

# DRYWALL GRID SOUND ISOLATION SOLUTION – Flat Ceilings

## Suspension Systems

### KEY SELECTION ATTRIBUTES

Armstrong® Drywall Grid is 3x faster than traditional track and channel framing – saving you time and labor.

- This sound solution is designed to reduce sound transmission in assemblies using Armstrong drywall grid
- HD8906IIC main beam has a special IIC knockout every 8" along the main to accept the Impact Isolation Clips (IIC)
- This IIC solution can provide up to eight points of IIC improvement
- PeakForm®** patented profile increases strength and stability for improved performance during installation
- SuperLock™** main beam clip is engineered for a strong, secure connection and fast, accurate alignment confirmed with an audible click; easy to remove and relocate

- ScrewStop™** reverse hem prevents screw spin off on 1-1/2" wide face
- Rotary-stitched during manufacture by a patented method for additional torsional strength and extra stability during installation
- HD8906 (HRC) main beams and cross tees with extra routings for Type F light fixtures
- Minimum G40 hot dipped galvanized coating, per ASTM C645; provides superior corrosion resistance
- XL®** (staked-on end detail) cross tees provide secure locked connection; fast and easy to install
- All drywall components minimum .018" steel thickness; complies with ASTM C645
- Fire Guard™ components meet broad range of UL® design assemblies (XL7936G90 is not fire rated)

- 10-Year Limited System Warranty
- 30-Year Limited Ceiling Systems Warranty

#### Impact Isolation Clip (IIC):

- Designed to decouple the sound transfer between the ceiling and the structure assembly above improving the sound performance
- These isolators can carry one or two layers of drywall

### TYPICAL APPLICATIONS

- Indoor/outdoor applications
- Soffits/special transitions
- High visibility areas
- Combination drywall and acoustical panel or tile ceilings
- Barrel vaults and domes
- Wet installations (stucco/plaster)

### FIRE RESISTANCE RATING

Meets a broad range of UL design assemblies: D501, D502, G523, G524, G526, G527, G528, G529, J502, L502, L508, L513, L515, L525, L526, L529, L564, P501, P506, P507, P508, P509, P510, P513, P514, P516 (XL7936G90 and SP135 are not fire rated).

NOTE: See UL Directory for details on specific designs.

### MATERIALS

ASTM C635 Heavy-duty main beam classification, ASTM A653 zinc-coated hot dipped galvanized steel. Exposed surfaces chemically cleaned, zinc-coated, and prefinished. Materials conform to the performance standard ASTM C645 (Standard Specification for Rigid Furring Channels for Screw Applications of Gypsum Board).

### VISUAL SELECTION

Item No.	Description	Dimensions	Rout Spacing	Hanger Spacing (Lbs./Lin. Ft.)											
				L/240	L/240	L/240	L/360	L/360	L/360						
<b>Drywall Main Beams – Imperial (Red Numbers are Fire Guard Items)**</b>															
<b>HD8906IIC</b>	1-1/2" 12' HD Drywall Main Beam (For Type F Light Fixtures)	144 x 1-1/2 x 1-11/16"	54 routs – starting 2-1/4" from each end†	2 Ft.	3 Ft.	4 Ft.	2 Ft.	3 Ft.	4 Ft.	143.0	57.3	28.14	95.5	43.19	18.66
<b>Drywall Cross Tees – Imperial (Red Numbers are Fire Guard Items)**</b>															
<b>XL8965</b> <b>XL8965HRC</b>	1-1/2" 6" Drywall Cross Tee	72 x 1-1/2 x 1-1/2"	6 routs – starting 24" from each end†	6.87 @ 6'		4.58 @ 6'									
<b>XL8947P</b>	1-1/2" 50" Drywall Cross Tee	50 x 1-1/2 x 1-1/2"	8 routs – starting 10" from each end†	19.5 @ 50"		12.79 @ 50"									
<b>XL8945P</b> <b>XL8945PHRC</b>	1-1/2" 4" Drywall Cross Tee	48 x 1-1/2 x 1-1/2"	9 routs – center rout and starting 10" from each end†	22.5 @ 4'		14.27 @ 4'									
<b>XL8940</b>	1-1/2" 40" Drywall Cross Tee	40 x 1-1/2 x 1-1/2"	1 rout – center of tee	36.22 @ 40"		24.15 @ 40"									
<b>XL8926</b>	1-1/2" 2" Drywall Cross Tee	24 x 1-1/2 x 1-1/2"	3 routs – center rout and 10" from each end†	158.0 @ 2'		90.25 @ 2'									

\* NOTE: All load test data based on flat installation per ASTM C635.


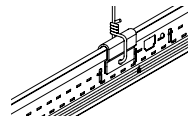

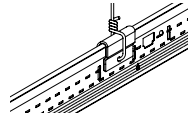
\*\* For fire-rated assemblies, use Type C gypsum board as noted in the UL® fire-rated assembly designs.

† Type F fixture compatible

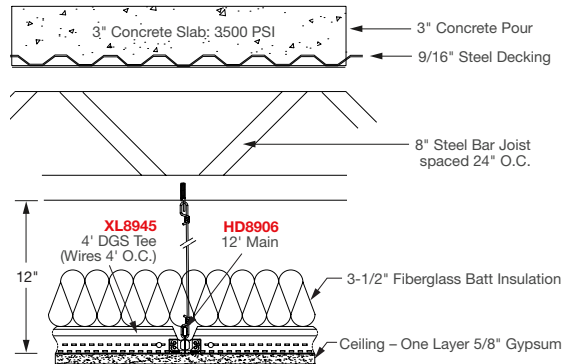
ASTM Class  
HD - Heavy-duty  
ID - Intermediate-duty  
LD - Light-duty

NOTE: For detailed product content information on drywall grid see the Flat Ceiling Drywall Grid Data Page.

**VISUAL SELECTION CONT.**

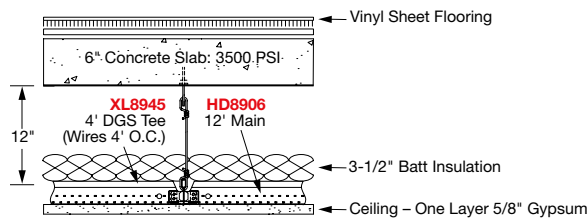
Item No.	Description		
□ <b>IIC Clip</b> 36 pcs/bucket	Impact Isolation Clip for use with HD8906IIC drywall grid main beam. Provides up to 8 points of IIC improvement to ensure your project meets IBC requirements. Clip Color: Natural  <b>IIC Clip must be used with HD8906IIC Drywall Grid Main Beam</b>		
□ <b>IIC2 Clip</b> 36 pcs/bucket	Impact Isolation Clip for use with HD8906IIC drywall grid main beam. For conditions requiring two layers of drywall. Clip Color: Green  <b>IIC Clip must be used with HD8906IIC Drywall Grid Main Beam</b>		

**STANDARD ASSEMBLIES – 1 LAYER OF DRYWALL**  
**Armstrong Standard Drywall Grid Assembly 1:**



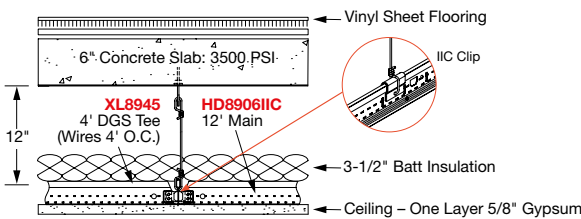
Item No.	Traditional Assembly	Building Structure	STC	IIC
<b>HD8906</b> <b>XL8945</b>	12' Main Beam / 4' Cross Tee 3-1/2" Batt Insulation 5/8" Gypsum	Bare Concrete Base 3" Concrete Slab Fluted Steel Decking 8" Bar Joist, 24" O.C.	<b>55</b>	<b>47</b>

**Armstrong Standard Drywall Grid Assembly 2**



Item No.	Armstrong Assembly	Building Structure	STC	IIC
<b>HD8906</b> <b>XL8945</b>	12' Main Beam / 4' Cross Tee 3-1/2" Batt Insulation 5/8" Gypsum	6" Thick Slab Concrete Base with Vinyl Sheet Flooring	<b>57</b>	<b>58</b>

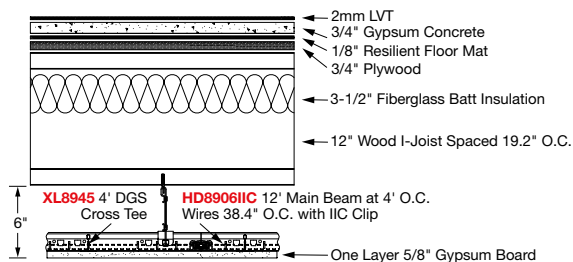
**ARMSTRONG IIC SOLUTION ASSEMBLIES – 1 LAYER OF DRYWALL**  
**Armstrong IIC Drywall Grid Assembly 1:**  
**Concrete Slab Structure**



Item No.	Armstrong Assembly	Building Structure	IIC	Gain*
<b>HD8906IIC</b> <b>XL8945</b> <b>IIC Clip</b>	12' Main Beam / 4' Cross Tee IIC Clip 3-1/2" Batt Insulation 5/8" Gypsum	6" Thick Slab Concrete Base with Vinyl Sheet Flooring	<b>66</b>	<b>+8</b>

\* Results are compared to Armstrong standard Drywall Grid Assembly 2

**Armstrong IIC Drywall Grid Assembly 2:**  
**Wood I-Joist Structure**

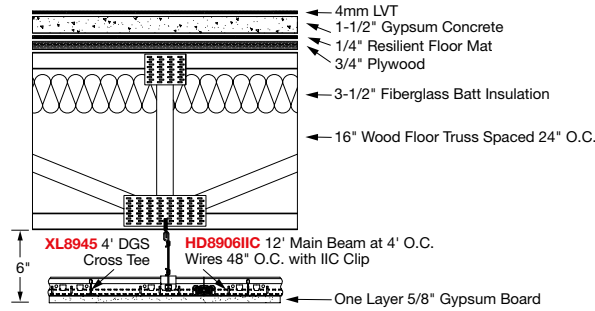


Item No.	Armstrong Assembly	Floor Structure	IIC	Gain*
<b>HD8906IIC</b> <b>XL8945P</b> <b>IIC Clip</b>	12' Main Beam / 4' Cross Tee IIC Clip 3-1/2" Batt Insulation 5/8" Gypsum	2mm LVT 3/4" Gypsum Concrete 12" Wood I-Joist	<b>55</b>	<b>+4</b>

\* Results are compared to RC – Deluxe

ARMSTRONG IIC SOLUTION ASSEMBLIES – 1 LAYER OF DRYWALL CONT.

Armstrong IIC Drywall Grid Assembly 3:  
Wood Floor Truss Structure

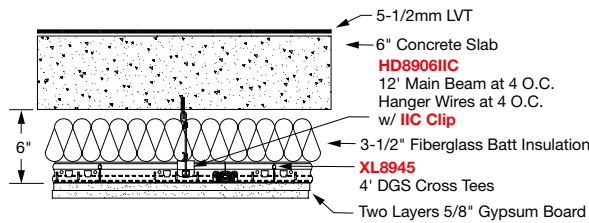


Item No.	Armstrong Assembly	Floor Structure	IIC	Gain*
HD8906IIC XL8945P IIC Clip	12' Main Beam / 4' Cross Tee IIC Clip 3-1/2" Batt Insulation 5/8" Gypsum	4mm LVT 1-1/2" Gypsum Concrete 16" Wood Floor Truss	60	+4

\* Results are compared to RC – Deluxe

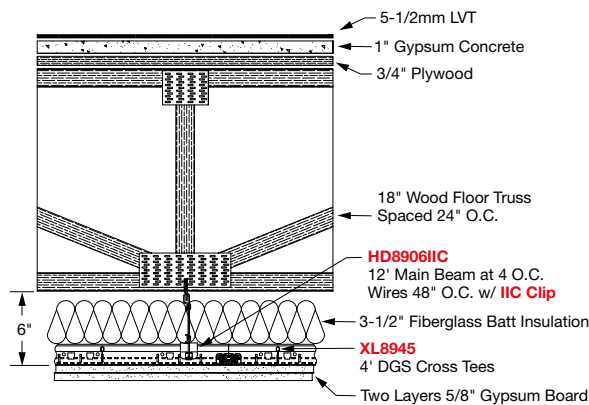
ARMSTRONG IIC SOLUTION ASSEMBLIES – 2 LAYERS OF DRYWALL

Armstrong IIC Drywall Grid Assembly 1:  
Concrete Slab Structure



Item No.	Armstrong Assembly	Building Structure	STC	IIC
HD8906IIC XL8945 IIC2 Clip	12' Main Beam / 4' Cross Tee IIC2 Clip 3-1/2" Batt Insulation 2 Layers – 5/8" Gypsum	5-1/2mm LVT 6" Thick Slab Concrete Base	61	62

Armstrong IIC Drywall Grid Assembly 2:  
Wood Floor Truss Structure



Item No.	Armstrong Assembly	Floor Structure	STC	IIC
HD8906IIC XL8945 IIC2 Clip	12' Main Beam / 4' Cross Tee IIC2 Clip 3-1/2" Batt Insulation 2 Layers – 5/8" Gypsum	5-1/2mm LVT 1" Gypsum Concrete 3/4" Plywood 18" Wood Floor Truss	61	58

## WHY SOUND CONTROL MATTERS

The International Building Code (Section 1206) provides guidelines to ensure that construction meets suitable sound isolation performance. These guidelines are used for commercial and multiple-family buildings such as: offices, apartments, hospitals, dormitories, schools, hotels, condominiums, mixed-use buildings.

The IBC uses two sound classes to make sure these guidelines are met. Sound Transmission Class (STC) – sound transmitted through the air such as voices and music. Impact Insulation Class (IIC) – sound transmitted through the building structure such as foot traffic and objects dropped on the floor.

A rating of 50 or above for both STC and IIC sound tests will satisfy the IBC’s minimum requirements, with one or two layers of drywall using Armstrong Drywall Grid.

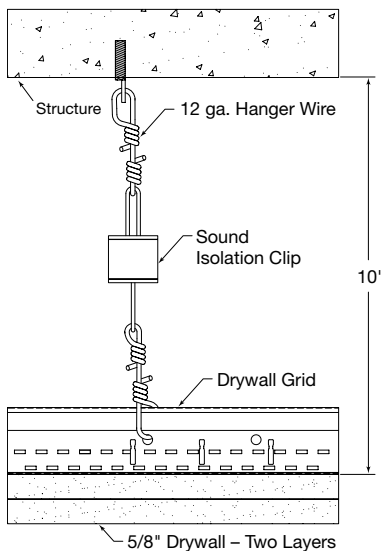
### STC/IIC PERFORMANCE GUIDELINES

STC/IIC Ratings	Description	Changes in STC/IIC Ratings	Description
60	Superior soundproofing	+ / - 1	Almost perceptible
55	<b>EXCELLENT</b>	+ / - 3	Just perceptible
50	Loud speech barely audible	<b>+ / - 5</b>	<b>CLEARLY PERCEPTIBLE</b>
45	Some loud speech audible – not understood	+ / - 10	Twice (or half) as loud
30	Loud speech audible – well understood		
25	Regular speech audible and understood through walls		

## WHY CHOOSE ARMSTRONG DRYWALL GRID SOUND ISOLATION SOLUTIONS?

- Easier to detail, specify, and 50% faster to build than traditional track
- Armstrong Drywall Grid tested assemblies provide proven results and piece of mind

Traditional IIC Solution



Armstrong Ceiling Solutions IIC Solution

