GRIDS AND SUSPENSIONS

USG MIDDLE EAST
GRIDS & SUSPENSIONS CATALOGUE

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VER. 01 2021/2022

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USG DONN® BRAND DXF® FINELINE® ACOUSTICAL SUSPENSION SYSTEM

VISIT USGME.COM TO ORDER SAMPLES

GRID COLORS

FLAT WHITE 050 | SILVER STAIN 002 | FLAT BLACK 9005

FEATURES AND BENEFITS

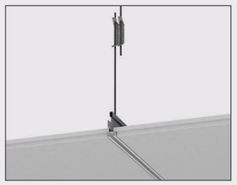
- Narrow-profile, slotted grid system with 6.35mm reveal provides streamlined appearance.
- Reveal accommodates partition attachments and pendant-mounted light fixtures.
- Mitered intersections offer a clean, tailored appearance.
- Complies with all national code requirements.
- Optional integrated air diffuser.
- Custom colors available.
- High recycled content (HRC) available.
- ICC-ES evaluated for seismic installations (ESR-1222).

APPLICATIONS

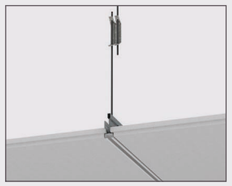
- Fire-rated interior general-use areas
- All interior general-use areas

PROFILE

EDGE DETAIL



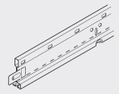
FINELINE BEVELED - FLB



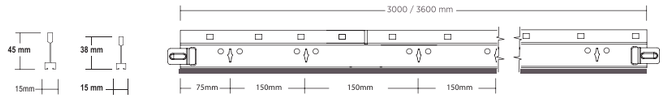
FINELINE - FL

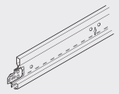
PRODUCT INFORMATION

Nr	Description	Item Reference	Load (1220MM Spacing)	Profile Height	Component Length
1	Main Runner	221DXBW01NZ	78KG/M	45MM	3600/3660MM
		FLB3000HM	78KG/M	38MM	3000MM
2	Long Cross Tee	221DXF003NZ	78KG/M	45MM	1200/1220MM
		FLB1200HM-2	78KG/M	38MM	1200MM
3	Short Cross Tee	221DXF004NZ	78KG/M	45MM	600/610MM
		FLB600HM	78KG/M	38MM	600MM
4	Wall Angle	802MT3600		24MM	3600MM
5	Wall Angle Shadowline	802MS3600 - 802MS164L		19/9MM - 20/20MM	

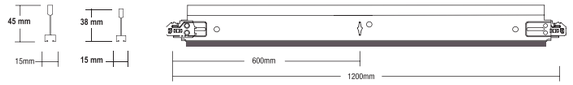


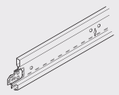
Main Runner 221DXBW01NZ / FLB3000HM



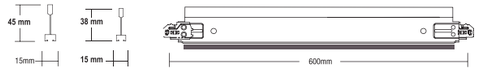


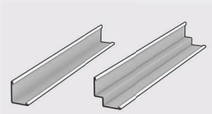
Long Cross Tee 221DXF003NZ / FLB1200HM-2



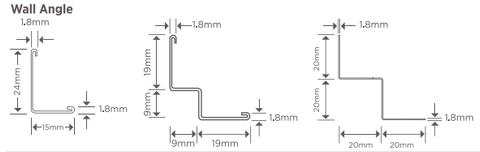


Short Cross Tee 221DXF004NZ / FLB600HM





Wall Angle



SUSPENSION OPTIONS

Adjustable Hanger | Suspension Wire | Angle Section

PHYSICAL DATA

Material

Min. G30 hot-dipped galvanized steel body and cap. Baked-on polyester paint.

Installation

Install according to ASTM C636, ASTM E580 and USG requirements.

Limitations

- For exposed grids in non-fire-rated, high-humidity applications, use USG Donn® Brand Fineline® DXFEV™ G90 painted or USG Donn® Brand ZXLA™ painted suspension systems.
- For exterior applications, the suspension system should be reviewed by a structural engineer.

ASTM Load Compliance

Classified as Light, Intermediate or Heavy Duty when tested in accordance with ASTM C635.

USG DONN® BRAND DXI® IDENTITEE® ACOUSTICAL SUSPENSION SYSTEM

VISIT USGME.COM TO ORDER SAMPLES

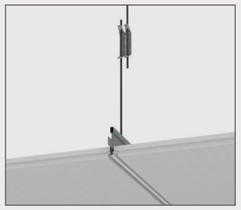
GRID COLORS

FLAT WHITE 050 · PARCHMENT 103 · MANILA 246 · BEIGE 142 · STRAW 143 · SANDSTONE 090

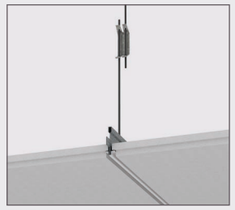
TAUPE 107 · CHARCOAL 534 · FLAT BLACK 205 · SILVER STAIN 002 · MIST 053 · SILVER STONE 052

PROFILE

EDGE DETAIL



FINELINE BEVELED - FLB



FINELINE - FL

FEATURES AND BENEFITS

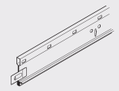
- Narrow-profile grid system with double 3.175mm reveal.
- Seamless reveal at intersections.
- Meets or exceeds all national code requirements including seismic.
- Compatible with USG Logix™ Integrated System.
- Custom colors available.
- ICC-ES evaluated for seismic installations (ESR-1222).
- G30 hot-dipped galvanized steel body and cap inhibits red rust.
- All USG Donn® Brand Identitee® DXI™ items have High Recycled Content (HRC).
- Available in metric and imperial sizes.
- Proprietary cap lance allows a variety of color and coating options to meet unique project requirements.

APPLICATIONS

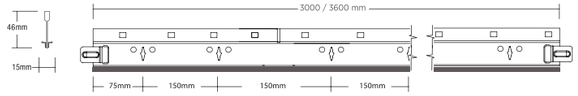
- All interior general-use areas
- USG Logix™ Integrated System

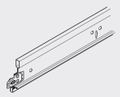
PRODUCT INFORMATION

Nr	Description	Item Reference	Load (1220MM Spacing)	Profile Height	Component Length
1	Main Runner	DXI26HRC	78KG/M	46MM	3600/3660MM
2	Long Cross Tee	DXI424HRC	78KG/M	46MM	1200/1220MM
3	Short Cross Tee	DXI224HRC	78KG/M	46MM	600/610MM
4	Wall Angle	802MT3600		22MM	3600MM
5	Wall Angle Shadowline	802MS3600 - 802MS164L		19/9MM - 20/20MM	

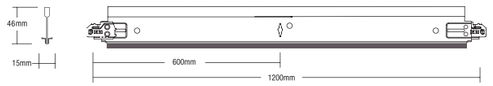


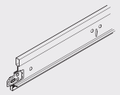
Main Runner DXI26HRC



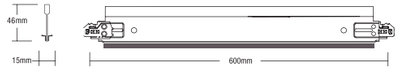


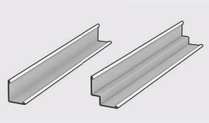
Long Cross Tee DXI424HRC



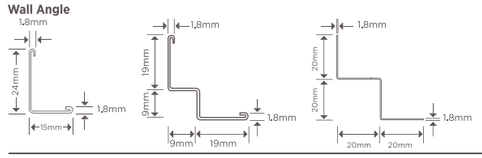


Short Cross Tee DXI224HRC





Wall Angle



SUSPENSION OPTIONS

Adjustable Hanger

Suspension Wire

Angle Section

PHYSICAL DATA

Material

Min. G30 hot-dipped galvanized steel body and cap. Baked-on polyester paint.

Installation

Install according to ASTM C636, ASTM E580 and USG requirements.

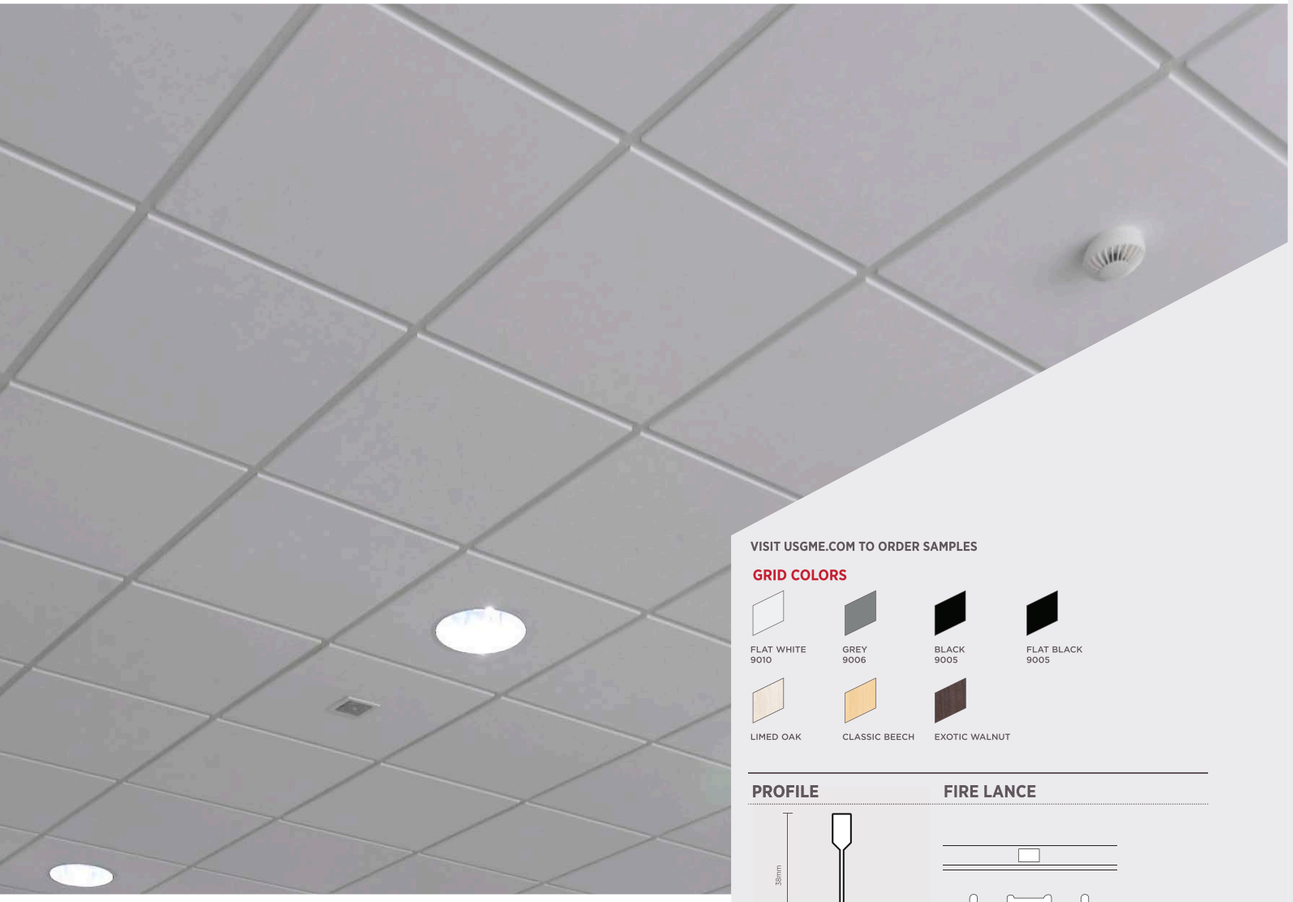
Limitations

- Please refer to USG Donn® Brand AX™ or ZXLA™ for exposed suspension systems in non-fire-rated, high-humidity applications.
- Interior applications only.

Optional accessories

- Face Sleeve Seismic expansion joints.
- Intersection Sleeve for off-module intersection.

USG ME DONN® BRAND DX®/DXL® T24 HEAVY DUTY-FIRE RATED ACOUSTICAL SUSPENSION SYSTEM



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GRID COLORS

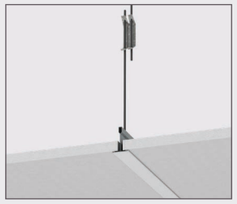
FLAT WHITE 9010 | GREY 9006 | BLACK 9005 | FLAT BLACK 9005

LIMED OAK | CLASSIC BEECH | EXOTIC WALNUT

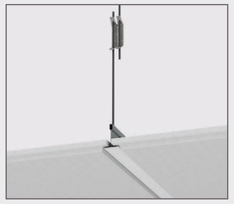
PROFILE

FIRE LANCE

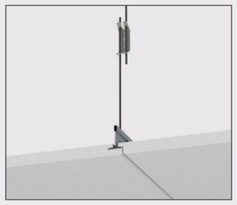
EDGE DETAIL



SQUARE EDGE - SQ



SHADOWLINE TAPERED - SLT



CONCEALED EDGE
(BESK, S-BESK, D-BESK)

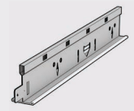
FEATURES AND BENEFITS

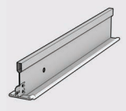
- Main tees are designed to expand at the fire lance in the event of a fire. This maintains the structural integrity of the ceiling and holds tiles in place
- DONN® Brand DX®/DXL™ T24 Heavy Duty - Fire Rated feature a body and cap made of G30 hot-dip galvanized steel as per EN 10346/ASTM A653 with pre-painted 24mm width capping to ensure that the cap remains attractive and rust-free
- Four-step coating process that outperforms in paint adhesion and corrosion resistance, as proven by industry-standard salt spray tests conducted by an Independent laboratory
- Safe, fast and simple to install & easily accessible
- Maximum economy and design simplicity
- Cross-tees with override-ends resist twisting and give professionally finished look with no exposed steel edges
- Patented QUICK-RELEASE™ clip design: demountable without tools
- Compatible with Square, SLT and Concealed ceiling tiles edges
- Audible Click means you know when tees are connected
- Exceed load compliance specifications as per ASTM C 635
- Available in metric and imperial sizes

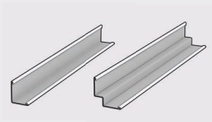
APPLICATIONS

- Fire-rated interior general-use area
- Logix™ Integrated Ceiling Systems

PRODUCT INFORMATION





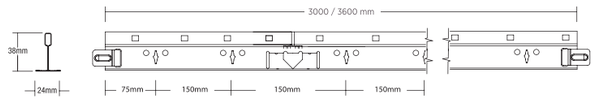


SUSPENSION OPTIONS

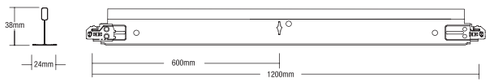
MAXIMUM ALLOWED WEIGHT OF TILES PER M²

Nr	Description	Item Reference Metric	Item Reference Imperial	Profile Height	Component Length
1	Main Runner	801DXL3600	801DXL3660	38MM	3600/3660MM
2	Long Cross Tee	803DX1200H38	803DX1220H38	38MM	1200/1220MM
3	Short Cross Tee	804DX600H38	804DX610H38	38MM	600/610MM
4	Wall Angle	802MT3600		22MM	3600MM
5	Wall Angle Shadowline	802MS3600 - 802MS164L		19/9MM - 20/20MM	

Main Runner 801DXL3600

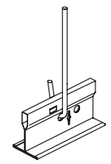


Long Cross Tee 803DX1200H38

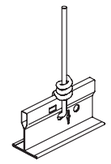


Short Cross Tee 804DX600H38

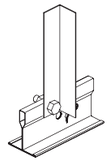
Wall Angle



Adjustable Hanger



Suspension Wire



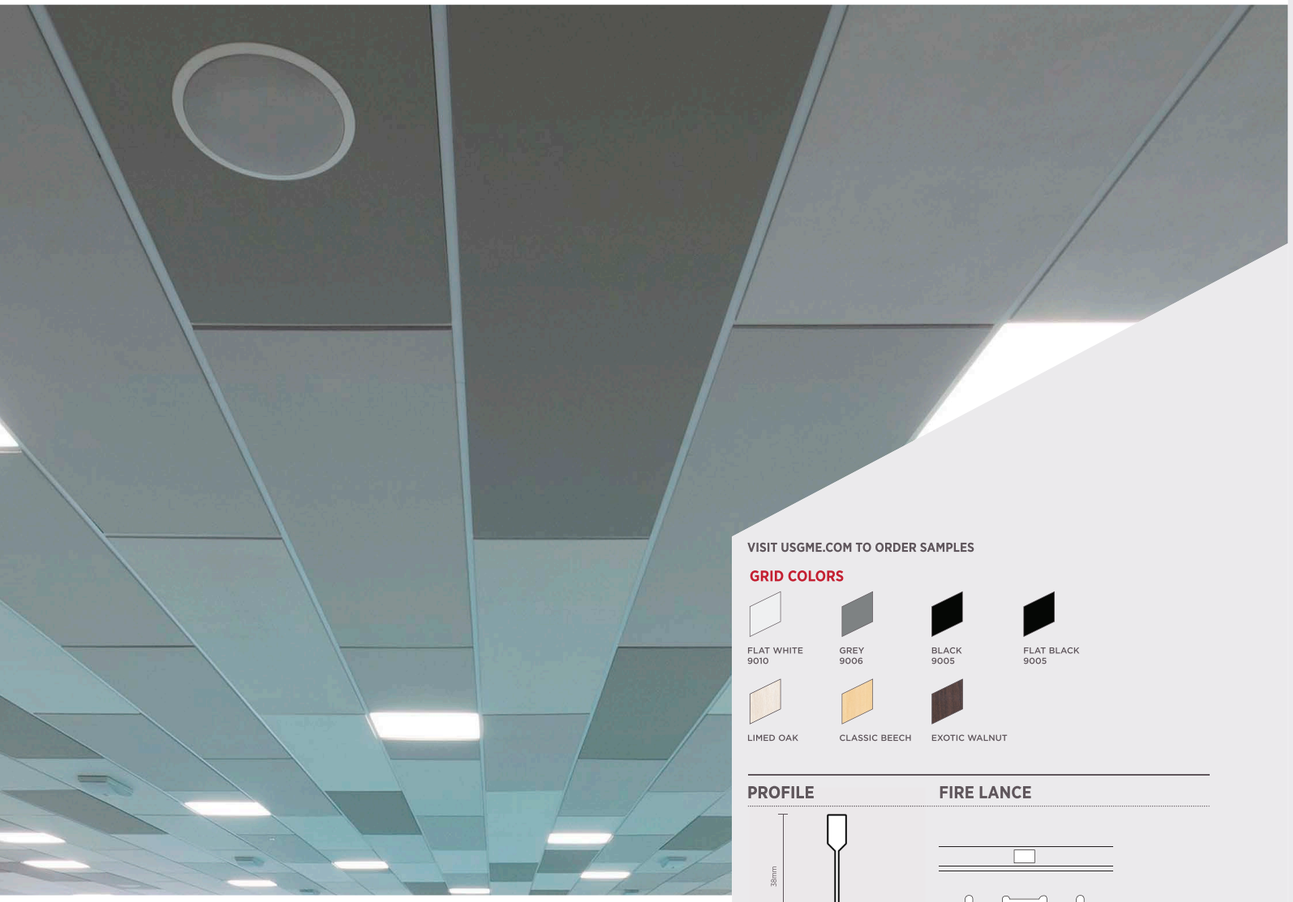
Angle Section

	Main runner at 1200mm		Main runner at 600mm	
Hanger distance (mm)	600x600	600x1200	600x600	600x1200
800	23.7	23.9	-	-
1000	23.7	23.9	55.9	56.3
1200	12.8	12.9	26.3	26.6
1500	4.6	4.8	10	10.3

Note: The load per m^2 must be distributed uniformly (no point loads) over the ceiling area. After loading, the deflection of any grid component will remain within the maximum deflection per span as stated in BS: 8290: 1991, provided the grid layout is as presented in the sketch.

Please consult USG for other layouts, load or hanger distance.

USG ME DONN® BRAND DX®/DXL® T15 CENTRICITEE– FIRE RATED ACOUSTICAL SUSPENSION SYSTEM



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GRID COLORS

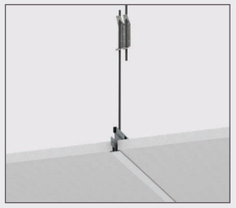
FLAT WHITE 9010 | GREY 9006 | BLACK 9005 | FLAT BLACK 9005

LIMED OAK | CLASSIC BEECH | EXOTIC WALNUT

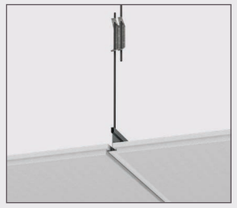
PROFILE

FIRE LANCE

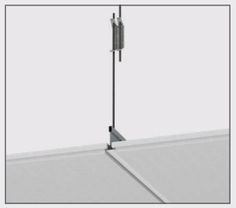
EDGE DETAIL



SQUARE EDGE - SQ



FINELINE BEVELED - FLB



FINELINE - FL

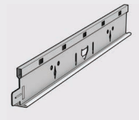
FEATURES AND BENEFITS

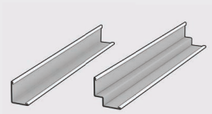
- Main tees are designed to expand at the fire lance in the event of a fire. This maintains the structural integrity of the ceiling and holds tiles in place
- DONN® Brand DX®/DXL™ T15 Centricitee - Fire Rated feature a body and cap made of G30 hot-dip galvanized steel as per EN 10346/ASTM A653 with pre-painted 15mm width capping to ensure that the cap remains attractive and rust-free
- Four-step coating process that outperforms in paint adhesion and corrosion resistance, as proven by industry-standard salt spray tests conducted by an Independent laboratory
- Safe, fast and simple to install & easily accessible
- Maximum economy and design simplicity
- Cross-tees with override-ends resist twisting and give professionally finished look with no exposed steel edges
- Patented QUICK-RELEASE™ clip design: demountable without tools
- Compatible with Square, FLB and FL ceiling tiles edges
- Audible Click means you know when tees are connected
- Exceed load compliance specifications as per ASTM C 635
- Available in metric and imperial sizes

APPLICATIONS

- Fire-rated interior general-use areas
- Logix™ Integrated Ceiling Systems

PRODUCT INFORMATION



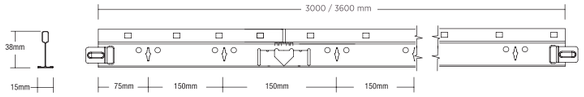


SUSPENSION OPTIONS

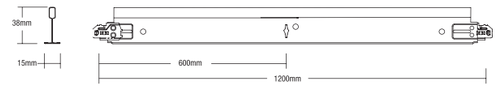
MAXIMUM ALLOWED WEIGHT OF TILES PER M²

Nr	Description	Item Reference Metric	Item Reference Imperial	Profile Height	Component Length
1	Main Runner	801DXLT15-3600	801DXLT15-3660	38MM	3600/3660MM
2	Long Cross Tee	803DXT15-1200H38	803DXT15-1220H38	38MM	1200/1220MM
3	Short Cross Tee	803DXT15-600H38	803DXT15-610H38	38MM	600/610MM
4	Wall Angle	802MT15-3600		24MM	3600MM
5	Wall Angle Shadowline	802MS3600 - 802MS164L		19/9MM - 20/20MM	

Main Runner 801DXLT15-3600

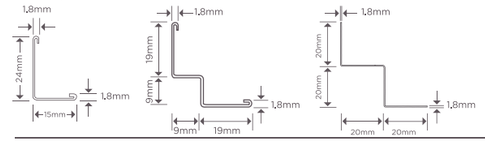


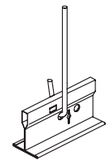
Long Cross Tee 803DXT15-1200H38



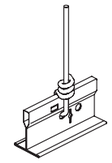
Short Cross Tee 803DXT15-600H38

Wall Angle

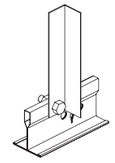




Adjustable Hanger



Suspension Wire



Angle Section

Hanger distance (mm)	Main runner at 1200mm: 600x600	Main runner at 1200mm: 600x1200	Main runner at 600mm: 600x600	Main runner at 600mm: 600x1200
800	24	24.2	-	-
1000	24	24.2	54	54.2
1200	12.4	12.5	25.5	25.7
1500	4.5	4.7	9.8	10

Note: The load per m^2 must be distributed uniformly (no point loads) over the ceiling area. After loading, the deflection of any grid component will remain within the maximum deflection per span as stated in BS: 8290: 1991, provided the grid layout is as presented in the sketch.

Please consult USG for other layouts, load or hanger distance.

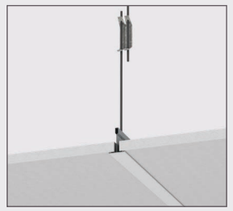
USG ME DONN® BRAND DXH® 38 T24 HEAVY DUTY ACOUSTICAL SUSPENSION SYSTEM

VISIT USGME.COM TO ORDER SAMPLES

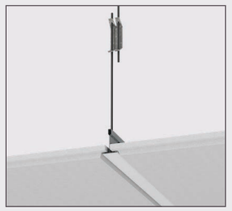
GRID COLORS

PROFILE

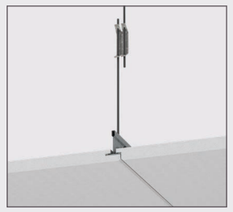
EDGE DETAIL



SQUARE EDGE - SQ



SHADOWLINE TAPERED - SLT



CONCEALED EDGE
(BESK, S-BESK, D-BESK)

FEATURES AND BENEFITS

- DONN® Brand DXH® 38 T24 Heavy Duty feature a body and cap made of G30 hot-dip galvanized steel as per EN 10346/ASTM A653 with pre-painted 24mm width capping to ensure that the cap remains attractive and rust-free
- Four-step coating process that outperforms in paint adhesion and corrosion resistance, as proven by industry-standard salt spray tests conducted by an Independent laboratory
- Safe, fast and simple to install & easily accessible
- Maximum economy and design simplicity
- Cross-tees with override-ends resist twisting and give professionally finished look with no exposed steel edges
- Patented QUICK-RELEASE™ clip design: demountable without tools
- Compatible with Square, SLT and Concealed ceiling tiles edges
- Audible Click means you know when tees are connected
- Exceed load compliance specifications as per ASTM C 635
- Available in metric and imperial sizes

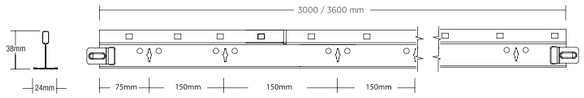
APPLICATIONS

- Interior general-use areas
- Logix™ Integrated Ceiling Systems

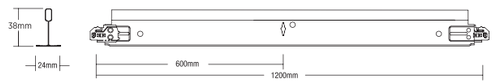
PRODUCT INFORMATION

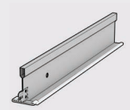
Nr	Description	Item Reference Metric	Item Reference Imperial	Profile Height	Component Length
1	Main Runner	801DX3600H38	801DX3660H38	38MM	3600/3660MM
2	Long Cross Tee	803DX1200H38	803DX1220H38	38MM	1200/1220MM
3	Short Cross Tee	804DX600H38	804DX610H38	38MM	600/610MM
4	Wall Angle	802MT3600		22MM	3600MM
5	Wall Angle Shadowline	802MS3600 - 802MS164L		19/9MM - 20/20MM	

Main Runner 801DX3600H38

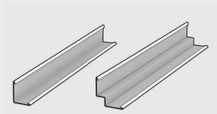


Long Cross Tee 803DX1200H38

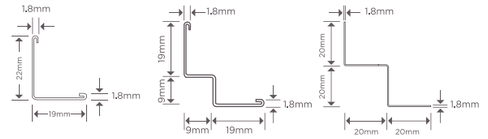




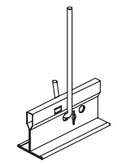
Short Cross Tee 804DX600H38



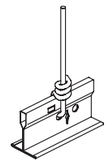
Wall Angle



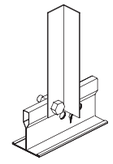
SUSPENSION OPTIONS



Adjustable Hanger



Suspension Wire



Angle Section

MAXIMUM ALLOWED WEIGHT OF TILES PER M²

Hanger distance (mm)	Main runner at 1200mm 600x600	Main runner at 1200mm 600x1200	Main runner at 600mm 600x600	Main runner at 600mm 600x1200
800	23.2	23.5	-	-
1000	23.5	23.5	46.8	48.6
1200	12.3	12.4	24.6	25.2
1500	4.5	4.6	9.7	9.9

Note: The load per m^2 must be distributed uniformly (no point loads) over the ceiling area. After loading, the deflection of any grid component will remain within the maximum deflection per span as stated in BS: 8290: 1991, provided the grid layout is as presented in the sketch.

Please consult USG for other layouts, load or hanger distance.

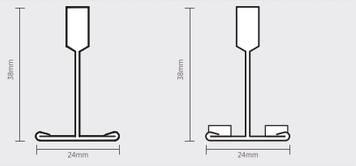
USG DONN® BRAND AX™/AXCE™ ACOUSTICAL SUSPENSION SYSTEM

VISIT USGME.COM TO ORDER SAMPLES

GRID COLORS

FLAT WHITE
050

PROFILE USG DONN® BRAND AX™ USG DONN® BRAND AXCE™



EDGE DETAIL

SQUARE EDGE - SQ SHADOWLINE TAPERED - SLT

FEATURES AND BENEFITS

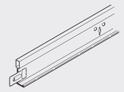
- Meets 2018 Guidelines For Healthcare Facilities.
- Noncorrosive aluminum 24mm exposed grid system with stainless steel clip, ideal for high-humidity or wet-cleaned areas.
- Capable of withstanding cleaning and/or disinfecting chemicals as tested in accordance with ASTM D5402.
- Tested for environmental conditions in accordance with ASTM C635.
- Aluminum components can be used in nonmagnetic environments and meet USDA/FSIS requirements.
- Cross-tee override-ends resist twisting and give a professionally finished look.
- Proprietary stainless steel Quick-Release™ clip.
- Up to 90% recycled content.
- Factory applied, white closed cell foam gasket.

APPLICATIONS

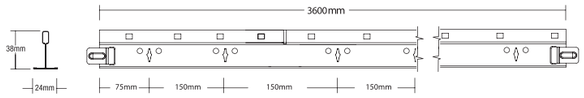
- Healthcare facilities, restricted and semi-restricted areas
- MRI rooms
- Magnetic-free zones
- High-humidity areas
- Food processing areas
- Certified to meet ISO 14644-1 Class 5 (Fed. Standard 209E Class 100)

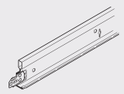
PRODUCT INFORMATION

Nr	Description	Item Reference	Load (1220MM Spacing)	Profile Height	Component Length
1	Main Runner	AX26/AXCE26	35KG/M	38MM	3600/3660MM
2	Long Cross Tee	AX224/AXCE224	35KG/M	38MM	1200/1220MM
3	Short Cross Tee	AX424/AXCE424	35KG/M	38MM	600/610MM
4	Wall Angle	M7A/ M7ACE		22MM	3660MM

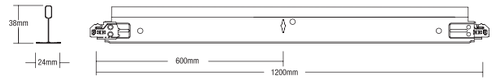


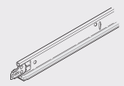
Main Runner AX26/AXCE26





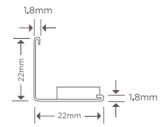
Long Cross Tee AX224/AXCE224



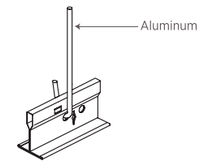


Short Cross Tee AX424/AXCE424

Wall Angle



SUSPENSION OPTIONS



Adjustable Hanger

PHYSICAL DATA

Material
Double-web aluminum tee with aluminum cap and stainless steel Quick-Release™ clip. Baked-on polyester paint or powder-coated finish.

Installation
Install according to ASTM C636, ASTM E580 and USG requirements.

Limitations

- Non-fire-rated applications only. Finish is not UV-resistant; should not be installed where direct exposure to sun or weather will occur.
- Indirect exposure to severe environmental conditions may shorten the lifespan of the product.
- The gasket face applied to USG Donn® Brand AXCE™ contains a protective strip that must be removed prior to panel installation.
- The standard gasket is not recommended for installations with metal panels.
- If metal panels are desired, a special gasket suitable for metal panels may be applied to the USG Donn® Brand DXACE™ suspension system through special order.

ASTM Load Compliance
Classified as Light, Intermediate or Heavy Duty when tested in accordance with ASTM C635.

USG DONN® BRAND DXCE®
ACOUSTICAL SUSPENSION SYSTEM

FEATURES AND BENEFITS
- Meets 2018 Guidelines for Healthcare Facilities.
- Grid system with factory-applied white, closed-cell foam gaskets for controlled-environments.
- Min. G30 hot-dipped galvanized body provides corrosion protection.
- Supports Clean Room HEPA filters and lights.
- ICC-ES evaluated for building code compliance and seismic installations (ICC-ESR-1222).
- Capable of withstanding cleaning and/or disinfecting chemicals as tested in accordance with ASTM D402

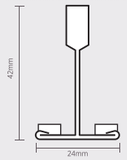
APPLICATIONS
- Clean Rooms
- Hospitals
- Food processing areas
- Healthcare facilities, restricted and semi-restricted areas
- Certified to meet ISO 14644-1 Class 5-8 (Fed. Standard 209E Class 100- 100,000

VISIT USGME.COM TO ORDER SAMPLES

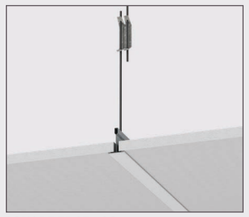
GRID COLORS

FLAT WHITE
050

PROFILE



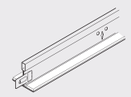
EDGE DETAIL



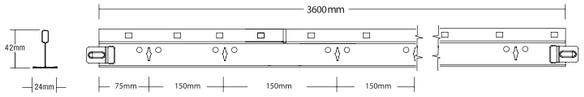
SQUARE EDGE - SQ

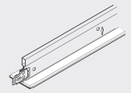
PRODUCT INFORMATION

Nr	Description	Item Reference	Load (1220MM Spacing)	Profile Height	Component Length
1	Main Runner	MEDXCE24/DXCE24	78KG/M	42MM	3600/3660MM
2	Long Cross Tee	MEDXCE424	78KG/M	38MM	1200/1220MM
3	Short Cross Tee	MEDXCE216	78KG/M	38MM	600/610MM
4	Wall Angle	M7CE		22MM	3660MM

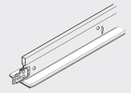


Main Runner DXWCE26/DXCE24



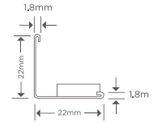


Long Cross Tee DXWCE224

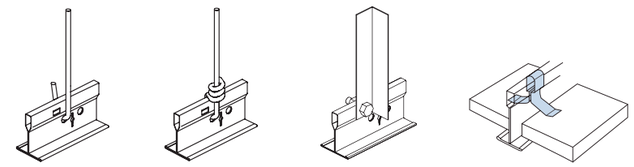


Short Cross Tee DXWCE424

Wall Angle



SUSPENSION OPTIONS



Adjustable Hanger | Suspension Wire | Angle Section | Hold Down Clip

PHYSICAL DATA

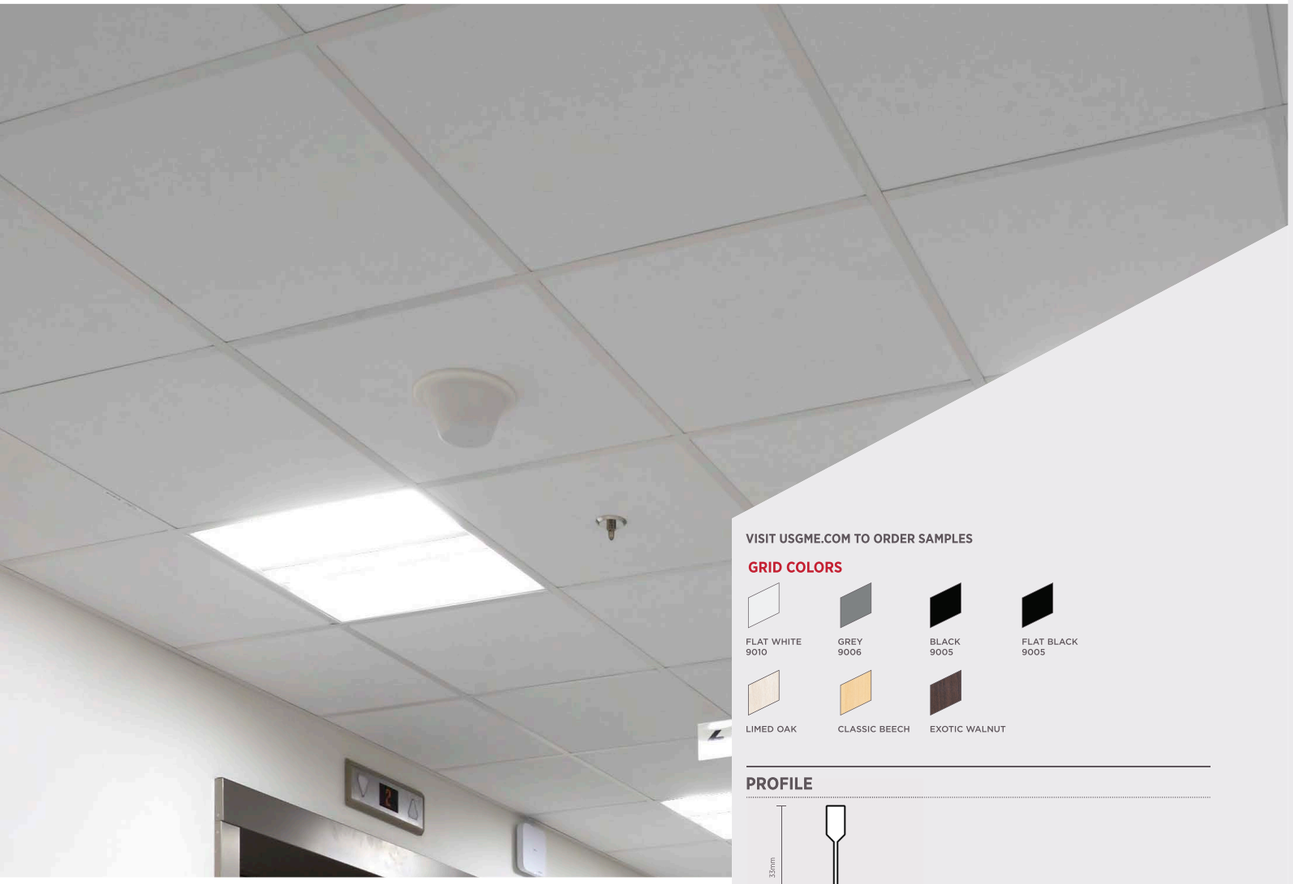
Material
Min. G30 hot-dipped galvanized steel body and cap. Baked-on polyester paint.

Installation
Install according to ASTM C636, ASTM E580 and USG requirements. Class 5-8 (Fed. Standard 209E Class 100-100,000) installations require hold-down clips and US28CE molding. Install a L15 hold-down clip within 76mm of each panel corner. For a 610mm x 1220mm system install an additional L15 hold-down clip centered on the 1220mm side. Border panels shall have a C-8 hold-down clip within 76mm of each panel corner. For a 610mm x 1220mm system install an additional C-8 hold-down clip centered on the 1220mm side. Alternative assemblies and installation methods may be utilized when approved by the authority having jurisdiction.

Limitations
- Interior applications only.
- The gasket face contains a protective strip that must be removed prior to panel installation.
- The standard gasket is not recommended for installations with metal panels.
- If metal panels are desired, a special gasket suitable for metal panels may be applied to the USG Donn® Brand CE™ Acoustical Suspension System through special order.

ASTM Load Compliance
Classified as Light, Intermediate or Heavy Duty when tested in accordance with ASTM C635.

USG ME DONN® BRAND DX®/DXH® 33 T24 INTERMEDIATE DUTY ACOUSTICAL SUSPENSION SYSTEM



VISIT USGME.COM TO ORDER SAMPLES

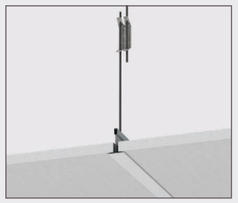
GRID COLORS

FLAT WHITE 9010 · GREY 9006 · BLACK 9005 · FLAT BLACK 9005

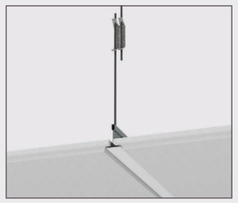
LIMED OAK · CLASSIC BEECH · EXOTIC WALNUT

PROFILE

EDGE DETAIL



SQUARE EDGE - SQ



SHADOWLINE TAPERED - SLT

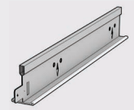
FEATURES AND BENEFITS

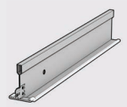
- DONN® Brand DX®/DXH® 33 T24 Intermediate Duty feature a body and cap made of G30 hot-dip galvanized steel as per EN 10346/ASTM A653 with pre-painted 24mm width capping to ensure that the cap remains attractive and rust-free
- Four-step coating process that outperforms in paint adhesion and corrosion resistance, as proven by industry-standard salt spray tests conducted by an Independent laboratory
- Safe, fast and simple to install & easily accessible
- Maximum economy and design simplicity
- Cross-tees with override-ends resist twisting and give professionally finished look with no exposed steel edges
- Patented QUICK-RELEASE™ clip design: demountable without tools
- Compatible with Square and SLT ceiling tiles edges
- Audible Click means you know when tees are connected
- Exceed load compliance specifications as per ASTM C 635
- Available in metric and imperial sizes

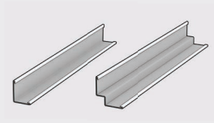
APPLICATIONS

- Interior general-use areas
- Logix™ Integrated Ceiling Systems

PRODUCT INFORMATION





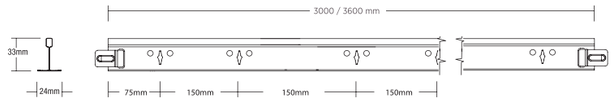


SUSPENSION OPTIONS

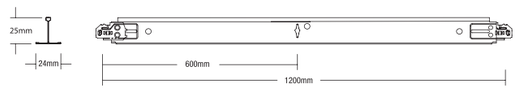
MAXIMUM ALLOWED WEIGHT OF TILES PER M²

Nr	Description	Item Reference Metric	Item Reference Imperial	Profile Height	Component Length
1	Main Runner	801DX3600H33	DX3660H33	33MM	3600/3660MM
2	Long Cross Tee	803DX1200H25	803DX1220H25	25MM	1200/1220MM
3	Short Cross Tee	803DX600H25	803DX610H25	25MM	600/610MM
4	Wall Angle	802MT3600		22MM	3600MM
5	Wall Angle Shadowline	802MS3600 - 802MS164L		19/9mm - 20/20mm	

Main Runner 801DX3600H33

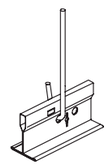


Long Cross Tee 803DX1200H25

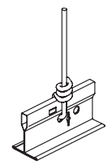


Short Cross Tee 803DX600H25

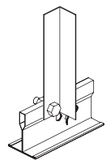
Wall Angle



Adjustable Hanger



Suspension Wire



Angle Section

Hanger distance (mm)	Main runner at 1200mm: 600x600	Main runner at 1200mm: 600x1200	Main runner at 600mm: 600x600	Main runner at 600mm: 600x1200
800	23.2	23.5	-	-
1000	23.2	23.5	46.5	47.6
1200	11.6	11.6	23.2	23.4
1500	4.5	4.6	9.7	9.9

Note: The load per m^2 must be distributed uniformly (no point loads) over the ceiling area. After loading, the deflection of any grid component will remain within the maximum deflection per span as stated in BS: 8290: 1991, provided the grid layout is as presented in the sketch.

Please consult USG for other layouts, load or hanger distance.

USG ME DONN® BRAND DX®/DXH® 30 T24 LIGHT DUTY ACOUSTICAL SUSPENSION SYSTEM

FEATURES AND BENEFITS

- DONN® Brand DX® /DXH® 30 T24 Light Duty feature a body and cap made of G30 hot-dip galvanized steel as per EN 10346/ASTM A653 with pre-painted 24mm width capping to ensure that the cap remains attractive and rust-free
- Four-step coating process that outperforms in paint adhesion and corrosion resistance, as proven by industry-standard salt spray tests conducted by an Independent laboratory
- Safe, fast and simple to install & easily accessible
- Maximum economy and design simplicity
- Cross-tees with override-ends resist twisting and give professionally finished look with no exposed steel edges
- Patented QUICK-RELEASE™ clip design: demountable without tools
- Compatible with Square and SLT ceiling tiles edges
- Audible Click means you know when tees are connected
- Exceed load compliance specifications as per ASTM C 635
- Available in metric and imperial sizes

APPLICATIONS

- Interior general-use areas
- Logix™ Integrated Ceiling Systems

VISIT USGME.COM TO ORDER SAMPLES

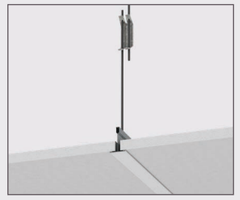
GRID COLORS

FLAT WHITE 9010 · GREY 9006 · BLACK 9005 · FLAT BLACK 9005

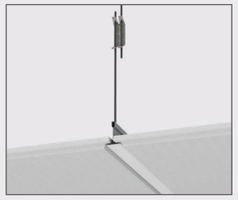
LIMED OAK · CLASSIC BEECH · EXOTIC WALNUT

PROFILE

EDGE DETAIL

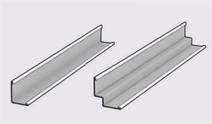


SQUARE EDGE - SQ



SHADOWLINE TAPERED - SLT

PRODUCT INFORMATION

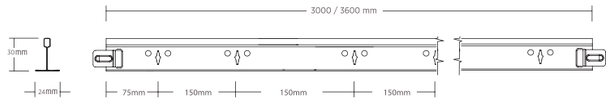


SUSPENSION OPTIONS

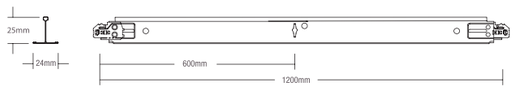
MAXIMUM ALLOWED WEIGHT OF TILES PER M²

Nr	Description	Item Reference Metric	Item Reference Imperial	Profile Height	Component Length
1	Main Runner	801DX3600H30	801DX3660H30	30MM	3600/3660MM
2	Long Cross Tee	803DX1200H25	803DX1220H25	25MM	1200/1220MM
3	Short Cross Tee	804DX600H25	804DX610H25	25MM	600/610MM
4	Wall Angle	802MT3600		22MM	3600MM
5	Wall Angle Shadowline	802MS3600 - 802MS164L		19/9mm - 20/20mm	

Main Runner 801DX3600H30

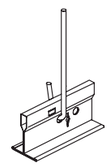


Long Cross Tee 803DX1200H25

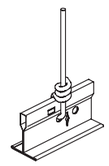


Short Cross Tee 804DX600H25

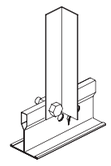
Wall Angle



Adjustable Hanger



Suspension Wire



Angle Section

	Main runner at 1200mm		Main runner at 600mm	
Hanger distance (mm)	600x600	600x1200	600x600	600x1200
800	20.9	21.2	-	-
1000	20.9	21.2	41.9	42.9
1200	10.5	10.5	20.9	20.9
1500	4.1	4.2	8.7	8.9

Note: The load per m^2 must be distributed uniformly (no point loads) over the ceiling area, After loading, the deflection of any grid component will remain within the maximum deflection per span as stated in BS: 8290: 1991, provided the grid layout is as presented in the sketch.

Please consult USG for other layouts, load or hanger distance.

ACOUSTICAL CEILING TILE EDGE DETAILS

DONN® DX is the most widely specified grid in Middle East. It includes a wide range of profiles and colors and is fully compatible with all USG ME ceiling tiles as well as most third party brands. Precision design and quality manufacturing ensure both structural and aesthetic integrity in all ceiling designs. USG ME offers the following suspension system and edge details options. Select a suspension system and match it with a corresponding panel edge details, or vice versa, to assure proper system fit and assembly.

EDGE DETAIL	SQ Edge	SLT Edge	SL Edge	FLB Edge	FL Edge	Pedestal (ILT Edge)	Concealed BESK Edge	Concealed S-BESK Edge	Concealed D-BESK Edge
GRID SYSTEM									
DX®/DXL™ T24 LIGHT DUTY									
DX®/DXL™ T24 INTERMEDIATE DUTY									
DX®/DXL™ T24 HEAVY DUTY									
DX®/DXL™ T24 HEAVY DUTY - FIRE RATED									
DX®/DXL™ T15 CENTRICITEE									
AX™/AXCE™									
CE™									
FINELINE® DXF™/DXLF™									
IDENTITEE® DXI™									
DONN® CONCEALED T,Z									
DONN CONCEALED C,L									

DONN® SUSPENSION SYSTEM LOADINGS

CEILING MASS KG/M²

Use of Maximum Allowable Gross Ceiling Weight Charts:

- Determine the maximum allowable ceiling weight for the chosen Main Tee and hanger spacings from Graph.
- Determine the maximum allowable ceiling weight for the chosen Cross Tee spacing from table.
- The maximum allowable gross weight is the lower of the values from step 1 and 2.
- Note that any heavy lighting, or other mechanical fixtures should be independently supported.
- Seismic considerations for in-plane loads may take precedence in determining the required section (refer USG ME Representative for details).

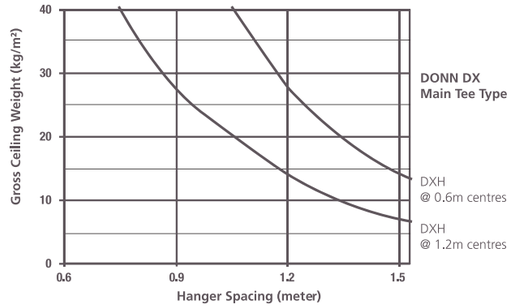
Cross Tees

DONN DX	Cross Tee Spacing (m)	
Cross Tee Type	0.6	1.2
DX600L M	40.0	29.5
DX1200H 30	28.0	14.0
DX1200L M	9.8	4.9

Notes:

- Values are based on simple span tests in accordance with recognized International Standard ASTM C635. Higher values can often be attained by allowing for the effect of continuous spans, the actual increase being subject to span arrangements. Please contact USG ME Interiors for guidance.
- For cross-nogged configurations e.g.: where a 1200x600 mm panel runs parallel with the main tee, the spacing values should be used as for 1200x1200mm module.
- Where main tees are at 1200mm centers, creating a 600x600mm configuration does not significantly increase load carrying limits.

Main tees



Uniform Loads - kg/lm (linear meter)
Uniform loads are loads that are transferred evenly along a given tee. The maximum load is the combined load on both sides of the tee.
Example:
A 1200 x 600 light fitting weighing 12.6 kg applies a load of 3.5 kg/lm (1.2 + 0.6 + 1.2 + 0.6 = 3.6 lm therefore 12.6 kg / 3.6 lm = 3.5 kg/lm) A 1200 x 600 ceiling panel weighing 3.6 kg applies a load of 1 kg /lm The combined load of light and ceiling panel is 4.5 kg/lm. The maximum allowable uniform load is the lesser of either main or cross tee values

DONN DX Component	Point Load kg
Main Tee	
DX3600H	16.8
DX3600IM*	11.6
Main Tee	
DX600LM	35.4
DX1200LM	16.7
DX1200LM	5.9

*Hanger spacing @ 1200mm OC

DONN DX Component	Point Load kg
Main Tee	
DX3600H	7.9
DX3600IM*	7.0
Main Tee	
DX600LM	13.2
DX1200LM	7.9
DX1200LM	4.1

*Hanger spacing @ 1200mm OC

Point Loads - kg
Point loads are loads that transfer to a tee at a single point (or several points) over a very small area. The weakest point is assumed to be mid span. main tees are based on a 1200mm span.

The maximum allowable point load is the lesser of either main or cross tee values.

DONN® SUSPENSION SYSTEM SEISMIC SOLUTIONS

Categories D, E, and F Category C as per IBC

Since 1957 DONN® brand suspension systems have set the standard, using the strongest gauge steel to produce the tightest systems available with the greatest lateral and torsional stiffness. Building on this commitment to quality, USG teamed with the University at Buffalo (SUNY), the Department of Civil, Structural and Environmental Engineering – Structural Engineering and Earthquake Simulation Laboratory (SEESL) and the Earthquake Engineering Research Center (EERC) University of California, Berkeley to conduct full-scale seismic testing to evaluate and qualify the seismic performance of these systems. This testing proved that DONN® suspension systems provide a superior code-compliant solution to meeting International Building Code (IBC) requirements, including installations in Categories D, E and F, and Category C. USG is the only manufacturer to team with two separate earthquake engineering laboratories to qualify the performance of our systems.

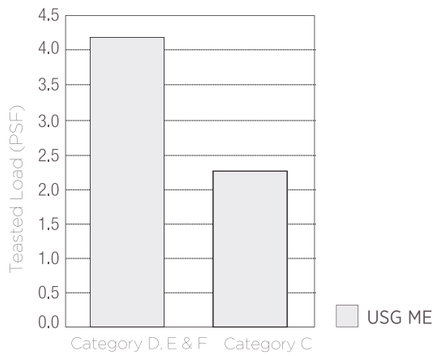
When seismic requirements are a critical design issue, architects, contractors and building officials can rely on DONN® suspension systems to:

- Meet or exceed all national code requirements with 22mm wall molding.
- Fulfill requirements for IBC seismic design categories C, D, E, and F.
- Provide evidence of compliance (and greatly exceed) ICC Evaluation Service, Inc. (ICC-ES) AC156 and AC368 requirements.
- Offer an aesthetically attractive option to traditional 5mm angle molding.
- Provide approved solutions certified with the maximum m^2. weights accommodating complete ceilings systems.
- Offer compliant systems tested and verified by two separate earthquake engineering laboratories.
- Offer a seismic clip laboratory-tested to greatly exceed all structural requirements including tension, compression & tee fallout.

SEISMIC QUALIFICATION / SPECIFICATIONS

Seismic testing typically focuses primarily on the suspension system itself. Any ceiling panel can be installed in the test assembly regardless of how little it weighs, and components such as light fixtures and air handling equipment are usually excluded. In practical application, however, the suspension system must support and carry the weight of a fully functional ceiling system, including ceiling panels that can weigh as much as 1kg m^2./sq. Therefore, USG tested suspension systems with weights commensurate with those found in real-world installations, including light fixtures and air handling equipment, using a wide variety of the ceiling panels that USG ME offers. Full-scale testing performed at the University at Buffalo (SUNY) the department of Civil, Structural and Environmental Engineering – Structural Engineering and Earthquake Simulation Laboratory (SEESL) and the Earthquake Engineering Research Center (EERC) University of California, Berkeley certifies that USG ME IBC-compliant assemblies are able to accommodate loads commensurate with those found in real-world installations.

Maximum Ceiling System Weight Tested



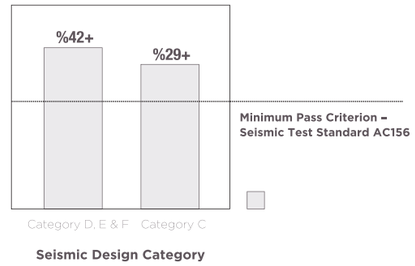
Seismic Design Category

TESTING

The USG figures presented are based on full-scale testing and evaluation performed at the University at Buffalo (SUNY) the department of Civil, Structural and Environmental Engineering – Structural Engineering and Earthquake Simulation Laboratory (SEESL) and the Earthquake Engineering Research Center (EERC) University of California, Berkeley. Comparative data obtained from public sources includes ICC-ES Reports, product literature and Web sites.

A complete range of USG ceiling systems was subjected to various levels of earthquake acceleration levels for the purpose of seismic qualification. The experimental studies were performed in the University at Buffalo (SUNY) the department of Civil, Structural and Environmental Engineering • Structural Engineering and Earthquake Simulation Laboratory (SEESL) and the Earthquake Engineering Research Center (EERC) University of California, Berkeley using an earthquake simulator. System performance was certified to tolerate forces in seismic Categories D, E and F that exceeded the minimum pass criterion of AC156 and AC368 by 42%.

USG ME Exceeds AC156 Test Criteria



Seismic Design Category

Testing per ICC Evaluation Service, Inc. (ICC-ES) AC156 and AC368:

System Design	Seismic Design Category	Maximum Ceiling System Weight Tested	Allowed Suspension System Load Carrying Capacity	Test Result
System DXL-H	D,E,F	12.2 kg/m^2	Heavy Duty	Passed
System DXL-I-C	C	11 kg/m^2	Intermediate Duty	Passed

With these certified IBC-compliant assemblies, USG ME is the only manufacturer to offer:

- A seismic system that exceeds the minimum pass criterion of AC156 and AC368 by more than 42%.
- Seismic-system weights commensurate with typical ceiling systems.
- A seismic clip laboratory-tested to greatly exceed all structural and seismic requirements including tension,compression and tee fallout.
- Compliant systems tested and verified by two separate earthquake engineering laboratories.

CODE APPROVAL

Testing and evaluation performed at the University at Buffalo (SUNY), the Department of Civil, Structural and Environmental Engineering – Structural Engineering and Earthquake Simulation Laboratory (SEESL) and the Earthquake Engineering Research Center (EERC) University of California, Berkeley qualify the performance of these systems according to the AC156 – Seismic Qualification Specification, and AC368 – Acceptance Criteria for Suspended Ceiling Framing Systems. Several alternative materials, designs and methods of construction were evaluated and tested. Results of this investigation indicate that these tested alternative designs are at least the equivalent of that prescribed in the code for quality, strength, effectiveness, fire resistance, durability and safety. The data and test results presented provide technical evidence on which a code official can base approval. Construction details for these systems are shown on the following pages.

DONN® SUSPENSION SYSTEM SEISMIC SOLUTIONS

Categories D, E, and F Category C as per IBC

SEISMIC TEST RESULTS

System Design	System DXL-H	System DXL-I-C
Seismic Category	D, E, F	D, E, F
Suspension System	DONN® double-web, galvanized steel meeting or hot-dipped exceeding ASTM C635	DONN® double-web, hot-dipped galvanized steel meeting or exceeding ASTM C635
Duty rating	Heavy Duty	Heavy Duty
Wall molding	22mm	22mm
Seismic Clip	ACM7	ACM7
Shake Table	Six degrees of freedom	Six degrees of freedom
Test Protocol	Simulated earthquake	Simulated earthquake
Qualification	AC156 and AC368	AC156 and AC368
Result	Passed	Passed
Minimum Acceleration Requirement	Exceeds by 42%	Exceeds by 42%
Two Adjacent Floating Sides – With Gap	Fastener attachment to tee through slot optional), no fastener through wall molding	Fastener attachment to tee through slot optional), no fastener through wall molding
Two Adjacent Fixed Sides – Tight, No Gap	Fastener attachment to tee (optional), one fastener through wall molding (optional)	Fastener attachment to tee (optional), one fastener through wall molding (optional)
Perimeter Wires	Yes	Yes
Stabilizer Bars	No	No
System Weight	12.2kg/m^2	12.2kg/m^2

Convenience holes located in the tee bulb may be used for any and all hanger wires. Load tests performed on 12-gauge hanger wires through convenience holes found the failure to be in excess of 180kg. This far exceeds the required 90kg. The performance of DONN® seismic systems is based on the specific combination of superior components, and design and installation methods shown. Components from other manufacturers were not evaluated, and their use or any mixed use is not recommended.

SYSTEMS SUMMARY

	Category D,E,F Alternate Seismic Application	Standard Seismic Application
	DXL-H	
	Heavy Duty DXL-H System 22mm Molding	**Heavy Duty System 5mm Molding**
Suspension System Duty Rating	Heavy	Heavy
Wall Molding	22mm	5mm
Seismic Clip	ACM7	None
Two Adjacent Floating Sides – With Gap	ACM7 seismic clip with fastener attachment to tee through slot (optional), and no fastener through wall molding	No attachment of tee to molding
Two Adjacent Fixed Sides – Tight, No Gap0	ACM7 seismic clip with fastener attachment to tee (optional), and one fastener through wall molding (optional)	Pop-rivet attachment of tee to molding
Perimeter Hanger Wires	Yes	Yes
Stabilizer Bars	None	Yes

	Category C Alternate Seismic Application	Standard Seismic Application
	DXL-I-C	
	intermediate Duty System 22mm Molding	**Intermediate Duty System 22mm Molding, Stabilizer Bars**
Suspension System Duty Rating	Heavy	Heavy
Wall Molding	22mm	5mm
Seismic Clip	ACM7	None (unless utilized in lieu of stabilizer bar)
Two Adjacent Floating Sides – With Gap	ACM7 seismic clip with fastener attachment to tee through slot (optional), and no fastener through wall molding	No attachment of tee to molding
Two Adjacent Fixed Sides – Tight, No Gap0	ACM7 seismic clip with fastener attachment to tee (optional), and one fastener through wall molding (optional)	Pop-rivet attachment of tee to molding
Perimeter Hanger Wires	Yes	None
Stabilizer Bars	None	Yes

Convenience holes located in the tee bulb may be used for any and all hanger wires. Load tests performed on 12-gauge hanger wires through convenience holes found the failure to be in excess of 180kg. This far exceeds the required 90kg. The performance of DONN® seismic systems is based on the specific combination of superior components, and design and installation methods shown. Components from other manufacturers were not evaluated, and their use or any mixed use is not recommended.

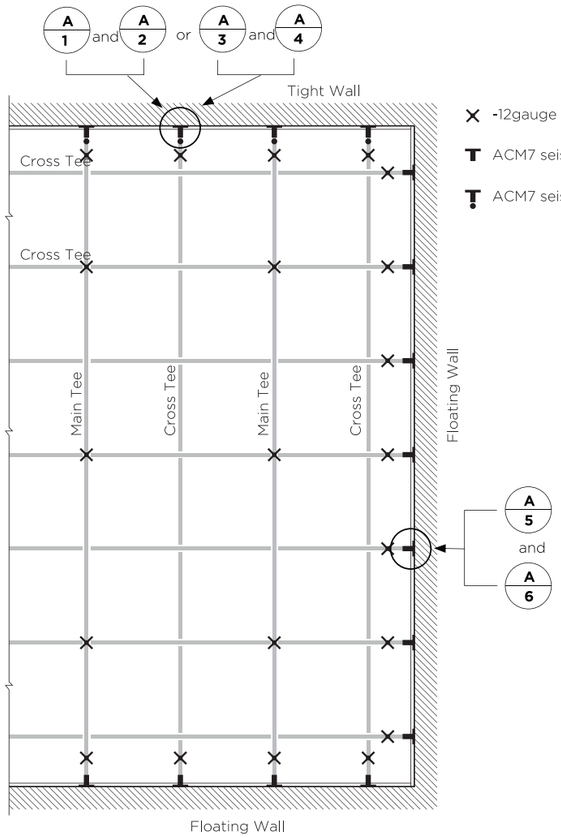
DONN® SUSPENSION SYSTEM SEISMIC SOLUTIONS

Categories D, E, and F Category C as per IBC

SYSTEM SUMMARY

Suspension System Duty Rating	Heavy
Wall Molding	22mm
Seismic Clip	ACM7
Two Adjacent Floating Sides – With Gap	3/49 gap; ACM7 seismic clip with fastener attachment to tee through slot (optional), and no fastener through wall molding.
Two Adjacent Fixed Sides – Tight, No Gap	Tight, no gap; ACM7 seismic clip with fastener attachment to tee (optional), and one fastener through wall molding (optional)
Perimeter Hanger Wires	Yes
Stabilizer Bars	None

CONSTRUCTION DETAILS



- -12gauge hanger wire
- ACM7 seismic clip
- ACM7 seismic clip or riveted

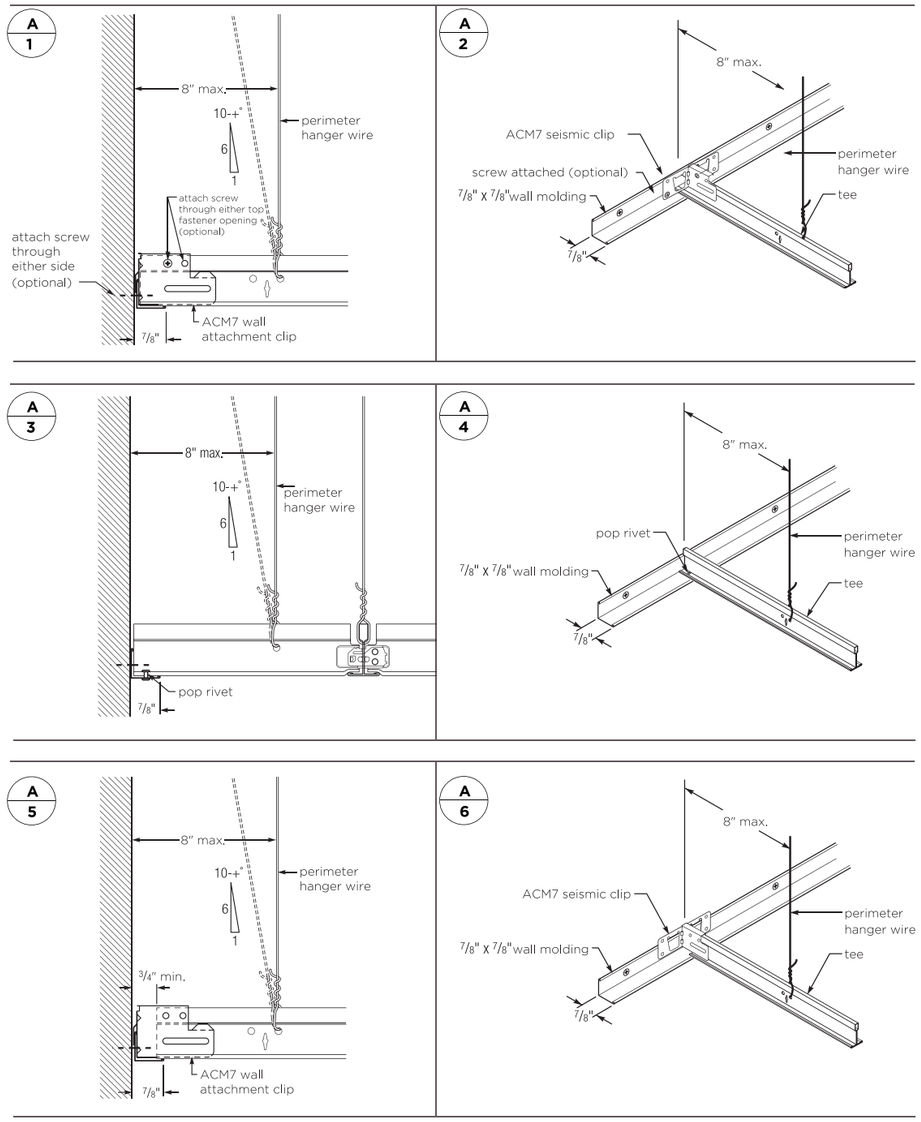
All main DONN® suspension systems – DX/DXL, Fineline DXF, Fineline 1/8 DXFF, Centricitee DXT/DXLT, CE, DXW, DXLA, and ZXLA – include the Code compliment and heavy-duty main tees for Seismic Design Categories D, E, and F.

For ceiling areas exceeding (232 m^2), a seismic separation joint may be required. See SC2496 for information on seismic separation joints.

The performance of DONN® seismic systems is based on the specific combination of superior components, and design and installation methods shown. Components from other manufacturers were not evaluated, and their use or any mixed use is not recommended.

Convenience holes located in the tee bulb may be used for any and all hanger wires.

ACM7 CLIP, TIGHT WALL



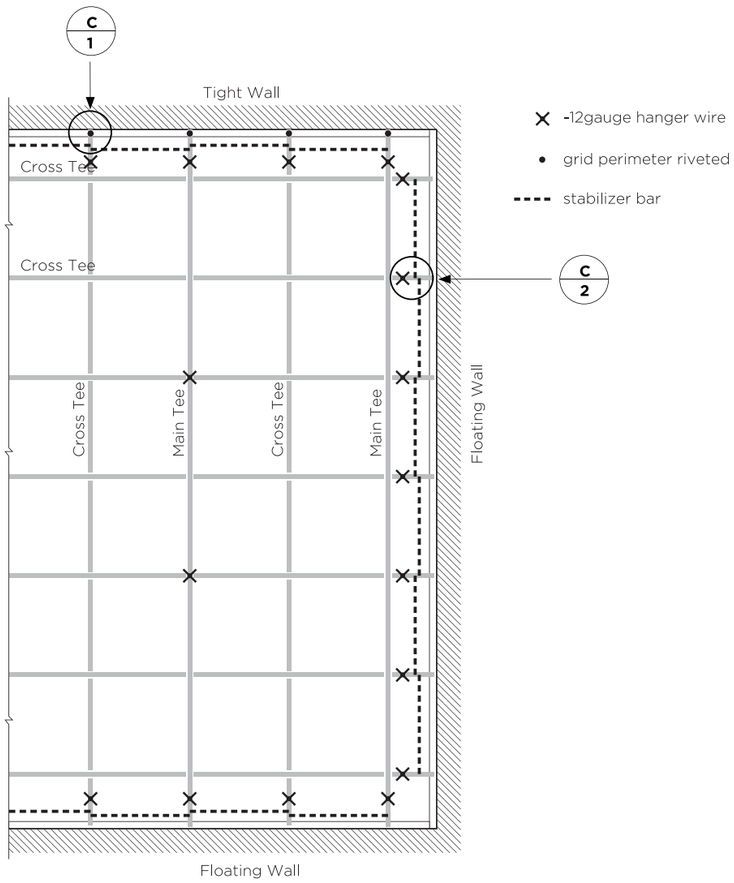
DONN® SUSPENSION SYSTEM SEISMIC SOLUTIONS

Categories D, E, and F Category C as per IBC

SYSTEM SUMMARY

Suspension System Duty Rating	Heavy
Wall Molding	5mm
Seismic Clip	ACM7
Two Adjacent Floating Sides – With Gap	None (unless utilized in lieu of stabilizer bars)
Two Adjacent Fixed Sides – Tight, No Gap	19mm gap; no attachment of tee to molding
Perimeter Hanger Wires	Yes
Stabilizer Bars	Yes

CONSTRUCTION DETAILS



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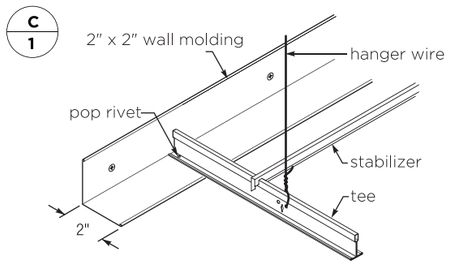
For ceiling areas exceeding 232 m^2, a seismic separation joint may be required. See SC2496 for information on seismic separation joints.

The performance of DONN® seismic systems is based on the specific combination of superior components, and design and installation methods shown. Components from other manufacturers were not evaluated, and their use or any mixed use is not recommended.

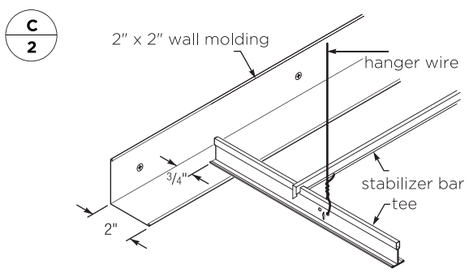
Convenience holes located in the tee bulb may be used for any and all hanger wires.

ACM7 CLIP, TIGHT WALL

Pop Rivet, Tight Wall



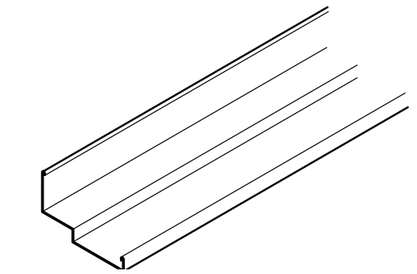
Tee Unattached, Floating Wall



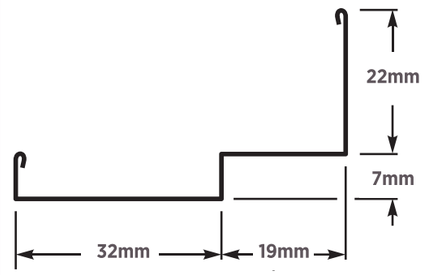
5MM SEISMIC SHADOW MOLDING

With a 19mm reveal located by the wall to disguise its width, 5mm shadow molding provides an aesthetically pleasing option to traditional 5mm seismic molding. Designed for use with 24mm exposed DONN® DX/DXL suspension systems, this seismic shadow molding meets or exceeds all national code requirements and fulfills requirements for Seismic Design Categories D, E, and F.

MS274

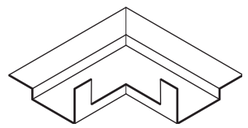


Profile

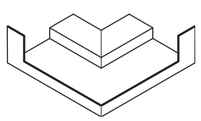


Preformed corners are available, eliminating the need to miter this molding.

Inside Corner Molding



Outside Corner Molding



For more information about the MS274 5mm seismic shadow molding, see Seismic Mold data sheet (AC3184) or Ceiling Systems catalogue (SC2000).

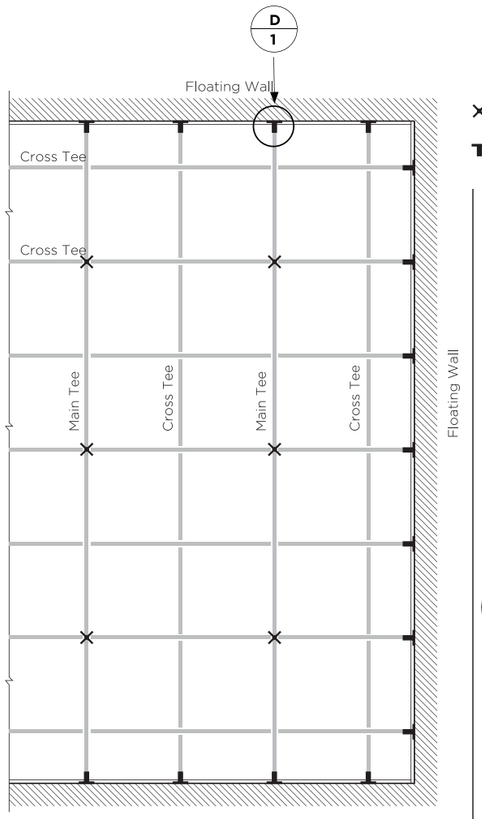
CATEGORY C
ALTERNATE SEISMIC APPLICATION

Intermediate Duty DXL-I-C System 22mm Molding

SYSTEM SUMMARY

Suspension System Duty Rating	Intermediate
Wall Molding	22mm
Seismic Clip	ACM7
Two Adjacent Floating Sides – With Gap	ACM7 seismic clip with fastener attachment to tee through slot (optional), and one fastener through wall molding (optional).
Two Adjacent Fixed Sides – Tight, No Gap	Tight, no gap; pop-rivet attachment of tee to molding
Perimeter Hanger Wires	None
Stabilizer Bars	None

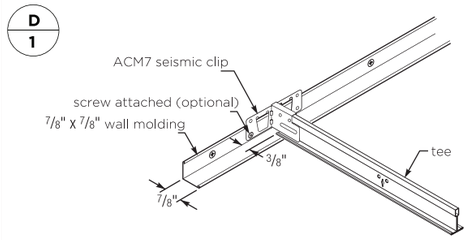
CONSTRUCTION DETAILS



-12gauge hanger wire

ACM7 seismic clip

ACM 7 CLIP, FLOATING WALLS



All main DONN® suspension systems – DX/DXL, Fineline DXF, Fineline 1/8 DXFF, Centricitee DXT/DXLT, CE, DXW, DXLA, and ZXLA – include the Code compliment intermediate-duty main tees for Seismic Design Categories A, B and C.

The performance of DONN® seismic systems is based on the specific combination of superior components, and design and installation methods shown. Components from other manufacturers were not evaluated, and their use or any mixed use is not recommended.

Convenience holes located in the tee bulb may be used for any and all hanger wires.
Alternate Seismic Application

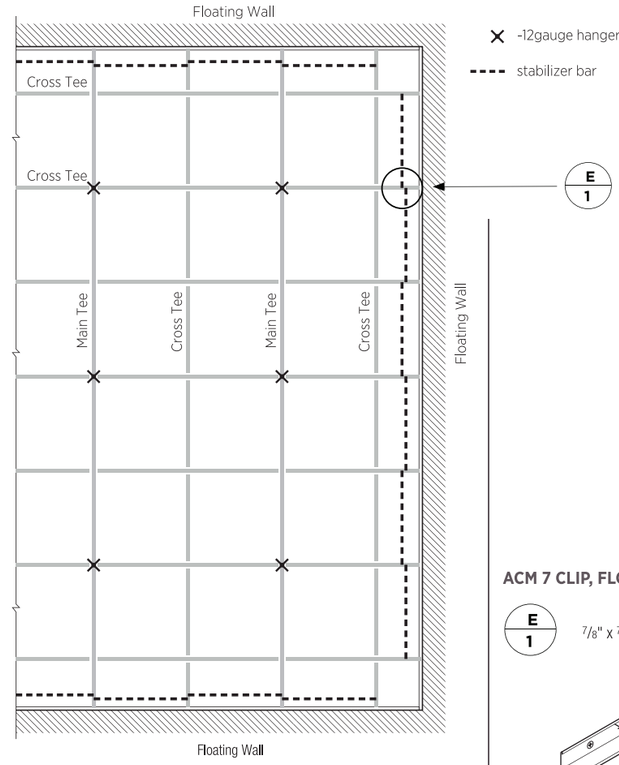
CATEGORY C
STANDARD SEISMIC APPLICATION

Intermediate Duty System 22mm Molding, Stabilizer Bars

SYSTEM SUMMARY

Suspension System Duty Rating	Intermediate
Wall Molding	22mm
Seismic Clip	None
Floating Sides	10mm gap; no attachment of tee to molding
Perimeter Hanger Wires	None
Stabilizer Bars	Yes

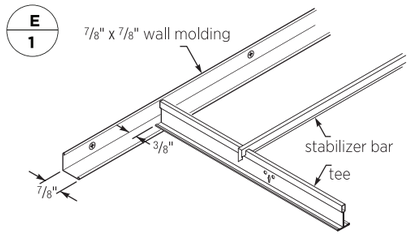
CONSTRUCTION DETAILS



-12gauge hanger wire

stabilizer bar

ACM 7 CLIP, FLOATING WALLS



All main DONN® suspension systems – DX/DXL, Fineline DXF, Fineline 1/8 DXFF, Centricitee DXT/DXLT, CE, DXW, DXLA, and ZXLA – include the Code compliment intermediate-duty main tees for Seismic Design Categories A, B and C.

The performance of DONN® seismic systems is based on the specific combination of superior components, and design and installation methods shown. Components from other manufacturers were not evaluated, and their use or any mixed use is not recommended.

Convenience holes located in the tee bulb may be used for any and all hanger wires.
Standard Seismic Application

INSTALLING ACOUSTICAL SUSPENSION SYSTEM

INSTALLING DONN® BRAND ACOUSTICAL SUSPENSION SYSTEM

The original and most widely used acoustical suspension system.

CONFIDENCE WITH A CLICK

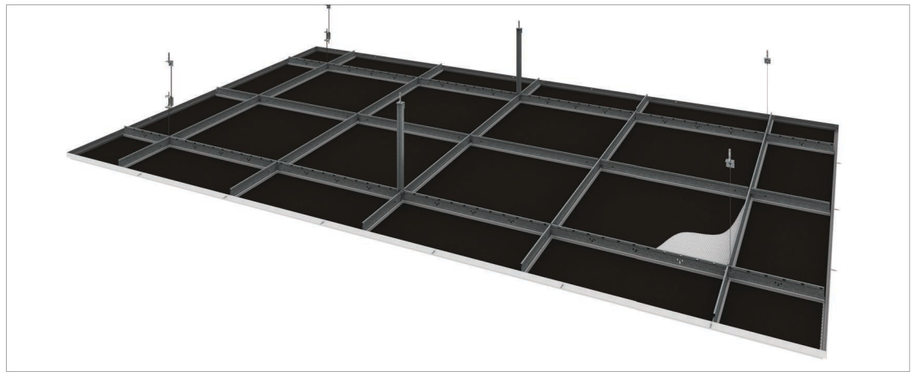
CHOOSING THE BEST CEILING FOR YOUR PROJECT CAN MAKE ALL THE DIFFERENCE.
For over 50 years, USG ME Donn® Brand has led the industry with innovations that make suspension systems easier, faster, and more reliable to install.
With an unparalleled variety of choices, no matter what your ceiling needs, we have you covered.

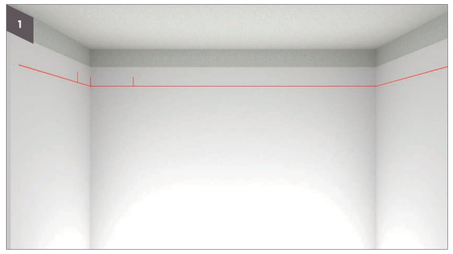
1. PRODUCTIVITY	Tight, reliable connections with low insertion force are the hallmark of USG ME Donn® Brand Acoustical Suspension Systems. The main tee and cross tee clips are removable without tools— making layout changes quicker—and The Donn Click™ audible cross tee sound lets you know when the tee is engaged. Precise dimensional tolerances prevent the modules from distorting and help keep the system square. All of this adds up to easier and faster installation.
2. FULL PRODUCT PORTFOLIO	USG Middle East offers a full line of ceilings suspension system styles and functionality. With nine different profiles to choose from, USG ME has the look design professionals want. USG Donn® is the global most recognized ceilings suspension system. USG ME Logix™ systems are-designed for layouts that integrate modern, linear lighting designs.
3. CODE COMPLIANCE	All USG ME Donn® Brand Acoustical Suspension Systems have been thoroughly tested and comply with all industrial related international standards and Saudi building code jurisdictions, including seismic category C, and D-F. our Donn® Brand Acoustical Suspension Systems are exceeds load compliance specifications as per ASTM C 635.
4. CUSTOM OPTIONS	USG offers suspension systems in different colors, including widen finish. USG ME also has the ability to create suspension system components for custom installations with nonstandard module sizes.

INSTALLING DONN® BRAND ACOUSTICAL SUSPENSION SYSTEM

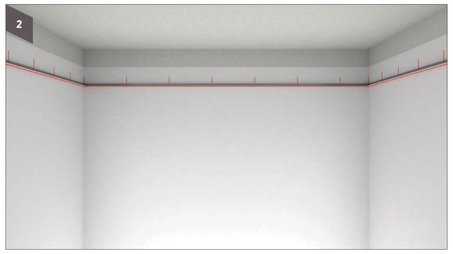
LAY-IN

The appearance of a suspended acoustical ceiling is dependent both on the materials used and on the quality of the installation. USG ME manufactures components to meet ASTM C636, 2006 IBC (2007 CBC), CISCA Ceiling Systems Handbook, (UL Design) and any applicable code requirement, assuring that the material, structural and quality standards are as prescribed. Install according to ASTM C636, ASTM E580 and USG requirements, assuring proper level and secure attachment as prescribed. Good construction conditions are very important when successfully installing a suspended ceiling. It is recommended that the temperature and humidity range be 14 - 25°C and max. 75% relative humidity. Store materials in a protected area, store tiles on the job at least 3 days prior to installation.

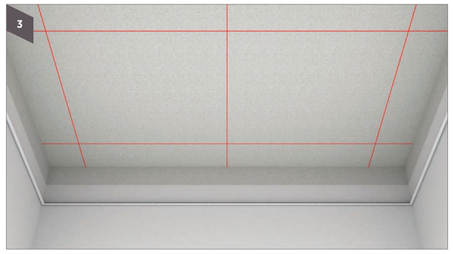




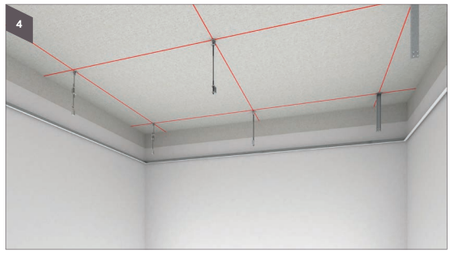
Use a laser beam to measure and plan the ceiling installation process where the min distance of Spring tee shall be 300 mm and shall not exceed 450 mm from wall



Install wall angles around the perimeter at marked locations using screws @450 mm o.c

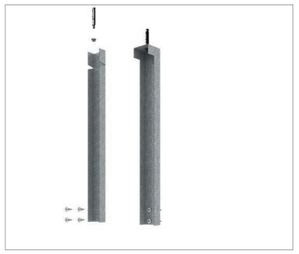


Mark with laser the hanger spacing at 1200 mm o.c.

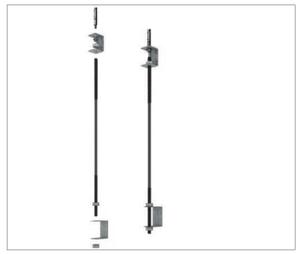


Fix hangers at 1200 mm o.c in a gradient scheme above the lines of primary channels

Use the specified hanging system (Adjustable hanger)



Use the specified hanging system (Primary Channel hanger)



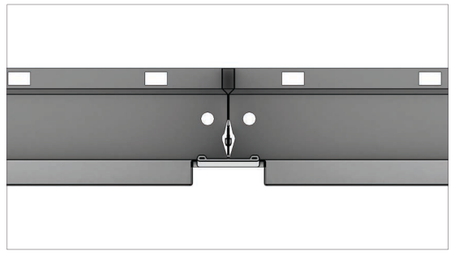
Use the specified hanging system (Threaded rod)

Fix the main tee at 1200 mm spacing and lay it on the wall angle.

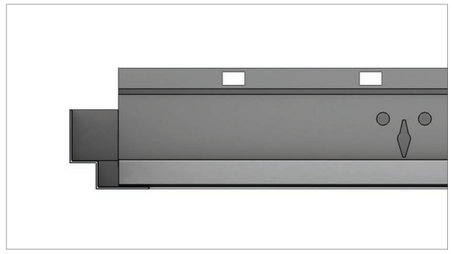
Insert the long cross tee to main tee in place for 600x600 module

Insert the long cross tee to main tee in place for 600x600 module (Angle View)

Insert the short cross tee to long tee in place



DONN® brand audible click



Lay-In-Wall Section Detail

ACOUSTICAL SUSPENSION SYSTEM WARRANTY

USG TERMS & CONDITIONS

Delivery and Storage of Materials

A. All materials shall be delivered in their original unopened packages and stored in an enclosed shelter providing protection from damage and exposure to the elements. Never Open the cartons and keep the boards in standing position. This will boost the possibility of warpage of the tile.

B. Storage:

1. Panels: Storage time of materials at the job site should be as short as possible, and environmental conditions should be as near as possible to those specified for occupancy (see Environmental Conditions below). Excess humidity during storage can cause expansion of material and possible warp, sag, or poor fit after installation. Chemical changes in the mat and/or coatings can be aggravated by excess humidity and cause discoloration during storage, even in unopened cartons. Cartons should be removed from pallets and stringers to prevent distortion of material. Long-term (6- 12 months) storage under uncontrolled environmental conditions should be avoided.
2. Suspension System: Store in manner that will prevent warping, scratches, or damage of any kind.

C. Handling: Handle in such manner to ensure against racking, distortion, or physical damage of any kind.

D. Damaged or deteriorated materials should be removed from the premises. Immediately before installation, to stabilize tile and panels, store them at a location where temperature and humidity conditions duplicate those ambient during installation and anticipated for occupancy. In this case, refer to USG ME Complaint Handling document and contact with the appropriate USG ME personnel should be made within three days of receiving the material (signed delivery documentation)

Environmental Conditions

A. Installation of acoustical panels shall not begin until building is enclosed, permanent heating and cooling equipment is in operation, and residual moisture from plaster, concrete, or terrazzo work has dissipated.

B. Do not use ceiling panels in extreme or continuous high humidity, or areas exposed directly to weather or water. Ceiling panels are sized and designed for use within the standard occupancy range of temperature and humidity, 18-29 °C, no more than 70% RH (relative humidity). Humidity can greatly affect product dimensional stability and sag resistance. Sag can become noticeable during periods of high humidity lasting only a few hours. CLIMAPLUS ceilings if used with DONN® Brand Suspension Systems, can withstand temperatures from 32-40 °C and relative humidity up to 95%-100% RH. See USG ME for specific Warranty information.

C. Allow time for dimensional changes in ceiling panels stored at temperature/humidity conditions well outside of those recommended for service. With increases in temperature/humidity, these products expand up to (4.3 mm/m) at 29 °C/90% RH and may not fit into a fixed grid. Conversely, with decreases, these products will be undersize, but expand to normal when standard ambient conditions return.

D. For some pattern edge details, if perimeter panels must be cut smaller, the cut edge must be field-rabbited, or the wall angle must be lowered by 6.5mm, 10mm (Reveal Depth).

E. Formaldehyde & VOC Classification, as tested per ASTM D5116 and according to standards established by the Collaborative for High-Performance Schools (CHPS), the California Office of Environmental Health Hazard Assessment (OEHHA), and the USGBC LEED for Schools.

QUALITY ASSURANCE

A. Single Source Responsibility: To obtain combined warranty for the DONN® Brand suspension system and the acoustical panel, color match or ceiling panel and suspension system compatibility, all acoustical panel and suspension system components shall be produced and supplied by one manufacturer. Materials supplied by more than one manufacturer are not acceptable.

B. Subcontractor qualifications: Installer shall have successful experience in the installation of suspended ceiling systems on projects with requirements similar to requirements specified.

C. Requirements of regulatory agencies: Codes and regulations of authorities having jurisdiction.

D. Source quality control:

1. Test reports: Manufacturer will provide test certification for minimum requirements as tested in accordance with applicable industry standards and/or to meet performance standards specified by various agencies.
2. Changes from system: System performance following any substitution of materials or change in assembly design must be certified by the manufacturer.

PROJECT CONDITIONS

A. Existing conditions: (include specific alteration work requirements for project).

B. Environmental requirements for interior installation: Building shall be enclosed with windows and exterior doors in place and glazed, and roof watertight before installation of ceiling system and related ceiling components. Climatic Condition Range for panels used on this project are as follows:

1. ClimaPlus Ceilings: 16-29°C with a max 99% RH. CLIMAPLUS ceilings used with DONN® Brand Suspension Systems can be used when building is not enclosed and in higher temperature, relative-humidity range.

C. Coordination with other work:

1. General: Coordinate with other work supported by or penetrating through the ceiling, including mechanical and electrical work and partition systems.
2. Mechanical work: Ductwork above ceiling shall be completed and permanent heating and cooling systems operating to climate conditions prior to installation of ceiling components.
3. Electrical work: Installation of conduit above ceiling shall be complete before installation of ceiling components.
4. Fire protection work: Fire protection lines and/or equipment occurring above ceiling shall be completed and tested before ceiling components are installed.

D. Protection:

1. Personnel: Follow good safety and industrial hygiene practices during handling and installing of all products and systems, with personnel to take necessary precautions and wear appropriate personal protective equipment as needed. Read material safety data sheets and related literature for important information on products before installation. Contractor to be solely responsible for all personal safety issues during and subsequent to installation; architect, specifier, owner, and manufacturer will rely on contractor's performance in such regard.
2. Protect completed work above ceiling system from damage during installation of ceiling components.

INSPECTION

A. Examine areas to receive ceiling panels for conditions that will adversely affect installation. Provide written report of discrepancies.

B. Do not start work until unsatisfactory conditions are corrected.

C. Work to be concealed: Verify work above ceiling is completed and installed in manner that will not affect layout and installation of ceiling panels.

D. Beginning of installation shall signify acceptance of conditions in areas to receive ceiling panels.

INSTALLATION

A. Standard reference: Install ceiling panels and suspension system, including necessary hangers, grillage, splines, and other supporting hardware, in accordance with ASTM C636, 2006 IBC (2007 CBC), CISCA Ceiling Systems Handbook, (UL Design) and any applicable code requirement.

B. Manufacturer's reference: Install ceiling panels in exposed grid systems, supported on all edges, in accordance with manufacturer's warranty.

C. Drawing reference: Install ceiling panels in accordance with approved shop drawings.

D. Hanger Wires:

1. Spacing: Space hanger wires on main tees not more than 1200mm o.c. a maximum of 1200mm o.c., attaching hangers directly to the structure above, or as required to support loads.
2. Limitations: Do not support wires from mechanical and/or electrical equipment, piping or other equipment occurring above ceiling.

E. Ceiling Perimeter: Install edge moldings (50mm minimum) and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.

1. Tee ends shall be tied together with DONN® Brand Stabilizer Bars or other approved means to prevent the tees from spreading apart.
2. Mechanically attach the terminal ends of the ceiling suspension members to the perimeter molding of two adjoining walls using pop-rivets or other approved means.
3. Maintain a 20mm clearance between the opposite ends of the suspension members and the wall. The unattached ends of the suspension members shall rest upon and be free to slide perpendicularly to the perimeter molding.

F. Alternate Perimeter Attachment: When approved by local code officials install 22mm edge molding with ACM7 Seismic Clip - Install per USG ME literature AC3235.

G. Accessories: Install accessories as applicable to meet project requirements.

H. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical tiles.

I. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.

J. Install acoustical tiles in coordination with suspension system.

1. Fit adjoining tile to form flush, tight joints. Scribe and cut tile for accurate fit at borders and around penetrations through tile.
2. Remove and replace any damaged tiles.

K. Lighting Fixtures:

1. All light fixtures shall be mechanically attached to the suspension system per NEC 410-16 (two per fixture unless the fixture is independently supported).
2. Support of rigid lay-in (Type G) or can light fixtures:

a. Each fixture less than 4.5 Kg shall have a single wire (wire may be slack) attached from the fixture to structure.

b. Each fixture that weighs between 4.5 and 25 Kg shall have two wires (wires may be slack) attached at diagonal corners of the fixture to structure.

c. Each fixture greater than 25 Kg shall be directly supported to structure by approved hangers.

d. Pendant light fixtures shall be directly supported from structure with 9-gauge wire (or approved alternative).

L. Air Terminals:

1. Air terminals less than 9 Kg shall be positively attached to the suspension system
2. Air terminals that weigh between 9 Kg and 25 Kg shall be mechanically attached to the suspension system. Two slack wires shall be attached from the housing to structure.
3. Air terminals in excess of 25kg. shall be directly supported to structure by approved hangers.

M. Sprinkler heads and other penetrations shall have 10mm clearance on all sides.

CLEANING

A. Suspension System: Remove panel material and perform any necessary cleaning maintenance with non-solvent based commercial cleaner.

B. Immediately remove any corrosive substances or chemicals that would attack painted finishes (i.e. wallpaper adhesives).

C. Touch up all minor scratches and spots, as acceptable, or replace damaged sections when touch-up is not permitted.

D. Painting: Repainting of suspension member shall be with a high-quality solvent base enamel paint and applied as recommended by paint manufacturer. Ceiling panels may be touched-up by spraying a thinned, non-bridging vinyl-acrylic flat wall paint. The type of paint selected and the method of application can alter the acoustical performance and fire ratings of any acoustical product. Therefore, USG ME cannot guarantee that the field-painted panels will match the published performance.

E. Removal of debris: Remove all debris resulting from work of this section.

CEILING PRODUCTS 30-YEAR LIMITED WARRANTY

WHAT IS COVERED?

USG Middle East warrants that the following USG Middle East ceiling products will be free from defects in materials and workmanship at the time of manufacture:

- USG ME Donn® Brand suspension systems
- USG ME ceiling panels

In addition, USG provides the following performance warranties for these products:

- USG Donn® Suspension Systems are applied for four-step coating process that outperforms in paint adhesion and corrosion resistance, as proven by industry-standard salt spray tests conducted by an Independent laboratory
- USG ceiling panels and tiles with ClimaPlus™ performance shall not show visible sag when installed in a USG Donn® Suspension System ("Sag Warranty").
- USG ceiling panels with ClimaPlus™ performance shall be free from the growth of mold and mildew ("Mold and Mildew Warranty").
- USG Radar™ Ceramic ceiling panels with ClimaPlus™ performance will withstand corrosive chemical fumes ("USG Radar™ Corrosive Chemical Warranty").

These limited warranties are subject to the terms and conditions, including the time limitations, stated in this limited warranty.

HOW LONG DOES COVERAGE LAST?

The warranty periods vary depending upon whether the USG ME Donn® Suspension System is used with USG ME ceiling panels, or the products are used separately. Below are the periods of coverage, which run from the date of original purchase:

Defects in Materials and Workmanship at Time of Manufacture	Panel or Tile	Suspension System
USG ME Donn® Brand Suspension System and USG ME panels with ClimaPlus™ performance, *when used together*	30 years	30 years
USG ME Donn® Brand Suspension System and any other USG ME ceiling panels, *when used together*	1 year	30 years
USG ME Donn® Brand Suspension System *alone*	–	10 years
USG ME panels with *ClimaPlus™* performance *alone*	10 years	–
All other USG ME ceiling panels or USG ME Specialty Ceilings *alone*	1 year	–
Rust Warranty for USG ME Donn® Brand Suspension System	–	30 years
Sag Warranty for panels with ClimaPlus™ performance when used in a USG ME Donn® Brand Suspension System	30 years	–
Mold and Mildew Warranty for USG ME ceiling panels with ClimaPlus™ performance	30 years	–
USG Radar™ Corrosive Chemical Warranty	30 years	–

WHO IS COVERED?

This limited warranty covers the original owner of the building at the time of installation and any subsequent owner of the building during the applicable warranty period.

WHAT WILL USG ME DO?

USG ME's liability under this limited warranty shall be, at USG ME's election, to replace the nonconforming products under warranty or to refund or credit an amount equal to the (original) purchase price of the nonconforming products.

Replacement or refunding the purchase price of nonconforming products under warranty shall constitute the sole and total obligation of USG ME. We shall not be responsible for any labor charges or other installation or replacement costs or for incidental or consequential damages of any nature whatsoever.

WHAT ARE THE CONDITIONS OF THIS WARRANTY?

- All products must be installed and maintained in accordance with current USG ME written instructions in effect at the time of installation and with best industry practice, including the CISCA Handbook and ASTM C636, Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
- The products must always be protected from vibration, direct contact with water including condensation, exposure to chemical fumes, excessive humidity, and excessive dust or dirt buildup, both before and after installation. Please note that USG ME Radar Ceramic ceiling panels with ClimaPlus™ performance can withstand exposure to chemical fumes.
- The products may not be used in exterior applications unless and to the extent explicitly permitted in USG ME's written literature at the time of installation.
- The products may not be exposed to temperature or humidity conditions prior to, during, and after installation, that are outside the following limitations:

Product	Environmental Limitations
USG ME Radar™ Ceramic	16-40°C up to 100% RH*
ClimaPlus™ Performance Ceilings	16-40°C up to 95% RH
Standard Commercial Ceilings	16-29°C up to 70% RH
USG Donn® Brand suspension system	16-40°C up to 95% RH
USG Donn® Brand AX™, ZXLA™ and the USG Drywall Suspension System	16-40°C up to 100% RH

*Please note that the Radar™ Ceramic Acoustical Ceiling Panels with ClimaPlus™ performance can withstand the referenced humidity conditions and exposure to steam so long as the product is installed with either AX™ or AXCE™ ™ suspension systems.
For swimming pools, install only with AX™ or AXCE™ ™ suspension systems. For outdoor soffits, canopies and parking garages, install with AXCE™ ™ suspension system (wind uplift should be considered).

- The ceiling panels must not be used to support any material including insulation. Where insulation must be used, it should be no heavier than the following limitations:
  — 12.7 kg/m^2 for USG Sheetrock® and USG ME Skyrock Gypsum Panels Lay-In Gypsum Ceiling Panels
  — 1.3 kg/m^2 for all other USG ME panels
- Application of insulation should follow USG ME recommendations. Insulation must be applied perpendicular to the suspension cross tees with the suspension system supporting the weigh of the insulation. Insulation is also not recommended for use in Firecode® applications, unless specified and permitted by Underwriters Laboratories, Inc. Mold or mildew growth on insulation is not covered by this warranty.
- Any repainting or touch up of the products must be as allowed in USG ME's literature. Please note that not all products can be repainted and that repainting will affect acoustical performance, appearance, microbial resistance, fire resistance, and ventilation through the ceiling panels or tiles.
- For all ceiling tiles with ClimaPlus™ performance (excluding USG Clean Room™ which is not covered by the Mold and Mildew Warranty), the ceilings must be maintained to avoid excessive dirt or dust buildup that would provide a medium for microbial growth on these panels or tiles. Microbial protection does not extend beyond the treated surface as received from the factory, and does not protect other materials that contact the treated surface such as insulation materials.
- You must make a warranty claim within the time limits and manner described in the section below "How do I make a warranty claim?"

WHAT IS NOT COVERED?

- Damage or loss due to the failure to follow the terms and conditions of this limited warranty.
- USG Sheetrock® and USG ME Skyrock Gypsum Panels used with the USG ME Drywall Suspension System are not covered.
- Except for the Mold and Mildew Warranty on USG ME ceiling tiles and panels with ClimaPlus™ performance, the growth of mold or bacteria is not covered by this warranty and is not the responsibility of USG ME. USG ME Clean Room and USG Sheetrock® and USG ME Skyrock Gypsum Panels lay-in panels are not covered under the Mold and Mildew Warranty.
- Damage or loss caused by fire, water, accident, or by any form of abuse except normal wear and tear.
- Damage or loss from vibrations or chemical fumes or where moisture comes in contact with the ceiling panel or tile as a result of a leaking roof, a sweating pipe, a leaking radiator, a flood, condensation on windows, other sources of condensation where dew points are reached, humidified air from the HVAC system, or any other similar causes.
- Rusting that occurs from building leaks or condensation.

Other important information about the Sag Warranty for panels and tile with ClimaPlus™ performance when used in a USG ME Donn® Suspension System: Sag resistance is measured under Standard Test Method for Strength Properties of Pre-fabricated Architectural Acoustical Tile or Layin Ceiling Panels (ASTM C367-05). The Test Method cautions (Section 17.3) that it "is not designed to establish the expected performance of the ceiling panels under field conditions of use, but only the sag properties for the specific temperature, humidity, exposure time and mounting conditions used in the test."

Neither this Test Method nor any other laboratory test we are aware of can predict long-term sag resistance. We do know that the higher the relative humidity and temperature, and the longer the time these conditions prevail, the more susceptible the ceiling panels are to sag. Nevertheless, USG ME has offered sag resistant ceiling panels for more than 10 years. This excellent field performance is expected because the formulations of both core and/or backing, depending on the particular panel, inherently impart sag resistance. Avoidance of extreme temperature and humidity conditions and regular cleaning will enhance sag resistance and all other performance attributes of the ceiling panels.

HOW DO I MAKE A WARRANTY CLAIM?

To make a claim under this limited warranty, you must give USG ME written notice of your warranty claim no later than 10 days from the date the claimed problem or defect was discovered or by reasonable inspection should have been discovered. In addition, no claim may be brought more than 10 days after the end of the applicable warranty period regardless of the date of discovery of the alleged problem or defect. Your written warranty claim should include a brief description of the problem, photographs if available, and any sales receipts, invoices, or other information indicating the date of purchase and installation. Please send this information to Factory Of USG Middle East LTD. Co. 7410 (Wasil),Street #23, Cross 76, 2nd Industrial City, Dammam 3426-4201, Kingdom of Saudi Arabia / marketing@usgme.com, info@usgme.com

Except to the extent expressly inconsistent with the terms of this limited warranty, USG ME's terms and conditions of sale to the direct buyer of the products, including without limitation, any arbitration provision, shall apply to all claims made by the direct buyer under this limited warranty.

WARRANTY INFORMATION

This warranty applies to products manufactured by Factory of USG Middle East that are used in the Kingdom of Saudi Arabia.

WARRANTY INFORMATION FOR PRODUCTS USED OUTSIDE OF THE KINGDOM OF SAUDI ARABIA

To the extent permitted by applicable law, any controversy, claim, or dispute arising out of or in connection with any USG ME product warranty shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce. The seat of the arbitration and the location of the arbitration shall be Saudi Arabia. All arbitrations shall be conducted in Arabic.
The USG ME product warranty does not apply to USG ME products that are sold to, delivered to, or used by countries, governments, or persons in violation of KSA Trade law.

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