

Hinges & Positioning Technology

Hinges & Positioning Technology

The Southco Advantage

Southco hinges and positioning mechanisms go well beyond simple, free swinging operation. Our extensive portfolio of solutions for managing door and panel motion can bring new functionality and performance to any application. With materials ranging from light-weight plastics to heavy-duty cast stainless steel, and a wide variety of sizes and installation styles, Southco has a hinge for your application needs.

Southco's proprietary Positioning Technology features an extensive range of solutions, including constant torque hinges and counterbalance systems, which provide the exact operating effort required to position panels, lids or doors of varying weights. By predefining the desired user effort, this effort will be maintained over the lifetime of the product.

HINGE SOLUTIONS

FEATURES		BENEFITS
External Mounting	➤ ➤ ➤	Maximize space inside the enclosure
Concealed Mounting	➤ ➤ ➤	Enhance aesthetics with hinge hidden from view
Free-Swinging	➤ ➤ ➤	Minimal resistance to opening and closing effort
Removable	➤ ➤ ➤	Easily remove doors for improved maintenance access
Material and Finish	➤ ➤ ➤	Match the look, styling and environmental (e.g. corrosion-resistance) requirements of the application

POSITIONING TECHNOLOGY

FEATURES		BENEFITS
Integrated position control	➤ ➤ ➤	Securely holds panel in any position
Precise operating efforts	➤ ➤ ➤	Intuitive operation with a smooth, high quality feel
Minimum 20K cycle life	➤ ➤ ➤	Maintenance-free operation over the lifetime of the application
Rigorously tested design	➤ ➤ ➤	Reliable performance in rugged environments

Overview

Hinges

Multiple mounting options:



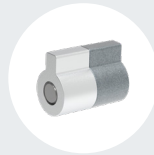
Through Holes



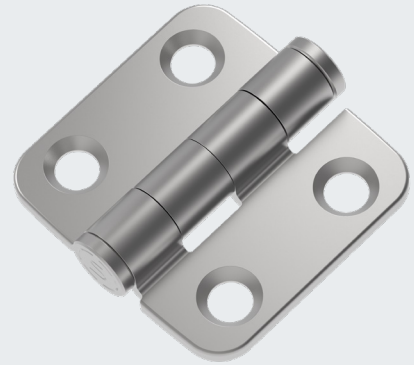
Integrated Thread Studs



Weld On



Press-In



FREE-SWINGING

Easily mounted to any surface:



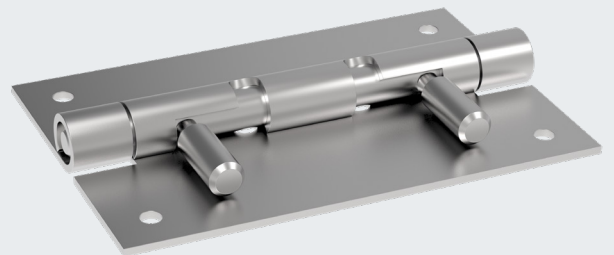
Embedded



External



Concealed



REMOVABLE

Wide selection of positioning types:



Detent or Bi-Stable



Constant Torque



Counterbalance



Adjustable Torque



Articulating



POSITIONING

Design Considerations

When selecting the appropriate hinge solution for an application, there are a variety of design factors that must be considered, including operating environment, applied force and desired motion.



PHYSICAL REQUIREMENTS

- What are the working and abuse load requirements?
- Does it need to withstand high vibration?
- Are there environmental concerns such as water, chemical or UV exposure?



SERVICE REQUIREMENTS

- How many cycles will be required over the life of the product?
- How will it be serviced or maintained?
- Are there any safety requirements that must be met?



MOUNTING OPTIONS

- Where will the hinge be mounted?
- What types of mounting options are available?
- Will the hinge axis be horizontal or vertical?



INDUSTRIAL DESIGN

- What type of styling is desired?
- Are there requirements for hidden hardware?



OPERATING FORCE

- What is the desired user force needed to lift or position the panel?



CENTER OF GRAVITY

- Where is the panel's center of gravity in relation to its mounting point?

Range of Function and Mounting

By offering a wide range of functions, such as the ability to remove or split the hinges easily, and different mounting options to suit the styling or materials being used in the application construction, Southco hinges deliver high quality and intuitive functionality.

MOUNTING TYPE



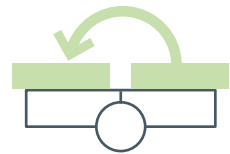
External

Maximizes interior application space



Embedded

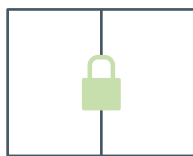
Integrates the hinge into the application design



Concealed

Allows a clean aesthetic for optimum styling

FUNCTION



Fixed

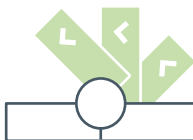
For low maintenance and secure attachment of the door panel to the frame



Removable

For easy removal of the door for increased access in restricted space

TYPES OF POSITIONING



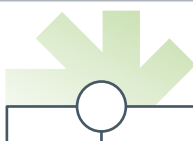
Detent

Audible and tactile feedback informs the user that the panel is held at a pre-determined angle



Bi-Stable

Flip-open/flip-closed functionality drives the panel to one of two fixed positions



Torque

Precise, smooth & controlled resistance holds the panel securely at any desired position



Counterbalance

Lift assistance reduces user efforts for heavier panels while holding securely at any angle

Free-Swinging

Provides secure door retention with minimal resistance to opening and closing forces



EH- External Hinges

Easily integrated with minimal friction

- Externally mounted
- UL FTTA2/8 Certified options
- Multiple size, mounting & finish options

R6- Concealed Hinges

Improve aesthetics with concealed mounting

- Provides clean, seam-sealed look to closed panels
- Optional door stay feature
- Corrosion resistant options available
- Opens panel to 90° or 180°



N6- Stainless Steel Hinges

Refined look with superior corrosion resistance

- All stainless steel construction
- Multiple sizes
- Optional hardware covers

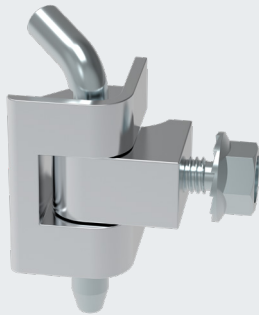
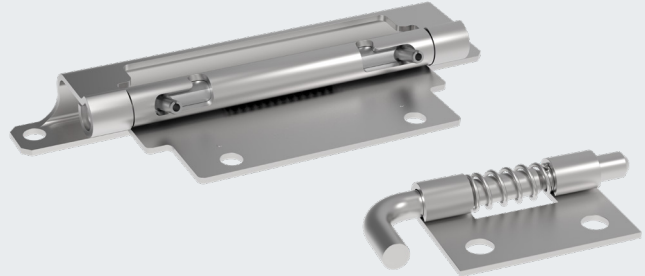
Removable

Allows doors to be removed quickly and easily to facilitate assembly, service or installation

F6- Retractable Pin Hinges

Tool-free door removal with concealed hardware

- Hidden mounting for better aesthetics
- Wide range of size and mounting options
- Available in steel or stainless steel



KH- Corner Mounted Hinges

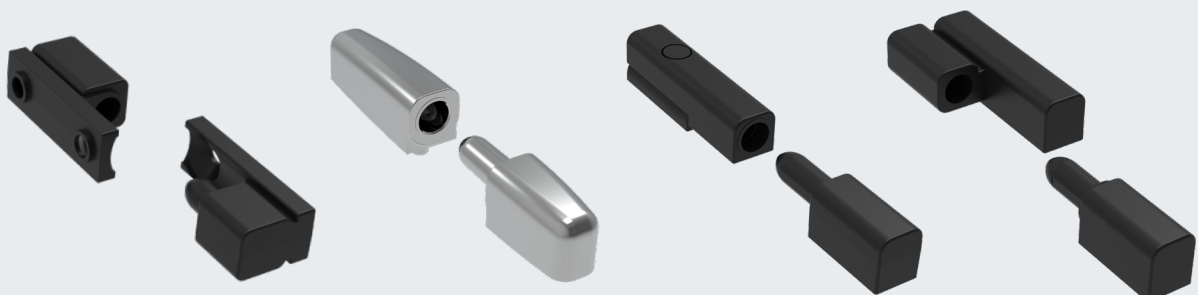
Flush mounted solution for quick assembly and removal

- Clean look with no exposed hardware
- Quick, low-cost installation
- Removable pin for easy door removal
- Multiple finish options

96- Lift-Off Hinges

Stylish solution for lifting doors off of frames

- Externally mounted
- Hidden fasteners
- UL FTTA2/8 certified options
- Multiple size, style, material and finish options



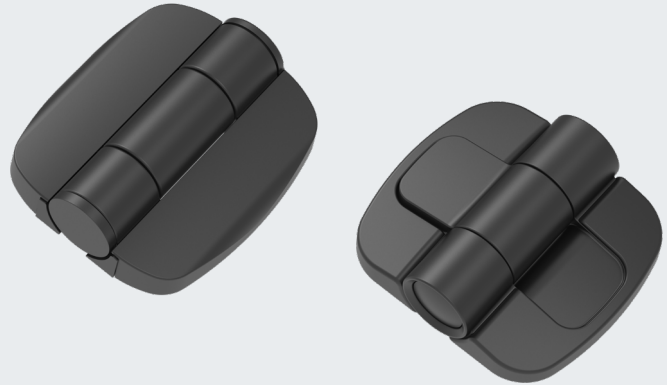
Detent & Bi-Stable

Audible and tactile feedback informs the user that the panel is held at a pre-determined angle

C6 and G6- Detent Hinges

Easily mounted with pre-set opening angles

- Audible 'click' in the open position
- All plastic and stainless steel construction
- Hardware covers enhance design
- Multiple opening angle and user effort options



G7- Bi-Stable Hinge

Flip open/flip closed functionality for small panels

- Drives panel to fully open or fully closed position
- Smooth operation
- Compact design can be embedded into panels

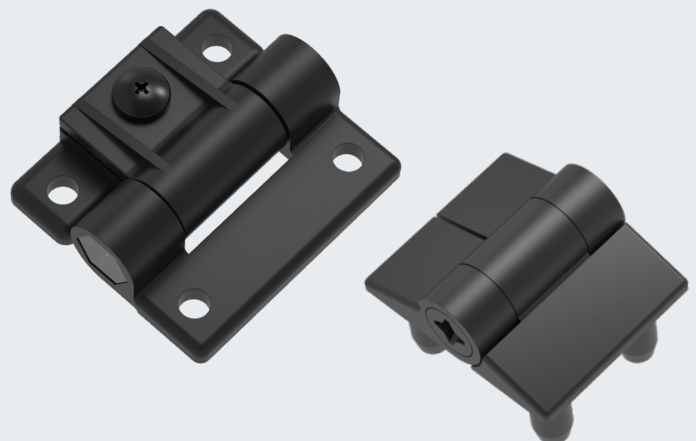
Adjustable Torque

Easily adjusted for a range of panel sizes and weights

E6- Adjustable Torque Hinges

Adjustable torque for a range of panel sizes

- Externally Mounted
- User-defined torque
- Lightweight, corrosion resistant construction



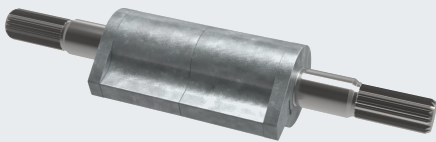
Constant Torque

Precise, smooth & controlled resistance holds the panel securely at any desired position

E6- Constant Torque Hinges

Easily integrated constant torque surface mount hinges

- Externally Mounted
- Sealed for outdoor use
- Available with symmetric, asymmetric or one-way torque



ST- Torque Inserts

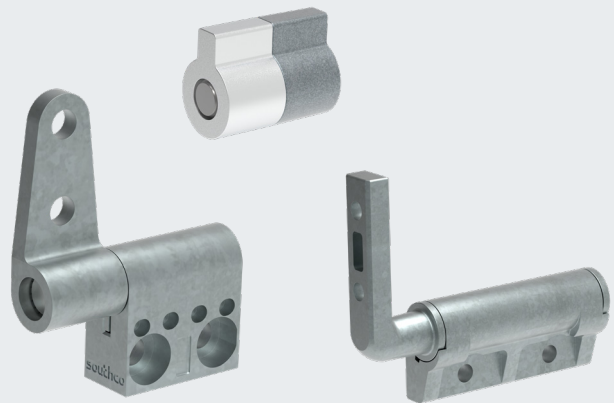
Embedded torque for overmolded applications

- Completely hidden after molding
- Available with asymmetric torque

ST- Embedded Hinges

Constant torque in a compact package

- Concealed mounting
- Available with asymmetric torque
- Wide range of sizes and torque available



AH - Articulating Hinges

Integrated constant torque for fold flat applications

- Flush when in both open and closed position

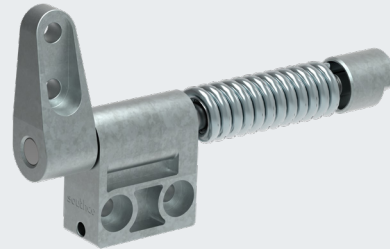
Counterbalance

Lift assistance reduces user efforts for heavier panels while holding them securely at any angle

ST-12C- Embedded Counterbalance Hinge

Refined feel for smaller lids

- Combines constant torque and lift assistance
- Easily hidden, compact package
- Factory set operating efforts
- Multiple torque and mounting options



CA- Lid Counterbalance Hinge

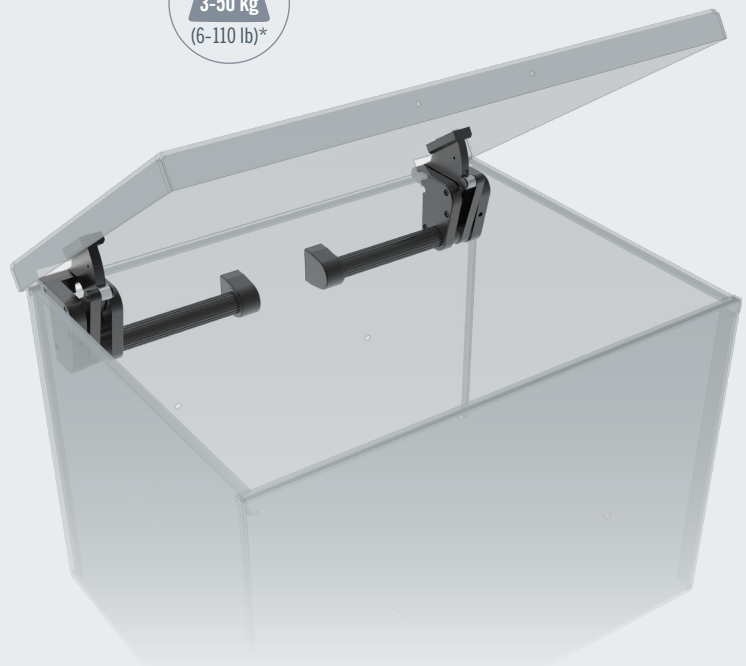
Externally mounted lift assistance for medium sized lids

- Frees up space inside of the enclosure
- Lifts lids with minimal user effort
- Holds lid in any position
- Adjustable to accommodate a wide range of panel sizes

CB- Counterbalance Mechanism

Internally mounted lift assistance for large lids

- Hides the compact mechanism inside the enclosure
- Lifts and lowers lids with minimal user effort
- Fine tuning and adjustment for "self-closing" or "pop-open"
- Adjustable to accommodate a wide range of panel sizes
- Consistent operation and long cycle life



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.



**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



LIFT-A-SYST®

southco®

Americas Global Headquarters

Concordville, PA, USA
Tel: (1) 610 459 4000

Europe Headquarters

Worcester, UK
Tel: (44) (0) 1905 346722

Asia Pacific Headquarters

Hong Kong, China
Tel: (852) 3127 1503

WORLDWIDE MANUFACTURING AND STOCKING LOCATIONS

Concordville, Pennsylvania, USA · Honeoye Falls, New York, USA · Philadelphia, PA, USA · Warminster, PA, USA · Chihuahua, Mexico · Tecate, Mexico · São Paulo, Brazil
Rzeszów, Poland · Farnham, UK · Worcester, UK · Hong Kong, China · Shenzhen, China · Shanghai, China · Seoul, Korea · Melbourne, Australia · Pune, India · Osaka, Japan