



Stravibase Spring Datasheet



Maintenance
Free



Easy
Installation



Durability &
Performance



Cost-effective

Stravibase Spring bearing consists of an arranged series of single or nested structural springs covered by High Pressure Laminated (HPL) plates at both ends of the springs.

Stravibase Spring is designed and configured to meet natural frequencies below 5Hz. Different sizes are available depending on the loads and performance requirements.



DESIGN REQUIREMENTS

For each project, the CDM Stravitec engineering service will help you find the optimum Stravibase Spring solution to achieve the acoustic performance required and the load bearing resistance needed to withstand the static and dynamic forces in your structure. For this reason, our team will require:

- Natural frequency requirements;
- The vertical and lateral load combinations (including dead loads and variable loads such as service live loads, wind loads, etc.);
- Occasional loads for stability checks;
- Contact surface areas of each contact point;
- Substructure and superstructure drawings (sections, plan views, etc.).

Note:

Stravibase Spring bearings have a static deflection varying from 10 to 30 mm. These bearings are recommended for structures capable of dealing with such variable deflections during the construction process. Alternatively, we invite you to check our Stravibase SpringBox bearing.



EXTRA FEATURES

Depending on the clients' needs and the intended use of the building, additional architectural and structural design considerations may be required by the project design team.

CDM Stravitec will support the design team with integrating all possible additional features; with the objective of maintaining the integrity and durability of the solutions without compromising the acoustic performance of the bearings.



PHYSICAL & MECHANICAL PROPERTIES

The product portfolio of CDM Stravitec covers structural springs designed according to the EN13906-1:2013¹ and made of chrome alloy material (Type 51CrV4).

Commercial Name	Spring 73600/2.5	Spring 92100/2.5	Spring 20000/3.0	Spring 73600/3.5	Spring 92100/3.5	Spring 4000/4.5	Spring 5400/4.5
Frequencies [Hz]	2.5		3	3.5		4.5	
Load Range ² [kN]	73-100	92-125	20-26	73-100	92-125	4-5	5.4-6.7
Free Length ³ [mm]	343	343	136	203	203	60	60
Cover Plate Size [mm]	165x165	165x165	100x100	165x165	165x165	75x75	75x75
Vertical Spring Rate [N/mm]	1838	2301	769	3676	4588	344	454
Horizontal Spring Rate [N/mm]	543	543	614	3284	3465	582	700

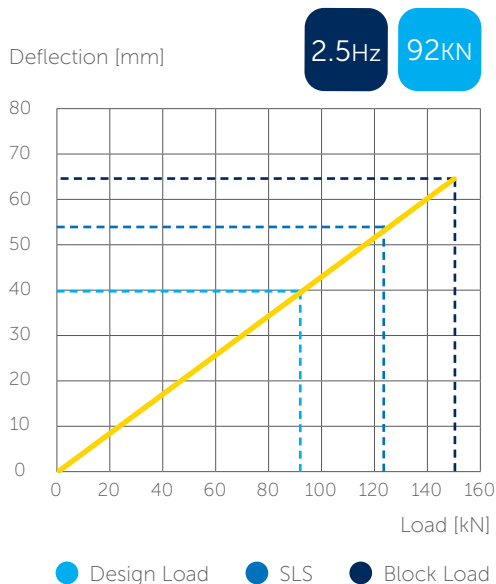
¹EN 13906-1:2013: cylindrical helical springs made from round wire and bar – calculation and design part 1: compression springs.

²The lower limit of the load range refers to the design load while the upper limit of the load range refers to the serviceability limit state with max 1% relaxation limit according to the IST Standard.

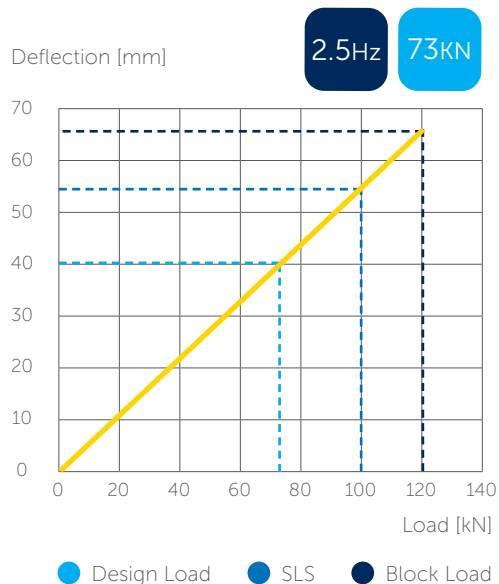
³The Free length considers the length of the full solution (the spring, the top and bottom plates).



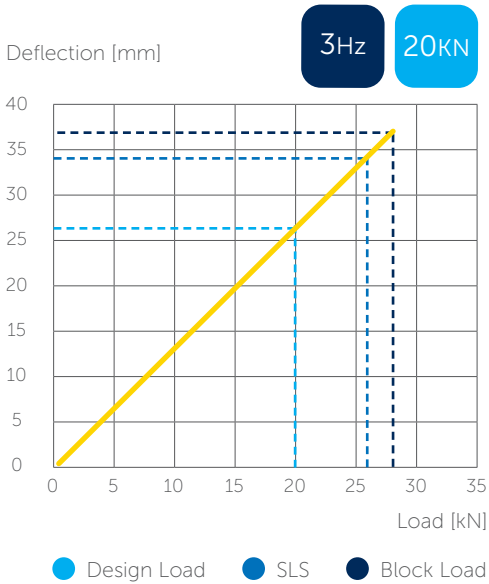
ACOUSTICAL RESULTS



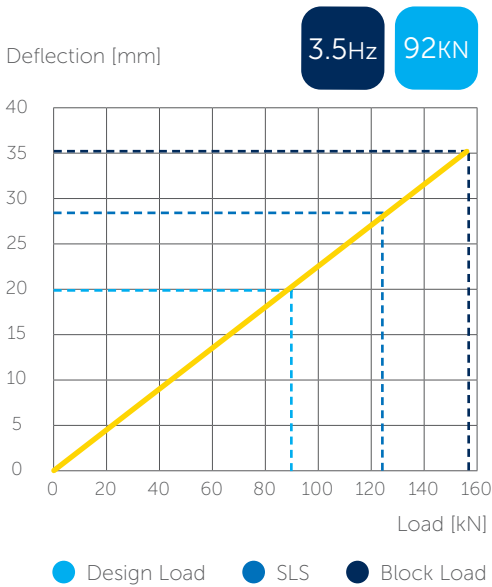
Stravibase Spring 92100/2.5



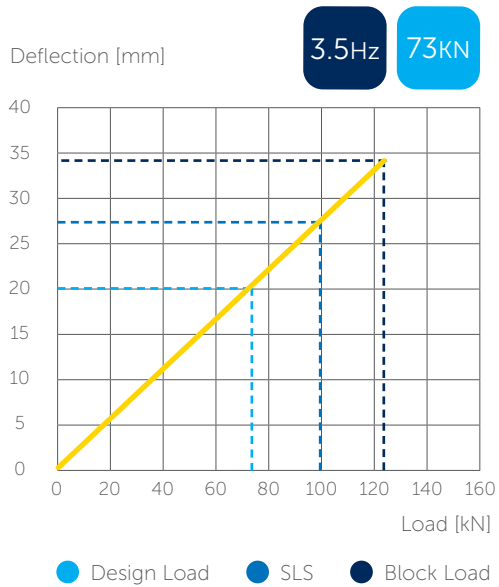
Stravibase Spring 73600/2.5



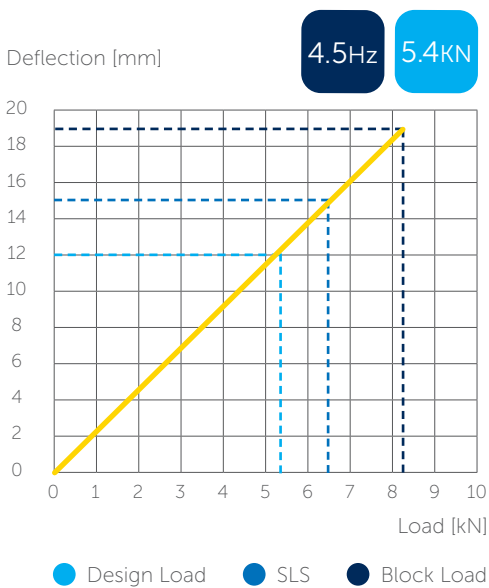
Stravibase Spring 20000/3.0



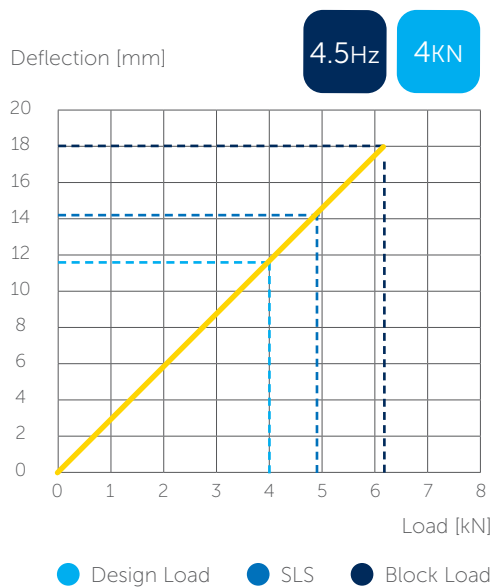
Stravibase Spring 92100/3.5



Stravibase Spring 73600/3.5



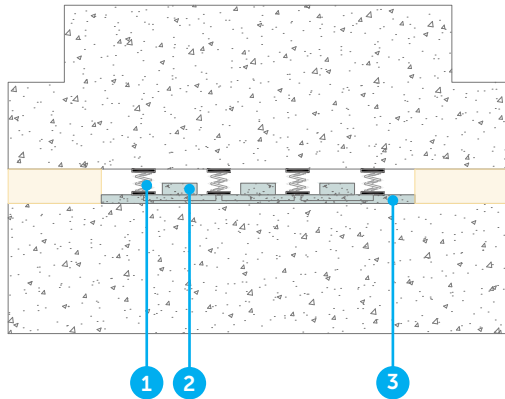
Stravibase Spring 5400/4.5



Stravibase Spring 4000/4.5

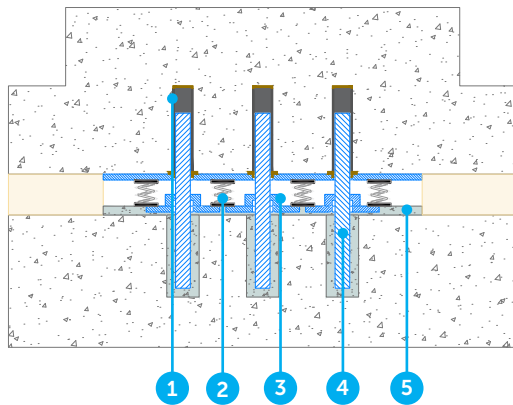


TYPICAL ASSEMBLIES



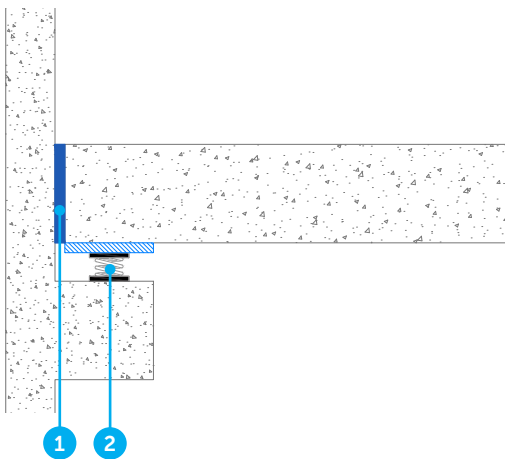
Stravibase Spring with failsafe

1. Stravibase Spring
2. Failsafe
3. Grout



Stravibase Spring with integrated shear dowels

1. Sleeve
2. Stravibase Spring
3. Failsafe
4. Shear dowel
5. Grouting for surface leveling



Stravibase Spring used for slab decoupling

1. Stravibase Mat
2. Stravibase Spring

DISCLAIMER

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.