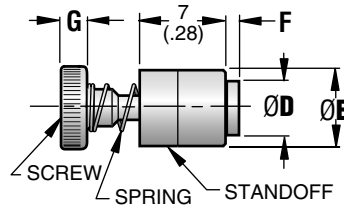
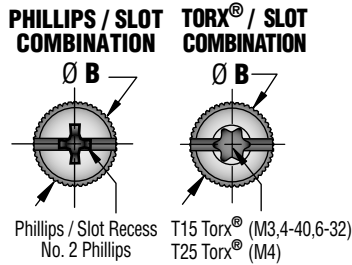


# Southco® Captive Fasteners

## Miniature Series, Flare-in Style

- Smaller footprint for limited space applications
- **NEW Features:**
- Heat treated steel screw for optimum strength
- Combination recesses for maximum tool options

**M4 Now Available**



### Material and Finish

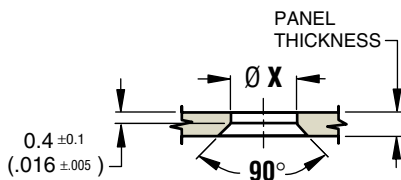
SCREW: Hardened carbon steel, zinc plate, chromate plus sealer  
 SPRING: 300 series stainless steel, passivated.  
 STANDOFF: Aluminum, natural  
 Torx® is a registered trademark of the Camcar Division of Textron Inc.

Note: subtract 0.25 (.01) from ØB for smooth head style.

### Installation

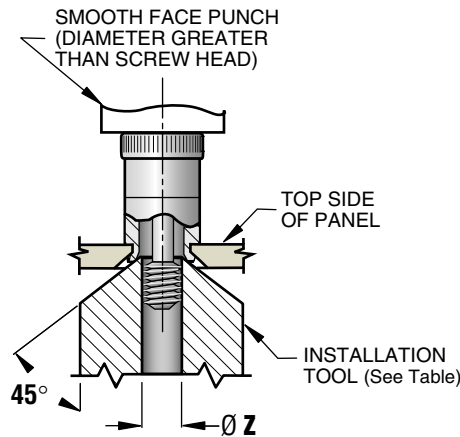
1. Prepare panel as shown.
2. Use **light pressure** to flare standoff, assuring parallel surfaces on the punch and installation tool.

For installation and product strength guidelines contact Southco or visit our web site at [www.southco.com](http://www.southco.com)

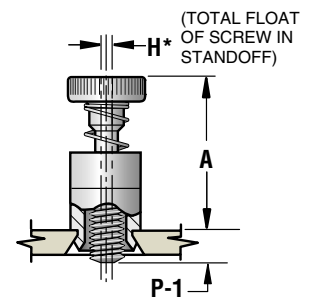


### Installation Tool

1095 Steel, hardened, zinc plated plus bright chromate dip.

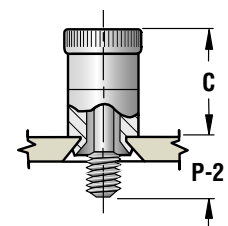


### Unfastened



\* Value represents float in unfastened position

### Fastened



Note: P-1, P-2 measured from the top side of panel

For assemblies to accommodate thicker panels, or additional styles and sizes contact Southco.

THREAD SIZE	PANEL THICKNESS		PART NUMBERS				A	Ø B	C	Ø D	Ø E	F	G	H*	P-1	P-2	PANEL PREPARATION		TOOL PART NUMBER
			KNURLED HEAD		SMOOTH HEAD												Ø X	Ø Z	
			PHILLIPS / SLOTTED	TORX® / SLOTTED	PHILLIPS / SLOTTED	TORX® / SLOTTED													
4-40 UNC	0.8 (.031)	2.4 (.094)	52-19-11-4•	52-17-11-4•	52-1A-11-4•	52-18-11-4•	14 (.55)	7 (.28)	9.6 (.38)	4.6 (.183)	6.4 (.25)	1 (.041)	2.5 (.1)	0.5 (.018)	0.8 (.031)	5.3 (.21)	4.8 <sup>+0.09</sup> <sub>-0.04</sub> (.187 <sup>+0.003</sup> <sub>-.000</sub> )	3 (.120)	47-104 •
6-32 UNC	1.5 (.058)	3.2 (.125)	52-29-21-4•	52-27-21-4•	52-2A-21-4•	52-28-21-4•	15 (.59)	8 (.31)	9.6 (.38)	5.3 (.209)	7 (.28)	1.8 (.071)	2.5 (.1)	0.7 (.028)	1.8 (.07)	6.8 (.27)	5.4 <sup>+0.09</sup> <sub>-0.04</sub> (.213 <sup>+0.003</sup> <sub>-.000</sub> )	3.6 (.141)	47-106 •
M3 X 0.5	0.8 (.031)	2.4 (.094)	52-39-11-4•	52-37-11-4•	52-3A-11-4•	52-38-11-4•	14 (.55)	7 (.28)	9.6 (.38)	4.6 (.183)	6.4 (.25)	1 (.041)	2.5 (.1)	0.6 (.023)	0.8 (.031)	5.3 (.21)	4.8 <sup>+0.09</sup> <sub>-0.04</sub> (.187 <sup>+0.003</sup> <sub>-.000</sub> )	3 (.120)	47-104 •
M4 X 0.7	1.5 (.058)	3.2 (.125)	52-49-21-4•	52-47-21-4•	52-4A-21-4•	52-48-21-4•	15.2 (.60)	9.4 (.37)	10.1 (.40)	6.7 (.26)	8.6 (.34)	1.8 (.07)	3 (.12)	0.7 (.028)	1.8 (.07)	6.8 (.27)	6.8 <sup>+0.08</sup> <sub>-0.04</sub> (.266 <sup>+0.005</sup> <sub>-.000</sub> )	4.2 (.166)	47-108 •

millimeter (inch)  
 millimeter (inch)

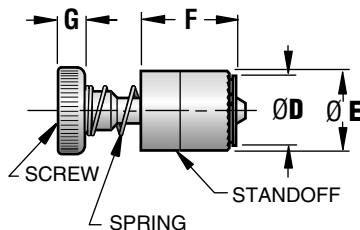
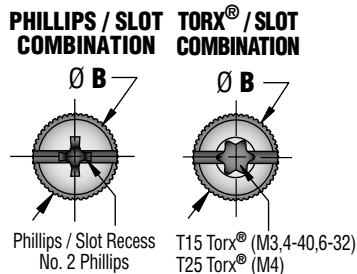
Dimensions without tolerances are for reference only.

Captive Fasteners  
 Captive Screws

# Southco® Captive Fasteners

## Miniature Series, Press-in Style

- Smaller footprint for limited space applications
- **NEW Features:**
- Heat treated steel screw for optimum strength
- Combination recesses for maximum tool options
- Increased float in unfastened position



### Material and Finish

SCREW: Hardened carbon steel, zinc plate, chromate plus sealer  
 SPRING: 300 series stainless steel, passivated.  
 STANDOFF: Carbon steel, zinc plate, chromate plus sealer

Torx® is a registered trademark of the Camcar Division of Textron Inc.

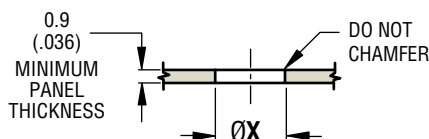
Note: subtract .25 (.01) from ØB for smooth head style.

For use in most aluminum or in low carbon steels that are 1/4 hard or softer.

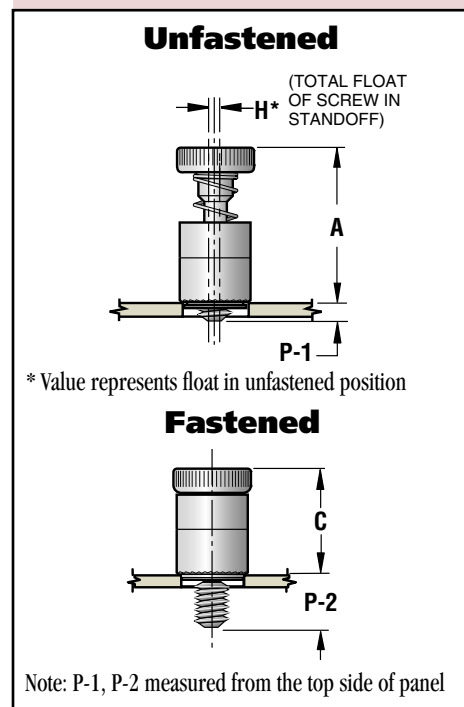
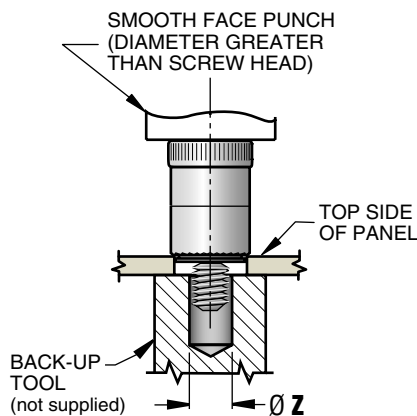
### Installation

1. Prepare panel as shown. Outside edge of hole must be sharp.
2. Press the assembly into your panel, assuring parallel surfaces on the punch and back-up tool.

For installation and product strength guidelines contact Southco or visit our web site at [www.southco.com](http://www.southco.com)



NOTE: Recommended minimum distance from edge of panel to centerline of hole is 1.5 x ØX for press-in version. Installation closer to panel edge is possible, contact Southco for guidelines.



Captive Fasteners  
Captive Screws

THREAD SIZE	PART NUMBERS				A	Ø B	C	Ø D	Ø E	F	G	H*	P-1	P-2	PANEL PREPARATION	
	KNURLED HEAD		SMOOTH HEAD												Ø X	Ø Z
	PHILLIPS / SLOTTED	TORX® / SLOTTED	PHILLIPS / SLOTTED	TORX® / SLOTTED												
4-40 UNC	52-19-51-4 •	52-17-51-4 •	52-1A-51-4 •	52-18-51-4 •	14 (.55)	7 (.28)	9.6 (.38)	5.5 (.217)	6.4 (.25)	7.9 (.31)	2.5 (.1)	0.5 (.018)	0.9 (.036) 2.5 (.1)	5.3 (.21) 6.8 (.27)	5.6 <sup>+0.04</sup> <sub>-.000</sub> (.219 <sup>+0.003</sup> <sub>-.000</sub> )	3 (.120)
	52-19-53-4 •	52-17-53-4 •	52-1A-53-4 •	52-18-53-4 •												
6-32 UNC	52-29-51-4 •	52-27-51-4 •	52-2A-51-4 •	52-28-51-4 •	15.5 (.61)	8 (.31)	10.4 (.41)	6.3 (.247)	7 (.28)	8.6 (.34)	2.5 (.1)	0.7 (.028)	0.9 (.036) 2.5 (.1)	6.1 (.24) 7.6 (.30)	6.4 <sup>+0.04</sup> <sub>-.000</sub> (.250 <sup>+0.003</sup> <sub>-.000</sub> )	3.7 (.144)
	52-29-53-4 •	52-27-53-4 •	52-2A-53-4 •	52-28-53-4 •												
M3 X 0.5	52-39-51-4 •	52-37-51-4 •	52-3A-51-4 •	52-38-51-4 •	14 (.55)	7 (.28)	9.6 (.38)	5.5 (.217)	6.4 (.25)	7.9 (.31)	2.5 (.1)	0.6 (.023)	0.9 (.036) 2.5 (.1)	5.3 (.21) 6.8 (.27)	5.6 <sup>+0.04</sup> <sub>-.000</sub> (.219 <sup>+0.003</sup> <sub>-.000</sub> )	3.2 (.126)
	52-39-53-4 •	52-37-53-4 •	52-3A-53-4 •	52-38-53-4 •												
M4 X 0.7	52-49-51-4 •	52-47-51-4 •	52-4A-51-4 •	52-48-51-4 •	16 (.63)	9.4 (.37)	10.8 (.43)	7.9 (.31)	8.7 (.34)	8.6 (.34)	3 (.12)	0.7 (.028)	0.9 (.036) 2.5 (.1)	6.1 (.24) 7.6 (.30)	8 <sup>+0.00</sup> <sub>-.008</sub> (.315 <sup>+0.000</sup> <sub>-.003</sub> )	4.4 (.173)
	52-49-53-4 •	52-47-53-4 •	52-4A-53-4 •	52-48-53-4 •												

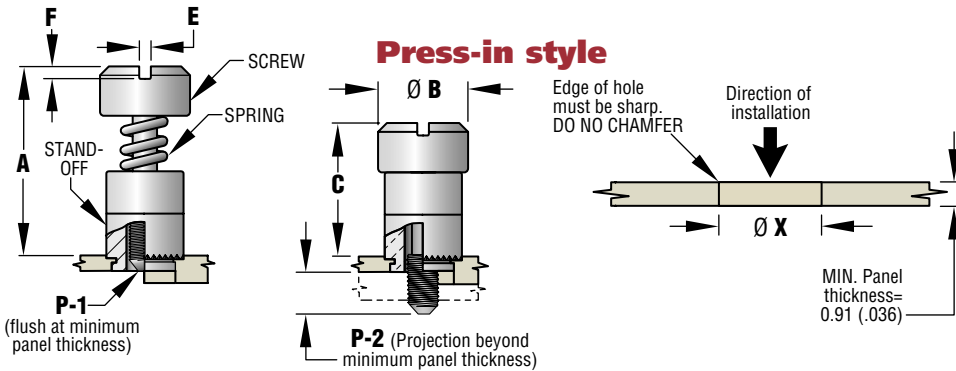
For additional styles and sizes contact Southco for details.

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

# Southco® Captive Fasteners

## Miniature Polished Series

- Smaller footprint for limited space applications



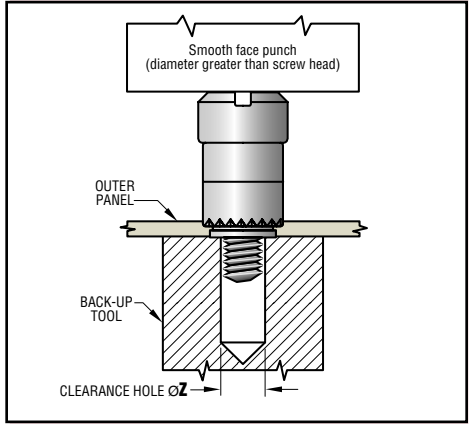
### Installation

Press knurl into panel until only top of knurl is visible.

To insure proper installation, punch surface and back-up tool surface must remain parallel during installation. A hardened steel back-up tool is recommended.

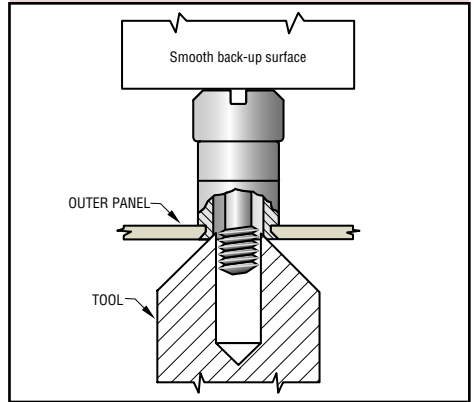
THREAD SIZE	A	Ø B	C	E&F	P-2	PART NUMBERS	Ø X $\begin{smallmatrix} \pm 0.04 \\ (+.003 \\ -.000) \end{smallmatrix}$	Ø Z	Float of screw in standoff Total Movement
4-40 UNC	15.5 (.61)	7 (.276)	11.1 (.43)	0.9 (.036)	4.6 (.18)	52-50-301-24 •	5.6 (.219)	3.1 (.120)	0.5 (.018)
6-32 UNC	17.3 (.68)	8 (.307)	11.9 (.47)	1.1 (.045)	5.3 (.21)	52-50-401-24 •	6.4 (.250)	3.7 (.144)	0.7 (.028)
M3X0.5	15.8 (.62)	7 (.276)	11.2 (.44)	0.9 (.036)	4.6 (.18)	52-50-601-24 •	5.6 (.219)	3.2 (.126)	0.6 (.023)

For use in most aluminum or in low carbon steels that are 1/4 hard or softer.



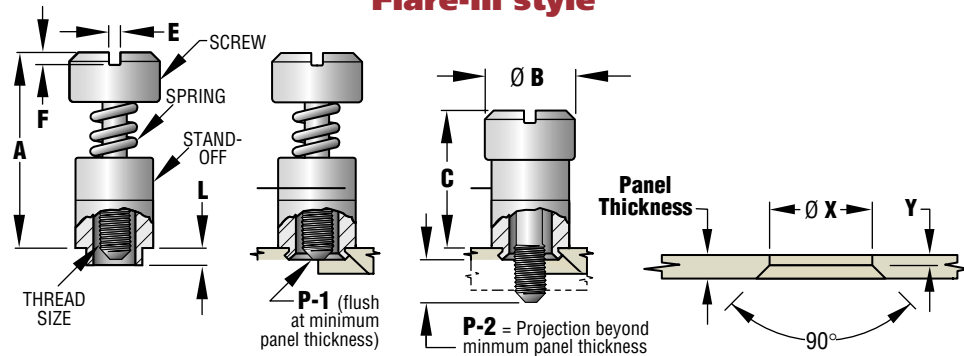
### Material and Finish

SCREW: 300 Stainless steel, passivated.  
 SPRING: 300 Stainless steel, passivated.  
 STANDOFF: (Press-in) 300 Stainless steel, passivated. (Flare-in) 300 Stainless steel, passivated.

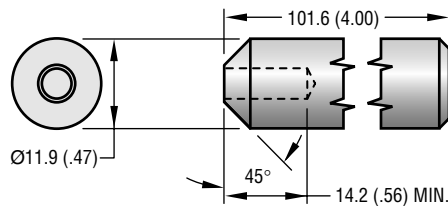


Captive Screws

### Flare-in style



**NOTE:** Recommended minimum distance from edge of panel to centerline of hole is 1.5 x ØX.



### Installation Tool

1095 Steel, hardened.

Thread size	A	ØB	C	E&F	P-2	L	PANEL THICKNESS		PART NUMBERS	ØX $\begin{smallmatrix} \pm 0.09 \\ (+.003 \\ -.000) \end{smallmatrix}$	Y
							MIN.	MAX.			
4-40 UNC	15.8 (.62)	7 (.276)	11.2 (.44)	0.9 (.036)	4.6 (.18)	1 (.041)	.8 (.031)	2.4 (.094)	52-10-301-24 •	4.8 (.187)	0.4 (.016)
6-32 UNC	17.3 (.68)	8 (.307)	11.9 (.47)	1.1 (.045)	5.3 (.21)	1.8 (.070)	1.5 (.058)	3.2 (.125)	52-10-402-24 •	5.4 (.213)	0.4 (.016)
M3X0.5	15.8 (.62)	7 (.276)	11.2 (.44)	0.9 (.036)	4.6 (.18)	1 (.041)	0.8 (.031)	2.3 (.094)	52-10-601-24 •	4.8 (.187)	0.4 (.016)

For Thread size	USE TOOL PART NUMBER
4-40 UNC	47-104
6-32 UNC	47-106
M3X0.5	47-104

Assemblies to accommodate thicker panels are available. Contact Southco for details.

millimeter (inch)  
 millimeter  
 (inch)

Dimensions without tolerances are for reference only.