Sentalloy® Coil Spring Kits

Two kits with an assortment of springs and force values are available for your convenience.

.018 Sentalloy Coil Springs Kit
Ref# 10-001-00 .018 KIT

Ref #	Description	PCS	Name	GMS	Color
10-000-03	Closed Coil w/eyelets	(4) 3mm	Light	100g	Blue
10-000-02	Closed Coil w/eyelets	(4) 3mm	Medium	150g	Yellow
10-000-01	Closed Coil w/eyelets	(4) 3mm	Heavy	200g	Red
10-000-06	Closed Coil w/lig wire	(4) 3mm	Light	100g	Blue
10-000-05	Closed Coil w/lig wire	(4) 3mm	Medium	150g	Yellow
10-000-04	Closed Coil w/lig wire	(4) 3mm	Heavy	200g	Red
10-000-09	Open Coil	(4) 15mm	Light	100g	Blue
10-000-08	Open Coil	(4) 15mm	Medium	150g	Yellow
10-000-07	Open Coil	(4) 15mm	Heavy	200g	Red
	Crimpable Sliding Hook	(10)	.018 x .028		
	Crimpable Stop Tube	(10)	.018 x .028		

.022 Sentalloy Coil Springs Kit
Ref# 10-002-00 .022 KIT

Ref #	Description	PCS	Name	GMS	Color
10-000-03	Closed Coil w/eyelets	(4) 3mm	Light	100g	Blue
10-000-02	Closed Coil w/eyelets	(4) 3mm	Medium	150g	Yellow
10-000-01	Closed Coil w/eyelets	(4) 3mm	Heavy	200g	Red
10-000-06	Closed Coil w/lig wire	(4) 3mm	Light	100g	Blue
10-000-05	Closed Coil w/lig wire	(4) 3mm	Medium	150g	Yellow
10-000-04	Closed Coil w/lig wire	(4) 3mm	Heavy	200g	Red
10-000-09	Open Coil	(4) 15mm	Light	100g	Blue
10-000-08	Open Coil	(4) 15mm	Medium	150g	Yellow
10-000-07	Open Coil	(4) 15mm	Heavy	200g	Red
	Crimpable Sliding Hook	(10)	.022 x .028		
	Crimpable Stop Tube	(10)	.022 x .028		

References

1. Miura F., Mogi M., Ohura Y., Hamanaka H. The Super-Elastic Property of the Japanese NiTi Alloy Wire for use in Orthodontics, AMJ ORTHO DENTOFAC ORTHOP 1986; 90: 1-10.

2. Miura F., Mogi M., Ohura Y., Karibe M., The Super-Elastic Japanese NiTi Alloy Wire for use in Orthodontics Part III Studies on the Japances NiTi Alloy Coil Springs, AMJ ORTHO DENTOFAC ORTHOP 1988; 94: 89-96.

3. Gianelly A., Badnar J., Dietz V. Japanese NiTi Coils Used To Move Molars Distally, AMJ ORTHO DENTOFAC ORTHOP 1991: 99; 564-566.

U.S. Patent #4,849,032 U.S. Patent #5,046,948

⚠ **Warning:** Device contains nickel which may cause allergic reactions.

Waarschuwing: Dit hulpmiddel bevat nikkel, deze stoffen kunnen allergische reacties veroorzaken.

Mise en garde: Ce dispositif contient du nickel susceptibles d'entraîner des réactions allergiques.

Warnung: Dieses Produkt enthält Nickel, die allergische Reaktionen auslösen können.

Avvertenza: Il dispositivo contiene nichel, che possono causare reazioni allergiche.

Advertencia: El dispositivo contiene níquel que pueden causar reacciones alérgicas.

Aviso: o dispositivo contém níquel epode causar reações alérgicas.

Dentsply Sirona Orthodontics

DENTSPLY GAC Europe
1 rue des Messagers
37210 Rochecorbon, France

120-010-01 02/2018

Dentsply Sirona
Orthodontics

Sentalloy®
Coil Springs

Super-elastic, consistent forces.

The Sentalloy® Difference.

GAC's Sentalloy Coil Springs, the first super-elastic coil, deliver a gentle, continuous force to move teeth without periodontal stress. All that is needed to realize treatment objectives with Sentalloy is normal body heat, which activates the Martensitic Reaction. At other than body temperatures, the coils appear ordinary and, therefore, cannot be "bench tested." When warmed to body temperature, however, the light, continuous force and shape memory are activated. Because of Sentalloy's super-elasticity, the constant force will be exerted when activated within normal orthodontic ranges, regardless of deformation.

For the orthodontist, Sentalloy provides the ideal physiological tooth movement without patient cooperation or "round-tripping." Sentalloy also allows for fewer wire changes and office visits. For the patient, the light constant force may offer greater comfort and positive treatment results.

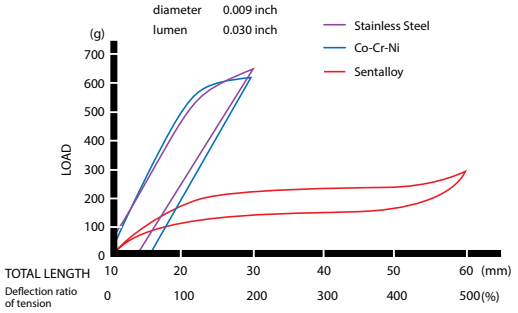


Fig. 1. Comparative load deflection curves for Sentalloy closed coil spring and commercially available stainless steel closed coil springs.[2]

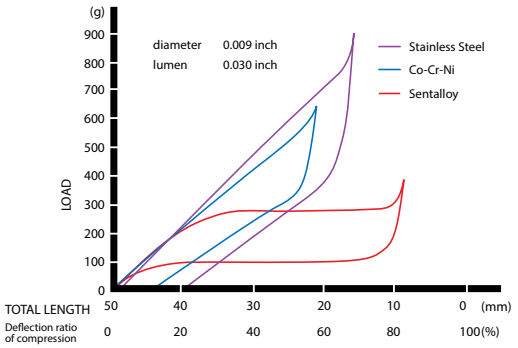


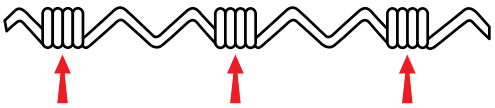
Fig. 2. Comparative load deflection curves for Sentalloy open coil spring and commercially available Co-Cr-Ni open coil springs.[2]

Sentalloy® Stop Wound™ Open Coil Springs Cutting Instructions

Sentalloy Stop Wound Open Coil Springs are packaged individually or in three 7" lengths to a tube. Each length is quadruple wound every 4mm. After determining the length of coil needed, simply cut the wire at the center of the tight spiral as indicated below:

The quadruple wind can be cut by having one person stretch the wind while another person makes the cut; or by using a separating plier to stretch the wind and a hard wire cutter to make the cut.

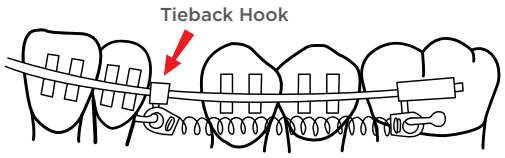
Sentalloy Stop Wound Open Coils with a standard lumen of .035" are available in forces of 50, 100, 150 and 200 grams. .045" compatible coils are available in 150 grams of force only.



Ref #	PCS	Name	GMS	Color	Lumen
10-000-27	(3) 7"	Extra Light	50g	Black	.035
10-000-21	(3) 7"	Light	100g	Blue	.035
10-000-22	(3) 7"	Medium	150g	Yellow	.035
10-000-45	(3) 7"	Medium	150g	Yellow	.045
10-000-23	(3) 7"	Heavy	200g	Red	.035

Anterior Retracting Springs

Anterior Retracting Springs are available for segmented retraction of the maxillary four incisors. The increased force in these springs was designed to overcome the resistance of the roots and the rectangular arch wire. Stops may be set on the arch wire to ensure the proper destination. The eyelets are engaged from our crimped hook or an arch wire lock to the molar hook. Typically you may expect 1mm of movement per month of activation.



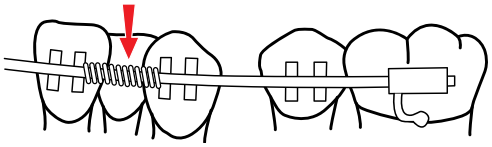
10-000-20 Anterior Retraction 300 g White

Sentalloy® Open Coil Springs

Open, or compression, coils are 15 mm in length when passive and may be compressed to 3mm. Between these points, the coil will exert 50 (extra light), 100 (light), 150 (medium), 200 (heavy), 250 (extra heavy), or 300 (XX Heavy) grams of force until 14mm, and then the force falls to 0 as it becomes passive again. No distortion will occur during movement. These low forces limit patient discomfort, and ensure good circulation in the periodontal pocket during movement. Typically, you will see 4mm of space opened in three months (this varies depending on the age and health of the patient).

To engage the open coils, mark the arch wire where the mesial and distal tooth destinations are located. Crimp on the mesial stop and ligate the arch wire up to the point where the spring is to be placed. Slide the coil over the arch wire and crimp on the distal stops. Ligate the balance of the wire. Since the Sentalloy coil needs about 1/10 as much wire as steel, good hygiene is much easier, but do advise the patient to rinse and brush around the coil. No other adjustment is needed.

Open Coil Spring



Ref #	PCS	Name	GMS	Color
10-000-24	(10) 15mm	Extra Light	50g	Black
10-000-09	(10) 15mm	Light	100g	Blue
10-000-08	(10) 15mm	Medium	150g	Yellow
10-000-07	(10) 15mm	Heavy	200g	Red
10-000-17	(10) 15mm	Extra Heavy	250g	Green
10-000-19	(10) 15mm	XX Heavy	300g	White

Sentalloy® Closed Coil Springs

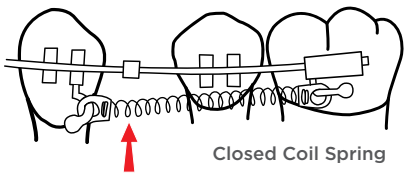
Closing spaces with closed Sentalloy coil springs brings unprecedented results. Two designs are available:

1. Two eyelets: The initial length is 3mm unactivated (this does not include the eyelet lengths). These can be activated to 15mm without any deformation or change in force. No change in force will be seen as the coil contracts, reducing the space. To engage, slide over a molar hook and slowly stretch to the post on the cuspid bracket or a sliding hook on the arch wire. Use a locking Mathieu plier on the widened platform of the eyelet. If you do not use the cuspid post, tie the arch wire to the tooth you wish to move, slide on the sliding hook, then tie in the balance of the wire. Now engage the spring as above.

2. For an eyelet with ligature wire, you have the option of hooking the eyelet on the molar, then activating the spring and tying it to the cuspid bracket with the .008" ligature wire. Should you wish to span an area greater than 15 mm, measure the span first. Then place the coil on the molar hook and activate the coil 10mm. Tie the ligature wire to the bracket.

Closed Coil Spring With Eyelet

Ref #	PCS	Name	GMS	Color
10-000-26	(10) 3mm	Ultra Light	25g	Purple
10-000-25	(10) 3mm	Extra Light	50g	Black
10-000-03	(10) 3mm	Light	100g	Blue
10-000-02	(10) 3mm	Medium	150g	Yellow
10-000-01	(10) 3mm	Heavy	200g	Red
10-000-18	(10) 3mm	Extra Heavy	250g	Green
10-000-20	(10) 3mm	Anterior	300g	White



Closed Coil Spring

Closed Coil Spring With Ligature Wire

Ref #	PCS	Name	GMS	Color
10-000-06	(10) 3mm	Light	100g	Blue
10-000-05	(10) 3mm	Medium	150g	Yellow
10-000-04	(10) 3mm	Heavy	200g	Red