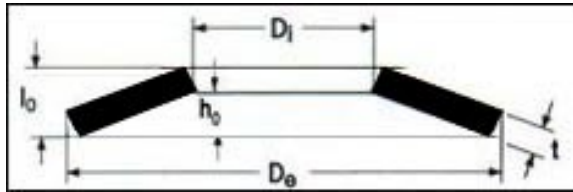




SUMINISTROS RIOL S.A. [www.surisa.es]
 C/ Marina 127-131 bjs | 08013 Barcelona, ESPAÑA
 TEL. +34 93 231 08 11 | FAX +34 93 265 19 26 | SURISA@SURISA.ES
WWW.MUELLEDEPLATILLO.ES

ARANDELAS DE PRESIÓN PARA BRIDAS



De: Diámetro externo

Di: Diámetro interno

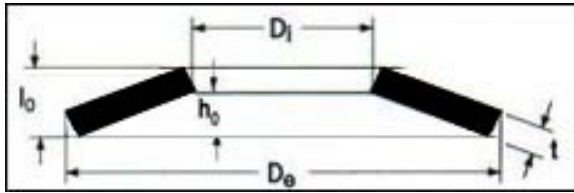
t: Espesor del material del muelle

ho: Máxima deflexión del muelle

lo: Altura total del muelle ($lo = t + ho$)

Arandelas muelles de brida – Material: Acero Inoxidable 17-7 PH

Métrica	Código	Di	De	t espesor	lo altura	ho deflexión	Fuerza 100%	Peso por 1.000 pcs
6mm	M6-F-1.10-177	6.20mm	10.92mm	1.07mm	1.19mm	0.13mm	3247N	0.51kg
8mm	M8-F-1.3-177	8.18mm	14.73mm	1.27mm	1.68mm	0.20mm	4226N	1.14kg
10mm	M10-F-2-177	10.41mm	18.24mm	2.11mm	2.29mm	0.18mm	12455N	2.59kg
12mm	M12-F-2.3-177	12.40mm	21.69mm	2.41mm	2.67mm	0.25mm	16458N	4.08kg
14mm	M14-F-2.3-177	14.40mm	25.27mm	2.41mm	2.72mm	0.30mm	16236N	5.97kg
16mm	M16-F-3-177	16.36mm	29.16mm	2.97mm	3.30mm	0.33mm	28913N	10.31kg
18mm	M18-F-3.5-177	18.39mm	32.64mm	3.45mm	3.81mm	0.37mm	33584N	15.08kg
20mm	M20-F-4-177	20.83mm	36.45mm	3.94mm	4.32mm	0.38mm	43593N	19.34kg
22mm	M22-F-4-177	22.89mm	40.39mm	3.94mm	4.42mm	0.48mm	43370N	25.92kg
24mm	M24-F-4-177	24.82mm	43.41mm	3.94mm	4.47mm	0.53mm	42925N	27.92kg
27mm	M27-F-4-177	27.81mm	48.69mm	3.94mm	4.62mm	0.69mm	42258N	37.77kg
30mm	M30-F-5-177	30.81mm	53.92mm	4.90mm	5.56mm	0.66mm	66723N	52.82kg
32mm	M32-F-5-177	32.79mm	57.38mm	4.90mm	5.64mm	0.74mm	66056N	65.27kg
33mm	M33-F-5-177	33.53mm	59.18mm	4.90mm	5.69mm	0.79mm	88964N	62.65kg
36mm	M36-F-5-177	36.80mm	65.53mm	4.90mm	5.87mm	0.97mm	64944N	86.80kg
36mm	M36-F-7-177	36.80mm	65.53mm	6.48mm	7.37mm	0.89mm	117433N	114.28kg
38mm	M38-F-7-177	38.89mm	68.07mm	6.35mm	7.21mm	0.86mm	115654N	116.68kg
39mm	M39-F-7-177	39.62mm	69.85mm	6.48mm	7.34mm	0.86mm	117678N	128.71kg
42mm	M42-F-7-177	42.85mm	74.93mm	6.65mm	7.59mm	0.97mm	122326N	146.97kg
45mm	M45-F-7-177	45.72mm	80.52mm	7.14mm	8.13mm	1.02mm	137895N	174.79kg
48mm	M48-F-8-177	49.20mm	86.08mm	8.08mm	9.12mm	1.04mm	181265N	242.02kg
52mm	M52-F-8-177	52.81mm	92.20mm	8.08mm	9.27mm	1.19mm	180153N	277.09kg
64mm	M64-F-10-177	65.56mm	114.30mm	10.01mm	11.46mm	1.45mm	275790N	526.64kg
72mm	M72-F-10-177	72.90mm	127.00mm	10.01mm	11.76mm	1.75mm	272009N	649.67kg
72mm	M72-F-13-177	72.90mm	127.00mm	12.70mm	14.22mm	1.42mm	451494N	824.46kg



De: Diámetro externo

Di: Diámetro interno

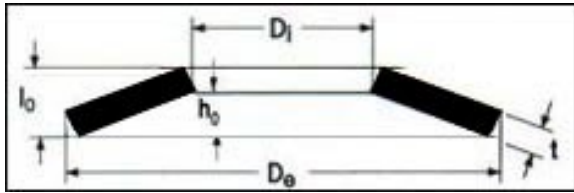
t: Espesor del material del muelle

ho: Máxima deflexión del muelle

lo: Altura total del muelle ($lo = t + ho$)

Arandelas muelles de bridas – Material Inconel 718

Métrica	Código	Di	De	t espesor	lo altura	ho deflexión	Fuerza 100%	Peso por 1.000 pcs
8mm	M8-F-1.3-718	8.18mm	14.73mm	1.27mm	1.47mm	0.20mm	4439N	1.23kg
8mm	M8-F-2.0-718	8.18mm	14.73mm	1.96mm	2.13mm	0.13mm	10898N	1.83kg
10mm	M10-F-2.0-718	10.41mm	18.24mm	1.96mm	2.16mm	0.20mm	10774N	2.82kg
10mm	M10-F-2.5-718	10.41mm	18.24mm	2.54mm	2.69mm	0.15mm	18522N	3.67kg
12mm	M12-F-2.25-718	12.40mm	21.69mm	2.29mm	2.51mm	0.23mm	14346N	4.61kg
12mm	M12-F-2.5-718	12.40mm	21.69mm	2.54mm	2.74mm	0.20mm	18309N	4.86kg
12mm	M12-F-3.2-718	12.40mm	21.69mm	3.18mm	3.35mm	0.18mm	29016N	6.48kg
14mm	M14-F-2.5-718	14.40mm	25.27mm	2.54mm	2.82mm	0.28mm	18064N	7.06kg
16mm	M16-F-3.2-718	16.36mm	29.16mm	3.18mm	3.48mm	0.30mm	28469N	11.92kg
18mm	M18-F-4.0-718	18.39mm	32.64mm	3.96mm	4.27mm	0.30mm	44687N	18.37kg
20mm	M20-F-4-718	20.60mm	36.45mm	3.96mm	4.34mm	0.38mm	44309N	22.93kg
20mm	M20-F-4.0-718	20.60mm	36.45mm	3.96mm	4.34mm	0.38mm	44309N	22.93kg
20mm	M20-F-5.0-718	20.60mm	36.45mm	5.00mm	5.31mm	0.30mm	74156N	29.58kg
22mm	M22-F-4.0-718	22.89mm	40.39mm	3.96mm	4.44mm	0.48mm	43859N	28.26kg
24mm	M24-F-4.0-718	24.82mm	43.41mm	3.96mm	4.50mm	0.53mm	43486N	32.37kg
24mm	M24-F-6.4-718	24.82mm	43.41mm	6.48mm	6.81mm	0.33mm	120876N	0.00kg
27mm	M27-F-4.0-718	27.81mm	48.69mm	3.96mm	4.62mm	0.66mm	42836N	40.77kg
30mm	M30-F-5.0-718	30.81mm	53.90mm	5.08mm	5.71mm	0.64mm	71741N	63.99kg
30mm	M30-F-6.4-718	30.81mm	53.90mm	6.48mm	7.01mm	0.53mm	119275N	79.77kg
32mm	M32-F-5.0-718	31.47mm	57.38mm	5.08mm	5.84mm	0.76mm	71314N	72.54kg
32mm	M32-F-6.4-718	32.79mm	57.38mm	6.48mm	7.06mm	0.58mm	118692N	0.00kg
33mm	M33-F-6.4-718	33.53mm	59.18mm	6.48mm	7.11mm	0.64mm	118434N	100.48kg
36mm	M36-F-5.0-718	36.80mm	65.53mm	5.08mm	6.02mm	0.94mm	69926N	96.19kg
36mm	M36-F-6.4-718	36.80mm	65.53mm	6.48mm	7.24mm	0.76mm	117433N	122.64kg
36mm	M36-F-9.5-718	36.80mm	65.53mm	9.53mm	10.06mm	0.53mm	261435N	0.00kg
42mm	M42-F-6.3-718	42.85mm	74.93mm	6.88mm	7.80mm	0.91mm	131325N	0.00kg
42mm	M42-F-9.5-718	42.85mm	74.93mm	9.53mm	10.21mm	0.69mm	258966N	0.00kg
45mm	M45-F-6.4-718	45.72mm	80.52mm	6.48mm	7.59mm	1.12mm	114319N	179.99kg
48mm	M48-F-8.0-718	49.20mm	86.08mm	8.08mm	9.12mm	1.04mm	181274N	0.00kg
48mm	M48-F-9.5-718	49.20mm	86.08mm	9.53mm	10.41mm	0.89mm	256253N	0.00kg



De: Diámetro externo

Di: Diámetro interno

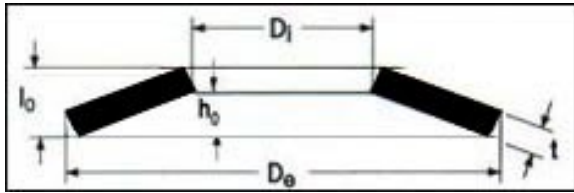
t: Espesor del material del muelle

ho: Máxima deflexión del muelle

lo: Altura total del muelle ($lo = t + ho$)

Arandelas muelles de bridas – Material H-13 Tool Steel

Métrica	Código	Di	De	t espesor	lo altura	ho deflexión	Fuerza 100%	Peso por 1.000 pcs
10mm	M10-F-2.2-H13	10.41mm	18.24mm	2.16mm	2.39mm	0.23mm	10818N	2.96kg
10mm	M10-F-2.6-H13	10.41mm	18.24mm	2.64mm	2.82mm	0.18mm	16223N	3.62kg
10mm	M10-F-3.0-H13	10.41mm	18.24mm	3.02mm	3.20mm	0.18mm	21632N	4.14kg
12mm	M12-F-2.6-H13	12.40mm	21.69mm	2.62mm	2.90mm	0.28mm	15769N	4.69kg
12mm	M12-F-3.2-H13	12.40mm	21.69mm	3.18mm	3.40mm	0.23mm	23656N	5.73kg
12mm	M12-F-3.7-H13	12.40mm	21.69mm	3.66mm	3.86mm	0.20mm	31542N	7.14kg
14mm	M14-F-3.0-H13	14.40mm	25.27mm	3.05mm	3.35mm	0.30mm	21658N	0.00kg
14mm	M14-F-3.7-H13	14.40mm	25.27mm	3.71mm	3.96mm	0.25mm	32503N	0.00kg
14mm	M14-F-4.3-H13	14.40mm	25.27mm	4.27mm	4.50mm	0.23mm	43317N	11.33kg
16mm	M16-F-3.6-H13	16.36mm	29.16mm	3.61mm	3.99mm	0.38mm	30159N	12.94kg
16mm	M16-F-4.4-H13	16.36mm	29.16mm	4.39mm	4.70mm	0.30mm	45238N	15.80kg
16mm	M16-F-5.1-H13	16.36mm	29.16mm	5.11mm	5.38mm	0.28mm	60318N	17.12kg
18mm	M18-F-4.2-H13	18.39mm	32.64mm	4.19mm	4.57mm	0.38mm	41324N	0.00kg
18mm	M18-F-5.0-H13	18.39mm	32.64mm	5.05mm	5.38mm	0.33mm	60852N	21.20kg
18mm	M18-F-5.9-H13	18.39mm	32.64mm	5.89mm	6.17mm	0.28mm	83360N	24.66kg
20mm	M20-F-4.5-H13	20.60mm	36.96mm	4.47mm	4.88mm	0.41mm	46573N	24.29kg
20mm	M20-F-5.4-H13	20.60mm	36.96mm	5.44mm	5.79mm	0.36mm	69869N	29.55kg
20mm	M20-F-6.1-H13	20.60mm	36.96mm	6.15mm	6.45mm	0.30mm	93146N	33.40kg
22mm	M22-F-5.3-H13	22.89mm	40.39mm	5.31mm	5.82mm	0.51mm	61652N	35.37kg
22mm	M22-F-6.4-H13	22.89mm	40.39mm	6.45mm	6.88mm	0.43mm	92478N	41.77kg
22mm	M22-F-7.4-H13	22.89mm	40.39mm	7.42mm	7.80mm	0.38mm	123305N	49.35kg
24mm	M24-F-5.4-H13	24.82mm	43.41mm	5.38mm	5.92mm	0.53mm	67124N	39.27kg
24mm	M24-F-6.5-H13	24.82mm	43.41mm	6.53mm	6.96mm	0.43mm	100685N	48.18kg
24mm	M24-F-7.5-H13	24.82mm	43.41mm	7.52mm	7.90mm	0.38mm	134247N	58.57kg
27mm	M27-F-5.9-H13	27.81mm	48.69mm	5.97mm	6.60mm	0.64mm	88075N	53.85kg
27mm	M27-F-7.3-H13	27.81mm	48.69mm	7.26mm	7.80mm	0.53mm	132112N	67.85kg
27mm	M27-F-8.4-H13	27.81mm	48.69mm	8.38mm	8.81mm	0.43mm	176683N	74.65kg
30mm	M30-F-6.8-H13	30.81mm	53.92mm	6.78mm	7.42mm	0.64mm	107291N	76.78kg
30mm	M30-F-8.3-H13	30.81mm	53.92mm	8.25mm	8.79mm	0.53mm	160937N	93.32kg
30mm	M30-F-10.1-H13	30.81mm	53.92mm	9.50mm	9.98mm	0.48mm	214582N	107.60kg
32mm	M32-F-8.4-H13	32.54mm	58.67mm	7.65mm	8.38mm	0.74mm	133447N	107.31kg
32mm	M32-F-10.2-H13	32.54mm	58.67mm	9.55mm	10.16mm	0.61mm	200170N	140.38kg
32mm	M32-F-10.9-H13	32.54mm	58.67mm	10.72mm	11.25mm	0.53mm	266893N	150.91kg
33mm	M33-F-7.6-H13	33.53mm	59.18mm	7.57mm	8.25mm	0.69mm	133847N	104.87kg
33mm	M33-F-9.2-H13	33.53mm	59.18mm	9.22mm	9.80mm	0.58mm	200770N	125.66kg
33mm	M33-F-10.6-H13	33.53mm	59.18mm	10.62mm	11.13mm	0.51mm	267694N	155.27kg



De: Diámetro externo

Di: Diámetro interno

t: Espesor del material del muelle

ho: Máxima deflexión del muelle

lo: Altura total del muelle ($lo = t + ho$)

Arandelas muelles de bridas – Material H-13 Tool Steel

Métrica	Código	Di	De	t espesor	lo altura	ho deflexión	Fuerza 100%	Peso por 1.000 pcs
36mm	M36-F-8.2-H13	36.80mm	65.53mm	8.18mm	8.99mm	0.81mm	157053N	141.59kg
36mm	M36-F-10.0-H13	36.80mm	65.53mm	9.96mm	10.64mm	0.69mm	235582N	171.17kg
36mm	M36-F-11.5-H13	36.80mm	65.53mm	11.46mm	12.04mm	0.58mm	314107N	177.06kg
39mm	M39-F-9.2-H13	39.62mm	68.07mm	9.25mm	9.98mm	0.74mm	199280N	0.00kg
39mm	M39-F-11.2-H13	39.62mm	68.07mm	11.25mm	11.86mm	0.61mm	298551N	0.00kg
39mm	M39-F-13-H13	39.62mm	68.07mm	12.95mm	13.54mm	0.58mm	398205N	230.41kg
40mm	M40-F-9.8-H13	40.54mm	73.15mm	9.80mm	10.67mm	0.86mm	228434N	0.00kg
40mm	M40-F-11.9-H13	40.54mm	73.15mm	11.91mm	12.62mm	0.71mm	341307N	0.00kg
40mm	M40-F-13.9-H13	40.54mm	73.15mm	13.92mm	14.48mm	0.66mm	469020N	317.16kg
42mm	M42-F-10.2-H13	42.85mm	74.93mm	10.41mm	11.28mm	0.86mm	237535N	226.32kg
42mm	M42-F-12.4-H13	42.85mm	74.93mm	12.67mm	13.36mm	0.69mm	356302N	272.50kg
42mm	M42-F-14.6-H13	42.85mm	74.93mm	14.58mm	15.21mm	0.64mm	475960N	314.65kg
48mm	M48-F-12.0-H13	48.23mm	86.08mm	11.81mm	12.83mm	1.02mm	321606N	0.00kg
48mm	M48-F-14.6-H13	48.23mm	86.08mm	14.38mm	15.21mm	0.84mm	482409N	423.81kg
48mm	M48-F-15.0-H13	48.23mm	86.08mm	14.76mm	15.60mm	0.84mm	509210N	431.30kg
52mm	M52-F-13.0-H13	52.81mm	91.44mm	13.03mm	14.00mm	0.86mm	398449N	0.00kg
52mm	M52-F-15.8-H13	52.81mm	91.44mm	15.80mm	16.66mm	0.86mm	585275N	522.10kg
52mm	M52-F-18.2-H13	52.81mm	91.44mm	18.24mm	0.00mm	0.64mm	792895N	0.00kg
72mm	M72-F-25.3-H13	73.51mm	128.63mm	25.32mm	26.34mm	1.02mm	1535214N	0.00kg
72mm	M72-F-22.1-H13	73.51mm	128.65mm	22.15mm	23.29mm	1.14mm	1145550N	1,460.52kg
72mm	M72-F-18.1-H13	73.51mm	128.74mm	18.06mm	19.46mm	1.40mm	768030N	0.00kg
80mm	M80-F-19-H13	81.53mm	140.00mm	19.05mm	20.57mm	1.52mm	900115N	0.00kg
80mm	M80-F-24.5-H13	81.53mm	140.00mm	24.49mm	25.68mm	1.19mm	1417025N	0.00kg
80mm	M80-F-27-H13	81.53mm	140.00mm	26.59mm	27.69mm	1.09mm	1783959N	2,015.99kg
85mm	M85-F-21.2-H13	86.11mm	148.34mm	21.21mm	22.76mm	1.55mm	1053561N	0.00kg
85mm	M85-F-26.3-H13	86.11mm	148.34mm	26.34mm	27.58mm	1.24mm	1651295N	2,331.34kg
85mm	M85-F-29.8-H13	86.11mm	148.34mm	29.77mm	30.89mm	1.12mm	2112838N	0.00kg
90mm	M90-F-21.3-H13	90.75mm	155.57mm	21.36mm	22.89mm	1.52mm	1069147N	2,033.92kg
90mm	M90-F-30.6-H13	90.75mm	155.57mm	30.61mm	31.80mm	1.19mm	2222491N	2,853.28kg
110mm	M110-F-27.4-H13	111.76mm	196.09mm	27.43mm	29.57mm	2.13mm	1771726N	0.00kg
110mm	M110-F-33.4-H13	111.76mm	196.09mm	33.43mm	35.20mm	1.78mm	2659431N	0.00kg
110mm	M110-F-38.5-H13	111.76mm	196.09mm	38.48mm	40.01mm	1.52mm	3544520N	0.00kg