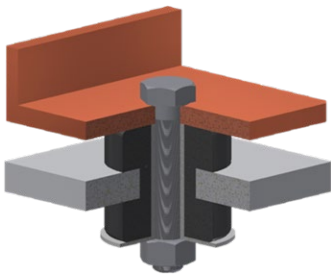


APSOvib® H-Mounts



The name APSOvib® stands for the demand and cost optimized implementation of every vibration-related technical challenge. Outstanding application know-how and the large APSOvib® range of vibration elements provide the basis for this.



APSOvib® H-Mounts, specially designed to securely mount devices onto mobile applications, can be used on agricultural and construction machinery, trucks and trailers, special vehicles as well as for all industrial applications which require an optimal vibration isolation.

Areas of application

These compact APSOvib® H-Mounts are suitable for the following applications:

- Engines, gear and differential boxes
- Auxiliary devices like radiators, coolers, compressors, pumps and generators
- Cab vehicles, fixation of exhaust-air ducts and exhaust pipes in industry



Range of applications

- The 3 different designs cover a load capacity F_z from 450 to 16'000 N
- Each article is available from stock in soft, middle soft, middle hard and hard
- A tuning frequency down to 13 Hz can be achieved
- On request also tailor-made to meet your application, in different dimensions and other forces, other rubber or stainless steel tube



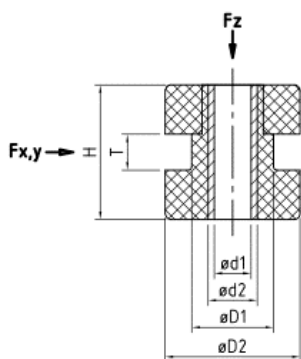
Contact

Angst+Pfister AG
engineering@angst-pfister.com
www.angst-pfister.com

APSOvib® H-Mounts, types and dimensions

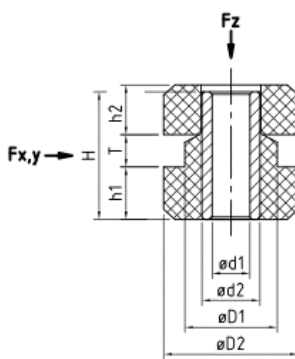
Shape	Reference	Fixation		Main dimensions						
		Mounting frame diameter S_p (+/- 0.1mm)	Mounting frame thickness T	Tube inner diameter d_1	Tube outer diameter d_2	Thickness h_1	Thickness h_2	Installation diameter D_1	Outside diameter D_2	Tube length H
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
1	I-090-205-090	20.5	9.0	9.0	12.0	11.0	11.0	20.0	33.0	30.0
2	II-135-335-120	33.5	12.0	13.5	20.7	20.5	19.5	33.0	48.0	50.0
2	II-140-405-200	40.5	20.0	14.0	26.0	22.9	22.9	40.1	64.8	61.7
2	II-167-405-200	40.5	20.0	16.7	26.0	22.9	22.9	40.1	64.8	61.7
2	II-238-588-290	58.8	29.0	23.8	31.3	25.4	23.0	58.4	89.0	73.0
2	II-250-658-250	65.8	25.0	25.0	36.0	32.0	32.0	64.0	124.0	87.0
2	II-270-658-250	65.8	25.0	27.0	36.0	32.0	32.0	64.0	124.0	87.0
3	III-135-315-130	31.5	13.0	13.5	20.7	20.5	19.5	31.2	48.0	50.0

Shape 1



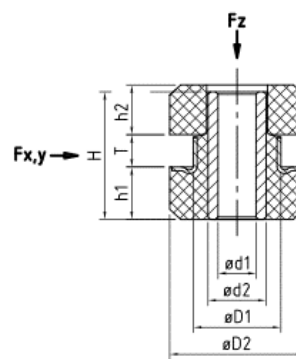
Installation without pre-compression

Shape 2



Installation with pre-compression

Shape 3



Installation with pre-compression and metal part to avoid a premature wear by friction between the rubber and the housing of the mount

APSOvib® H-Mounts, technical characteristics

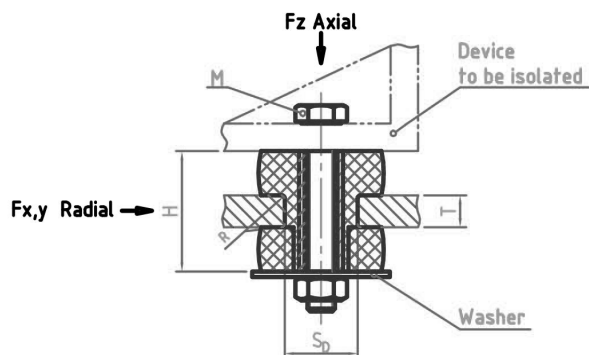
Shape	Article number	Reference	Version/Load capacity/Spring travel/Stiffness						
			Version	Load capacity	Spring travel	Stiffness	Load capacity	Spring travel	Stiffness
				F _z	S _z	(+/- 20%) C _z	F _{x, y}	S _{x, y}	(+/- 20%) C _{x, y}
			[N]	[mm]	[N/mm]	[N]	[mm]	[N/mm]	
1	12.2147.0101	I-090-205-090	Soft	405	1.5	270	400	1	400
1	12.2147.0102	I-090-205-090	Middle soft	555	1.5	370	500	1	500
1	12.2147.0103	I-090-205-090	Middle hard	825	1.5	550	780	1	780
1	12.2147.0104	I-090-205-090	Hard	1650	1.5	1100	1800	1	1800
2	12.2147.0201	II-135-335-120	Soft	600	3	200	380	1	380
2	12.2147.0202	II-135-335-120	Middle soft	900	3	300	600	1	600
2	12.2147.0203	II-135-335-120	Middle hard	1860	3	620	1000	1	1000
2	12.2147.0204	II-135-335-120	Hard	3000	3	1000	2100	1	2100
2	12.2147.0301	II-140-405-200	Soft	1650	3	550	600	1	600
2	12.2147.0302	II-140-405-200	Middle soft	2040	3	650	870	1	870
2	12.2147.0303	II-140-405-200	Middle hard	3000	3	1000	1450	1	1450
2	12.2147.0304	II-140-405-200	Hard	6000	3	2000	2900	1	2900
2	12.2147.0401	II-167-405-200	Soft	1650	3	550	600	1	600
2	12.2147.0402	II-167-405-200	Middle soft	2040	3	650	870	1	870
2	12.2147.0403	II-167-405-200	Middle hard	3000	3	1000	1450	1	1450
2	12.2147.0404	II-167-405-200	Hard	6000	3	2000	2900	1	2900
2	12.2147.0501	II-238-588-290	Soft	1840	2.3	800	715	1.1	650
2	12.2147.0502	II-238-588-290	Middle soft	3080	2.8	1100	2070	2.3	900
2	12.2147.0503	II-238-588-290	Middle hard	6845	3.7	1850	2660	1.9	1400
2	12.2147.0504	II-238-588-290	Hard	13000	3.4	3800	4480	1.6	2800
2	12.2147.0601	II-250-658-250	Soft	2700	3	900	600	1.5	400
2	12.2147.0602	II-250-658-250	Middle soft	4500	3	1500	930	1.5	620
2	12.2147.0603	II-250-658-250	Middle hard	7500	3	2500	1500	1.5	1000
2	12.2147.0604	II-250-658-250	Hard	16000	3	5300	3500	1.5	2500
2	12.2147.0701	II-270-658-250	Soft	2700	3	900	600	1.5	400
2	12.2147.0702	II-270-658-250	Middle soft	4500	3	1500	930	1.5	620
2	12.2147.0703	II-270-658-250	Middle hard	7500	3	2500	1500	1.5	1000
2	12.2147.0704	II-270-658-250	Hard	16000	3	5300	3500	1.5	2500
3	12.2147.0801	III-135-315-130	Soft	1150	3	380	1400	1	1400
3	12.2147.0802	III-135-315-130	Middle soft	1800	3	600	1900	1	1900
3	12.2147.0803	III-135-315-130	Middle hard	2850	3	950	3000	1	3000
3	12.2147.0804	III-135-315-130	Hard	4800	3	1900	5200	1	5200

APSOvib® H-Mounts, assembly instructions

- APSOvib® H-Mounts can be mounted in two different ways, the bracket of the device to be isolated is fixed on the metal tube of the mount and the metal frame is bored (example 1) or the other way around (example 2)
- With APSOvib® H-Mounts shape I & II the edges of the mounting frame diameter must be chamfered or preferably radiused e.g. 0.5 or 1 mm at both ends. APSOvib® H-Mounts shape III with steel reinforcement require this radiusing only at the rubber-only end
- For mobile application with tear off safety, a metal washer that can resist the maximum possible force must be placed on the opposite side of the bracket of the device or the frame (metal washer is not part of the APSOvib® H-Mounts)

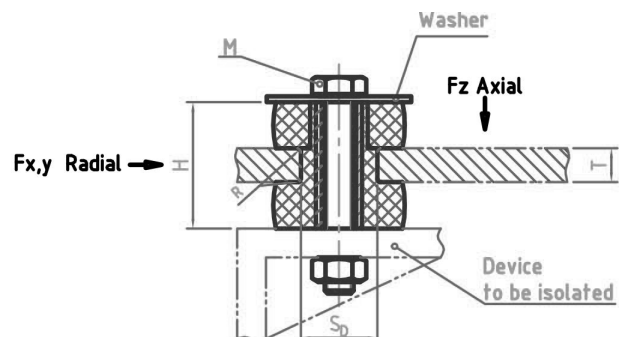
Assembly example 1

The bracket of the device to be isolated is fixed to the metal tube of the mount and the metal frame is bored



Assembly example 2

The device to be isolated is bored and the metal tube of the mount is fixed to a metal frame with a bracket



Material of rubber

CR, will not be altered in case of occasional contact with grease or oil, ozone and UV

Material tube

E235 + C EN10305-2 phosphated

Working temperature

From -30 to +100°C

EU standard

Compliant with 2002/95/EG (RoHS)