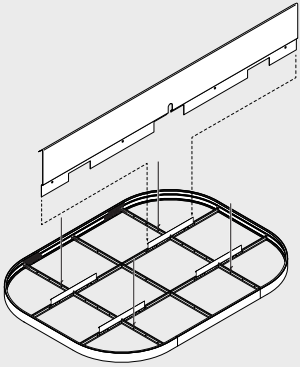
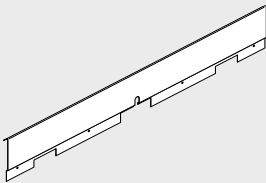


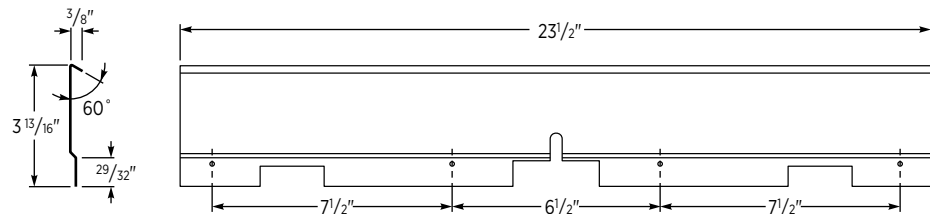
# USG CEILING CLOUD SUSPENSION BRACE TSB-24



## DESCRIPTION



The USG TSB-24 Ceiling Cloud Suspension Brace is an installation accessory that facilitates the placement of vertical supports so they are not visible along the perimeter of a ceiling cloud. The brace is compatible with both metric and imperial suspension cross tees. The TSB-24 also helps to brace the ceiling cloud.



## ADVANTAGES

**Finish Options:** The brace is available with an economical bare finish or painted flat black for concealment.

**Specially Engineered:** The brace is specially engineered to function with USG Donn® Brand suspension system cross tees. Any use with other suspension systems is strictly prohibited.

**Protected:** Min. G60 hot-dipped galvanized protective coating.

**Placement:** Attachment at the cross tee and main tee intersection allows vertical supports to be placed away from the perimeter of the cloud creating a clean and sharp aesthetic.

# USG CEILING CLOUD SUSPENSION BRACE, TSB-24

## Technical Document

### LIMITATIONS

- Interior use only.
- Max. cantilever distance is 24 in.
- When spaced 4 ft. oc. each brace shall support no more than 8 sq. ft. of ceiling area and the max. cantilever load shall not exceed 2 lbs. per sq. ft. at 24 in. cantilever distance, and 2.5 lbs. per sq. ft. at 18 in. cantilever distance.
- When spaced 2 ft. oc. each brace shall support no more than 4 sq. ft. of ceiling area and the max. cantilever load shall not exceed 4 lbs. per sq. ft.
- Max. cantilever load shall include anything in the cantilevered section such as lighting, HVAC, fire protection, ceiling tile, grid, drywall trim and general hardware.
- Not for use with wood panels.
- TSB-24 shall be spaced max. 4 ft. oc. And installed within 2 ft. of any ceiling corner.
- TSB-24 is limited for use with the following USG cross tees:
  - DX®/DXL™ (DX224, DXL224, DX/DXL424, DX/DXL424HRC)
  - Centricitee™ DXT™/DXLT™ (DXT424, DXLT424)
  - DXI Identitee™ (DXI224HRC, DXI424HRC)
  - Fineline® DXF/DXLF (DXF229, DXF429)
  - Fineline® 1/8 DXFF (DXFF229, DXFF429)
  - ZXLA™ (ZXLA224, ZXLA424)
  - USG™ Drywall Suspension System (DGLW224, DGLW424)
- For applications with Compasso Elite 10 in., the TSB-24 shall be spaced max, 2 ft, oc.

### PRODUCT DATA

**Item Number:** TSB-24

**Dimensions:** 4.144 in. x 23.500 in.

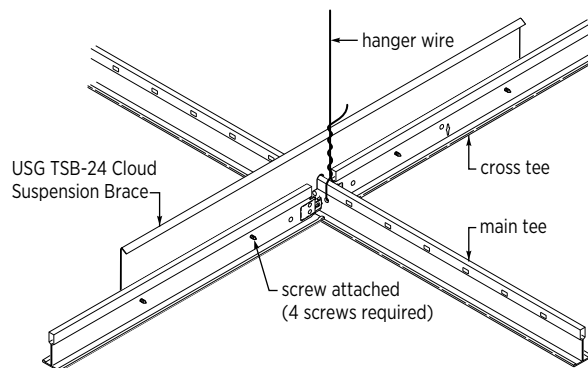
**Material Thickness:** 0.033 in.

**Material:** Min. G60, 18GA, hot-dipped galvanized steel

**Weight:** 1.25 lbs. per brace

**Packaging:** 10 braces per package

### ASSEMBLY



# USG CEILING CLOUD SUSPENSION BRACE, TSB-24

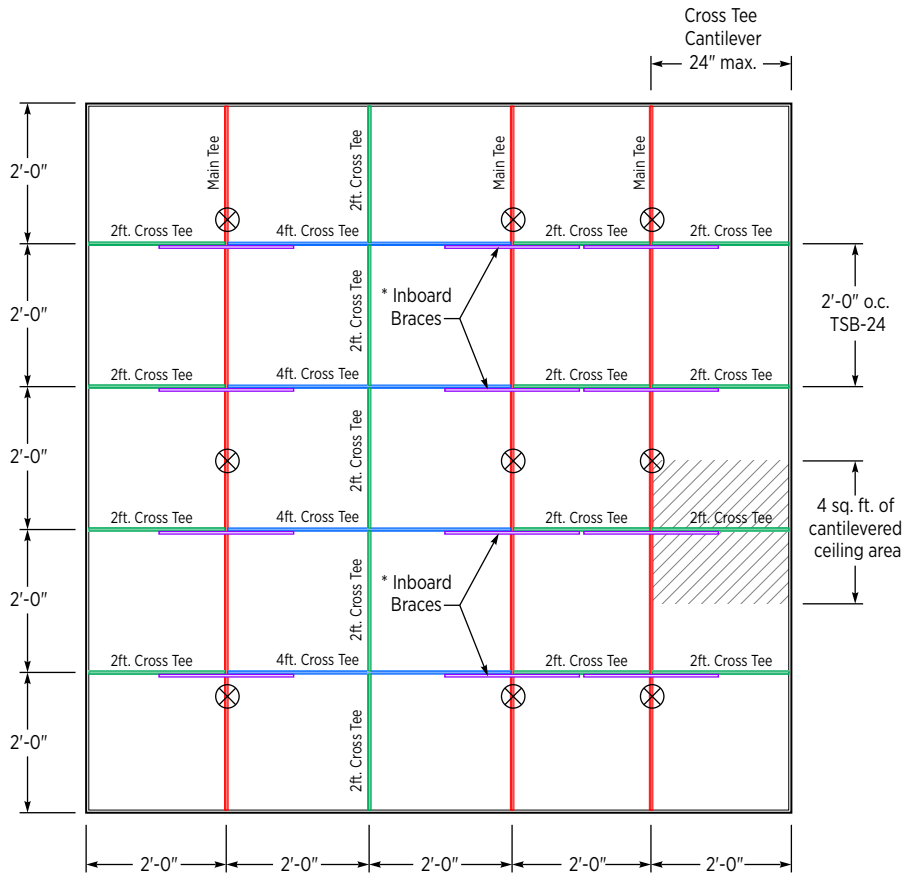
## Technical Document

### SAMPLE LAYOUT

#### KEY

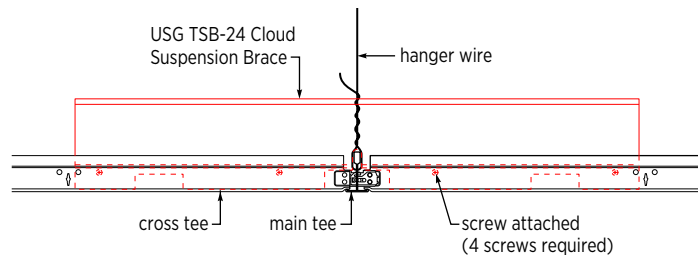
- Main Tee
- 4ft. Cross Tee
- 2ft. Cross Tee
- TSB-24 Suspension Brace
- ⊗ Hanger Wire

\*For island ceilings with three or more main tees, additional inboard braces should be used to prevent potential ceiling uplift from perimeter cantilever loads.

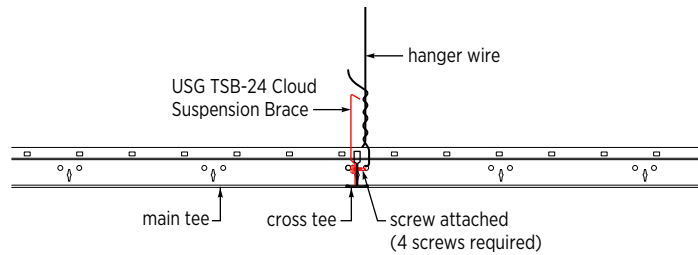


### ASSEMBLY

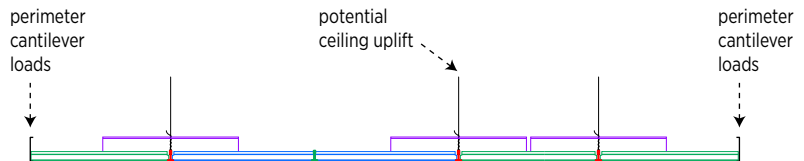
#### Front



#### Side



### Perimeter Cantilever Loads and Uplift



# USG CEILING CLOUD SUSPENSION BRACE, TSB-24

## Technical Document

### LOAD CHART

2 ft. oc. Brace Spacing			4 ft. oc. Brace Spacing		
Max Cantilever Distance	Max Ceiling Area	Max. Cantilever Load	Max Cantilever Distance	Max Ceiling Area	Max. Cantilever Load
24 in.	4 sq. ft.	4 lbs. per sq. ft. <sup>1</sup>	24 in.	8 sq. ft.	2 lbs. per sq. ft. <sup>2</sup>
			18 in.	6 sq. ft.	2.5 lbs. per sq. ft. <sup>2</sup>

<sup>1</sup>Heavy duty main tees shall be used.

<sup>2</sup>Heavy duty or intermediate duty main tees may be used.

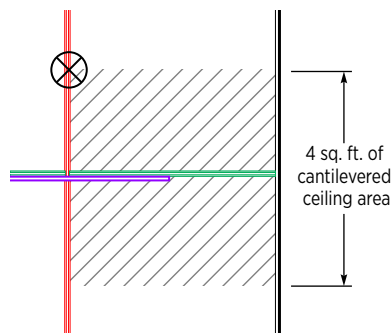
### SAMPLE WEIGHTS<sup>1</sup>

Component	Weight
Compasso™ Standard 2-1/4 in.	0.258 lbs. / lf
Compasso Standard 4 in.	0.381 lbs. / lf
Compasso Standard 6 in.	0.524 lbs. / lf
Compasso Standard 8 in.	0.667 lbs. / lf
Compasso Standard 10 in.	0.415 lbs. / lf
Compasso Standard 12 in.	0.484 lbs. / lf
Compasso Elite 2 in.	0.323 lbs. / lf
Compasso Elite 4 in.	0.521 lbs. / lf
Compasso Elite 6 in.	0.689 lbs. / lf
Compasso Elite 8 in.	1.109 lbs. / lf
Compasso Elite 10 in. <sup>2</sup>	1.872 lbs. / lf
1/2 in. Sheetrock® Gypsum Panels	1.6 lbs. / sf
Celebration™ metal ceiling panel	0.53 lbs. / sf
Fiberglass ceiling Panels	0.19 lbs. / sf
Mineral fiber ceiling panels	0.60 – 1.25 lbs. / sf
Cast mineral fiber ceiling panels	1.50 – 1.85 lbs. / sf

<sup>1</sup> This is a small listing of component weights. Refer to usg.com or cgcinc.com for products not listed and the most up-to-date product information.

<sup>2</sup> For applications with Compasso Elite 10 in., the TSB-24 shall be spaced max. 2 ft. oc.

### SAMPLE ASSEMBLY WEIGHT<sup>3</sup>



<sup>3</sup>This information is provided for estimation purposes only. Care should be taken to ensure that excessive loads are not placed at the perimeter of the ceiling cloud. A licensed engineer should be consulted if any unusual loads or atypical load distribution occurs in the cantilevered area.

Component	Weight	Weight in Cantilevered Section
Compasso™ Elite 4 in.	0.521 lbs. / lf	1.04 lbs.
DX424 cross tee	0.25 lbs. / lf	0.50 lbs.
Celebration™ metal ceiling panel	0.53 lbs. / sf	2.12 lbs.

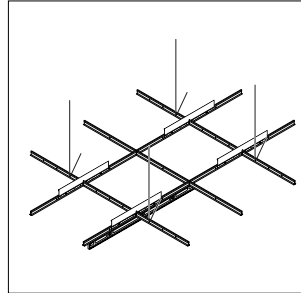
**Total = 3.66 lbs.**

**INSTALLATION**

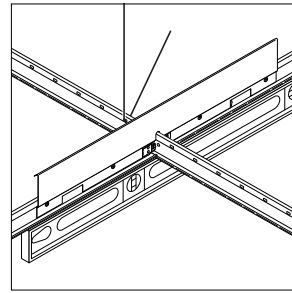
**Procedures**

- Install the perimeter tees followed by the tee brace. Be sure the system is level while installing the tee braces. **Note:** It is important to install the cross tees first and then install the tee brace by fitting it onto the web of the tee and then positioning it on the top surface of the tee.
- Fasten the tee brace with 7/16 in. pan head screws through the four holes provided. Care should be taken to ensure the screws are not stripped during installation. **Note:** Install the fasteners in the same direction to facilitate ceiling panel placement.
- Refer to IS266 Compositions™ Decorative Clouds Installation Guide for further information on installing ceiling clouds.

**Install the Perimeter Tees**



**Fasten the Tee Brace**



**Notes**

- Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read literature before specification and installation.
- Screws required for attachment of the brace to the suspension systems cross tees are not included.
- Care should be taken to ensure that excessive loads are not placed at the perimeter of the ceiling cloud. A licensed engineer should be consulted if any unusual loads or atypical load distribution occurs in the cantilevered area.
- Hanger wires shall be installed max. 4 ft. o.c. and within 24 in. of each corner or perimeter of the ceiling cloud.
- Many building codes require non-structural building components to be restrained. USG recommends restraint in accordance with all local building code requirements. Consult with the Authority Having Jurisdiction before installation to determine appropriate restraint requirements for the installation of decorative clouds.
- Placement of decorative clouds may obstruct or distort the existing or planned fire sprinkler water distribution pattern, or possibly delay the activation of the fire sprinkler or fire detection system. USG recommends consulting a fire protection engineer, NFPA 13, and the local code authority for guidance on the proper installation techniques where fire detection or suppression systems are present.

**SUBMITTAL APPROVALS**

<b>Job Name</b>		
<b>Contractor</b>		<b>Date</b>

**PHYSICAL DATA/ FOOTNOTES**

**PRODUCT INFORMATION**  
See usg.com or cgcinc.com for the most up-to-date product information.

**INSTALLATION**  
Must be installed in compliance with ASTM C636, ASTM E580, CISCA and standard industry practices, within all applicable code requirements. Alternative assemblies and installation methods may be utilized when approved by the Authority Having Jurisdiction. USG recommends checking with

the Authority Having Jurisdiction prior to designing and installing a suspended ceiling system.

**CODE COMPLIANCE**  
The information presented is correct to the best of our knowledge at the date of issuance. Because codes continue to evolve, check with a local official prior to designing and installing a ceiling system. Other restrictions and exemptions may apply.

**NOTICE**  
We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

**TRADEMARKS**  
The trademarks USG, CELEBRATION, CENTRICITEE, COMPASSO, COMPOSITIONS, DONN, DX, DXF, DXFF, DXI, DXL, DXLA, DXLF, DXLT, DXT, DXW, FINELINE, IDENTITEE, MARS, SHEETROCK, ZXLA, USG Logo, the red and grey design element, and related marks are trademarks of USG Corporation or affiliates.

**EVALUATION REPORT**  
Listed in PEI Evaluation Report, PER-16101

**SAFETY FIRST!**  
Follow good safety/ industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.

**Notice**  
The information in this document is subject to change without notice. CGC Inc. or USG Corp. assumes no responsibility for any errors that may inadvertently appear in this document.