

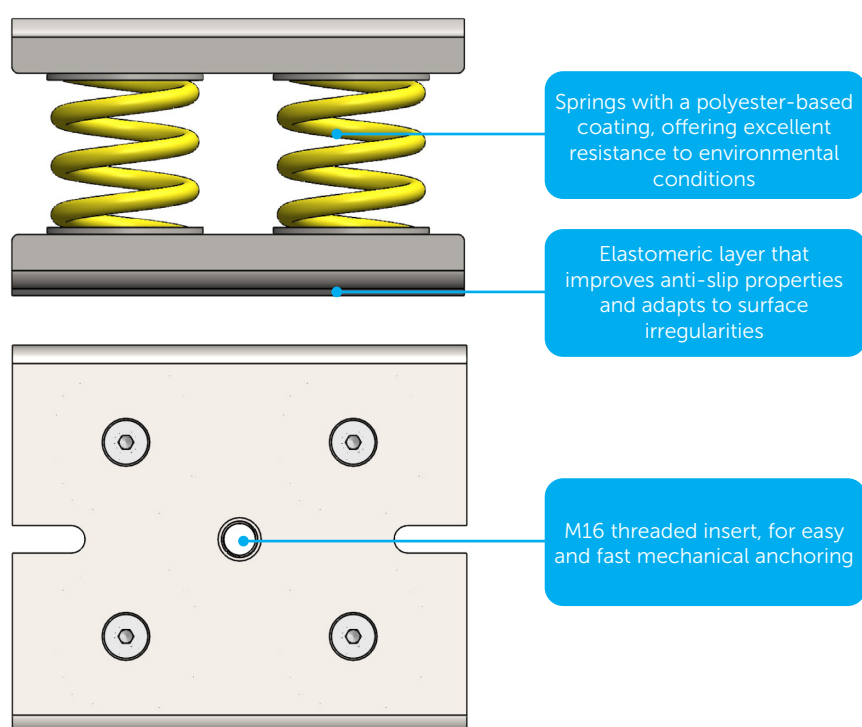
Stravimech Bearing-S4 Datasheet

Stravimech Bearing-S4 is a spring mount featuring four metal springs arranged in parallel. This configuration significantly increases load capacity and offers additional lateral stability. The system includes two mounting plates and can be paired with a levelling system. The four-spring design provides effective noise and vibration isolation for mechanical equipment, while ensuring robust mechanical anchoring. It is particularly suitable for low-speed, heavy-duty machinery and is engineered to support large and heavy equipment.



FEATURES

- Designed to support all types of machinery operating at low frequencies (below 1200 rpm), ensuring effective vibration control
- 17 different models available, to accommodate design loads up to 17325 N (total loads up to 20000 N), suitable for a wide range of heavy machinery
- Springs are colour-coded for quick and accurate identification on-site
- Can be equipped with a levelling mechanism for precise height adjustment and alignment
- Bottom plate feature an elastomeric layer that improves anti-slip properties and adapts to surface irregularities
- Springs achieve natural frequencies of 3 Hz at design load, ensuring optimal vibration isolation
- Spring deflection goes up to 35 mm for consistent performance
- Springs are protected with a polyester-based coating, offering excellent resistance to environmental conditions
- Top and bottom cylindrical metal bushings include a visco-elastic putty layer that prevents metal-to-metal contact and promotes sound-stop





PACKAGING

Model	Reference	Quantity per Box	Weight per Box [kg]	Dimension of Box [mm]
Stravimech Bearing-S4-4725	002163	1	4.12	200 x 200 x 140
Stravimech Bearing-S4-5510	002164	1	4.21	200 x 200 x 140
Stravimech Bearing-S4-6300	002165	1	4.26	200 x 200 x 140
Stravimech Bearing-S4-7090	002166	1	4.41	200 x 200 x 140
Stravimech Bearing-S4-7875	002167	1	4.50	200 x 200 x 140
Stravimech Bearing-S4-8660	002168	1	4.54	200 x 200 x 140
Stravimech Bearing-S4-9450	002169	1	4.58	200 x 200 x 140
Stravimech Bearing-S4-10240	002170	1	4.61	200 x 200 x 140
Stravimech Bearing-S4-11025	002171	1	4.65	200 x 200 x 140
Stravimech Bearing-S4-11810	002172	1	4.68	200 x 200 x 140
Stravimech Bearing-S4-12600	002173	1	4.71	200 x 200 x 140
Stravimech Bearing-S4-13390	002174	1	4.74	200 x 200 x 140
Stravimech Bearing-S4-14175	002175	1	4.77	200 x 200 x 140
Stravimech Bearing-S4-14960	002176	1	4.87	200 x 200 x 140
Stravimech Bearing-S4-15750	002177	1	4.98	200 x 200 x 140
Stravimech Bearing-S4-16540	002178	1	5.08	200 x 200 x 140
Stravimech Bearing-S4-17325	002179	1	5.19	200 x 200 x 140

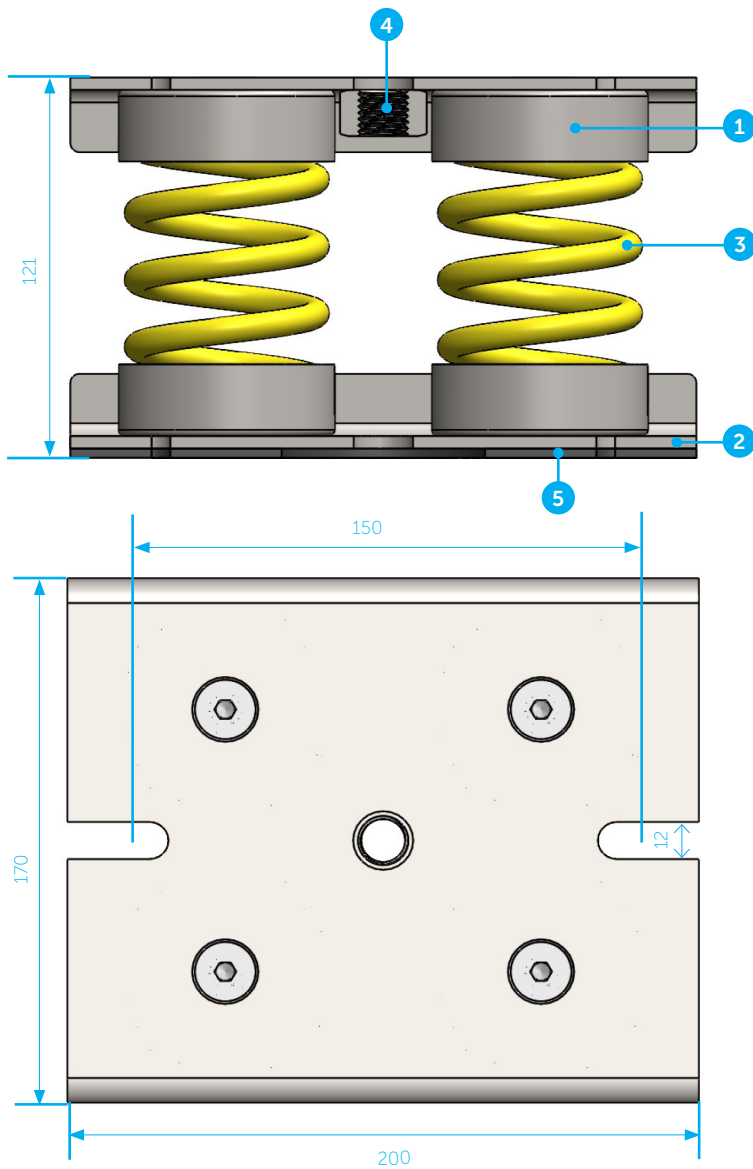


PHYSICAL & MECHANICAL PROPERTIES

Model	Height	Design Load	Natural Frequency at Design Load	Load Range	Resistance to Uplift	Lateral Stiffness	Maximum Allowed Lateral Load	Spring Colour
	mm	N	Hz	N	N	N/mm	N	
Stravimech Bearing-S4-4725	121	4725	3	2470-6000	1560	116,04	4120	
Stravimech Bearing-S4-5510		5510		2730-7000	1730	134,82	4807	
Stravimech Bearing-S4-6300		6300		2990-8000	1900	153,6	5494	
Stravimech Bearing-S4-7090		7090		3350-9000	2210	169,24	6180	
Stravimech Bearing-S4-7875		7875		3720-10000	2520	184,88	6867	
Stravimech Bearing-S4-8660		8660		4090-11000	2640	202,23	7554	
Stravimech Bearing-S4-9450		9450		4660-12000	2760	219,58	8240	
Stravimech Bearing-S4-10240		10240		4830-13000	2880	236,93	8927	
Stravimech Bearing-S4-11025		11025		5200-14000	3000	254,28	9614	
Stravimech Bearing-S4-11810		11810		5570-15000	3050	272,02	10301	
Stravimech Bearing-S4-12600		12600		5940-16000	3100	289,76	10987	
Stravimech Bearing-S4-13390		13390		6310-17000	3150	307,5	11674	
Stravimech Bearing-S4-14175		14175		6680-18000	3200	325,24	12361	
Stravimech Bearing-S4-14960		14960		7060-18500	3240	333,33	13047	
Stravimech Bearing-S4-15750		15750		7430-19000	3280	341,42	13734	
Stravimech Bearing-S4-16540		16540		7800-19500	3320	349,51	14421	
Stravimech Bearing-S4-17325		17325		8170-20000	3360	357,6	15107	

Notes:

- The products are suited to a C3 (medium duration) environment (urban and industrial atmospheres, moderate sulphur dioxide pollution, coastal areas with low salt content).
- Resistance to uplift is tested at room temperature.



1. Steel bushings
2. Mounting plate
3. Polyester-based coated springs
4. M16 threaded insert
5. Elastomeric layer

Note:
All dimensions in millimeters (mm).

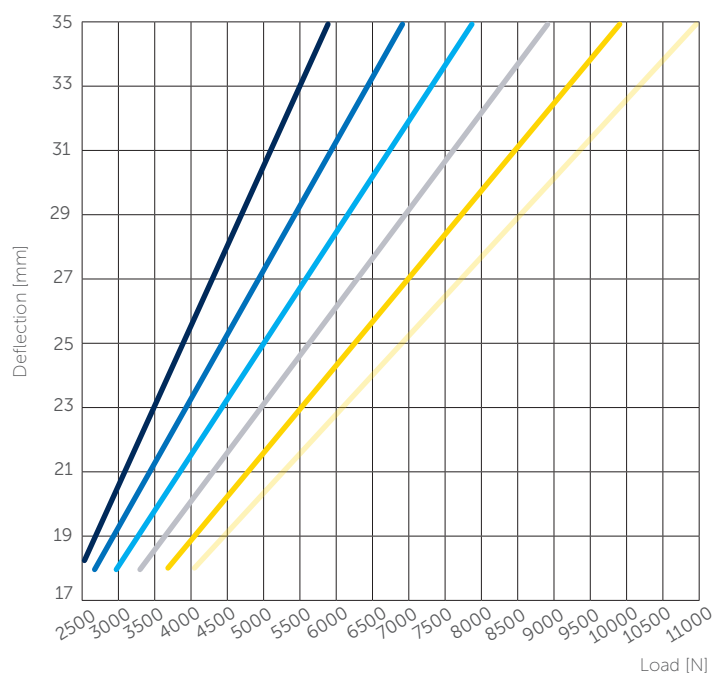


To assess if the Stravimech system is appropriate CDM Stravitec's engineers will need the following information:

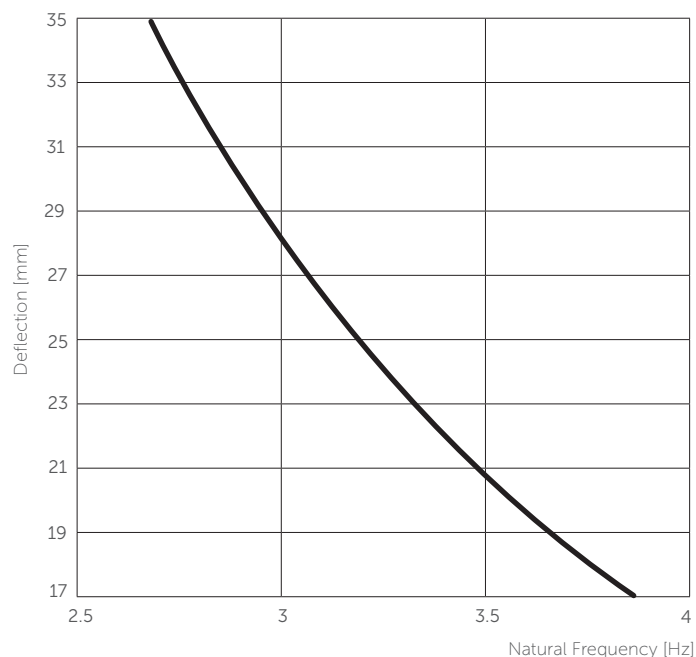
- Weight and load distribution of the machine to be supported on Stravimech Bearing supports
- Size and layout of support surfaces
- The dynamic loads generated by the machine
- Dimensional limits
- The required vibration isolation performance or natural frequency of the solution



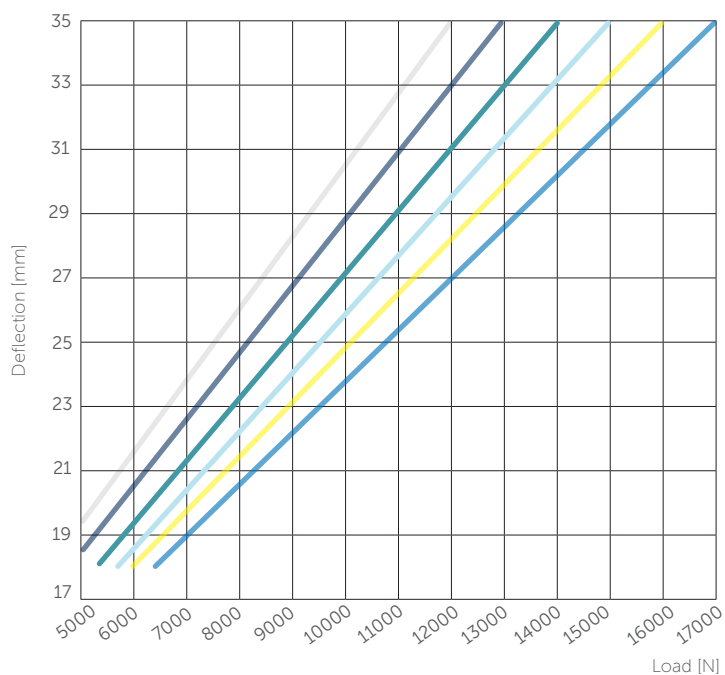
Deflection vs Load



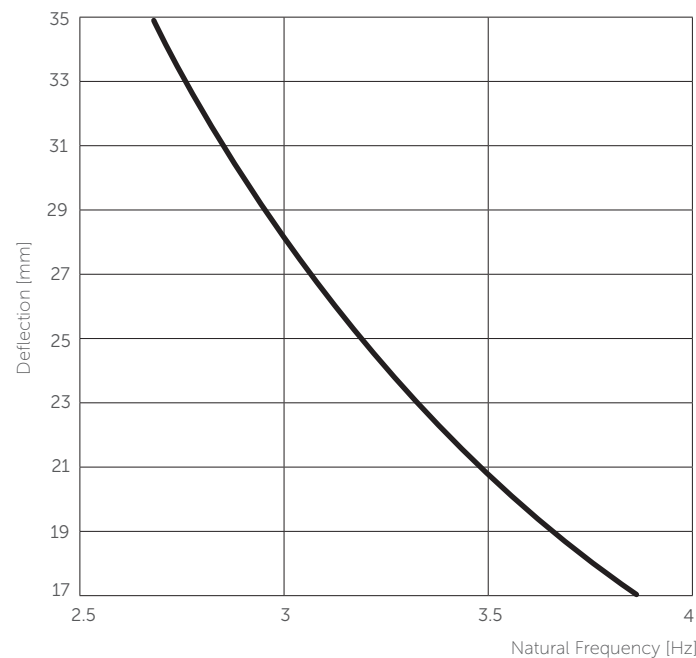
Deflection vs Natural Frequency

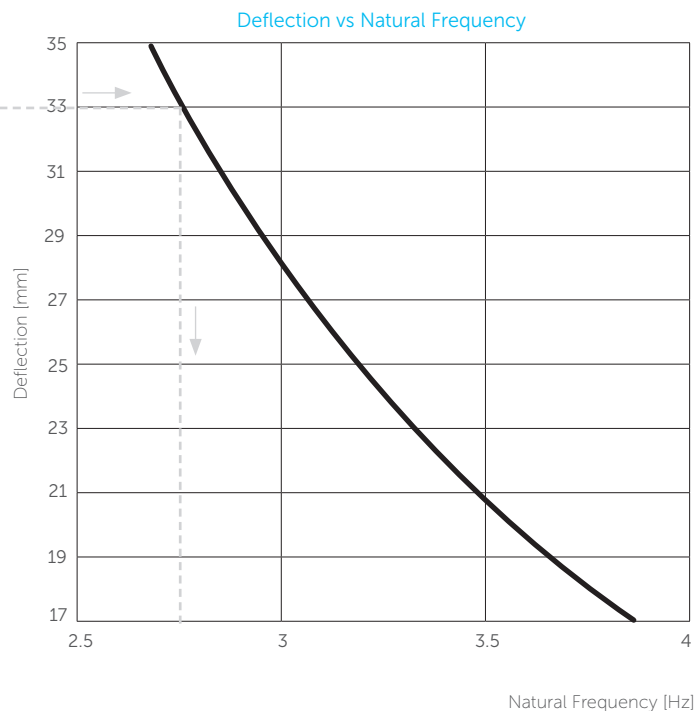
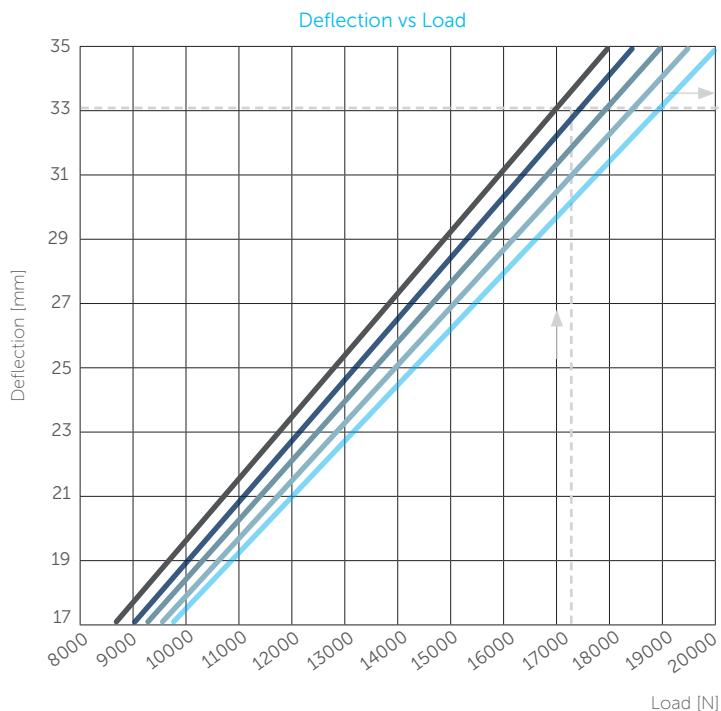


Deflection vs Load



Deflection vs Natural Frequency





- Stravimech Bearing-S4-14175
- Stravimech Bearing-S4-14960
- Stravimech Bearing-S4-15750
- Stravimech Bearing-S4-16540
- Stravimech Bearing-S4-17325



The natural frequency of a Stravimech isolator 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 natural frequency can be found. As an example, the natural frequency of a Stravimech Bearing-S4-15750 loaded with 18500 N is determined. The corresponding deflection is 33 mm. The natural frequency of a spring at 33 mm deflection is 2.75 Hz.



ACCESSORIES

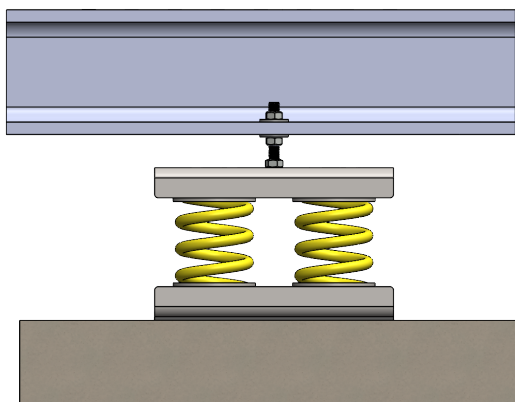


Level Set

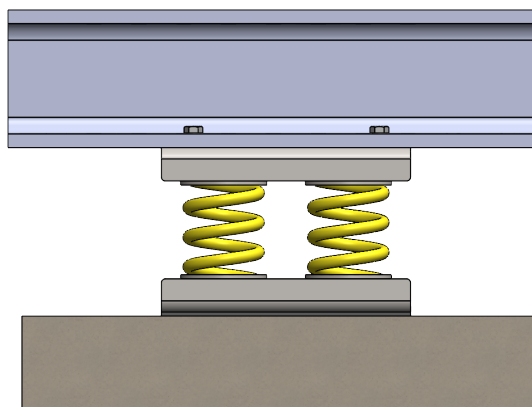
Levelling kit consisting of a threaded rod with nuts and washers for height adjustment.
Available in M16.



TYPICAL ASSEMBLIES



Stravimech Bearing-S4 with levelling*



Stravimech Bearing-S4 directly assembled

*Levelling set available as accessory.

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