



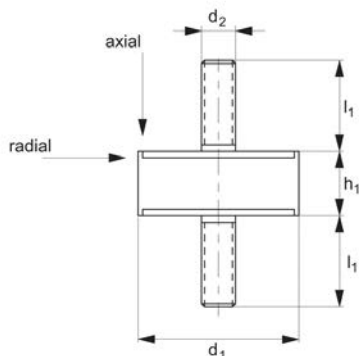
Anti-vibration Cylinders

male: male

Anti-Vibration



61040



Material

Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Technical Notes

Parts with small diameters (d_1) and relatively long length (h) cannot accept radial loads (as shown in table).

Different thread sizes on request.

For rubber mounted on stainless steel - see part no. 61042.

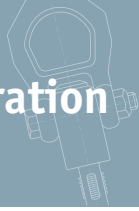
Tips

These cylinders are used to reduce vibration by allowing some movement (in axial

and radial as shown).

Typically used in machinery, compressors, air conditioning units, light engineering equipment etc.

Order No.	d_1	h_1	d_2	l_1	Axial load kgf max.	Radial load kgf max.
61040.W0061	6	7	M 3	10	3	-
61040.W0081	8	8	M 3	10	3	-
61040.W0091	9	12	M 4	10	6	1.5
61040.W0101	10	8	M 4	10	8	1.5
61040.W0102	10	10	M 4	10	10	1.5
61040.W0151	15	8	M 4	10-14	15	2.4
61040.W0152	15	10	M 4	10-14	13	2.4
61040.W0153	15	15	M 4	10-14	13	3.0
61040.W0154	15	20	M 4	10-14	10	-
61040.W0155	15	22	M 4	10-14	10	-
61040.W0156	15	25	M 4	10-14	9	-
61040.W0157	15	28	M 4	10-14	9	-
61040.W0161	16	15	M 4	14	13	2.4
61040.W0181	18	7.5	M 6	16	20	3.0
61040.W0182	18	8.5	M 6	16	20	3.0
61040.W0183	18	12	M 6	16	18	3.0
61040.W0202	20	9	M 6	13-16	27	5.0
61040.W0203	20	10	M 6	16	30	5.0
61040.W0204	20	15	M 6	16	25	5.0
61040.W0205	20	20	M 6	18	21	4.5
61040.W0206	20	25	M 6	16	20	4.0
61040.W0207	20	30	M 6	16	18	3.5
61040.W0251	20	35	M 6	13-16	18	3.5
61040.W0252	25	10	M 6	10-18	46	9.0
61040.W0253	25	15	M 6	18	44	8.5
61040.W0254	25	20	M 6	18	41	8.0
61040.W0255	25	25	M 6	18	40	7.5
61040.W0256	25	30	M 6	18	40	7.0
61040.W0258	25	40	M 6	18	36	4.0



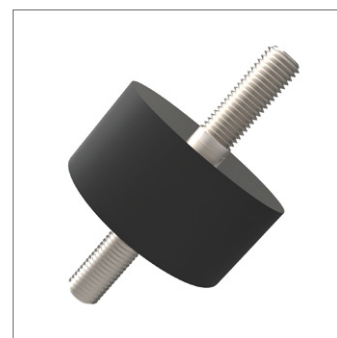
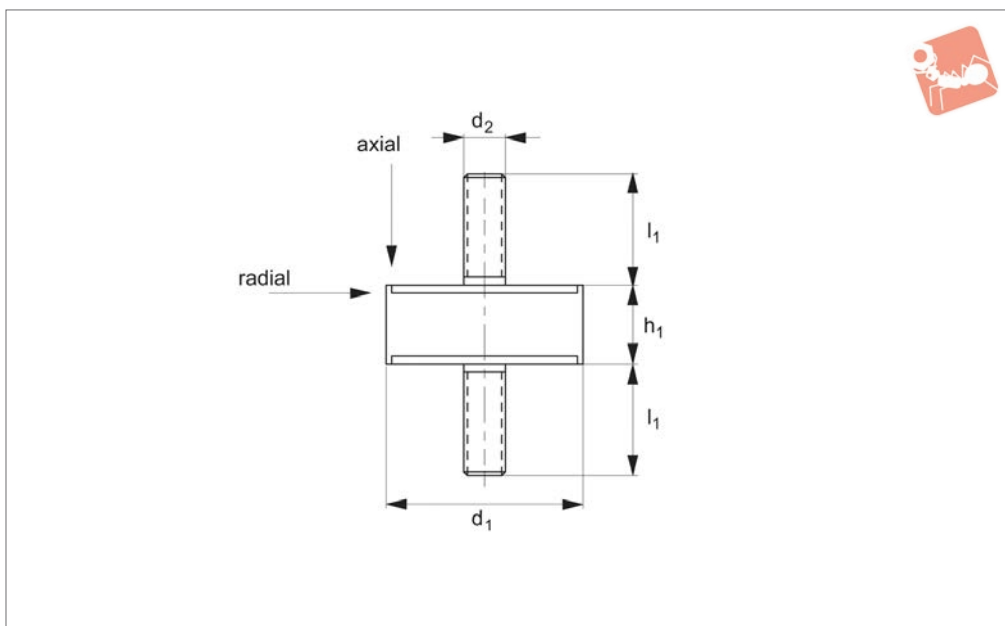
Order No.	d ₁	h ₁	d ₂	l ₁	Axial load kgf max.	Radial load kgf max.
61040.W0303	30	15	M 8	20	90	12.0
61040.W0304	30	20	M 8	20	90	10.5
61040.W0305	30	25	M 8	20	85	10.5
61040.W0306	30	30	M 8	20	80	10.5
61040.W0351	35	40	M 8	23	54	13.0
61040.W0401	40	12	M 8	23	120	20.0
61040.W0402	40	20	M 8	20	160	20.0
61040.W0403	40	25	M 8	20	155	18.0
61040.W0404	40	28	M 8	20	155	16.0
61040.W0405	40	30	M 8	23	150	21.0
61040.W0406	40	40	M 8	23	120	22.0
61040.W0407	40	50	M 8	23	80	19.0
61040.W0451	45	30	M 8	23	112	24.0
61040.W0501	50	20	M10	25	250	30.0
61040.W0503	50	30	M10	25	250	29.0
61040.W0504	50	40	M10	25	220	29.0
61040.W0505	50	50	M10	25	200	29.0
61040.W0601	60	20	M10	28	285	35.0
61040.W0602	60	30	M10	28	200	37.0
61040.W0603	60	35	M10	30	350	39.0
61040.W0604	60	45	M10	30	300	42.0
61040.W0605	60	50	M10	37	185	42.0
61040.W0701	70	45	M10	35	270	55.0
61040.W0702	70	50	M10	30	350	52.0
61040.W0751	75	25	M12	35	650	75.0
61040.W0752	75	30	M12	37	350	75.0
61040.W0753	75	40	M12	35	500	75.0
61040.W0754	75	50	M12	37	330	65.0
61040.W0755	75	55	M12	35	450	60.0
61040.W0801	80	30	M14	35	900	75.0
61040.W0802	80	40	M14	35	600	50.0
61040.W0803	80	50	M14	35	750	65.0
61040.W0804	80	80	M14	51	280	60.0
61040.W0951	95	40	M16	45	1200	70
61040.W0952	95	55	M16	45	1000	70
61040.W0953	95	60	M16	45	800	70
61040.W0954	95	75	M16	45	800	70
61040.W1001	100	40	M16	45	1200	95
61040.W1002	100	60	M16	45	1100	90
61040.W1003	100	75	M16	45	1000	90
61040.W1201	120	50	M16	45	1500	100
61040.W1202	120	75	M16	45	1200	100
61040.W1203	120	100	M16	45	1000	100
61040.W1301	130	40	M16	45	1900	110
61040.W1302	130	50	M16	45	1600	110
61040.W1303	130	75	M16	45	1450	100
61040.W1304	130	100	M16	45	1200	120
61040.W1501	150	50	M20	50	1800	150
61040.W1502	150	60	M16	50	2200	150
61040.W1503	150	75	M16	50	2000	150
61040.W1504	150	100	M16	50	1400	150
61040.W1505	150	120	M16	50	1300	150
61040.W1506	150	140	M16	50	1200	150



Anti-vibration Cylinders

stainless male:male

Anti-Vibration



61042

ANTI-VIBRATION

Material

Rubber on stainless steel, A2 (rubber hardness - 55 Shore A).

steel - see part no. 61040.

Tips

These cylinders are used to reduce vibration by allowing some movement (in axial and radial as shown).

Typically used in machinery, compressors, air conditioning units, light engineering equipment etc.

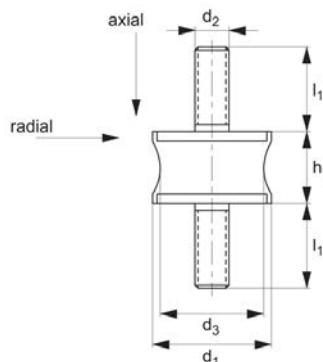
Technical Notes

For rubber mounted on silver zinc plated

Order No.	d_1	h_1	d_2	l_1	Compression max.	Axial load kgf max.	Radial load kgf max.
61042.W0200	20	20	M 6	18	4	25	4.5
61042.W0201	20	25	M 6	18	5	25	4.0
61042.W0250	25	25	M 8	18	5	40	7.5
61042.W0251	25	30	M 8	18	6	35	7.0
61042.W0300	30	30	M 8	18	6	80	10.5
61042.W0301	30	40	M 8	18	8	60	13.0
61042.W0302	35	35	M 8	18	8	90	13.0
61042.W0400	40	30	M10	27	8	150	21.0
61042.W0401	40	40	M10	27	10	120	22.0
61042.W0500	50	30	M10	27	8	250	29.0
61042.W0501	50	40	M10	27	10	220	29.0
61042.W0502	50	50	M10	27	12	200	29.0
61042.W0600	60	45	M10	27	10	300	42.0
61042.W0601	60	60	M10	27	12	250	44.0



61100



Material

Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Available in stainless steel on request.

Technical Notes

For rubber mounted on silver zinc plated

steel see part no. 61102 (female:female) or 61110 (male:female).

Tips

These cylinders are used to reduce vibration by allowing some movement (in axial and radial as shown in drawing).

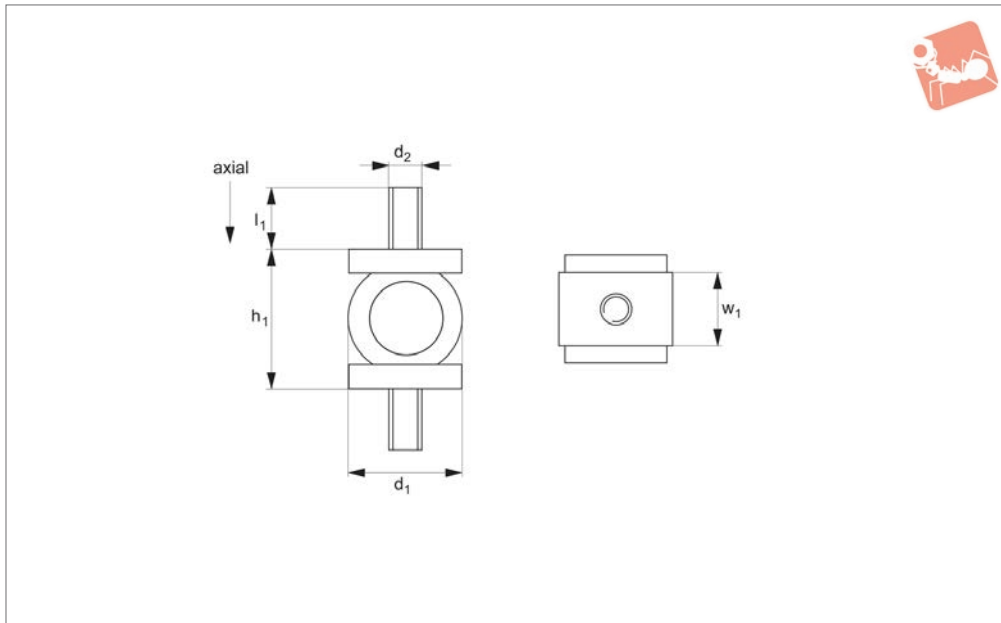
Typically used in machinery, compressors, air conditioning units, light engineering equipment etc.

Order No.	d ₁	h ₁	d ₂	d ₃	l ₁	Axial load kgf max.	Radial load N max.
61100.W0012	12	14	M 4	7	10	2.5	1.0
61100.W0020	20	15	M 6	14	13-16	10	2.5
61100.W0021	20	20	M 6	12	18	15	2.5
61100.W0025	25	20	M 6	18	18	25	6.0
61100.W0030	30	20	M 8	25	23	35	6.0
61100.W0031	30	25	M 8	24	20	40	6.0
61100.W0040	40	28	M10	22	25	60	12
61100.W0045	45	50	M 8	25	23	60	-
61100.W0050	50	30	M10	42	28	120	25
61100.W0057	57	44	M 8	25	20	40	-
61100.W0060	60	36	M10	37	30	90	-
61100.W0061	60	43	M10	35	30	70	12
61100.W0062	60	60	M10	51	30	150	30
61100.W0070	70	56	M12	50	35	220	-
61100.W0080	80	70	M14	70	50	170	55
61100.W0090	90	77	M16	79	45	500	-
61100.W0095	95	76	M16	80	46	250	-
61100.W0108	108	85	M16	95	45	800	-
61100.W0130	130	96	M16	115	45	1400	-



Anti-vibration Cylinders spherical

Anti-Vibration



61115

ANTI-VIBRATION

Material

Rubber on silver zinc-plated steel (rubber hardness - 55 Shore A).

frequencies with low loads as little as 0.5 kg.

Tips

These mounts are not to be used for radial loads.

Technical Notes

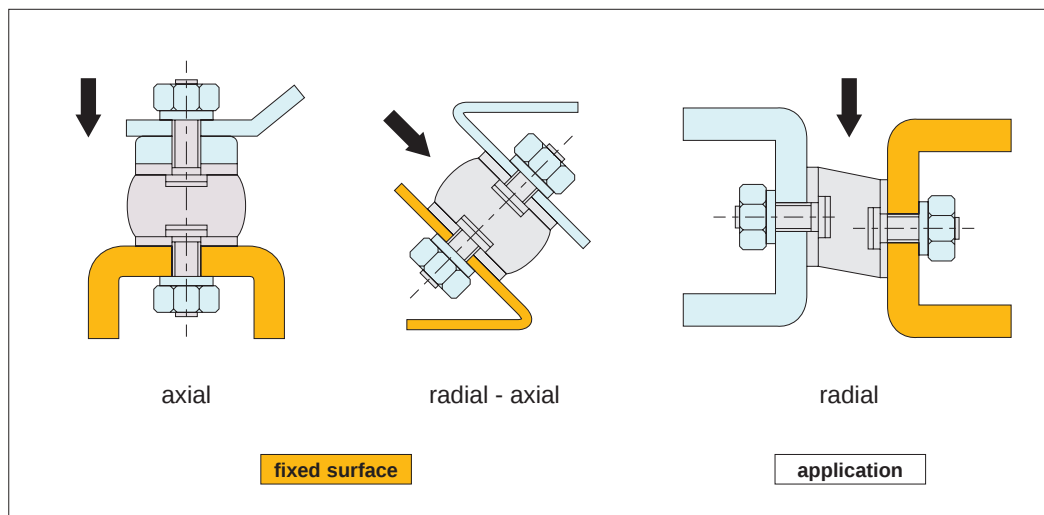
The spherical mounts are designed for low

Order No.	d ₁	h ₁	d ₂	w ₁	l ₁	Compression max.	Axial load kgf max.
61115.W0150	15	18	M4	14	8	5	1.25
61115.W0151	15	18	M4	14	8	5	2.50
61115.W0300	30	30	M8	30	20	11	3.50



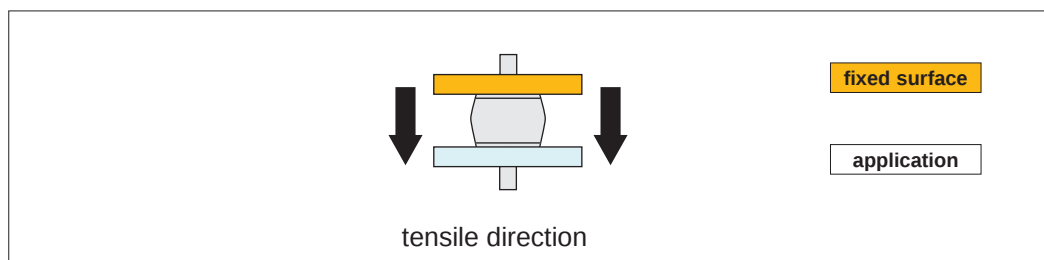
Acceptable loads

Cylindrical mounts are never to be used in tension, they should only be used in axial or radial. Radial loads are however considerably less than axial loads. Parts with small diameters (d_1) and relatively long lengths (h) cannot accept radial loads.



Installation

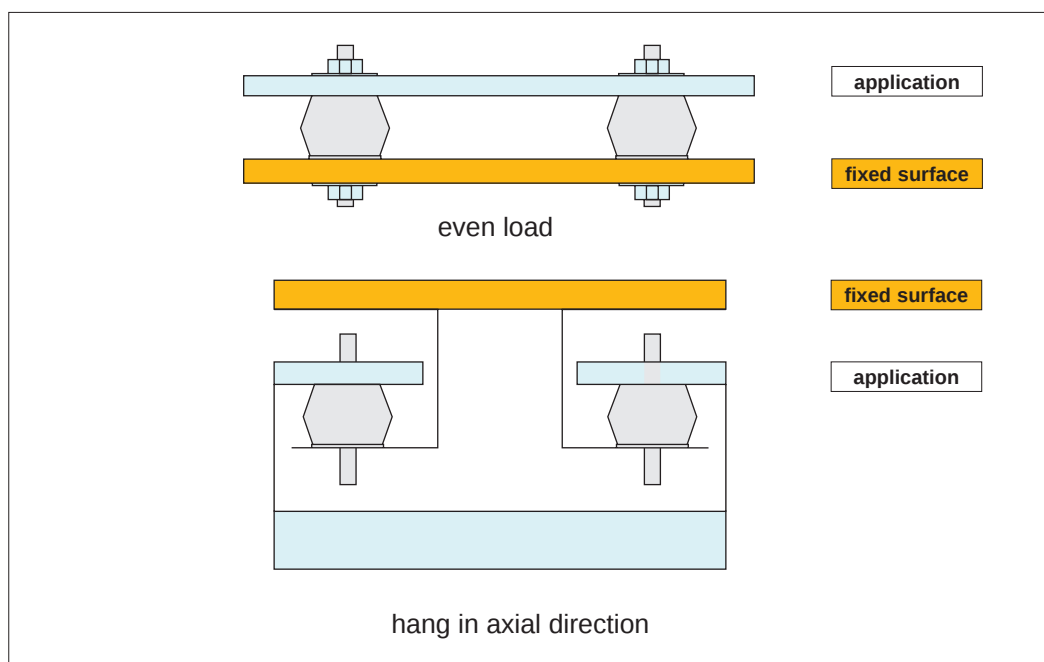
Incorrect installation



Correct installation

The height of the insulator may vary as the rubber is compressed under load.

Do not remove the rubber burr around the edge of the metal, this could cause detachment of rubber from the metal studs.

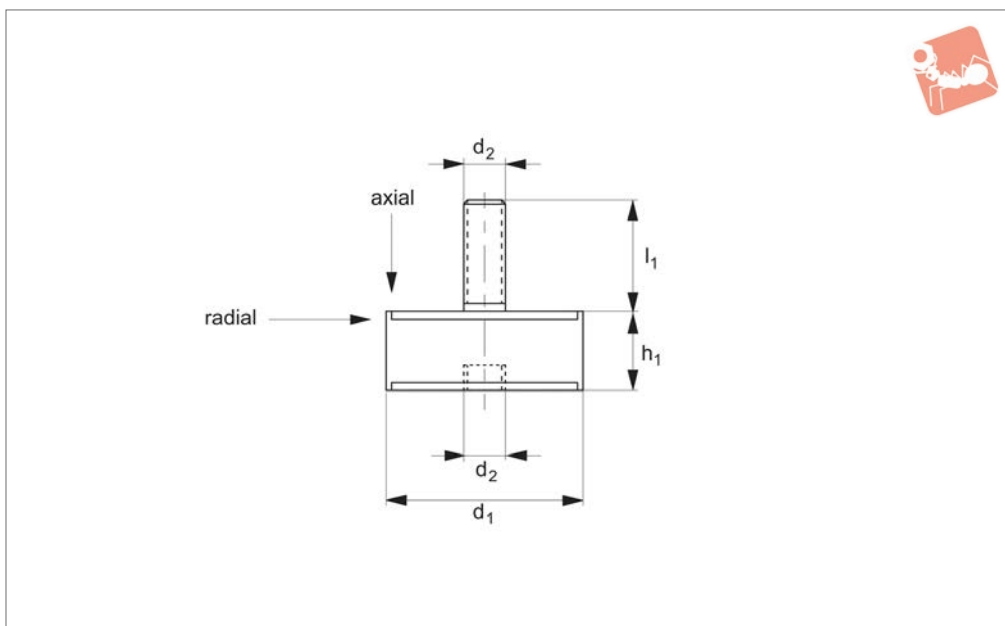




Anti-vibration Cylinders

male:female

Anti-Vibration



61060

ANTI-VIBRATION

Material

Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Technical Notes

Load tolerance parts with small diameters

(d_1) and relatively long length (h) cannot accept radial loads (as shown in table).

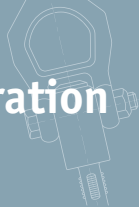
Tips

These cylinders are used to reduce vibra-

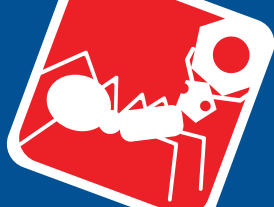
tion by allowing some movement (in axial and radial as shown).

Typically used in machinery, compressors, air conditioning units, light engineering equipment etc.

Order No.	d_1	h_1	d_2	l_1	Compression max.	Axial load kgf max.	Radial load kgf max.
61060.W0153	15	22	M 4	14	4.5	10	2.5
61060.W0081	8	8	M 3	10	1.5	3.5	-
61060.W0101	10	10	M 4	10	2.0	10	1.2
61060.W0121	12	31	M 5	20	3.5	6	1.3
61060.W0152	15	20	M 4	10	4.0	10	2.0
61060.W0154	15	25	M 4	10	5.0	9.5	2.0
61060.W0201	20	15	M 6	13	3.0	25	5.0
61060.W0202	20	20	M 6	18	4.0	25	4.0
61060.W0203	20	25	M 6	18	5.0	25	4.0
61060.W0204	20	30	M 6	18	7.0	25	3.0
61060.W0205	20	35	M 6	16	8.0	18	2.0
61060.W0251	25	15	M 6	16	3.0	50	8.0
61060.W0252	25	20	M 6	16	4.0	50	8.0
61060.W0253	25	25	M 6	18	5.0	40	7.0
61060.W0254	25	30	M 6	16	6.0	40	7.0
61060.W0255	25	35	M 6	18	8.0	36	6.0
61060.W0301	30	15	M 8	20	3.0	90	12.0
61060.W0302	30	20	M 8	20	4.0	90	11.0
61060.W0303	30	25	M 8	20	5.0	85	10.0
61060.W0304	30	30	M 8	20	6.0	80	10.0
61060.W0351	35	40	M 8	20	8.5	60	13.0
61060.W0401	40	30	M 8	20	8.0	150	21.0
61060.W0402	40	40	M 8	20	10.0	120	22.0
61060.W0403	40	50	M 8	23	13.0	80	18.0
61060.W0451	45	30	M 8	23	9.0	112	24.0
61060.W0500	50	30	M10	25	8.0	250	29.0
61060.W0501	50	40	M10	25	10.0	220	29.0
61060.W0502	50	45	M10	25	11.0	210	28.0
61060.W0503	50	50	M10	25	12.0	200	28.0
61060.W0504	50	60	M10	28	13.5	110	28.0
61060.W0601	60	30	M10	28	6.0	200	37.0



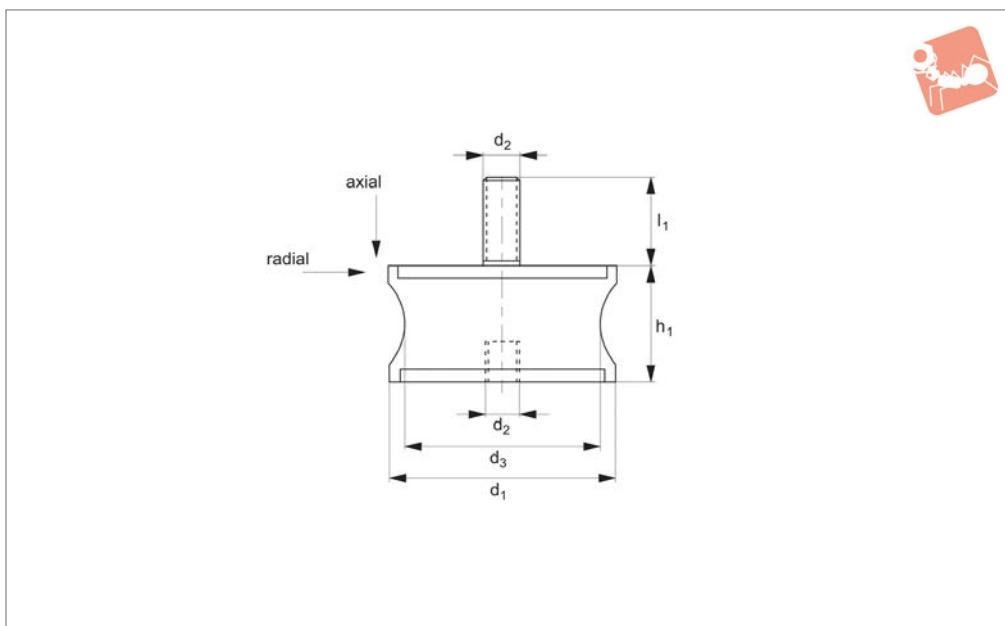
Order No.	d ₁	h ₁	d ₂	l ₁	Compression max.	Axial load kgf max.	Radial load kgf max.
61060.W0602	60	35	M10	30	7.0	350	39.0
61060.W0603	60	45	M10	30	10.0	300	42.0
61060.W0604	60	50	M10	37	11.0	185	42.0
61060.W0701	70	45	M10	35	8.5	270	55.0
61060.W0702	70	50	M10	30	10.0	350	52.0
61060.W0703	70	55	M10	35	10.5	240	49.0
61060.W0751	75	25	M12	35	5.0	350	75.0
61060.W0752	75	30	M12	37	7.0	345	72.0
61060.W0753	75	40	M12	35	9.0	500	65.0
61060.W0755	75	55	M12	35	13.0	450	65.0
61060.W0801	80	30	M14	35	5.5	900	75.0
61060.W0802	80	40	M14	35	9.0	600	72.0
61060.W0803	80	50	M14	35	10.0	750	65.0
61060.W0804	80	70	M14	35	15.0	550	65.0
61060.W0951	95	40	M14	45	8.0	1200	70.0
61060.W0952	95	55	M14	45	11.0	1000	70.0
61060.W0953	95	60	M16	45	12.0	800	70.0
61060.W0954	95	75	M16	45	13.0	700	70.0
61060.W1001	100	40	M16	45	8.0	1200	95.0
61060.W1002	100	60	M16	45	15.0	1100	90.0
61060.W1003	100	75	M16	45	17.0	1000	80.0
61060.W1201	120	50	M16	45	9.0	1500	100.0
61060.W1202	120	75	M16	45	13.0	1500	100.0
61060.W1203	120	100	M16	45	16.0	1000	100.0
61060.W1301	130	40	M16	45	16.0	1900	120.0
61060.W1302	130	50	M16	45	9.0	1600	120.0
61060.W1303	130	75	M16	45	13.0	1450	120.0
61060.W1304	130	100	M16	45	16.0	1200	120.0
61060.W1501	150	50	M20	20	9.0	1800	150.0
61060.W1502	150	60	M20	20	14.0	1800	150.0
61060.W1503	150	75	M20	20	16.0	2000	150.0
61060.W1504	150	100	M20	20	16.0	1400	150.0
61060.W1505	150	120	M20	20	16.0	1300	150.0
61060.W1506	150	140	M20	20	16.0	1200	150.0



Anti-vibration Cylinders Waisted

male:female

Anti-Vibration



61110

ANTI-VIBRATION

Material

Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Tips

These cylinders are used to reduce vibra-

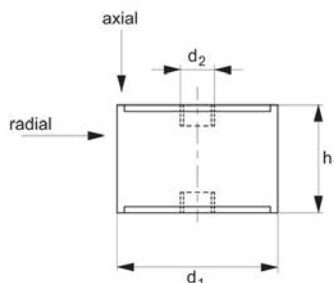
tion by allowing some movement (in axial and radial as shown).

Typically used in machinery, compressors, air conditioning units, light engineering equipment etc.

Order No.	d ₁	h ₁	d ₂	l ₁	d ₃	Compression max.	Axial load kgf max.	Radial load kgf max.
61110.W0200	20	20	M 6	18	12	2.5	15	3.0
61110.W0250	30	25	M 8	20	24	4	40	4.0
61110.W0400	40	28	M10	25	22	5	60	2.5
61110.W0600	60	36	M10	30	37	5	90	7.0
61110.W0601	60	43	M10	30	35	4	70	12.0
61110.W0602	60	60	M10	30	51	6	150	30.0
61110.W0700	70	56	M12	35	50	6	220	45.0
61110.W0800	80	65	M12	35	70	8	400	55.0
61110.W0900	90	50	M12	45	80	4	800	65.0
61110.W1300	130	96	M16	45	115	13	1400	70.0



61080

**Material**

Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

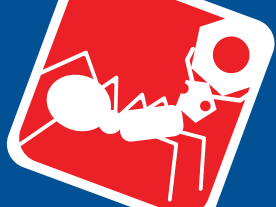
Tips

These cylinders are used to reduce vibra-

tion by allowing some movement (in axial and radial as shown).

Typically used in machinery, compressors, air conditioning units, light engineering equipment etc.

Order No.	Compression max.	d ₁	h ₁	d ₂	Axial load kgf max.	Radial load N max.
61080.W0151	3.0	15	15	M 4	13	3
61080.W0152	4.0	15	20	M 4	10	3
61080.W0153	4.5	15	22	M 4	10	2.5
61080.W0154	5.0	15	25	M 4	9	2
61080.W0155	5.5	15	28	M 4	9	2
61080.W0201	4.0	20	20	M 6	25	4
61080.W0202	5.0	20	25	M 6	25	5
61080.W0203	7.0	20	30	M 6	25	3
61080.W0204	8.0	20	35	M 6	16	2
61080.W0251	4.0	25	20	M 6	50	8
61080.W0252	5.0	25	25	M 6	40	8
61080.W0253	6.0	25	30	M 6	30	8
61080.W0254	8.0	25	35	M 6	35	9
61080.W0301	4.0	30	20	M 8	90	11
61080.W0302	5.0	30	25	M 8	85	10
61080.W0303	6.0	30	30	M 8	80	10
61080.W0351	8.5	35	40	M 8	60	13
61080.W0401	8.0	40	30	M 8	150	18
61080.W0402	10.0	40	40	M 8	120	18
61080.W0403	12.5	40	50	M 8	80	18
61080.W0501	8.0	50	30	M10	250	29
61080.W0502	10.0	50	40	M10	220	29
61080.W0503	12.0	50	50	M10	200	28
61080.W0601	7.0	60	35	M10	350	39
61080.W0602	10.0	60	45	M10	300	42
61080.W0603	11.0	60	50	M10	285	42
61080.W0751	9.0	75	40	M12	500	72
61080.W0702	10.0	70	50	M10	350	52
61080.W0703	10.5	70	55	M10	230	52
61080.W0752	11.5	75	50	M12	330	65
61080.W0753	13.0	75	55	M12	450	65



Anti-vibration Cylinders

female:female

Anti-Vibration

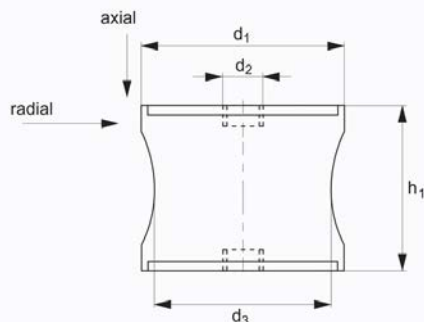
Order No.	Compression max.	d ₁	h ₁	d ₂	Axial load kgf max.	Radial load N max.
61080.W0801	15.0	80	70	M14	550	65
61080.W0901	8.0	100	40	M16	1200	95
61080.W0902	16.0	100	55	M16	775	97
61080.W0903	15.0	100	60	M16	1100	97
61080.W0904	16.0	100	100	M16	500	80
61080.W0931	6.0	130	40	M16	1900	120
61080.W0932	11.0	130	60	M16	680	100

ANTI-VIBRATION



61102

ANTI-VIBRATION

**Material**

Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Technical Notes

For rubber mounted on stainless steel see

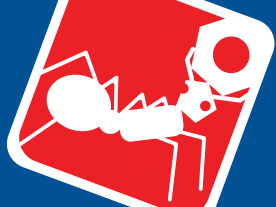
part no. 61104

Tips

These cylinders are used to reduce vibration by allowing some movement (in axial and radial as shown in drawing).

Typically used in machinery, compressors, air conditioning units, light engineering equipment etc.

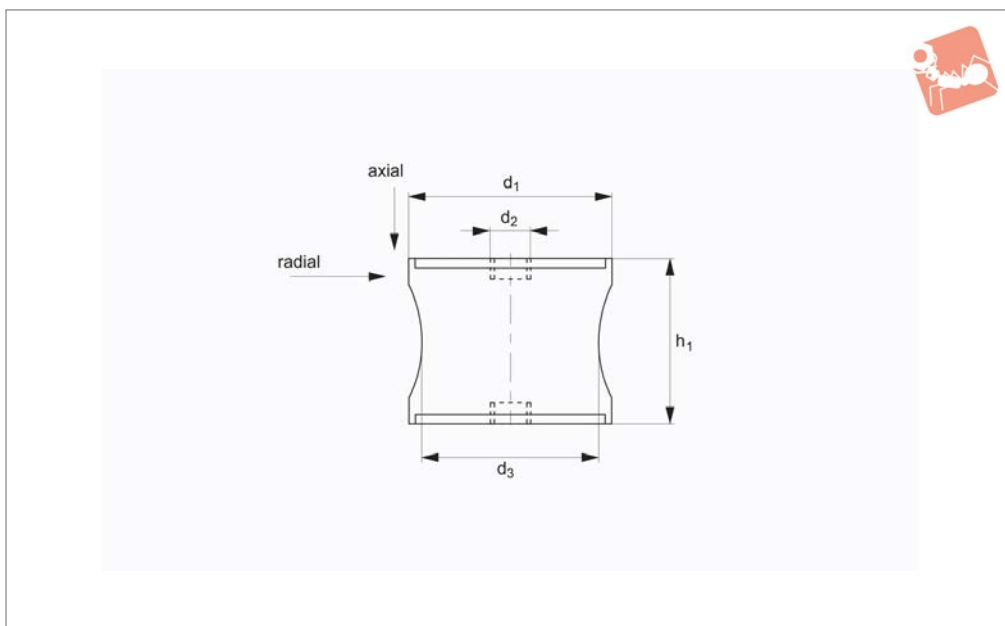
Order No.	Compression max.	d ₁	h ₁	d ₂	d ₃	Axial load kgf max.	Radial load kgf max.
61102.W0200	2.5	20	20	M 6	12	12	3.0
61102.W0300	4	30	25	M 8	24	40	4.0
61102.W0400	5	40	28	M10	22	30	2.5
61102.W0600	5	60	36	M10	37	40	7.0
61102.W0601	4	60	43	M10	35	75	12
61102.W0602	6	60	60	M10	51	150	30
61102.W0700	6	70	56	M12	50	220	45
61102.W0900	4	90	50	M12	80	800	65
61102.W0950	9.5	95	76	M12	80	400	70
61102.W1080	10	108	85	M16	95	800	75



Anti-vibration Cylinders Waisted

stainless female:female

Anti-Vibration



61104

ANTI-VIBRATION

Material

Rubber on A2 stainless steel (rubber hardness - 55 Shore A).

Tips

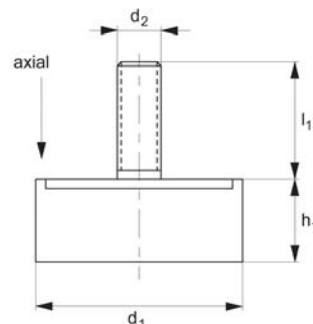
These cylinders are used to reduce vibration by allowing some movement (in axial and shear as shown in drawing).

Typically used in machinery, compressors, air conditioning units, light engineering equipment etc.

Order No.	Compression max.	d ₁	h ₁	d ₂	d ₃	Axial load kgf max.	Radial load N max.
61104.W0600	5	60	36	M10	37	90	7
61104.W0601	6	60	60	M10	51	150	30
61104.W0700	6	70	56	M12	50	220	45
61104.W0900	7	90	77	M12	79	500	70
61104.W1080	10	108	85	M16	95	800	75



61200



Material

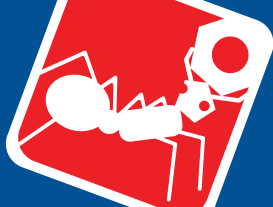
Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Tips

These feet or bumpers reduce shock and vibration.

Used widely as shock absorbers and feet for machine elements.

Order No.	d ₁	h ₁	d ₂	l ₁	Compression max.	Axial load kgf max.
61200.W0091	9	12	M 4	14	2.0	6
61200.W0151	15	10	M 4	14	1.5	13
61200.W0152	15	15	M 4	14	3.0	13
61200.W0153	15	20	M 4	14	4.0	10
61200.W0154	15	25	M 4	14	5.0	9
61200.W0201	20	10	M 6	13	2.0	30
61200.W0202	20	20	M 6	13	4.0	25
61200.W0251	25	10	M 6	18	1.5	50
61200.W0252	25	13	M 6	18	3.0	46
61200.W0253	25	15	M 6	18	3.0	44
61200.W0254	25	17	M 6	18	3.0	42
61200.W0255	25	20	M 6	18	4.0	41
61200.W0256	25	25	M 6	18	5.0	40
61200.W0257	25	30	M 6	18	6.0	35
61200.W0302	30	12	M 8	23	2.0	58
61200.W0303	30	15	M 8	20	3.0	58
61200.W0304	30	20	M 8	20	4.0	55
61200.W0305	30	25	M 8	20	5.0	50
61200.W0306	30	30	M 8	20	6.0	47
61200.W0351	35	11.5	M10	48	3.0	80
61200.W0352	35	40	M 8	23	8.0	68
61200.W0401	40	12	M 8	23	3.0	120
61200.W0402	40	20	M 8	23	4.0	117
61200.W0403	40	25	M 8	20	6.0	117
61200.W0404	40	30	M 8	20	8.0	100
61200.W0405	40	40	M 8	20	10.0	85
61200.W0406	40	45	M 8	20	12.0	85
61200.W0451	45	30	M 8	23	8.0	110
61200.W0452	45	50	M 8	35	12.0	85
61200.W0501	50	10	M10	28	2.0	230
61200.W0502	50	20	M10	25	4.0	250
61200.W0503	50	25	M10	25	5.5	250
61200.W0504	50	30	M10	25	8.0	150
61200.W0505	50	35	M10	25	9.0	230

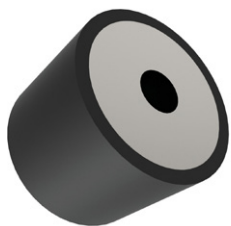


Anti-vibration Feet male

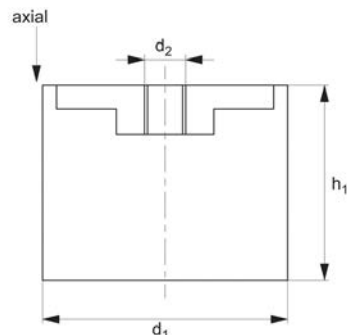
Anti-Vibration

Order No.	d ₁	h ₁	d ₂	l ₁	Compression max.	Axial load kgf max.
61200.W0506	50	45	M10	25	11.0	130
61200.W0507	50	50	M10	25	12.0	125
61200.W0508	50	60	M10	28	14.0	110
61200.W0601	60	20	M10	28	4.0	280
61200.W0602	60	30	M10	28	8.0	280
61200.W0603	60	45	M10	30	10.0	190
61200.W0604	60	50	M12	37	11.0	185
61200.W0605	60	60	M10	30	12.0	185
61200.W0702	70	50	M12	35	10.0	250
61200.W0703	70	55	M12	35	12.0	240
61200.W0704	70	70	M10	30	13.0	300
61200.W0751	75	25	M12	35	5.0	295
61200.W0752	75	30	M12	37	8.0	320
61200.W0753	75	40	M12	35	9.0	320
61200.W0754	75	45	M12	35	10.0	500
61200.W0755	75	55	M12	35	13.0	450
61200.W0801	80	30	M14	35	5.5	900
61200.W0802	80	40	M14	35	9.0	600
61200.W0803	80	50	M14	35	10.0	750
61200.W0804	80	70	M14	35	15.0	550
61200.W1005	100	100	M16	56	19.0	500
61200.W1101	110	124	M12	37	19.0	550
61200.W1301	130	40	M16	45	6.0	550
61200.W1305	130	50	M16	45	9.0	550
61200.W1302	130	60	M16	56	14.0	680
61200.W1303	130	75	M16	45	13.0	1450
61200.W1304	130	100	M16	45	16.0	1200
61200.W1501	150	50	M20	20	9.0	1800
61200.W1502	150	60	M20	20	14.0	2200
61200.W1503	150	75	M20	20	16.0	2000
61200.W1504	150	100	M20	20	16.0	1400
61200.W1505	150	120	M20	20	16.0	1300
61200.W1506	150	140	M20	20	16.0	1200
61200.W0951	95	40	M16	45	8.0	1200
61200.W0952	95	55	M16	45	11.0	1000
61200.W0953	95	60	M16	45	12.0	800
61200.W0954	95	75	M16	45	13.0	700
61200.W1001	100	40	M16	45	8.0	660
61200.W1002	100	50	M16	56	10.0	550
61200.W1003	100	55	M16	56	11.0	520
61200.W0805	80	80	M14	50	18.0	370
61200.W1004	100	60	M16	45	15.0	515

ANTI-VIBRATION



61202

**Material**

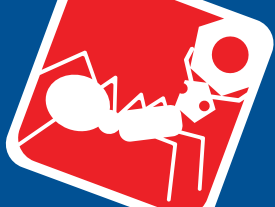
Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Tips

These feet or bumpers reduce shock and vibration.

Used widely as shock absorbers and feet for machine elements.

Order No.	d ₁	h ₁	d ₂	Compression max.	Axial load kgf max.
61202.W0100	10	10	M 4	2	10
61202.W0101	10	15	M 4	3	8
61202.W0130	13	10	M 5	1.5	12
61202.W0131	13	15	M 5	3	10
61202.W0132	13	20	M 5	3.5	20
61202.W0160	16	8	M 5	1.5	15
61202.W0161	16	10	M 5	1.5	20
61202.W0162	16	15	M 5	3	20
61202.W0163	16	20	M 5	4	20
61202.W0164	16	25	M 5	5	15
61202.W0200	20	10	M 6	2	30
61202.W0201	20	15	M 6	3	25
61202.W0202	20	20	M 6	4	25
61202.W0203	20	25	M 6	5	25
61202.W0204	20	30	M 6	7	25
61202.W0250	25	10	M 6	1.5	50
61202.W0251	25	15	M 6	3	50
61202.W0252	25	20	M 6	4	50
61202.W0253	25	22	M 6	4	45
61202.W0254	25	25	M 6	5	40
61202.W0256	25	30	M 6	6	35
61202.W0300	30	10	M 8	2	90
61202.W0301	30	15	M 8	3	90
61202.W0302	30	20	M 8	4	90
61202.W0303	30	22	M 8	4	90
61202.W0304	30	25	M 8	5	85
61202.W0305	30	30	M 8	6	80
61202.W0306	30	40	M 8	8	60
61202.W0350	35	35	M 8	8	90
61202.W0400	40	20	M 8	4	160
61202.W0401	40	25	M 8	6	155
61202.W0402	40	28	M 8	6	150
61202.W0403	40	30	M 8	8	150
61202.W0404	40	35	M 8	8	120



Anti-vibration Feet female

Anti-Vibration

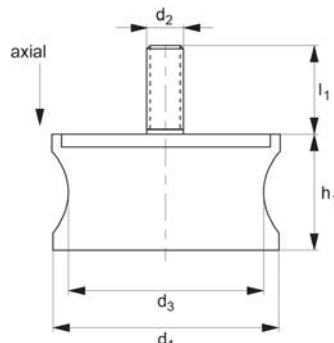


Order No.	d ₁	h ₁	d ₂	Compression max.	Axial load kgf max.
61202.W0405	40	40	M 8	10	120
61202.W0406	40	45	M 8	12	110
61202.W0504	50	40	M10	10	220
61202.W0505	50	45	M10	11	210
61202.W0506	50	50	M10	12	200
61202.W0507	50	55	M10	13	200
61202.W1001	100	60	M16	15	1100
61202.W1002	100	75	M16	17	1000
61202.W1200	120	50	M16	9	1500
61202.W1201	120	75	M16	13	1200
61202.W1202	120	100	M16	16	1000
61202.W1300	130	40	M16	6	1900
61202.W1301	130	50	M16	9	1600
61202.W1302	130	75	M16	13	1450
61202.W1303	130	100	M16	16	1200
61202.W1500	150	40	M20	9	1800
61202.W1501	150	60	M20	14	2200
61202.W1502	150	75	M20	16	2000
61202.W1503	150	100	M20	16	1400
61202.W1504	150	120	M20	16	1300
61202.W1505	150	140	M20	16	1200
61202.W0500	50	20	M10	4	250
61202.W0501	50	25	M10	5.5	250
61202.W0502	50	30	M10	8	250
61202.W0503	50	35	M10	9	230
61202.W0752	75	45	M12	10	500
61202.W0602	60	45	M10	10	300
61202.W0802	80	50	M14	10	750
61202.W0702	70	70	M10	13	300
61202.W0753	75	55	M12	13	450
61202.W0803	80	70	M14	15	550
61202.W0950	95	40	M16	8	1200
61202.W0951	95	55	M16	11	1000
61202.W0952	95	60	M16	12	800
61202.W0953	95	75	M16	13	700
61202.W0603	60	60	M10	12	250
61202.W0700	70	35	M10	7	450
61202.W0750	75	25	M12	5	650
61202.W0600	60	25	M10	5	400
61202.W0601	60	35	M10	7	350
61202.W0800	80	30	M14	5.5	900
61202.W0801	80	40	M14	9	600
61202.W0751	75	40	M12	9	500
61202.W1000	100	40	M16	8	1200
61202.W0701	70	50	M10	10	350

ANTI-VIBRATION



61206



Material

Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

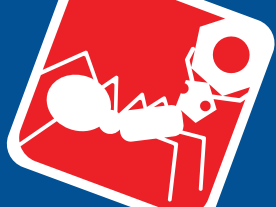
Tips

These cylinders are used to reduce vibra-

tion by allowing some movement (in axial and radial as shown in drawing).

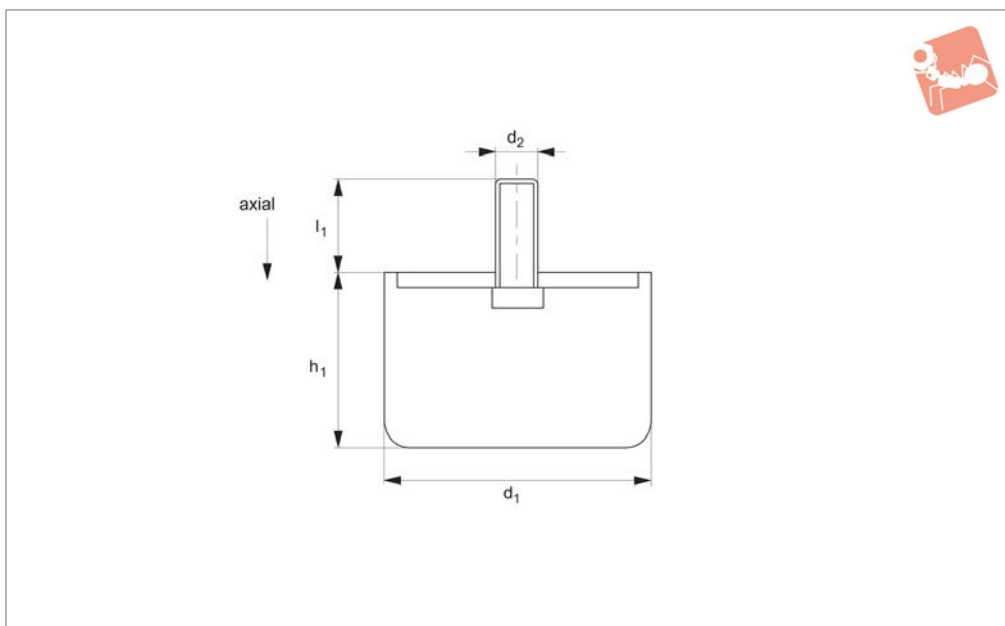
Typically used in machinery, compressors, air conditioning units, light engineering equipment etc.

Order No.	d ₁	h ₁	d ₂	d ₃	l ₁	Compression max.	Axial load kgf max.
61206.W0200	20	20	M 6	12	18	2.5	15
61206.W0300	30	25	M 8	24	20	4	40
61206.W0400	40	28	M10	22	25	5	60
61206.W0600	60	36	M10	37	30	5	90
61206.W0601	60	43	M10	35	30	4	70
61206.W0602	60	60	M10	51	30	6	150
61206.W0700	70	56	M12	50	35	6	220
61206.W0800	80	65	M12	70	35	8	400
61206.W0900	90	50	M12	80	45	4	800
61206.W0950	95	76	M16	80	45	9.5	400
61206.W1080	108	85	M16	95	45	10	800



Anti-vibration Bumpers male

Anti-Vibration



61210

ANTI-VIBRATION

Material

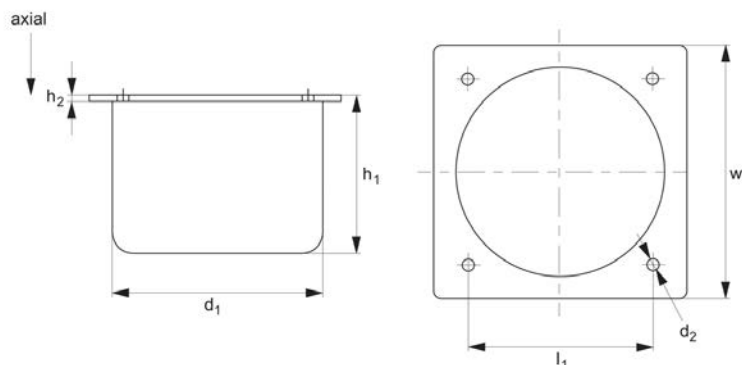
Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Tips

These anti-vibration bumpers are used to reduce vibration and shock. Their cylindrical shape ensures that when used in a

row, the buffers spread the loads over a number of buffers - reducing the chances of possible overloading.

Order No.	d ₁	h ₁	d ₂	l ₁	Compression max.	Axial load kgf max.
61210.W0040	40	32	M 8	30	14	850
61210.W0050	50	40	M10	25	17	1270
61210.W0063	63	50	M10	25	20	1950
61210.W0080	80	63	M12	24	25	3250
61210.W1000	100	80	M12	27	30	4900
61210.W1250	125	100	M16	45	40	7800
61210.W1600	160	125	M16	45	52	12300
61210.W2000	200	160	M20	49	65	19100
61210.W2500	250	200	M20	49	80	30500

**61250****Material**

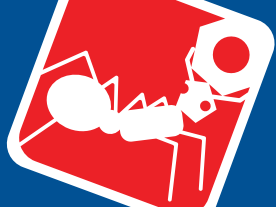
Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Tips

These anti-vibration bumpers are used to reduce vibration and shock. Their cylindrical shape ensures that, when used in a

row, the buffers spread loads over a number of buffers - reducing the chances of possible overloading.

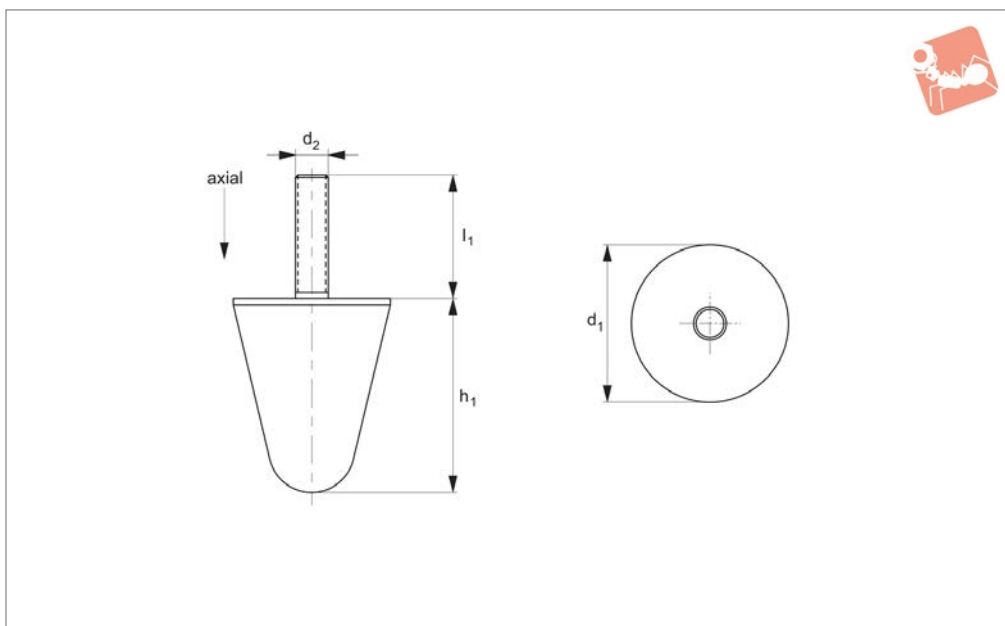
Order No.	d_1	h_1	d_2	l_1	w_1	h_2	Axial load kgf max.	Momentum kg·m/s	Deflection m/m max.
61250.W0400	40	32	5.5	40	50	3	850	5	14
61250.W0500	50	40	6.5	50	63	4	1270	10	17
61250.W0630	63	50	6.5	63	80	6	1950	20	20
61250.W0800	80	63	9.0	80	100	6	3250	40	25
61250.W1000	100	80	9.0	100	125	8	4900	80	30
61250.W1250	125	100	11.0	125	160	8	7800	160	40
61250.W1600	160	125	11.0	160	200	10	15000	320	50
61250.W2000	200	160	13.0	200	250	10	19100	630	65
61250.W2500	250	200	13.0	250	315	12	30500	1250	80



Anti-vibration Cones male

male

Anti-Vibration



61240

ANTI-VIBRATION

Material

Rubber on silver zinc plated steel (rubber hardness - 65 Shore A).

Tips

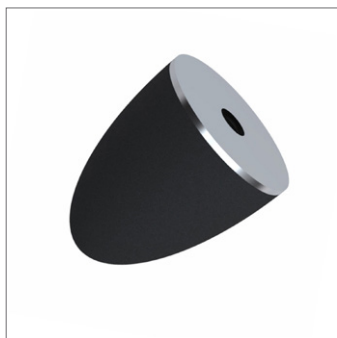
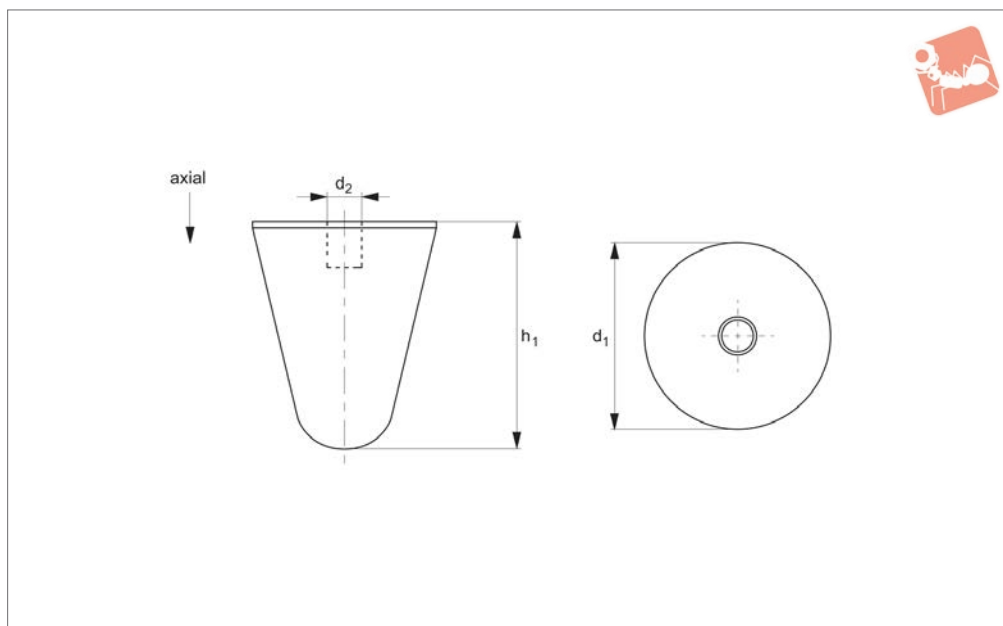
These anti-vibration cones or bumpers are

used to reduce vibration and shock. Their conical shape ensures that, when used in a row, the buffers spread loads over a number of cones - reducing the chances of possible overloading.

Important Notes

The working load should not exceed 65% of the maximum load.

Order No.	d ₁	h ₁	d ₂	l ₁	Axial load kgf max.
61240.W0200	20	20	M 6	18	70
61240.W0250	25	20	M 8	20	100
61240.W0300	30	30	M 6	17	150
61240.W0301	30	30	M 8	20	150
61240.W0400	40	30	M 8	23	240
61240.W0401	40	50	M 8	23	200
61240.W0500	50	48	M10	25	380
61240.W0501	50	58	M 8	20	400
61240.W0502	50	64	M 8	35	370
61240.W0630	63	60	M12	37	440
61240.W0750	75	90	M12	37	520
61240.W0900	90	74	M16	45	1100
61240.W0950	95	82	M16	45	1100

**61242****Material**

Rubber on silver zinc plated steel (rubber hardness - 65 Shore A).

Tips

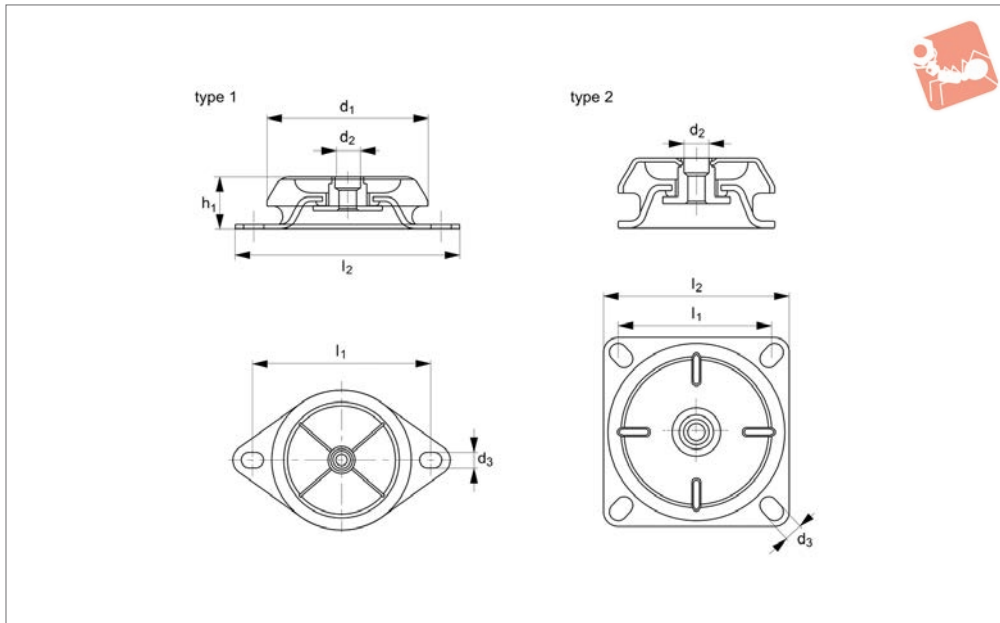
These anti-vibration cones or bumpers are

used to reduce vibration and shock. Their conical shape ensures that when used in a row, the buffers spread loads over a number of cones - reducing the chances of possible overloading.

Important Notes

The working load should not exceed 65% of the maximum load.

Order No.	d ₁	h ₁	d ₂	Axial load kgf max.
61242.W0200	20	20	M 6	70
61242.W0250	25	20	M 8	100
61242.W0300	30	30	M 6	150
61242.W0500	50	48	M10	380
61242.W0700	70	60	M12	550
61242.W0900	90	74	M16	1100
61242.W0950	95	82	M16	1100



61280

ANTI-VIBRATION

Material

Rubber on silver zinc plated steel (rubber hardness - 60 Shore A).

Technical Notes

Provides an elastic support mechanism for equipment isolation. Used in generator sets, motors, pumps and most other

machine parts.

Please note for marine applications or very demanding use we recommend the mounts with 'fail-safe' features part numbers P2100, 61292 and 61294.

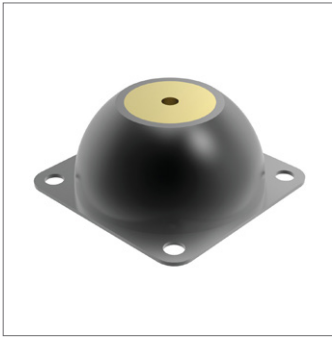
Tips

These are a very popular anti-vibration

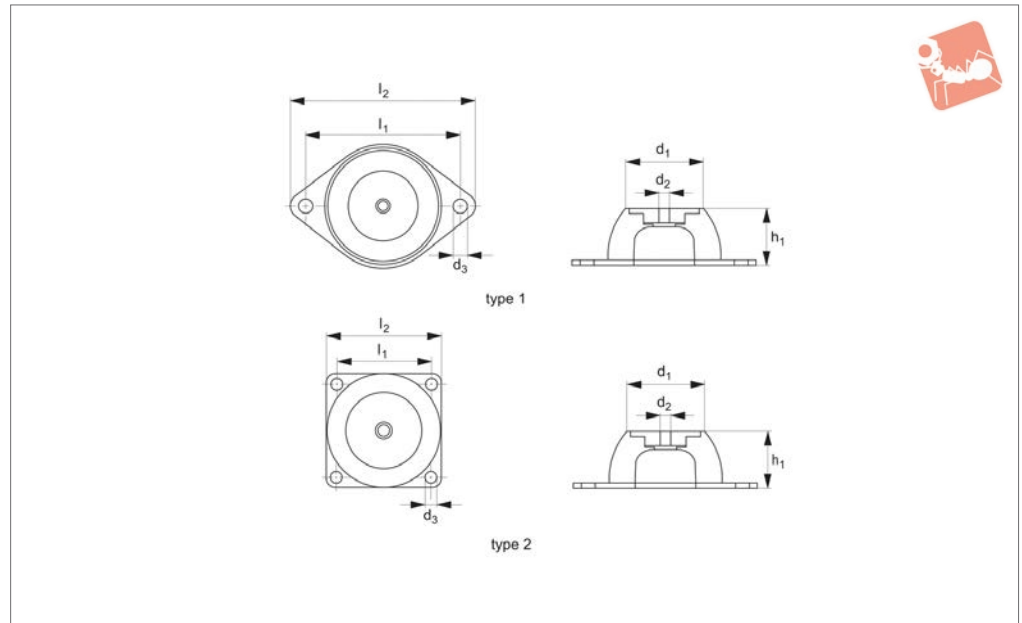
mount for light to heavy duty applications.

Take the total weight of the load to be supported, divide it by the number of mounts to be used and select an appropriate mount from the above table. Type 2 is 'fail-safe'.

Order No.	Type	d ₁	d ₂	d ₃	h ₁	l ₁	l ₂	Axial load kgf max.	Shore
61280.W0504	Type 1	50	M 8	6.5	25	61-70	85	20	40
61280.W0505	Type 1	50	M 8	6.5	25	61-70	85	40	50
61280.W0506	Type 1	50	M 8	6.5	25	61-70	85	60	60
61280.W0604	Type 1	64	M10	9.0	35	76-91	110	30	40
61280.W0605	Type 1	64	M10	9.0	35	76-91	110	45	50
61280.W0606	Type 1	64	M10	9.0	35	76-91	110	65	60



61345



Material

Rubber on yellow zinc plated steel (rubber hardness 45-65 Shore A).

Technical Notes

The design of the mount makes them ideal

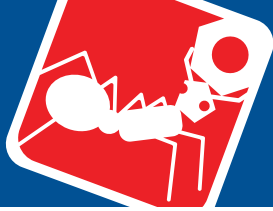
for machines that move in three directions. Oil anti-drip hoods can be supplied on request.

Tips

These mounts are found on compressors,

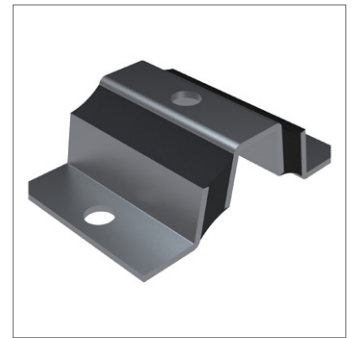
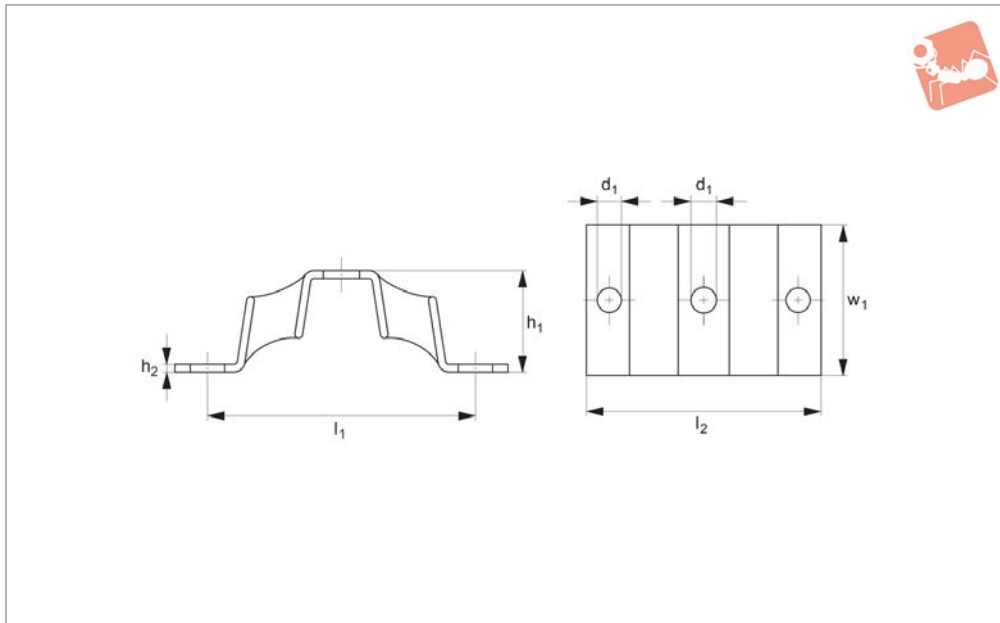
air conditioners, ventilators and vibrating tables.

Order No.	Type	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	l ₂	Load kgf max.	Weight g
61345.W0450	Type 1	33.0	M 8	8.0	25	2.0	66	85	20	70
61345.W0451	Type 1	33.0	M 8	8.0	25	2.0	66	85	50	70
61345.W0650	Type 1	52.0	M10	10.5	35	2.5	92	114	40	170
61345.W0651	Type 1	66	M10	10.5	35	2.5	92	114	75	170
61345.W0850	Type 1	52.0	M10	11.5	40	3.0	110	136	75	303
61345.W0851	Type 1	52.0	M10	11.5	40	3.0	110	136	120	303
61345.W0900	Type 1	57.5	M10	12.5	45	3.0	125	150	130	430
61345.W0901	Type 1	57.5	M10	12.5	45	3.0	125	150	220	430
61345.W1300	Type 2	78.0	M12	14.5	63	5.0	120	150	280	1080
61345.W1301	Type 2	78.0	M12	14.5	63	5.0	120	150	500	1080
61345.W1700	Type 2	100	M16	14.5	84	4.0	160	200	380	2390
61345.W1701	Type 2	100	M16	14.5	84	4.0	160	200	750	2390
61345.W2500	Type 2	187	M24	18.5	158	6.0	250	310	1400	10400
61345.W2501	Type 2	187	M24	18.5	158	6.0	250	310	2500	10400



Anti vibration Mounts v shaped v shaped

Anti-Vibration



61510

ANTI-VIBRATION

Material

Rubber on silver zinc plated steel
(rubber hardness 45-65 Shore A).

and one to the piece of equipment. Very good as a shock/isolating mount for oscillations higher than 15Hz.

and air conditioning units from the wall.

Technical Notes

Has a three point anchorage, two to a base

Tips

Can be used to hang compressors, speakers

Order No.	Shore hardness	d ₁	Compression max.	h ₁	h ₂	l ₁	w ₁	l ₂	Axial load kgf max.	Radial load kgf max.
61510.W0045	45	12	2.5	35	3	90	73	112	60	60
61510.W0055	55	12	3.5	35	3	90	73	112	65	65
61510.W0065	65	12	6.0	35	3	90	73	112	70	70



Recommendations for machine mounts

Machine mounts should be installed between two parallel and perfectly flat surfaces. Mounts operating tilted or twisted do not work properly. This may be due to incorrect alignment, tolerances in the building of the structure or over-tightened torque during the installation of the anti-vibration mounts.



incorrect X



correct ✓



incorrect X



correct ✓



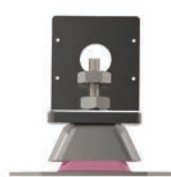
incorrect X



correct ✓



incorrect X



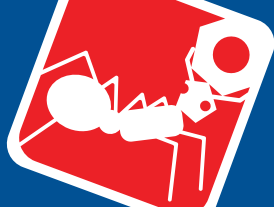
correct ✓



incorrect X

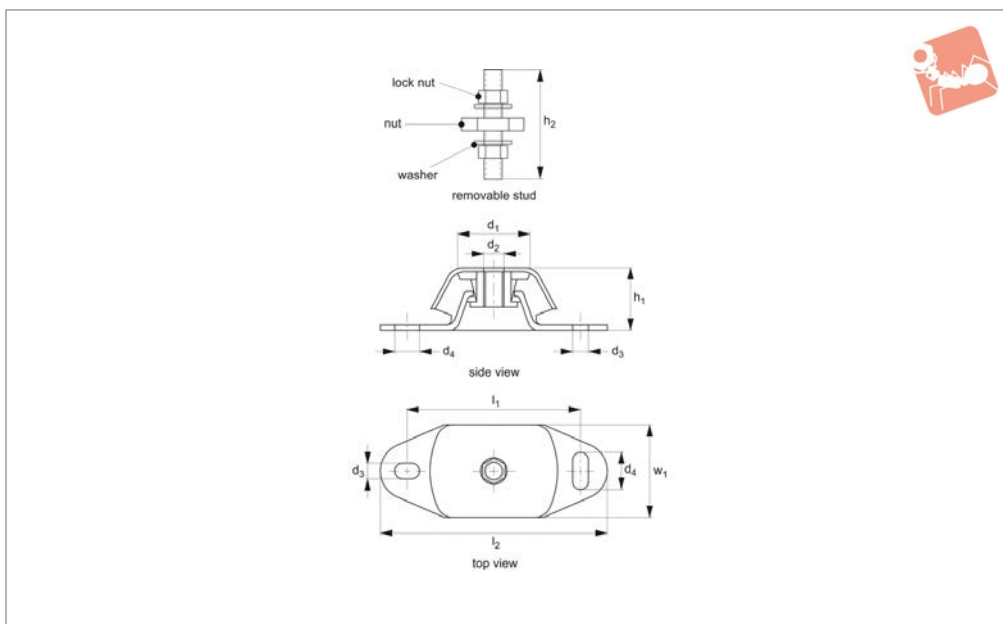


correct ✓



Anti-vibration Fail-Safe Mounts steel Steel

Anti-Vibration



61290

ANTI-VIBRATION

Material

Rubber on silver zinc plated steel (rubber hardness - 45-75 Shore A).

Technical Notes

These mounts control vibration in three axes.

Primarily used for marine applications, engines, compressors, pumps, generators

etc.

Fitted with a mechanical fail-safe stop. They are very robust to cope with high start/stop forces and vibrations from marine and other engines.

For stainless steel versions please see part nos. 61292 and 61294. Stud and nuts on

request.

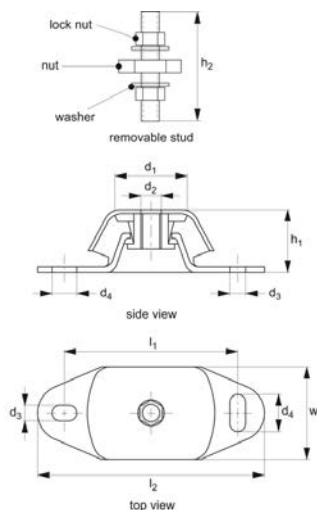
Tips

These are a very popular anti-vibration mount for light to heavy duty applications. Take the total weight of the load to be supported, divide it by the number of mounts to be used and select an appropriate mount from the table.

Order No.	d ₁	d ₂	l ₁	l ₂	w ₁	d ₃	d ₄	h ₁	h ₂	Load N max.
61290.W0010	60	M12	100	120	60	11	14	40	95	50
61290.W0011	60	M12	100	120	60	11	14	40	95	65
61290.W0012	60	M12	100	120	60	11	14	40	95	100
61290.W0014	75	M16	140	183	75	13	20	50	110	150
61290.W0015	75	M16	140	183	75	13	20	50	110	200
61290.W0016	75	M16	140	183	75	13	20	50	110	300
61290.W0017	75	M16	140	183	75	13	20	50	110	550
61290.W0020	80	M20	182	230	112	18	25	70	110	750



61292



Material

Stainless steel (AISI 304), (rubber hardness 45-65 Shore A).

Technical Notes

These mounts control vibration in three axes.

Primarily used for marine applications, engines, compressors, pumps, generators etc.

Fitted with a mechanical fail-safe stop. They are very robust to cope with high start/stop forces and vibrations from marine and other engines.

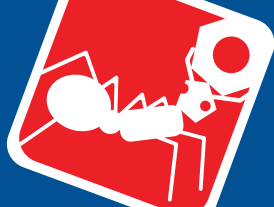
The stainless steel versions are widely used for marine engine mounts or outdoor applications. For offshore or highly corrosive environments use part no. 61294.

Stud and nuts on request.

Tips

These are a very popular anti-vibration mount for light to heavy duty applications. Take the total weight of the load to be supported, divide it by the number of mounts to be used and select an appropriate mount from the table.

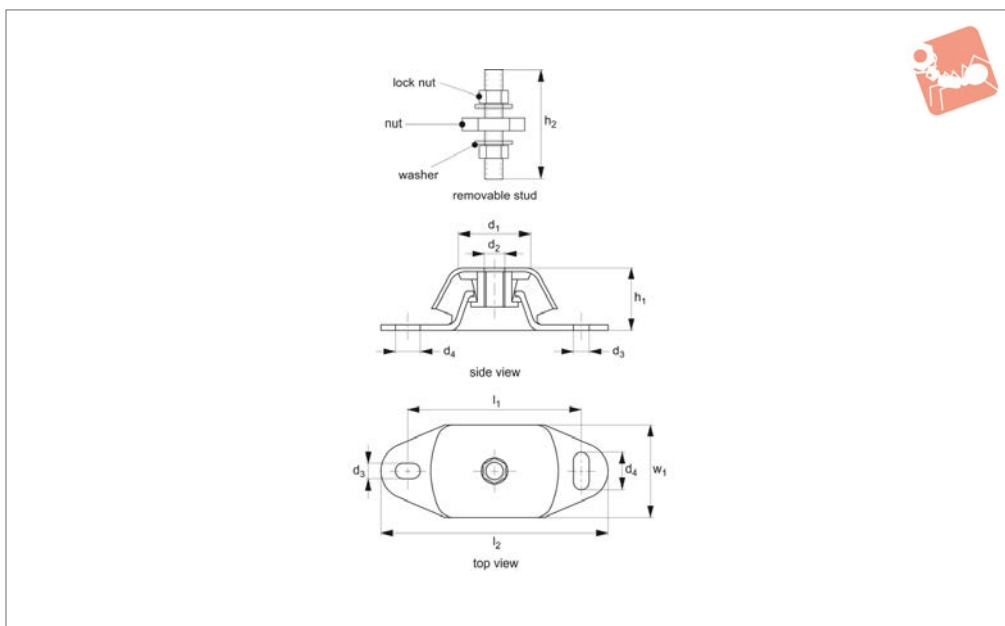
Order No.	d_1	d_2	l_1	l_2	w_1	d_3	d_4	h_1	h_2	Load N max.
61292.W0602	60	M12	100	120	60	11	14	40	95	100
61292.W0752	75	M16	140	183	75	13	20	50	110	300
61292.W0600	60	M12	100	120	60	11	14	40	95	50
61292.W0601	60	M12	100	120	60	11	14	40	95	65
61292.W0750	75	M16	140	183	75	13	20	50	110	150
61292.W0751	75	M16	140	183	75	13	20	50	110	200



Anti-vibration Fail-Safe Mounts

316 stainless

Anti-Vibration



61294

ANTI-VIBRATION

Material

Stainless steel (A4, 316). Rubber hardness 65-75 Shore A.

Technical Notes

These mounts control vibration in three axes.
Primarily used for marine applications, engines, compressors, pumps, generators etc.

Fitted with a mechanical fail-safe stop. They are very robust to cope with high start/stop forces and vibrations from marine and other engines.

These stainless steel versions are widely used for marine engine mounts or applications that are either offshore or have a very high corrosion level. Stud and nuts on

request.

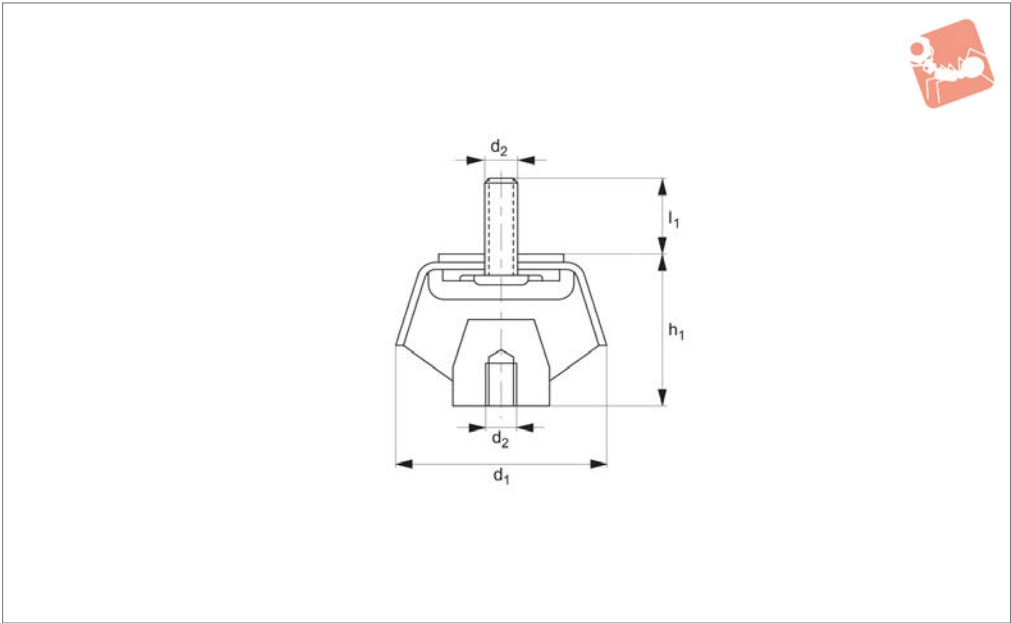
Tips

These are a very popular anti-vibration mount for light to heavy duty applications. Take the total weight of the load to be supported, divide it by the number of mounts to be used and select an appropriate mount from the table.

Order No.	d ₁	d ₂	l ₁	l ₂	w ₁	d ₃	d ₄	h ₁	h ₂	Load N max.
61294.W0600	60	M12	100	120	60	11	14	40	95	100
61294.W0750	75	M16	140	183	75	13	20	50	110	550



61340



Material

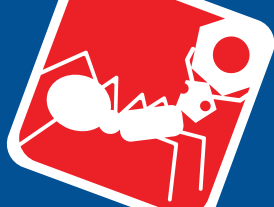
Rubber on silver zinc plated steel.

Technical Notes

With a bell-like base this unit is suitable

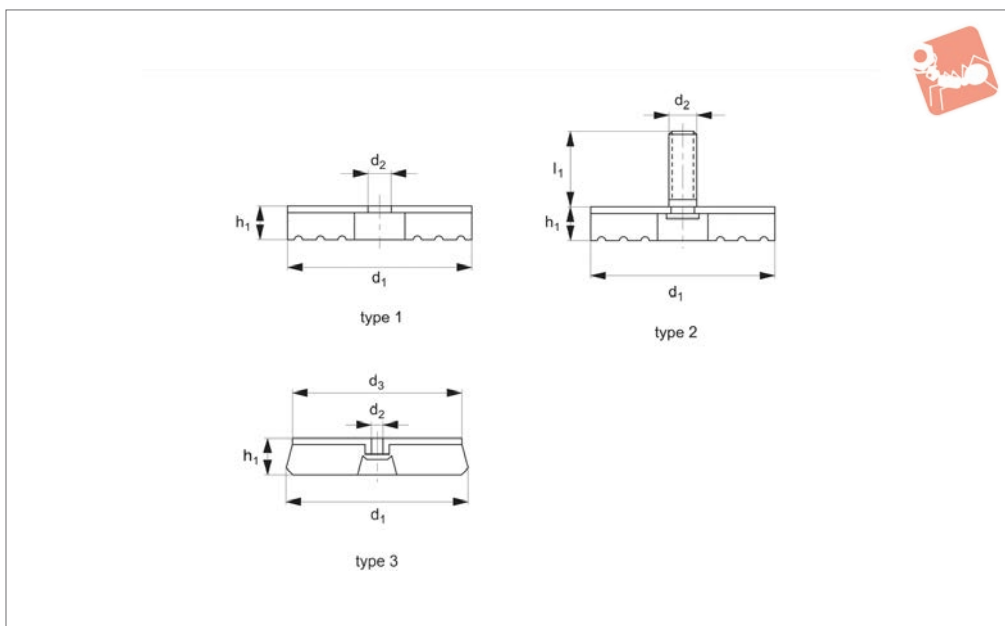
for supporting most applications, such as engine loads.
suspensions.
It can also be used to carry horizontal

Order No.	Shore hardness	d ₁	l ₁	d ₂	h ₁	Load kgf max.
61340.W0050	50 A	55	23	M10	40	30
61340.W0060	60 A	55	23	M10	40	60
61340.W0070	70 A	55	23	M10	40	120



Anti-vibration Mounts ribbed pads

Anti-Vibration



61350

ANTI-VIBRATION

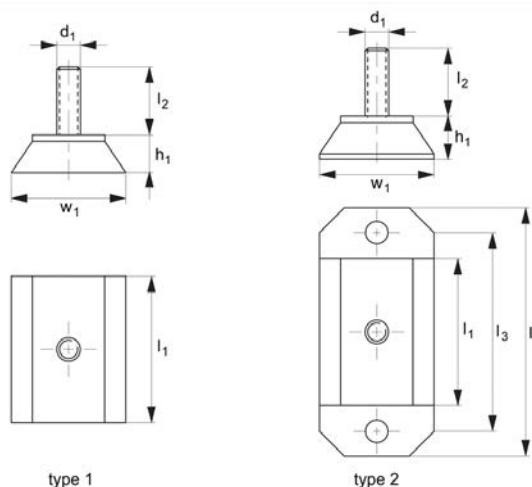
Material

Rubber on zinc plated steel.

Order No.	Type	d ₁	l ₁	d ₂	d ₃	h ₁	Compression max.	Static load kgf max.
61350.W0105	Type 1	50	-	10.5	-	15	2.2	180
61350.W0108	Type 1	85	-	10.5	-	15	1.6	450
61350.W0205	Type 2	55	25	M12	-	16	2.2	180
61350.W0208	Type 2	85	25	M12	-	16	1.6	450
61350.W0212	Type 2	125	25	M12	-	16	2.2	800
61350.W0305	Type 3	50	-	6.0	45	18	2	50
61350.W0309	Type 3	91	-	6.5	86	18	2	350
61350.W0313	Type 3	138	-	10.5	130	25	2.6	900



61460



Material

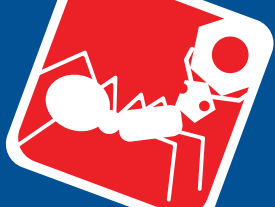
Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Technical Notes

Used to support machine tools and packing machinery.

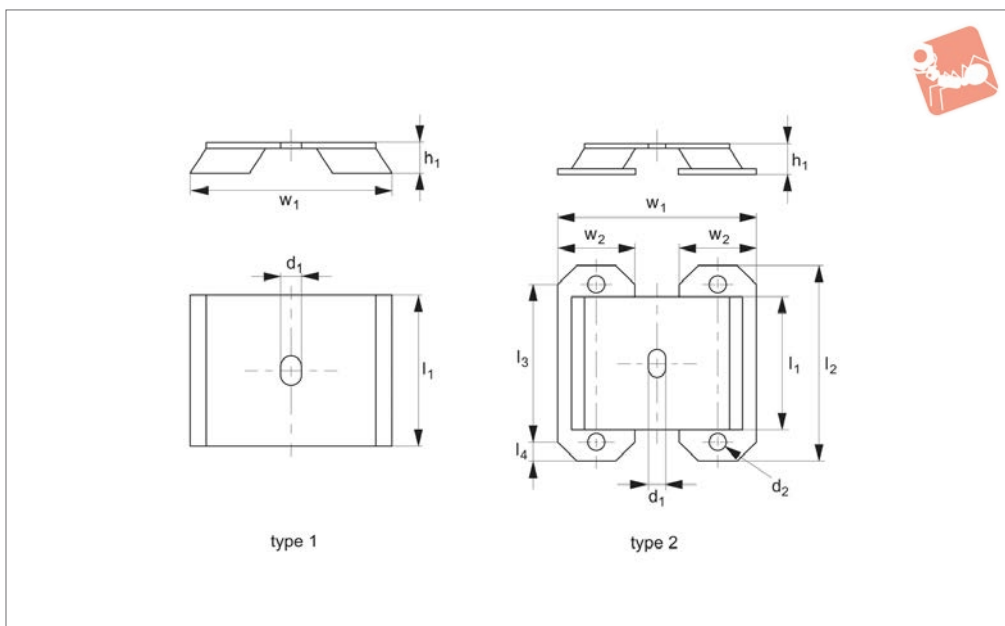
Provides vibration isolation for frequencies higher than 20Hz.

Order No.	Type	d_1	l_1	h_1	l_2	l_3	l_4	w_1	Axial load kgf max.	Compression max.
61460.W0105	Type 1	M12	50	20	37	-	-	60	250	2
61460.W0110	Type 1	M12	100	20	37	-	-	60	500	2
61460.W0115	Type 1	M12	150	20	37	-	-	60	750	2
61460.W0120	Type 1	M12	200	20	37	-	-	60	1000	2
61460.W0205	Type 2	M12	50	23	37	85	115	60	250	2
61460.W0210	Type 2	M12	100	23	37	135	165	60	500	2
61460.W0215	Type 2	M12	150	23	37	185	215	60	750	2
61460.W0220	Type 2	M12	200	23	37	235	265	60	1000	2



Anti-vibration Mounts rectangular

Anti-Vibration



61470

ANTI-VIBRATION

Material

Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

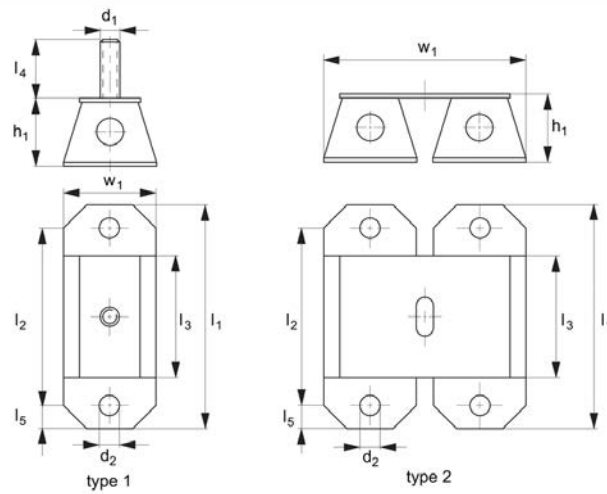
Technical Notes

Used where transverse loads are present.

Order No.	Type	d ₁	l ₁	h ₁	l ₂	l ₃	l ₄	w ₁	w ₂	Compression max.	Static load kgf max.
61470.W0100	Type 1	13	100	20	-	-	-	130	-	2	850
61470.W0150	Type 2	13	150	23	215	185	15	145	60	2	1300
61470.W0200	Type 2	13	200	23	265	235	15	145	60	2	1700



61480



Material

Rubber on silver zinc plated steel (rubber hardness - 55 Shore A).

Technical Notes

Type 1: M12 thread supplied as separate

item to be screwed in if required.

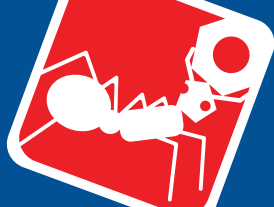
Type 2: A twin version of type 1 and so therefore take heavier loads.

The central hole in the rubber pad increases the flexibility of the unit - improving

anti-vibration properties.

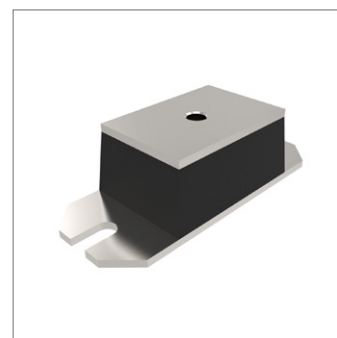
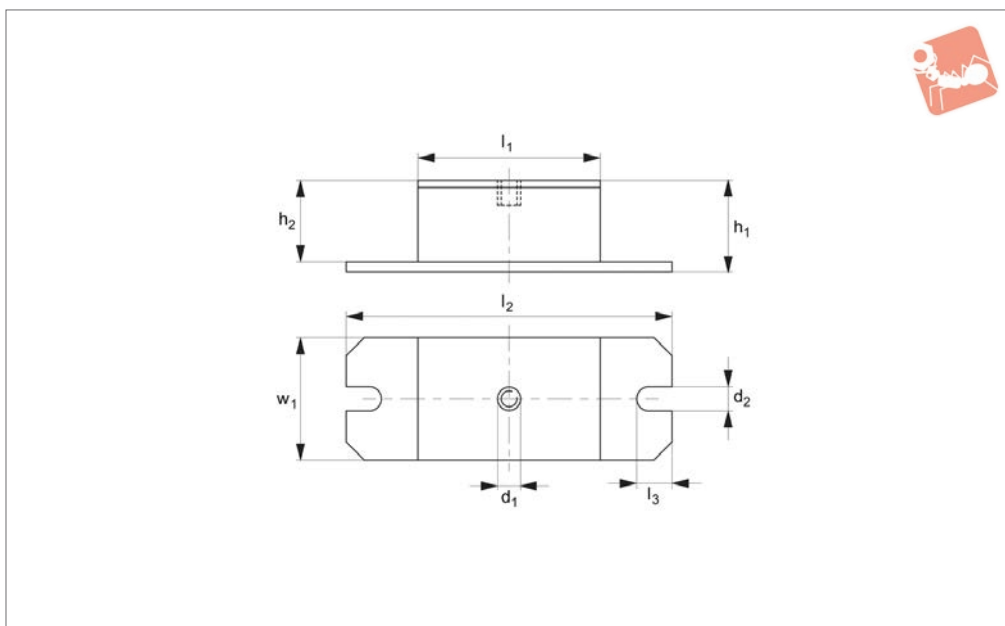
Used where good deflection properties are needed and for isolating of frequencies higher than 10Hz.

Order No.	Type	d ₁	l ₁	d ₂	h ₁	l ₂	l ₃	l ₄	l ₅	w ₁	Axial load kgf max.	Compression max.
61480.W0001	Type 1	M12	115	13	45	85	50	37	15	60	120	8
61480.W0002	Type 1	M12	165	13	45	135	100	37	15	60	250	8
61480.W0003	Type 1	M12	215	13	45	185	150	37	15	60	350	8
61480.W0004	Type 1	M12	265	13	45	235	200	37	15	60	500	8
61480.W0005	Type 2	-	165	13	45	135	100	-	15	130	500	8
61480.W0006	Type 2	-	215	13	45	185	150	-	15	130	700	8
61480.W0007	Type 2	-	265	13	45	235	200	-	15	130	1000	8



Anti-vibration Mounts rectangular

Anti-Vibration



61500

ANTI-VIBRATION

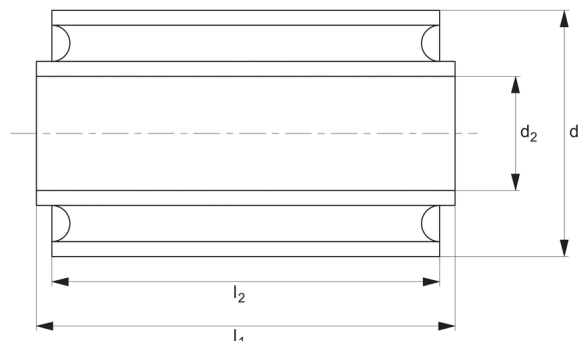
Material

Rubber on silver zincplated steel.

Tips

Particularly useful for fans, generators, motors etc.

Order No.	Shore hardness	d ₁	l ₁	d ₂	h ₁	h ₂	l ₂	l ₃	w ₁	Load kgf max.
61500.W0070	70 A	M12	100	13	50	45	180	25	70	1000
61500.W0055	55 A	M12	100	13	50	45	180	25	70	500
61500.W0080	80 A	M12	100	13	50	45	180	25	70	1200

**61700****Material**

Rubber on steel.

noise. The internal bush can move axially,
radially, torsionally and pendular.

when putting into place.

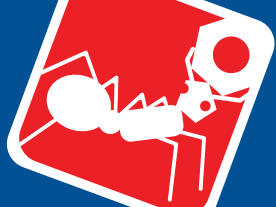
Technical Notes

Useful to isolate vibration and reduce

Tips

Install by only pushing on external ring

Order No.	d ₁	d ₂	l ₁	l ₂	Radial compression mm	Axial load kgf max.	Radial load kgf max.	Axial compression mm
61700.W0081	16	8	15	15	0.2	15	30	0.8
61700.W0091	20.5	9.5	15	13	0.2	15	35	1.0
61700.W0101	21	10	26	24	0.4	25	70	1.5
61700.W0102	27	10	20	20	0.2	25	80	1.0
61700.W0111	24	11	18	16	0.3	24	90	0.8
61700.W0121	26	12	24	20	0.5	27	70	1.7
61700.W0123	50	12	50	45	1.1	60	200	2.1
61700.W0124	54	12.8	44.5	40	1.0	50	180	2.0
61700.W0141	27	14	54	48	0.4	95	330	1.5
61700.W0142	30	14	28	25	0.3	40	120	2.0
61700.W0144	31	14	35	33	0.3	70	170	2.0
61700.W0145	30	14.5	42	38	0.2	48	150	1.8
61700.W0146	50	14.5	24	20	0.9	45	70	2.0
61700.W0161	44	16	32	28	0.7	47	88	1.6
61700.W0163	54	16	28	22	1.5	40	80	3.4
61700.W0181	35	18	40	40	0.3	80	190	2.0
61700.W0182	43.5	18	42	35	0.8	85	200	3.8
61700.W0201	40	20	46	40	0.4	80	250	1.2
61700.W0202	41	20	20.5	20.5	0.4	40	100	1.0
61700.W0221	40	22	45	40	0.5	115	850	2.2
61700.W0222	63	22	72	65	0.6	265	670	4.0
61700.W0241	42	24	55	50	0.5	150	550	1.8
61700.W0242	50	24	71	65	0.7	220	750	2.4
61700.W0251	45	25	50	50	0.5	150	550	1.8
61700.W0253	65	25	55	45	0.6	180	450	3.8
61700.W0254	83	25	100	90	2.0	130	400	5.0
61700.W0281	48	28	36	34	0.7	100	210	2.5
61700.W0283	65	28	70	65	1.7	280	600	4.8
61700.W0284	75	28	135	125	0.5	480	1600	2.3
61700.W0381	64	38	76	70	0.4	380	860	2.6
61700.W0401	75	40	70	57	0.6	350	600	2.8
61700.W0421	78	42	86	80	0.5	350	1100	2.4
61700.W0481	93	48	80	76	0.6	800	1500	5.3



Anti-vibration Bushes

metal-rubber

Anti-Vibration

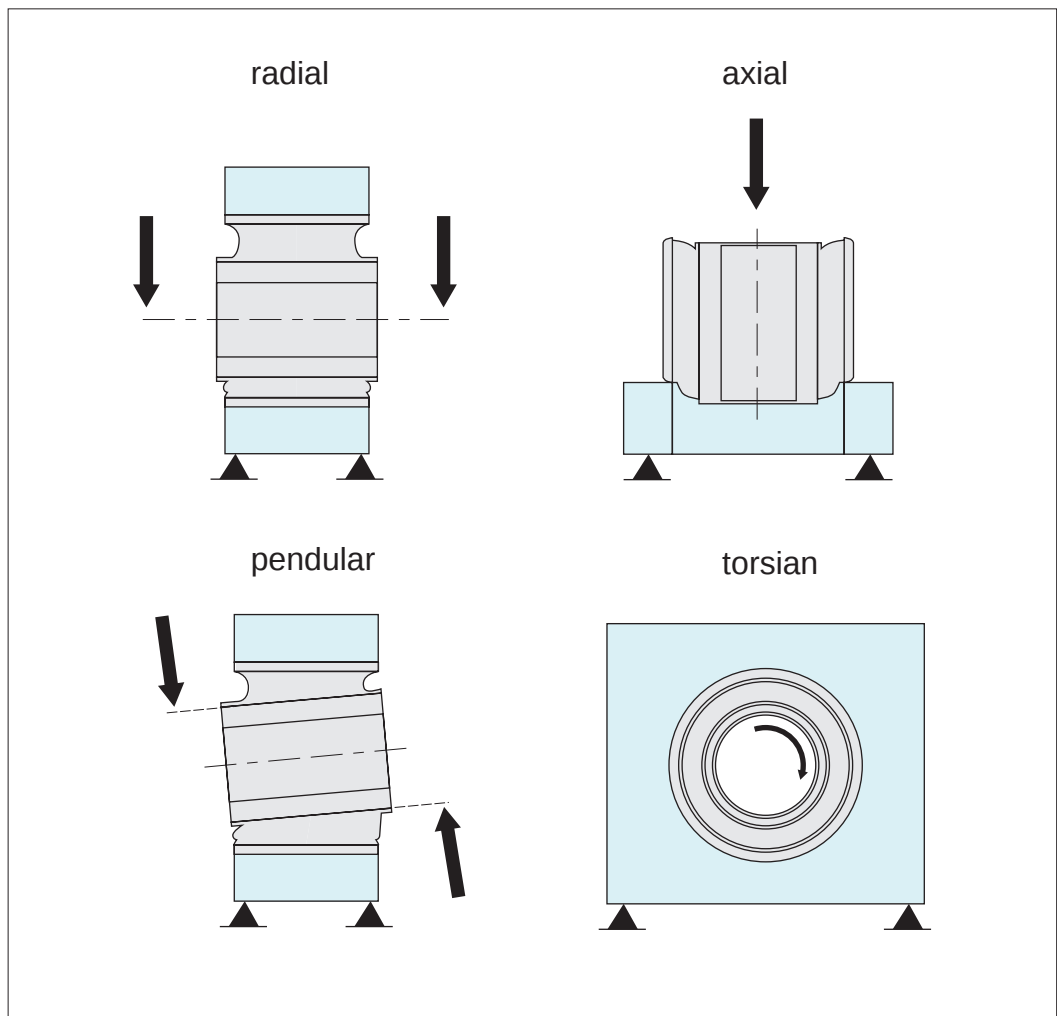


Order No.	d ₁	d ₂	l ₁	l ₂	Radial compression mm	Axial load kgf max.	Radial load kgf max.	Axial compression mm
61700.W0501	90	50	100	86	0.5	800	1500	5.1
61700.W0581	85	58	142	90	0.5	350	1800	1.6
61700.W0601	110	60	182	170	0.6	800	3000	1.8
61700.W0701	120	70	115	110	1.0	800	3500	3.5
61700.W0801	140	80	180	170	0.5	1500	7500	2.5
61700.W0901	145	100	120	110	0.4	850	2700	2.2

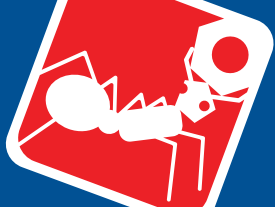
ANTI-VIBRATION



Range of movement



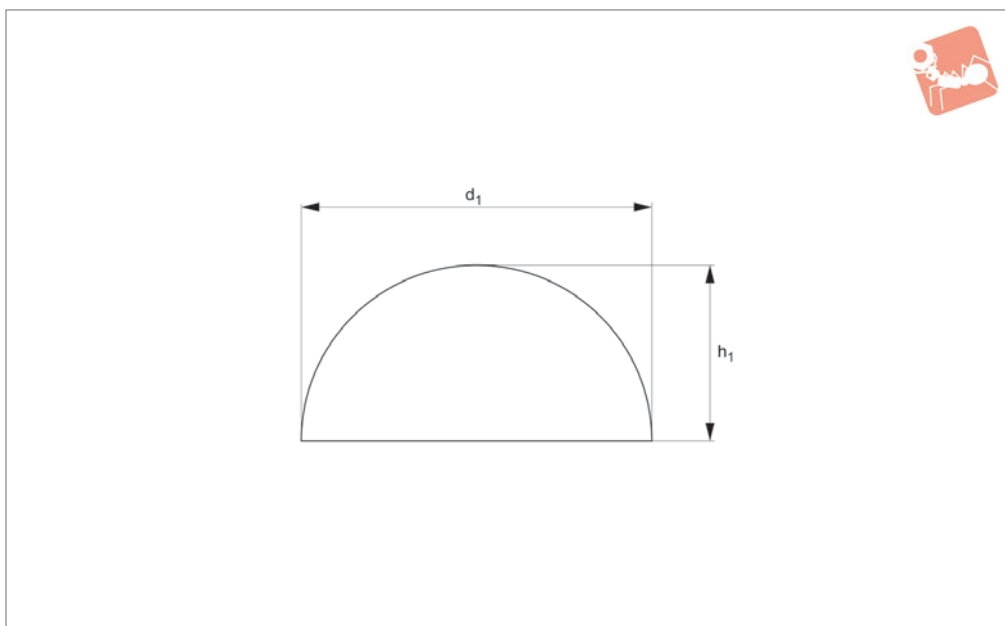
Inside diameter (d_2)	Tolerances	Inside diameter (d_1)	Tolerances
From 8mm to 15mm	-0 / + 0,15	From 16mm to 30mm	-0 / + 0,10
From 16mm to 25mm	-0 / + 0,30	From 31mm to 70mm	-0 / + 0,15
From 26mm to 50mm	-0 / + 0,30	From 71mm to 100mm	-0 / + 0,10



Anti-vibration Bushes

hemisphere

Anti-Vibration



61820

ANTI-VIBRATION

Material

Sorbothane.

Technical Notes

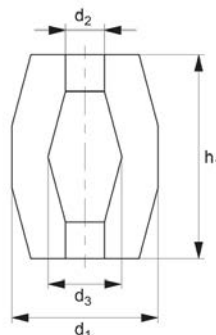
Sorbothane hemisphere mounts provide a

quick, cost effective method of isolating bench equipment and small machinery. Simply place the hemisphere under the unit to be isolated with the curved surface

up. Expect a 25-30% deflection when statically loaded.



61830



Material

Rubber (hardness - 55 Shore A).

Technical Notes

Used in a wide range of vibrating

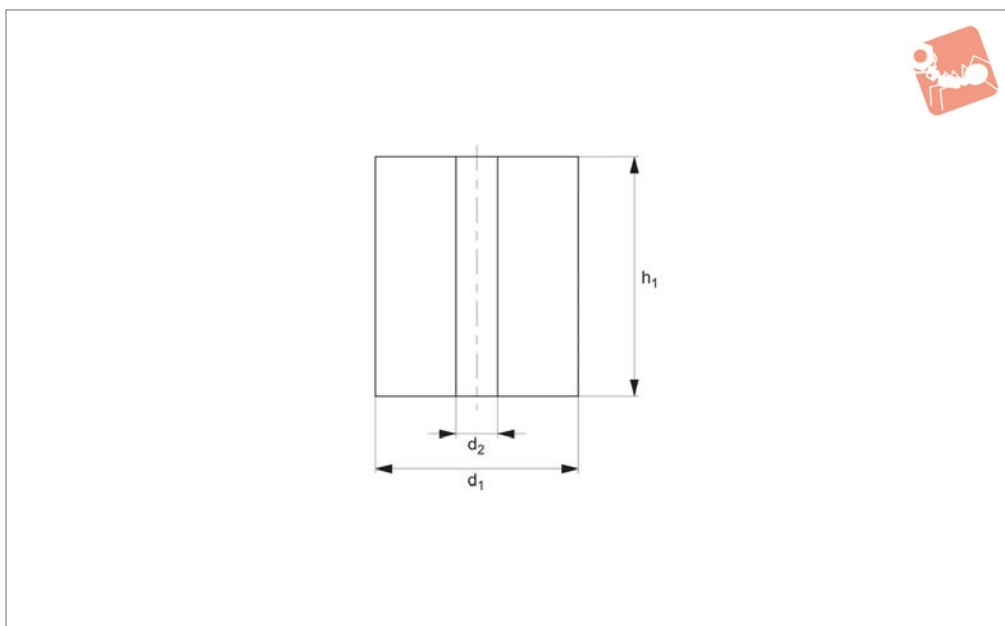
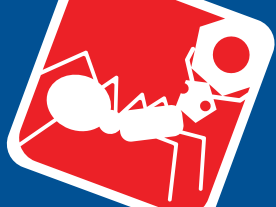
machines.

Allows high deformation with excellent spring back characteristics.

Supports axial and radial loads but not

designed for traction or tension loads. For radial loads please contact our Technical Department.

Order No.	d_1	h_1	d_2	d_3	Compression max.	Axial load kgf max.
61830.W0001	95	88	23	30	28	200
61830.W0002	100	110	20	30	36	500
61830.W0004	150	90	35	35	24	2000
61830.W0006	188	180	41	41	80	3500
61830.W0005	155	150	30	25	64	2500
61830.W0003	144	122	40	23	48	1000



61850

ANTI-VIBRATION

Material

Rubber (hardness - Shore 55 A).

Technical Notes

Used in a wide range of vibrating

machines.

Allows high deformation with excellent spring back characteristics.

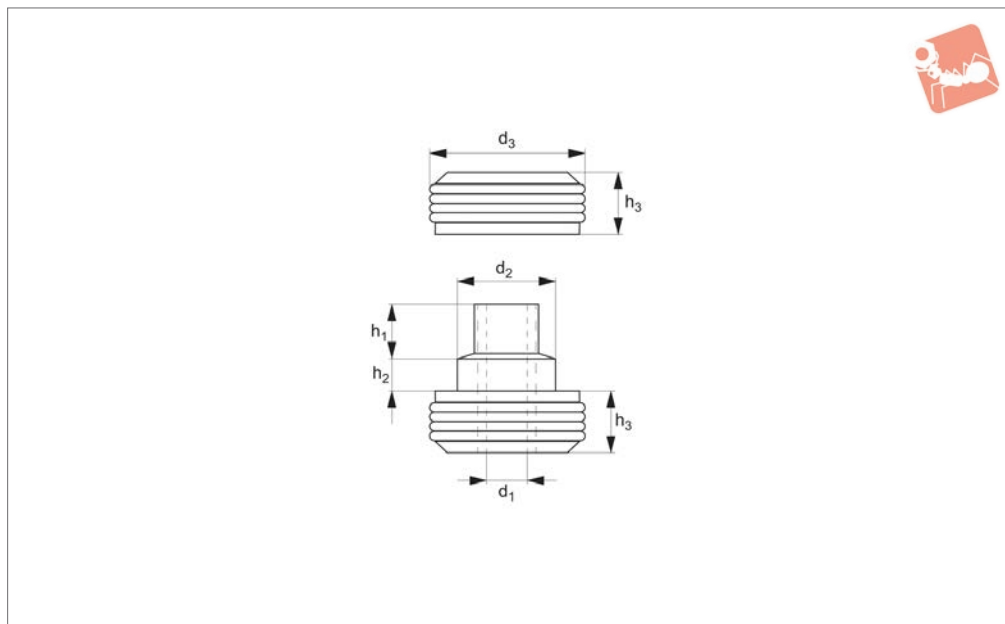
Supports axial and radial loads but not

designed for traction or tension loads. For radial loads please contact our technical team.

Order No.	d_1	h_1	d_2
61850.W0020	20	15	6
61850.W0030	30	20	8
61850.W0031	30	22	8
61850.W0035	35	30	12
61850.W0036	35	40	12
61850.W0040	40	30	10
61850.W0045	45	35	10
61850.W0046	45	45	10
61850.W0050	50	45	10
61850.W0060	60	40	12
61850.W0070	70	45	14
61850.W0080	80	50	16
61850.W0081	80	80	20
61850.W0093	93	120	20
61850.W0100	100	60	20
61850.W0102	100	147	20
61850.W0110	110	70	22
61850.W0130	130	60	25
61850.W0148	148	190	50
61850.W0160	160	100	30
61850.W0170	170	110	31
61850.W0200	200	125	70
61850.W0250	250	300	60



61855



Material

Rubber on silver zinc plated steel

Technical Notes

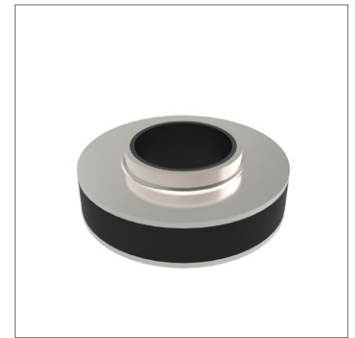
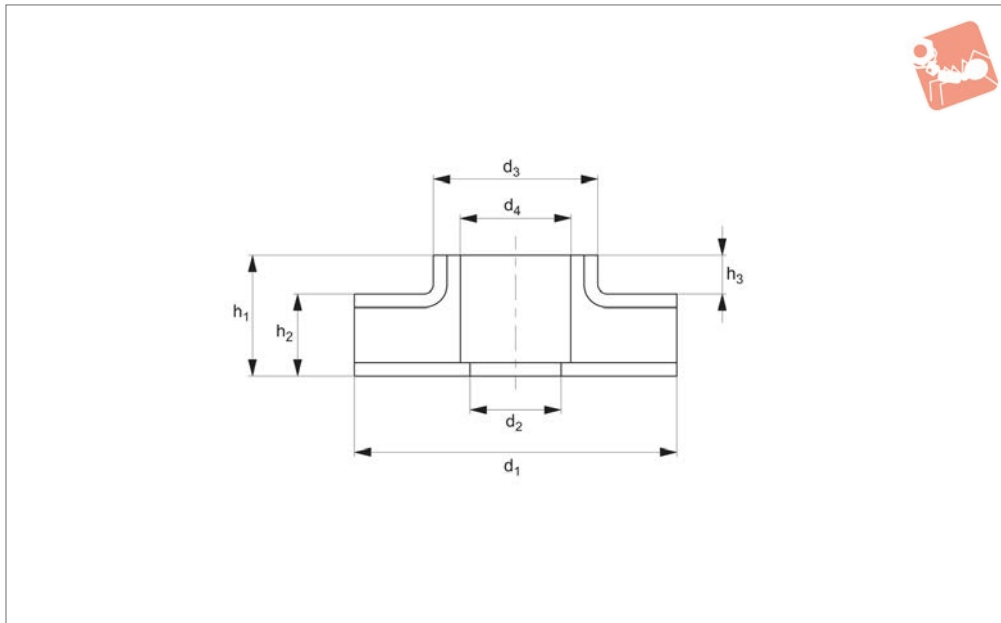
This anti-vibration mount is ideal for applications of major dynamic loads where

movement control is necessary, such as in the cabin of all types of mobile vehicles. It also offers optimal stability, as well as good attenuation of impacts and vibrations.

Important Notes

The double washer mounts are made of two parts of rubber, one of which bears an inside metal bushing which acts as a guide through the machine anchoring screw.

Order No.	d ₁	h ₁	d ₂	d ₃	h ₂	h ₃	Load kgf	Plate min.	Plate max.	Weight g
61855.W0500	13.5	18.5	31.5	49	11	20	80	12.5	14	153
61855.W0501	13.5	18.5	31.5	49	11	20	130	12.5	14	153
61855.W0650	17.0	24.0	39.5	64	15	23	120	19.0	22	350
61855.W0651	17.0	24	39.5	64	15	23	260	19.0	22	350
61855.W0900	23.0	31.0	58.0	88	17	25	260	25.0	29	675
61855.W0901	23.0	31.0	58.0	88	17	25	450	25.0	29	675



61640

ANTI-VIBRATION

Material

Rubber on silver zinc plated steel.

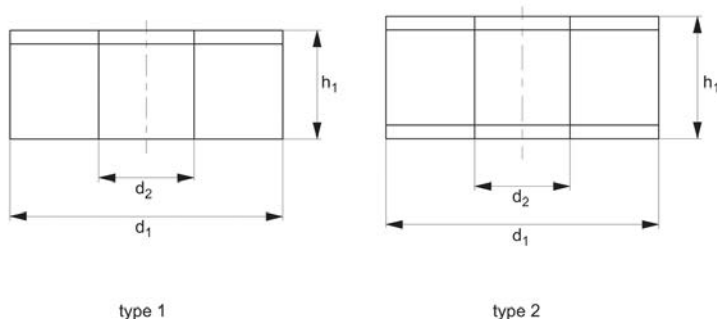
Technical Notes

Static load relates to the load the unit can

withstand under compression.

Used where axial and radial loads are present. For frequencies higher than 20Hz.

Order No.	d ₁	d ₂	d ₃	d ₄	h ₁	h ₂	h ₃	Static load N max.
61640.W0036	36	8.5	18	12	14	10	4	100
61640.W0032	36	16.5	20	16.5	11.5	8.5	3	120
61640.W0050	50	16.5	23	20	22	13.5	8.5	150
61640.W0051	50	28	34	28	18	10.5	7.5	100
61640.W0055	55	24	31	28	15	11.5	3.5	175
61640.W0060	60	20.5	27	24	22	13	9	240
61640.W0075	75	24.5	33	29.5	27	20	8	300

**61650****Material**

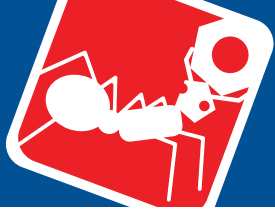
Rubber on silver zinc plated steel.

Technical Notes

Static load relates to the load the unit can

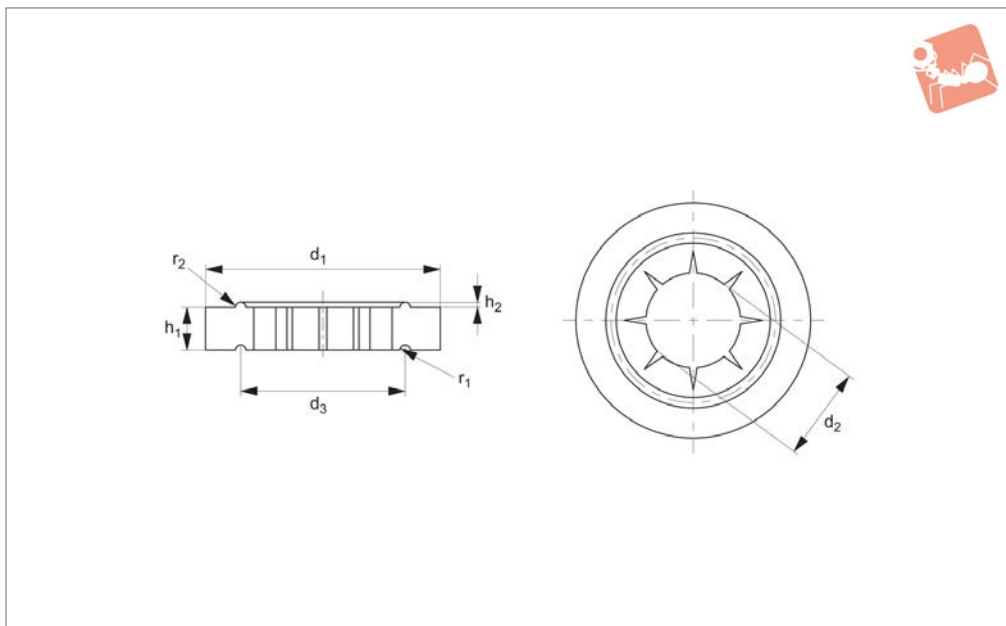
withstand under compression. Used where
axial and radial loads are present.
For frequencies higher than 20Hz.

Order No.	Type	d_1	d_2	h_1
61650.W0140	Type 1	40	12	20
61650.W0141	Type 1	40	14	15
61650.W0150	Type 1	50	16	20
61650.W0160	Type 1	60	22	30
61650.W0175	Type 1	75	25	25
61650.W0199	Type 1	100	32	60
61650.W0250	Type 2	50	15	30
61650.W0260	Type 2	60	20	30
61650.W0270	Type 2	70	20	30
61650.W0299	Type 2	100	41	35



Anti-vibration Rings internal star design

Anti-Vibration



61730

ANTI-VIBRATION

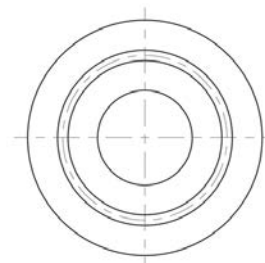
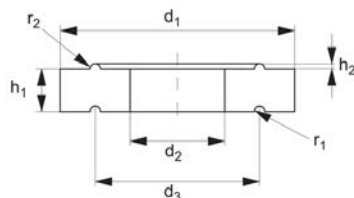
Material

Rubber on silver zinc plated steel (rubber hardness - 65 Shore A).

Order No.	d ₁	d ₂	d ₃	h ₁	h ₂	r ₁	r ₂	Compression max.	Axial load kgf max.
61730.W0001	162	66	114	30	2.5	4.5	2.5	5	2000
61730.W0002	170	95	125	23	2.5	5	2.5	4	2000
61730.W0003	210	88	164	24	2	4	2	4.5	6000



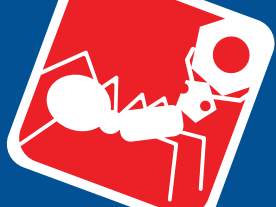
61760



Material

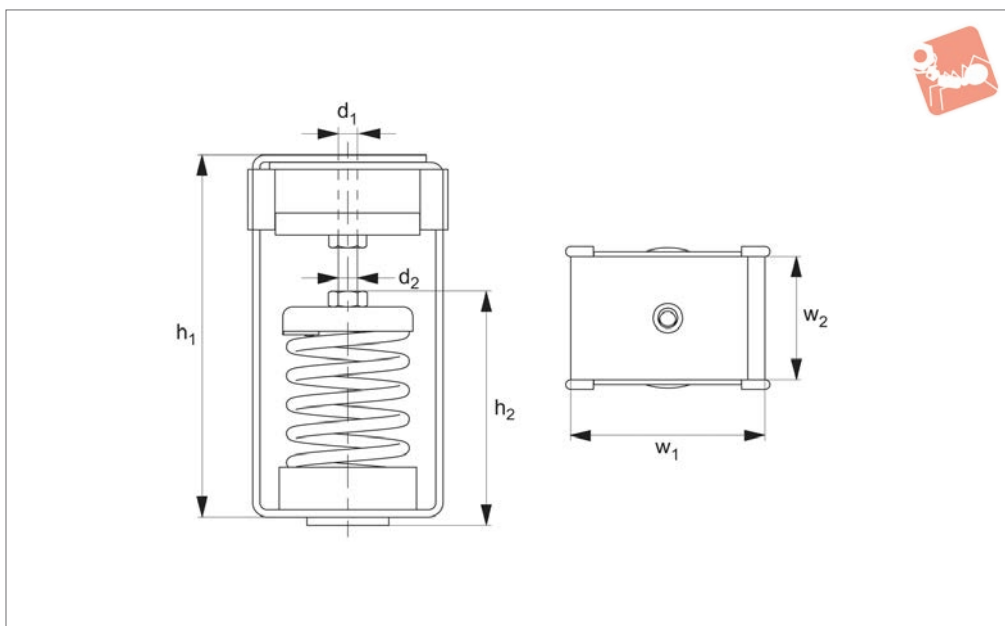
Rubber (hardness 70 Shore A).

Order No.	d_1	d_2	d_3	h_1	h_2	r_1	r_2	Compression max.	Axial load kgf max.
61760.W0010	70	30	50	14	2	7	4	2	200
61760.W0020	72	32	52	23	2	2	2	7	400
61760.W0021	72	32	52	23	2	2	2	8.5	900
61760.W0022	76	37	58	12.5	3.5	2.5	2.5	2	550
61760.W0023	114	66	90	15	3	3	3	3.2	500
61760.W0024	114	66	90	15	3	3	3	5	1500
61760.W0030	116	52	84	23.5	2.5	3.5	2.5	3.5	800
61760.W0031	116	52	84	23.5	2.5	3.5	2.5	3.5	1000
61760.W0040	120	50	85	27.5	2.5	2.5	2.5	3.5	1000
61760.W0050	174	126	150	15	3	3	3	2	2000
61760.W0065	192	55	122	31	3	4	3	3.1	4340
61760.W0070	207	108	160	28	2	4	4	2.5	3000



Acoustic Ceiling Hangers with spring and pad

Anti-Vibration



61930

ANTI-VIBRATION

Material

Zinc plated steel (anti-corrosive treatment) with Sylomer® pad and steel spring.

Technical Notes

These hangers come in six different steel

spring strengths for increasing loads.

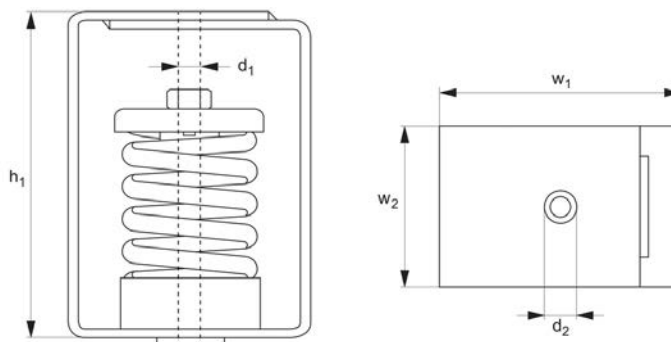
The metal housing has an anti-corrosive treatment, which can with stand very harsh conditions and also resist high tensile stresses up to 1000kg.

Order No.	d ₁	w ₁	h ₁	d ₂	h ₂	w ₂	Compression max.	Load kgf max.
61930.W0025	12	79	150	M8	94	50	18	25
61930.W0050	12	79	150	M8	94	50	18	50
61930.W0075	12	79	150	M8	94	50	18	75
61930.W0100	12	79	150	M8	94	50	18	100
61930.W0125	12	79	150	M8	94	50	20	125
61930.W0150	12	79	150	M8	94	50	20	150



61931

ANTI-VIBRATION



Material

Zinc plated steel (anti-corrosive treatment).

Technical Notes

These units are designed for installations

where objects are suspended from ceilings. The spring in the body provides good anti-vibration properties.

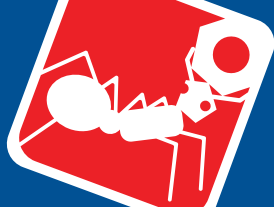
Tips

Select the damper corresponding to the

load to be carried per unit.

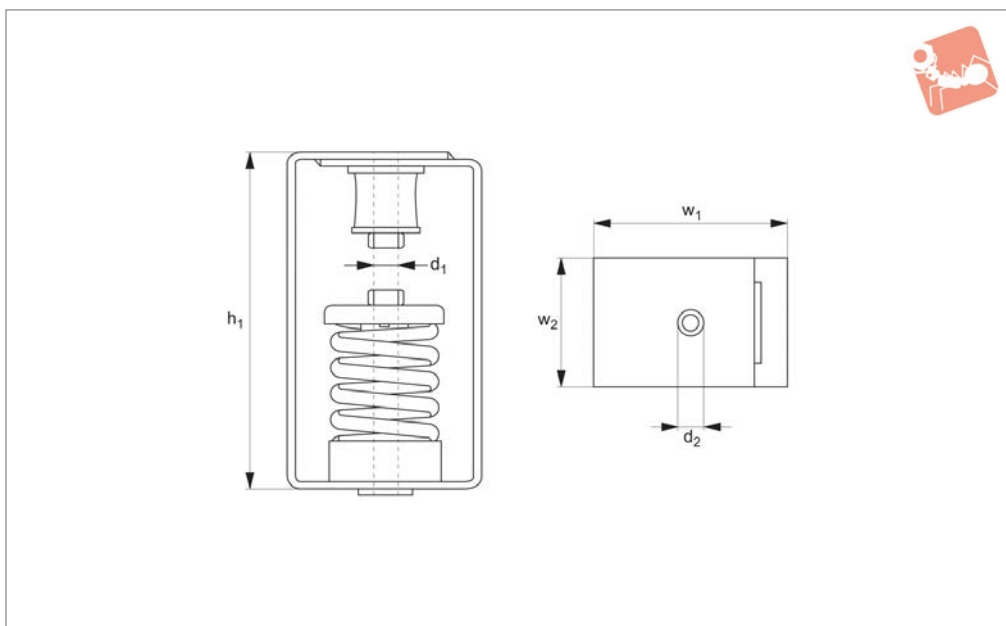
These hanger can be used for fans, distribution pipes, ducts and acoustic ceilings.

Order No.	d ₁	w ₁	h ₁	d ₂	w ₂	Load kgf max.
61931.W0025	M 8	75	120	12	50	25
61931.W0050	M 8	75	120	12	50	50
61931.W0075	M 8	75	120	12	50	75
61931.W0100	M 8	75	120	12	50	100
61931.W0125	M 8	75	120	12	50	125
61931.W0150	M12	120	160	16	80	150
61931.W0200	M12	120	160	16	80	200
61931.W0250	M12	120	160	16	80	250
61931.W0350	M12	120	160	16	80	350
61931.W0500	M14	140	180	18	100	500
61931.W0750	M14	140	180	18	100	750



Acoustic Suspension Hanger top top mount

Anti-Vibration



61932

ANTI-VIBRATION

Material

Zinc plated steel and rubber.

The spring in the body provides good anti-vibration properties.

These hanger can be used for fans, distribution pipes, ducts and acoustic ceilings.

Technical Notes

These units are designed for installations where objects are suspended from ceilings.

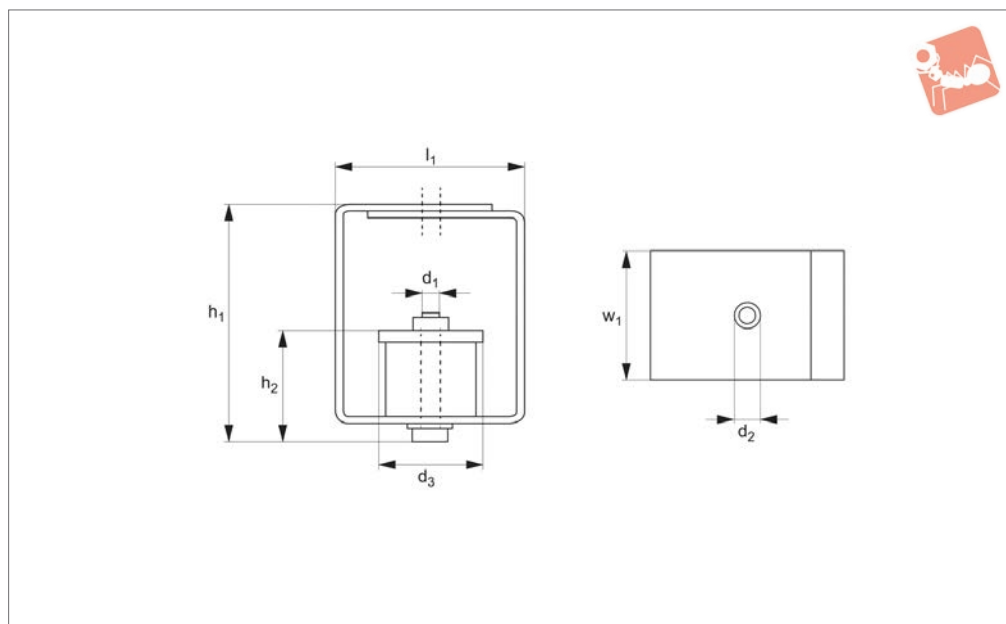
Tips

Select the damper corresponding to the load to be carried per unit.

Order No.	d ₁	w ₁	h ₁	d ₂	w ₂	Load kgf max.
61932.W0025	M8	75	150	12	50	25
61932.W0050	M8	75	150	12	50	50
61932.W0075	M8	75	150	12	50	75
61932.W0100	M8	75	150	12	50	100



61933



Material

Steel anti-corrosive zinc plated, with rubber (50 shore A) cylinder.

Technical Notes

These units are designed for installations

where objects are suspended from ceilings. The spring in the body provides good anti-vibration properties.

Tips

Select the damper corresponding to the

load to be carried per unit.

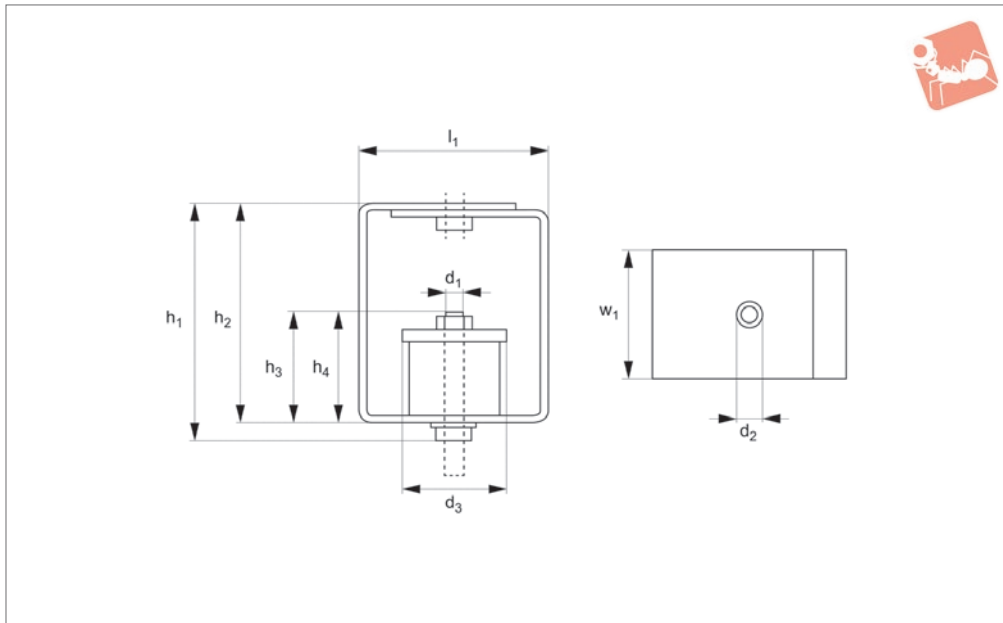
These hanger can be used for fans, distribution pipes, ducts and acoustic ceilings.

Order No.	d ₁	w ₁	h ₁	d ₂	d ₃	h ₂	l ₁	Load kgf max.
61933.W0030	M6	40	47	8	30	30	40	30
61933.W0060	M6	40	47	8	30	30	40	60



Acoustic Suspension Hanger with nut

Anti-Vibration



61934

ANTI-VIBRATION

Material

Steel anti-corrosive zinc plated, with rubber (50 shore A) cylinder.

Technical Notes

These units are designed for installations

where objects are suspended from ceilings.

The spring in the body provides good anti-vibration properties.

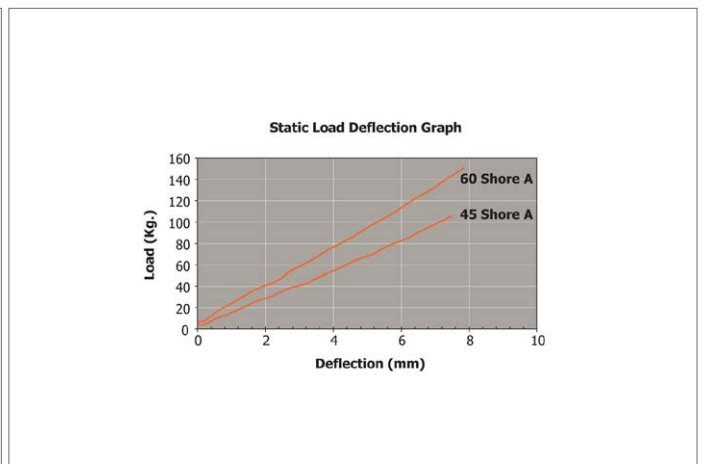
The metal hanger is designed to cope with loads up to 1000kg.

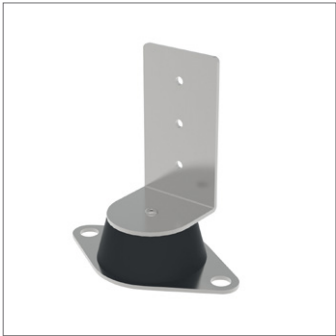
Tips

Select the damper corresponding to the load to be carried per unit.

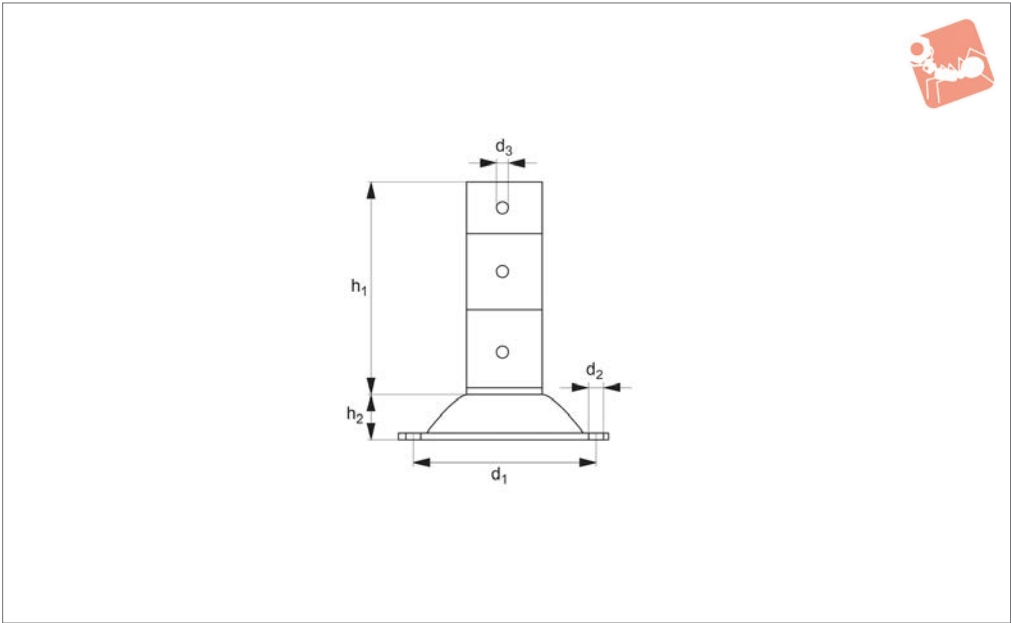
These hanger can be used for fans, distribution pipes, ducts and acoustic ceilings.

Order No.	d ₁	w ₁	h ₁	d ₂	d ₃	d ₄	h ₂	h ₃	h ₄	l ₁	Load range kgf
61934.W0030	M 6	40	55.03	M 6	30	18	46.3	38	30	40	8-30
61934.W0060	M 6	40	55.03	M 6	30	18	46.3	38	30	40	25-60
61934.W0100	M 8	55	76.40	M 8	40	16	68.0	43	34	55	40-100
61934.W0150	M 8	55	76.40	M 8	40	16	68.0	43	34	55	80-150





61936



Material

Rubber on steel (zinc plated).

Technical Notes

These units are designed for installations where objects are suspended from the

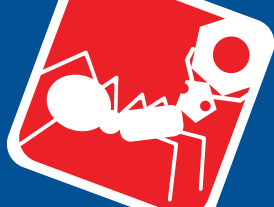
ceiling or the wall. The spring in the body provides good anti-vibration properties.

Tips

Select the damper corresponding to the load to be carried per unit.

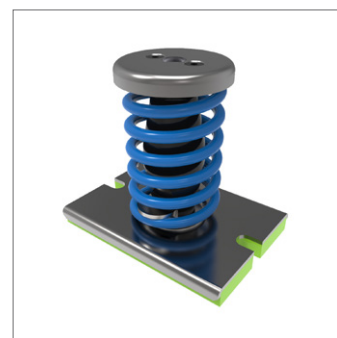
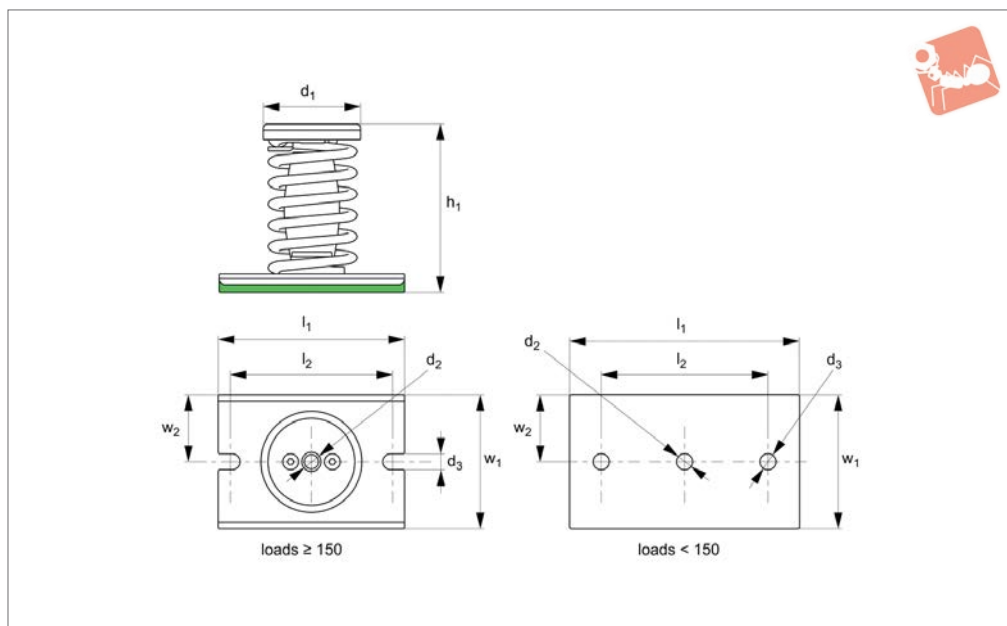
These hanger can be used for fans, distribution pipes, ducts and acoustic ceilings/walls.

Order No.	d ₁	h ₁	d ₂	d ₃	h ₂	Load kgf max.
61936.W0076	76	72	6.5	4	24	10



Spring Vibration Damper one spring one spring

Anti-Vibration



61922

ANTI-VIBRATION

Material

High tensile steel with sylomer anti-slide base.

porate, isolates the mid-high frequency vibrations which are transmitted through the coils of the metal springs.

compressors, pump and pumping equipment and acoustic isolation of premises.

Technical Notes

The sylomer mat that these dampers incor-

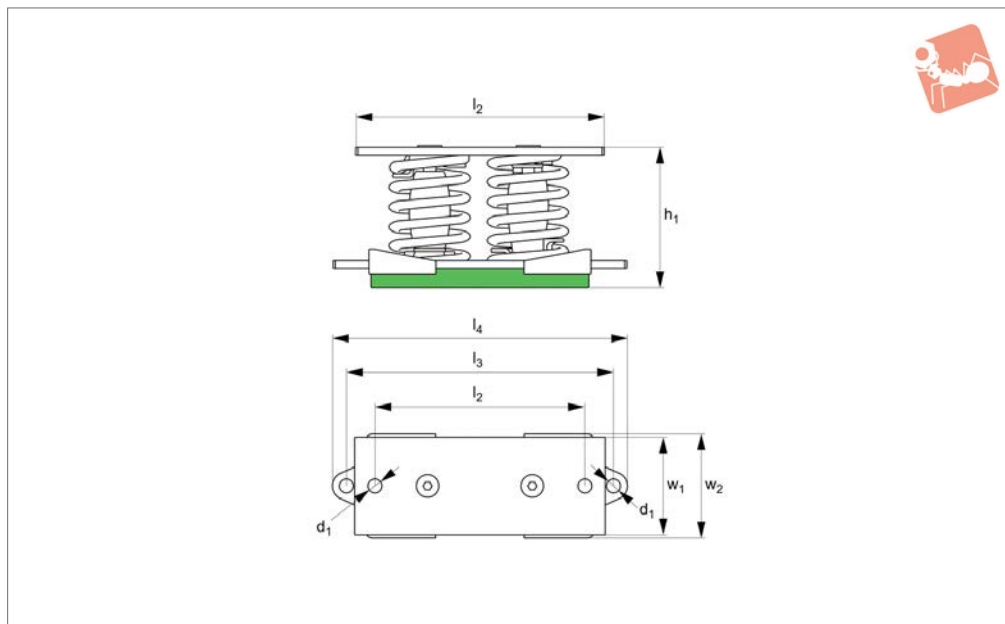
Tips

These are used in sectors such as air

Order No.	Spring colour	l_1	h_1	d_1	w_1	d_2	d_3	l_2	w_2	Compression max.	Load kgf max.	Weight kg
61922.W0080	Black	100	78	54	69.5	M 8	8.5	80	34.75	20	25	0.29
61922.W0081	Blue	100	78	54	69.5	M 8	8.5	80	34.75	20	50	0.27
61922.W0082	Grey	100	78	54	69.5	M 8	8.5	80	34.75	20	75	0.30
61922.W0083	Beige	100	78	54	69.5	M 8	8.5	80	34.75	20	100	0.35
61922.W0084	White	100	78	54	69.5	M 8	8.5	80	34.75	20	125	0.395
61922.W0120	Blue	140	127	75	98.5	M12	12	120	49.25	30	150	1.10
61922.W0121	White	140	127	75	98.5	M12	12	120	49.25	30	200	1.14
61922.W0122	Black	140	127	75	98.5	M12	12	120	49.25	30	250	1.23
61922.W0123	Cream	140	127	75	98.5	M12	12	120	49.25	30	350	1.39
61922.W0140	Light Grey	140	127	93	98.5	M14	12	120	49.25	18	500	2.56
61922.W0141	Green	140	127	93	98.5	M14	12	120	49.25	18	750	3.04



61923



Material

High tensile steel with sylomer anti-slide base

porate, isolates the mid-high frequency vibrations which are transmitted through the coils of the metal springs.

compressors, pump and pumping equipment and acoustic isolation of premises.

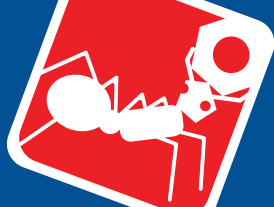
Technical Notes

The sylomer mat that these dampers incor-

Tips

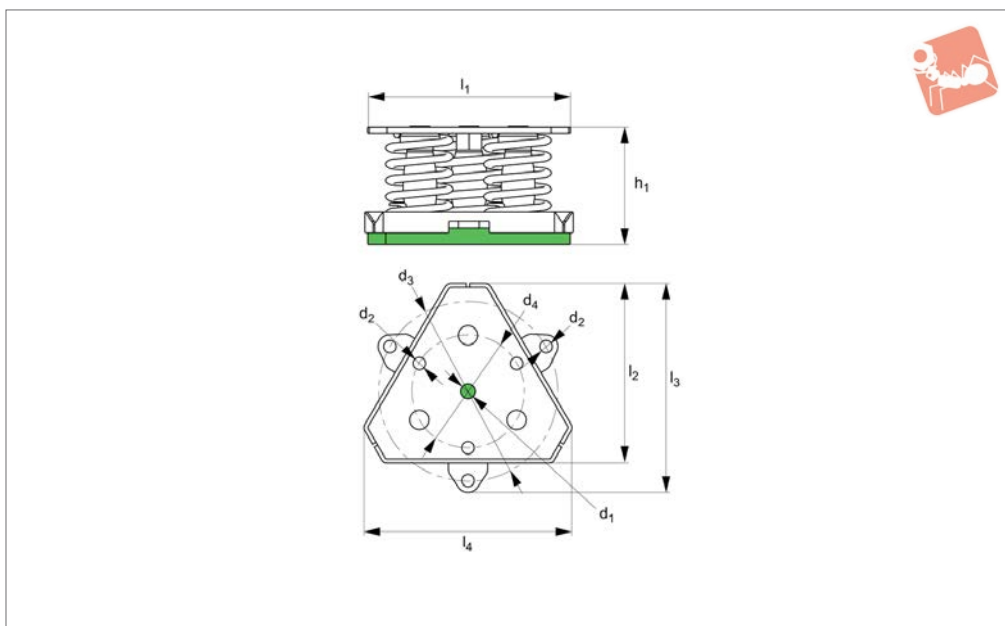
These are used in sectors such as air

Order No.	Spring colour	l_1	h	d	w_1	l_2	l_3	l_4	w_2	Compression max.	Load kgf max.	Weight kg
61923.W0120	Blue	200	136	12	75	170	220	244	81	30	300	3.10
61923.W0121	White	200	136	12	75	170	220	244	81	30	400	3.17
61923.W0122	Black	200	136	12	75	170	220	244	81	30	500	3.35
61923.W0123	Cream	200	136	12	75	170	220	244	81	30	700	3.70
61923.W0140	Light Grey	250	136	14	100	210	270	298	106	17	1000	5.90
61923.W0141	Green	250	136	14	100	210	270	298	106	17	1500	6.84



Spring Vibration Damper three spring three spring

Anti-Vibration



61924

ANTI-VIBRATION

Material

High tensile steel with sylomer anti-slide base

porate, isolates the mid-high frequency vibrations which are transmitted through the coils of the metal springs.

compressors, pump and pumping equipment and acoustic isolation of premises.

Technical Notes

The sylomer mat that these dampers incor-

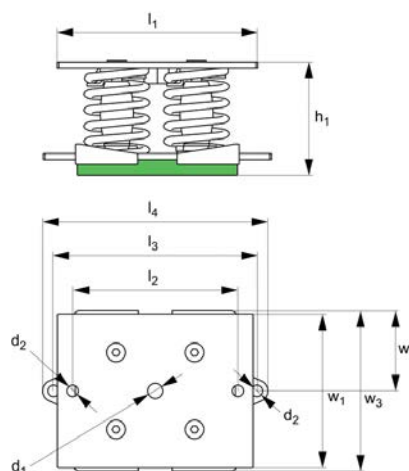
Tips

These are used in sectors such as air

Order No.	Spring colour	l_1	h	d_1	d_2	d_3	l_2	l_3	l_4	Compression max.	Load kgf max.	Weight kg
61924.W0160	Blue	196.3	136	M16	12	180	175	207.7	201.4	30	450	4.60
61924.W0161	White	196.3	136	M16	12	180	176	207.7	201.4	30	600	4.71
61924.W0162	Black	196.3	136	M16	12	180	176	207.7	201.4	30	750	4.98
61924.W0163	Cream	196.3	136	M16	12	180	176	207.7	201.4	30	1050	5.52
61924.W0200	Light Grey	246.0	136	M20	14	220	219	255.7	251.0	17	1500	8.56
61924.W0201	Green	246.0	136	M20	14	220	219	255.7	251.0	17	2250	9.96



61925

**Material**

High tensile steel with sylomer anti-slide base.

Technical Notes

The sylomer mat that these dampers incor-

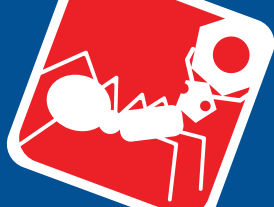
porate, isolates the mid-high frequency vibrations which are transmitted through the coils of the metal springs.

Tips

These are used in sectors such as air

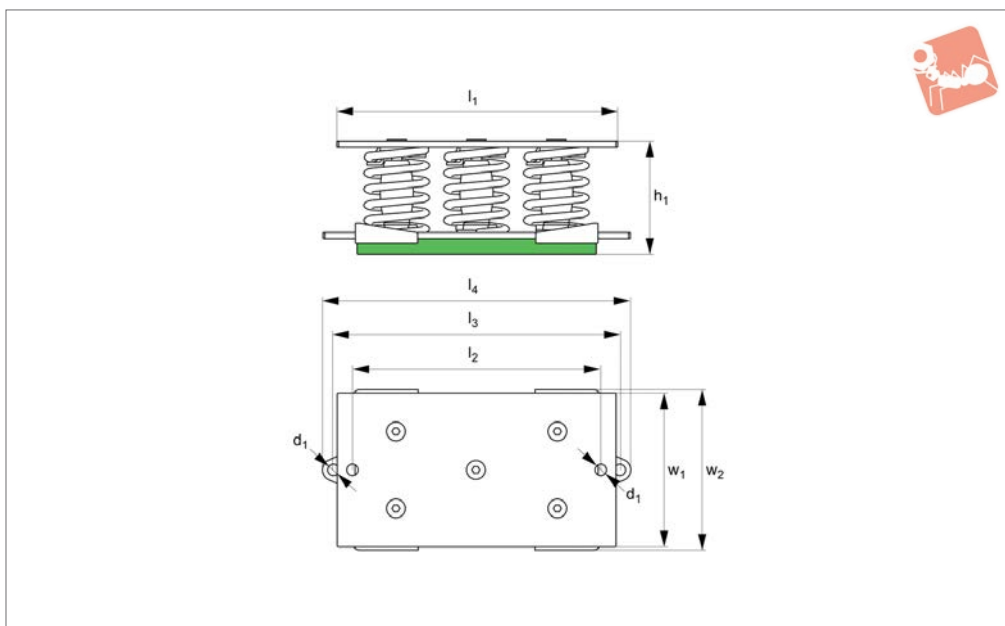
compressors, pump and pumping equipment and acoustic isolation of premises.

Order No.	Spring colour	l_1	h	d_1	w_1	d_2	l_2	l_3	l_4	w_2	w_3	Compression max.	Load kgf max.	Weight kg
61925.W0160	Blue	200	136	M16	150	12	170	190	214	75	156	30	600	6.41
61925.W0161	White	200	136	M16	150	12	170	190	214	75	156	30	800	6.57
61925.W0162	Black	200	136	M16	150	12	170	190	214	75	156	30	1000	6.70
61925.W0163	Cream	200	136	M16	150	12	170	190	214	75	156	30	1400	7.64
61925.W0200	Light Grey	250	136	M20	200	14	210	260	288	100	206	18	2000	12.10
61925.W0201	Green	250	136	M20	200	14	210	260	288	100	206	18	3000	13.96



Spring Vibration Damper five spring five spring

Anti-Vibration



61926

ANTI-VIBRATION

Material

High tensile steel with sylomer anti-slide base.

porate, isolates the mid-high frequency vibrations which are transmitted through the coils of the metal springs.

compressors, pump and pumping equipment and acoustic isolation of premises.

Technical Notes

The sylomer mat that these dampers incor-

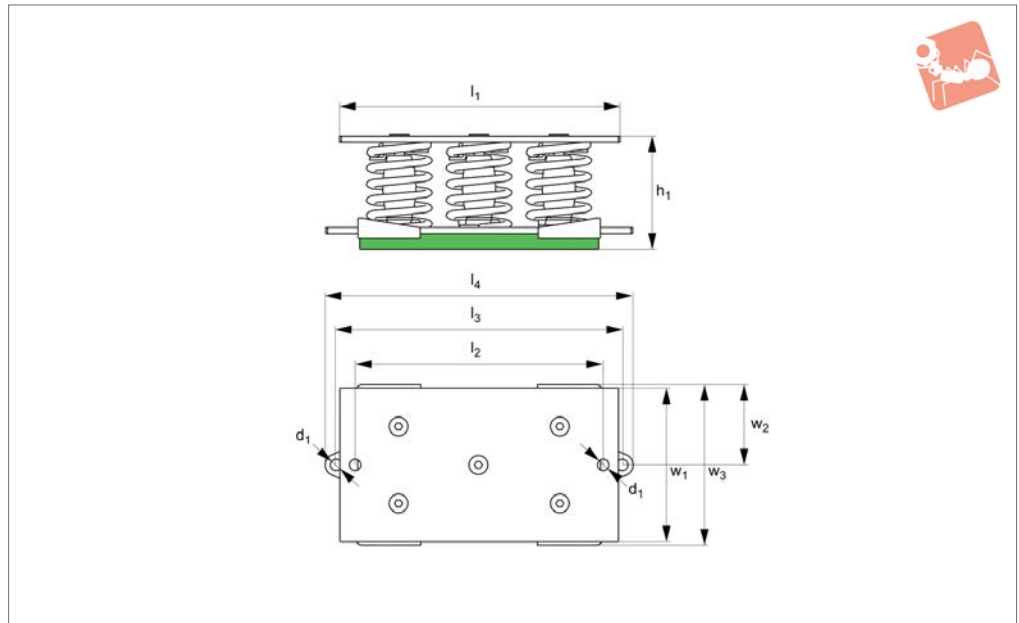
Tips

These are used in sectors such as air

Order No.	Spring colour	l_1	h	d	w_1	l_2	l_3	l_4	w_2	Compression max.	Load kgf max.	Weight kg
61926.W0160	Blue	280	136	16	150	251	290	322	156	30	750	8.50
61926.W0161	White	280	136	16	150	251	290	322	156	30	1000	8.69
61926.W0162	Black	280	136	16	150	251	290	322	156	30	1250	9.16
61926.W0163	Cream	280	136	16	150	251	290	322	156	30	1750	10.03
61926.W0180	Light Grey	350	136	18	200	315	360	396	206	18	2500	15.71
61926.W0181	Green	350	136	18	200	315	360	396	206	18	3750	18.05



61927



Material

High tensile steel with sylomer anti-slide base.

Technical Notes

The sylomer mat that these dampers incor-

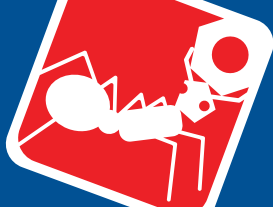
porate, isolates the mid-high frequency vibrations which are transmitted through the coils of the metal springs.

Tips

These are used in sectors such as air

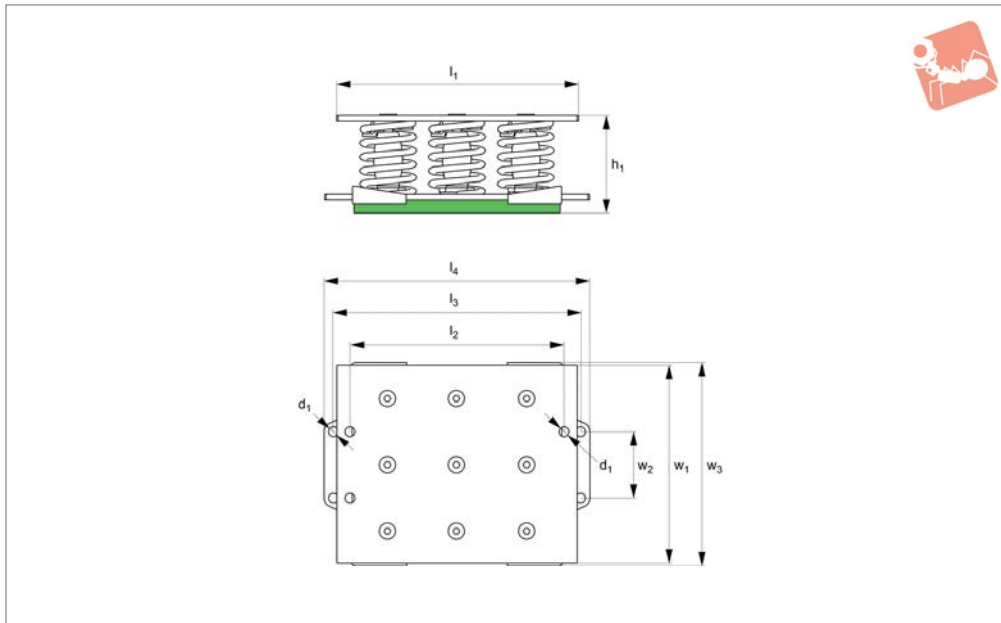
compressors, pump and pumping equipment and acoustic isolation of premises.

Order No.	Spring colour	l_1	h	d	w_1	l_2	l_3	l_4	w_2	w_3	Compression max.	Load kgf max.	Weight kg
61927.W0160	Blue	280	136	16	150	248	290	322	75	156	30	900	8.93
61927.W0161	White	280	136	16	150	248	290	322	75	156	30	1200	9.16
61927.W0162	Black	280	136	16	150	248	290	322	75	156	30	1500	9.68
61927.W0163	Cream	280	136	16	150	248	290	322	75	156	30	2100	10.77
61927.W0180	Light Grey	350	136	18	200	300	360	396	100	206	18	3000	16.84
61927.W0181	Green	350	136	18	200	300	360	396	100	206	18	4500	19.65



Spring Vibration Damper nine spring nine spring

Anti-Vibration



61928

ANTI-VIBRATION

Material

High tensile steel with sylomer anti-slide base.

porate, isolates the mid-high frequency vibrations which are transmitted through the coils of the metal springs.

compressors, pump and pumping equipment and acoustic isolation of premises.

Technical Notes

The sylomer mat that these dampers incor-

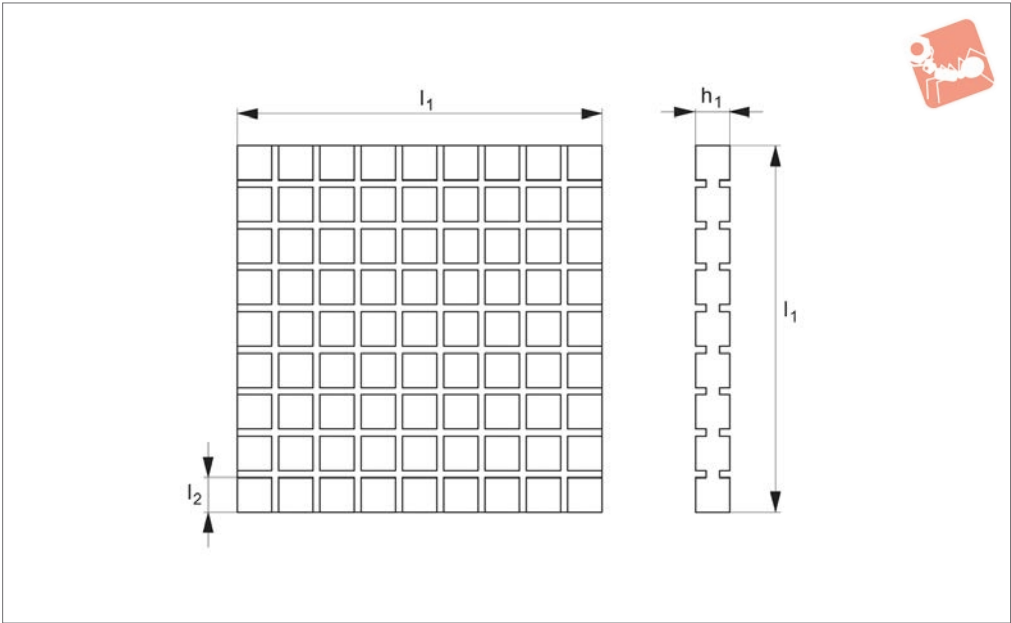
Tips

These are used in sectors such as air

Order No.	Spring colour	l_1	h	d	w_1	l_2	l_3	l_4	w_2	w_3	Compression max.	Load kgf max.	Weight kg
61928.W0160	Blue	280	136	16	226	248	290	322	75	232	30	1350	13.70
61928.W0161	White	280	136	16	226	248	290	322	75	232	30	1800	14.04
61928.W0162	Black	280	136	16	226	248	290	322	75	232	30	2250	14.83
61928.W0163	Cream	280	136	16	226	248	290	322	75	232	30	3150	16.46
61928.W0180	Light Grey	350	136	18	300	310	360	396	150	306	18	4500	21.54
61928.W0181	Green	350	136	18	300	310	360	396	150	306	18	6750	31.75



61780



Material

Rubber (hardness - 55 Shore A).

Technical Notes

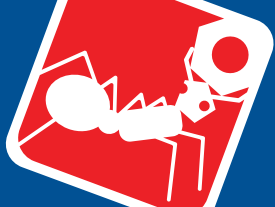
The pad can be cut to suit the application

as required.
Differs from a plain rubber mat as the squared units can deform - improving its anti-vibration features.

Tips

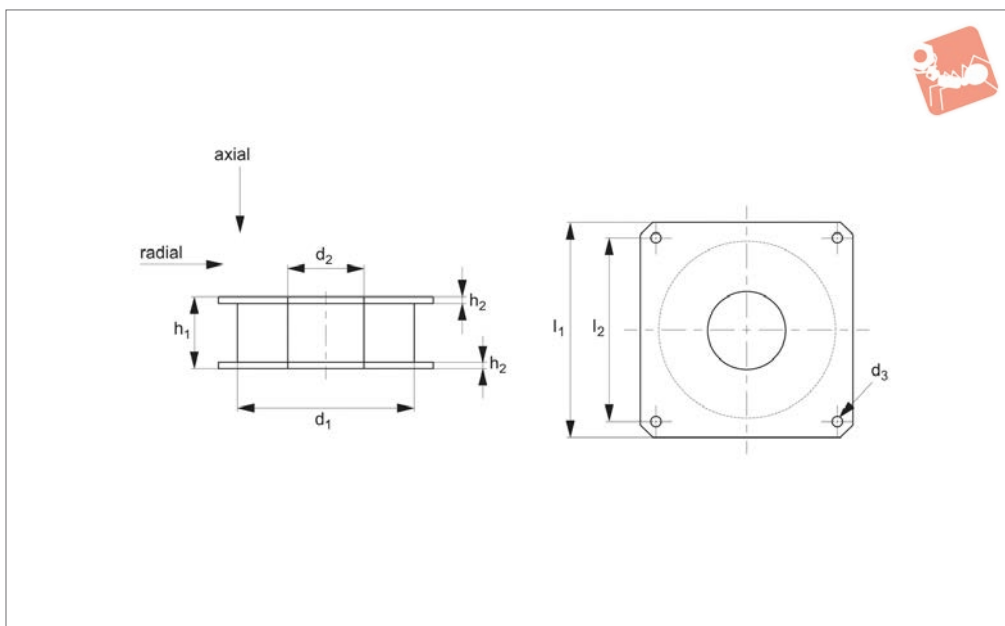
High frequency isolation (30-40Hz).
Own frequency 18Hz.

Order No.	l_1	l_2	h_1	Compression max.	Load kgf/cm^2 max.
61780.W0210	210	10	14	2	8
61780.W0302	300	10	5	1	8
61780.W0301	300	10	7	1.6	8
61780.W0500	500	10	7	1	8



Anti-vibration Pads flanged

Anti-Vibration



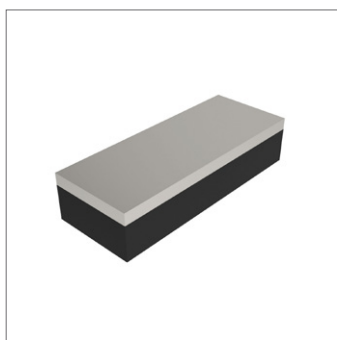
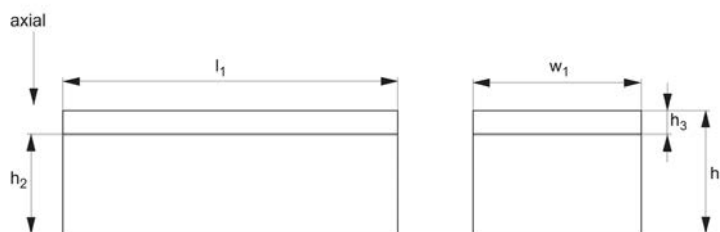
61800

ANTI-VIBRATION

Material

Rubber on silver zinc plated steel (rubber hardness - 65 Shore A).

Order No.	l_1	d_1	d_2	d_3	l_2	h_1	h_2	Axial compression max.	Radial compression max.	Axial load kgf max.	Radial load kgf max.
61800.W0135	135	120	50	9	105	42	3	15	10	2500	300
61800.W0170	170	140	65	15	145	100	4	15	10	2500	300
61800.W0180	180	160	60	9	140	46	4	15	10	2500	300
61800.W0210	210	185	70	11	165	55	5	15	10	2500	300
61800.W0250	250	230	100	16	215	48	4	15	10	2500	300

**61600****Material**

Rubber on silver zinc plated steel (rubber hardness - 60 Shore A).

be drilled to suit the number of threads, thread sizes and the pitch you require.

request.

Technical Notes

The metal plate is provided blank so it can

Part no. 61600.0500-125 has a ribbed base. Other sizes can be supplied on

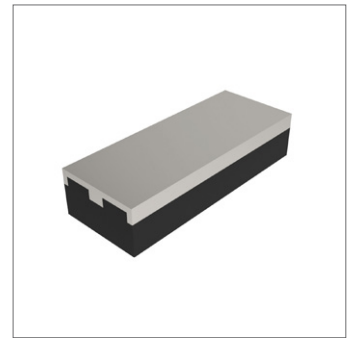
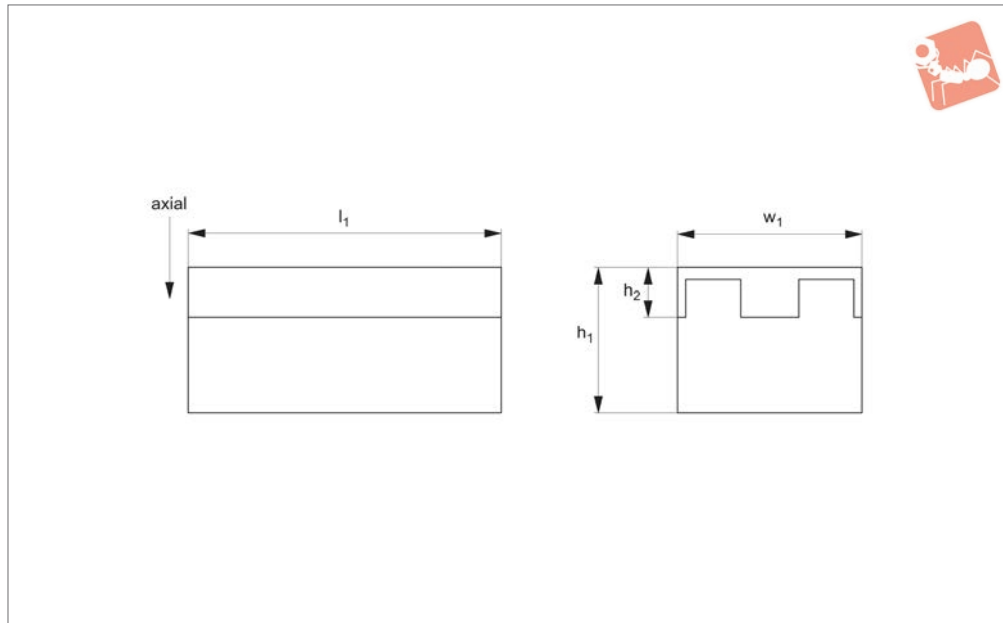
Order No.	l_1	w_1	h_1	h_2	h_3	Axial load kgf max.	Compression max.
61600.W0035	1250	35	40	30	10	2500	2.0
61600.W0070	180	70	40	30	10	1000	2.8
61600.W0071	245	70	40	30	10	1300	3.7
61600.W0072	285	70	40	30	10	2000	3.6
61600.W0073	320	70	40	30	10	2700	3.5
61600.W0120	250	120	40	28	12	5000	3.3
61600.W0125	500	125	30	15	15	10000	4.0



Anti-vibration Impact Plates

metal-rubber

Anti-Vibration



61610

ANTI-VIBRATION

Material

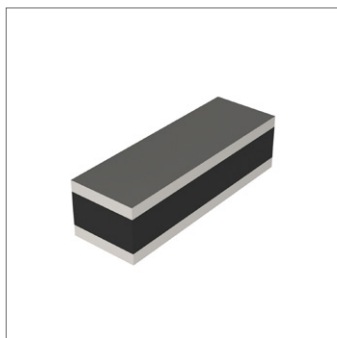
Rubber on silver zinc plated steel (rubber hardness - 60 Shore A).

Technical Notes

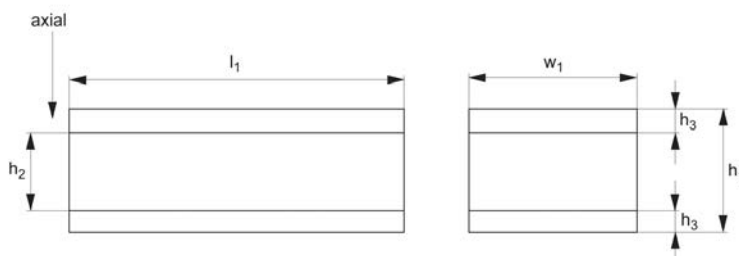
The metal plate is provided blank so it can be drilled to suit the number of threads,

thread sizes and the pitch you require. Other sizes can be supplied on request.

Order No.	l_1	w_1	h_1	h_2	Axial load kgf max.
61610.W0060	350	60	40	13	1000
61610.W0061	450	60	40	13	1500
61610.W0062	550	60	40	13	2000



61620



Material

Rubber on silver zinc plated steel (rubber hardness - 60Shore A).

Technical Notes

The metal plates are provided blank so they

can be drilled to suit the number of threads, thread sizes and the pitch you require. Other sizes can be supplied on request. Suitable for very heavy loads.

Order No.	l_1	w_1	h_1	h_2	h_3	Axial load kgf max.
61620.W0040	550	40	40	24	8	2200
61620.W0050	515	50	40	20	10	2800
61620.W0051	515	50	50	30	10	2570
61620.W0060	650	60	50	30	10	3900
61620.W0061	650	60	60	40	10	3500
61620.W0070	600	70	50	30	10	4200
61620.W0171	600	70	55	35	10	4000
61620.W0180	600	80	80	50	15	4320
61620.W0100	415	100	60	30	15	4150
61620.W0101	415	100	80	50	15	3740
61620.W0150	500	150	80	50	15	6750