



TECHNICAL MANUAL

FIRE AND SOUND TESTING ASSEMBLIES

SEVENTH
EDITION



Resilmount Sound Isolation Solutions are a division of Studco Building Systems, a leading manufacturer of innovative building materials. Resilmount offers a range of patented sound isolation products for the wall and ceiling industry.

UNIQUE PATENTED THERMOPLASTIC RUBBER WITH SOUND CELL DESIGN

Solve the problem of noise transfer in high density accommodations with Resilmount. Our Resilient mount clips provide acoustic control by locking into place on standard furring

channels for easy construction and effective solutions to unwanted noise. Resilmount clips isolate wall and ceiling systems from the building structure resulting in premium acoustic control.

Sound cells to absorb and break up airborne sound.

Equipped with engineered pre-attached fire washer for faster installation.

Resilmount's unique thermoplastic rubber outperforms standard rubber because of its absorbing characteristics.

Patented secure fastening to metal clips.

Strong column design providing a small percentage of contact area with building structure.

1/4" diameter hole for a variety of fasteners.

A237R

Low profile of only 3/8"

3 7/32"

5/8"

1 1/16"

Patents pending:
US 11/872574
AU 2007226819

- 55lbs load
- 36lbs Acoustic Design Load

TESTING & QUALITY ASSURANCE

FIRE TESTING

With over 100 UL Ratings and other third party testing, the Resilmount A237 and A237R clip are well suited for use in high density accommodations and many more applications in sound control

These ratings enable Resilmount to be used in many fire rated acoustic applications for sound proofing walls and ceilings. Please contact us with your project and we will assist you in choosing the right assembly.

Type RESILMOUNT Sound Isolation Clip - Type A237R for use in Design Nos. G501, G502, G503, G504, G505, G507, G510, G512, G524, G525, G534, G551, G552, G561, G565, G578, L502, L505, L510, L511, L513, L514, L516, L518, L521, L523, L528, L532, L534, L542, L546, L547, L550, L562, L563, L569, L570, L573, L574, L576, L577, L579, L582, L585, L587, L589, L590, L593, M501, M502, M506, M508, M509, M510, M514, M523, M531, P519, P522, P538, P545, P547, P556, P565, P571, U301, U305, U309, U311, U320, U331, U334, U340, U341, U342, U344, U356, U415, U419, U423, U440, U411, U417, U421, U451, U453, U455, U465, U473, U493, U524, U910, U914, V310, V323, V324, V438, V455, V469, V478, V481, V488, V489, V490, V496, V498, W419, W425, W440.

Type RESILMOUNT Sound Isolation Clip - Type A237 for use in Design Nos. G501, G502, G507, G534, L513, L514, L516, L521, L523, L528, L534, L546, L550, L562, L569, L570, L574, L579, L587, L590, L593, M501, M502, M506, M508, M509, M510, M514, M531, P522, P545, P556, P565, P571, U305, U419, V310, V489, V498.



UL & Intertek Listed

SOUND TESTING



Tested according to ASTM Standards

QUALITY ASSURANCE AND ENVIRONMENTAL POLICY



ISO 9001 Quality Management System

The quest for optimum quality never ends at Studco. The consistency of our quality is one of the cornerstones of Studco's reputation as a reliable supplier of metal building systems. In order to achieve dependable quality in our products and service, Studco Building Systems is certified to ISO 9001 Quality Management System. This internationally recognized benchmark of quality is rigidly applied to all facets of our operations, ensuring premium quality products and premium customer service at all times. Customers can be certain of the quality of Studco's products because of the stringent controls we impose on our production processes.

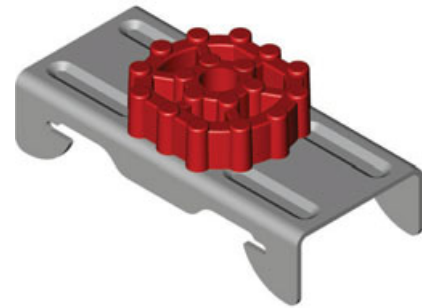


ISO 14001 EMS Certification

The management team at Studco have long held the view that caring for the environment is a corporate responsibility. In fact, responsibility of and caring for the environment in which we live is a Studco hallmark which is promoted at every level of our business. Our commitment to sensible environmental responsibility and corporate accountability is evident in our ongoing certification to the internationally recognized benchmark standard ISO 14001:2015 environmental management system.

FLOOR – CEILING ASSEMBLIES

A237R Wood I-Joist with 1 layer of Type C Gypsum Wallboard



A237R

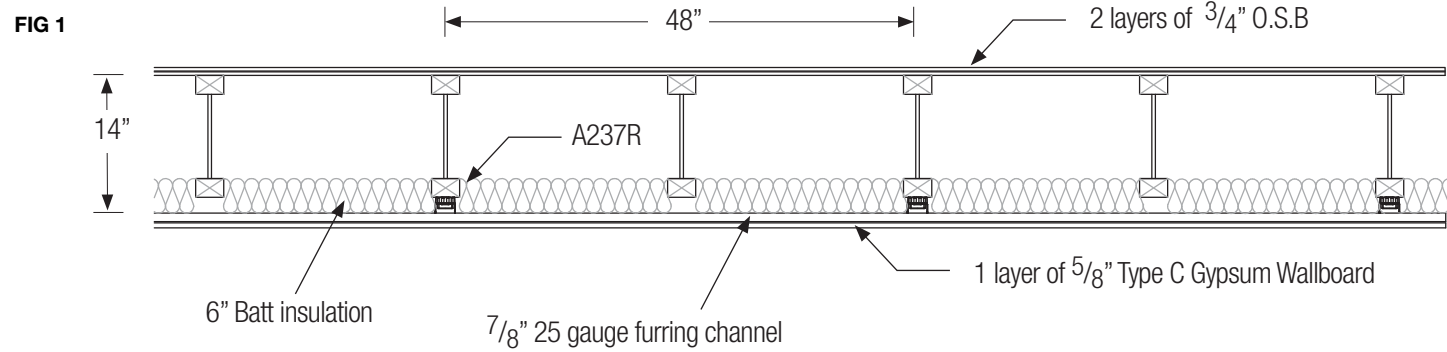
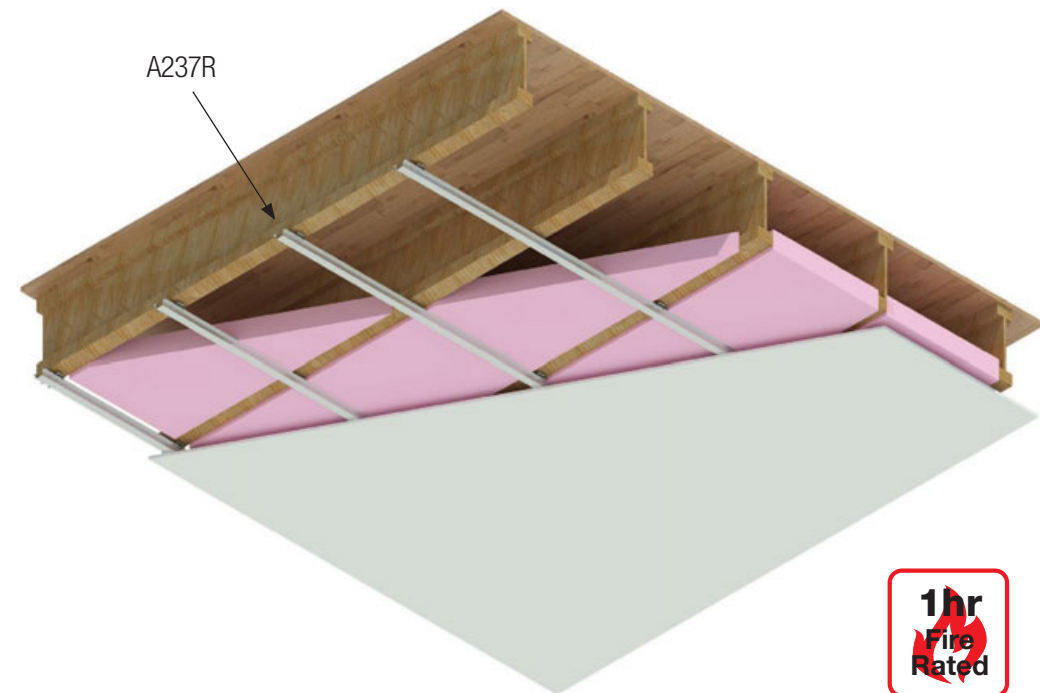


FIG 2



ACCREDITATIONS



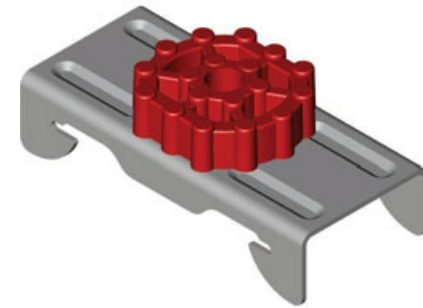
UL ASSEMBLY L570



RAL-IN14-018 (IIC)
RAL-TL14-270 (STC)

FLOOR – CEILING ASSEMBLIES

A237R Wood I-Joist with 2 layers of Type C Gypsum Wallboard



A237R

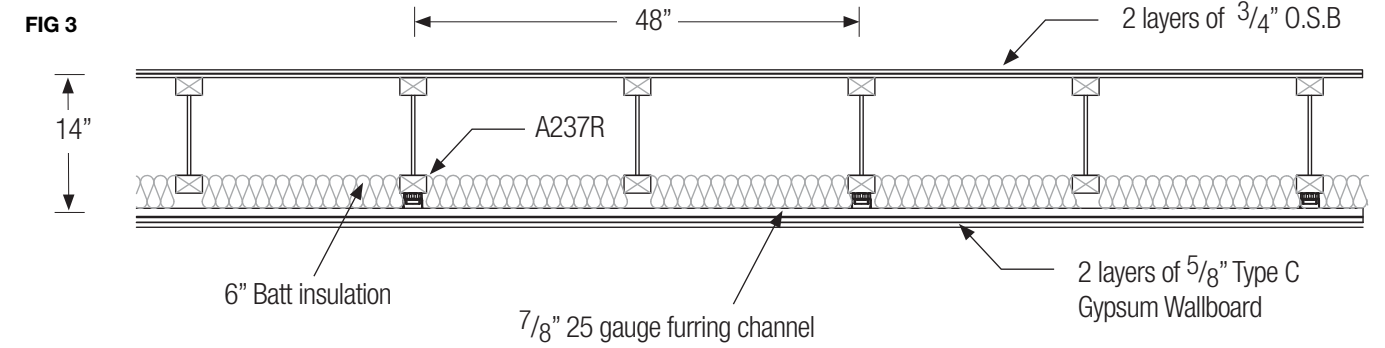
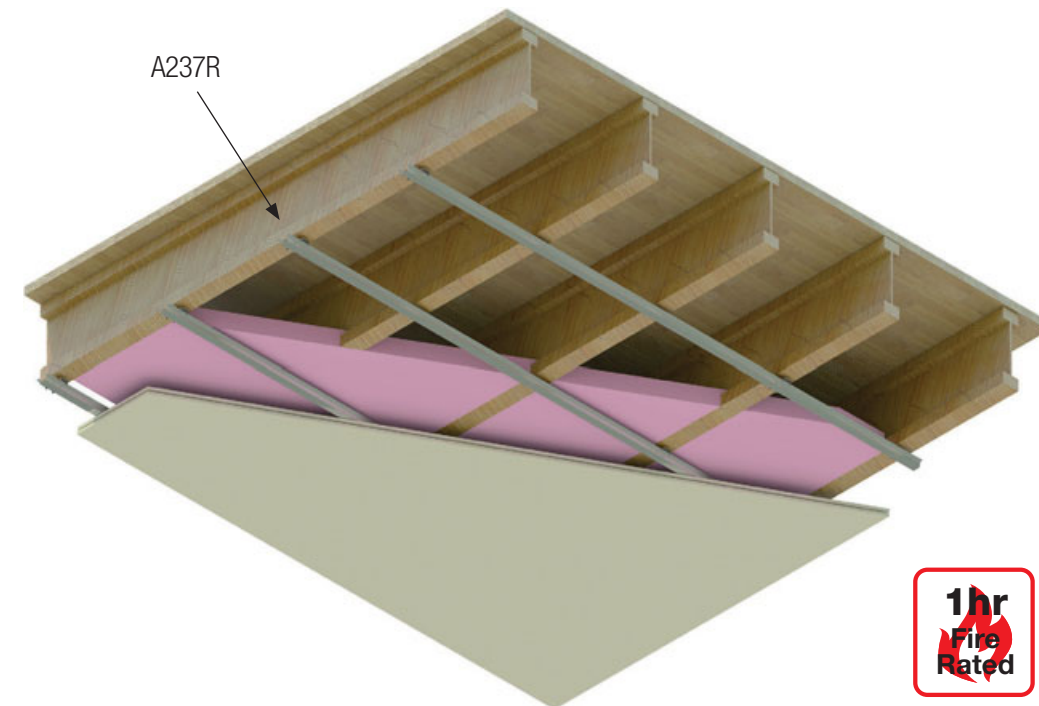


FIG 4



ACCREDITATIONS



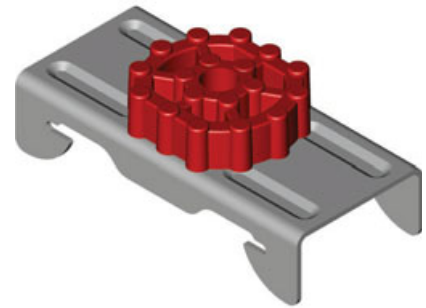
UL ASSEMBLY L570



RAL-TL14-271 (STC)
RAL-IN14-019 (IIC)

FLOOR – CEILING ASSEMBLIES

A237R Wood I-Joist with 2 layers of Type C Gypsum Wallboard



A237R

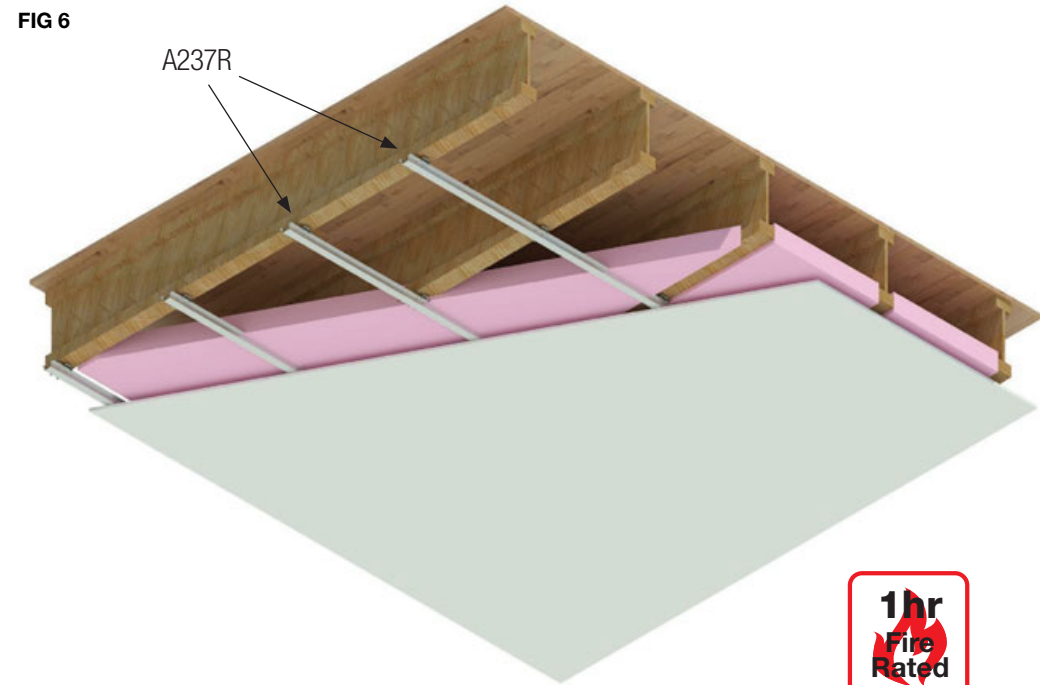
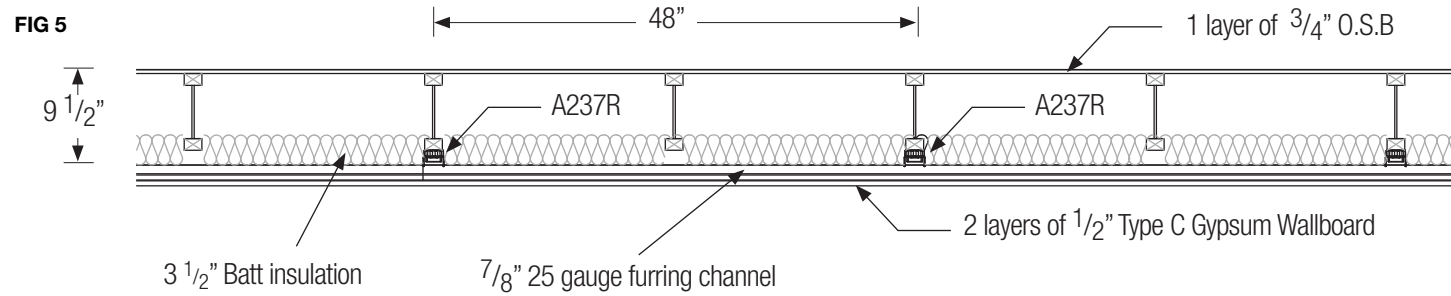


FIG 6

ACCREDITATIONS



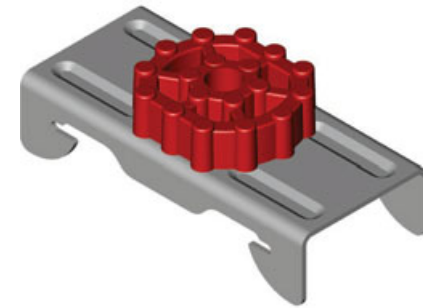
EVALUATION

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FLOOR – CEILING ASSEMBLIES

A237R Wood I-Joist with 2 layers of Type C Gypsum Wallboard and Resilmat



A237R

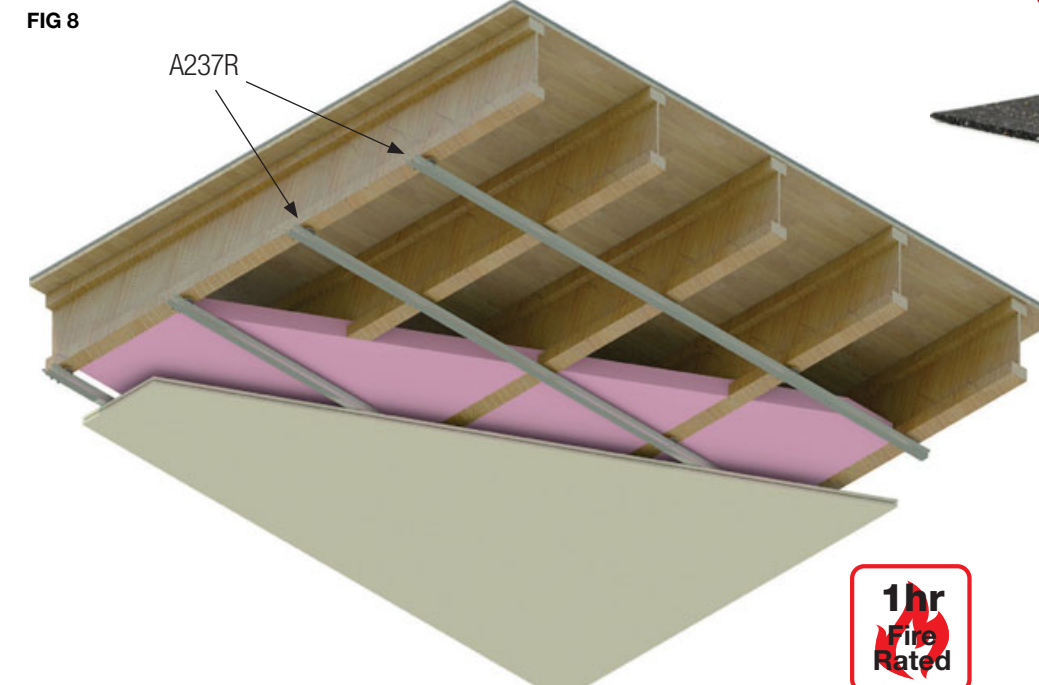
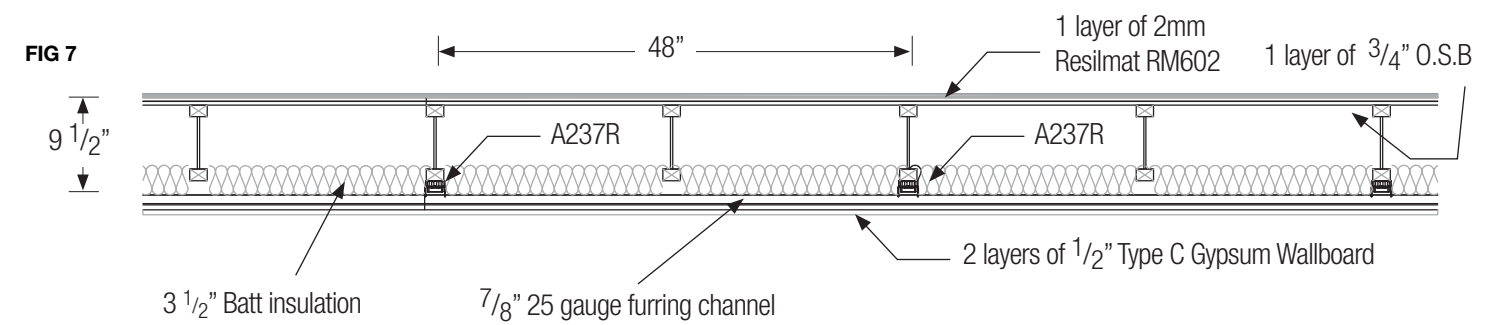


FIG 8



ACCREDITATIONS



EVALUATION

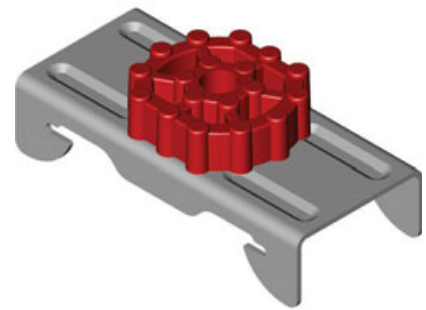
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FLOOR – CEILING ASSEMBLIES

A237R Open Web Wood Truss with 2 layers of Type C Gypsum Wallboard



A237R

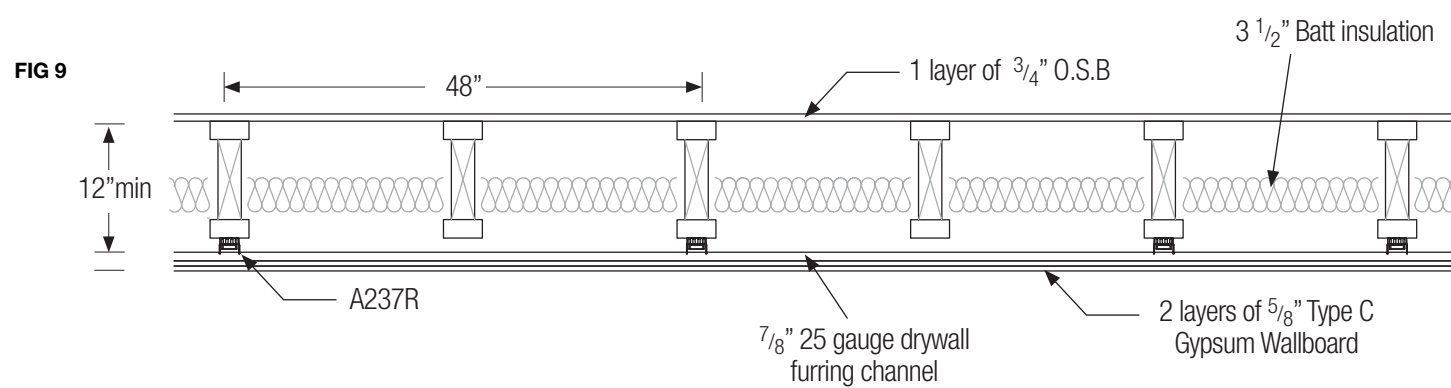
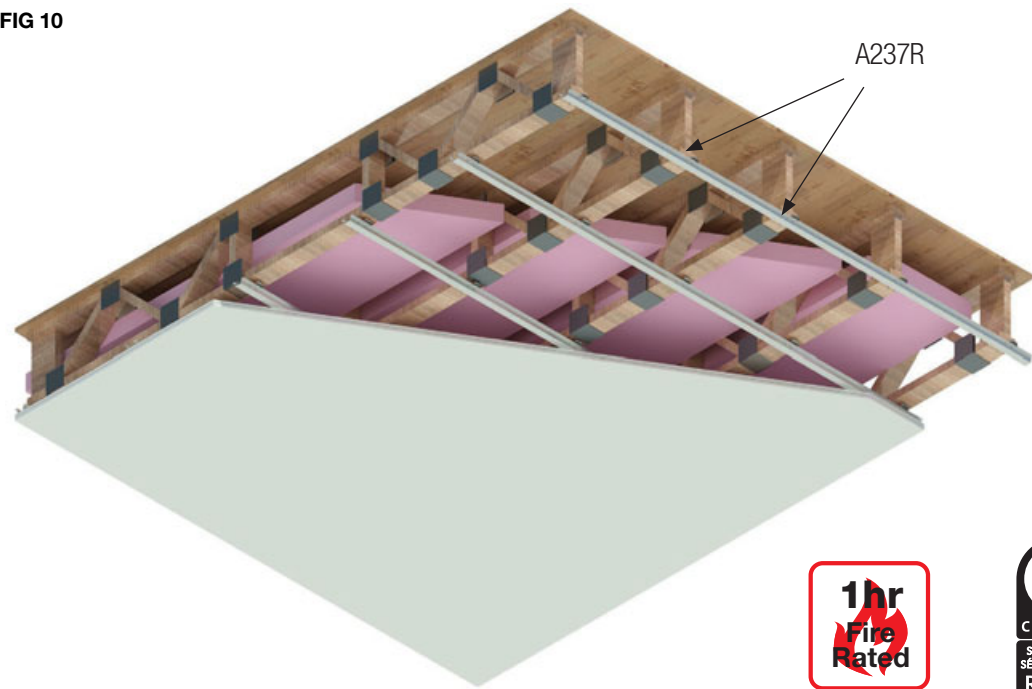


FIG 10



ACCREDITATIONS



UL ASSEMBLY L528



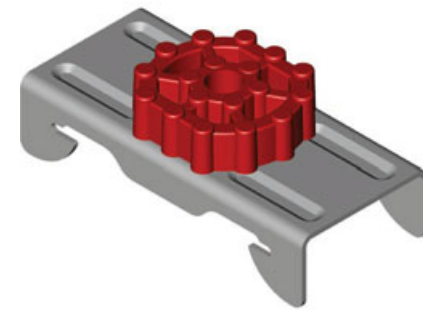
EVALUATION

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FLOOR – CEILING ASSEMBLIES

A237R Open Web Wood Truss with 1 layer of Type C Gypsum Wallboard



A237R

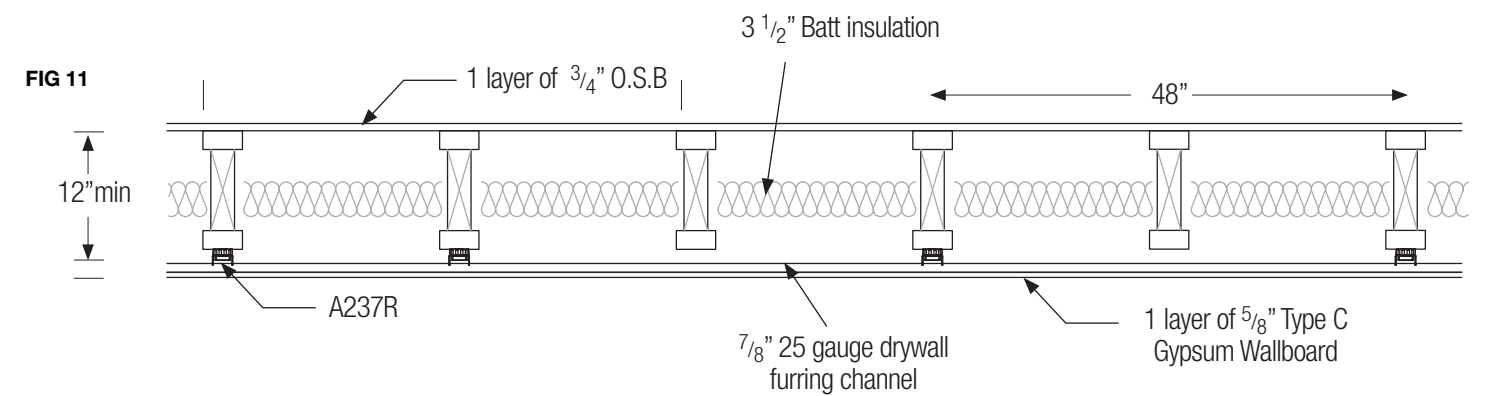
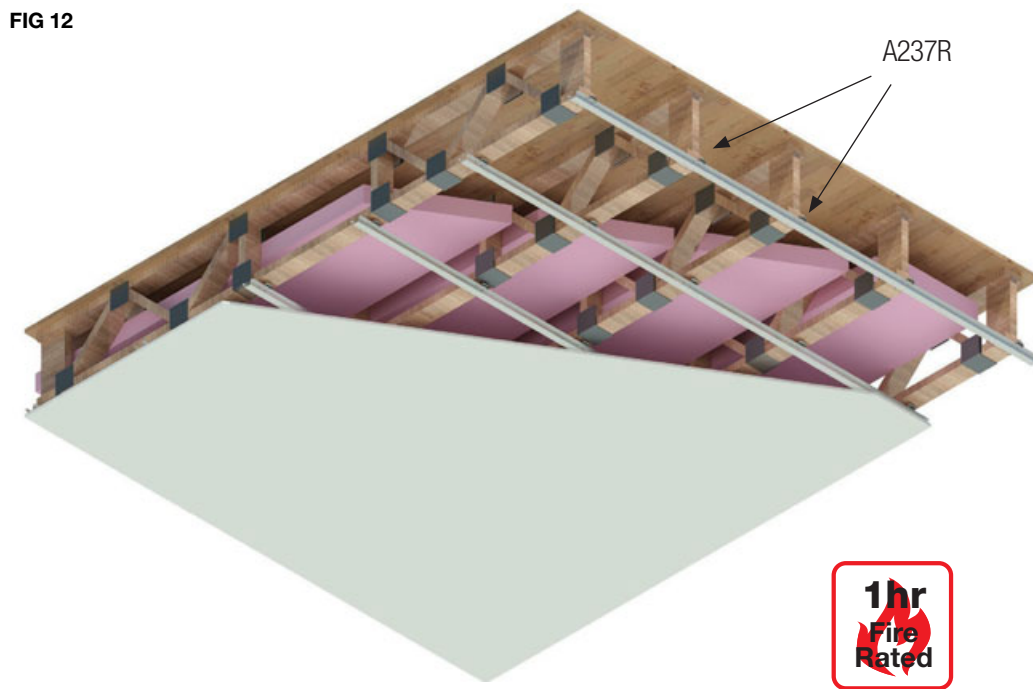


FIG 12



ACCREDITATIONS



UL ASSEMBLY L528



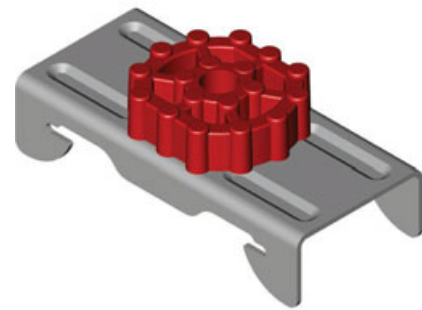
EVALUATION

PHA ACOUSTIC CONSULTING
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FLOOR – CEILING ASSEMBLIES

A237R Open Web Wood Truss with 1 layer of Type C Gypsum Wallboard



A237R

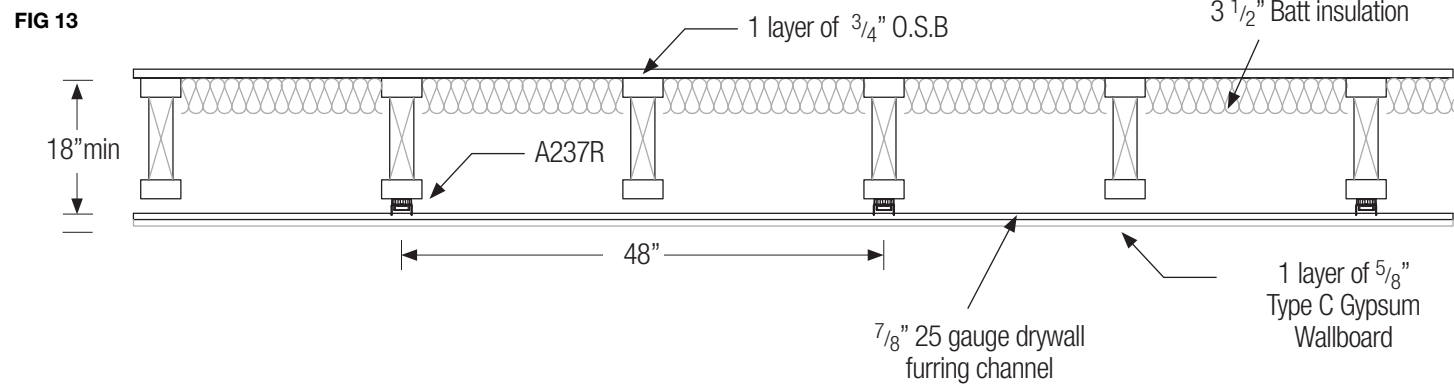
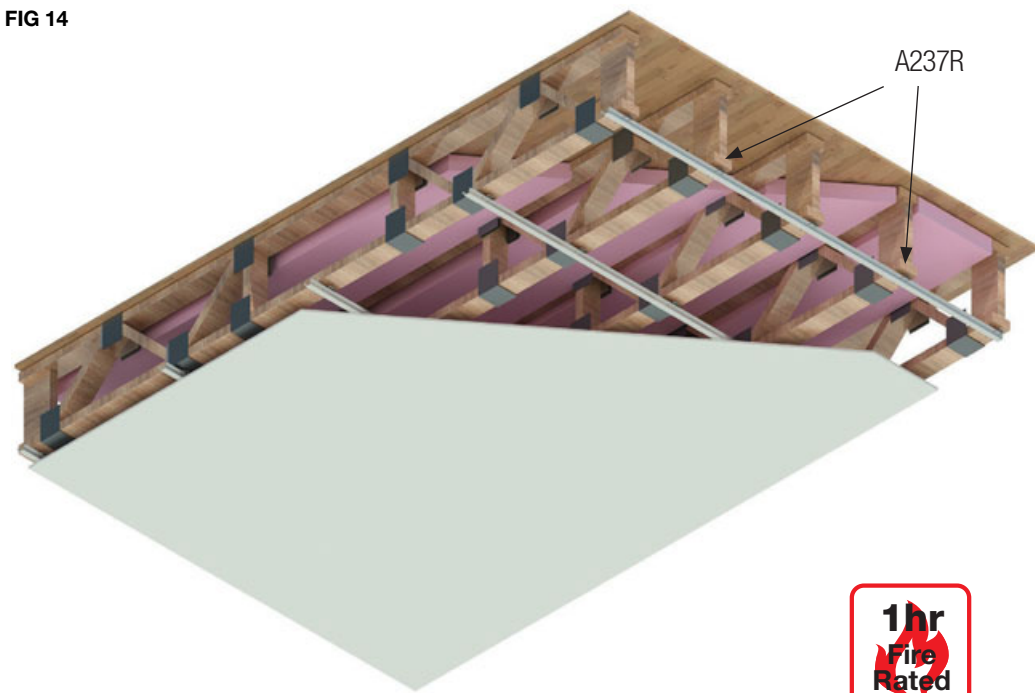


FIG 14



ACCREDITATIONS



UL ASSEMBLY L585



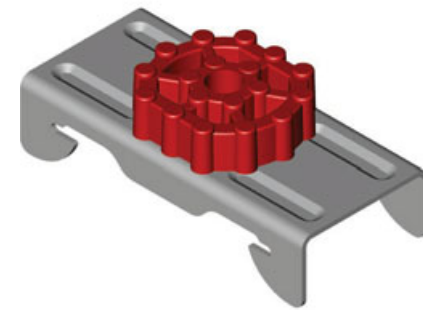
EVALUATION



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FLOOR – CEILING ASSEMBLIES

A237R Open Web Wood Truss with 1 layer of Type C Gypsum Wallboard



A237R

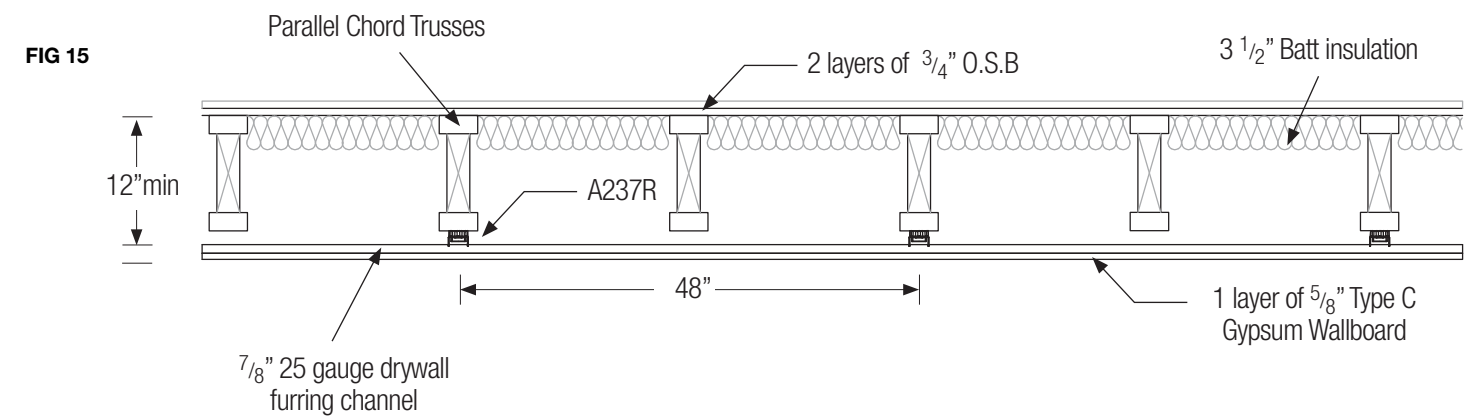
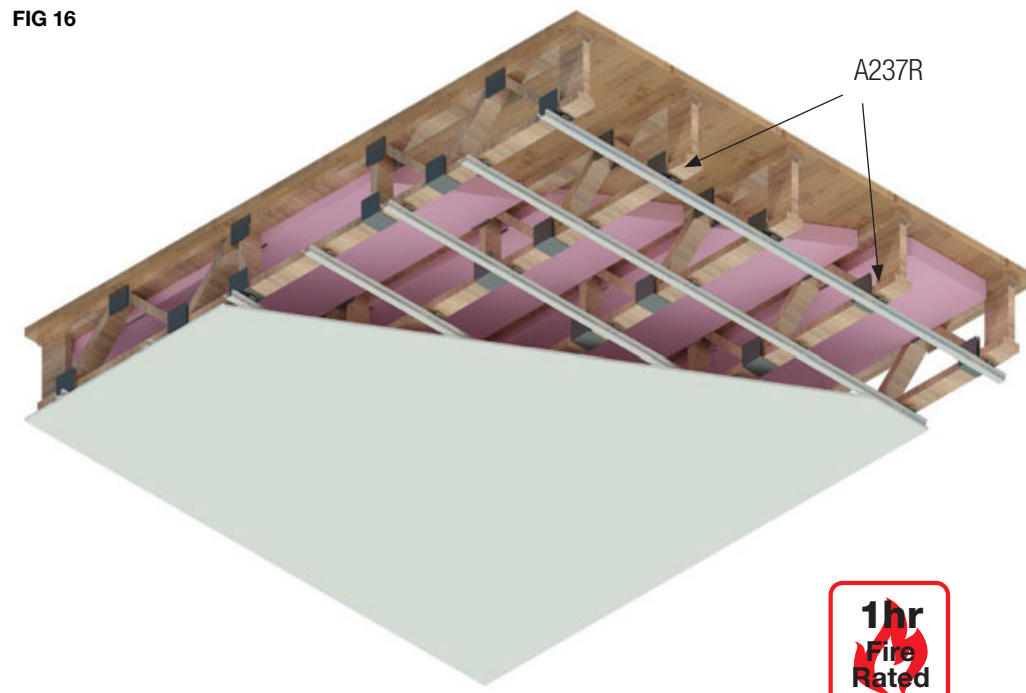


FIG 16



ACCREDITATIONS



UL ASSEMBLY L521



EVALUATION

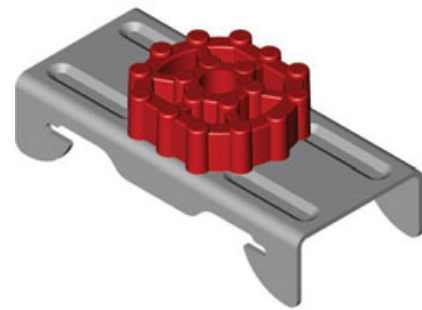


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FLOOR – CEILING ASSEMBLIES

A237R Open Web Wood Truss with 2 layers of Type C Gypsum Wallboard



A237R

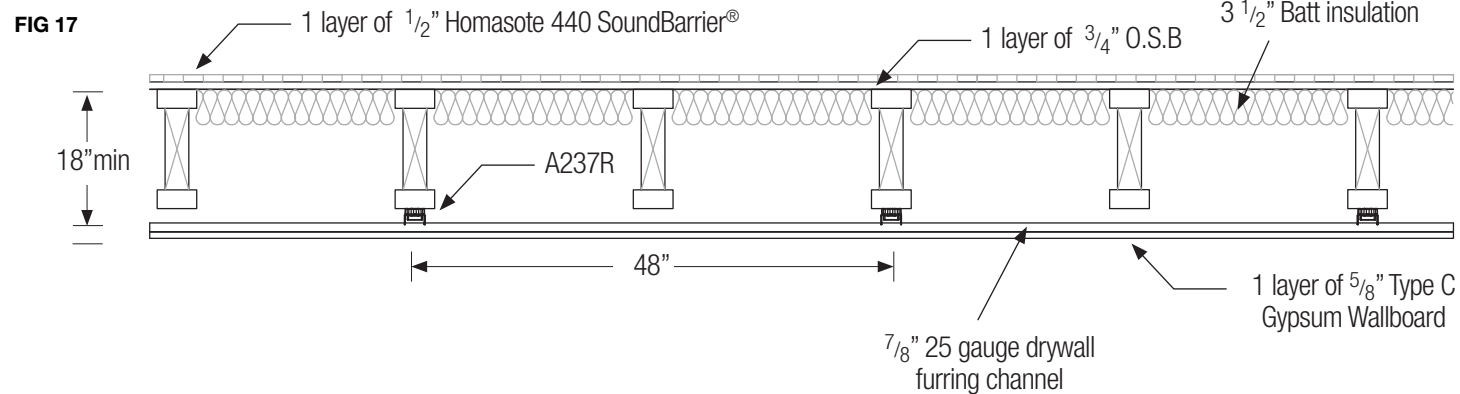
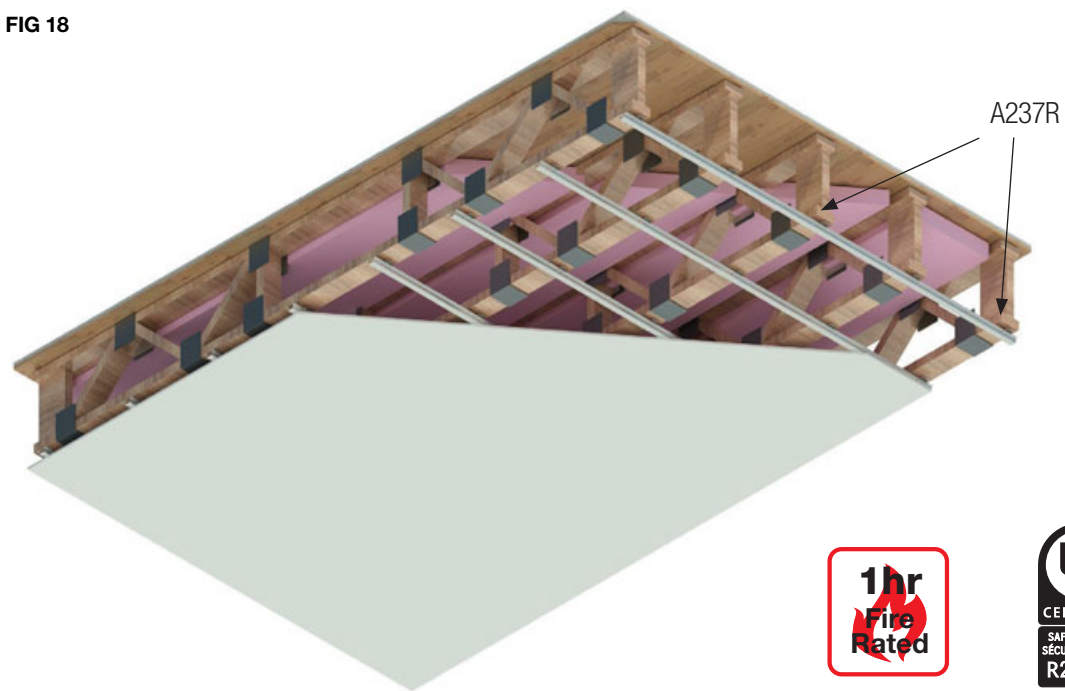


FIG 18



UL ASSEMBLY L521

ACCREDITATIONS



EVALUATION

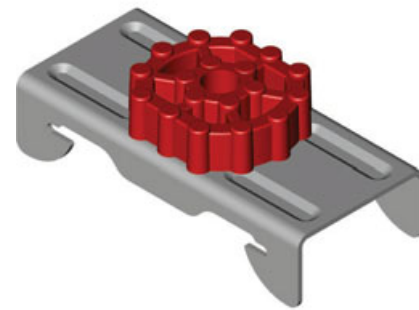


NGC 5017137_RI

www.resilmount.com

FLOOR – CEILING ASSEMBLIES

A237R Wood Truss with 2 layers of Type C Gypsum Wallboard



A237R

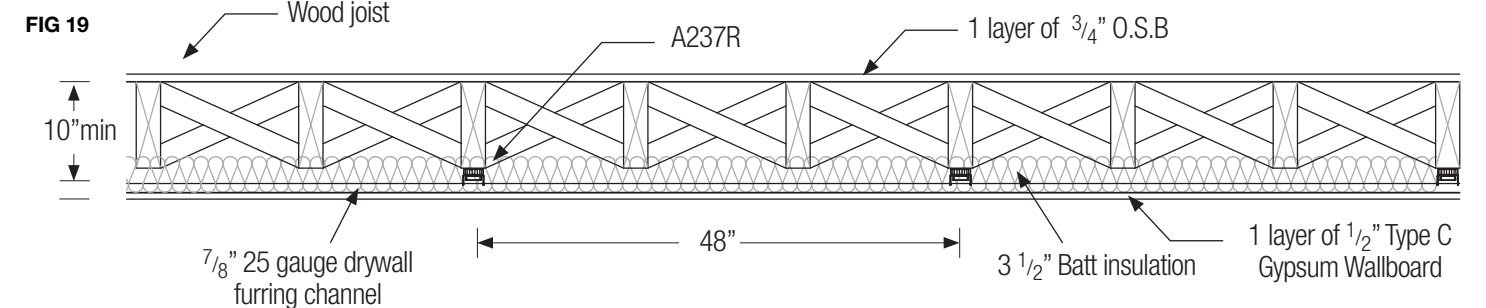
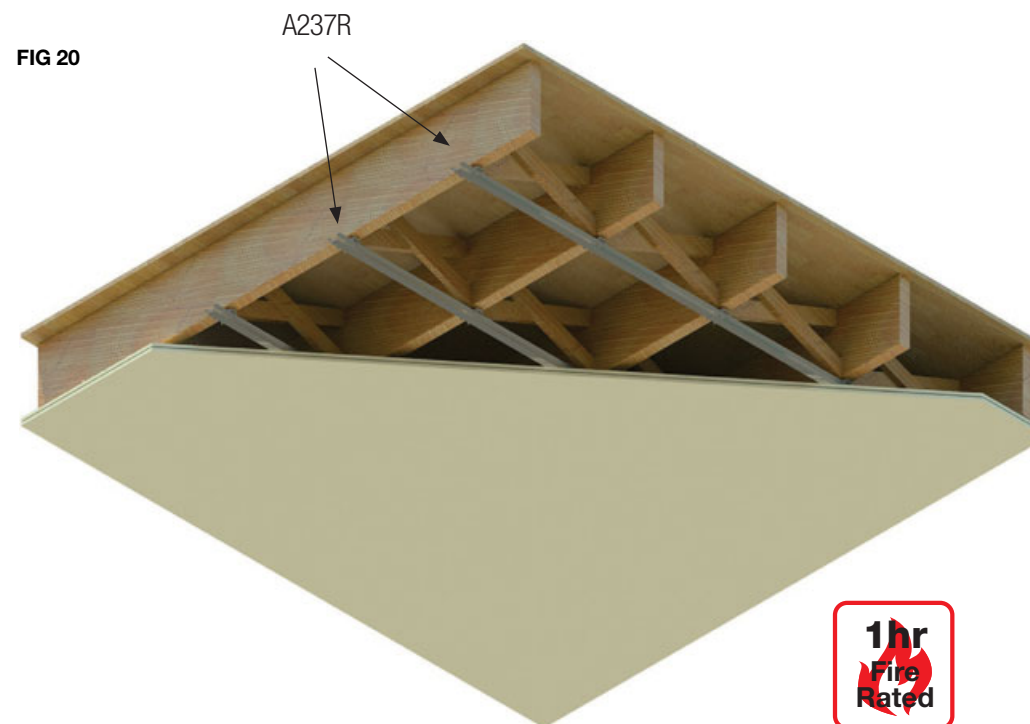


FIG 20



UL ASSEMBLY L502

ACCREDITATIONS



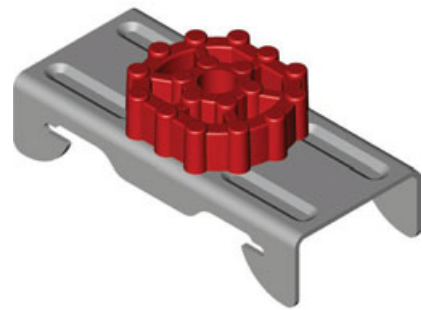
EVALUATION



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FLOOR – CEILING ASSEMBLIES

A237R 10" Steel C Joist with 2 layers of Type X Gypsum Wallboard



A237R

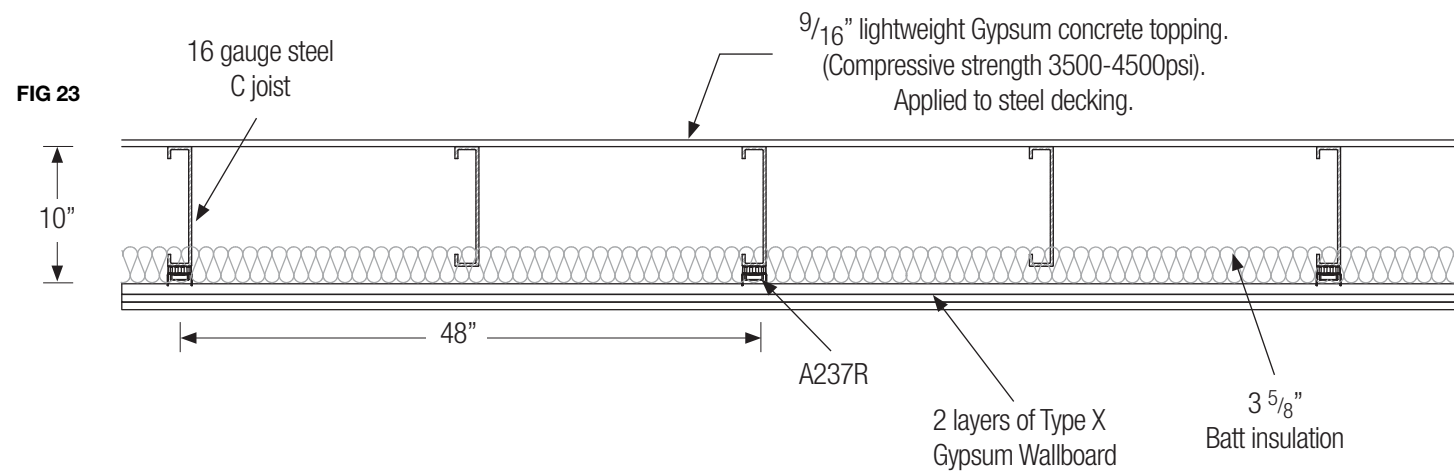
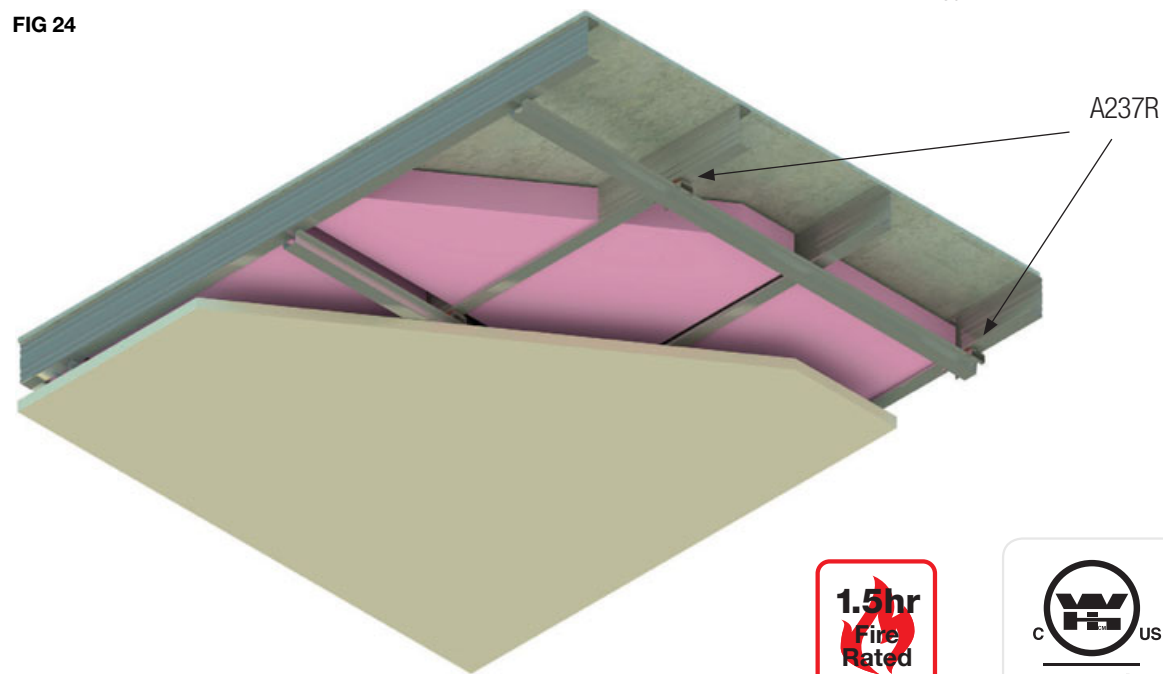


FIG 24



ACCREDITATIONS



3186856SAT-006B



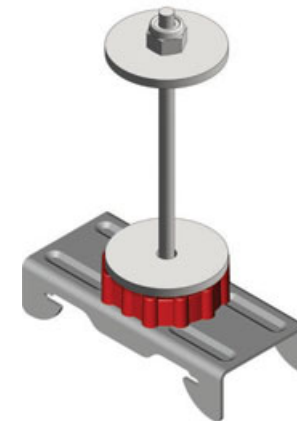
EVALUATION

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FLOOR – CEILING ASSEMBLIES

A237BR Steel Bar Joist with Normal Weight Concrete



A237BR

Part	Bolt Length	Cord
A237BR - 3	3"	1"
A237BR - 4	4"	2"
A237BR - 5	5"	3"

Note:

The addition of fibreglass insulation in the cavity can raise the performance to approximately STC 63.

FIG 25

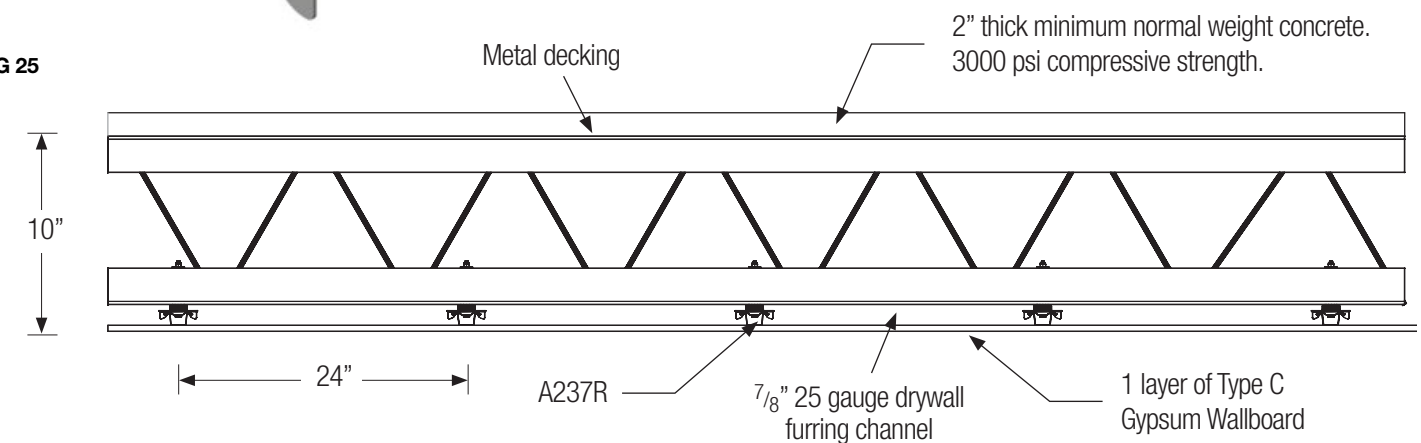
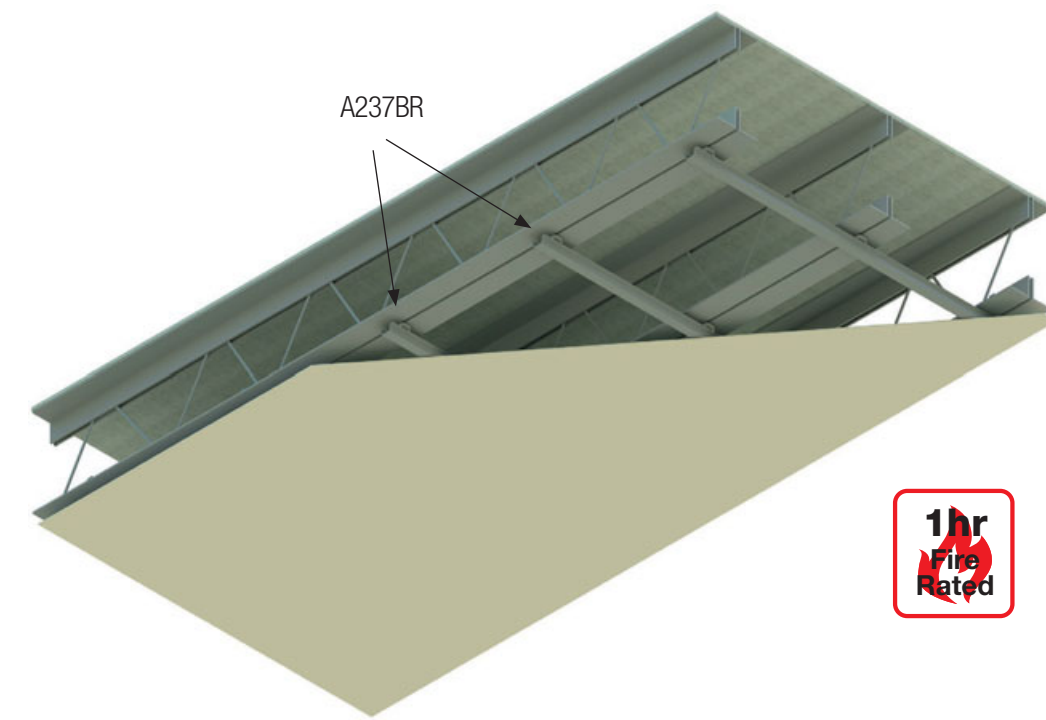


FIG 26



ACCREDITATIONS



UL ASSEMBLY
G501 + L504



EVALUATION

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FLOOR – CEILING ASSEMBLIES

A237CR 6" Concrete Slab with 1 layer of Type X Gypsum Wallboard



A237CR

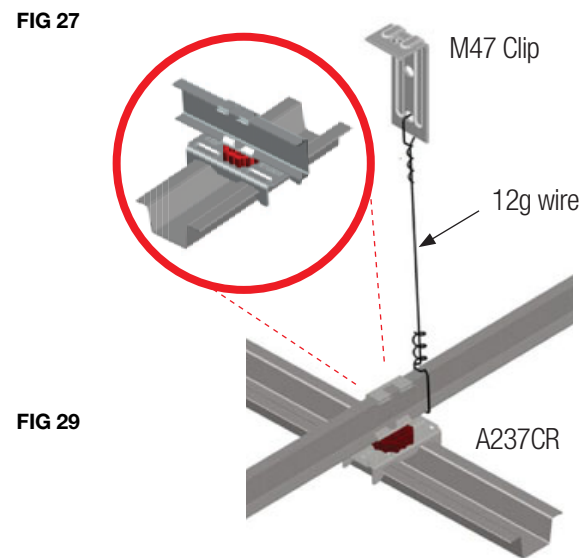


FIG 29

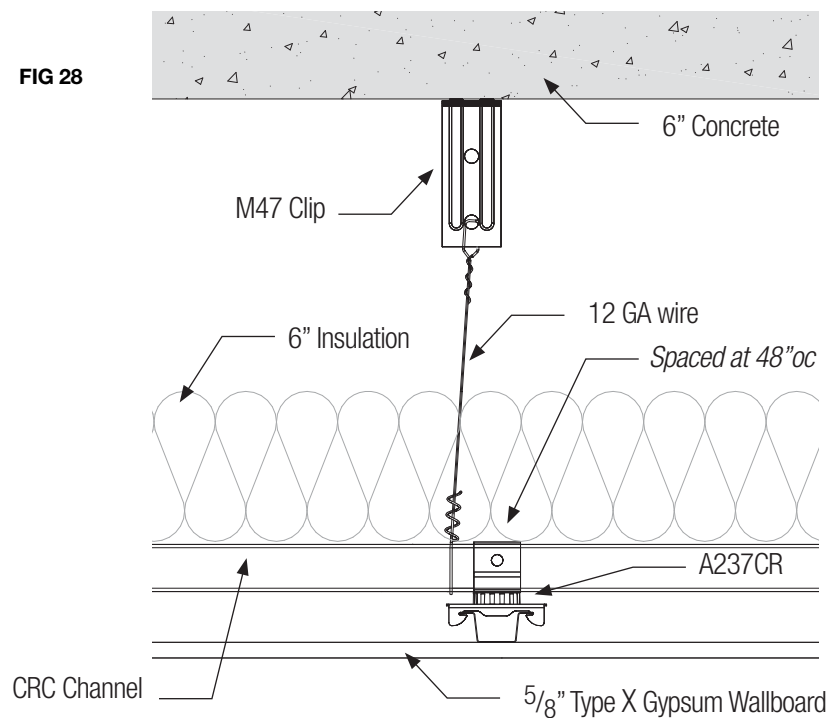
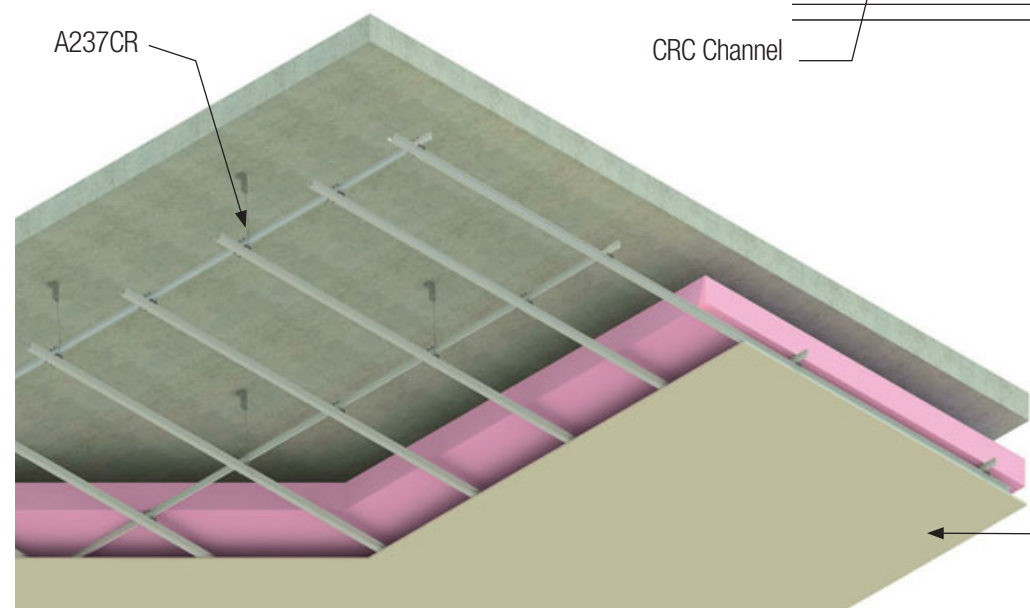


FIG 28

ACCREDITATIONS

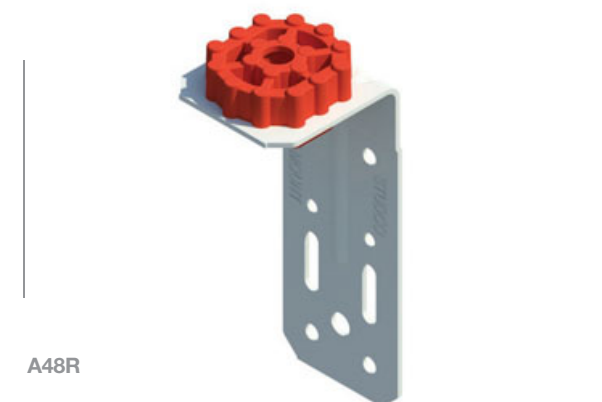


RAL-IN14-016 (IIC)
RAL-TL14-242 (STC)

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FLOOR – CEILING ASSEMBLIES

A48R 6" Concrete Slab with 1 layer of Type X Gypsum Wallboard



A48R

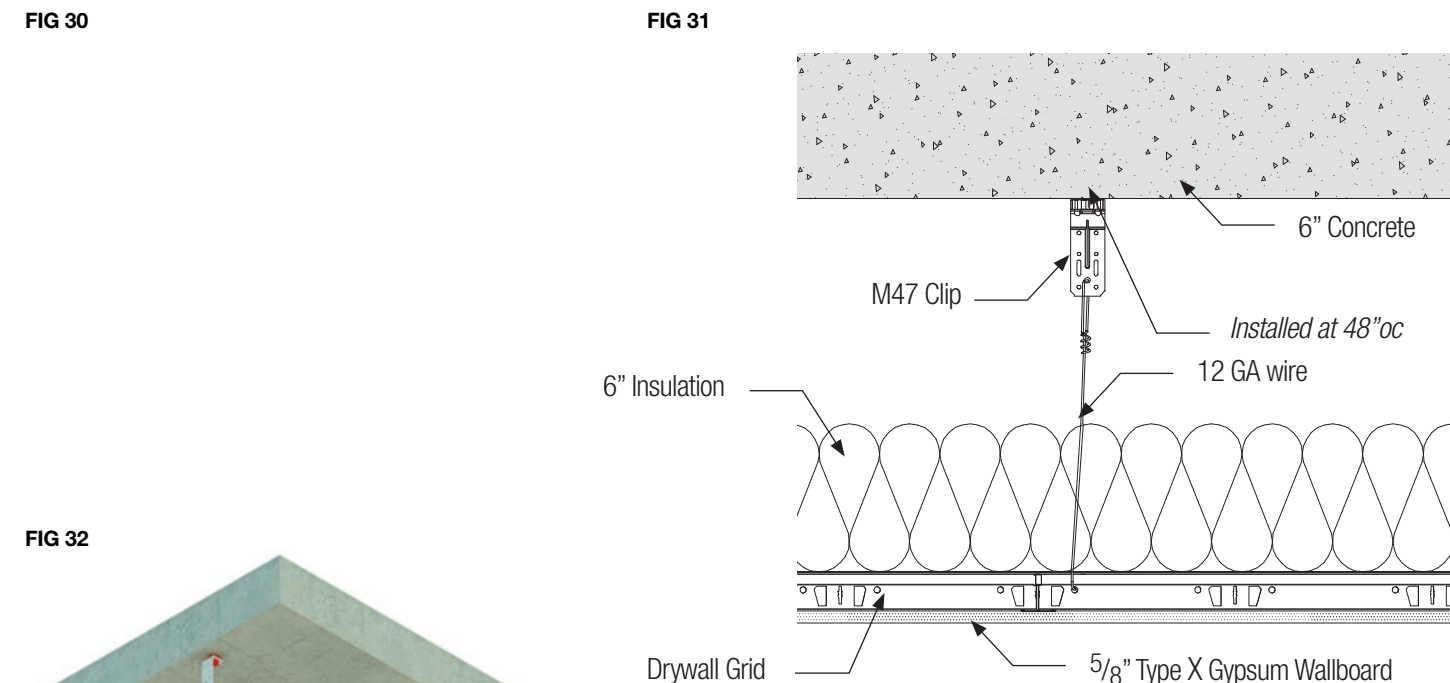
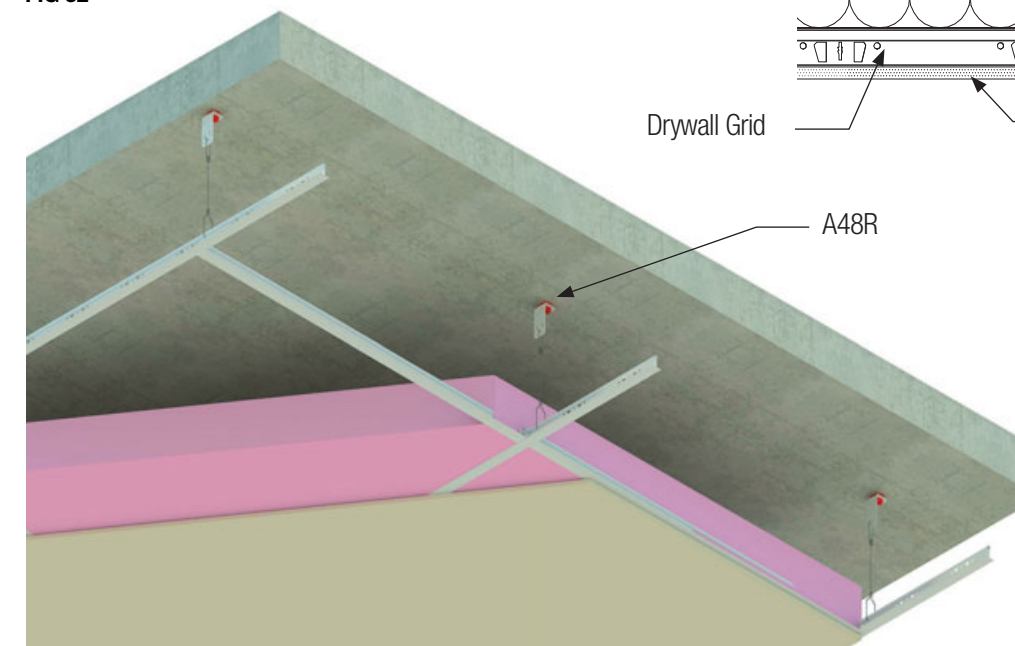


FIG 30

FIG 31

FIG 32



ACCREDITATIONS

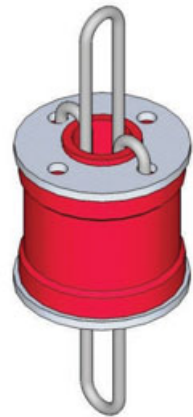


RAL-IN14-012 (IIC)
RAL-TL14-226 (STC)

TEL 800.675.8023

FLOOR – CEILING ASSEMBLIES

A50R 1,2,3 6" Concrete Slab with 1 layer of Type X Gypsum Wallboard



A50R-1

- Easily works with all hanger wire.
- Easy installation into new or existing ceiling systems.
- Acoustically tested for STC and IIC.
- Does not reduce the load capacity of the ceiling system.
- Suitably isolates the ceiling system from the structure to reduce structure and airborne noise.
- Elastomer Type: Natural Rubber.
- Load capacity: 65 Lbs.

FIG 33

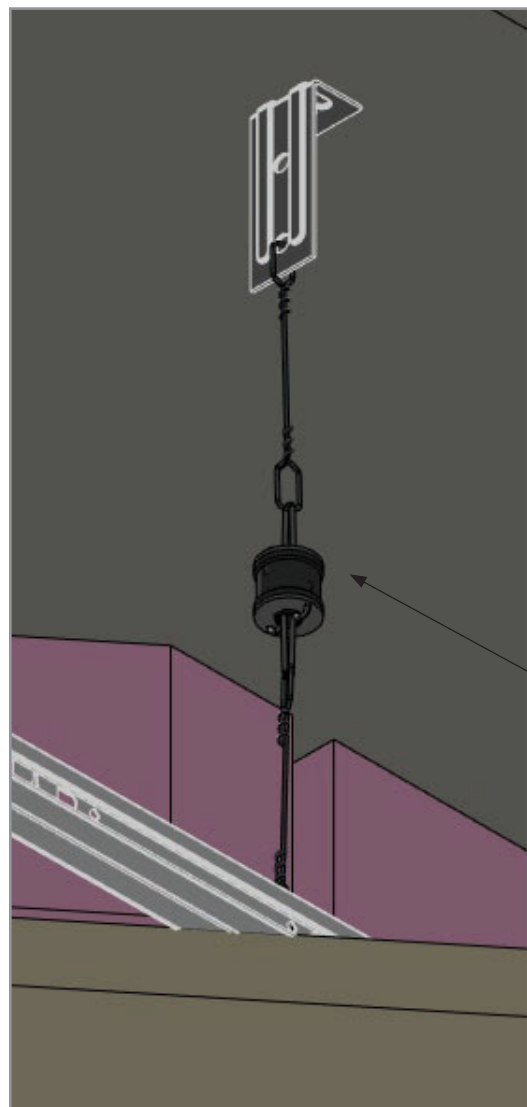
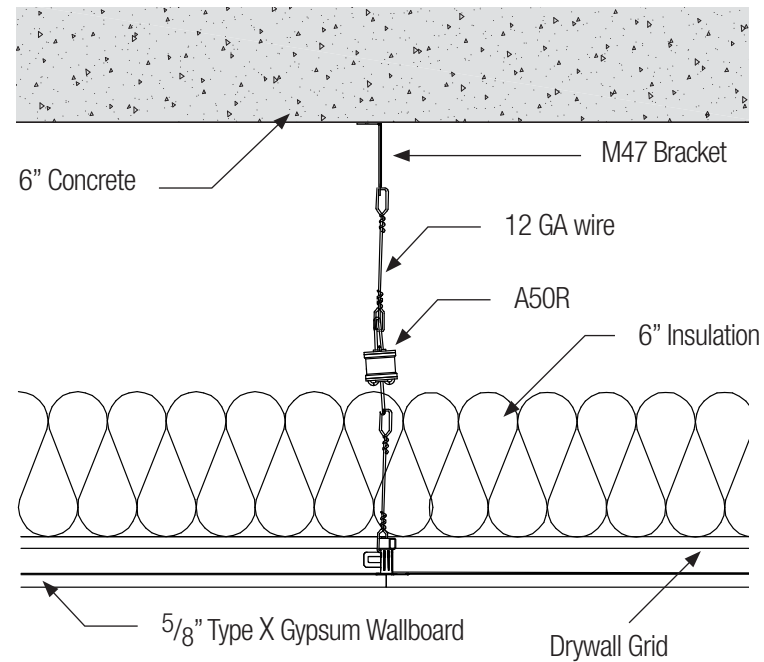


FIG 34



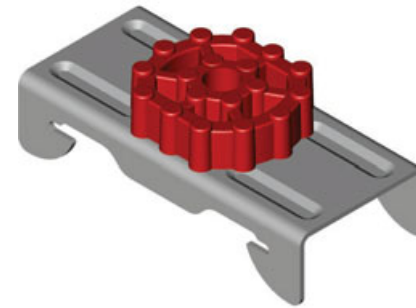
ACCREDITATIONS



RAL-IN14-014 (IIC)
RAL-TL14-233 (STC)

METAL STUD

A237R With 1 layer of Type X Gypsum Wallboard



A237R

FIG 35

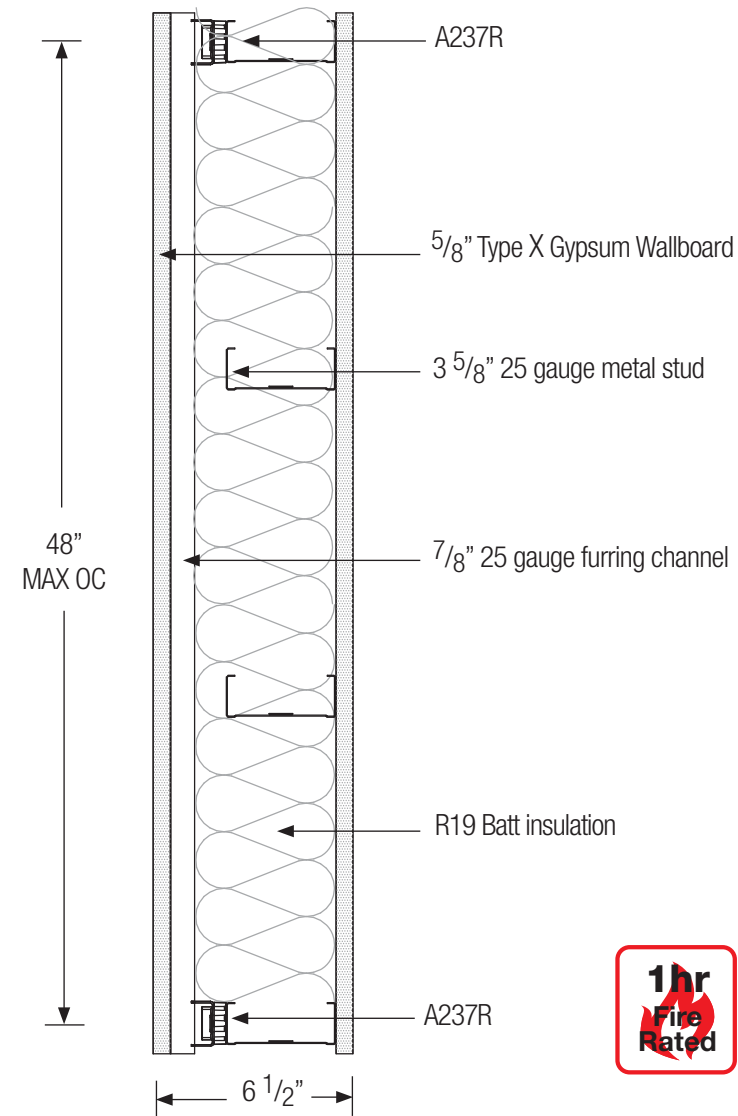


FIG 36



ACCREDITATIONS



UL ASSEMBLY
U419, U423



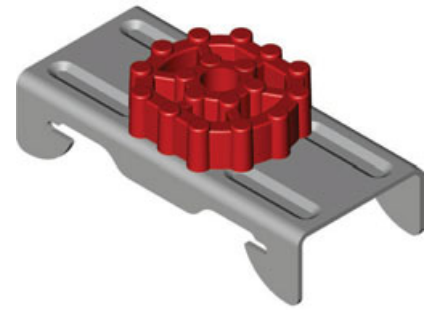
3186856SAT-003E



TL08-239

METAL STUD

A237R With 2 layer of Type X Gypsum Wallboard



A237R

FIG 37

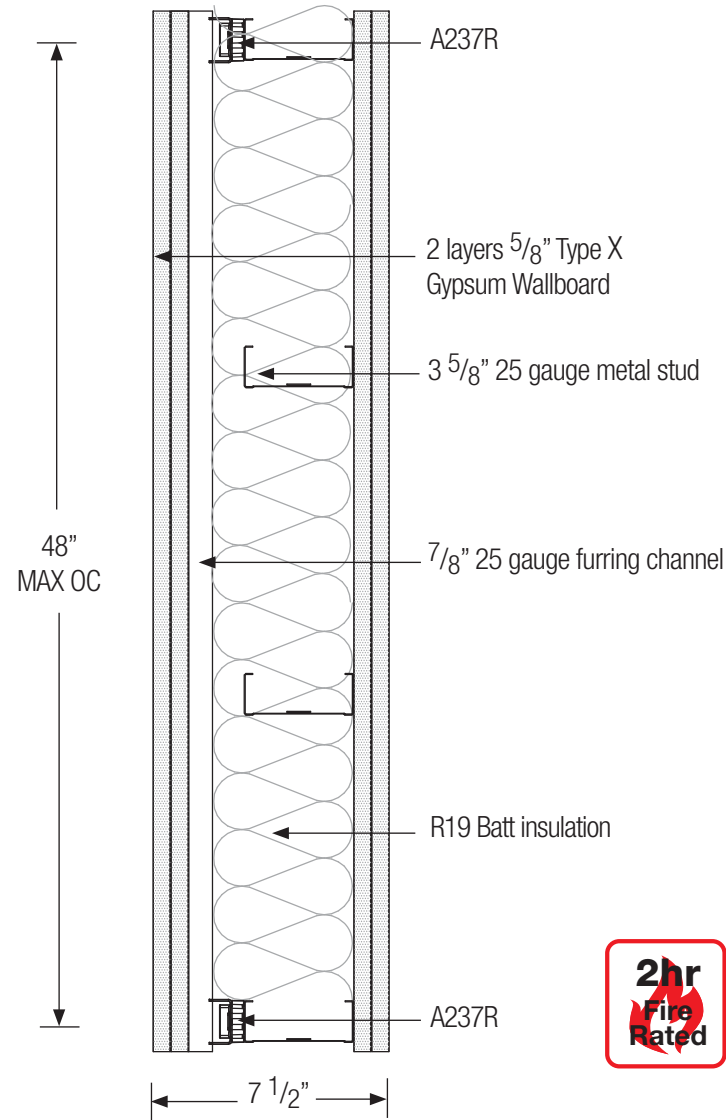


FIG 38



ACCREDITATIONS



UL ASSEMBLY
U419, U423



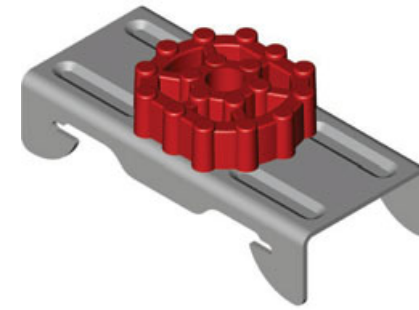
3186856SAT-006D



TL08-240

WOOD STUD

A237R With 1 layer of Type X Gypsum Wallboard



A237R

FIG 39

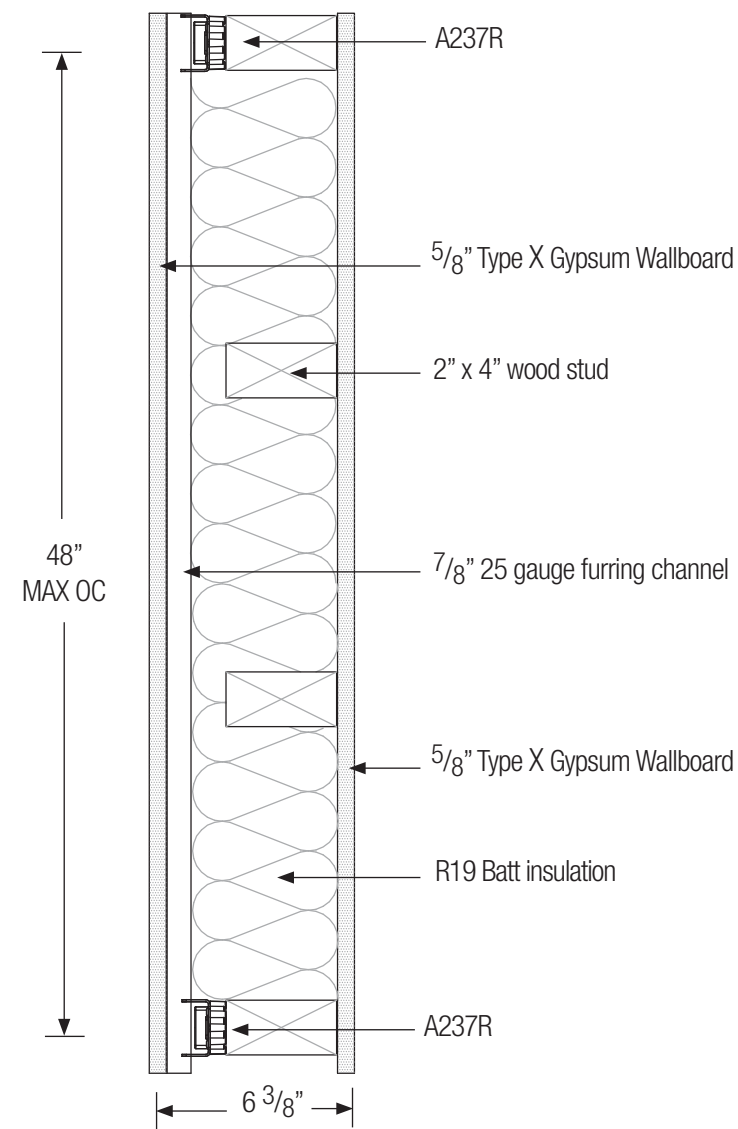


FIG 40



ACCREDITATIONS



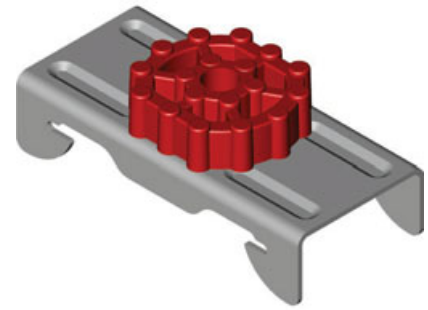
UL ASSEMBLY
U305



RAL-TL08-237

WOOD STUD

A237R With multiple layers of Type X Gypsum Wallboard



A237R

FIG 41

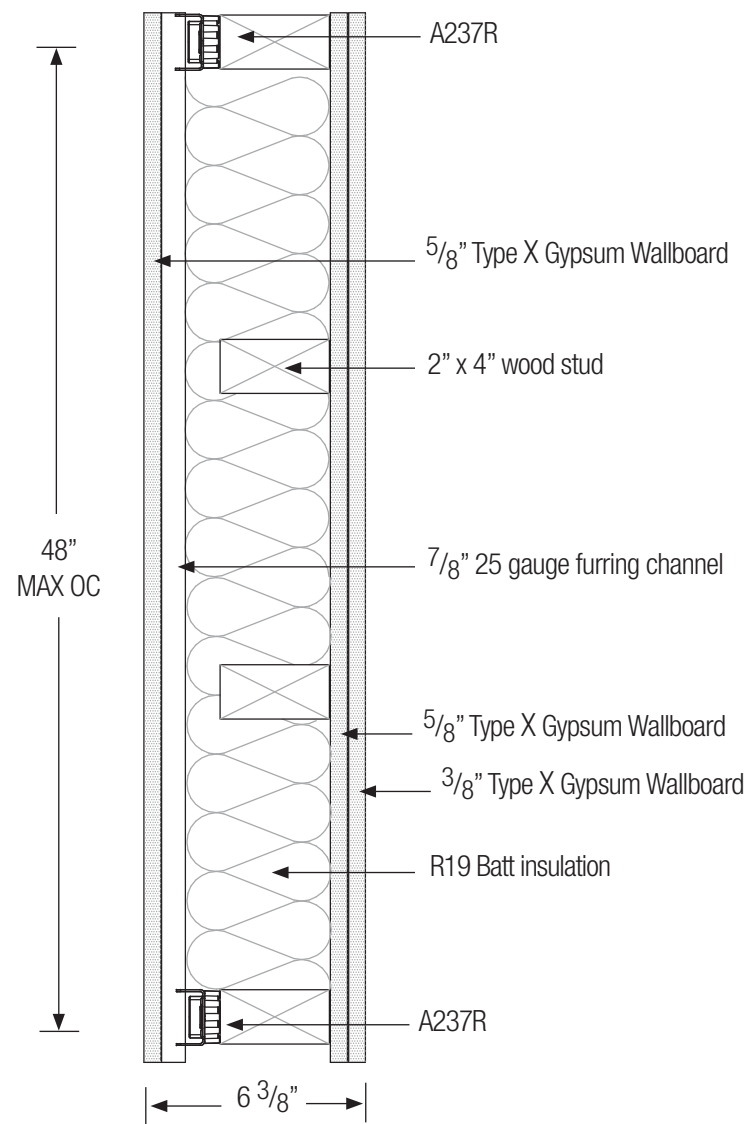


FIG 42



ACCREDITATIONS



EVALUATION

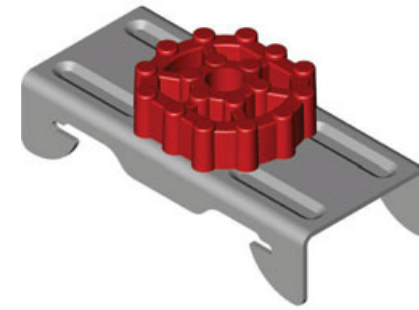
UL ASSEMBLY
UL305

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WOOD STUD

A237R With multiple layers of Type X Gypsum Wallboard



A237R

FIG 43

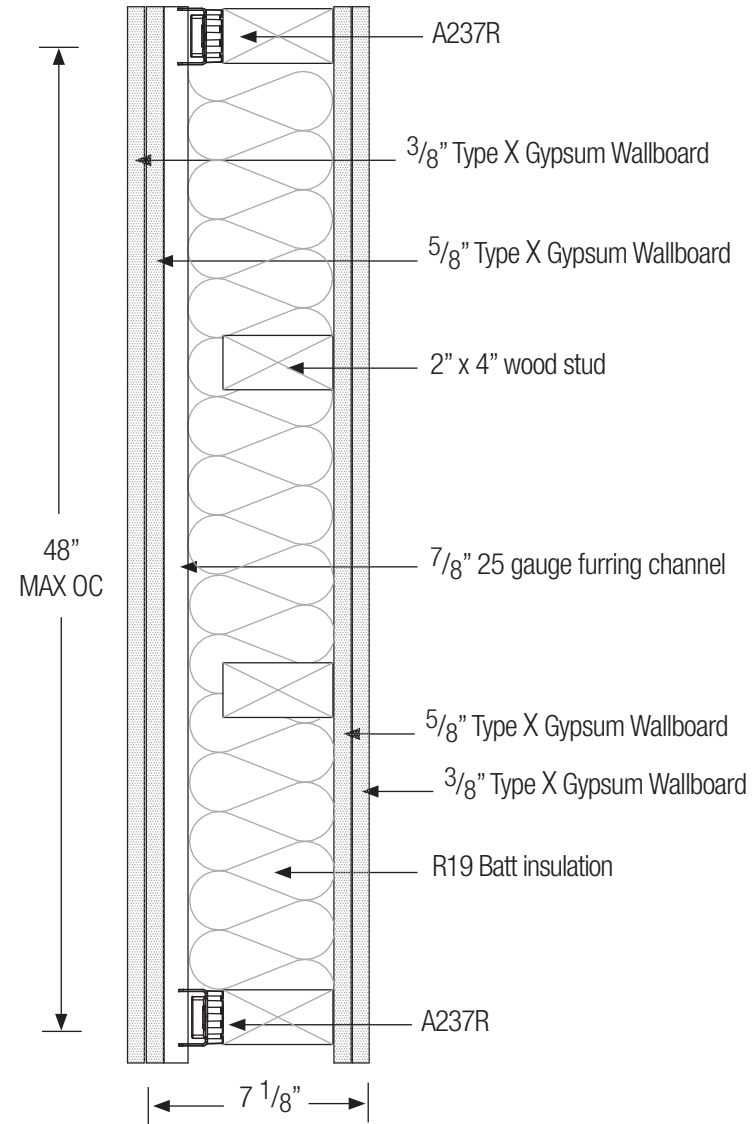


FIG 44



ACCREDITATIONS



EVALUATION

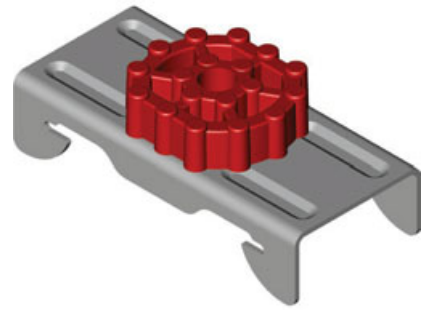
UL ASSEMBLY
U305

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WOOD STUD

A237R With 2 layers of Type X Gypsum Wallboard



A237R

FIG 45

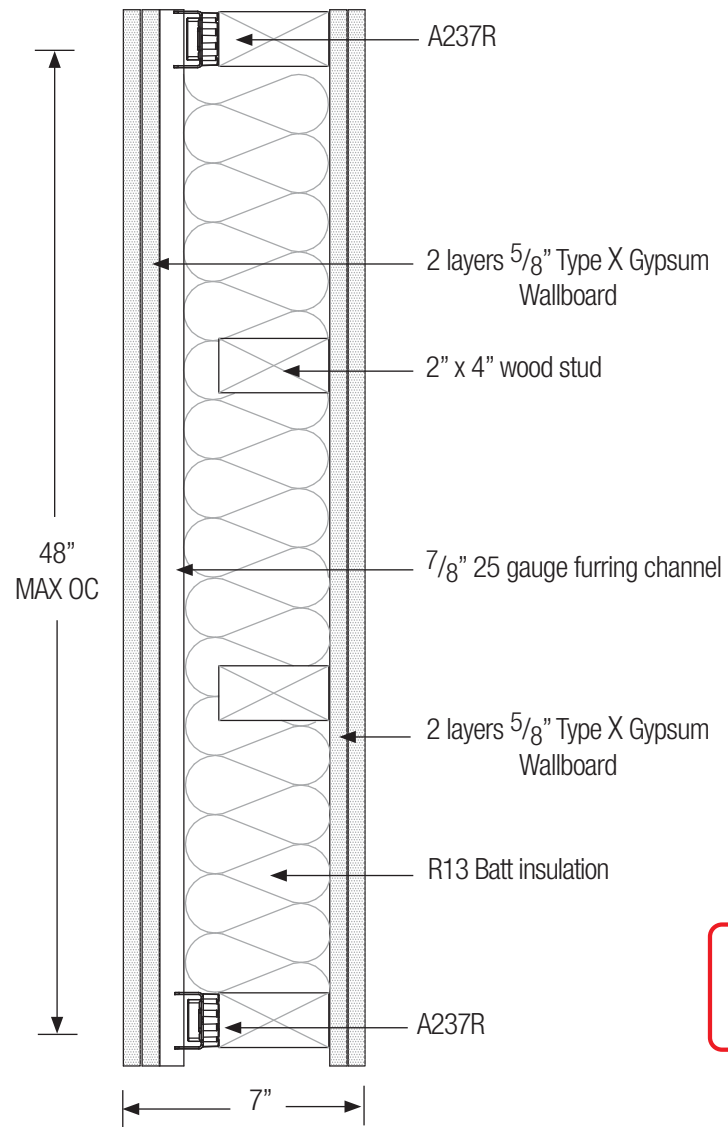


FIG 46



ACCREDITATIONS



3186856SAT-006A

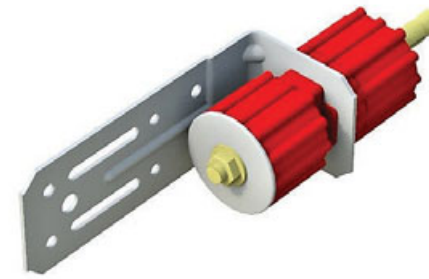


PKA ACOUSTIC CONSULTING
www.pka.com.au

www.resilmount.com

STEEL STUD

M481R With 2 layers of Gypsum Wallboard



M481R

FIG 47

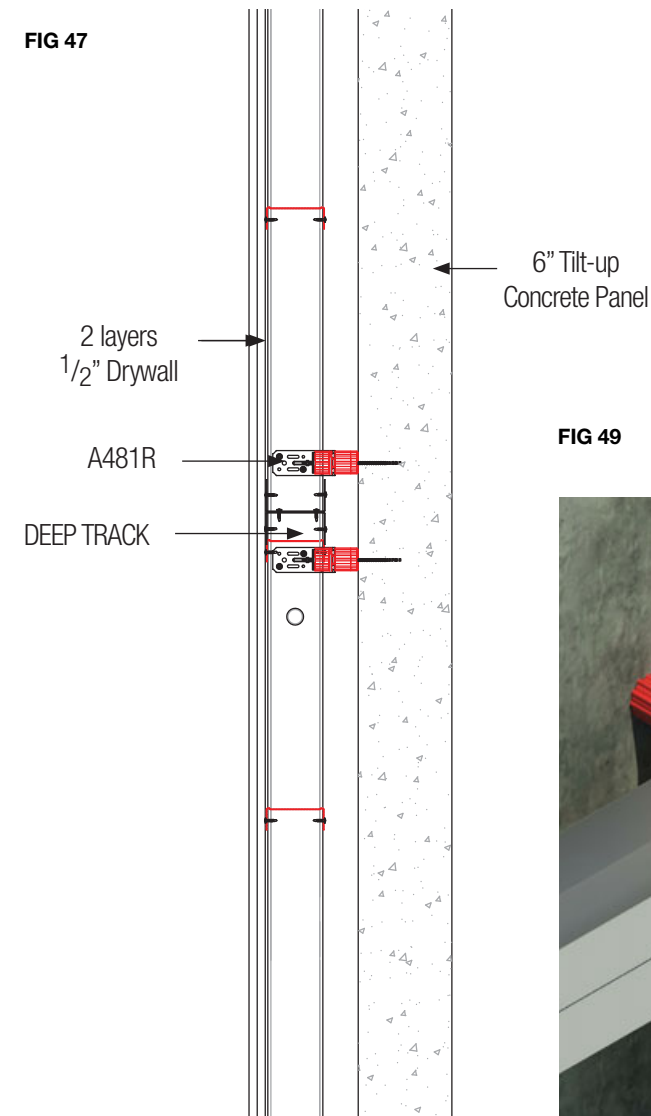
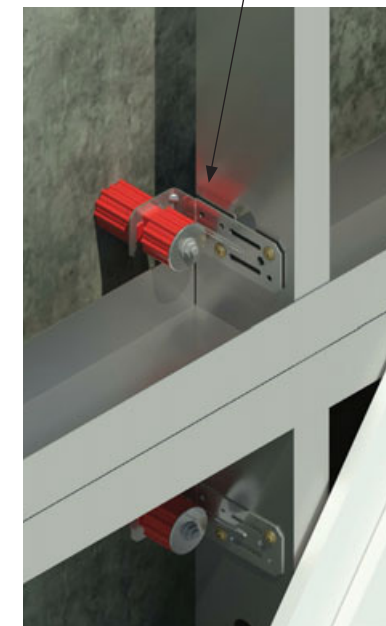


FIG 48



FIG 49



ACCREDITATIONS



EVALUATION

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All Resilmount products are precision manufactured by Studco Building systems for complete control over the quality of each individual mount, in order to meet or exceed the architectural specifications required of each resilient mount.

A237R



An engineered, patented acoustic resilient mounting bracket for Studco furring channels, for reducing airborne vibration and structure-borne vibration in wood, steel and concrete wall and ceiling applications.

A237BR



The Resilmount A237BR is used in bar joist applications where a dropped ceiling is needed. The clip accepts standard furring channel which enables the gypsum board to be decoupled acoustically from the bar joist and floor above.

A237CR



The A237CR was designed to support furring channel to Cold Rolled Channel (CRC) while providing sound isolation between the two. The A237CR features a top clip that simply snaps and locks in around the CRC with a simple rotation motion, along with the A237R which quickly and effectively locks in standard furring channel.

A48R



A48R™ is an engineered, acoustic resilient right angled bracket for reducing airborne vibration and structure-borne vibration in internal wall and ceiling applications. Used to brace an acoustic wall to the structure without compromising sound and vibration transmission requirements.

A50R



Resilmount™ A50Rs weight rated for 65, 120 and 200 lbs, are specifically designed for the support, deflection and acoustical isolation of internal suspended ceiling systems. Acoustically tested for STC and IIC with Riverbank Acoustical laboratories.

INSTALLATION INSTRUCTIONS

Disclaimer:

In fire rated installations, assembly installation instructions need to be confirmed prior to installation to satisfy assemblies details.

Fire Rated Installation

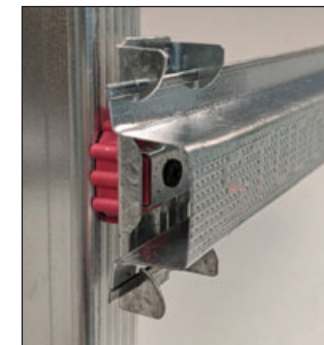
On Fire Rated applications Resilmount pre-attached Fire Washer must be installed as shown in (Fig 51). If this washer is not installed the clip has **no Fire Rating**.

Fig 51



Space Resilmount A237R so as not to exceed 48" O.C. Secure clips with a single fastener through the middle screw hole in the clip. (Fig 51)

Fig 52



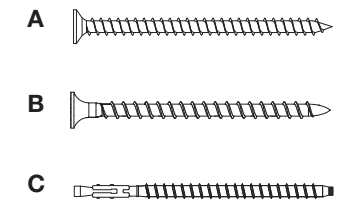
Snap hat channel onto Resilmount A237R. (Fig 52)

Fasteners

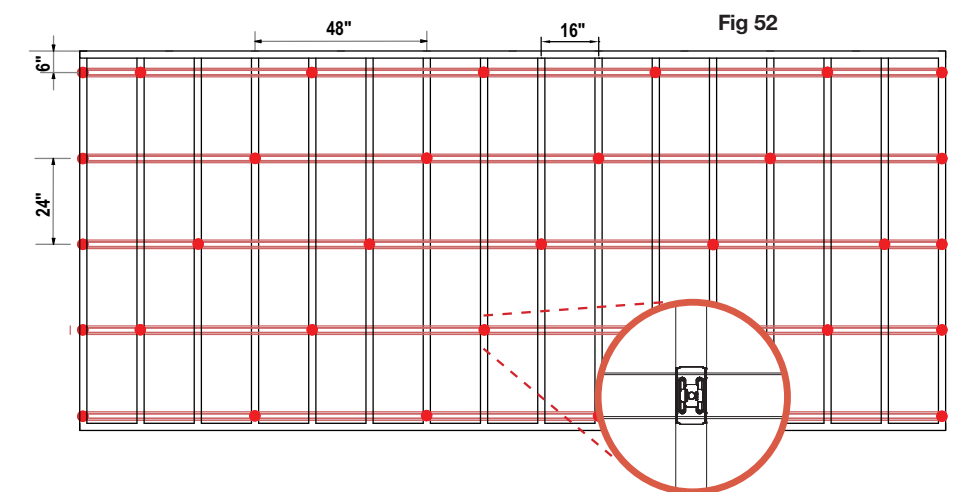
- (A) Wood: #8 x 2-1/2" Coarse Threads
- (B) Steel: #8, #10 or #12 x 1-5/8" Self Tapping Type S
- (C) Concrete: 3/16" x 2-1/4" Anchor Screws

DO NOT fasten Resilmount clips to framing members with nails. Use only approved screws.

Fig 51



Layouts for Studs at 16" O.C. with 1 or 2 layers of Gypsum Board



Clip usage guide for walls and ceilings

Studs at 16" O.C. and Furring Channel at 24" O.C

Fig 53

HEIGHT	WIDTH										
	1' to 4'	5' to 8'	9' to 12'	13' to 16'	17' to 20'	21' to 24'	25' to 28'	29' to 32'	33' to 36'	37' to 40'	
1' to 2'	4	6	8	10	12	14	16	18	20	22	
3' to 4'	6	11	14	17	20	23	26	29	32	35	
5' to 6'	8	14	18	22	26	30	34	38	42	46	
7' to 8'	10	18	23	28	33	38	43	48	53	58	
9' to 10'	12	22	28	34	40	46	52	58	64	70	
11' to 12'	14	25	32	39	46	53	60	67	74	81	
13' to 14'	16	29	37	45	53	61	69	77	85	93	
15' to 16'	18	33	42	51	60	69	78	87	96	105	
17' to 18'	20	36	46	56	66	76	86	96	106	116	
19' to 20'	22	40	51	62	73	84	95	106	117	128	
21' to 22'	24	44	56	68	80	92	104	116	128	140	
23' to 24'	26	47	60	73	86	99	112	125	138	151	
25' to 26'	28	51	65	79	93	107	121	135	149	163	
27' to 28'	30	55	70	85	100	115	130	145	160	175	
29' to 30'	32	58	74	90	106	122	138	154	170	186	
31' to 32'	34	62	79	96	113	130	147	164	181	198	
33' to 34'	36	66	84	102	120	138	156	174	192	210	
35' to 36'	38	69	88	107	126	145	164	183	202	221	
37' to 38'	40	73	93	113	133	153	173	193	213	233	
39' to 40'	42	77	98	119	140	161	182	203	224	245	

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- 1) The Sound Transmission Loss "STC" assessments are based on the results that would occur if tested at the Riverbank Laboratories. In the case of impact sound transmission "IIC" predictions these are only considered as a guide and do not carry the degree of accuracy of the Sound Transmission Loss predictions. The impact sound transmission is influenced by the dynamics of the installed system. Deflection of the floor joists under load will vary from project to project. This has a significant influence on the performance of the resilient mounts depending upon the ratio of the floor deflection to the deflection of the resilient mount. As a result the impact sound transmission, IIC has a tolerance of Plus or Minus 3 IIC due to the dynamics of installation and site conditions. Where the deflection of the floor system under load is very small, that is it is a very stiff system then the higher value of the impact transmission loss could be anticipated.
- 2) No allowance is made for sound flanking that may occur in a field installation. With appropriate design, good workmanship and attention to detail, and ideal site conditions, Field "STC" and "IIC" performance can be broadly comparable to laboratory performance.

SOUND ISOLATION SOLUTIONS