

Press tools —

Part 4: Compression springs with rectangular section — Housing dimensions and colour coding

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Machine, Engineers and Hand Tools Standards Policy Committee (MTE/-) to Technical Committee MTE/12, upon which the following bodies were represented:

- Advanced Manufacturing Technology Research Institute
- Gauge and Tool Makers' Association
- Amalgamated Engineering Union
- Coopted member

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National foreword

This Part of BS 7568 has been prepared under the direction of the Machine, Engineers and Hand Tools Standards Policy Committee. It is identical with ISO 10243:1991 *“Tools for pressing — Compression springs with rectangular section — Housing dimensions and colour coding”*, prepared by Technical Committee ISO/TC 29, Small Tools, and published by the International Organization for Standardization (ISO).

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 17 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

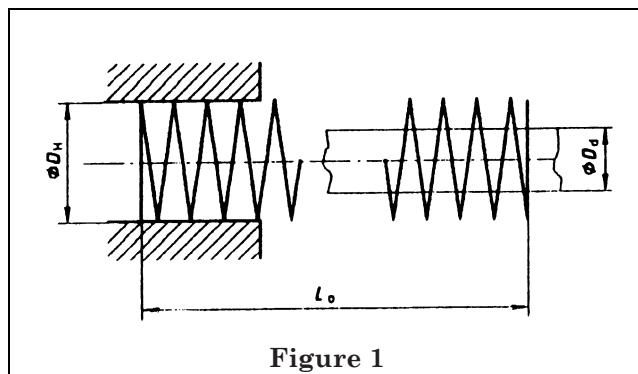
This International Standard sets out the technical specifications for compression springs made from rectangular wires.

The spring parameters apply to springs that are set. It does not attempt to specify the quality of the springs themselves, nor all of their dimensions (e.g. cross-section), their material, or their length of life.

The springs are classified into the spring rates: light, medium, strong, and extra strong. For each spring rate this International Standard gives a colour code.

2 Technical specifications

See Figure 1 and 2.1 to 2.5.



2.1 Tolerances for the free length, L_o

See Figure 1 and Table 1.

Table 1

L_o mm	Tolerance %
25 32 38 44 51 64	± 3
76 89 102 115	$\pm 2,5$
127 139 152 178 203 254 305	± 2

2.2 Spring rate — light

Colour code: Green

See Figure 1 and Table 2.

Table 2

Hole diameter D_H H15 mm	Rod diameter D_d h15 mm	Free length L_o mm	Required force to deflect 1 mm $\pm 10\%$ N	Maximum operating deflection mm
10	5	25	10	10,3
		32	8,5	13,1
		38	6,8	15,6
		44	6	18
		51	5	20,9
		64	4,3	26
		76	3,2	31,2
		305	1,1	125
12,5	6,3	25	17,9	10,3
		32	16,4	13,1
		38	13,6	15,6
		44	12,1	18
		51	11,4	20,9
		64	9,3	26,3
		76	7,1	31,2
		89	5,4	36,5
		305	1,4	125
16	8	25	23,4	10,3
		32	22,9	13,1
		38	19,3	15,6
		44	17,1	18
		51	15,7	20,9
		64	10,7	26,3
		76	10	31,2
		89	8,6	36,5
		102	7,8	41,8
		305	2,5	125

Table 2

Hole diameter D_H H15 mm	Rod diameter D_d h15 mm	Free length L_o mm	Required force to deflect 1 mm $\pm 10\%$ N	Maximum operating deflection mm
20	10	25	55,8	10,2
		32	45	12,5
		38	33,3	15
		44	30	18
		51	24,5	20
		64	20	25
		76	16	30
		89	14	35
		102	12	41
		115	10,9	46
		127	9,5	51
		139	8,4	56
		152	7,5	61
		305	4	122
25	12,5	25	100	10,2
		32	80,3	12,5
		38	62	15
		44	52,9	18
		51	44	20
		64	35,2	25
		76	28	30
		89	24	35
		102	21,1	41
		115	18,7	46
		127	16,7	51
		139	15,3	56
		152	14	61
		178	12,5	71
		203	10,4	81
		305	7	122