feel the difference

LMErgoSense »)

LMErgoSense »)

ErgoSense »)

# ENJOY DENTISTRY.

# LMDental

Catalog | English



# LMErgoSense SENSATIONAL GRIP AND UNIQUE INTELLIGENCE

Today the focus is on ergonomics – without losing sight of efficiency. The LM-ErgoSense hand instrument meets both of these requirements and is truly a unique combination of ergonomic design and integrated new technology. It is the outcome of intense research and product development in close cooperation with dental clinicians and professionals. An ergonomic, high quality hand instrument naturally feels good in the hand. Even genuinely sensational as the smart LM-ErgoSense has been described.

### Rated as the best hand instrument

The value of a truly ergonomic instrument grip can never be emphasized enough as revealed in several scientific studies. A hand instrument with thick silicone handle has been found to be more usable, cause lower perceived strain and to be more productive than those with thinner handles (1). LM-ErgoSense was rated as the best in ten out of fourteen specified usability features compared with the other tested instruments in a dental scaling simulation (1). It was also ranked as the best instrument.

Most participants in the authentic scaling part of the study considered the LM-ErgoSense silicone handle as their favorite due to the enhanced grip, comfort and instrument's functional design. The participants' evaluations were based on their active use of the LM-ErgoSense in authentic clinical work. In another study focusing on ergonomics, usability characteristics and work productivity using different manufacturers' hand instruments the thick, silicone coated LM-Dental hand instruments were the most preferred choice in regard to all 18 usability criteria used in the test (2).



The story of LM-ErgoSense

Reference studies

(1) Sormunen E., Nevala N: Evaluation of ergonomics and usability of dental scaling instruments; Dental scaling simulation and Field study, part III. Finnish Institute of Occupational Health, LM-Instruments Oy.

(2) Nevala N, Sormunen E, Remes J, Suomalainen K: Ergonomic and productivity evaluation of scaling instruments in dentistry. The Ergonomics Open Jourr 2013; 6, 6-12.

# Special handles



### LM-ErgoMix

The LM-ErgoMix handle for exchangeable tips offers all the economical and ecological benefits of retipping.

Available for specific instruments, see page 33.

### **LM**ErgoMix

EM = ErgoMix handle (Ø 12.5 mm)

### LMErgoSingle

LM-ErgoSingle

Well balanced mirror handle

with better reachability.

ESI = ErgoSingle handle (Ø 11.5 mm)

### TERMS OF WARRANTY

### Limited Warranty

The following warranty terms apply to the sale of LM-Instrument Oy's products (hereinafter "Products") to a purchasing company or individual by LM-Instruments Oy (hereinafter "LM").

LM hereby warrants that the Products will be free from defects arising from faulty materials or workmanship for a period of twenty four (24) months from the date of purchase by a customer from LM's authorized dealer (hereinafter "Authorized Dealer"). The warranty period is exceptionally three (3) months for products with a life inherently shorter than 24 months due to normal wear and tear (for example tips of hand instruments, tips of ultrasonic scalers, tips of endodontic files, front surface mirrors and grinding stones of sharpening devices) and for RFID tags to dental instruments manufactured by third party manufacturer (hereinafter "Third Party").

This warranty shall not apply to Products or parts thereof;

- a) which have been subject to abuse, misuse, negligence or accident or are not connected to proper power supply;
- b) to which any modification, alteration or attachment has been made without written consent of LM;
- c) which are installed or operated violating instructions for installation, use and maintenance; or
- d) which are normally consumed in operation (for example working tips of LM-MultiHolder and strips for LM-Cello).

End-user is entitled to install RFID tags to dental instruments manufactured by Third Party. When installing RFID tags to the dental instruments manufactured by Third Party (hereinafter "Instruments"), end-user is liable to check warranty terms and product information of the Instruments to ensure that instalment does not have adverse effect to Instruments or to the terms and conditions applied between enduser and its suppliers. End-user shall install RFID tags to Instruments or get those installed by LM or other party at its own risk. LM shall not be liable for any damages accrued due to the instalment of RFID tags to Instruments. This limitation of liability does not apply in respect of damage caused by

a) negligence of LM when installing the RFID tags to Instruments, or
 b) RFID tags defective at the time of delivery to end-user

to personal private property, or personal injury or death.

The sole and exclusive remedy under this warranty shall be limited to correct or circumvent the errors or to repair or replacement of defective parts of Products, EXW LM's factory, providing that a written claim of the defect is sent to LM within the warranty period and the original part is returned to LM's factory by the Authorized Dealer, and LM's inspection establishes the existence of such a defect.

The end customer must contact the Authorized Dealer from whom the Products were purchased to request repair or replacement under this warranty and a written claim of the defects and send the original Product to the Authorized Dealer. This warranty is void if service or repair is performed by persons not authorized by LM.

Any products not manufactured by LM, carries only such warranty, if any, as given by any manufacturer thereof.

This warranty is the LM's only warranty in respect of the Products and LM disclaims all other warranties, whether of merchantability, fitness for particular purpose or otherwise, guarantees and liabilities, express or implied, arising by law or otherwise. In no event shall LM be liable for any general, consequential or incidental damages, loss of use or loss of profits by reason of LM's negligence or otherwise in connection with the sale, delivery, installation, repair or use of the Products.

LM shall have no liability whatsoever to the Authorized Dealer or end customer or any other person for or on account of any injury, loss or damage of any kind or nature, sustained by, or any damages assessed or asserted against, or any other liability incurred by or imposed upon the handling, use, operation, maintenance or repairs of Products by anyone other than LM. This exclusion of liability does not apply pursuant to the laws on product liability in case of personal injury and property damage to privately used objects resulting from the Products.

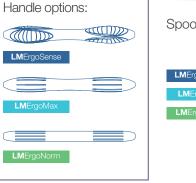
### SPOON EXCAVATORS

For the removal of softened carious dentin and temporary fillings.



### Desian:

- Spoon-shaped working end
- Rounded tip
- Long cutting edge, which can easily treat broader areas





### **ROUND EXCAVATORS**

### Cariology:

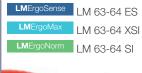
- For the removal of softened. carious dentin
- For the removal of temporary fillings



- To sever the periodontal ligament prior to extraction
- For the removal of granulation tissue after extraction



Design: Round working end Curved cutting edge



Round Excavator, 1.0 mm

LMErgoSense LM 61-62 ES

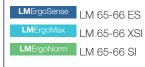
LMErgoMax LM 61-62 XSI

LMErgoNorm LM 61-62 SI

Round Excavator, 1.5 mm



Round Excavator, 2.0 mm



### **TRIPLE-ANGLED BACK ACTION EXCAVATORS**

### Cariology:

- For removing carious dentin
- For undermining enamel during tissue-saving preparations
- For the horizontal finishing of outer cavity margins

### Periodontics:

- For the removal of calculus from hard to reach areas such as the lower anterior lingual surfaces
- For the depuration of concave root grooves and furcations

### Surgery:

For the removal of granulation tissue in connection with apical resections, flap operations, or extractions



Design:

- Round working end and curved cutting edge
- Shank angulations ease treatments on hard to reach buccal, distal, and lingual surfaces



MATERIALS



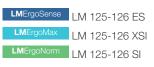
### GINGIVAL MARGIN TRIMMERS

For finishing enamel margins in the proximal area as well as for making plastic, amalgam and ceramic fillings.





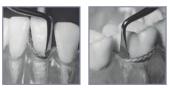
Gingival Margin Trimmer, 1.2 mm, mesial





### **CORD PACKERS**

For packing retraction cord into the gingival pocket.



The bent blade enables getting around the tooth as well as the packing of the cord using vertical motions.

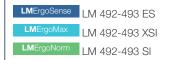


Cord Packer, 2.0 mm

LMErgoSenseLM 490-491 ESLMErgoMaxLM 490-491 XSILMErgoNormLM 490-491 SI



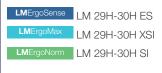
Cord Packer, 2.6 mm



### **BASE CARRIERS**

For carrying base or thin liner to dentin surfaces.







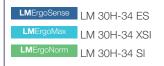
Base Carrier - Condenser. malleable tip

LMErgoSense	LM 30-34 ES
<b>LM</b> ErgoMax	LM 30-34 XSI
LMErgoNorm	LM 30-34 SI

- Tip (30) can be bent into the desired form, allowing for easier access to hard to reach areas



Base Carrier -Condenser, rigid



### PLUGGERS

For packing all types of filling materials.



Plugger, cylindrical, 1.0-1.5 mm

LMErgoSense LM 340-360 ES LM 340-360 XSI LMErgoNorm LM 340-360 SI



Plugger, cylindrical, 1.2-2.0 mm

LMErgoSense LM 350-380 ES LMErgoMax . LM 350-380 XSI LMErgoNorm LM 350-380 SI



Plugger, cylindrical, 1.8-2.5 mm

LMErgoSense LM 370-390 ES LM 370-390 XSI LMErgoNorm LM 370-390 SI

### **BURNISHERS**

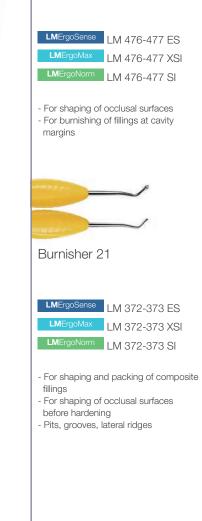
Burnisher

**LM**ErgoMax

For burnishing, modelling and finishing of fillings.



fillings



Burnisher 27-29

### RESTORATION – LM-ARTE



### STYLEITALIANO SHADE GUIDES

LM-Arte is a set of innovative instruments for aesthetic restorations and designed especially for composite layering. Each instrument is color-coded and named by its main function to enable easy, efficient and quick restorative treatments.

LM-Arte instruments have been developed in co-operation with Style Italiano, a study group of passionate clinicians and researchers specialized in aesthetic restorative dentistry.



Founders of Style Italiano, Walter Devoto DDS and Angelo Putignano MD, DDS.



spatula for transporting and

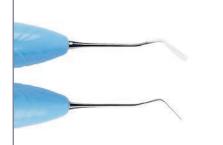
modeling of the composite



LM-Arte Applica Twist

LMErgoSense LM 464-494 ES

 Thin and narrow spatula with bended angles for modeling difficult to reach areas such as approximal walls or the marginal ridge in matrix



### LM-Arte Modella

LMErgoSense LM 442-443 ES LMErgoMax LM 442-443 XSI

 A very thin and flexible spatula for transporting and modeling of the composite



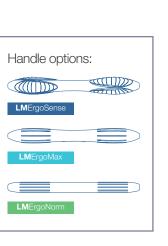
LM-Arte Condensa

LMErgoSense LM 488-489 ES LMErgoMax LM 488-489 XSI

- A long and round plugger especially for modeling composite

口论学





# AESTHETIC RESTORATIONS

### LM-GENGIVA



### Gingival retracting kit



Includes products:

LM-Gengiva / LM-MultiHolder PK III

### LM-Gingival Retractors (blue)

- For establishing optimum working conditions for procedures at the gum line.
- 30 pcs/size):
- XL for molars
- See more on page 45

### LM-MultiLever

- For the removal of disposable gingival retractors



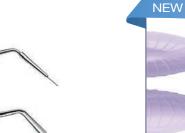
LM-Arte Eccesso LMErgoSense LM 307-308 ES

- For the removal of composite

and bonding residue







### LM-Arte Misura

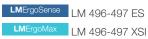
LM-Arte Fissura

LMErgoSense LM 481-487 ES

- Sharp pointed tips for modeling

of occlusal surface structures

LMErgoMax LM 481-487 XSI



- For horizontal and vertical measuring of thickness (not plural) of composite layers on the restorations





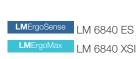


LM-Arte Posterior Misura

LMErgoSense LM 498-499 ES LMErgoMax LM 498-499 XSI



- The fork shaped tip allows measuring and modeling of the composite wall 首都規 with the presence of a matrix



### Includes:

LM-Arte Set

LM-Arte Applica, LM-Arte Condensa, LM-Arte Fissura, LM-Arte Misura, LM-Arte Eccesso, LM-Servo 5 cassette



- hand instrument
- See more on page 44

- Assortment package of three sizes (ca 90 pieces,
- S for incisors
- M for premolars

### RESTORATION – DARK DIAMOND COATED INSTRUMENTS

LM-ErgoSense Dark Diamond instruments with non-stick coating for easy placing and contouring of composite resins. The diamond like coating reduces the stickiness and allows for pleasant and precise restorative instrumentation.

Dark Diamond features:	Benefits:
Exclusive diamond like coating	Non-stick placement and sculpting of the composite resin
Hard surface	Not sensitive to scratches

- Smooth surface
- Dark color coating
- LM-ErgoSense handle
- Not sensitive to scratchesEasy to clean
- Maximum contrast against the filling & minimal reflections
- Extreme precision and feel

Dark Diamond instruments can be cleaned and sterilized similarly to all other LM instruments.

Dark Diamond coating makes the surface of the tip extremely smooth and hard and allows for non-stick application and modeling of composite.

LMErgoSense Dark Diamond



Burnisher



Dark Diamond non-stick coating
 For packing and modeling composite

# NON-STICK COATING



Burnisher - Plugger, ballended, 1.5-2.5 mm



- Dark Diamond non-stick coating
- For modeling composite



Modeller MH

### LMErgoSense LM 708-709DD ES

- Dark Diamond non-stick coating
- For packing large approximal fillings
   Cylinder shaped working end will not get stuck into the composite while light curing



Modeller MH Mini



Dark Diamond non-stick coating
For packing small and medium approximal fillings
Cylinder shaped working end will not get stuck into the composite while light curing



Packer-Modeller IO



- Dark Diamond non-stick coating
   For packing and modeling composite
- Conical working ends optimal for shaping occlusal surfaces



Plastic instrument, anterior

LMErgoSense LM 43-47DD ES

Dark Diamond non-stick coating
For placing, packing and contouring composite



Plastic instrument, posterior

LM 48-702DD ES

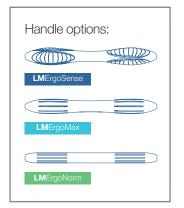
 Dark Diamond non-stick coating
 For placing, packing and contouring composite



Mini Spatula



Dark Diamond non-stick coating
 For placing and contouring composite



### FOR COMPOSITES







Modeller MH LMErgoSense LM 708-709 ES

LMErgoMax LM 708-709 XSI

- For packing large, approximal fillings in several layers
- Cylinder shaped working ends won't get stuck into the composite while light curing
- For pressing the matrix band in place while curing



### Modeller MH Mini LMErgoSense LM 707-708 ES

LMErgoMax LM 707-708 XSI - For packing small or medium approximal

- For packing small or medium approximal fillings in several layers
   Ovlinder shaped working ends won't get
- Cylinder shaped working ends won't get stuck into the composite while light curing
- For pressing the matrix band in place while curing



Packer-Modeller IO p LMErgoSense LM 482-702 ES LMErgoMax LM 482-702 XSI LMErgoNorm LM 482-702 SI

 Combination instrument for premolars



## Packer-Modeller IO

LM 482-483 XSI

- LMErgoNorm LM 482-483 SI
- Conical working ends, which are exceptionally well-suited e.g. to shaping of occlusal surfaces and to packing of all kinds of plastics
- Composites do not stick to the highly polished blades









Plastic Instrument, anterior LMErgoSense LM 43-47 ES LMErgoNax LM 43-47 XSI LMErgoNorm LM 43-47 SI

 For placing, packing and contouring composite



 Plastic Instrument, posterior

 LMErgoSense
 LM 48-702 ES

 LMErgoMax
 LM 48-702 XSI

 LMErgoNorm
 LM 48-702 SI

- For placing, packing and contouring composite

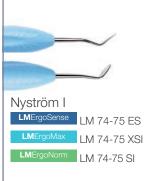


### CARVERS

For shaping of filling material to fit the anatomy of tooth, and for removal of soft excess.

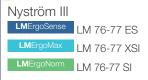


LMErgoNorm LM 741-751 SI - For proximal and cervical surfaces



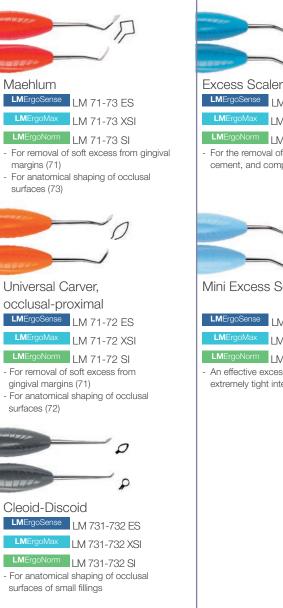
- For proximal and occlusal surfaces





- For interdental spces, contact surfaces



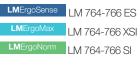




### FILLING REMOVER



### Filling Remover



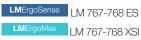
- For the removal of temporary fillings and crowns - For bridge removal during fitting

### **CROWN OFF**



A groove is first burred from the lower edge of the crown up to the occlusal surface. The groove should be so deep that it reaches the cement. The Crown Off working end is placed longitudinally into the groove and turned as if spreading the groove. The blade is turned until the crown loosens and lifts up. The blade stays firmly in the groove and it is easy to control even when lot of force is used.





- Blade double angled with a 45° twist - Can be used for all types of levering and removing in the mouth

### **INSTRUMENT SET**





### LM-CompoSet



Includes: LM-Servo 5 cassette, Mini Spatula, Plastic instrument, ant., Form Condenser, Packer-Modeller IO. Mini Excess Scaler

### LM-CELLO STRIPHOLDER

### Prophylactics:

- The removal of calculus from contact areas
- Preparation for flossing and toothpick use
- When finishing proximal surfaces, the strip can serve as a toothpaste applicator

### Restoration:

- The finishing of proximal and contact surfaces
- Preparation for both rubber dam and matrix techniques

### Esthetic and prosthetic care:

The finishing of cement seams on laminates, cast fillings, and crowns

### Orthodontics:

Enamel stripping









LM-Cello stripholder LM 2010 C

- Includes a sample for each strip (6 pcs).

Strip selection package 50 pcs, coarseness 60µm

- Use the LM code rings to mark pre-fitted strips for mesial (orange) or distal (blue) surfaces.

### Strips with blanks

- The smooth part of the strip is used when the contact is exceptionally tight

### 

LM 5502 - One-sided, width 2 mm, thickness 0,12 mm

LM 5503 - One-sided, width 3 mm, thickness 0,12 mm

LM 5503D - Double-sided, width 3 mm, thickness 0,18 mm

### LM 5512

Strips without blanks

- One-sided, width 2 mm, thickness 0,12 mm



LM 5513 - One-sided, width 3 mm, thickness 0,12 mm



LM 5513D - Double-sided, width 3 mm, thickness 0,18 mm

### LM-MULTIHOLDER SYSTEM

LM-MultiHolder instruments and different kinds of replaceable plastic working ends – a real multi-function instrument!

- Angle options allow for easy access to even the more complex areas
- Optimal combination of steel and plastic

   the steel shank is rigid and only the working end will flex, when required

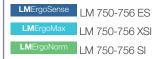
Handle options:

**LM**ErgoMax

**LM**ErgoNorm

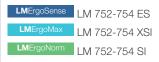


LM-MultiHolder PK I



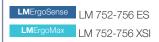


LM-MultiHolder PK II









 Part of the Gengiva concept by Style Italiano, see page 39

### WORKING ENDS FOR LM-MULTIHOLDER

LM-Contact Formers

cavity, circa 60 pcs / package

(30 pcs / size)

Disposable

LM 7622 XS

LM 7624 S

LM 7626 M

LM 7628 L

Transparent tip for making correctly

Suitable for use with all matrices

Will not stick to composite fillings

formed and tight approximal contact.

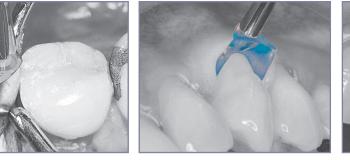


### LM-MultiLever

LM 7550

- For the removal of plastic working end









LM-Gingival Retractors (blue) For establishing optimum working conditions for procedures at the gum line.

Disposable

Four sizes corresponding to the size of the Three sizes. circa 60 pcs / package LM 7502 S for incisors LM 7504 M for premolars LM 7506 XL for molars LM 7500 Assortment package circa LM 7620 Assortment package circa 120 pcs 90 pcs (30 pcs / size)

LM-Cervical Matrices

For making anatomically correct fillings at the gum line. Protects from moisture Prevents air bubbles Disposable Four models for different size and shape, circa 60 pcs / package LM 7602 for incisors LM 7604 for canines and premolars LM 7606 for small molars LM 7608 for large molars LM 7600 Assortment package circa 120 pcs (30 pcs / size)

### LM-MultiHolder IntroKit

Introkit contains LM-MultiHolder instruments PK I and PK II (XSI or ES), MultiLever and samples of all available working ends.

There are a total of 44 working ends, 4 for each size of each working end.

LM 7555K ES I M 7555K XSI

> - You may order LM-MultiHolder IntroKit sample package also separately: LM 7555