

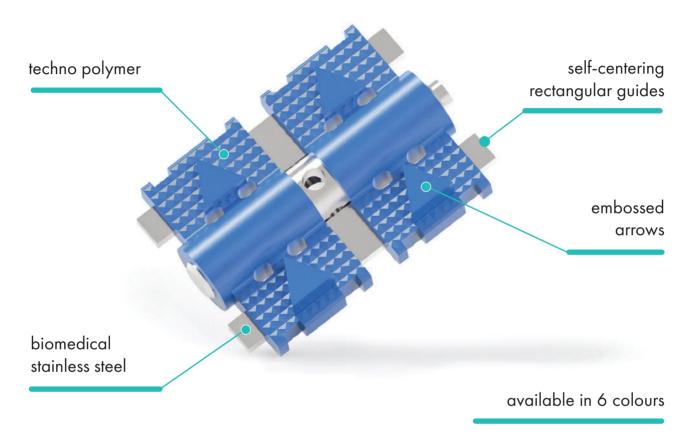


POP® EXPANSION SCREWS PERFECT ORTHODONTIC PERFORMANCE





The innovative and biomechanical orthodontic expansion screw*



- Made of stainless steel and biomedical techno polymer.
- The male screw is not in contact with the orthodontic acrylic resin: the function of the screw will not be influenced by the quality of the technical procedure and a non-compliant curing time.
- Continuous expansion movement: the high pressure injection of the polymer allows the perfect copy of the male thread of the screw thus ensuring a steady expansion transmission without the risk of undesired turning back in the mouth.
- The self-centering rectangular guides ensure a biomechanical and absolutely controlled symmetrical expansion.
- The flat shape of the guides and their flexibility allow the gradual release of the expansion with a physiological orthodontic movement.

*PATENTED



POP® expansion screws Perfect Orthodontic Performance

- The flexibility of the screw allows the adjustments of any dental regress due to inconsistent use of the appliance by the patient, thus being very effective with holding devices following a rapid expansion treatment.
- The high adaptability of the appliance enables a comfortable application in the mouth in the days following re-activation.
- Two embossed arrows on the body indicate the direction of opening. When using a color of acrylic resin similar to the polymer body, a white arrow provided with the plastic placement tab may be easily applied to make the direction of activation visible.
- The placement plastic tab, made of two pieces combined with a unique geometry, allows a perfect protection of the holes from the acrylic resin during the packing procedure and facilitates the removal after the curing cycle.
- The screw body is available in 6 colours.















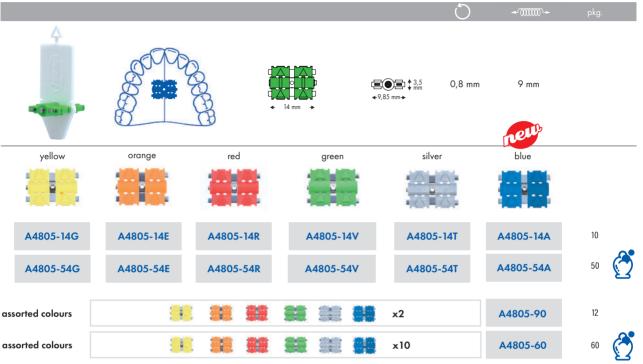




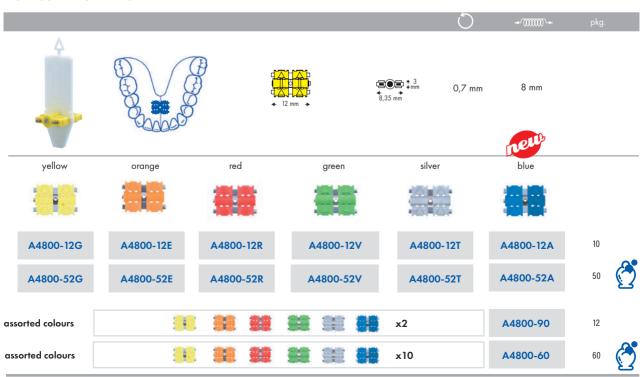
POP® expansion screws Perfect Orthodontic Performance



POP® SCREW FOR UPPER ARCH

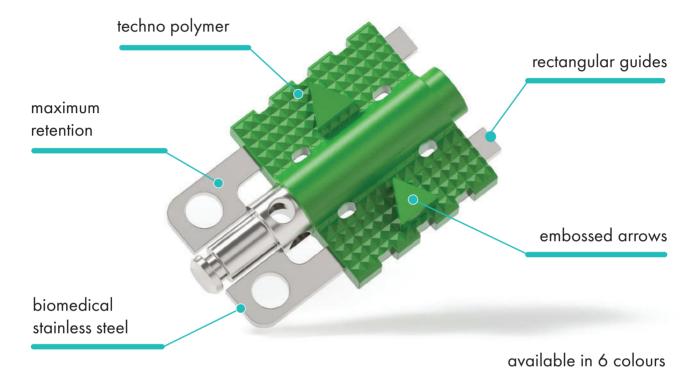


POP® SCREW UNIVERSAL









- The new POP® MICRO SECTIONAL SCREW is added to the already known POP SCREW range to increase the therapeutic chances.
- Made of stainless steel and biomedical techno polymer.
- The male screw is not in contact with the orthodontic acrylic resin: its functionabilty will not be influenced by the quality of the technical procedure and/or of non-compliant curing time.
- Continuous expansion movement: the high pressure injection of the polymer allows the perfect copy of the male screw thread thus ensuring a steady expansion transmission without the risk of undesired turning back into the mouth.
- The flat shape of the guides and their flexibility allow a more gradual deliver of the expansion forces for a physiological orthodontic movement.
- The metallic anchorage side of the screw has two through-holes in order to increase retention into the acrylic.
- The flexibility of the screw could compensate slight relapse due to inconsistent use of the appliance by the patient.

POP® Micro sectional screw

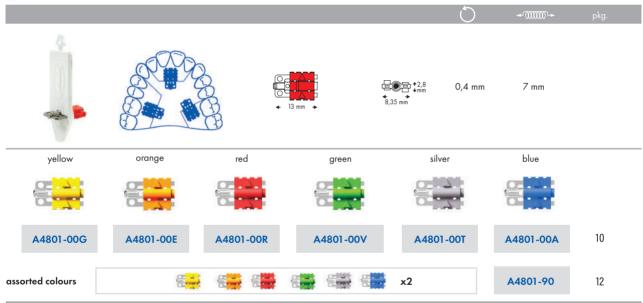


- The high adaptability of the appliance enables a comfortable application into the mouth even in the days following re-activation.
- Two embossed arrows on the body indicate the direction of opening. When using a color of acrylic resin similar to the polymer body, a white arrow provided with the plastic placement tab may be easily snapped on to make the direction of activation more visible.
- Available in 6 colors.





POP® MICRO SECTIONAL SCREW

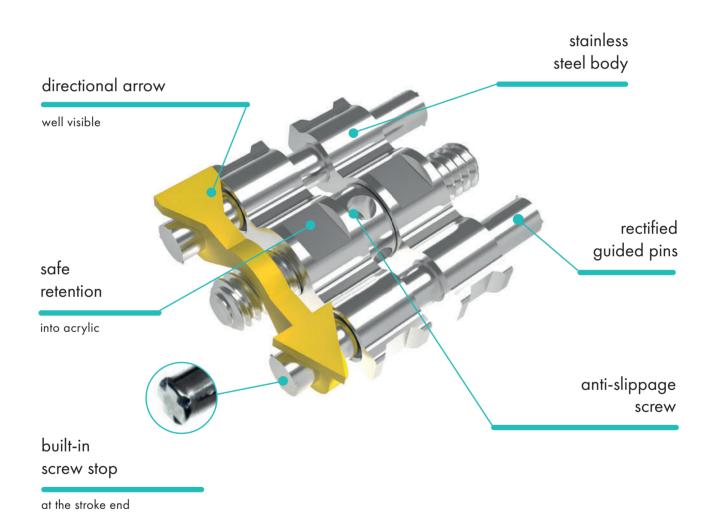






STANDARD EXPANSION SCREWS

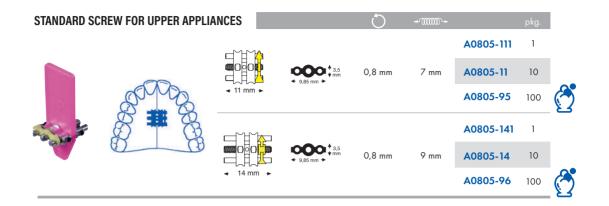
The Leone expansion screws for removable orthodontic appliances derive from 80 years of extensive research, design and millions of clinical cases. The entire production process takes place in Italy with computer aided automated machines. The screws are made of biomedical stainless steel of the highest quality and male screw threads with centesimal tolerances and total absence of surface roughness. The bodies and the guides are made with tolerances of +/-0.01 mm which ensure stability and precision. The wide range available allows the production of any type of removable device.

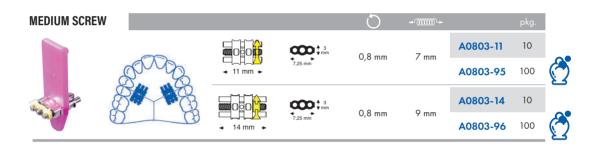


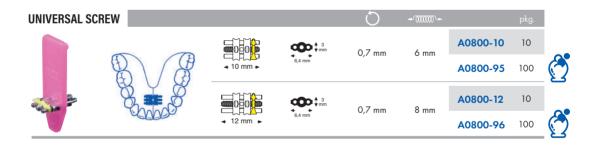
www.leone.it

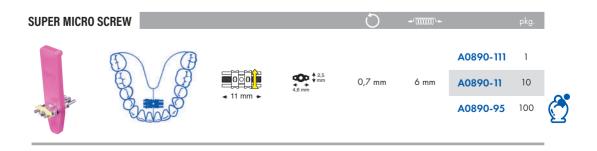
standard expansion screws







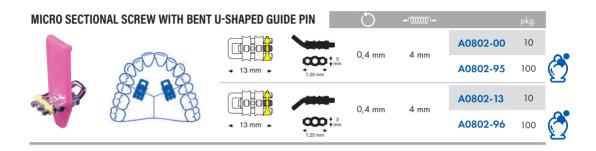


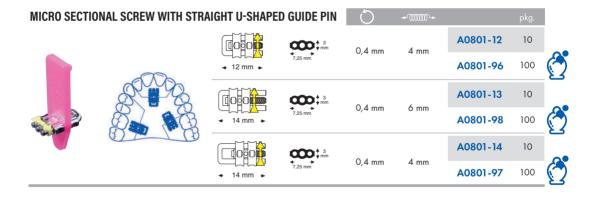


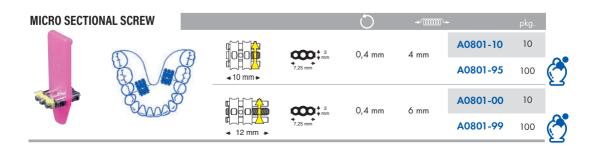


standard expansion screws









SPECIAL PURPOSE EXPANSION SCREWS



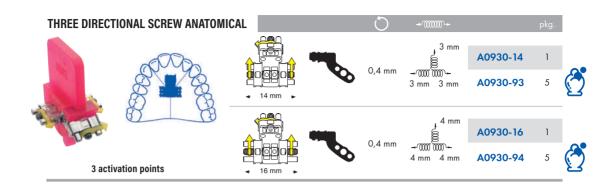
The assortment of special expansion screws proposed by Leone derives from over 30 year experience in the manufacture of expansion screws. The screw selection ranges from the Pagani classical fan-type screw, to the Bertoni three directional ones up to the kit for the construction of the Twin Wing class II corrector.

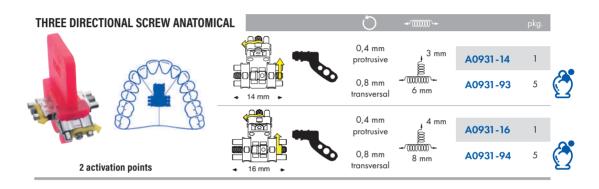
The special purpose expansion screws are made of biomedical stainless steel with a mechanical tolerance superior to 1/100 mm. The thread parts are absolutely smooth and they ensure great sturdiness, good friction and prevent from any unwanted turning back.

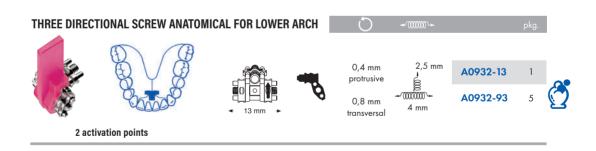


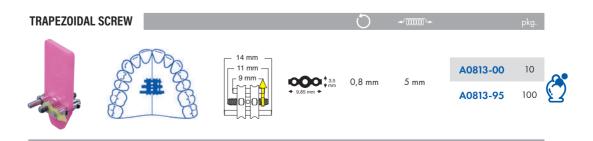


special purpose expansion screws



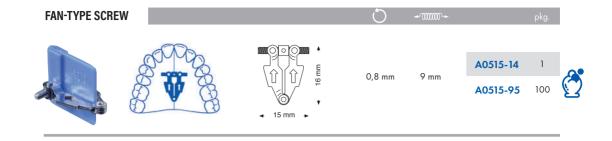


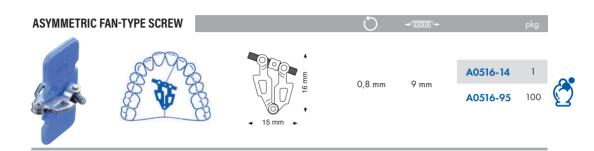


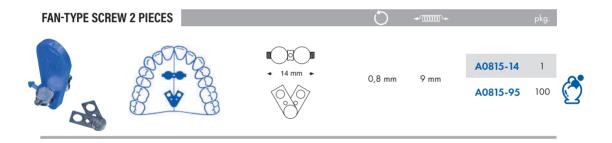


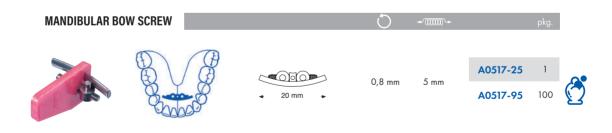
special purpose expansion screws

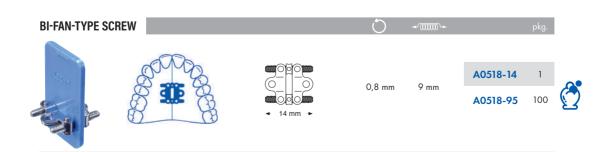


















CLASS II CORRECTOR KIT

A0840-05 1 appliance

Thanks to our experience gained with MAD appliance and based on the fundaments of the most widely used orthodontic appliance for the treatment of Class II patients with mandibular retraction, we have miniaturized and reengineered the Forward! to manufacture the Twin Wing.

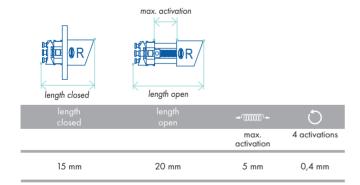
The kit, especially designed for the realization of this innovative appliance, contains all the components for an easier and more precise construction.

The appliance, thanks to the 70° inclination between the upper screws and the lower wings, scientifically and clinically proven as the most efficient for the stimulation of the mandibular growth, allows the millimetric advancement of the lower iaw.

Moreover, in case of deep bite, since the occlusal surface can be kept free from the presence of block, it is possible to exclude some teeth from the contact with the acrylic, promoting a guided extrusion and consequently the resolution of vertical problems.

The kit for the construction of 1 appliance is made up of:

- 2 upper screws, 1 right and 1 left
- 2 lower wings with steel frame, 1 right and 1 left





REFILLS FOR TWIN WING

A0841-00

Lower wings with inner steel frame



Pack content:

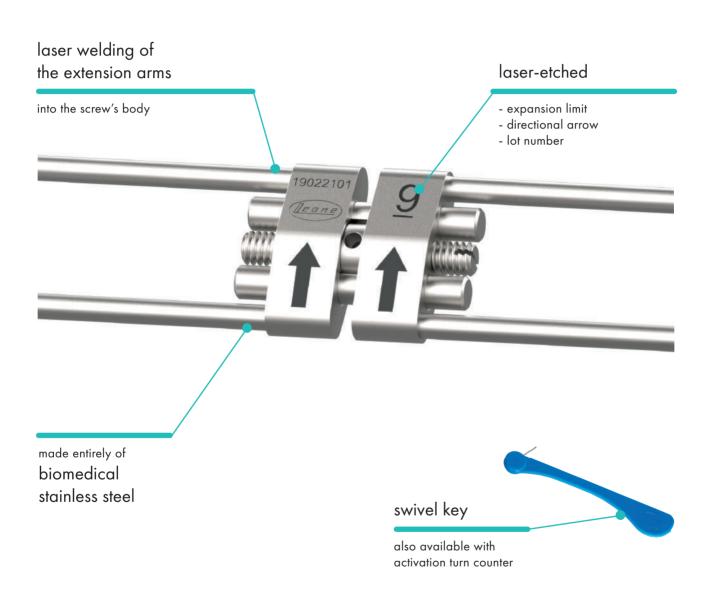
- 1 lower right wing with steel frame
- 1 lower left wing with steel frame

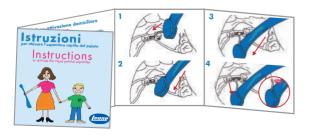
PALATAL EXPANDERS



Leone palatal expanders have been known worldwide for more than 50 years and are now the most complete range of expanders in the market. The 620 series is a superior product made in various dimensions with many advanced features including laser welding of the extension arms into the body of the expander for greater strength and stability.

The automated manufacturing process and quality control with the highest standards allow us to confidently say that we are offering the best palatal expanders in the world today.





instructions for use of expanders

useful for parents and doctor







RAPID EXPANDER

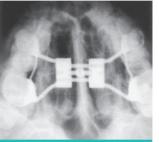
The best-selling palatal expander in the world

Made entirely of biomedical stainless steel. The housing design is completely smooth, with no rough areas for a secure hygiene. The expander limit, a directional arrow and the lot number are laser etched into the surface of the expander body. Supplied with a swivel key with handle and instructions for use to facilitate the patient endoral activation.

The arm bending and self-locking instrument REF P0620-00 (page 35) is also available

Pack of 1





		Ø	←→		Ö	
11 mm	4 mm	arms	body			for maximum expansion limit
	A0620-08	1,5 mm	12 mm	8 mm	0,8 mm	35
Ī	A0620-09	1,5 mm	14 mm	9 mm	0,8 mm	40
= 1	A0620-11	1,5 mm	16 mm	11 mm	0,8 mm	50
	A0620-13	1,5 mm	18 mm	13 mm	0,8 mm	60
	A0620-15	1,5 mm	20 mm	15 mm	0,8 mm	70



A0600-00

PROTECTIVE TAB* FOR HAAS-STYLE PALATAL EXPANDER

Made of two parts it allows for safe and easy protection of the activation holes from resin for rapid expanders A0620 type and the realization of expanders with palatal acrylic plate.

Pack of 10





Unlock the expander with 1 activation hole and fit the bottom into the space between the two bodies, then lock the expander again.



Simply apply the upper part of the tab which is shaped to cover and protect the holes on screw's head from acrylic.



Once embedded into the acrylic plate, remove the top of the tab and, after cutting the resin, unlock the expander for some holes, and the rear part will also be easily removed.



RAPID EXPANDER WITH PRE-BENT ARMS

Exactly the same as A0620 expander for all technical features and materials used, but designed with pre-bent arms to facilitate the work in the laboratory. The front arms are more inclined than the rear arms to allow the positioning of the expander's body in the most comfortable way for the patient with the best biomechanical results. Provided with one swivel key with handle and instructions for use to facilitate the patient endoral activation.

Pack of 1



11 mm	4 mm	Ø arms	body	- ∕‱⊶	Ö	activation turns for maximum expansion limit
	A0620W08	1,5 mm	12 mm	8 mm	0,8 mm	expansion limit
	1 A0620W09	1,5 mm	14 mm	9 mm	0,8 mm	40
	A0620W11	1,5 mm	16 mm	11 mm	0,8 mm	50
	A0620W13	1,5 mm	18 mm	13 mm	0,8 mm	60





RAPID EXPANDER WITH TELESCOPIC GUIDES*

The innovative telescopic guides assure a constant friction throughout the expansion movement, a perfect stability and small sizes. It self deactivates when maximum expansion capacity has been achieved preventing from overtreatment. The 7 mm expander is ideal to treat very narrow palates.

The expanders with 10 and 12 mm sizes feature a compact design for ease of arm bending and reducing the overall dimensions of the device.

Supplied with a swivel key with handle and instructions for use to facilitate patient endoral activation.

The arm bending and self-locking instrument REF P0620-00 (page 35) is also available.

Pack of 1



			Ø	←→		Ö	activation turns
11 mm	4 mm		arms	body			for maximum expansion limit
- 1	7	A2620-07	1,5 mm	11 mm	7 mm	0,8 mm	35
1	O	A2620-10	1,5 mm	14 mm	10 mm	0,8 mm	50
1 2	12	A2620-12	1,5 mm	16 mm	12 mm	0,8 mm	60





telescopic guide pins*

avoid the possibility of spontaneous deactivation in the mouth

*INTERNATIONAL PATENT





MICRO EXPANDER

Featured by a significantly smaller body bulk than other competing expanders

It features two extra-long arms also performing support for anteriors and ensuring excellent stability and comfort for the patient.

The micro expander can also be used for the expansion of the lower jaw. Provided with one swivel key with handle and instructions for use to facilitate the patient endoral activation.

The arm bending and self-locking instrument REF P0621-00 (page 35) is also available.

Pack of 1



lower arch expansion



arm length 68 mm





- It can be positioned in the standard way, i.e. with the markings of the arrow and maximum expansion visible
- or it can also be positioned upside down with the two arrows visible, in case of very narrow palates, to minimize the bulkiness of the arms once they are bent.

<u>&</u>	& I	Ø	Ö	←→		activation turns
4,95 mm	4,05 mm	arms 1,5 mm	0,8 mm	body mm		for maximum expansion limit
	<u></u>		A0621-08	12	8	35
			A0621-11	16	11	50







MICRO EXPANDER FOR PALATAL SUTURE

A1621 expander called "Easy Access" is comparable to the existing A0621, but once placed in the device, the body of the screw will remain closer to the palate with minimized overall dimensions; the head with activation holes remains in front position respect to the guide pin for easier activation with the key.

Provided with one swivel key with handle and instructions for use to facilitate the patient endoral activation.

The arm bending and self-locking instrument REF P0621-00 (page 35) is also available.

Pack of 1





Swivel key included in the package

anterior position

holes of activation



easy access

for key activation



3 expansion value

for any therapeutic treatment

<u>&</u>	∆ ‡	Ø	Ö	←→	- ((((((())))))-	activation turns
4,95 mm	4,05 mm	arms 1,5 mm	0,8 mm	body mm		for maximum expansion limit
				10	•	25
			A1621-08	12	8	35
				= 16	11	50
			A1621-11			
	() \(\bar{\open}\)			= 18	13	60
			A1621-13			







RAPID EXPANDER WITH ORTHOGONAL ARMS

The new Leone anatomical expander is the ideal solution for patients who need orthopedic maxillary expansion, as it allows the manufacture of devices with limited dimensions, maximum stability, comfort and safety. The small size of the body and the orthogonal arrangement of the bending arms allow an optimal positioning of the expander even in case of severe contraction and favor the biomechanical control of the expansion.

The unique self-centering system of the guides ensures a symmetrical and stable expansion.

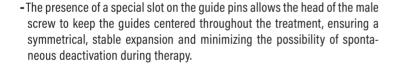
The package includes a swivel key with handle and instructions for use to facilitate the home endoral activation.

The arm bending and self-locking instrument REF P0630-00 (page 35) is also available.

Pack of 1



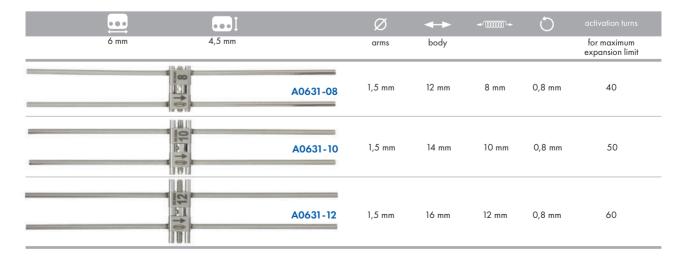
- The orthogonal position of the arms reduces the overall size of the device.
- The arms are placed within a through-hole into the body and the external laser welding make them to form an integral part of the expander, thus ensuring maximum safety and comfort for the patient.
- Compared to the previous version, the outer position of the arms inside the bodies works on further reducing the overall size and facilitates the adaptation of the expander by the technician.







- Two different placements are possible thanks to the marking of the arrows on both sides of the screw.
- Available in three expansion capacities for every therapeutic need.







RAGNO FAN-TYPE RAPID EXPANDER AND MINI RAPID EXPANDER*

Conceived with the cooperation of Dr. Eleonora Schellino and Prof. Remo Modica

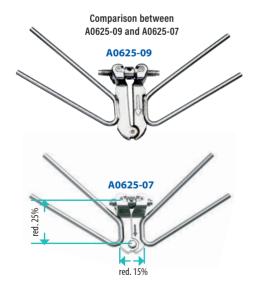
Made entirely of biomedical stainless steel. The expanding arms are laser welded to the screw body. Laser engraved directional arrows on the **MIM**® body. It is a device for the rapid expansion of the palate that allows you to get a widening of the single anterior sector of the maxillary arch, still maintaining minimum the expansion in the posterior sector. It self-deactivates when maximum expansion capacity has been achieved preventing overtreatment. The difference between the two models is the geometric shape of the front part: A0625-07 is designed to be placed as high as possible in the palate vault thus ensuring the minimum bulkiness achievable. The overall size is approximately 20-25% less than the 9 mm version.

Provided with one swivel key with handle and instructions for use to facilitate the patient endoral activation.

The arm bending and self-locking instruments REF P0625-09 for expander A0625-09 and REF P0625-07 for A0625-07 mini expander (page 35) are also available.

Pack of 1





	~ ()))))))~	Ó	activation turns
			for maximum expansion limit
A0625-09	9 mm	0,9 mm	40

	\cup	activation turns
		for maximum expansion limit
7 mm	0,9 mm	31
	7 mm	7 mm 0,9 mm



PALATAL EXPANDER FOR TADS





It allows the manufacturing of totally PE S It allows the manufacturing of total customized expanders both hybrid (teeth and TADs) and fully Bone Borne

PALATAL EXPANDER FOR TADS

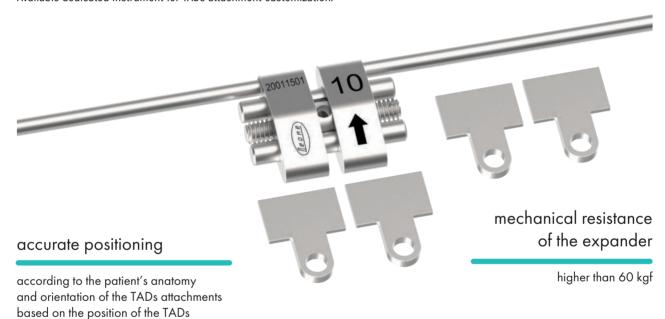
It features two posterior arms, and, in the package, 4 dedicated TAD attachments are included that can be adapted to patient's anatomy and welded by the lab on the body of the screw.

The enhanced strength of the expander ensures high mechanical resistance to apply high forces necessary for MARPE therapy (miniscrew assisted rapid palatal expander) even in adult patients.

Thanks to the adaptable TADs attachments, it is possible to highly customize the rapid palatal expander on each patient anatomy, both in TADs-first and in TADs-last approach. Therefore an optimized expansion load distribution on the TADs can be achieved.

Pack content:

- 4 attachments for TAD
- 1 stainless steel wrench
- 1 strengthened swivel key with handle
- instructions for the patient to facilitate endoral activation at home Available dedicated instrument for TADs attachment customization.





instructions to activate the expander

useful for parents and clinicians

strengthened swivel key

The intraoral activation key dedicated to these expanders and supplied inside the package, is characterized by a high resistance and its use is mandatory to allow the full transmission of the expansive force



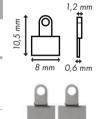




palatal expander for TADs



relie								
				Ø	←→	~ ()))))))~	Ó	
	11 mm		4 mm	arms	body			for maximum expansion limit
		8	201A0620-08	1,5 mm	12 mm	8 mm	0,8 mm	40
		10	201A0620-10	1,5 mm	15 mm	10 mm	0,8 mm	50
	_	12 0 1	201 A0620-12	1,5 mm	17 mm	12 mm	0,8 mm	60



Ø hole 2,2mm

Pack of 1 expander and 4 attachments

PO201-00 BENDING INSTRUMENT FOR TADS ATTACHMENTS

Made by two elements, it is used to easily adapt the TADs attachments to every anatomical and treatment need. Both components are made of stainless steel and laser marked.













CAD-CAM RAPID PALATAL EXPANDERS

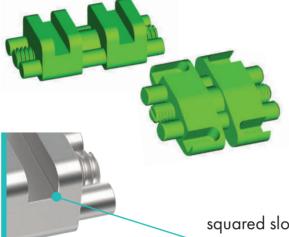






First RPE screw series designed for a full digital workflow





RPE fully digital designed

CAD-CAM expanders allow the manufacturing of totally customized appliances with dental anchorage, hybrid (teeth and TADs) and bone borne in a full digital workflow, by using 3D Leone Designer software.

Thanks to a manufacturing process called Laser Melting, the STL file will become a high precision sintered framework, that will fit perfectly the slot on the expander bodies thus to be joined permanently by laser welding

squared slots

The CAD-CAM expanders bodies feature, instead of the standard arms, squared slots that allow a correct oriented coupling of digitally designed customized laser melted framework and, thanks to their geometric shape, the fully transmission of the expansion forces to the teeth and/or TADs



the strongest RPE of the range

CAD-CAM expanders are manufactured by biomedical stainless steel with increased mechanical properties and a dedicated geometry of the male screw head that allow us to declare, based on in-vitro tests performed, a strengthness higher than 60kgf, about 50% higher than standard RPE. These features ensure the treatment efficiency even with maxillary expansion in adult patients with 2 or 4 TADs

strengthened swivel key

The strengthened swivel key for CAD-CAM expanders, supplied inside the package, is more resistant than standard one and its use is mandatory in order to enable the full transmission of expansion forces





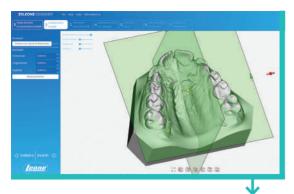
instructions to activate the expander

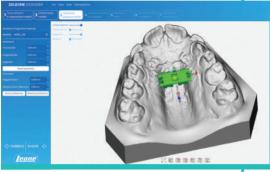
useful for parents and clinicians

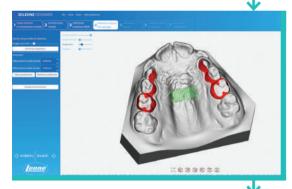
Instructions

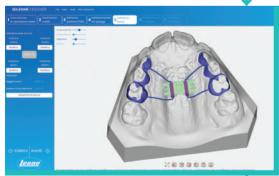


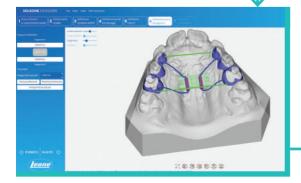
3D Leone Designer















3D Leone Designer is the first software based on an easy and driven workflow for the digital design of customized framework to be coupled with our innovative CAD-CAM expanders.

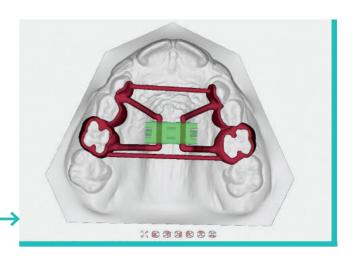
Based on our experience with many different software in the dental field and due to the increased customer's requests, Leone has realized an innovative and intuitive software that allow to design, not only bands and supports, but even the expander arms with automatically placing the expander in the right position, without spending too much time and no need of digital skills.

3D Leone Designer software allow to upload and manage STL files of both upper and lower arch, obtained from laboratory scanner or directly from intra-oral scanner, and it has already in library all the range of Leone CAD-CAM expander available.

Once the digital and driven workflow will be done, the STL file designed will become, thanks to an innovative technology called Selective Laser Melting, a high precision sintered framework and will be coupled perfectly with the chosen Leone CAD-CAM expander. The framework and the expander will be then permanently laser welded.

For further information on **3D Leone Designer** software visit web site **www.leone.it/3dsoftware**





CAD-CAM anatomical expander







CAD-CAM ANATOMICAL EXPANDER

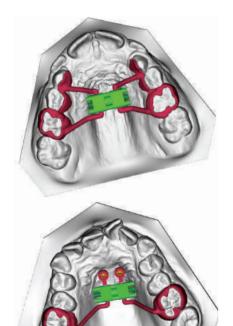
The anatomical CAD-CAM expander looks like a regular anatomical expander with orthogonal arms, but it is a device optimized for the CAD-CAM procedure: instead of the arms, features 2 squared slots that allow a correct oriented coupling for the welding of digitally designed customized laser melted framework.

The reduced overall dimensions, the exclusive self-centering guides system, the strengthened stainless steel of the male screw allow the positioning of the expander even in case of very narrow palates and high resistance and reliability throughout all the therapy even for the usage in MARPE appliances in adult patients. Expansion capacity in mm, directional arrow and lot number are laser marked on the body of the screw.

Supplied with:

- 1 stainless steel key
- 1 strengthened swivel key with handle
- instructions for the patient to facilitate endoral activation at home

.stl file available on Leone website and included in the library of 3D Leone Designer software.







new	<u></u>	ļ	ı, ı		→ ////////	Ō	activation turns
	6 mm 4,5 mm	١		body			for maximum expansion limit
1 = 8 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 =	Die	A0630-08D	1,5×1,5mm	12 mm	8 mm	0,8 mm	40
10 = 10 =		A0630-10D	1,5×1,5mm	14 mm	10 mm	0,8 mm	50
■↓ □12		A0630-12D	1,5×1,5mm	16 mm	12 mm	0,8 mm	60



CAD-CAM rapid expander

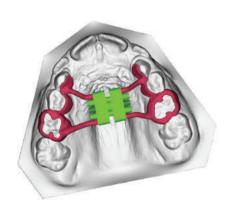




CAD-CAM RAPID EXPANDER

CAD-CAM rapid expander looks like the world best sellers expander, but it is a device optimized for the CAD-CAM procedure: instead of the arms it has 4 transversal squared slots on the bodies that allow a correct oriented coupling for the welding of digitally designed customized laser melted framework. The exclusive self-centering guides system, the strengthened stainless steel of the male screw and the guides and the optimal ratio between bulkiness and dimension, ensure a reliable treatment and a perfect bio-mechanical expansion control throughout all the therapy even for the usage in MARPE appliances in adult patients. Expansion capacity in mm, directional arrow and lot number are laser marked on the body of the screw. Supplied with:

- 1 stainless steel key
- 1 strengthened swivel key with handle
- instructions for the patient to facilitate endoral activation at home
- .stl file available on Leone website and included in the library of 3D Leone Designer software.







nett			—	←→	- √())))))\-	5	activation turns
11 r	mm 4 i	nm		body			for maximum expansion limit
121		A0620-08D	1,5 mm	12 mm	8 mm	0,8 mm	35
1 1		A0620-09D	1,5 mm	14 mm	9 mm	0,8 mm	40
= 11 = 11 = 11 = 11 = 11 = 11 = 11 = 1		A0620-11D	1,5 mm	16 mm	11 mm	0,8 mm	50
		A0620-13D	1,5 mm	18 mm	13 mm	0,8 mm	60







FOR KIDS

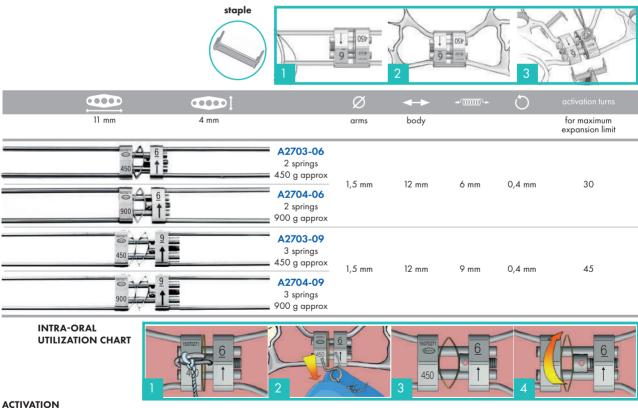


This device is an evolution in the design of the previous spring-loaded expander, designed with technical and scientific collaboration of Dr. Claudio Lanteri and Mr. Filippo Francolini. This new expander features a small size body, and it is equipped with two Nickel Titanium **MEMORIA®** leaf springs allowing the release of calibrated and continuous forces to promote the expansion of the maxillary arch. Re-loading is needed when the two opposing leaf springs move apart: the endoral activation, which must be done in the dental office, will put the springs in contact again thus allowing the release of the selected force. The expander is available in two models, 450 g and 900 g and each one of these is available in two expansion capacities: 6 mm and 9 mm. The expander is supplied with the leaf springs (2 or 3 according to the size) readycompressed by two metal staples that the technician will remove after the construction of the device.

The package includes a special clip with safety leash to keep the leaf springs compressed, facilitating the technician and the clinician in specific phases of the realization and treatment. Inside the package are also available practical instructions for use where all the construction steps and methods of delivery to the clinician are illustrated.

Supplied with a swivel key with handle to facilitate the endoral activation by the professonal.

Pack of 1



PROTOCOL

32

. KOIOGOL				
LEAF model	LEAF expander cementation	FIRST phase	SECOND phase	THIRD phase
6 mm	after 6 weeks	after 4 weeks	after 4 weeks	
A2703-06 - A2704-06	spring activation - 0 turns	10 turns	10 turns	10 turns
9 mm	after 8 weeks	after 6 weeks	after 6 weeks	
A2703-09 - A2704-09	spring activation - 0 turns	15 turns	15 turns	15 turns







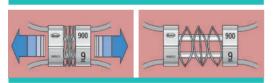
A2700-00 **EXPANSION MEASURING GAUGE FOR LEAF EXPANDER***

Helpful to verify the expansion gained and the need to activate the expander or compress the springs again. Easy to place design, it makes easier to check the expansion value directly into the mouth.

Made of steel, suitable for hot and cold sterilization.

Pack of 1



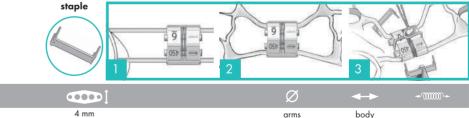




It includes all advantages of the Leaf expander without the need for periodic reactivation. The effectiveness of this expander is based entirely on the elastic capacity of the leaf springs made of Nickel Titanium that release controlled and continuous forces. The choice of the expander is decided on the basis of the transversal discrepancy of the patient: the therapy is predetermined and does not require any further action either by the clinician nor by the patient. The expander is available in two models, 450 g and 900 g and each one of these is available in two expansion capacities: 6 mm (four leaf springs) and 9 mm (six leaf springs). The expander is supplied with leaf springs readycompressed by two metal staples that the technician will remove after the construction of the device. The package includes a special clip with safety leash to keep the leaf springs compressed, facilitating the technician and the clinician in specific phases of the realization and treatment. Inside the package are also available practical instructions for use where all the construction steps and methods of delivery to the clinician are illustrated.

Pack of 1



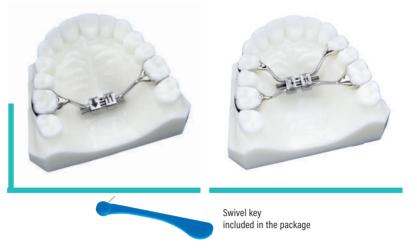


11 mm 4 mm		Ø	body	→ /())))))\>
450 6 <u>6</u>	A2705-06 4 springs 450 g approx	1,5 mm	12 mm	6 mm
900	4 springs 900 g approx			
450	6 springs 450 g approx	1,5 mm	12 mm	9 mm
900	A2706-09 6 springs 900 g approx	,		

^{*}PATENTED

biomechanic expansion screws Prof. Veltri



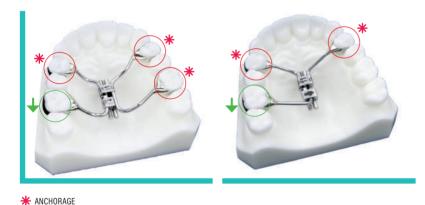


BABY RPE EXPANSION SCREW*

Developed with the assistance and clinical experience of Prof. Nicola Veltri, the RPE baby expansion screw is intended for the rapid expansion of the palate suture, and is available with either 2 or 4 arms. The model with 4 arms may be an alternative to the expander A0620, while the model with 2 arms may be an alternative to the expander A0621. Supplied with a swivel key with handle and instructions for use to facilitate the patient endoral activation.

Pack of 1

		Ø	↔	→ (((((()))))	Ó	activation turns
6 mm	4,5 mm	arms 1,5 mm	body			for maximum expansion limit
	¥ = 11 =		16 mm	11	0,8 mm	50
		A3620-11				
<u></u>	:	Ø	↔		Ö	
6 mm	4,5 mm	arms 1,5 mm	body			for maximum expansion limit
			16 mm	11	0,8 mm	50
	- "\= 11	A3621-11	10 111111	11	0,0 11111	30



MULTIFUNCTIONAL ORTHODONTIC SCREWS*

Intended for unilateral distalization and expansion of upper molars. Available with 3 or 4 arms. Featuring one guide only and expansion capacity up to 11 mm.

Pack of 1



<u> </u>	₩1	Ø	↔	√ /()))))\}	Ö	activation turns
6 mm	4,5 mm	arms 1,5 mm	body			for maximum expansion limit
	*\# <u></u> # 11		16	11	0,8 mm	50
	11 - 100	A3626-11				
RIGHT	<u> </u>	A3628-11	16	11	0,8 mm	50
	11 11		16	11	0,8 mm	50
LEFT		A3629-11				

EXPECTED DENTAL MOVEMENT



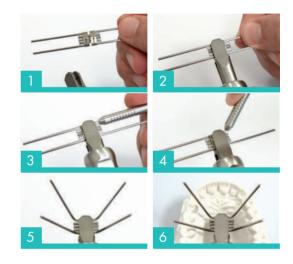
accessories for expanders



ARM BENDING AND SELF-LOCKING INSTRUMENT* FOR EXPANDERS

Handy instrument to firmly hold the expander; it allows for easy and accurate modeling of the arms along with the special arm bending P1620-02. The instrument ends, with a clutch mechanism, are shaped on the model of expander to avoid damage to the bodies and are kept closed by a cursor clamp device that is turned on and off with a simple thumb action. The edge thickness of the clutching ends is designed to indicate the minimum space between the body of the expander and the palatal vault. By placing the instrument with the screw on the plaster model, the correct inclination and the right height to bend the arms will be clearly visible. It is also useful to test the expander prior to use by opening and closing the expander with the special straight key.

	for expanders
P0620-00	A0620-08/09/11/13/15
P0020-00	A2620-07/10/12
P0630-00	A0631-08/10/12
P0621-00	A0621-08/11 A1621-08/11/13
P0625-09	A0625-09
P0625-07	A0625-07





A0558-01 SWIVEL KEY WITH ACTIVATION TURN COUNTER*

The A0558-01 key is characterized by a "click" after each activation turn which can be heard by the user to control the activation turns of the expander in the oral cavity. A counter on the rear part of the handle enables the easy activation turn control by the patient.

Pack of 10



Find the first visible hole of the expander located in the oral cavity



Place the key with stop into the located hole of the expander



By using the handle, push the key to the anterior-posterior direction so as to begin the activation of the expander



The activation ends when a "click" is detected by the key that exceeds the offset limit on the circular end of the handle (1 click equals ¼ turn)



Pull the key out of the hole when the activation is completed



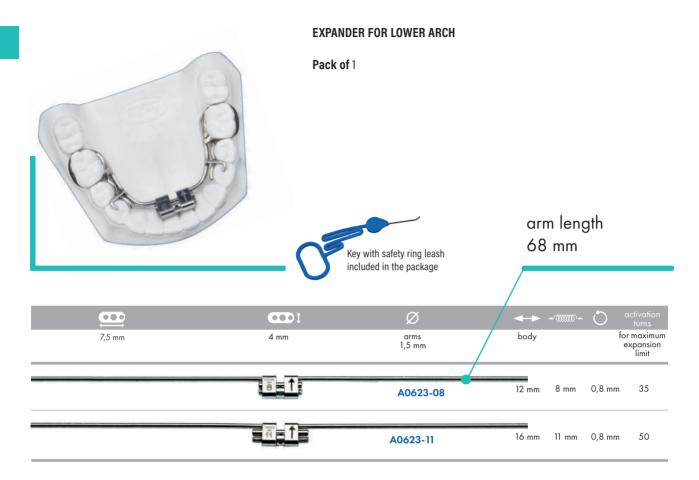
Check that the key has reached the stop on the circular end of the handle



Place the tip of the white turn counter on the line corresponding to the number of turn activations done

expanders and micro spring screws





STAINLESS STEEL MICRO SPRING SCREWS Micro spring screw A0650-04 A0650-95 A0650-06 A0650-96 Micro spring screw 8 A0650-08 A0650-97 Micro spring screw 10 100 Positioning screw 12 A0653-12 Serrated housing nut 3 A0654-03 Solderable plain sleeve 3 A0655-03 A0665-06 A0665-95 One-tooth screw with round edge One-tooth screw with round edge A0665-09 A0665-96 100 A0660-95 Micro screw A0660-06

A0668-95 MICRO SPRING SCREW KIT

Including 15 micro spring screws, 10 housing nuts, 15 positioning screws, reamer and screwdriver





Key with safety ring leash included in the package

RAPID MOLAR DISTALIZER

A1730-91 1 case





Leone First Class is the perfect appliance to get a rapid controlled distalization of the upper molars, conceived with the technical and scientific cooperation of Drs. Arturo Fortini, Massimo Lupoli and Mr. Massimiliano Parri. The vestibular and lingual tubes are made with **MIM**® technology for maximum comfort and precision. The bicuspid tube is a little higher to compensate the non perfect alignment of molars that may be found in some patients. One turn a day activation produces a distal movement of 0,1 mm sufficient to get molar distalization with a minimum loss of anchorage. The package is supplied with all the components necessary for the construction of the appliance.

REFILLS FOR FIRST CLASS LEONE

Pack of 10

			content of 1 case kit
Male screws		A1730-01	2
Threaded tubes		A1730-02	2
MIM® vestibular tubes	<u> </u>	A1730-03	2
MIM° palatal tubes	<u> </u>	A1730-04	2
MIM° vestibular tubes, high		A1730-05	2
Fixing rings	n	A1730-06	4
Palatal wires		A1730-07	2
Keys		A1730-08	1
MEMORIA® springs	3 cm	A1730-09	2





P1730-91
PARALLELING DEVICE FOR FIRST CLASS LEONE

Specific device for the visualization and the maintenance of a parallel position between the vestibular screw and the lingual bar during soldering.

Pack content: 2 paralleling male screws, 2 paralleling devices and instructions for use





Key with safety ring leash included in the package

DISTALIZER FAST BACK LEONE

A1760-91 1 case



Fast Back is a device for the distalization of upper molars, developed through the cooperation of Dr. C. Lanteri and Mr. F. Francolini. The Fast Back device provides a translation movement of the molars using a pre-determined amount of pressure. There is no need for the cooperation of the patient thus maintaining a good anchorage control. The principle of the Fast Back distalization process is based on the compression of a **MEMORIA®** coil spring, available either in 200 g or 300 g, which exerts a constant force on the molar. The spring can be re-activated each month through the expansion of the screws in the device. The tube pre welded on the molar band, enables the screw arm to slide smoothly with total control of the direction of distalisation.

The Fast Back kit contains all the elements needed for the construction of a bilateral Fast Back device.

REFILL FOR FAST BACK LEONE

nefile for FAST BACK LEUNE	
activation turns	pkg.
for maximum expansion limit	
Distalizer 9 mm UR 40 0,8 mm	1
Distalizer 9 mm UL A1761-09	'
MIM° palatal tubes	
Spherical ends © A1763-00	
Ends with hole for ligature A1763-05	
Spring-compression stop A1763-01 of 10	
MEMORIA® coil spring 200 g A1763-02	9
MEMORIA coil spring 300 g MEMORIA coil spring 300 g MEMORIA coil spring 300 g A1763-03	



P1622-00 ARM BENDING INSTRUMENT FOR FAST BACK

It facilitates the job of the technician during the construction of the device. It allows to maintain the linearity of the arm which has to slide on the palatal tube. The aluminium handle joined to the tempered steel tube assures a firm grip to get accurate bends.





A0558-00 **EXPANSION SWIVEL KEY**

Pack of 10





PRE-BENT KEYS FOR EXPANDERS WITH SAFETY LEASH

Stainless steel. Pre-bent at 45°. For patient.

A0557-03



10 keys, 10 safety leashes, 10 instructions for use 100 kevs. 100 safety leashes, 100 instructions for use

A0557-00



Stainless steel. Only for use in the laboratory. Pack of 100



A0666-01 REAMER

It is used to tap holes into acrylics. Suitable for all expansion screws with 0,4 mm pitch.

Refill tip A0669-00.

P1520-00 **SCREWDRIVER**

For micro spring screws. Tip: 1,5 mm.



P1620-02 ARM BENDING INSTRUMENT **FOR EXPANDERS**

Ideal to bend the expander arms with ease and precision.



P1621-00 INSTRUMENT FOR ENDORAL ACTIVATION

Suggested for use with multifunctional orthodontic screws.



MIM® ACTIVATOR TUBE FOR EXTRAORAL FACEBOW

Manufactured with Metal Injection Moulding technology, it allows high retention into acrylics. Comfortable design.

Pack of 10

A0761-45 .045" A0761-51 \varnothing .051"

bite planes for functional plates





BITE PLANES FOR FUNCTIONAL PLATES

A stainless steel range of products giving the chance of manufacturing high quality functional plates. **Pack of** 10



A0720-10 STANDARD BITE PLANE Soft, 0,5 mm.



AO596-10
ANATOMICAL DOUBLE BITE PLANE
Double bite plane in spring hard
stainless steel.
Soft, 0,5 mm.



A0721-10 PLATE LATERAL LEVELS Soft, 0,5 mm.



AO595-10 ANATOMICAL BITE PLANE Soft, 0,5 mm.



A0722-00 DOUBLE BITE PLANE

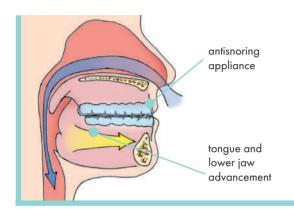
ANTISNORING APPLIANCES



A



M.A.D. **SERIES LEONE**



These intraoral nighttime appliances can treat snoring acting directly on the mechanism which is the main cause of it, pushing the lower jaw in a forward position. Mandibular repositioning pushes forward also the tongue and the epiglottis, spacing them from the uvula, thus to solve soft tissues vibration during the airflow, that is what produce the snore sound, MAD appliances can be used for the treatment of sleep apnea (OSA) since they can solve the rear airways obstruction by restoring breathing capacity during sleeping time. The American Academy of Dental Sleep Medicine claims that the most efficient appliances are bi-maxillary type, custom-made by a dental lab and, furthermore, they must allow an additional advancement over the construction bite position, about 4-5 mm. There are all over the world, many different type of MAD appliances to treat snoring syndrome and sleep apnea: we have decided to accomplish, and improve, the elements for the realization of the most widely used appliances according even with the clinical and scientific proven efficiency. This is our proposal based on the requirements of any clinical specialist: appliance efficiency, high safety standards and stability and comfort for the patient.

ANTISNORING BIMAXILLARY DORSAL TYPE APPLIANCES





TELESCOPIC ADVANCER PLUGS AND TUBE APPLIANCES



*PATENTED





FORWARD!

ANTISNORING KIT

A5300-07 1 appliance

A5300-17

10 appliances

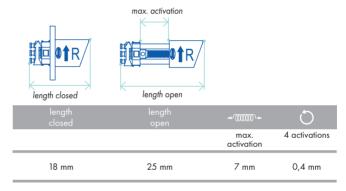
The first hardware kit specifically engineered for the antisnoring bimaxillary Dorsal type appliance.

This time-saving kit includes all the necessary components for an easier and more precise construction of the appliance.

The kit for the assembly of 1 appliance is made up of:

- 2 upper screws, 1 right and 1 left
- 2 lower wings with inner steel frame, 1 right and 1 left.

A multiple kit for the construction of 10 appliances is available.



REFILLS FOR FORWARD!

A5301-00

Lower wings with inner steel frame



Pack content:

- 1 left lower wing with steel frame
- 1 right lower wing with steel frame

A5302-00

Screw 70° angulated body



Pack content:

- 1 upper right screw
- 1 upper left screw





FORWARD! MAX RETENTION

ANTISNORING KIT

A5310-07 1 appliance

A5310-17

10 appliances

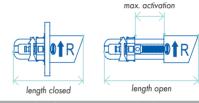
This kit is specially engineered for the realization of an antisnoring bimaxillary Dorsal type appliance and this version is featured by a higher retention capacity of the upper screws in the acrylic splint thanks to the distal "U" bent guide.

It contains all the necessary components for a fast and precise construction of the appliance.

The kit for the construction of 1 appliance is made up of:

- 2 upper screws with "U" guide, 1 right and 1 left
- 2 lower wings with inner steel frame, 1 right and 1 left.

A multiple kit for the construction of 10 appliances is available.



length closed			Ó
		max. activation	4 activations
20 mm	27 mm	7 mm	0,4 mm

REFILLS FOR FORWARD! MAX RETENTION

A5301-00

Lower wings with inner steel frame



Pack content:

- 1 left lower wing with steel frame
- 1 right lower wing with steel frame

A5312-00

Max Retention 70° angulated screw and "U" bent guide



Pack content:

- 1 upper right screw
- 1 upper left screw



FORWARD! AND FORWARD! MAX RETENTION FEATURES







The upper screws are specifically designed to get a thrust on the inclined plane of the lower unit: the protrusive anterior portion is a **metallic body perfectly angulated at 70°**, while the posterior portion has extensive retention capacity for the acrylic to avoid breakages. The screw mechanism has a **built-in stop** that gives both **perfect friction** and stability during the forward movement, as well as preventing the screw from coming apart once **7 mm** of maximum elongation is reached.





Each upper screw has an arrow clearly laser marked on metal front body, indicating the **direction of activation** to get the forward movement. The screws, both left and right, are specifically manufactured to get a **single direction of activation on both sides** and minimize mistakes. Each directional activation generates 0.1 mm advancement.



The lower wings, one right and one left, are **anatomically shaped for superior comfort** and perfect matching with the 70° inclined plane of the upper screw bodies. The clear material is fully compatible with any orthodontic acrylic resin, while the inner metallic **frame can be anatomically adapted** and incorporated into the resin of the lower splint, to ensure superior strength for the mandibular advancement in adult patients.







TELESCOPIC ADVANCER

ANTISNORING KIT

A5100-07 1 **MEDIUM** appliance **A5200-07** 1 **LONG** appliance

A5100-17 A5200-17

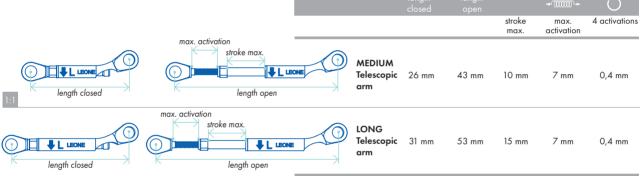
10 **MEDIUM** appliances 10 **LONG** appliances

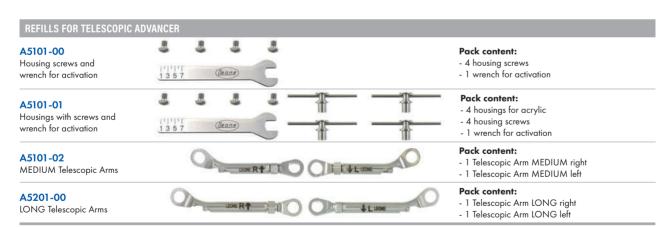
The kit, specifically engineered for the construction of one antisnoring appliance with telescopic plugs and tubes, includes all the components for an easier and precise construction of the appliance.

1 kit for the assembly of 1 appliance is made up of:

- 2 Telescopic arms (plug and tube), 1 right and 1 left
- 4 housings for acrylic
- 4 housing screws
- 1 wrench for activation

A multiple kit for the assembly of 10 appliances is also available.









P1515-00 FAN-TYPE HAND WRENCH

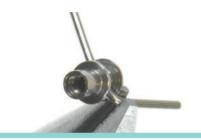
Thanks to its design, this screwdriver allows to easily tighten the fixing screws for support of the Telescopic Advancer devices.







The plug and tube components are manufactured by using **biocompatible stainless steel with the highest strength** available providing durability to any biomechanical stress. The plug component features a special design that does not permit the disassembling from the tube even when the patient is in wide-open mouth position.



The housings for acrylic are designed to be embedded in the acrylic splint: they feature a **laser welded wire throughout** that can be easily bent to enhance the resin retention and avoid unwanted detachment. The outer part presents a threaded portion to accommodate the square head screws binding the ends of the Telescopic arms.



The **wrench for activation** supplied with the kit can be used in the laboratory to tighten the square head screws.





The same instrument is necessary to activate the square head advancer screw into the plug in the direction indicated by the laser etched arrow: each quarter turn of activation produces 0.1 mm advancement.

The maximum elongation is 7 mm on both sides.



A ruler is laser etched on the wrench handle to check the activation length throughout treatment.







TELESCOPIC ADVANCER DUAL

ANTISNORING KIT

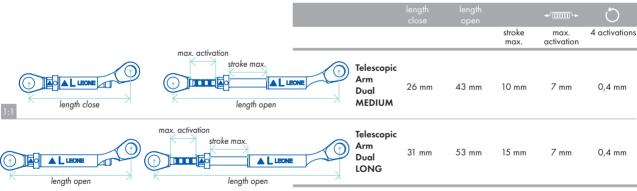
A5120-07 1 MEDIUM appliance
A5220-07 1 LONG appliance
A5120-17 10 MEDIUM appliances

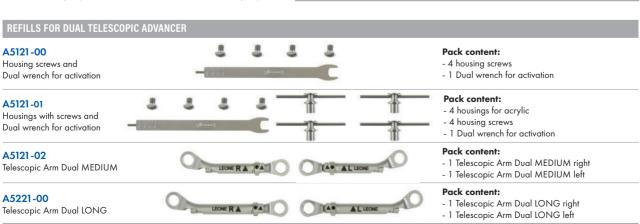
This kit is specially engineered for the construction of an antisnoring appliance with telescopic plugs and tubes and this version is featured by a dual possibility of activation. It can be activated either by acting on the square head portion of the inner advancer screw, or by using the pin of the wrench in the holes close to the square head portion. The two types of activation can be performed thanks to the dedicated extremities of the DUAL activation wrench, supplied with the device. The diameter of the advancer screw has been increased and its resistance is 25% higher than the standard model. The arms are specifically manufactured to have a single direction of activation on both the right and the left side, from the bottom to the top, to minimize the home activation mistakes and eventual asymmetries of the appliance. The advancer screw has alternatively

laser-marked bands that allow to measure the millimeters of protrusion. All the components are made up of high resistance biomedical stainless steel that ensures a high reliability to all biomechanical stresses. The peculiar shape of the telescopic plug and tube keeps connected the upper and the lower splints even when the patient's mouth is widely open. The kit, that is different from the Telescopic Advancer standard only for the Telescopic arms Dual, contains all the necessary components for a fast and precise construction of the appliance and it is made up of:

- 2 telescopic arms Dual (plug and tube), 1 right and 1 left
- 4 housings for acrylic
- 4 housing screws
- 1 Dual wrench for activation

A multiple kit for the construction of 10 appliances is available









The Dual activation wrench can be used to activate the Telescopic arm by acting on both, the square head of the advancer screw and the hole close to the square head.



The direction of activation is laser marked on the Telescopic arm and it is the same for the Telescopic left and right arms (bottom to top). Each quarter turn of activation produces 0.1 mm advacement: the maximum elongation is 7 mm on each side.





The inner advancer screw has laser marked bands that, alternating with unmarked thread portions, allow to measure the amount of protrusion. Another element that allows a better perception of activation is the black arrow alternatively laser marked on the square nut.



In addition, a ruler is laser marked on the handle of the Dual wrench for activation, that allows to verify the millimeters of activation carried out during treatment.

accessories





PLATE HOLDERS

Manufactured from non toxic, unbreakable plastic. With inner socket for key and one space for patient's phone number.

A3038-99 Small A3039-99 Large

PLATE HOLDER KIT ASSORTED COLORS

Pack of 200:

- 30 white
- 30 pink
- 40 yellow
- 40 blue
- 30 green
- 30 orange









colour	SMALL	LARGE	pkg.
white	A3038-93	A3039-93	
pink	A3038-93S	A3039-93S	
yellow	A3038-93G	A3039-93G	
blue	A3038-93A	A3039-93A	200
fluorescent		A3039-93F	
green	A3038-93V	A3039-93V	
orange	A3038-93E	A3039-93E	