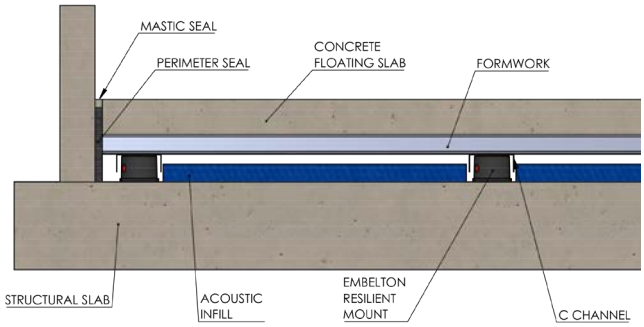
Floating Floor Mount Type Beam and Deck

Rubber Bearing or Spring Element Channel and Formwork

APPLICATION

Rubber bearing or spring mount system to support a floating concrete floor of any thickness or weight, while allowing for an increased airgap. Typically used for heaviest concrete slabs. Increased airgap also allows for installation of acoustic infill. Used in highly critical applications such as television production studios, hospitals, and above ground gym floors where complete acoustical isolation is required. Also used for isolating high noise sources such as plant rooms from transmitting to adjacent tenancies.



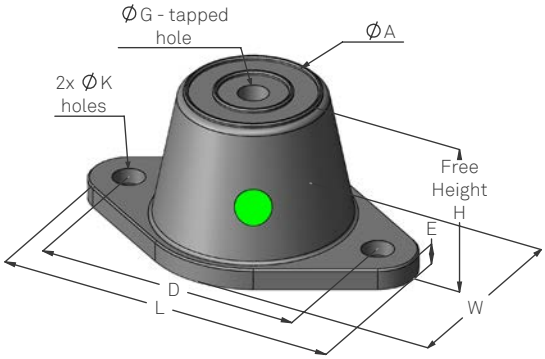
BEAM & DECK INSTALLATION

FEATURES

- Most versatile option for concrete floating floors
- Allows for increased airgap, up to 500mm
- Any thickness of slab
- Easy installation of acoustic infill
- High loading columns can be incorporated into the design
- Up to 50mm static deflection
- Earlier and easier site access to floating floor, compared to Jack-up option

OPTIONS

- Includes option for seismic restraint of the floor
- Allows installation of overload stops for positioning of heavy machinery, such as generator sets, into final location



NR / NRD RUBBER MOUNT

NR / NRD RUBBER ELEMENTS PRODUCT GUIDE

Type	Colour	Max Load kg	Dynamic Factor	Static Deflection mm		Height mm		L mm	W mm	D mm	A mm	G mm	K mm	E mm
				NR	NRD	NR	NRD							
NR1 or NRD1	Blue	17	1.0	5	8	28	35	80	45	60	36	M10	8.5	5
	White	25	1.0											
	Red	40	1.2											
	Green	55	1.3											
	Grey	80	1.4											
NR2 or NRD2	White	70	1.1	6	10	32	44	98	60	76	45	M10	8.5	6
	Red	100	1.2											
	Green	160	1.4											
	Grey	250	1.5											
NR3 or NRD3	White	145	1.2	6	12	44	72	140	85	104	68	M12	14	7
	Red	200	1.6											
	Green	300	1.4											
	Grey	500	1.6											
NR4 or NRD4	Blue	380	1.2	6	12	46	76	166	110	128	100	M16	14	9
	White	580	1.4											
	Red	850	1.5											
	Green	1,300	1.6											

XS / XL / XW PRODUCT GUIDE

Type	Max Load kg	Static Deflection mm	Spring Constant kg/mm	Spring Colours	
				Stripe 1	Stripe 2
XS-9	10	33	0.30	Yellow	-
XS-10	15	33	0.45	Brown	-
XS-11	30	33	0.9	Blue	-
XS-12	50	28	1.8	Black	-
XS-13	75	25	3.0	Red	-
XS-14	125	25	5.0	Green	-
XS-16	175	20	8.8	Grey	-
XS-17	200	15	13.3	Orange	
XL-92	50	33	1.5	Yellow	-
XL-93	100	33	3.0	Brown	-
XL-94	150	30	5.0	Blue	-
XL-95	200	30	6.7	Black	-
XL-96	250	28	8.9	Red	-
XL-97	300	28	10.7	Green	-
XL-98	400	25	16.0	Grey	-
XL-99	550	23	23.9	Orange	-
XL-100	650	20	32.5	Orange	Black
XL-101	775	20	38.7**	Orange	-*
XL-102	950	20	47.5**	Orange	Black*
				Outer	Inner
XW-400	200	33	6.1	Black	-
XW-422	275	33	8.3	Black	Blue
XW-423	300	33	9.1	Black	Yellow
XW-425	380	30	12.7	Black	Red
XW-1000	450	25	18.0	Green	-
XW-1023	510	25	20.4	Green	Yellow
XW-1024	550	25	22.0	Green	Green
XW-1025	580	25	23.2	Green	Red
XW-1026	690	25	27.6	Green	White
XW-1600	775	25	31	Grey	-
XW-1622	820	25	32.8	Grey	Blue
XW-1624	875	25	35	Grey	Green
XW-1626	1,000	25	40	Grey	White
XW-1627	1,100	25	44	Grey	Orange
XW-1628	1,150	24	47.9	Grey	Grey
XW-1731	1,275	20	63.8	Orange	Grey/Yellow

* With inner spring configuration
** Averaged over full deflection range

PRODUCT DESCRIPTION

The beam and deck system is a very versatile concrete floating floor system. The mounts can either be a rubber or spring system and can be customised to achieve any specified natural frequency. Items supplied include the rubber or spring mounts, packers, channels, overload stops, seismic restraints if required and perimeter isolation. Acoustic infill is supplied where specified.

Supply of materials and layout can incorporate any thickness of slab and any size of airgap, to offer the best possible attenuation.

MOUNT SELECTION

Beam and Deck floating floors can use either rubber or spring mounts. Determination of isolator layouts is a complex procedure and may require consultation between structural engineers and Embelton to finalise mount selection. Embelton invites submission of acoustic specifications, load calculations and proposed slab designs by acoustic consultants and structural engineers respectively for review to ensure accurate and optimum isolator selection.

ELEMENT CHARACTERISTICS

Rubber Element

The active rubber element is manufactured from a high quality natural rubber blend giving excellent dynamic performance and low long term creep. All compounds used are tested to ASTM D2000 for original physical properties, ageing and compression set.

Rubber isolators differ from spring mounts in that the isolation efficiency is a function of not only deflection, but also of the rubber hardness (durometer).

Spring Element

Where high static deflections (and therefore lower system natural frequencies) are required, the Beam and Deck system can incorporate a spring as the resilient element in place of rubber. Please contact Embelton to select the correct spring mounts.

INSTALLATION

Installation procedures will vary depending on the method of construction. Installation variables include the type of mount used, the airgap required, use of acoustic infill, overload stops (if applicable), and whether the system requires seismic restraint.

Embelton will provide unique drawings for different projects indicating locations of all required isolation products along with detailed installation instructions for each individual case.

In general for a Beam and Deck system:

1. Adhere perimeter isolation strips to the walls, penetrations and columns of the room.
2. Gridlines set out as per unique layout drawing by Embelton.
3. Mounts are placed as shown in layout and level packed to correct height if required.
4. Steel channels placed over mounts.
5. Where required, slab restraint fittings, overload stops and acoustic infill installed.
6. System is ready for formwork by others.

TECHNICAL ASSISTANCE

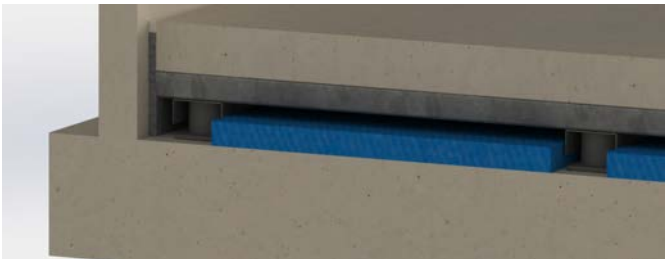
All Embelton offices can provide detailed technical assistance on the use of this product in specific applications.

CONDITIONS OF SALE

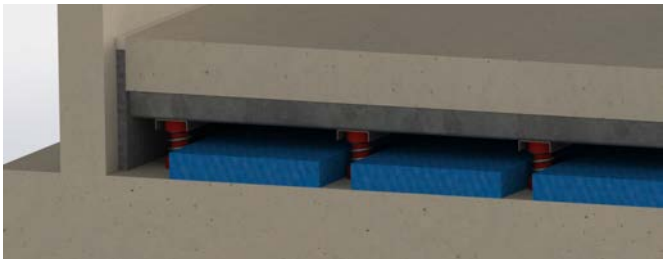
These products are sold subject to the published Embelton General Conditions of Sale, copies of which may be inspected on request.

SPECIFICATION

The floor shall be of a beam and deck type incorporating a concrete floor laid over resilient mounts. The concrete shall have an air cavity below it and acoustic infill shall be incorporated to reduce sound transmission (if a particular cavity height is required, packers can be used). The edges of the floor shall be resiliently isolated from the surrounding structure using Embelfoam as supplied by Embelton. The resilient mounts shall be either natural rubber mounts or spring mounts as supplied by Embelton.



BEAM & DECK INSTALLATION - RUBBER MOUNTS



BEAM & DECK INSTALLATION - SPRING MOUNTS