



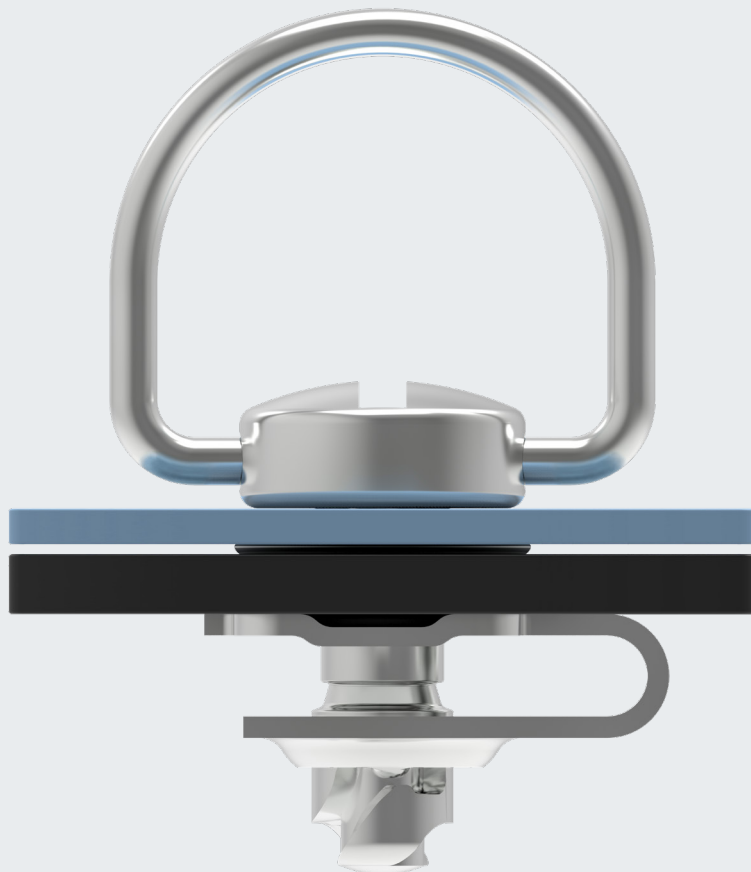
# Quick Access Fasteners

# Quick Access Fastening

## The Southco Advantage

Southco's **DZUS**<sup>®</sup> Quick Access Fastener series is one of the most recognized quick release fastening brands and is the first choice for many of the world's leading manufacturers across industrial and engineering sectors.

FEATURES		BENEFITS
Captive panel installation	▶ ▶ ▶	Eliminates lost hardware
Proven cam and receptacle design	▶ ▶ ▶	Stays fastened under vibration load
Repeatable function with set amount of fastening force	▶ ▶ ▶	Cannot be overtightened and has consistent engagement
Wide range of diameters and mounting options	▶ ▶ ▶	Product fits many types of applications
Rapid fastening	▶ ▶ ▶	Quick access to save time



\* DZUS is a registered trademark of Southco, Inc.

# Overview

## Quick Access Fasteners



Slotted



Phillips



Security



Hex



Wing



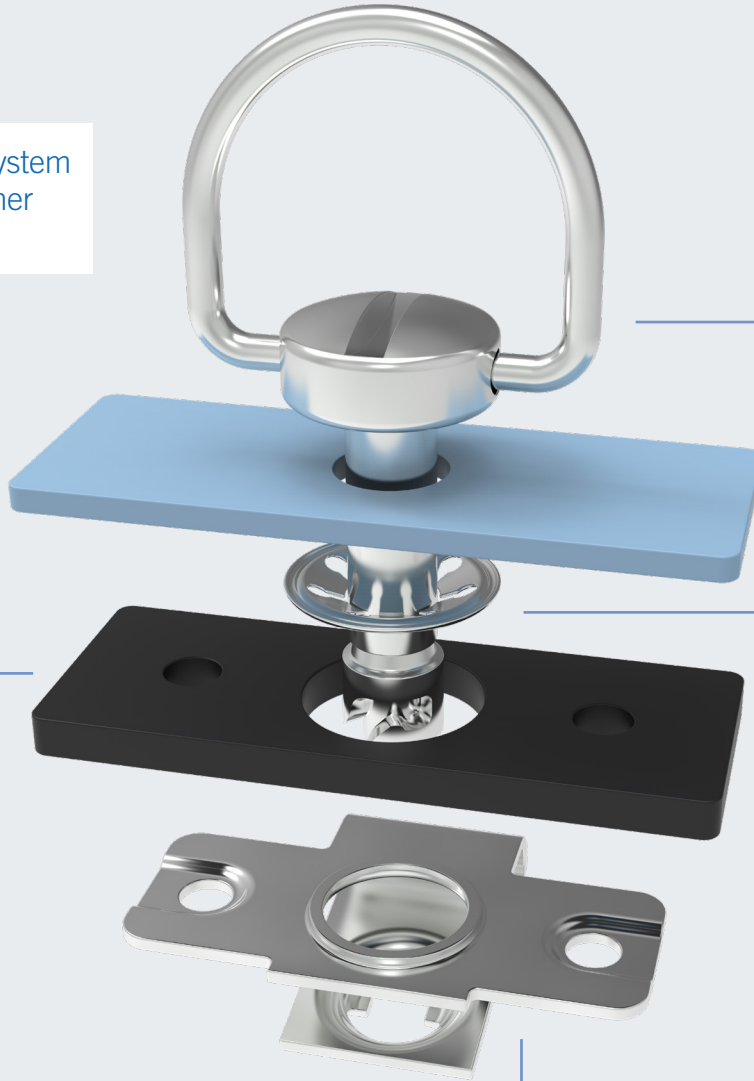
Bail

### Stud Styles

Typical Quarter-Turn System includes a Stud, Retainer & Receptacle

Panel

Frame



### Retainers



Push-On



Push-On

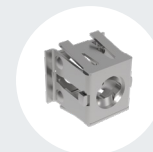
### Receptacle Styles



Clip-On



Rivet / Weld-On



Snap-In



Self-Clinching Press-In



Side-Mount



Press-In



Vibration Isolating



Ultrasonic

Available in a range of materials & finishes

# Design Considerations

When selecting the appropriate Quick Access Fastener for an application, there are a variety of design factors that must be considered, including material thickness, cycle life and tensile load.

Total Material Thickness (TMT) is required to determine stud length. TMT is calculated using formulas based on receptacle type, optional accessories and application parameters. To calculate TMT and complete your design, use the formulas provided in your Southco handbook or visit: [southco.com](https://www.southco.com)



## APPLICATION REQUIREMENTS

- What tolerance range do the panels have?
- Does the panel design provide consistent material thickness?
- Is the alignment of frame and panel consistent?
- Does the receptacle need to be installed in a blind hole?
- How frequently does the panel need to be accessed?



## PRODUCT PERFORMANCE

- Is there a clamping load?
- Do panels need to be compressed?
- What are the load requirements?
- What is the expected cycle life?



## APPLICATION ENVIRONMENT

- Is corrosion resistance required?
- Will the application see extreme temperatures?



## SERVICE REQUIREMENTS

- Are the panels frequently accessed?
- Do the panels need to be tool secured or hand actuated?



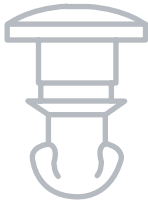
## VIBRATION RESISTANCE

- Is the panel mounted on a transportation application that is subject to motion and impact?
- Will the panel need to resist shaking due to a running motor?

# Range of Design

Southco offers an extensive selection of **DZUS®** Quick Access Fasteners to satisfy a broad range of requirements for quick access, high strength and economical performance. Each product line comes with its own set of matched receptacles for accurate, secure engagement and convenient mounting in a range of applications.

## QUARTER-TURN TO CLOSE & OPEN



### Spade Cam Design

82/85 Lion & D1 Dart  
Where high cycle life is required



### External Spiral Cam Design

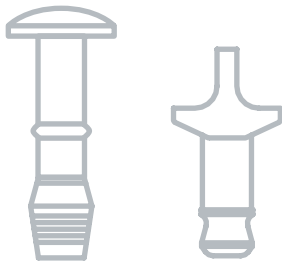
D2 Rapier, D8 PANEX Fastener & D9 Tech Line  
Where high TMT variance allowance is required



### Internal Spiral Cam Design

D4 Standard Line & D5 Panel Line  
Where high tensile load performance is required

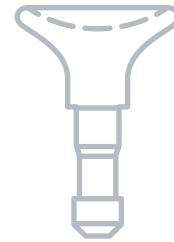
## PUSH TO CLOSE, QUARTER-TURN TO OPEN



### D7 Pilot & D7 Arrow

Where easy press-in installation is required

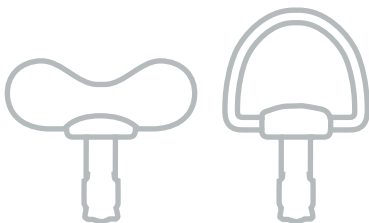
## PUSH TO CLOSE, PULL TO OPEN



### NY NYLATCH Panel Fastener

Where low total installed cost as a replacement for screws, nuts, and bolts is required

## ACTUATION



### Hand Operable

Where ease of use is required



### Tool Access

Where restricting access is required

# Quarter-Turn to Close & Open

## Spade Cam Design

### 82/85 Lion

- 2 Diameters
- 8 Head Styles
- 8 Receptacle Styles
- 3 Retainer Styles
- TMT Variance: 0.5mm
- TMT Range: up to 15mm
- Tensile Load: High\*
- Cycle Life: 2000+ cycles\*
- Vibration Resistance: Moderate\*



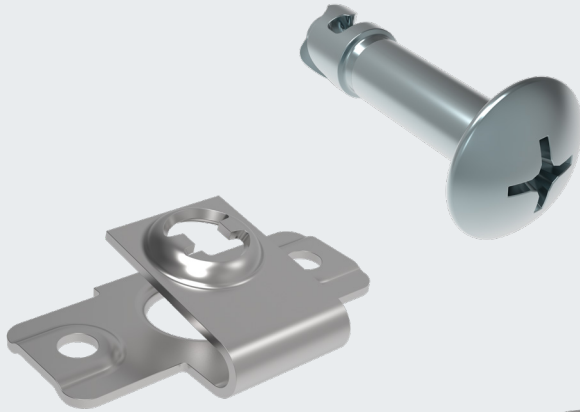
### D1 Dart

- Plastic design
- Lightweight
- 4 Head Styles
- 5 Receptacle Styles
- Self-ejecting when unfastened
- TMT Variance: 1.2mm
- TMT Range: up to 19mm
- Tensile Load: Low\*
- Cycle Life: 2000+ cycles\*
- Vibration Resistance: Moderate\*

\* Consult Southco Test Data Guidelines for additional information. Guidelines are provided for applications under normal operating conditions. Product testing in your application is recommended.

# Quarter-Turn to Close & Open

## External Spiral Cam Design

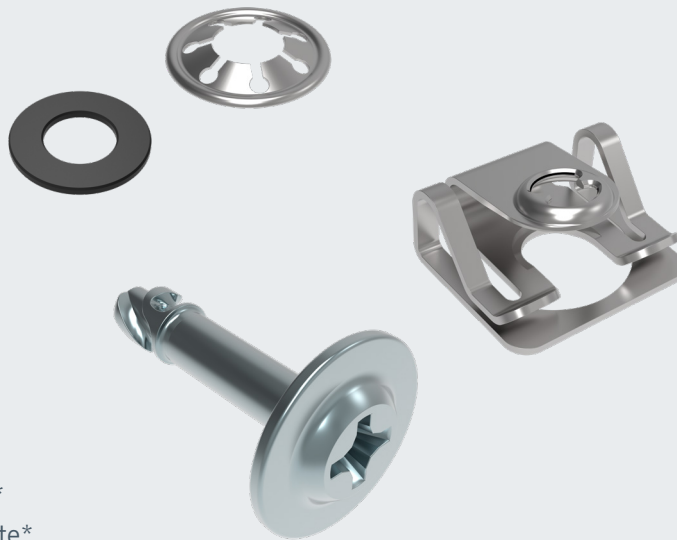


### D8 PANEX Fastener

- 3 Sizes (4, 6 & 9mm)
- TMT Variance: 0.9mm
- TMT Range: up to 23mm
- Tensile Load: Medium\*
- Cycle Life: 500-2000 cycles\*
- Vibration Resistance: Moderate\*

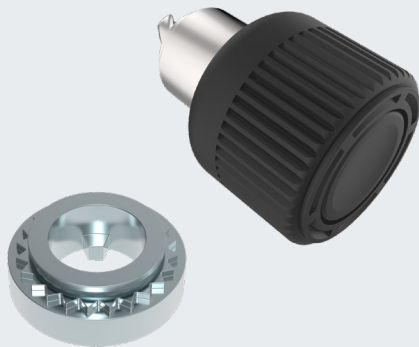
### D2 Rapier

- 4 Sizes (3.5, 5, 7 & 9mm)
- TMT Variance: 0.9mm
- TMT Range: up to 23mm
- Tensile Load: Medium\*
- Cycle Life: 500-2000 cycles\*
- Vibration Resistance: Moderate\*



### D9 Tech line

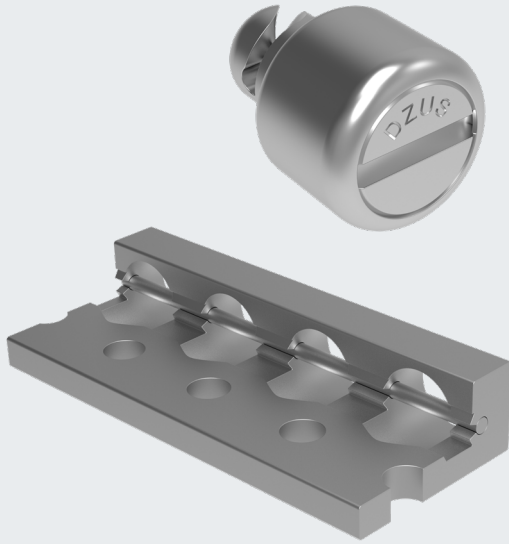
- Knob color options available
- Self-ejecting when unfastened
- 3 Receptacle Styles
- TMT Variance: 0.5mm
- TMT Range: up to 9.2mm
- Tensile Load: Medium\*
- Cycle Life: 500-2000 cycles\*
- Vibration Resistance: Moderate\*



\* Consult Southco Test Data Guidelines for additional information. Guidelines are provided for applications under normal operating conditions. Product testing in your application is recommended.

# Quarter-Turn to Close & Open

## Internal Spiral Cam Design



### D5 Panel Line

- Meets aerospace certifications & finish specifications
- Self-ejecting when unfastened
- 4 Receptacle Styles
- TMT Variance: 0.2mm
- Max. Panel Thickness: 3.2mm
- Tensile Load: High\*
- Cycle Life: 500-2000 cycles\*
- Vibration Resistance: High\*

### D4 Standard Line

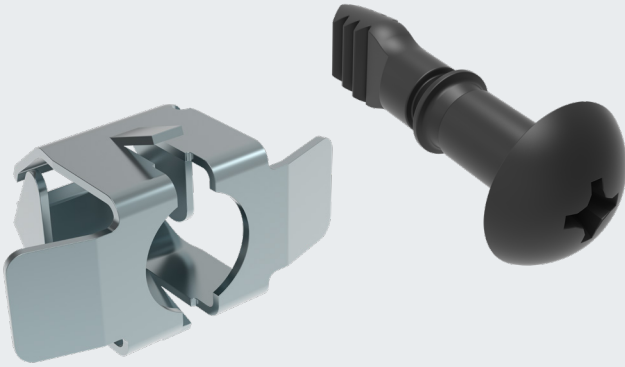
- Meets aerospace certifications & finish specifications
- 4 Sizes (3, 4, 5, 6)
- 5 Head Styles
- 4 Receptacle Styles
- TMT Variance: 0.7mm
- TMT Range: up to 19mm
- Tensile Load: High\*
- Cycle Life: 500-2000 cycles\*
- Vibration Resistance: High\*



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# Push to Close, Quarter-Turn to Open

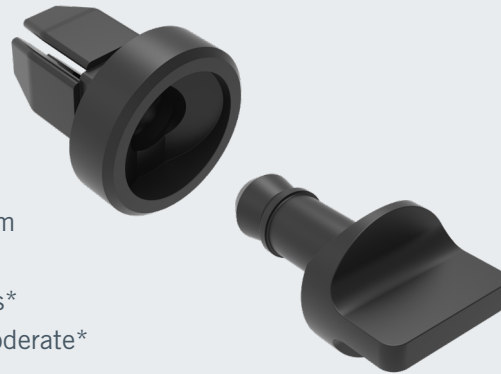


## D7 Pilot

- Self-ejecting when unfastened
- 2 Receptacle Styles
- TMT Variance: 2.4mm
- TMT Range: up to 7mm
- Max. Panel Thickness: 4.8mm
- Tensile Load: Medium\*
- Cycle Life: 2000+ cycles\*
- Vibration Resistance: Moderate\*

## D7 Arrow

- Plastic design
- Lightweight
- 3 Head Styles
- TMT Variance: 2.9mm
- TMT Range: up to 6.7mm
- Tensile Load: Low\*
- Cycle Life: 2000+ cycles\*
- Vibration Resistance: Moderate\*



# Push to Close, Pull to Open



## NY NYLATCH Panel Fastener

- Plastic design
- Lightweight
- 3 Diameters
- 3 Head Styles
- TMT Variance: 2.3mm
- TMT Range: up to 8.1mm
- Cycle Life: 2000+ cycles\*
- Tensile Load: Medium\*
- Vibration Resistance: Moderate\*

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# How to Specify

## A Quick Access Fastener System

### STEP 1 - FASTENING SYSTEM



82/85 Lion



D1 Dart



D8 PANEX Fastener  
& D2 Rapier



D9 Tech Line



D5 Panel Line



D4 Standard Line

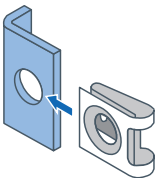


D7 Pilot & Arrow

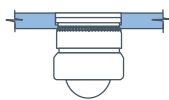


NY NYLATCH  
Panel Fastener

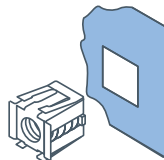
### STEP 2 - RECEPTACLES



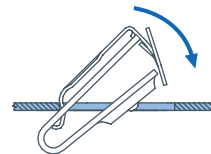
Clip-On



Self-Clinching  
Press-In



Snap-In



Front Load Clip-In



Press-In



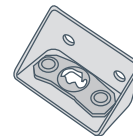
Ultrasonic



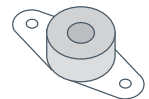
Rivet-On



Weld-On



Side-Mount



Vibration Isolating

Continues on next page

# How to Specify

## A Quick Access Fastener System

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### STEP 3 - STUD STYLES



Wing



Bail



Slotted



Phillips



Security



Hex

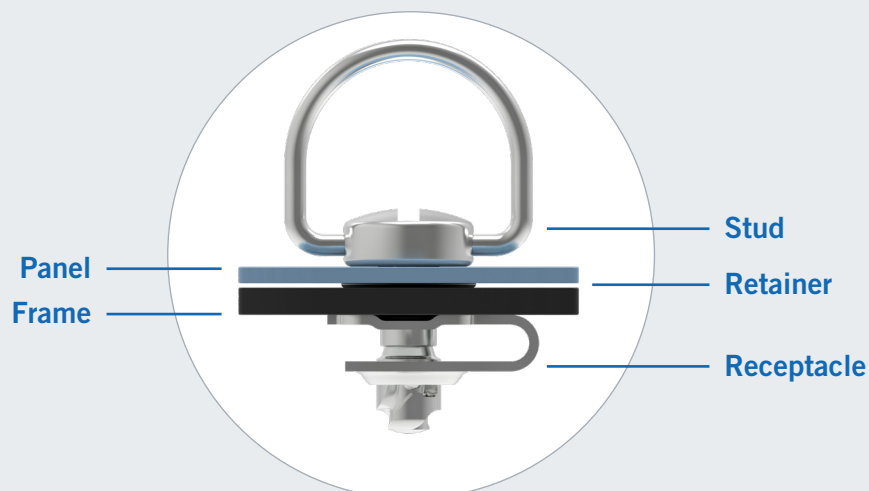
### STEP 4 - ACCESSORIES



Bail Cover



Ejecting Springs, Retainers, Cup Washers



# About Southco

Southco, Inc. is the leading global designer and manufacturer of engineered access solutions. From quality and performance to aesthetics and ergonomics, we understand that first impressions are lasting impressions in product design. For over 70 years, Southco has helped the world's most recognized brands create value for their customers with innovative access solutions designed to enhance the touch points of their products in transportation and industrial applications, medical equipment, data centers and more. With unrivalled engineering resources, innovative products and a dedicated global team, Southco delivers the broadest portfolio of premium access solutions available to equipment designers throughout the world.



ELECTRONIC  
ACCESS



DISPLAY  
MOUNTS



COMPRESSION  
LATCHES



CAM LATCHES,  
LOCKS & SWING-  
HANDLES



PUSH-TO-CLOSE  
LATCHES



ROTARY  
LATCHES



DRAW  
LATCHES



HINGES



QUICK ACCESS  
FASTENERS



CAPTIVE  
SCREWS



INJECT / EJECT



HANDLES  
& PULLS

Creating first impressions that last.  
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