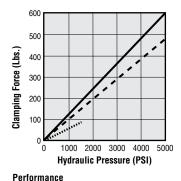
## Hydraulic Power Clamps | Hydraulic Swing/Pull Clamps - 475 lb.

The DESTACO Threaded Body Swing/Pull Clamps are available in both single-acting and double-acting versions. They incorporate the latest hydraulic swing clamp technology. The top port design allows easy access for plumbing connections.

They are available with 90° left or right hand rotation, or with guided straight pull. The breather port on single-acting models may be replaced with tubing for remote venting. The optional arms clamp securely to the piston rod to reduce fatigue and deflection. Arms may be easily modified or custom arms may be substituted.

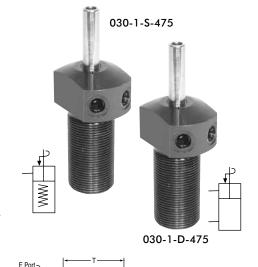
#### Features:

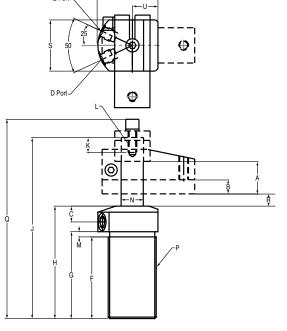
- · Advanced seals and wipers utilize a special, highly wear-resistant construction for long cycle life and 5,000 PSI operation
- Triple track piston rod design for field adjustable swing direction
- Hardened and hard chrome plated piston rod for increased strength and wear resistance
- Advanced metal treated body for superior wear and corrosion resistance
- MRO interchange design
- Straight pull capacity 600 lbs. at 5,000 PSI max



...... With 031-L-475 Arm (3.25" long)

For 475 lb. Swing/Pull Clamp Arms see Page MC-HYD-11





With 0-31-S-475 Arm (1.22" long) Straight Pull	

			Specific	ations				Max Oil Flow
Cat. no.	Oper.	Swing Direction	*Force (lbs.)		a (sq. In.) Unclamp		o. (cu. In.) Unclamp	in <sup>3</sup> /m in
030-1-S-475 (-X)	Single- Acting	Left Hand (Counter Clockwise)	475		-		-	
030-1-D-475 (-X)	Double- acting	Right Hand (Clockwise) Straight Pull	475	0.12	0.24	0.08	0.15	12

#### Ordering Notes:

- Left hand swing (ccw) is standard no suffix
- Add –R suffix for right hand swing Add -S suffix for straight guided pull

								Spe	cificati	ons									
Cat. no.	_ A	В		D	E														
	Total Stroke	Clamping Stroke	С	Clamp Port	Unclamp Port	F	G	н	J	K	L	М	Z	Р	Q	R	S	Т	U
030-1-S-475 (i)	0.65	0.210	0.59	SAE-2	CAEO	1 020	2.004	2.07	4.429	0.8	AAZ1	0.157	0 202	1-1/8-	4.04	0.495	1.3	1.55	0.61
030-1-D-475(i)	0.65	0.32	0.59	SAE-Z	SAE-2	1.929	2.066	3.07	4.429	0.8	MOXI	0.157	0.393	1-1/8- 16UN	4.90	0.495	1.3	1.55	0.61

i This item is available upon request



<sup>\*</sup>With 1.22" long arm at 5,000 PSI maximum operating pressure.

<sup>&</sup>lt;sup>4</sup>Do not pressurize – single-acting only † See page MC-HYD-11 for arms, accessories and custom arm mounting

030-1-S-1100

## Hydraulic Power Clamps | Hydraulic Swing/Pull Clamps - 1,100lb.

 $\frac{1}{8}$ 

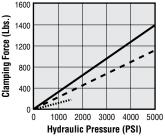
030-1-D-1100

The DESTACO Threaded Body Swing/Pull Clamps are available in both single-acting and double-acting versions. They incorporate the latest hydraulic swing clamp technology. The top port design allows easy access for plumbing connections.

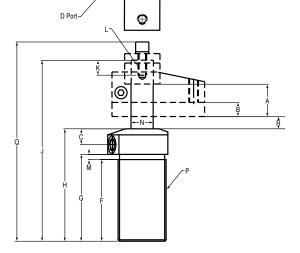
They are available with 90° left or right hand rotation, or with guided straight pull. The breather port on single-acting models may be replaced with tubing for remote venting. The optional arms clamp securely to the piston rod to reduce fatigue and deflection. Arms may be easily modified or custom arms may be substituted.

#### Features:

- Advanced seals and wipers utilize a special, highly wear-resistant construction for long cycle life and 5,000 PSI operation
- Triple track piston rod design for field adjustable swing direction
- Hardened and hard chrome plated piston rod for increased strength and wear resistance
- · Advanced metal treated body for superior wear and corrosion resistance
- MRO interchange design
- Straight pull capacity 1,400 lbs. at 5,000 PSI max



For 1,100 lb. Swing/Pull Clamp Arms see Page MC-HYD-12



0	1000 <b>Hydra</b>	2000 ulic Pr		5
Performa	•		 (,	
	With 031- With 031- Straight F	-S-1100		

			Specific	ations				Max Oil Flow
Cat. no.		Swing	*Force		a (sq. In.)		o. (cu. ln.)	in <sup>3</sup> /m
	Oper.	Direction	(lbs.)	Clamp	Unclamp	Clamp	Unclamp	in
030-1-S-1000 (-X)	Single- Acting	Left Hand (Counter Clockwise)	1100	0.28	-	0.25	-	25
030-1-D-1000 (-X)	Double- acting	Right Hand (Clockwise) Straight Pull	1100	0.28	0.59	0.25	0.52	25

### Ordering Notes:

- Left hand swing (ccw) is standard—
- Add –R suffix for right hand swing
- · Add -S suffix for straight guided pull

								Spe	cificat	ions									
Cat. no.	Α	В		D	Е														
	Total	Clamping			Unclamp														
	Stroke	Stroke	<u> </u>	Port	Port	F	G	H	J	K	L_	_ M_	_N_	P	Q	R	<u> </u>		U
030-1-S-1100 (i)	0.89	0.39	0.6	SAE-4	SAE-4	2.4	2.6	3 58	5 305	0.04	M8 x	n 106	0 620	1-3/8- 18UN	5.965	0.400	1.5	1.87	0.75
030-1-D-1100 (i)		0.57	0.0	JAL-4	3AL-4	2.4	2.0	3.36	3.303	0.74	1.25	0.170	0.027	18UN	3.703	0.400	1.5	1.07	0.73

i This item is available upon request

<sup>\*</sup>With 1.89" long arm at 5,000 PSI maximum operating pressure. <sup>A</sup>Do not pressurize – single-acting only

<sup>†</sup> See page MC-HYD-12 for arms, accessories and custom arm mounting

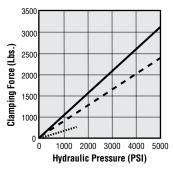
## Hydraulic Power Clamps | Hydraulic Swing/Pull Clamps - 2,400 lb.

The DESTACO Threaded Body Swing/Pull Clamps are available in both single-acting and double-acting versions. They incorporate the latest hydraulic swing clamp technology. The top port design allows easy access for plumbing connections.

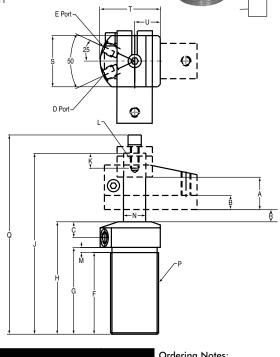
They are available with 90° left or right hand rotation, or with guided straight pull. The breather port on single-acting models may be replaced with tubing for remote venting. The optional arms clamp securely to the piston rod to reduce fatigue and deflection. Arms may be easily modified or custom arms may be substituted.

#### Features:

- · Advanced seals and wipers utilize a special, highly wear-resistant construction for long cycle life and 5,000 PSI operation
- Triple track piston rod design for field adjustable swing direction
- Hardened and hard chrome plated piston rod for increased strength and wear resistance
- Advanced metal treated body for superior wear and corrosion resistance
- MRO interchange design
- Straight pull capacity 3,150 lbs. at 5,000 PSI max



For 2,400 lb. Swing/Pull Clamp Arms see Page MC-HYD-11



030-1-D-2400

#### Performance

- ...... With 031-L-2400 Arm (6.36" long)
- - With 031-S-2400 Arm (2.43" long)
- Straight Pull

			Specific	ations				Max
Cat. no.	Oper.	Swing Direction	*Force (lbs.)		a (sq. In.) Unclamp		o. (cu. In.) Unclamp	Oil Flow in3/m in
030-1-S-2400 (-X)	Single- Acting	Left Hand (Counter Clockwise)	2.400	0.63	-	0.7	-	100
030-1-D-2400 (-X)	Double- acting	Right Hand (Clockwise) Straight Pull	2400	0.63	1.23	0.7	1.10	100

### Ordering Notes:

030-1-S-2400

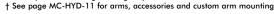
- Left hand swing (ccw) is standard no suffix
- Add –R suffix for right hand swing Add -S suffix for straight guided pull

								Spe	cificati	ions									
Cat. no.		B Clamping			E Unclamp														
	Stroke	Stroke	С	Port	Port	F	G	Н	J	Κ	L	M	Z	P	Q	R	S	Т	U
030-1-S-2400 (i)	1.12	0.5	0.62	SAE-4	SAE-4		2 20	4.38	6.8	1 20	M10x	0 104	0.87	1-7/8- 16UN	7 5 4 2	0.517	2.0	2.38	1.0
030-1-D-2400(i)	1.12	0.5	0.02	JAE-4	JAE-4	'	3.36	4.30	0.8	1.20	1.5	0.190	0.67	16UN	7.543	0.317	2.0	2.30	1.0

i This item is available upon request

\*With 2.43" long arm at 5,000 PSI maximum operating pressure.

<sup>A</sup>Do not pressurize – single-acting only





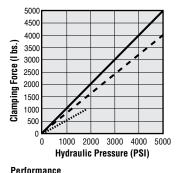
## Hydraulic Power Clamps | Hydraulic Swing/Pull Clamps - 4,000 lb.

The DESTACO Threaded Body Swing/Pull Clamps are available in both single-acting and double-acting versions. They incorporate the latest hydraulic swing clamp technology. The top port design allows easy access for plumbing connections.

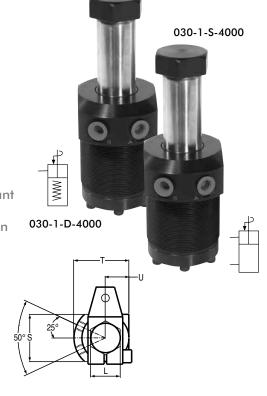
They are available with 90° left or right hand rotation, or with guided straight pull. The breather port on single-acting models may be replaced with tubing for remote venting. The optional arms clamp securely to the piston rod to reduce fatigue and deflection. Arms may be easily modified or custom arms may be substituted.

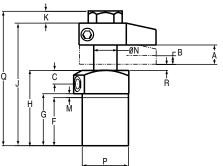
### Features:

- Advanced seals and wipers utilize a special, highly wear-resistant construction for long cycle life and 5,000 PSI operation
- Triple track piston rod design for field adjustable swing direction
- Hardened and hard chrome plated piston rod for increased strength and wear resistance
- Advanced metal treated body for superior wear and corrosion resistance
- MRO interchange design
- Straight pull capacity 5,500 lbs. at 5,000 PSI max



For 4,000 lb. Swing/Pull Clamp Arms see Page MC-HYD-11





 With 031-L-4000 Arm

with 031-L-4000 Arm (X.XX\* long)

- - With 031-S-4000 Arm (X.7.01\* long)

Straight Pull (2.75\* long)

Cat. no.	Oper.	Swing Direction	*Force	Eff. Are	a (sq. In.) Unclamp		o. (cu. In.) Unclamp	Max Oil Flow in <sup>3</sup> /m in
030-1-S-4000 (-X)	Single- Acting	Left Hand (Counter Clockwise)		·	-	·	-	
030-1-D-4000 (-X)	Double- acting	ni i i i i i i i i i i i i i i i i i i	4000	1.10	2.35	1.22	2.60	140

NOTE:

This item is available upon request

(i) This item is av	ailable (	upon reque	st					Spec	ificatio	ons									
Cat. no.	A Total Stroke	B Clamping Stroke	С	D Clamp Port	E Unclamp Port	F	G	Н	J	K	L	М	N	P	Q	R	S	Т	U
030-1-S-4000 (i)	1.07	0.45	0.75	SAE#4	SAE#4	2.70	2.83	4.09	6.67	0.64	1 / 1	0.14	1.04	2- 1/2-16	7 20	0.33	2.54	2.99	1.28
030-1-D-4000 (i)	1.07	0.45	0.75	SAE#4	3AE#4	2.70	2.83	4.09	0.07	0.64	1.61	0.14	1.26	UN	7.30	0.33	2.36	2.99	1.28

(i) This item is available upon request

\*With 2.75" long arm at 5,000 PSI maximum operating pressure.

Do not pressurize – single-acting only

† See page MC-HYD-11 for arms, accessories and custom arm mounting

MC-HYD



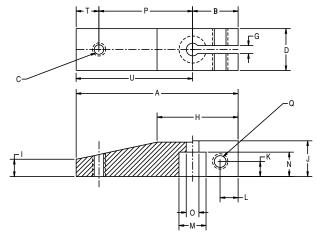
Ordering Notes:

 Left hand swing (ccw) is standard– no suffix
 Add –R suffix for right hand swing
 Add –S suffix for straight guided pull

## Hydraulic Power Clamps | Hydraulic Swing/Pull Clamps 475-2,400 lb. Arms

Custom built arms of any length must clamp to the swing/pull clamp's piston rod in a manner similar to the DESTACO arms or some derating of the clamp will be necessary.

The design feature "K," in the chart and drawing at the bottom of this page, is recommended for all applications of custom, single arms. See the accompanying chart for design details. In applications where there is no bending stress being transferred into the piston rod (like push/pull linkages and equalizing double arms), this design detail may be eliminated. In these applications, the clamp's full capacity (referred to as "straight pull" capacity) is available.



									Specif	ications	;							
Cat. no.	Α	В	С	D	G	н			K	L	м	Z	0	P	Q	т	U	Weight (lbs.)
031-S-475	1.929	0.709	M6	0.63		1.139	0.394	0.630		_	0.394	0.394	0.256	0.984	M6	0.236	1.220	0.159
031-L-475	3.959	0.709	-	0.63		1.166	0.394	0.630	748		0.394	0.394	0.256	-	М6	<u> </u>	3.250	0.348
031-S-1100	2.598	0.709	M8	0.748		1.294	0.433	0.748			0.630	0.472	0.33	1.575	М6	0.315	1.889	0.286
031-L-1100	6.019	0.709	-	0.748	0.126	1.412	0.433	0.748		0.217	0.630	0.472	0.335	-	M6	_	5.310	0.721
031-S-2400	3.268	0.866	M10	1.125		1.459	0.633	1.00			0.866	0.709	0.413	1.969	M8	0.433	2.402	0.634
031-L-2400	7.226	0.866	-	1.125		1.696	0.633	1.00			0.866	0.709	0.413	-	M8	-	6.360	1.564

IMPORTANT: Any clamp using a modified or custom arm that is longer or heavier than DESTACO's standard arms must be derated to prevent internal damage.

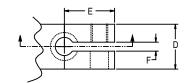
Do not exceed the maximum speed and pressure ratings for DESTACO's standard arms. For maximum hydraulic pressure and speed ratings, see the accompanying charts

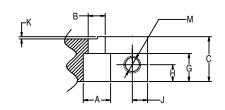
For maximum hydraulic pressure and speed ratings, see the accompanying charts Do not use meter-out circuitry for controlling double-acting clamp speeds

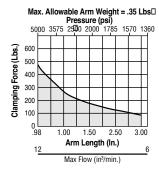
Contact DESTACO if further design assistance is required

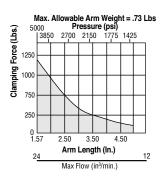
## Custom Arm Mounting Dimensions for Swing/Pull Clamps

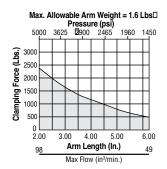
Shaft Dia.		Specifications											
	Α	В	С	D	Е	F	G	Н	J	K	M		
10 MM	0.394	0.256	0.63	0.63	0.709	1.26	0.394	0.236	0.217		M6 x 1.0		
16MM	0.630	0.335	0.748	0.748	0.709		0.472	0.236	0.217		M6 x 1.0		
22 MM	0.866	0.413	1.00	1.00	0.866		0.709	0.236	0.217		M8 x 1.25		











## **Chart Legend**

Maximum Length / Pressure
Operating Range

Clamps must operate at or below maximum□ arm length/pressure curve:

To approximate clamping force with any arm at less than maximum pressure:

### FORCE = $P \times A \times [1-(P/M \times .23)]$

P = Hyd. system operating pressure (PSI)

A = Clamp effective area (sq. in.)

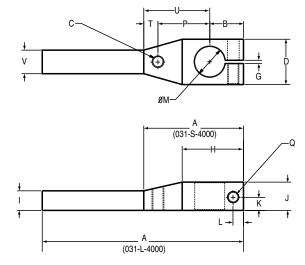
**M** = Max. rated pressure of chosen arm length (PSI)



## Hydraulic Power Clamps | Hydraulic Swing/Pull Clamps - 4,000 lb. Arms

Custom built arms of any length must clamp to the swing/pull clamp's piston rod in a manner similar to the DESTACO arms or some derating of the clamp will be necessary.

The design feature "K," in the chart and drawing at the bottom of this page, is recommended for all applications of custom, single arms. See the accompanying chart for design details. In applications where there is no bending stress being transferred into the piston rod (like push/pull linkages and equalizing double arms), this design detail may be eliminated. In these applications, the clamp's full capacity (referred to as "straight pull" capacity) is available.



Cat no.		Specifications															
	Α	В	С	D	G	н	1	J	K	L	М	P	Q	T	U	٧	Weight (lbs.)
031-S-4000	4.17	1.42	1/2-13	1.89	0.138	2.56	0.83	1.18	0.55	0.43	1.26	2.17	M12	0.58	2.75	0.98	1.80
031-L-4000	8.43	1.42	1/2-13	1.89	0.138	2.56	0.83	1.18	0.55	0.43	1.26	-	M12	-	7.01	0.98	2.80

IMPORTANT: Any clamp using a modified or custom arm that is longer or heavier than DESTACO's standard arms must be derated to prevent internal damage

Do not exceed the maximum speed and pressure ratings for DESTACO's standard arms.

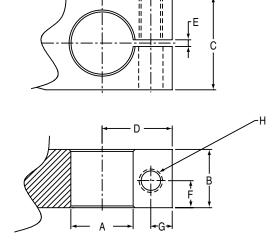
For maximum hydraulic pressure and speed ratings, see the accompanying charts

Do not use meter-out circuitry for controlling double-acting clamp speeds

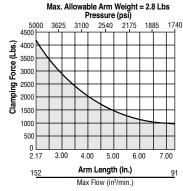
Contact DESTACO if further design assistance is required

## Custom Arm Mounting Dimensions for 4,000 lb. Swing/Pull Clamps

Continue	Specifications												
Cat no.	Α	В	С	D	E	F	G	н					
32MM	1.26	1.18	1.89	1.42	0.138	0.55	0.43	M12 x 1.75					



#### 031-S-4000 • 031-L-4000



### Chart Legend

Maximum Length / Pressure Operating Range

Clamps must operate at or below maximum□ arm length/pressure curve:

To approximate clamping force with any arm at less than maximum pressure:

FORCE =  $P \times A \times [1-(P/M \times .23)]$ 

**P** = Hyd. system operating pressure (PSI)

A = Clamp effective area (sq. in.)

M = Max. rated pressure of chosen arm length (PSI)

