num Test Pr 2250 PSI	900 ressure PSI 3375 PSI	(Bar) 5625 PSI	9375 PSI				
Raised Face Flanges)	Size (nominal) Inch (mm)		Maxi	600 mum Test P	900 ressure PSI	(Bar)	9375 PSI (646 Bar)	Raised Face Flanges)	Size (nominal) Inch (mm)		Maxir	600 mum Test Pr	900 ressure PSI	(Bar)	9375 PSI (646 Bar)				
<sup>r</sup> lat / Raised Face Flanges)	Size (nominal) Inch (mm) 2 (50.8)	450 PSI	Maxi 1125 PSI	600 mum Test P 2250 PSI	900 ressure PSI 3375 PSI (233 Bar)	(Bar) 5625 PSI (388 Bar)	9375 PSI	<sup>-</sup> lat / Raised Face Flanges)	Size (nominal) Inch (mm) 3 (76.2)	450 PSI	Maxir 1125 PSI	600 num Test Pr 2250 PSI	900 ressure PSI 3375 PSI	(Bar) 5625 PSI (388 Bar)	9375 PSI				
age (Flat / Raised Face Flanges)	Size (nominal) Inch (mm) 2 (50.8) 3 (76.2)	450 PSI (31 Bar)	Maxin 1125 PSI (76 Bar)	600 mum Test P 2250 PSI (155 Bar)	900 ressure PSI 3375 PSI (233 Bar) √	(Bar) 5625 PSI	9375 PSI (646 Bar)	(Flat / Raised Face	Size (nominal) Inch (mm) 3 (76.2) 4 (101.6)	450 PSI	Maxir 1125 PSI	600 num Test Pr 2250 PSI (155 Bar)	900 ressure PSI 3375 PSI (233 Bar)	(Bar) 5625 PSI (388 Bar) √	9375 PSI (646 Bar)				
Soverage (Flat / Raised Face Flanges)	Size (nominal) Inch (mm) 2 (50.8) 3 (76.2) 4 (101.6)	450 PSI (31 Bar)	Maxii 1125 PSI (76 Bar)	600 mum Test P 2250 PSI (155 Bar) √	900 ressure PSI 3375 PSI (233 Bar)	(Bar) 5625 PSI (388 Bar)	9375 PSI (646 Bar)	(Flat / Raised Face	Size (nominal) Inch (mm) 3 (76.2) 4 (101.6) 5 (127)	450 PSI	Maxir 1125 PSI (76 Bar)	600 num Test Pr 2250 PSI (155 Bar)	900 ressure PSI 3375 PSI (233 Bar) √	(Bar) 5625 PSI (388 Bar)	9375 PSI (646 Bar)				
alve Coverage (Flat / Raised Face Flanges)	Size (nominal) Inch (mm) 2 (50.8) 3 (76.2) 4 (101.6) 5 (127)	450 PSI (31 Bar) √ √	Maxii 1125 PSI (76 Bar) √ √	600 mum Test P (155 Bar) √ √	900 ressure PSI 3375 PSI (233 Bar) √	(Bar) 5625 PSI (388 Bar)	9375 PSI (646 Bar)	Coverage (Flat / Raised Face	Size (nominal) Inch (mm) 3 (76.2) 4 (101.6) 5 (127) 6 (152.4)	450 PSI (31 Bar)	Maxir 1125 PSI (76 Bar)	600 num Test Pr 2250 PSI (155 Bar) √ √	900 ressure PSI 3375 PSI (233 Bar)	(Bar) 5625 PSI (388 Bar) √	9375 PSI (646 Bar)				
Valve Coverage (Flat / Raised Face Flanges)	Size (nominal) Inch (mm) 2 (50.8) 3 (76.2) 4 (101.6)	450 PSI (31 Bar)	Maxii 1125 PSI (76 Bar)	600 mum Test P 2250 PSI (155 Bar) √	900 ressure PSI 3375 PSI (233 Bar) √	(Bar) 5625 PSI (388 Bar)	9375 PSI (646 Bar)	(Flat / Raised Face	Size (nominal) Inch (mm) 3 (76.2) 4 (101.6) 5 (127) 6 (152.4) 8 (203.2)	450 PSI	Maxir 1125 PSI (76 Bar)	600 num Test Pr 2250 PSI (155 Bar)	900 ressure PSI 3375 PSI (233 Bar) √	(Bar) 5625 PSI (388 Bar) √	9375 PSI (646 Bar)				
Valve Coverage (Flat / Raised Face Flanges)	Size (nominal) Inch (mm) 2 (50.8) 3 (76.2) 4 (101.6) 5 (127) 6 (152.4)	450 PSI (31 Bar) √ √ √	Maxii 1125 PSI (76 Bar) √ √ √	600 mum Test P (155 Bar) √ √ √	900 ressure PSI 3375 PSI (233 Bar) √	(Bar) 5625 PSI (388 Bar)	9375 PSI (646 Bar)	Valve Coverage (Flat / Raised Face	Size (nominal) Inch (mm) 3 (76.2) 4 (101.6) 5 (127) 6 (152.4) 8 (203.2) 10 (254)	450 PSI (31 Bar)	Maxir 1125 PSI (76 Bar) √ √ √	600 num Test Pr 2250 PSI (155 Bar)	900 ressure PSI 3375 PSI (233 Bar)	(Bar) 5625 PSI (388 Bar) √	9375 PSI (646 Bar)				
Specs Valve Coverage (Flat / Raised Face Flanges)	Size (nominal) Inch (mm) 2 (50.8) 3 (76.2) 4 (101.6) 5 (127)	450 PSI (31 Bar) √ √ √ Iamping: 55	Maxii 1125 PSI (76 Bar) √ √ √	600 mum Test P (155 Bar) √ √ √	900 ressure PSI (233 Bar) √ √	(Bar) 5625 PSI (388 Bar) √	9375 PSI (646 Bar) √	Coverage (Flat / Raised Face	Size (nominal) Inch (mm) 3 (76.2) 4 (101.6) 5 (127) 6 (152.4) 8 (203.2) 10 (254) Hydraulic C	450 PSI (31 Bar)	Maxir 1125 PSI (76 Bar) √ √ √ √	600 num Test Pr 2250 PSI (155 Bar) √ √ √ √	900 ressure PSI 3375 PSI (233 Bar) √ √	(Bar) 5625 PSI (388 Bar) √ √	9375 PSI (646 Bar) √				

### **SPECIFICATIONS**

CALDER a CLIMAX Company Web site: climaxportable.com

## **SPECIFICATIONS**



				HFS-14									HF	S-16					
es)		ANSI Class							es)		ANSI Class								
ace Flang	Valve	150	3	00 600	900	1500	25	500	-lang	Valve	150	300		600	900	1500	2500		
	Size (nominal)	Maximum Test Pressure PSI (Bar)							ace H	Size (nominal)		Maximum Test Pressure PSI (Bar)							
aised F	Inch (mm)	450 PSI (31 Bar)	1	5 PSI 2250 PSI Bar) (155 Bar)	3375 PSI (233 Bar)	5625 PSI (388 Bar)		5 PSI 6 Bar)	Valve Coverage (Flat / Raised Face Flanges)	Inch (mm)	450 P (31 Ba			2250 PSI (155 Bar)	3375 PS (233 Bar		9375 PS (646 Bai		
Valve Coverage (Flat / Raised Face Flanges)	8 (203.2)	(** = = = = )	(	√	(	(000 - 0.1)	(0.0		at / R	8 (203.2)	(***=*	., (	.,	()	√	, (,	(0.0 -0		
	10 (254)			√					je (Fl	10 (254)				1					
	12 (304.8)	1		√					veraç	12 (304.8)	√	1				_			
ve Co	14 (355.6)								ve Cc	14 (355.6)	√	√							
Val									Val	16 (406.4)	√								
(0)	Hydraulic C	lamping: 10	00 ton:	s (90.7 tonnes)	-					Hydraulic	Clamping	: 150 tons (	136.0	tonnes)					
Specs	Approximate	dimensions	s: 25.1	L x 25.1 W x 26.3	H inch (638 L	_ x 638 W x 6	668 H	mm)	Specs	Approxima	te dimens	ions: 26 L x	28.6 V	V x 32 H ir	ich (660 L	x 726 W x 813	3 H mm )		
	Approximate	e weight: m	achine	e 493 lbs (223 kgs	s) / shipped 5	50 lbs (249	kgs)			Approximate weight: machine 879 lbs (399 kgs) / shipped 1,000 lbs (454 kg					54 kgs)				
Dim	ensional D	rawing		HFS-A	PI-100T	I	٦Г			HFS-API-	150T		ÎΓ		HFS-A	PI-400T			
(see	specs for	model			API Pressure Class					A	PI Press	ure Class				API Pressure Class			
spec	cific dimens	sions)	nges)		5M	10M	0000	uges)			5M	10M	naes)	look.		5M	10M		
		<u>+</u>	/alve Coverage (Flat / Raised Face Flanges)	Valve Size (nominal)	Maximum Test Pressure PSI (Bar)		Raised Face Flanges)	-ace Ha	Valve Size (nominal)		Maximum Test ressure PSI (Bar)		Raised Face Flanges)	Valve	Valve Size (nominal)	Maximu Pressure			
			Raised I	Inch (mm)	10000 PSI (689 Bar)	15000 PSI (1034 Bar)	Daiad	Kaised	nch (mn	, 10	000 PSI 89 Bar)	15000 PSI (1034 Bar)	Raised I	Inch (n	,	10000 PSI (689 Bar)	15000 PS (1034 Ba		
		0 Height		Flat /	Flat /	2 1⁄16 (52 mm)		√			1/16 (52	mm)			Lat /	2 1/16 (	52 mm)		
Ø	0 0			2 %16 (65 mm)			Valve Coverage (I	90 2 %16 (65		mm)			/alve Coverage (Flat /	2 %16 (	65 mm)				
// ١			Cover	4 1∕₂ (105 mm)					⅓ (105	imm)			Cover	4 1/8 (1	05 mm)				
/ /		/ /	alve (	5 ⅓ (130 mm)			- I on I of	alve (	1⁄8 (130	mm)			alve (	5 1/8 (1	30 mm)	√			
2L				7 1⁄16 (179 mm)			11 -		1/16 (17	9 mm)			_		, 179 mm)	√			
				Hydraulic Clamping: 100 tons (90.7 tonnes)			ľ		lydrauli onnes)	/draulic Clamping: 150 tons (136.0 nnes)				Hydraulic Clamping: 400 to to			(362.9		
	Ah				pproximate dimensions: 19.9 L x 22.9 W 27 H (505 L x 582 W x 686 H)				pproximate dimensions: 26.0 in L x 28.6 W x 32 in H (660 L x 726 W x 813 H)		Snecs	Approx H (864		ensions: 34 L / x 1372 H)	x 36 W x 5				
	KO.	- Width		Approximate weight: machine 500 lbs (227 kgs) / shipped 650 lbs (295 kgs)						nate weight: machine 879 lbs s) / shipped 1000 lbs (454 kgs)					Approximate weight: machine 2000 lbs (907 kgs) / shipped 2500 lbs (1133 kgs)				

The machine does not use lasers nor does it create hazardous materials such as gasses or dust.

### **HFS CONFIGURATIONS**

The HydroPro™ 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

Length -

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

HFS wit	h ring	groove	seal	plate
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Model	PN
HFS-API-100T	89492
HFS-API-400T	89493
HFS-API-400T	89725

Hoist ring Lift plate Hydraulic cylinder Body Clamp arm Swivel plate Seal plate

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CALDER a CLIMAX Company Web site: climaxportable.com

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### CALDER VALVE INSTITUTE AND CARE PROGRAM

#### CALDER VALVE INSTITUTE<sup>™</sup>

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 USbased 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!

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**18**5 Ohio WORLD HEADQUARTERS

Baton Rouge

Houston REGIONAL OFFICE

REGIONAL OFFICE

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### 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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o Field Sales Locations
⊙ Field Sales & Rental Locations

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