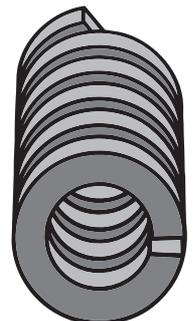




ISO 10243

Molle per stampi
Die springs



**MOLLIFICIO
BORDIGNON**

ISO 10243

MOLLE PER STAMPI

Lo standard ISO 10243 definisce i seguenti parametri per le molle a compressione in filo a sezione rettangolare.

D diametro dell'alloggiamento, detto anche diametro esterno.

d diametro della spina di guida, detto anche diametro interno.

Lo lunghezza della molla a riposo, detta anche lunghezza libera.

R carico, espresso in Newton, necessario per deflettere la molla di mm 1 (1 Newton = 0.102 kg)

Lo standard definisce inoltre i valori di deflessione massima di lavoro consentita per ciascuna molla, la tolleranza della lunghezza libera e i colori identificativi del carico.

Oltre alle quattro serie a standard ISO questo catalogo presenta anche 2 serie di molle con diametri e lunghezze come da standard ISO, ma con caratteristiche diverse: le 1L con corse di lavoro sino al 50% della lunghezza libera e le 5S caratterizzate da carichi particolarmente elevati.

Gli acciai impiegati e i trattamenti termici eseguiti consentono di lavorare sino a 125°C senza apprezzabili perdite di carico (e sino a 250°C con perdite di carico proporzionali alla percentuale di deflessione).

DIE SPRINGS

The ISO 10243 standard lays down the following parameters for rectangular wire compression springs.

D housing diameter (or external diameter).

d spring guide-pin diameter (or internal diameter).

Lo length of the springs at rest (or free length).

R load, in Newton, necessary to deflect the spring by mm 1 (1 Newton = 0.102 kg)

The standard also establishes the maximum total working stroke permissible for each spring, the free length tolerance and the colour code for each load.

In addition to the four ISO standard series, this catalogue also presents 2 new series of springs with ISO-standard diameters and lengths but with different specifications: the 1L series with a working stroke of up to 50% of the free length and the 5S series for very heavy loads.

The steel used and the thermal treatment applied mean that these springs work up to temperatures of 125°C without notable load loss (and up to 250°C with load loss proportional to the percentage of deflection).

Tolleranze

Rigidità: $\pm 10\%$;

Lunghezza libera: $\pm 1\%$, con un minimo di \pm mm 0,75 (questa tolleranza è inferiore a quella prescritta dalla norma ISO);

Diametro esterno: il diametro esterno della molla è sempre inferiore al diametro dell'alloggiamento indicato a catalogo;

Diametro interno: il diametro interno della molla è sempre maggiore del diametro della spina di guida indicato a catalogo.

Tolerances

Spring rate: $\pm 10\%$;

Free length: $\pm 1\%$, with a minimum of \pm mm 0,75 (this tolerance is stricter than the one laid down by the ISO standard);

External diameter: the external diameter of the spring is always smaller than the housing diameter indicated in the catalogue;

Internal diameter: the internal diameter of the spring is always greater than the diameter of the guiding pin indicated in the catalogue.

Come

ORDINARE

Le molle a catalogo sono confezionate in scatole per una migliore protezione e conservazione.

Il numero di molle contenuto in una confezione è indicato nell'ultima colonna di tabella per ogni codice articolo.

Vi consigliamo di ordinare quantità corrispondenti ad una confezione o multipli.

Nell'ordine è sufficiente indicare il codice articolo (in prima colonna nel catalogo) e il numero di confezioni o di molle.

How

TO ORDER

The springs in the catalogue are packed in boxes for better protection and preservation. The number of springs contained in a pack is indicated in the last column of the table for each catalogue number. We recommend ordering quantities corresponding to one pack or multiples.

To order it is sufficient to indicate the catalogue number (in the first column in the catalogue) plus the number of packs or springs.

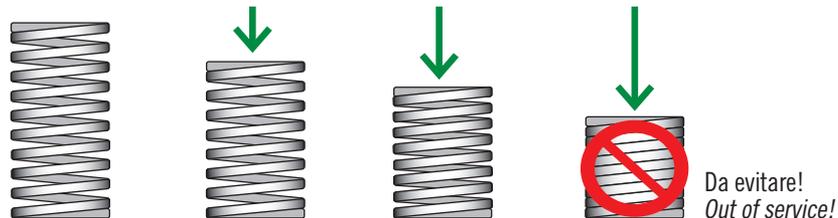
Selezione DELLA MOLLA

La selezione della molla è facilitata dalle tabelle di catalogo, che indicano i valori di carico e corsa in due diverse ipotesi di deflessione di lavoro. Vengono inoltre forniti i valori di carico e corsa approssimativi per molla a blocco. Il seguente prospetto riassume le deflessioni calcolate per ciascuna serie.

Spring SELECTION

Spring selection is facilitated by the tables in our catalogue which indicate the load and stroke values in two different working deflection hypothesis. The approximate load and stroke values are also shown for the spring when solid. The following table summarizes the deflection calculated for each series.

Standard Standard	Serie Series	Carico Load	Lunga durata Long life Deflessione Deflection	Max consentita Max working travel Deflessione Deflection	Deflessione a blocco Deflection to solid 	Pagina Page
BORDIGNON	1L	Extra Leggero Extra Light	35%	50%	Approx. 60%	5
ISO 10243	1S	Leggero Light	30%	40%	Approx. 50%	6
ISO 10243	2S	Medio Medium	25%	37,5%	Approx. 45%	8
ISO 10243	3S	Forte Heavy	20%	30%	Approx. 40%	10
ISO 10243	4S	Extra Forte Extra Heavy	17%	25%	Approx. 35%	12
BORDIGNON	5S	Super Forte Super Heavy	10%	15%	Approx. 20%	14



Da evitare!
Out of service!

NELLA SELEZIONE E NELL'USO DELLE MOLLE RACCOMANDIAMO DI:

- 1 Scegliere le molle più lunghe e di serie inferiore, per quanto consentito dalle esigenze di lavoro.
- 2 Evitare assolutamente deflessioni totali (pre-carico + corsa di lavoro) superiori alla massima indicata a catalogo. Accertarsene anche quando si affilano gli utensili nello stampo.
- 3 Precaricare sempre le molle, almeno in misura del 5% della lunghezza libera, con un minimo di 2 mm.
- 4 Assicurare un piano di appoggio che permetta alle molle di lavorare in asse.
- 5 Guidare le molle con una spina interna o con un alloggiamento profondo, specialmente quando $Lo/D > 3$.

WHEN SELECTING AND USING THE SPRINGS WE RECOMMEND:

- 1 Select the lightest and longest springs working requirements allow.
- 2 Never select total deflections (preload + stroke) that are greater than the maximum indicated in the catalogue. Also check this when sharpening the tools in the die.
- 3 Preload at least 5% of the free length of each spring, with a minimum of 2 mm.
- 4 Provide for an even base for each spring.
- 5 Guide the springs with an internal pin or deep housing to avoid buckling, in particular when $Lo/D > 3$.

Qualità

CERTIFICATA E MARCATA

Il **MOLLIFICIO BORDIGNON** produce molle da oltre 50 anni, sia su disegno, in vari diametri, sezioni di filo e materiali, sia secondo alcuni standards internazionali, tra cui lo standard ISO 10243 del presente catalogo. Primo nel settore, il MOLLIFICIO BORDIGNON ha ottenuto la certificazione secondo le norme UNI EN ISO 9002 già nel 1995. Nel 2002 ha ottenuto l'adeguamento alla norma UNI EN ISO 9001:2000 e nel 2009 l'adeguamento alla UNI EN ISO 9001:2008. Nel 2007 ha ottenuto la certificazione del sistema ambientale secondo la norma UNI EN ISO 14001:2004, rilasciata da Bureau Veritas. Il processo produttivo si svolge tutto all'interno dell'Azienda e viene meticolosamente controllato in ogni sua fase, garantendo qualità costante e rintracciabilità del prodotto. Le elevate performances delle molle del MOLLIFICIO

BORDIGNON sono il risultato della continua ricerca su materiali e trattamenti e di test di verifica della durata a fatica alle diverse condizioni di

utilizzo. La loro longevità è certificata dal marchio "XLL® - Extra Long Life", un'esclusiva MOLLIFICIO BORDIGNON, impresso su ogni molla, a partire dal diametro 19 mm. Le molle del presente catalogo sono tutte a magazzino per una pronta consegna.



Certified

AND MARKED QUALITY

MOLLIFICIO BORDIGNON has been manufacturing springs for over fifty years with different wire diameters, shapes and materials, as well as springs conforming to international standards, including ISO 10243 covered by this catalogue.

In 1995 MOLLIFICIO BORDIGNON was the first company in its sector to obtain UNI EN ISO 9002 certification.

In 2002 it upgraded to UNI EN ISO 9001:2000 and then in 2009 to UNI EN ISO 9001:2008. In 2007, it obtained certification from Bureau Veritas for its environmental system in accordance with UNI EN ISO 14001:2004.

Production is carried out entirely on the company premises and every stage is subjected to painstaking control, so that consistent quality and complete traceability of the product are guaranteed.

The high performance of MOLLIFICIO BORDIGNON springs is ensured by rigorous research into new materials and treatments and continuous tests in different conditions of use.

The extra long life of these springs is certified by the "XLL® - Extra Long Life" mark - a MOLLIFICIO BORDIGNON exclusive - stamped on each one (starting from diameter 19 mm).

Superlative performance is achieved by the combination of product quality and proper use.

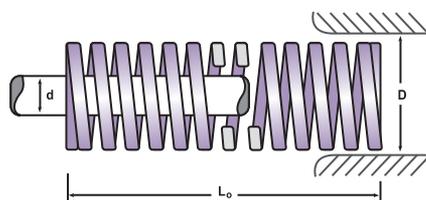
All the springs in this catalogue are in stock and ready for immediate delivery.

1L**1S****2S****3S****4S****5S**

1L

Carico extra leggero

Extra light load



Codice Ctg. No.	D Sede Housing ø mm	d Spina Rod ø mm	L ₀ Lungh. libera Free length mm	R Rigidità Rate N/mm	35% Defless. per lunga durata Long Life deflection		50% Defless. max di lavoro Max working deflection		APPROX Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	
1L19025	20	10	25	32.1	8.8	281	12.5	401	14	446	100
1L19032			32	24.7	11.2	277	16.0	395	18	449	100
1L19038			38	20.7	13.3	275	19.0	393	22	454	100
1L19045			44	17.8	15.4	275	22.0	392	26	458	100
1L19050			51	15.3	17.9	273	25.5	390	30	458	100
1L19065			64	12.1	22.4	270	32.0	386	38	458	50
1L19075			76	10.2	26.6	270	38.0	386	45	462	50
1L19090			89	8.6	31.2	269	44.5	384	53	461	50
1L19101			102	7.5	35.7	269	51.0	384	62	464	50
1L19115			115	6.7	40.3	269	57.5	384	70	466	20
1L19126			127	6.1	44.5	270	63.5	386	77	470	20
1L19140			139	5.5	48.7	269	69.5	385	85	469	20
1L19151			152	5.1	53.2	269	76.0	384	93	469	20
1L19303			305	2.5	106.8	266	152.5	384	188	474	10
1L26025	25	12.5	25	52.7	8.8	461	12.5	658	14	715	100
1L26032			32	40.0	11.2	448	16.0	640	18	713	50
1L26038			38	33.3	13.3	444	19.0	634	22	718	50
1L26045			44	28.6	15.4	440	22.0	629	25	721	50
1L26050			51	24.7	17.9	441	25.5	630	30	733	50
1L26065			64	19.4	22.4	435	32.0	622	38	731	50
1L26075			76	16.3	26.6	433	38.0	618	45	733	20
1L26090			89	13.9	31.2	433	44.5	618	53	739	20
1L26101			102	12.1	35.7	433	51.0	618	61	744	20
1L26115			115	10.8	40.3	433	57.5	619	70	748	20
1L26126			127	9.8	44.5	434	63.5	620	77	753	10
1L26140			139	8.9	48.7	433	69.5	618	85	752	10
1L26151			152	8.1	53.2	431	76.0	616	93	749	10
1L26176			178	6.9	62.3	431	89.0	616	109	754	10
1L26202	203	6.1	71.1	431	101.5	615	124	754	10		
1L26303	305	4.0	106.8	429	152.5	613	188	756	5		
1L32038	32	16	38	43.8	13.3	582	19.0	831	22	981	20
1L32045			44	37.5	15.4	578	22.0	825	26	989	20
1L32050			51	32.3	17.9	576	25.5	823	31	1001	20
1L32065			64	25.4	22.4	569	32.0	813	39	1003	20
1L32075			76	21.3	26.6	566	38.0	809	47	1008	20
1L32090			89	18.1	31.2	563	44.5	804	56	1008	20
1L32101			102	15.8	35.7	562	51.0	803	64	1015	20
1L32115			115	13.9	40.3	560	57.5	800	73	1014	10
1L32126			127	12.6	44.5	559	63.5	799	81	1016	10
1L32140			139	11.4	48.7	557	69.5	796	89	1013	10
1L32151			152	10.5	53.2	560	76.0	800	97	1025	10
1L32176			178	8.9	62.3	558	89.0	796	114	1023	10
1L32202			203	7.8	71.1	555	101.5	793	131	1020	10
1L32252			254	6.2	88.9	549	127.0	784	163	1006	5
1L32303	305	5.2	106.8	552	152.5	788	197	1018	5		
1L38050	40	20	51	50.8	17.9	908	25.5	1297	26	1346	20
1L38065			64	39.7	22.4	888	32.0	1269	34	1336	20
1L38075			76	33.1	26.6	879	38.0	1256	40	1337	20
1L38090			89	28.1	31.2	874	44.5	1249	48	1343	20
1L38101			102	24.5	35.7	874	51.0	1249	55	1357	20
1L38115			115	21.6	40.3	871	57.5	1244	63	1359	10
1L38126			127	19.5	44.5	867	63.5	1239	70	1357	10
1L38140			139	17.8	48.7	867	69.5	1238	76	1362	10
1L38151			152	16.3	53.2	865	76.0	1235	84	1364	10
1L38176			178	13.8	62.3	862	89.0	1231	99	1365	10
1L38202			203	12.1	71.1	863	101.5	1232	113	1374	5
1L38252			254	9.7	88.9	859	127.0	1227	142	1373	5
1L38303			305	8.0	106.8	858	152.5	1226	171	1378	5
1L51065			50	25	64	80.2	22.4	1796	32.0	2566	37
1L51075	76	66.9			26.6	1781	38.0	2544	45	3007	20
1L51090	89	56.6			31.2	1763	44.5	2519	53	3011	10
1L51101	102	49.3			35.7	1762	51.0	2517	62	3044	10
1L51115	115	43.5			40.3	1751	57.5	2501	70	3043	10
1L51126	127	39.3			44.5	1746	63.5	2494	78	3052	10
1L51140	139	35.8			48.7	1742	69.5	2489	85	3058	10
1L51151	152	32.8			53.2	1743	76.0	2490	94	3077	10
1L51176	178	27.8			62.3	1731	89.0	2474	110	3070	5
1L51202	203	24.2			71.1	1720	101.5	2457	126	3056	5
1L51252	254	19.2			88.9	1711	127.0	2444	159	3056	5
1L51303	305	16.0			106.8	1712	152.5	2446	192	3076	5



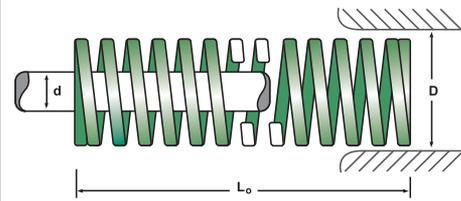
1S

ISO 10243

Carico leggero

Codice Ctg. No.	D Sede Housing ø mm	d Spina Rod ø mm	L ₀ Lungh. libera Free length mm	R Rigidità Rate N/mm	30% Defless. per lunga durata Long Life deflection		40% Defless. max di lavoro Max working deflection		APPROX  Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box	
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N		
1S10025	10	5	25	10.0	7.5	75	10.0	100	13	130	100	
1S10032			32	8.5	9.6	82	12.8	109	16	136	100	
1S10038			38	6.8	11.4	78	15.2	103	20	136	100	
1S10045			Sez. filo / Wire section 1.7 x 1.1	44	6.0	13.2	79	17.6	106	24	144	100
1S10050				51	5.0	15.3	77	20.4	102	27	135	100
1S10065				64	4.3	19.2	83	25.6	110	35	151	50
1S10075				76	3.2	22.8	73	30.4	97	39	125	50
1S10303			305	1.1	91.5	101	122.0	134	154	169	20	
1S13025	12.5	6.3	25	17.9	7.5	134	10.0	179	13	233	100	
1S13032			32	16.4	9.6	157	12.8	210	17	279	100	
1S13038			38	13.6	11.4	155	15.2	207	21	286	100	
1S13045			Sez. filo / Wire section 2.3 x 1.5	44	12.1	13.2	160	17.6	213	26	315	100
1S13050				51	11.4	15.3	174	20.4	233	29	331	100
1S13065				64	9.3	19.2	179	25.6	238	37	344	50
1S13075				76	7.1	22.8	162	30.4	216	42	298	50
1S13090			89	5.4	26.7	144	35.6	192	50	270	50	
1S13101			102	4.6	30.6	141	40.8	188	58	267	50	
1S13303			305	1.4	91.5	128	122.0	171	162	227	20	
1S16025	16	8	25	23.4	7.5	176	10.0	234	13	304	100	
1S16032			32	22.9	9.6	220	12.8	293	17	389	100	
1S16038			38	19.3	11.4	220	15.2	293	20	386	100	
1S16045			Sez. filo / Wire section 3.2 x 1.7	44	17.1	13.2	226	17.6	301	25	428	100
1S16050				51	15.7	15.3	240	20.4	320	27	424	100
1S16065				64	10.7	19.2	205	25.6	274	36	385	50
1S16075				76	10.0	22.8	228	30.4	304	43	430	50
1S16090			89	8.6	26.7	230	35.6	306	52	447	50	
1S16101			102	7.8	30.6	239	40.8	318	58	452	50	
1S16115			115	7.0	34.5	242	46.0	322	66	462	50	
1S16303			305	2.5	91.5	229	122.0	305	166	415	20	
1S19025			20	10	25	55.8	7.5	419	10.0	558	13	725
1S19032	32	45.0			9.6	432	12.8	576	17	765	100	
1S19038	38	33.3			11.4	380	15.2	506	20	666	100	
1S19045	Sez. filo / Wire section 4.0 x 2.1	44			30.0	13.2	396	17.6	528	24	720	100
1S19050		51			24.5	15.3	375	20.4	500	27	662	100
1S19065		64			20.0	19.2	384	25.6	512	35	700	50
1S19075		76			16.0	22.8	365	30.4	486	40	640	50
1S19090	89	14.0			26.7	374	35.6	498	49	686	50	
1S19101	102	12.0			30.6	367	40.8	490	55	660	50	
1S19115	115	10.9			34.5	376	46.0	501	62	676	20	
1S19126	127	9.5			38.1	362	50.8	483	71	675	20	
1S19140	139	8.4			41.7	350	55.6	467	76	638	20	
1S19151	152	7.5			45.6	342	60.8	456	81	608	20	
1S19303	305	4.0			91.5	366	122.0	488	168	672	10	
1S26025	25	12.5	25	100.0	7.5	750	10.0	1000	12	1200	100	
1S26032			32	80.3	9.6	771	12.8	1028	16	1285	50	
1S26038			38	62.0	11.4	707	15.2	942	19	1178	50	
1S26045			Sez. filo / Wire section 5.3 x 2.7	44	52.9	13.2	698	17.6	931	22	1164	50
1S26050				51	44.0	15.3	673	20.4	898	25	1100	50
1S26065				64	35.2	19.2	676	25.6	901	34	1197	50
1S26075				76	28.0	22.8	638	30.4	851	38	1064	20
1S26090			89	24.0	26.7	641	35.6	854	48	1152	20	
1S26101			102	21.1	30.6	646	40.8	861	54	1139	20	
1S26115			115	18.7	34.5	645	46.0	860	61	1141	20	
1S26126			127	16.7	38.1	636	50.8	848	69	1152	10	
1S26140			139	15.3	41.7	638	55.6	851	75	1148	10	
1S26151			152	14.0	45.6	638	60.8	851	81	1134	10	
1S26176			178	12.5	53.4	668	71.2	890	96	1200	10	
1S26202			203	10.4	60.9	633	81.2	844	110	1144	10	
1S26303			305	7.0	91.5	641	122.0	854	168	1176	5	

Light load



Codice Ctg. No.	D Sede Housing ø mm	d Spina Rod ø mm	L ₀ Lunghezza libera Free length mm	R Rigidità Rate N/mm	30% Defless. per lunga durata Long Life deflection		40% Defless. max di lavoro Max working deflection		APPROX  Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	
1S32038	32	16	38	94.0	11.4	1072	15.2	1429	18	1692	20
1S32045			44	79.5	13.2	1049	17.6	1399	22	1749	20
1S32050			51	67.0	15.3	1025	20.4	1367	25	1675	20
1S32065			64	53.0	19.2	1018	25.6	1357	34	1802	20
1S32075			76	44.0	22.8	1003	30.4	1338	40	1760	20
1S32090			89	37.2	26.7	993	35.6	1324	48	1786	20
1S32101			102	32.0	30.6	979	40.8	1306	55	1760	20
1S32115			115	29.0	34.5	1001	46.0	1334	63	1827	10
1S32126			127	25.0	38.1	953	50.8	1270	69	1725	10
1S32140			139	23.0	41.7	959	55.6	1279	77	1771	10
1S32151			152	21.5	45.6	980	60.8	1307	81	1742	10
1S32176			178	18.2	53.4	972	71.2	1296	95	1729	10
1S32202			203	15.8	60.9	962	81.2	1283	112	1770	10
1S32252			254	12.5	76.2	953	101.6	1270	143	1788	5
1S32303	305	10.3	91.5	942	122.0	1257	175	1803	5		
1S38050	40	20	51	92.0	15.3	1408	20.4	1877	25	2300	20
1S38065			64	73.0	19.2	1402	25.6	1869	33	2409	20
1S38075			76	63.0	22.8	1436	30.4	1915	39	2457	20
1S38090			89	51.0	26.7	1362	35.6	1816	47	2397	20
1S38101			102	43.0	30.6	1316	40.8	1754	54	2322	20
1S38115			115	39.6	34.5	1366	46.0	1822	61	2416	10
1S38126			127	37.0	38.1	1410	50.8	1880	66	2442	10
1S38140			139	32.0	41.7	1334	55.6	1779	76	2432	10
1S38151			152	28.0	45.6	1277	60.8	1702	81	2268	10
1S38176			178	25.2	53.4	1346	71.2	1794	93	2344	10
1S38202			203	22.7	60.9	1382	81.2	1843	110	2497	5
1S38252			254	17.0	76.2	1295	101.6	1727	136	2312	5
1S38303			305	14.8	91.5	1354	122.0	1806	163	2412	5
1S51065			50	25	64	156.0	19.2	2995	25.6	3994	31
1S51075	76	125.0			22.8	2850	30.4	3800	36	4500	20
1S51090	89	109.0			26.7	2910	35.6	3880	44	4796	10
1S51101	102	94.0			30.6	2876	40.8	3835	49	4606	10
1S51115	115	81.0			34.5	2795	46.0	3726	60	4860	10
1S51126	127	71.0			38.1	2705	50.8	3607	64	4544	10
1S51140	139	66.5			41.7	2773	55.6	3697	70	4655	10
1S51151	152	60.0			45.6	2736	60.8	3648	77	4620	10
1S51176	178	52.0			53.4	2777	71.2	3702	94	4888	5
1S51202	203	44.0			60.9	2680	81.2	3573	105	4620	5
1S51229	229	38.2			68.7	2624	91.6	3499	126	4813	5
1S51252	254	35.0			76.2	2667	101.6	3556	137	4795	5
1S51303	305	28.5			91.5	2608	122.0	3477	168	4788	5
1S63075	63	38			76	189.0	22.8	4309	30.4	5746	38
1S63090			89	158.0	26.7	4219	35.6	5625	45	7110	10
1S63101			102	131.0	30.6	4009	40.8	5345	52	6812	10
1S63115			115	116.0	34.5	4002	46.0	5336	60	6960	10
1S63126			127	103.0	38.1	3924	50.8	5232	63	6489	10
1S63151			152	84.3	45.6	3844	60.8	5125	78	6575	10
1S63176			178	71.5	53.4	3818	71.2	5091	89	6364	5
1S63202			203	61.7	60.9	3758	81.2	5010	108	6664	5
1S63252			254	47.0	76.2	3581	101.6	4775	137	6439	5
1S63303			305	38.2	91.5	3495	122.0	4660	163	6227	5

1 N = 0.102 kg
1 kg = 9.81 N

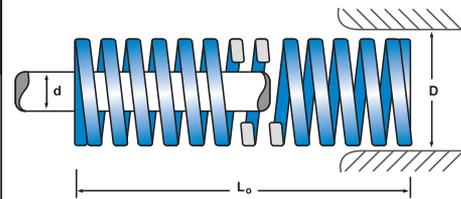


2S ISO 10243

Carico medio

Codice Ctg. No.	D Sede Housing ø mm	d Spina Rod ø mm	L ₀ Lunghezza libera Free length mm	R Rigidità Rate N/mm	25% Defless. per lunga durata Long Life deflection		37.5% Defless. max di lavoro Max working deflection		APPROX  Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box	
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N		
2S10025	10	5	25	16.0	6.3	100	9.4	150	12	192	100	
2S10032			32	13.0	8.0	104	12.0	156	14	182	100	
2S10038			38	11.9	9.5	113	14.3	170	19	226	100	
2S10045			Sez. filo / Wire section 1.8 x 1.2	44	10.3	11.0	113	16.5	170	23	237	100
2S10050				51	8.9	12.8	113	19.1	170	27	240	100
2S10065				64	7.5	16.0	120	24.0	180	31	233	50
2S10075				76	5.3	19.0	101	28.5	151	37	196	50
2S10303			305	1.6	76.3	122	114.4	183	137	219	20	
2S13025	12.5	6.3	25	30.0	6.3	188	9.4	281	10	300	100	
2S13032			32	24.8	8.0	198	12.0	298	13	322	100	
2S13038			38	21.4	9.5	203	14.3	305	16	342	100	
2S13045			Sez. filo / Wire section 2.5 x 1.7	44	18.5	11.0	204	16.5	305	20	370	100
2S13050				51	15.5	12.8	198	19.1	296	25	388	100
2S13065				64	12.1	16.0	194	24.0	290	28	339	50
2S13075				76	10.2	19.0	194	28.5	291	34	347	50
2S13090			89	8.4	22.3	187	33.4	280	41	344	50	
2S13101			102	7.1	25.5	181	38.3	272	46	327	50	
2S13303			305	2.1	76.3	160	114.4	240	128	269	20	
2S16025	16	8	25	49.4	6.3	309	9.4	463	11	543	100	
2S16032			32	37.1	8.0	297	12.0	445	15	557	100	
2S16038			38	33.9	9.5	322	14.3	483	18	610	100	
2S16045			Sez. filo / Wire section 3.2 x 2.0	44	30.0	11.0	330	16.5	495	22	660	100
2S16050				51	26.4	12.8	337	19.1	505	24	634	100
2S16065				64	20.5	16.0	328	24.0	492	32	656	50
2S16075				76	17.8	19.0	338	28.5	507	36	641	50
2S16090			89	15.2	22.3	338	33.4	507	43	654	50	
2S16101			102	13.5	25.5	344	38.3	516	47	635	50	
2S16115			115	12.0	28.8	346	43.1	517	52	624	50	
2S16303			305	4.8	76.3	366	114.4	549	139	667	20	
2S19025			20	10	25	98.0	6.3	613	9.4	919	10	980
2S19032	32	72.6			8.0	581	12.0	871	13	944	100	
2S19038	38	56.0			9.5	532	14.3	798	16	896	100	
2S19045	Sez. filo / Wire section 4.0 x 2.4	44			47.5	11.0	523	16.5	784	19	903	100
2S19050		51			41.7	12.8	532	19.1	798	21	876	100
2S19065		64			32.3	16.0	517	24.0	775	28	904	50
2S19075		76			25.1	19.0	477	28.5	715	33	828	50
2S19090	89	22.0			22.3	490	33.4	734	41	902	50	
2S19101	102	19.8			25.5	505	38.3	757	48	950	50	
2S19115	115	18.1			28.8	520	43.1	781	55	996	20	
2S19126	127	16.6			31.8	527	47.6	791	61	1013	20	
2S19140	139	15.1			34.8	525	52.1	787	67	1012	20	
2S19151	152	13.2			38.0	502	57.0	752	74	977	20	
2S19303	305	6.1			76.3	465	114.4	698	146	891	10	
2S26025	25	12.5	25	147.0	6.3	919	9.4	1378	11	1617	100	
2S26032			32	118.0	8.0	944	12.0	1416	13	1534	50	
2S26038			38	93.0	9.5	884	14.3	1325	18	1674	50	
2S26045			Sez. filo / Wire section 5.3 x 3.1	44	80.8	11.0	889	16.5	1333	21	1697	50
2S26050				51	68.6	12.8	875	19.1	1312	23	1578	50
2S26065				64	53.0	16.0	848	24.0	1272	30	1590	50
2S26075				76	43.2	19.0	821	28.5	1231	35	1512	20
2S26090			89	38.2	22.3	850	33.4	1275	43	1643	20	
2S26101			102	33.0	25.5	842	38.3	1262	49	1617	20	
2S26115			115	28.0	28.8	805	43.1	1208	56	1568	20	
2S26126			127	25.9	31.8	822	47.6	1233	60	1554	10	
2S26140			139	23.2	34.8	806	52.1	1209	65	1508	10	
2S26151			152	20.8	38.0	790	57.0	1186	71	1477	10	
2S26176			178	17.8	44.5	792	66.8	1188	85	1513	10	
2S26202			203	15.8	50.8	802	76.1	1203	96	1517	10	
2S26303			305	10.2	76.3	778	114.4	1167	150	1530	5	

Medium load



Codice Ctg. No.	D Sede Housing ø mm	d Spina Rod ø mm	L ₀ Lungh. libera Free length mm	R Rigidità Rate N/mm	25% Defless. per lunga durata Long Life deflection		37.5% Defless. max di lavoro Max working deflection		APPROX  Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box		
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N			
2S32038	32	16	38	185.0	9.5	1758	14.3	2636	17	3145	20		
2S32045				44	158.0	11.0	1738	16.5	2607	19	3002	20	
2S32050				51	134.0	12.8	1709	19.1	2563	23	3082	20	
2S32065			Sez. filo / Wire section 6.8 x 4.0	64	99.0	16.0	1584	24.0	2376	30	2970	20	
2S32075					76	80.5	19.0	1530	28.5	2294	34	2737	20
2S32090					89	69.1	22.3	1537	33.4	2306	42	2902	20
2S32101					102	58.8	25.5	1499	38.3	2249	47	2764	20
2S32115					115	51.5	28.8	1481	43.1	2221	55	2833	10
2S32126					127	44.8	31.8	1422	47.6	2134	61	2733	10
2S32140					139	42.3	34.8	1470	52.1	2205	68	2876	10
2S32151					152	37.8	38.0	1436	57.0	2155	75	2835	10
2S32176					178	32.5	44.5	1446	66.8	2169	89	2893	10
2S32202					203	28.9	50.8	1467	76.1	2200	101	2919	10
2S32252					254	21.4	63.5	1359	95.3	2038	124	2654	5
2S32303					305	18.3	76.3	1395	114.4	2093	150	2745	5
2S38050	40	20		51	181.6	12.8	2315	19.1	3473	21	3814	20	
2S38065					64	140.0	16.0	2240	24.0	3360	28	3920	20
2S38075					76	108.0	19.0	2052	28.5	3078	33	3564	20
2S38090			Sez. filo / Wire section 8.1 x 4.8	89	90.7	22.3	2018	33.4	3027	41	3719	20	
2S38101					102	81.0	25.5	2066	38.3	3098	45	3645	20
2S38115					115	71.8	28.8	2064	43.1	3096	52	3734	10
2S38126					127	62.7	31.8	1991	47.6	2986	59	3699	10
2S38140					139	57.5	34.8	1998	52.1	2997	66	3795	10
2S38151					152	51.6	38.0	1961	57.0	2941	71	3664	10
2S38160					160	47.5	40.0	1900	60.0	2850	72	3420	10
2S38176					178	44.1	44.5	1962	66.8	2944	83	3660	10
2S38202					203	36.7	50.8	1863	76.1	2794	94	3450	5
2S38252					254	30.1	63.5	1911	95.3	2867	114	3431	5
2S38303					305	24.6	76.3	1876	114.4	2814	148	3641	5
2S51065				50	25	64	209.0	16.0	3344	24.0	5016	30	6270
2S51075		76				168.0	19.0	3192	28.5	4788	36	6048	20
2S51090		89				140.0	22.3	3115	33.4	4673	43	6020	10
2S51101	Sez. filo / Wire section 10.9 x 6.0	102				119.0	25.5	3035	38.3	4552	48	5712	10
2S51115			115			106.0	28.8	3048	43.1	4571	55	5830	10
2S51126			127			97.0	31.8	3080	47.6	4620	63	6111	10
2S51140			139			87.0	34.8	3023	52.1	4535	66	5742	10
2S51151			152			80.0	38.0	3040	57.0	4560	72	5760	10
2S51160			160			76.0	40.0	3040	60.0	4560	78	5928	10
2S51176			178			69.5	44.5	3093	66.8	4639	85	5908	5
2S51202			203			59.8	50.8	3035	76.1	4552	95	5681	5
2S51229			229			50.9	57.3	2914	85.9	4371	114	5803	5
2S51252			254			43.9	63.5	2788	95.3	4181	125	5488	5
2S51303			305			38.6	76.3	2943	114.4	4415	150	5790	5
2S63075		63	38			76	312.0	19.0	5928	28.5	8892	30	9360
2S63090					89	260.0	22.3	5785	33.4	8678	38	9880	10
2S63101					102	221.0	25.5	5636	38.3	8453	43	9503	10
2S63115				Sez. filo / Wire section 11.5 x 9.3	115	187.0	28.8	5376	43.1	8064	50	9350	10
2S63126					127	168.0	31.8	5334	47.6	8001	52	8736	10
2S63151					152	136.0	38.0	5168	57.0	7752	67	9112	10
2S63160					160	128.0	40.0	5120	60.0	7680	70	8960	10
2S63176					178	114.0	44.5	5073	66.8	7610	78	8892	5
2S63202					203	100.0	50.8	5075	76.1	7613	88	8800	5
2S63229					229	89.2	57.3	5107	85.9	7660	102	9098	5
2S63252					254	78.4	63.5	4978	95.3	7468	115	9016	5
2S63303					305	64.7	76.3	4933	114.4	7400	134	8670	5
2S63315					315	62.8	78.8	4946	118.1	7418	144	9043	5
2S63400					400	48.5	100.0	4850	150.0	7275	197	9555	5

1 N = 0.102 kg
1 kg = 9.81 N



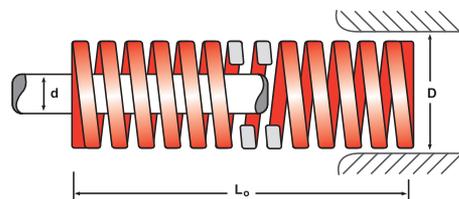
3S

ISO 10243

Carico forte

Codice Ctg. No.	D Sede Housing ø mm	d Spina Rod ø mm	L ₀ Lungh. libera Free length mm	R Rigidità Rate N/mm	20% Defless. per lunga durata Long Life deflection		30% Defless. max di lavoro Max working deflection		APPROX  Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box	
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N		
3S10025	10	5	25	22.1	5.0	111	7.5	166	9	199	100	
3S10032			32	17.5	6.4	112	9.6	168	12	210	100	
3S10038			38	17.1	7.6	130	11.4	195	15	257	100	
3S10045			Sez. filo / Wire section 1.8 x 1.4	44	15.0	8.8	132	13.2	198	17	255	100
3S10050				51	12.8	10.2	131	15.3	196	21	269	100
3S10065				64	10.7	12.8	137	19.2	205	26	278	50
3S10075				76	7.5	15.2	114	22.8	171	31	233	50
3S10303			305	2.1	61.0	128	91.5	192	122	256	20	
3S13025	12.5	6.3	25	42.1	5.0	211	7.5	316	9	379	100	
3S13032			32	33.2	6.4	212	9.6	319	13	432	100	
3S13038			38	29.3	7.6	223	11.4	334	15	440	100	
3S13045			Sez. filo / Wire section 2.4 x 2.0	44	24.6	8.8	216	13.2	325	18	443	100
3S13050				51	19.6	10.2	200	15.3	300	20	392	100
3S13065				64	15.0	12.8	192	19.2	288	26	390	50
3S13075				76	13.2	15.2	201	22.8	301	30	396	50
3S13090				89	11.4	17.8	203	26.7	304	35	399	50
3S13101				102	9.4	20.4	192	30.6	287	41	385	50
3S13303			305	2.8	61.0	171	91.5	256	123	344	20	
3S16025	16	8	25	75.7	5.0	379	7.5	568	9	681	100	
3S16032			32	52.8	6.4	338	9.6	507	14	739	100	
3S16038			38	48.5	7.6	369	11.4	553	17	825	100	
3S16045			Sez. filo / Wire section 3.0 x 2.4	44	42.8	8.8	377	13.2	565	20	856	100
3S16050				51	37.1	10.2	378	15.3	568	21	779	100
3S16065				64	30.3	12.8	388	19.2	582	28	848	50
3S16075				76	25.8	15.2	391	22.8	586	33	848	50
3S16090				89	21.7	17.8	386	26.7	579	39	846	50
3S16101				102	19.3	20.4	394	30.6	591	44	849	50
3S16115			115	17.0	23.0	391	34.5	587	49	833	50	
3S16303	305	7.1	61.0	433	91.5	650	127	902	20			
3S19025	20	10	25	216.0	5.0	1080	7.5	1620	9	1944	100	
3S19032			32	168.0	6.4	1075	9.6	1613	11	1848	100	
3S19038			38	129.0	7.6	980	11.4	1471	13	1677	100	
3S19045			Sez. filo / Wire section 4.0 x 3.2	44	112.0	8.8	986	13.2	1478	16	1792	100
3S19050				51	94.0	10.2	959	15.3	1438	20	1880	100
3S19065				64	72.1	12.8	923	19.2	1384	25	1803	50
3S19075				76	59.7	15.2	907	22.8	1361	29	1731	50
3S19090				89	50.5	17.8	899	26.7	1348	35	1768	50
3S19101				102	44.2	20.4	902	30.6	1353	40	1768	50
3S19115				115	38.4	23.0	883	34.5	1325	47	1805	20
3S19126			127	34.1	25.4	866	38.1	1299	52	1773	20	
3S19140			139	31.0	27.8	862	41.7	1293	57	1767	20	
3S19151			152	28.2	30.4	857	45.6	1286	62	1748	20	
3S19303	305	15.0	61.0	915	91.5	1373	121	1815	10			
3S26025	25	12.5	25	375.0	5.0	1875	7.5	2813	9	3375	100	
3S26032			32	297.0	6.4	1901	9.6	2851	11	3267	50	
3S26038			38	219.0	7.6	1664	11.4	2497	14	3066	50	
3S26045			Sez. filo / Wire section 5.6 x 4.1	44	187.0	8.8	1646	13.2	2468	16	2992	50
3S26050				51	156.0	10.2	1591	15.3	2387	19	2964	50
3S26065				64	123.0	12.8	1574	19.2	2362	26	3198	50
3S26075				76	99.0	15.2	1505	22.8	2257	29	2871	20
3S26090				89	84.0	17.8	1495	26.7	2243	35	2940	20
3S26101				102	73.0	20.4	1489	30.6	2234	39	2847	20
3S26115				115	65.0	23.0	1495	34.5	2243	45	2925	20
3S26126				127	57.7	25.4	1466	38.1	2198	48	2770	10
3S26140				139	52.7	27.8	1465	41.7	2198	54	2846	10
3S26151				152	47.8	30.4	1453	45.6	2180	60	2868	10
3S26176			178	41.0	35.6	1460	53.4	2189	67	2747	10	
3S26202			203	35.8	40.6	1453	60.9	2180	80	2864	10	
3S26303			305	22.9	61.0	1397	91.5	2095	119	2725	5	

Heavy load



Codice Ctg. No.	D Sede Housing ø mm	d Spina Rod ø mm	L ₀ Lungh. libera Free length mm	R Rigidità Rate N/mm	20% Defless. per lunga durata Long Life deflection		30% Defless. max di lavoro Max working deflection		APPROX  Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box		
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N			
3S32038	32	16	38	388.0	7.6	2949	11.4	4423	13	5044	20		
3S32045			44	324.0	8.8	2851	13.2	4277	16	5184	20		
3S32050			51	272.0	10.2	2774	15.3	4162	18	4896	20		
3S32065			64	212.0	12.8	2714	19.2	4070	23	4876	20		
3S32075			76	172.0	15.2	2614	22.8	3922	27	4644	20		
3S32090			89	141.0	17.8	2510	26.7	3765	33	4653	20		
3S32101			102	122.0	20.4	2489	30.6	3733	39	4758	20		
3S32115			115	107.0	23.0	2461	34.5	3692	43	4601	10		
3S32126			127	93.0	25.4	2362	38.1	3543	47	4371	10		
3S32140			139	86.0	27.8	2391	41.7	3586	51	4386	10		
3S32151			152	78.0	30.4	2371	45.6	3557	55	4290	10		
3S32176			178	67.2	35.6	2392	53.4	3588	69	4637	10		
3S32202			203	59.1	40.6	2399	60.9	3599	81	4787	10		
3S32252			254	46.4	50.8	2357	76.2	3536	99	4594	5		
3S32303	305	38.0	61.0	2318	91.5	3477	119	4522	5				
3S38050	40	20	51	350.0	10.2	3570	15.3	5355	18	6300	20		
3S38065			64	269.0	12.8	3443	19.2	5165	25	6725	20		
3S38075			76	219.0	15.2	3329	22.8	4993	30	6570	20		
3S38090			89	190.0	17.8	3382	26.7	5073	36	6840	20		
3S38101			102	163.0	20.4	3325	30.6	4988	41	6683	20		
3S38115			115	142.0	23.0	3266	34.5	4899	47	6674	10		
3S38126			127	128.0	25.4	3251	38.1	4877	53	6784	10		
3S38140			139	115.0	27.8	3197	41.7	4796	56	6440	10		
3S38151			152	105.0	30.4	3192	45.6	4788	62	6510	10		
3S38176			178	89.0	35.6	3168	53.4	4753	70	6230	10		
3S38202			203	77.0	40.6	3126	60.9	4689	83	6391	5		
3S38252			254	61.0	50.8	3099	76.2	4648	101	6161	5		
3S38303			305	51.0	61.0	3111	91.5	4667	127	6477	5		
3S51065			50	25	64	413.0	12.8	5286	19.2	7930	26	10738	20
3S51075	76	339.0			15.2	5153	22.8	7729	29	9831	20		
3S51090	89	288.0			17.8	5126	26.7	7690	35	10080	10		
3S51101	102	245.0			20.4	4998	30.6	7497	41	10045	10		
3S51115	115	215.0			23.0	4945	34.5	7418	47	10105	10		
3S51126	127	192.0			25.4	4877	38.1	7315	55	10560	10		
3S51140	139	168.0			27.8	4670	41.7	7006	61	10248	10		
3S51151	152	154.0			30.4	4682	45.6	7022	66	10164	10		
3S51176	178	134.0			35.6	4770	53.4	7156	75	10050	5		
3S51202	203	117.0			40.6	4750	60.9	7125	87	10179	5		
3S51252	254	89.0			50.8	4521	76.2	6782	108	9612	5		
3S51303	305	73.0			61.0	4453	91.5	6680	133	9709	5		
3S63075	63	38			76	630.0	15.2	9576	22.8	14364	24	15120	20
3S63090					89	485.0	17.8	8633	26.7	12950	32	15520	10
3S63101			102	434.0	20.4	8854	30.6	13280	36	15624	10		
3S63115			115	384.0	23.0	8832	34.5	13248	40	15360	10		
3S63126			127	349.0	25.4	8865	38.1	13297	44	15356	10		
3S63151			152	276.0	30.4	8390	45.6	12586	56	15456	10		
3S63176			178	237.0	35.6	8437	53.4	12656	65	15405	5		
3S63202			203	210.0	40.6	8526	60.9	12789	74	15540	5		
3S63252			254	165.0	50.8	8382	76.2	12573	94	15510	5		
3S63303			305	134.0	61.0	8174	91.5	12261	115	15410	5		

1 N = 0.102 kg
1 kg = 9.81 N

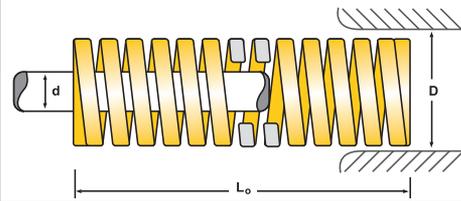


4S ISO 10243

Carico extra forte

Codice Ctg. No.	D Sede Housing ø mm	d Spina Rod ø mm	L ₀ Lung. libera Free length mm	R Rigidità Rate N/mm	17% Defless. per lunga durata Long Life deflection		25% Defless. max di lavoro Max working deflection		APPROX  Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box	
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N		
4S10025	10	5	25	36.8	4.3	156	6.3	230	9	331	100	
4S10032			32	27.9	5.4	152	8.0	223	12	335	100	
4S10038			38	23.7	6.5	153	9.5	225	14	332	100	
4S10045			Sez. filo / Wire section 1.9 x 1.5	44	19.2	7.5	144	11.0	211	17	326	100
4S10050				51	16.5	8.7	143	12.8	210	19	314	100
4S10065				64	13.2	10.9	144	16.0	211	23	304	50
4S10075				76	10.9	12.9	141	19.0	207	30	327	50
4S10303				305	2.6	51.9	135	76.3	198	117	304	20
4S13025	12.5	6.3	25	58.5	4.3	249	6.3	366	9	527	100	
4S13032			32	43.9	5.4	239	8.0	351	12	527	100	
4S13038			38	36.0	6.5	233	9.5	342	14	504	100	
4S13045			Sez. filo / Wire section 2.3 x 2.2	44	30.3	7.5	227	11.0	333	18	545	100
4S13050				51	26.2	8.7	227	12.8	334	20	524	100
4S13065				64	21.2	10.9	231	16.0	339	27	572	50
4S13075				76	17.1	12.9	221	19.0	325	32	547	50
4S13090				89	14.5	15.1	219	22.3	323	38	551	50
4S13101	102	12.5	17.3	216	25.5	319	41	513	50			
4S13303	305	4.3	51.9	223	76.3	328	115	495	20			
4S16025	16	8	25	118.0	4.3	502	6.3	738	10	1180	100	
4S16032			32	89.0	5.4	484	8.0	712	12	1068	100	
4S16038			38	72.1	6.5	466	9.5	685	14	1009	100	
4S16045			Sez. filo / Wire section 3.2 x 2.7	44	60.9	7.5	456	11.0	670	17	1035	100
4S16050				51	52.3	8.7	453	12.8	667	19	994	100
4S16065				64	41.2	10.9	448	16.0	659	25	1030	50
4S16075				76	34.1	12.9	441	19.0	648	29	989	50
4S16090				89	29.5	15.1	446	22.3	656	36	1062	50
4S16101	102	25.6	17.3	444	25.5	653	38	973	50			
4S16115	115	22.8	19.6	447	28.8	657	43	980	50			
4S16303	305	8.4	51.9	436	76.3	641	120	1008	20			
4S19025	20	10	25	293.0	4.3	1245	6.3	1831	7	2051	100	
4S19032			32	224.0	5.4	1219	8.0	1792	10	2240	100	
4S19038			38	177.0	6.5	1143	9.5	1682	12	2124	100	
4S19045			Sez. filo / Wire section 4.1 x 3.7	44	149.0	7.5	1115	11.0	1639	14	2086	100
4S19050				51	128.0	8.7	1110	12.8	1632	16	2048	100
4S19065				64	99.0	10.9	1077	16.0	1584	22	2178	50
4S19075				76	81.7	12.9	1056	19.0	1552	25	2043	50
4S19090				89	69.5	15.1	1052	22.3	1546	31	2155	50
4S19101	102	60.6	17.3	1051	25.5	1545	36	2182	50			
4S19115	115	53.0	19.6	1036	28.8	1524	42	2226	20			
4S19126	127	47.5	21.6	1026	31.8	1508	43	2043	20			
4S19140	139	43.0	23.6	1016	34.8	1494	48	2064	20			
4S19151	152	39.0	25.8	1008	38.0	1482	52	2028	20			
4S19303	305	21.2	51.9	1099	76.3	1617	105	2226	10			
4S26025	25	12.5	25	488.0	4.3	2098	6.3	3074	8	3904	100	
4S26032			32	374.4	5.4	2037	8.0	2995	11	4118	50	
4S26038			38	346.0	6.5	2235	9.5	3287	13	4498	50	
4S26045			Sez. filo / Wire section 5.6 x 4.6	44	244.0	7.5	1825	11.0	2684	16	3904	50
4S26050				51	207.5	8.7	1799	12.8	2646	18	3735	50
4S26065				64	161.0	10.9	1752	16.0	2576	23	3703	50
4S26075				76	130.8	12.9	1690	19.0	2485	26	3401	20
4S26090				89	110.5	15.1	1672	22.3	2459	31	3426	20
4S26101	102	96.3	17.3	1670	25.5	2456	36	3467	20			
4S26115	115	85.7	19.6	1675	28.8	2464	41	3514	20			
4S26126	127	76.3	21.6	1647	31.8	2423	47	3586	10			
4S26140	139	69.5	23.6	1640	34.8	2419	44	3058	10			
4S26151	152	63.5	25.8	1641	38.0	2413	54	3429	10			
4S26176	178	53.9	30.3	1631	44.5	2399	63	3396	10			
4S26202	203	47.0	34.5	1622	50.8	2385	72	3384	10			
4S26303	305	30.9	51.9	1602	76.3	2356	113	3492	5			

Extra heavy load



Codice Ctg. No.	D Sede ø mm	d Spina Rod ø mm	L ₀ Lungh. libera Free length mm	R Rigidità Rate N/mm	17% Defless. per lunga durata Long Life deflection		25% Defless. max di lavoro Max working deflection		APPROX  Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box			
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N				
4S32038	32	16	38	528.2	6.5	3412	9.5	5018	12	6338	20			
4S32045			44	424.4	7.5	3175	11.0	4668	15	6366	20			
4S32050			51	353.0	8.7	3061	12.8	4501	17	6001	20			
4S32065			Sez. filo / Wire section 7.2 x 5.6	64	269.2	10.9	2929	16.0	4307	22	5922	20		
4S32075				76	218.5	12.9	2823	19.0	4152	25	5463	20		
4S32090				89	180.3	15.1	2728	22.3	4012	33	5950	20		
4S32101				102	155.0	17.3	2688	25.5	3953	36	5580	20		
4S32115				115	140.0	19.6	2737	28.8	4025	42	5880	10		
4S32126				127	124.0	21.6	2677	31.8	3937	46	5704	10		
4S32140				139	112.0	23.6	2643	34.8	3898	51	5712	10		
4S32151				152	102.0	25.8	2636	34.8	3842	51	5630	10		
4S32176				178	88.2	30.3	2669	44.5	3925	64	5645	10		
4S32202				203	76.0	34.5	2623	50.8	3857	71	5396	10		
4S32252				254	60.8	43.2	2625	63.5	3861	90	5472	5		
4S32303	305	49.0		51.9	2541	76.3	3736	103	5047	5				
4S38050	40	20		51	628.0	8.7	5445	12.8	8007	17	10676	20		
4S38065				64	487.0	10.9	5299	16.0	7792	23	11201	20		
4S38075			76	379.0	12.9	4897	19.0	7201	27	10233	20			
4S38090			Sez. filo / Wire section 8.7 x 7.3	89	321.0	15.1	4857	22.3	7142	31	9951	20		
4S38101				102	281.0	17.3	4873	25.5	7166	36	10116	20		
4S38115				115	245.0	19.6	4790	28.8	7044	40	9800	10		
4S38126				127	221.0	21.6	4771	31.8	7017	44	9724	10		
4S38140				139	202.0	23.6	4773	34.8	7020	52	10504	10		
4S38151				152	168.0	25.8	4341	38.0	6384	56	9408	10		
4S38176				178	148.0	30.3	4478	44.5	6586	61	9028	10		
4S38202				203	132.0	34.5	4555	50.8	6699	73	9636	5		
4S38252				254	107.0	43.2	4620	63.5	6795	93	9951	5		
4S38303				305	87.8	51.9	4552	76.3	6695	106	9307	5		
4S51065				50	25	64	709.0	10.9	7714	16.0	11344	21	14889	20
4S51075	76	572.0				12.9	7390	19.0	10868	25	14300	20		
4S51090	89	475.0				15.1	7187	22.3	10569	28	13300	10		
4S51101	Sez. filo / Wire section 11.4 x 9.1	102				405.0	17.3	7023	25.5	10328	33	13365	10	
4S51115		115	352.0			19.6	6882	28.8	10120	38	13376	10		
4S51126		127	316.0			21.6	6822	31.8	10033	43	13588	10		
4S51140		139	289.0			23.6	6829	34.8	10043	47	13583	10		
4S51151		152	239.0			25.8	6176	38.0	9082	53	12667	10		
4S51176		178	216.0			30.3	6536	44.5	9612	60	12960	5		
4S51202		203	187.0			34.5	6453	50.8	9490	71	13277	5		
4S51252		254	153.0			43.2	6607	63.5	9716	91	13923	5		
4S51303		305	127.0			51.9	6585	76.3	9684	106	13462	5		
4S63075		63	38			76	842.0	12.9	10879	19.0	15998	24	20208	20
4S63090						89	726.0	15.1	10984	22.3	16154	28	20328	10
4S63101				102	656.0	17.3	11375	25.5	16728	31	20336	10		
4S63115				Sez. filo / Wire section 13.3 x 11.8	115	534.0	19.6	10440	28.8	15353	38	20292	10	
4S63126					127	480.0	21.6	10363	31.8	15240	42	20160	10	
4S63151	152				396.0	25.8	10233	38.0	15048	51	20196	10		
4S63176	178				335.0	30.3	10137	44.5	14908	60	20100	5		
4S63202	203				297.0	34.5	10249	50.8	15073	68	20196	5		
4S63252	254				235.0	43.2	10147	63.5	14923	85	19975	5		
4S63303	305				194.0	51.9	10059	76.3	14793	103	19982	5		

1 N = 0.102 kg
1 kg = 9.81 N



5S

Carico super forte

Proponiamo una serie di molle intercambiabili con quelle a norma ISO 10243 che, grazie ad una particolare sezione del filo, hanno forze da 3 a 4 volte superiori a quelle di Serie Extra-Forte (Colore Giallo). Queste molle, prodotte con gli stessi acciai legati e gli stessi trattamenti usati nella produzione delle molle per stampi, raggiungono grandi forze iniziali con poca precompressione, come si può constatare nel grafico che segue, rimanendo disponibile una buona corsa di lavoro. Sono identificate con il Colore Bronzo e denominate 5S..., dove i numeri successivi del codice indicano il diametro del foro di alloggiamento e la lunghezza libera della molla.

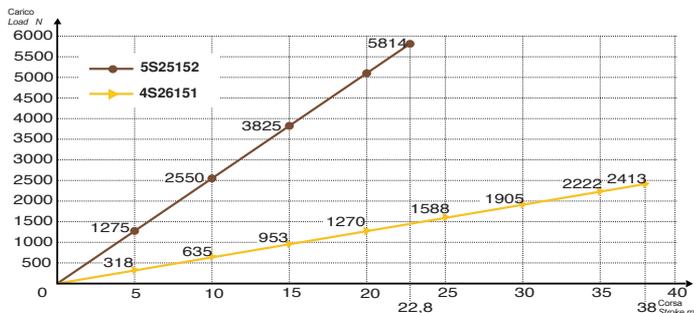
We supply a series of die springs which are interchangeable with those of ISO 10243 standard and which, thanks to the particular wire section, reach 3 or 4 times the force of the corresponding Extra Heavy-Duty Series (Yellow colour).

These springs, made with the same alloy steel and manufacturing processes used for Die Springs, can reach high initial forces with low preloading as shown in the table below, with the consequence that a substantial working stroke remains.

Their colour code is Bronze and the catalogue No. is 5S... followed by codes indicating the housing diameter and the free length.

Esempi di comparazione tra molle 5S e 4S

Example of comparison between 5S and 4S springs

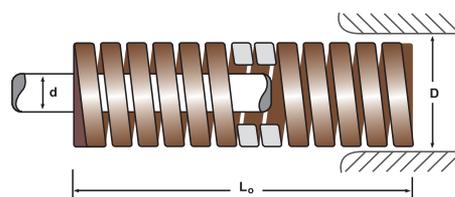


Codice Ctlg.n.r.	Corsa Stroke mm	mm	5	10	15	20	22,8	30	35	38
5S25152	Carico Load N	N	1275	2550	3825	5100	5814			
4S26152			318	635	953	1270	1448	1905	2222	2413

Deflessione massima consentita
Maximum working deflection

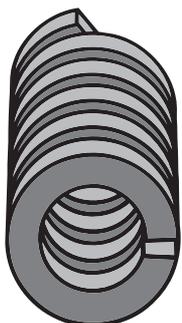
Codice Ctlg. No.	D Sede Housing ø mm	d Spina Rod ø mm	L ₀ Lungh. libera Free length mm	R Rigidità Rate N/mm	10% Defless. per lunga durata Long Life deflection		15% Defless. max di lavoro Max working deflection		APPROX Molla a blocco Spring to solid		Nr. pz per conf. No. pcs per box
					Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	
5S10025	10	5	25	167	2.5	418	3.8	626	5	835	100
5S10032			32	130	3.2	416	4.8	624	6	780	100
5S10038			38	105	3.8	399	5.7	599	7	735	100
5S10044			44	86	4.4	378	6.6	568	8	688	100
5S10051			51	79	5.1	403	7.7	604	9	711	50
5S10064			64	62	6.4	397	9.6	595	11	682	50
5S10076			76	51	7.6	388	11.4	581	14	714	50
5S13025	12.5	6.3	25	288	2.5	720	3.8	1080	5	1440	100
5S13032			32	216	3.2	691	4.8	1037	6	1296	100
5S13038			38	176	3.8	669	5.7	1003	7	1232	100
5S13044			44	149	4.4	656	6.6	983	8	1192	100
5S13051			51	128	5.1	653	7.7	979	9	1152	50
5S13064			64	100	6.4	640	9.6	960	11	1100	50
5S13076			76	84	7.6	638	11.4	958	14	1176	50
5S13089	89	71	8.9	632	13.4	948	16	1136	50		
5S13102	102	61	10.2	622	15.3	933	19	1159	50		
5S16032	16	8	32	449	3.2	1437	4.8	2155	6	2694	100
5S16038			38	363	3.8	1379	5.7	2069	7	2541	100
5S16044			44	309	4.4	1360	6.6	2039	8	2472	100
5S16051			51	256	5.1	1306	7.7	1958	9	2304	100
5S16064			64	203	6.4	1299	9.6	1949	11	2233	50
5S16076			76	166	7.6	1262	11.4	1892	14	2324	50
5S16089			89	139	8.9	1237	13.4	1856	16	2224	50
5S16102	102	114	10.2	1163	15.3	1744	19	2166	50		
5S16115	115	105	11.5	1208	17.3	1811	22	2310	50		
5S16127	127	94	12.7	1194	19.1	1791	25	2350	20		
5S16152	152	69	15.2	1049	22.8	1573	34	2346	20		
5S16305	305	37	30.5	1129	45.8	1693	70	2590	20		

Super heavy load



Codice Ctg. No.	D	d	L ₀	R	10%		15%		APPROX 		Nr. pz per conf. No. pcs per box
					Defless. per lunga durata Long Life deflection	Carico Load	Defless. max di lavoro Max working deflection	Carico Load	Deflessione Deflection	Carico Load	
	Sede Housing ø mm	Spina Rod ø mm	Lungh. libera Free length mm	Rigidità Rate N/mm	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	Deflessione Deflection mm	Carico Load N	
5S19044	20	10	44	452	4.4	1989	6.6	2983	8	3616	50
5S19051			51	378	5.1	1928	7.7	2892	10	3780	50
5S19064			64	301	6.4	1926	9.6	2890	13	3913	50
5S19076			76	247	7.6	1877	11.4	2816	16	3952	20
5S19089			89	208	8.9	1851	13.4	2777	19	3952	20
5S19102			102	188	10.2	1918	15.3	2876	21	3948	20
5S19115			115	159	11.5	1829	17.3	2743	24	3816	20
5S19127			127	146	12.7	1854	19.1	2781	26	3796	20
5S19152			152	91	15.2	1383	22.8	2075	45	4095	20
5S19305			305	60	30.5	1830	45.8	2745	70	4200	10
5S25044	25	12.5	44	1158	4.4	5095	6.6	7643	8	9264	50
5S25051			51	933	5.1	4758	7.6	7091	10	9330	50
5S25064			64	730	6.4	4672	9.6	7008	13	9490	50
5S25076			76	556	7.6	4226	11.4	6338	16	8896	20
5S25089			89	462	8.9	4112	13.4	6168	20	9240	20
5S25102			102	390	10.2	3978	15.3	5967	23	8970	20
5S25115			115	360	11.5	4140	17.3	6210	26	9360	20
5S25127			127	326	12.7	4140	19.1	6210	28	9128	10
5S25152			152	255	15.2	3876	22.8	5814	34	8670	10
5S25178			178	230	17.8	4094	26.7	6141	39	8970	10
5S25203	203	202	20.3	4101	30.5	6151	45	9090	10		
5S25305	305	136	30.5	4148	45.8	6222	63	8568	5		
5S32044	32	16	44	1300	4.4	5720	6.6	8580	8	10400	20
5S32051			51	1150	5.1	5865	7.6	8740	11	12650	20
5S32064			64	887	6.4	5677	9.6	8515	14	12418	20
5S32076			76	733	7.6	5570	11.4	8356	17	12460	20
5S32089			89	612	8.9	5447	13.4	8171	21	12853	20
5S32102			102	544	10.2	5544	15.3	8316	23	12502	20
5S32115			115	494	11.5	5685	17.3	8527	25	12359	10
5S32127			127	432	12.7	5490	19.1	8235	30	12968	10
5S32152			152	356	15.2	5416	22.8	8124	35	12471	10
5S32178			178	304	17.8	5409	26.7	8114	41	12459	10
5S32203	203	265	20.3	5387	30.5	8080	47	12472	10		
5S32254	254	214	25.4	5436	38.1	8153	58	12412	5		
5S32305	305	177	30.5	5385	45.8	8077	70	12359	5		
5S38064	40	20	64	1228	6.4	7859	9.6	11789	13	15964	20
5S38076			76	1017	7.6	7729	11.4	11594	16	16272	20
5S38089			89	880	8.9	7832	13.4	11748	20	17600	20
5S38102			102	762	10.2	7772	15.3	11659	23	17526	20
5S38115			115	679	11.5	7809	17.3	11713	26	17654	10
5S38127			127	622	12.7	7899	19.1	11849	28	17416	10
5S38152			152	509	15.2	7737	22.8	11605	36	18324	10
5S38178			178	429	17.8	7636	26.7	11454	43	18447	10
5S38203			203	374	20.3	7592	30.5	11388	49	18326	5
5S38254			254	296	25.4	7518	38.1	11278	62	18352	5
5S38305	305	246	30.5	7503	45.8	11255	75	18450	5		
5S50064	50	25	64	1980	6.4	12672	9.6	19008	11	21780	20
5S50076			76	1811	7.6	13764	11.4	20645	14	25354	20
5S50089			89	1410	8.9	12549	13.4	18824	19	26790	10
5S50102			102	1215	10.2	12393	15.3	18590	22	26730	10
5S50115			115	1076	11.5	12374	17.3	18561	25	26900	10
5S50127			127	968	12.7	12294	19.1	18440	28	27104	10
5S50152			152	806	15.2	12251	22.8	18377	34	27404	10
5S50178			178	698	17.8	12424	26.7	18637	40	27920	5
5S50203			203	612	20.3	12424	30.5	18635	45	27540	5
5S50254			254	472	25.4	11989	38.1	17983	58	27376	5
5S50305	305	388	30.5	11834	45.8	17751	70	27160	5		

1 N = 0.102 kg
1 kg = 9.81 N



**MOLLIFICIO
BORDIGNON**

MOLLIFICIO BORDIGNON srl

Via Antonio Meucci, 27
36028 Rossano Veneto
(Vicenza) Italy

Tel +39 0424 848924
Fax +39 0424 540525

www.bordignonsprings.com
bordignon@bordignonsprings.com