

NEW

035 Series



page **12.4**

NEW

89R Series



page **12.16**









NEW

9500 Series



page **12.22**

Product group – pneumatic swing clamps

Model Series no.	Model no.			Page	Model Series no.	Model no.			Page
	035-125-145 035-125-160 035-125-190 035-125-245 035-125-260 035-125-290 035-125-300			12.5	8000	8015 8016 8015-LA 8016-LA			12.14
	035-225-145 035-225-160 035-225-190 035-225-245 035-225-260 035-225-290 035-225-300			12.5	8100	8115 8116 8115-LA 8116-LA			
	035-132-145 035-132-160 035-132-190 035-132-245 035-132-260 035-132-290 035-132-300			12.6	8200	8215 8216 8215-LA 8216-LA			
	035-232-145 035-232-160 035-232-190 035-232-245 035-232-260 035-232-290 035-232-300			12.6	8300	8315 8316 8315-LA 8316-LA			
	035-140-145 035-140-160 035-140-190 035-140-245 035-140-260 035-140-290 035-140-300			12.7	8400	8415 8416 8415-LA 8416-LA			
	035-240-145 035-240-160 035-240-190 035-240-245 035-240-260 035-240-290 035-240-300			12.7	89R	89R20-010-1 89R32-010-1 89R40-010-1 89R40-025-1 89R50-025-1 89R63-025-1			12.16
	035-150-145 035-150-160 035-150-190 035-150-245 035-150-260 035-150-290 035-150-300			12.8	8JG	8MA-084-1 8MA-085-1 8MA-086-1 8MA-087-1 8MA-088-1 8MA-089-1	89R20-010-1 89R32-010-1 89R40-010-1 89R40-025-1 89R50-025-1 89R63-025-1	Blank Arm	12.18
	035-250-145 035-250-160 035-250-190 035-250-245 035-250-260 035-250-290 035-250-300			12.8	8MA	8MA-092-1 8MA-094-1 8MA-095-1 8MA-095-1 8MA-096-1 8MA-097-1	89R20-010-1 89R32-010-1 89R40-010-1 89R40-025-1 89R50-025-1 89R63-025-1	Body Mount Flange	12.18

Note: See pages 12.6 & 9.1 for accessories

Model Series no.	Model no.	Used on		Page
8JG 	8JG-215-1 8JG-217-1 8JG-218-1 8JG-218-1 8JG-219-1 8JG-220-1	89R20-010-1 89R32-010-1 89R40-010-1 89R40-025-1 89R50-025-1 89R63-025-1	Standard Clamp Arm	12.19
8MA 	8MA-061-1 8MA-063-1 8MA-064-1 8MA-064-1 8MA-065-1 8MA-066-1	89R20-010-1 89R32-010-1 89R40-010-1 89R40-025-1 89R50-025-1 89R63-025-1	End Mount Flange	12.19
SME 	SME-3-LED SME-3-LED SME-3-LED SME-3-LED SME-3-LED SME-3-LED	89R20-010-1 89R32-010-1 89R40-010-1 89R40-025-1 89R50-025-1 89R63-025-1	Magnetic Sensors	12.20
8MA 	8MA-018-1 8MA-020-1 8MA-021-1 8MA-021-1 8MA-022-1 8MA-023-1	89R20-010-1 89R32-010-1 89R40-010-1 89R40-025-1 89R50-025-1 89R63-025-1	Mounting Feet	12.20
	9530 9540			12.22

Pneumatic Clamps



StrongHold **SELECT**



035-163-190



035-125-190



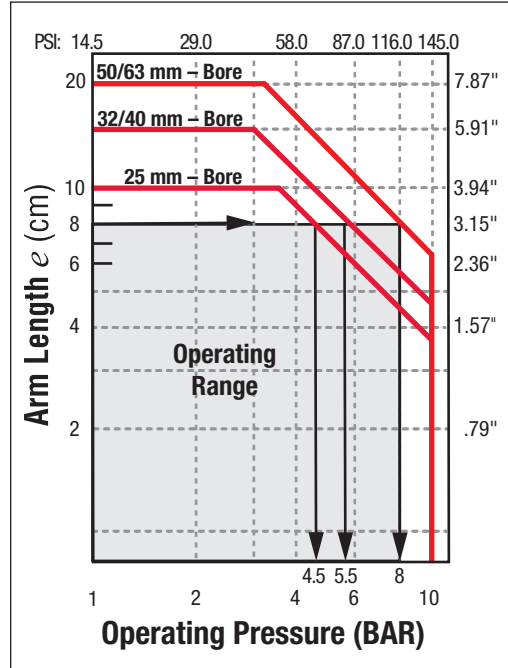
035-250-290



035-225-190

Pneumatic Swing/Pull Clamps are for applications that require a lighter touch than the forces generated by hydraulic powered clamps.

DE-STA-CO's line of pneumatic swing/pull clamps are fast acting and can generate from 50 up to 430 lbs. of clamping force from shop air.



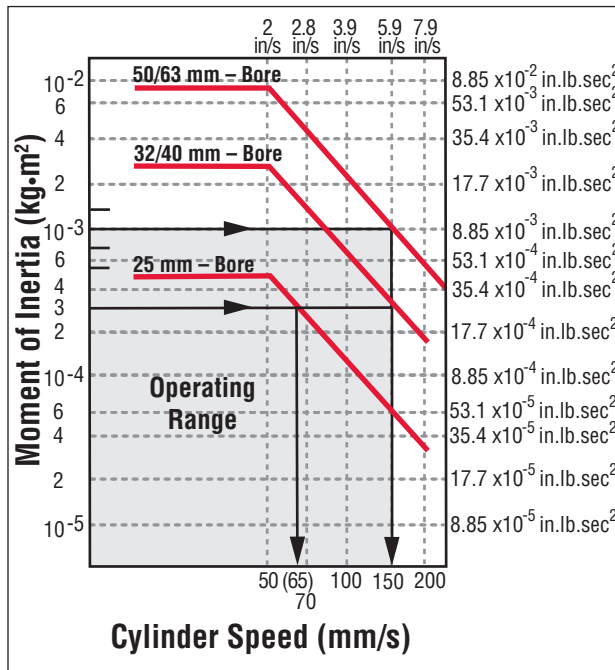
Allowable Bending Moment

Use the arm length and operating pressure within this graph for allowable bending moment loaded piston rod.

When arm length is 8 cm (3.15"), pressure should be less than:

- 25 mm Bore: 4.5 BAR (65 PSI)
- 32/40 mm Bore: 5.5 BAR (80 PSI)
- 50/63 mm Bore: 8 BAR (116 PSI)

See Page 12.10 – Calculation for Moment of Inertia



Mass Moment of Inertia

When the arm is long and heavy, damage of internal parts may be caused due to inertia. Use the inertia moment and cylinder speed within this graph based on arm requirements.

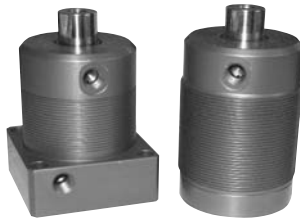
When arm's inertia is 3 X 10⁻⁴ kg•m² (2.7 X 10⁻³ in-lb•sec²) cylinder speed should be less than:

- 25 mm Bore: 65 mm/s (2.6 in/s)
- 32/40 mm Bore: 150 mm/s (5.9 in/s)
- When arm's inertia is 1 X 10⁻³ kg•m² (8.85 X 10⁻³ in-lb•sec²) cylinder speed should be less than 50/63 mm Bore: 150 mm/s (5.9 in/s)

Swing Clamp Order Information

035	-	125	-	190
Family		Style		Swing Direction
		Bore Size (mm)		Swing Angle

Style	Bore Size	Swing Direction	Swing Angle
1 – Threaded Body	25 mm	1 – Right	90°
2 – Bottom Flange	32 mm	2 – Left	
	40 mm		
	50 mm		
	63 mm		

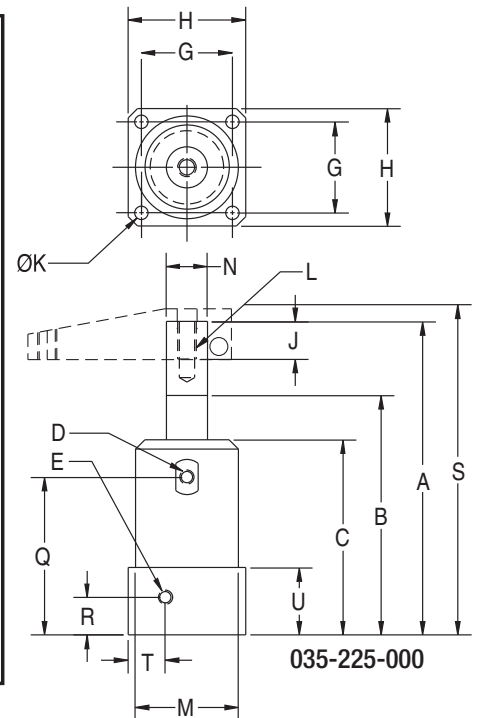
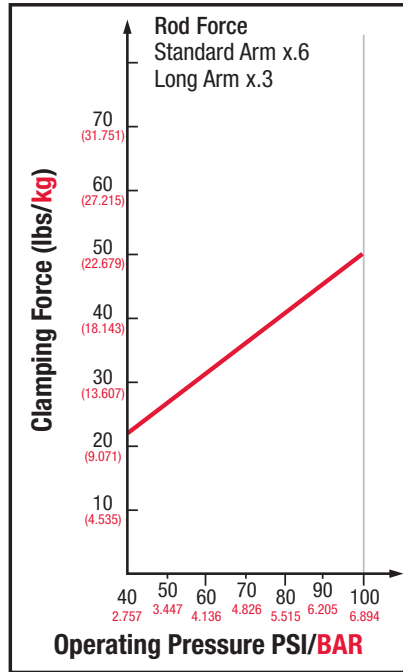
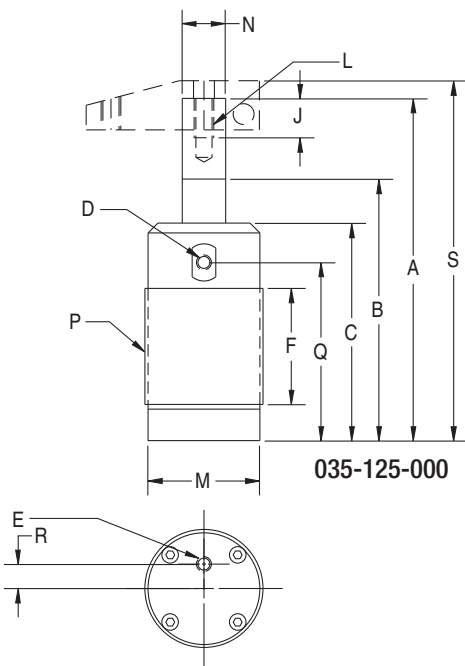


Max. Operating Pressure: 100 PSI
 Clamping Annulus Area: .522 in²
 Normal Operating Pressure: 40 – 80 PSI
 Cylinder Operating: Double-acting

DE-STA-CO's line of Pneumatic Swing/Pull Clamps is designed for applications not requiring hydraulic power. The fast acting DE-STA-CO clamp can generate up to 50 lbs. of clamping force from shop air. DE-STA-CO pneumatic clamps are ideal for a wide variety of manufacturing and assembly operations.

Features:

- Swing motion available in 90 degrees
- Four (4) styles of arms
- Double-locked arm design is bolted to piston shaft and around shaft diameter for extra rigidity
- Double-acting design
- Dual-seal design with a wiper seal to keep contaminants out
- Long clamping stroke accommodates a wide thickness of materials
- Clamping force is adjustable using regulated air
- Smooth swing motion for better operating performance



Cat. no.	Imperial Dimensions (inches)																		
	Total Stroke	Clamping Stroke	A Unclamped Position	B Clamped Position	C Body Height	D Clamp Port	E Unclamp Port	F Threaded Body	G Flange Mount	H Flange	J Thread Depth	øK Hole Dia.	L Thread Size	M Body Dia.	N Shaft Dia.	P Thread Size	Q	R	S
035-125-190 035-125-290	1.036	0.531	4.36	3.324	2.76	10-32 UNF	10-32 UNK	1.5	-	-	0.665	-	1/4-20 UNC	1.418	0.551	1½-16 UN	2.25	0.35	4.575
035-225-190 035-225-290	1.051	0.511	4.23	3.215	2.62			-	1.22	1.577				1.75		1.377	-	2.1	0.5

See page 12.9 for available arms

Pneumatic Swing/Pull Clamp – 32mm Bore



StrongHold SELECT

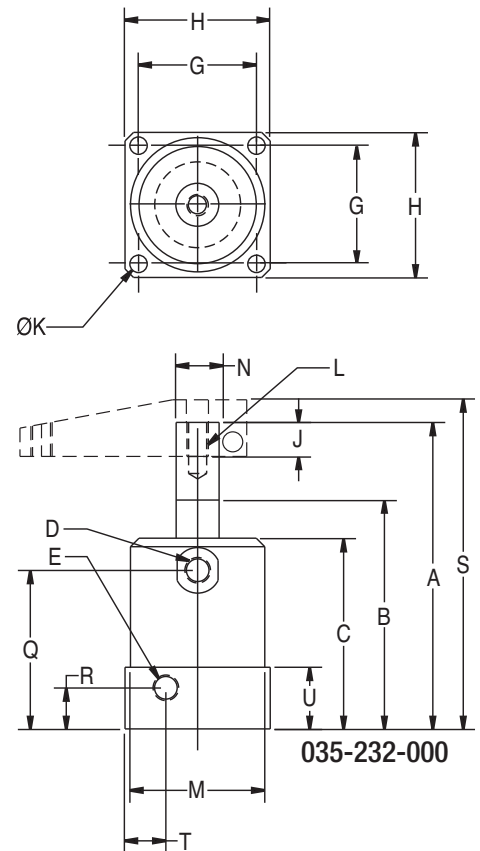
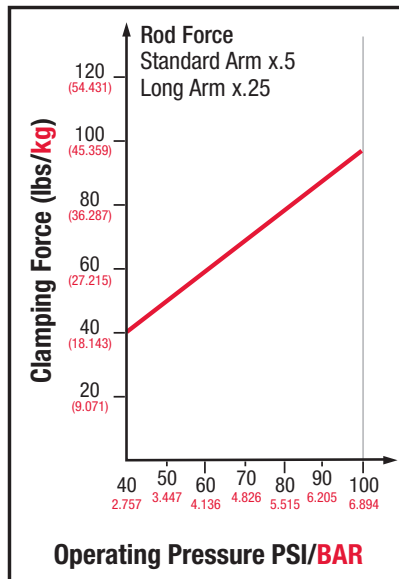
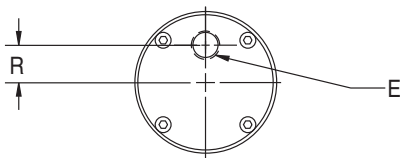
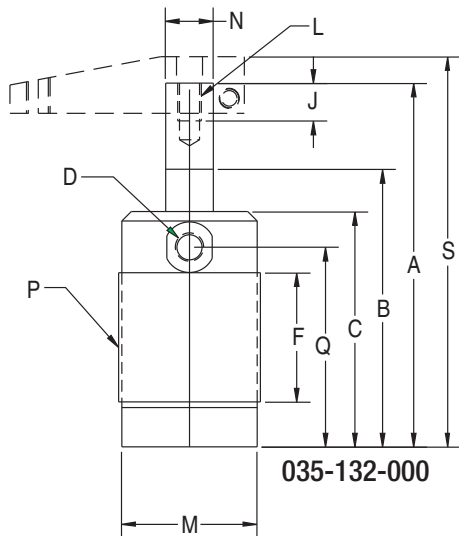


Max. Operating Pressure: 100 PSI
 Clamping Annulus Area: .935 in²
 Normal Operating Pressure: 40 – 80 PSI
 Cylinder Operating: Double-acting

DE-STA-CO's line of *Pneumatic Swing/Pull Clamps* is designed for applications not requiring hydraulic power. The fast acting DE-STA-CO clamp can generate up to 90 lbs. of clamping force from shop air. DE-STA-CO pneumatic clamps are ideal for a wide variety of manufacturing and assembly operations.

Features:

- Swing motion available in 90 degrees
- Four (4) styles of arms
- Double-locked arm design is bolted to piston shaft and around shaft diameter for extra rigidity
- Double-acting design
- Dual-seal design with a wiper seal to keep contaminants out
- Long clamping stroke accommodates a wide thickness of materials
- Clamping force is adjustable using regulated air
- Smooth swing motion for better operating performance



Cat. no.	Imperial Dimensions (inches)																				
	Total Stroke	Clamping Stroke	A Unclamped Position	B Clamped Position	C Body Height	D Clamp Port	E Unclamp Port	F Threaded Body	G Flange Mount	H Flange	J Thread Depth	øK Hole Dia.	L Thread Size	M Body Dia.	N Shaft Dia.	P Thread Size	Q	R	S	T	U
035-132-190 035-132-290	1.132	0.565	5.00	3.868	3.115			1.72	-	-		-		1.788		1 1/16 UN	2.625	0.45	5.165	-	-
						1/8 NPT	1/8 NPT				0.575		5/16-18 UNC		0.630						
035-232-190 035-232-290	1.055	0.488	4.707	3.652	2.8			-	1.732	2.13		0.253		1.97		-	2.325	0.57	4.85	0.57	0.907

See page 12.9 for available arms

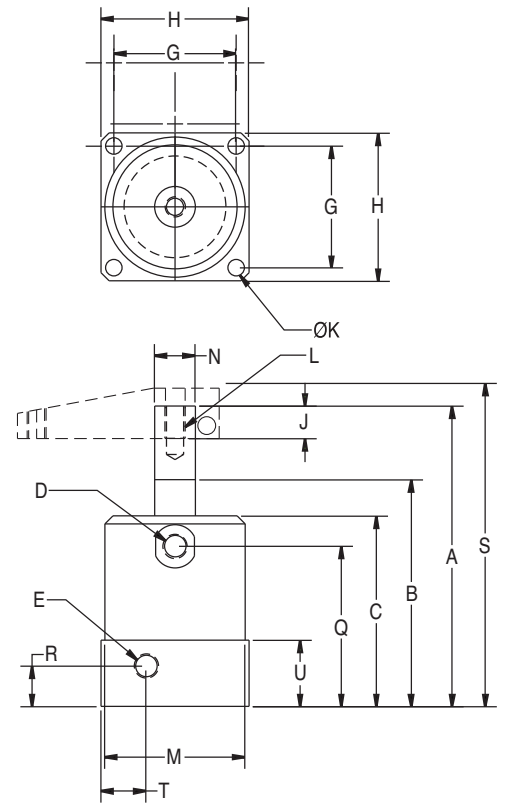
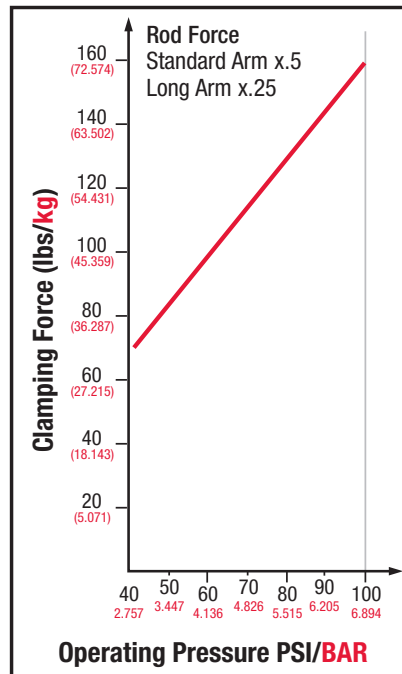
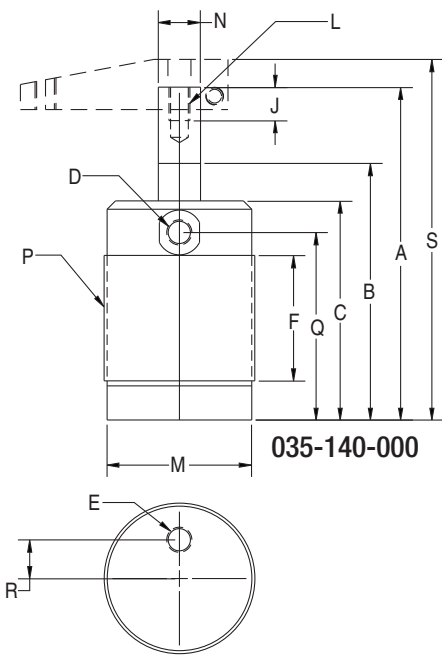


Max. Operating Pressure: 100 PSI
 Clamping Annulus Area: 1.636 in²
 Normal Operating Pressure: 40 – 80 PSI
 Cylinder Operating: Double-acting

DE-STA-CO's line of *Pneumatic Swing/Pull Clamps* is designed for applications not requiring hydraulic power. The fast acting DE-STA-CO clamp can generate up to 160 lbs. of clamping force from shop air. DE-STA-CO pneumatic clamps are ideal for a wide variety of manufacturing and assembly operations.

Features:

- Swing motion available in 90 degrees
- Four (4) styles of arms
- Double-locked arm design is bolted to piston shaft and around shaft diameter for extra rigidity
- Double-acting design
- Dual-seal design with a wiper seal to keep contaminants out
- Long clamping stroke accommodates a wide thickness of materials
- Clamping force is adjustable using regulated air
- Smooth swing motion for better operating performance



Cat. no.	Imperial Dimensions (inches)																				
	Total Stroke	Clamping Stroke	A Unclamped Position	B Clamped Position	C Body Height	D Clamp Port	E Unclamp Port	F Threaded Body	G Flange Mount	H Flange	J Thread Depth	øK Hole Dia.	L Thread Size	M Body Dia.	N Shaft Dia.	P Thread Size	Q	R	S	T	U
035-140-190 035-140-290	1.197	0.630	5.37	4.04	3.275			1.879	-	-		-		2.16		2 1/4-16 UN	2.8	0.625	5.39	-	-
035-240-190 035-240-290	1.091	0.524	4.981	3.89	2.95	1/8 NPT	1/8 NPT	-	1.889	2.29	0.7	0.253	5/16-18 UNC	2.16	0.630	-	2.5	0.65	5.00	0.65	1.027

See page 12.9 for available arms

Pneumatic Swing/Pull Clamp – 50mm Bore



StrongHold SELECT

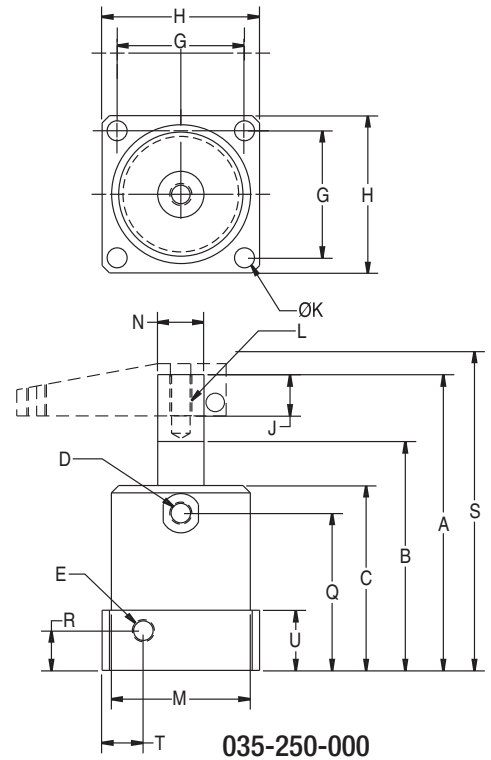
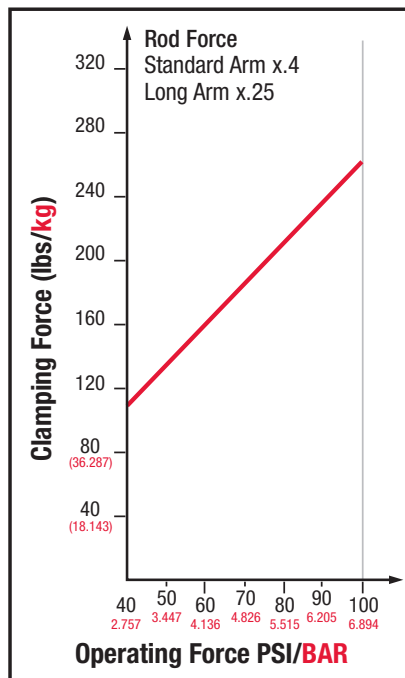
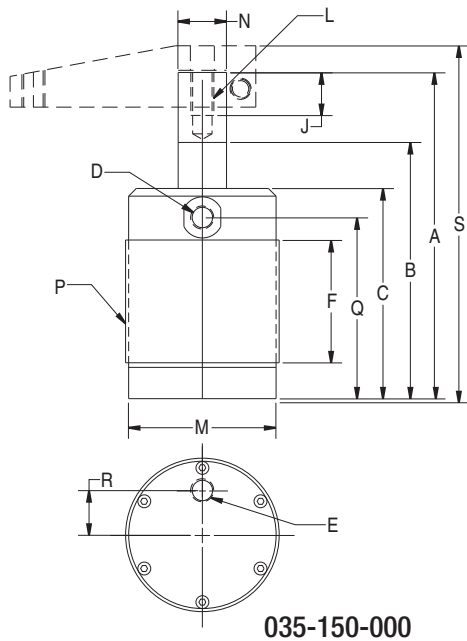


Max. Operating Pressure: 100 PSI
 Clamping Annulus Area: 2.556 in²
 Normal Operating Pressure: 40 – 80 PSI
 Cylinder Operating: Double-acting

DE-STA-CO's line of *Pneumatic Swing/Pull Clamps* is designed for applications not requiring hydraulic power. The fast acting DE-STA-CO clamp can generate up to 250 lbs. of clamping force from shop air. DE-STA-CO pneumatic clamps are ideal for a wide variety of manufacturing and assembly operations.

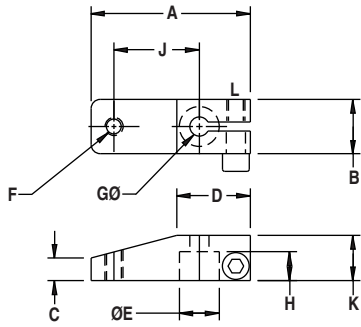
Features:

- Swing motion available in 90 degrees
- Four (4) styles of arms
- Double-locked arm design is bolted to piston shaft and around shaft diameter for extra rigidity
- Double-acting design
- Dual-seal design with a wiper seal to keep contaminants out
- Long clamping stroke accommodates a wide thickness of materials
- Clamping force is adjustable using regulated air
- Smooth swing motion for better operating performance



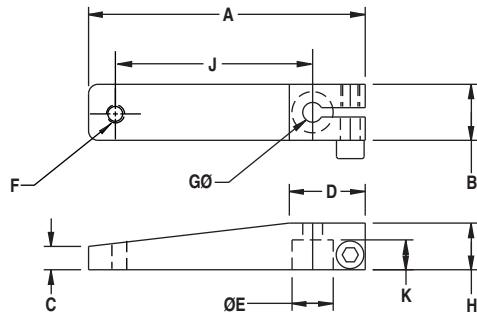
Cat. no.	Imperial Dimensions (inches)																				
	Total Stroke	Clamping Stroke	A Unclamped Position	B Clamped Position	C Body Height	D Clamp Port	E Unclamp Port	F Threaded Body	G Flange Mount	H Flange	J Thread Depth	øK Hole Dia.	L Thread Size	M Body Dia.	N Shaft Dia.	P Thread Size	Q	R	S	T	U
035-150-190 035-150-290	1.181	0.553	5.36	4.179	3.475			2.0	–	–		–		2.4		2½-16 UN	2.95	0.7	5.75	–	–
035-250-190 035-250-290	1.134	0.506	5.061	3.927	3.15	1/8 NPT	1/8 NPT	–	2.165	2.68	1.0	0.337	3/8-16 UNC	2.365	0.787	–	2.7	0.65	5.44	0.65	1.025

See page 12.9 for available arms



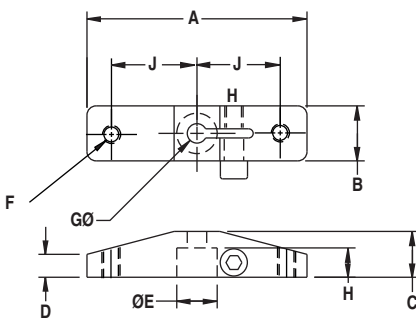
Standard Arm 036-000-01

Part no.	A	B	C	D	E	F	G	H	J	K	L
036-551-01	2.380	0.750	0.313	1.016	0.551	¼-20 UNC	0.265	0.400	1.361	0.625	¼-20 UNC-2B
036-630-01	3.100	0.750	0.375	1.105	0.630	⅜-18 UNC	0.344	0.500	2.000	0.750	⅜-18 UNC-2B
036-787-01	4.000	1.000	0.500	1.307	0.787	⅝-16 UNC	0.390	0.700	2.750	1.000	⅝-16 UNC-2B



Extended Arm 036-000-02

Part no.	A	B	C	D	E	F	G	H	J	K
036-551-02	3.380	0.750	0.313	1.016	0.551	¼-20 UNC	0.265	0.625	2.361	0.400
036-630-02	4.725	0.750	0.375	1.105	0.630	⅜-18 UNC	0.344	0.750	3.625	0.500
036-787-02	6.360	1.000	0.500	1.307	0.787	⅝-16 UNC	0.390	1.000	5.000	0.700



Dual Stationary Arm 036-000-04

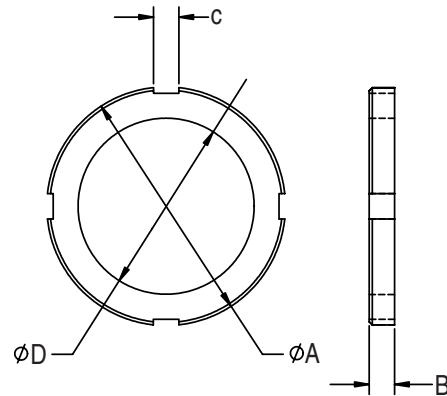
Part no.	A	B	C	D	E	F	G	H	J
036-551-04	3.28	0.750	0.625	0.313	0.551	¼-20 UNC	0.265	0.400	1.36
036-630-04	4.72	0.750	0.750	0.375	0.630	⅜-18 UNC	0.344	0.500	2.00
036-787-04	6.00	1.000	1.000	0.500	0.787	⅝-16 UNC	0.390	0.700	2.75

Flat-Tip Bonded Neoprene Cap Spindle

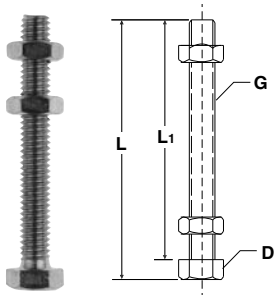


Part no.	L	L ₁	D	Thread (G)
202208	1.63	1.13	0.66	1/4-20
215208	2.13	1.63	0.66	1/4-20
225208	2.25	1.56	0.75	5/16-18
507208	3.00	2.25	0.75	5/16-18
240208	3.25	2.25	0.88	3/8-16
527208	3.50	2.50	0.88	3/8-16
235208	5.75	4.75	0.88	3/8-16

Pneumatic Clamp Jam Nut



Hex-Head Fully Threaded Carbon Steel Spindle



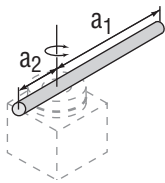
Part no.	L	L ₁	D	Thread (G)
202203	3.13	3.00	7/16	1/4-20
205203	1.88	1.69	7/16	1/4-20
461203	1.00	0.81	1/2	5/16-18
441203	1.94	1.75	1/2	5/16-18
207203	2.75	2.50	1/2	5/16-18
491203	1.50	1.25	9/16	3/8-16
210203	3.00	2.75	9/16	3/8-16
240203	4.25	4.00	9/16	3/8-16
527203	5.25	5.00	9/16	3/8-16

Part no.	Clamp Used On	Dim A	Dim B	Dim C	Dim D
051-150-160	035-125-XXX	2.000	0.38	0.275	1-1/2-16 UN
051-187-160	035-132-XXX	2.625	0.38	0.312	1-7/8-16 UN
051-225-160	035-140-XXX	3.000	0.50	0.312	2-1/4-16 UN
051-250-160	035-150-XXX	3.250	0.50	0.312	2-1/2-16 UN
051-312-160	035-163-XXX	3.875	0.50	0.375	3-1/8-16 UN

Calculation for Mass Moment of Inertia

I: Mass Moment of Inertia (kg • m²)(lb-in-sec²) m: Load Mass (kg)($\frac{\text{lb-sec}^2}{\text{in}}$)

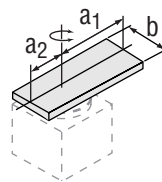
NOTE: $m = \frac{w(\text{lbf})}{g \text{ in/sec}^2}$ w = weight
g = 386 in/sec²



1. Thin Bar

Position of rotary axis: Vertical to the bar and through the end

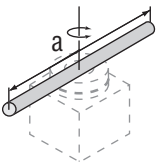
$$I = m_1 \cdot \frac{a_1^2}{3} + m_2 \cdot \frac{a_2^2}{3}$$



2. Thin Bar

Position of rotary axis: Vertical to the bar and through the center of gravity

$$I = m \cdot \frac{a^2}{12}$$



3. Thin Rectangular Plate

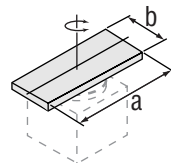
Position of rotary axis: Parallel to side b and through center of gravity

$$I = m \cdot \frac{a^2}{12}$$

4. Thin Rectangular Plate

Position of rotary axis: Vertical to the plate and through the end

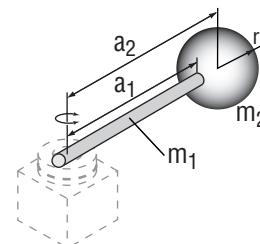
$$I = m_1 \cdot \frac{4a_1^2 + b^2}{12} + m_2 \cdot \frac{4a_2^2 + b^2}{12}$$



5. Thin Rectangular Plate

Position of rotary axis: Through the center of gravity and vertical to the plate

$$I = m \cdot \frac{a^2 + b^2}{12}$$



6. Load at the End of Lever Arm

$$I = m_1 \cdot \frac{a_1^2}{3} + m_2 \cdot a_2^2 + K$$

$$I = m_2 \cdot \frac{2r^2}{5}$$

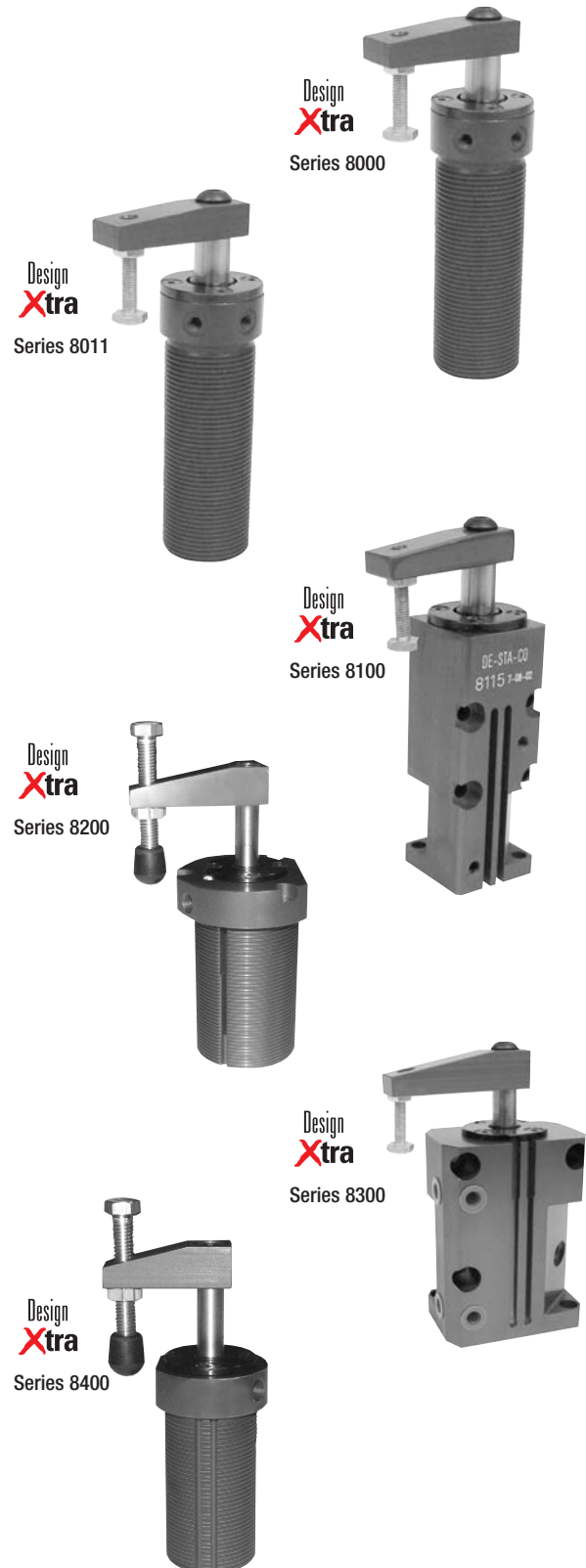
Quick, Clean & Economical

DE-STA-CO's 8400 Series joins the 8000/8100 and 8200/8300 Series, rounding out a versatile, time-saving line of swing cylinders. Ideal for installations where hydraulic power is not suitable, these pneumatic power clamps from DE-STA-CO have all the same quick-acting advantages and can produce up to 160 lbs. clamping force from shop line air pressure (see chart). These double-acting clamps are red anodized aluminum with either a threaded body that permits three mounting options, or a block-style mounting body.

Intended for quick clamping in secondary manufacturing operations on metallic or non-metallic products. These clamps offer a combination of features that makes them uniquely adaptable to such applications, as welding and assembly operations. Spindles are included.

Every DE-STA-CO pneumatic swing clamp now is equipped with sensing capabilities as a standard feature. See page 12.7 for details.

- 90° swing of clamping arm minimizes obstruction in the workspace and makes loading or unloading of parts easy.
- 1/2" clamping stroke (vertical arm travel) for Series 8200/8300 and 3/8" clamping stroke for Series 8000/8100 allows wide variation in part size. The clamp adjusts automatically on every cycle.
- New Series 8400, designed for mid-range applications, features 1/2" clamping stroke.
- Improved design features additional mounting screws to more effectively secure clamp housing.
- Internal piston design features new seal technology.
- Quick swing-and-clamp movement reduces cycle times in your operation.
- Pneumatic operation is economical and clean, and allows precise control and monitoring of the clamping force.
- Multiple mounting options allow the clamp to be adapted to the fixture for the best use of space and to minimize installation time.
- Clamping force is adjustable across a wide range: 20 lbs. to 160 lbs. Clamp exerts just the force your operation requires without deforming delicate parts.
- Broad operating temperature range of -40° F to 250° F allows installations in extreme environments.
- Multiple mounting and arm options allow the clamp to be adapted to the fixture for the best use of space and to minimize installation time.
- Maximum inlet pressure 130 PSIG.



NOTE: See pages 12.15 & 9.1 for accessories

Model Series 8000, 8100, 8200, 8300, 8400

Cylinder Specifications

Series no.	Bore [in.]	Red [in.]	Stroke [in.]	Effective Clamping Area [sq. in.]	Effective Unclamping Area [sq. in.]	Clamp Volume [cu. in.]	Unclamp Volume [cu. in.]
8000	0.750	0.438	0.85	0.291	0.442	0.25	0.38
8100	0.750	0.438	0.85	0.291	0.442	0.25	0.38
8200	1.500	0.500	1.28	1.571	1.767	2.01	2.26
8300	1.500	0.500	1.28	1.571	1.767	2.01	2.26
8400	1.188	0.500	1.28	0.911	1.108	1.17	1.42

Application Note:

When using a T-Arm, the clamping force at each end of the arm is equal if the length of each end is equal. (The clamp force at each clamping point = 1/2 rod force)

Force Data (lbs.)

PSI	8000/8100 with Long Arm	8000/8100 with Standard Arm	8000/8100 Straight Pull	8400 with Long Arm	8400 with Standard Arm	8400 Straight Pull	8200/8300 with Long Arm	8200/8300 with Standard Arm	8200/8300 Straight Pull
	(801529)	(801528)	(Rod Force)	(821513)	(841512)	(Rod Force)	(821513)	(821512)	(Rod Force)
30	4	8	9	20	25	27	24	27	47
40	5	10	12	29	32	36	34	38	63
50	7	13	15	34	41	46	44	48	79
60	8	16	17	42	47	55	55	57	94
70	10	18	20	49	55	64	65	67	110
80	12	22	23	55	62	73	75	80	126
90	13	25	26	60	68	82	83	89	141
100	15	27	29	65	76	91	93	99	157
110	17	30	32	74	82	100	105	112	173
120	18	32	35	80	91	109	114	121	189
130	20	35	38	87	98	118	124	131	204

Swing Cylinder Rotation: Frame of reference for specifying rotation is the clamp arm viewed from above during the clamping stroke. A right-hand unit rotates clockwise and then clamps down; a left-hand unit rotates counter-clockwise, and then clamps down.

Note: Tolerance on arm swing position is $\pm 3^\circ$.

8000, 8200, 8400 Mounting Options

(8200 Only) (8200 Only)

Threaded body in a tapped hole. Position is locked by a single cap screw into a tapped hole in fixture.

Cylinder body passes through a clearance hole. Three mounting screws pass through the top flange into holes tapped in the fixture.

Optional mounting block may be used above or below the work surface. Clamp height is easily reset.

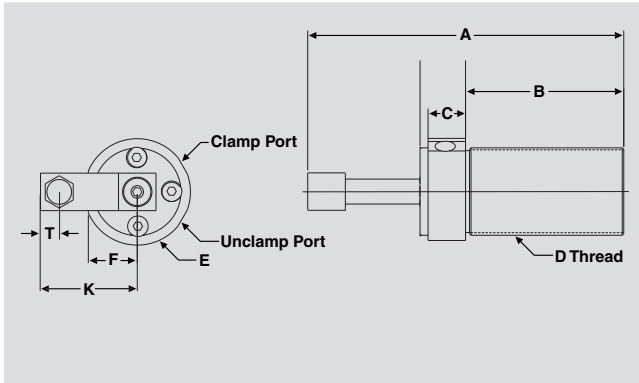
8100, 8300 Mounting Options

Can be mounted to the side or front of the fixture, or mounted back to back for multiple clamping operations.

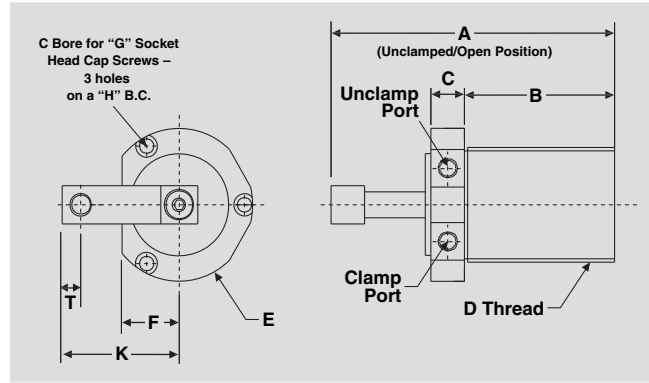
Mounted to the top of the work surface through the two mounting holes in the bottom of unit.

Model Series 8000, 8100, 8200, 8300, 8400

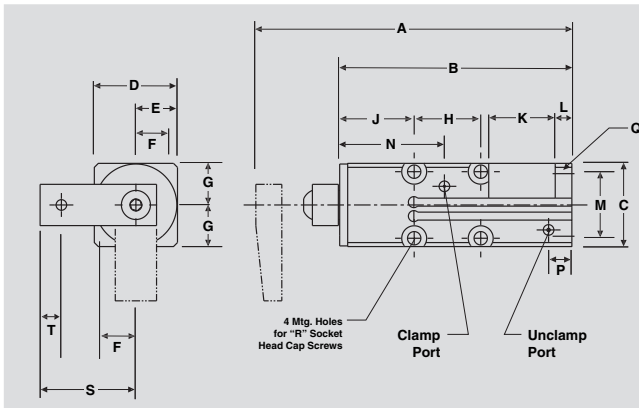
SERIES 8000, 8400



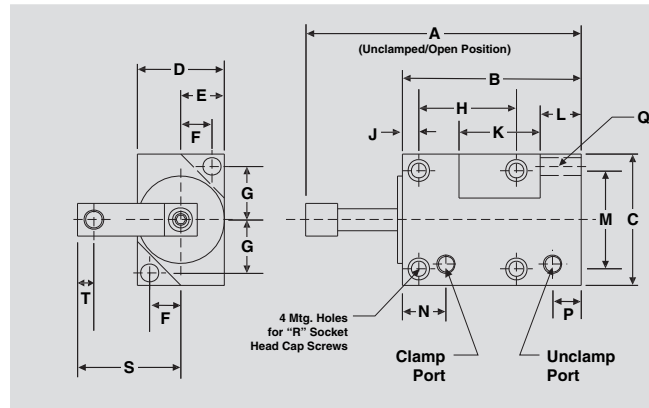
SERIES 8200



SERIES 8100



SERIES 8300



Series no.	Dimensions																		Port Size
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	
8000	4.88	2.87	0.62	1 1/8-16	1.25	-	-	-	-	1.44	-	-	-	-	-	-	-	0.31	#10-32
8100	4.88	3.50	1.25	1.25	0.53	0.47	0.47	1.00	1.12	1.00	0.25	1.00	1.57	0.35	0.20	#10	1.44	0.31	#10-32
8200	6.36	3.36	0.87	2 1/4-12	3.00	1.16	0.25	2.66	-	2.38	-	-	-	-	-	-	-	0.38	1/8 NPT
8300	6.36	4.27	3.00	2.00	1.00	0.72	1.22	2.25	0.53	2.37	0.44	2.25	1.16	0.65	0.40	0.33	2.38	0.38	1/8 NPT
8400	6.14	3.17	0.88	1 3/4-12	2.13	0.98	-	-	-	1.94	-	-	-	-	-	-	-	0.38	1/8 NPT

Model Series 8000, 8100, 8200, 8300, 8400

Model no.	EDP no.	Swing	Arm Supplied	Spindle Supplied	Travel Dur. Rotation	Vertical Clamp Stroke	Maximum Arm Length	Weight [lbs]
8015	58015	RH	801528	305203	0.466	0.38	2.25	1.00
8016	58016	LH	801528	305203	0.466	0.38	2.25	1.00
8015-LA*	58017	RH	OPTIONAL	—	0.466	0.38	2.25	1.00
8016-LA*	58018	LH	OPTIONAL	—	0.466	0.38	2.25	1.00
8115	58115	RH	801528	305203	0.466	0.38	2.25	1.00
8116	58116	LH	801528	305203	0.466	0.38	2.25	1.00
8115-LA*	58117	RH	OPTIONAL	—	0.466	0.38	2.25	1.00
8116-LA*	58118	LH	OPTIONAL	—	0.466	0.38	2.25	1.00
8215	58215	RH	821512	485203-AL	0.75	0.50	3.00	2.00
8216	58216	LH	821512	485203-AL	0.75	0.50	3.00	2.00
8215-LA*	58217	RH	OPTIONAL	—	0.75	0.50	3.00	2.00
8216-LA*	58218	LH	OPTIONAL	—	0.75	0.50	3.00	2.00
8315	58315	RH	821512	485203-AL	0.75	0.50	3.00	2.00
8316	58316	LH	821512	485203-AL	0.75	0.50	3.00	2.00
8315-LA*	58317	RH	OPTIONAL	—	0.75	0.50	3.00	2.00
8316-LA*	58318	LH	OPTIONAL	—	0.75	0.50	3.00	2.00
8415	58415	RH	821512	485203-AL	0.75	0.50	3.00	1.50
8416	58416	LH	821512	485203-AL	0.75	0.50	3.00	1.50
8415-LA*	58414	RH	OPTIONAL	—	0.75	0.50	3.00	1.50
8416-LA*	58420	LH	OPTIONAL	—	0.75	0.50	3.00	1.50

*Clamp provided less arm. Customers to select arm as an option.
See page 13.2 for additional switches.



Series 8000



Series 8100



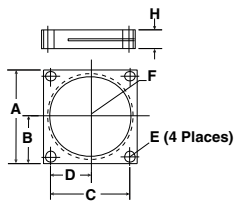
Series 8200



Series 8300



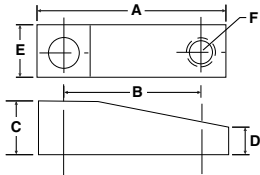
Series 8400



Mounting Block

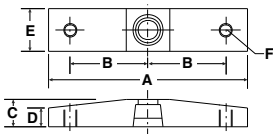
Part no.	EDP no.	Use With Series no.	A	B	C	D	E	F	H
801553	58033	8000	1.38	0.69	1.08	0.54	0.20	1-1/8-16	0.50
821553	58233	8200	2.50	1.25	2.12	1.06	0.28	2-1/4-12	0.50
841550	58418	8400	2.00	1.00	1.60	0.80	0.28	1-3/4-12	0.50

Arm



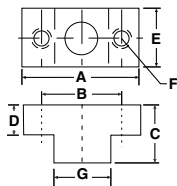
Part no.	EDP no.	Use With Series no.	A	B	C	D	E	F	G
801528	58058	8000, 8100	1.75	1.12	0.39	0.27	0.62	10-32	-
801529	58059	8000, 8100	2.87	2.25	0.39	0.27	0.62	10-32	-
821512	58252	8200, 8300	2.75	2.00	0.75	0.37	0.75	3/8-16	-
821513	58253	8200, 8300, 8400	3.75	3.00	0.75	0.37	0.75	3/8-16	-
841512	58417	8400	2.31	1.56	0.75	0.37	0.75	3/8-16	-

T-Arm



Part no.	EDP no.	Use With Series no.	A	B	C	D	E	F	G
801530	58053	8000, 8100	2.88	1.12 (2)	0.39	0.27 (2)	0.62	10-32 (2)	-
801531	58051	8000, 8100	5.12	2.25 (2)	0.39	0.27 (2)	0.62	10-32 (2)	-
821554	58254	8200, 8300	4.75	2.00 (2)	0.75	0.37 (2)	0.75	3/8-16 (2)	-
821555	58251	8200, 8300	6.75	3.00 (2)	0.75	0.37 (2)	0.75	3/8-16 (2)	-

Blank Arm



Part no.	EDP no.	Use With Series no.	A	B	C	D	E	F	G
801532	58052	8000, 8100	1.37	1.00	0.39	0.25	0.62	10-32 (2)	0.62
821556	58256	8200, 8300	1.50	1.06	0.75	0.37	0.75	1/4-20 (2)	0.75

89R Series – Features



Your requirements

- Compact – ideal for restricted space applications
- Access to the workpiece possible from above
- High flexibility in the application – various “add on” options
- Reduced exerting forces are sufficient in order to hold the workpiece securely

The solution

- The new pneumatic swing clamps from DE-STA-CO

Special features

- Mounting flexibility by means of body mount flange, end mount flange, mounting feet (accessories)
- Easily adjustable left-hand, right-hand, straight pull actions (20 mm diameter not adjustable)
- Double-acting cylinder
- Magnetic ring on piston with sensors available
- Lightweight aluminum body
- Piston rod, hard-chrome plated
- Rod seal and wiper built in
- Clamp can produce several million cycles
- Operation with oil-free air

Adjustment of the swivel direction

1. Unscrew the guide bolt
2. Adjust the piston rod until the required swivel groove (right, left, straight) is lined up with the hole in the body
3. Insert guide bolt and tighten it
4. Take care that the seal ring is seated correctly

Technical data

- Cylinder diameter:
20 mm, 32 mm, 40 mm, 50 mm, 63 mm
- Clamping strokes: 10 mm, 25 mm, 50 mm
(upon request for diameters 40 mm, 50 mm and 63 mm)
- Exerting forces: 20 lbs. to 242 lbs. at 80 PSI

Operating instruction

A PDF file of the operating instruction is available

You can also download it from our homepage on www.destaco.com

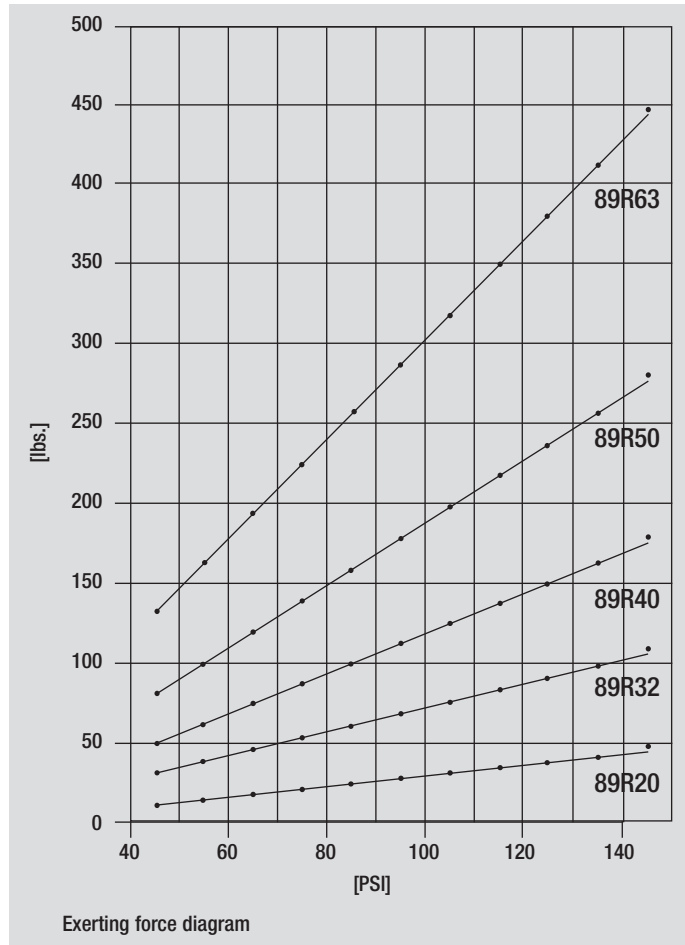
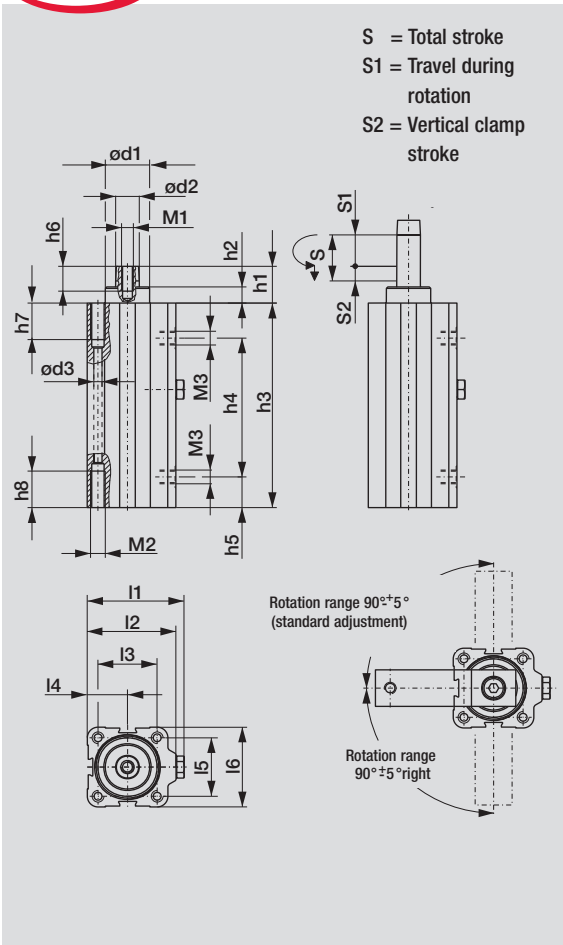
Practical tips

- Rotational movement of clamp arm should not be restricted
- Clamping operation should not occur during rotation of the clamp arm
- Remove the clamp arm from the piston rod by tapping only from below and not from the side

Clamp arm assembly

- See operating instructions





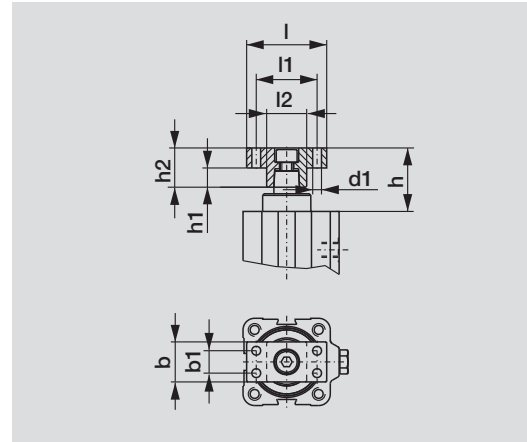
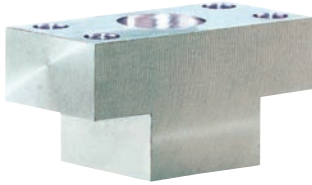
Model no.	Total stroke S [mm]	Travel during rotation S1 [mm]	Vertical clamp S2 [mm]	Operating pressure		Exerting force at 80 PSI	Piston dia. S1 [mm]	Weight [lbs.]
				min. PSI	max. PSI			
89R20-010-1	21.0	11.0	10	30	145	20	20	0.66
89R32-010-1	28.0	18.0	10			62	32	1.32
89R40-010-1	31.5	21.5	10			94	40	2.09
89R40-025-1	46.5	21.5	25			94	40	2.43
89R50-025-1	52.0	27.0	25			154	50	3.97
89R63-025-1	58.5	33.5	25			242	63	6.17

Model no.	ød1	ød2	ød3	h1	h2	h3	h4	h5	h6	h7	h8	l1	l2	l3	l4	l5	l6	M1	M2	M3
89R20-010-1	18	10	4.6	19.8	8	105.5	66.0	13.2	15	14	14	39.5	35.0	22	16.0	22	32	M5	M6	M5
89R32-010-1	22	12	5.5	23.7	11	125.0	83.0	17.5	17	16	16	60.0	54.0	36	24.0	32	45	M6	M8	G1/8
89R40-010-1	30	16	5.5	25.0	11	140.0	95.0	21.0	17	25	25	66.0	60.0	40	27.3	40	54.5	M8	M8	G1/8
89R40-025-1	30	16	5.5	25.0	11	170.0	125.0	21.0	17	25	25	66.0	60.0	40	27.3	40	54.5	M8	M8	G1/8
89R50-025-1	40	18	7.4	31.4	11	194.5	137.0	26.7	25	25	25	78.5	72.5	50	32.5	50	65	M10	M10	G1/8
89R63-025-1	45	20	9.3	33.0	15	211.5	154.5	26.5	25	25	25	95.0	88.0	62	40.0	62	80	M10	M12	G1/4

Blank Arm

Product features

- For attaching custom made clamp arms
- 360° rotatable arm
- Made of aluminum

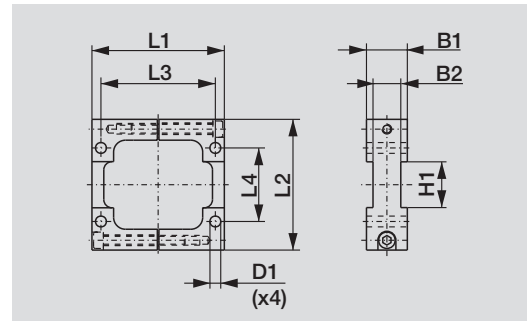
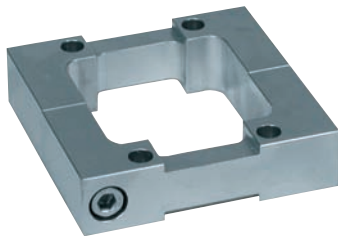


Order no. Adaptor	Use with Clamp Model no.	l	l1 ±0,2	l2	h	h1	M1	b ±0,2	b1	Weight [lbs./pc]
8MA-084-1	89R20-010-1	40	28	16	27.8	7	15	5.5	–	0.03
8MA-086-1	89R32-010-1	50	35	20	35.7	9	20	5.5	–	0.08
8MA-087-1	89R40-010-1	50	38	25	40.0	12	25	5.5	14	0.11
8MA-087-1	89R40-025-1	50	38	25	40.0	12	25	5.5	14	0.11
8MA-088-1	89R50-025-1	60	45	30	48.4	15	30	7.0	15	0.19
8MA-089-1	89R63-025-1	65	48	32	53.0	18	35	9.0	18	0.28

Body Mount Flange

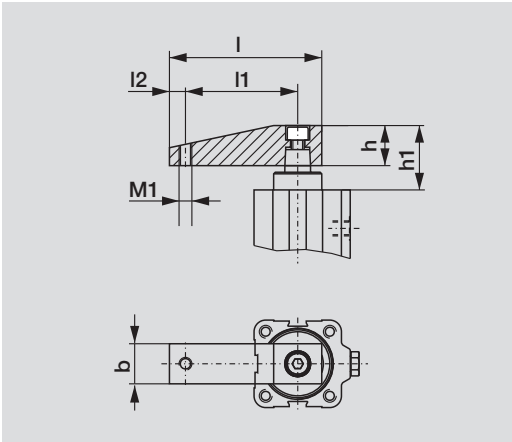
Product features

- For use as a model recessed to the fixture
- Variable height adjustment
- Can be used with end position sensors
- Made of aluminum



Order no. Body Mount Flange	Use with Clamp Model no.	L1	L2	L3	L4	D1 (x4)	B1	B2	H1	Weight [lbs./pc]
8MA-092-1	89R20-010-1	57	55	47	24	5.5	15	–	–	0.22
8MA-094-1	89R32-010-1	81	75	70	40	6.6	20	12	25	0.44
8MA-095-1	89R40-010-1	81	80	70	45	6.6	25	17	28	0.55
8MA-095-1	89R40-025-1	81	80	70	45	6.6	25	17	28	0.55
8MA-096-1	89R50-025-1	101.5	100	85.5	50	9	25	17	37	0.88
8MA-097-1	89R63-025-1	122	120	104	68	11	30	20	38	1.43

Standard Clamp Arm



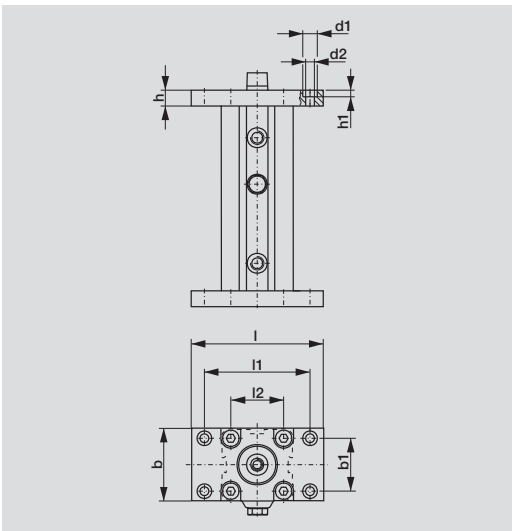
Product features

- For standard use
- 360° rotatable arm
- Spindle is an accessory part
(see manual clamp accessories section for spindle option beginning page 9.1)
- Made of aluminum



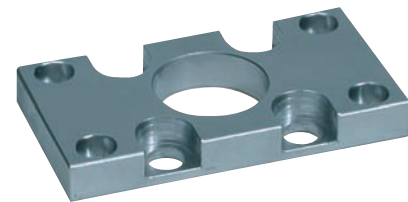
Order no. Clamping Arm	Used with Clamp Model no.	l	l1	l2	h	h1	M1	b	Weight [lbs./pc]
8JG-215-1	89R20-010-1	67	52	7	15	27.8	M6	15	0.08
8JG-217-1	89R32-010-1	80	60	10	20	35.7	M8	20	0.14
8JG-218-1	89R40-010-1	95	70	10	25	40.0	M8	25	0.28
8JG-218-1	89R40-025-1	95	70	10	25	40.0	M8	25	0.28
8JG-219-1	89R50-025-1	106	80	10	30	48.4	M8	30	0.42
8JG-220-1	89R63-025-1	120	90	12	35	53.0	M10	35	0.66

End Mount Flange



Product features

- Can be mounted on bottom side and top side of clamp
- Made of aluminum



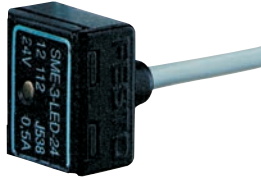
Order no. End Mount Flange	Used with Clamp Model no.	h	h1	d1	d2	l	l1 ±0,2	b	b1 ±0,2	Weight [lbs./pc]
8MA-061-1	89R20-010-1	10	7	11	6.6	65	50	32	18	0.07
8MA-063-1	89R32-010-1	12	7	11	6.6	80	64	50	32	0.20
8MA-064-1	89R40-010-1	12	7	11	6.6	100	80	55	40	0.29
8MA-064-1	89R40-025-1	12	7	11	6.6	100	80	55	40	0.29
8MA-065-1	89R50-025-1	15	9	15	8.5	120	100	65	45	0.46
8MA-066-1	89R63-025-1	15	9	15	8.8	130	110	80	60	0.66

Magnetic Sensors

Product features

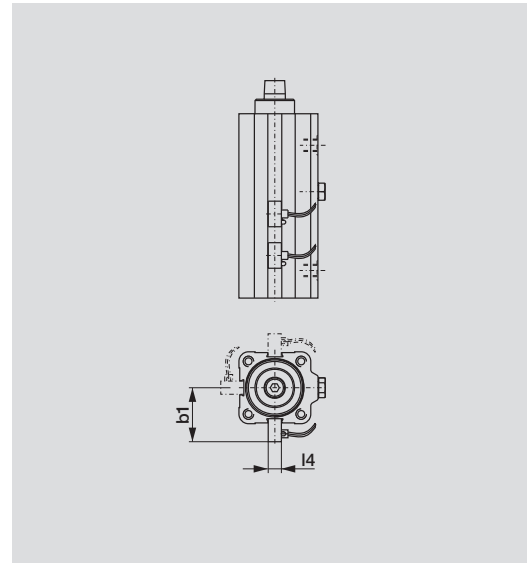
- Switch groove located on 3 sides of the cylinder
- Continuously adjustable by means of dovetailed groove

Sensors for magnetic field workpiece control system (SME-3-LED) with integrated protective circuit and light-emitting diode (PNP output)



Technical Data

- Medium: magnetic field and electric current
- Type of design: electrical signal transmitter for contactless position indication
- Type of attachment: clamping in longitudinal keyway
- Connection: 3-core cable, 2.5 m, max. 10 W/500 mA/12-27 V AC/DC
- Type of protection in accordance with DIN 40050: IP 66
- Temperature range: fixed cable installation -20° to + 60° C, moveable cable installation -5° to + 60° C
- Material: housing GD-Mg, cable PVC

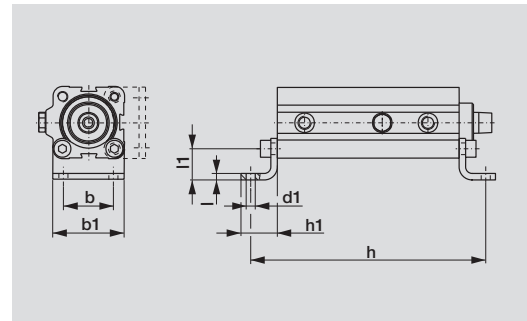


Order no.	Used with Clamp Model no.	b1	l4	Weight [lbs./pc]
SME-3-LED	89R20-010-1	31.0	10.5	0.09
SME-3-LED	89R32-010-1	37.5	10.5	0.09
SME-3-LED	89R40-010-1	42.3	10.5	0.09
SME-3-LED	89R40-025-1	42.3	10.5	0.09
SME-3-LED	89R50-025-1	47.5	10.5	0.09
SME-3-LED	89R63-025-1	55.0	10.5	0.09

Mounting Feet

Product features

- Can be mounted on bottom side or front side
- Can be mounted on 4 sides of the cylinder
- Made of aluminum



Order no.	Used with Clamp Model no.	h	h1	d1	l	l1	b	b1	Weight [lbs./pc]
8MW-018-1	89R20-010-1	137.5	22	7	4	16	22	35	0.08
8MW-020-1	89R32-010-1	166.0	28	7	4	18	35	50	0.15
8MW-021-1	89R40-010-1	181.0	28	7	5	24	40	55	0.22
8MW-021-1	89R40-025-1	211.0	28	7	5	24	40	55	0.22
8MW-022-1	89R50-025-1	238.5	32	9	6	24	50	67	0.33
8MW-023-1	89R63-025-1	263.5	40	11	6	27	62	85	0.52

9500 Series – Features



DE-STA-CO's newest generation swing clamp with patented swing technology. Unique designs allows clamp arm to swing 90° on a horizontal plane before moving downward on its clamping stroke.

Patent No.
7,290,480

**COMING SOON: 13 mm and 22 mm sizes.
LOOK FOR THESE IN OUR 2008 CATALOG**



Product Features

No linear travel during rotation, does not move down or up during rotation

Arm connection allows for two types of arms, fixed (shown) or radially adjustable

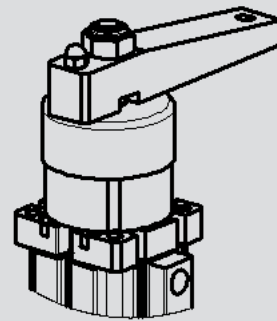
Piston rod supported at both the top and bottom of the shaft

Enclosed rod for use in harsh environments

Switch grooves for either Ø4mm or 6x5 mm switches (magnet on piston)

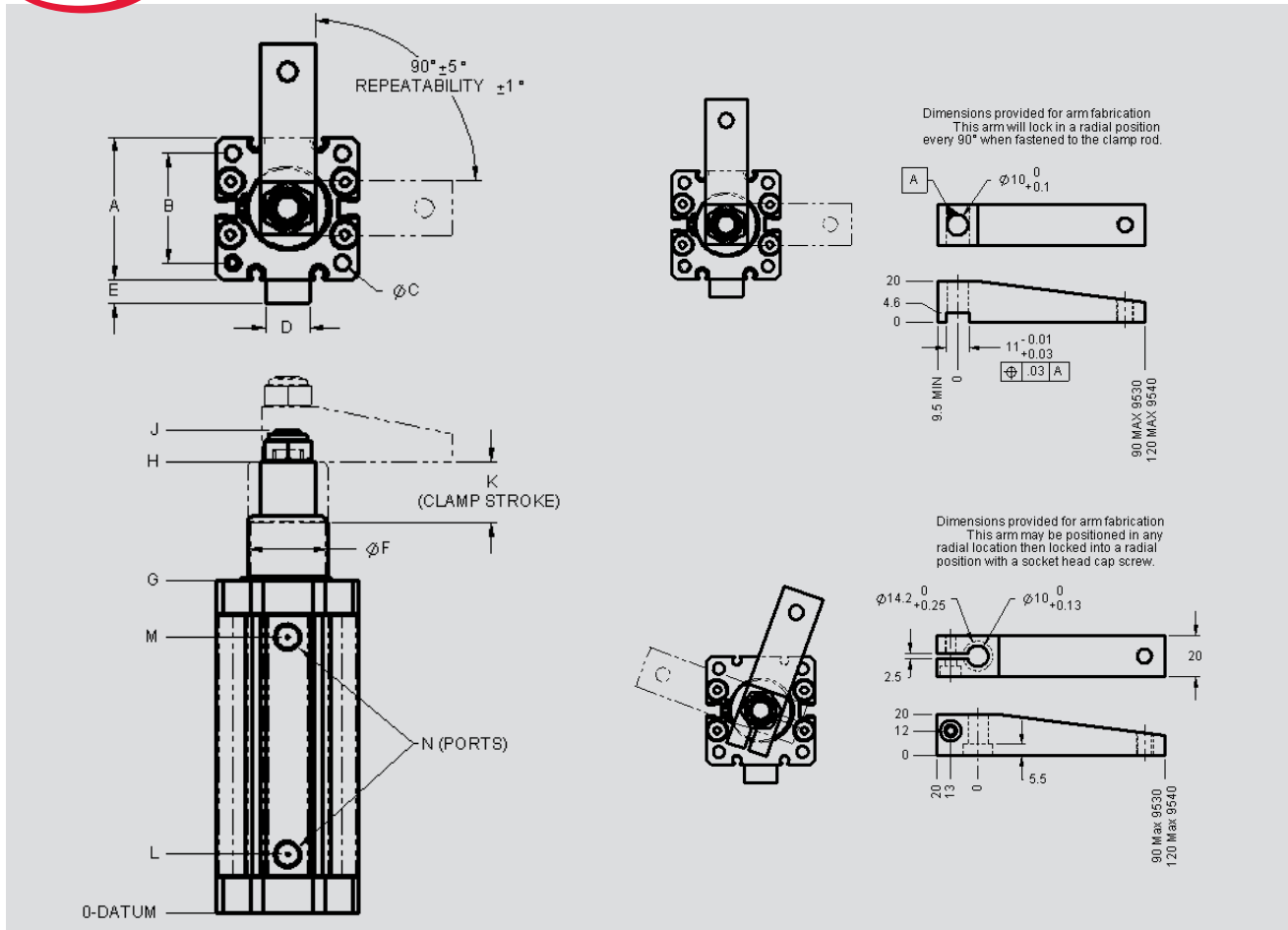
Fixed orifice porting, does not require flow controls

Mounts with standard socket head cap screws (4x) through either the top or bottom flange



No backlash option for precise repeatability

Series no.	Clamp Force (lbs.)									
9540	Straight Pull	71	88	106	124	141	159	177	194	212
	W/"T" Arm	36	44	53	62	71	80	89	97	106
	W/2.0" Arm	46	60	76	92	105	118	131	147	161
	W/3.0" Arm	34	43	52	61	70	79	87	96	105
9530	Straight Pull	41	52	62	72	83	93	103	114	124
	W/"T" Arm	21	26	31	36	42	47	52	57	62
	W/2.0" Arm	26	34	44	52	61	68	76	84	92
	W/3.0" Arm	20	25	30	35	40	45	50	55	60
	Air Pressure (PSI)	40	50	60	70	80	90	100	110	120



Model no.	Swing Direction	A	B	ϕC	D	E	ϕF	G	H	J	K	L	M	N
9530R	RH	44.7	34	5.5	12.7	5.1	25.4	112.7	155.7	167.3	20	17.4	95.3	1/8 NPT
9530L	LH													
9540R	RH	52	40	5.5	16	9	29	121.4	165	176.2	20	21.3	100.8	1/8 NPT
9540L	LH													

All dimensions shown in metric (mm)

Clamp Arm Options (Can be used with 9530 and 9540 Series)

These standard arms can be mounted in 90° increments to the piston rod.

