

InfiniSpring® – Spring Mount Product Series



What?

- A spring mount
- An acoustic hanger **
- A low frequency vibration isolator*

Why?

- Noise and vibration isolation
- Functional both in compression and tension
- Motion control / enabling
- High strength steel component
- Temperature range -40...+200°C

Where?

- Rotational machines: fans, pumps, compressors, generating sets
- Vibratory machines: conveyors, screens, shakers
- Sensitive equipment: electric cabins, laboratory devices
- Construction: pipework, acoustic isolation of suspended ceilings & floors, room in room solutions

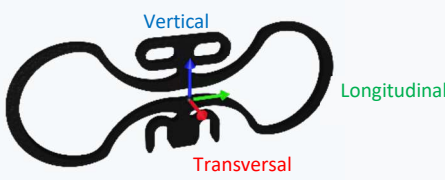
Table 1. Vertical nominal loads and rotational speeds of a single spring mount.

Model	Nominal load range [kg]	For rotational speeds on nominal loads [RPM]
SM-2x3HS20	Up to 40	>755
SM-2x4HS35	Up to 70	>655
SM-2x5HS50	Up to 100	>585
SM-2x6HS75	Up to 150	>530
SM-2x8HS130	Up to 260	>460
SM-2x10HS200	Up to 400	>410
SM-2x12HS300	Up to 600	>375

Note! Please see Natural Frequency and Deflection Curves below for more detailed information.

*Vertical natural frequency 6 – 15 Hz

Table 2. Maximum vertical natural frequencies when using nominal load.

Model	Vertical natural frequency	
SM-2x3HS20	< 11,7 Hz	
SM-2x4HS35	< 10,1 Hz	
SM-2x5HS50	< 9,1 Hz	
SM-2x6HS75	< 8,3 Hz	
SM-2x8HS130	< 7,2 Hz	
SM-2x10HS200	< 6,4 Hz	
SM-2x12HS300	< 5,8 Hz	

Natural frequencies in transversal direction are approximately 45% lower and natural frequencies in longitudinal direction are approximately 10% lower. Example: transversal natural frequency with 8HS130 springs → frequency is $0.55 \cdot 7.2 \text{ Hz} = 4.0 \text{ Hz}$.

Table 3. Maximum loads and deflections with spring constants in all directions.

Model	Maximum load in vertical direction [N]	Spring constant in vertical direction [N/mm]	Maximum deflection in vertical direction [mm]	Maximum load in transversal direction [N]	Spring constant in transversal direction [N/mm]	Maximum deflection in transversal direction [mm]	Maximum load in longitudinal direction [N]	Spring constant in longitudinal direction [N/mm]	Maximum deflection in longitudinal direction [mm]
SM-2x3HS20	494	204	2,4	188	60	3,1	224	160	1,4
SM-2x4HS35	878	272	3,2	334	82	4,1	398	212	1,9
SM-2x5HS50	1370	340	4,0	522	102	5,1	622	266	2,3
SM-2x6HS75	1986	408	4,9	760	122	6,2	900	318	2,8
SM-2x8HS130	3506	544	6,5	1338	162	8,2	1594	426	3,7
SM-2x10HS200	5480	680	8,1	2094	202	10,3	2494	532	4,7
SM-2x12HS300	8000	816	9,8	3040	244	12,4	3600	638	5,6

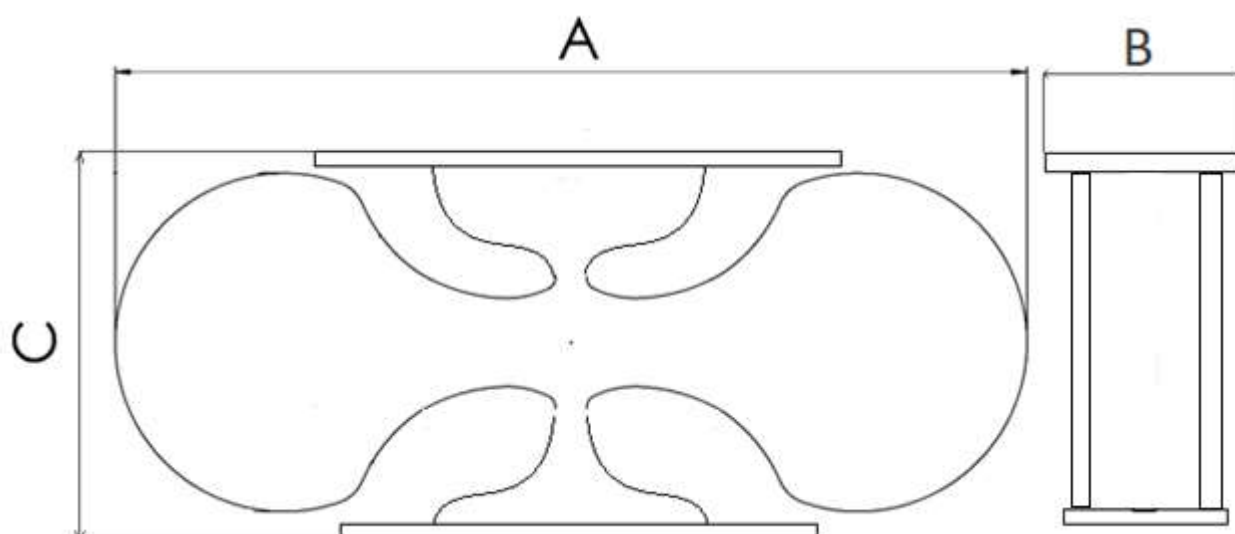
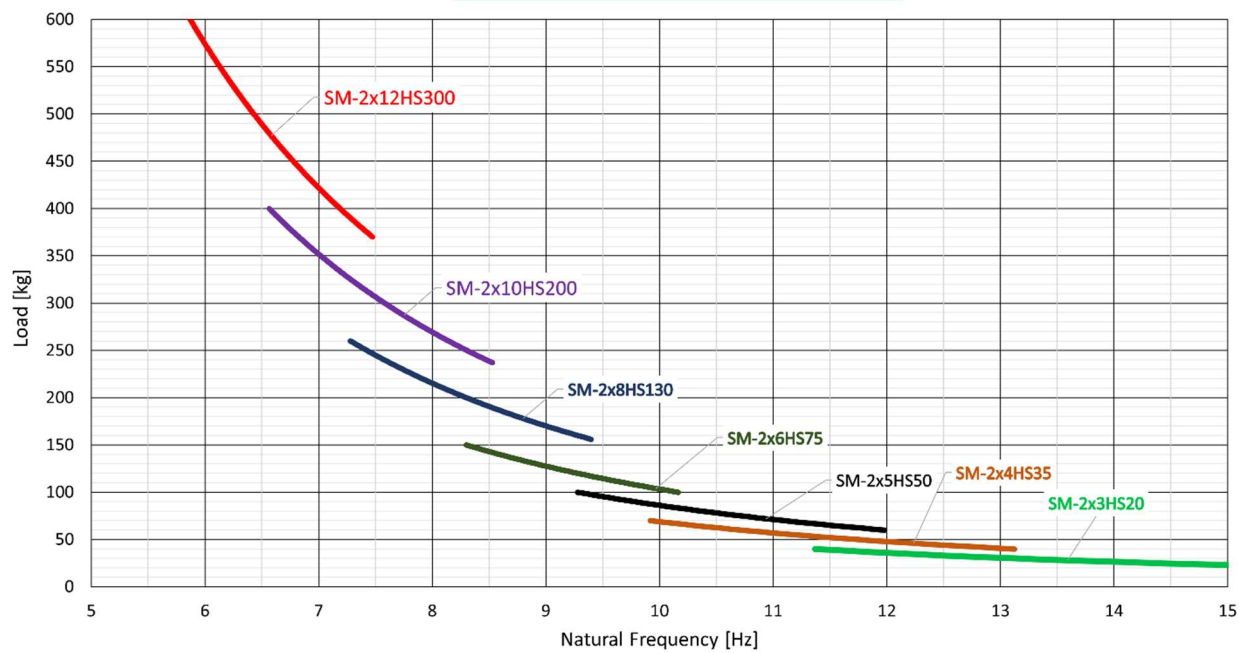


Table 4. Main dimensions of the InfinitiSpring mounts. Dimensions in mm.

Dimension	SM-2x3HS20	SM-2x4HS35	SM-2x5HS50	SM-2x6HS75	SM-2x8HS130	SM-2x10HS200	SM-2x12HS300
A	119	158,7	198,3	238	317,3	396,7	476
B	56	75	93	112	149	187	224
C	50	67	83	100	133	167	200
Fasteners							
Size	M5 8.8 **	M6 8.8	M8 8.8	M10 8.8	M12 8.8	M16 8.8	M16 8.8

** SM-2x3HS20 is equipped with M6 threaded holes on both sides, M5 bolt holes on one side and screw holes on second side. SM-2x3HS20 can be also used as an acoustic hanger. Other sizes can be requested with special features.

Natural Frequency Curves: SM-Series



Load Deflection Curves: SM-Series

