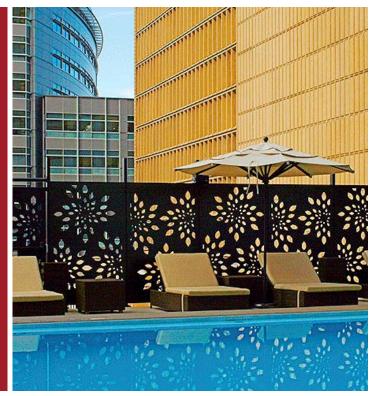
# Parasoleil

# Screen Design Guide







# About Parasoleil

# Precision cut, hand-finished artisan architectural panels

Parasoleil designs and manufactures an exceptional line of laser-cut architectural metal panels with unique patterns that offer a profoundly artistic aesthetic to any space. Engineered to withstand the elements and manufactured in the United States, these decorative panels provide a functional and durable design that is warrantied to last. Parasoleil's project guidance, proprietary hardware and installation system, production dependability, and beautiful powder coats ensure your project's vision comes to life in a memorable and lasting way.

### Contact us to learn more

6510 W. 91st Avenue, Suite 100 Westminster, CO 80031 Phone | (303) 327-9997 Email | hello@parasoleil.com

parasoleil.com

f /ParasoleilUSA

/Parasoleil

/ParasoleilUSA



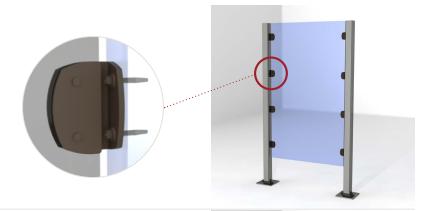
# Assembly & System Options

### **INSET MOUNT**

Parasoleil Bracket Inset (PBI) Series

### Best Use:

Suspend panels between posts

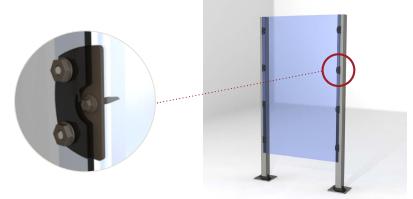


### **FLAT MOUNT**

Parasoleil Flat (PFL) Series

### **Best Use:**

Face mount with maximum field tolerance

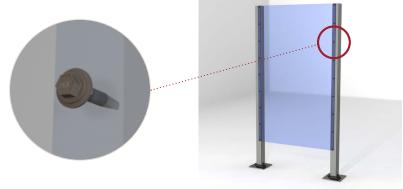


### **DIRECT MOUNT**

Parasoleil Direct Hex (PDH) Series

### Best Use:

Face mount standard screws

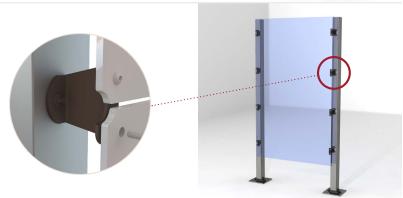


### **STAND OFF**

Parasoleil Stand Off (PSO) Series

### Best Use:

Stand off mount with maximum field tolerance



# **Post Options**

### **ECLIPSE SERIES™**

Engineered for rooftops and high wind conditions with bolt-through baseplates and welded connections.

AVAILABLE IN ALUMINUM OR STEEL





### **EQUINOX SERIES™**

Ground-level applications with low or no load requirements. Ideal for landscape and freestanding conditions.

AVAILABLE IN ALUMINUM OR STEEL



### **CUSTOM ENGINEERED**

For unique project requirements, extreme weather conditions or/and challenging fastening scenarios.



### **POST FINISHES**

All posts are prepped with a zinc primer and UV stable exterior grade powdercoat finish.

SELECT FROM PARASOLEIL FRAME AND HARDWARE FINISHES



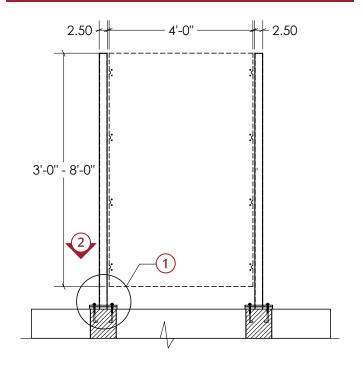






# Screen Steel Post Assembly Details

# **Screen Front View** Scale 1:24



### STEEL POST SPECIFICATIONS

- 2" x 2" x 3/16" A36 steel
- Zinc primer for maximum adhesion and corrosion resistance

### STEEL BOLTING PLATE SPECIFICATIONS

- 8" x 8" x 3/16" A36 steel plate with 1/2" Diameter anchor bolt holes
- Continuous weld to post

### CONCRETE FOOTING ASSEMBLY SPECIFICATIONS

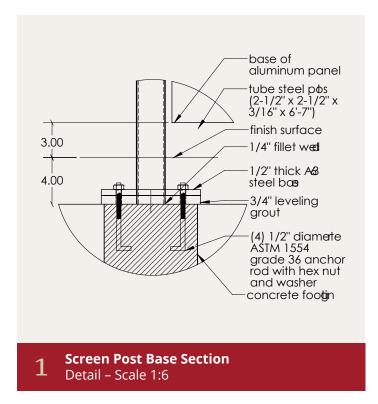
- QTY (4): 3/8" steel anchor bolts with 10" minimum embed
- 12" Diameter x 30" Deep minimum concrete footing.

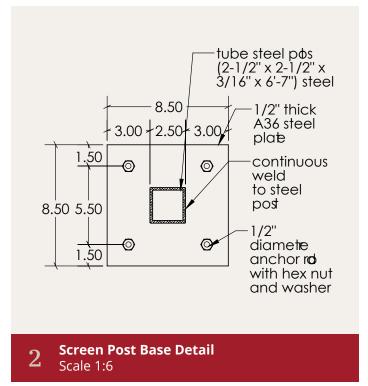
### **ENGINEERING SPECIFICATIONS**

Maxmium height: 8'-0"

NOTE: posts, foundation, and anchor bolts provided by other suppliers

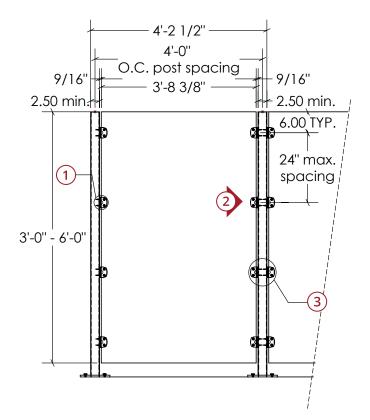
Contact manufacturer for high wind conditions and specifications.





# **PBI Series Details**

# **Bracket Inset System | Front View** Scale 1:24



### **ALUMINUM PANEL SPECIFICATIONS**

- Aluminum Alloy: 5052-H32 Series
- Fire Rating: Non Combustible
- Tensile Yield Strength: 28,000 PSI
- Shear Strength: 20,000 PSI
- Melting Point: 1,200°F
- Solid panel weight\*: 1/16" thick 0.9 lb/sf

1/8" thick – 1.8 lbs/sf 3/16" thick – 2.6 lb/sf 1/4" thick – 3.5 lbs/sf

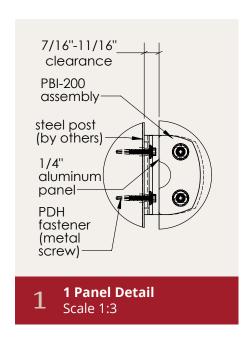
### PARASOLEIL BRACKET INSET (PBI) SPECIFICATIONS

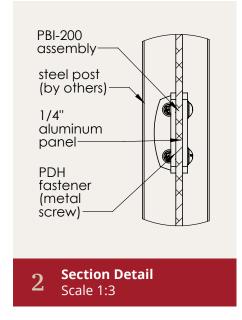
- 3/16" A36 steel plate
- Stainless steel flush mount ½" -20 x ½" long studs
- Stainless steel barrel nuts with EPDM washers
- Graftone AAMA 2604 compliant powder coat hardware finish
- Zinc primer for maximum adhesion and corrosion resistance

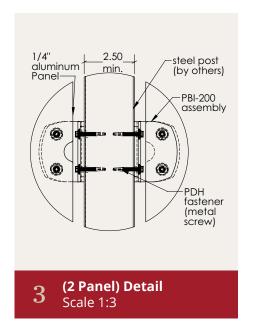
# PARASOLEIL DIRECT HEX (PDH) SELF DRILLING SCREW SPECIFICATIONS

- #12-24 x 1-1/2" with #3 drill tip
- 5/16" hex head and driver included
- Carbon steel with dual corrosion resistant coatings
- Bonded neoprene washer
- Salt spray resistance: 1,000 hours per ASTM B117
- Pull-out value: 2,100 lbs when installed in 3/16" steel

NOTE: posts, foundation, and anchor bolts provided by other suppliers







# PBI Series Installation Guidance

### PARTS LISTING:



**PBL-200** Base



**PDH SCREWS**For installing on metal structures

- OR -



**PBL-200**Mounting Plate



PDW SCREWS

For installing on wood structures



PDS SCREWS
Bracket anchor



NEOPRENE WASHERS



**BARREL NUTS** 

### **TOOLS NEEDED**

- Measuring tape
- Marking pencil
- Conventional drill with 7/16" driver
- Phillips screwdriver

### **PREPARATION**

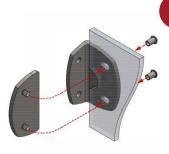
Confirm support post spacing and configuration consistency with panel sizes.

### **FIELD NOTES**

Contact Parasoleil for installation questions especially for high wind load conditions. See Parasoleil's warranty document for coverage. Field drilling Parasoleil panels is allowed under warranty, however field cutting panels is not recommended and will void manufacturer's warranty.

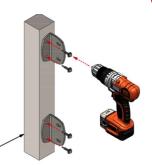
If an alternate panel size is needed, contact Parasoleil for assistance.

### Figure 1: Typical PBI Hardware Installation



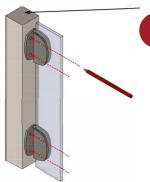
1

Attach PBI-200 installation hardware to panels at factory cut fastener holes using Barrel nuts and washers provided. NOTE: Support post provided by other suppliers.



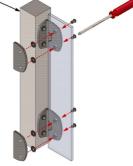
3

Remove hardware bases from panel assembly and mount at previouslymarked locations on post using PD-Series anchors with 5/16" driver.



2

Position the panel assembly on the support posts and confirm alignment. Mark fastenening points on post with marking pencil.



4

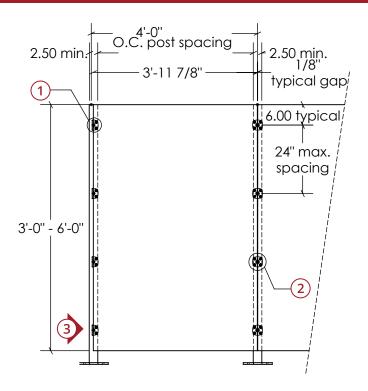
Re-attach panel and mounting plate assembly to installed hardware bases as shown.

Confirm alignments and tighten barrel nuts with screwdriver.

Repeat steps 1-4 for remaining panels.

# PFL Series Details

# Flat Mount System | Front View Scale 1:24



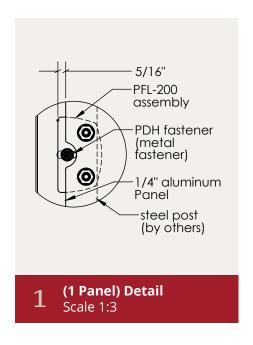
### **PARASOLEIL FLAT (PFL) SPECIFICATIONS**

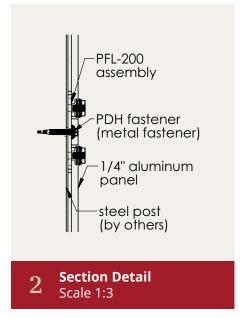
- 1/8" A36 steel plate
- Stainless steel flat mount ¼" -20 x ½" long studs
- 70 in/lb max nut tightening torque
- Stainless steel locking flange hex nuts with FPDM washer
- Stainless steel center anchor with bonded neoprene washer

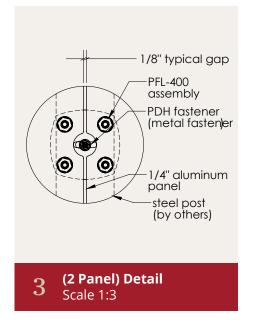
# PARASOLEIL DIRECT HEX (PDH) SELF DRILLING SCREW SPECIFICATIONS

- #12-24 x 1-1/2" with #3 drill tip
- 5/16" hex head and driver included
- Carbon steel with dual corrosion resistant coatings
- Bonded neoprene washer
- Salt spray resistance: 1,000 hours per ASTM B117
- Pull-out value: 2,100 lbs when installed in 3/16" steel

NOTE: posts, foundation, and anchor bolts provided by other suppliers







# PFL Series Installation Guidance

### **PARTS LISTING:**



**PFL-200**Perimeter of panel array



**PDH SCREWS**For installing on

metal structures

- OR -



**PFL-400** Interior at panel seams



PDW SCREWS

For installing on wood structures



PDS SCREWS
Bracket anchor



NEOPRENE WASHERS

- OR -



**LOCKNUTS**At each bracket stud



## CAPNUTS

At each bracket stud

### **TOOLS NEEDED**

- Measuring tape
- Marking pencil
- Conventional drill with 5/16" and 7/16" drivers

### **PREPARATION**

Confirm support post spacing is consistent with panel sizes.

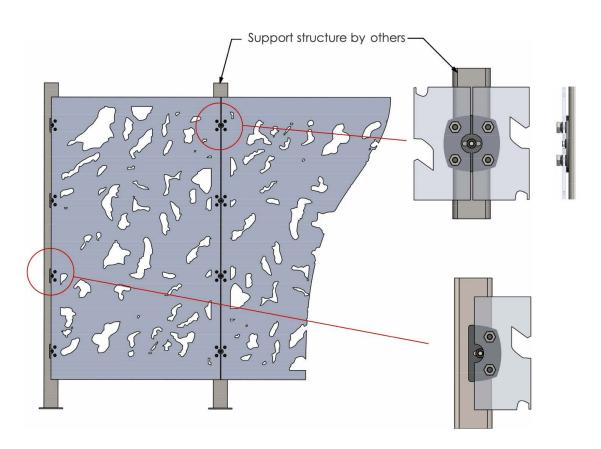
### **FIELD NOTES**

Contact Parasoleil for installation questions, especially for high wind load conditions.

See Parasoleil's warranty document for warranty coverage.

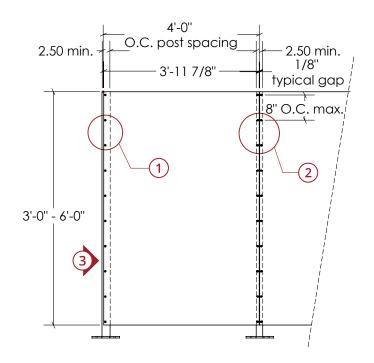
Field drilling Parasoleil panels is allowed under warranty, however field cutting panels is not recommended and will void manufacturer's warranty.

If an alternate panel size is needed, contact Parasoleil for assistance.



# **Direct Mount Details**

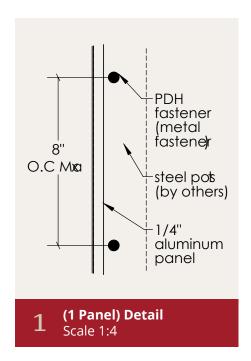
# **Direct Mount System | Front View** Scale 1:24

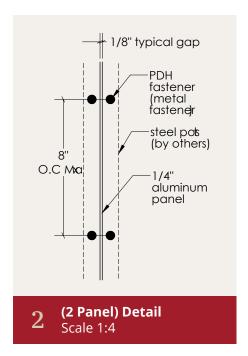


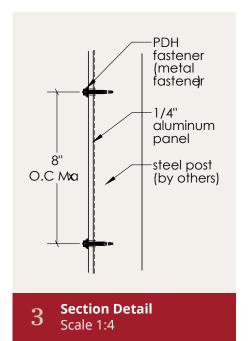
# PARASOLEIL DIRECT HEX (PDH) SELF DRILLING SCREW SPECIFICATIONS

- #12-24 x 1-1/2" with #3 drill tip
- 5/16" hex head and driver included
- Carbon steel with dual corrosion resistant coatings
- Bonded neoprene washer
- Salt spray resistance: 1,000 hours per ASTM B117
- Pull-out value: 2,100 lbs when installed in 3/16" steel

NOTE: posts, foundation, and anchor bolts provided by other suppliers

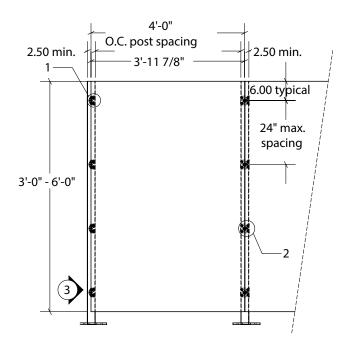






# **PSO Series Details**

# **Stand Off System | Front View** Scale 1:24



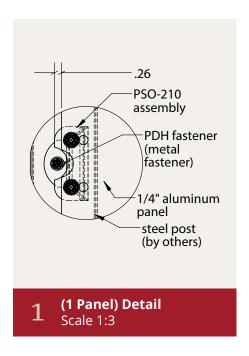
### PARASOLEIL STAND OFF (PSO) SPECIFICATIONS

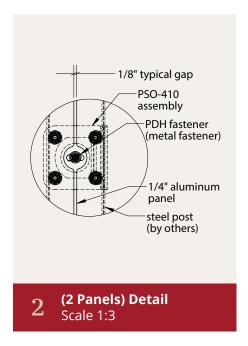
- 1/8" A36 steel plate
- Panels stand-off 2" from substrate
- Parasoleil Standard Graftone Powdercoat Finish AAMA 2604 compliant
- Zinc Primer for maximum adhesion and corrosion resistance
- Floating self-clinching nut: .250 20 thread count
- Carbon steel, zinc plated
- 400 lb push out force

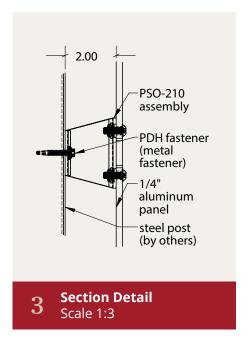
# PARASOLEIL DIRECT HEX (PDH) SELF DRILLING SCREW SPECIFICATIONS

- #12-24 x 1-1/2" with #3 drill tip
- 5/16" hex head and driver included
- Carbon steel with dual corrosion resistant coatings
- Bonded neoprene washer
- Salt spray resistance: 1,000 hours per ASTM B117
- Pull-out value: 2,100 lbs when installed in 3/16" steel

NOTE: posts, foundation, and anchor bolts provided by other suppliers







# PSO X10 Series Installation Guidance

### **PARTS LISTING:**



**PSO-110**Corners of panel array



**PSO-210** Perimeter of panel array



**PSO-410** Interior at panel seams



TAMPER-RESISTANT & FLAT HEAD SCREW
Bracket center anchor

### **TOOLS NEEDED**

- Measuring tape
- Marking pencil
- Conventional drill with 5/16" and 7/16" drivers

### **PREPARATION**

Confirm adequate blocking or structure is present within wall at center anchor mounting locations.

### **FIELD NOTES**

Contact Parasoleil for installation questions, especially for high wind or snow load conditions.

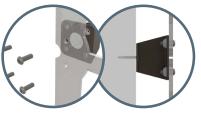
See Parasoleil's warranty document for warranty coverage.

Field drilling Parasoleil panels is allowed under warranty, however, field cutting panels is not recommended and will void manufacturer's warranty. If an alternate panel size is needed, contact Parasoleil for assistance.

### Figure 1: Typical Hardware Layout

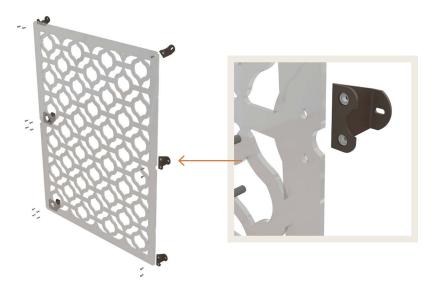






PSO-410 Installation Hardware

# PSO X10 Series Installation Guidance (continued)

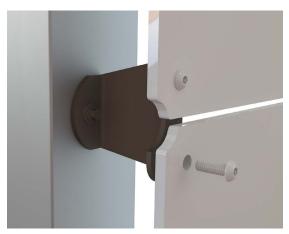


1

Beginning with the first panel as shown in **Figure 1**, attach PSO-Series hardware to panels with provided fastener.

2

Position the first panel assembly to the post and confirm location, alignment and adequate mounting structure or blocking at mounting locations. Install assembly with PSO center anchors using 5/16" driver.





3

Repeat Step 1 for the next panel and position on post using shared hardware points on Panel 1 as shown.

Confirm alignments and blocking and install second assembly using PSO center anchors with 5/16" driver.

Repeat steps 1–3 for remaining panels.

# Spec Guidance & Engineering

### **PANEL SPANS**

Recommended panel thicknesses for certain widths using our Panel Thickness Callibrator to find the more appropriate dimensions.

### PANEL SPAN / THICKNESS EXAMPLE TABLE

THICKNESS	WEIGHT*	SPAN BETWEEN SUPPORTS**
1/8"	1.8 lbs/sf	24-36"
3/16"	2.6 lbs/sf	30-48"
1/4"	3.5 lbs/sf	36-52"

 $<sup>* \</sup>quad Subtract\ pattern\ open\ \%\ for\ final\ weight.$ 



### **POST SPECS**

There is a difference between steel and aluminum posts, and choosing plate dimensions for your project needs. Wall thickness must be considered for both structural rigidity ad ease of installation.

Recommended footers and base location

Design Prussure	14 PSF
Panel Dimensions	3'x8'

Post Size (in)	Post Wall Thickness (in)			
	0.06"	0.125"	0.1875"	0.250"
2" x 2"	FAIL	FAIL	FAIL	FAIL
2.5" x 2.5"	FAIL	FAIL	FAIL	FAIL
3" x 3"	FAIL	FAIL	PASS	PASS
3" x 4"	FAIL	PASS	PASS	PASS
4" x 4"	PASS	PASS	PASS	PASS

### **SPECIFICATION PROCESS**

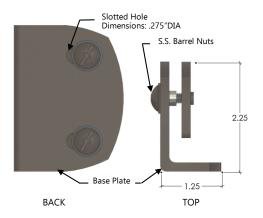
- 1. Determining exact details to meet project design load requirements.
- 2. Full specifiable screen systems for ease of procurement and installation by one substrade.
- 3. Proprietary patterns and hardware systems for confidence in locking the specification.

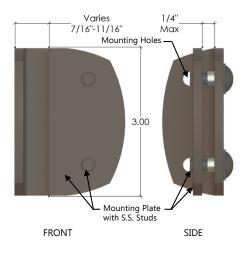


<sup>\*\*</sup> General guideline only, please ask Parasoleil for project specific design assistance.

# PBI Series Installation Hardware







Parasoleil's standard hardware combines beauty, utility, and durability to offer an elegant installation solution for a wide range of projects. It is an expressed element that standardizes the installation process, increases corrosion-resistance and enhances the overall aesthetic of the installation.

### **BENEFITS & FEATURES**

- Universal design for attachment of aluminum panels up to ¼" thick
- Universal factory cut fastener holes ensure consistent fastening point spacing and easy installation
- · Adjustable for inconsistent field conditions
- Attaches to steel or wood with a minimum of 2" wide attachment surface

### **SPECIFICATIONS**

- 3/16" A36 steel plate
- Stainless steel flush mount ½" -20 x ½" long studs
- Stainless steel barrel nuts with EPDM washers

### STRUCTURAL RECOMMENDATIONS

- 24" on center max. recommended bracket spacing along panel edges
- Contact Parasoleil for installation guidelines
- Contact local building department for the most accurate building code requirements for railing and guardrails

### **FINISHES**

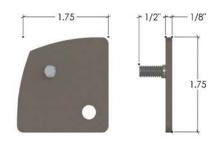
- Three AAMA 2604 compliant powdercoat hardware finishes available
- Zinc primer for maximum adhesion and corrosion resistance

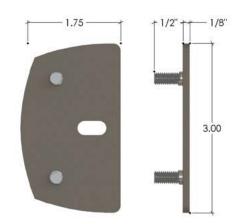


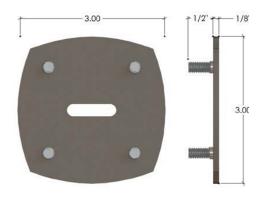
### **QUESTIONS?**

# PBI Series Installation Hardware









Parasoleil's standard hardware combines beauty, utility, and durability to offer an elegant installation solution for a wide range of projects. It is an expressed element that standardizes the installation process, increases corrosion-resistance and enhances the overall aesthetic of the installation.

### **BENEFITS & FEATURES**

- Universal design for attachment of aluminum panels up to ¼" thick (US Patent Pending)
- Easy three-step installation
- Universal factory cut fastener holes ensure consistent fastening point and panel spacing
- · Adjustable for inconsistent field conditions
- Minimizes moisture and debris collection between panel and support structure
- Attaches to steel or wood support structure
- Ideal for attaching to 1narrow steel or wood support structures less than 2" width

### **SPECIFICATIONS**

- 1/8" A36 steel plate
- Stainless steel flush mount ¼" -20 x ½" long studs
- 70 in/lb max nut tightening torque
- Stainless steel locking flange hex nuts with EPDM washer
- Corrosion resistant center anchor with bonded neoprene washer

### STRUCTURAL RECOMMENDATIONS

- 24" on center max. recommended bracket spacing along panel edges. Supplemental fasteners are required between hardware locations for high wind or snow load conditions
- Contact local building department for the most accurate snow and wind load information for your area

### **FINISHES**

- Available in Graftone™, Nimbus™, and Raven™ as standard finishes, any other finishes are considered custom
- Zinc primer for maximum adhesion and corrosion resistance

# **PSO Series Installation Hardware**



Parasoleil's standard offset hardware combines beauty, utility, and durability to offer an elegant installation solution for a wide range of vertically mounted applications. With subtly expressed the fasteners in a face-mounted assembly, this system standardizes the installation process, increases corrosion-resistant and enhances the overall aesthetic of the installation.

Tamper-resistant fasteners are recommended for high traffic, public areas while the flush mount fastener option is an excellent alternative for zero-profile facemounted applications.



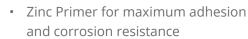
### **BENEFITS & FEATURES**

- Universal design for attachment of aluminum panels up to ¼" thick (US Patent Pending)
- · Easy three-step installation
- Universal factory cut fastener holes in panels ensure consistent fastening point and panel spacing
- · Adjustable for inconsistent field conditions
- Attaches to most substrates (steel, concrete, wood, aluminum, masonry)
- Suitable for interior and exterior applications
- · Easy removal and replacement as needed



### **SPECIFICATIONS**

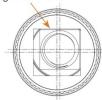
- 1/8" A36 steel plate
- Panels stand-off 2" from substrate
- Available in Graftone<sup>™</sup>, Nimbus<sup>™</sup>, and Raven<sup>™</sup> as standard finishes, any other finishes are considered custom



- Floating self-clinching nut: .250 20 thread count
  - · Carbon steel, zinc plated
- 400 lb push out force



PEM® Double Squares registered trademark.

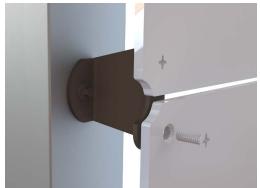


**Float –** .015"/0.38 mm minimum, in all directions from center, .030"/0.76 mm total.

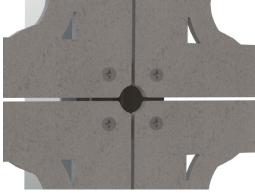


# PSO Series Installation Hardware (continued)









### **FASTENER OPTIONS**

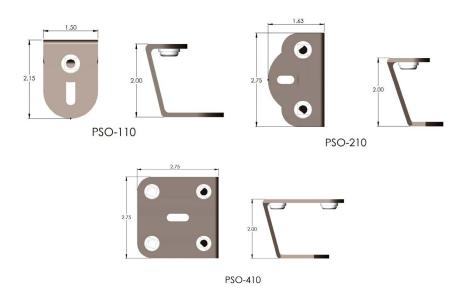
- 1. Tamper Resistant Button Head 5/32" Hex Head Fastener
  - a.  $\frac{1}{4}$ " 20 x  $\frac{3}{4}$ " long
  - b. Fastener head to color coordinate with panel powdercoat finish
- 2. Flat Head Philips screw Flush Mount
  - a. 14" 20 x 34" long 100° bevel
  - b. Machine drilled bevel for each fastener hole in panel (1/8" minimum panel thickness)
  - c. Fastener head to color coordinate with panel powdercoat finish





### STRUCTURAL RECOMMENDATIONS

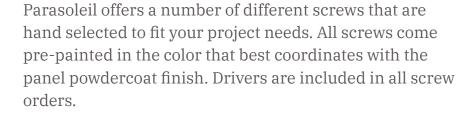
- 24" on center max. recommended bracket spacing along panel edges
- High wind conditions require additional support and/or thicker brackets
- Contact local building department for the most accurate wind load information for your area



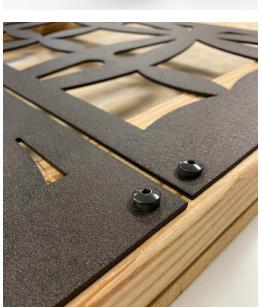
### **QUESTIONS?**

# Direct Mount Fastener Hardware









	PDH	PDS	PDW
SCREW MATERIAL	Carbon Steel	Stainless Steel	Stainless Steel
SCREW SPEC	#12 24 x 1"	#12 14 x 1-1/4"	#10 12 x 2-3/8"
SUBSTRUCTURE MATERIAL	up to 3/8" structural steel	up to 1/8" light gage steel	Wood
SCREW TIP	#3 Drill Tip Self Tapping	#3 Drill Tip Self Tapping	Thread Forming
DRIVE	5/16" Hex	Proprietary Driver	T20 Torx
PULL-OUT VALUE	1,678 lbs	1,282 lbs	520 lbs
PAINTED HEAD	Yes	Yes	Yes

### **QUESTIONS?**

# PDH Fastener Hardware







### **SELF DRILLING SCREWS FOR STEEL SUPPORTS**

Parasoleil aluminum panels may be installed directly onto structural steel supports using our PDH drill screw. Factory cut fastener holes in panels are available upon request. For steel thickness no more than 3/8", pilot holes are recommended.

# PDH DRILL SCREWS For installing Parasoleil aluminum panels and hardware to structural steel up to 3/8" thick and include neoprene washer for maximum corrosion protection. PDH fostener steel post (by others) O.C. Max. aluminum panel

### **INSTALLATION GUIDELINES**

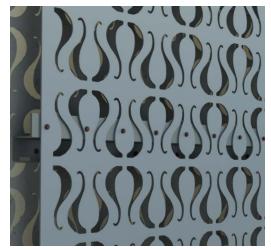
- Allow for 1/8" gap between panels for expansion and contraction of the metal due to temperature variations
- Fastener spacing 8" on center maximum at all support locations for engineered applications
- Adjust torque settings as needed to avoid overtightening which may cause fastener twist offs

### **PDH DRILL SCREWS SPECIFICATIONS**

- #12 24 x 1" with #3 drill tip
- 5/16" hex head & driver included
- Carbon steel with dual corrosion resistant coatings
- · Bonded neoprene washer
- Salt spray resistance: 1,000 hours per ASTM B117
- Pull-out value: 1,678 lbs when installed in 1/8" substructure

### **QUESTIONS?**

# PDS Fastener Hardware





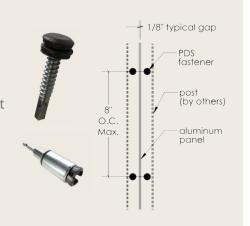


### **SELF DRILLING SCREWS FOR STEEL SUPPORTS**

Parasoleil aluminum panels may be installed directly onto finished light gauge steel supports using our PDS drill screw. Factory cut fastener holes in panels are available upon request. Tamper resistant proprietary head offers a clean aesthetic for a higher level of finish.

### **PDS DRILL SCREWS**

For installing Parasoleil aluminum panels to light gauge steel up to 1/8" thick, or aluminum support structure for design conscious applications and include neoprene washer for maximum corrosion protection.



### **INSTALLATION GUIDELINES**

- Allow for 1/8" gap between panels for expansion and contraction of the metal due to temperature variations
- Fastener spacing 8" on center maximum at all support locations for engineered applications
- Adjust torque settings as needed to avoid overtightening which may cause fastener twist offs

### PDS DRILL SCREWS SPECIFICATIONS

- #12 14 x 1-1/4" with #3 drill tip
- ½" Outside Diameter low profile head
- 300 series stainless steel head & shank
- Bonded neoprene washer
- Tamper resistance fastener head with no accessible driver access
- Provided drive socket ensures positive engagement and prevents damage to painted fastener head
- Pull-out value: 1,282 lbs when installed in 1/8" substructure

### **QUESTIONS?**

# PDW Fastener Hardware





**PDW DRILL SCREWS** 

drilled fastner holes.

**SELF DRILLING SCREWS FOR WOOD SUPPORTS** 

The PDW fastener has a clean architectural aesthetic for design conscious applications requiring maximum corrosion protection for aluminum panels on wood supports. Aluminum panels require pre-

For installing Parasoleil aluminum panels wood support structure for design conscious applications and include neoprene washer for maximum corrosion protection.







### **INSTALLATION GUIDELINES**

- Allow for 1/8" gap between panels for expansion and contraction of the metal due to temperature variations.
- Fastener spacing 8" on center maximum at all support locations for engineered applications.
- Adjust torque settings as needed to avoid overtightening which may cause fastener twist offs.

### **SPECIFICATIONS**

- #10 12 x 2-3/8" long
- ½" Outside Diameter low profile T20 Star Head
- 300 series stainless steel head & shank
- Bonded neoprene washer included
- Pull-out value: 520 lbs

### **QUESTIONS?**

# Aluminum Panel Material and Thickness



### PANEL SPAN / THICKNESS EXAMPLE TABLE

THICKNESS	WEIGHT*	SPAN BETWEEN SUPPORTS**
1/8"	1.8 lbs/sf	24-36"
3/16"	2.6 lbs/sf	30-48"
1/4"	3.5 lbs/sf	36-52"

- $^*\quad Subtract\ pattern\ open\ \%\ for\ final\ weight.$
- \*\* General guideline only, please ask Parasoleil for further design assistance.

Allowable deflection represents the maximum deflection allowed by International Building Code (IBC) L/60.

Notes: Values above are for general reference only and may not be recommended for your specific project requirements.

Values above are based on:

- Exposure B, Risk Factor IV
- Lemon Drop as baseline pattern
- PBI installation hardware

Contact Parasoleil for recommendations for high wind pressure conditions not shown above or for your specific project.

Parasoleil offers decorative laser cut aluminum panels in several standard thicknesses. We offer detailed project specific design assistance to ensure the most appropriate thickness is specified based on the amount of panel.

### PANEL THICKNESS SELECTION FACTORS

- Application type
- · Panel span between supports
- · Project engineering design pressure
- Documented code compliance requirements
- · Fastening method

### 1/8" THICK ALUMINUM PANELS

- Generally recommended span: 24-36"
- Durable plus light weight for ease of installation
- Commonly used for:
  - Residential & commercial shade structures
  - Commercial ceilings
  - Commercial cladding with mid-panel support

### 3/16" THICK ALUMINUM PANELS

- Generally recommended span: 30-48"
- Good span capability with visual weight for brand conscious eye-level applications and wider clear span over-head applications
- Commonly used for:
  - commercial wider span shade structures
  - Commercial wider span cladding
  - Commercial screens

### 1/4" THICK ALUMINUM PANELS

- Generally recommended span: 36-52"
- Good span capability with visual weight for brand conscious eye-level applications and wider clear span over-head applications
- · Commonly used for:
  - commercial wider span shade structures
  - Commercial wider span cladding
  - Commercial screens

# Powdercoat Finishes for Aluminum



Parasoleil's award-winning proprietary powdercoat finishes for aluminum are specifically developed for their versatility, durability, and beauty to match the timeless qualities of our architectural panels.

### **BENEFITS & FEATURES**

- 10-year finish warranty for UV performance and adhesion to base metal
- Quality gloss and color retention
- Finished on both sides for maximum versatility
- UV stable, no VOCs, and exterior grade

### **PROPRIETARY FINISHES**

- **Quality Standards:** Consistent in color and texture, these finishes are versatile.
- Patinas: With a varied aesthetic, these finishes have unique markings, tones and qualities based on aged metals.

### **WARRANTY FOR STANDARD FINISH**

All standard finishes are protected by are protected by a 10-year warranty against cracking and peeling under normal conditions. Panels with sustained exposure to corrosive environments such as chlorinated or non-potable water (irrigation systems & swimming pools), saltwater, and industrial chemicals, as well as panels that have been modified in the field (cutting, bending, etc.) are not covered.

### **CUSTOM FINISH**

Custom panel finishes for aluminum are available for specified powders. A color matching process is not offered. All custom finishes are subject to approval by Parasoleil and are not covered by Parasoleil's standard finish warranty.

### **QUESTIONS?**

Contact Parasoleil for complete specifications, installation requirements, and warranty coverage.

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### Patina Finishes



# **Engineering Education**



At Parasoleil, we focus on engineering standards and certifications for our products because we understand the importance of design load compliance. As a result, we have refined our approach to our panel performance in any thickness, pattern, and application.

### **ENGINEERING AND LOAD TESTING PROCESS**

- Finite Element Analysis through computer models to understand a patterned panel's deflection
- Extensive product testing
- Code analysis
- Annual inspection for certification

### **WHY IT MATTERS**

### Panels Attached to a Building

Pre-engineered patterns ensure IAPMO-ES 0488 certification is included in the square foot price. Project-specific engineering reports can be created to provide the most accurate analysis that lowers risk and cost for the GC. If additional documentation is required, such as a California DSA or NOA for Miami-Dade county, Parasoleil can provide applied engineering reports to satisfy documentation requirements.

### **Panels at Ground Level Exterior**

Parasoleil's pre-engineered systems prevent building department slow downs and provides instant design flexibility without requiring a change order.

### **Panels in Interior Applications**

Though decorative panels do not require wind or snow load engineering, they should look flat, be safe, and be designed to fit together for easy installation. Parasoleil's engineered systems and dependable process ensureson-time production and expert guidance.

# Engineering Education (continued)

### **PROVIDED SERVICES**

Below are the following engineering services offered by Parasoleil to ensure your project, standard or custom, is fully supported by our team.

Parasoleil Engineering Services	
Panel Thickness Calibrator	✓
Product Certification (IAMPO - ES 0488)	✓
Custom Pattern FEA	✓
Panel FEA - Engineering Report	Flat Fee
PE Stamp	Flat Fee
Structure FEA - with Design Iterations	Priced Per Project

### **HOW PARASOLEIL CAN HELP YOU**

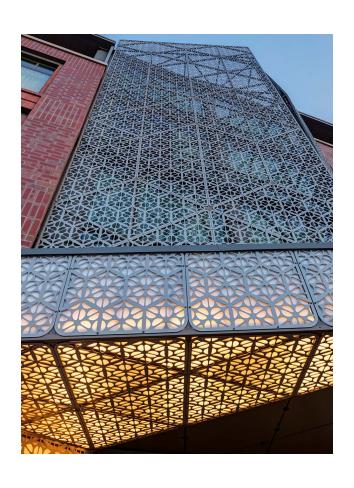
Use Parasoleil's expert engineering guidance or certified project reports depending on your project type.

When you engage with Parasoleil from the start, you will:

- Reduce overall cost
- Raise confidence
- · Ensure you cruise through permitting
- Reduce your risk as a specifier
- Set up a smooth installation

If your project requires engineering, know that our product certification exceeds International Building Code requirements.

### **QUESTIONS?**



Contact Parasoleil for complete specifications, installation requirements and warranty coverage.

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We look forward to hearing from you.

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