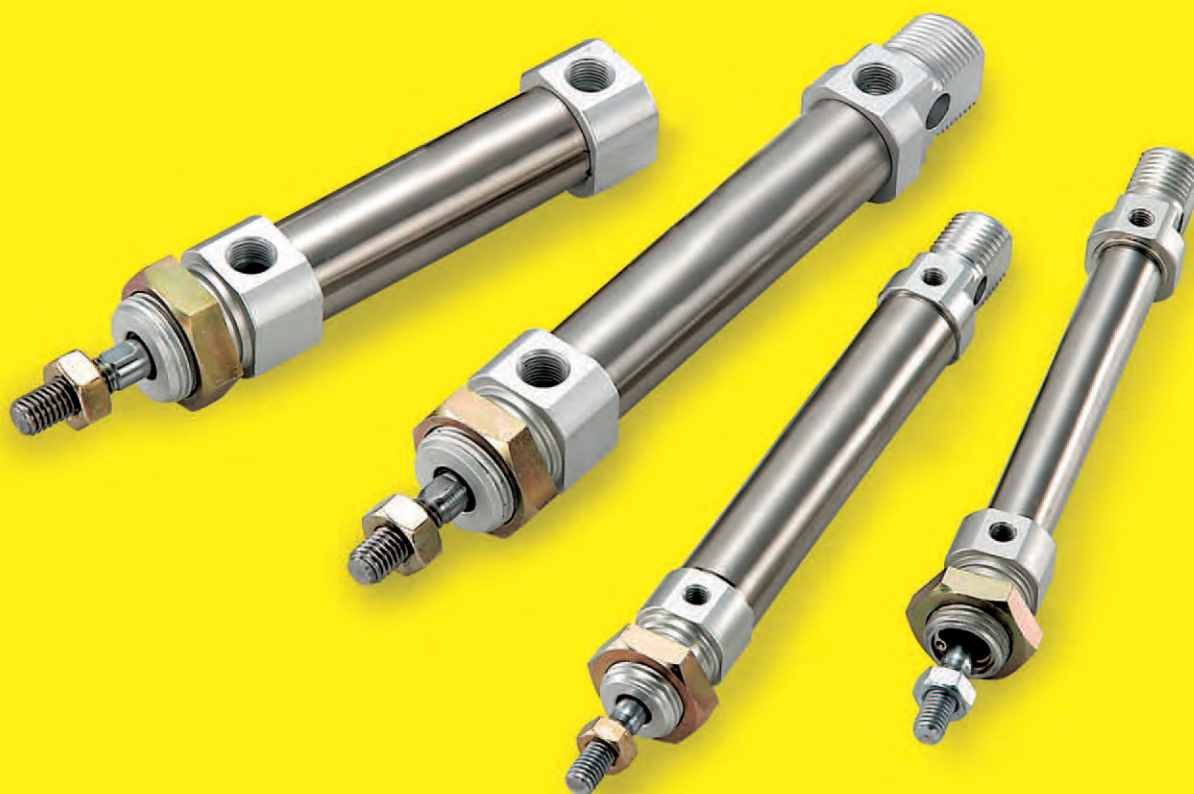


# ***FABCO-AIR***

## **ISO CYLINDERS (ISO 6432 & CETOP RP52P)**

### **FAE Series**



## ISO Cylinders (ISO6432 & CETOP RP52P)



### Features

1. **Magnetic piston is standard in all sizes.**
2. Stainless steel barrel insures long life and corrosion resistance for ø12 to ø25 bores. Anodized aluminum barrel for ø32 to ø40 bores.
3. Anodized aluminum end covers for corrosion resistance.
4. Wide range of models allow selection for many applications.
5. Mounting nut furnished on all sizes.
6. Machined male rod thread with jam nut is standard on all sizes.
7. ø32 and ø40 bores offered as extended sizes with similar features.

### Specifications

150 psi max.

Conversions  
 psi = kgf/cm<sup>2</sup> x 14.2  
 psi= MPa x 145  
 inch = mm x 0.0394  
 lb force = N x 0.22  
 lbf-in = J x 8.85  
 Force lb = psi X in<sup>2</sup>  
 N = lbf X 4.45

### Effective Piston Areas

Bore (mm)	Rod Dia (mm)	Push		Pull	
		cm <sup>2</sup>	in <sup>2</sup>	cm <sup>2</sup>	in <sup>2</sup>
12	6	1.1	.17	.8	.13
16	6	2.0	.31	1.7	.26
20	8	3.1	.49	2.6	.40
25	10	4.9	.76	4.1	.63
32	12	8.0	1.25	6.9	1.06
40	16	12.6	1.95	10.6	1.64

Action	Double acting single rod / Double acting double rod
Bore (mm)	ø12, ø16, ø20, ø25, ø32, ø40
Operating media	Compressed air
Min. operating pressure	0.07Mpa(0.7kgf/cm <sup>2</sup> )10psi
Max. operating pressure	1.0Mpa(10.5kgf/cm <sup>2</sup> )150psi
Piston speed range	ø12~ø25: 50 – 1500mm/sec (1.97-59 in/sec) ø32 & ø40: 50 – 500mm/sec (1.97-19.7 in/sec)
Ambient & media temperature	-10°C(14°F) ~ +70°C(158°F) filtered dry air required at temperatures below 0°C (32°F)
Cushion	ø12~ø25: Rubber cushion standard ø16 ~ ø25: Air cushion option ø32~ø40: Adjustable air cushion standard
Lubrication	None required or use ISO VG32
Stroke tolerance (mm)	+1.4 / – 0

### Standard strokes

*\*Note: ø12 & ø16 bore double rod, 125mm maximum stroke.  
 ø20 & ø25 bore double rod, 300mm maximum stroke.*

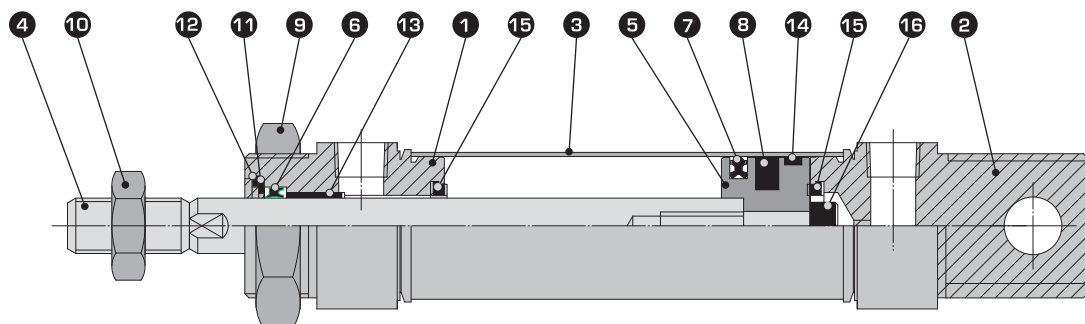
*Consult factory for delivery and prices of longer or custom strokes*

Bore	Standard stroke (mm)																			
	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300	320	350
12*	●			●		●	●			●	●	●		●		●				
16*	●			●		●	●			●	●	●		●		●				
20*	●			●		●	●			●	●	●		●		●	●	●		●
25*	●			●		●	●			●	●	●		●		●	●	●		●
32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
40	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Bore	Maximum stroke (mm)	
	Single rod type	Double rod type
12		
16	400	150
20		
25	800	300
32		
40	1000	500

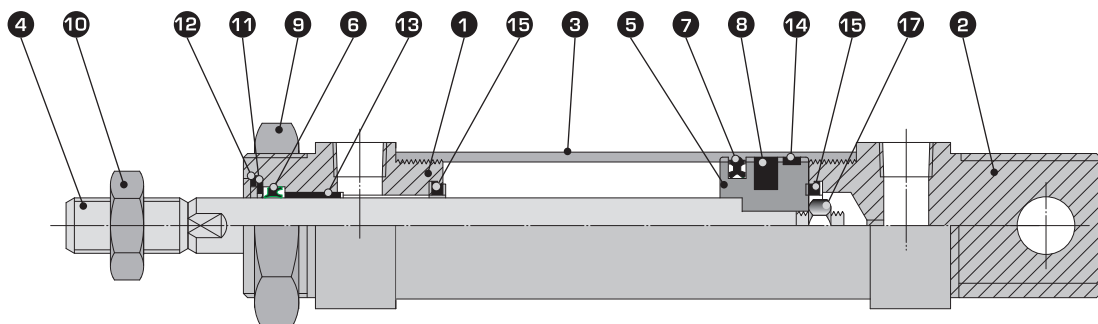
**ø12~ ø25 Bores**

**Feature stainless steel barrel and  
rolled assembly with end caps**



**ø32, ø40 Bores**

**Feature aluminum barrel  
threaded to end caps**



### Parts list

NO	Description	Material	Qty
1	Front end cover	Aluminum alloy (anodized)	1
2	Rear end cover	Aluminum alloy (anodized)	1
3	Barrel	Stainless steel / Aluminum	1
4	Piston rod	Hard chrome plated carbon steel	1
5	Piston	Aluminum alloy	1
6	Piston rod seal	Nitrile - Buna N	1
7	Piston seal	Nitrile - Buna N	1
8	Magnet	Rubber bonded barium ferrite	1
9	Mounting nut	Plated steel	1
10	Hex nut	Plated steel	1
11	Washer	Stainless steel	1
12	Snap ring	Plated steel	1
13	Bearing	Oil filled bronze	1
14	Wear ring	Acetal	1
15	Bumper	Nitrile - Buna N	2
16	Hex socket head screw	Carbon steel	1
17	Hex nut	Carbon steel	1

### **Magnetic piston & position sensor information** (also see page 10)

- Mounting – Magnetically operated reed switches and electronic sensors can be mounted anywhere along the length and circumference of the cylinder.
- Reliability – The annular piston magnet is permanently bonded into a groove in the piston. It is a polarized permanent magnet of rubber bonded barium ferrite that is very stable and is not affected by shock. Under normal usage it will remain magnetized indefinitely.
- Warning – External magnetic fields and/or ferrous objects may affect the strength of the piston magnet therefore affecting sensor actuation and piston position indication.
- Warning – Do not exceed sensor ratings. Permanent damage to sensor may occur. Power supply polarity **MUST** be observed for proper operation of sensors. See wiring diagrams included with each sensor.

## ISO Cylinders (ISO6432 & CETOP RP52P)

### How to order

ø32 & ø40 bores offered as extended sizes with similar features.

Note:

\* Leave blank for standard rubber cushion.

**C** (air cushion) is standard feature on ø32 & ø40 bores. (Include in model number.)




**C** is not available on ø12 bore.

Add \$11.70 to prices on ø16, ø20 & ø25.

\* Note: Universal type features threaded nose, threaded rear and rear pivot mounts.  
\* Note: Leave blank for universal type.

FAE			20	x	100	
Series	Cushion	Type	Bore (mm)		Stroke (mm)	Mounting
	* Rubber cushion		ø12		10 ~ 200	L Foot bracket
			ø16			F Front flange
	C Air cushion both ends		ø20		10 ~ 300	G Rear flange
			ø25			S Clevis base bracket and pin
			ø32		25 ~ 500	Y Rod clevis and pin
			ø40			P Spherical rod end

* Universal	
P Nose mount	
W Double rod	

See standard strokes available on page 2. For longer or custom strokes consult factory.

Magnetic piston is standard in all sizes.

### Position Sensors

Magnetically operated reed switches and electronic sensors can be mounted anywhere along the length and circumference of the cylinder barrel between the end covers.

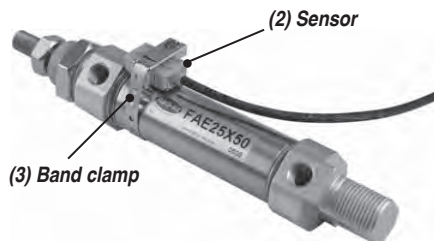
Order sensors, mounting method and cord sets separately. See page 10.



949 Series –  
1/4" Dovetail Sensors

### Ordering Example

Cylinders, sensors and accessory items must be ordered as separate line items.



(1) Model number FAE 25 x 50

Double acting, single rod, Universal type cylinder with 25mm bore and 50mm stroke.



(2) Sensor with 9 foot leadwire

(2) Part number 9-2A197-1031

Sourcing PNP electronic sensor with a 9 ft lead wire. See details on page 10.

(3) Part number 800-A00-000

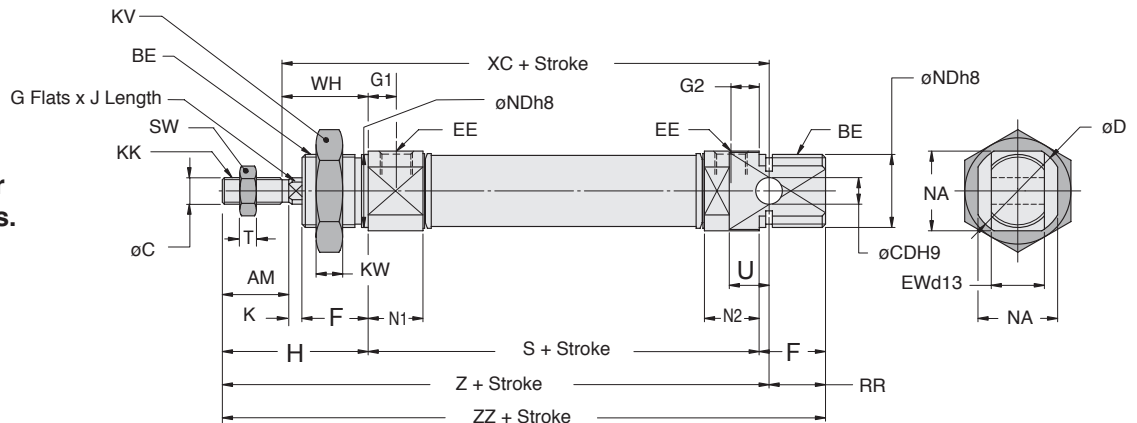
Band Clamp for clamp on sensor. See details on page 10.

# FAE Series Dimensions (mm)

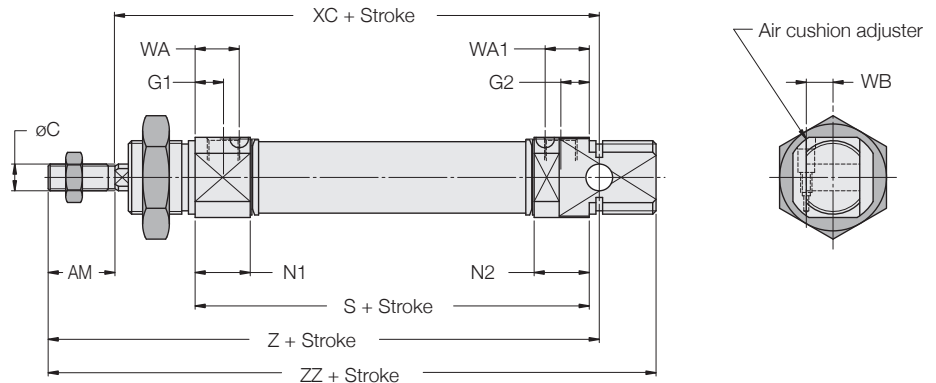
## ISO Cylinders (ISO6432 & CETOP RP52P)

### Universal Type Basic Model ø12~ ø25 Bores

Features threaded  
nose, threaded rear  
& rear pivot mounts.



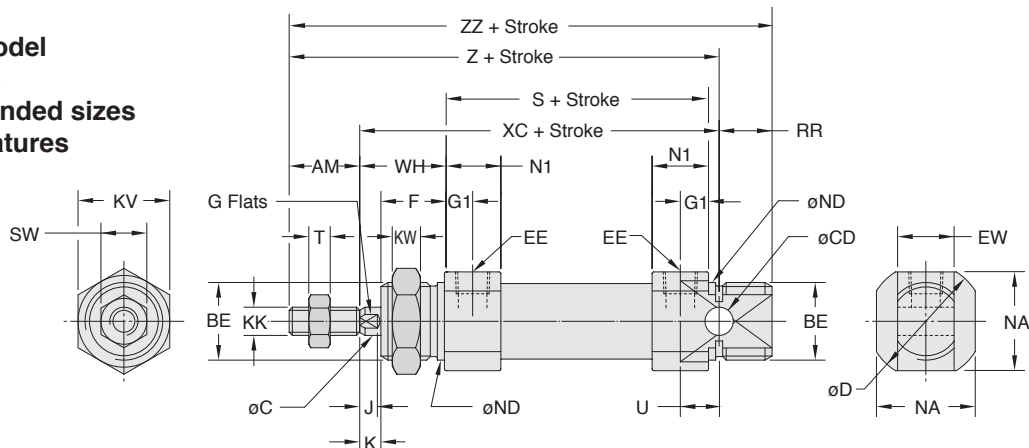
### Universal Type Air Cushion Model ø16~ ø25 Bores Dimensions are in ( \_ \_ )



Dimensions in ( \_ \_ ) are for Air Cushion Models

Bore	AM	BE	øC	øCD	øD	EE	EW	F	G	G1	G2	WA	WA1	WB	H	J	K	KK	KV	KW	NA	N1	N2	øND	RR	S	SW	T	U	WH	XC	Z	ZZ
Ø12	16	M16x1.5	6	6	19.7	M5x0.8	12	17	-	8	6	-	-	-	38	-	5	M6x1.0	24	8	18.3	12.5	10.5	16	14	50	10	5	9	22	75	91	105
Ø16	16	M16x1.5	6	6	19.8	M5x0.8	12	17	-	6 (5.5)	6 (5.5)	9	9	6.6	38	-	5	M6x1.0	24	8	18	11.5	11.5	16	13	56	10	5	9	22	82	98	111
Ø20	20	M22x1.5	8	8	27.9	G 1/8"	16	20	7	8.5	8.5	13.2	13.2	8	44	6	4	M8x1.25	32	11	24	16.5	16.5	22	17	68	13	7	12	24	95	115	132
Ø25	22	M22x1.5	10	8	33.4	G 1/8"	16	22	9	8	11	12.5	16	10.25	50	6	6	M10x1.25	32	11	30	16.5	20	22	15.5	69.5	17	8	12	28	104	126	141.5

### Universal Type Air Cushion Model ø32, ø40 Bores offered as extended sizes with similar features



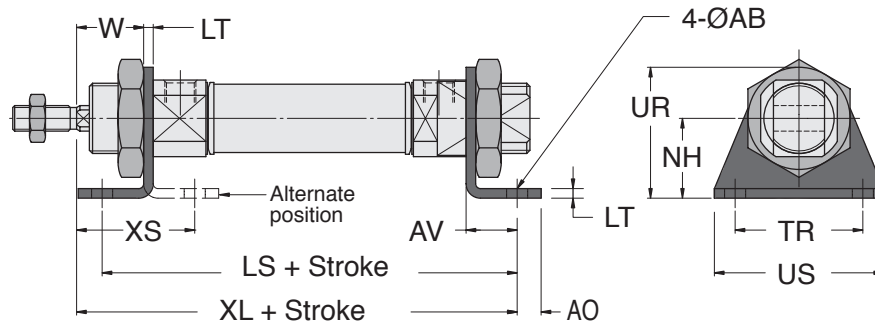
Bore	AM	BE	øC	øCD	øD	EE	EW	F	G	G1	J	K	KK	KV	KW	NA	N1	øND	RR	S	SW	T	U	WH	XC	Z	ZZ
Ø32	22	M24x1.5	12	10	40	1/8PT	16	20	10	9	7	10	M10x1.25	32	10	37	17	24	10	74	17	6	16	30	120	142	152
Ø40	24	M30x1.5	16	12	49	1/8PT	20	20	13	10	8	9	M12x1.25	41	10	46	18	30	12	84	19	7	16	29	129	153	165

# FAE Series Dimensions (mm)

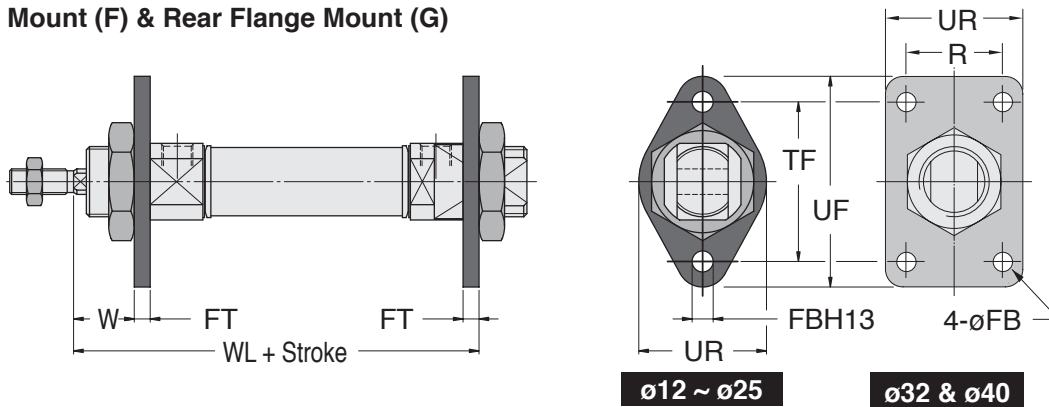
## ISO Cylinders (ISO6432 & CETOP RP52P)

ø32, ø40 Bores offered as extended sizes with similar features

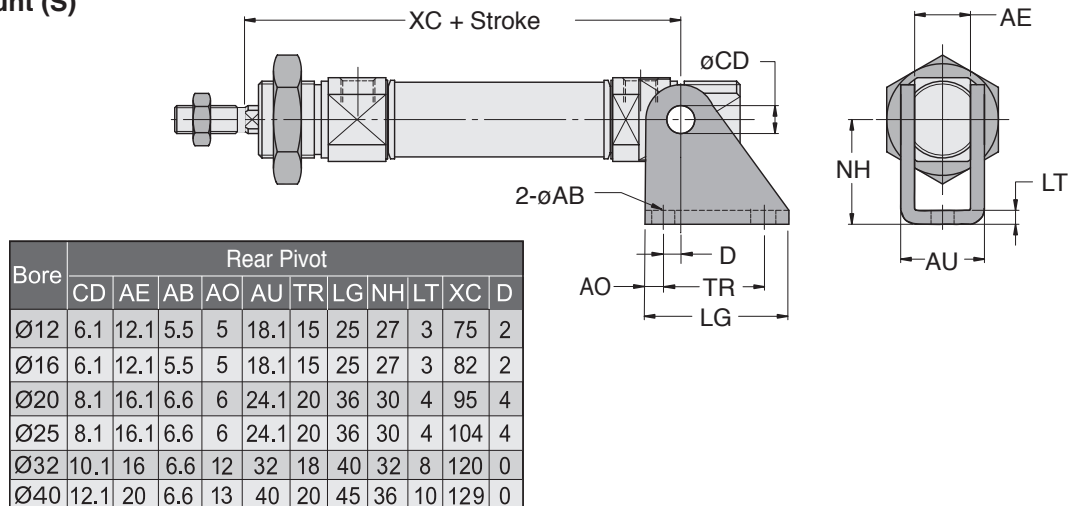
### ● Foot Mount (L)



### ● Front Flange Mount (F) & Rear Flange Mount (G)



### ● Rear Pivot Mount (S)



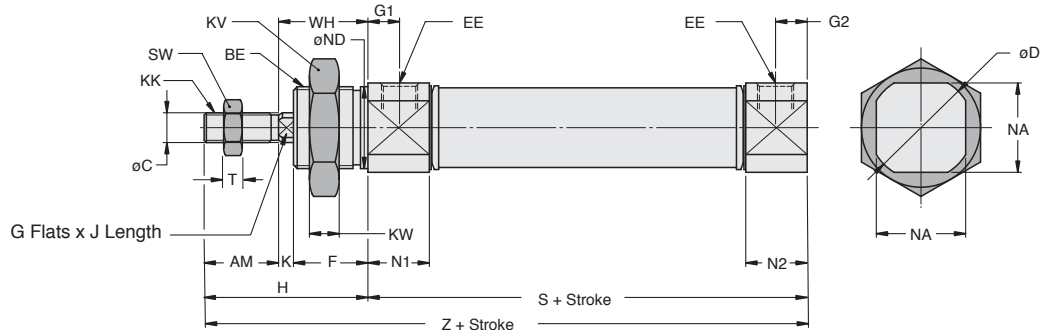


# FAE Series Dimensions (mm)

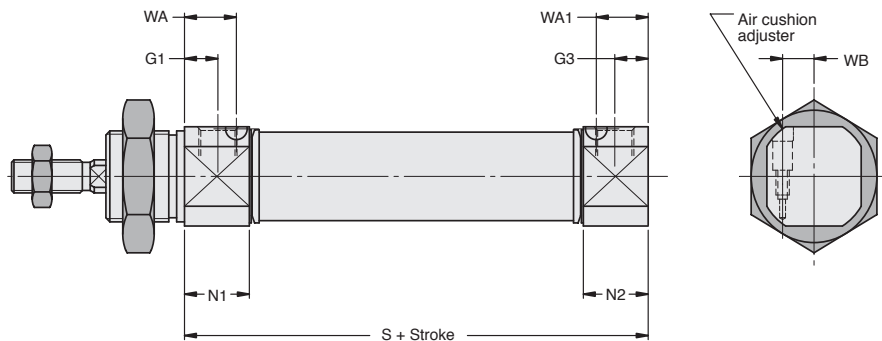
## ISO Cylinders (ISO6432 & CETOP RP52P)

- **Nose Mount**  
**ø12 ~ ø40 bores**  
**Features threaded nose,**  
**short overall length.**

ø32, ø40 Bores offered as extended sizes with similar features



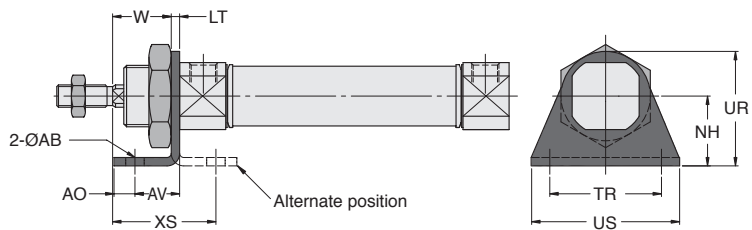
- **Nose Mount**  
**Air Cushion Model**  
**ø16 ~ ø40 bores**



Bore	AM	BE	øC	øD	EE	F	G	G1	G2	G3	WA	W1	WB	H	J	K	KK	KV	KW	NA	N1	N2	øNDh8	S	SW	WH	Z
Ø12	16	M16X1.5	6	19.7	M5X0.8	17	—	8	6	6	9.5	9.5	5.5	38	—	5	M6X1.0	24	8	18.3	12.5	10.5	16	50	10	22	88
Ø16	16	M16X1.5	6	19.8	M5X0.8	17	—	6	6	6	9	9	6.6	38	—	5	M6X1.0	24	8	18	11.5	11.5	16	56	10	22	94
Ø20	20	M22X1.5	8	27.9	G1/8"	20	7	8.5	8	8.5	13.2	13.2	8	44	6	4	M8X1.25	32	11	24	16.5	15.5	22	67	13	24	112
Ø25	22	M22X1.5	10	33.4	G1/8"	22	9	8	11	8	12.5	11.5	10.25	50	6	6	M10X1.25	32	11	30	16.5	20	22	64	17	28	119.5
Ø32	22	M24X1.5	12	40	1/8PT	20	10	9	9	9				52	6	10	M10X1.25	32	10	37	17	17	24	74	17	30	126
Ø40	24	M30X1.5	16	49	1/8PT	20	13	10	10	10				53	8	9	M12X1.25	41	10	46	18	18	30	84	19	29	137

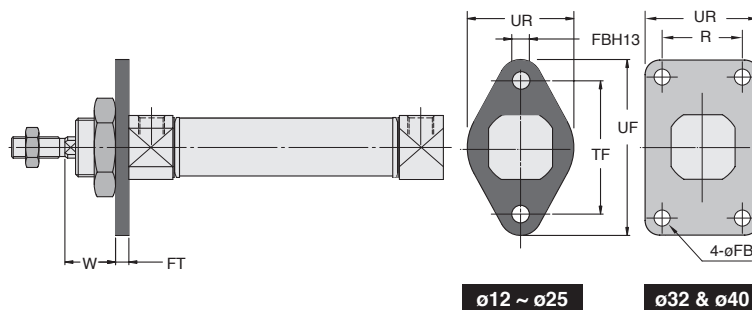
- **Foot Mount (L)**

Bore	AO	US	øAB	LT	NH	TR	XS	AV	UR	W
Ø12	6	43	5.5	3	20	32	32	13	32.5	19
Ø16	6	43	5.5	3	20	32	32	13	32.5	19
Ø20	7.5	53	6.6	3	25	40	37	16	41	21
Ø25	7.5	53	6.6	3	25	40	41	16	41	25
Ø32	8	59	6.6	4	32	45	54	25	51	26
Ø40	8	64	6.6	4	36	50	54	25	59	25



- **Front Flange Mount (F)**

Bore	UR	FB	FT	TF	UF	W	R
Ø12	28	5.5	3	40	51	19	—
Ø16	28	5.5	3	40	51	19	—
Ø20	40	6.6	5	50	66	19	—
Ø25	40	6.6	5	50	66	23	—
Ø32	47	6.6	5	58	72	25	33
Ø40	50	7	5	70	84	24	36

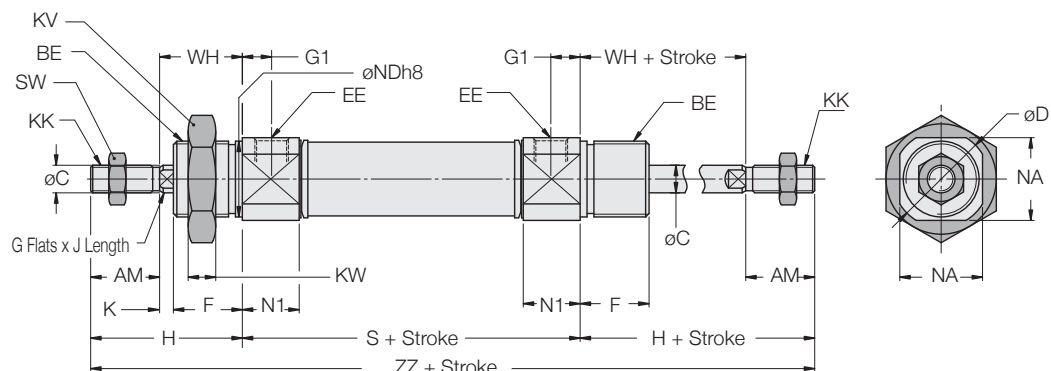


# FAE Series Dimensions (mm)

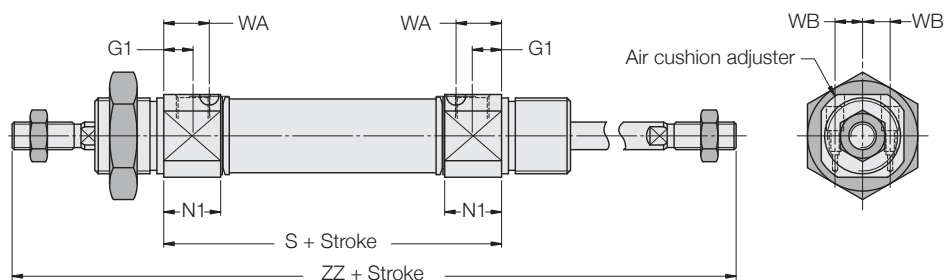
## ISO Cylinders (ISO6432 & CETOP RP52P)

- **Double Rod**  
**ø12 ~ ø40 bores**  
**Features threaded**  
**nose at both ends.**

ø32, ø40 Bores offered as extended sizes with similar features



- **Double Rod**  
**Air Cushion Models**  
**ø16 ~ ø40 bores**  
**Dimensions are in ( \_ )**

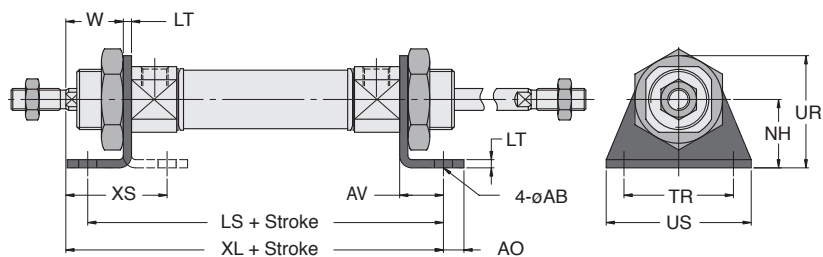


Dimensions in ( \_ ) are for Air Cushion Models

Bore	AM	BE	øC	øD	EE	F	G	G1	WA	WB	H	J	K	KK	KV	KW	N1	NA	øND	S	SW	WH	ZZ
Ø12	16	M16X1.5	6	19.7	M5X0.8	17	—	8	9.5	5.5	38	—	5	M6X1.0	24	8	12.5	18.3	16	52	10	22	128
Ø16	16	M16X1.5	6	19.7	M5X0.8	17	—	6(5.5)	9	6.6	38	—	5	M6X1.0	24	8	11.5	18	16	56	10	22	132(130)
Ø20	20	M22X1.5	8	27.9	G1/8"	20	7	8.5	13.2	8	44	6	4	M8X1.25	32	11	16.5	24	22	68	13	24	156
Ø25	22	M22X1.5	10	33.4	G1/8"	22	9	8	12.5	10.25	50	6	6	M10X1.25	32	11	16.5	30	22	66	17	28	169.5
Ø32	22	M24X1.5	12	40	1/8PT	20	10	9	—	—	52	6	10	M10X1.25	32	10	17	37	24	74	17	30	178
Ø40	24	M30X1.5	16	49	1/8PT	20	13	10	—	—	53	8	9	M12X1.25	41	10	18	46	30	84	19	29	190

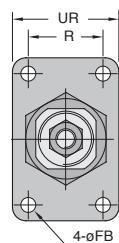
- **Foot Mount (L)**

Bore	AO	US	øAB	LT	NH	LS	XL	TR	XS	AV	UR	W
Ø12	6	43	5.5	3	20	78	84	32	32	13	32.5	19
Ø16	6	43	5.5	3	20	82	88	32	32	13	32.5	19
Ø20	7.5	53	6.6	3	25	100	108.5	40	37	16	41	21
Ø25	7.5	53	6.6	3	25	98	106.5	40	41	16	41	25
Ø32	8	59	6.6	4	32	124	129	45	51	25	51	26
Ø40	8	64	6.6	4	36	134	138	50	50	25	59	25

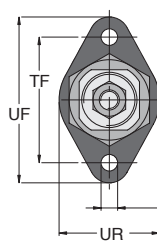


- **Front Flange Mount (F)**

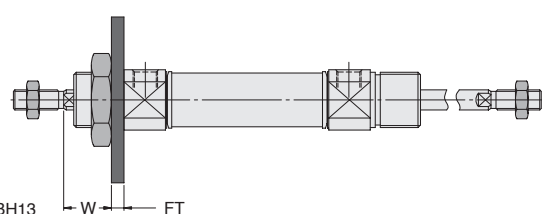
Bore	UR	FB	FT	TF	UF	W	R
Ø12	28	5.5	3	40	51	19	—
Ø16	28	5.5	3	40	51	19	—
Ø20	40	6.6	5	50	66	19	—
Ø25	40	6.6	5	50	66	23	—
Ø32	47	6.6	5	58	72	25	33
Ø40	50	7	5	70	84	24	36



ø32 & ø40



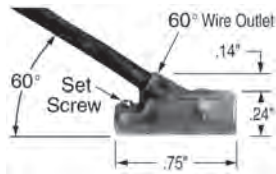
ø12 ~ ø25





# Position Sensors for FAE Series ISO Cylinders (ISO6432 & CETOP RP52P)

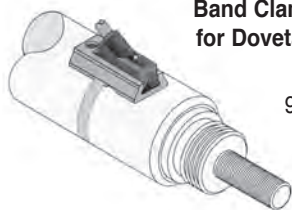
## Dovetail Style Magnetic Position Sensors – Temperature range: -4° to +176°F (-20° to +80C)



Encased in a plastic housing, dovetail style sensors are corrosion resistant. 60° wire outlet allows close mounting.

### Mounting Method #1

Sensor is fastened to the cylinder barrel with a **band clamp** that is not included with sensor and must be ordered separately.



**Band Clamp Adapter  
for Dovetail Sensors**

**Part No.**  
900-300-000

### Mounting Method #2

Sensor(s) slide into an adhesive backed mounting rail having twin dovetail slots. Sensors are locked with set screws. Rail is supplied with double sided tape affixed.



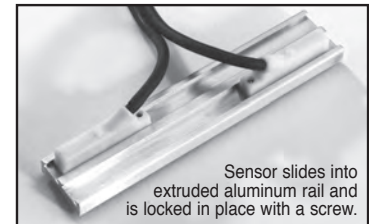
Dovetail mounting rail must be ordered separately. Order by **Part No. "ER – length"** where the length is known, or by **"ER – cylinder model no."**

Example: "ER-FAE 25 x 25" the model number of cylinder allows factory to determine the length needed. (Estimated length for pricing purposes is "stroke + 1")

### Application recommendations:

- Clean cylinder body O.D. with acetone. Remove all oil from surface.
- Do not apply the rail over the crimped body edge.
- Double check positioning of the rail.
- High performance double sided tape offers convenient "peel and stick" but is very aggressive, giving you only one chance. Be careful !
- Remove protective film from tape and place rail in desired position.
- Firmly press the rail to cylinder body.

Alternatively, the extruded aluminum rail can be fastened using Loctite® U-05FL urethane adhesive or similar. Follow product manufacturer's recommendations for application.



Dovetail Style Sensor Selection Guide		Prewired 9 ft. Leadwire	Quick Disconnect*
Sensor Type	Electrical Characteristics	Part No.	Price
Reed (No LED)	0-120 VDC/VAC, 0.5 Amp Max current, 5 Watt Max, 0 Voltage Drop	949-000-001 . . . . . -	949-000-301 . . . . . -
Reed (LED)	5-120 VDC/VAC, 0.03 Amp Max current, 4 Watt Max, 2.0 Voltage Drop	949-000-002 . . . . . -	949-000-302 . . . . . -
Electronic (LED)	Sourcing PNP 6-24 VDC, 0.20 Amp Max current, 0.5 Voltage Drop	949-000-031 . . . . . -	949-000-331 . . . . . -
Electronic (LED)	Sinking NPN 6-24 VDC, 0.20 Amp Max current, 0.5 Voltage Drop	949-000-032 . . . . . -	949-000-332 . . . . . -

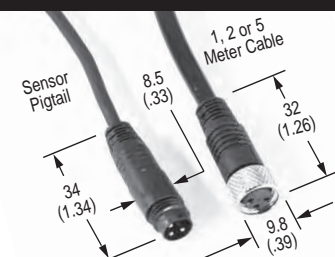
\*Note: Quick disconnect styles are supplied with 6 inch pigtail with male connector. Order female cordsets separately from chart below.

## Clamp-on Style Magnetic Position Sensors – Temperature range: -4° to +176°F (-20° to +80C) Available in pre-wired and quick-disconnect styles

**Prewired style**  
sensors are supplied  
with a 9 foot leadwire.



**\*Quick disconnect style** sensors are supplied with male connector. Order female cordsets separately from the first chart below.



**Band Clamp for  
Clamp On Sensors**  
(must be ordered separately)  
**Part No.** 800-A00-000

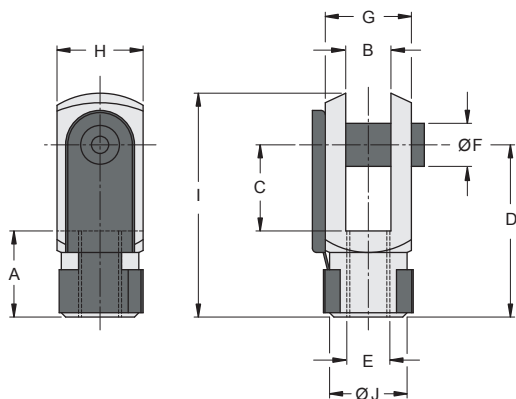
Female Cordsets for Quick Disconnect Sensors		
Cordset Length	Part No.	Price
1 Meter	CFC-1M	-
2 Meters	CFC-2M	-
5 Meters	CFC-5M	-

Clamp on Style Sensor Selection Guide		Prewired 9 ft. Leadwire	Quick Disconnect*
Sensor Type	Electrical Characteristics	Part No.	Price
Reed (LED)	5-120 VAC/VDC, 0.5 AMP Max, 10 Watt Max, SPST N.O. 3.5 voltage drop	9-2A197-1003 . . . . . -	9-2A197-1303 . . . . . -
Electronic (LED)	Sourcing, PNP, 6-24 VDC, 0.5 Amp Max, 1.0 voltage drop	9-2A197-1031 . . . . . -	9-2A197-1331 . . . . . -
Electronic (LED)	Sinking, NPN, 6-24 VDC, 0.5 Amp Max, 1.0 voltage drop	9-2A197-1032 . . . . . -	9-2A197-1332 . . . . . -

# Accessories for FAE Series

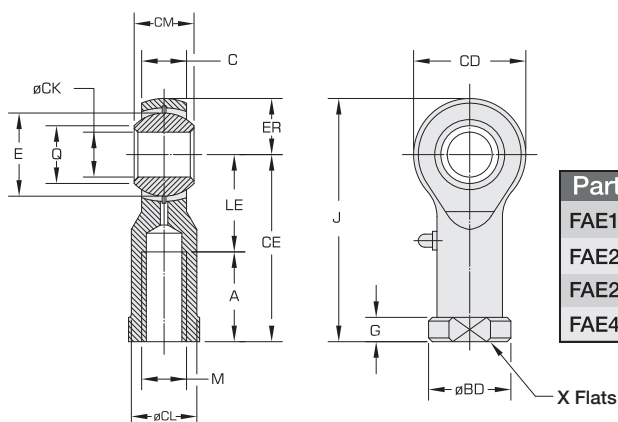
## ISO Cylinders (ISO6432 & CETOP RP52P)

### ● Rod clevis and pin (Y) ISO 8140








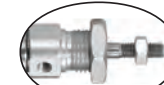
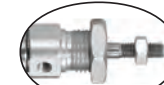
Part No.	A	B	C	D	E	F	G	H	I	J
FAE12-057A	12	6	12	24	M6X1.0	6	12	12	31	10
FAE20-057A	16	8	16	32	M8X1.25	8	16	16	42	14
FAE25-057A	20	10	20	40	M10X1.25	10	20	20	52	18
FAE40-057A	24	12	24	48	M12X1.25	12	24	24	62	20

### ● Spherical rod end (P) DIN 648 DIN 24335



Part No.	A	M	CE	øCK	øCL	CM	CD	ER	LE	øBD	C	E	G	J	Q	X
FAE12-061	14	M6X1.0	30	6	10	9	18	9	16	13	7	12.7	5	39	8.96	11
FAE20-061	17	M8X1.25	36	8	12.5	12	22	11	19	16	9	15.8	5	47	10.4	14
FAE25-061	21	M10X1.25	43	10	15	14	26	13	22	19	11	19.1	6.5	56	12.9	17
FAE40-061	24	M12X1.25	50	12	17.5	16	30	15	26	22	12	22.2	6.5	65	15.4	19

### Prices – Individual Parts & Accessories

<div>Foot bracket</div> <div></div> <div><table><thead><tr><th>Bore</th><th>Part No. ....</th><th>Price</th></tr></thead><tbody><tr><td>ø12, ø16</td><td>FAE 12-052 ....</td><td>-</td></tr><tr><td>ø20, ø25</td><td>FAE 20-052 ....</td><td>-</td></tr><tr><td>ø32</td><td>FAE 32-052 ....</td><td>-</td></tr><tr><td>ø40</td><td>FAE 40-052 ....</td><td>-</td></tr></tbody></table></div>	Bore	Part No. ....	Price	ø12, ø16	FAE 12-052 ....	-	ø20, ø25	FAE 20-052 ....	-	ø32	FAE 32-052 ....	-	ø40	FAE 40-052 ....	-	<div><div>Front flange</div><div>Rear flange</div><div></div></div> <div><table><thead><tr><th>Bore</th><th>Part No. ....</th><th>Price</th></tr></thead><tbody><tr><td>ø12, ø16</td><td>FAE 12-053 ....</td><td>-</td></tr><tr><td>ø20, ø25</td><td>FAE 20-053 ....</td><td>-</td></tr><tr><td>ø32</td><td>FAE 32-053 ....</td><td>-</td></tr><tr><td>ø40</td><td>FAE 40-053 ....</td><td>-</td></tr></tbody></table></div>	Bore	Part No. ....	Price	ø12, ø16	FAE 12-053 ....	-	ø20, ø25	FAE 20-053 ....	-	ø32	FAE 32-053 ....	-	ø40	FAE 40-053 ....	-	<div><div>Clevis base bracket and pin</div><div></div></div> <div><table><thead><tr><th>Bore</th><th>Part No. ....</th><th>Price</th></tr></thead><tbody><tr><td>ø12, ø16</td><td>FAE 12-062A ...</td><td>-</td></tr><tr><td>ø20, ø25</td><td>FAE 20-062A ...</td><td>-</td></tr><tr><td>ø32</td><td>FAE 32-062A ...</td><td>-</td></tr><tr><td>ø40</td><td>FAE 40-062A ...</td><td>-</td></tr></tbody></table></div>	Bore	Part No. ....	Price	ø12, ø16	FAE 12-062A ...	-	ø20, ø25	FAE 20-062A ...	-	ø32	FAE 32-062A ...	-	ø40	FAE 40-062A ...	-	<div><div>Rod clevis and pin</div><div></div></div> <div><table><thead><tr><th>Bore .....</th><th>Part No. ....</th><th>Price</th></tr></thead><tbody><tr><td>ø12, ø16...</td><td>FAE 12-057A .....</td><td>-</td></tr><tr><td>ø20.....</td><td>FAE 20-057A .....</td><td>-</td></tr><tr><td>ø25, ø32...</td><td>FAE 25-057A .....</td><td>-</td></tr><tr><td>ø40.....</td><td>FAE 40-057A .....</td><td>-</td></tr></tbody></table></div>	Bore .....	Part No. ....	Price	ø12, ø16...	FAE 12-057A .....	-	ø20.....	FAE 20-057A .....	-	ø25, ø32...	FAE 25-057A .....	-	ø40.....	FAE 40-057A .....	-				
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For dimensions not shown, see pages 6, 7, 8 and 9.

## Notes



**Cylinders, Valves and Accessories**  
Catalog #CV9



**Pancake® II Air Cylinders**  
Catalog Pan2-2



**Square Pancake® II Air Cylinders**  
Catalog # SqPan2



**Multi-Power® Air Presses**  
Catalog # FP16



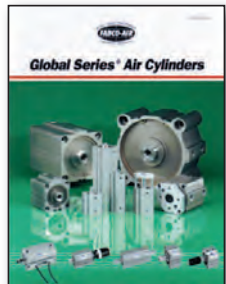
**Linear Slides - 6 Families**  
Catalog # LS-03



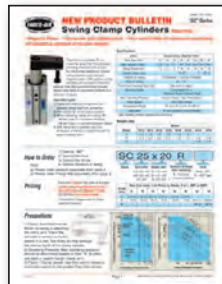
**Pneumatic Grippers, Parallel Jaw and Angular Motion** - Catalog # GR-8



**Interchangeable NFPA Air Cylinders**  
Catalog # NF-6



**Global Series™ Metric Air Cylinders** - Catalog # GC-15



**Swing Clamps**  
Bulletin # SC-DB04



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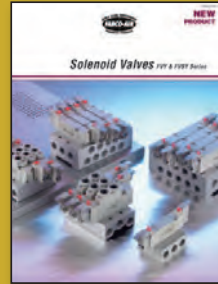
**Twin Rod, Non-Rotating Air Cylinders** - Catalog # FDF-09 and Catalog # FDXS-09



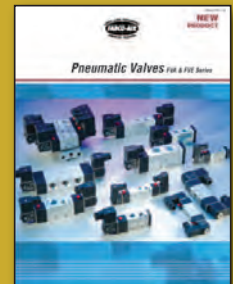
**Pneumatic Angular Motion Grippers**  
Catalog # FKA-09



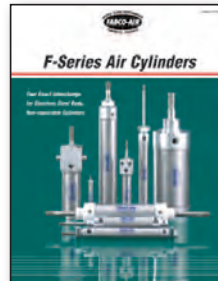
**Rotary Actuators, Pneumatic**  
Catalog # FRA.C-09



**Manifold Solenoid Valves**  
Catalog # FVS.Y-09



**Air Pilot & Solenoid Valves**  
Catalog # FVA.E-09



**Stainless Steel Body Air Cylinders**  
Catalog # SSB-03



**Pneumatic & Hydraulic Swing Clamps**  
Catalog # FML.H