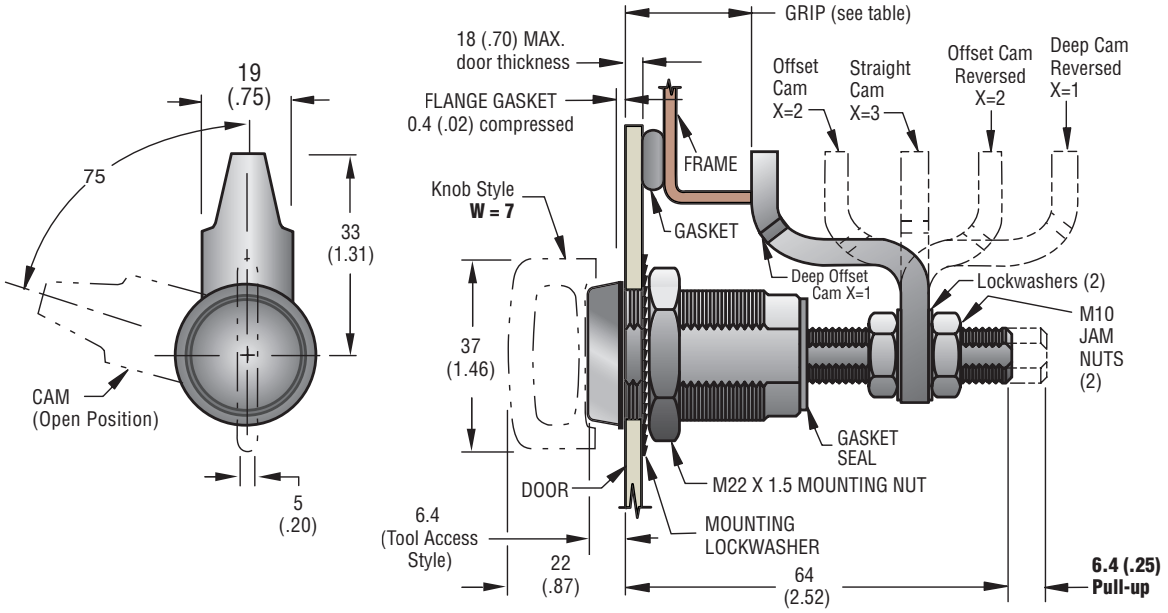
Southco® Vise Action™ E3 Compression Latch
Large Size, Adjustable Grip, Stainless Steel

- Ergonomic manual or tool operation for quick access
- Suitable for NEMA 4 and IP-65 applications
- Adjustable cam accommodates a wide grip range from 11 mm (.45 inches) to 76 mm (3.0 inches)



How to Order

E 3 – 1 W – X Z

ACCESS STYLE | CAM TYPE | FINISH

1. Select Access Style (W)
2. Find grip in table below.
3. Select the Cam Type"X" and specify in the part number.
4. Select finish (Z):
   2 = Electropolished (matte/satin)
   12 = Electropolished and hand buffed (bright)

GRIP RANGE (Adjustable Grip)		CAM TYPE (X)
MIN.	MAX.	
11.4 (.45)	27.2 (1.07)	**1** Deep offset*
25.4 (1.00)	41.1 (1.62)	**2** Offset*
38.9 (1.53)	54.6 (2.15)	**3** Straight‡
52.6 (2.07)	68.3 (2.69)	**2** Offset*
66.3 (2.61)	76.2 (3.00)	**1** Deep offset*

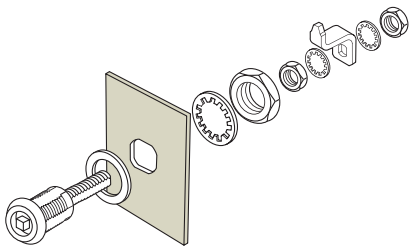
* The same cam (curved forward or reversed) is supplied for both short and long grips.
‡ For intermediate grip, straight cam is supplied.

Note: Additional access styles, finishes, actuation types, and hardware packages also available. Contact Southco for details.

Installation

Adjustable Grip

1. Insert latch and tighten mounting nut.
2. With latch in closed position, adjust jam nuts to position cam at correct grip.

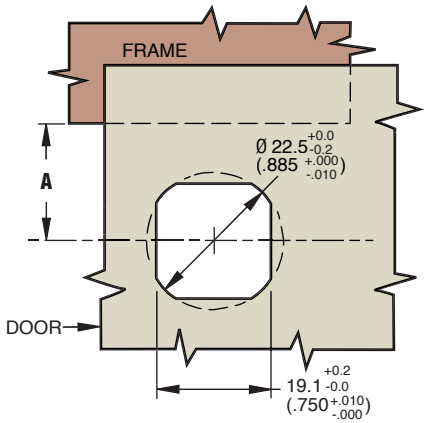


W	ACCESS STYLES
5	Southco Tubular Key
6	8 mm Hex Recess
7	Knob (Bright finish only)
9	Slotted Recess
10	8 mm Square
11	Railway Standard
20	8 mm Triangle
37	3/8 in Hex Recess
39	7 mm Tapered Triangle

Panel Preparation for Adjustable and Fixed Grip

Caution: Position cam so latching torque on the operating key is less than 7.9 N•m (70 in.-lbs.) Corner radii may be reduced to 4 (.16) MAX. for non-gasketed applications.

DISTANCE	Adjustable Grip	Fixed Grip
A	24±1.5 (.938±.062)	36±4 (1.42±.15)

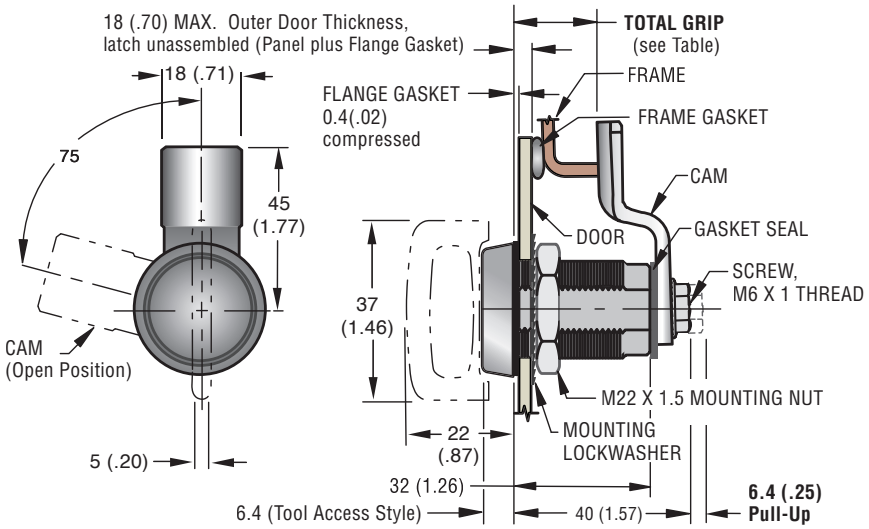


millimeter (inch)

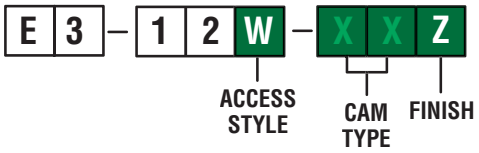
millimeter
(inch)

Dimensions without tolerances are for reference only.

- Minimal interior protrusion of 46.4 mm (1.92 in.)
- Quick easy install with preset fixed grip
- Suitable for NEMA 4 and IP-65 applications



How to Order



1. Select Access Style (W)
2. Find grip in table at right.
3. Select the Cam Type"XX" and specify in the part number.
4. Select finish (Z):
   2 = Electropolished
   12 = Electropolished and hand buffed

Note: Additional access styles, finishes, actuation types, hardware packages and pre assembly also available. Contact Southco for details.

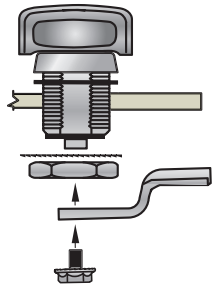
GRIP TABLE (fixed grip)

TOTAL GRIP	Cam Type (XX)	TOTAL GRIP	Cam Type (XX)
15 (.59)	00	35 (1.38)	10
17 (.67)	01	37 (1.46)	11
19 (.75)	02	39 (1.53)	12
21 (.83)	03	41 (1.61)	13
23 (1.10)	04	43 (1.69)	14
25 (.98)	05	45 (1.77)	15
27 (1.06)	06	47 (1.85)	16
29 (1.14)	07	49 (2.93)	17
31 (1.22)	08	51 (2.01)	18
33 (1.30)	09	53 (2.09)	19

Installation

Fixed Grip

1. Insert latch subassembly with flange gasket under the flange, into the door in the unlatched position.
2. Install lockwasher and mounting nut. Recommended tightening torque is 20 Nm (177 in-lbs.) for Mounting Nut and 10 Nm (88.5 in-lbs.) for Screw.





Material and Finish

HOUSING and CAP: 316 stainless steel, polished
CAP (Southco Key Version): 300 series stainless steel, passivated
SHAFT: 300 series stainless steel, passivated
SCREW and Cam: 304 stainless steel, passivated
LOCKWASHERS: 300 series stainless steel
JAM NUTS: 316 stainless steel, passivated
FLANGE GASKET: Neoprene, natural
GASKET SEAL: Rubber, black
MOUNTING NUT and BUSHING (Southco Key Version): Stainless steel, resin impregnated

Internal Components
RETAINER and SPRING: 302 stainless steel, natural
O-RING: Buna-N rubber, natural
SLEEVE and CAM: 1075 Case hardened steel, DACROSEALED †
PIN: 1008 steel, zinc plated plus chromate

†Registered tradename of Metal Coatings International, Inc.

Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

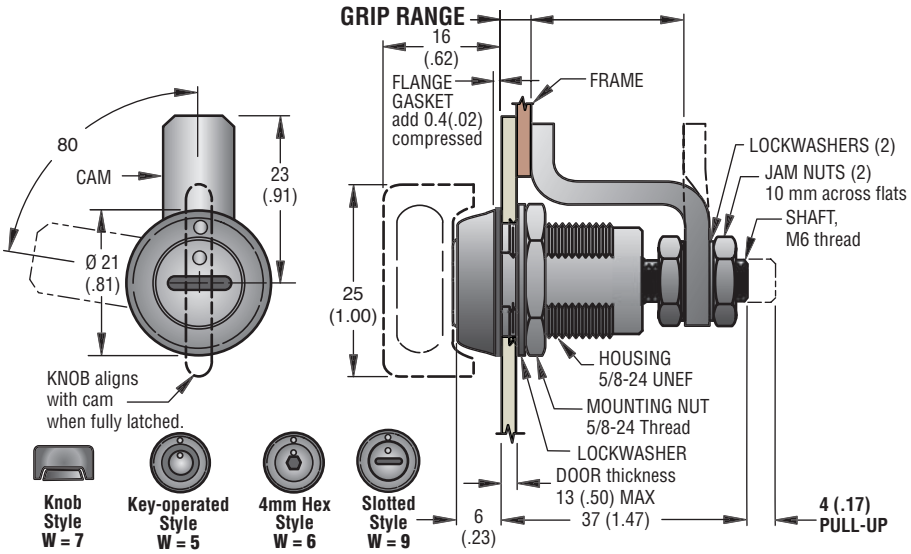
Adjustable Grip Version
Average ultimate load: 2355 N (530 lbs.)
Maximum working load: 556 N (125 lbs.)

Fixed Grip Version
Average ultimate load: 748 N (168 lbs.)
Maximum working load: 445 N (100 lbs.)

millimeter (inch)
millimeter (inch)
Dimensions without tolerances are for reference only.

Southco® Vise Action™ E3 Compression Latch
Small Size, Adjustable Grip, Stainless Steel

- Multiple access styles - Manual and Tool activated
- Suitable for NEMA 4 and IP-65 applications





How to Order

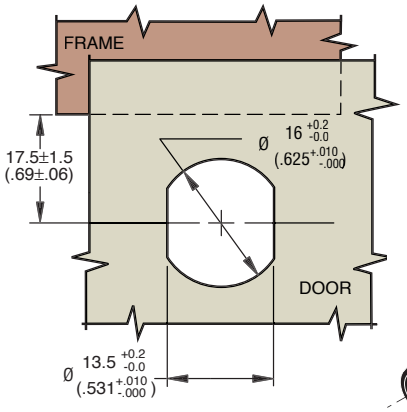
E 3 – 5 W – X 2

ACCESS STYLE — CAM TYPE

1. Select ACCESS STYLE "W" number designated in drawing above and place in part number table.
2. Find Grip in table at right. Select Cam Type "X" and specify in part number.

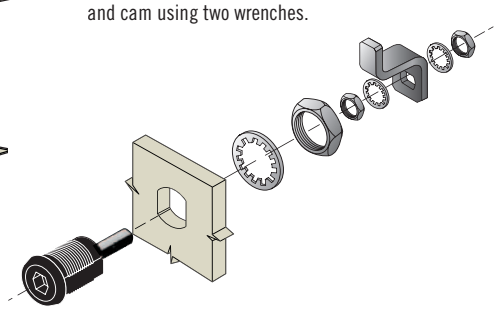
GRIP TABLE		CAM TYPE (X)
MIN.	MAX.	
3.2 (.125)	6.4 (.250)	1
6.4 (.250)	9.5 (.375)	2
9.5 (.375)	12.7 (.500)	3
12.7 (.500)	15.9 (.625)	4
15.9 (.625)	19 (.750)	5
19 (.750)	22.2 (.875)	6
22.2 (.875)	25.4 (1.00)	7
25.4 (1.00)	28.6 (1.125)	8

Panel preparation and Installation



To adjust grip: Measure your grip.

1. Open door. Position cam on shaft to your grip measurement (with cam in latched position).
2. Tighten jam nuts hard against lock-washers and cam using two wrenches.



Material and Finish

HOUSING: 316 stainless steel, electropolished
SHAFT: 300 series stainless steel, passivated
JAM NUTS: 304 stainless steel, passivated
ALL LOCKWASHERS: 302 stainless steel, passivated
Cam: 304 stainless steel, passivated
MOUNTING NUT: 316 stainless steel, passivated
FLANGE GASKET: Neoprene, natural
CAP: 316 stainless steel, electropolished
CAP, Key operated: 300 series stainless steel, passivated

Internal Components
SPRING and RETAINER: 302 stainless steel, passivated.
O-RING: Buna-N rubber, black.
INTERNAL CAM: 1075 case hardened steel, DACROSEALED†. SLEEVE: 1065 Case hardened steel, DACROSEALED†. PIN: Case hardened 1008 steel, zinc plate, chromate plus sealer

† Registered tradename of Metal Coatings International, Inc.
Latch is shipped partially assembled, one unit per bag.

Product Strength Guidelines

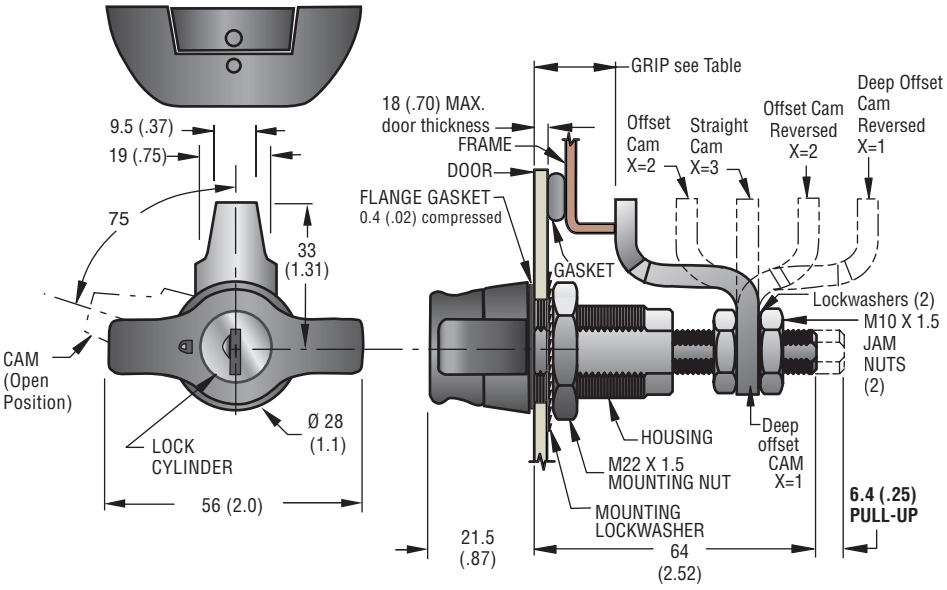
(To assist in your product selection; samples are available for your evaluation.)
Average ultimate load: 780 N (175 lbs.)
Maximum working load: 356 N (80 lbs.)

KEY PART NUMBER
E3-26-819-15 •

millimeter (inch)
millimeter (inch)
Dimensions without tolerances are for reference only.

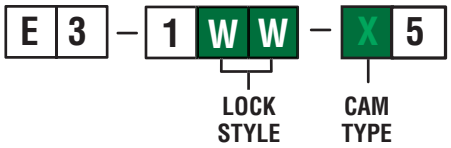
Southco® Vise Action™ E3 Compression Latch
Wing Knob Style, Key-Lockable, Large Size, Adjustable Grip

- Wide grip range from 11 mm (.45 inches) to 76 mm (3.0 inches)
- Available with or without key lock
- Multiple key codes offer added security
- Suitable for NEMA 4 and IP-65 applications





How to Order



1. Select Lock Style (**WW**) from table.

LOCK STYLE	(WW)
Non-locking	**50**
CH751 key code (black)*	**51**
Shuttered R001*, key code, reversible key (stainless steel)	**58**
without lock plug**	**59**

*For additional lock plug key code availability, and information contact Southco for details.

** User installed lock plug, order separately.

2. To select Cam, determine Grip Range and select (**X**) from table.

GRIP RANGE (Adjustable Grip)		CAM TYPE (X)
MIN.	MAX.	
11.4 (.45)	27.2 (1.07)	**1** Deep offset*
25.4 (1.00)	41.1 (1.62)	**2** Offset*
38.9 (1.53)	54.6 (2.15)	**3** Straight‡
(Cam reversed)		
66.3 (2.61)	76.2 (3.00)	**1** Deep offset*
52.6 (2.07)	68.3 (2.69)	**2** Offset*
38.9 (1.53)	54.6 (2.15)	**3** Straight‡

* The same cam (curved forward or reversed) is supplied for both short and long grips.
‡ For intermediate grip, straight cam is supplied.

Material and Finish

Adjustable Grip

HOUSING, MOUNTING NUT, and WING KNOB: Die-cast zinc, powder coated or Acrylic Latex sealer.
RETAINER and SPRING: 302 stainless steel, natural.
SHAFT and JAM NUTS (2): Low carbon steel, zinc plate chromate, plus sealer.
Cam: 1010 Steel, zinc plate chromate, plus sealer.
LOCKWASHERS (2): Spring Steel, zinc plate chromate, plus sealer
CAM and SLEEVE: 1075 Case hardened steel, DACROSEALED †
PIN: 1008 steel, zinc plated plus chromate
O-RING: Buna-N rubber, natural
FLANGE GASKET: Neoprene, natural
LOCK PLUG: Die-cast zinc and brass, black powder coated or die-cast zinc and brass, stainless steel SCALP and SHUTTER
LOCK Cam: 1008 Steel, (galvanized) plating.
OVERMOLDED KEY: Brass, nickel plated, and ABS, black
SHAFT SPACER: Aluminum, natural

†Registered tradename of Metal Coatings International, Inc.

Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

Average ultimate load: 1500 N (340 lbs.)
Maximum working load: 445 N (100 lbs.)

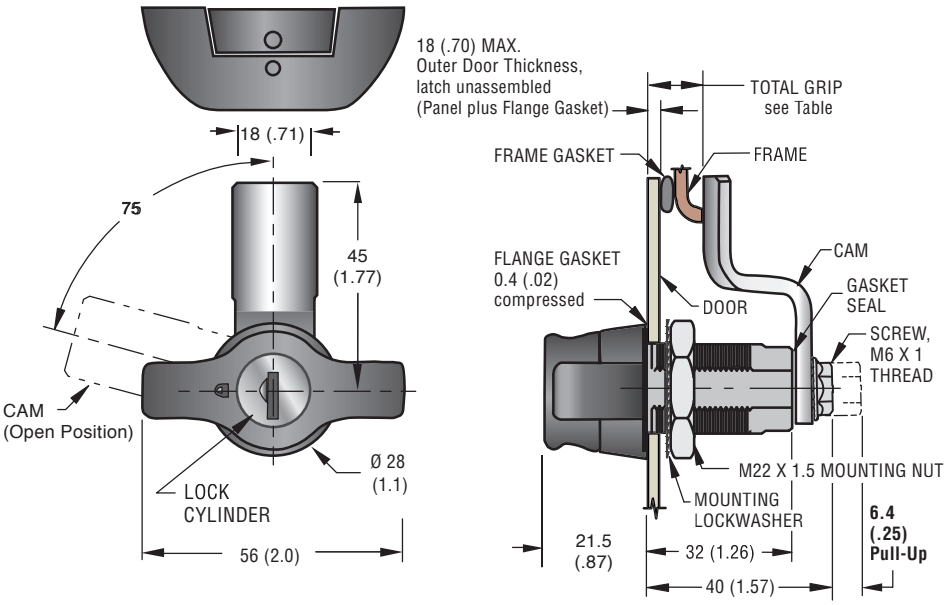
millimeter (inch)

millimeter (inch)

Dimensions without tolerances are for reference only.

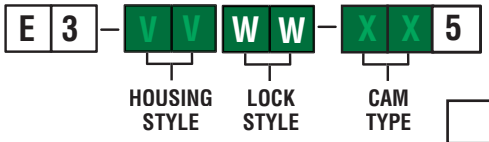
Southco® Vise Action™ E3 Compression Latch
Wing Knob Style, Key-Lockable, Large Size, Fixed Grip

- Quick install with preset grip
- Minimal internal protrusion 40 mm (1.7 inches)
- Available with or without key lock
- Multiple key codes offer added security
- Suitable for NEMA 4 and IP-65 applications





How to Order



1. For Housing Style select (**V V**) from table.

HOUSING STYLE	V V
Shipped Assembled	**10**
Shipped Unassembled	**12**

2. Select Lock Style (WW) from table.

LOCK STYLE	(WW)
Non-locking	**50**
CH751 key code (black)*	**51**
Shuttered R001*, key code, reversible key (stainless steel)	**58**
without lock plug**	**59**

*1 overmolded key supplied, for additional lock plug key code availability, and information contact Southco for details.

** User installed lock plug, order separately.

3. To select Cam, determine Total Grip and select (XX) from grip table.

GRIP TABLE (Fixed Grip)

TOTAL GRIP	CAM (XX)	MAX outer door thickness for assembled latches	TOTAL GRIP	CAM (XX)	MAX outer door thickness for assembled latches
15 (.59)	00	Must use unassembled latch	35 (1.38)	10	7 (.28)
17 (.67)	01	Must use unassembled latch	37 (1.46)	11	7 (.28)
19 (.75)	02	1 (.04)	39 (1.53)	12	7 (.28)
21 (.83)	03	2 (.08)	41 (1.61)	13	7 (.28)
23 (1.10)	04	4 (.16)	43 (1.69)	14	7 (.28)
25 (.98)	05	5 (.20)	45 (1.77)	15	7 (.28)
27 (1.06)	06	6 (.24)	47 (1.85)	16	7 (.28)
29 (1.14)	07	7 (.28)	49 (2.93)	17	7 (.28)
31 (1.22)	08	7 (.28)	51 (2.01)	18	7 (.28)
33 (1.30)	09	7 (.28)	53 (2.09)	19	7 (.28)

Material and Finish

Fixed Grip

HOUSING, MOUNTING NUT, and WING KNOB: Die-cast zinc, powder coated or acrylic latex sealer
RETAINER and SPRING: 302 stainless steel, natural
SHAFT: Low carbon steel, zinc plate chromate, plus sealer
Cam: 1010 steel, zinc plate chromate, plus sealer
LOCKWASHER: Spring steel, zinc plate chromate, plus sealer
INTERNAL CAM and SLEEVE: 1075 Case hardened steel, DACROSEALED †
PIN: 1008 Steel, zinc plated plus chromate
O-RING: Buna-N rubber, natural
GASKET SEAL: Rubber, black
FLANGE GASKET: Neoprene, natural
LOCK PLUG: Die-cast zinc and brass, black powder coated or die-cast zinc and brass, stainless steel SCALP
LOCK Cam: 1008 steel, (galvanized) plating
OVERMOLDED KEY: Brass, nickel plate and ABS, black
SHAFT SPACER: Aluminum, natural

†Registered tradename of Metal Coatings International, Inc.

Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

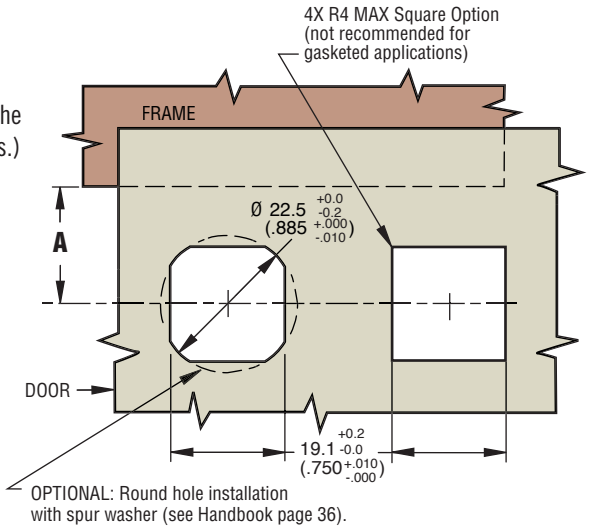
Average ultimate load: 700 N (157 lbs.)
Maximum working load: 300 N (67 lbs.)

millimeter (inch)
millimeter
(inch)
Dimensions without tolerances are for reference only.

Panel Preparation for Adjustable and Fixed Grip Styles

Caution: Position cam so latching torque on the operating key is less than 7.9 N•m (70 in.-lbs.)

DISTANCE	Adjustable Grip	Fixed Grip
A	24±1.5 (.938±.062)	36±4 (1.42±.15)



Overmolded Keys

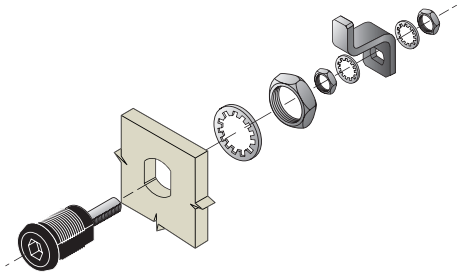
Overmolded key provided with standard locking versions. Custom logo capability available. Contact Southco for details.



Installation

Adjustable Grip

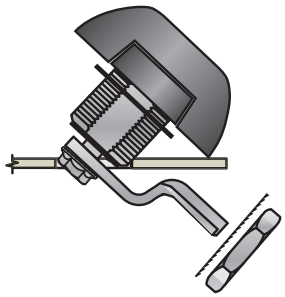
1. Insert latch and tighten mounting nut.
2. With latch in closed position, adjust jam nuts to position cam at correct grip.



Fixed Grip (assembled)

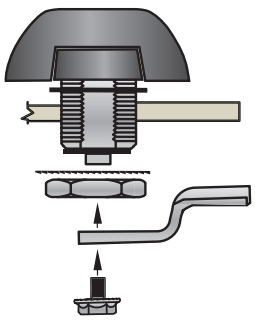
1. Insert latch assembly in the unlatched position (with flange gasket under the flange, if required) into the door.
2. Install lockwasher and mounting nut. Recommended tightening torque is 20 Nm.

NOTE: For MAX panel thickness in assembled versions, see Grip Table on page 6.



Fixed Grip (unassembled)

1. Insert latch subassembly with flange gasket under the flange, into the door in the unlatched position.
2. Install lockwasher and mounting nut. Recommended tightening torque is 20 Nm for mounting nut and 10 Nm for screw.



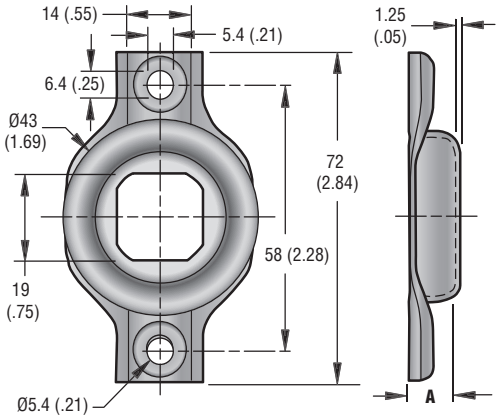
millimeter (inch)

millimeter
(inch)

Dimensions without tolerances are for reference only.

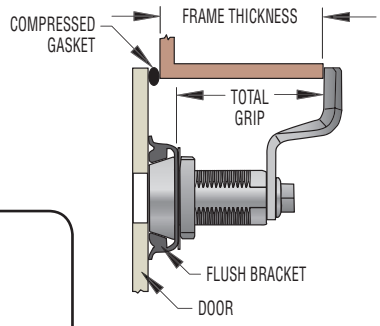
Southco® Vise Action™ Compression Latch
Fixed Bracket for Flush Mount

- Creates a clean flush surface
- Accommodates all large size tool operating styles
- Provides key retention feature with select access styles



A	PART NUMBERS	MATERIAL
6.6 (.26)	E3-77-251-12	Galvanized steel
*9.3 (.37)	E3-77-252-12	Galvanized steel
6.6 (.26)	E3-77-251-24	304 Stainless steel
*9.3 (.37)	E3-77-252-24	304 Stainless steel

* For use with Railway Standard and Bellcore 216 head styles only.



To calculate the **Total Grip,** use the following formula: **Frame Thickness + Compressed Gasket - "A"**.
Use this Total Grip with the appropriate E3 tables in the Southco Handbook to determine Cam Type.



Material and Finish

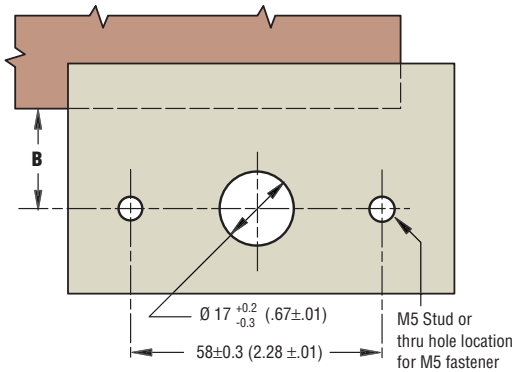
BRACKET: 1008 Galvanized steel or
304 Stainless steel, passivated
O-RING: Buna-N rubber, natural

Retention to the panel is subject to user method of installation and material.

millimeter (inch)
millimeter
(inch)
Dimensions without tolerances are for reference only.

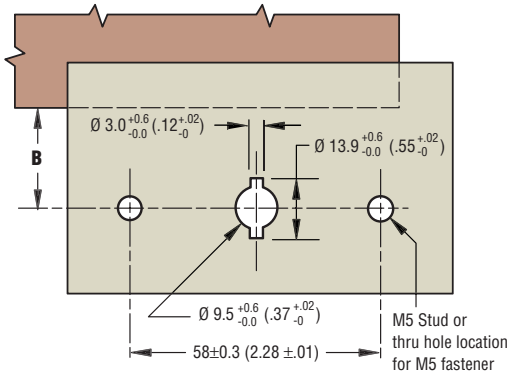
Panel Preparation

For B dimensions consult the Southco Handbook.

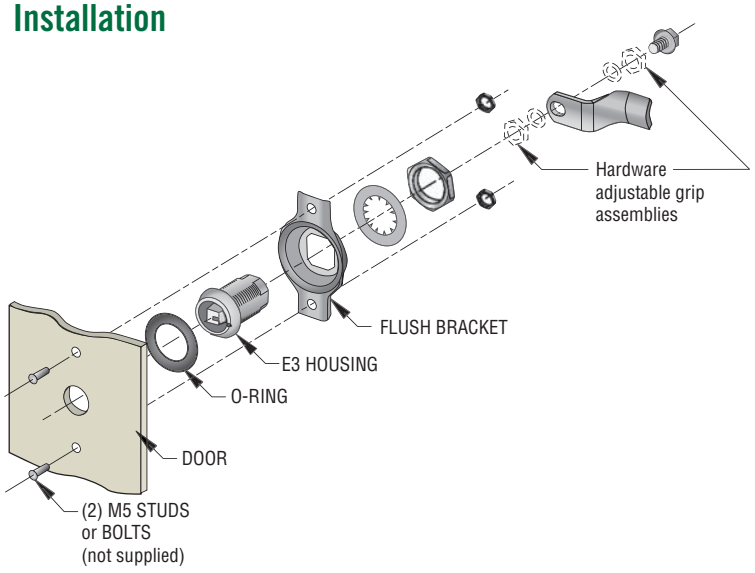


Double bitted (key retained style)

Key can only be removed in the latch closed position.



Installation

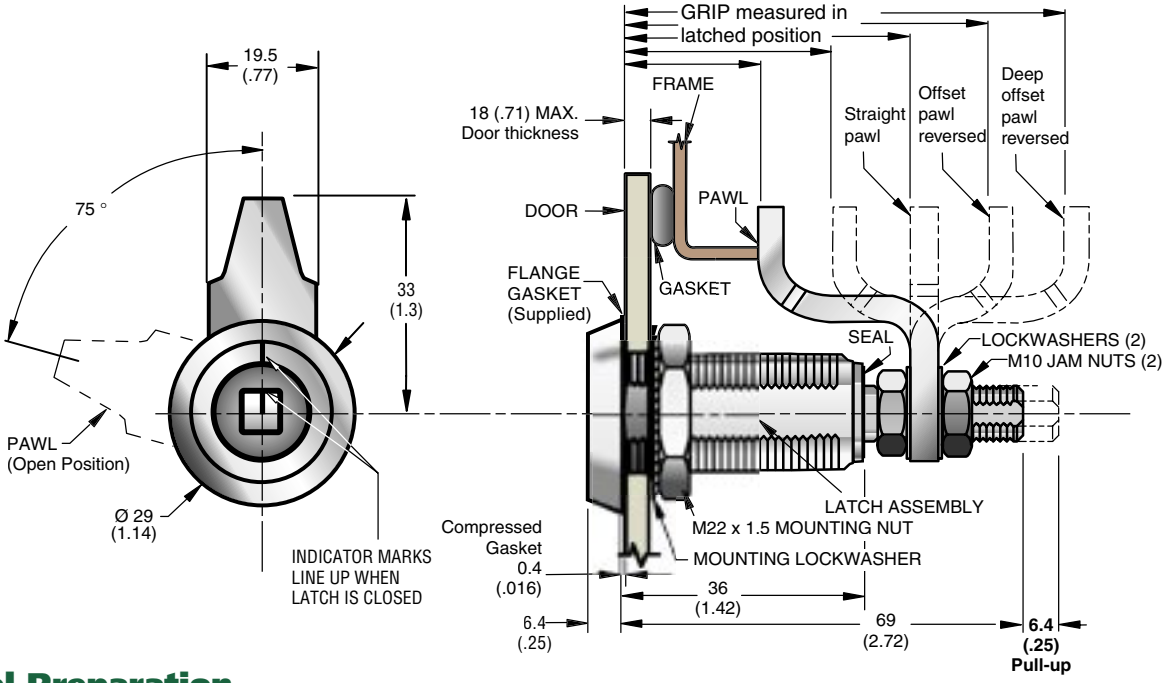


Refer to our Southco 2003 Handbook or visit www.southco.com for expanded product listings.

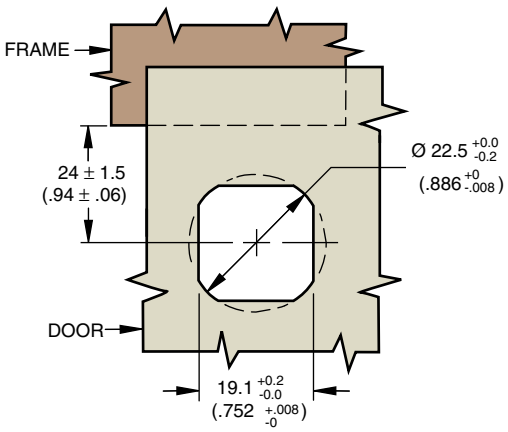
Southco® Compression Latches

Vise Action Series, Stainless Steel, Large Size

- **Single-hole mount**
- **Internal and external sealing**
- **Suitable for NEMA 4 and IP-65 applications**
- **Multiple head styles available**



Panel Preparation

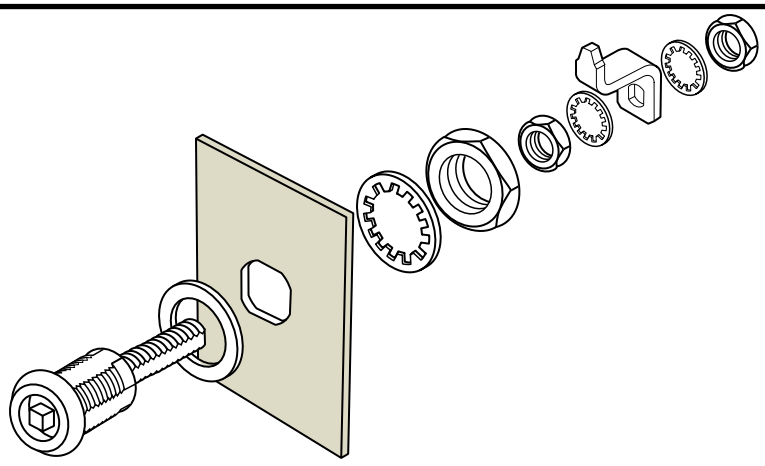


Installation

1. Insert latch and tighten mounting nut.*
2. With latch in closed position, adjust jam nuts to position pawl at correct grip.

Caution: Position pawl so latching torque on the operating key is less than 7.9 N•m (70 in-lbs.).

*Recommended tightening torque for the mounting nut is 20 N•m (176 in-lbs.).



• Products identified with this symbol are stocked subject to prior sale in one or more of our global locations. If unavailable from our facility nearest you, allow for shipping time from another facility.



HEAD STYLE (Other head styles available)	GRIP RANGE MIN.	GRIP RANGE MAX.	PART NUMBERS †	Key Part Numbers (Order Separately)
3 mm Double Bitted	16.4 (.65)	32.2 (1.27)	E3-12-10* ●	E3-2-1●
	30.4 (1.20)	46.1 (1.81)	E3-12-20* ●	
	43.9 (1.73)	59.6 (2.35)	E3-12-30‡ ●	
	57.6 (2.27)	73.3 (2.89)	E3-12-20* ●	
	71.3 (2.81)	81.2 (3.20)	E3-12-10* ●	
7mm Triangle	16.4 (.65)	32.2 (1.27)	E3-13-10* ●	E3-3-1●
	30.4 (1.20)	46.1 (1.81)	E3-13-20* ●	
	43.9 (1.73)	59.6 (2.35)	E3-13-30 ‡ ●	
	57.6 (2.27)	73.3 (2.89)	E3-13-20* ●	
	71.3 (2.81)	81.2 (3.20)	E3-13-10* ●	
Southco® Tubular Key	16.4 (.65)	32.2 (1.27)	E3-15-10* ●	E3-5-15●
	30.4 (1.20)	46.1 (1.81)	E3-15-20* ●	
	43.9 (1.73)	59.6 (2.35)	E3-15-30 ‡ ●	
	57.6 (2.27)	73.3 (2.89)	E3-15-20* ●	
	71.3 (2.81)	81.2 (3.20)	E3-15-10* ●	
8 mm Hex Recess	16.4 (.65)	32.2 (1.27)	E3-16-10* ●	8 mm Hex Wrench
	30.4 (1.20)	46.1 (1.81)	E3-16-20* ●	
	43.9 (1.73)	59.6 (2.35)	E3-16-30‡ ●	
	57.6 (2.27)	73.3 (2.89)	E3-16-20* ●	
	71.3 (2.81)	81.2 (3.20)	E3-16-10* ●	
Slotted Recess	16.4 (.65)	32.2 (1.27)	E3-19-10* ●	–
	30.4 (1.20)	46.1 (1.81)	E3-19-20* ●	
	43.9 (1.73)	59.6 (2.35)	E3-19-30‡ ●	
	57.6 (2.27)	73.3 (2.89)	E3-19-20* ●	
	71.3 (2.81)	81.2 (3.20)	E3-19-10* ●	
Railway Standard	16.4 (.65)	32.2 (1.27)	E3-111-10* ●	RIC Standard (European Railway)
	30.4 (1.20)	46.1 (1.81)	E3-111-20* ●	
	43.9 (1.73)	59.6 (2.35)	E3-111-30 ‡ ●	
	57.6 (2.27)	73.3 (2.89)	E3-111-20* ●	
	71.3 (2.81)	81.2 (3.20)	E3-111-10* ●	
Bellcore 216	16.4 (.65)	32.2 (1.27)	E3-115-10* ●	E3-12-1●
	30.4 (1.20)	46.1 (1.81)	E3-115-20* ●	
	43.9 (1.73)	59.6 (2.35)	E3-115-30 ‡ ●	
	57.6 (2.27)	73.3 (2.89)	E3-115-20* ●	
	71.3 (2.81)	81.2 (3.20)	E3-115-10* ●	

* The same pawl (curved forward or reversed) is supplied for both short and long grips.
‡ For intermediate grip, straight pawl is supplied.
† Individually packaged.
For Layer Packed assemblies, 50 piece minimum, sold in multiples of 50, add a **-13** to the end of the part number. ie. E3-12-10-**13**.

Note: grip ranges differ from Southco's die-cast version
See pages 36 and 37 for accessories.

Material and Finish

HOUSING, CAP, BUSHING, SHAFT, and MOUNTING NUT: 316 Stainless Steel, passivated. (Tubular cap 303 Stainless Steel, passivated)
SLEEVE: 304 Stainless Steel, natural.
RETAINER and SPRING: 302 Stainless Steel, natural.
PAWL: 304 Stainless Steel, passivated.
LOCKWASHERS AND JAM NUTS: 316 Stainless Steel, passivated.
CAM: 1075 Case hardened steel, zinc immersion coating
PIN: 1008 Steel, zinc plated plus chromate dip.
O-RING and REAR SEAL: Buna-N rubber, natural.
FLANGE GASKET: Neoprene, natural.

Product Strength Guidelines

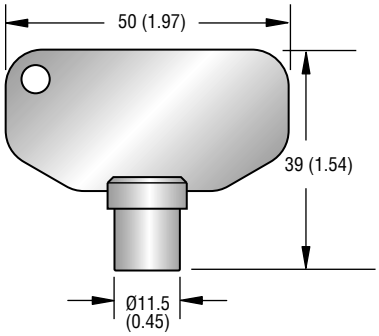
(To assist in your product selection; samples are available for your evaluation.)

Average ultimate load: 2355N (530 lbs.)
Maximum static load: 600 N (136 lbs.)

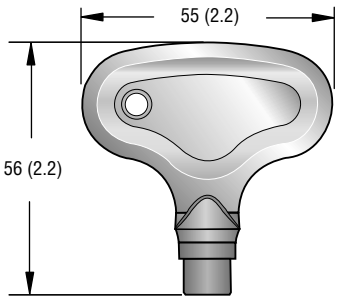
Average compression force: 150N (34 lbs.)
(Compression force applied to the frame when a standard Southco key is turned by hand)

Key (order Separately)

Tubular head style only



Other head styles



See table above for key part numbers.

Material and Finish

TUBULAR KEY: Steel, bright nickel plate.

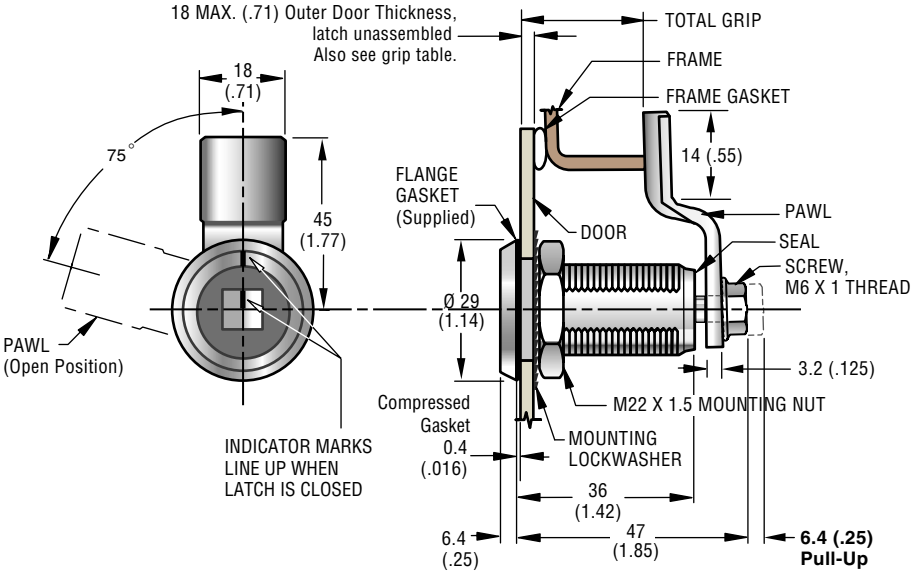
OTHER KEYS: Die cast zinc, bright nickel plate or chemical film coated finish, (change last digit in part number to a ***2***.) For glass filled nylon, (change the last digit in part number to a ***3***.)

millimeter (inch)
millimeter
(inch)
Dimensions without tolerances are for reference only.

Southco® Compression Latches

Vise Action Series, Stainless Steel, Minimal Protrusion

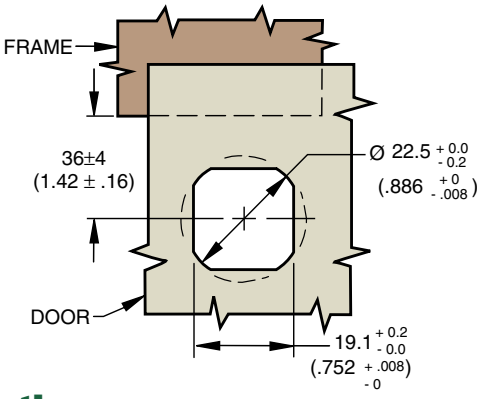
- **Single-hole mount**
- **Minimal interior protrusion of 53.4 mm (2.10)**
- **Internal and external sealing**
- **Suitable for NEMA 4 and IP-65 applications**
- **Multiple head styles available**



To determine the correct part number for pre-assembled and unassembled latches:

1. Choose a head style (see table).
2. Determine the maximum outer door thickness by adding any required accessories to your door thickness.
3. Determine the total grip by adding the following items together:
   - Maximum outer door thickness
   - Compressed frame gasket
   - Frame thickness
4. Find your total grip in the pawl table. If your grip is between two choices, use the smaller one.
5. To determine if an assembled or unassembled latch is to be used based on your total grip, see the MAX. Outer Door Thickness in the pawl table. If your outer door thickness is greater than that shown in the table, order an unassembled latch.
6. Use the 2 digit pawl type code that corresponds to your grip and outer door thickness to complete your latch assembly part number.

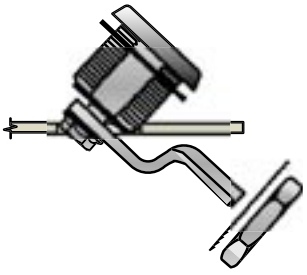
Panel Preparation



Installation

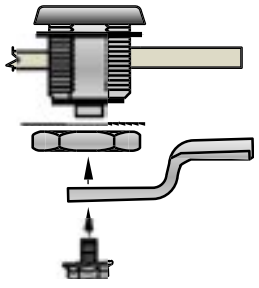
Assembled:

Insert latch assembly in the unlatched position with flange gasket under the flange. Install lockwasher and tighten mounting nut. *



Unassembled (For thicker doors):

Insert latch subassembly with flange gasket under the flange. Install lockwasher and tighten mounting nut. Attach pawl with the enclosed mounting screw. *



*Recommended tightening torque for the mounting nut is 20 N•m (176 in-lbs.) and the mounting screw is 10 N•m (88 in-lbs.).

• Products identified with this symbol are stocked subject to prior sale in one or more of our global locations. If unavailable from our facility nearest you, allow for shipping time from another facility.



HEAD STYLE (Other head styles available)		3 mm Double Bitted	7mm Triangle	Southco® Tubular Key	8 mm Hex Recess	Slotted Recess	Railway Standard	Bellcore 216
ASSEMBLY PART NUMBER †	Assembled	E3-102-**XX**0	E3-103-**XX**0	E3-105-**XX**0	E3-106-**XX**0	E3-109-**XX**0	E3-1011-**XX**0	E3-1015-**XX**0
	Unassembled	E3-122-**XX**0	E3-123-**XX**0	E3-125-**XX**0	E3-126-**XX**0	E3-129-**XX**0	E3-1211-**XX**0	E3-1215-**XX**0
Key Part Numbers (Order Separately)		E3-2-1•	E3-3-1•	E3-5-15•	8 mm (.312) Hex Wrench	–	RIC Standard (European Railway)	E3-12-1•

† Individually packaged.
For Layer Packed assemblies, 50 piece minimum, sold in multiples of 50, add a **-13** to the end of the part number. ie. E3-102-XX0-**13**.

Note: grip ranges differ from Southco's die-cast version

See page 36 and 37 for accessories. Keys order separately, see page 27.

PAWL TYPE NUMBERS

Pawl Type	TOTAL GRIP	Pawl Offset	MAX. OUTER DOOR THICKNESS, FOR ASSEMBLED LATCHES
XX=00 •	20 (.79)	18 (.71)	1 (.04)
XX=01 •	22 (.87)	16 (.63)	2 (.08)
XX=02 •	24 (.94)	14 (.55)	4 (.16)
XX=03 •	26 (1.02)	12 (.47)	5 (.20)
XX=04 •	28 (1.10)	10 (.39)	6 (.24)
XX=05 •	30 (1.18)	8 (.31)	7 (.28)
XX=06 •	32 (1.26)	6 (.24)	7 (.28)
XX=07 •	34 (1.34)	4 (.16)	7 (.28)
XX=08 •	36 (1.42)	2 (.08)	7 (.28)
XX=09 •	38 (1.50)	0	7 (.28)

Pawl Type	TOTAL GRIP	Pawl Offset	MAX. OUTER DOOR THICKNESS, FOR ASSEMBLED LATCHES
XX=10	40 (1.57)	2 (.08)	7 (.28)
XX=11 •	42 (1.65)	4 (.16)	7 (.28)
XX=12 •	44 (1.73)	6 (.24)	7 (.28)
XX=13	46 (1.81)	8 (.31)	7 (.28)
XX=14	48 (1.89)	10 (.39)	7 (.28)
XX=15	50 (1.97)	12 (.47)	7 (.28)
XX=16	52 (2.05)	14 (.55)	7 (.28)
XX=17	54 (2.13)	16 (.63)	7 (.28)
XX=18	56 (2.20)	18 (.71)	7 (.28)
XX=19	58 (2.28)	20 (.79)	7 (.28)

Material and Finish

HOUSING, CAP, BUSHING, SHAFT and MOUNTING NUT: 316 Stainless Steel, passivated. (Tubular cap 303 Stainless Steel, passivated).
SLEEVE: 304 Stainless Steel, natural
RETAINER AND SPRING: 302 Stainless Steel, natural.
PAWL: 304 Stainless Steel, passivated.
LOCKWASHERS and SCREW: 316 Stainless Steel, passivated.
CAM: 1075 Case hardened steel, zinc immersion coating.
PIN: 1008 Steel, zinc plated plus chromate dip.
O-RING and REAR SEAL: Buna-N rubber, natural.
FLANGE GASKET: Neoprene, natural.

Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

Average ultimate load: 748 N (168 lbs.)
Maximum static load: 450 N (102 lbs.)
Average compression force: 150N (34 lbs.)
(Compression force applied to the frame when a standard Southco key is turned by hand)

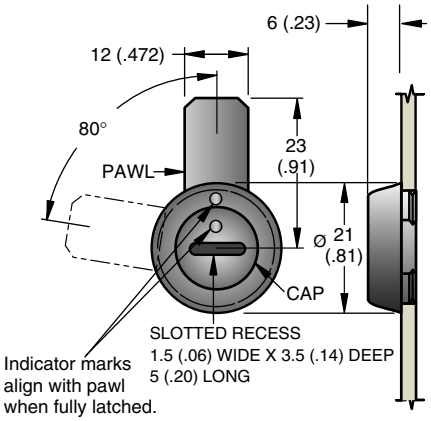
millimeter (inch)
millimeter (inch)
Dimensions without tolerances are for reference only.

Southco® Compression Latches

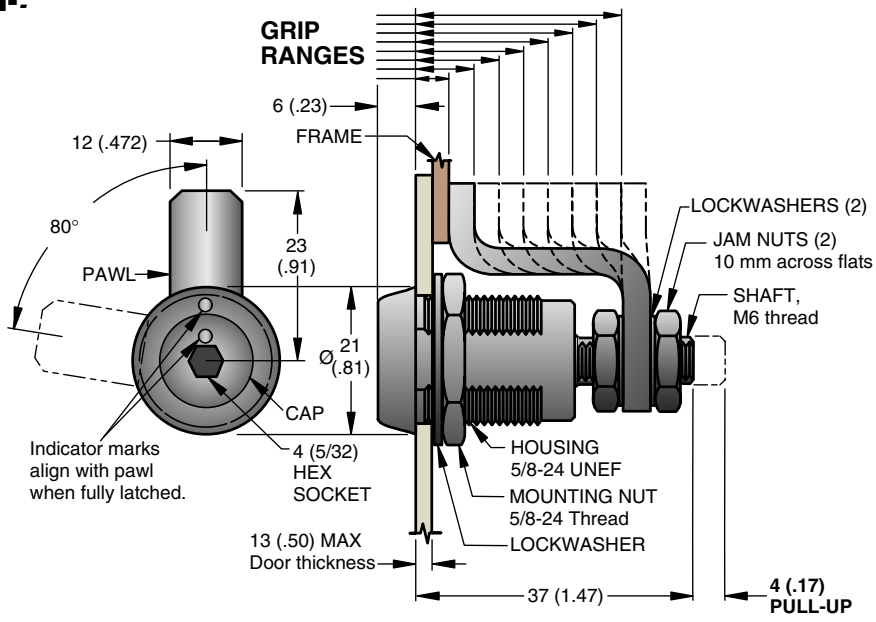
Vise Action Series, Small Size

- **Single-hole mount**
- **Internal O-ring gasket**
- **Four access styles including hand-, tool-, or key-operated**

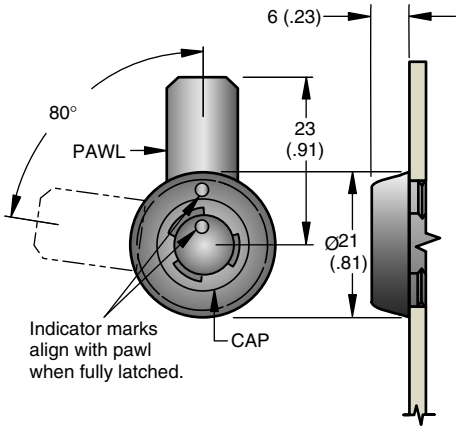
Slotted Recess Style



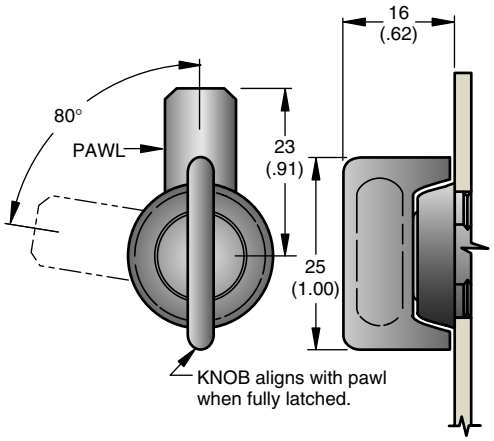
Tool-operated Style



Key-operated Style



Knob Style



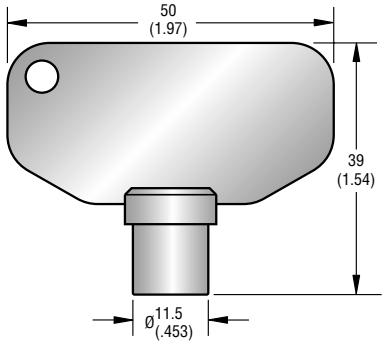
GRIP RANGE		PART NUMBERS (Individually packaged) †			
MIN.	MAX.	Slotted Recess Style	Tool-operated Style	Knob Style	Key-operated Style
Black finish					
3.2 (.125)	6.4 (.250)	E3-59-**15** •	E3-56-**15** •	E3-57-**15** •	E3-55-**15** •
6.4 (.250)	9.5 (.375)	E3-59-**25** •	E3-56-**25** •	E3-57-**25** •	E3-55-**25** •
9.5 (.375)	12.7 (.500)	E3-59-**35** •	E3-56-**35** •	E3-57-**35** •	E3-55-**35** •
12.7 (.500)	15.9 (.625)	E3-59-**45** •	E3-56-**45** •	E3-57-**45** •	E3-55-**45** •
15.9 (.625)	19 (.750)	E3-59-**55** •	E3-56-**55** •	E3-57-**55** •	E3-55-**55** •
19 (.750)	22.2 (.875)	E3-59-**65** •	E3-56-**65** •	E3-57-**65** •	E3-55-**65** •
22.2 (.875)	25.4 (1.00)	E3-59-**75** •	E3-56-**75** •	E3-57-**75** •	E3-55-**75** •
25.4 (1.00)	28.6 (1.125)	E3-59-**85** •	E3-56-**85** •	E3-57-**85** •	E3-55-**85** •

† For Layer Packed assemblies, 50 piece minimum, sold in multiples of 50; add a -13 to the end of the part number. Ex. E3-59-15-13.
Additional finishes available, contact Southco.

 • Products identified with this symbol are stocked subject to prior sale in one or more of our global locations. If unavailable from our facility nearest you, allow for shipping time from another facility.

Key (Shown Actual Size)

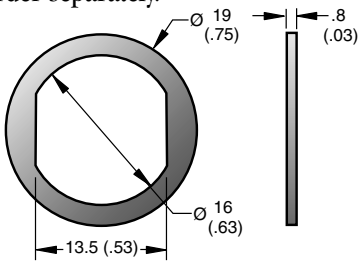
Order separately.



PART NUMBER
E3-26-819-15 •

Optional Gasket

Order separately.



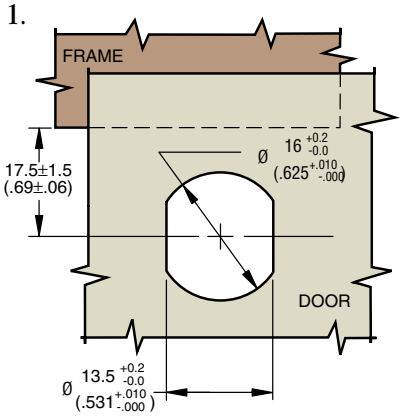
Material and Finish

Neoprene, natural.

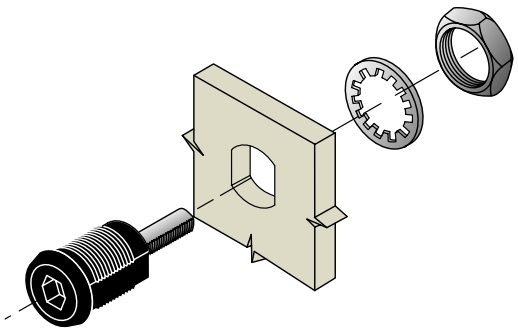
PART NUMBER
E3-0-30268-02

Installation

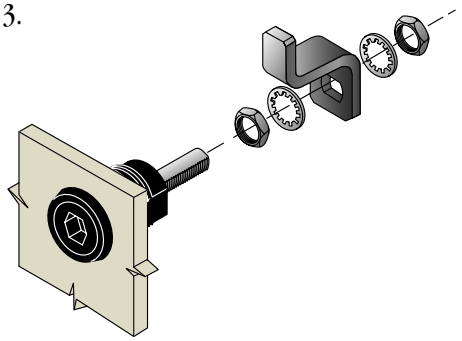
1.



2.



3.

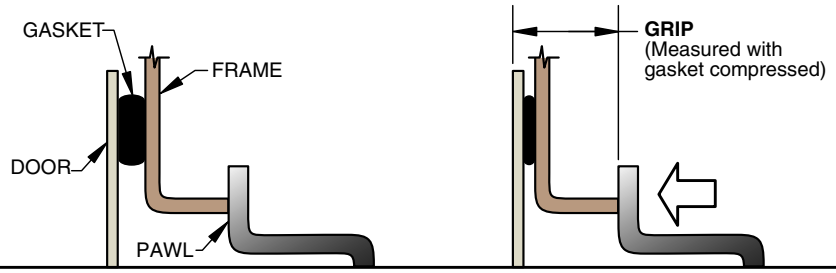


4. **To adjust grip:** Measure your grip.

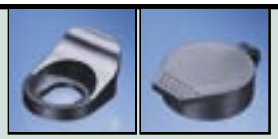
Open door. Position pawl on shaft to your grip measurement (with pawl in latched position).

Tighten jam nuts hard against lock-washers and pawl using two wrenches.

For gasketed doors:



CAUTION: Set pawl position so that no more than 1.6 N•m (14 in.-lbs.) of torque is required to secure door.



Accessories for these latches. See page 37.

Material and Finish

HOUSING: Die-cast zinc, black powder coated.
CAM: 1075 Case hardened steel, zinc immersion coating.
SLEEVE: 1065 Case hardened steel, zinc immersion coating.
SHAFT: 12L14 Steel, zinc plate, chromate plus sealer.
JAM NUTS: Steel, zinc plate, chromate plus sealer.
ALL LOCKWASHERS: Spring steel, zinc plate, chromate plus sealer.
PAWL: 1010 Steel, zinc alloy plate, bright chromate plus sealer.
MOUNTING NUT: 12L14 Steel, zinc plate, chromate plus sealer.
PIN: Case hardened 1008 steel, zinc plate, chromate plus sealer.
SPRING and RETAINER: 302 Stainless steel, passivated.
O-RING: Buna-N rubber, black.

Tool-operated Style
CAP: Die-cast zinc, black powder coated

Knob Style
KNOB: Die-cast zinc, black powder coated.

Key-operated Style
CAP: 303 Stainless steel, black powder coated.
KEY: Steel, nickel plated.

Latch is shipped partially assembled, one unit per bag.

Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

Maximum static load: 440 N (100 lbs.)
Average ultimate load: 690 N (155 lbs.)

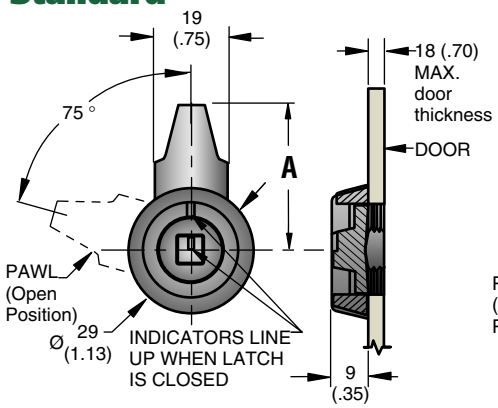
millimeter (inch)
millimeter
(inch)
Dimensions without tolerances are for reference only.

Southco® Compression Latches

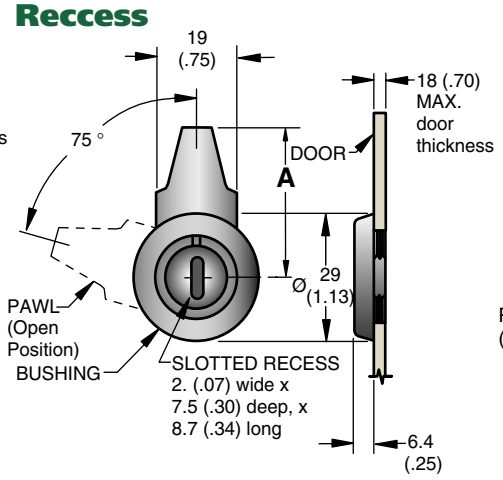
Vise Action Series, Large Size

- **Single-hole mount**
- **Adjustable to fit a wide grip range**
- **Internally gasketed**
- **13 access styles including hand-, tool-, or key-operated**
- **Styles available for 2- and 3-point latching (See pages 160 to 162)**

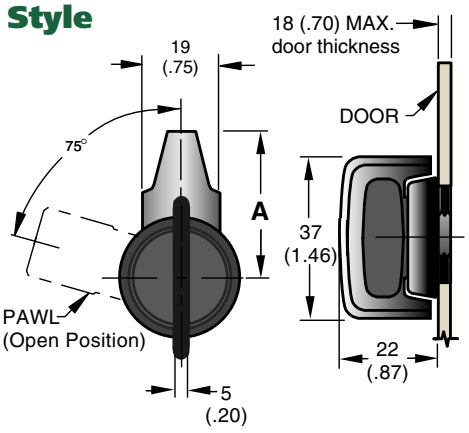
Railway Standard



Slotted Reccess

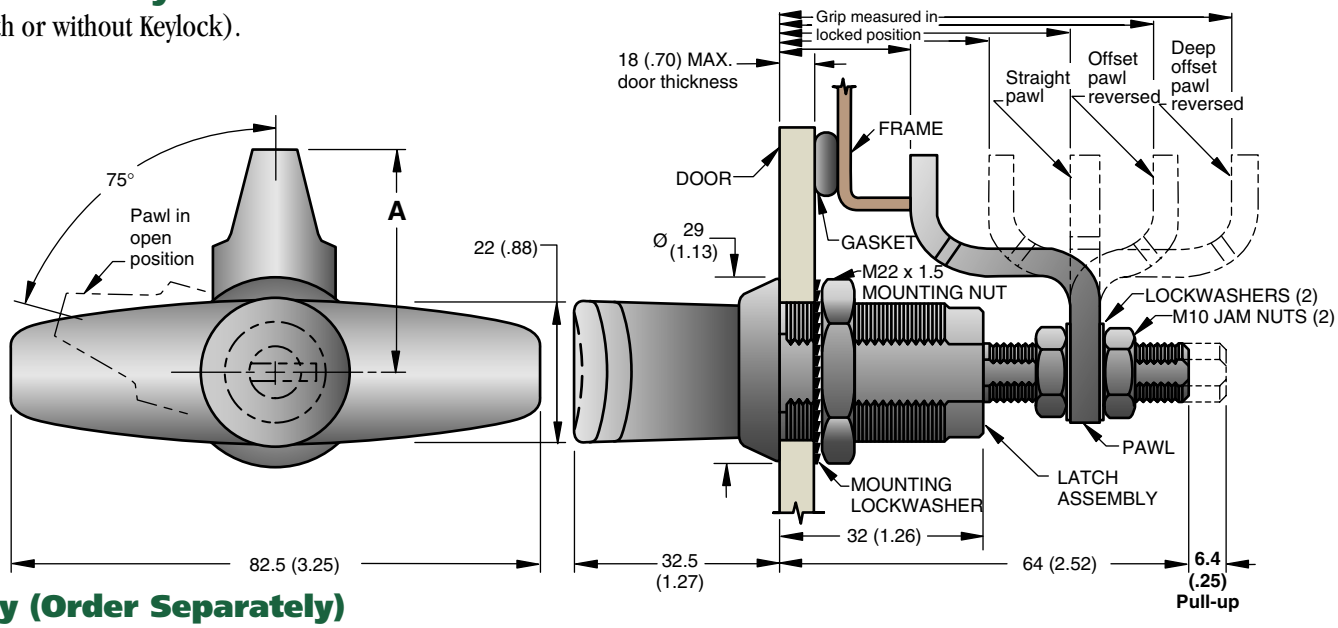


Knob Style



T-Handle Style

(With or without Keylock).

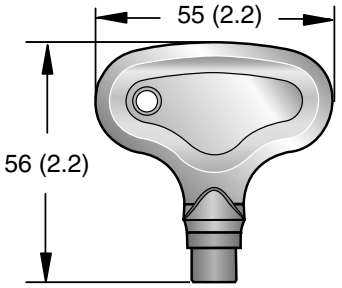


Key (Order Separately)

Keys E3-2-1, E3-3-1, E3-8-1, E3-11-1 and E3-12-1 (Key #E3-4-1 shown)

Material and Finish

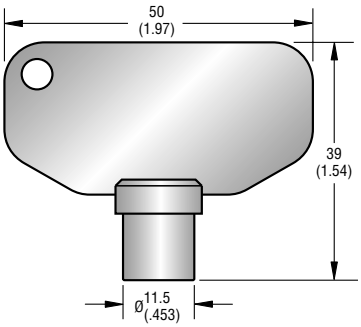
Die cast zinc, bright nickel plate or natural with chemical protective film.

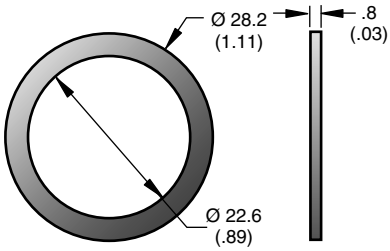


Key E3-5-15

Material and Finish

Steel, bright nickel plate.





For gasketed applications use Southco®
GASKET PART NUMBER

E3-24-201-18 •
Order Separately.

• Products identified with this symbol are stocked subject to prior sale in one or more of our global locations. If unavailable from our facility nearest you, allow for shipping time from another facility.

HEAD STYLE	A	B Door Hole Location	GRIP RANGE MIN.	GRIP RANGE MAX.	PART NUMBERS (Individually Packaged) †	Key Part Numbers
8 mm Hex Recess	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-16-**15** * ●	8mm (.312) Hex Wrench
			25.4 (1.00)	41.1 (1.62)	E3-16-**25** * ●	
			38.9 (1.53)	54.6 (2.15)	E3-16-**35** ‡ ●	
			52.6 (2.07)	68.3 (2.69)	E3-16-**25** * ●	
			66.3 (2.61)	76.2 (3.00)	E3-16-**15** * ●	
3 mm Double Bitted	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-12-**15** * ●	E3-2-1 •
			25.4 (1.00)	41.1 (1.62)	E3-12-**25** * ●	
			38.9 (1.53)	54.6 (2.15)	E3-12-**35** ‡ ●	
			52.6 (2.07)	68.3 (2.69)	E3-12-**25** * ●	
			66.3 (2.61)	76.2 (3.00)	E3-12-**15** * ●	
7 mm Triangle	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-13-**15** * ●	E3-3-1 •
			25.4 (1.00)	41.1 (1.62)	E3-13-**25** * ●	
			38.9 (1.53)	54.6 (2.15)	E3-13-**35** ‡ ●	
			52.6 (2.07)	68.3 (2.69)	E3-13-**25** * ●	
			66.3 (2.61)	76.2 (3.00)	E3-13-**15** * ●	
7 mm Square	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-14-**15** * ●	E3-4-1 •
			25.4 (1.00)	41.1 (1.62)	E3-14-**25** * ●	
			38.9 (1.53)	54.6 (2.15)	E3-14-**35** ‡ ●	
			52.6 (2.07)	68.3 (2.69)	E3-14-**25** * ●	
			66.3 (2.61)	76.2 (3.00)	E3-14-**15** * ●	
Slotted Recess Style	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-19-**15** * ●	—
			25.4 (1.00)	41.1 (1.62)	E3-19-**25** * ●	
			38.9 (1.53)	54.6 (2.15)	E3-19-**35** ‡ ●	
			52.6 (2.07)	68.3 (2.69)	E3-19-**25** * ●	
			66.3 (2.61)	76.2 (3.00)	E3-19-**15** * ●	
Southco® Tubular Key	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-15-**15** * ●	E3-5-15•
			25.4 (1.00)	41.1 (1.62)	E3-15-**25** * ●	
			38.9 (1.53)	54.6 (2.15)	E3-15-**35** ‡ ●	
			52.6 (2.07)	68.3 (2.69)	E3-15-**25** * ●	
			66.3 (2.61)	76.2 (3.00)	E3-15-**15** * ●	
8mm Square Driver	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-110-**15*** ●	E3-8-1 •
			25.4 (1.00)	41.1 (1.62)	E3-110-**25*** ●	
			38.9 (1.53)	54.6 (2.15)	E3-110-**35‡** ●	
			52.6 (2.07)	68.3 (2.69)	E3-110-**25*** ●	
			66.3 (2.61)	76.2 (3.00)	E3-110-**15*** ●	
Railway Standard	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-111-**15*** ●	Operated by German Key Style BN 421 007 (not available from Southco)
			25.4 (1.00)	41.1 (1.62)	E3-111-**25*** ●	
			38.9 (1.53)	54.6 (2.15)	E3-111-**35‡** ●	
			52.6 (2.07)	68.3 (2.69)	E3-111-**25*** ●	
			66.3 (2.61)	76.2 (3.00)	E3-111-**15*** ●	
Bellcore 216	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-115-**15*** ●	E3-12-1 •
			25.4 (1.00)	41.1 (1.62)	E3-115-**25*** ●	
			38.9 (1.53)	54.6 (2.15)	E3-115-**35‡** ●	
			52.6 (2.07)	68.3 (2.69)	E3-115-**25*** ●	
			66.3 (2.61)	76.2 (3.00)	E3-115-**15*** ●	
Bellcore Electronics	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-116-**15*** ●	E3-11-1 •
			25.4 (1.00)	41.1 (1.62)	E3-116-**25*** ●	
			38.9 (1.53)	54.6 (2.15)	E3-116-**35‡** ●	
			52.6 (2.07)	68.3 (2.69)	E3-116-**25*** ●	
			66.3 (2.61)	76.2 (3.00)	E3-116-**15*** ●	
Knob	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-17-**15*** ●	—
			25.4 (1.00)	41.1 (1.62)	E3-17-**25*** ●	
			38.9 (1.53)	54.6 (2.15)	E3-17-**35*** ●	
			52.6 (2.07)	68.3 (2.69)	E3-17-**25*** ●	
			66.3 (2.61)	76.2 (3.00)	E3-17-**15*** ●	
T-Handle Locking	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-18-**15** * ●	Keys Provided
			25.4 (1.00)	41.1 (1.62)	E3-18-**25** * ●	
			38.9 (1.53)	54.6 (2.15)	E3-18-**35** ‡ ●	
			52.6 (2.07)	68.3 (2.69)	E3-18-**25** * ●	
			66.3 (2.61)	76.2 (3.00)	E3-18-**15*** ●	
T-Handle non- Locking	33 (1.31)	241.5 (.938.062)	11.4 (.45)	27.2 (1.07)	E3-11-**15** * ●	—
			25.4 (1.00)	41.1 (1.62)	E3-11-**25** * ●	
			38.9 (1.53)	54.6 (2.15)	E3-11-**35** ‡ ●	
			52.6 (2.07)	68.3 (2.69)	E3-11-**25** * ●	
			66.3 (2.61)	76.2 (3.00)	E3-11-**15*** ●	
For use with Multi-Point Latching Systems (see pages 160 to 164)						
8mm Hex Recess	50 (1.97)	40.5 1.5 (1.59 .06)	11.4 (.45)	27.2 (1.07)	E3-112-**75*** ●	8mm (.312) Hex Wrench
			25.4 (1.00)	41.1 (1.62)	E3-112-**85*** ●	
			38.9 (1.53)	54.6 (2.15)	E3-112-**95‡** ●	
			52.6 (2.07)	68.3 (2.69)	E3-112-**85*** ●	
			66.3 (2.61)	76.2 (3.00)	E3-112-**75*** ●	
T-Handle Locking	50 (1.97)	40.5 1.5 (1.59 .06)	11.4 (.45)	27.2 (1.07)	E3-114-**75*** ●	Keys Provided
			25.4 (1.00)	41.1 (1.62)	E3-114-**85*** ●	
			38.9 (1.53)	54.6 (2.15)	E3-114-**95*** ●	
			52.6 (2.07)	68.3 (2.69)	E3-114-**85*** ●	
			66.3 (2.61)	76.2 (3.00)	E3-114-**75*** ●	
T-Handle non- Locking	50 (1.97)	40.5 1.5 (1.59 .06)	11.4 (.45)	27.2 (1.07)	E3-113-**75*** ●	—
			25.4 (1.00)	41.1 (1.62)	E3-113-**85*** ●	
			38.9 (1.53)	54.6 (2.15)	E3-113-**95*** ●	
			52.6 (2.07)	68.3 (2.69)	E3-113-**85*** ●	
			66.3 (2.61)	76.2 (3.00)	E3-113-**75*** ●	

* The same pawl (curved forward or reversed) is supplied for both short and long grips.
‡ For intermediate grip, straight pawl is supplied.
† For Layer Packed assemblies, 50 piece minimum, sold in multiples of 50, (T-handle assemblies are 24 piece minimum, sold in multiples of 24); add a -13 to the end of the part number. Ex. E3-16-15-13.
Optional finishes available, contact Southco. Locks are keyed alike. Different key codes are available.



Accessories for these latches (except T-Handle style). See pages 36-37.

Material and Finish

HOUSING and CAP (except tubular key style): Die-cast zinc, black powder coated. CAP (Tubular key style): 303 Stainless steel, black powder coated.
BUSHING: Aluminum, black powder coated (Tubular key style). RETAINER: 302 Stainless steel, natural.
SPRING: 302 Stainless steel, natural.
O-RING: Buna-N rubber, natural.
CAM and SLEEVE: 1075 Case hardened steel, zinc immersion coating. SHAFT and JAM NUTS: Low carbon steel, zinc plate, chromate plus sealer.
MOUNTING NUT: Die-cast zinc, zinc plate, bright chromate.
PAWL: 1010 Steel, zinc plate, chromate plus sealer.
PIN: 1008 Steel, zinc plated plus chromate dip.
LOCKWASHERS: Spring steel, zinc alloy plate, bright chromate plus sealer.

For T-Handle Style
HANDLE: Die-cast zinc, black powder coated.
GASKET: SBR rubber impregnated cellulose fiber.

For assemblies with keylocking feature
LOCK EXTENDER and LOCK SLIDE: Die-cast zinc plus chemical protective film.
LOCK PLUG: Die-cast zinc and brass, black powder coated.
KEYS: Brass, nickel plated.

Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

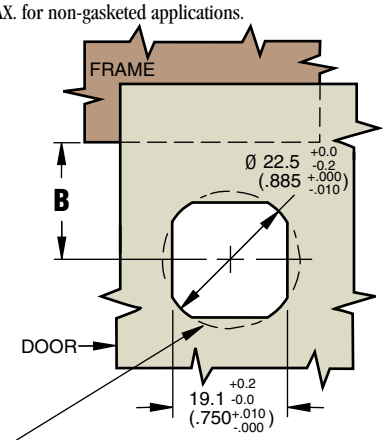
Maximum static load: 450 N (100 lbs.)
Average ultimate load: 1500 N (340 lbs.)

Installation

1. Insert latch and tighten mounting nut.
2. With latch in closed position, adjust jam nuts to position pawl at correct grip.

Caution: Position pawl so latching torque on the operating key is less than 7.9 N•m (70 in.-lbs.)

Panel Prep. : Corner radii may be reduced to 4 (.16) MAX. for non-gasketed applications.



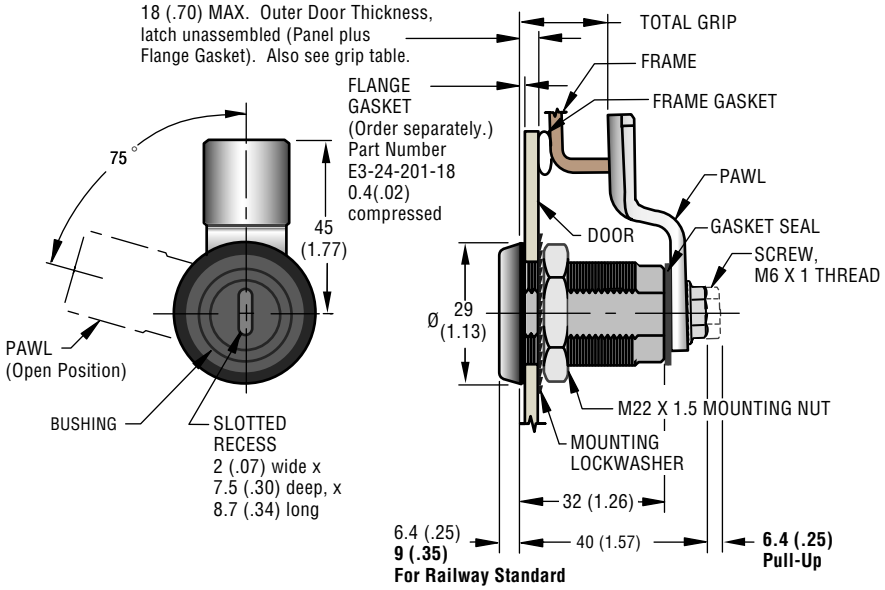
OPTIONAL: Round hole installation with spur washer (see page 36).

millimeter (inch)
millimeter (inch)
Dimensions without tolerances are for reference only.

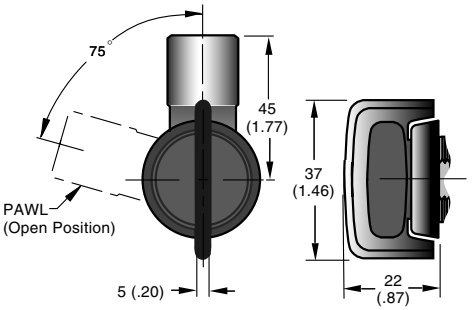
Southco® Compression Latches

Vise Action Series, Minimal Protrusion

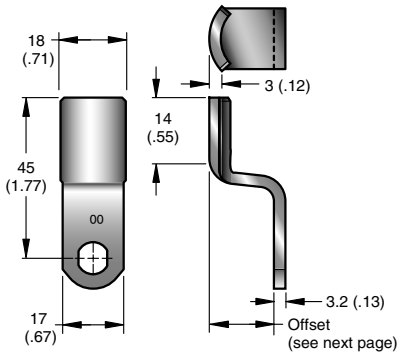
- **Single-hole mount, large size**
- **Pre-assembled version available**
- **Sealed to meet NEMA 4/IP-65 water intrusion standards with optional Flange Gasket**
- **Multiple access styles including hand-, tool-, or key-operated**



Knob Handle



Pawl Detail



To determine the proper part number for pre-assembled and unassembled latches:

1. Choose a head style and finish (see table).
2. Determine the maximum outer door thickness by adding the following accessories, if used, to your door thickness:
   - Compressed Flange Gasket, required for NEMA4/IP-65 applications; add 0.4 (.02)
   - Pull Tab (Small); add 2 (.084)
   - Pull Tab (Large); add 2.4 (.093)
   - Sealing Cover; add 2.3 (.090)
   - Padlock Bracket; add 2 (.08)
3. Determine the total grip by adding the following items together:
   - Maximum outer door thickness (from step 2)
   - Compressed Frame Gasket
   - Frame thickness
4. Find your total grip in the pawl table. If your grip is between two choices, use the smaller one.
5. To determine if an assembled or unassembled latch is to be used based on your total grip see the MAX. Outer Door Thickness in the pawl table. If your outer door thickness is greater than that shown in the table, order an unassembled latch.
6. Use the 2 digit pawl type code that corresponds to your grip and outer door thickness to complete your latch assembly part number.

HEAD STYLE	Southco® Tubular Key	8 mm Hex Recess	3 mm Double Bitted	M4 Triangle	7 mm Square	8mm Square Driver	Slotted Recess Style	Railway Standard	Bellcore 216	Bellcore Electronics	Knob
ASSEMBLY PART NUMBER Assembled	E3-105-**XX**5 •	E3-106-**XX**5 •	E3-102-**XX**5 •	E3-103-**XX**5 •	E3-104-**XX**5 •	E3-1010-**XX**5 •	E3-109-**XX**5 •	E3-1011-**XX**5 •	E3-1015-**XX**5 •	E3-1016-**XX**5 •	E3-107-**XX**5 •
ASSEMBLY PART NUMBER Unassembled	E3-125-**XX**5 •	E3-126-**XX**5 •	E3-122-**XX**5 •	E3-123-**XX**5 •	E3-124-**XX**5 •	E3-1210-**XX**5 •	E3-129-**XX**5 •	E3-1211-**XX**5 •	E3-1215-**XX**5 •	E3-1216-**XX**5 •	E3-127-**XX**5 •
Key Part Numbers	E3-**5-15** •	8mm (.312) Hex Wrench (not available from Southco)	E3-**2**-1 •	E3-**3** -1 •	E3-**4**-1 •	E3-**8**-1 •	—	Operated by RIC Standard (European Railway) (not available from Southco)	E3-**12**-1 •	E3-**11**-1 •	—

Latches are individually packaged. For layer packaged latches (50 pieces minimum, sold in multiples of 50) add -13 to the part number.
Example: E3-105-**XX**5-13. For different finishes contact Southco for details.

 • Products identified with this symbol are stocked subject to prior sale in one or more of our global locations. If unavailable from our facility nearest you, allow for shipping time from another facility.

PAWL TYPE NUMBERS

Pawl Type	TOTAL GRIP	Pawl Offset	MAX. OUTER DOOR THICKNESS, FOR ASSEMBLED LATCHES
XX=00 •	15 (.59)	18 (.71)	Must use unassembled latch.
XX=01 •	17 (.67)	16 (.63)	Must use unassembled latch.
XX=02 •	19 (.75)	14 (.55)	1 (.04)
XX=03 •	21 (.83)	12 (.47)	2 (.08)
XX=04 •	23 (.91)	10 (.39)	4 (.16)
XX=05 •	25 (.98)	8 (.31)	5 (.20)
XX=06 •	27 (1.06)	6 (.24)	6 (.24)
XX=07 •	29 (1.14)	4 (.16)	7 (.28)
XX=08 •	31 (1.22)	2 (.08)	7 (.28)
XX=09 •	33 (1.30)	0 (0)	7 (.28)

Pawl Type	TOTAL GRIP	Pawl Offset	MAX. OUTER DOOR THICKNESS, FOR ASSEMBLED LATCHES
XX=10 •	35 (1.38)	2 (.08)	7 (.28)
XX=11 •	37 (1.46)	4 (.16)	7 (.28)
XX=12 •	39 (1.53)	6 (.24)	7 (.28)
XX=13 •	41 (1.61)	8 (.31)	7 (.28)
XX=14	43 (1.69)	10 (.39)	7 (.28)
XX=15	45 (1.77)	12 (.47)	7 (.28)
XX=16	47 (1.85)	14 (.55)	7 (.28)
XX=17	49 (1.93)	16 (.63)	7 (.28)
XX=18	51 (2.01)	18 (.71)	7 (.28)
XX=19	53 (2.09)	20 (.79)	7 (.28)





Accessories for Vise Action Latches. See page 36-37.

Material and Finish

HOUSING and CAP (except tubular key style): Die-cast zinc, black powder coated.
CAP (Tubular key style): 303 Stainless steel, black powder coated.
BUSHING: Aluminum, black powder coated.
RETAINER: 302 Stainless steel, natural.
O-RING: Buna-N rubber, natural.
CAM and SLEEVE: 1075 Case hardened steel, zinc immersion coating.
SHAFT: Low carbon steel, zinc plate, chromate plus sealer. MOUNTING NUT: Die-cast zinc, zinc plate, bright chromate.
PAWL: 1010 Steel, zinc plate, chromate plus sealer. PIN: 1008 Steel, zinc plated plus chromate dip. LOCKWASHER: Spring steel, zinc plate, chromate plus sealer.
SCREW: Low carbon steel, zinc plate, chromate plus sealer.
GASKET SEAL: Rubber, black.

Product Strength Guidelines

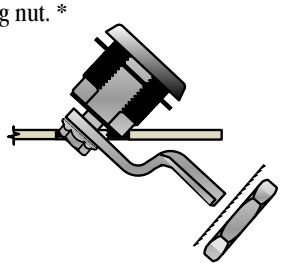
(To assist in your product selection; samples are available for your evaluation.)

Maximum static load: 300 N (67 lbs.)
Average ultimate load: 700 N (157 lbs.)

Installation

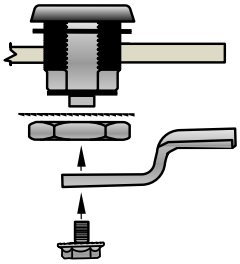
Assembled:

Insert latch assembly in the unlatched position (with Flange Gasket under the flange, if required). Install lockwasher and tighten mounting nut. *



Unassembled (For thicker doors):

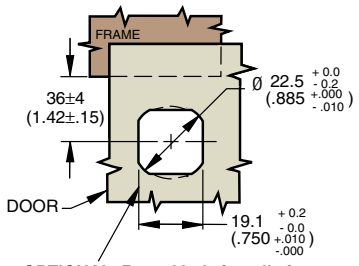
Insert latch subassembly (with Flange Gasket under the flange, if required).
Install lockwasher and tighten mounting nut.
Attach pawl with the enclosed mounting screw. *



***Recommended tightening torque for the Mounting Nut is 20 N•m (177 in-lbs) and the Mounting Screw is 10 N•m (88.5 in-lbs).**

Panel Preparation

Corner radii may be reduced to 4 (.16) max. for non-gasketed applications.



***OPTIONAL*: Round hole installation with spur washer (see page 36). Not recommended for sealed applications.**

millimeter (inch)

millimeter
(inch)

Dimensions without tolerances are for reference only.

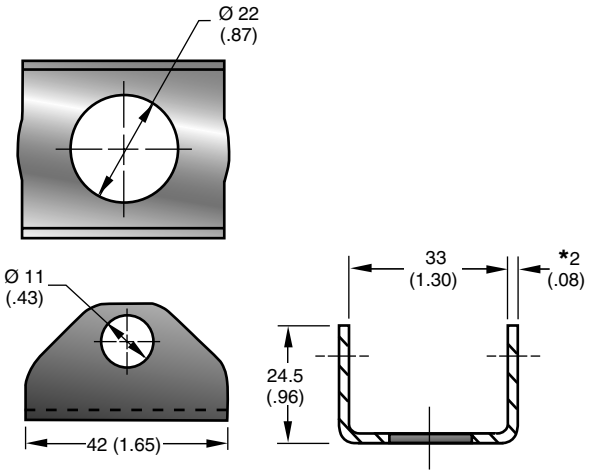
Southco® Compression Latches

Vise Action Accessories

- **For Single-hole mount styles**
- **Aid installation and operation of Vise Action latches**

Padlock Brackets

(Use with Single hole mount, Large Size - except knob and T-handle)



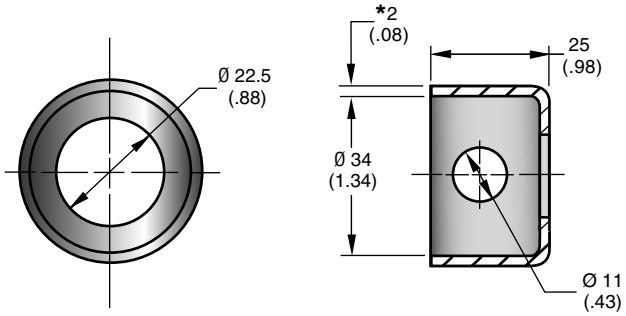
PART NUMBER
E3-77-101-31 •





Padlock Brackets do not accommodate Pull Tab or Sealing Cover Accessories.

Only unassembled styles can be used with the round bracket.



PART NUMBER
E3-77-102-31 •

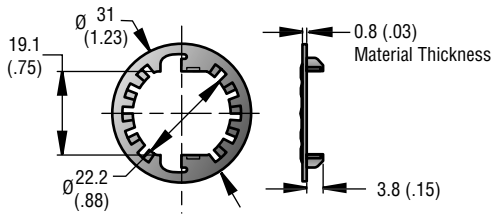
Material and Finish

300 Series Stainless Steel.
Black Powder coated.

To calculate your total grip: add bracket thickness to your door thickness. ***To provide sealing:*** use two Flange Gaskets and add compressed thickness of each Flange Gasket and bracket thickness to your door thickness.

Spur Washer (for use with large size latches)

Spurs dig into softer panels when nut is tightened. The washer's inside diameter orients the latch housing. The spurs provide a "D" shaped hole in panels where creating shaped holes is impractical.

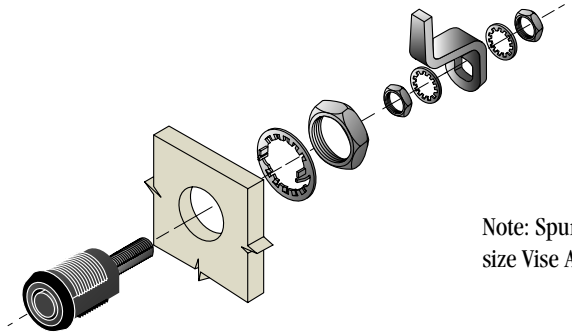


PART NUMBER
90-6-875 •

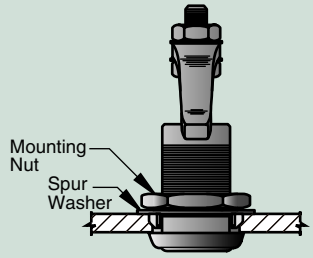


Material and Finish

SPUR WASHER: 1050 Hardened steel zinc plate, chromate plus sealer.



Note: Spur Washers are only available on large size Vise Action Compression Latches.



millimeter (inch)

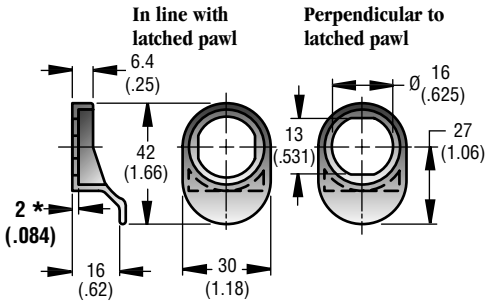
millimeter
(inch)

Dimensions without tolerances are for reference only.

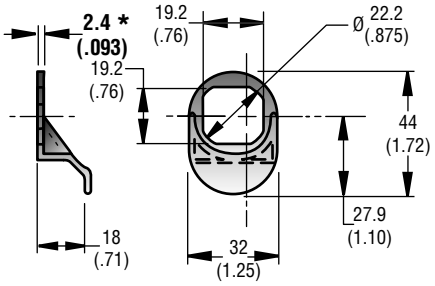
• Products identified with this symbol are stocked subject to prior sale in one or more of our global locations. If unavailable from our facility nearest you, allow for shipping time from another facility.

Pull-Tab (finger-grip tab for large and small latches)

For Small Latches

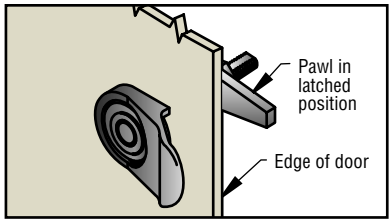


For Large Latches

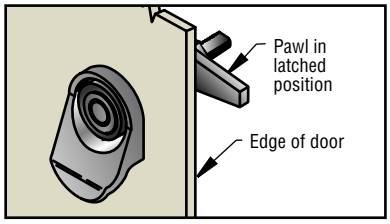


* When using pull tab, add this dimension to your grip before entering table.

In line with latched pawl



Perpendicular to latched pawl



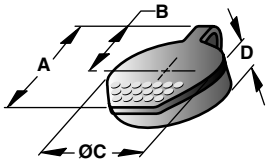


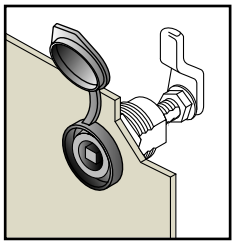
Material and Finish

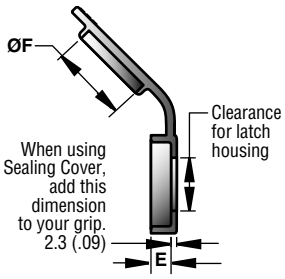
PULL-TAB: Nylon, black.

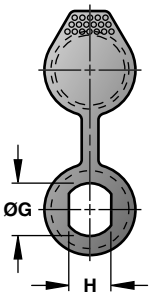
SIZE	PART NUMBERS	
Vise Action Compression Latch to use with	In line with latched pawl	Perpendicular to latched pawl
SMALL	E3-27-61 •	E3-27-62 •
LARGE	E3-27-1 •	

Sealing Covers (Select Sealing Cover part number by the latch's installation hole size.)











Material and Finish

SEALING COVER: Thermoplastic elastomer, black.

LATCH INSTALLATION HOLE SIZE		PART NUMBERS	DIMENSIONS					
Ø G	Distance across flat H		A	B	Ø C	D	E	Ø F
16 (.625)	13.5 (.53)	90-**1** •	40 (1.58)	20 (.85)	29 (1.13)	10.5 (.42)	6.1 (.24)	22.3 (.88)
22.5 (.875)	19.6 (.77)	90-**3** •	47 (1.84)	28 (1.09)	35 (1.38)	11.7 (.46)	6.9 (.27)	28.7 (1.13)

NOTE: Cannot be used with railway standard, knob or handle styles.

Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

Tensile load: 156 N (35 lbs.)

Operating Temperature Range: -40°C (-40°F) to 80°C (175°F)

Flammability Rating: UL 94-HB

millimeter (inch)

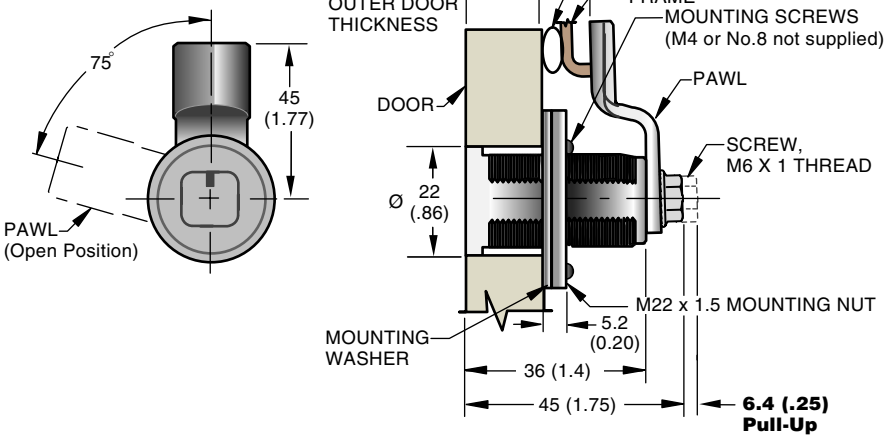
millimeter (inch)

Dimensions without tolerances are for reference only.

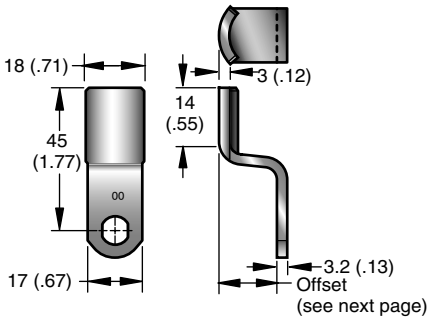
Southco® Compression Latches

Vise Action Series, Flush Design

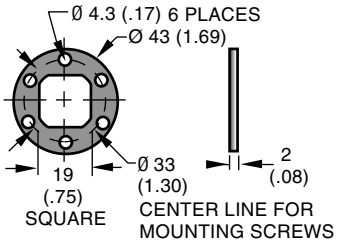
- **Single-hole mount, large size**
- **Latch provides completely flush outer surface**
- **Designed for use in thicker panels such as wood**
- **Seven tool- or key-operated access styles**



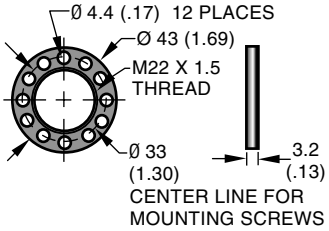
Pawl Detail



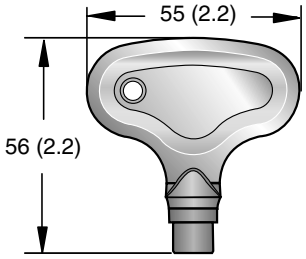
Mounting Washer



Mounting Nut



Key (Order Separately)



To determine the proper part number:

1. Choose a head style and finish (see table).
2. Determine the total grip by adding the following items together:
   - Outer door thickness
   - Compressed Frame Gasket
   - Frame thickness
3. Find your total grip in the pawl table. If your grip is between two choices, use the smaller one.
4. Use the 2 digit pawl type code that corresponds to your grip and outer door thickness to complete your latch assembly part number.

	HEAD STYLE	8 mm Hex Recess	7 mm Triangle	7 mm Square	8 mm Square Driver	10 mm Hex	Railway Standard	8 mm Triangle
Part Number	Bright Chrome	———	E3-143-**XX**1•	E3-144-**XX**1•	E3-1410-**XX**1•	E3-1418-**XX**1•	E3-1411-**XX**1•	E3-1420-**XX**1•
	Black Powder Coated	E3-146-**XX**5	E3-143-**XX**5•	E3-144-**XX**5•	E3-1410-**XX**5•	E3-1418-**XX**5•	E3-1411-**XX**5•	E3-1420-**XX**5•
	Satin Silver Polyester Powder Coated	E3-146-**XX**7	E3-143-**XX**7•	E3-144-**XX**7•	E3-1410-**XX**7•	E3-1418-**XX**7•	E3-1411-**XX**7•	E3-1420-**XX**7•
	Keys	———	E3-**3**-1 •	E3-**4**-1 •	E3-**8**-1 •	10 mm (.375) Hex Recess (Not available from Southco)	RIC Standard (European Railway Standard) Not available from Southco	E3-**7**-1 •

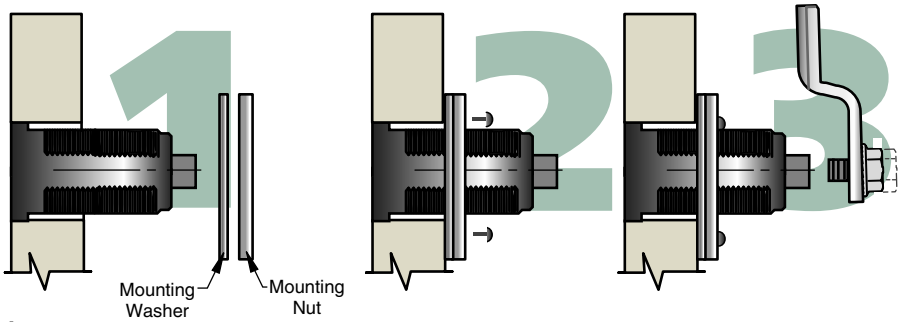
Latches are individually packaged. For layer packaged latches (50 pieces minimum, sold in multiples of 50) add -13 to the part number. Example: E3-1410-**XX**1-13.

• Products identified with this symbol are stocked subject to prior sale in one or more of our global locations. If unavailable from our facility nearest you, allow for shipping time from another facility.

PAWL TYPE NUMBERS

Pawl Type	TOTAL GRIP	Pawl Offset
XX=00 •	19 (.75)	18 (.71)
XX=01 •	21 (.83)	16 (.63)
XX=02 •	23 (.91)	14 (.55)
XX=03 •	25 (.98)	12 (.47)
XX=04 •	27 (1.06)	10 (.39)
XX=05 •	29 (1.14)	8 (.31)
XX=06 •	31 (1.22)	6 (.24)
XX=07 •	33 (1.30)	4 (.16)
XX=08 •	35 (1.38)	2 (.08)
XX=09 •	37 (1.46)	0 (0)

Pawl Type	TOTAL GRIP	Pawl Offset
XX=10 •	39 (1.53)	2 (.08)
XX=11 •	41 (1.61)	4 (.16)
XX=12 •	43 (1.69)	6 (.24)
XX=13 •	45 (1.77)	8 (.31)
XX=14	47 (1.85)	10 (.39)
XX=15	49 (1.93)	12 (.47)
XX=16	51 (2.01)	14 (.55)
XX=17	53 (2.09)	16 (.63)
XX=18	55 (2.17)	18 (.71)
XX=19	57 (2.24)	20 (.79)





Material and Finish

HOUSING and CAP: Die-cast zinc, bright chrome plated or powder coated, see table. RETAINER and SPRING: 302 Stainless steel, natural. O-RING: Buna-N rubber, natural. CAM and SLEEVE: 1075 Case hardened steel, zinc immersion coating. SHAFT and SCREW: Low carbon steel, zinc plate, chromate plus sealer. PIN: 1008 Steel, zinc plated plus chromate dip. MOUNTING WASHER, MOUNTING NUT and PAWL: 1010 steel, zinc plate, chromate plus sealer.

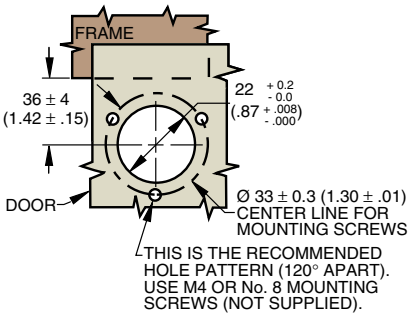
Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

Maximum static load: 300 N (79 lbs.)
Average ultimate load: 700 N (157 lbs.)

These loads apply to latch assemblies only. Retention to the panel is subject to user method of installation and material.

Panel Preparation



Installation

1. Insert the latch through the rear of the door. Place the mounting washer then the mounting nut onto the latch.
2. Adjust mounting nut so that the head of the latch is flush with the outside of the door. The holes in the washer and the nut must be aligned. The latch must be aligned to the latching position. Southco recommends using a minimum of three mounting screws in a pattern as shown above.
3. Place pawl on latch shaft and tighten pawl mounting screw while holding the pawl with a 17 (.67) wrench.

Recommended tightening torque for the Pawl Mounting Screw is 10 N•m (88.5 in-lbs).

millimeter (inch)

millimeter
(inch)

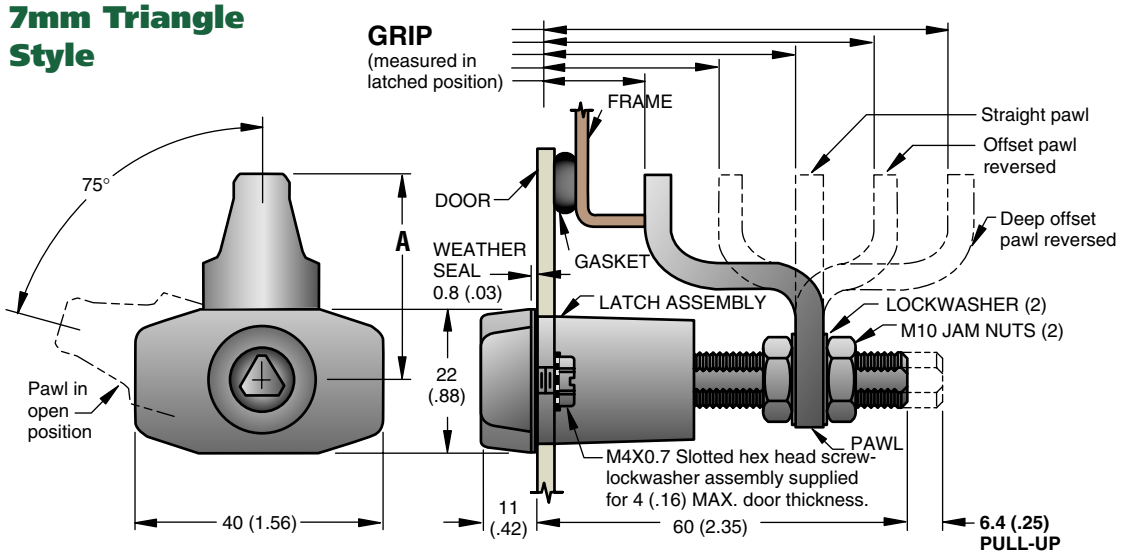
Dimensions without tolerances are for reference only.

Southco® Compression Latches

Vise Action Series, Large Size

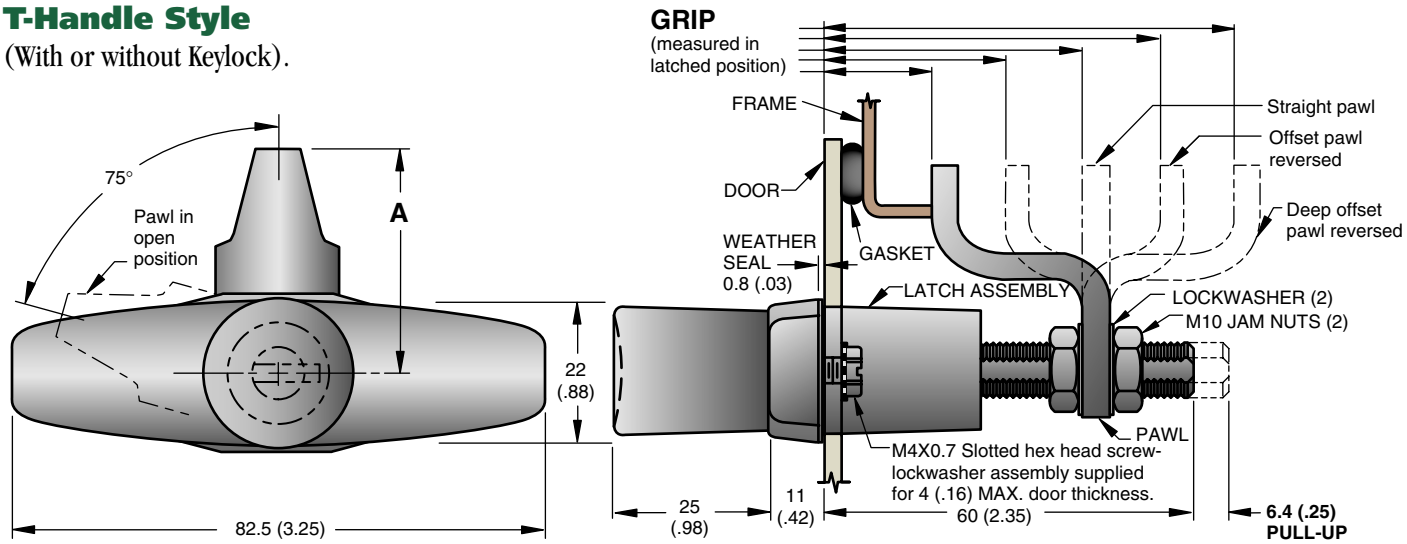
- **Three-hole mount**
- **Seven tool- or key-operated access styles**
- **Internally gasketed to resist dust and moisture**
- **Styles available for 2- and 3-point latching (See pages 160 to 162)**

7mm Triangle Style



T-Handle Style

(With or without Keylock).

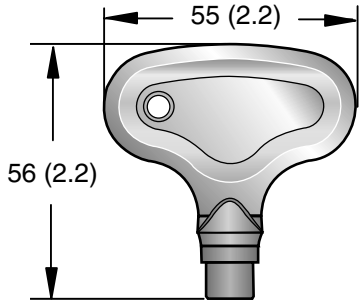


Keys (Order Separately)

Keys E3-2-1, E3-3-1 and E3-4-1 (Key #E3-4-1 shown)

Material and Finish

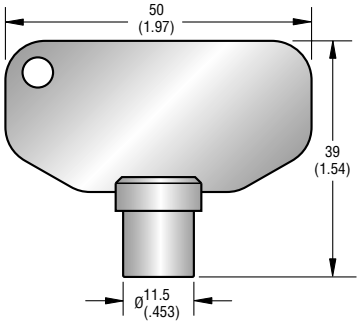
Die-cast zinc, bright nickel plate or natural with chemical protective film.



Key E3-5-15

Material and Finish

Steel, bright nickel plate.



• Products identified with this symbol are stocked subject to prior sale in one or more of our global locations. If unavailable from our facility nearest you, allow for shipping time from another facility.

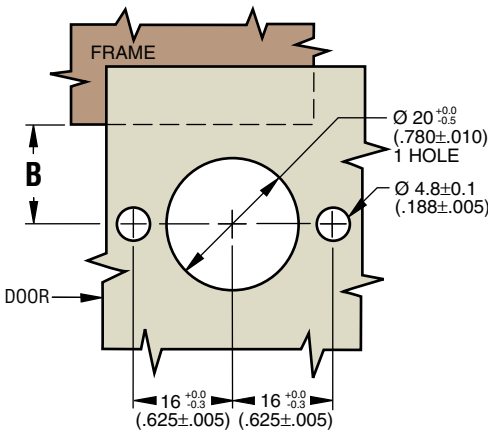
HEAD STYLE	A	B	GRIP RANGE MIN.	GRIP RANGE MAX.	PART NUMBERS Black Finish	Key Part Number
8 mm Hex Recess 	33 (1.31)	24±1.5 (.938±.062)	7.9 (.31)	23.6 (.93)	E3-36-**15** * ●	8 mm (.312) Hex wrench
			21.8 (.86)	37.3 (1.47)	E3-36-**25** * ●	
			35.3 (1.39)	51 (2.00)	E3-36-**35** ‡ ●	
			49 (1.93)	64.8 (2.55)	E3-36-**25** * ●	
			62.7 (2.47)	76.2 (3.00)	E3-36-**15** * ●	
3 mm Double Bitted 	33 (1.31)	24±1.5 (.938±.062)	7.9 (.31)	23.6 (.93)	E3-32-**15** * ●	E3-**2**-1 ●
			21.8 (.86)	37.3 (1.47)	E3-32-**25** * ●	
			35.3 (1.39)	51 (2.00)	E3-32-**35** ‡ ●	
			49 (1.93)	64.8 (2.55)	E3-32-**25** * ●	
			62.7 (2.47)	76.2 (3.00)	E3-32-**15** * ●	
7 mm Triangle 	33 (1.31)	24±1.5 (.938±.062)	7.9 (.31)	23.6 (.93)	E3-33-**15** * ●	E3-**3**-1 ●
			21.8 (.86)	37.3 (1.47)	E3-33-**25** * ●	
			35.3 (1.39)	51 (2.00)	E3-33-**35** ‡ ●	
			49 (1.93)	64.8 (2.55)	E3-33-**25** * ●	
			62.7 (2.47)	76.2 (3.00)	E3-33-**15** * ●	
7 mm Square 	33 (1.31)	24±1.5 (.938±.062)	7.9 (.31)	23.6 (.93)	E3-34-**15** * ●	E3-**4**-1 ●
			21.8 (.86)	37.3 (1.47)	E3-34-**25** * ●	
			35.3 (1.39)	51 (2.00)	E3-34-**35** ‡ ●	
			49 (1.93)	64.8 (2.55)	E3-34-**25** * ●	
			62.7 (2.47)	76.2 (3.00)	E3-34-**15** * ●	
Southco® Tubular Key 	33 (1.31)	24±1.5 (.938±.062)	7.9 (.31)	23.6 (.93)	E3-35-**15** * ●	E3-**5-15** ●
			21.8 (.86)	37.3 (1.47)	E3-35-**25** * ●	
			35.3 (1.39)	51 (2.00)	E3-35-**35** ‡ ●	
			49 (1.93)	64.8 (2.55)	E3-35-**25** * ●	
			62.7 (2.47)	76.2 (3.00)	E3-35-**15** * ●	
T-Handle non- Locking 	33 (1.31)	24±1.5 (.938±.062)	7.9 (.31)	23.6 (.93)	E3-31-**15** * ●	——
			21.8 (.86)	37.3 (1.47)	E3-31-**25** * ●	
			35.3 (1.39)	51 (2.00)	E3-31-**35** ‡ ●	
			49 (1.93)	64.8 (2.55)	E3-31-**25** * ●	
			62.7 (2.47)	76.2 (3.00)	E3-31-**15** * ●	
T-Handle Locking 	33 (1.31)	24±1.5 (.938±.062)	7.9 (.31)	23.6 (.93)	E3-38-**15** * ●	Keys Provided
			21.8 (.86)	37.3 (1.47)	E3-38-**25** * ●	
			35.3 (1.39)	51 (2.00)	E3-38-**35** ‡ ●	
			49 (1.93)	64.8 (2.55)	E3-38-**25** * ●	
			62.7 (2.47)	76.2 (3.00)	E3-38-**15** * ●	

Additional finishes available, contact Southco.
Latches and keys shipped from stock. Locks are keyed alike. Different key codes are available.

*The same pawl (curved forward or reversed) is supplied for both short and long grips.
‡For intermediate grip, straight pawl is supplied.

Installation

1. Install weather seal and latch to door using M4 screws, supplied.
2. With latch in closed position, adjust jam nuts to position pawl at correct grip.





Material and Finish

HOUSING and CAP (except tubular key style): Die-cast zinc, black powder coated.
CAP (Tubular key style): 303 Stainless steel, black powder coated.
BUSHING: Aluminum, black powder coated.
RETAINER: 302 Stainless steel, black oxide.
SPRING: 302 Stainless steel, natural.
O-RING: Buna-N Rubber, natural.
CAM and SLEEVE: 1075 Case hardened steel, zinc immersion coating.
SHAFT, JAM NUTS and MOUNTING SCREWS: Low carbon steel, zinc plate, chromate plus sealer.
PAWL: 1010 Steel, zinc plate, chromate plus sealer.
PIN: 1008 Steel, zinc plate, chromate plus sealer.
LOCKWASHERS: Spring steel, zinc plate, chromate plus sealer.
WEATHER SEAL: SBR Rubber impregnated cellulose fiber.

For T-Handle Style
HANDLE: Die-cast zinc, black powder coated.

For Assemblies with keylocking feature
LOCK PLUG: Die-cast zinc and brass
LOCK EXTENDER and LOCK SLIDE: Die-cast zinc, chemical protective film
KEYS: Brass, nickel plated.

Product Strength Guidelines

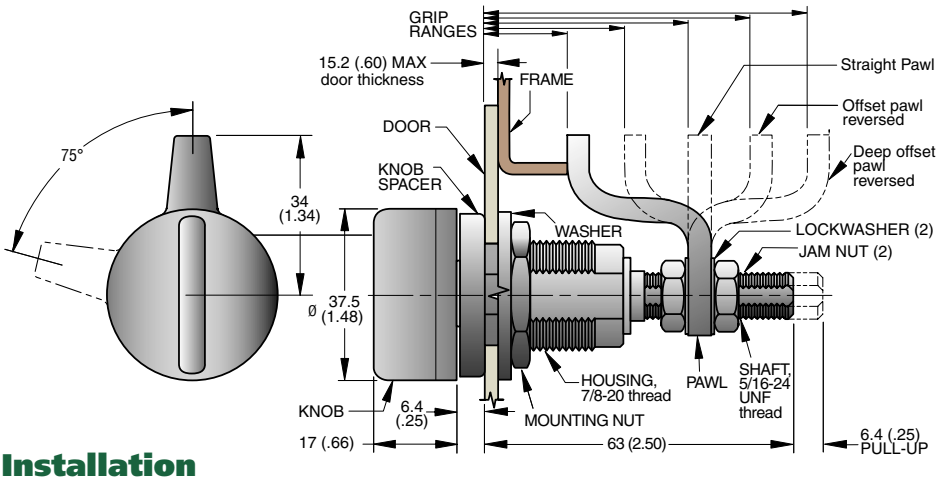
(To assist in your product selection; samples are available for your evaluation.)
Maximum static load: 450 N (100 lbs.)
Average ultimate load: 1500 N (340 lbs.)

millimeter (inch)
millimeter
(inch)
Dimensions without tolerances are for reference only.

Southco® Compression Latches

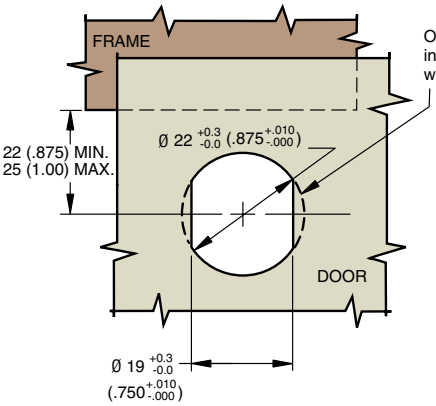
Vise Action Series Knob Style

- **Single-hole mount, large size**
- **Wider flange for mounting in non-metallic materials**
- **Knob provides quick, unrestricted access**

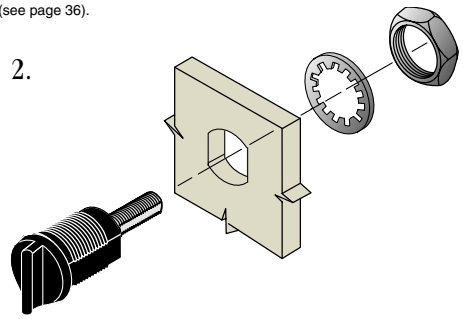


Installation

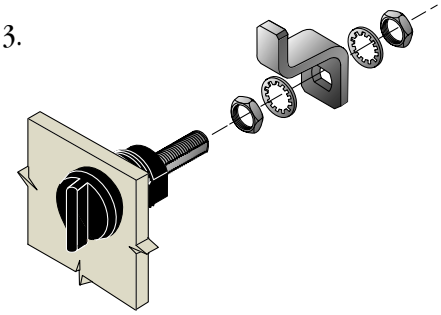
1.



2.

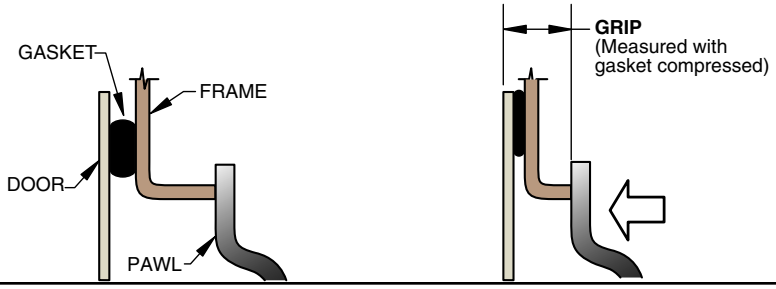


3.



4. **To adjust grip:** Measure your grip. Open door. Position pawl on shaft to your grip measurement (with pawl in latched position). Tighten jam nuts hard against lock-washers and pawl using two wrenches.

For gasketed doors:



CAUTION: Set pawl position so that no more than 3.4 N•m (30 in.-lbs.) of torque is required to secure door.



Accessory for this latch. See page 36.

Material and Finish

HOUSING: Die cast zinc, black powder coated.
SPRING: 302 Stainless steel, natural.
O-RING: Buna-N rubber, black.
PIN: 1008 Steel, zinc plated plus chromate dip.
WASHER and PAWL: 1010 Steel, zinc plate, chromate plus sealer.
CAM and SLEEVE: 1075 Case hardened steel, zinc immersion coating.
SHAFT: Low carbon steel, zinc plate, chromate plus sealer.
JAM NUTS: Steel, zinc plate, chromate plus sealer.
LOCKWASHERS: Spring steel, zinc plate, chromate plus sealer.
MOUNTING NUT: Brass, zinc plate, chromate plus sealer.
KNOB: Glass filled nylon, black.
KNOB SPACER: Nylon, black.
RETAINER: Polycarbonate, black.

GRIP RANGE		PART NUMBERS
MIN.	MAX.	
10 (.39)	27 (1.06)	E3-10-50**4-50** * ●
24 (.94)	40 (1.57)	E3-10-50**5-50** * ●
36 (1.42)	52.5 (2.06)	E3-10-50**6-50** ‡ ●
49 (1.94)	65.5 (2.57)	E3-10-50**5-50** * ●
63.5 (2.50)	79 (3.11)	E3-10-50**4-50** * ●

Spur Washer listed on page, 36.

* The same pawl (curved forward or reversed) is supplied for both short and long grips.
‡ For intermediate grip, straight pawl is supplied.

Product Strength Guidelines

(To assist in your product selection; samples are available for your evaluation.)

Maximum static load: 445 N (100 lbs.)
Average ultimate load: 890 N (200 lbs.)

millimeter (inch)
millimeter
(inch)
Dimensions without tolerances are for reference only.

● Products identified with this symbol are stocked subject to prior sale in one or more of our global locations. If unavailable from our facility nearest you, allow for shipping time from another facility.