

# Flat Mount

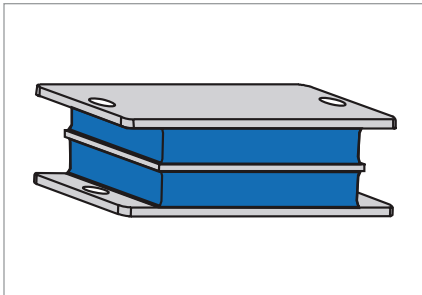


Fig. 1 Flat Mount

## Product description

Flat mounts are mount configurations for custom applications.

## Product advantages

- Easily integrated into assemblies
- Easily installed
- Spring characteristics can be widely adapted to the construction
- RoHS-compliant.

## Application

Used as mounts for machines, engines or subassemblies in mechanical-engineering and automotive applications.

## Material

Standard material	Hardness
Natural rubber NR 11	45, 50, 55, 60, 65, 70 Shore A

## Operating conditions

Shear forces X, Y direction	440 N ... 7500 N	Maximum permissible force
Compressive forces in Z direction	1200 N ... 98000 N	Maximum permissible force
Max. temperature	+60 °C, transient +80 °C	
Min. temperature	-45 °C	

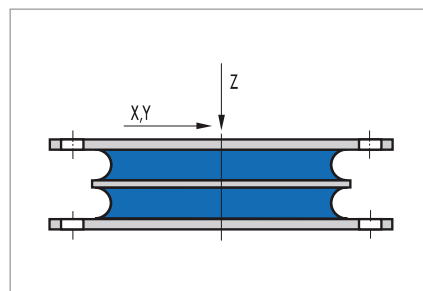


Fig. 2 Primary load directions

Depending on the installation conditions or required degree of vibration insulation, compressive loads (Z direction), shear loads (X, Y direction) or combined compressive/shear loads (mount tilted by a specific angle) can be applied to flat mounts. The mounts achieve an optimal utilisation and thus also the highest dynamic load with a compressive/shear loading. The loading is dependent on the surface area of the rubber, shape, thickness of the pad and hardness of the rubber. The static loading and the dynamic forces and deflection must be taken into account for continuous use. Flat mounts have different stiffness in the shear direction (X, Y) and compressive direction (Z) in dependence on the width, length and thickness and their total number in the mount component. The effective stiffness of the mounts can be varied by turning of the mount to the static load. The primary load direction can be absorbed perpendicular to or at an angle to the attachment levels.

## Design notes

Flat mounts consist of parallel metal plates paralleled one on top of the other and separated by vulcanised elastomer pads.

## Fitting & installation

- Flat mounts are designed to be secured by means of threaded fasteners
- Individual components permit slight adjustment to allow for in-situ offset
- It is important to ensure that the mating faces of the frame and the mass carried by the mount are flat and smooth
- It is also important to ensure full-surface contact between the outer metal plates and the frame and the mass carried by the mounts
- Position the mount relative to the static load in such a way that the cap and the flange are preloaded relative to each other.

Article list

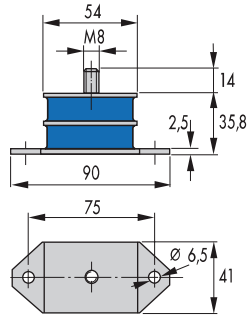


Fig. 3 Flat Mount 051 18 001

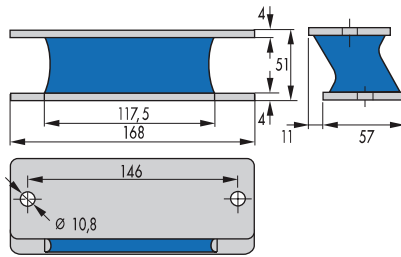


Fig. 4 Flat Mount 051 18 004

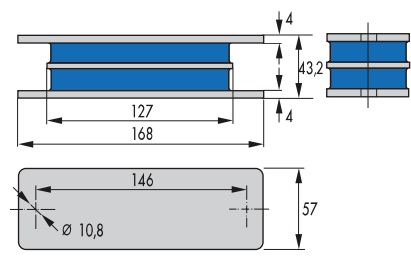


Fig. 5 Flat Mount 051 18 002

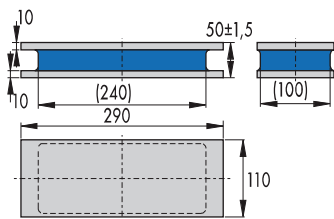


Fig. 6 Flat Mount 051 18 719

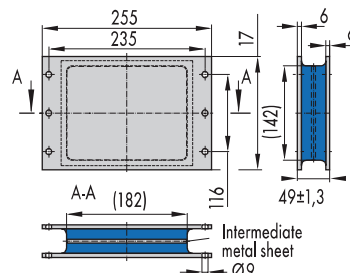


Fig. 7 Flat Mount 051 18 720

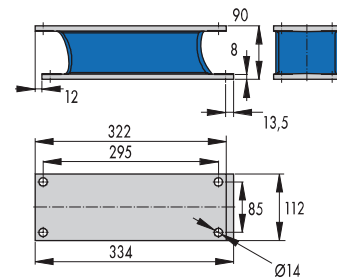


Fig. 8 Flat Mount 051 18 723

Nominal maxima		Stiffness	Nominal maxima		Stiffness	Width	Height	Length	Product No.	Material	Article No.	
Pressure			Shear			B	H	L				
F <sub>z</sub> max	s <sub>z</sub> max	c <sub>z</sub> pres- sure	F <sub>x, y</sub> max	s <sub>x, y</sub> max	c <sub>x, y</sub> shear							
[N]	[mm]	[N/mm]	[N]	[mm]	[N/mm]	[mm]	[mm]	[mm]				
1200	2,4	500	440	11	40	41	35,8	90	5118001	45 NR 11	96796	●
1500	2,4	630	500	10	50	41	35,8	90	5118001	50 NR 11	96797	●
2300	2,4	960	600	8	80	41	35,8	90	5118001	60 NR 11	96798	●
3000	2,4	1250	800	7	110	41	35,8	90	5118001	70 NR 11	96745	●
7400	2,7	2740	1700	13	130	57	43,2	168	5118002	45 NR 11	96791	●
9000	2,7	3330	2200	11	200	57	43,2	168	5118002	55 NR 11	96793	●
15100	2,7	5590	2400	10	240	57	43,2	168	5118002	65 NR 11	96792	●
18900	2,7	7000	3000	8	380	57	43,2	168	5118002	70 NR 11	96794	●
1400	3,5	400	1100	15	70	57	51,0	168	5118004	45 NR 11	96787	●
2800	3,5	800	1900	15	130	57	51,0	168	5118004	55 NR 11	96788	●
3060	3,5	870	2000	13	150	57	51,0	168	5118004	60 NR 11	96789	●
4700	3,5	1340	2200	11	200	57	51,0	168	5118004	70 NR 11	96790	●
25000	2,0	12500	5800	12	480	110	50,0	290	5118719	60 NR 11	49002463	○
41000	2,0	20500	4000	8	500	170	49,0	255	5118720	45 NR 11	49002649	○
98000	2,0	49000	7500	8	940	170	49,0	255	5118720	60 NR 11	49002650	○

● Available from stock ○ On request: Tool is available, delivery at short notice