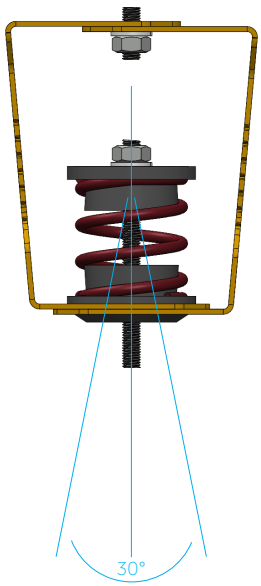
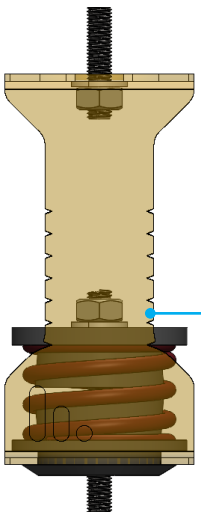
Stravilink ICH-S
Datasheet

Stravilink ICH-S is a heavy duty Isolated Ceiling Hanger with Springs engineered to acoustically decouple suspended ceilings and mechanical equipment from vertically stacked rooms.

FEATURES

- Quick and easy to install
- 1 inch (25 mm) deflection at design load (resonance frequency of 3.15 Hz)
- Minimum 70% travel from design deflection to overload condition for all spring types
- Interfaces with all ceiling types
- Rubber gasket prevents the rod from short-circuiting with the frame
- Notches integrated in frame to provide visual cue of overload conditions of the spring
- Clearance provided so rod can swing 30° without coming into contact with the bushing and reducing efficiency





To specify the Stravilink ICH-S spring type our engineers will need the following information:

- The weight and construction of the supported ceiling including all elements supported by the ceiling/hanger
- The required void between the supporting structure and the suspended ceiling

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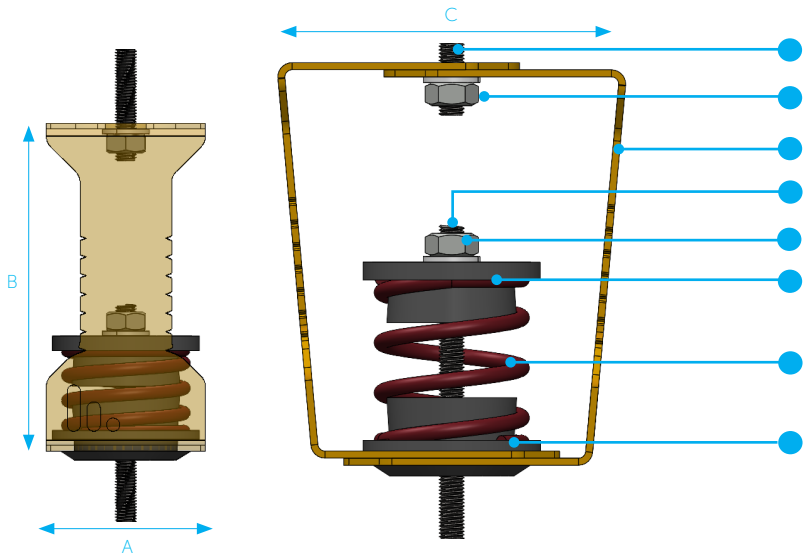
PHYSICAL & MECHANICAL PROPERTIES

Model	Length (A)		Height (B)		Width (C)		Design Load		Load Range		Spring Color
	inch	mm	inch	mm	inch	mm	lbs	N	lbs	N	
ICH-S12	2-1/8	54	4-9/16	116	3-7/8	98	12	55	6-20	25-80	Light Ivory
ICH-S18							18	80	9-25	40-120	Pastel Green
ICH-S24							24	105	12-35	50-160	Light Green
ICH-S30							30	135	15-45	70-200	Grey Beige
ICH-S40							40	180	20-60	90-265	Light Blue
ICH-S50							50	220	25-75	110-330	Pearl Violet
ICH-S75							75	335	35-110	165-500	Heather Violet
ICH-S100							100	445	50-150	225-665	Purple Red
ICH-S150	2-9/16	65	5-15/16	150	5-1/8	130	150	665	50-225	335-1000	Traffic yellow
ICH-S200							200	890	67-300	445-1335	Curry
ICH-S250							250	1110	85-375	555-1670	Mint green
ICH-S350							350	1560	118-150	780-2340	Orange brown
ICH-S450							450	2000	151-675	1000-3000	Pearl night blue
ICH-S550							550	2450	195-875	1225-3670	Anthracite grey

Notes:
(1) all springs have minimum additional travel to solid equal to 70% of design deflection.
(2) Admissible load of steel elements: 180lbs (800N)



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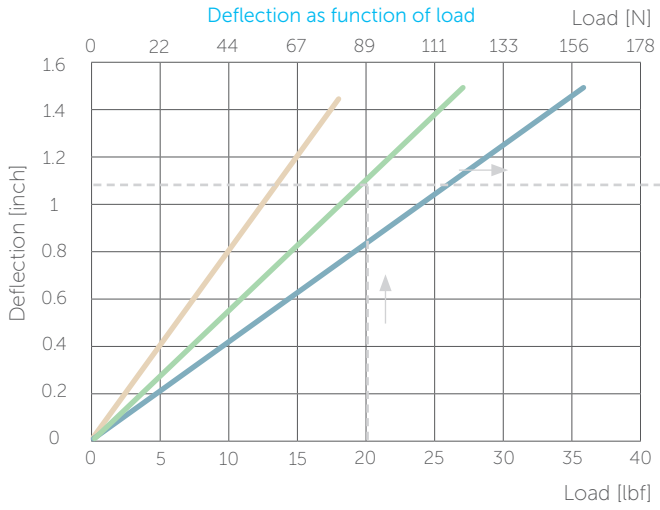
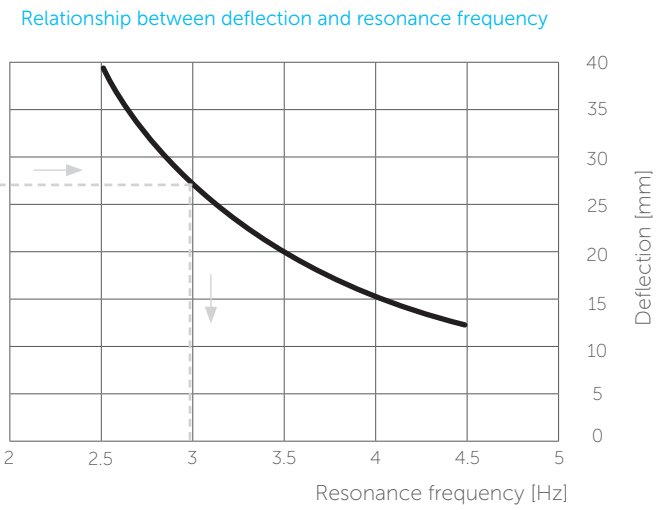
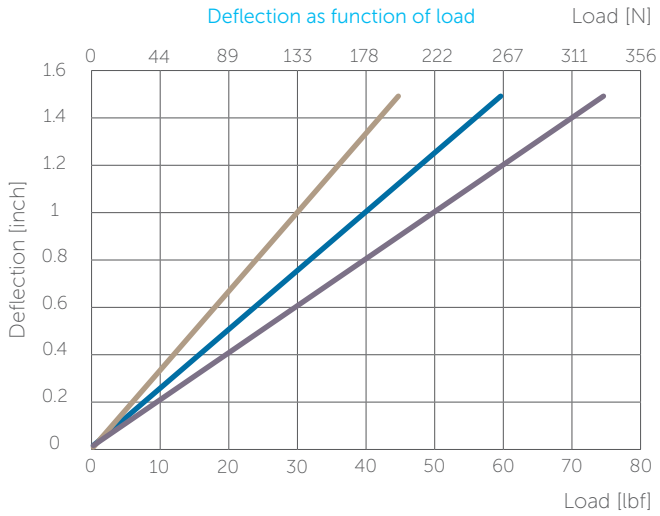
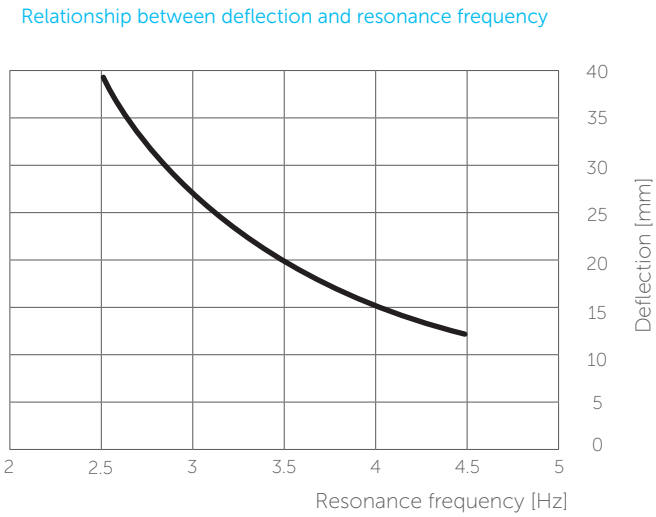
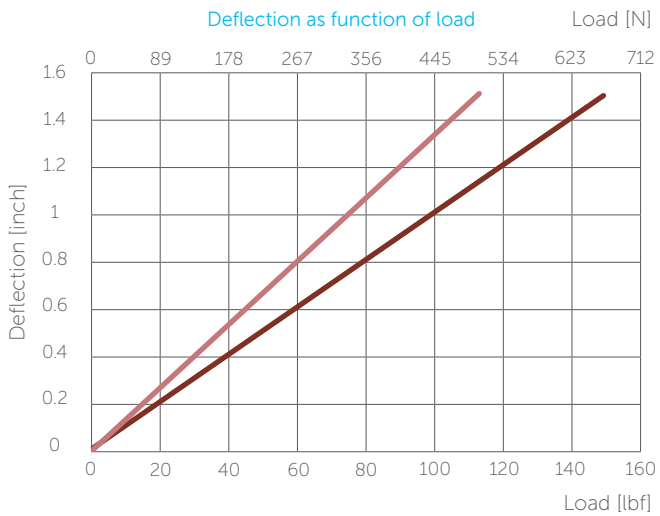
SPRING PERFORMANCE

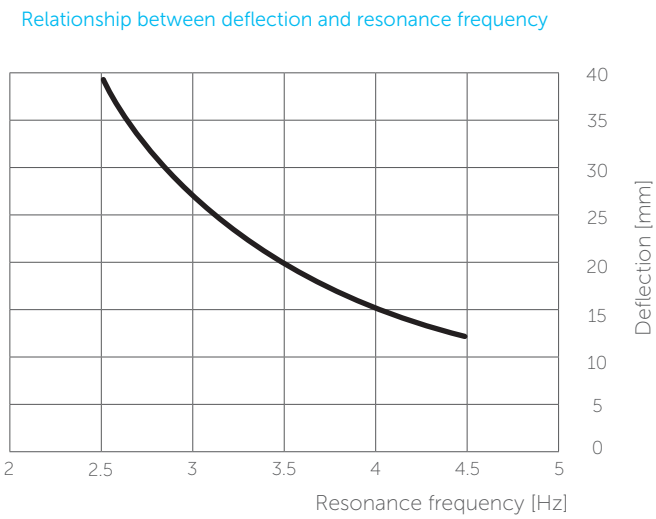












ICH-S12 ICH-S18 ICH-S24 ICH-S30 ICH-S40 ICH-S50 ICH-S75 ICH-S100

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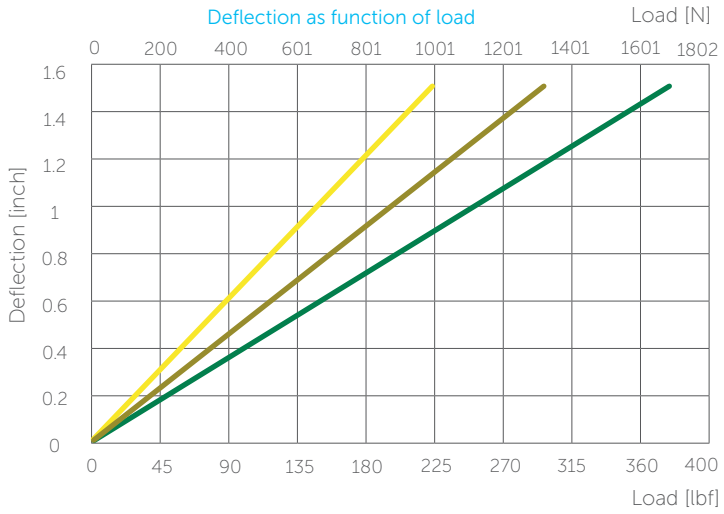
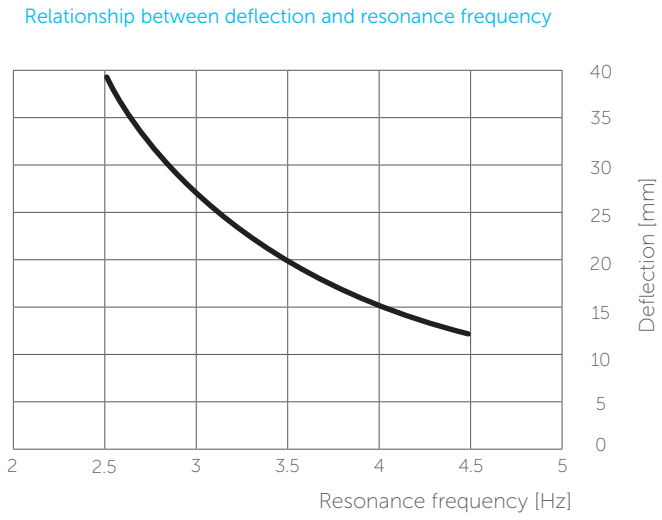
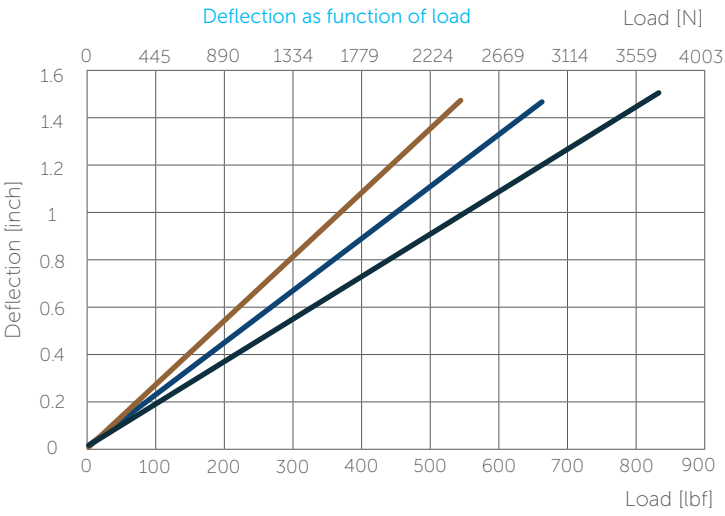
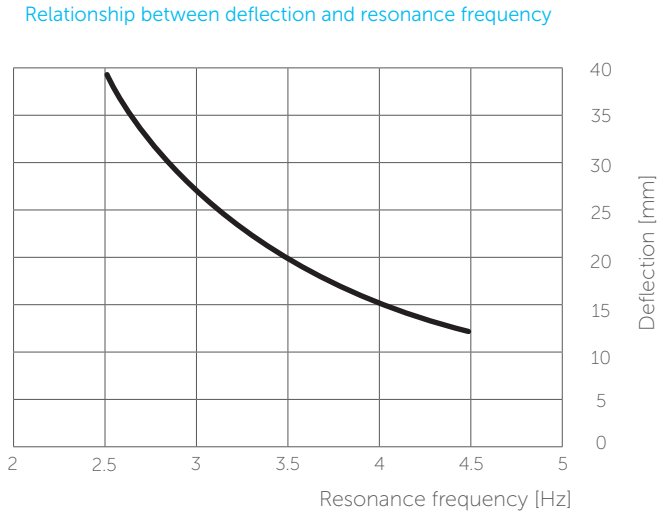




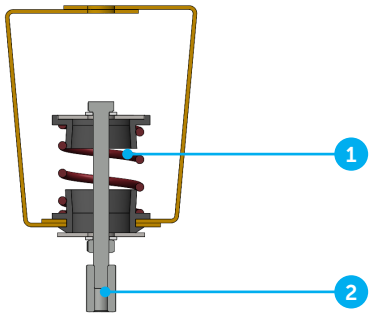




ICH-S150 ICH-S200 ICH-S-250 ICH-S350 ICH-S450 ICH-S550

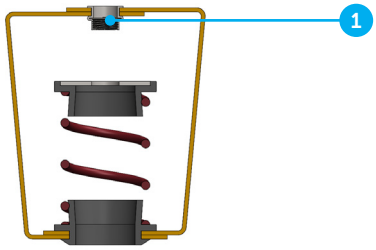
The resonance frequency of a Stravilink ICH-S hanger can be determined by its load. To start the calculation use the graph "deflection as function of load" this will provide the deflection at the specified load. Then moving horizontally to the right hand side plot "deflection as function of frequency" on which the corresponding resonance frequency can be found. As an example, the resonance frequency of a ICH-S-18 loaded with 89 N (20 lbs) is determined. The corresponding deflection is 28 mm (1-1/8"). The resonance frequency of a spring at 28 mm (1-1/8") deflection is 3 Hz.

EXTRAS



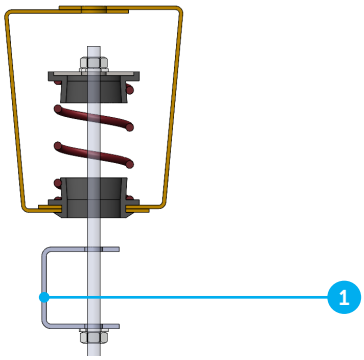
Precompression

1. Precompression of spring to desired load
2. Connector for threaded rod



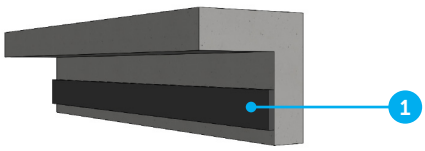
Rivet Nut

1. Internal 3/8" thread to directly screw the hanger onto the 3/8" rod



Channel Adaptor Clip

1. Cold-rolled channel clip: available with hole size ø 0.39" or ø 0.53" for 3/8" or 1/2" diameter rod respectively

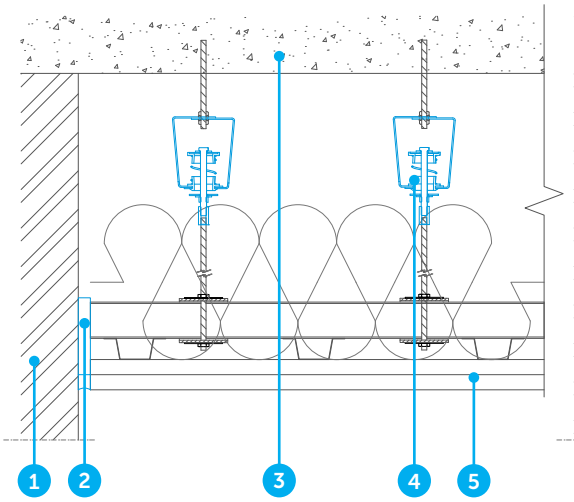


Perimeter Strip

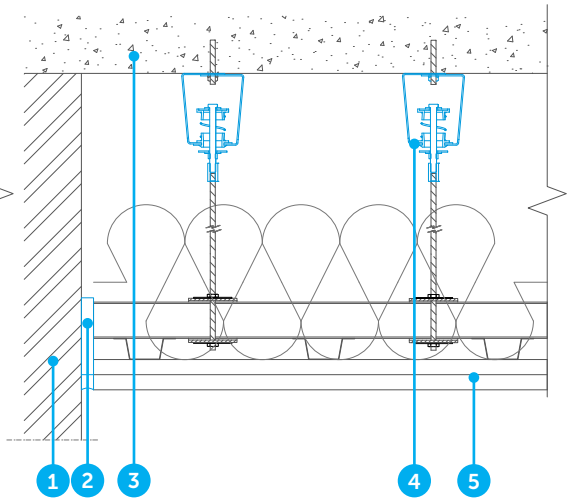
1. Perimeter Strip to isolate the ceiling from the adjacent walls.

TYPICAL ASSEMBLIES

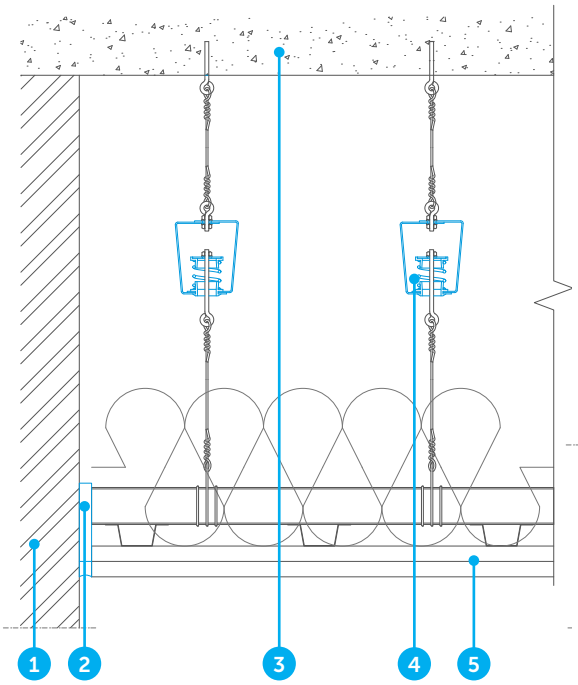
Suspended from ceiling



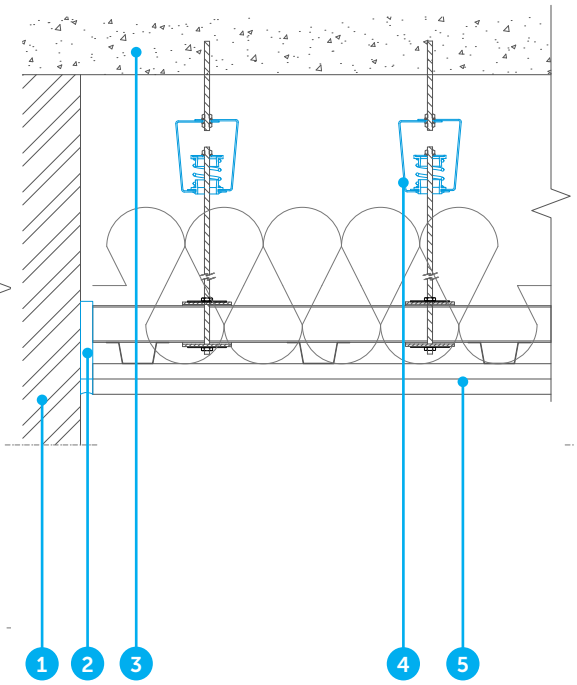
Directly fixed to ceiling



Suspended from ceiling with wire



Suspended from ceiling (precompressed)



1. Wall
2. Perimeter Strip
3. Structural slab
4. Stravilink ICH-S
5. Suspended ceiling

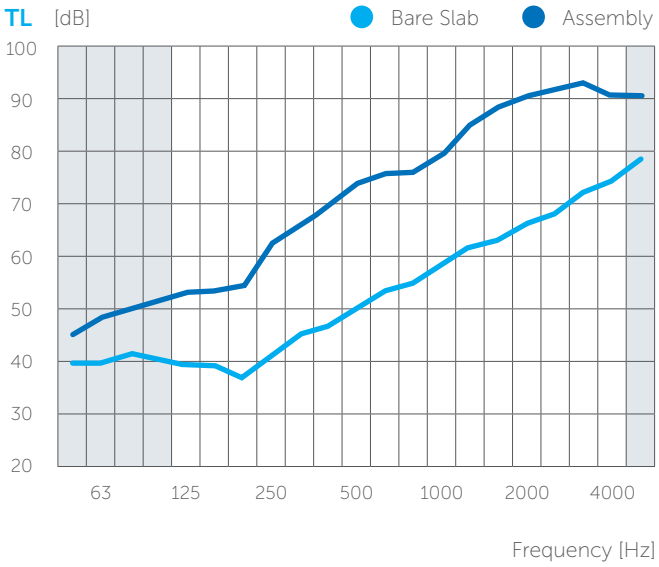
Test Setup

1. 150 mm (6") precast concrete slab
2. Stravilink ICH spring hangers
3. 19 mm x 38 mm (3/4" x 1.5") U-channels
4. 22 mm (7/8") metal furring channels, perpendicular to U-channels
5. 75 mm (3") thick fiberglass batts in cavity
6. 2 layers of 16 mm (5/8") Type X gypsum board

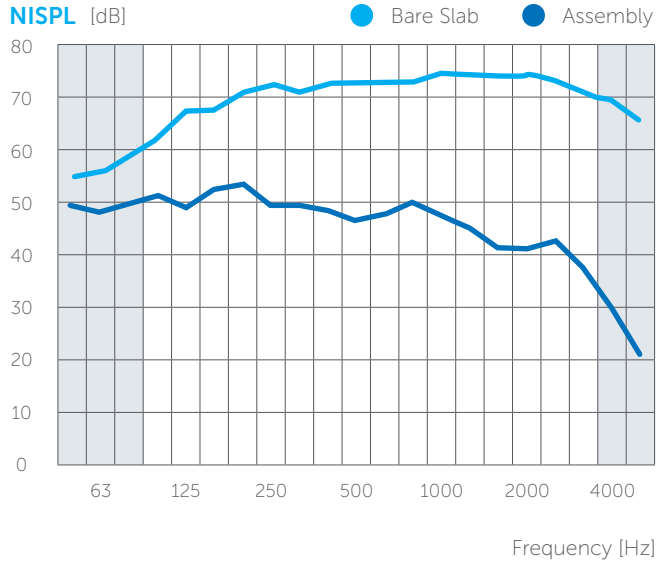
Setup	IIC	STC
Assembly	60	73
Bare Slab	29	53

Laboratory report available upon request
NRC Test Report A1-021983-3

Frequency [Hz]	Airborne TL [dB]	
	Bare Slab	Assembly
50	39	45
63	39	49
80	41	50
100	40	52
125	39	53
160	39	54
200	37	55
250	41	63
315	45	66
400	47	70
500	50	74
630	53	76
800	55	77
1000	58	80
1250	61	85
1600	63	89
2000	66	91
2500	68	92
3150	72	93
4000	74	91
5000	78	91



Frequency [Hz]	NISPL [dB]	
	Bare Slab	Assembly
50	55	49
63	56	48
80	59	50
100	62	51
125	67	49
160	68	53
200	71	53
250	72	49
315	71	49
400	73	48
500	73	47
630	73	48
800	73	50
1000	74	48
1250	74	45
1600	74	41
2000	74	41
2500	73	43
3150	71	38
4000	69	30
5000	65	21



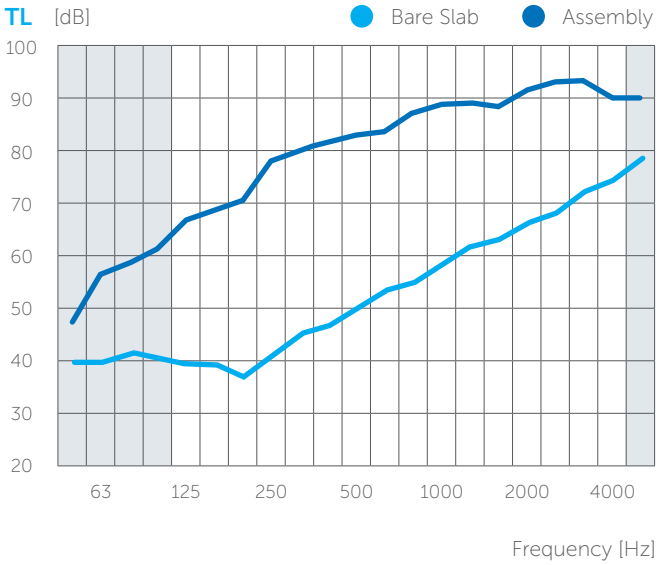
Test Setup

1. 100 mm (4") precast concrete slab
2. 19 mm (3/4") plywood
3. 50 mm (2") isolator Pad-M50, spaced 610 mm (24") o.c.
4. 38 mm (1.5") thick fiberglass batts in cavities
5. 150 mm (6") precast concrete slab
6. Stravilink ICH spring hangers
7. 19 mm x 38 mm (3/4" x 1.5") U-channels
8. 22 mm (7/8") metal furring channels, perpendicular to U-channels
9. 75 mm (3") thick fiberglass batts in cavity
10. 2 layers of 16 mm (5/8") Type X gypsum board

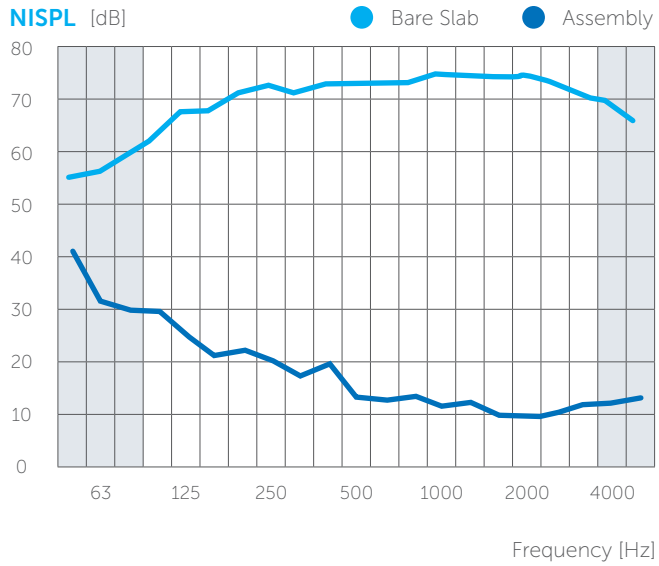
Setup	IIC	STC
Assembly	88	86
Bare Slab	29	53

Laboratory report available upon request
NRC Test Report A1-021983-4

Frequency [Hz]	Airborne TL [dB]	
	Bare Slab	Assembly
50	39	47
63	39	56
80	41	59
100	40	61
125	39	66
160	39	69
200	37	70
250	41	78
315	45	80
400	47	81
500	50	83
630	53	83
800	55	87
1000	58	89
1250	61	89
1600	63	88
2000	66	91
2500	68	93
3150	72	93
4000	74	90
5000	78	90



Frequency [Hz]	NISPL [dB]	
	Bare Slab	Assembly
50	55	41
63	56	31
80	59	30
100	62	29
125	67	25
160	68	21
200	71	22
250	72	20
315	71	17
400	73	20
500	73	13
630	73	13
800	73	13
1000	74	11
1250	74	12
1600	74	10
2000	74	10
2500	73	10
3150	71	12
4000	69	12
5000	65	13



DISCLAIMER

The documentation prepared by CDM Stravitec (including but not limited to installation guidelines) contain generally accepted procedures for a successful installation of Stravilink ICH-S for acoustically isolated ceiling hanger. Any part of the suggestions presented herein, or other documentation, may be followed, modified, or rejected by the owner, engineer, contractor, and/or their representative(s) since they, and not CDM Stravitec, are responsible for planning and execution procedures appropriate to a specific application. CDM Stravitec reserves the right to alter in part or in whole the documentation prepared as well any recommendations included. It is the responsibility of the Client (direct or indirect) to ensure they have always the latest documentation and to that effect CDM Stravitec encourage contact with its local representatives to review any project specific modifications to the suggested guidelines prior to the start of the installation on site.

This documentation prepared by CDM Stravitec contains loading information for the Stravilink ICH-S for acoustically isolated ceiling hangers. It should be noted that any loading information contained herein represent the loading information for the Stravilink ICH-S only as supplied to the Client. This information does not in any way represent an indication and/or validation of the load capacity of any other elements not supplied by CDM Stravitec - including but not limited to anchors, hanging wires, threaded rods and framing elements for the acoustical ceiling and/or supported elements.

This information is accurate to the best of our knowledge at the time of issue. Information, data and recommendations provided are based on industry accepted testing and prior product usage. It is intended as descriptive of the general capabilities and performance of our products and does not endorse applicability for any particular project. We reserve the right to change products, performance, and data without notice. This document replaces all information supplied prior to the publication hereof.