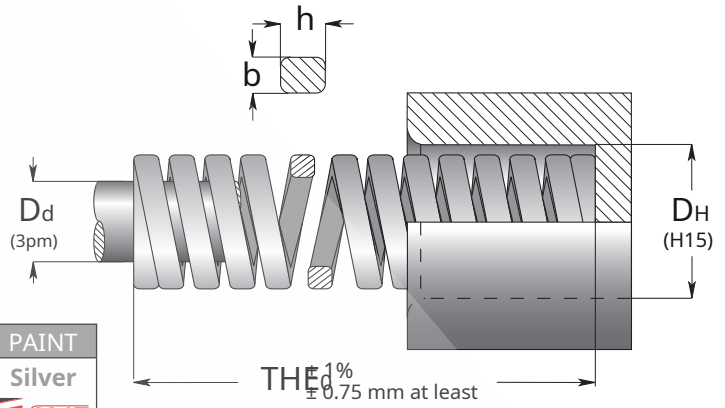
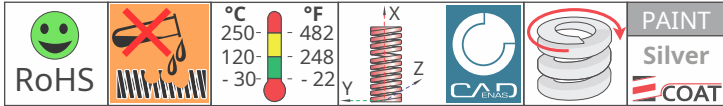


IT Ultra-strong load springs Ultra-
EN strong load springs Federn für
FR ultra-hohe Spannung Ressorts
FR charge ultra-forte Muelles load
ES ultra-fuerte
PT Molas carga ultra-forte



Code	D _H Hole Diameter	D _d Rod Diameter	THER Free Length	TO Spring Rate	B 10%THE ₀	C 12%THE ₀	D 13.5%THE ₀	D 15%THE ₀	AND approx. do not use	Pcs				
	mm	mm	mm	N/mm	mm	mm	mm	mm	mm					
A 10 - 025	10	5	25	167.0	2.5	417.5	3.0	501.0	3.4	567.8	3.8	634.6	5.9	50
A 10 - 032			32	130.0	3.2	416.0	3.8	494.0	4.3	559.0	4.8	624.0	7.5	50
A 10 - 038			38	105.0	3.8	399.0	4.6	483.0	5.1	535.5	5.7	598.5	8.2	50
A 10 - 044			44	86.0	4.4	378.4	5.3	455.8	5.9	507.4	6.6	567.6	11.0	50
A 10 - 051			51	79.0	5.1	402.9	6.1	481.9	6.9	545.1	7.7	608.3	12.5	25
A 10 - 064			64	62.0	6.4	396.8	7.7	477.4	8.6	533.2	9.6	595.2	15.8	25
A 10 - 076	2.0 x 2.8		76	51.0	7.6	387.6	9.1	464.1	10.3	525.3	11.4	581.4	19.0	25
A 10 - 305			305	11.5	30.5	350.8	36.6	420.9	41.2	473.8	45.8	526.7	89.0	10
A 13 - 025	12.5	6.3	25	288.0	2.5	720	3.0	864	3.4	979	3.8	1094	5.6	50
A 13 - 032			32	216.0	3.2	691	3.8	821	4.3	929	4.8	1037	7.3	50
A 13 - 038			38	176.0	3.8	669	4.6	810	5.1	898	5.7	1003	9.2	50
A 13 - 044			44	149.0	4.4	656	5.3	790	5.9	879	6.6	983	11.1	25
A 13 - 051			51	128.0	5.1	653	6.1	781	6.9	883	7.7	986	12.6	25
A 13 - 064			64	100.0	6.4	640	7.7	770	8.6	860	9.6	960	16.1	25
A 13 - 076	2.75 x 3.4		76	84.0	7.6	638	9.1	764	10.3	865	11.4	958	19.3	25
A 13 - 089			89	71.0	8.9	632	10.7	760	12.0	852	13.4	951	23.3	20
A 13 - 102			102	61.0	10.2	622	12.2	744	13.8	842	15.3	933	26.9	10
A 13 - 305			305	22.0	30.5	671	36.6	805	41.2	906	45.8	1008	94.0	10
A 16 - 032	16	8	32	449.0	3.2	1437	3.8	1706	4.3	1931	4.8	2155	6.6	50
A 16 - 038			38	363.0	3.8	1379	4.6	1670	5.1	1851	5.7	2069	8.1	25
A 16 - 044			44	309.0	4.4	1360	5.3	1638	5.9	1823	6.6	2039	10.1	25
A 16 - 051			51	256.0	5.1	1306	6.1	1562	6.9	1766	7.7	1971	11.3	25
A 16 - 064			64	203.0	6.4	1299	7.7	1563	8.6	1746	9.6	1949	14.3	25
A 16 - 076			76	166.0	7.6	1262	9.1	1511	10.3	1710	11.4	1892	18.0	20
A 16 - 089			89	139.0	8.9	1237	10.7	1487	12.0	1668	13.4	1863	20.5	20
A 16 - 102			102	114.0	10.2	1163	12.2	1391	13.8	1573	15.3	1744	24.3	20
A 16 - 115	3.5 x 4.75		115	105.0	11.5	1208	13.8	1449	15.5	1628	17.3	1817	27.0	10
A 16 - 127			127	94.0	12.7	1194	15.2	1429	17.1	1607	19.1	1795	31.5	10
A 16 - 152			152	78.0	15.2	1186	18.2	1420	20.5	1599	22.8	1778	38.0	10
A 16 - 305			305	38.8	30.5	1183	36.6	1420	41.2	1599	45.8	1777	77.2	10
A 20 - 044	20	10	44	452.0	4.4	1989	5.3	2396	5.9	2667	6.6	2983	8.9	25
A 20 - 051			51	378.0	5.1	1928	6.1	2306	6.9	2608	7.7	2911	10.6	25
A 20 - 064			64	301.0	6.4	1926	7.7	2318	8.6	2589	9.6	2890	13.8	25
A 20 - 076			76	247.0	7.6	1877	9.1	2248	10.3	2544	11.4	2816	16.2	25
A 20 - 089			89	208.0	8.9	1851	10.7	2226	12.0	2496	13.4	2787	20.1	20
A 20 - 102			102	188.0	10.2	1918	12.2	2294	13.8	2594	15.3	2876	22.3	20
A 20 - 115			115	159.0	11.5	1829	13.8	2194	15.5	2465	17.3	2751	25.5	10
A 20 - 127			127	146.0	12.7	1854	15.2	2219	17.1	2497	19.1	2789	27.9	10
A 20 - 152	4.0 x 6.0		152	120.0	15.2	1824	18.2	2184	20.5	2460	22.8	2736	34.1	10
A 20 - 305			305	60.0	30.5	1830	36.6	2196	41.2	2472	45.8	2748	68.8	10

Code	D _H Hole Diameter	D _d Rod Diameter	Free Length	Spring Rate	TO 10%THE ₀	B 12%THE ₀	C 13.5%THE ₀	D 15%THE ₀	AND do not use approx.	Pcs				
	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	Pcs		
A 25 - 044	25	12.5	44	1158.0	4.4	5095	5.3	6137	5.9	6832	6.6	7643	9.8	25
A 25 - 051			51	933.0	5.1	4758	6.1	5691	6.9	6438	7.7	7184	11.0	25
A 25 - 064			64	644.0	6.4	4122	7.7	4959	8.6	5538	9.6	6182	13.0	25
A 25 - 076			76	556.0	7.6	4226	9.1	5060	10.3	5727	11.4	6338	16.0	20
A 25 - 089			89	462.0	8.9	4112	10.7	4943	12.0	5544	13.4	6191	20.0	20
A 25 - 102			102	390.0	10.2	3978	12.2	4758	13.8	5382	15.3	5967	23.0	20
A 25 - 115			115	360.0	11.5	4140	13.8	4968	15.5	5580	17.3	6228	26.0	10
A 25 - 127			127	326.0	12.7	4140	15.2	4955	17.1	5575	19.1	6227	28.0	10
A 25 - 152			152	255.0	15.2	3876	18.2	4641	20.5	5228	22.8	5814	34.0	10
A 25 - 178			178	230.0	17.8	4094	21.4	4922	24.0	5520	26.7	6141	39.0	10
A 25 - 203	5.6 x 7.5		203	202.0	20.3	4101	24.4	4929	27.4	5535	30.5	6161	45.0	10
A 25 - 305			305	136.0	30.5	4148	36.6	4978	41.2	5603	45.8	6229	63.0	5
A 32 - 044	32	16	44	1300.0	4.4	5720	5.3	6890	5.9	7670	6.6	8580	9.3	20
A 32 - 051			51	1150.0	5.1	5865	6.1	7015	6.9	7935	7.7	8855	10.4	20
A 32 - 064			64	1077.0	6.4	6893	7.7	8293	8.6	9262	9.6	10339	13.0	20
A 32 - 076			76	874.0	7.6	6642	9.1	7953	10.3	9002	11.4	9964	16.0	20
A 32 - 089			89	721.0	8.9	6417	10.7	7715	12.0	8652	13.4	9661	20.0	10
A 32 - 102			102	620.0	10.2	6324	12.2	7564	13.8	8556	15.3	9486	23.0	10
A 32 - 115			115	560.0	11.5	6440	13.8	7728	15.5	8680	17.3	9688	26.0	10
A 32 - 127			127	496.0	12.7	6299	15.2	7539	17.1	8482	19.1	9474	28.0	10
A 32 - 152			152	408.0	15.2	6202	18.2	7426	20.5	8364	22.8	9302	34.0	10
A 32 - 178			178	353.0	17.8	6283	21.4	7554	24.0	8472	26.7	9425	39.0	5
A 32 - 203	7.5 x 9.2		203	304.0	20.3	6171	24.4	7418	27.4	8330	30.5	9272	45.0	5
A 32 - 254			254	243.0	25.4	6172	30.5	7412	34.3	8335	38.1	9258	62.0	5
A 32 - 305			305	196.0	30.5	5978	36.6	7174	41.2	8075	45.8	8977	75.0	5
A 40 - 064	40	20	64	1128.0	6.4	7219	7.7	8686	8.6	9701	9.6	10829	12.0	10
A 40 - 076			76	1017.0	7.6	7729	9.1	9255	10.3	10475	11.4	11594	14.5	10
A 40 - 089			89	880.0	8.9	7832	10.7	9416	12.0	10560	13.4	11792	20.0	10
A 40 - 102			102	762.0	10.2	7772	12.2	9296	13.8	10516	15.3	11659	23.0	10
A 40 - 115			115	679.0	11.5	7809	13.8	9370	15.5	10525	17.3	11747	26.0	10
A 40 - 127			127	622.0	12.7	7899	15.2	9454	17.1	10636	19.1	11880	28.0	5
A 40 - 152			152	509.0	15.2	7737	18.2	9264	20.5	10435	22.8	11605	36.0	5
A 40 - 178			178	429.0	17.8	7636	21.4	9181	24.0	10296	26.7	11454	43.0	5
A 40 - 203			203	374.0	20.3	7592	24.4	9126	27.4	10248	30.5	11407	49.0	5
A 40 - 254	8.5 x 11.0		254	296.0	25.4	7518	30.5	9028	34.3	10153	38.1	11278	62.0	2
A 40 - 305			305	246.0	30.5	7503	36.6	9004	41.2	10135	45.8	11267	75.0	2
A 50 - 064	50	25	64	1980.0	6.4	12672	7.7	15246	8.6	17028	9.6	19008	13.4	5
A 50 - 076			76	1811.0	7.6	13764	9.1	16480	10.3	18653	11.4	20645	16.3	5
A 50 - 089			89	1410.0	8.9	12549	10.7	15087	12.0	16920	13.4	18894	19.0	5
At 50 - 102			102	1215.0	10.2	12393	12.2	14823	13.8	16767	15.3	18590	22.0	5
A 50 - 115			115	1076.0	11.5	12374	13.8	14849	15.5	16678	17.3	18615	25.0	5
A 50 - 127			127	968.0	12.7	12294	15.2	14714	17.1	16553	19.1	18489	28.0	5
A 50 - 152			152	806.0	15.2	12251	18.2	14669	20.5	16523	22.8	18377	34.0	2
A 50 - 178			178	698.0	17.8	12424	21.4	14937	24.0	16752	26.7	18637	40.0	2
At 50 - 203			203	612.0	20.3	12424	24.4	14933	27.4	16769	30.5	18666	45.0	2
A 50 - 254	11.8 x 13.5		254	472.0	25.4	11989	30.5	14396	34.3	16190	38.1	17983	58.0	2
A 50 - 305			305	388.0	30.5	11834	36.6	14201	41.2	15986	45.8	17770	70.0	2
A 63 - 076	63	38	76	1750.0	7.6	14440	9.1	17290	10.3	19570	11.4	21660	13.0	5
A 63 - 089			89	1517.0	8.9	13501	10.7	16232	12.0	18204	13.4	20328	20.0	5
A 63 - 102			102	1295.0	10.2	13209	12.2	15799	13.8	17871	15.3	19814	23.0	5
A 63 - 115			115	1070.0	11.5	12305	13.8	14766	15.5	16585	17.3	18511	27.0	5
A 63 - 127			127	979.0	12.7	12433	15.2	14881	17.1	16741	19.1	18699	30.0	2
A 63 - 152			152	775.0	15.2	11780	18.2	14105	20.5	15888	22.8	17670	35.0	2
A 63 - 178			178	630.0	17.8	11214	21.4	13482	24.0	15120	26.7	16821	44.0	2
A 63 - 203			203	546.0	20.3	11084	24.4	13322	27.4	14960	30.5	16653	48.0	2
A 63 - 254			254	423.0	25.4	10744	30.5	12902	34.3	14509	38.1	16116	62.0	2
A 63 - 305	11.8 x 17.8		305	349.0	30.5	10645	36.6	12773	41.2	14379	45.8	15984	77.0	2
A 63 - 315			315	320.0	31.5	10080	37.8	12096	42.5	13608	47.3	15120	55	2
A 63 - 350			350	283.0	35.0	9905	42.0	11886	47.3	13371.8	52.5	14857.5	58	2
A 63 - 400			400	245.0	40.0	9800	48.0	11760	54.0	13230	60.0	14700	67	2

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★ new sizes