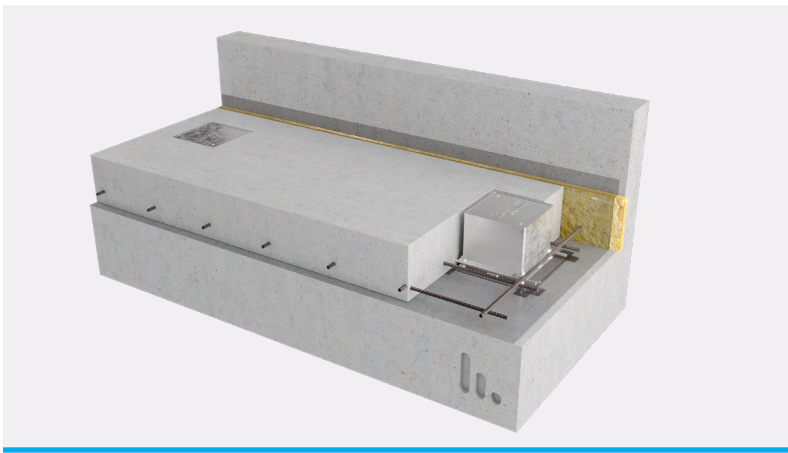


# Stravifloor Jackup<sup>\*</sup> Datasheet



Stravifloor Jackup is an isolated floating floor system using reinforced steel boxes cast into concrete and jacked up after the concrete has cured, to provide the required void depth.

Stravifloor Jackup systems reduce the risk of having a bridge between the slab and the structure. Having a high load capacity, the spans between the boxes can be large enough to make it a cost effective solution.



## CHARACTERISTICS

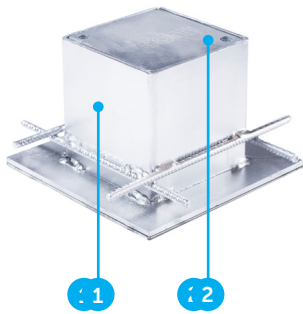
- Stravifloor Jackup boxes can be provided with elastomer bearings giving a natural frequency as low as 6Hz, or spring mounts giving a natural frequency of 2.5Hz
- Standard Stravifloor Jackup box heights are 100 mm, 150 mm and 200 mm (any height from 100 mm upwards can be manufactured to special order or project requirement)
- Stravifloor Jackup boxes have a maximum load per box of 38kN or 63kN (if reinforced) allowing large spans between boxes
- Stravifloor Jackup steel components are centrifugal hot-dip galvanised
- The springs or elastomers within the Stravifloor Jackup are easily accessible by unscrewing the box lid which means they can be changed at any time should there be a change to the loadings or performance criteria
- The Stravifloor Jackup system reduces the risk of having a bridge between the slab and the structure, isolation is guaranteed because the whole slab is lifted (there is no opportunity for any debris to be left in the cavity and any bridging is broken when the slab is lifted up)
- Stravifloor Jackup systems can have a shallow or adjustable air gap
- Stravifloor Jackup systems can take high loads before the slab is raised (e.g. used as a storage area during construction)
- Stravifloor Jackup eliminates the cost and need for combustible, rot prone plywood forms

<sup>\*</sup>Previously known as CDM-MONT

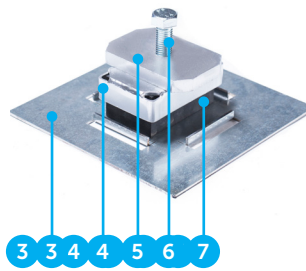


## SYSTEM COMPONENTS

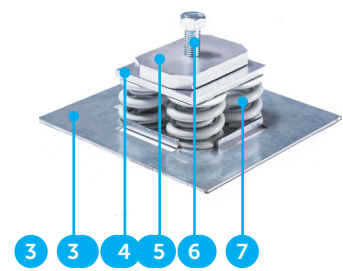
Stravifloor Jackup box (exterior)



Stravifloor Jackup box (with elastomer)



Stravifloor Jackup box (with spring)



- 1. Reinforced steel box
- 2. Cover plate
- 3. Bottom plate

- 4. Spring plate or bearing cap
- 5. Adjustment plate

- 6. Bolt
- 7. Isolator (elastomer or spring)



## PHYSICAL & MECHANICAL PROPERTIES

### Standard Elastomeric Pads

Quantity (units)	Type	Dimension (mm)	ADL = DL+LL/3 (kN)	$f_{res}$ @ ADL (Hz)	TL = DL+LL (kN)
1	Pad-H	64x64x50	4.1	6	4.9
1	Pad-H	64x105x50	6.7	6	8.1
1	Pad-X	64x64x50	8.2	7	12.3
1	Pad-X	64x105x50	13.4	7	20.2
1	Pad-U	55x55x50	19.7	10	24.2
1	Pad-U	64x64x50	26.6	10	32.8
1	Pad-U	64x105x50	43.7	10	53.8

## Standard Spring Solutions

Spring 4kN/4.5Hz  
(h = 50 mm)

Spring 1.35kN/4.5Hz  
(h = 50 mm)

Spring 20kN/3Hz  
(h = 118 mm)

ADL = DL+LL/3  
(kN)

TL = DL+LL  
(kN)

Quantity (units)	Quantity (units)	Quantity (units)		
4	4		21.4	29.2
4	2		18.7	25.6
4			16	22
3	3		16.05	21.9
3			12	16.5
2	4		13.4	18.2
2	2		10.7	14.6
2			8	11
		1	20	26

## Maximum distance between boxes: Stravifloor Jackup-100

Reinforcement      Live load (kN/m<sup>2</sup>)      Spans assessed (m)

		1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7
Single	3	●	●	●	●	●					
Single	5	●	●	●							
Double	3	●	●	●	●	●	●	●	●	●	
Double	5	●	●	●	●	●	●				

Single: one A393\* mesh with 40 mm bottom clear cover (and 40 mm top clear cover).  
Double: two A393\* mesh with 30 mm bottom clear cover (and 30 mm top clear cover).

## Maximum distance between boxes: Stravifloor Jackup-150 & 200

System/Slab thickness (mm)	Reinfor.	Live load (kN/m <sup>2</sup> )	Maximum span (m)															
			25	26	27	28	29	30	31	32	33	34	35	36	37	38		
Jackup-150	A252 (2)	5	●															
Jackup-150	A393 (1)	5	●	●	●													
Jackup-150	A252 (2)	3	●	●	●	●												
Jackup-200	A252 (2)	5	●	●	●	●												
Jackup-200	A252 (2)	3	●	●	●	●												
Jackup-150	A393 (1)	3	●	●	●	●	●	●	●									
Jackup-200	A393 (1)	5	●	●	●	●	●	●	●	●	●	●	●					
Jackup-200	A393 (1)	3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

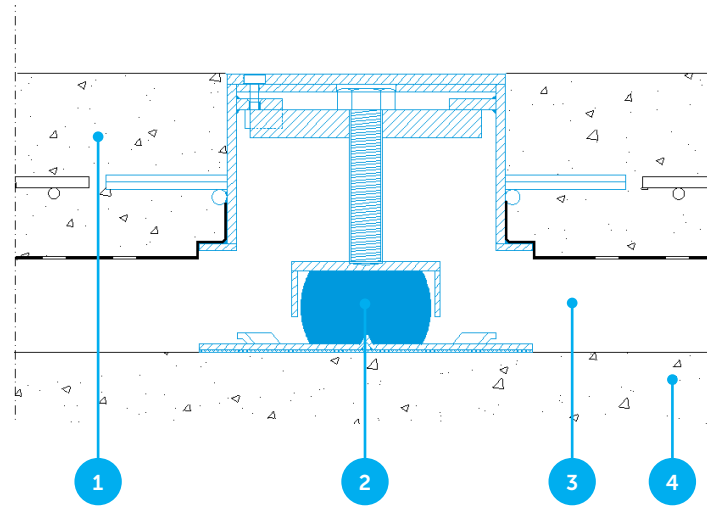
Reinforcement option (1) uses a top and bottom A393\* mesh with 40 mm top and bottom clear cover.  
 Reinforcement option (2) uses a top and bottom A252\*\* mesh with 40 mm top and bottom clear cover.

\* Standard reinforcement grid with Ø10 mm rods with a spacing of 0.2 m  
 \*\* Standard reinforcement grid with Ø8 mm rods with a spacing of 0.2 m



### Test Report AC-5375 by Belgium Building Research Institute<sup>(1)</sup> - Test Setup

1. 200 mm concrete floating floor
2. Reinforced steel box with PAD-X (65x65x50 mm)
3. 20 mm air void
4. 140 mm reinforced concrete slab



### Acoustical Isolation

$L_n / R$  [dB]



●  $L_n$   
●  $L_{n,0}$  (bare slab)

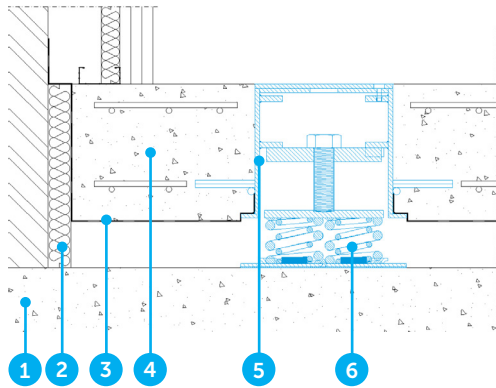
$L_{n,w}$ (C <sub>f</sub> )	$\Delta L_{w,r}$ (C <sub>f</sub> )
42 (0) dB	36 (0) dB

<sup>(1)</sup>Test report available upon request



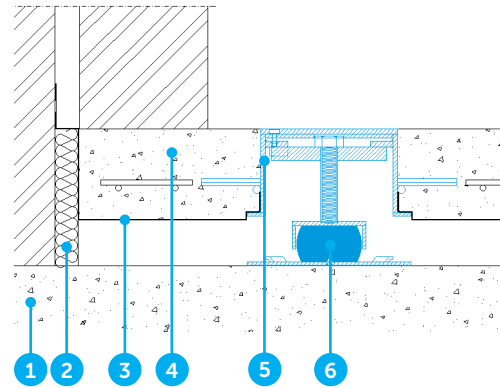
## TYPICAL ASSEMBLIES

Stravifloor Jackup with springs



1. Reinforced concrete slab
2. Perimeter isolation
3. Protection foil (PE layer)
4. Reinforced concrete floating floor
5. Reinforced steel box
6. CDM Stravitec springs

Stravifloor Jackup with elastomeric pads



1. Reinforced concrete slab
2. Perimeter isolation
3. Protection foil (PE layer)
4. Reinforced concrete floating floor
5. Reinforced steel box
6. CDM Stravitec elastomeric pad

**Note:** an installation manual is available upon request.

# WILHAMS

**Wilhams Insulation Far East Sdn Bhd**

15 & 17 Jalan Utarid U5/23  
Mah Sing Integrated Industrial Park  
40150 Shah Alam, Selangor, Malaysia  
Tel : 603-7846 6728  
E-mail : wilhams@wilhams.com.my  
Website : www.wilhams.com.my

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