

Manufacturer of Innovative, Panel-Hanging Hardware 2016 Catalog





Introduction

Star Hanger Systems designs, manufactures and provides detailed information for hidden fastener solutions. Our fasteners & systems provide new solutions for precisely mounting wood panels, art work, acoustical panels, fabric panels, overhead clouds panels and more. Our fasteners systems are designed to accommodate a variety of weight loads, surface materials, installation speeds, project conditions and budgets.

Applications

Star Hanger Systems provides innovative invisible hardware options that allow manufacturers, installers, owners, and architects to quickly and efficiently install art work, graphics, ADA panels, fabric panels and upholstery. They can be installed directly to sheetrock or furring while remaining strong and removable.

Our sheetrock fasteners quickly **Mount Heavy Panels Directly to Sheetrock**. Art work, sculpture, graphics, ADA panels, fabric panels and upholstery can also be installed directly to sheetrock. These fasteners are strong and the panels remain removable.

Our **fasteners for Mounting Wall Panels to Premium Furring Systems** allow large and complex panels systems to be installed with unparalleled speed and low cost. They are stronger than traditional clips and remain removable. Our line also includes traditional patented Surface-Mounted Clips with added improvements like Alignment Pins for easy placement marking.

Star Hanger also has **fasteners for Mounting Solid Surface Directly Sheetrock** which allows solid surfaces to be quickly installed directly to sheetrock.

We also offer **hardware for Mounting and Hanging Ceiling Panels and Clouds**. The new Star Ceiling Clip is specifically designed for overhead use with a structural wood furring. It is a surface mounted clip that drops down 1/8" and mechanically locks into place both vertically and horizontally. When mounted directly to wood furring it allows for any panel regardless of size or shape.

We offer three **ADA Supports & Counter Top Components** that when combined allow ADA units to be installed directly to steel studs with no internal blocking in under an hour. The end product is very clean and strong.



AgFirst



Parkridge Hospital



McDaniel's Acura



Love GMC

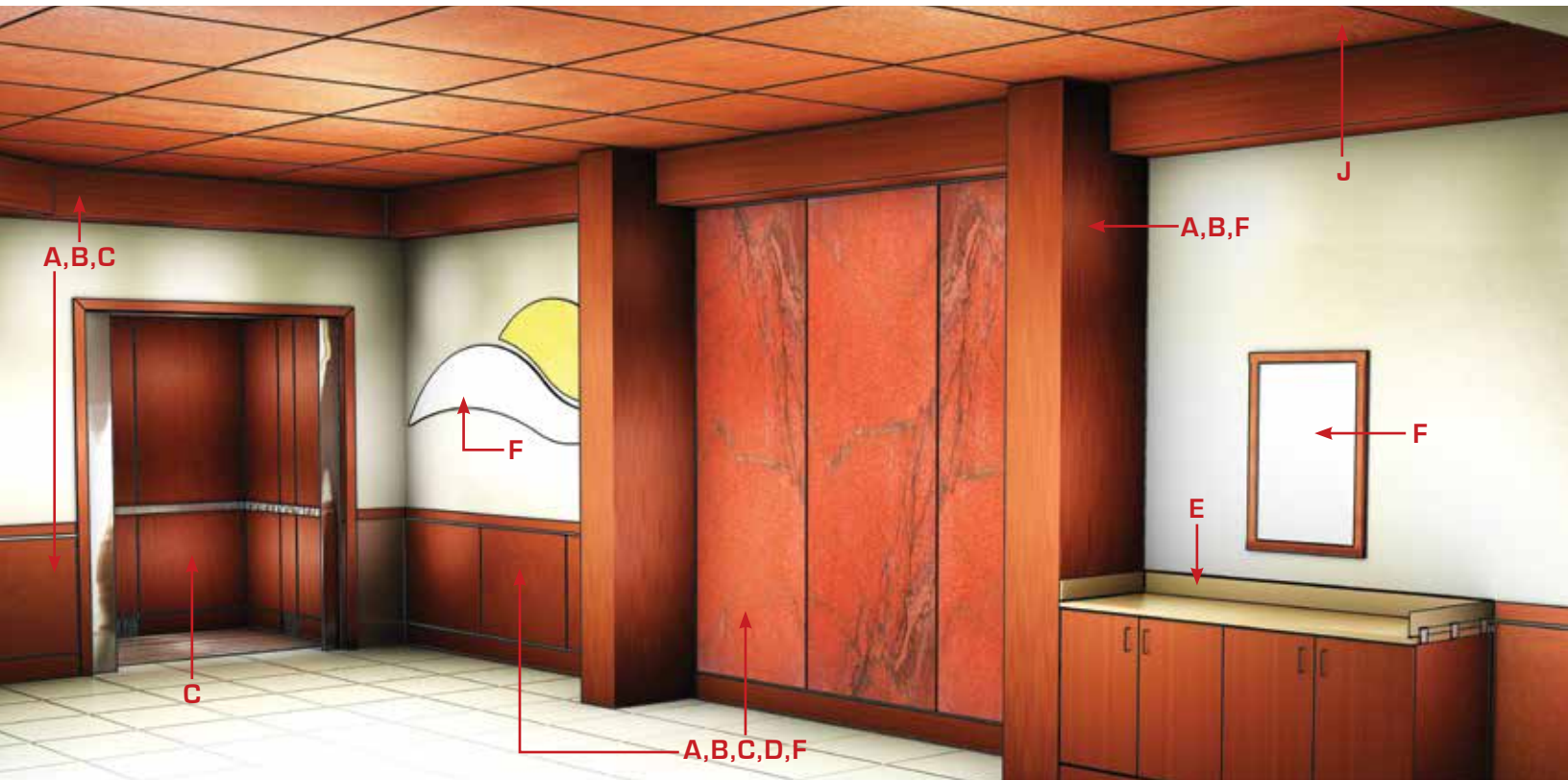


Wendy's



Transamerica

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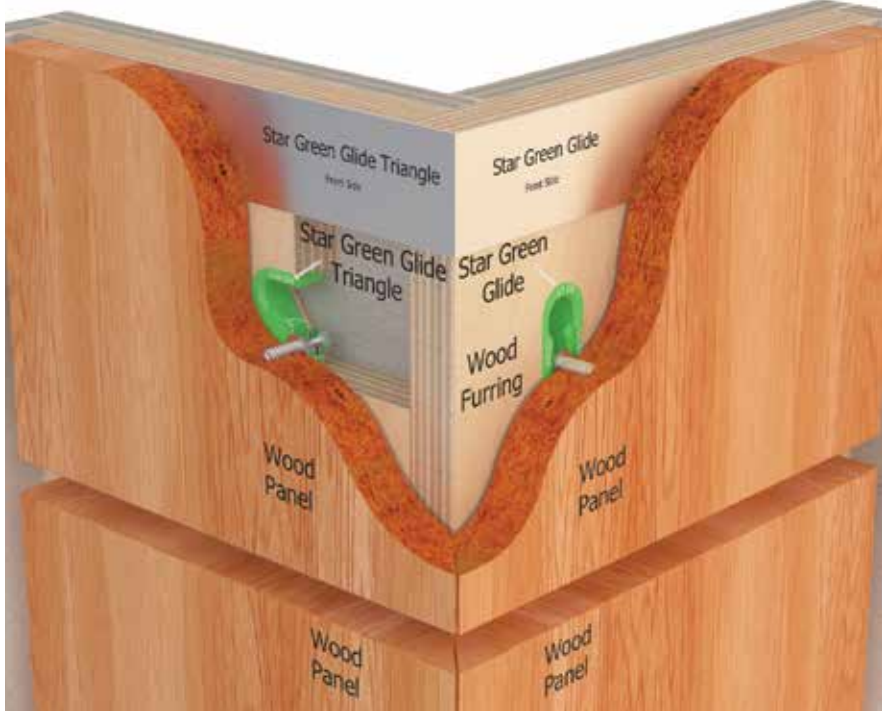
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Star Green Glide & Triangle

Application

The Star Green Glide is a precision insert fastener that compresses into a pre-routed slot. The Green Glide is best suited to work with pre-engineered panel furring systems (AWI premium plant fabricated millwork). It gives the fabricator the ability to exactly control the placement of wood panels, ADA panels, fabric panels, art work, graphics, upholstery and more. The inserts work especially well for panel jobs with complex custom shaped panels. The mounting screws can be pre-drilled and fit in the shop, then removed for shipping and quickly reinstalled in the exact same location in the field.

Description

The Star Green Glide is faster, stronger and more precise than any other panel hanging system. The fastener is held firmly in place by compressing into a 5/8" x 1-1/4" routed pocket 1/2" deep. This elongated design provides the keyhole length needed for the steel mounting screw in the panel to glide smoothly and firmly into place. The advantage of the full CNC layout is that the double-headed screws are set in a specific location on the panel by starting at 1-3/4" off of every corner. The mounting location can be pre-drilled with a drill template or quickly determined in the field with an alignment pin.

Cost/Benefit Estimate

Current estimates show that the pre-engineered system saves about 1.5 hours per 36" x 96" or about 10%. This system generally adds engineering hours while saving substantial shop and installation hours. The hardware cost is similar to traditional clips. Please see [www.starhanger.com/Technical/Cost Estimates](http://www.starhanger.com/Technical/Cost%20Estimates) for details.



Product Advantages

- Panel furring systems can be pre-engineered, providing unparalleled control over panel location
- The insert can be hammered into place in seconds, and the panel then glides firmly into place
- The mounting screws can be quickly removed for flat pack shipping
- Furring system can be installed on the job during the rough work phase, after clean up then install the panels
- Two stage installation protects the finished panel work and greatly reduces on-site hours during the most compressed phase of the project
- Now available in volume with bulk pricing
- Working downloadable shop drawing & architectural specification are available at www.Starhanger.com/Technical

Strength Testing with 3/4", 45 lb. particle board

- **Tensile** Failure (Horizontal pull) = 150 lbs. / Working Strength, Pull from Furring = 25 lbs.
- **Shear** Failure (Vertical weight holding) = 170 lbs. / Working Strength, Weight holding = 25 lbs.

Endorsement

Chesapeake Millworks, Inc. 9/30/15

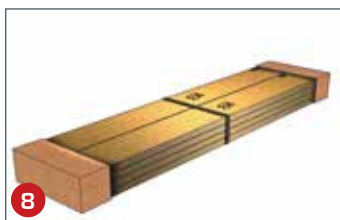
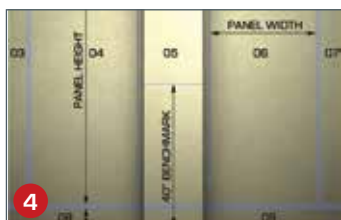
You will be pleased to know the Green Glides worked out great for us. I am in engineering and programmed everything to run on the CNC, veneer panels & backer panels. Our installers were highly skeptical that there would be enough tolerance built in for adjustment, but they were all pleasantly surprised how quick & easy everything went together on-site. We definitely intend to use them again in the future and are interested in checking out the triangle glide when it's available. Thanks for a great product!

- Beth Haywood, Project Engineer, Chesapeake Millworks, Inc., Owings, MD



Star 1-5/8" Green Glide Infographics

for the Green Glide & Triangle



1. Steps 1-5 should be done before fabrication. Find high point of floor, set horizontal bench mark 40" above bottom panel.
2. Determine greatest projection (bump out in wall) to determine face of panel floor layout lines.
3. Field verify all required site dimensions based on face of panels for both field horizontal & vertical lines.
4. Draw elevations based on panel heights horizontal & vertical level lines & end conditions.
5. Determine face of all panel sizes on primary drawing layer.
6. Star Green Glides should be set at 1-3/4" off panel corners to simplify mounting screw locations.
7. Hammer in all insert fasteners with a dead-blow hammer on the bench floor.
8. Green Glide furring & panel can be shipped flat packed.
9. Starting installation; re-verify all required site dimensions based on field horizontal & vertical level lines.
10. Using straight lines or a laser shim, glue all furring into place.
11. Snapping the panels into place should be the simplest part.
12. Finished room using the Star Green Glide.



Star Blue Zero

Application

The most popular application for the Star Blue Zero is the installation of panels directly into place with zero reveal. Examples include ADA panels, soffit panels, panels with no reveal, fabric panels and wood panels that need to be installed straight into the furring at pre-assembled "L" shaped soffits, corners, and individual panels. The Zero is also useful for both applying and holding molding and other light materials in place until the adhesives dry.

Description

The Star Hanger is a medium duty, one piece, injection molded insert fastener designed to install panels straight in-between other panels with zero reveals. The Nylon 66, fiberglass-reinforced body and steel screw withstand repeated removal. The Zero inserts into a 1" compression fit for any hard sub-straight. Steel alignment pins are available for a fast and accurate layout in both the field and the shop. Please keep in mind that the Zero has a 10-pound weight limit. It should be used overhead only in combination with a mechanically locked clip. Star Zero uses our 5/16" double-headed screw and simply pushes into place with about 10 pounds of force and is removed with about 25 pounds of force. Custom strengths can be manufactured in volume.

Cost/Benefit Estimate

Star Zeros can be drilled with a 1" Forstner and installed in under a minute. This is faster than using traditional clips at a similar cost. Please see [www.starhanger.com/Technical/Cost Estimates](http://www.starhanger.com/Technical/Cost%20Estimates) for details.



Product Advantages

- Installs with no (zero) reveals
- Designed to be repeatedly removed quickly with a small pry bar
- Allows for 1/16" panel expansion
- Now available in volume with bulk pricing
- Working downloadable shop drawing & architectural specification are available at www.Starhanger.com/Technical

Strength Testing with 3/4", 45 lb. particle board

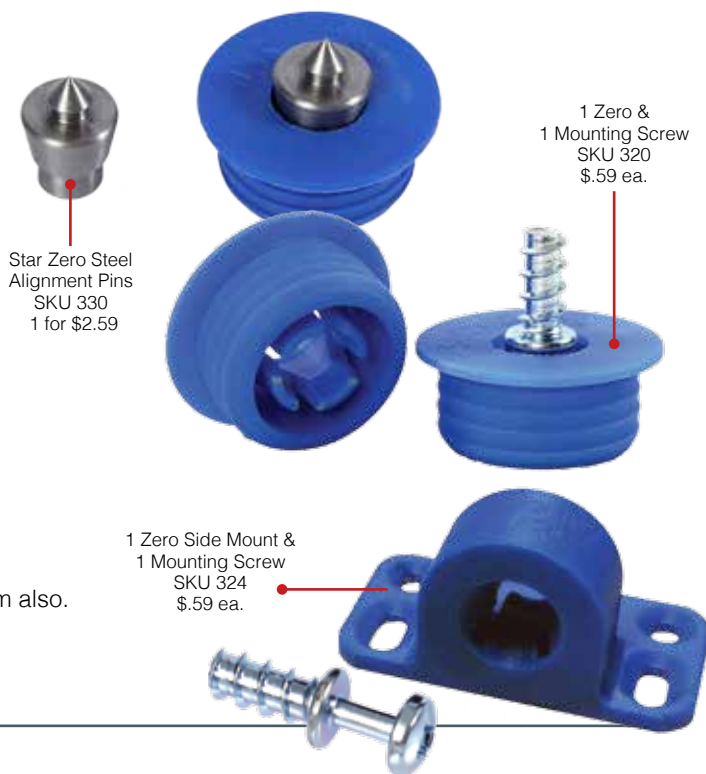
- **Tensile** Failure (Horizontal pull) = 40 lbs. / Working Strength, Pull from Furring = 10 lbs.
- **Shear** Failure (Vertical weight holding) = 330 lbs. / Working Strength, Weight holding = 25 lbs.

Endorsement

Rowland Woodworking

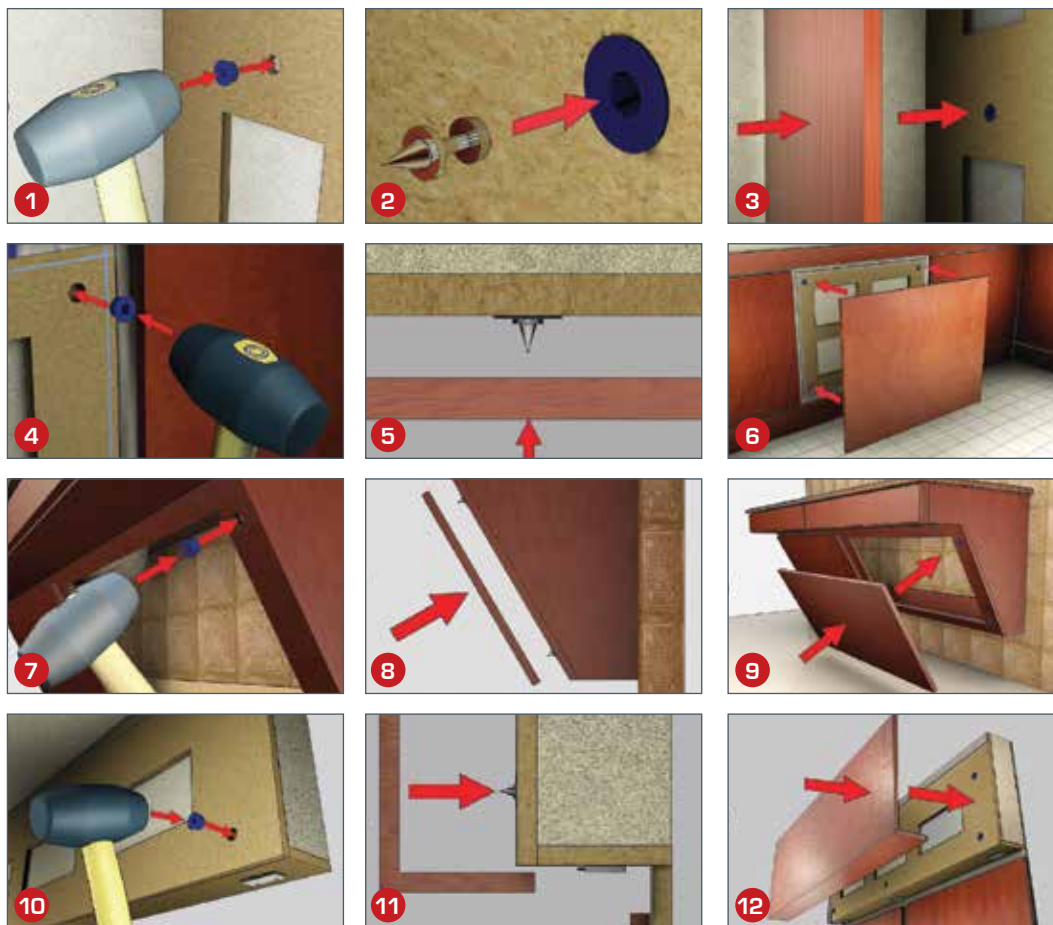
We have been stocking Star Hanger fasteners for some time. We use the Star Zeros for our ADA front panels and the installers like them also.

- Kristine Cox, Rowland Woodworking,
High Point NC. / President, Carolinas Chapter AWI



Star Blue Zero Infographics

Used for the installation of ADA panels, fabric panels, chair rail, and soffit panels.



1. Star Zero installs the same way as our other inserted fasteners. Drill a 1" hole & hammer the Star Zero into place.
2. The steel alignment pins mark exact screw locations.
3. After installing the double-headed screw, the panel can be pressed straight into place.
4. Star Zero works well for installing hidden access panels.
5. Steel alignment pins in place.
6. Star Zero snaps straight into place.
7. Star Zero works well for the installation of typical, ADA-removable cover panels.
8. Double-headed mounting screws can be set in the shop or in the field.
9. The plumbing access panel can be quickly removed with a pry bar or with a cut-out pull.
10. Soffit panels can be quickly installed using both the Star Zero and the Star Snap Clip in combination.
11. Alignment pins are available for the Star Zero.
12. Soffit panels can be installed directly in place without the need for a reveal.

*Patent pending



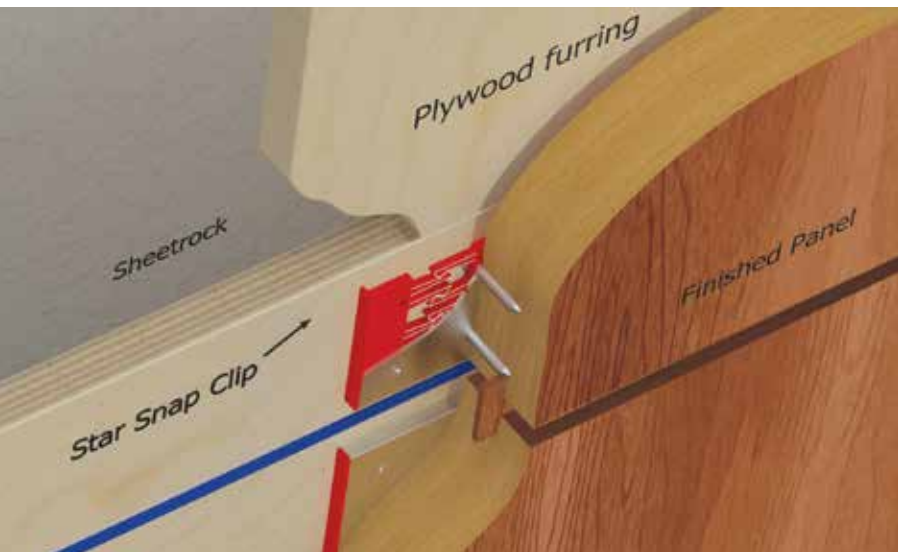
Star Red Snapper

Application

There are many situations where you need a clip to hold securely in many directions such as any panel or door that vibrates out of position. Some examples include elevator panels, paneled doors, refrigerator doors, and hidden doors. The Red Snapper also holds weight vertically without slipping or vibrating out of place like a traditional clip. This allows use with overhead panels, panel assemblies, access doors, soffits and the mounting of "L" and "U" shaped columns.

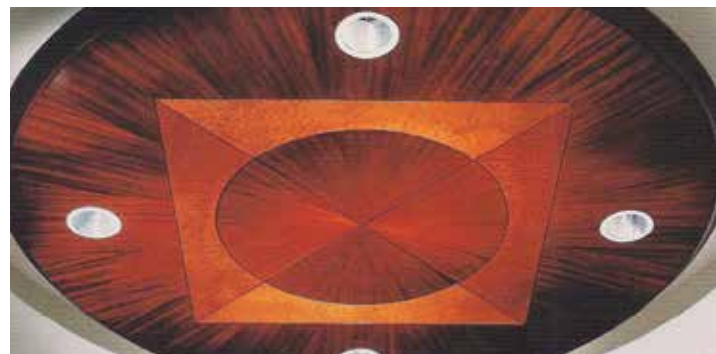
Description

The Star Red Snapper is made with an extruded aluminum outer cover for strength and injection molded core for locking. The Red Snapper holds weight in five of the six directions – down, up, right, left, and horizontal (straight out). The Star Red Snapper is the most versatile clip on the market. It has two very unique features. First, when pushed together using approximately 15 pounds of force, it takes 10 pounds to pull apart. The second feature is that the clip also holds perpendicular. Therefore, it can be used to hold horizontal panels with a safety cable. The Star Red Snapper when used in conjunction with a Star Zero is a good method for installing L-shaped soffits or columns. Using the two fasteners together makes for a strong and precise mounting system that is removable (see diagram) and allows for up to 1/16" of movement. The clip is exactly 2-1/4" wide and 3" tall to allow for easy marking and alignment. It also has a special alignment clip that allows for the accurate placement of panels. This simplifies the measuring process and saves substantial time. Custom strengths can be manufactured in volume.



Cost/Benefit Estimate

The Star Red Snapper is complex to manufacture and therefore more expensive than other options. The economic benefit is avoiding the cost of a panel or door that vibrates out of position and must be realigned in the field.



Product Advantages

- Holds weight in 5 of 6 directions
- Allows for up to 1/16" movement, with a spring action that pulls back to center
- Strong and invisible, yet still removable
- Easy to lay out at exactly 2-1/4" wide and 3" tall to allow for easy marking and alignment
- Working downloadable shop drawing & architectural specification are available at www.Starhanger.com/Technical

*Star Hanger recommends that all overhead panels be mechanically fastened and have a safety lanyard.

Strength Testing with 3/4", 45 lb. particle board

- **Tensile** Failure (Horizontal pull) = 150 lbs. / Working Strength, Pull from Furring = 25 lbs.
- **Shear** Failure (Vertical weight holding) = 150 lbs. / Working Strength, Weight holding = 25 lbs.

1 Pair Star Red Snappers & 4 Mounting Screws
SKU 400
\$2.59 ea.

1 Star Red Snapper Alignment Pin & 2 Mounting Screws
SKU 411
\$2.95 ea.



Star Red Snapper Clip Infographics

For the installation of factory-assembled soffits, columns, & wood panels.



1. Required tools.
2. Use a laser to carefully set up horizontal and vertical positions.
3. Following the laser line, shim & screw as required to level & square the furring carefully.
4. Mount Red Snappers as required, careful to keep them level.
5. Complete the installation of all furring.
6. Use contact adhesive to install 3/64" thick, pre-cut reveal strips (leave layout lines showing).
7. Place your alignment snapper into place and push down.
8. Carefully position panel over Snap Clip and push them firmly up enough to leave a location mark for the mounting screws.
9. Pre-drill the backside of the panel at each location marked & insert the 5mm, double-headed mounting screws.
10. Repeat steps 7 through 9 with the soffit.
11. Lift the pre-assembled column into place about 1/2" past the mark, then firmly push straight into position to lock in place.
12. Finished wall.



Star "S" Serpentine Clip

Application

The Star "S" Clip is an improved version of the traditional panel clip. In fact, it is so improved that it has been granted a patent by the US Patent Office. Our "S" Clip is stronger, easier to adjust, and has higher resistance to side movement than other heavy clips. It can be used on wood panels, MDF panels and architectural panels. Like most clips, it requires a 1/4" pocket to flush-mount a panel.

Description

The Star "S" Clip is made of extruded aluminum cut to length at 2-1/4" wide and when coupled together they are 3" tall. Features include a unique ogee profile that snaps into place letting the installer know that the location is correct and the panel is seated properly. There are 2 screw holes for adjustment and 2 screw holes for locking. The clips also have special ribbed backs that allow for fine adjustments in 1/32" increments which provides extra strength and security. The Star "S" Clip uses the same pocket cutout as a traditional panel clip. The Star "S" Clip also has a special Alignment Pin that lets you accurately mark the second clip location. This simplifies the installation process and saves substantial time.

Cost/Benefit Estimate

Traditional panel clips are time consuming to layout and install, taking about 6 minutes per pair. At \$50.00 per hour that is \$0.83 per minute or \$4.97 per clip. The Alignment Pin can cut that time in down to about 4 minutes per pair, saving \$1.66 or saves 2.5 times the cost of the clip. The hardware cost of \$0.64 per pair is similar to other premium clips. Please see [www.starhanger.com/Technical/Cost Estimates](http://www.starhanger.com/Technical/Cost%20Estimates) for details.



Product Advantages

- An patented improvement over the existing traditional panel clip
- Ribbed back in 1/32" increments provides better grip and allows for precise adjustments
- Has a unique snapping sound when the panel is clipped into place
- Easier lay out at precisely 2-1/4" wide x 3" tall
- Has 4 drilled mounting holes; 2 for adjustment & 2 for locking into place
- Star "S" Clip 12 ft. Available - SKU 430

Strength Testing with 3/4", 45 lb. particle board

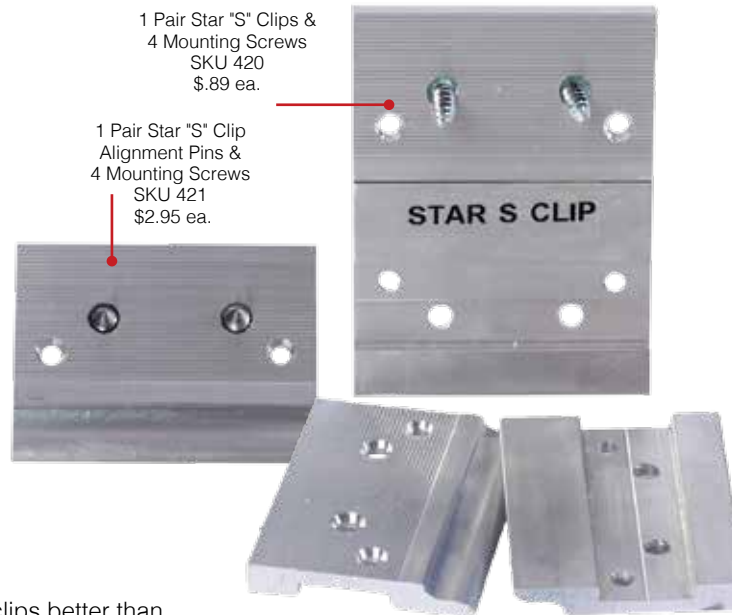
- **Tensile** Failure (Horizontal pull) = 150 lbs. / Working Strength, Pull from Furring = 25 lbs.
- **Shear** Failure (Vertical weight holding) = 150 lbs. / Working Strength, Weight holding = 25 lbs.

Endorsement

Boone Installation

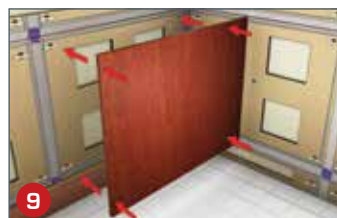
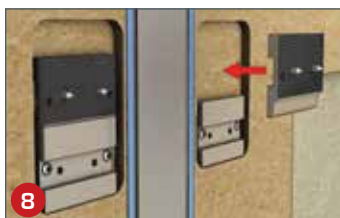
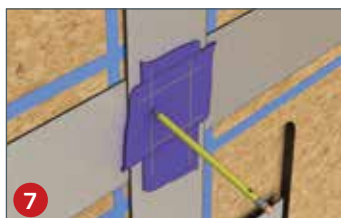
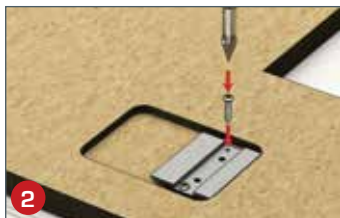
We used the "S" Clips on a 30 ft. high paneled wall. We definitely liked the clips better than other aluminum clips we've used. The 4 screw holes are helpful and they lock into place well.

- Billy Boone, Owner, Columbia SC



Star "S" Serpentine Panel Clip Infographics

For the installation of wood panels to wood furring.



1. Star "S" Clips use the same tools as a standard panel clips. Furring can be pre-engineered, field-verified, and CNC-cut or installed with linear furring strips in the field.
2. The panel clips are screwed firmly to the bottom of the clip pocket. There are 4 holes in each clip to allow for precise adjustments.
3. Full-size furring sections are pre-glued and shimmed into place.
4. All furring sections should be set level and square by an experienced installer.
5. Lay out the position of the reveals onsite adding 1" to the width of the reveals for the reveal layout chalk lines.
6. Contact adhesive is used to install 3/64" thick, pre-cut reveal strips. These also cover furring seams.
7. Place blue tape at the intersections of the reveals to mark the exact position of the panel using existing layout lines. This saves layout time on the job site.
8. The Star "S" Clip also has a version with alignment pins to mark the locations of the top clip.
9. If alignment pins are needed, the panel can be carefully positioned to mark for the second clips.
10. Pre-drill the back of the panel with a 1/16" drill bit at each location mark and insert supplied screws.
11. Lift the panel into place about 1/2" above marks, then push in and down firmly to lock the panels into their final position.
12. Finished room using Star "S" Clips.



Star Backsplash Clip

Application

The Star Backsplash Clip provides a mechanical lock set into a bed of caulking as required by AWI Premium Grade for the installation of a backsplash (11.4.7). The clip can also be used as a counter top support when used in full 12ft. lengths. Over time, cabinets and floors begin to settle, causing gaps between the countertop and the backsplash. These gaps are where the water damage starts. The Star Backsplash Clip is designed to solve many problems associated with the installation, maintenance and durability of a countertop's backsplash.

Description

The Star Backsplash Clip is made of extruded aluminum cut to length at 2-1/4" wide with one dilled hole. The clip provides an aluminum mechanical connection between the countertop and backsplash that is durable, permanent and corrosion resistant. The Backsplash Clip eliminates the need for hot melt glue or kickers that require a second trip to the room for caulking between the backsplash and the countertop. The Backsplash Clip leaves a nearly invisible joint line which eliminates the need for custom color caulk.

Cost/Benefit Estimate

The backsplash works well when machined in the shop with an end stop on a shaper. This adds about 10 minutes 8 ft. top, which is offset by the time saved in the field (plus the savings of the second chalking trip). Since shop hours generally cost more than installation hours, this product must be specified by the architect or owner. Please see [www.starhanger.com/Technical/Cost Estimates](http://www.starhanger.com/Technical/Cost%20Estimates) for details



Product Advantages

- Allows the installer to complete the installation of the backsplash and caulking in one trip
- The wedge design forces the backsplash to tighten against the countertop, therefore forcibly & mechanically closing the gap between the countertop & backsplash
- The back splash should be set in a bed of clear silicone caulking & spots of silicone 12" OC. on the wall
- Complies with AWI Premium Grade requirements for mechanical countertop fasteners
- When used in combination with a bed of silicone, the joint is virtually water proof
- Star Backsplash Clip 12ft. Length Available - 1 bar & 12 mounting screws, SKU 411
- Working downloadable shop drawing & architectural specification are available at www.Starhanger.com/Technical



Strength Testing with 3/4", 45 lb. particle board

- **Tensile** Failure (Horizontal pull) = 40 lbs. / Working Strength, Pull from Furring = 10 lbs.
- **Shear** Failure (Vertical weight holding) = 200 lbs. / Working Strength, Weight holding = 40 lbs.

Endorsement

Architectural Woodwork Installation

It took us about 3 installations to get up to full speed with varying job site conditions. Now we like the system just fine, it takes about the same as the assembled units. Delivery is easier with the flat packs.

- Ray Hey, Owner, Orlando FL.

Star Backsplash Clip Infographics



1. Tools required.
2. Cut and scribe the countertop to fit in the traditional way.
3. We recommend using the Star Connector Bolts for countertop joints.
4. Install the clips on top of cabinets or full length clips where needed for countertop supports. Be careful not to bend the clips.
5. Finished top ready for backsplash.
6. Place a wide bead of caulking (generally clear silicone) directly onto the edge of the backsplash and walls.
7. Use a hardwood block with square edges to hammer the backsplash into place.
8. At this point you should have a tight joint with caulk oozing out of the backsplash.
9. Liberally spray a fine mist of mineral spirits onto the backsplash and countertop.
10. Use a plastic caulking tool to remove all caulk from the surface. The mineral spirits will stop the silicone from sticking to the wet portion of the countertop and backsplash.
11. Backsplash ends should leave no gaps between the wall and the backsplash.
12. Finished room using Star Backsplash Clips.



Star 1-3/8" Hanger

Application

The Star Hanger quickly and easily fastens any type of panels directly to sheetrock. The Star Hanger provides an economical new option for manufacturers, installers, owners and architects. The patented Star Hanger allows wood paneling to be installed at roughly half the cost of full furring premium systems. Institutions, schools, hospitals and universities have been delighted to find they could now budget real wood panels.

Description

The Star Hanger is a heavy duty Nylon 66, fiberglass-reinforced injection molded fastener. Once inserted into a 1-3/8" hole in the drywall, the locking arms unfold and then pull forward (by the locking screws) to lock the fastener securely in place. The substantial cost savings are found by eliminating the sub-furring layer required for premium grade panel work and directly mounting to the sheetrock. There is a compromise in precision of the fit. This can be mitigated with some small design modifications found on our website www.starhanger.com/Technical/Drawing. The Star Hanger was originally designed for use with wooden panels but has since been used for moldings, acoustical panels, fabric panels, mirrors, chair rails, artwork and signage. The Star Hangers have been available for over two years. There have been hundreds of thousands sold.

Cost/Benefit Estimate

The Star Hanger allows direct panel application at about one half the cost of a full furring system. This system removes most engineering and fabrication hours by transferring the layout of panel sizes to the field, saving substantial installation hours. The hardware cost is about \$0.38 per square foot. Please see [www.starhanger.com/Technical/Cost Estimates](http://www.starhanger.com/Technical/Cost%20Estimates) for details.



Product Advantages

Star Hanger | 3/16" with Screws

- Allows panels to be mounted directly flush to the wall
- Accurate installation when used with Star Alignment Pins
- Panels can be easily removed any time after installation
- Allows for 1/16" expansion in all directions
- The locking system removes the risk of a panel falling due to adhesive failure
- Working downloadable shop drawing & architectural specification are available

Strength Testing with 5/8" sheetrock

- **Tensile** Failure (Horizontal pull) = 160 lbs. / Working Strength, Pull from Furring = 25 lbs.
- **Shear** Failure (Vertical weight holding) = 330 lbs. / Working Strength, Weight holding = 25 lbs.

Endorsement

Wooden Valley Carpentry Inc. Jon Rickert, Winthrop Harbor, IL

These Star Hangers are awesome. Great product, saved us a lot of time on install. Low profile keep panels tight to the walls. My guys loved working with them. Makes our job a breeze installing panels. We also used them on curved walls as well with stainless strips horizontal to panels. Panels fit tight to the panels. We are redoing our show room and I need to order some more. We are doing wall panels. We have recommended your product to other shops.



Double Headed 3/16" T-Slot Screws
SKU 240
100 for \$9.95



1 Star Hanger & 1 Mounting Screw
SKU 200
\$1.95 ea.

Star Hanger 1/32" Shims
SKU 210
50 for \$9.95



Star Hanger Alignment Pins
SKU 211
25 for \$4.95



Star 1-3/8" Hanger Infographics

Wood panels mount directly to sheetrock with painted reveal strips.



1



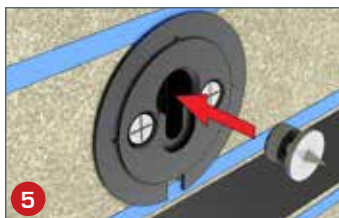
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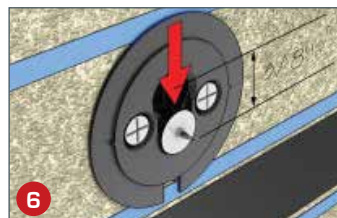
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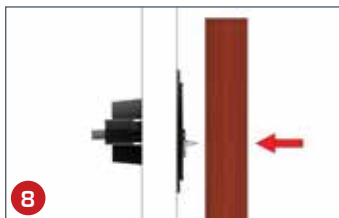
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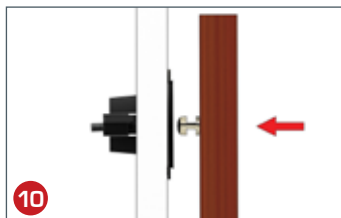
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8



9



10



11



12

1. Star Hanger only requires commonly-available tools for installation.
2. After laying out the panel position, drill a 1-3/8" hole through the sheetrock near the corners.
3. Apply light pressure from a dead-blow hammer to set the hangers in place.
4. Lock the hanger arms behind the sheetrock with a drill set on minimum torque.
5. Use the custom alignment pins provided to make field placement of the panels quick and accurate.
6. The pins seat themselves in the exact position where the double-headed panel screws will be located.
7. Carefully position the panels over the alignment pins to mark the location of the mounting screws.
8. Consider purchasing 1/32" shims from Star Hanger to help compensate for dips in the gypsum board.
9. Pre-drill and then insert the custom-made, European-style, 5mm double-headed mounting screws.
10. Lift the panels into place about 3/8" higher than their final position.
11. Pull the panels down firmly. As they are pulled down, they will automatically be pulled back hard against the wall.
12. Finished room using the Star 1-3/8" Hanger.



Star Solid Surface Epoxy Mount

Application

The Star Solid Surface Epoxy Mount is designed for installing materials too brittle to hold a screw. Some examples; thin panels, Corian, MF, sculpted panels, acrylics, light metal panels, glass and solid surfaces. The Epoxy Mount works with virtually any material that will accept an epoxy. The perforated, mild-steel mounting plate can be epoxy-mounted to almost any surface with high strength and predictability. The small holes provide mechanical adhesion in addition to the epoxy surface bond.

Description

The Epoxy Mount is made from a steel pin welded to a steel plate and coated with zinc. The Epoxy Mount is used in combination with the Star Hanger and attached to the panel with a 3M Scotch-Weld 110 Epoxy. The Star Hanger alignment pin can be used to mark the location of the mount on the panel.

Cost/Benefit Estimate

Mounting Solid Surface to a wall and kicking off to hold until the glue sets is time consuming and frustrating work. It takes approximately 6 hours per 30" x 96" section (not including the seams). With practice and careful attention to the steps about 2 of those hours can be saved. Please see [www.starhanger.com/Technical/Cost Estimates](http://www.starhanger.com/Technical/Cost%20Estimates) for details



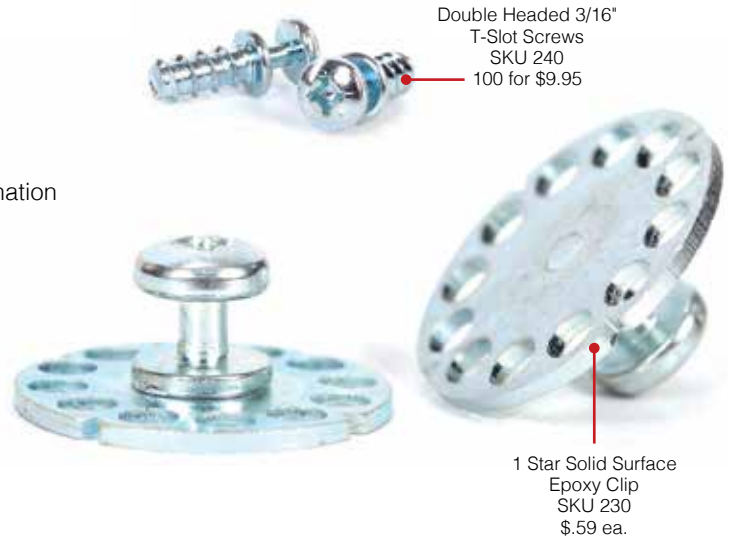
Product Advantages

Star Hanger | with Adhesive Mounting Plate

- Designed to directly hang solid surfaces such as acrylic, Corian, and glass flush with the wall
- Allows the installer to rely not only on traditional silicone, but a combination of silicone and epoxy mounts
- Quicker installation, Corian panels take approximately 4 hours per full-size sheet 30" x 96"
- Working downloadable shop drawing & architectural specifications are available at www.Starhanger.com/Technical

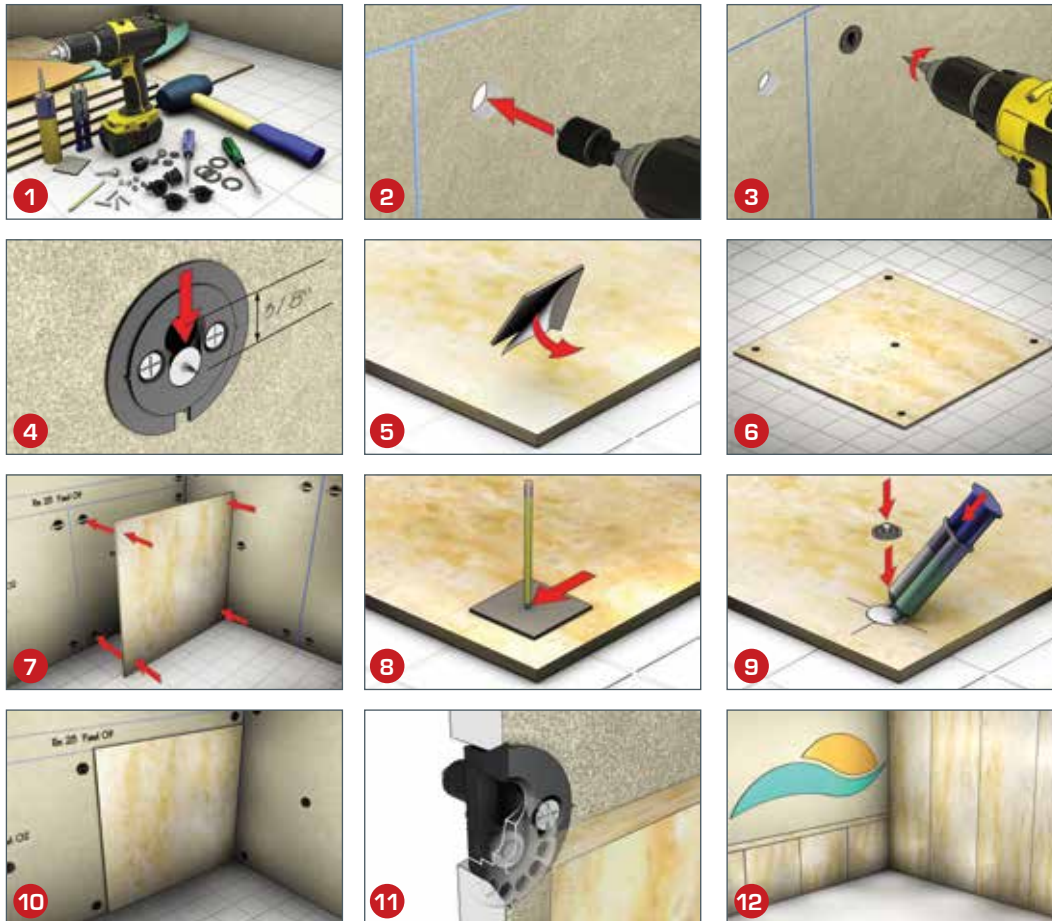
Strength Testing with 1/2" solid surface

- **Tensile** Failure (Horizontal pull) = 150 lbs. / Working Strength, Pull from Furring = 25 lbs.
- **Shear** Failure (Vertical weight holding) = 180 lbs. / Working Strength, Weight holding = 25 lbs.



Star Solid Surface Epoxy Mount Infographics

Mounting solid surface panels directly to sheetrock with tight seams - lay-out with caulk lines in field



1. Star Epoxy Mount requires limited tools for field installation. However, seamless joints should be shop prepared with a lock joint for an improved flush.
2. Star Hangers are used in conjunction with Epoxy Mounts when mounting panels directly to sheetrock. A 1-3/8" hole saw is used to drill the holes 24" apart.
3. Star Hangers are used with sheetrock, and the Star Lock is used with furring.
4. Place your alignment pin into the Star Hanger and push the pin down into place.
5. Solid surface is too hard to indent, so use 1/8", tape-backed, foam board at each hanger location.
6. Tape-backed foam is used to allow accurate marks for mounting screen locations.
7. The solid-surface panel can now be marked by pressing the panels against the alignment pins.
8. The pin indentation is then transferred onto the panel through the foam.
9. Use a high-quality brand of epoxy to glue the Epoxy Mount to the surface (the epoxy mount has 4 small notches to align with the X).
10. The panels are ready to hang after about 60 minutes.
11. Rendering of Star Epoxy Mount shown with an applied stainless steel reveal.
12. The finished wall can be set both with and without reveals.



Star J Rails

Application

The Star J Rail works well with freestanding ADA style counter supports and a variety of modern floating cabinets. The counter supports can be sent to the job KD and quickly installed on-site. Virtually any wall supported cantilevered design can be securely wall mounted with the Star J Rail.

Description

The Star J Rail is made of extruded aluminum channel and designed to provide a quick and reliable method to support a variety of wall hung designs. The J Rails can be cut to length on the job site with a miter box and then screwed directly to steel studs. The channel has a $\frac{3}{4}$ " barbed slot that holds $\frac{3}{4}$ " plywood or a variety of custom designed plywood gusset plates.

Cost/Benefit Estimate

There are many variations of the design for ADA Units, a reasonable average estimate for cutting and assembly is 8 hours per 6 ft. unit. The J Rail with Star Zeros can be shipped to the job flat packed. This system removes approximately 3 hours of fabrication time, while leaving the install about the same. The hardware cost per 6 ft. unit is about \$20.00. Please see [www.starhanger.com/Technical/Cost Estimates](http://www.starhanger.com/Technical/Cost%20Estimates) for details.



Product Advantages

- Installs quickly and can be field cut with a miter saw
- Stronger and more durable than other wood cleat style supports
- Installs directly to the steel studs with hardened self-drilling 2" screws
- A variety of designs are possible because the woodworker controls the shape of the gusset plates
- Working downloadable shop drawing & architectural specification are available at www.Starhanger.com/Technical



Strength Testing per screw into metal stud

- **Tensile** Failure (vertical weight holding) = 150 lbs. / Working Load (weight holding) = 30 lbs.
- **Shear** Failure (Horizontal pull out) = 190 lbs. / Working Load (sliding on the track) = 35 lbs.

Endorsement

Architectural Woodwork Installation

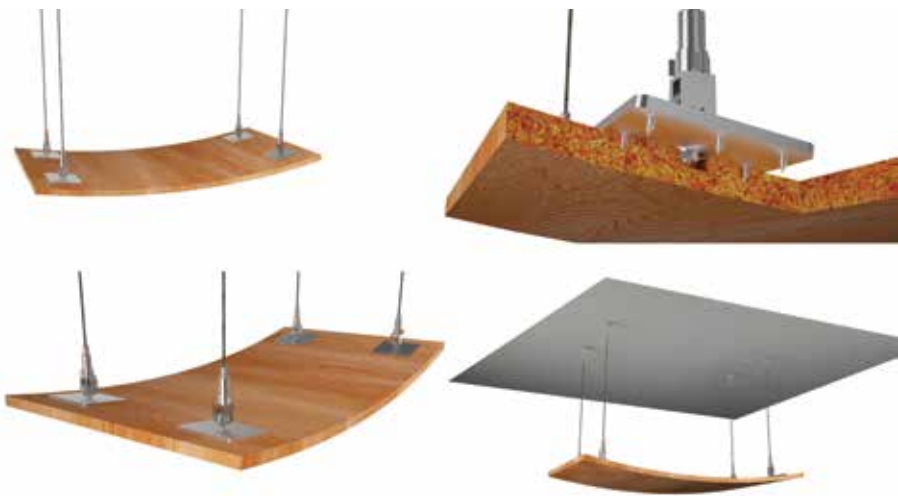
It took us about 3 installations to get up to speed with varying job site conditions. Now we like the system just fine, it takes about the same as the assembled units. Delivery is a little easier with the flat packs.

- Ray Hey, Owner, Orlando FL

Star J Rail Infographics



1. Required tools.
2. Determine the low point of the floor and mark the top & bottom channel locations.
3. Install both channels with self-drilling heavy-duty screws directly to steel studs.
4. Option "A" is to scribe the cantilevered support as the first step.
5. Lock each gusset plate into position and secure with the angle brackets.
6. Screw the aprons into place.
7. Leave the last apron off until the wall cantilevered support is scribed.
8. Install the front panels using factory spacing (Star Glides work well).
9. Install all panels using factory spacing. You may need custom spacing on the last panel. Option "B".
10. Option "B" is to scribe the gusset plates to fit the wall and the pre-cut parts.
11. The scribe removal is determined by $A - B = \text{Scribe Width}$.
12. Finished ADA Unit.



Star Cable & Connector Hardware

Application

The Star Cable & Connector Hardware provides beautiful stainless steel hardware from the ceiling structure all the way down to the panel. All of the components have been tested and certified to hold there rated weights.

Description

Star Hanger Cable & Connector Hardware is manufacture by well-known ocean sailing company and theatrical stage company. Both provide hardware with a nautical themed design, the hardware looks strong because it is strong. Star hanged makes the bottom plates for direct attachment for the cable to the panel.

There are three basic sections that need to be selected:

Ceiling Structural Connection: the choices are a Pad Eye, Beam Clamp or Eye Bolt, all Stainless Steel.

Cable Fork Connection & Cable: the stainless steel swage mounted fork connectors come attached to the stainless Steel cable in 1/6" or 1/8" cable sizes, with 10 ft. or 20 ft. of cable.

Cable Connection to Panel: Currently we offer two sizes the adjustable cable conectors, 1/6" or 1/8". Both sizes work with the 4" x 4"x 1/4" pre-drill aluminum plate with a 1/4" eye bolt taped and bolted. The plates are screwed with eight # 8 wood screws to provide the final connection to the hanging panel.

Cost/Benefit Estimate

The Star Cable & Connector Hardware are vendor manufactured with a minimal markup. The bottom plate is simple to manufacture. Most of the saving comes from having well matched components from a single source.



Product Advantages

- All of the components for the 1/16" and 1/8" are well matched for strength with a nautical design
- Allows the installer to mount the high Ceiling Structural Connection with the cable, eliminating future high work
- All of the visible components are made of polished stainless steel with a nice nautical design.

Strength Testing

- **1/16" Cable & Connectors Tensile** Failure (Horizontal pull) = 250 lbs. / Working Strength, pull = 45 lbs.
- **1/8" Cable & Connectors Tensile** Failure (Horizontal pull) = 1250 lbs. / Working Strength, pull = 150 lbs.

Star Cable & Connector Selections

Ceiling Structural Connections

- 1/4" x 2" Grade 316, Stainless Steel Shoulder Eye bolt
- 1/4" Grade 304, Stainless Steel Pad Eye Diamond
- 1/4" "C" I Beam Clamp



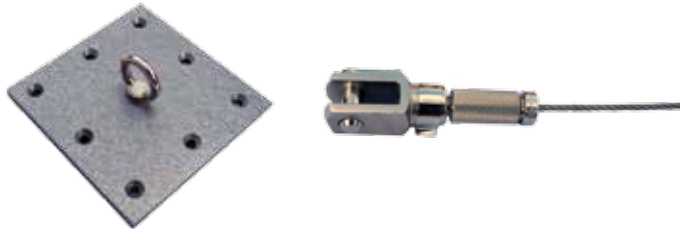
High Side Cable Connector

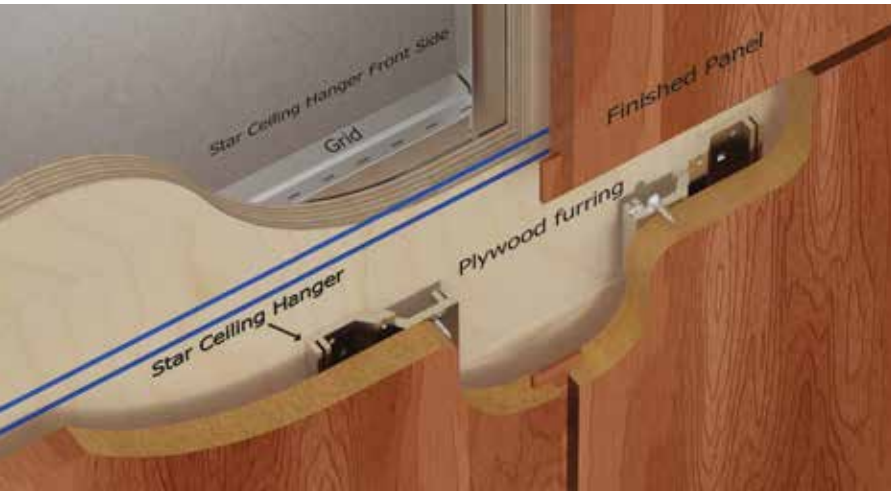
- 1/8" Grade 316, Stainless Steel Swage Fork & 10' of 1/16" Stainless Steel Cable



Adjustable Cable Connector & Panel Mount

- 1/8" Side Exit Adjustable Cable Gripper
- 4"x4" Aluminum Mounting Plate





Star Ceiling Panel Clip

Application

Star Ceiling Clip is designed to hang ceiling panels, and it is one the first clips specifically designed for horizontal application. This fastener allows panels to be lifted and dropped 1/4" into place, securely hanging panels from any wood furring that will hold screws. Once in place, the panels can be removed, but only with coordinated lifting on all edges (clips have 1/16" clearance).

Star Ceiling Clip is a Z-Hook shape with a 1/8" overlapping edge and end stops that prevents from clip slipping off the other clip. The clips also have 4 holes for secure mounting, and they are rated to hold up to 25 lbs.

Description

The Star Ceiling Clip is designed to hang architectural panels directly to a pre-engineered furring system with no fear of dislodging. It also has the unique advantage in that the panels, if lifted carefully and precisely, can be removed for various purposes. The clips have a precision of +/- 1/32" on reveals while still allowing for a certain degree of material expansion.



Product Advantages

- Unique fastener that directly clips panels to the ceiling while remaining removable
- Vibration resistant mechanical lock holds the panels firmly in place, while staying aligned
- As always, Star Hanger recommends using safety lanyards for all overhead panels
- Star Ceiling Panel Clip 12ft. Available - 1 bar & 12 mounting screws, SKU 511

Strength Testing

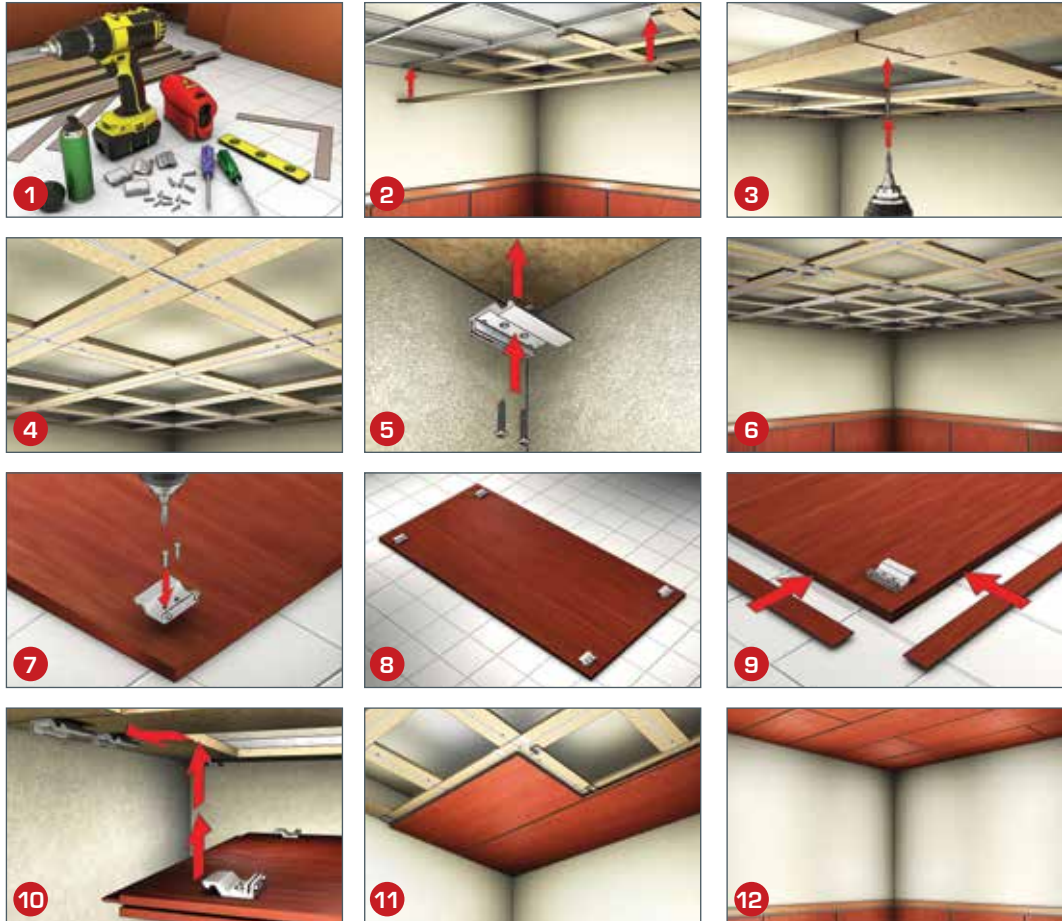
- **Tensile** Failure (Vertical weight holding) = 150 lbs. / Working Load (weight holding) = 25 lbs.
- **Shear** Failure (Horizontal pull side pull) = 100 lbs. / Working Load = 10 lbs.



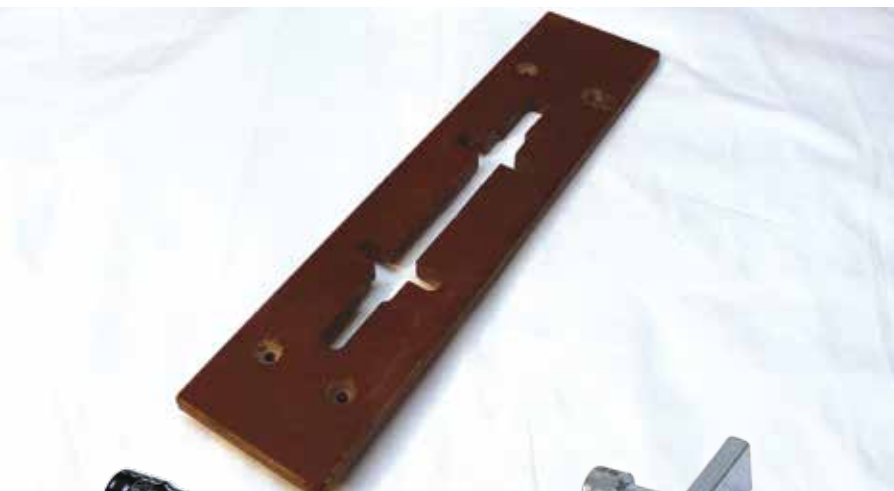
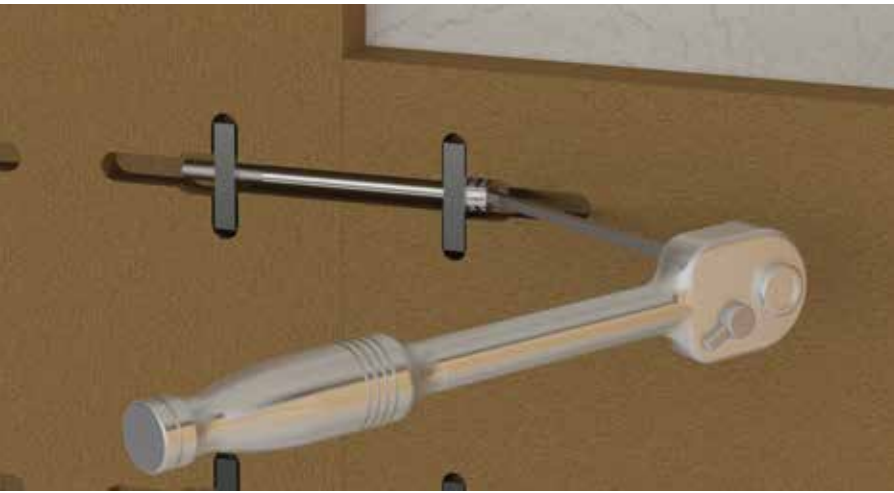
1 Pair Star Ceiling Panel Clips
& 4 Mounting Screws
SKU 510
\$1.59 ea.

Star Ceiling Panel Clip Infographics

Wood ceiling panels mounted directly to T-Grid with 1/32" metallic reveal strips.



1. Required tools.
2. Select your support system and sizes. The clip works well with a variety of sizes.
3. Securely install the wood ceiling furring. Lap over any joints in the grid with full-length furring strips.
4. The system shown is for spline reveals, so the panel layout can be set directly on the panel lines.
5. Use 2" gauge blocks to install the hanger a specific distance from each panel's corner.
6. Four clips are recommended for each 24" section of panels.
7. Pre-drill the back of the panel at each location mark and insert 4 #10 wood screws.
8. Carefully position your panel clip in the corners of each panel and every 24" in length.
9. Install the reveal splines with a loose fit so the panels can be adjusted.
10. Lift, slide and drop the panel to lock into position.
11. Check for alignment. Slight side-to-side adjustments can be made by adjusting the clip.
12. Finished ceiling panels.



Star Connector Bolts

Application

Every installer hates busting their knuckles with the old style countertop bolt. Now you have an affordable alternative.

The old countertop connector has a 7/16" hex head designed to be used with a small wrench. The wrench has to be reset approximately five times per revolution of the bolt. It takes about 10 minutes to lock together a countertop, while working upside down on your back, busting your knuckles. Our new countertop connector is simple, inexpensive and strong and requires only common tools with no learning curve.

Description

The Star Countertop Connector is a custom made 1/4" x 3-1/2" x 3/16" hex head coupled with typical rectangular steel washers. Installers find that a 3/16" Ball End Hex Wrench used with a battery operated drill works very well. The template is 1/8" oversized to be used with a 3/8" Collet and a 1/4" Router Bit.

Product Advantages

- Used with a drill, the Star Connector Bolt is about 10 times faster than the hex bolt
- The cost is about the same as the old style hex bolts
- Ball End Hex Wrench - 3/16" drivers are commonly available from Star Hanger and many others
- Stronger than traditional bolts because they are heat treated N-5
- Available with Laser Cut Aluminum Template

Cost/Benefit Estimate

The Star Countertop Connector is custom manufactured for Star Hanger. Generally, there are 4 countertop bolts per 24" countertop and they take about 10 minutes per countertop seam to install. At \$50.00 per hour or \$ 0.83 per minute, the per seam installation cost is \$ 8.30. Our countertop connector takes less than half of the time, saving \$ 4.15 per seam.

Please see www.starhanger.com/Technical/CostEstimates for details.

Strength Testing with 3/4", 45lb. particle board

- **Tensile** Failure (Horizontal pull) = 600 lbs.
- Working Strength (pull through particle board) = 100 lbs.

Star 5mm Drill Template

When the Star 1-1/4" Green Glide is properly engineered and pre-cut the field the Double Headed Screws can be fit to match the Drill Template. At 2" down & 2" to the side, the mounting screws can be accurately pre-drilled in the plant or field. The panels are shipped without screws, which can be installed in seconds as the panels are mounted.

1 Guide, Drill, Stops, 2 Screws | SKU 910 | \$39.00



Green Glide Router Template

Generally, the Star 1-1/4" Green Glide is designed to be cut out with a CNC. We make the Two Router Template because installers do run into the need to make field modifications and install Glide & Triangles on-site. The Star 1-1/4" Green Glide Router Template cuts a Stadium Shape 5/8" wide x 1/14" long.

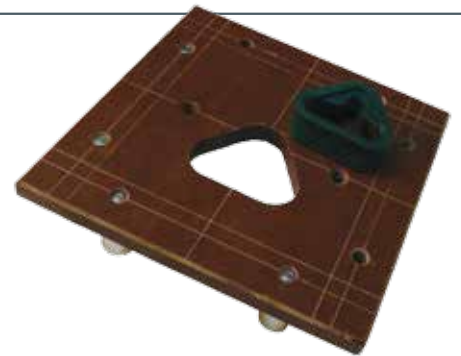
1 Guide, R. Bit, Stops, 2 Screws | SKU 911 | \$39.00



Green Glide Triangle Template

The Star 1-1/4" Green Triangle Router Template cuts a Triangular Shape 1-1/2"W x 1/14"L.

1 Guide, R.Bit, Stops, 2 Screws | SKU 912 | \$39.00



Star Panel Adjuster

The Panel Adjuster has a specially designed end made to fit directly on the edge of the panels. Panels can then be tapped and locked into place without even touching the edgebanded corner. Made of Natural HD-PE.

1 Adjuster | SKU 920 | \$29.00



Star "T" Track Hanger

The Star Ceiling Clip is designed to hang architectural panels directly to a pre-engineered "T" Track Gird System with no fear of dislodging. It also has the unique advantage in that the panels, if lifted carefully and precisely, can be removed for various purposes. The clips have a precision of +/- 1/16" on reveals while still allowing for a certain degree of material expansion.

1 Star "T" Track Clip & 2 Mounting Screws | SKU 500 | \$3.59 ea.





2015 Codes & Pricing

	SKU	# Per Pack	Price Per Pack	# of Bulk Packs	Bulk Price Per Pack
Wood Panels to Wood Furring, Insert Fasteners					
Star 1-5/8" Green Glide	300	1	\$0.59	500	\$0.50
Star Green Glide Triangle	310	1	\$0.59	500	\$0.50
Star Green Glide Alignment Pin	311	10	\$15.95	N/A	N/A
Star Blue Zero	320	1	\$0.59	500	\$0.50
Star Zero Steel Alignment Pin	330	1	\$2.59	N/A	N/A
Star 1" Lock	340	1	\$0.59	500	\$0.50
Double Headed 5/16" T-Slot Screw	351	100	\$9.95	50	\$8.46
Wood Panels to Wood Furring, Surface Mounted Fasteners					
Star Red Snapper (Pair)	400	1	\$2.59	N/A	N/A
Star Red Snapper Alignment Pins	411	1	\$2.95	N/A	N/A
Star "S" Serpentine Clip (Pair)	420	1	\$0.80	500	\$0.64
Star "S" Serpentine Clip, Alignment Pins	421	1	\$2.95	N/A	N/A
Star "S" Serpentine Clip, 12 Ft.	430	1	\$26.00	N/A	N/A
Wood Panels Directly to Drywall					
Star 1-3/8" Hanger	200	1	\$1.95	500	\$1.66
Star Hanger Shims	210	50	\$9.95	500	\$8.46
Star Hanger Alignment Pins	211	25	\$4.95	N/A	N/A
Star Solid Surface Epoxy Clip	230	1	\$0.59	500	\$0.50
Double Headed 3/16" T-Slot Screw	240	100	\$9.95	50	\$7.96
Star Backsplash Clip	410	1	\$0.79	N/A	N/A
Star Backsplash Clip, 12 Ft. Lengths	411	1	\$29.00	50	\$24.65
Star Cantilevered Support Rails, 12 Ft.	450	1	\$38.00	50	\$32.30
Ceiling Panel Fasteners					
Star "T" Track Hanger	500	1	\$3.59	N/A	N/A
Star Ceiling Panel Clip (Pair)	510	1	\$1.59	N/A	N/A
Star Ceiling Panel Clip, 12 Ft. Bar	511	1	\$32.00	50	\$27.20
Tools & Accessories					
Star Hanger Systems, Installation Kit	900	1	\$198.00	N/A	N/A
Green Glide Drill Template	910	1	\$39.00	N/A	N/A
Green Glide Router Template	911	1	\$39.00	N/A	N/A
Green Glide Triangle Template	912	1	\$39.00	N/A	N/A
Star Panel Adjuster	920	1	\$29.00	N/A	N/A
Star Connector Bolts	361	10	\$9.95	N/A	N/A



Star Hanger Systems Installation Kit - \$198

This Installation Kit provides working samples of all in-production fasteners. Includes 2015 Catalog, all install instructions and current price list.

	Included	SKU
Star 1-3/8" Hanger	10 Hangers & 20 Locking Screws	200
Star Hanger Shims	10 Shims	210
Star Hanger Alignment Pins	4 Pins	211
Star Solid Surface Epoxy Clip	10 Clips	230
Star 1" Lock	1 Lock & 1 Mounting Screw	340
Star Green Glide	15 Green Glides & 10 Mounting Screws	300
Star Green Glide Alignment Pin	4 Pins	311
Star Blue Zero	15 Blue Zeros & 10 Mounting Screws	320
Star Zero Steel Alignment Pin	2 Pins	330
Star Red Snapper	10 Pairs & 40 Mounting Screws	400
Star Red Snapper Alignment Pins	2 Pairs & 8 Mounting Screws	411
Star Backsplash Clip	6 Clips & 6 Mounting Screws	420
Star "S" Serpentine Clip	10 Pairs & 40 Mounting Screws	420
Star "S" Serpentine Alignment Clip	1 Clip & 4 Mounting Screws	421
Star Ceiling Panel Clip	6 Pairs & 24 Mounting Screws	510

Tools & Accessories Not Available: Kobalt Carrying Case, Self Centering Drill Bit, 1-3/8" Milwaukee Hole Saw, 5MM Wood Drill Bit & Stop, 3/8" Socket Wrench and 3/16" Allen Wrench for 3/8" Socket

Star Hanger Systems Sample Pack - FREE

Includes 2015 Catalog and current price list.

	Included	SKU
Star 1-3/8" Hanger	1 Hanger & Locking Screws	200
Star Hanger Shim	1 Shim	210
Star Solid Surface Epoxy Clip	1 Clip	230
Star Green Glide	1 Green Glide & Mounting Screw	300
Star Blue Zero 5/25	1 Zero & Mounting Screw	320
Star Red Snapper	1 Pair & 4 Mounting Screws	400
Star Backsplash Clip	1 Clip & Mounting Screw	420
Star "S" Serpentine Clip	1 Pair & Mounting Screws	420
Star Ceiling Panel Clip	1 Pair & Mounting Screws	510
Star Cantilevered Support Rail 6"	1 Pair & 4 Mounting Screws	450



We value your support and feedback. Contact us with any questions or concerns you might have.

Sales & Marketing: Danielle Edmond | 803.250.9608 | marketing@starhanger.com
Technical: Charles Porter | 803.730.4463 | cporter@starhanger.com



1700 Syrup Mill Road | Blythewood SC, 29016 | 803.250.9608
starhanger.com

