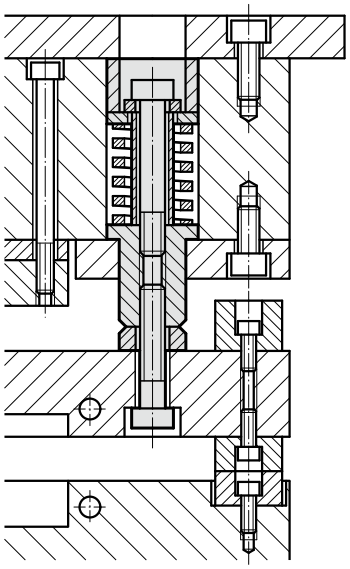
SPRING- AND SPACER UNIT FOR COMPRESSION SPRING, WITHOUT SPACER SLEEVE / SPRING- AND SPACER UNIT FOR COMPRESSION SPRING, WITH SPACER SLEEVE

Mounting example:



Description:

The preloaded combination spring- and spacer unit combines the functions of providing the spring force and of spacing the stripper in one constructional element, whilst conventional designs employed two.
The resulting advantages therefore consist of space savings and reduced machining cost with regard to the various die members.
The execution with spacer sleeve makes it possible to exchange the whole unit by simply removing the top clamping plate.
Removal of the compensation disc gives unimpeded access to the punches – for the purpose of sharpening/grinding.

Note:

Helical compression springs must be ordered separately, see at the beginning of chapter F.
After fitting, the resilient collar pins are ground to the same length.

Attention:

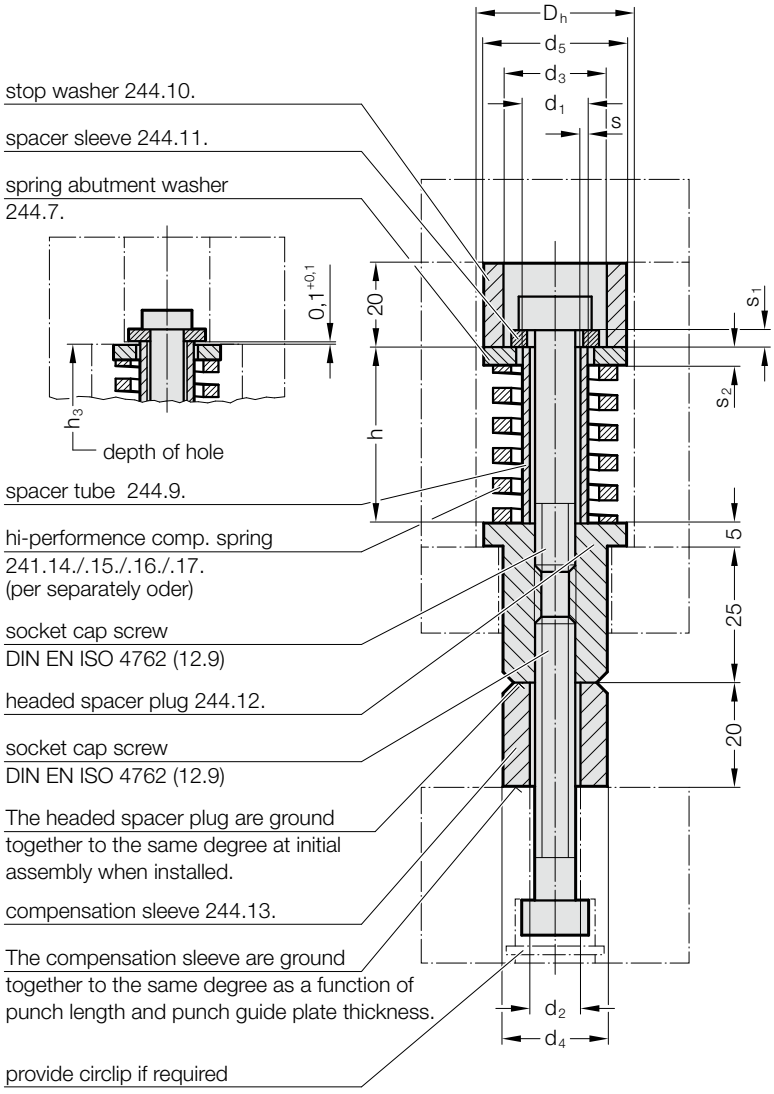
Regrinding of stamp in mm = regrinding of spacer. This means that the spring force and displacement always remain exactly the same.
Match the blind hole drill depth h_3 and/or spacer height so that the screw is released by about 0.1 mm.

244.□□.□□□.10

Application without Spacer Sleeve (c'bored hole)

244.□□.□□□.11

Application with Spacer Sleeve (straight hole)



244.xx.xxx.10 Spring- and spacer unit for compression spring, without spacer sleeve

244.xx.xxx.11 Spring- and spacer unit for compression spring, with spacer sleeve

Spring ø	$d_1 \times s$	h*	Socket cap screw	d_3	d_4	d_5	D_h	s_1	d_2
20	10 × 1,8		M6	18	20	25	26	3	4
25	12 × 1,8		M8	18	20	25	26	3	4
32	16 × 2,5		M10	30	32	38	40	4	5
40	20 × 3,5		M12	30	32	38	40	4	5

* h = Spacer tube length 244.9.

Ordering Code (example):

Spring- and spacer unit for compression spring, without spacer sleeve		Spring- and spacer unit for compression spring, with spacer sleeve	
Spring ø = 32 mm	= 244.32.	Spring ø = 20 mm	= 244.20.
Spacer tube length h = 48 mm	= 048.	Spacer tube length h = 38 mm	= 038.
without spacer sleeve	= 10	with spacer sleeve 244.11.	= 11
Order No	= 244.32.048. 10	Order No	= 244.20.038. 11

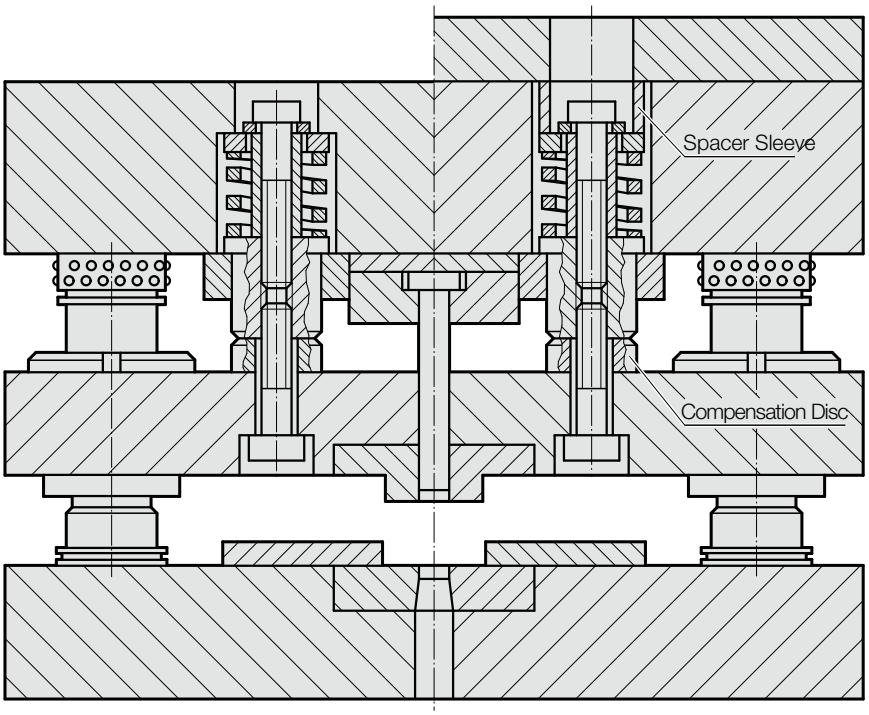
SPRING- AND SPACER UNIT FOR COMPRESSION SPRING, WITHOUT SPACER SLEEVE / SPRING- AND SPACER UNIT FOR COMPRESSION SPRING, WITH SPACER SLEEVE

Without Spacer Sleeve

(with c`bored hole)
244.□□.□□□.10.

With Spacer Sleeve

(with straight hole)
244.□□.□□□.11.



244.xx.xxx.10 Spring- and spacer unit for compression spring, without spacer sleeve

244.xx.xxx.11 Spring- and spacer unit for compression spring, with spacer sleeve

Spring characteristics

Order No.	Spring dimensions $D_h \times l_o$	Pretension path	Spring preload force, Type				max. working stroke of spring (excl. preload), Type				Spring rate in N/mm Type				max. spring forces (N) at 80% max. spring range s_2			
			241.14	241.15	241.16	241.17	.14	.15	.16	.17	.14	.15	.16	.17	.14	.15	.16	.17
244.20.027.□□	20 x 25	2	111,6	196,2	432,0	586,4	10,4	8,8	6,7	6,2	55,8	98,1	216,0	293,2	580	863	1447	1818
244.20.033.□□	20 x 32	3	135,0	218,1	504,0	672,6	12,8	10,4	8,4	7,8	45,0	72,7	168,0	224,2	576	756	1411	1749
244.20.038.□□	20 x 38	4	133,6	224,0	516,0	708,4	15,2	12,8	10,0	9,6	33,4	56,0	129,0	177,1	508	717	1290	1700
244.20.044.□□	20 x 44	4	120,0	190,4	448,0	596,4	18,4	15,2	11,6	11,2	30,0	47,6	112,0	149,1	552	724	1299	1670
244.20.048.□□	20 x 51	7	171,5	291,9	658,0	896,7	20,8	16,8	13,2	12,8	24,5	41,7	94,0	128,1	510	701	1241	1640
244.25.027.□□	25 x 25	2	200,0	294,0	750,0	–	10,4	8,8	7,2	–	100,0	147,0	375,0	–	1040	1294	2700	–
244.25.033.□□	25 x 32	3	240,9	354,3	891,0	1123,8	12,8	10,4	8,4	8,0	80,3	118,1	297,0	374,6	1028	1228	2495	2997
244.25.038.□□	25 x 38	4	248,0	372,4	876,0	1384,8	15,2	12,8	10,4	9,6	62,0	93,1	219,0	346,2	942	1192	2278	3324
244.25.044.□□	25 x 44	4	212,0	323,2	748,0	976,8	18,4	15,2	12,4	11,2	53,0	80,9	187,0	244,2	975	1228	2319	2735
244.25.048.□□	25 x 51	7	308,7	480,9	1092,0	1453,9	20,0	16,8	14,4	12,8	44,1	68,7	156,0	207,7	882	1154	2246	2659
244.32.038.□□	32 x 38	5	470,5	925,5	1940,0	2643,0	15,2	12,8	9,6	8,8	94,1	185,1	388,0	528,6	1430	2369	3725	4652
244.32.044.□□	32 x 44	5	398,0	790,5	1620,0	2135,5	17,6	15,2	11,2	10,4	79,6	158,1	324,0	424,7	1401	2403	3629	4417
244.32.048.□□	32 x 51	8	536,0	1072,8	2176,0	2826,4	20,0	16,8	13,2	12,0	67,0	134,1	272,0	353,3	1340	2253	3590	4240
244.32.061.□□	32 x 64	8	424,0	792,8	1696,0	2155,2	25,6	21,6	17,2	16,0	53,0	99,1	212,0	269,4	1357	2141	3646	4310
244.32.072.□□	32 x 76	9	396,9	724,5	1548,0	1968,3	31,2	25,6	20,8	19,2	44,1	80,5	172,0	218,7	1376	2061	3578	4199
244.40.048.□□	40 x 51	8	736,0	1432,0	2801,6	5027,2	20,0	16,8	13,6	12,0	92,0	179,0	350,2	628,4	1840	3007	4763	7541
244.40.061.□□	40 x 64	8	584,8	1120,0	2152,0	3905,6	25,6	20,8	17,6	15,2	73,1	140,0	269,0	488,2	1871	2912	4734	7421
244.40.072.□□	40 x 76	9	567,9	972,9	1971,0	3413,7	30,4	25,6	21,6	19,2	63,1	108,1	219,0	379,3	1918	2767	4730	7283