

**USG HERADESIGN™**  
DIRECT MOUNT AND LAY-IN PANELS

**INSTALLATION GUIDE**

# USG HERADESIGN™ PANELS

The impressive appearance of a Heradesign acoustic solution always depends on two factors: the acoustic panel itself and good workmanship. Knowing exactly what to do enables a quick, easy and clean installation of the panels and thus ensures the building owner's satisfaction.

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## FOR MORE INFORMATION

### PRODUCT INFORMATION

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# SYSTEM OVERVIEW

## USG HERADESIGN™ PANELS

USG Heradesign™ are high performance, noise absorbing acoustical panels ideal for ensuring sound control in any environment. With multiple textures and colors to choose from, USG Heradesign™ is the perfect choice for creative design in education, sports, office, infrastructure, hospitality and recreational facilities.

## SIZES AND EDGES

USG Heradesign™ panels are available in 2'x4' and 2'x8' for *direct mount* wall and ceiling applications, and 2'x2' and 2'x4' for *lay in* ceiling applications.

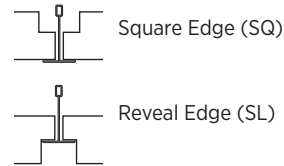
USG Heradesign™ panels are available in a choice of *Super Fine* and *Fine* face patterns.

For direct mount applications, the panels are available with all four edges beveled or combination of beveled (long) and square (short) edge. For lay in ceiling applications panels are available in either a square (SQ) or reveal (SL) edge.

### Direct Mount Wall/Ceilings Edges



### Lay-In Ceilings Edges



## SUSPENSION SYSTEM

USG Heradesign™ panels are either mechanically fastened for direct mount application, or lay-in panels are installed in USG Donn™ Brand DX 15/16" Suspension system. For direct mount applications panels can be mechanically fastened to furring (metal or wood), USG Drywall Suspension System, or directly to structure.

It is the responsibility of the contractor to determine the type and position of framing and furring that meets project requirements based on the type of USG Heradesign™ panel being installed.

## MOUNTING HARDWARE

Use rust protected, universal drywall screw for attaching USG Heradesign™ direct mount panels to wood or metal furring. Partial thread, screw head with Torx T20.

**Table 1 – Mounting Hardware**

Dimensions (in.)		For panel thickness (in.)
Length	Head Size	
1-3/8"	11/64"	5/8"
2"	11/64"	1"

*NOTE: For panels that are being fastened directly to a CMU (hallow Cement Masonry Unit or a breeze/cinder block) use masonry screws. For these applications it is recommended to add a 1/4" to the appropriate length of fastener from Table 1 - Mounting Hardware.*

*For installations with heavy gauge metal furring look to use drill point screws for best results.*

## PANEL WEIGHTS

**Table 2 – Panel Weights (lb./ sq. ft.)**

Texture	Direct Mount/Lay-In Thickness	
	5/8"	1"
	Heradesign 1 (Super Fine)	1.6
Heradesign 2 (Fine)	1.68	2.53

# INSTALLATION CONSIDERATIONS

## DELIVERY, STORAGE AND HANDLING

USG Heradesign™ panels should be delivered to the project site in original, unopened packages. USG Heradesign™ panels need to be stored with the packaging removed for a minimum of 72 hours in the room where they are to be installed.

*NOTE: Do not lean Heradesign panels on an angle against the wall during installation or when field painting. This causes the panels to warp - warped panels can no longer be installed.*

## PROJECT CONDITIONS

Wood materials naturally adjust to changes in humidity. Installation should be done only when the temperature and humidity are similar to the interior conditions that will exist when the building is occupied. The heating and cooling systems should be operating before, during and after installation, with the humidity of interior spaces maintained between 25% and 90%.

Building environmental conditions should be maintained in accordance with ASHRAE Standard 62.1, 2013.

Plenums should have proper ventilation, especially in high moisture areas. There should be no excessive buildup of heat in the ceiling areas.

Prior to the start of installation, all exterior windows and doors are to be in place, glazed and weather-stripped. The roof is to be watertight, and all wet trades' work is to be completed and thoroughly dry.

*NOTE: Heradesign panels are not suitable for use in natatoriums (pools) or exterior applications.*

## CUTTING PANELS

Eye protection should always be worn when cutting USG Heradesign™ panels.

USG Heradesign™ panels may be cut with a variety of tools including table saws, circular saws, jig saws, and hand saws. Fine toothed blades are recommended for all finish cuts. Sandpaper can be used to smooth the edges. Please follow the safety instructions issued by the power tool manufacturer.

**Table saw or hand saw** - cut face up to minimize face chipping or damage

**Circular saw or jig saw** - cut face down to minimize face chipping or damage.

## FIELD PAINTING

Paint should be applied with an airless sprayer, with each coat of paint applied in two different directions at different angles to the surface of the panel. This will allow the paint to penetrate into all pores and openings in the surface of the panel. Allow paint to dry completely before applying subsequent coats.

*NOTE: Panels can be painted several times without affecting the NRC.*

Use only enough paint to cover the panel. Excessive paint will result in reduced sound absorption and can cause moisture to build up resulting in the panels warping.

Acoustical absorption should not be negatively impacted if proper painting recommendations are followed:

### Recommended Spread Rate per Coat

**Wet Mils:** 3.5 - 5.0

**Dry Mils:** 1.5 - 2.0

**Coverage:** 336-450 sq. ft./gallon approximate (based on flat surface)

### Surface Preparation

Surface must be clean and no moisture present. Remove all foreign materials including oil and dirt to ensure the paint adheres to the panels.

### Application Condition

**Temperature:** Paint should be applied when temperatures are between 50°F and 110°F, at least 5°F above the dew point.

**Relative Humidity:** 75% maximum

**Matching Colors:** USG recommends taking a sample of the desired matching color to a local paint manufacturer for best results.

Beige (Natural) - RAL 1015 or NCS S 20 10-Y 30 R

White - RAL 9010 or NCS S 0300-N

# MOUNTING OPTIONS

## WALL MOUNT METHODS

USG Heradesign™ panels can be installed by mechanically fastening the panels to either wood or metal furring or directly to a structure. As the weight of the panels can vary based on thickness and face pattern, special consideration should be taken to determine the type of fastener that is required (see Table 1, on pg 2).

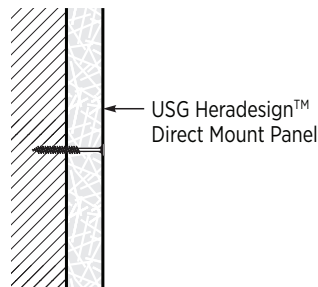
The use of furring not only makes the installation easier for the installer, but also improves sound absorption by using the air gap between the panel and structure or by installing fiberglass insulation behind the panel. The NRC requirement of the project will determine what mounting method will be used.

The nature of USG Heradesign™ panels and the face pattern makes the use of screws an acceptable fastener method. When installed properly, the head of the screw is difficult to see after installation.

**Do not countersink the screw heads.** Screws are to be installed flush with the surface of the USG Heradesign™ panels and can be field painted .

The following sections outline the various mounting methods and fastener recommendations.

## MOUNTING METHOD A



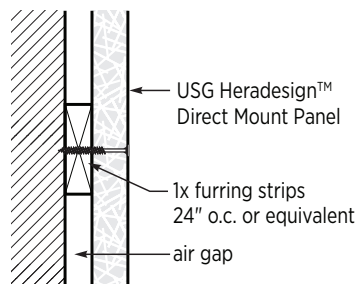
**Installed Directly on a Wall or Ceiling Surface**

As ceiling and wall structure materials vary from project to project, it is recommended that the contractor work with fastener manufacturers to determine the best fastener for the specific application and engineering support information that will meet the pull-out requirements for the local building code.

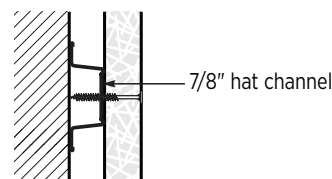
*NOTE: For panels that are being fastened directly to a CMU (hollow Cement Masonry Unit or a breeze/cinder block) use masonry screws. For these applications it is recommended to add a 1/4" to the appropriate length of fastener shown in Table 1 on pg 2.*

*Do not use power actuated fasteners to directly attach USG Heradesign™ panels to masonry surfaces.*

## MOUNTING METHOD D-20



**Installed on 3/4" Furring Strips**



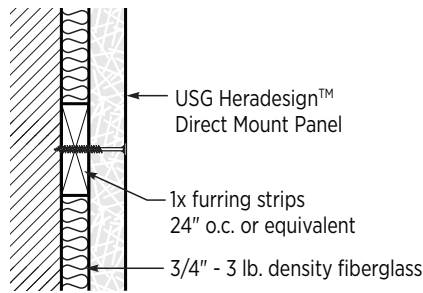
**Alt. Detail**

The attachment of the furring to the structure and the type of furring must be designed to support the weight of the USG Heradesign™ panels being used. Please refer to page 2 for panel weights. Furring is to be spaced not over 24" o.c. and perpendicular to the panel direction.

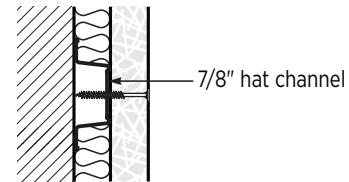
It is the responsibility of the installing contractor to ensure that furring installed on existing drywall is mechanically fastened to a stud, drywall grid, or other structural component.

# MOUNTING OPTIONS

## WALL MOUNT METHOD C-20



**Installed on 3/4" Furring Strips**

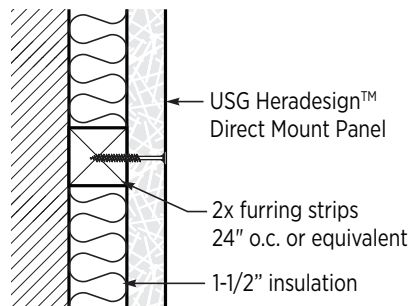


**Alt. Detail**

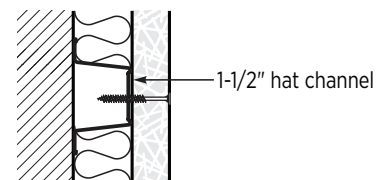
The attachment of the furring to the structure and the type of furring must be designed to support the weight of the USG Heradesign™ panels being used. Please refer to page 2 for panel weights. Furring is to be spaced not over 24" o.c. and perpendicular to the panel direction.

It is the responsibility of the installing contractor to ensure that furring installed on existing drywall is mechanically fastened to a stud, drywall grid, or other structural component.

## MOUNTING METHOD C-40



**Installed on 1-1/2" Furring Strips**



**Alt. Detail**

The attachment of the furring to the structure and the type of furring must be designed to support the weight of the USG Heradesign™ panels being used. Please refer to page 2 for panel weights. Furring is to be spaced not over 24" o.c. and perpendicular to the panel direction.

It is the responsibility of the installing contractor to ensure that furring installed on existing drywall is mechanically fastened to a stud, drywall grid, or other structural component.

# DIRECT MOUNT

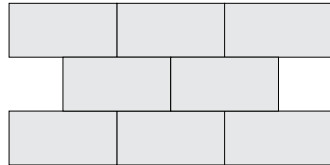
## WALL MOUNT METHODS

### INSTALLATION RECOMMENDATION

It is *recommended* that USG Heradesign™ is installed using an Ashlar pattern (joints staggered), this will help with the ease of installation. Important, if installing with cross joints (4 panel corners meeting at one point) increased accuracy is required.

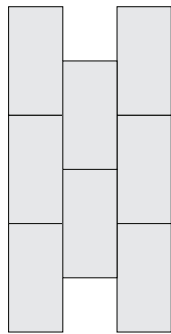
### PANEL LAYOUT

Wall Application - Horizontal



- Furring installation perpendicular to long edge of panel
- Stagger end joints and install panels beveled edge to beveled edge
- Furring required at the ends of the panels

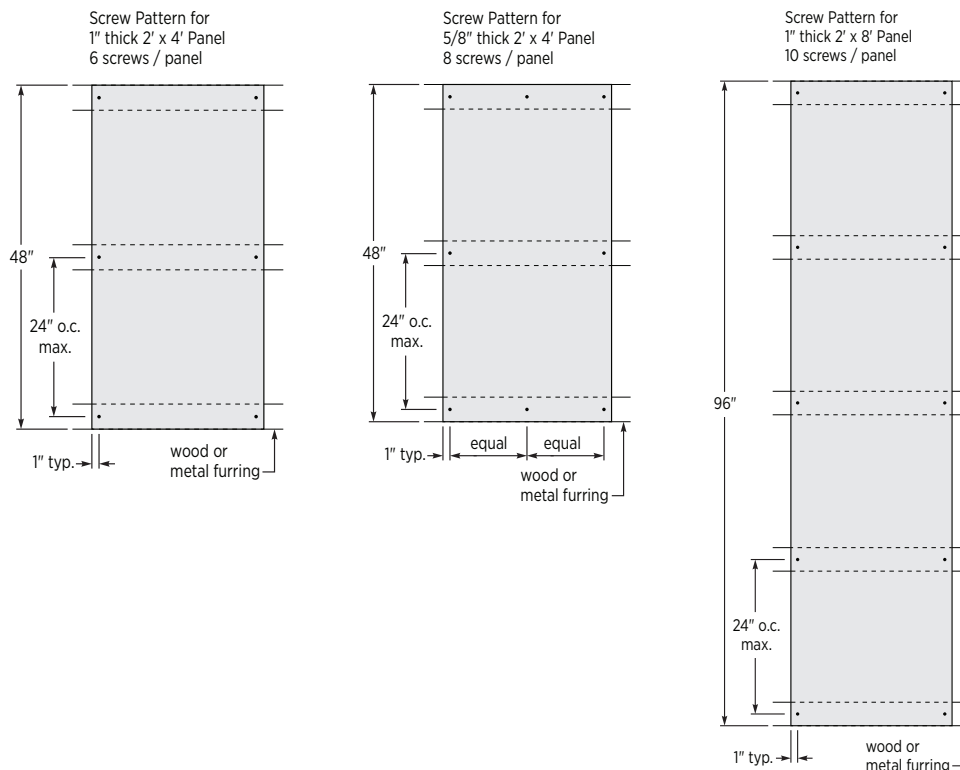
Wall Application - Vertical



- Furring installation perpendicular to long edge of panel
- Stagger end joints and install panels beveled edge to beveled edge
- Furring required at the ends of the panels

### SCREW PLACEMENT

For direct mount wall applications the number of screws per panel depends on the thickness of the USG Heradesign™ panels.



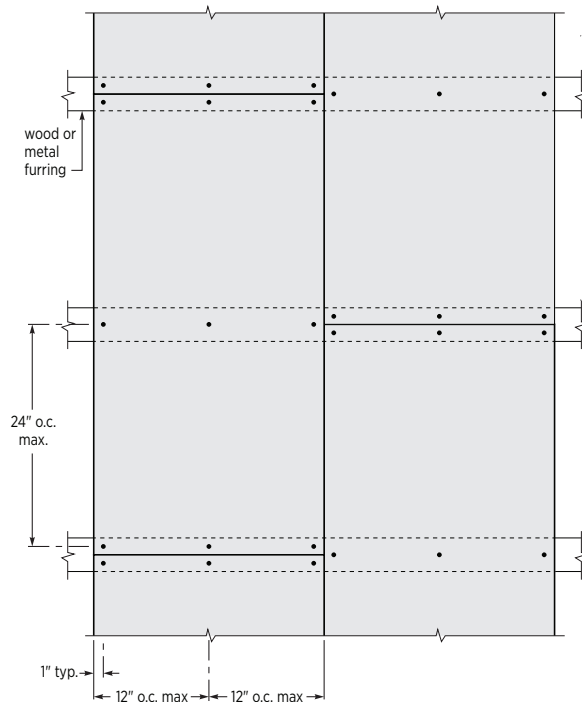
# DIRECT MOUNT

## CEILING MOUNT METHODS

### METAL OR WOOD FURRING

When installing USG Heradesign™ panels in a ceiling application follow the same fastener and mounting methods shown for walls. Please note, with the exception of **screws should be spaced every 12" o.c. regardless of mounting method.**

Install furring (metal, wood, or USG Drywall Suspension) perpendicular to the panel direction at no more than 24" o.c. Ensure panel edges fall over furring or grid members. As with wall applications, USG Heradesign™ installed in ceiling applications must be installed in an ashlar pattern (staggered end joints).



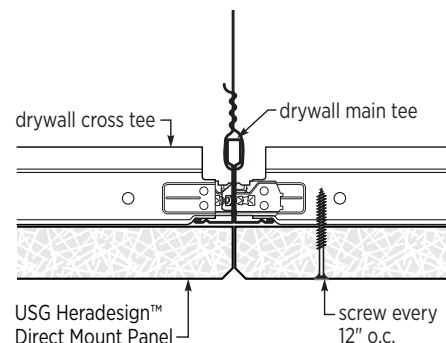
Install screws every 12" o.c. to furring ensuring screw heads are flush with the face of USG Heradesign™ panels. Do not countersink screws. Ensure that any time two panels abut against one another the edges are beveled.

Install the next panel against the furring, gently butt the end to the previously installed panel and fasten every 12" o.c.

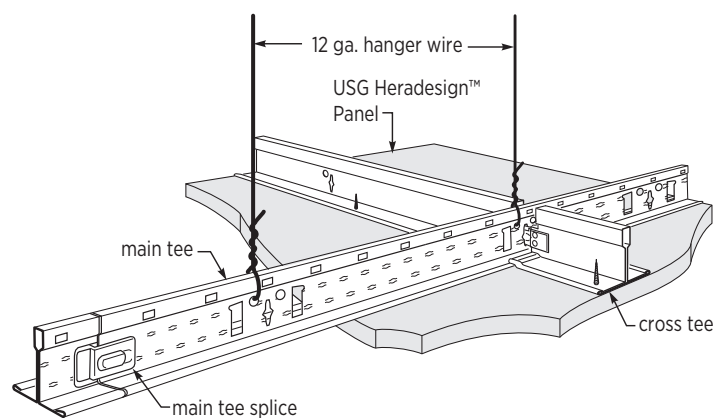
### USG DRYWALL SUSPENSION

When installing USG Heradesign™ panels using USG Donn™ Brand Suspension System, it is the responsibility of the installing contractor to follow both the USG Installation instructions (AC3152) and any additional requirements established by the local building authority. All installations must follow ASTM C636 and suspension components should be tested per ASTM E3090 with duty ratings per ASTM C635.

USG Heradesign™ panels should be installed parallel with main tees and mechanically fastened using screws spaced no more than 12" o.c.



Installed on DWSS





# LAY-IN CEILING INSTALLATION

**INSTALLATION  
RECOMMENDATION**

When installing USG Heradesign™ Lay-in panels into USG Donn™ Brand Suspension System it is the responsibility of the installing contractor to follow both the USG Installation instructions and any additional requirements established by the local building authority. All installations must follow ASTM C636 and suspension components should be tested per ASTM E3090 with duty ratings per ASTM C635.

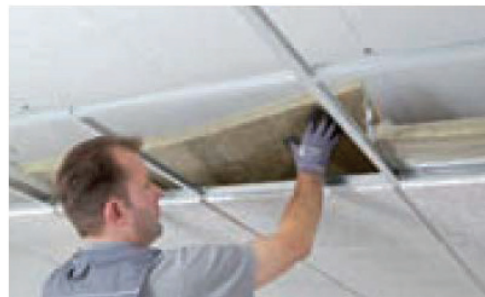
USG Heradesign™ Lay-In panels install just like traditional acoustical ceiling panels. Although the panels have a surface made up of random wood fibers, some textures of USG Heradesign™ have a directional face pattern. When installing panels it is recommended to ensure the arrows on the backs of the panels are aligned (particularly for 2'x2' panels) for the best results.



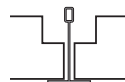
Lift the USG Heradesign™ acoustic panels into place by tilting the acoustic panels and using the ceiling cavity. Remember to leave a minimum of 4" of ceiling height to allow for installation. Observe the installation directional arrow mark on the back of the panels.



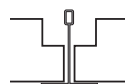
Press the USG Heradesign™ panels down into the suspension grid. The panels are cut exactly to size, therefore they have to be pressed passed the hangers.



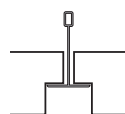
Install mineral fiber infill panels piece by piece along with the USG Heradesign™ Lay-In ceiling panels for improved acoustical performance.



USG Heradesign™ Panels Square Edge (SQ) installed on USG Donn™ DX 15/16" suspension grid.



USG Heradesign™ Panels Square Edge (SQ) installed on USG Donn™ DXW 1-1/2" suspension grid.



USG Heradesign™ Panels Reveal Edge (SL) installed on USG Donn™ DX 15/16" suspension grid.

# APPLICATION & HANDLING

**GENERAL INSTRUCTIONS**



Carefully remove the separating paper layer from the panels and dispose of it immediately. Dust lying on it must not fall onto the panel below.



Check panel for damages. Remove any remaining dust with a soft brush.



When lifting the acoustic panels from the stack, only carry them on edge. When lifting panels from the stack, never drag them over the edge of the stack in order to prevent damage to the visual side.



Never lean the acoustic panels on an angle against the wall during installation and subsequent painting. This causes the panels to warp - warped panels can no longer be installed.



Installing the first row of panels: always start installing from the centre of the room, which has been pre-marked. Exactly align the panels in longitudinal and transverse direction.



Positioning the screws or the acoustic panels with auxiliary lath. Make sure that there is enough space at the end of the panel to prevent the edge from displacing. Make sure the screw head is flush to the surface of the panel. The auxiliary lath is removed after installing the first row of panels.

# APPLICATION & HANDLING

## EDGES & SCREWS



Creating the edge bevel: The bevel is formed with coarse sand paper, belt sander, drywall rasp or a saw blade set on an angle.



Remove any dust with a soft brush.



Painting the bevel: Use a brush or a thin paint roller to apply the paint.



Not this way! The screw head must be flush with the surface of the panel. Do not over sink the fasteners.



Painting over the screw heads: Use a fine brush to cover unpainted screw heads with the color of the panels after installation. It is absolutely necessary to avoid double painting of the panel surface around the screw head. This would cause irritating color differences. See *Field Painting* section for details on color matching.

# APPLICATION & HANDLING

## CUTTING & DRILLING



Table saw: Lay the acoustic panel down with the exposed side up. Always work with a safety guard, guide and an extraction system.



Hand saw: Lay the acoustic panel down with the exposed side up. Always work with a guide. Support the free end of the panel.



Circular saw: Lay the acoustic panel down with the exposed side down. Always work with a guide and an extraction system. Support the free end of the panel.



Not this way! Never cut acoustic panels on a stack.



Jigsaw or Hole Saw: Lay the acoustic panel down with the exposed side down. Always make longitudinal cuts with a guide.



Cutting openings by means of a supercutter  
Only cut at a right angle to the panel surface.

# APPLICATION & HANDLING

## TOUCHING UP



Dangling fibres: Carefully remove individual loose fibres with a knife.



Chipped fibres: Cover chipped fibre with a fine brush or a spray gun using using a matching paint. See section on *Field Painting* for color matching options.



Brushing: Efflorescence, dust, etc. can be removed with a soft brush.



Touching-up chipped fibre or small, unclean areas of the panels. The paint is sprayed on carefully with a spray gun using various spraying angles.

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