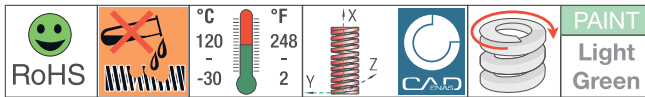
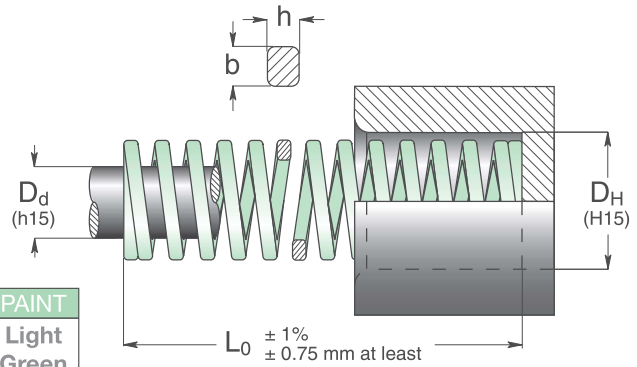


VL SERIES

Special Springs Standard

- IT** Molle carico extra-leggero
- EN** Extra-light load springs
- DE** Federn für leichte Spannung
- FR** Ressorts charge extra-légère
- ES** Muelles carga extra-ligera
- PT** Molas carga extra-leve



Code	D _H	D _d	L ₀	R	A		B		C		D		E	Pcs
					30% L ₀	N	40% L ₀	N	45% L ₀	N	50% L ₀	N		
	Hole Diameter	Rod Diameter	Free Length	Spring Constant	+ 3.000.000		~ 1.500.000		300 - 500.000		100 - 200.000		do not use approx.	
	b x h			± 10%	mm	N	mm	N	mm	N	mm	N	mm	
VL 10 - 025	10	5	25	8.5	7.5	64	10.0	85	11.25	96	12.5	106	14.1	50
VL 10 - 032			32	6.5	9.6	62	12.8	83	14.40	94	16.0	104	18.5	50
VL 10 - 038			38	5.5	11.4	63	15.2	84	17.10	94	19.0	105	22.5	50
VL 10 - 044			44	4.8	13.2	63	17.6	84	19.80	95	22.0	106	23.2	50
VL 10 - 051			51	4.2	15.3	64	20.4	86	22.95	96	25.5	107	27.5	25
VL 10 - 064			64	3.3	19.2	63	25.6	84	28.80	95	32.0	106	34.0	25
VL 10 - 076			76	2.7	22.8	62	30.4	82	34.20	92	38.0	103	40.4	25
VL 10 - 305	1.65 x 1.0		305	0.65	91.5	59	122	79	137.25	89	152.5	99	172.7	10
VL 13 - 025	12.5	6.3	25	16	7.5	120	10.0	160	11.25	180	12.5	200	13.6	50
VL 13 - 032			32	12.2	9.6	117	12.8	156	14.40	176	16.0	195	17.9	50
VL 13 - 038			38	10.3	11.4	117	15.2	157	17.10	176	19.0	196	21.9	50
VL 13 - 044			44	8.7	13.2	115	17.6	153	19.80	172	22.0	191	26.4	25
VL 13 - 051			51	7.5	15.3	115	20.4	153	22.95	172	25.5	191	29.6	25
VL 13 - 064			64	5.8	19.2	111	25.6	148	28.80	167	32.0	186	37.1	25
VL 13 - 076			76	4.7	22.8	107	30.4	143	34.20	161	38.0	179	44.9	25
VL 13 - 089	89	4.1	26.7	109	35.6	146	40.05	164	44.5	182	53.2	20		
VL 13 - 102	102	3.6	30.6	110	40.8	147	45.90	165	51.0	184	59.4	10		
VL 13 - 305	2.3 x 1.3		305	1.25	91.5	114	122	153	137.25	172	152.5	191	186.6	10
VL 16 - 025	16	8	25	20.2	7.5	152	10.0	202	11.25	227	12.5	253	14.0	50
VL 16 - 032			32	16	9.6	154	12.8	205	14.40	230	16.0	256	18.7	50
VL 16 - 038			38	12.3	11.4	140	15.2	187	17.10	210	19.0	234	22.0	25
VL 16 - 044			44	10.6	13.2	140	17.6	187	19.80	210	22.0	233	26.1	25
VL 16 - 051			51	8.9	15.3	136	20.4	182	22.95	204	25.5	227	30.4	25
VL 16 - 064			64	7	19.2	134	25.6	179	28.80	202	32.0	224	38.8	25
VL 16 - 076			76	5.8	22.8	132	30.4	176	34.20	198	38.0	220	46.4	20
VL 16 - 089	89	4.8	26.7	128	35.6	171	40.05	192	44.5	214	54.2	20		
VL 16 - 102	102	4.1	30.6	125	40.8	167	45.90	188	51.0	209	62.4	20		
VL 16 - 115	115	3.9	34.5	135	46.0	179	51.75	202	57.5	224	70.6	10		
VL 16 - 305	3.05 x 1.5		305	1.5	91.5	137	122	183	137.25	206	152.5	229	190.2	10
VL 20 - 025	20	10	25	29.4	7.5	221	10.0	294	11.3	331	12.5	368	13.9	50
VL 20 - 032			32	22.6	9.6	217	12.8	289	14.4	325	16.0	362	18.2	50
VL 20 - 038			38	18.6	11.4	212	15.2	283	17.1	318	19.0	353	22.0	25
VL 20 - 044			44	15.7	13.2	207	17.6	276	19.8	311	22.0	345	25.8	25
VL 20 - 051			51	13.7	15.3	210	20.4	279	23.0	314	25.5	349	30.3	25
VL 20 - 064			64	11.3	19.2	217	25.6	289	28.8	325	32.0	362	38.9	25
VL 20 - 076			76	9.8	22.8	223	30.4	298	34.2	335	38.0	372	47.0	25
VL 20 - 089	89	8.3	26.7	222	35.6	295	40.1	332	44.5	369	55.7	20		
VL 20 - 102	102	7.4	30.6	226	40.8	302	45.9	340	51.0	377	64.2	20		
VL 20 - 115	115	6.4	34.5	221	46.0	294	51.8	331	57.5	368	72.9	10		
VL 20 - 127	127	5.9	38.1	225	50.8	300	57.2	337	63.5	375	80.7	10		
VL 20 - 139	139	5.4	41.7	225	55.6	300	62.6	338	69.5	375	88.4	10		
VL 20 - 152	152	4.9	45.6	223	60.8	298	68.4	335	76.0	372	96.7	10		
VL 20 - 305	3.9 x 1.7		305	2.5	91.5	229	122	305	137	343	153	381	196	10

new sizes

Special Springs 18-018

How to order: VL 50 - 152 (Series D_H - L₀)

1 N = 0.1 daN = 0.102 kgf Load (N) = R (N/mm) x Deflection (mm)

Special Springs Standard

SERIES VL

Code	D _H	D _d	L ₀	R	A		C		C		D		E	Pcs		
	Hole Diameter	Rod Diameter	Free Length	Spring Constant	30% L ₀	N/mm	40% L ₀	N	45% L ₀	N	50% L ₀	N	do not use approx.			
b x h				± 10%	+ 3.000.000		~ 1.500.000		300 - 500.000		100 - 200.000					
mm		mm		mm	mm	N	mm	N	mm	N	mm	N	mm			
VL 25 - 025	25	12.5	25	53.9	7.5	404	10.0	539	11.3	606	12.5	674	12.9	50		
VL 25 - 032			32	42.2	9.6	405	12.8	540	14.4	608	16.0	675	17.2	25		
VL 25 - 038			38	35.8	11.4	408	15.2	544	17.1	612	19.0	680	20.7	25		
VL 25 - 044			44	31.4	13.2	414	17.6	553	19.8	622	22.0	691	24.4	25		
VL 25 - 051			51	27.0	15.3	413	20.4	551	23.0	620	25.5	689	28.5	25		
VL 25 - 064			64	21.6	19.2	415	25.6	553	28.8	622	32.0	691	36.5	25		
VL 25 - 076			76	18.1	22.8	413	30.4	550	34.2	619	38.0	688	43.9	20		
VL 25 - 089			89	15.2	26.7	406	35.6	541	40.1	609	44.5	676	51.4	20		
VL 25 - 102			102	13.2	30.6	404	40.8	539	45.9	606	51.0	673	59.3	20		
VL 25 - 115			115	11.8	34.5	407	46.0	543	51.8	611	57.5	679	67.2	10		
VL 25 - 127			127	10.6	38.1	404	50.8	538	57.2	606	63.5	673	74.4	10		
VL 25 - 139			139	9.6	41.7	400	55.6	534	62.6	600	69.5	667	81.6	10		
VL 25 - 152			152	8.8	45.6	401	60.8	535	68.4	602	76.0	669	89.5	10		
VL 25 - 178			178	7.6	53.4	406	71.2	541	80.1	609	89.0	676	105	10		
VL 25 - 203			203	6.7	60.9	408	81.2	544	91.4	612	102	680	121	10		
VL 25 - 305			5.4 x 2.2	305	4.4	91.5	403	122	537	137	604	153	671	182	5	
VL 32 - 038	32	16	38	43.1	11.4	491	15.2	655	17.1	737	19.0	819	19.9	20		
VL 32 - 044			44	37.3	13.2	492	17.6	656	19.8	739	22.0	821	23.5	20		
VL 32 - 051			51	32.4	15.3	496	20.4	661	23.0	744	25.5	826	27.6	20		
VL 32 - 064			64	25.5	19.2	490	25.6	653	28.8	734	32.0	816	35.2	20		
VL 32 - 076			76	21.6	22.8	492	30.4	657	34.2	739	38.0	821	42.4	20		
VL 32 - 089			89	18.1	26.7	483	35.6	644	40.1	725	44.5	805	50.0	10		
VL 32 - 102			102	15.7	30.6	480	40.8	641	45.9	721	51.0	801	57.6	10		
VL 32 - 115			115	14.2	34.5	490	46.0	653	51.8	735	57.5	817	65.5	10		
VL 32 - 127			127	12.7	38.1	484	50.8	645	57.2	726	63.5	806	72.5	10		
VL 32 - 139			139	11.6	41.7	484	55.6	645	62.6	726	69.5	806	79.4	10		
VL 32 - 152			152	10.6	45.6	483	60.8	644	68.4	725	76.0	806	87.3	10		
VL 32 - 178			178	9.0	53.4	481	71.2	641	80.1	721	89.0	801	103	5		
VL 32 - 203			203	7.8	60.9	475	81.2	633	91.4	713	102	792	118	5		
VL 32 - 254			254	6.4	76.2	488	102	650	114	732	127	813	148	5		
VL 32 - 305			6.5 x 2.6	305	5.3	91.5	485	122	647	137	727	153	808	178	5	
VL 40 - 051			40	20	51	48.1	15.3	736	20.4	981	23.0	1104	25.5	1227	28.0	20
VL 40 - 064	64	39.2			19.2	753	25.6	1004	28.8	1129	32.0	1254	36.2	10		
VL 40 - 076	76	33.3			22.8	759	30.4	1012	34.2	1139	38.0	1265	43.7	10		
VL 40 - 089	89	28.4			26.7	758	35.6	1011	40.1	1137	44.5	1264	51.7	10		
VL 40 - 102	102	24.5			30.6	750	40.8	1000	45.9	1125	51.0	1250	59.8	10		
VL 40 - 115	115	22.1			34.5	762	46.0	1017	51.8	1144	57.5	1271	67.9	10		
VL 40 - 127	127	19.6			38.1	747	50.8	996	57.2	1120	63.5	1245	75.2	5		
VL 40 - 139	139	17.7			41.7	738	55.6	984	62.6	1107	69.5	1230	82.4	5		
VL 40 - 152	152	16.2			45.6	739	60.8	985	68.4	1108	76.0	1231	90.6	5		
VL 40 - 178	178	13.7			53.4	732	71.2	975	80.1	1097	89.0	1219	106	5		
VL 40 - 203	203	12.3			60.9	749	81.2	999	91.4	1124	101	1248	122	5		
VL 40 - 254	254	9.8			76.2	747	102	996	114	1120	127	1245	154	2		
VL 40 - 305	8.0 x 3.4	305			8.3	91.5	759	122	1013	137	1139	152	1266	185	2	
VL 50 - 064	50	25			64	86.3	19.2	1657	25.6	2209	28.8	2485	32.0	2762	35.1	5
VL 50 - 076					76	70.6	22.8	1610	30.4	2146	34.2	2415	38.0	2683	42.2	5
VL 50 - 089					89	59.8	26.7	1597	35.6	2129	40.1	2395	44.5	2661	50.3	5
VL 50 - 102			102	52.0	30.6	1591	40.8	2122	45.9	2387	51.0	2652	58.4	5		
VL 50 - 115			115	46.1	34.5	1590	46.0	2121	51.8	2386	57.5	2651	66.1	5		
VL 50 - 127			127	42.2	38.1	1608	50.8	2144	57.2	2412	63.5	2680	73.8	5		
VL 50 - 139			139	38.2	41.7	1593	55.6	2124	62.6	2389	69.5	2655	80.9	5		
VL 50 - 152			152	34.3	45.6	1564	60.8	2085	68.4	2346	76.0	2607	89.0	2		
VL 50 - 178			178	29.4	53.4	1570	71.2	2093	80.1	2355	89.0	2617	105	2		
VL 50 - 203			203	25.5	60.9	1553	81.2	2071	91.4	2329	101	2588	121	2		
VL 50 - 254			254	20.6	76.2	1570	102	2093	114	2355	127	2616	152	2		
VL 50 - 305			10.5 x 4.1	305	17.2	91.5	1574	122	2098	137	2361	152	2623	184	2	
VL 63 - 076			63	38	76	57.8	22.8	1318	30.4	1757	34.2	1977	38.0	2196	47.3	5
VL 63 - 089					89	51.4	26.7	1372	35.6	1830	40.0	2059	44.5	2287	54.9	5
VL 63 - 102					102	44.4	30.6	1359	40.8	1812	45.9	2038	51.0	2264	64.1	5
VL 63 - 115					115	38	34.5	1311	46.0	1748	51.7	1967	57.5	2185	75.6	5
VL 63 - 127	127	33.2			38.1	1265	50.8	1687	57.1	1897	63.5	2108	82.6	2		
VL 63 - 152	152	27.4			45.6	1249	60.8	1666	68.4	1874	76.0	2082	99.8	2		
VL 63 - 178	178	24			53.4	1282	71.2	1709	80.1	1922	89.0	2136	118.4	2		
VL 63 - 203	203	21			60.9	1279	81.2	1705	91.3	1918	101.5	2132	135.9	2		
VL 63 - 254	254	16.4			76.2	1250	101.6	1666	114.3	1875	127	2083	172.8	2		
VL 63 - 305	11 x 4.9	305			13.6	91.5	1244	122	1659	137.2	1867	152.5	2074	208.6	2	

new sizes

How to order: VL 50 - 152 (Series) [D_H] - [L₀] 1 N = 0.1 daN = 0.102 kgf Load (N) = R (N/mm) x Deflection (mm) Special Springs 19-018