

# Rack Attach Selection Guide for Enclosures

As an experienced leader in engineered access hardware solutions for a variety of enclosure applications, Southco offers many rack attach solutions. To help you narrow down those options for your enclosure installation, we have organized them by functionality, and outlined some key design considerations that can impact enclosure performance and economy.

## How to use this guide

- Step 1.** Use the **Physical Rack Attach Style Considerations** to identify the primary performance characteristics for your application
- Step 2.** Use the chart on this document to select the product class whose design characteristics or performance criteria match those required for your application.
- Step 3.** Visit the Southco Web site ([www.southco.com/enclosures](http://www.southco.com/enclosures)) and enter the product class into the Search Bar to access more information or contact your Southco representative for specific dimensions and details.

## Physical Rack Attach Style Considerations

Are you looking for simplicity and flexibility for thin-panel and module attachment in your rack-mount and enclosure application?

Southco can help you with the following key physical style considerations to narrow your choices to one of the two major Rack Attach solution families depending on your application requirements - Plastic or Metal.

### Plastic solutions

Are your application load and vibration resistance requirements from light to medium duty?

Are you looking for a hand operable front-mount solution?

Do you require an assembly that removes completely without leaving the receptacle in the frame after unlatching for easy repositioning?

If so, plastic Rack Attach Hardware could provide a quick, easy and economical solution.

### Metal solutions

Are your application load and vibration resistance requirements from medium to heavy duty?









Do your conditions demand a standard metal threaded solution?

Would you like to upgrade to a quarter-turn or push-to-close action?

Does your application require a wider grip range?

Metal Rack Attach inserts provide simple front mount fastening solutions which accommodate a wide range of clamping requirements.

## Rack Attach solutions

Design considerations (See descriptions on back)	Plastic solutions			Metal solutions				
	 Nylatch	 Arrow	 Swell	 Monosert	 Duosert	 Pilot	 Panex	 Standard Line
Frame preparation (mm)	9.5 Square	9.5 Square	9.5 Square	9.5 Square	9.5 Square	9.5 Square	9.5 Square	9.5 Square
Load Rating	Light	Light	Light/Medium	Light/Medium	Medium	Medium	Medium	Heavy
Panel Preparation (mm)	9.1 Square	9.1 Square	4.1 Ø	6.1 Ø	6.1 Ø	6 Ø	5 Ø	6.4 Ø
Material	Plastic	Plastic	Plastic	Steel	Steel	Steel	Steel	Steel
Opening Action	1/4 Turn	1/4 Turn	Swell Action	Thread (M6)	Thread (M6)	1/4 Turn	1/4 Turn	1/4 Turn
Closing Action	1/4 Turn	Push to close	Swell Action	Thread (M6)	Thread (M6)	Push to close	1/4 Turn	1/4 Turn
Front-Mounting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Visual indicator open status	Yes	Yes	Yes	No	No	Yes	Yes (spring version)	No
Vibration resistance	Light	Light	Medium/Heavy	Medium/Heavy	Yes (with lock-patch screw)	Medium/Heavy	Medium	Heavy
Max frame thickness (mm)	2.2	3.3	3.2	4.5	1.2	2.2	2.5	3
Clamping range (mm)	1.5-6.8	2-6.3	3.2-6.4	0-9	Unlimited	2-7	1.5-28.4	1.5-15
Hand operable head-styles	Yes	Yes	Yes	No	NA	No	Yes	Yes
Tool operable head-styles	Yes	Yes	No	Yes	NA	Yes	Yes	Yes
Tool-free installation	Yes	Yes	Yes	Yes	No (slotted screw driver)	Yes	No (slotted screw driver)	No
Receptacle required (to order separately)	No	No	No	No	No	Yes D7-285-	Yes D3-334-200-190	Yes D4-SQC4-
Removable receptacle	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Ejecting stud option	No	No	No	No	No	Yes	Yes	Yes
Product class	NY	D7	19	DM	DM	D7	D3	D4

For more detailed information on the product class you have identified, go to [www.southco.com/enclosureguide](http://www.southco.com/enclosureguide).

## Rack attach solutions - Design considerations:

**Panel/Frame preparation:** Southco rack attach solutions are available for both 9.5mm square and round mounting holes in the frame rails. Contact Southco for details.

**Material:** The material used in the construction of the rack attach solutions (i.e. steel, stainless steel, die-cast zinc, engineered thermoplastic, etc.) is determined by the required working load. Most applications other than blanking plates require steel for strength. Blanking plates often feature engineered thermoplastic fasteners.

**Load rating:** How much load the rack attach solution is required to withstand. Loads can be in tensile, bending and shear, and determine what type of attaching solution is required.

**Opening/Closing action:** The range of opening/closing options which satisfies the customer application needs. i.e. slam to close, rotate to fasten, inject/eject, etc.

**Vibration resistance:** The ability of the rack attach solution to be subjected to vibration without disengaging or failing in any way. Applications with high levels of vibration often require a rack attach solution that will clamp the 2 panels together and have some type of secondary release catch or self locking friction feature.

**Clamping range (grip):** The total material thickness that the latch/fastener must work on. Usually measured from the outside of the outer panel to the inside of the inner panel and must include any gasket thickness in its desired compressed state.

**Tool-free installation:** Latch / fastener receptacle can be installed by hand without the use of any tools.

**Removable receptacle:** The part that attaches to the frame rail (for instance 9.5mm square hole) is easily removable so that it may be moved to another position on the frame rail.

*To order the complete Enclosure Design Guide, including the Latches & Hinge Guide, please contact Southco.*

**Do you need other rack attach solutions?**  
**Contact Southco for any requirements specific to your applications**



Rack Latches



Captive Hardware



1/4 Turn Captive Fasteners

## Southco makes it possible.

**Need other related engineered access hardware solutions?**  
**Modified or-custom solutions?**

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Tel: (44) (0) 1905 346722

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