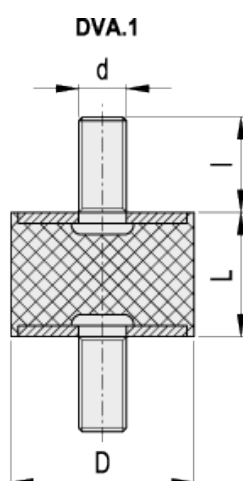


DVA

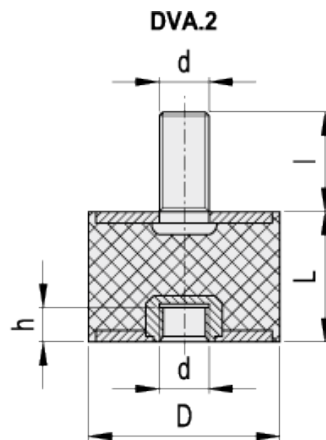
Vibration-damping elements



DVA.1 - 8 - 8 - M3 - 6 - 55
D L d I Shore A

Elesa Standards		Main dimensions				Max load	Max deflection	Load / deflection	Weight
Code	Description	D	L	d	I	[N]	[mm]	[N/mm]	g
411101	DVA.1-8-8-M3-6-55	8	8	M3	6	100	2.0	50	1
411121	DVA.1-10-10-M4-10-55	10	10	M4	10	150	2.5	60	2
411131	DVA.1-10-15-M4-10-55	10	15	M4	10	105	3	35	3
411141	DVA.1-15-8-M4-10-55	15	8	M4	10	720	2.0	360	5
411151	DVA.1-15-10-M4-10-55	15	10	M4	10	400	2.5	160	6
411161	DVA.1-15-15-M4-10-55	15	15	M4	10	300	3.75	80	7
411171	DVA.1-15-20-M4-10-55	15	20	M4	10	275	5	55	8
411181	DVA.1-20-15-M6-18-55	20	15	M6	18	675	3.75	180	18
411201	DVA.1-20-20-M6-18-55	20	20	M6	18	440	4	110	25
411211	DVA.1-20-25-M6-18-55	20	25	M6	18	400	5	80	20
411221	DVA.1-25-15-M6-18-55	25	15	M6	18	1200	3.75	320	28
411241	DVA.1-25-20-M6-18-55	25	20	M6	18	1100	5.0	220	31
411261	DVA.1-25-25-M6-18-55	25	25	M6	18	813	6.25	130	35

Elesa Standards		Main dimensions				Max load	Max deflection	Load / deflection	Weight
Code	Description	D	L	d	l	[N]	[mm]	[N/mm]	g
411271	DVA.1-25-30-M6-18-55	25	30	M6	18	825	7.5	110	38
411281	DVA.1-30-15-M8-20-55	30	15	M8	20	2213	3.75	590	45
411301	DVA.1-30-20-M8-20-55	30	20	M8	20	1800	5.0	360	50
411321	DVA.1-30-30-M8-20-55	30	30	M8	20	1200	7.5	160	57
411331	DVA.1-40-20-M8-20-55	40	20	M8	20	2480	4	620	80
411341	DVA.1-40-30-M8-23-55	40	30	M8	23	2400	7.5	320	95
411361	DVA.1-40-40-M8-23-55	40	40	M8	23	2000	10.0	200	100
411381	DVA.1-50-20-M10-28-55	50	20	M10	28	3500	5.0	700	130
411401	DVA.1-50-30-M10-28-55	50	30	M10	28	4125	7.5	550	184
411421	DVA.1-50-40-M10-28-55	50	40	M10	28	3400	10	340	170
411441	DVA.1-50-45-M10-28-55	50	45	M10	28	3038	11.25	270	180
411446	DVA.1-50-50-M10-28-55	50	50	M10	28	3250	12.5	260	195
411451	DVA.1-60-30-M10-28-55	60	30	M10	28	7125	7.5	950	211
411456	DVA.1-60-40-M10-28-55	60	40	M10	28	4800	10	480	236
411461	DVA.1-70-45-M10-28-55	70	45	M10	28	7313	11.25	650	380
411471	DVA.1-75-25-M12-37-55	75	25	M12	37	8250	3.75	2200	345
411481	DVA.1-75-40-M12-37-55	75	40	M12	37	9800	10	980	410
411501	DVA.1-75-55-M12-37-55	75	55	M12	37	5500	13.75	400	515
411521	DVA.1-100-40-M16-41-55	100	40	M16	41	13000	10	1300	765
411541	DVA.1-100-55-M16-41-55	100	55	M16	41	12375	13.75	900	905
411561	DVA.1-100-60-M16-41-55	100	60	M16	41	12750	15	850	950
411581	DVA.1-100-75-M16-41-55	100	75	M16	41	11250	18.75	600	1090

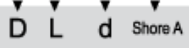


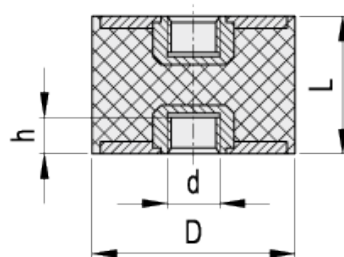
DVA.2 - 8 - 8 - M3 - 6 - 55				
D	L	d	l	Shore A

Elesa Standards		Main dimensions					Max load	Max deflection	Load / deflection	Weight
Code	Description	D	L	d	l	h	[N]	[mm]	[N/mm]	g
411701	DVA.2-8-8-M3-6-55	8	8	M3	6	3	120	2	60	1
411721	DVA.2-10-10-M4-10-55	10	10	M4	10	4	163	2.5	65	2
411731	DVA.2-10-15-M4-10-55	10	15	M4	10	4	96	2.75	35	3
411741	DVA.2-15-10-M4-10-55	15	10	M4	10	4	413	2.5	165	5
411761	DVA.2-15-15-M4-10-55	15	15	M4	10	4	319	3.75	85	6
411771	DVA.2-15-20-M4-10-55	15	20	M4	10	4	240	4	60	7
411781	DVA.2-20-15-M6-18-55	20	15	M6	18	6	694	3.75	185	15
411801	DVA.2-20-20-M6-18-55	20	20	M6	18	6	460	4	115	17
411811	DVA.2-20-25-M6-18-55	20	25	M6	18	6	400	5	80	18
411821	DVA.2-25-15-M6-18-55	25	15	M6	18	6	1238	3.75	330	26
411841	DVA.2-25-20-M6-18-55	25	20	M6	18	6	700	5	140	28

411851	DVA.2-25-30-M6-18-55	25	30	M6	18	6	825	7.5	110	36
411861	DVA.2-30-15-M8-20-55	30	15	M8	20	8	2250	3.75	600	41
411881	DVA.2-30-20-M8-20-55	30	20	M8	20	8	2050	5	410	43
411901	DVA.2-30-30-M8-20-55	30	30	M8	20	8	1575	7.5	210	50
411911	DVA.2-40-20-M8-23-55	40	20	M8	23	8	2600	4	650	73
411921	DVA.2-40-30-M8-23-55	40	30	M8	23	8	2550	7.5	340	85
411941	DVA.2-40-40-M8-23-55	40	40	M8	23	8	1900	10	190	98
411961	DVA.2-50-20-M10-28-55	50	20	M10	28	10	7500	5	1500	115
411981	DVA.2-50-30-M10-28-55	50	30	M10	28	10	3750	7.5	500	135
412001	DVA.2-50-40-M10-28-55	50	40	M10	28	10	3500	10	350	160
412021	DVA.2-50-45-M10-28-55	50	45	M10	28	10	3825	11.25	340	170
412026	DVA.2-50-50-M10-28-55	50	50	M10	28	10	2625	12.5	210	185
412031	DVA.2-60-30-M10-28-55	60	30	M10	28	10	7500	7.5	1000	199
412036	DVA.2-60-40-M10-28-55	60	40	M10	28	10	7700	10	770	220
412041	DVA.2-70-45-M10-28-55	70	45	M10	28	10	7988	11.25	710	372
412051	DVA.2-75-25-M12-37-55	75	25	M12	37	12	9375	3.75	2500	321
412061	DVA.2-75-40-M12-37-55	75	40	M12	37	12	13000	10	1300	385
412081	DVA.2-75-55-M12-37-55	75	55	M12	37	12	8113	13.75	590	450
412101	DVA.2-100-40-M16-41-55	100	40	M16	41	16	13000	10	1300	740
412121	DVA.2-100-55-M16-41-55	100	55	M16	41	16	12375	13.75	900	850
412141	DVA.2-100-60-M16-41-55	100	60	M16	41	16	12750	15	850	865
412161	DVA.2-100-75-M16-41-55	100	75	M16	41	16	11250	18.75	600	980

DVA.3

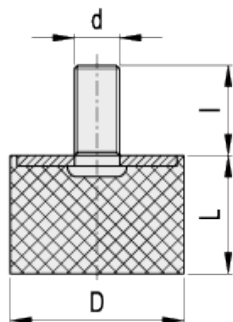
DVA.3 - 8 - 8 - M3 - 55




Elesa Standards		Main dimensions				Max load	Max deflection	Load / deflection	Weight
Code	Description	D	L	d	h	[N]	[mm]	[N/mm]	g
412301	DVA.3-8-8-M3-55	8	8	M3	3	120	2	60	1
412321	DVA.3-10-10-M4-55	10	10	M4	4	170	2.5	68	2
412326	DVA.3-10-15-M4-55	10	15	M4	4	96	2.75	35	3
412331	DVA.3-15-10-M4-55	15	10	M4	4	225	1.5	150	4
412341	DVA.3-15-15-M4-55	15	15	M4	4	319	3.75	85	6
412346	DVA.3-15-20-M4-55	15	20	M4	4	240	4	60	8
412351	DVA.3-20-15-M6-55	20	15	M6	6	694	3.75	185	13
412361	DVA.3-20-20-M6-55	20	20	M6	6	575	5	115	16
412371	DVA.3-20-25-M6-55	20	25	M6	6	400	5	80	19
412381	DVA.3-25-20-M6-55	25	20	M6	6	580	4	145	26
412386	DVA.3-25-25-M6-55	25	25	M6	6	700	5	140	29
412391	DVA.3-25-30-M6-55	25	30	M6	6	825	7.5	110	25
412401	DVA.3-30-20-M8-55	30	20	M8	8	2050	5	410	39
412421	DVA.3-30-30-M8-55	30	30	M8	8	1800	5	360	45
412431	DVA.3-30-40-M8-55	30	40	M8	8	1400	10	140	53
412441	DVA.3-40-30-M8-55	40	30	M8	8	4125	7.5	550	80
412461	DVA.3-40-40-M8-55	40	40	M8	8	2300	10	230	98

412463	DVA.3-50-30-M10-55	50	30	M10	10	6000	7.5	800	125
412466	DVA.3-50-40-M10-55	50	40	M10	10	4000	10	400	150
412469	DVA.3-50-50-M10-55	50	50	M10	10	2750	12.5	220	125
412471	DVA.3-60-30-M10-55	60	30	M10	10	8250	7.5	1100	189
412476	DVA.3-60-40-M10-55	60	40	M10	10	8000	10	800	220
412481	DVA.3-70-45-M10-55	70	45	M10	10	7875	11.25	700	335
412501	DVA.3-75-40-M12-55	75	40	M12	12	9800	10	980	360
412521	DVA.3-75-55-M12-55	75	55	M12	12	8113	13.75	590	445
412541	DVA.3-100-40-M16-55	100	40	M16	16	13000	10	1300	690
412551	DVA.3-100-55-M16-55	100	55	M16	16	12000	9	1300	765
412561	DVA.3-100-60-M16-55	100	60	M16	16	11250	15	750	885
412581	DVA.3-100-75-M16-55	100	75	M16	16	11250	18.75	600	965

DVA.4



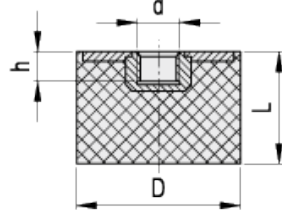
DVA.4 - 8 - 8 - M3 - 6 - 55

D L d l Shore A

Elesa Standards		Main dimensions				Max load	Max deflection	Load / deflection	Weight
Code	Description	D	L	d	l	[N]	[mm]	[N/mm]	g
412700	DVA.4-8-8-M3-6-55	8	8	M3	6	100	2	50	3
412701	DVA.4-10-10-M4-10-55	10	10	M4	10	110	2.75	40	2
412703	DVA.4-10-15-M4-10-55	10	15	M4	10	125	2.5	50	3
412706	DVA.4-15-10-M4-10-55	15	10	M4	10	300	2.5	120	4
412709	DVA.4-15-15-M4-10-55	15	15	M4	10	275	2.75	100	5
412711	DVA.4-15-20-M4-10-55	15	20	M4	10	320	4	80	7
412716	DVA.4-15-30-M4-10-55	15	30	M4	10	420	6	70	9
412721	DVA.4-20-10-M6-18-55	20	10	M6	18	375	2.5	150	15
412741	DVA.4-20-15-M6-18-55	20	15	M6	18	544	3.75	145	10
412746	DVA.4-20-20-M6-18-55	20	20	M6	18	400	4	100	13
412751	DVA.4-20-30-M6-18-55	20	30	M6	18	480	6	80	23
412756	DVA.4-25-15-M6-18-55	25	15	M6	18	605	2.75	220	18
412761	DVA.4-25-17-M6-18-55	25	17	M6	18	765	4.25	180	20
412766	DVA.4-25-20-M6-18-55	25	20	M6	18	520	4	130	20
412771	DVA.4-25-30-M6-18-55	25	30	M6	18	660	6	110	25
412776	DVA.4-30-15-M8-20-55	30	15	M8	20	1425	3.75	380	30
412781	DVA.4-30-17-M8-20-55	30	17	M8	20	1530	4.25	360	31
412801	DVA.4-30-20-M8-20-55	30	20	M8	20	1250	5	250	35
412811	DVA.4-30-25-M8-20-55	30	25	M8	20	1125	5	225	38
412821	DVA.4-30-30-M8-20-55	30	30	M8	20	1500	7.5	200	43
412831	DVA.4-40-20-M8-23-55	40	20	M8	23	1520	4	380	55
412836	DVA.4-40-25-M8-23-55	40	25	M8	23	1600	5	320	60
412841	DVA.4-40-30-M8-23-55	40	30	M8	23	2025	7.5	270	73
412861	DVA.4-40-40-M8-23-55	40	40	M8	23	2300	10	230	83
412881	DVA.4-50-20-M10-28-55	50	20	M10	28	3250	5	650	90
412901	DVA.4-50-30-M10-28-55	50	30	M10	28	2625	7.5	350	118

412921	DVA.4-50-40-M10-28-55	50	40	M10	28	3000	10	300	140
412931	DVA.4-60-20-M10-28-55	60	20	M10	28	3800	4	950	219
412936	DVA.4-60-40-M10-28-55	60	40	M10	28	5920	8	740	195
412941	DVA.4-70-40-M10-28-55	70	40	M10	28	6500	10	650	265
412951	DVA.4-70-55-M10-28-55	70	55	M10	28	5500	11	500	357
412961	DVA.4-75-25-M12-37-55	75	25	M12	37	5625	6.25	900	223
412971	DVA.4-75-40-M12-37-55	75	40	M12	37	8000	10	800	310
412981	DVA.4-75-50-M12-37-55	75	50	M12	37	8750	12.5	700	340
413001	DVA.4-100-40-M16-41-55	100	40	M16	41	9000	10	900	570
413011	DVA.4-100-50-M16-41-55	100	50	M16	41	9375	12.5	750	655
413021	DVA.4-100-60-M16-41-55	100	60	M16	41	10500	15	700	830

DVA.5



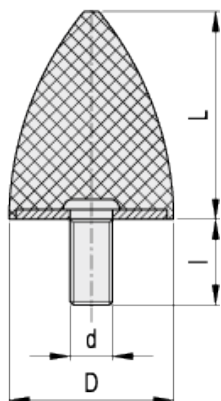
DVA.5 - 10 - 10 - M4 - 55

D L d Shore A

Elesa Standards		Main dimensions				Max load	Max deflection	Load / deflection	Weight
Code	Description	D	L	d	h	[N]	[mm]	[N / mm]	g
413031	DVA.5-10-10-M4-55	10	10	M4	4	125	4.25	360	2
413041	DVA.5-15-15-M4-55	15	15	M4	4	275	2.75	100	5
413051	DVA.5-15-20-M4-55	15	20	M4	4	320	4	80	6
413061	DVA.5-20-15-M6-55	20	15	M6	6	544	3.75	145	10
413071	DVA.5-20-20-M6-55	20	20	M6	6	400	4	100	11
413081	DVA.5-20-25-M6-55	20	25	M6	6	400	5	80	13
413091	DVA.5-25-15-M6-55	25	15	M6	6	605	2.75	220	16
413101	DVA.5-25-20-M6-55	25	20	M6	6	520	4	130	20
413106	DVA.5-25-30-M6-55	25	30	M6	6	660	6	110	21
413111	DVA.5-30-15-M8-55	30	15	M8	8	1425	3.75	380	23
413121	DVA.5-30-17-M8-55	30	17	M8	8	1530	4.25	360	25
413141	DVA.5-30-20-M8-55	30	20	M8	8	1250	5	250	27
413146	DVA.5-30-30-M8-55	30	30	M8	8	1500	7.5	200	34
413151	DVA.5-40-20-M8-55	40	20	M8	8	1520	4	380	45
413161	DVA.5-40-30-M8-55	40	30	M8	8	2025	7.5	270	65
413171	DVA.5-40-40-M8-55	40	40	M8	8	2300	10	230	75
413181	DVA.5-50-20-M10-55	50	20	M10	10	3250	5	650	77
413183	DVA.5-50-30-M10-55	50	30	M10	10	2625	7.5	350	100
413186	DVA.5-50-40-M10-55	50	40	M10	10	3000	10	300	115
413191	DVA.5-60-30-M10-55	60	30	M10	10	5100	6	850	141
413193	DVA.5-60-50-M10-55	60	50	M10	10	5000	12.5	400	205
413196	DVA.5-70-40-M10-55	70	40	M10	10	6500	10	650	255
413201	DVA.5-70-45-M10-55	70	45	M10	10	6750	11.25	600	275
413211	DVA.5-70-55-M10-55	70	55	M10	10	5500	11	500	341
413221	DVA.5-75-25-M12-55	75	25	M12	12	5625	6.25	900	205
413226	DVA.5-75-30-M12-55	75	30	M12	12	6375	7.5	850	210
413231	DVA.5-75-40-M12-55	75	40	M12	12	8000	10	800	290
413241	DVA.5-75-50-M12-55	75	50	M12	12	8750	12.5	700	345
413261	DVA.5-100-40-M16-55	100	40	M16	16	9000	10	900	485

413281	DVA.5-100-50-M16-55	100	50	M16	16	16250	12.5	1300	580
413291	DVA.5-100-60-M16-55	100	60	M16	16	16500	15	1100	720

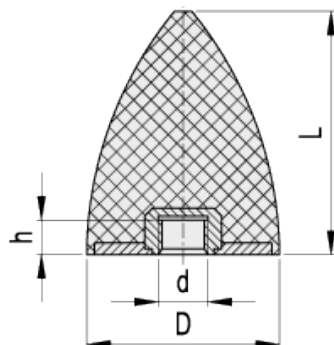
DVA.6



DVA.6 - 20 - 24 - M6 - 18 - 55
D L d l Shore A

Elesa Standards		Main dimensions				Max load	Max deflection	Weight
Code	Description	D	L	d	l	[N]	[mm]	g
413401	DVA.6-20-24-M6-18-55	20	24	M6	18	237	9.6	10
413411	DVA.6-30-30-M8-18-55	30	30	M8	18	500	11.7	24
413421	DVA.6-30-36-M8-20-55	30	36	M8	20	560	15.6	39
413431	DVA.6-35-40-M8-23-55	35	40	M8	23	630	15	45
413441	DVA.6-50-61-M8-28-55	50	61	M8	28	1605	23.9	114
413451	DVA.6-50-68-M10-28-55	50	68	M10	28	1500	25	131

DVA.7



DVA.7 - 20 - 24 - M6 - 55
D L d h Shore A

Elesa Standards		Main dimensions				Max load	Max deflection	Weight
Code	Description	D	L	d	h	[N]	[mm]	g
413601	DVA.7-20-24-M6-55	20	24	M6	6	237	9.6	8
413611	DVA.7-30-30-M8-55	30	30	M8	8	500	11.7	28
413621	DVA.7-30-36-M8-55	30	36	M8	8	560	15.6	30
413631	DVA.7-35-40-M8-55	35	40	M8	8	630	15	43
413641	DVA.7-50-61-M8-55	50	61	M8	8	1605	23.9	114
413651	DVA.7-50-68-M10-55	50	68	M10	10	1500	25	120

Base

Glossy zinc-plated steel.

Vibration-damping body

Natural rubber NR, hardness 55±5 Shore A, black colour.

Standard executions

- DVA.1: glossy zinc-plated steel threaded studs.
- DVA.2: threaded stud and boss in glossy zinc-plated steel, threaded blind hole.
- DVA.3: glossy zinc-plated steel bosses, threaded blind hole.
- DVA.4: glossy zinc-plated steel threaded stud.
- DVA.5: glossy zinc-plated steel boss, threaded blind hole.
- DVA.6: glossy zinc-plated steel threaded stud.
- DVA.7: glossy zinc-plated steel boss, threaded blind hole.

Special executions on request

- Natural rubber NR, hardness 40 ± 5 Shore A.
- Natural rubber NR, hardness 70 ± 5 Shore A.

Features and applications

ELESA vibration-damping elements have been designed to damp vibrations, shocks and noises produced by moving bodies or vibrating masses which can cause:

- malfunctioning and reduction of the machine lifespan and/or of the adjacent ones
- noise
- damage to men's health.

Technical data and guidelines for the selection of vibration-damping levelling elements

Basic data required:

- disturbing frequency: the frequency of the disturbing vibration produced by a on-duty machine. In general, it coincides with the number of rotations of the engine [rpm]
- the static load applied to every single vibration-damping element [N]
- the isolation degree required [%]
- for every type of vibration-damping element and for every size, maximum static load [N], maximum static deflection [mm] and load/deflection relation are given. The values are reported in the Main Dimensions table. For DVA.6 and DVA.7 the non-linear progress of the load/deflection relation is reported in graph 2.

How to choose the vibration-damping element:

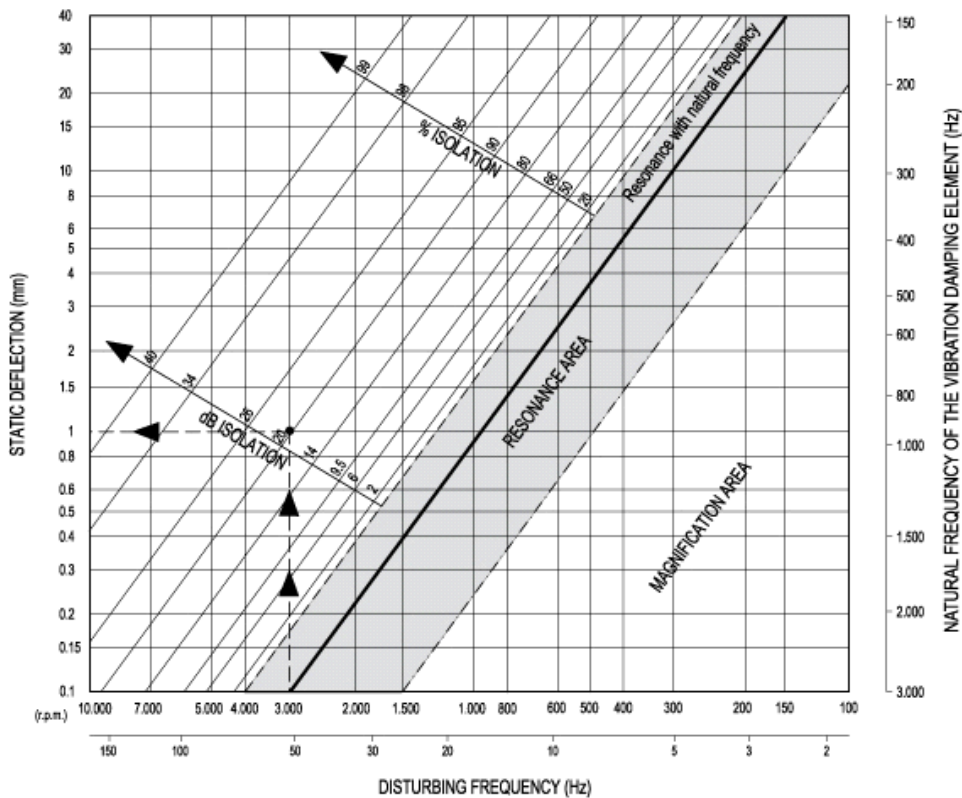
- with reference to the nomograph (graphic 1), intersect the disturbing frequency value with the isolation degree required (each isolation degree corresponds to a line on the nomograph) and define the deflection (static deflection mm)
- the values reported in the table for maximum static load [N], static deflection [mm] and for load/deflection relation (for DVA.6 and DVA.7 see graph 2), help to identify the product that, under the given static load [N], presents the static deflection [mm] calculated at the above-mentioned point.

Example:

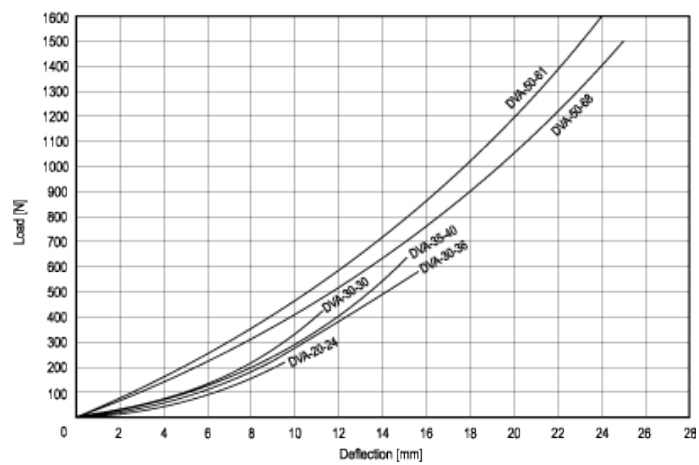
Application with the following features:

- 3000 rpm disturbing frequency
- static load applied on each vibration-damping element 60N
- 90% isolation required
- assembly required type DVA.1
- Graphic 1 shows that with a 3000 rpm disturbing frequency and an isolation degree of 90%, the deflection obtained is 1.0mm.
- The values reported in table, for type DVA.1, shows that the vibration-damping element which should be used is: DVA.1-10-10-M4-10.

Graphic 1



Graphic 2 (DVA.6 - DVA.7)



STANDARD MACHINE ELEMENTS WORLDWIDE

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