



***SURE TO BE HEARD***



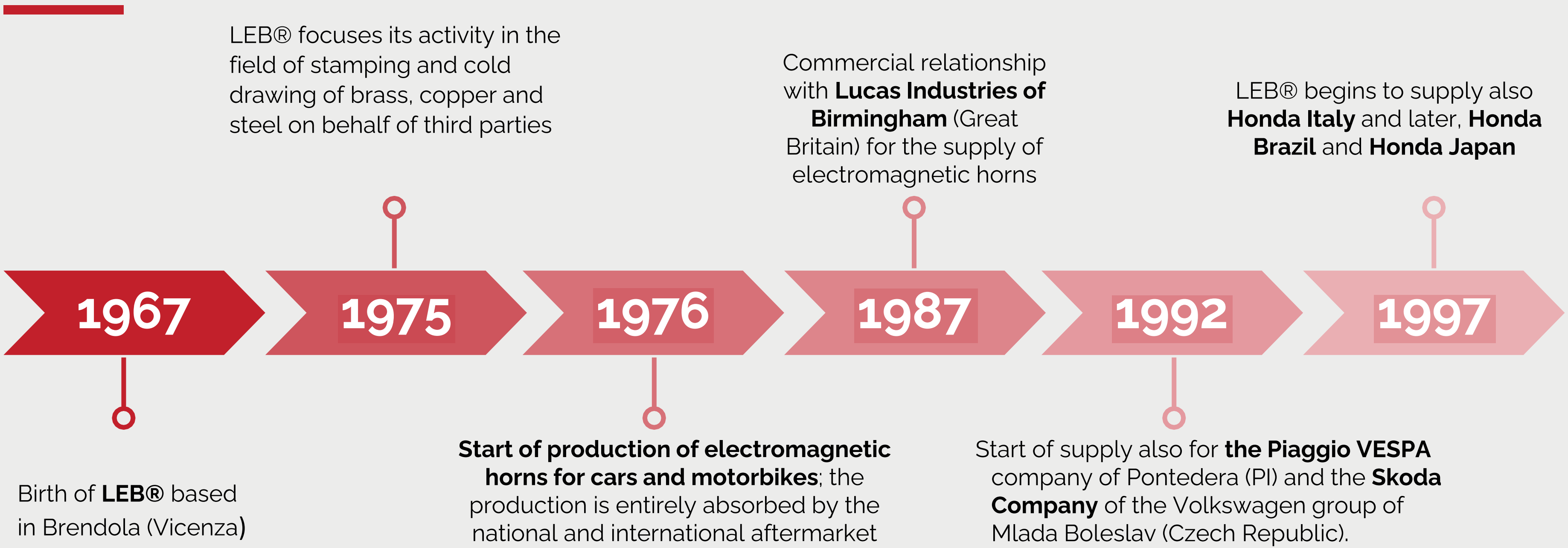
The LEB® SpA company was founded in 1967 with headquarters in Brendola (Vicenza), between Venice and Milan, in North-East Italy.

The factory occupies a total area of 17,000 m<sup>2</sup>, of which 8,300 covered and close to the Montecchio Maggiore tollbooth of the A4 Milan-Venice motorway.





# THE FIRST 30 YEARS



# BIRTH OF NEW MATERIALS

Hand in hand with the growth of the production of horns, the activity of sheet metal deformation also intensifies which will lead LEB® to become an important supplier, specialized in the production of **fan covers**, for manufacturers of electric motors and water pumps. **Since 1999** it has been carrying out its activity according to the quality principles of the **ISO 9001** standard. In its production activity it makes use of machinery (mechanical presses, hydraulic presses, robots) and computerized and technologically advanced assembly systems. It has an internal research and development laboratory assisted by modern and advanced tooling





# QUALITY

Currently LEB® is certified according to the **ISO 9001:2015 Standard** and is developing the **Quality Management System in accordance with the IATF 16949:2016 Technical Specification**



**CERTIFICATE  
OF REGISTRATION**

This is to certify that the Management System of:

**L.E.B. S.P.A.**

Main site: Via Pacinotti 34, 36040, Brendola, Vicenza, Italy

has been assessed by Intertek as conforming to the requirements of:

**UNI EN ISO 9001:2015**

The Management System is applicable to

Design, manufacturing of warning horns.  
Sheet cold forming

IAF: 19-17

The validity of the present certificate is subject to periodic surveillances.

Certificate Number:  
2317447

Initial Certification Date (from other CB):  
12 June 2012

Certification Decision Date:  
27 May 2024

Certification Issue Date:  
27 May 2024

Certificate Expiry Date:  
11 June 2027

  
intertek

  
SGQ N° 0044MS  
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

  
Calin Moldovean  
President, Business Assurance

Intertek Italia S.p.A.  
Via Miglioli, 2/A  
20063 Cernusco sul Naviglio (MI)  
ITALIA



Intertek Italia Spa is an ACCREDIA QMS accredited body under schedule of accreditation no. 0044MS.  
In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a smartphone. The certificate remains the property of Intertek, to whom it must be returned upon request.



# CERTIFICATIONS

The satisfaction of our customers is the basis of the success of our company, which has continuously taken care of the updating of products and processes

**Accreditation, Italian  
Ministry of Infrastructure  
and Transport**

Ministero delle Infrastrutture e dei Trasporti  
DIPARTIMENTO PER I TRASPORTI, LA NAVIGAZIONE, GLI AFFARI GENERALI E IL PERSONALE  
Direzione Generale Territoriale Centro  
Centro Superiore Ricerche e Prove Autoveicoli e Dispositivi  
ROMA

**PROCEDURE DI CONFORMITA' DELLA PRODUZIONE  
CONFORMITY OF PRODUCTION PROCEDURES**

Visto le seguenti normative in materia:  
➤ L'Accordo ECE di Ginevra del 20 Marzo 1958, e successive modificazioni ed integrazioni;  
➤ La Direttiva 2007/46/CE e successive modificazioni ed integrazioni;  
➤ La Direttiva 2003/37/CE e successive modificazioni ed integrazioni;  
➤ La Direttiva 2002/24/CE e successive modificazioni ed integrazioni;  
➤ Il decreto legislativo 30 aprile 1992, n.285, e successive modificazioni ed integrazioni;  
➤ Il decreto 21 aprile 2009, pubblicato nella Gazzetta Ufficiale dell'11 maggio 2009, n. 167 - note generali;

Having regard to:  
➤ The Revised ECE Agreement of 20 March 1958;  
➤ The Directive 2007/46/CE, and its following updates and integrations;  
➤ The Directive 2003/37/CE, and its following updates and integrations;  
➤ The Directive 2002/24/CE, and its following updates and integrations;  
➤ The legislative decree 30 April 1992, n. 285 and its following updates and integrations;  
➤ The decree 21 April 2009, published on the Official Journal of 11 May 2009, no. 167 - general service;

Visto il verbale n. 012/2020 del 23/07/2020 dell'unità di ispezione, designata per l'effettuazione dell'ispezione;  
Acting in accordance with the report n. 012/2020 of 23/07/2020 of the committee appointed to carry out the inspection;

il costruttore  
the manufacturer: LEB S.p.A.

per l'impianto di produzione sito in  
for the manufacturing plant located in: Via Antonio Pacinotti, 34 - 36040 Brendola (VI)

e per il prodotto  
and for the product: Avvisatori acustici

è ritenuto idoneo alla produzione in serie.  
is considered qualified for the production in series.

**CERTIFICATO NUMERO  
STATEMENT NUMBER** 012/2020

Roma, 07/08/2020

Questo certificato è valido fino al 22/07/2023  
This certificate is valid until 22/07/2023

IL DIRETTORE / THE DIRECTOR  
dot. ing. Grazia TABELLI

**CQCC  
Chinese certification  
body**

**PRODUCT CERTIFICATE**

CERTIFICATE NO.: CQC2017011106990445

NAME AND ADDRESS OF THE APPLICANT  
L.E.B. S.P.A.  
via Pacinotti, 34 - 36040 Brendola (VI) ITALY

NAME AND ADDRESS OF THE MANUFACTURER  
L.E.B. S.P.A.  
via Pacinotti, 34 - 36040 Brendola (VI) ITALY

NAME AND ADDRESS OF THE FACTORY  
L.E.B. S.P.A. (V033251)  
via Pacinotti, 34 - 36040 Brendola (VI) ITALY

PRODUCT NAME, MODEL AND SPECIFICATION  
Horn for motor vehicles  
K70-H-12V

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS  
GB15742-2019

TYPE OF CERTIFICATION SCHEMES  
Type Testing of Product + Initial Factory Inspection + Follow up Factory Inspection  
This is to certify that the above mentioned product(s) complies with the requirements of certification rules of CQC16-491283-2018.  
Valid from: Dec.23.2019

The validity of the certificate is subject to positive result of the regular follow up inspection by issuing certification body.  
Date of original issued: Sep.01.2018

President: 陆梅  
Lu Mei

**CHINA QUALITY CERTIFICATION CENTRE**  
Section 9.No.188,Nanshuan Xilu, Beijing 100070 P.R.China  
http://www.cqc.com.cn

C 0179544

**VSCC  
Taiwan certification  
body**

**VSCC 財團法人車輛安全審驗中心**  
Vehicle Safety Certification Center

50544 彰化縣鹿港鎮鹿工北二路2號  
TEL:04-7812180 FAX:04-7811555  
No.2 Luoping Rd.2nd Rd.,Lukang Town,Changhua County 50044,Taiwan R.O.C.

**車輛安全檢測基準審查報告**  
Examination Report for Vehicle Safety Testing Directions

報告編號: A108CCC40-211 製作日期: 2019/05/14  
Report No. Date of Issue

報告類別: 新型式審查  
Category of Report: Examination of New Type

申請者: 香港商運通汽車有限公司台灣分公司  
Name of Applicant

申請地址: 臺北市大安區敦化南路2段230號  
Address of Applicant

法規項目名稱: 二十一之一、聲音警告裝置(喇叭)  
Regulation Item: 21-1 Audible warning devices

廠牌: L.E.B. S.P.A.  
Trade Name

型式系列: K70H  
Type (Series)

型式名稱: 參照附頁第1頁  
V a r i a n t See the attachment(Page 1)

檢測機構: 財團法人車輛研究測試中心  
Technical Service

檢測報告編號: A108N50003M01  
Test Report No.

審查結果:  
Examination Result

符合「車輛型式安全審驗管理辦法」第十四條規定及「車輛安全檢測基準」二十一之一規定  
Complies with article 14 of "Vehicle Safety Type Approval Management Regulations" and 21-1 of "Vehicle Safety Testing Directions"

周維果  
依圖分層負責規定 授權單位主管執行  
財團法人車輛安全審驗中心 執行長  
Vehicle Safety Certification Center CEO

本報告含附頁共2頁。不得摘錄複製。  
Examination report and the attachments: 2 pages.  
Copy and distribution are prohibited.

補充說明:  
Additional Information

1. 本報告如經交還即告失效。有效期間屆滿或申請者主動宣告停用即告失效。  
The examination report will be invalid instantly once Ministry of Transportation and Communications declares the lapse of it, or terminates upon the expiration of term, or if the applicant claims a cessation of the report.



# CERTIFICATION


Compliance with the Ethical, Environmental and Safety Standards of its employees and products is a primary commitment of the Organization

## UL 583 CERTIFICATION

Certificate of Compliance

Certificate Number: 20110818-AU5014  
Report Reference: AU5014-20051223  
Issue Date: 2011-August-18

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
Issued to: **LEB SPA**  
VIA PACINOTTI 34  
36040 BRENDOLA VI ITALY

This is to certify that representative samples of **INDUSTRIAL TRUCK ACCESSORIES, BATTERY POWERED**  
Electromechanical horns Models K91 H/UL, K91 L/UL, Electric Horn Models K91 EM (24-48 Vdc, 12 Vdc, 12-80 Vdc versions), K91 EM3 (24-48 Vdc, 12-80 Vdc versions).

Have been investigated by Underwriters Laboratories in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: Electric-Battery-Powered Industrial Trucks, UL 583

Additional Information: See UL On-line Certification Directory at [www.ul.com](http://www.ul.com) for additional information.

Only those products bearing the UL Recognized Component Mark should be considered as being covered by UL's Recognition and Follow-Up Service.  
The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark, , may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.


Look for the UL Recognized Component Mark on the product

**William R. Carney**  
Director, North American Certification Programs  
Underwriters Laboratories Inc.  
Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.  
For questions, please contact a local UL Customer Service Representative at <http://www.ul.com/global/eng/pages/corporate/contactus>

Certificate of Compliance

Certificate Number: 20110818-AU5014  
Report Reference: AU5014-20051223  
Issue Date: 2011-August-18

Page 2 of 2



This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

**William R. Carney**  
Director, North American Certification Programs  
Underwriters Laboratories Inc.  
Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.  
For questions, please contact a local UL Customer Service Representative at <http://www.ul.com/global/eng/pages/corporate/contactus>

# DIVISIONS

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01



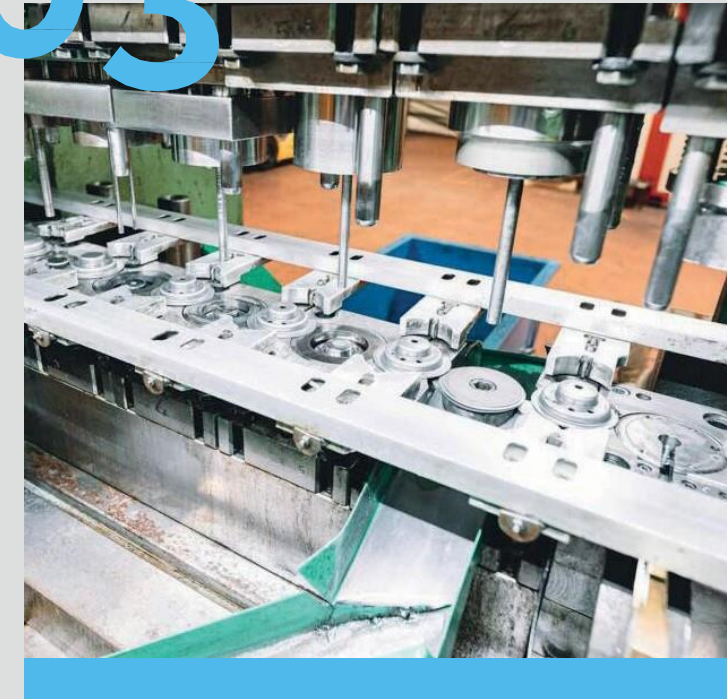
HORNS

02



FAN COVER

03



SHEET METAL DEFORMATION





# HORNS

**LEB®** is recognized as a leading company in the panorama of horns manufacturers worldwide, characterized by the necessary know-how to design and build internally production equipment and high productivity automatic assembly lines. In this way it can offer its customers great flexibility both in the design phase and in the production phase



# STANDARD AND AVAILABILITY OF PRODUCT CUSTOMIZATION

We produce high quality horns, applicable to various types of vehicles.

**LEB® designs and manufactures horns** with the **highest standards** for correct and constant operation over time.





# QUALITY

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The molding department of LEB SpA fully serves the needs of the horn division with all the products intended for the car and motorcycle sector.

More in detail, it deals with the production of some details that make up the horns and trumpets, for productions that are now around a few million specimens produced.

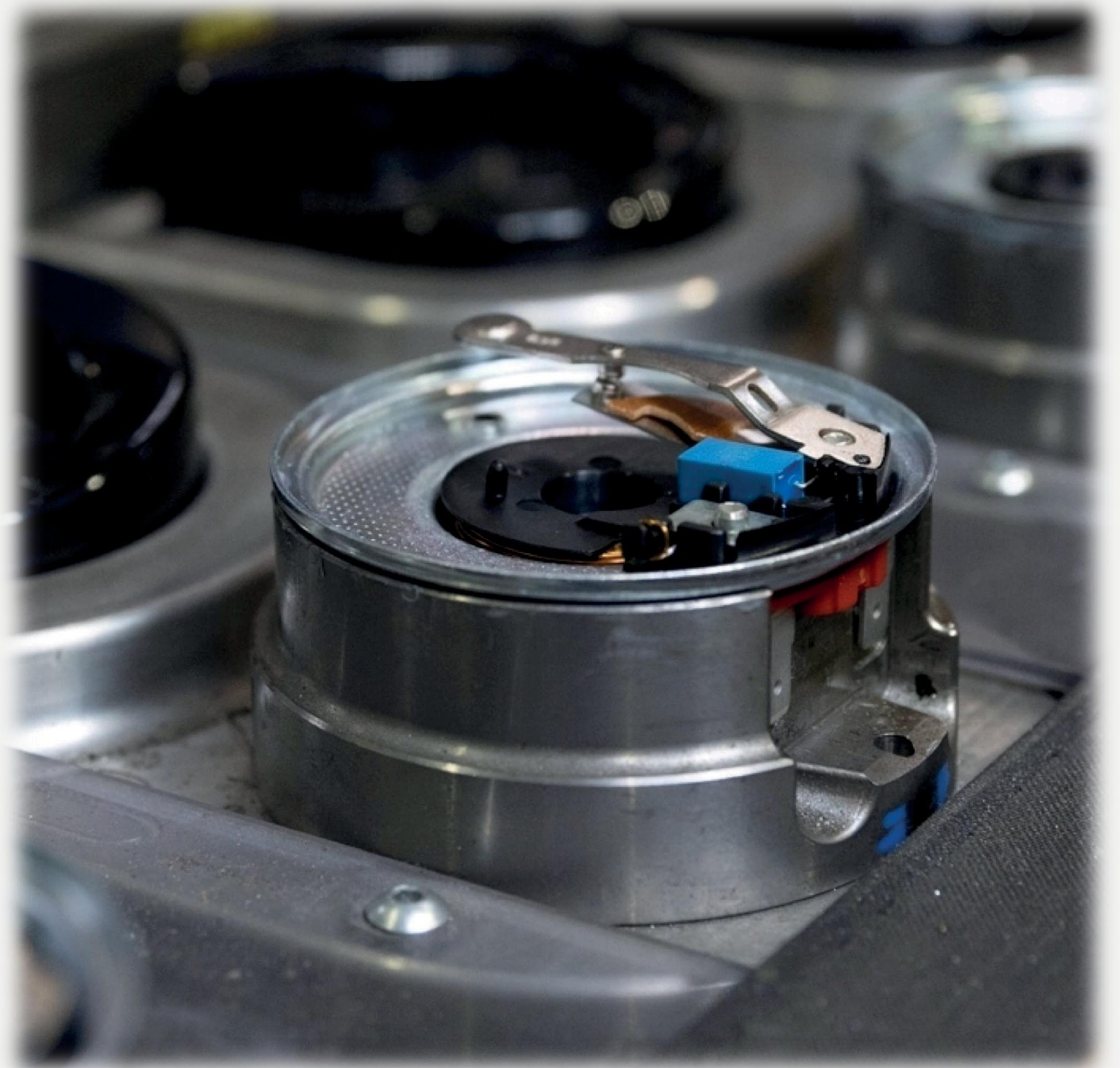




# DIVISION HORNS

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**LEB®** is equipped with high productivity automatic lines for the following product ranges





# HORNS : RANGE



LINE ACTC



LINE APC



BELGAS



LINE C91



LINE INOX-SEA



LINE K70



LINE K91



LINE K91-EM



LINE TWISTER



LINE T91



LINE TR-MAX



LINE TW80



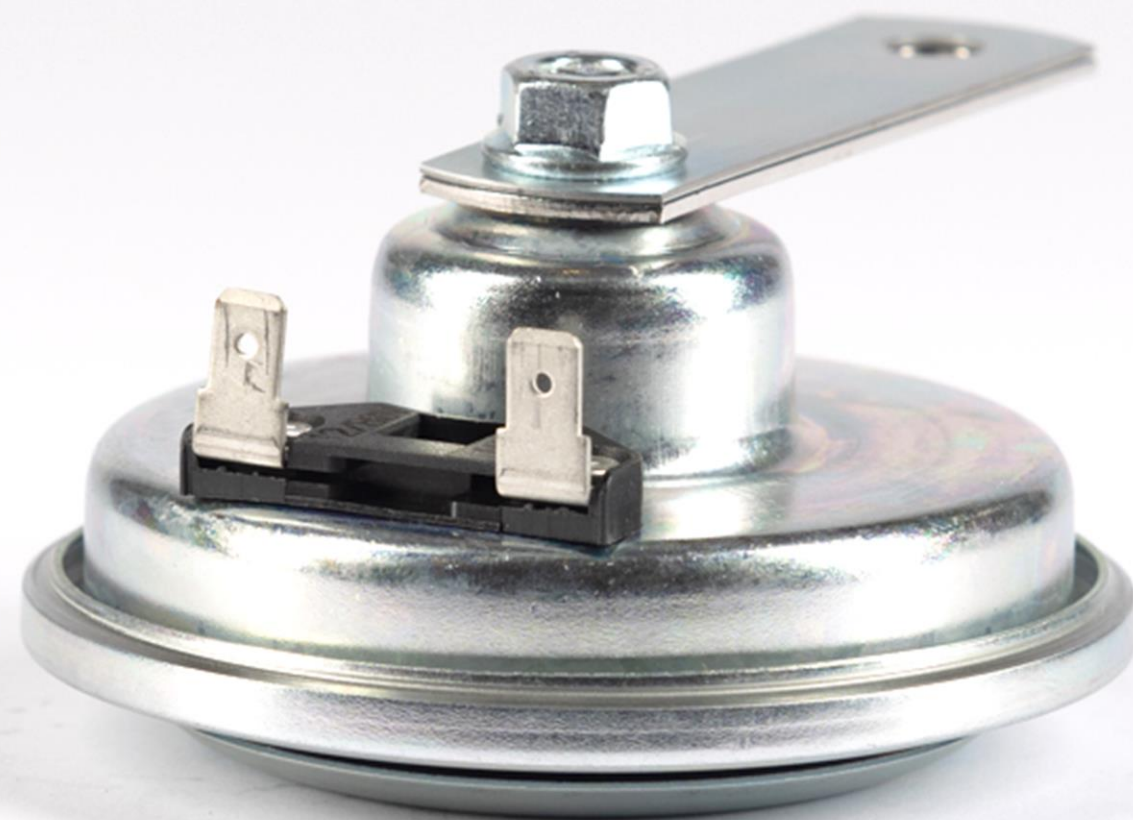
## LINE K70



Small disc horn (**Diameter 70 mm**) designed for motor vehicles



## LINE K91



**90 mm diameter disc** horn, specifically designed for heavy vehicles and forklifts with electric or electronic operation at voltages between 12 and 80 V and with a minimum duration of 50,000, 200,000 or 1,000,000 cycles.

## — **LINE TW 80**



All horns for road vehicles are approved in compliance with the following European Directives and Regulations: Reg28 and Dir 93/30/EEC (acoustic approval), Reg10 and Dir 2004/108/EC (electromagnetic compatibility )



## LINE TW 80 ELECTRONIC VERSION



Compared to the standard TW80, the electronic version guarantees over 1,000,000 cycles while maintaining the initial electroacoustic characteristics unaltered . • Powerful sound > 108 dBA at 13V • Reverse polarity protection and compliance with EMI specifications • High quality standard electronic components and absence of delicate sensors to increase the robustness of the horn • Adaptive control with microprocessor for a powerful sound and safe to any electrical and environmental variation

# **ELECTROMAGNETIC TYPE**

## MARINE MARKET

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# **ELECTROMAGNETIC TYPE**

## MARINE MARKET

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## OTHER PRODUCTS FOR THE MARINE MARKET

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All metal components are in **AISI 304 stainless steel** to guarantee absence of corrosion and facilitate cleaning, stability to environmental changes and long life



## APC 500/600

### OUTDOOR USE FOR INDUSTRIAL VEHICLES – AMERICAN TRUCKS

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All metal components are in **AISI 304 stainless steel** to guarantee absence of corrosion and facilitate cleaning, stability to environmental changes and long life





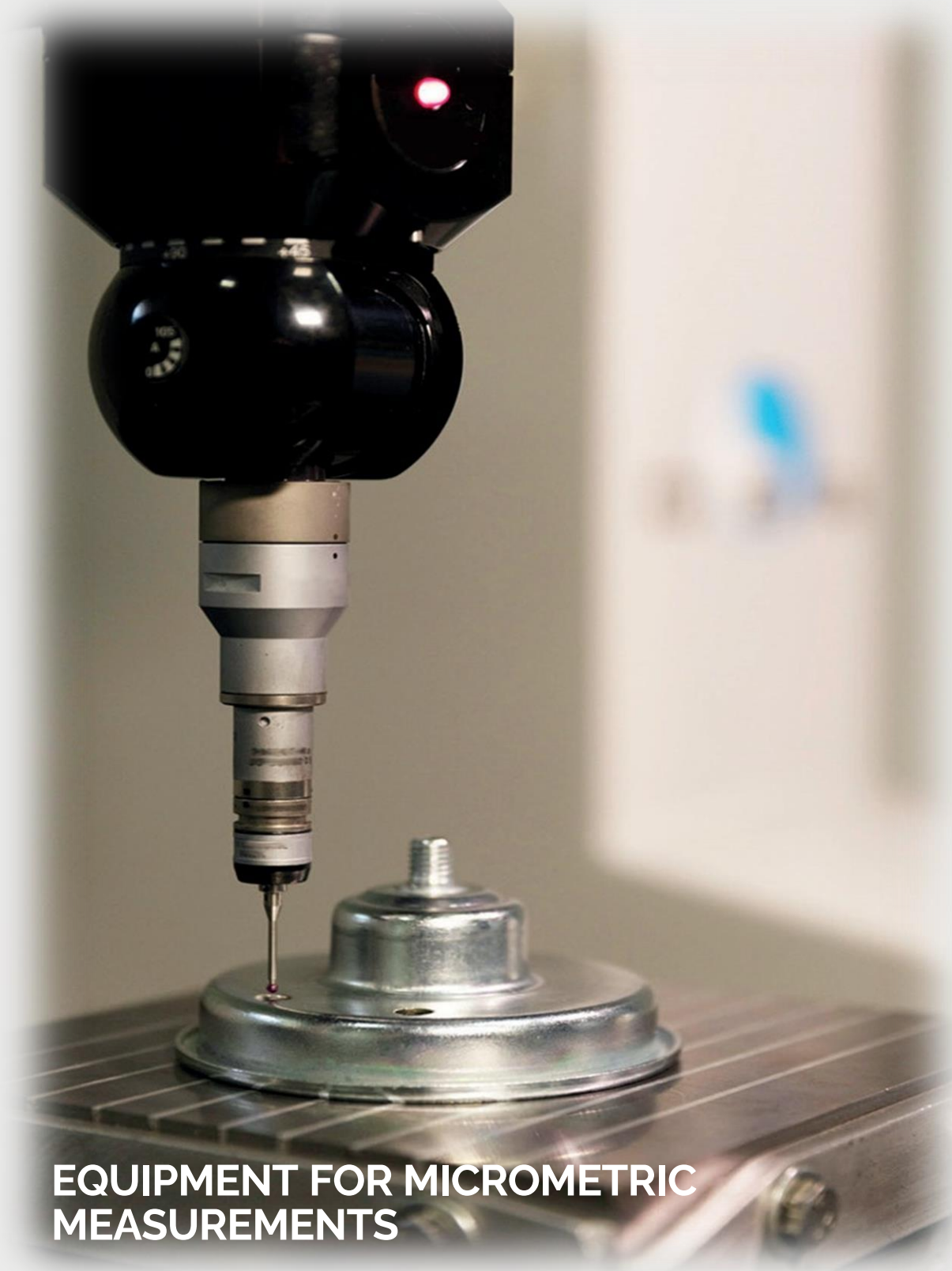
## TESTING BENCH : DURATION OF HORNS



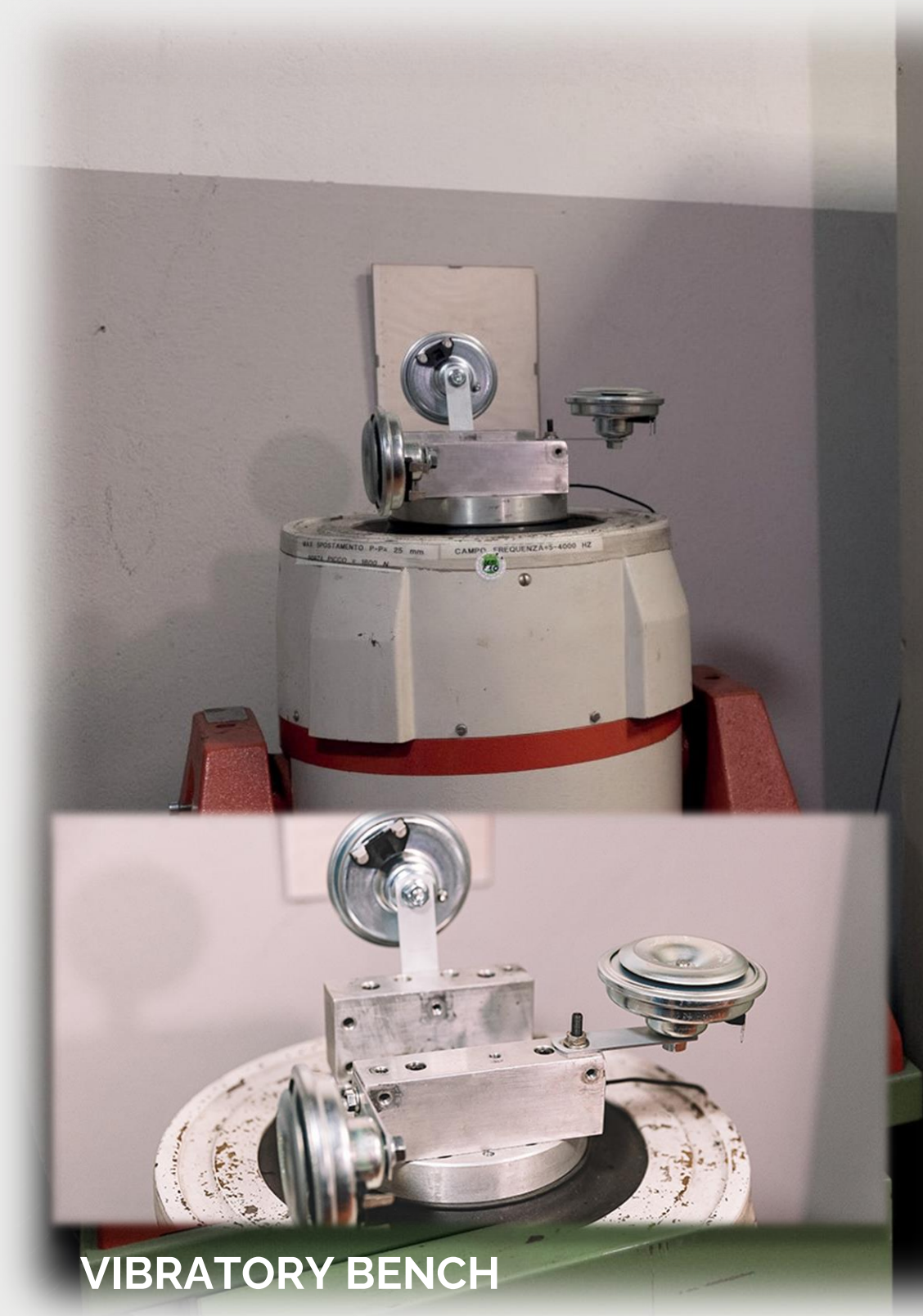
# INSTRUMENTATION



ANECHOIC CHAMBER



EQUIPMENT FOR MICROMETRIC MEASUREMENTS



VIBRATORY BENCH



# INSTRUMENTATION



PROFILES PROJECTOR



SALT FOG SIMULATOR



3D PRINTER



# FAN COVER



The production takes place with equipment and molds owned by LEB® or Customers.

The division is specialized in the production of fan covers for standard or custom electric motors customized



# FAN COVER: RANGE



**IEC MEC 56**



**IEC MEC 63**



**IEC MEC 71**



**IEC MEC 80**



**IEC MEC 90**



**IEC MEC 100**



**IEC MEC 112**



**IEC MEC 132**



# STANDARD AND AVAILABILITY OF PRODUCT CUSTOMIZATION

LEB® has developed a series of modular products able to fulfill the most varied requests in terms of length and housing of servo fans, encoders, brakes, which covers the entire series from IEC/MEC56 to IEC/MEC180. In addition to the already vast range of standard fan covers, a wide variety of special models are produced, customized in shape and size, according to the customer's design, for a total annual production of 8 million pieces.

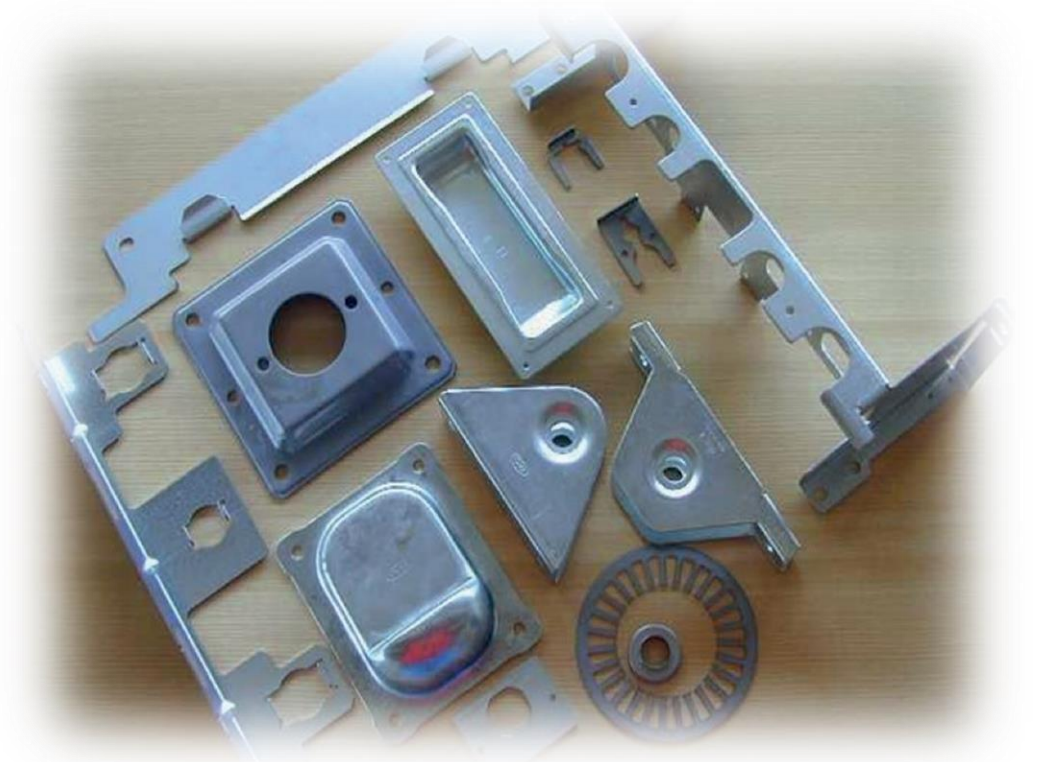




# SHEET METAL DEFORMATION



The production takes place with equipment and molds owned by LEB® or customers. The molding division also offers a large number of steel products for gates and frames, for cal heating dairies etc





A wide variety of special shapes and sizes are also produced according to customer design. LEB® intends to fully satisfy every particular requirement of the customer, evaluating the fat viability of new products, taking care of the design and construction of molds and equipment respecting the timescales required.

**CAP WITH  
LOOPHOLES**



**WHEEL SUPPORT  
FOR GATE**



**WHEEL SUPPORT  
FOR GATE**



**SCOOTER TOP BOX  
HINGE**



**ELECTRIC MOTOR  
FAN RING**



**LEAF STOP  
FOR GATES**



**LEAF STOP  
FOR GATES**



**STAINLESS STEEL  
SUCTION BASE FOR  
WATER PUMPS**









# TECHNICAL EQUIPMENT



Technologies recently landed in LEB:

- Vertical machining centers,
- Wire EDM (Electrical Discharge Machining)
- Sinker EDM (Electrical Discharge Machining)

have allowed us to improve production efficiency, reducing production times, further improving quality, and expanding the possibility of product customization.



# ATTREZZERIA

LEB® has its own tool shop recently equipped with:

- Wire EDM,
- Sinker EDM,

For:

- maintenance,
- creation of new equipment
- study of new projects.

( ATTREZZERIA: In the Italian Industry, is a special department of a factory used for the construction and regulation of equipment intended for machine tools.)







## Vertical machining centers





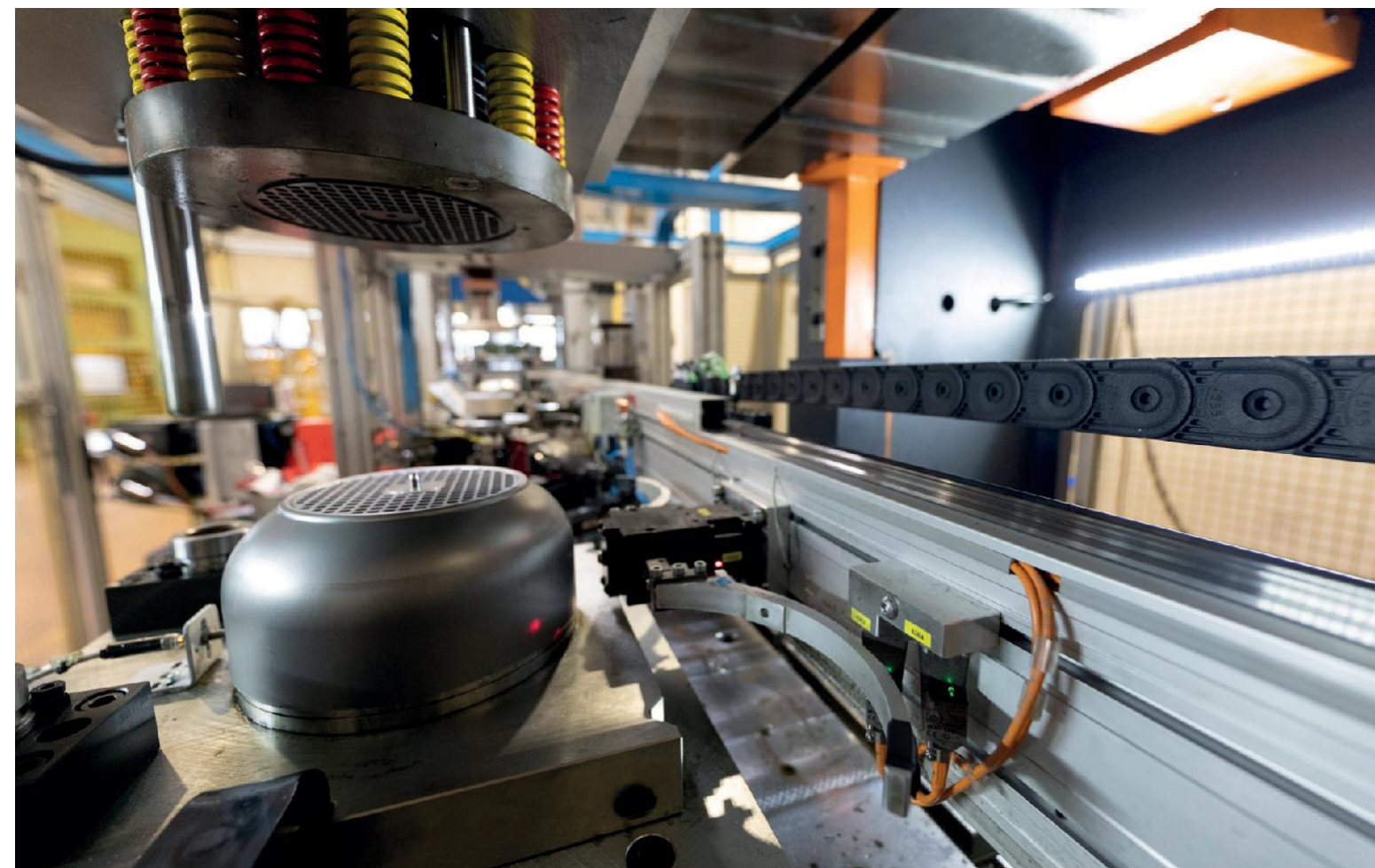
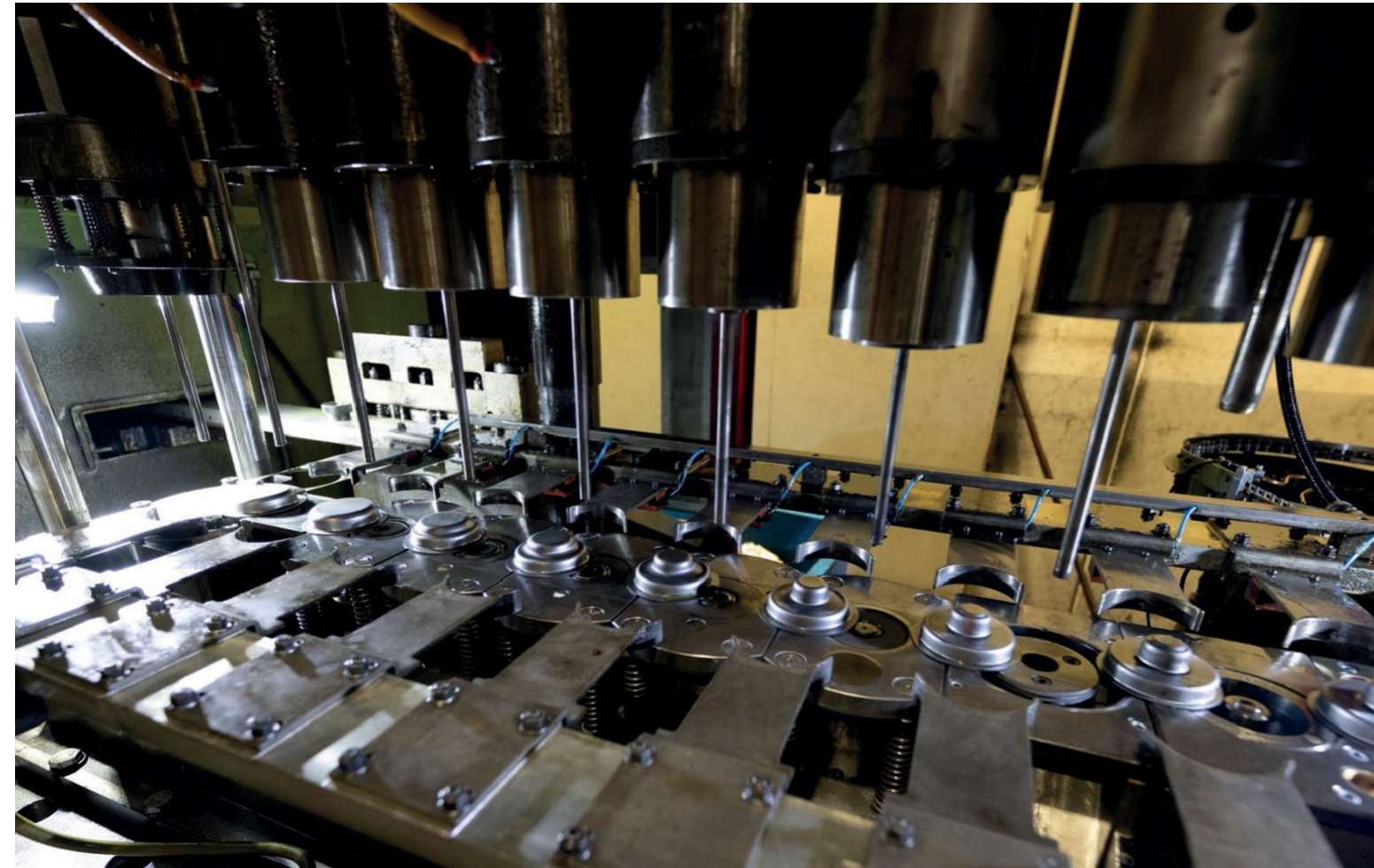
# PRESSES:

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We have the availability of presses

- Hydraulics
- Mechanics
- Transfers

□ with a tonnage from 60 to 400T and worktops from a minimum of 450×800 up to a maximum of 1150×2000mm which allow to work sheets of thicknesses variable from 0.25 to 6mm.





# CLIENT & SALES





Division: **HORNS**

**APRILIA**

**CROWN**

**FANTIC**

**GASGAS,**

**HONDA**

**HUSQUARNA**

**JAWA**

**KION GROUP**

**KTM**

**Logisnext MITSUBISHI**

**EUROPE**

**MOTO GUZZI**

**MV AUGUSTA**

**PIAGGIO**

**SHERCO**

**TM RACING**



Division: **FAN COVER**

**DAB**

**EBARA**

**KMMP**

**LAFERT GROUP - SUMITOMO**

**MORATTO**

**MOTEK**

**ORANGE 1 ELECTRIC MOTORS**

**NIDEC**

**PENTAX**

**PRESSOL**

**ROSSI**

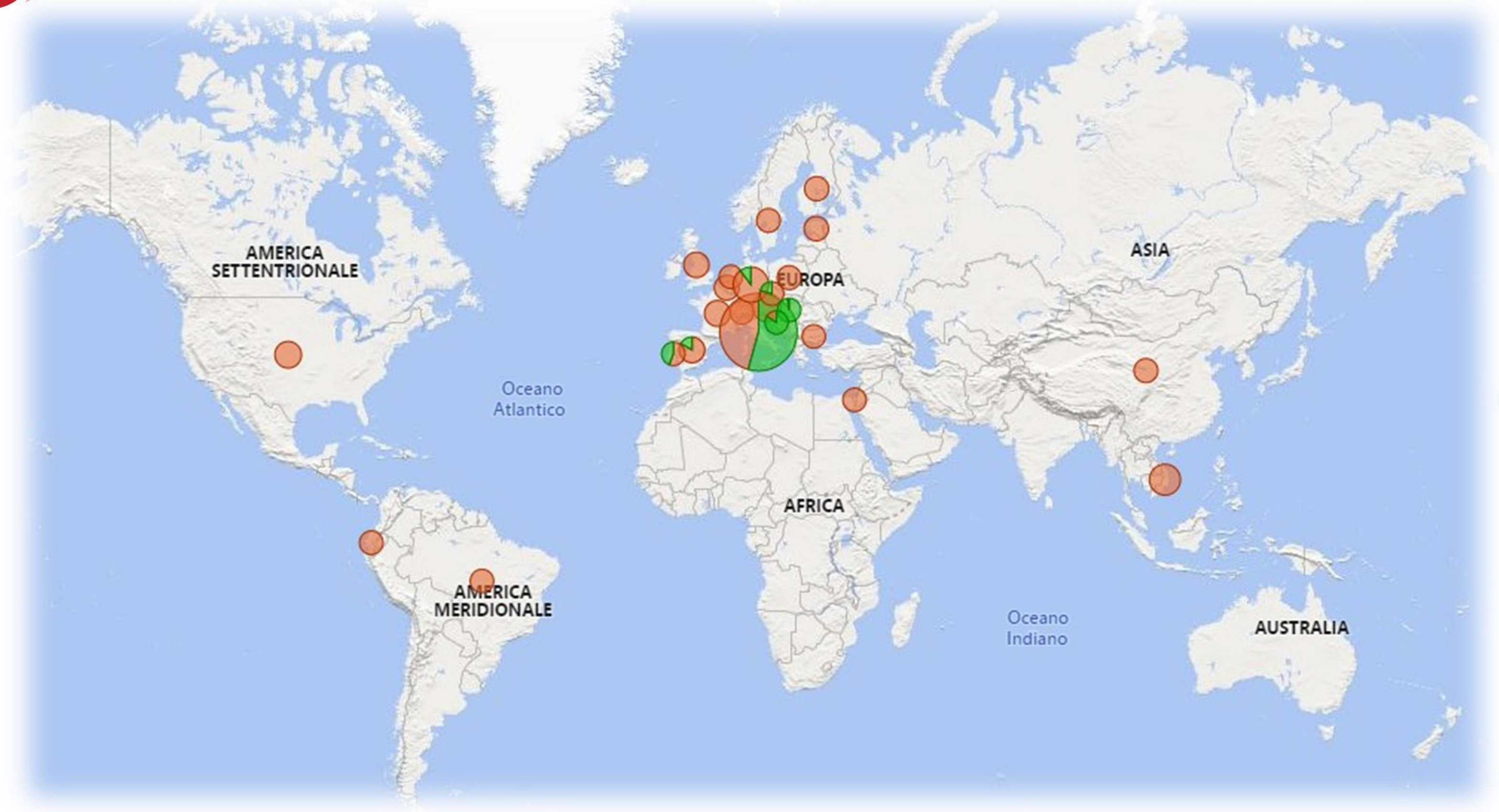
**SOGA ENERGYTEAM**

**SCHABMULLER**

**VENETA PRESS**



# LEB<sup>®</sup> OUR CUSTOMERS







**leb.it**





**leb.it**