

Leaf Expander® Series



**No Home Activation
No Pain
No Compliance**

Leone®

No home activation

Leaf Expander® Series is a range of expanders with a calibrated force release for maxillary expansion

A complete control of the maxillary expansion is obtained thanks to the predetermined, calibrated and constant forces released by the nickel titanium MEMORIA® springs.

No home activation of the expander by the patient or parent, thanks to its patented features.

Re-activation of the Leaf Expander is carried out by the clinician according to a validated protocol, whereas the Leaf Self Expander® model requires **no re-activation at all, neither at home nor in the office.**

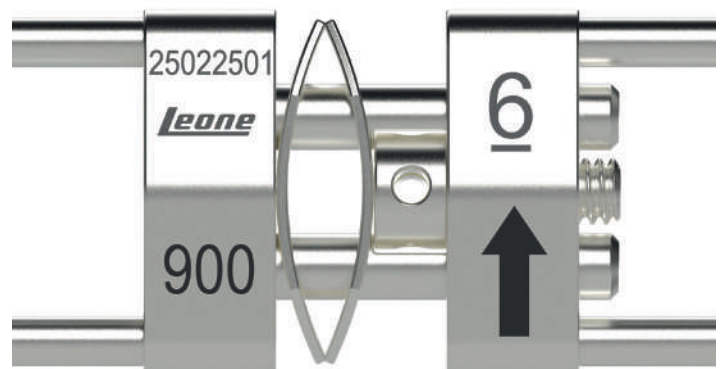
A comprehensive series of expander designed to address all types of maxillary deficiencies

Each model offers a selection of force levels and expansion capacities, allowing practitioners to choose the most suitable option based on the patient's dentition, age, and transverse discrepancy.

1 - Treatment start.



2 - Leaf spring force release.



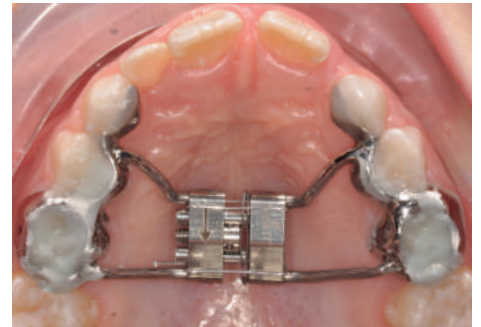
Maxillary expansion

No Pain, No Compliance

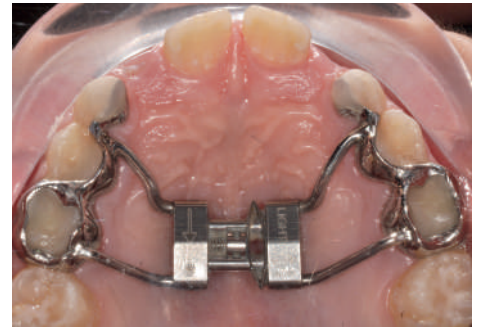
"I successfully use the Leaf Expander® whenever I have to solve a transverse discrepancy, both in growing patients and adults. The nickel-titanium leaf springs release calibrated and continuous forces that allow for predictable and painless expansion. Furthermore, since I do not have to rely on the cooperation of the parents of young patients, I can drastically reduce the number of follow-up visits, optimizing chair time, which is mutually beneficial for both the clinician and the parents."



Prof. Valentina Lanteri
Associate Professor in Orthodontics | UNIMORE
University of Modena and Reggio Emilia



Treatment start



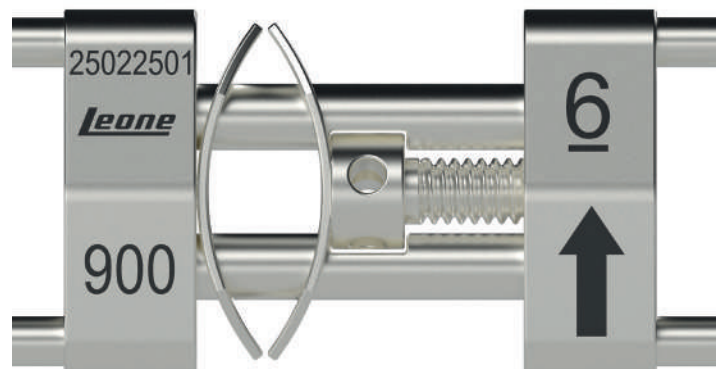
End of treatment

Courtesy of Prof. V. Lanteri

3 - In-office spring re-activation.



4 - Re-activated springs will keep on releasing expansion forces.





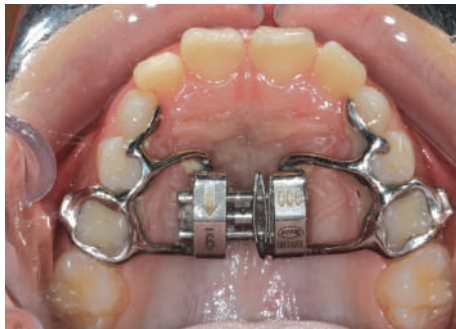
Leaf range for fixed appliances

The Leaf Expander, introduced in 2013, is an innovative device for palatal expansion based on the action of Nickel-Titanium leaf springs that exert constant pressure and eliminate the need for home activation. The range of Leaf Expanders for fixed devices allows for the manufacture of expanders cemented to the teeth,

both deciduous and permanent, which are more comfortable compared to traditional expanders, eliminating pain during therapy and the need for patient and/or parents compliance.



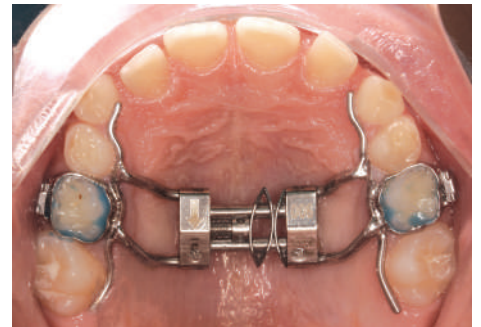
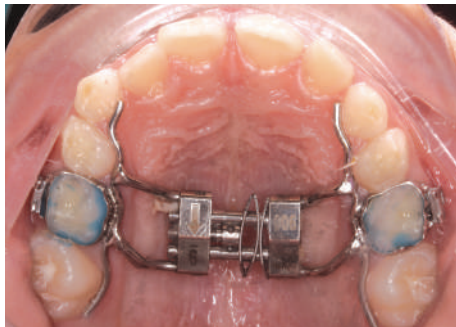
Treatment start



End of treatment



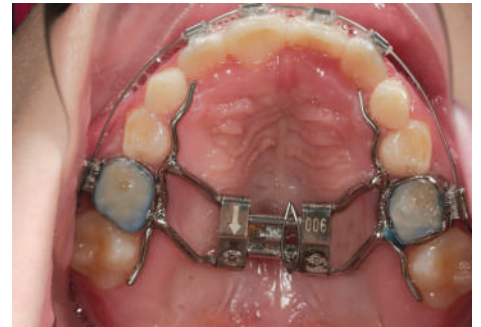
Treatment start



End of treatment



Treatment start



End of treatment

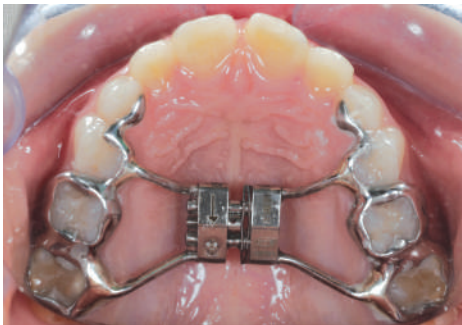
Leaf Expander®



The original model is validated by thousands of cases and several scientific articles.
The 450g and 900g models are to be used in growing patients to achieve slow and painless orthopaedic expansion.
The 900g version is indicated in adult patients to achieve dentoalveolar expansion.

50% reduction in follow-up visits
(compared to conventional RME)
Validated activation protocol

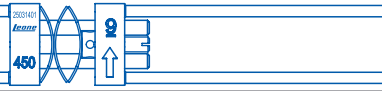
ACTIVATION PROTOCOL		LEAF expander cementation		FIRST visit		SECOND visit		THIRD visit
6 mm	A2703-06 A2704-06	spring activation 0 turns	after 6 weeks	10 turns	after 4 weeks	10 turns	after 4 weeks	10 turns
9 mm	A2703-09 A2704-09	spring activation 0 turns	after 8 weeks	15 turns	after 6 weeks	15 turns	after 6 weeks	15 turns



Treatment start



End of treatment

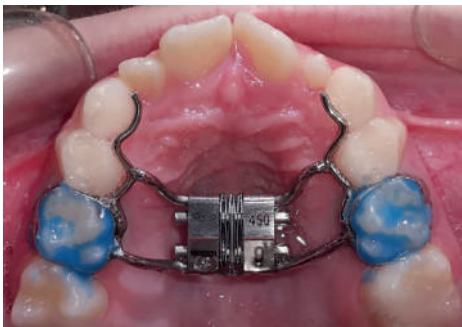
					activation turns for maximum expansion limit	
	A2703-06 2 springs 450 g approx.	1,5 mm	12 mm	6 mm	0,4 mm	30
	A2704-06 2 springs 900 g approx.					
	A2703-09 3 springs 450 g approx.	1,5 mm	16 mm	9 mm	0,4 mm	45
	A2704-09 3 springs 900 g approx.					

Leaf Self Expander®



The Leaf Expander® that does not require in-office re-activation. The indications and clinical effects are the same as the original model. In growing patients, a slow and painless orthopaedic expansion can be achieved using either the 450g or 900g models, while in adult patients the 900g version is suggested to achieve dentoalveolar expansion.

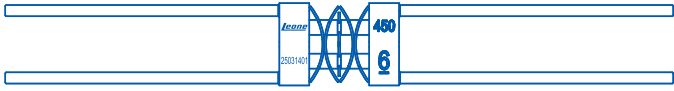
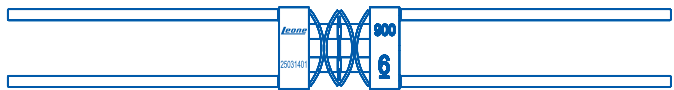
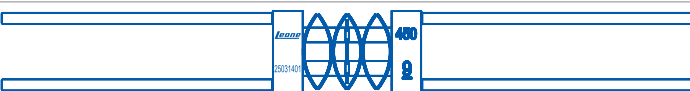
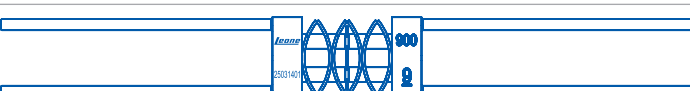
No home or in-office activation
No risk of overtreatment



Treatment start



End of treatment

				
		arms	body	
	A2705-06	1,5 mm	11 mm	6 mm
	4 springs 450 gr approx.			
	A2706-06			
	4 springs 900 gr approx.			
	A2705-09	1,5 mm	15 mm	9 mm
	6 springs 450 gr approx.			
	A2706-09			
	6 springs 900 gr approx.			

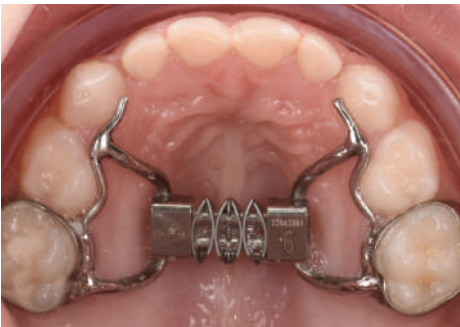
Leaf Self Expander[®] Anatomical



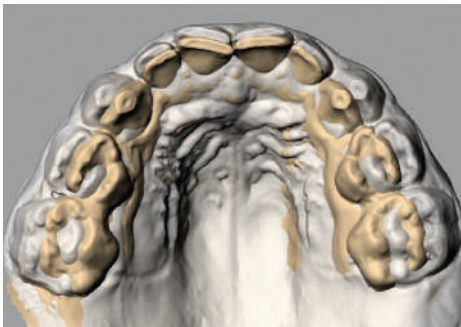
Thanks to the reduced dimensions and the orthogonal position of the arms, it allows space-saving devices to be made for very young patients, even with full deciduous dentition. The force released by the springs is 600g, which is ideal for achieving the expansion of the arch at both alveolar and suture level.



Treatment start

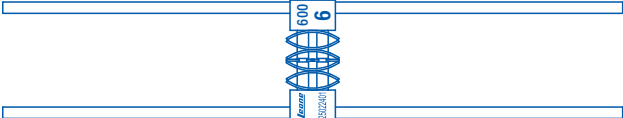
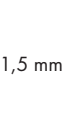
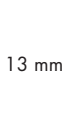
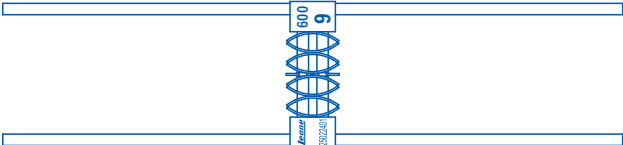


End of treatment



Digital overlap

Courtesy of Dr. M.E. Grecolini

 6 mm		 4,5 mm		 arms		 body			
									
A2503-06 6 springs 600 gr approx.									
									
A2503-09 8 springs 600 gr approx.									

Leaf Expander® Series

CAD-CAM

All expanders of the Leaf series are available in a CAD-CAM version, enabling a digital workflow for the design of orthodontic devices with extreme precision. Thanks to the **3DLeone Designer** application, custom-made devices can be crafted, meeting patient needs and expectations.

Leaf Expander®

CAD-CAM



11 mm	4 mm		body			activation turns for maximum expansion limit
		A2703-06D 2 springs 450 gr approx.				
		A2704-06D 2 springs 900 gr approx.	2 mm	12 mm	6 mm	0,4 mm 30
		A2703-09D 3 springs 450 gr approx.				
		A2704-09D 3 springs 900 gr approx.	2 mm	16 mm	9 mm	0,4 mm 45

Leaf Self Expander®

CAD-CAM



11 mm	4 mm		body		
		A2705-06D 4 springs 450 gr approx.			
		A2706-06D 4 springs 900 gr approx.	2 mm	11 mm	6 mm
		A2705-09D 6 springs 450 gr approx.			
		A2706-09D 6 springs 900 gr approx.	2 mm	15 mm	9 mm

Leaf Self Expander Anatomical CAD-CAM

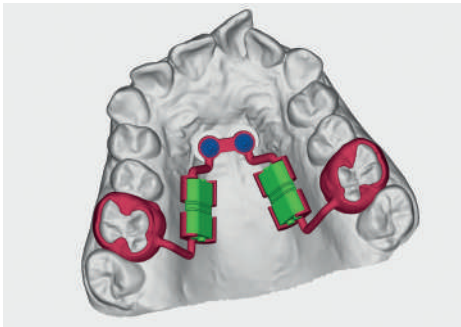


 6 mm	 4,5 mm	 body	
 Leone 25022401 600 6		A2503-06D 6 springs 600 gr approx.	13 mm 6 mm
 Leone 25022401 600 9		A2503-09D 8 springs 600 gr approx.	16 mm 9 mm

Mini Leaf Self Expander CAD-CAM



The flat shape of the bodies and the small size make these expanders suitable for the digital design of a distalizer that utilizes the principles of the Leaf expanders by constantly releasing a 600g force. The **3DLeone Designer** software provides the anchorage with a Nance button and the version with TADs for bone anchorage.



 7,5 mm	 3 mm	 body	
 Leone 25022401 600 6		A2502-06D 6 springs 600 gr approx.	13 mm 6 mm

software

3DLeone Designer

3DLeone Designer is the first software based on a simple 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 requests, Leone has made out an innovative and intuitive software for the design of bands, supports, and expander arms.

It can automatically place the expander in the right position, in a very short time and regardless of digital skills.

3DLeone Designer software can upload and manage .STL files of both upper and lower arches, obtained with a laboratory scanner or directly with an intra-oral scanner: its library includes all the range of Leone CAD-CAM expanders available.

Once the digital driven workflow is completed, thanks to innovative technology (Selective Laser Melting) the designed .STL file will become 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 permanent laser welded.

For further information on **3DLeone Designer** software visit www.leone.it/3dsoftware.

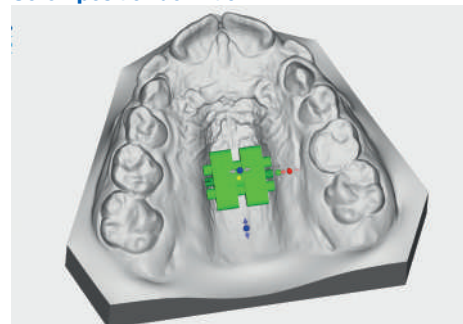


Free trial
3DLeone Designer

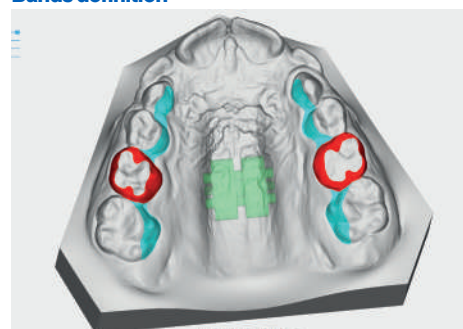
Models orientation



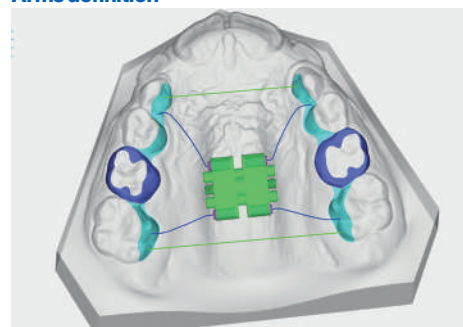
Screw position definition



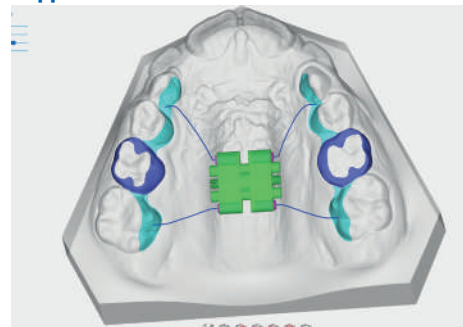
Bands definition



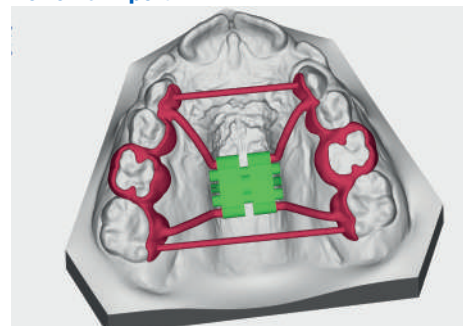
Arms definition



Support definition



Review & Export





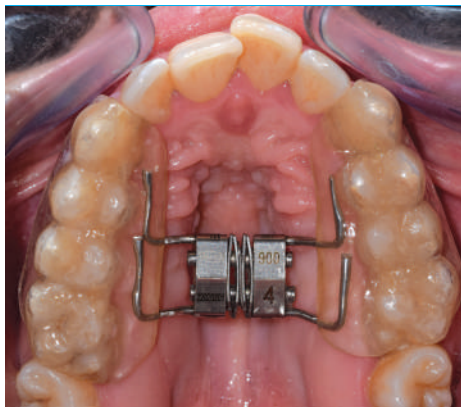
Product range for the application of Removable devices



A new range of expanders, equipped with nickel-titanium springs, the same as those used in the Leaf range, ideal for making removable **devices dedicated to a pre-treatment phase for aligners** with the aim of achieving an increase in arch space reducing the need for stripping and the number of aligners.

Available in different sizes and forces.

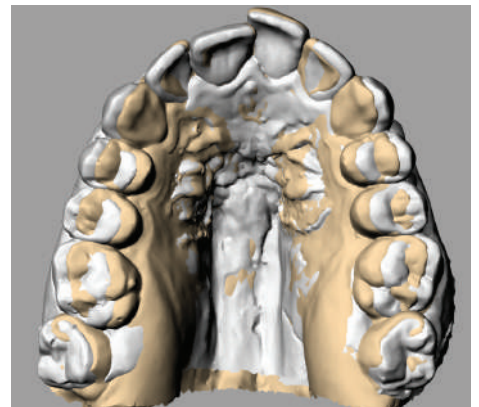
Expansion capacity limited to **4 or 6 mm**.



June 2023



July 2023



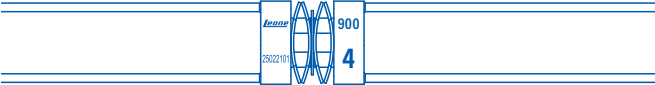
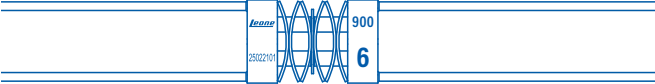
Digital overlap

Courtesy of Dr. M. Ciavolo

Hybrid Mode Expander



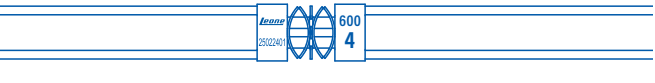
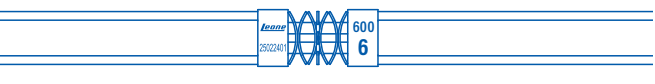
This version is suitable for the construction of removable devices for adults. There are two models, with a choice of 4 and 6mm expansion capacity, both with 900g springs.

				
11 mm	4 mm	arms	body	
		A2726-04		
		4 springs 900 gr approx.	1,1 mm	13 mm
		A2726-06		
		6 springs 900 gr approx.	1,1 mm	15 mm

Mini Hybrid Mode Expander 4 Arms

The Mini version is indicated for the construction of removable devices in the upper arch, in cases with limited space in younger patients. There are two models, with a choice of 4 and 6mm expansion capacity, both with 600g springs.



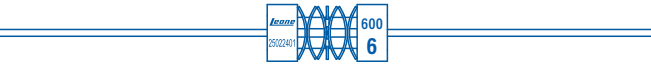
				
7,5 mm	3 mm	arms	body	
		A2504-04		
		4 springs 600 gr approx.	1,1 mm	11 mm
		A2504-06		
		6 springs 600 gr approx.	1,1 mm	13 mm

Mini Hybrid Mode Expander

2 Arms



The Mini version with two arms is suitable for the construction of removable devices in the lower arch for dental expansion. There are two models, with a choice of 4 or 6mm expansion capacity, both with 600g springs.

				
7,5 mm	3 mm	arms	body	
		A2502-04 4 springs 600 gr approx.	0,9 mm	11 mm
				4 mm
		A2502-06 6 springs 600 gr approx.	0,9 mm	13 mm
				6 mm



Courtesy of Dr. M. Ciaravolo

Orthodontics since 1934

TRADITION MEETS THE *FUTURE*