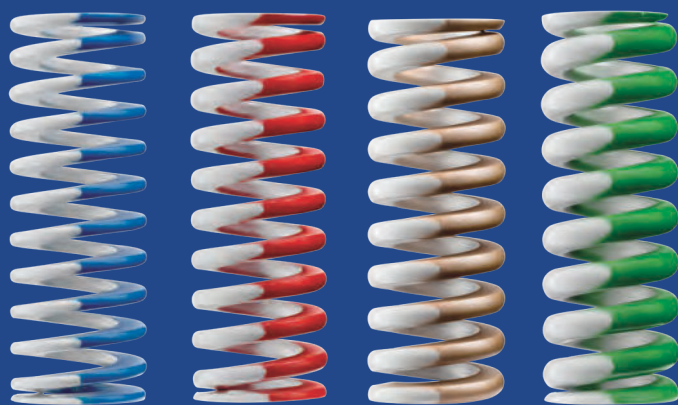
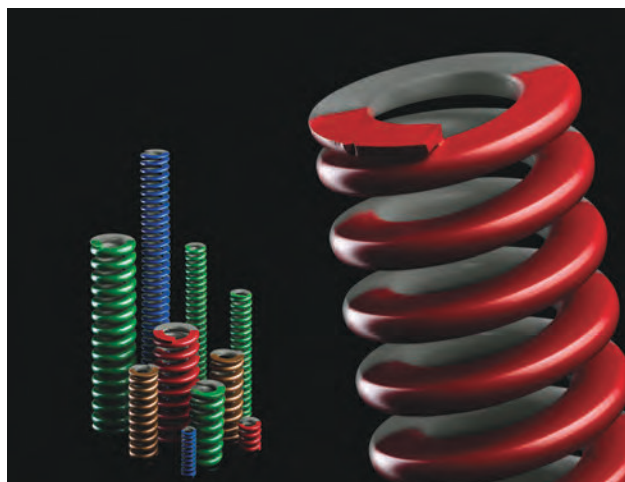




tipco»

DIE SPRINGS
US SERIES





EN The new benchmark for the US Series. E-coat provides corrosion resistance and high mechanical strength. Coating thickness controlled to $10 < 30 \mu\text{m}$.

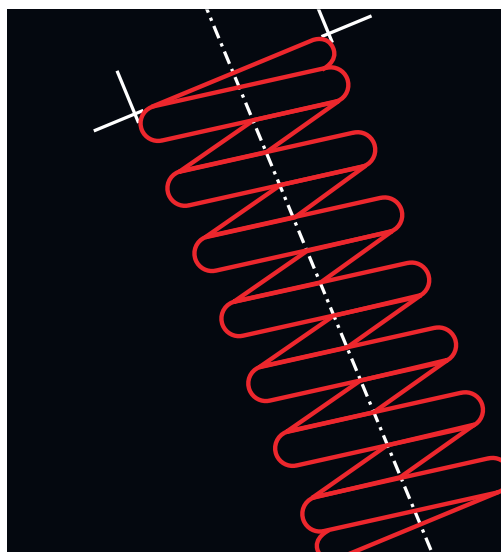
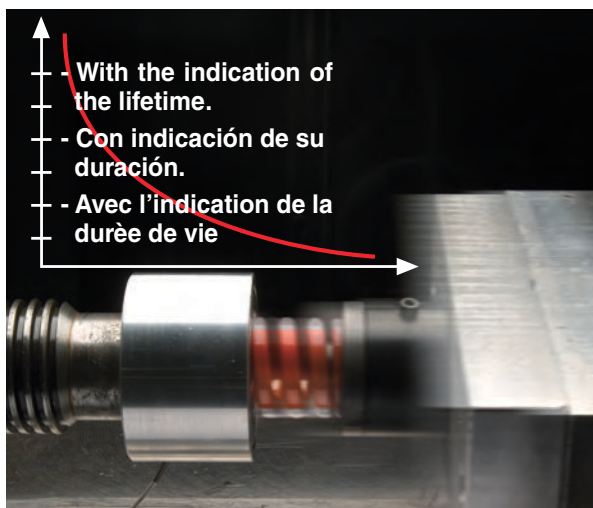
ES La nueva referencia para la Serie US. E-coating ofrece resistencia a la corrosión y alta resistencia mecánica. Espesor controlado $10 < 30 \mu\text{m}$.

FR Le nouveau standard pour la Série US. E-coating offre résistance à la corrosion et haute résistance mécanique. Epaisseur contrôlée $10 < 30 \mu\text{m}$.

EN Life cycle data published in catalog indicating minimum spring life based on deflection %. Working conditions can significantly influence actual spring life.

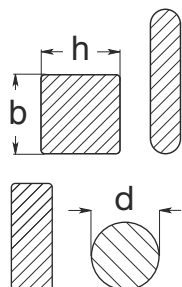
ES Datos del ciclo de vida publicados en el catálogo que indican la vida mínima del resorte basada en el porcentaje de deflexión. Las condiciones de trabajo pueden influir significativamente en la vida útil real de los resortes.

FR Données relatives au cycle de vie, publiées dans le catalogue, indiquant la durée de vie minimum du ressort sur la base du % de flexion. Les conditions de travail peuvent sensiblement influencer sur la durée de vie réelle du ressort.



CUSTOM SPRINGS

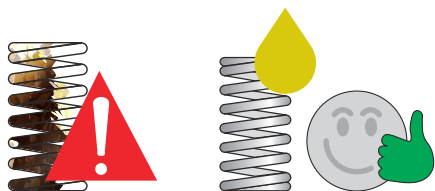
- Multiple Wire Forms
- 100% In house processes
- No Minimum Order Quantity
- Competitive price



- Diameters from 3 mm - 150 mm
- Quick delivery
- Made to customer specification

UNPAINTED SPRINGS

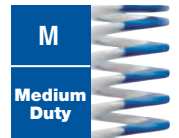
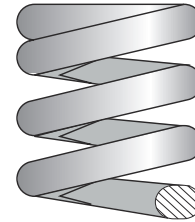
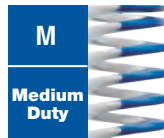
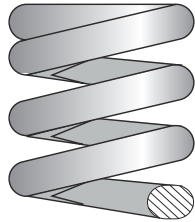
- **MODELS:** Same of standard series.
- **MIN. QUANTITY:** Same as standard springs.
- **HOW TO ORDER:** Add "U" to part number, see page 9.
- **SPRINGS IDENTIFICATION:** Unpainted springs can be identified by label or measurement.



- **RUST PROTECTION:** Rust can cause early breaking, thus we recommend special care when using unpainted springs.

RANGE OVERVIEW

tipco»



DH	Dd	L ₀
inch	inch	inch
3/8	3/16	1
		1 1/4
		1 1/2
		1 3/4
		2
		2 1/2
		3
		12
1/2	9/32	1
		1 1/4
		1 1/2
		1 3/4
		2
		2 1/2
		3
		3 1/2
		4
		4 1/2
		5 1/2
		6 1/2
5/8	11/32	1
		1 1/4
		1 1/2
		1 3/4
		2
		2 1/2
		3
		3 1/2
		4
		4 1/2
3/4	3/8	1
		1 1/4
		1 1/2
		1 3/4
		2
		2 1/2
		3
		3 1/2
		4
		4 1/2
		5
		5 1/2
		6
		6 1/2
		7 1/2
		12
1	1/2	1
		1 1/4
		1 1/2
		1 3/4
		2
		2 1/2
		3
		3 1/2
		4
		4 1/2

US series
Max. Defl. 50% L ₀
R ± 10%
lbs./1 inch
6.0
5.0
4.2
3.7
3.1
2.6
2.1
0.6
11.0
8.2
6.8
6.0
5.5
4.5
3.5
3.0
2.6
2.3
2.0
1.4
1.2
0.7
16.4
12.4
10.8
9.6
8.6
6.5
5.8
5.0
4.4
3.8
1.5
32.0
25.6
20.0
17.6
15.0
12.0
10.1
8.3
7.5
6.4
6.0
5.5
5.0
4.7
3.8
2.4
55.0
45.0
37.3
32.0
26.8
20.9
17.1
14.5
12.5
11.0

US series
Max. Defl. 37% L ₀
R ± 10%
lbs./1 inch
8.4
7.3
6.7
5.8
5.0
3.7
3.0
0.8
15.5
12.2
9.8
8.5
7.5
6.0
5.1
4.0
3.7
-
-
-
1.1
30.0
21.5
19.0
16.8
15.5
11.5
10.0
8.5
7.6
6.6
2.6
50.0
38.0
31.0
27.0
24.0
18.8
14.9
12.8
11.0
10.0
9.0
8.0
7.5
-
-
3.5
82.7
65.3
53.8
46.1
40.0
32.2
26.7
22.9
20.2
17.8

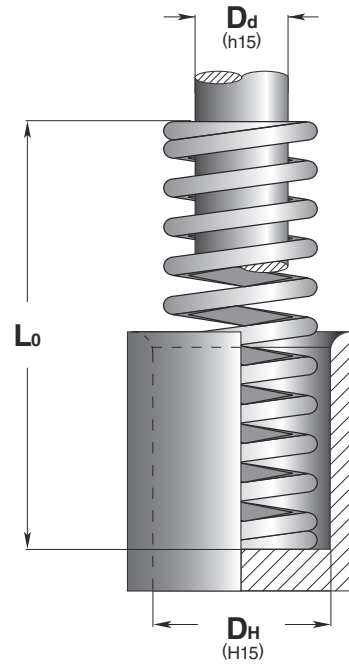
US series
Max. Defl. 30% L ₀
R ± 10%
lbs./1 inch
11.6
9.8
8.0
7.5
6.2
5.0
4.1
1.1
22.5
18.2
14.8
12.6
11.0
8.6
7.4
6.0
5.3
-
-
-
1.7
42.4
32.5
28.0
24.0
20.8
17.0
14.0
12.2
10.8
9.5
3.0
108.0
88.0
69.0
60.0
51.5
40.0
33.0
29.0
25.0
22.0
19.5
17.8
16.0
-
-
8.0
193.2
146.5
120.0
104.0
87.2
66.5
54.4
45.6
40.0
35.2

US series
Max. Defl. 25% L ₀
R ± 10%
lbs./1 inch
21.0
14.6
12.5
10.5
9.0
7.5
6.3
1.5
31.0
24.0
19.2
17.0
14.0
11.5
9.4
8.0
7.1
-
-
-
2.4
63.0
43.8
37.0
31.0
28.0
22.0
19.0
15.4
13.5
12.0
4.5
140.0
110.0
89.0
75.0
66.0
50.0
40.5
34.5
30.0
26.5
23.5
21.5
19.5
-
-
9.5
243.7
187.6
160.0
133.9
116.0
89.6
73.6
62.4
55.2
48.8

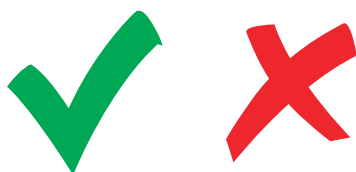
DH	Dd	L ₀
inch	inch	inch
1	1/2	5
		5 1/2
		6
		7
		8
		12
1 1/4	5/8	1 1/2
		1 3/4
		2
		2 1/2
		3
		3 1/2
		4
		4 1/2
		5
		5 1/2
		6
		7
1 1/2	3/4	8
		10
		12
		2
		2 1/2
		3
		3 1/2
		4
		4 1/2
		5
2	1	5 1/2
		6
		7
		8
		10
		12
		2 1/2
		3
		3 1/2
		4
		4 1/2
		5
2 1/2	1 1/2	5 1/2
		6
		7
		8
		9
		10
		12
		3
		3 1/2
		4

US series
Max. Defl. 50% L ₀
R ± 10%
lbs./1 inch
9.6
8.8
8.0
7.2
6.0
4.0
49.6
40.6
37.6
28.8
24.0
20.0
17.6
16.0
14.3
12.8
12.0
10.4
8.8
7.2
6.0
53.0
42.7
36.0
30.0
24.9
23.0
21.0
18.5
17.0
15.3
13.2
10.6
8.5
100.0
83.0
67.7
60.0
53.0
47.0
40.5
39.0
31.2
28.5
21.6
18.5
108.1
89.6
76.2
66.6
59.4
53.2
48.1
41.5
35.9
-
26.9
23.4

MH	H	EH
Medium Heavy Duty	Heavy Duty	Extra Heavy Duty
US series	US series	US series
Max. Defl. 37% L ₀	Max. Defl. 30% L ₀	Max. Defl. 25% L ₀
R ± 10%	R ± 10%	R ± 10%
lbs./1 inch	lbs./1 inch	lbs./1 inch
15.7	31.2	43.2
13.7	28.8	39.3
12.5	25.6	36.0
10.9	22.4	30.5
9.6	19.2	26.6
6.5	12.8	17.6
114.4	220.0	269.0
100.8	181.6	237.0
83.8	149.6	205.0
62.4	117.6	152.5
51.2	95.2	122.0
44.0	78.0	108.5
38.1	66.4	89.0
32.9	58.4	83.5
30.0	53.0	70.0
26.4	47.2	62.8
25.0	45.0	57.5
21.0	36.8	51.4
18.4	32.8	46.0
14.5	25.6	34.5
12.4	22.0	27.0
103.0	198.0	408.5
81.2	155.0	328.5
62.4	130.0	255.0
54.0	106.4	213.5
46.5	91.2	184.5
41.0	81.6	162.5
36.8	73.0	145.0
33.0	67.0	130.8
29.5	58.4	120.5
25.5	49.6	102.8
22.0	43.2	90.5
17.6	36.2	71.0
14.4	30.0	55.0
118.4	251.2	411.0
93.0	206.0	319.0
78.2	170.0	276.4
66.4	150.0	231.1
60.0	127.2	188.8
53.4	118.6	180.4
49.0	107.7	159.9
45.0	97.7	147.3
37.4	82.0	125.6
33.0	73.0	111.6
26.0	57.2	88.4
21.5	47.7	71.2
171.4	-	-
146.2	-	-
128.5	-	-
111.9	-	-
100.5	-	-
90.8	-	-
82.2	-	-
68.5	-	-
59.7	-	-
52.5	-	-
46.8	-	-
37.7	-	-



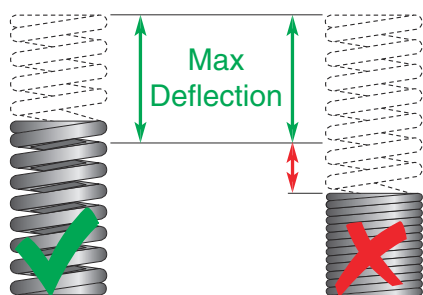
D_H	Hole diameter Diámetro del agujero de alojamiento Diamètre du trou de logement	
D_d	Rod diameter Diámetro de la clavija de guía Diamètre de l'arbre de guidage	
L₀	Spring free length Longitud libre del muelle Longueur libre du ressort	Tolerance Tolerancia Tolérance
	inch	inch
	From 1" to 2"	+ 0.125 - 0
	From 2" 1/2 to 4"	+ 0.093 - 0
	From 5" to 7"	+ 0.187 - 0
	From 8" to 9"	+ 0.250 - 0
	From 10" to 12"	+ 0.375 - 0
R	Spring rate (lbs./1 inch) - load required to deflect by 0.04 inch Carga (lbs./1 inch) necesaria para desviar el muelle de 0.04 inch Charge (lbs./1 inch) exigée pour comprimer le ressort 0.04 inch	
Max. Defl.	Deflection values near solid are intended for design information ONLY Los valores de deflexión por muelle a bloque están destinados SOLAMENTE a información de diseño Les valeurs de déflexion pour ressort à bloc sont fournies UNIQUEMENT à titre de renseignements techniques	



EN The correct use of springs ensures longer life. Incorrect use can significantly reduce the expected life and may cause damage to the equipment.

ES El uso correcto de los muelles asegura una más larga duración. Utilizaciones incorrectas reducen significativamente los valores de duración y pueden provocar daños a la herramienta.

FR L'utilisation correcte des ressorts assure une durée de vie plus longue. Des utilisations incorrectes réduisent significativement les valeurs de durée et sont la cause de dommages à l'outil.

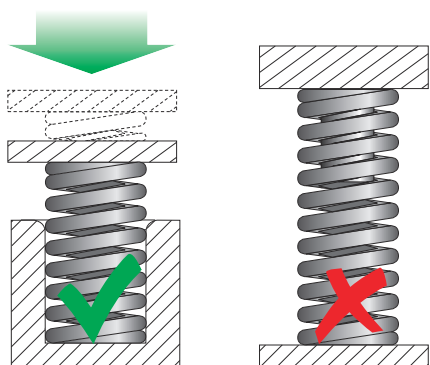


EN Do not exceed the maximum operating deflection (Column C) that is indicated for each spring in the catalog.

ES No exceda la deflexión máxima de funcionamiento (Columna C) que se indica en el catálogo para cada muelle.

FR Ne pas dépasser la déflexion maximale de fonctionnement (Colonne C) indiquée dans le catalogue pour chaque ressort.

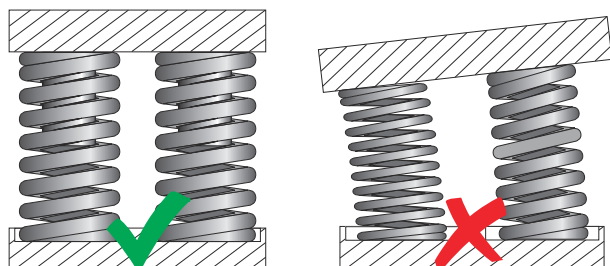
Pre-load $\geq 5\% L_0$



EN Pre-loading the spring to a minimum of 5% of the free length is strongly recommended. Pre-load will ensure longer life and optimum performance. Insufficient pre-load will reduce performance and spring life.

ES Se recomienda encarecidamente precargar el resorte a un mínimo del 5% de la longitud libre. La precarga asegurará una vida útil más larga y un rendimiento óptimo. Una precarga insuficiente reducirá el rendimiento y la vida útil del resorte.

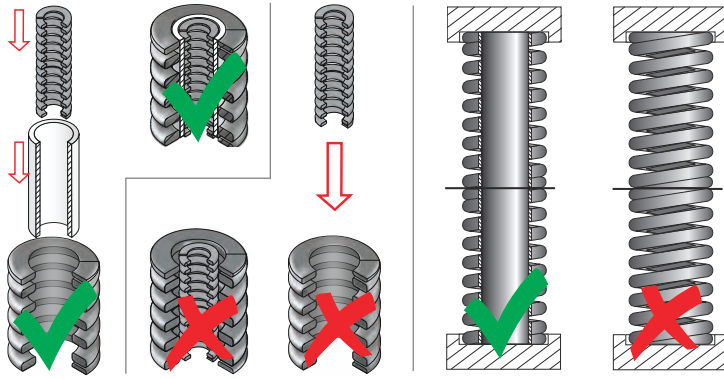
FR Nous recommandons vivement de précharger le ressort à un minimum de 5 % de la longueur libre. La précharge garantira une durée de vie plus longue et des performances optimales. Une précharge insuffisante réduira la durée de vie du ressort et ses performances.



EN To ensure perpendicularity and promote spring life, use springs that have similar forces and deflection rate.

ES Para asegurar la perpendicularidad y garantizar la vida útil del resorte, utilice resortes que tengan fuerzas y rigidez de deflexión similares.

FR Pour garantir la perpendicularité et prolonger la durée de vie du ressort, veuillez utiliser des ressorts disposant de tensions et de taux de flexion similaires.

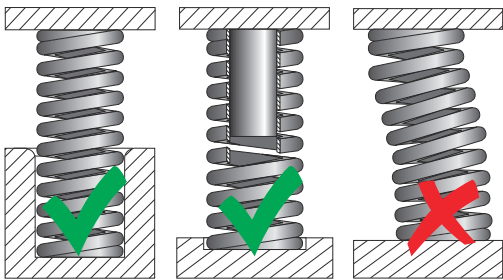


EN Stack springs only if guided. Coupled springs is an option provided the springs are not in contact.

ES Muelles superpuestos solo si son guiados. Muelles acoplados es una opción solo si los muelles no están en contacto.

FR Ressorts superposés uniquement s'ils sont guidés. Ressorts couplés est une option uniquement s'ils ne sont pas en contact.

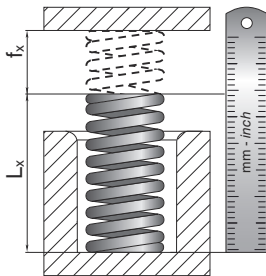
$$(L_0 / D_H) > 3.5$$



EN The bigger the guide the longer the lifetime. It is essential to always guide springs with a free length / diameter (L_0 / D_H) ratio exceeding 3.5.

ES Cuanto mayor sea el conjunto de dispositivos de guía, mayor será la duración de los muelles. Es siempre necesario guiar todos los muelles con una relación de longitud / diámetro (L_0 / D_H) mayor de 3.5.

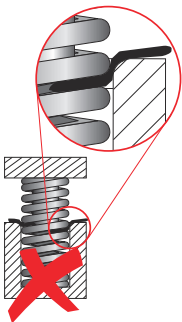
FR Plus le guidage est important et plus la durée des ressorts sera longue. Il est toujours nécessaire de guider tous les ressorts avec un rapport longueur / diamètre (L_0 / D_H) supérieur à 3.5.



EN Tool maintenance can vary the original working deflection of the springs. Always check and re-set the original working stroke. Failure to do so may result in failures or damages of the tool.

ES Las mantenciones del molde pueden modificar la deflexión de trabajo original de los muelles. Controlar y restablecer siempre las deflexiones iniciales. El no hacerlo puede causar prematuros aflojamientos de los muelles o daños al molde.

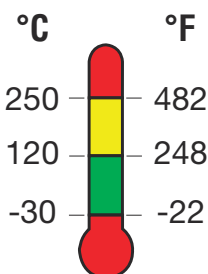
FR Les entretiens sur le moule peuvent modifier la déflexion du travail original des ressorts. Il faut toujours contrôler et rétablir les déflexions originelles. Le défaut de se conformer pouvait résulter en danger ou dommages au moule.



EN The presence of scrap or solid debris between the coils can cause a reduction of spring deflection, early failure, and damage to the tool. Check and remove scrap and debris.

ES La presencia de cuerpos extraños entre las espiras de los muelles provoca reducciones de carrera, sobrecargas y rupturas de los muelles con daños al molde. Siempre buscar y eliminar estos organismos.

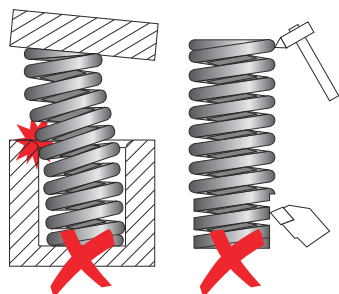
FR La présence de corps étrangers entre les spires des ressorts provoque des réductions de course, des surcharges et des ruptures des ressorts avec des dommages au moule. Contrôler et éliminer ces corps étrangers.



EN In the temperature range of 248 to 482°F (120 to 250°C) consider a loss between 1 to 2% of the load every 104°F (40°C).

ES En el rango de temperatura de 248 hasta 482°F (de 120 hasta 250°C) considerará una pérdida entre 1 y 2% de la carga cada 104°F (40 °C).

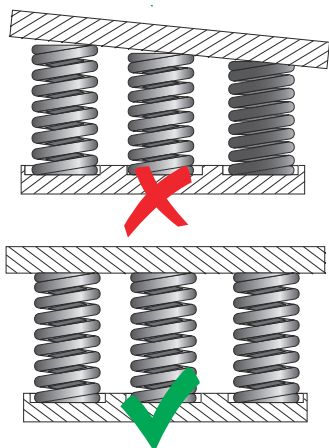
FR Dans la plage de température de 248 à 482°F (de 120 à 250°C), il faut envisager une perte entre 1 et 2% de la charge tous les 104°F (40 °C).



EN Any alteration on the surface of the springs (cutting, grinding, scratches) may significantly reduce the lifetime. Always replace the damaged springs.

ES Cualquier daño sobre la superficie de los muelles (cortes, abrasiones, amoladuras) puede reducir significativamente la duración. Sustituir siempre los muelles dañados.

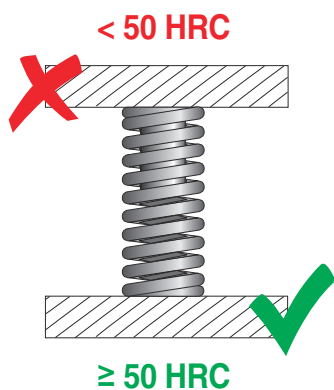
FR Tout dommage sur la surface des ressort (coupures, abrasions, meulages) peut réduire significativement la durée. Il faut toujours remplacer les ressorts endommagés.



EN Schedule regular maintenance and replace worn or damaged springs. An unbalanced load is detrimental to the spring life.

ES Programar un mantenimiento regular y reemplace los muelles desgastados o dañados. Una carga desequilibrada es perjudicial para la vida del muelle.

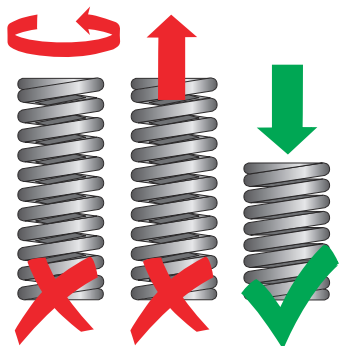
FR Planifiez un entretien régulier et remplacez les ressorts usés ou endommagés. Une charge déséquilibrée nuit à la durée de vie du ressort.



EN The springs are made from hardened alloy steel. The material of surfaces in contact with the springs shall feature adequate hardness to prevent wear and abrasion.

ES Los muelles están hechos con acero de aleación endurecido. El material de las superficies en contacto con los muelles debe presentar una dureza adecuada para evitar el desgaste y la abrasión.

FR Les ressorts sont fabriqués en acier allié durci. Le matériau des surfaces en contact avec les ressorts doit présenter une dureté suffisante pour éviter l'usure et l'abrasion.



EN Do not apply forces other than in compression direction. Using of compression springs as traction or torsion springs is cause of deformation and sudden failure. The improper use of springs may bring to unforeseen accidents with damage and injury.

ES No aplicar fuerzas que no sean de compresión. Utilizar los muelles en tracción o torsión es causa de deformación y rotura. El uso inadecuado de los muelles puede comportar incidentes imprevisibles con daños a cosas y personas.

FR N'appliquez les forces que pour la compression. Utilisation de ressorts de compression en traction ou torsion est la cause de déformation et de panne instantanée. L'utilisation inadaptée des ressorts peut causer des accidents imprévus avec des dégâts et provoquer des blessures



EN Avoid storage of springs in the fully compressed position for long periods. Protect the springs from corrosive agents to prevent oxidation and early failures. Always replace rusty springs.

ES Evitar el almacenamiento de los muelles en posición completamente comprimida por largos periodos de tiempo. Proteger los muelles de agentes corrosivos para evitar oxidación y roturas prematuras. Sustituir siempre los muelles que presenten oxidación.

FR Evitez de stocker les ressorts dans la position complètement comprimée pendant de longues périodes. Protéger les ressorts des agents corrosifs pour empêcher l'oxydation et une défaillance prématurée. Toujours remplacer les ressorts qui ont la rouille.



EN The compliance with RoHs and the material used allow to dispose springs as regular metal scrap.

ES La conformidad con la directiva RoHs y los materiales utilizados permiten desechar los muelles como chatarra metálica normal.

FR La conformité de RoHs et du matériel utilisé permet de céder les ressorts comme déchets métalliques.



HOW TO ORDER

PAINTED SPRINGS

Example:



Series: EH
DH: 150
L0: 250
Quantity: 25 pcs
EH150-250 (25 pcs)

UNPAINTED SPRINGS

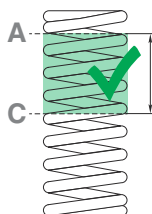
Example:



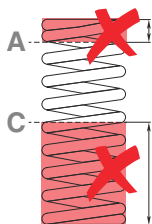
Series: EH
DH: 150
L0: 250
Unpainted: U
Quantity: 25 pcs
EH150-250U (25 pcs)

R $\pm 10\%$ Spring rate

- EN** Spring rate (*lbs./1 inch* - N/mm) is the load required in *lbs* - N to deflect a spring by *0.04 inch* - 1 mm.
- ES** La constante (*lbs./1 inch* - N/mm) de los muelles es la carga requerida en *lbs* - N para comprimir un muelle *0.04 inch* - 1 mm.
- FR** La constante (*lbs./1 inch* - N/mm) ressort est la charge requise en *lbs* - N pour comprimer le ressort de *0.04 inch* - 1 mm.



- EN** Spring rate is verified considering the force values as stated in columns A and C.
- ES** La rigidez de los muelles se verifica considerando los valores de fuerza indicados en las columnas A y C.
- FR** La raideur de ressorts fil est vérifiée en considérant les valeurs de force indiquées dans les colonnes A et C.

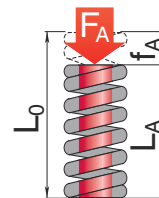


- EN** Spring rate, when verified outside the indicated range of values, may result out of the $\pm 10\%$ tolerance.
- ES** La rigidez de los muelles, cuando se verifica fuera del rango de valores indicado, puede resultar fuera de la tolerancia de $\pm 10\%$.
- FR** La raideur des ressorts fil, lorsqu'elle est vérifiée en dehors de la plage de valeurs indiquée, peut résulter hors de la tolérance de $\pm 10\%$.

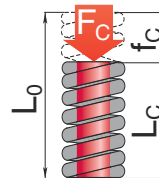
MH 100-100

Calculation example - Ejemplo de cálculo - Exemple de calcul

- 1** **EN** Deflect the spring to $f_A = 0.2 \text{ inch}$ - 5.1 mm (col. A) in relation to nominal length L_0 and then measure the force F_A (*lbs* - N)
- ES** Flexionar el muelle a una $f_A = 0.2 \text{ inch}$ - 5.1 mm (col. A) en relación con la longitud nominal L_0 y luego medir la fuerza F_A (*lbs* - N)
- FR** Défléchir le ressort fil à $f_A = 0.2 \text{ inch}$ - 5.1 mm (col. A) par rapport à la longueur nominale L_0 et puis mesurer la force F_A (*lbs* - N)



- 2** **EN** Deflect the spring to $f_C = 0.3 \text{ inch}$ - 7.6 mm (col. C) in relation to nominal length L_0 and measure the force F_C (*lbs* - N)
- ES** Flexionar el muelle a una $f_C = 0.3 \text{ inch}$ - 7.6 mm (col. C) en relación con la longitud nominal L_0 y luego mida la fuerza F_C (*lbs* - N)
- FR** Défléchir le ressort fil à $f_C = 0.3 \text{ inch}$ - 7.6 mm (col. C) par rapport à la longueur nominale L_0 et puis mesurer la force F_C (*lbs* - N)



- 3** **EN** Calculate the spring rate R by the following formula:
- ES** Calcular la constante R con la siguiente fórmula:
- FR** Calculer la constante ressort R par la formule suivante:

$$R = 0.1 \cdot (F_C - F_A) / (f_C - f_A) [\text{lbs./1 inch}]$$

$$R = (F_C - F_A) / (f_C - f_A) [\text{N/mm}]$$

- 4** **EN** The R value as resulted at point ③ shall correspond to the one stated in the catalog.
- ES** El valor R como resultado en el punto ③ debe corresponder al valor indicado en el catálogo.
- FR** La valeur R indiquée au point ③ doit correspondre à celle indiquée dans le catalogue.

$$R = 82.7 \text{ lbs./1 inch} \pm 10\%$$

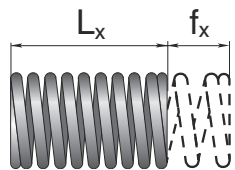
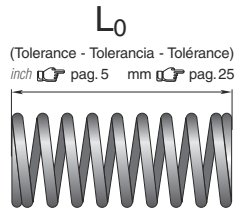
$$R = 144.8 \text{ N/mm} \pm 10\%$$

$F_x = R \cdot f_x$ Force at L_x

EN The spring force F_x at given deflection f_x is the result of the spring rate and the deflection value. It may be influenced by the tolerances of spring rate R and free length L_0 . Calculation is correct only when using deflection values in the range of columns A and C.

ES La fuerza de los muelles F_x a la deflexión dada f_x es el resultado de la rigidez de los muelles y el valor de deflexión. Puede estar influenciado por las tolerancias de la rigidez de muelles R y la longitud libre L_0 . El cálculo es correcto solo cuando se usan valores de deflexión en el rango de las columnas A y C.

FR La force des ressorts F_x à une déflexion donnée f_x est le résultat de la raideur et de la valeur de la déflexion. Il peut être influencé par les tolérances de la raideur R et de la longueur libre L_0 . Le calcul n'est correct que lors de l'utilisation de valeurs de déflexion dans la plage des colonnes A et C.



MH 125-300

Calculation example - Ejemplo de cálculo - Exemple de calcul

- EN** For a better understanding, the example below shows the calculation of the nominal value of force and the min and max values possible for the spring MH 32-076 at a given length L_x of 2.25 inch - 57.1 mm as follows:

ES Para una mejor comprensión, calculamos el valor nominal de fuerza y los valores mínimo y máximo admitidos para el muelle MH 32-076 con L_x de 2.25 inch - 57.1 mm como sigue:

FR Pour une meilleure compréhension, nous calculons la valeur nominale de la force et les valeurs min et max admises du ressort MH 32-076 à une longueur donnée L_x de 2.25 inch - 57.1 mm comme suit:

$R = 51.2 \text{ lbs./1 inch} \pm 10\%$	$R = 89.7 \text{ N/mm} \pm 10\%$
$R_{\min} = 46.1 \text{ lbs./1 inch}$	$R_{\min} = 80.7 \text{ N/mm}$
$R_{\max} = 56.3 \text{ lbs./1 inch}$	$R_{\max} = 98.7 \text{ N/mm}$
$L_0 = 3^{+0.125}_{-0} \text{ inch}$	$L_0 = 76.2^{+3.2}_{-0} \text{ mm}$
$L_{0 \min} = 3 \text{ inch}$	$L_{0 \min} = 76.2 \text{ mm}$
$L_{0 \max} = 3.125 \text{ inch}$	$L_{0 \max} = 79.4 \text{ mm}$
L_0 (Tolerance - Tolerancia - Tolérance)	
inch pag. 5	mm pag. 25
- EN** Nominal value of force ($F_{x \text{ nom}}$) will be:

ES El valor nominal de fuerza ($F_{x \text{ nom}}$) será:

FR La valeur nominale de la force ($F_{x \text{ nom}}$) sera:

$F_{x \text{ nom}} = (R \cdot 10) \cdot (L_0 - L_x)$	$F_{x \text{ nom}} = R \cdot (L_0 - L_x)$
$F_{x \text{ nom}} = (51.2 \cdot 10) \cdot (3 - 2.25)$	$F_{x \text{ nom}} = 89.7 \cdot (76.2 - 57.1)$
$F_{x \text{ nom}} = 384 \text{ lbs}$	$F_{x \text{ nom}} = 1713 \text{ N}$
- EN** Min value of force ($F_{x \text{ min}}$) will be:

ES El valor mínimo de fuerza ($F_{x \text{ min}}$) será:

FR La valeur min de force ($F_{x \text{ min}}$) sera:

$F_{x \text{ min}} = (R_{\min} \cdot 10) \cdot (L_{0 \min} - L_x)$	$F_{x \text{ min}} = R_{\min} \cdot (L_{0 \min} - L_x)$
$F_{x \text{ min}} = (46.1 \cdot 10) \cdot (3 - 2.25)$	$F_{x \text{ min}} = 80.7 \cdot (76.2 - 57.1)$
$F_{x \text{ min}} = 345.8 \text{ lbs}$	$F_{x \text{ min}} = 1675.1 \text{ N}$
- EN** Max value of force ($F_{x \text{ max}}$) will be:

ES El valor máximo de fuerza ($F_{x \text{ max}}$) será:

FR La valeur max value de force ($F_{x \text{ max}}$) sera:

$F_{x \text{ max}} = (R_{\max} \cdot 10) \cdot (L_{0 \max} - L_x)$	$F_{x \text{ max}} = R_{\max} \cdot (L_{0 \max} - L_x)$
$F_{x \text{ max}} = (56.3 \cdot 10) \cdot (3.125 - 2.25)$	$F_{x \text{ max}} = 98.7 \cdot (79.4 - 57.1)$
$F_{x \text{ max}} = 492.6 \text{ lbs}$	$F_{x \text{ max}} = 2201 \text{ N}$

HOW TO SELECT SPRINGS

tipco»

1 EN For a quick selection of the spring, you are requested to define estimated life, hole diameter, total force and total working deflection including at least 5% pre-load.

ES Para una selección rápida del resorte, se le solicita que defina la vida útil estimada, el diámetro del agujero de alojamiento, la fuerza total y la deflexión total de trabajo, incluida al menos el 5% de precarga.

FR Pour une sélection rapide du ressort, vous devez définir la durée de vie estimée, le diamètre du trou de logement, la force totale et la déflexion de travail totale compris une précharge d'au moins 5%.

2 EN Find the estimated life and the hole diameter DH as stated in chart at page 13.

ES Encontrar la vida estimada y el diámetro del agujero de alojamiento DH como se indica en la tabla en la página 13.

FR Trouvez la durée de vie estimée et le diamètre du trou de logement DH comme indiqué dans le tableau à la page 13.

Estimated Life	DH - Hole diameter (inch - mm)						
	3/8 - 9.53	1/2 - 12.70	5/8 - 15.88	3/4 - 19.05	1 - 25.4	1 1/4 - 31.75	1 1/2 - 38.10
For Optimum Life	Load (lbs - N)						
	16 - 71	26 - 114	42 - 188	75 - 334	128 - 571	799 - 180	261 - 1162
	19 - 84	29 - 131	59 - 263	91 - 407	158 - 705	1372 - 308	369 - 1643
	19 - 83	33 - 146	63 - 279	152 - 678	250 - 1111	1858 - 418	553 - 2459
	28 - 126	44 - 194	84 - 373	188 - 837	335 - 1492	2464 - 554	1111 - 4942

3 EN Check the available forces as stated in chart at page 13.

ES Verificar las fuerzas disponibles como se indica en la tabla en la página 13.

FR Vérifiez les forces disponibles comme indiqué dans le tableau à la page 13.

Estimated Life	DH - Hole diameter (inch - mm)						
	3/8 - 9.53	1/2 - 12.70	5/8 - 15.88	3/4 - 19.05	1 - 25.4	1 1/4 - 31.75	1 1/2 - 38.10
For Optimum Life	Load (lbs - N)						
	16 - 71	26 - 114	42 - 188	75 - 334	128 - 571	799 - 180	261 - 1162
	19 - 84	29 - 131	59 - 263	91 - 407	158 - 705	1372 - 308	369 - 1643
	19 - 83	33 - 146	63 - 279	152 - 678	250 - 1111	1858 - 418	553 - 2459
	28 - 126	44 - 194	84 - 373	188 - 837	335 - 1492	2464 - 554	1111 - 4942

4 EN Select the requested force and the corresponding Series as stated in chart at page 13.

ES Seleccionar la fuerza solicitada y la serie correspondiente como se indica en la tabla en la página 13.

FR Sélectionnez la force demandée et la série correspondante comme indiqué dans le tableau de la page 13.

Estimated Life	DH - Hole diameter (inch - mm)							Series
	3/8 - 9.53	1/2 - 12.70	5/8 - 15.88	3/4 - 19.05	1 - 25.4	1 1/4 - 31.75	1 1/2 - 38.10	
For Optimum Life	Load (lbs - N)							Series
	16 - 71	26 - 114	42 - 188	75 - 334	128 - 571	799 - 180	261 - 1162	
	19 - 84	29 - 131	59 - 263	91 - 407	158 - 705	1372 - 308	369 - 1643	
	19 - 83	33 - 146	63 - 279	152 - 678	250 - 1111	1858 - 418	553 - 2459	
	28 - 126	44 - 194	84 - 373	188 - 837	335 - 1492	2464 - 554	1111 - 4942	Series

5 EN Choose the requested deflection in the selected Series.

ES Elegir la deflexión solicitada en la Serie seleccionada.

FR Choisissez la déflexion demandée dans la série sélectionnée.

see Series pages - vea las paginas de la serie - voir les pages de la série

Part number	DH - Hole Diameter	Dd - Rod Diameter	L0 - Free Length	R - Spring rate	A - 20% L0	B - 25% L0	C - 30% L0	D - 37% L0	BOX
MH 037-100 MH 037-125 MH 037-150 MH 037-175 MH 037-200 MH 037-250 MH 037-300 MH 037-1200	3/8	3/16	1	8.4	0.25	21.0	0.30	25.2	0.37
			1 1/4	7.3	0.25	18.3	0.31	22.8	0.46
			1 1/2	6.7	0.30	20.1	0.38	25.1	0.56
			1 3/4	5.8	0.35	20.3	0.44	25.4	0.65
			2	5.0	0.40	20.0	0.50	25.0	0.74
			2 1/2	3.7	0.50	18.5	0.63	23.3	0.93
			3	3.0	0.60	18.0	0.75	22.5	1.11
			12	0.8	2.40	19.2	3.00	24.0	5.0

6 EN Once chosen the deflection, select the spring's part number.

ES Una vez elegida la deflexión, seleccionar el código del muelle.

FR Une fois choisie la déflexion, sélectionnez le part number du ressort fil.

see Series pages - vea las paginas de la serie - voir les pages de la série

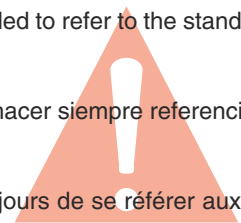
Part number	DH - Hole Diameter	Dd - Rod Diameter	L0 - Free Length	R - Spring rate	A - 20% L0	B - 25% L0	C - 30% L0	D - 37% L0	BOX
MH 037-100 MH 037-125 MH 037-150 MH 037-175 MH 037-200 MH 037-250 MH 037-300 MH 037-1200	3/8	3/16	1	8.4	0.25	21.0	0.30	25.2	0.37
			1 1/4	7.3	0.25	18.3	0.31	22.8	0.46
			1 1/2	6.7	0.30	20.1	0.38	25.1	0.56
			1 3/4	5.8	0.35	20.3	0.44	25.4	0.65
			2	5.0	0.40	20.0	0.50	25.0	0.74
			2 1/2	3.7	0.50	18.5	0.63	23.3	0.93
			3	3.0	0.60	18.0	0.75	22.5	1.11
			12	0.8	2.40	19.2	3.00	24.0	5.0

Estimated Life	DH - Hole diameter (<i>inch</i> - mm)									Series
	3/8 - 9.53	1/2 - 12.70	5/8 - 15.88	3/4 - 19.05	1 - 25.40	1 1/4 - 31.75	1 1/2 - 38.10	2 - 50.80	2 1/2 - 63	
For Optimum Life	Load (<i>lbs</i> - N)									
	16 - 71	26 - 114	42 - 188	75 - 334	128 - 571	180 - 799	261 - 1162	581 - 2586	738 - 3284	M
	19 - 84	29 - 131	59 - 263	91 - 407	158 - 705	308 - 1372	369 - 1643	539 - 2398	981 - 4365	MH
	19 - 83	33 - 146	63 - 279	152 - 678	250 - 1111	418 - 1858	553 - 2459	889 - 3953	-	H
	28 - 126	44 - 194	84 - 373	188 - 837	335 - 1492	554 - 2464	1111 - 4942	1367 - 6082	-	EH
For Long Life	Load (<i>lbs</i> - N)									
	22 - 100	36 - 159	59 - 261	105 - 468	180 - 799	252 - 1119	366 - 1627	814 - 3620	1033 - 4597	M
	24 - 105	37 - 164	74 - 329	115 - 510	199 - 883	614 - 2733	463 - 2058	674 - 3000	1227 - 5460	MH
	25 - 110	44 - 194	83 - 370	202 - 900	332 - 1475	555 - 2469	735 - 3269	1181 - 5254	-	H
	32 - 143	49 - 220	95 - 422	213 - 947	379 - 1688	629 - 2796	1259 - 5599	1549 - 6889	-	EH
Max. Operating Deflection	Load (<i>lbs</i> - N)									
	26 - 114	41 - 182	68 - 301	120 - 535	201 - 895	288 - 1279	418 - 1859	930 - 4138	1181 - 5254	M
	28 - 126	44 - 197	89 - 395	137 - 611	238 - 1057	463 - 2058	554 - 2465	809 - 3597	1472 - 6550	MH
	31 - 139	55 - 243	104 - 464	254 - 1128	415 - 1847	696 - 3095	920 - 4093	1479 - 6580	-	H
	38 - 167	58 - 258	110 - 488	250 - 1110	428 - 1904	722 - 3211	1461 - 6499	1796 - 7988	-	EH

EN The selecting guideline is an approximate method of spring selection. It is always recommended to refer to the standard tabs before using the spring.

ES El método indicado para la selección de los muelles es aproximativo. Por eso aconsejamos hacer siempre referencia a las tablas para la selección.

FR La méthode indiquée pour la sélection des ressorts est approximative. Nous conseillons toujours de se référer aux tableaux pour la sélection.



SAMPLE PAGE

1

2

MH US SERIES

tipco»

EN Medium heavy duty die springs
Silver-red color

ES Muelles carga medio-fuerte
Color plateado-rojo

FR Ressorts charge moyenne-forte
Couleur argent-rouge

L0 pag. 5

3

4

6

8

9

10

11

12

Part number	D _H Hole Diameter	D _d Rod Diameter	L ₀ Free Length	R Spring Rate	A 20% L ₀	B 25% L ₀	C 30% L ₀	D* 37% L ₀	BOX			
	inch	inch	inch	± 10% lbs./1 inch	inch	inch	inch	inch	Pcs			
MH 037-100			1	8.4	0.20	16.8	0.25	21.0	0.30	25.2	0.37	200
MH 037-125			1 1/4	7.3	0.25	18.3	0.31	22.8	0.38	27.4	0.46	200
MH 037-150			1 1/2	6.7	0.30	20.1	0.38	25.1	0.45	30.2	0.56	100
MH 037-175			1 3/4	5.8	0.35	20.3	0.44	25.4	0.53	30.5	0.65	100
MH 037-200			2	5.0	0.40	20.0	0.50	25.0	0.60	30.0	0.74	100
MH 037-250			2 1/2	3.7	0.50	18.5	0.63	23.3	0.75	27.8	0.93	100
MH 037-300			3	3.0	0.60	18.0	0.75	22.5	0.90	27.0	1.11	100
MH 037-1200			12	0.8	2.40	19.2	3.00	24.0	3.60	28.8	4.44	50
MH 050-100			1	15.5	0.20	31.0	0.25	38.8	0.30	46.5	0.37	100
MH 050-125			1 1/4	12.2	0.25	30.5	0.31	37.8	0.38	45.8	0.46	100
MH 050-150			1 1/2	9.8	0.30	29.4	0.38	37.2	0.45	44.1	0.56	100
MH 050-175			1 3/4	8.5	0.35	29.8	0.44	37.2	0.53	44.6	0.65	100
MH 050-200			2	7.5	0.40	30.0	0.50	37.5	0.60	45.0	0.74	100
MH 050-250			2 1/2	6.0	0.50	30.0	0.63	37.5	0.75	45.0	0.93	50
MH 050-300			3	5.1	0.60	30.6	0.75	38.3	0.90	45.9	1.11	50
MH 050-350			3 1/2	4.0	0.70	28.0	0.88	35.0	1.05	42.0	1.30	50
MH 050-400			4	3.7	0.80	29.0	1.00	37.0	1.20	44.0	1.48	50
MH 050-1200			12	1.1	2.40	26.4	3.00	33.0	3.60	39.6	4.44	50
MH 050-100			1	30.0	0.20	60.0	0.25	75.0	0.30	90.0	0.37	100
MH 050-125			1 1/4	21.5	0.25	53.8	0.31	67.2	0.38	80.6	0.46	100
MH 050-150			1 1/2	19.0	0.30	57.0	0.38	71.3	0.45	85.5	0.56	100
MH 050-175			1 3/4	16.8	0.35	58.8	0.44	73.5	0.53	88.2	0.65	50
MH 050-200			2	15.5	0.40	62.0	0.50	77.5	0.60	93.0	0.74	50
MH 050-250			2 1/2	11.5	0.50	57.5	0.63	71.9	0.75	86.3	0.93	50
MH 050-300			3	10.0	0.60	60.0	0.75	75.0	0.90	90.0	1.11	50
MH 050-350			3 1/2	8.5	0.70	59.5	0.88	74.4	1.05	89.3	1.30	50
MH 050-400			4	7.6	0.80	60.8	1.00	76.0	1.20	91.2	1.48	50
MH 050-450			4 1/2	6.6	0.90	82.0	1.13	74.0	1.35	89.0	1.67	50
MH 050-1200			12	2.6	2.40	62.4	3.00	78.0	3.60	93.6	4.44	50

*Deflection values near solid intended for design information ONLY.

The color silver-red is a registered trademark of Special Springs Srl.

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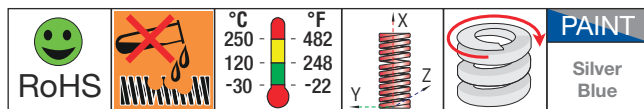
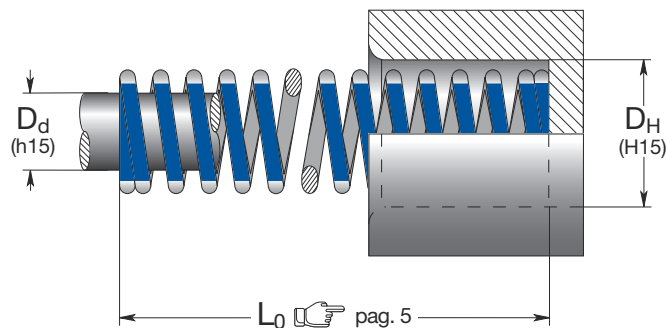
Load (lbs) = R (lbs./1 inch) x 10 x Deflection (inch) 1 lbs = 4.448 N

1 Series Serie Série	2 Standards Estándares Standards
3 Part number Código Référence	4 Hole diameter Diámetro del agujero de alojamiento Diamètre du trou de logement
5 Rod diameter Diámetro de la clavija de guía Diamètre de l'arbre de guidage	6 Spring free length Longitud libre del muelle Longueur libre du ressort
7 Spring Rate (<i>lbs./1 inch - N/mm</i>) - load required to deflect by <i>0.04 inch - 1mm</i> Carga (<i>lbs./1 inch - N/mm</i>) necesaria para desviar el muelle de <i>0.04 inch - 1mm</i> Charge (<i>lbs./1 inch - N/mm</i>) exigée pour comprimer le ressort <i>0.04 inch - 1mm</i>	
8 Recommended maximum working deflection for optimum life Deflexión máxima de trabajo recomendada para una duración óptima Déflexion maximale de travail recommandée pour une durée de vie optimale	
9 Recommended maximum working deflection for long life Deflexión máxima de trabajo recomendada para una larga duración Déflexion maximale de travail recommandée pour une longue durée de vie	
10 Maximum operating deflection. Do not exceed this value Deflexión máxima de trabajo. No se debe exceder este valor Déflexion maximale de travail. Ne pas dépasser cette valeur	
11 Deflection values near solid are intended for design information ONLY Los valores de deflexión por muelle a bloque están destinados SOLAMENTE a información de diseño Les valeurs de déflexion pour ressort à bloc sont fournies UNIQUEMENT à titre de renseignements techniques	
12 Quantity for standard packaging Número de piezas por confección Nombre de pièces par boîte	

EN Medium duty die springs
Silver-blue color

ES Muelles carga mediana
Color plateado-azul

FR Ressort charge moyenne
Couleur Argent-bleu



Part number	D _H	D _d	L ₀	R	A		B		C		D*	BOX ↓ 
	Hole Diameter	Rod Diameter	Free Length	Spring Rate	 25% L ₀	35% L ₀	 35% L ₀	40% L ₀	 40% L ₀	50% L ₀	 50% L ₀	
				± 10%	For Optimum Life	For Long Life			Max. Operating Def.	Max. Deflection		
	inch	inch	inch	lbs./1 inch	inch	lbs	inch	lbs	inch	lbs	inch	
M 037-100	3/8	3/16	1	6.0	0.25	15.0	0.35	21.0	0.40	24.0	0.50	200
M 037-125			1 1/4	5.0	0.31	15.6	0.44	21.9	0.50	25.0	0.63	200
M 037-150			1 1/2	4.2	0.38	15.8	0.53	22.1	0.60	25.2	0.75	100
M 037-175			1 3/4	3.7	0.44	16.2	0.61	22.7	0.70	25.9	0.88	100
M 037-200			2	3.1	0.50	15.5	0.70	21.7	0.80	24.8	1.00	100
M 037-250			2 1/2	2.6	0.63	16.3	0.88	22.8	1.00	26.0	1.25	100
M 037-300			3	2.1	0.75	15.8	1.05	22.0	1.20	25.2	1.50	100
M 037-1200			12	0.6	3.00	18.0	4.20	25.2	4.80	28.8	6.00	50
M 050-100	1/2	9/32	1	11.0	0.25	27.5	0.35	38.5	0.40	44.0	0.50	100
M 050-125			1 1/4	8.2	0.31	25.6	0.44	35.9	0.50	41.0	0.63	100
M 050-150			1 1/2	6.8	0.38	25.5	0.53	35.7	0.60	40.8	0.75	100
M 050-175			1 3/4	6.0	0.44	26.3	0.61	36.8	0.70	42.0	0.88	100
M 050-200			2	5.5	0.50	27.5	0.70	38.5	0.80	44.0	1.00	100
M 050-250			2 1/2	4.5	0.63	28.1	0.88	39.4	1.00	45.0	1.25	50
M 050-300			3	3.5	0.75	26.3	1.05	36.8	1.20	42.0	1.50	50
M 050-350			3 1/2	3.0	0.88	26.3	1.23	36.8	1.40	42.0	1.75	50
M 050-400			4	2.6	1.00	26.0	1.40	36.0	1.60	41.0	2.00	50
M 050-450			4 1/2	2.3	1.13	25.9	1.58	36.2	1.80	41.4	2.25	50
M 050-550			5 1/2	2.0	1.38	27.5	1.93	38.5	2.20	44.0	2.75	50
M 050-650			6 1/2	1.4	1.63	22.8	2.28	31.9	2.60	36.4	3.25	50
M 050-750			7 1/2	1.2	1.88	22.5	2.63	31.5	3.00	36.0	3.75	50
M 050-1200	12	0.7	3.00	21.0	4.20	29.4	4.80	33.6	6.00	50		
M 062-100	5/8	11/32	1	16.4	0.25	41.0	0.35	57.4	0.40	65.6	0.50	100
M 062-125			1 1/4	12.4	0.31	38.8	0.44	54.3	0.50	62.0	0.63	100
M 062-150			1 1/2	10.8	0.38	40.5	0.53	56.7	0.60	64.8	0.75	100
M 062-175			1 3/4	9.6	0.44	42.0	0.61	58.8	0.70	67.2	0.88	50
M 062-200			2	8.6	0.50	43.0	0.70	60.2	0.80	68.8	1.00	50
M 062-250			2 1/2	6.5	0.63	40.6	0.88	56.9	1.00	65.0	1.25	50
M 062-300			3	5.8	0.75	43.5	1.05	60.9	1.20	69.6	1.50	50
M 062-350			3 1/2	5.0	0.88	43.8	1.23	61.3	1.40	70.0	1.75	50
M 062-400			4	4.4	1.00	44.0	1.40	61.6	1.60	70.4	2.00	50
M 062-450			4 1/2	3.8	1.13	43.0	1.57	60.0	1.80	69.0	2.25	50
M 062-1200	12	1.5	3.00	45.0	4.20	63.0	4.80	72.0	6.00	50		
M 075-100	3/4	3/8	1	32.0	0.25	80.0	0.35	112.0	0.40	128.0	0.50	50
M 075-125			1 1/4	25.6	0.31	80.0	0.44	112.0	0.50	128.0	0.63	50
M 075-150			1 1/2	20.0	0.38	75.0	0.53	105.0	0.60	120.0	0.75	50
M 075-175			1 3/4	17.6	0.44	77.0	0.61	107.8	0.70	123.2	0.88	50
M 075-200			2	15.0	0.50	75.0	0.70	105.0	0.80	120.0	1.00	50
M 075-250			2 1/2	12.0	0.63	75.0	0.88	105.0	1.00	120.0	1.25	50
M 075-300			3	10.1	0.75	75.8	1.05	106.1	1.20	121.2	1.50	50
M 075-350			3 1/2	8.3	0.88	72.6	1.23	101.7	1.40	116.2	1.75	50
M 075-400			4	7.5	1.00	75.0	1.40	105.0	1.60	120.0	2.00	50
M 075-450			4 1/2	6.4	1.13	72.0	1.58	100.8	1.80	115.2	2.25	50
M 075-500			5	6.0	1.25	75.0	1.75	105.0	2.00	120.0	2.50	50
M 075-550			5 1/2	5.5	1.38	75.6	1.93	105.9	2.20	121.0	2.75	50
M 075-600			6	5.0	1.50	75.0	2.10	105.0	2.40	120.0	3.00	50
M 075-650			6 1/2	4.7	1.63	76.4	2.28	106.9	2.60	122.2	3.25	50
M 075-750			7 1/2	3.8	1.88	71.3	2.63	99.8	3.00	114.0	3.75	50
M 075-1200	12	2.4	3.00	72.0	4.20	100.8	4.80	115.2	6.00	50		

*Deflection values near solid intended for design information ONLY.

The color silver-blue is a registered trademark of Special Springs Srl.

Part number	D _H	D _d	L ₀	R	A		B		C		D*		BOX
	Hole Diameter	Rod Diameter	Free Length	Spring Rate	25% L ₀		35% L ₀		40% L ₀		50% L ₀		↓
	inch	inch	inch	± 10% lbs./1 inch	inch	lbs	inch	lbs	inch	lbs	inch	lbs	Pcs
M 100-100	1	1/2	1	55.0	0.25	137.5	0.35	192.5	0.40	220.0	0.50		50
M 100-125			1 1/4	45.0	0.31	140.6	0.44	196.9	0.50	225.0	0.63		50
M 100-150			1 1/2	37.3	0.38	139.9	0.53	195.8	0.60	223.8	0.75		50
M 100-175			1 3/4	32.0	0.44	140.0	0.61	196.0	0.70	224.0	0.88		50
M 100-200			2	26.8	0.50	134.0	0.70	187.6	0.80	214.4	1.00		50
M 100-250			2 1/2	20.9	0.63	130.6	0.88	182.9	1.00	209.0	1.25		50
M 100-300			3	17.1	0.75	128.3	1.05	179.6	1.20	205.2	1.50		25
M 100-350			3 1/2	14.5	0.88	126.9	1.23	177.6	1.40	203.0	1.75		25
M 100-400			4	12.5	1.00	125.0	1.40	175.0	1.60	200.0	2.00		25
M 100-450			4 1/2	11.0	1.13	123.8	1.58	173.3	1.80	198.0	2.25		25
M 100-500			5	9.6	1.25	120.0	1.75	168.0	2.00	192.0	2.50		25
M 100-550			5 1/2	8.8	1.38	121.0	1.93	169.4	2.20	193.6	2.75		25
M 100-600			6	8.0	1.50	120.0	2.10	168.0	2.40	192.0	3.00		25
M 100-700			7	7.2	1.75	126.0	2.45	176.4	2.80	201.6	3.50		25
M 100-800			8	6.0	2.00	120.0	2.80	168.0	3.20	192.0	4.00		25
M 100-1200			12	4.0	3.00	120.0	4.20	168.0	4.80	192.0	6.00		25
M 125-150	1 1/4	5/8	1 1/2	49.6	0.38	186.0	0.53	260.4	0.60	297.6	0.75		50
M 125-175			1 3/4	40.6	0.44	177.6	0.61	248.7	0.70	284.2	0.88		50
M 125-200			2	37.6	0.50	188.0	0.70	263.2	0.80	300.8	1.00		50
M 125-250			2 1/2	28.8	0.63	180.0	0.88	252.0	1.00	288.0	1.25		25
M 125-300			3	24.0	0.75	180.0	1.05	252.0	1.20	288.0	1.50		25
M 125-350			3 1/2	20.0	0.88	175.0	1.23	245.0	1.40	280.0	1.75		25
M 125-400			4	17.6	1.00	176.0	1.40	246.4	1.60	281.6	2.00		25
M 125-450			4 1/2	16.0	1.13	180.0	1.58	252.0	1.80	288.0	2.25		25
M 125-500			5	14.3	1.25	178.8	1.75	250.3	2.00	286.0	2.50		25
M 125-550			5 1/2	12.8	1.38	176.0	1.93	246.4	2.20	281.6	2.75		25
M 125-600			6	12.0	1.50	180.0	2.10	252.0	2.40	288.0	3.00		25
M 125-700			7	10.4	1.75	182.0	2.45	254.8	2.80	291.2	3.50		25
M 125-800			8	8.8	2.00	176.0	2.80	246.4	3.20	281.6	4.00		25
M 125-1000			10	7.2	2.50	180.0	3.50	252.0	4.00	288.0	5.00		25
M 125-1200			12	6.0	3.00	180.0	4.20	252.0	4.80	288.0	6.00		25
M 150-200	1 1/2	3/4	2	53.0	0.50	265.0	0.70	371.0	0.80	424.0	1.00		25
M 150-250			2 1/2	42.7	0.63	266.9	0.88	373.6	1.00	427.0	1.25		25
M 150-300			3	36.0	0.75	270.0	1.05	378.0	1.20	432.0	1.50		25
M 150-350			3 1/2	30.0	0.88	262.5	1.23	367.5	1.40	420.0	1.75		25
M 150-400			4	24.9	1.00	249.0	1.40	348.6	1.60	398.4	2.00		25
M 150-450			4 1/2	23.0	1.13	258.8	1.58	362.3	1.80	414.0	2.25		25
M 150-500			5	21.0	1.25	262.5	1.75	367.5	2.00	420.0	2.50		25
M 150-550			5 1/2	18.5	1.38	254.4	1.93	356.1	2.20	407.0	2.75		25
M 150-600			6	17.0	1.50	255.0	2.10	357.0	2.40	408.0	3.00		25
M 150-700			7	15.3	1.75	267.8	2.45	374.9	2.80	428.4	3.50		25
M 150-800			8	13.2	2.00	264.0	2.80	369.6	3.20	422.4	4.00		25
M 150-1000			10	10.6	2.50	265.0	3.50	371.0	4.00	424.0	5.00		25
M 150-1200			12	8.5	3.00	255.0	4.20	357.0	4.80	408.0	6.00		25
M 200-250	2	1	2 1/2	100.0	0.63	625.0	0.88	875.0	1.00	1000.0	1.25		25
M 200-300			3	83.0	0.75	622.5	1.05	871.5	1.20	996.0	1.50		25
M 200-350			3 1/2	67.7	0.88	592.4	1.23	829.3	1.40	947.8	1.75		25
M 200-400			4	60.0	1.00	600.0	1.40	840.0	1.60	960.0	2.00		25
M 200-450			4 1/2	53.0	1.13	596.3	1.58	834.8	1.80	954.0	2.25		25
M 200-500			5	47.0	1.25	587.5	1.75	822.5	2.00	940.0	2.50		25
M 200-550			5 1/2	40.5	1.38	556.9	1.93	779.6	2.20	891.0	2.75		25
M 200-600			6	39.0	1.50	585.0	2.10	819.0	2.40	936.0	3.00		25
M 200-700			7	31.2	1.75	546.0	2.45	764.4	2.80	873.6	3.50		25
M 200-800			8	28.5	2.00	570.0	2.80	798.0	3.20	912.0	4.00		10
M 200-1000			10	21.6	2.50	540.0	3.50	756.0	4.00	864.0	5.00		10
M 200-1200			12	18.5	3.00	555.0	4.20	777.0	4.80	888.0	6.00		10
M 250-300	2 1/2	1 1/2	3	108.1	0.75	813.0	1.05	1136.0	1.20	1298.0	1.50		15
M 250-350			3 1/2	89.6	0.87	783.0	1.22	1097.0	1.40	1256.0	1.75		15
M 250-400			4	76.2	1.00	762.0	1.40	1068.0	1.60	1218.0	2.00		15
M 250-450			4 1/2	66.6	1.13	750.0	1.57	1049.0	1.80	1199.0	2.25		15
M 250-500			5	59.4	1.25	743.0	1.75	1040.0	2.00	1188.0	2.50		5
M 250-550			5 1/2	53.2	1.37	730.0	1.93	1024.0	2.20	1170.0	2.75		5
M 250-600			6	48.1	1.50	722.0	2.10	1010.0	2.40	1156.0	3.00		5
M 250-700			7	41.5	1.75	726.0	2.45	1015.0	2.80	1160.0	3.50		5
M 250-800			8	35.9	2.00	717.0	2.80	1004.0	3.20	1148.0	4.00		5
M 250-1000			10	26.9	2.50	672.0	3.50	941.0	4.00	1076.0	5.00		5
M 250-1200			12	23.4	3.00	702.0	4.20	984.0	4.80	1124.0	6.00		5

The color silver-blue is a registered trademark of Special Springs Srl.

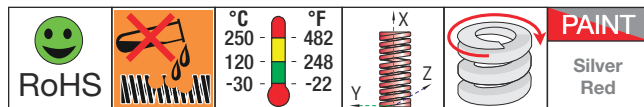
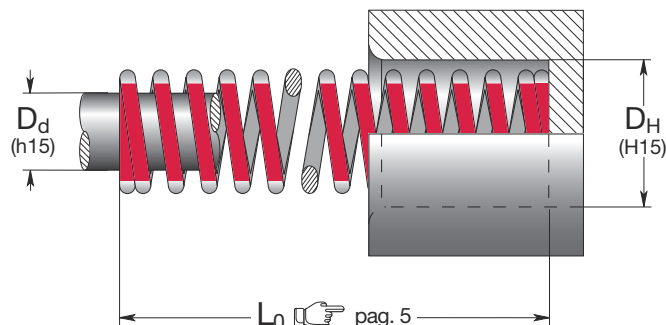
*Deflection values near solid intended for design information ONLY.

Load (lbs) = R (lbs./1 inch) x 10 x Deflection (inch) 1 lb = 4.448 N

EN Medium heavy duty die springs
Silver-red color

ES Muelles carga medio-fuerte
Color plateado-rojo

FR Ressorts charge moyenne-forte
Couleur argent-rouge



Part number	D _H	D _d	L ₀	R	A		B		C		D*		BOX
	Hole Diameter	Rod Diameter	Free Length	Spring Rate ± 10%	20% L ₀	For Optimum Life	25% L ₀	For Long Life	30% L ₀	Max. Operating Def.	37% L ₀	Max. Deflection	
	inch	inch	inch	lbs./1 inch	inch	lbs	inch	lbs	inch	lbs	inch	lbs	Pcs
MH 037-100	3/8	3/16	1	8.4	0.20	16.8	0.25	21.0	0.30	25.2	0.37	45.5	200
MH 037-125			1 1/4	7.3	0.25	18.3	0.31	22.8	0.38	27.4	0.46	56.2	200
MH 037-150			1 1/2	6.7	0.30	20.1	0.38	25.1	0.45	30.2	0.56	70.7	100
MH 037-175			1 3/4	5.8	0.35	20.3	0.44	25.4	0.53	30.5	0.65	84.8	100
MH 037-200			2	5.0	0.40	20.0	0.50	25.0	0.60	30.0	0.74	100.0	100
MH 037-250			2 1/2	3.7	0.50	18.5	0.63	23.3	0.75	27.8	0.93	130.0	100
MH 037-300			3	3.0	0.60	18.0	0.75	22.5	0.90	27.0	1.11	165.0	100
MH 037-1200			12	0.8	2.40	19.2	3.00	24.0	3.60	28.8	4.44	220.0	50
MH 050-100	1/2	9/32	1	15.5	0.20	31.0	0.25	38.8	0.30	46.5	0.37	100.0	100
MH 050-125			1 1/4	12.2	0.25	30.5	0.31	37.8	0.38	45.8	0.46	112.0	100
MH 050-150			1 1/2	9.8	0.30	29.4	0.38	37.2	0.45	44.1	0.56	135.0	100
MH 050-175			1 3/4	8.5	0.35	29.8	0.44	37.2	0.53	44.6	0.65	157.0	100
MH 050-200			2	7.5	0.40	30.0	0.50	37.5	0.60	45.0	0.74	180.0	100
MH 050-250			2 1/2	6.0	0.50	30.0	0.63	37.5	0.75	45.0	0.93	225.0	50
MH 050-300			3	5.1	0.60	30.6	0.75	38.3	0.90	45.9	1.11	266.0	50
MH 050-350			3 1/2	4.0	0.70	28.0	0.88	35.0	1.05	42.0	1.30	330.0	50
MH 050-400			4	3.7	0.80	29.0	1.00	37.0	1.20	44.0	1.48	370.0	50
MH 050-1200			12	1.1	2.40	26.4	3.00	33.0	3.60	39.6	4.44	440.0	50
MH 062-100	5/8	11/32	1	30.0	0.20	60.0	0.25	75.0	0.30	90.0	0.37	220.0	100
MH 062-125			1 1/4	21.5	0.25	53.8	0.31	67.2	0.38	80.6	0.46	250.0	100
MH 062-150			1 1/2	19.0	0.30	57.0	0.38	71.3	0.45	85.5	0.56	280.0	100
MH 062-175			1 3/4	16.8	0.35	58.8	0.44	73.5	0.53	88.2	0.65	330.0	50
MH 062-200			2	15.5	0.40	62.0	0.50	77.5	0.60	93.0	0.74	370.0	50
MH 062-250			2 1/2	11.5	0.50	57.5	0.63	71.9	0.75	86.3	0.93	440.0	50
MH 062-300			3	10.0	0.60	60.0	0.75	75.0	0.90	90.0	1.11	500.0	50
MH 062-350			3 1/2	8.5	0.70	59.5	0.88	74.4	1.05	89.3	1.30	550.0	50
MH 062-400	5/8	11/32	4	7.6	0.80	60.8	1.00	76.0	1.20	91.2	1.48	600.0	50
MH 062-450			4 1/2	6.6	0.90	59.1	1.13	74.0	1.35	89.0	1.67	660.0	50
MH 062-1200			12	2.6	2.40	62.4	3.00	78.0	3.60	93.6	4.44	1100.0	50
MH 075-100	3/4	3/8	1	50.0	0.20	100.0	0.25	125.0	0.30	150.0	0.37	370.0	50
MH 075-125			1 1/4	38.0	0.25	95.0	0.31	118.8	0.38	142.5	0.46	440.0	50
MH 075-150			1 1/2	31.0	0.30	93.0	0.38	117.8	0.45	139.5	0.56	500.0	50
MH 075-175			1 3/4	27.0	0.35	94.5	0.44	118.8	0.53	141.8	0.65	550.0	50
MH 075-200			2	24.0	0.40	96.0	0.50	120.0	0.60	144.0	0.74	600.0	50
MH 075-250			2 1/2	18.8	0.50	94.0	0.63	118.4	0.75	141.0	0.93	700.0	50
MH 075-300			3	14.9	0.60	89.4	0.75	111.8	0.90	134.1	1.11	800.0	50
MH 075-350			3 1/2	12.8	0.70	89.6	0.88	112.0	1.05	134.4	1.30	880.0	50
MH 075-400			4	11.0	0.80	88.0	1.00	110.0	1.20	132.0	1.48	950.0	50
MH 075-450			4 1/2	10.0	0.90	90.0	1.13	113.0	1.35	135.0	1.67	1000.0	50
MH 075-500			5	9.0	1.00	90.0	1.25	112.5	1.50	135.0	1.85	1100.0	50
MH 075-550			5 1/2	8.0	1.10	88.0	1.38	110.0	1.65	132.0	2.04	1200.0	50
MH 075-600			6	7.5	1.20	90.0	1.50	112.5	1.80	135.0	2.22	1300.0	50
MH 075-1200			12	3.5	2.40	84.0	3.00	105.0	3.60	126.0	4.44	1650.0	50

*Deflection values near solid intended for design information ONLY.

The color silver-red is a registered trademark of Special Springs Srl.

Part number	D _H	D _d	L ₀	R	 A	 B	 C	 D*	BOX ↓ 					
	Hole Diameter	Rod Diameter	Free Length	Spring Rate	20% L ₀	25% L ₀	30% L ₀	37% L ₀						
				± 10%	For Optimum Life	For Long Life	Max. Operating Def.	Max. Deflection						
	inch	inch	inch	lbs./1 inch	inch	lbs	inch	lbs	inch	Pcs				
MH 100-100	1	1/2	1	82.7	0.20	165.4	0.25	206.8	0.30	248.1	0.37	50		
MH 100-125			1 1/4	65.3	0.25	163.3	0.31	202.4	0.38	244.9	0.46	50		
MH 100-150			1 1/2	53.8	0.30	161.4	0.38	204.4	0.45	242.1	0.56	50		
MH 100-175			1 3/4	46.1	0.35	161.4	0.44	202.8	0.53	242.0	0.65	50		
MH 100-200			2	40.0	0.40	160.0	0.50	200.0	0.60	240.0	0.74	50		
MH 100-250			2 1/2	32.2	0.50	161.0	0.63	202.9	0.75	241.5	0.93	50		
MH 100-300			3	26.7	0.60	160.2	0.75	200.3	0.90	240.3	1.11	25		
MH 100-350			3 1/2	22.9	0.70	160.3	0.88	201.5	1.05	240.5	1.30	25		
MH 100-400			4	20.2	0.80	161.6	1.00	202.0	1.20	242.4	1.48	25		
MH 100-450			4 1/2	17.8	0.90	160.2	1.13	201.1	1.35	240.3	1.67	25		
MH 100-500			5	15.7	1.00	157.0	1.25	196.3	1.50	235.5	1.85	25		
MH 100-550			5 1/2	13.7	1.10	150.7	1.38	189.1	1.65	226.1	2.04	25		
MH 100-600			6	12.5	1.20	150.0	1.50	187.5	1.80	225.0	2.22	25		
MH 100-700			7	10.9	1.40	152.6	1.75	190.8	2.10	228.9	2.59	25		
MH 100-800	8	9.6	1.60	153.6	2.00	192.0	2.40	230.4	2.96	25				
MH 100-1200	12	6.5	2.40	156.0	3.00	195.0	3.60	234.0	4.44	25				
MH 125-150	1 1/4	5/8	1 1/2	114.4	0.30	343.2	0.38	429.0	0.45	514.8	0.56	50		
MH 125-175			1 3/4	100.8	0.35	352.8	0.44	441.0	0.53	529.2	0.65	50		
MH 125-200			2	83.8	0.40	335.2	0.50	419.0	0.60	502.8	0.74	50		
MH 125-250			2 1/2	62.4	0.50	312.0	0.63	390.0	0.75	468.0	0.93	25		
MH 125-300			3	51.2	0.60	307.2	0.75	384.0	0.90	460.8	1.11	25		
MH 125-350			3 1/2	44.0	0.70	308.0	0.88	385.0	1.05	462.0	1.30	25		
MH 125-400			4	38.1	0.80	304.8	1.00	381.0	1.20	457.2	1.48	25		
MH 125-450			4 1/2	32.9	0.90	296.1	1.13	371.8	1.35	444.2	1.67	25		
MH 125-500			5	30.0	1.00	300.0	1.25	375.0	1.50	450.0	1.85	25		
MH 125-550			5 1/2	26.4	1.10	290.4	1.38	363.0	1.65	435.6	2.04	25		
MH 125-600			6	25.0	1.20	300.0	1.50	375.0	1.80	450.0	2.22	25		
MH 125-700			7	21.0	1.40	294.0	1.75	367.5	2.10	441.0	2.59	25		
MH 125-800			8	18.4	1.60	294.4	2.00	368.0	2.40	441.6	2.96	25		
MH 125-1000			10	14.5	2.00	290.0	2.50	362.5	3.00	435.0	3.70	25		
MH 125-1200	12	12.4	2.40	297.6	3.00	372.0	3.60	446.4	4.44	25				
MH 150-200	1 1/2	3/4	2	103.0	0.40	412.0	0.50	515.0	0.60	618.0	0.74	25		
MH 150-250			2 1/2	81.2	0.50	406.0	0.63	511.6	0.75	609.0	0.93	25		
MH 150-300			3	62.4	0.60	374.4	0.75	468.0	0.90	561.6	1.11	25		
MH 150-350			3 1/2	54.0	0.70	378.0	0.88	475.2	1.05	567.0	1.30	25		
MH 150-400			4	46.5	0.80	372.0	1.00	465.0	1.20	558.0	1.48	25		
MH 150-450			4 1/2	41.0	0.90	369.0	1.13	463.3	1.35	553.5	1.67	25		
MH 150-500			5	36.8	1.00	368.0	1.25	460.0	1.50	552.0	1.85	25		
MH 150-550			5 1/2	33.0	1.10	363.0	1.38	455.4	1.65	544.5	2.04	25		
MH 150-600			6	29.5	1.20	354.0	1.50	442.5	1.80	531.0	2.22	25		
MH 150-700			7	25.5	1.40	357.0	1.75	446.3	2.10	535.5	2.59	25		
MH 150-800			8	22.0	1.60	352.0	2.00	440.0	2.40	528.0	2.96	25		
MH 150-1000			10	17.6	2.00	352.0	2.50	440.0	3.00	528.0	3.70	25		
MH 150-1200			12	14.4	2.40	345.6	3.00	432.0	3.60	518.4	4.44	25		
MH 200-250			2	1	2 1/2	118.4	0.50	592.0	0.63	740.0	0.75	888.0	0.93	25
MH 200-300	3	93.0			0.60	558.0	0.75	697.5	0.90	837.0	1.11	25		
MH 200-350	3 1/2	78.2			0.70	547.4	0.88	688.2	1.05	821.1	1.30	25		
MH 200-400	4	66.4			0.80	531.2	1.00	664.0	1.20	796.8	1.48	25		
MH 200-450	4 1/2	60.0			0.90	540.0	1.13	675.0	1.35	810.0	1.67	25		
MH 200-500	5	53.4			1.00	534.0	1.25	667.5	1.50	801.0	1.85	25		
MH 200-550	5 1/2	49.0			1.10	539.0	1.38	676.2	1.65	808.5	2.04	25		
MH 200-600	6	45.0			1.20	540.0	1.50	675.0	1.80	810.0	2.22	25		
MH 200-700	7	37.4			1.40	523.6	1.75	654.5	2.10	785.4	2.59	25		
MH 200-800	8	33.0			1.60	528.0	2.00	660.0	2.40	792.0	2.96	10		
MH 200-1000	10	26.0			2.00	520.0	2.50	650.0	3.00	780.0	3.70	10		
MH 200-1200	12	21.5			2.40	516.0	3.00	645.0	3.60	774.0	4.44	10		
MH 250-300	2 1/2	1 1/2			3	171.4	0.60	1026.0	0.75	1289.0	0.90	1545.0	1.11	15
MH 250-350					3 1/2	146.2	0.70	1024.0	0.87	1278.0	1.05	1537.0	1.30	15
MH 250-400			4	128.5	0.80	1027.0	1.00	1285.0	1.20	1543.0	1.48	15		
MH 250-450			4 1/2	111.9	0.90	1009.0	1.13	1260.0	1.35	1511.0	1.67	15		
MH 250-500			5	100.5	1.00	1005.0	1.25	1258.0	1.50	1508.0	1.85	5		
MH 250-550			5 1/2	90.8	1.10	997.0	1.37	1247.0	1.65	1498.0	2.04	5		
MH 250-600			6	82.2	1.20	987.0	1.50	1233.0	1.80	1479.0	2.22	5		
MH 250-700			7	68.5	1.40	960.0	1.75	1200.0	2.10	1438.0	2.59	5		
MH 250-800			8	59.7	1.60	954.0	2.00	1194.0	2.40	1433.0	2.96	5		
MH 250-900			9	52.5	1.80	945.0	2.25	1183.0	2.70	1419.0	3.33	5		
MH 250-1000			10	46.8	2.00	937.0	2.50	1171.0	3.00	1405.0	3.70	5		
MH 250-1200			12	37.7	2.40	905.0	3.00	1131.0	3.60	1356.0	4.44	5		

The color silver-red is a registered trademark of Special Springs Srl.

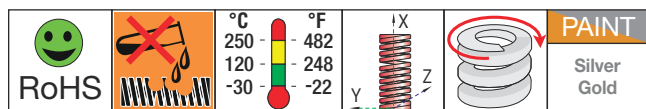
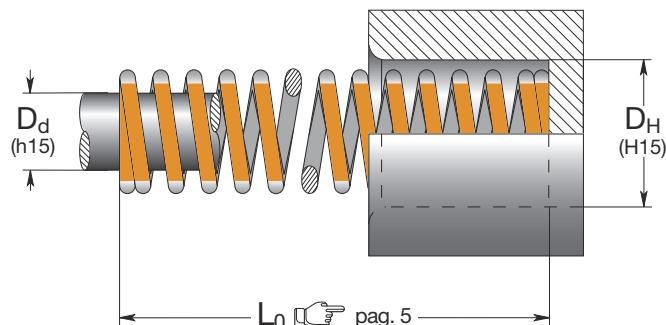
*Deflection values near solid intended for design information ONLY.

Load (lbs) = R (lbs./1 inch) x 10 x Deflection (inch) 1 lb = 4.448 N

EN Heavy duty die springs
Silver-gold color

ES Muelles carga fuerte
Color plateado-oro

FR Ressorts charge forte
Couleur argent-or



Part number	D _H	D _d	L ₀	R	A		B		C		D*		BOX
	Hole Diameter	Hole Diameter	Free Length	Spring Rate ± 10%	15% L ₀	For Optimum Life	20% L ₀	For Long Life	25% L ₀	Max. Operating Def.	30% L ₀	Max. Deflection	
	inch	inch	inch	lbs./1 inch	inch	lbs	inch	lbs	inch	lbs	inch	lbs	Pcs
H 037-100	3/8	3/16	1	11.6	0.15	17.4	0.20	23.2	0.25	29.0	0.30	35.8	200
H 037-125			1 1/4	9.8	0.19	18.6	0.25	24.5	0.31	30.4	0.38	37.3	200
H 037-150			1 1/2	8.0	0.23	18.4	0.30	24.0	0.38	30.4	0.45	37.3	100
H 037-175			1 3/4	7.5	0.26	19.5	0.35	26.3	0.44	33.0	0.53	37.3	100
H 037-200			2	6.2	0.30	18.6	0.40	24.8	0.50	31.0	0.60	37.3	100
H 037-250			2 1/2	5.0	0.38	19.0	0.50	25.0	0.63	31.5	0.75	37.3	100
H 037-300			3	4.1	0.45	18.5	0.60	24.6	0.75	30.8	0.90	37.3	100
H 037-1200			12	1.1	1.80	19.8	2.40	26.4	3.00	33.0	3.60	37.3	50
H 050-100	1/2	9/32	1	22.5	0.15	33.8	0.20	45.0	0.25	56.3	0.30	67.6	100
H 050-125			1 1/4	18.2	0.19	34.6	0.25	45.5	0.31	56.4	0.38	67.6	100
H 050-150			1 1/2	14.8	0.23	34.0	0.30	44.4	0.38	56.2	0.45	67.6	100
H 050-175			1 3/4	12.6	0.26	32.8	0.35	44.1	0.44	55.4	0.53	67.6	100
H 050-200			2	11.0	0.30	33.0	0.40	44.0	0.50	55.0	0.60	67.6	100
H 050-250			2 1/2	8.6	0.38	32.7	0.50	43.0	0.63	54.2	0.75	67.6	50
H 050-300			3	7.4	0.45	33.3	0.60	44.4	0.75	55.5	0.90	67.6	50
H 050-350			3 1/2	6.0	0.53	31.8	0.70	42.0	0.88	52.8	1.05	67.6	50
H 050-400			4	5.3	0.60	32.0	0.80	42.0	1.00	53.0	1.20	67.6	50
H 050-1200			12	1.7	1.80	30.6	2.40	40.8	3.00	51.0	3.60	67.6	50
H 062-100	5/8	11/32	1	42.4	0.15	63.6	0.20	84.8	0.25	106.0	0.30	127.2	100
H 062-125			1 1/4	32.5	0.19	61.8	0.25	81.3	0.31	100.8	0.38	127.2	100
H 062-150			1 1/2	28.0	0.23	64.4	0.30	84.0	0.38	106.4	0.45	127.2	100
H 062-175			1 3/4	24.0	0.26	62.4	0.35	84.0	0.44	105.6	0.53	127.2	50
H 062-200			2	20.8	0.30	62.4	0.40	83.2	0.50	104.0	0.60	127.2	50
H 062-250			2 1/2	17.0	0.38	64.6	0.50	85.0	0.63	107.1	0.75	127.2	50
H 062-300			3	14.0	0.45	63.0	0.60	84.0	0.75	105.0	0.90	127.2	50
H 062-350			3 1/2	12.2	0.53	64.7	0.70	85.4	0.88	107.4	1.05	127.2	50
H 062-400			4	10.8	0.60	64.8	0.80	86.4	1.00	108.0	1.20	127.2	50
H 062-450			4 1/2	9.5	0.68	65.0	0.90	86.0	1.13	108.0	1.35	127.2	50
H 062-1200			12	3.0	1.80	54.0	2.40	72.0	3.00	90.0	3.60	127.2	50
H 075-100	3/4	3/8	1	108.0	0.15	162.0	0.20	216.0	0.25	270.0	0.27	324.0	50
H 075-125			1 1/4	88.0	0.19	167.2	0.25	220.0	0.31	272.8	0.35	324.0	50
H 075-150			1 1/2	69.0	0.23	158.7	0.30	207.0	0.38	262.2	0.45	324.0	50
H 075-175			1 3/4	60.0	0.26	156.0	0.35	210.0	0.44	264.0	0.53	324.0	50
H 075-200			2	51.5	0.30	154.5	0.40	206.0	0.50	257.5	0.60	324.0	50
H 075-250			2 1/2	40.0	0.38	152.0	0.50	200.0	0.63	252.0	0.75	324.0	50
H 075-300			3	33.0	0.45	148.5	0.60	198.0	0.75	247.5	0.90	324.0	50
H 075-350			3 1/2	29.0	0.53	153.7	0.70	203.0	0.88	255.2	1.05	324.0	50
H 075-400			4	25.0	0.60	150.0	0.80	200.0	1.00	250.0	1.20	324.0	50
H 075-450			4 1/2	22.0	0.68	149.6	0.90	198.0	1.13	248.6	1.35	324.0	50
H 075-500			5	19.5	0.75	146.3	1.00	195.0	1.25	243.8	1.50	324.0	50
H 075-550			5 1/2	17.8	0.83	147.7	1.10	195.8	1.38	245.6	1.65	324.0	50
H 075-600			6	16.0	0.90	144.0	1.20	192.0	1.50	240.0	1.80	324.0	50
H 075-1200			12	8.0	1.80	144.0	2.40	192.0	3.00	240.0	3.60	324.0	50

*Deflection values near solid intended for design information ONLY.

The color silver-gold is a registered trademark of Special Springs Srl.

Part number	D _H	D _d	L ₀	R		A		B		C		D*	BOX ↓ 
	Hole Diameter	Rod Diameter	Free Length	Spring Rate	15% L ₀	20% L ₀	25% L ₀	30% L ₀					
	± 10%	For Optimum Life	For Long Life	Max. Operating Def.	Max. Deflection								
	inch	inch	inch	lbs./1 inch	inch	lbs	inch	lbs	inch	lbs	inch	Pcs	
H 100-100	1	1/2	1	193.2	0.15	289.8	0.20	386.4	0.25	483.0	0.27	50	
H 100-125			1 1/4	146.5	0.19	278.4	0.25	366.3	0.31	454.2	0.38	50	
H 100-150			1 1/2	120.0	0.23	276.0	0.30	360.0	0.38	456.0	0.45	50	
H 100-175			1 3/4	104.0	0.26	270.4	0.35	364.0	0.44	457.6	0.53	50	
H 100-200			2	87.2	0.30	261.6	0.40	348.8	0.50	436.0	0.60	50	
H 100-250			2 1/2	66.5	0.38	252.7	0.50	332.5	0.63	419.0	0.75	50	
H 100-300			3	54.4	0.45	244.8	0.60	326.4	0.75	408.0	0.90	25	
H 100-350			3 1/2	45.6	0.53	241.7	0.70	319.2	0.88	401.3	1.05	25	
H 100-400			4	40.0	0.60	240.0	0.80	320.0	1.00	400.0	1.20	25	
H 100-450			4 1/2	35.2	0.68	239.4	0.90	316.8	1.13	397.8	1.35	25	
H 100-500			5	31.2	0.75	234.0	1.00	312.0	1.25	390.0	1.50	25	
H 100-550			5 1/2	28.8	0.83	239.0	1.10	316.8	1.38	397.4	1.65	25	
H 100-600			6	25.6	0.90	230.4	1.20	307.2	1.50	384.0	1.80	25	
H 100-700			7	22.4	1.05	235.2	1.40	313.6	1.75	392.0	2.10	25	
H 100-800			8	19.2	1.20	230.4	1.60	307.2	2.00	384.0	2.40	25	
H 100-1200			12	12.8	1.80	230.4	2.40	307.2	3.00	384.0	3.60	25	
H 125-150	1 1/4	5/8	1 1/2	220.0	0.23	506.0	0.30	660.0	0.38	836.0	0.45	50	
H 125-175			1 3/4	181.6	0.26	472.2	0.35	635.6	0.44	799.0	0.53	50	
H 125-200			2	149.6	0.30	448.8	0.40	598.4	0.50	748.0	0.57	50	
H 125-250			2 1/2	117.6	0.38	446.9	0.50	588.0	0.63	740.9	0.75	25	
H 125-300			3	95.2	0.45	428.4	0.60	571.2	0.75	714.0	0.90	25	
H 125-350			3 1/2	78.0	0.53	413.4	0.70	546.0	0.88	686.4	1.05	25	
H 125-400			4	66.4	0.60	398.4	0.80	531.2	1.00	664.0	1.20	25	
H 125-450			4 1/2	58.4	0.68	397.1	0.90	525.6	1.13	659.9	1.35	25	
H 125-500			5	53.0	0.75	397.5	1.00	530.0	1.25	662.5	1.50	25	
H 125-550			5 1/2	47.2	0.83	391.8	1.10	519.2	1.38	651.4	1.65	25	
H 125-600			6	45.0	0.90	405.0	1.20	540.0	1.50	675.0	1.80	25	
H 125-700			7	36.8	1.05	386.4	1.40	515.2	1.75	644.0	2.10	25	
H 125-800			8	32.8	1.20	393.6	1.60	524.8	2.00	656.0	2.40	25	
H 125-1000			10	25.6	1.50	384.0	2.00	512.0	2.50	640.0	3.00	25	
H 125-1200			12	22.0	1.80	396.0	2.40	528.0	3.00	660.0	3.60	25	
H 150-200			1 1/2	3/4	2	198.0	0.30	594.0	0.40	792.0	0.50	990.0	0.60
H 150-250	2 1/2	155.0			0.38	589.0	0.50	775.0	0.63	976.5	0.75	25	
H 150-300	3	130.0			0.45	585.0	0.60	780.0	0.75	975.0	0.90	25	
H 150-350	3 1/2	106.4			0.53	563.9	0.70	744.8	0.88	936.3	1.05	25	
H 150-400	4	91.2			0.60	547.2	0.80	729.6	1.00	912.0	1.20	25	
H 150-450	4 1/2	81.6			0.68	554.9	0.90	734.4	1.13	922.1	1.35	25	
H 150-500	5	73.0			0.75	547.5	1.00	730.0	1.25	912.5	1.50	25	
H 150-550	5 1/2	67.0			0.83	556.1	1.10	737.0	1.38	924.6	1.65	25	
H 150-600	6	58.4			0.90	525.6	1.20	700.8	1.50	876.0	1.80	25	
H 150-700	7	49.6			1.05	520.8	1.40	694.4	1.75	868.0	2.10	25	
H 150-800	8	43.2			1.20	518.4	1.60	691.2	2.00	864.0	2.40	25	
H 150-1000	10	36.2			1.50	543.0	2.00	724.0	2.50	905.0	3.00	25	
H 150-1200	12	30.0			1.80	540.0	2.40	720.0	3.00	900.0	3.60	25	
H 200-250	2	1			2 1/2	251.2	0.38	954.6	0.50	1256.0	0.63	1582.6	0.75
H 200-300			3	206.0	0.45	927.0	0.60	1236.0	0.75	1545.0	0.90	25	
H 200-350			3 1/2	170.0	0.53	901.0	0.70	1190.0	0.88	1496.0	1.05	25	
H 200-400			4	150.0	0.60	900.0	0.80	1200.0	1.00	1500.0	1.20	25	
H 200-450			4 1/2	127.2	0.68	865.0	0.90	1144.8	1.13	1437.4	1.35	25	
H 200-500			5	118.6	0.75	889.5	1.00	1186.0	1.25	1482.5	1.50	25	
H 200-550			5 1/2	107.7	0.83	893.9	1.10	1184.7	1.38	1486.3	1.65	25	
H 200-600			6	97.7	0.90	879.3	1.20	1172.4	1.50	1465.5	1.80	25	
H 200-700			7	82.0	1.05	861.0	1.40	1148.0	1.75	1435.0	2.10	25	
H 200-800			8	73.0	1.20	876.0	1.60	1168.0	2.00	1460.0	2.40	10	
H 200-1000			10	57.2	1.50	858.0	2.00	1144.0	2.50	1430.0	3.00	10	
H 200-1200			12	47.7	1.80	858.6	2.40	1144.8	3.00	1431.0	3.60	10	

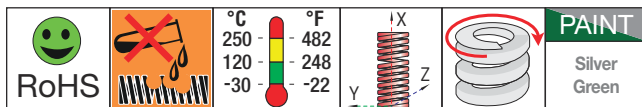
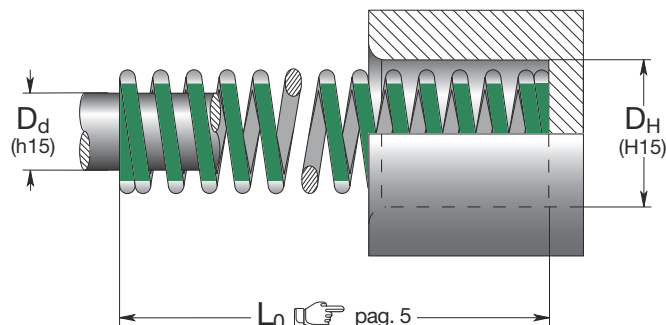
The color silver-gold is a registered trademark of Special Springs Srl.

*Deflection values near solid intended for design information ONLY.

EN Extra heavy duty die springs
Silver-green color

ES Muelles carga extra-fuerte
Color platerado-verde

FR Ressorts charge extra-forte
Couleur argent-vert



Part number	D _H	D _d	L ₀	R	 A	 B	 C	 D*	BOX ↓ 			
	Hole Diameter	Rod Diameter	Free Length	Spring Rate	15% L ₀	17% L ₀	20% L ₀	25% L ₀				
				± 10%	For Optimum Life	For Long Life	Max. Operating Def.	Max. Deflection				
	inch	inch	inch	lbs./1 inch	inch	lbs	inch	lbs		inch		
EH 037-100	3/8	3/16	1	21.0	0.15	31.5	0.17	35.7	0.20	42.0	0.25	200
EH 037-125			1 1/4	14.6	0.19	27.7	0.21	30.7	0.25	36.5	0.31	200
EH 037-150			1 1/2	12.5	0.23	28.8	0.26	32.5	0.30	37.5	0.38	100
EH 037-175			1 3/4	10.5	0.26	27.3	0.30	31.5	0.35	36.8	0.44	100
EH 037-200			2	9.0	0.30	27.0	0.34	30.6	0.40	36.0	0.50	100
EH 037-250			2 1/2	7.5	0.38	28.5	0.43	32.3	0.50	37.5	0.63	100
EH 037-300			3	6.3	0.45	28.4	0.51	32.1	0.60	37.8	0.75	100
EH 037-1200			12	1.5	1.80	27.0	2.04	30.6	2.40	36.0	3.00	50
EH 050-100	1/2	9/32	1	31.0	0.15	46.5	0.17	52.7	0.20	62.0	0.25	100
EH 050-125			1 1/4	24.0	0.19	45.6	0.21	50.4	0.25	60.0	0.31	100
EH 050-150			1 1/2	19.2	0.23	44.2	0.26	49.9	0.30	57.6	0.38	100
EH 050-175			1 3/4	17.0	0.26	44.2	0.30	51.0	0.35	59.5	0.44	100
EH 050-200			2	14.0	0.30	42.0	0.34	47.6	0.40	56.0	0.50	100
EH 050-250			2 1/2	11.5	0.38	43.7	0.43	49.5	0.50	57.5	0.63	50
EH 050-300			3	9.4	0.45	42.3	0.51	47.9	0.60	56.4	0.75	50
EH 050-350			3 1/2	8.0	0.53	42.4	0.60	48.0	0.70	56.0	0.88	50
EH 050-400			4	7.1	0.60	43.0	0.68	49.0	0.80	57.0	1.00	50
EH 050-1200			12	2.4	1.80	43.2	2.04	49.0	2.40	57.6	3.00	50
EH 062-100	5/8	11/32	1	63.0	0.15	94.5	0.17	107.1	0.20	126.0	0.25	100
EH 062-125			1 1/4	43.8	0.19	83.2	0.21	92.0	0.25	109.5	0.31	100
EH 062-150			1 1/2	37.0	0.23	85.1	0.26	96.2	0.30	111.0	0.38	100
EH 062-175			1 3/4	31.0	0.26	80.6	0.30	93.0	0.35	108.5	0.44	50
EH 062-200			2	28.0	0.30	84.0	0.34	95.2	0.40	112.0	0.50	50
EH 062-250			2 1/2	22.0	0.38	83.6	0.43	94.6	0.50	110.0	0.63	50
EH 062-300			3	19.0	0.45	85.5	0.51	96.9	0.60	114.0	0.75	50
EH 062-350			3 1/2	15.4	0.53	81.6	0.60	92.4	0.70	107.8	0.88	50
EH 062-400			4	13.5	0.60	81.0	0.68	91.8	0.80	108.0	1.00	50
EH 062-450			4 1/2	12.0	0.68	82.0	0.77	93.0	0.90	109.0	1.13	50
EH 062-1200			12	4.5	1.80	81.0	2.04	91.8	2.40	108.0	3.00	50
EH 075-100	3/4	3/8	1	140.0	0.15	210.0	0.17	238.0	0.20	280.0	0.25	50
EH 075-125			1 1/4	110.0	0.19	209.0	0.21	231.0	0.25	275.0	0.31	50
EH 075-150			1 1/2	89.0	0.23	204.7	0.26	231.4	0.30	267.0	0.38	50
EH 075-175			1 3/4	75.0	0.26	195.0	0.30	225.0	0.35	262.5	0.44	50
EH 075-200			2	66.0	0.30	198.0	0.34	224.4	0.40	264.0	0.50	50
EH 075-250			2 1/2	50.0	0.38	190.0	0.43	215.0	0.50	250.0	0.63	50
EH 075-300			3	40.5	0.45	182.3	0.51	206.6	0.60	243.0	0.75	50
EH 075-350			3 1/2	34.5	0.53	182.9	0.60	207.0	0.70	241.5	0.88	50
EH 075-400			4	30.0	0.60	180.0	0.68	204.0	0.80	240.0	1.00	50
EH 075-450			4 1/2	26.5	0.68	180.2	0.77	204.1	0.90	238.5	1.13	50
EH 075-500			5	23.5	0.75	176.3	0.85	199.8	1.00	235.0	1.25	50
EH 075-550			5 1/2	21.5	0.83	178.5	0.94	202.1	1.10	236.5	1.38	50
EH 075-600			6	19.5	0.90	175.5	1.02	198.9	1.20	234.0	1.50	50
EH 075-1200	12	9.5	1.80	171.0	2.04	193.8	2.40	228.0	3.00	50		

*Deflection values near solid intended for design information ONLY.

The color silver-green is a registered trademark of Special Springs Srl.

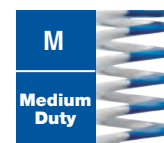
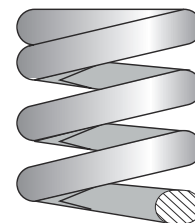
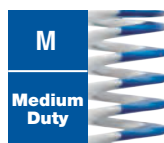
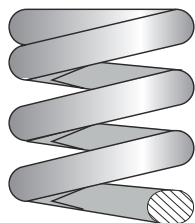
Part number	D _H	D _d	L ₀	R		A		B		C		D*	BOX ↓ 
	Hole Diameter	Rod Diameter	Free Length	Spring Rate	15% L ₀	17% L ₀	20% L ₀	25% L ₀					
	± 10%	For Optimum Life	For Long Life	Max. Operating Def.	Max. Deflection								
	inch	inch	inch	lbs./1 inch	inch	lbs	inch	lbs	inch	lbs	inch	Pcs	
EH 100-100	1	1/2	1	243.7	0.15	365.0	0.17	413.0	0.20	489.0	0.25	50	
EH 100-125			1 1/4	187.6	0.19	355.0	0.21	392.0	0.25	473.0	0.31	50	
EH 100-150			1 1/2	160.0	0.23	368.0	0.26	416.0	0.30	480.0	0.38	50	
EH 100-175			1 3/4	133.9	0.26	348.0	0.30	401.0	0.35	469.0	0.44	50	
EH 100-200			2	116.0	0.30	348.0	0.34	394.4	0.40	464.0	0.50	50	
EH 100-250			2 1/2	89.6	0.38	340.5	0.43	385.3	0.50	448.0	0.63	50	
EH 100-300			3	73.6	0.45	331.2	0.51	375.4	0.60	441.6	0.75	25	
EH 100-350			3 1/2	62.4	0.53	330.7	0.60	374.4	0.70	436.8	0.88	25	
EH 100-400			4	55.2	0.60	331.2	0.68	375.4	0.80	441.6	1.00	25	
EH 100-450			4 1/2	48.8	0.68	331.8	0.77	375.8	0.90	439.2	1.13	25	
EH 100-500			5	43.2	0.75	324.0	0.85	367.2	1.00	432.0	1.25	25	
EH 100-550			5 1/2	39.3	0.83	327.0	0.94	370.0	1.10	432.0	1.37	25	
EH 100-600			6	36.0	0.90	324.0	1.02	367.2	1.20	432.0	1.50	25	
EH 100-700	7	30.5	1.05	321.0	1.19	363.0	1.40	427.0	1.75	25			
EH 100-800	8	26.6	1.20	319.0	1.36	361.0	1.60	424.0	2.00	25			
EH 100-1200	12	17.6	1.80	316.8	2.04	359.0	2.40	422.4	3.00	25			
EH 125-150	1 1/4	5/8	1 1/2	269.0	0.23	614.0	0.26	699.0	0.30	805.0	0.37	50	
EH 125-175			1 3/4	237.0	0.26	616.0	0.30	709.0	0.35	830.0	0.44	25	
EH 125-200			2	205.0	0.30	615.0	0.34	697.0	0.40	820.0	0.50	50	
EH 125-250			2 1/2	152.5	0.38	579.5	0.43	655.8	0.50	762.5	0.63	25	
EH 125-300			3	122.0	0.45	549.0	0.51	622.2	0.60	732.0	0.75	25	
EH 125-350			3 1/2	108.5	0.53	575.1	0.60	651.0	0.70	759.5	0.88	25	
EH 125-400			4	89.0	0.60	534.0	0.68	605.2	0.80	712.0	1.00	25	
EH 125-450			4 1/2	83.5	0.68	567.8	0.77	643.0	0.90	751.5	1.13	25	
EH 125-500			5	70.0	0.75	525.0	0.85	595.0	1.00	700.0	1.25	25	
EH 125-550			5 1/2	62.8	0.83	522.0	0.94	591.0	1.10	690.0	1.37	25	
EH 125-600			6	57.5	0.90	517.5	1.02	586.5	1.20	690.0	1.50	25	
EH 125-700			7	51.4	1.05	540.0	1.19	611.0	1.40	720.0	1.75	25	
EH 125-800			8	46.0	1.20	552.0	1.36	625.6	1.60	736.0	2.00	25	
EH 125-1000	10	34.5	1.50	517.5	1.70	586.5	2.00	690.0	2.50	25			
EH 125-1200	12	27.0	1.80	486.0	2.04	550.8	2.40	648.0	3.00	25			
EH 150-200	1 1/2	3/4	2	408.5	0.30	1225.5	0.34	1388.9	0.40	1634.0	0.45	25	
EH 150-250			2 1/2	328.5	0.38	1248.3	0.43	1412.6	0.50	1642.5	0.63	25	
EH 150-300			3	255.0	0.45	1147.5	0.51	1300.5	0.60	1530.0	0.75	25	
EH 150-350			3 1/2	213.5	0.53	1131.6	0.60	1281.0	0.70	1494.5	0.88	25	
EH 150-400			4	184.5	0.60	1107.0	0.68	1254.6	0.80	1476.0	1.00	25	
EH 150-450			4 1/2	162.5	0.68	1105.0	0.77	1251.3	0.90	1462.5	1.13	25	
EH 150-500			5	145.0	0.75	1087.5	0.85	1232.5	1.00	1450.0	1.25	25	
EH 150-550			5 1/2	130.8	0.83	1086.0	0.94	1230.0	1.10	1436.0	1.37	25	
EH 150-600			6	120.5	0.90	1084.5	1.02	1229.1	1.20	1446.0	1.50	25	
EH 150-700			7	102.8	1.05	1080.0	1.19	1222.0	1.40	1441.0	1.75	25	
EH 150-800			8	90.5	1.20	1086.0	1.36	1230.8	1.60	1448.0	2.00	25	
EH 150-1000			10	71.0	1.50	1065.0	1.70	1207.0	2.00	1420.0	2.50	25	
EH 150-1200			12	55.0	1.80	990.0	2.04	1122.0	2.40	1320.0	3.00	25	
EH 200-250	2	1	2 1/2	411.0	0.38	1561.8	0.43	1767.3	0.50	2055.0	0.60	25	
EH 200-300			3	319.0	0.45	1435.5	0.51	1626.9	0.60	1914.0	0.70	25	
EH 200-350			3 1/2	276.4	0.53	1464.9	0.60	1658.4	0.70	1934.8	0.88	25	
EH 200-400			4	231.1	0.60	1386.6	0.68	1571.5	0.80	1848.8	0.97	25	
EH 200-450			4 1/2	188.8	0.68	1283.8	0.77	1453.8	0.90	1699.2	1.13	25	
EH 200-500			5	180.4	0.75	1353.0	0.85	1533.4	1.00	1804.0	1.25	25	
EH 200-550			5 1/2	159.9	0.83	1328.0	0.94	1504.0	1.10	1756.0	1.37	25	
EH 200-600			6	147.3	0.90	1325.7	1.02	1502.5	1.20	1767.6	1.50	25	
EH 200-700			7	125.6	1.05	1321.0	1.19	1494.0	1.40	1761.0	1.75	25	
EH 200-800			8	111.6	1.20	1339.2	1.36	1517.8	1.60	1785.6	2.00	10	
EH 200-1000			10	88.4	1.50	1326.0	1.70	1502.8	2.00	1768.0	2.50	10	
EH 200-1200			12	71.2	1.80	1281.6	2.04	1452.5	2.40	1708.8	3.00	10	

The color silver-green is a registered trademark of Special Springs Srl.

*Deflection values near solid intended for design information ONLY.

RANGE OVERVIEW

tipco»



DH	Dd	L ₀
mm	mm	mm
9.53	4.76	25.40
		31.75
		38.10
		44.45
		50.80
		63.50
		76.20
12.70	7.14	304.80
		25.40
		31.75
		38.10
		44.45
		50.80
		63.50
		76.20
		88.90
		101.60
		114.30
		139.70
		165.10
		190.50
15.88	8.70	304.80
		25.40
		31.75
		38.10
		44.45
		50.80
		63.50
		76.20
		88.90
		101.60
		114.30
19.05	9.50	304.80
		25.40
		31.75
		38.10
		44.45
		50.80
		63.50
		76.20
		88.90
		101.60
		114.30
		127.00
		139.70
		152.40
		165.10
		190.50
25.40	12.70	304.80
		25.40
		31.75
		38.10
		44.45
		50.80
		63.50
		76.20
		88.90
		101.60
		114.30

US series
Max. Defl. 50% L ₀
R ± 10%
N/mm
10.5
8.8
7.4
6.5
5.4
4.6
3.7
1.1
19.3
14.4
11.9
10.5
9.6
7.9
6.1
5.3
4.5
4.0
3.5
2.5
2.1
1.2
28.7
21.7
18.9
16.8
15.1
11.4
10.2
8.8
7.7
6.7
2.6
56.0
44.8
35.0
30.8
26.3
21.0
17.7
14.5
13.1
11.2
10.5
9.6
8.8
8.2
6.7
4.2
96.3
78.8
65.3
56.0
46.9
36.6
29.9
25.4
21.9
19.3

US series
Max. Defl. 37% L ₀
R ± 10%
N/mm
14.7
12.8
11.7
10.2
8.8
6.5
5.3
1.4
27.1
21.4
17.2
14.9
13.1
10.5
8.9
7.0
6.4
-
-
-
-
1.9
52.5
37.7
33.3
29.4
27.1
20.1
17.5
14.9
13.3
11.5
4.6
87.6
66.5
54.3
47.3
42.0
32.9
26.1
22.4
19.3
17.5
15.8
14.0
13.1
-
-
6.1
144.8
114.3
94.2
80.7
70.0
56.4
46.8
40.1
35.4
31.2

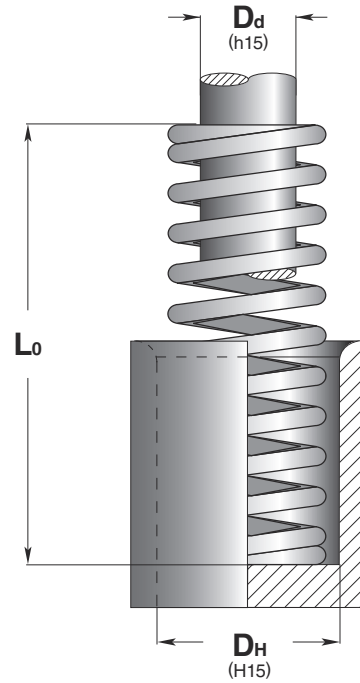
US series
Max. Defl. 30% L ₀
R ± 10%
N/mm
20.3
17.2
14.0
13.1
10.9
8.8
7.2
1.9
39.4
31.9
25.9
22.1
19.3
15.1
13.0
10.5
9.3
-
-
-
-
3.0
74.2
56.9
49.0
42.0
36.4
29.8
24.5
21.4
18.9
16.7
5.3
189.1
154.1
120.8
105.1
90.2
70.0
57.8
50.8
43.8
38.5
34.1
31.2
28.0
-
-
14.0
338.3
256.5
210.1
182.1
152.7
116.4
95.3
79.8
70.0
61.6

US series
Max. Defl. 25% L ₀
R ± 10%
N/mm
36.8
25.6
21.9
18.4
15.8
13.1
11.0
2.6
54.3
42.0
33.6
29.8
24.5
20.1
16.5
14.0
12.5
-
-
-
-
4.2
110.3
76.7
64.8
54.3
49.0
38.5
33.3
27.0
23.6
21.1
7.9
245.1
192.6
155.8
131.3
115.6
87.6
70.9
60.4
52.5
46.4
41.1
37.6
34.1
-
-
16.6
426.8
328.6
280.2
234.5
203.1
156.9
128.9
109.3
96.7
85.4

DH	Dd	L ₀
mm	mm	mm
25.40	12.70	127.00
		139.70
		152.40
		177.80
		203.20
		304.80
31.75	15.88	38.10
		44.45
		50.80
		63.50
		76.20
		88.90
		101.60
		114.30
		127.00
		139.70
		152.40
		177.80
		203.20
		254.00
38.10	19.05	304.80
		50.80
		63.50
		76.20
		88.90
		101.60
		114.30
		127.00
		139.70
		152.40
		177.80
50.80	25.40	203.20
		254.00
		304.80
		63.50
		76.20
		88.90
		101.60
		114.30
		127.00
		139.70
		152.40
63.50	38.10	177.80
		203.20
		254.00
		304.80
		76.20
		88.90
		101.60
		114.30
		127.00
		139.70
		152.40

US series
Max. Defl. 50% L ₀
R ± 10%
N/mm
16.8
15.4
14.0
12.6
10.5
7.0
86.9
71.1
65.8
50.4
42.0
35.0
30.8
28.0
25.0
22.4
21.0
18.2
15.4
12.6
10.5
92.8
74.8
63.0
52.5
43.6
40.3
36.8
32.4
29.8
26.8
23.1
18.6
14.9
175.1
145.3
118.5
105.1
92.8
82.3
70.9
68.3
54.6
49.9
37.8
32.4
189.3
156.9
133.4
116.7
104.0
93.1
84.3
72.6
62.8
-
47.1
41.0

MH	H	EH
Medium Heavy Duty	Heavy Duty	Extra Heavy Duty
US series	US series	US series
Max. Defl. 37% L ₀	Max. Defl. 30% L ₀	Max. Defl. 25% L ₀
R ± 10%	R ± 10%	R ± 10%
N/mm	N/mm	N/mm
27.5	54.6	75.6
24.0	50.4	68.9
21.9	44.8	63.0
19.1	39.2	53.4
16.8	33.6	46.5
11.4	22.4	30.8
200.3	385.2	471.1
176.5	318.0	415.0
146.7	261.9	359.0
109.3	205.9	267.0
89.7	166.7	213.6
77.1	136.6	190.0
66.7	116.3	155.8
57.6	102.3	146.2
52.5	92.8	122.6
46.2	82.6	110.0
43.8	78.8	100.7
36.8	64.4	90.0
32.2	57.4	80.5
25.4	44.8	60.4
21.7	38.5	47.3
180.4	346.7	715.3
142.2	271.4	575.2
109.3	227.6	446.5
94.6	186.3	373.8
81.4	159.7	323.1
71.8	142.9	284.5
64.4	127.8	253.9
57.8	117.3	229.0
51.7	102.3	211.0
44.7	86.8	180.0
38.5	75.6	158.5
30.8	63.4	124.3
25.2	52.5	96.3
207.3	439.9	719.7
162.8	360.7	558.6
136.9	297.7	484.0
116.3	262.7	404.7
105.1	222.7	330.6
93.5	207.7	315.9
85.8	188.6	280.0
78.8	171.1	257.9
65.5	143.6	220.0
57.8	127.8	195.4
45.5	100.2	154.8
37.6	83.5	124.7
300.1	-	-
256.0	-	-
225.0	-	-
196.0	-	-
176.0	-	-
159.0	-	-
144.0	-	-
120.0	-	-
104.5	-	-
92.0	-	-
82.0	-	-
66.0	-	-

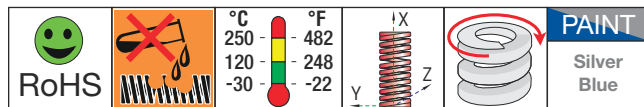
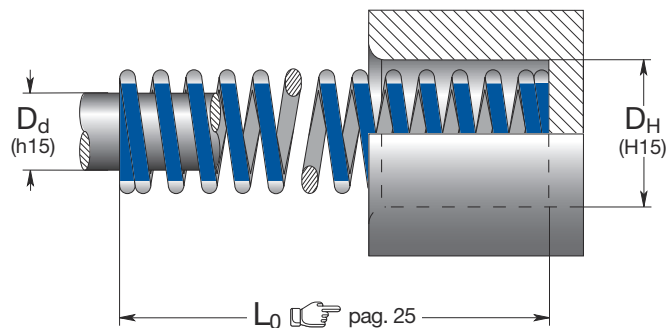


D_H	Hole diameter Diámetro del agujero de alojamiento Diamètre du trou de logement	
D_d	Rod diameter Diámetro de la clavija de guía Diamètre de l'arbre de guidage	
L₀	Spring free length Longitud libre del muelle Longueur libre du ressort mm	Tolerance Tolerancia Tolérance mm
	From 25 to 51	+ 2.4 - 0
	From 64 to 115	+ 3.2 - 0
	From 127 to 178	+ 4.8 - 0
	From 203 to 229	+ 6.4 - 0
	From 254 to 305	+ 9.5 - 0
R	Spring rate (N/mm) - load required to deflect by 1mm deflection Carga (N/mm) necesaria para desviar el muelle de 1mm Charge (N/mm) exigée pour comprimer le ressort 1mm	
Max. Defl.	Deflection values near solid are intended for design information ONLY Los valores de deflexión por muelle a bloque están destinados SOLAMENTE a información de diseño Les valeurs de déflexion pour ressort à bloc sont fournies UNIQUEMENT à titre de renseignements techniques	

EN Medium duty die springs
Silver-blue color

ES Muelles carga mediana
Color plateado-azul

FR Ressort charge moyenne
Couleur Argent-bleu



Part number	D _H Hole Diameter	D _d Rod Diameter	L ₀ Free Length	R Spring Rate ± 10%	A 25% L ₀ For Optimum Life	B 35% L ₀ For Long Life	C 40% L ₀ Max. Operating Def.	D* 50% L ₀ Max. Deflection	BOX ↓ Pcs
	mm	mm	mm	N/mm	mm N	mm N	mm N	mm	
M 037-100	9.53	4.76	25.40	10.5	6.4 67	8.9 93	10.2 107	12.7	200
M 037-125			31.75	8.8	7.9 69	11.1 97	12.7 111	15.9	200
M 037-150			38.10	7.4	9.5 70	13.3 98	15.2 112	19.1	100
M 037-175			44.45	6.5	11.1 72	15.6 101	17.8 115	22.2	100
M 037-200			50.80	5.4	12.7 69	17.8 97	20.3 110	25.4	100
M 037-250			63.50	4.6	15.9 73	22.2 101	25.4 116	31.8	100
M 037-300			76.20	3.7	19.1 70	26.7 98	30.5 112	38.1	100
M 037-1200			304.80	1.1	76.2 80	106.7 112	121.9 128	152.4	50
M 050-100	12.70	7.14	25.40	19.3	6.4 122	8.9 171	10.2 196	12.7	100
M 050-125			31.75	14.4	7.9 114	11.1 160	12.7 182	15.9	100
M 050-150			38.10	11.9	9.5 113	13.3 159	15.2 181	19.1	100
M 050-175			44.45	10.5	11.1 117	15.6 163	17.8 187	22.2	100
M 050-200			50.80	9.6	12.7 122	17.8 171	20.3 196	25.4	100
M 050-250			63.50	7.9	15.9 125	22.2 175	25.4 200	31.8	50
M 050-300			76.20	6.1	19.1 117	26.7 163	30.5 187	38.1	50
M 050-350			88.90	5.3	22.2 117	31.1 163	35.6 187	44.5	50
M 050-400			101.60	4.5	25.4 114	35.6 160	40.6 183	50.8	50
M 050-450			114.30	4.0	28.6 115	40.0 161	45.7 184	57.2	50
M 050-550			139.70	3.5	34.9 122	48.9 171	55.9 196	69.9	50
M 050-650			165.10	2.5	41.3 101	57.8 142	66.0 162	82.6	50
M 050-750			190.50	2.1	47.6 100	66.7 140	76.2 160	95.3	50
M 050-1200			304.80	1.2	76.2 93	106.7 131	121.9 149	152.4	50
M 062-100	15.88	8.73	25.40	28.7	6.4 182	8.9 255	10.2 292	12.7	100
M 062-125			31.75	21.7	7.9 173	11.1 242	12.7 276	15.9	100
M 062-150			38.10	18.9	9.5 180	13.3 252	15.2 288	19.1	100
M 062-175			44.45	16.8	11.1 187	15.6 262	17.8 299	22.2	50
M 062-200			50.80	15.1	12.7 191	17.8 268	20.3 306	25.4	50
M 062-250			63.50	11.4	15.9 181	22.2 253	25.4 289	31.8	50
M 062-300			76.20	10.2	19.1 193	26.7 271	30.5 310	38.1	50
M 062-350			88.90	8.8	22.2 195	31.1 273	35.6 311	44.5	50
M 062-400			101.60	7.7	25.4 196	35.6 274	40.6 313	50.8	50
M 062-450			114.30	6.7	28.6 192	40.0 268	45.7 306	57.2	50
M 062-1200			304.80	2.6	76.2 200	106.7 280	121.9 320	152.4	50
M 075-100	19.05	9.50	25.40	56.0	6.4 356	8.9 498	10.2 569	12.7	50
M 075-125			31.75	44.8	7.9 356	11.1 498	12.7 569	15.9	50
M 075-150			38.10	35.0	9.5 334	13.3 467	15.2 534	19.1	50
M 075-175			44.45	30.8	11.1 342	15.6 479	17.8 548	22.2	50
M 075-200			50.80	26.3	12.7 334	17.8 467	20.3 534	25.4	50
M 075-250			63.50	21.0	15.9 334	22.2 467	25.4 534	31.8	50
M 075-300			76.20	17.7	19.1 337	26.7 472	30.5 539	38.1	50
M 075-350			88.90	14.5	22.2 323	31.1 452	35.6 517	44.5	50
M 075-400			101.60	13.1	25.4 334	35.6 467	40.6 534	50.8	50
M 075-450			114.30	11.2	28.6 320	40.0 448	45.7 512	57.2	50
M 075-500			127.00	10.5	31.8 334	44.5 467	50.8 534	63.5	50
M 075-550			139.70	9.6	34.9 336	48.9 471	55.9 538	69.9	50
M 075-600			152.40	8.8	38.1 334	53.3 467	61.0 534	76.2	50
M 075-650			165.10	8.2	41.3 340	57.8 475	66.0 544	82.6	50
M 075-750			190.50	6.7	47.6 317	66.7 444	76.2 507	95.3	50
M 075-1200			304.80	4.2	76.2 320	106.7 448	121.9 512	152.4	50

*Deflection values near solid intended for design information ONLY.

The color silver-blue is a registered trademark of Special Springs Srl.

Part number	D _H	D _d	L ₀	R	 A	 B	 C	 D*	BOX ↓ 					
	Hole Diameter	Rod Diameter	Free Length	Spring Rate	25% L ₀	35% L ₀	40% L ₀	50% L ₀						
				± 10%	For Optimum Life	For Long Life	Max. Operating Def.	Max. Deflection						
	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	Pcs		
M 100-100	25.40	12.70	25.40	96.3	6.4	612	8.9	856	10.2	979	12.7	50		
M 100-125			31.75	78.8	7.9	626	11.1	876	12.7	1001	15.9	50		
M 100-150			38.10	65.3	9.5	622	13.3	871	15.2	995	19.1	50		
M 100-175			44.45	56.0	11.1	623	15.6	872	17.8	996	22.2	50		
M 100-200			50.80	46.9	12.7	596	17.8	834	20.3	954	25.4	50		
M 100-250			63.50	36.6	15.9	581	22.2	814	25.4	930	31.8	50		
M 100-300			76.20	29.9	19.1	571	26.7	799	30.5	913	38.1	25		
M 100-350			88.90	25.4	22.2	564	31.1	790	35.6	903	44.5	25		
M 100-400			101.60	21.9	25.4	556	35.6	778	40.6	890	50.8	25		
M 100-450			114.30	19.3	28.6	551	40.0	771	45.7	881	57.2	25		
M 100-500			127.00	16.8	31.8	534	44.5	747	50.8	854	63.5	25		
M 100-550			139.70	15.4	34.9	538	48.9	753	55.9	861	69.9	25		
M 100-600			152.40	14.0	38.1	534	53.3	747	61.0	854	76.2	25		
M 100-700			177.80	12.6	44.5	560	62.2	785	71.1	897	88.9	25		
M 100-800			203.20	10.5	50.8	534	71.1	747	81.3	854	101.6	25		
M 100-1200			304.80	7.0	76.2	534	106.7	747	121.9	854	152.4	25		
M 125-150	31.75	15.88	38.10	86.9	9.5	827	13.3	1158	15.2	1324	19.1	50		
M 125-175			44.45	71.1	11.1	790	15.6	1106	17.8	1264	22.2	50		
M 125-200			50.80	65.8	12.7	836	17.8	1171	20.3	1338	25.4	50		
M 125-250			63.50	50.4	15.9	801	22.2	1121	25.4	1281	31.8	25		
M 125-300			76.20	42.0	19.1	801	26.7	1121	30.5	1281	38.1	25		
M 125-350			88.90	35.0	22.2	778	31.1	1090	35.6	1245	44.5	25		
M 125-400			101.60	30.8	25.4	783	35.6	1096	40.6	1253	50.8	25		
M 125-450			114.30	28.0	28.6	801	40.0	1121	45.7	1281	57.2	25		
M 125-500			127.00	25.0	31.8	795	44.5	1113	50.8	1272	63.5	25		
M 125-550			139.70	22.4	34.9	783	48.9	1096	55.9	1253	69.9	25		
M 125-600			152.40	21.0	38.1	801	53.3	1121	61.0	1281	76.2	25		
M 125-700			177.80	18.2	44.5	810	62.2	1133	71.1	1295	88.9	25		
M 125-800			203.20	15.4	50.8	783	71.1	1096	81.3	1253	101.6	25		
M 125-1000			254.00	12.6	63.5	801	88.9	1121	101.6	1281	127.0	25		
M 125-1200			304.80	10.5	76.2	801	106.7	1121	121.9	1281	152.4	25		
M 150-200			38.10	19.05	50.80	92.8	12.7	1179	17.8	1650	20.3	1886	25.4	25
M 150-250	63.50	74.8			15.9	1187	22.2	1662	25.4	1899	31.8	25		
M 150-300	76.20	63.0			19.1	1201	26.7	1681	30.5	1922	38.1	25		
M 150-350	88.90	52.5			22.2	1168	31.1	1635	35.6	1868	44.5	25		
M 150-400	101.60	43.6			25.4	1108	35.6	1551	40.6	1772	50.8	25		
M 150-450	114.30	40.3			28.6	1151	40.0	1611	45.7	1841	57.2	25		
M 150-500	127.00	36.8			31.8	1168	44.5	1635	50.8	1868	63.5	25		
M 150-550	139.70	32.4			34.9	1131	48.9	1584	55.9	1810	69.9	25		
M 150-600	152.40	29.8			38.1	1134	53.3	1588	61.0	1815	76.2	25		
M 150-700	177.80	26.8			44.5	1191	62.2	1668	71.1	1906	88.9	25		
M 150-800	203.20	23.1			50.8	1174	71.1	1644	81.3	1879	101.6	25		
M 150-1000	254.00	18.6			63.5	1179	88.9	1650	101.6	1886	127.0	25		
M 150-1200	304.80	14.9			76.2	1134	106.7	1588	121.9	1815	152.4	25		
M 200-250	50.80	25.40			63.50	175.1	15.9	2780	22.2	3892	25.4	4448	31.8	25
M 200-300					76.20	145.3	19.1	2769	26.7	3876	30.5	4430	38.1	25
M 200-350					88.90	118.5	22.2	2635	31.1	3689	35.6	4216	44.5	25
M 200-400			101.60	105.1	25.4	2669	35.6	3736	40.6	4270	50.8	25		
M 200-450			114.30	92.8	28.6	2652	40.0	3713	45.7	4243	57.2	25		
M 200-500			127.00	82.3	31.8	2613	44.5	3658	50.8	4181	63.5	25		
M 200-550			139.70	70.9	34.9	2477	48.9	3468	55.9	3963	69.9	25		
M 200-600			152.40	68.3	38.1	2602	53.3	3643	61.0	4163	76.2	25		
M 200-700			177.80	54.6	44.5	2429	62.2	3400	71.1	3886	88.9	25		
M 200-800			203.20	49.9	50.8	2535	71.1	3550	81.3	4057	101.6	10		
M 200-1000			254.00	37.8	63.5	2402	88.9	3363	101.6	3843	127.0	10		
M 200-1200			304.80	32.4	76.2	2469	106.7	3456	121.9	3950	152.4	10		
M 250-300	63.50	38.10	76.20	189.3	19.1	3616	26.7	5054	30.5	5774	38.1	15		
M 250-350			88.90	156.9	22.2	3483	31.1	4880	35.6	5586	44.5	15		
M 250-400			101.60	133.4	25.4	3388	35.6	4749	40.6	5416	50.8	15		
M 250-450			114.30	116.7	28.6	3338	40.0	4668	45.7	5333	57.2	15		
M 250-500			127.00	104.0	31.8	3307	44.5	4628	50.8	5283	63.5	5		
M 250-550			139.70	93.1	34.9	3249	48.9	4553	55.9	5204	69.9	5		
M 250-600			152.40	84.3	38.1	3212	53.3	4493	61.0	5142	76.2	5		
M 250-700			177.80	72.6	44.5	3231	62.2	4516	71.1	5162	88.9	5		
M 250-800			203.20	62.8	50.8	3190	71.1	4465	81.3	5106	101.6	5		
M 250-1000			254.00	47.1	63.5	2991	88.9	4187	101.6	4785	127.0	5		
M 250-1200	304.80	41.0	76.2	3124	106.7	4375	121.9	4998	152.4	5				

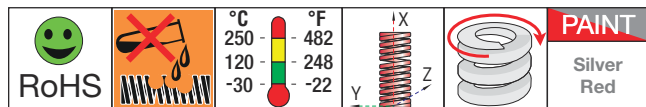
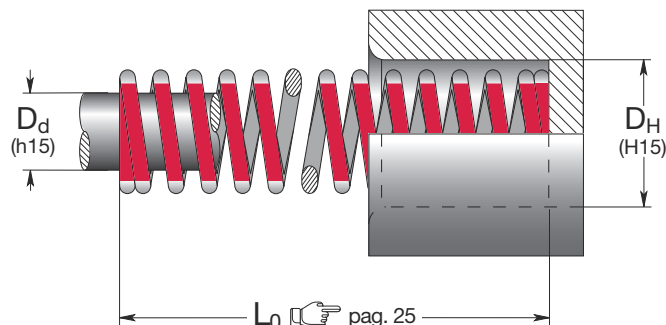
The color silver-blue is a registered trademark of Special Springs Srl.

*Deflection values near solid intended for design information ONLY.

EN Medium heavy duty die springs
Silver-red color

ES Muelles carga medio-fuerte
Color plateado-rojo

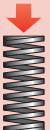
FR Ressorts charge moyenne-forte
Couleur argent-rouge



Part number	D _H Hole Diameter	D _d Rod Diameter	L ₀ Free Length	R Spring Rate ± 10%	A 20% L ₀ For Optimum Life	B 25% L ₀ For Long Life	C 30% L ₀ Max. Operating Def.	D* 37% L ₀ Max. Deflection	BOX ↓ Pcs
	mm	mm	mm	N/mm	mm N	mm N	mm N	mm	
MH 037-100	9.53	4.76	25.40	14.7	5.1 75	6.4 93	7.6 112	9.4	200
MH 037-125			31.75	12.8	6.4 81	7.9 101	9.5 122	11.7	200
MH 037-150			38.10	11.7	7.6 89	9.5 112	11.4 134	14.1	100
MH 037-175			44.45	10.2	8.9 90	11.1 113	13.3 135	16.4	100
MH 037-200			50.80	8.8	10.2 89	12.7 111	15.2 133	18.8	100
MH 037-250			63.50	6.5	12.7 82	16.0 104	19.1 124	23.5	100
MH 037-300			76.20	5.3	15.2 80	19.1 100	22.9 120	28.2	100
MH 037-1200			304.80	1.4	61.0 85	76.2 107	91.4 128	112.8	50
MH 050-100	12.70	7.14	25.40	27.1	5.1 138	6.4 173	7.6 207	9.4	100
MH 050-125			31.75	21.4	6.4 136	7.9 168	9.5 204	11.7	100
MH 050-150			38.10	17.2	7.6 131	9.7 165	11.4 196	14.1	100
MH 050-175			44.45	14.9	8.9 132	11.1 165	13.3 198	16.4	100
MH 050-200			50.80	13.1	10.2 133	12.7 167	15.2 200	18.8	100
MH 050-250			63.50	10.5	12.7 133	15.9 167	19.1 200	23.5	50
MH 050-300			76.20	8.9	15.2 136	19.1 170	22.9 204	28.2	50
MH 050-350			88.90	7.0	17.8 125	22.2 156	26.7 187	32.9	50
MH 050-400			101.60	6.4	20.3 130	25.4 163	30.5 195	37.6	50
MH 050-1200			304.80	1.9	61.0 117	76.2 147	91.4 176	112.8	50
MH 062-100	15.88	8.73	25.40	52.5	5.1 267	6.4 334	7.6 400	9.4	100
MH 062-125			31.75	37.7	6.4 239	7.9 299	9.5 359	11.7	100
MH 062-150			38.10	33.3	7.6 254	9.5 317	11.4 380	14.1	100
MH 062-175			44.45	29.4	8.9 262	11.1 327	13.3 392	16.4	50
MH 062-200			50.80	27.1	10.2 276	12.7 345	15.2 414	18.8	50
MH 062-250			63.50	20.1	12.7 256	15.9 320	19.1 384	23.5	50
MH 062-300			76.20	17.5	15.2 267	19.1 334	22.9 400	28.2	50
MH 062-350			88.90	14.9	17.8 265	22.2 331	26.7 397	32.9	50
MH 062-400			101.60	13.3	20.3 270	25.4 338	30.5 406	37.6	50
MH 062-450			114.30	11.5	22.9 263	28.7 330	34.3 395	42.3	50
MH 062-1200			304.80	4.6	61.0 278	76.2 347	91.4 416	112.8	50
MH 075-100	19.05	9.53	25.40	87.6	5.1 445	6.4 556	7.6 667	9.4	50
MH 075-125			31.75	66.5	6.4 423	7.9 528	9.5 634	11.7	50
MH 075-150			38.10	54.3	7.6 414	9.7 524	11.4 620	14.1	50
MH 075-175			44.45	47.3	8.9 420	11.2 528	13.3 631	16.4	50
MH 075-200			50.80	42.0	10.2 427	12.7 534	15.2 641	18.8	50
MH 075-250			63.50	32.9	12.7 418	16.0 527	19.1 627	23.5	50
MH 075-300			76.20	26.1	15.2 398	19.1 497	22.9 596	28.2	50
MH 075-350			88.90	22.4	17.8 399	22.2 498	26.7 598	32.9	50
MH 075-400			101.60	19.3	20.3 391	25.4 489	30.5 587	37.6	50
MH 075-450			114.30	17.5	22.9 400	28.7 503	34.3 600	42.3	50
MH 075-500			127.00	15.8	25.4 400	31.8 500	38.1 600	47.0	50
MH 075-550			139.70	14.0	27.9 391	34.9 489	41.9 587	51.7	50
MH 075-600			152.40	13.1	30.5 400	38.1 500	45.7 600	56.4	50
MH 075-1200			304.80	6.1	61.0 374	76.2 467	91.4 560	112.8	50

*Deflection values near solid intended for design information ONLY.

The color silver-red is a registered trademark of Special Springs Srl.

Part number	D _H	D _d	L ₀	R		A		B		C		D*	BOX		
	Hole Diameter	Rod Diameter	Free Length	Spring Rate		20% L ₀		25% L ₀		30% L ₀		37% L ₀			
				± 10%											
	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	mm	Pcs		
MH 100-100	25.40	12.70	25.40	144.8	5.1	736	6.4	920	7.6	1104		9.4	50		
MH 100-125			31.75	114.3	6.4	726	7.9	900	9.5	1089		11.7	50		
MH 100-150			38.10	94.2	7.6	718	9.7	909	11.4	1077		14.1	50		
MH 100-175			44.45	80.7	8.9	718	11.2	902	13.3	1076		16.4	50		
MH 100-200			50.80	70.0	10.2	712	12.7	890	15.2	1068		18.8	50		
MH 100-250			63.50	56.4	12.7	716	16.0	902	19.1	1074		23.5	50		
MH 100-300			76.20	46.8	15.2	713	19.1	891	22.9	1069		28.2	25		
MH 100-350			88.90	40.1	17.8	713	22.4	896	26.7	1070		32.9	25		
MH 100-400			101.60	35.4	20.3	719	25.4	898	30.5	1078		37.6	25		
MH 100-450			114.30	31.2	22.9	713	28.7	894	34.3	1069		42.3	25		
MH 100-500			127.00	27.5	25.4	698	31.8	873	38.1	1048		47.0	25		
MH 100-550			139.70	24.0	27.9	670	34.9	838	41.9	1006		51.7	25		
MH 100-600			152.40	21.9	30.5	667	38.1	834	45.7	1001		56.4	25		
MH 100-700			177.80	19.1	35.6	679	44.5	849	53.3	1018		65.8	25		
MH 100-800			203.20	16.8	40.6	683	50.8	854	61.0	1025		75.2	25		
MH 100-1200			304.80	11.4	61.0	694	76.2	867	91.4	1041		112.8	25		
MH 125-150	31.75	15.88	38.10	200.3	7.6	1527	9.5	1908	11.4	2290		14.1	50		
MH 125-175			44.45	176.5	8.9	1569	11.1	1962	13.3	2354		16.4	50		
MH 125-200			50.80	146.7	10.2	1491	12.7	1864	15.2	2236		18.8	50		
MH 125-250			63.50	109.3	12.7	1388	15.9	1735	19.1	2082		23.5	25		
MH 125-300			76.20	89.7	15.2	1366	19.1	1708	22.9	2050		28.2	25		
MH 125-350			88.90	77.1	17.8	1370	22.2	1712	26.7	2055		32.9	25		
MH 125-400			101.60	66.7	20.3	1356	25.4	1695	30.5	2034		37.6	25		
MH 125-450			114.30	57.6	22.9	1317	28.7	1654	34.3	1976		42.3	25		
MH 125-500			127.00	52.5	25.4	1334	31.8	1668	38.1	2002		47.0	25		
MH 125-550			139.70	46.2	27.9	1292	34.9	1612	41.9	1938		51.7	25		
MH 125-600			152.40	43.8	30.5	1334	38.1	1668	45.7	2002		56.4	25		
MH 125-700			177.80	36.8	35.6	1308	44.5	1635	53.3	1962		65.8	25		
MH 125-800			203.20	32.2	40.6	1309	50.8	1637	61.0	1964		75.2	25		
MH 125-1000			254.00	25.4	50.8	1290	63.5	1612	76.2	1935		94.0	25		
MH 125-1200			304.80	21.7	61.0	1324	76.2	1655	91.4	1986		112.8	25		
MH 150-200			38.10	19.05	50.80	180.4	10.2	1833	12.7	2291	15.2	2749		18.8	25
MH 150-250	63.50	142.2			12.7	1806	16.0	2276	19.1	2709		23.5	25		
MH 150-300	76.20	109.3			15.2	1665	19.1	2082	22.9	2498		28.2	25		
MH 150-350	88.90	94.6			17.8	1681	22.4	2114	26.7	2522		32.9	25		
MH 150-400	101.60	81.4			20.3	1655	25.4	2068	30.5	2482		37.6	25		
MH 150-450	114.30	71.8			22.9	1641	28.7	2061	34.3	2462		42.3	25		
MH 150-500	127.00	64.4			25.4	1637	31.8	2046	38.1	2455		47.0	25		
MH 150-550	139.70	57.8			27.9	1615	34.9	2017	41.9	2422		51.7	25		
MH 150-600	152.40	51.7			30.5	1575	38.1	1968	45.7	2362		56.4	25		
MH 150-700	177.80	44.7			35.6	1588	44.5	1985	53.3	2382		65.8	25		
MH 150-800	203.20	38.5			40.6	1566	50.8	1957	61.0	2349		75.2	25		
MH 150-1000	254.00	30.8			50.8	1566	63.5	1957	76.2	2349		94.0	25		
MH 150-1200	304.80	25.2			61.0	1537	76.2	1922	91.4	2306		112.8	25		
MH 200-250	50.80	25.40			63.50	207.3	12.7	2633	15.9	3292	19.1	3950		23.5	25
MH 200-300					76.20	162.8	15.2	2482	19.1	3102	22.9	3723		28.2	25
MH 200-350					88.90	136.9	17.8	2435	22.4	3061	26.7	3652		32.9	25
MH 200-400			101.60	116.3	20.3	2363	25.4	2953	30.5	3544		37.6	25		
MH 200-450			114.30	105.1	22.9	2402	28.6	3002	34.3	3603		42.3	25		
MH 200-500			127.00	93.5	25.4	2375	31.8	2969	38.1	3563		47.0	25		
MH 200-550			139.70	85.8	27.9	2397	34.9	2994	41.9	3596		51.7	25		
MH 200-600			152.40	78.8	30.5	2402	38.1	3002	45.7	3603		56.4	25		
MH 200-700			177.80	65.5	35.6	2329	44.5	2911	53.3	3493		65.8	25		
MH 200-800			203.20	57.8	40.6	2349	50.8	2936	61.0	3523		75.2	10		
MH 200-1000			254.00	45.5	50.8	2313	63.5	2891	76.2	3469		94.0	10		
MH 200-1200			304.80	37.6	61.0	2295	76.2	2869	91.4	3443		112.8	10		
MH 250-300			63.50	38.10	76.20	300.1	15.2	4562	19.1	5732	22.9	6872		28.2	15
MH 250-350					88.90	256.0	17.8	4557	22.2	5683	26.7	6835		32.9	15
MH 250-400					101.60	225.0	20.3	4568	25.4	5715	30.5	6863		37.6	15
MH 250-450					114.30	196.0	22.9	4488	28.6	5606	34.3	6723		42.3	15
MH 250-500	127.00	176.0			25.4	4470	31.8	5597	38.1	6706		47.0	5		
MH 250-550	139.70	159.0			27.9	4436	34.9	5549	41.9	6662		51.7	5		
MH 250-600	152.40	144.0			30.5	4392	38.1	5486	45.7	6581		56.4	5		
MH 250-700	177.80	120.0			35.6	4272	44.5	5340	53.3	6396		65.8	5		
MH 250-800	203.20	104.5			40.6	4243	50.8	5309	61.0	6375		75.2	5		
MH 250-900	228.60	92.0			45.7	4204	57.2	5262	68.6	6311		84.6	5		
MH 250-1000	254.00	82.0			50.8	4166	63.5	5207	76.2	6248		94.0	5		
MH 250-1200	304.80	66.0			61.0	4026	76.2	5029	91.4	6032		112.8	5		

The color silver-red is a registered trademark of Special Springs Srl.

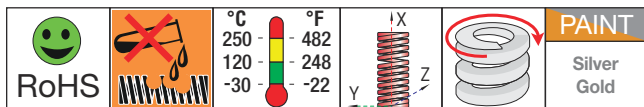
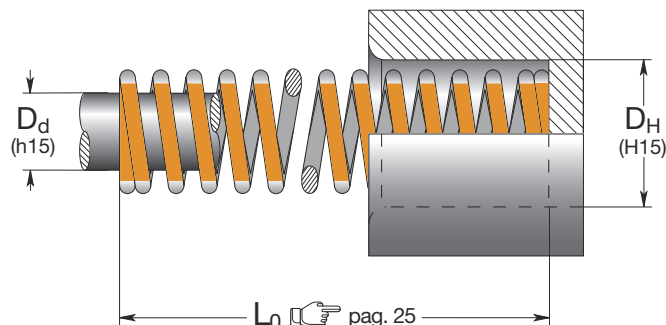
*Deflection values near solid intended for design information ONLY.

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

EN Heavy duty die springs
Silver-gold color

ES Muelles carga fuerte
Color plateado-oro

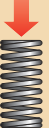
FR Ressorts charge forte
Couleur argent-or



Part number	D _H Hole Diameter	D _d Hole Diameter	L ₀ Free Length	R Spring Rate ± 10%	A 15% L ₀ For Optimum Life	B 20% L ₀ For Long Life	C 25% L ₀ Max. Operating Def.	D* 30% L ₀ Max. Deflection	BOX ↓ Pcs
	mm	mm	mm	N/mm	mm N	mm N	mm N	mm	
H 037-100	9.53	4.76	25.40	20.3	3.8 77	5.1 103	6.4 129	7.6	200
H 037-125			31.75	17.2	4.8 83	6.4 109	7.9 135	9.5	200
H 037-150			38.10	14.0	5.8 82	7.6 107	9.7 135	11.4	100
H 037-175			44.45	13.1	6.6 87	8.9 117	11.2 147	13.3	100
H 037-200			50.80	10.9	7.6 83	10.2 110	12.7 138	15.2	100
H 037-250			63.50	8.8	9.7 85	12.7 111	16.0 140	19.1	100
H 037-300			76.20	7.2	11.4 82	15.2 109	19.1 137	22.9	100
H 037-1200			304.80	1.9	45.7 88	61.0 117	76.2 147	91.4	50
H 050-100	12.70	7.14	25.40	39.4	3.8 150	5.1 200	6.4 250	7.6	100
H 050-125			31.75	31.9	4.8 154	6.4 202	7.9 251	9.5	100
H 050-150			38.10	25.9	5.8 151	7.6 197	9.7 250	11.4	100
H 050-175			44.45	22.1	6.6 146	8.9 196	11.2 246	13.3	100
H 050-200			50.80	19.3	7.6 147	10.2 196	12.7 245	15.2	100
H 050-250			63.50	15.1	9.7 145	12.7 191	16.0 241	19.1	50
H 050-300			76.20	13.0	11.4 148	15.2 197	19.1 247	22.9	50
H 050-350			88.90	10.5	13.5 141	17.8 187	22.4 235	26.7	50
H 050-400			101.60	9.3	15.2 141	20.3 189	25.4 236	30.5	50
H 050-1200			304.80	3.0	45.7 136	61.0 181	76.2 227	91.4	50
H 062-100	15.88	8.73	25.40	74.2	3.8 283	5.1 377	6.4 471	7.6	100
H 062-125			31.75	56.9	4.8 275	6.4 362	7.9 448	9.5	100
H 062-150			38.10	49.0	5.8 286	7.6 374	9.7 473	11.4	100
H 062-175			44.45	42.0	6.6 278	8.9 374	11.2 470	13.3	50
H 062-200			50.80	36.4	7.6 278	10.2 370	12.7 463	15.2	50
H 062-250			63.50	29.8	9.7 287	12.7 378	16.0 476	19.1	50
H 062-300			76.20	24.5	11.4 280	15.2 374	19.1 467	22.9	50
H 062-350			88.90	21.4	13.5 288	17.8 380	22.4 478	26.7	50
H 062-400			101.60	18.9	15.2 288	20.3 384	25.4 480	30.5	50
H 062-450			114.30	16.7	17.3 288	22.9 382	28.7 479	34.3	50
H 062-1200			304.80	5.3	45.7 240	61.0 320	76.2 400	91.4	50
H 075-100	19.05	9.53	25.40	189.1	3.8 721	5.1 961	6.4 1201	6.9	50
H 075-125			31.75	154.1	4.8 744	6.4 979	7.9 1213	8.9	50
H 075-150			38.10	120.8	5.8 706	7.6 921	9.7 1166	11.4	50
H 075-175			44.45	105.1	6.6 694	8.9 934	11.2 1174	13.3	50
H 075-200			50.80	90.2	7.6 687	10.2 916	12.7 1145	15.2	50
H 075-250			63.50	70.0	9.7 676	12.7 890	16.0 1121	19.1	50
H 075-300			76.20	57.8	11.4 661	15.2 881	19.1 1101	22.9	50
H 075-350			88.90	50.8	13.5 684	17.8 903	22.4 1135	26.7	50
H 075-400			101.60	43.8	15.2 667	20.3 890	25.4 1112	30.5	50
H 075-450			114.30	38.5	17.3 665	22.9 881	28.7 1106	34.3	50
H 075-500			127.00	34.1	19.1 651	25.4 867	31.8 1084	38.1	50
H 075-550			139.70	31.2	21.1 657	27.9 871	35.1 1092	41.9	50
H 075-600			152.40	28.0	22.9 641	30.5 854	38.1 1068	45.7	50
H 075-1200			304.80	14.0	45.7 641	61.0 854	76.2 1068	91.4	50

*Deflection values near solid intended for design information ONLY.

The color silver-gold is a registered trademark of Special Springs Srl.

Part number	D _H Hole Diameter	D _d Rod Diameter	L ₀ Free Length	R Spring Rate	 A 15% L ₀ For Optimum Life	 B 20% L ₀ For Long Life	 C 25% L ₀ Max. Operating Def.	 D* 30% L ₀ Max. Deflection	BOX 	
	mm	mm	mm	± 10% N/mm	mm N	mm N	mm N	mm N	mm	Pcs
H 100-100	25.40	12.70	25.40	338.3	3.8 1289	5.1 1719	6.4 2148	6.9	50	50
H 100-125			31.75	256.5	4.8 1238	6.4 1629	7.9 2020	9.5	50	50
H 100-150			38.10	210.1	5.8 1228	7.6 1601	9.7 2028	11.4	50	50
H 100-175			44.45	182.1	6.6 1203	8.9 1619	11.2 2035	13.3	50	50
H 100-200			50.80	152.7	7.6 1164	10.2 1551	12.7 1939	15.2	50	50
H 100-250			63.50	116.4	9.7 1124	12.7 1479	16.0 1864	19.1	50	50
H 100-300			76.20	95.3	11.4 1089	15.2 1452	19.1 1815	22.9	25	25
H 100-350			88.90	79.8	13.5 1075	17.8 1420	22.4 1785	26.7	25	25
H 100-400			101.60	70.0	15.2 1068	20.3 1423	25.4 1779	30.5	25	25
H 100-450			114.30	61.6	17.3 1065	22.9 1409	28.7 1769	34.3	25	25
H 100-500			127.00	54.6	19.1 1041	25.4 1388	31.8 1735	38.1	25	25
H 100-550			139.70	50.4	21.1 1063	27.9 1409	35.1 1768	41.9	25	25
H 100-600	31.75	15.88	152.40	44.8	22.9 1025	30.5 1366	38.1 1708	45.7	25	25
H 100-700			177.80	39.2	26.7 1046	35.6 1395	44.5 1744	53.3	25	25
H 100-800			203.20	33.6	30.5 1025	40.6 1366	50.8 1708	61.0	25	25
H 100-1200			304.80	22.4	45.7 1025	61.0 1366	76.2 1708	91.4	25	25
H 125-150			38.10	385.2	5.8 2251	7.6 2936	9.7 3719	11.4	50	50
H 125-175			44.45	318.0	6.6 2100	8.9 2827	11.2 3554	13.3	50	50
H 125-200			50.80	261.9	7.6 1996	10.2 2662	12.7 3327	14.5	50	50
H 125-250			63.50	205.9	9.7 1988	12.7 2615	16.0 3296	19.1	25	25
H 125-300			76.20	166.7	11.4 1906	15.2 2541	19.1 3176	22.9	25	25
H 125-350			88.90	136.6	13.5 1839	17.8 2429	22.4 3053	26.7	25	25
H 125-400			101.60	116.3	15.2 1772	20.3 2363	25.4 2953	30.5	25	25
H 125-450	38.10	19.05	114.30	102.3	17.3 1766	22.9 2338	28.7 2935	34.3	25	25
H 125-500			127.00	92.8	19.1 1768	25.4 2357	31.8 2947	38.1	25	25
H 125-550			139.70	82.6	21.1 1743	27.9 2309	35.1 2897	41.9	25	25
H 125-600			152.40	78.8	22.9 1801	30.5 2402	38.1 3002	45.7	25	25
H 125-700			177.80	64.4	26.7 1719	35.6 2292	44.5 2865	53.3	25	25
H 125-800			203.20	57.4	30.5 1751	40.6 2334	50.8 2918	61.0	25	25
H 125-1000			254.00	44.8	38.1 1708	50.8 2277	63.5 2847	76.2	25	25
H 125-1200			304.80	38.5	45.7 1761	61.0 2349	76.2 2936	91.4	25	25
H 150-200	50.80	25.40	50.80	346.7	7.6 2642	10.2 3523	12.7 4404	15.2	25	25
H 150-250			63.50	271.4	9.7 2620	12.7 3447	16.0 4343	19.1	25	25
H 150-300			76.20	227.6	11.4 2602	15.2 3469	19.1 4337	22.9	25	25
H 150-350			88.90	186.3	13.5 2508	17.8 3313	22.4 4165	26.7	25	25
H 150-400			101.60	159.7	15.2 2434	20.3 3245	25.4 4057	30.5	25	25
H 150-450			114.30	142.9	17.3 2468	22.9 3267	28.7 4102	34.3	25	25
H 150-500			127.00	127.8	19.1 2435	25.4 3247	31.8 4059	38.1	25	25
H 150-550			139.70	117.3	21.1 2474	27.9 3278	35.1 4113	41.9	25	25
H 150-600			152.40	102.3	22.9 2338	30.5 3117	38.1 3896	45.7	25	25
H 150-700			177.80	86.8	26.7 2317	35.6 3089	44.5 3861	53.3	25	25
H 150-800			203.20	75.6	30.5 2306	40.6 3074	50.8 3843	61.0	25	25
H 150-1000			254.00	63.4	38.1 2415	50.8 3220	63.5 4025	76.2	25	25
H 150-1200			304.80	52.5	45.7 2402	61.0 3203	76.2 4003	91.4	25	25
H 200-250	50.80	25.40	63.50	439.9	9.7 4246	12.7 5587	16.0 7039	19.1	25	25
H 200-300			76.20	360.7	11.4 4123	15.2 5498	19.1 6872	22.9	25	25
H 200-350			88.90	297.7	13.5 4008	17.8 5293	22.4 6654	26.7	25	25
H 200-400			101.60	262.7	15.2 4003	20.3 5338	25.4 6672	30.5	25	25
H 200-450			114.30	222.7	17.3 3848	22.9 5092	28.7 6394	34.3	25	25
H 200-500			127.00	207.7	19.1 3956	25.4 5275	31.8 6594	38.1	25	25
H 200-550			139.70	188.6	21.1 3976	27.9 5270	35.1 6611	41.9	25	25
H 200-600			152.40	171.1	22.9 3911	30.5 5215	38.1 6519	45.7	25	25
H 200-700			177.80	143.6	26.7 3830	35.6 5106	44.5 6383	53.3	25	25
H 200-800			203.20	127.8	30.5 3896	40.6 5195	50.8 6494	61.0	10	10
H 200-1000			254.00	100.2	38.1 3816	50.8 5089	63.5 6361	76.2	10	10
H 200-1200			304.80	83.5	45.7 3819	61.0 5092	76.2 6365	91.4	10	10

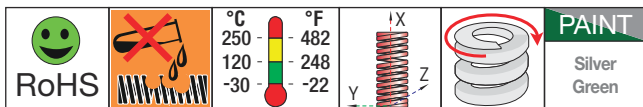
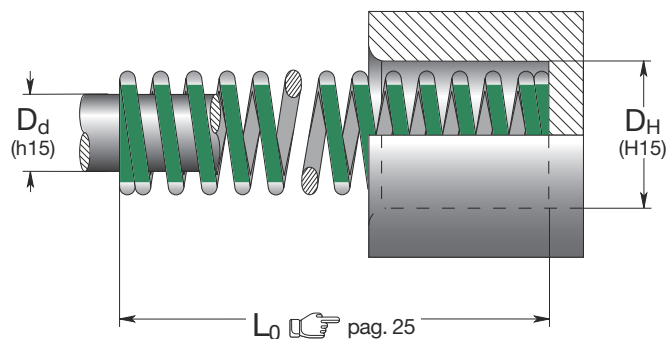
The color silver-gold is a registered trademark of Special Springs Srl.

*Deflection values near solid intended for design information ONLY.

EN Extra heavy duty die springs
Silver-green color

ES Muelles carga extra-fuerte
Color platerado-verde

FR Ressorts charge extra-forte
Couleur argent-vert



Part number	D _H Hole Diameter	D _d Rod Diameter	L ₀ Free Length	R Spring Rate ± 10%	A 15% L ₀ For Optimum Life	B 17% L ₀ For Long Life	C 20% L ₀ Max. Operating Def.	D* 25% L ₀ Max. Deflection	BOX ↓ Pcs
	mm	mm	mm	N/mm	mm N	mm N	mm N	mm	
EH 037-100	9.53	4.76	25.40	36.8	3.8 140	4.3 159	5.1 187	6.4	200
EH 037-125			31.75	25.6	4.8 123	5.3 137	6.4 162	7.9	200
EH 037-150			38.10	21.9	5.8 128	6.6 145	7.6 167	9.5	100
EH 037-175			44.45	18.4	6.6 121	7.6 140	8.9 164	11.1	100
EH 037-200			50.80	15.8	7.6 120	8.6 136	10.2 160	12.7	100
EH 037-250			63.50	13.1	9.7 127	10.9 144	12.7 167	15.9	100
EH 037-300			76.20	11.0	11.4 126	13.0 143	15.2 168	19.1	100
EH 037-1200			304.80	2.6	45.7 120	51.8 136	61.0 160	76.2	50
EH 050-100	12.70	7.14	25.40	54.3	3.8 207	4.3 234	5.1 276	6.4	100
EH 050-125			31.75	42.0	4.8 203	5.3 224	6.4 267	7.9	100
EH 050-150			38.10	33.6	5.8 197	6.6 222	7.6 256	9.5	100
EH 050-175			44.45	29.8	6.6 197	7.6 227	8.9 265	11.1	100
EH 050-200			50.80	24.5	7.6 187	8.6 212	10.2 249	12.7	100
EH 050-250			63.50	20.1	9.7 194	10.9 220	12.7 256	15.9	50
EH 050-300			76.20	16.5	11.4 188	13.0 213	15.2 251	19.1	50
EH 050-350			88.90	14.0	13.5 189	15.2 214	17.8 249	22.2	50
EH 050-400			101.60	12.5	15.2 190	17.3 216	20.3 254	25.4	50
EH 050-1200			304.80	4.2	45.7 192	51.8 218	61.0 256	76.2	50
EH 062-100	15.88	8.73	25.40	110.3	3.8 420	4.3 476	5.1 560	6.4	100
EH 062-125			31.75	76.7	4.8 370	5.3 409	6.4 487	7.9	100
EH 062-150			38.10	64.8	5.8 379	6.6 428	7.6 494	9.5	100
EH 062-175			44.45	54.3	6.6 359	7.6 414	8.9 483	11.1	50
EH 062-200			50.80	49.0	7.6 374	8.6 423	10.2 498	12.7	50
EH 062-250			63.50	38.5	9.7 372	10.9 421	12.7 489	15.9	50
EH 062-300			76.20	33.3	11.4 380	13.0 431	15.2 507	19.1	50
EH 062-350			88.90	27.0	13.5 363	15.2 411	17.8 479	22.2	50
EH 062-400			101.60	23.6	15.2 360	17.3 408	20.3 480	25.4	50
EH 062-450			114.30	21.1	17.3 365	19.6 414	22.9 483	28.6	50
EH 062-1200			304.80	7.9	45.7 360	51.8 408	61.0 480	76.2	50
EH 075-100	19.05	9.53	25.40	245.1	3.8 934	4.3 1059	5.1 1245	6.4	50
EH 075-125			31.75	192.6	4.8 930	5.3 1027	6.4 1223	7.9	50
EH 075-150			38.10	155.8	5.8 911	6.6 1029	7.6 1188	9.5	50
EH 075-175			44.45	131.3	6.6 867	7.6 1001	8.9 1168	11.1	50
EH 075-200			50.80	115.6	7.6 881	8.6 998	10.2 1174	12.7	50
EH 075-250			63.50	87.6	9.7 845	10.9 956	12.7 1112	15.9	50
EH 075-300			76.20	70.9	11.4 811	13.0 919	15.2 1081	19.1	50
EH 075-350			88.90	60.4	13.5 814	15.2 921	17.8 1074	22.2	50
EH 075-400			101.60	52.5	15.2 801	17.3 907	20.3 1068	25.4	50
EH 075-450			114.30	46.4	17.3 802	19.6 908	22.9 1061	28.6	50
EH 075-500			127.00	41.1	19.1 784	21.6 889	25.4 1045	31.8	50
EH 075-550			139.70	37.6	21.1 794	23.9 899	27.9 1052	34.9	50
EH 075-600			152.40	34.1	22.9 781	25.9 885	30.5 1041	38.1	50
EH 075-1200			304.80	16.6	45.7 761	51.8 862	61.0 1014	76.2	50

*Deflection values near solid intended for design information ONLY.

The color silver-green is a registered trademark of Special Springs Srl.

Part number	D _H Hole Diameter	D _d Rod Diameter	L ₀ Free Length	R Spring Rate	 A 15% L ₀ For Optimum Life	 B 17% L ₀ For Long Life	 C 20% L ₀ Max. Operating Def.	 D* 25% L ₀ Max. Deflection	BOX 	
	mm	mm	mm	± 10% N/mm	mm N	mm N	mm N	mm N	mm	Pcs
EH 100-100	25.40	12.70	25.40	426.8	3.8 1622	4.3 1835	5.1 2177	6.4 2103	6.4 2103	50
EH 100-125			31.75	328.6	4.8 1577	5.3 1742	6.4 2103	7.9 2103	7.9 2103	50
EH 100-150			38.10	280.2	5.8 1637	6.6 1850	7.6 2135	9.5 2135	9.5 2135	50
EH 100-175			44.45	234.5	6.6 1548	7.6 1782	8.9 2087	11.1 2087	11.1 2087	50
EH 100-200			50.80	203.1	7.6 1548	8.6 1754	10.2 2064	12.7 2064	12.7 2064	50
EH 100-250			63.50	156.9	9.7 1515	10.9 1714	12.7 1993	15.9 1993	15.9 1993	50
EH 100-300			76.20	128.9	11.4 1473	13.0 1670	15.2 1964	19.1 1964	19.1 1964	25
EH 100-350			88.90	109.3	13.5 1471	15.2 1665	17.8 1943	22.2 1943	22.2 1943	25
EH 100-400			101.60	96.7	15.2 1473	17.3 1670	20.3 1964	25.4 1964	25.4 1964	25
EH 100-450			114.30	85.4	17.3 1476	19.6 1672	22.9 1954	28.6 1954	28.6 1954	25
EH 100-500			127.00	75.6	19.1 1441	21.6 1633	25.4 1922	31.8 1922	31.8 1922	25
EH 100-550			139.70	68.9	21.1 1454	23.9 1647	27.9 1922	34.9 1922	34.9 1922	25
EH 100-600			152.40	63.0	22.9 1441	25.9 1633	30.5 1922	38.1 1922	38.1 1922	25
EH 100-700			177.80	53.4	26.7 1426	30.2 1613	35.6 1901	44.5 1901	44.5 1901	25
EH 100-800			203.20	46.5	30.5 1418	34.5 1604	40.6 1888	50.8 1888	50.8 1888	25
EH 100-1200			304.80	30.8	45.7 1409	51.8 1597	61.0 1879	76.2 1879	76.2 1879	25
EH 125-150	31.75	15.88	38.10	471.1	5.8 2732	6.6 3109	7.6 3580	9.5 3580	9.5 3580	50
EH 125-175			44.45	415.0	6.6 2739	7.6 3154	8.9 3694	11.1 3694	11.1 3694	25
EH 125-200			50.80	359.0	7.6 2736	8.6 3100	10.2 3647	12.7 3647	12.7 3647	50
EH 125-250			63.50	267.0	9.7 2578	10.9 2917	12.7 3392	15.9 3392	15.9 3392	25
EH 125-300			76.20	213.6	11.4 2442	13.0 2768	15.2 3256	19.1 3256	19.1 3256	25
EH 125-350			88.90	190.0	13.5 2558	15.2 2896	17.8 3378	22.2 3378	22.2 3378	25
EH 125-400			101.60	155.8	15.2 2375	17.3 2692	20.3 3167	25.4 3167	25.4 3167	25
EH 125-450			114.30	146.2	17.3 2526	19.6 2860	22.9 3343	28.6 3343	28.6 3343	25
EH 125-500			127.00	122.6	19.1 2335	21.6 2647	25.4 3114	31.8 3114	31.8 3114	25
EH 125-550			139.70	110.0	21.1 2321	23.9 2629	27.9 3069	34.9 3069	34.9 3069	25
EH 125-600			152.40	100.7	22.9 2302	25.9 2609	30.5 3069	38.1 3069	38.1 3069	25
EH 125-700			177.80	90.0	26.7 2403	30.2 2718	35.6 3204	44.5 3204	44.5 3204	25
EH 125-800			203.20	80.5	30.5 2455	34.5 2783	40.6 3274	50.8 3274	50.8 3274	25
EH 125-1000			254.00	60.4	38.1 2302	43.2 2609	50.8 3069	63.5 3069	63.5 3069	25
EH 125-1200			304.80	47.3	45.7 2162	51.8 2450	61.0 2882	76.2 2882	76.2 2882	25
EH 150-200	38.10	19.05	50.80	715.3	7.6 5451	8.6 6178	10.2 7268	11.4 7268	11.4 7268	25
EH 150-250			63.50	575.2	9.7 5552	10.9 6283	12.7 7306	15.9 7306	15.9 7306	25
EH 150-300			76.20	446.5	11.4 5104	13.0 5785	15.2 6805	19.1 6805	19.1 6805	25
EH 150-350			88.90	373.8	13.5 5033	15.2 5698	17.8 6648	22.2 6648	22.2 6648	25
EH 150-400			101.60	323.1	15.2 4924	17.3 5580	20.3 6565	25.4 6565	25.4 6565	25
EH 150-450			114.30	284.5	17.3 4915	19.6 5566	22.9 6505	28.6 6505	28.6 6505	25
EH 150-500			127.00	253.9	19.1 4837	21.6 5482	25.4 6450	31.8 6450	31.8 6450	25
EH 150-550			139.70	229.0	21.1 4832	23.9 5473	27.9 6389	34.9 6389	34.9 6389	25
EH 150-600			152.40	211.0	22.9 4824	25.9 5467	30.5 6432	38.1 6432	38.1 6432	25
EH 150-700			177.80	180.0	26.7 4806	30.2 5436	35.6 6408	44.5 6408	44.5 6408	25
EH 150-800			203.20	158.5	30.5 4831	34.5 5475	40.6 6441	50.8 6441	50.8 6441	25
EH 150-1000			254.00	124.3	38.1 4737	43.2 5369	50.8 6316	63.5 6316	63.5 6316	25
EH 150-1200			304.80	96.3	45.7 4404	51.8 4991	61.0 5871	76.2 5871	76.2 5871	25
EH 200-250	50.80	25.40	63.50	719.7	9.7 6947	10.9 7861	12.7 9141	15.2 9141	15.2 9141	25
EH 200-300			76.20	558.6	11.4 6385	13.0 7236	15.2 8513	17.8 8513	17.8 8513	25
EH 200-350			88.90	484.0	13.5 6516	15.2 7377	17.8 8606	22.2 8606	22.2 8606	25
EH 200-400			101.60	404.7	15.2 6168	17.3 6990	20.3 8223	24.6 8223	24.6 8223	25
EH 200-450			114.30	330.6	17.3 5710	19.6 6467	22.9 7558	28.6 7558	28.6 7558	25
EH 200-500			127.00	315.9	19.1 6018	21.6 6821	25.4 8024	31.8 8024	31.8 8024	25
EH 200-550			139.70	280.0	21.1 5908	23.9 6692	27.9 7812	34.9 7812	34.9 7812	25
EH 200-600			152.40	257.9	22.9 5897	25.9 6683	30.5 7862	38.1 7862	38.1 7862	25
EH 200-700			177.80	220.0	26.7 5874	30.2 6644	35.6 7832	44.5 7832	44.5 7832	25
EH 200-800			203.20	195.4	30.5 5957	34.5 6751	40.6 7942	50.8 7942	50.8 7942	10
EH 200-1000			254.00	154.8	38.1 5898	43.2 6684	50.8 7864	63.5 7864	63.5 7864	10
EH 200-1200			304.80	124.7	45.7 5701	51.8 6461	61.0 7601	76.2 7601	76.2 7601	10

The color silver-green is a registered trademark of Special Springs Srl.

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Lined area for notes, consisting of multiple horizontal lines.



Canada Office:

1 Coventry Road,
Brampton, Ontario L6T 4B1
Canada

Phone: 905-791-9811
Toll Free: 800-268-0115
sales@tipcoinc.com

USA Office:

6 Rowe Ct,
Hamilton, Ohio 45015

Phone: 513-874-9140
Toll Free: 800-544-8444
sales@tipcopunch.com

