Stravigym HP with dBooster® technology & Stravigym GympactLayer-20

Stravigym HP with dBooster® technology & Stravigym GympactLayer-45

stravigym by CDM Stravitec

Stravigym HP*

Datasheet

Stravigym HP is a "High Performance" discrete isolator floating floor system that is performance engineered to control vibrations, minimize low-frequency impact noise and reduce the transmission of audible structure-borne sound.

When configured with Stravigym GympactLayer-45**, it offers high mechanical resistance and acoustical performance and is suitable for residential and light commercial gyms (impact energy < 445 lbf-ft (600 N.m)).

Stravigym HP with Stravigym GympactLayer-20*** is suitable for areas with medium impact energy (< 295 lbf-ft (400 N.m)) and low frequency and is compatible with most conventional floor coverings. Stravigym HP is suitable for applications that experience impact energies up to 148 lbf-ft (200 N.m) if no impact layer is considered.

CHARACTERISTICS

- Standard isolated channel system height is 2" (50 mm)
- Standard dBooster® channel system height is 2-3/8" (60 mm)
- Stravigym HP system is available with isolated channel or dBooster® channel
- A variety of load distribution components can be used, such as plywood or OSB board
- Isolated channel and dBooster® channel steel components are electro-galvanized
- Isolated channel and dBooster® channel are available in two standard grades:
  Channel-M (medium stiffness) and Channel-H (high stiffness)
- Two impact absorption layers are available: Stravigym GympactLayer-20 & Stravigym GympactLayer-45 (the selection is made depending on the type of gym activities)
- Floor covering is not included in standard Stravigym solutions but a Stravigym GympactFloor products are available upon request
- Stravigym systems are compatible with almost all types of gym floor covering
  Please check with CDM Stravitec & floor manufacturer prior to installation
- Stravigym HP is a lightweight floating floor options with reduced/minimal overall thickness (low additional height and weight)
- Stravigym HP is quick and easy to install
- If required, Stravigym HP floor system can easily be dismantled and reinstalled

*Previously known as CDM-GYM-HP
**Previously known as GYMPACT45
***Previously known as GYMPACT20

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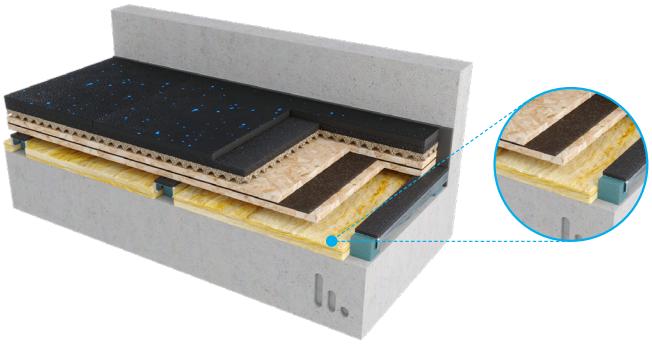
The Next Generation: dBooster Technology

Our patented dBooster® technology decouples the load distribution layer from the resilient supports with minimal contact area. Tests show that isolation efficiency improves for all discrete Stravigym floor systems and that it makes the gym floor less dependent on the impact energy level applied to the system.



ACOUSTICAL RESULTS

Test Setup 1

1. 20 mm (3/4") Stravigym GympactLayer-20
2. Load distribution layer: 2 layers of plywood 19 mm (3/4") with 5 mm (1/4") Damping Layer
3. Isolated dBooster® channel using Pad-M50 and 10 mm (25/64") dBooster® strips, spaced at 610 mm (24") o.c.
4. 38 mm (1-1/2") mineral fiber insulation batts
5. 150 mm (6") concrete slab

Test Setup 2

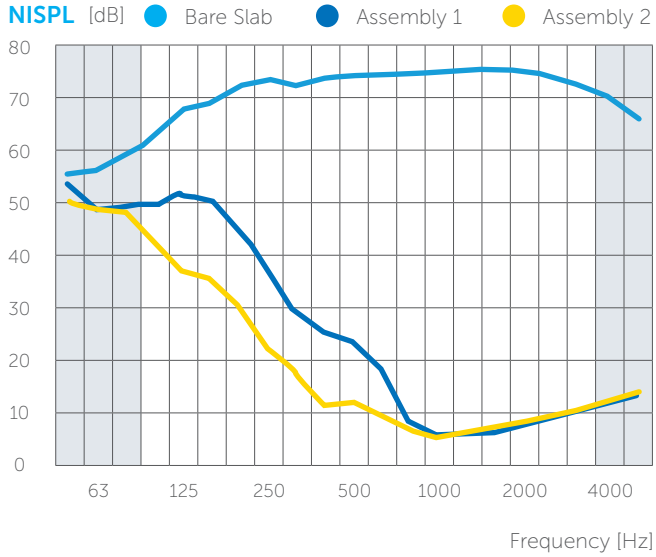
1. 45 mm (1-3/4") Stravigym GympactLayer-45
2. Distribution layer : 2 layers of plywood 19 mm (3/4") with 5 mm (1/4") Damping Layer
3. Isolated dBooster® channel using Pad-M50 and 10 mm (25/64") dBooster® strips, spaced at 610 mm (24") o.c.
4. 38 mm (1-1/2") mineral fiber insulation batts
5. 150 mm (6") concrete slab

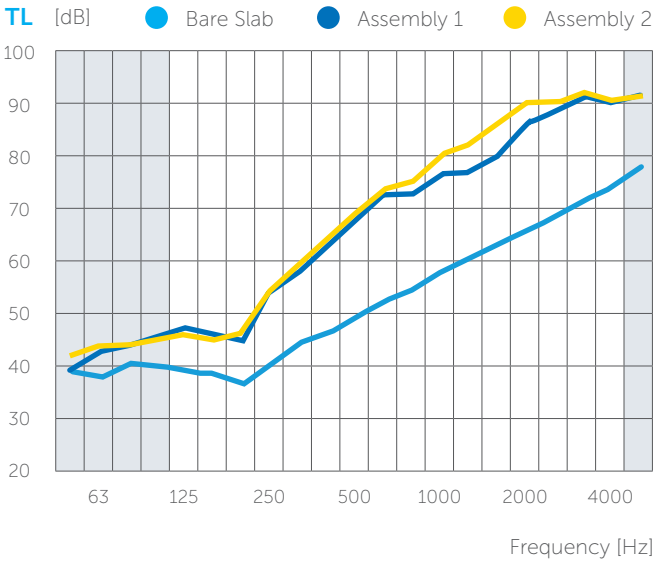
Setup	IIC	HIIC	LIIC	STC
Assembly 1	69	91	80	63
Assembly 2	78	93	84	64
Bare Slab	29	28	66	53

Laboratory report available upon request
Setup 1: NRC Test Report A1-021983-14
Setup 2: NRC Test Report A1-021983-15

Frequency [Hz]	NISPL [dB]		
	Bare Slab	Assembly 1	Assembly 2
50	55	52	49
63	56	48	48
80	59	48	47
100	62	49	42
125	67	51	36
160	68	50	34
200	71	44	29
250	72	36	21
315	71	29	17
400	73	24	10
500	73	22	11
630	73	17	9
800	73	7	6
1000	74	5	4
1250	74	5	5
1600	74	5	6
2000	74	7	7
2500	73	8	8
3150	71	9	10
4000	69	10	11
5000	65	12	13

Frequency [Hz]	Airborne TL [dB]		
	Bare Slab	Assembly 1	Assembly 2
50	39	39	42
63	39	43	44
80	41	44	44
100	40	46	45
125	39	47	46
160	39	46	45
200	37	45	46
250	41	54	54
315	45	58	59
400	47	63	64
500	50	68	69
630	53	72	73
800	55	73	75
1000	58	76	80
1250	61	77	82
1600	63	80	86
2000	66	86	90
2500	68	88	90
3150	72	91	92
4000	74	90	90
5000	78	91	91





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Drop-Weight Tests

Test Setup 1

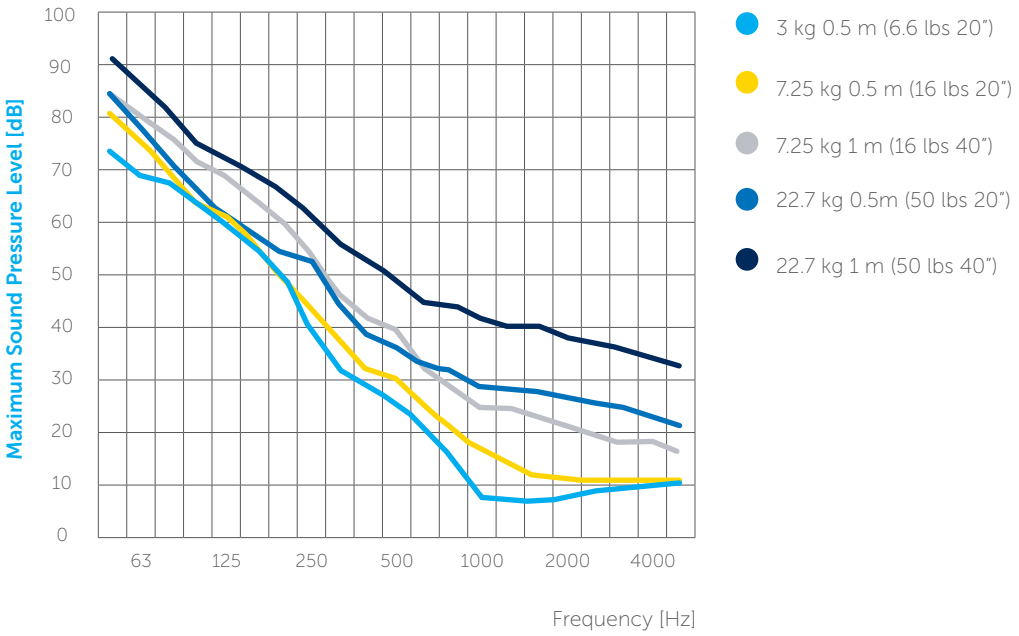
1. 20 mm (3/4") Stravigym GympactLayer-20
2. Load distribution layer: 2 layers of plywood 19 mm (3/4") with 5 mm (1/4") Damping Layer
3. Isolated dBooster® channel using Pad-M50 and 10 mm (25/64") dBooster® strips, spaced at 610 mm (24") o.c.
4. 38 mm (1-1/2") mineral fiber insulation batts
5. 150 mm (6") concrete slab

$L_{iAF,max}$ [dBA]

	3 kg 0.5 m (6.6 lbs 20")	7.25 kg 0.5 m (16 lbs 20")	7.25 kg 1 m (16 lbs 40")	22.7 kg 0.5m (50 lbs 20")	22.7 kg 1 m (50 lbs 40")
Assembly 1	52	55	62	58	67
Assembly 2	43	47	53	49	61

Laboratory report available upon request
Setup 1: NRC Test Report A1-021983-14
Setup 2: NRC Test Report A1-021983-15

Frequency [Hz]	$L_{iAF,max}$ [dBA]				
	3 kg 0.5 m (6.6 lbs 20")	7.25 kg 0.5 m (16 lbs 20")	7.25 kg 1 m (16 lbs 40")	22.7 kg 0.5m (50 lbs 20")	22.7 kg 1 m (50 lbs 40")
50	73	81	84	84	91
63	69	76	80	78	86
80	68	70	77	72	81
100	64	64	72	66	75
125	59	62	69	61	72
160	56	56	64	58	69
200	50	50	61	55	66
250	40	44	54	53	61
315	33	38	47	45	57
400	30	33	43	39	53
500	27	31	40	37	50
630	21	26	33	33	46
800	15	21	29	33	44
1000	9	18	26	29	42
1250	8	15	26	29	41
1600	8	13	24	29	41
2000	9	12	22	27	39
2500	10	12	20	26	38
3150	11	12	19	25	36
4000	11	12	19	24	35
5000	12	12	17	22	33



Drop-Weight Tests

Test Setup 2

1. 45 mm (1-3/4") Stravigym GympactLayer-45
2. Distribution layer: 2 layers of plywood 19 mm (3/4") with 5 mm (1/4") Damping Layer
3. Isolated dBooster® channel using Pad-M50 and 10 mm (25/64") dBooster® strips, spaced at 610 mm (24") o.c.
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5. 150 mm (6") concrete slab

$L_{iAF,max}$ [dBA]

	3 kg 0.5 m (6.6 lbs 20")	7.25 kg 0.5 m (16 lbs 20")	7.25 kg 1 m (16 lbs 40")	22.7 kg 0.5m (50 lbs 20")	22.7 kg 1 m (50 lbs 40")
Assembly 1	52	55	62	58	67
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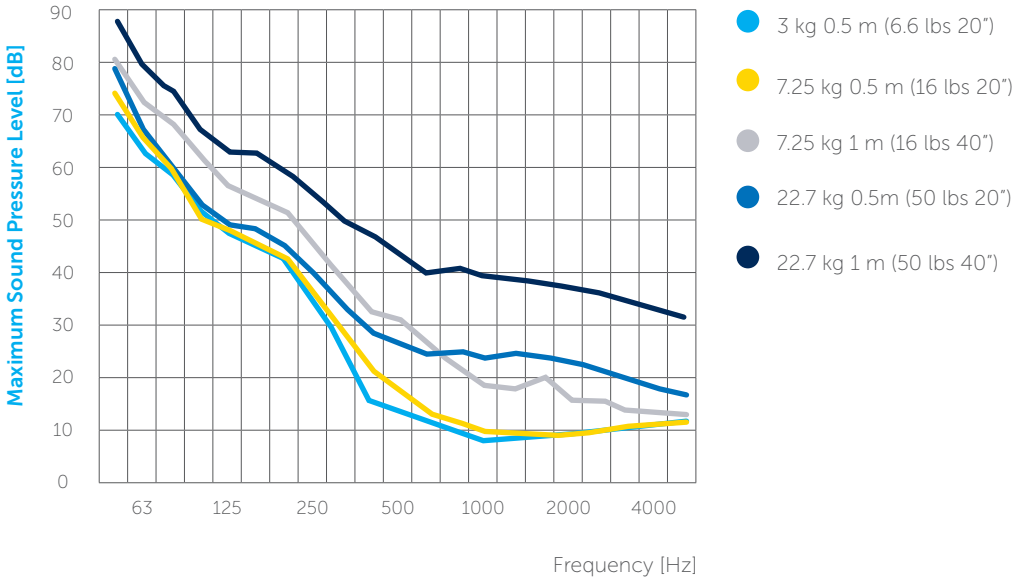
Setup 1: NRC Test Report A1-021983-14
Setup 2: NRC Test Report A1-021983-15

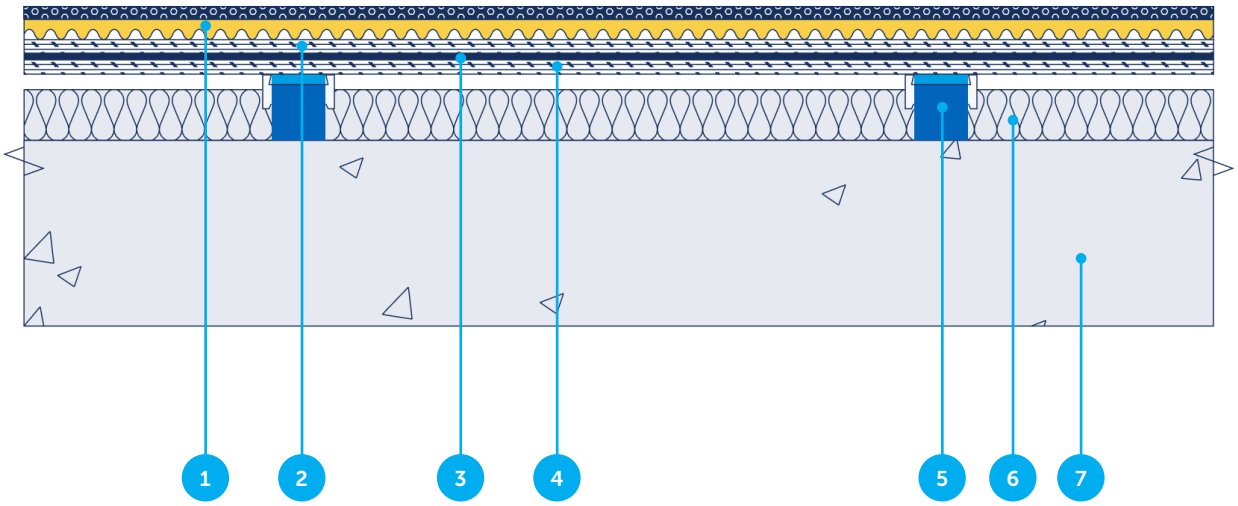
Frequency [Hz]	$L_{iAF,max}$ [dBA]				
	3 kg 0.5 m (6.6 lbs 20")	7.25 kg 0.5 m (16 lbs 20")	7.25 kg 1 m (16 lbs 40")	22.7 kg 0.5m (50 lbs 20")	22.7 kg 1 m (50 lbs 40")
50	70	75	80	78	87
63	62	66	72	66	79
80	58	60	69	60	74
100	51	51	62	53	67
125	47	48	56	49	63
160	45	45	53	48	62
200	42	42	51	45	59
250	34	36	45	39	54
315	26	28	39	33	49
400	15	22	32	28	47
500	13	17	31	26	43
630	12	13	26	24	40
800	9	12	22	25	40
1000	8	9	18	23	39
1250	8	9	18	24	38
1600	8	9	20	23	38
2000	9	9	16	23	37
2500	10	10	15	21	36
3150	11	11	14	20	34
4000	11	11	13	18	32
5000	12	12	13	16	31



TYPICAL ASSEMBLY

Stravigym HP

1. GympactLayer-45
2. Plywood load distribution layer 1 (or other suitable load distribution layer)
3. Damping Layer
4. Plywood load distribution layer 2 (or other suitable load distribution layer)
5. dBooster®channel
6. Insulation material
7. Reinforced concrete slab



Notes:
Additional information about installation is available upon request.
All Stravigym standard systems can be combined with different Stravigym GympactLayer.
The right selection of Stravigym GympactLayer allows choosing the best solution for the different gym activities.

Other Stravigym HP assemblies available on our test data platform Stravi-dB.

SCAN ME

DISCLAIMER

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