Dear Customer,

I founded F.E.E.M. in 1996 after ten years' experience in power electronics, realizing the expressed needs of this market for the production of magnetic components.

In subsequent years I have invested in the organization implementing the designing department exclusively to electromagnetic components. This choice has made productivity gains by acquiring more and more customers among which the most important companies in the world operating in the sectors: civil and industrial power electronics, automotive, railway, military, naval, renewable energy, electric motors and components.

"My philosophy of life is not to give up in front of any goal", the same one that I sent to my company facing new challenges with commitment and professionalism of the market.

Benedetto Astelfo
OUR WORK

We design and produce transformers and inductors operating in power electronics applications at frequencies from 50 Hz to 500 kHz.

DESIGN & SERVICES

F.E.EM. offers the following services:
- Complete electromagnetic design, prototyping and components production
- Production of custom electromagnetic components based on customer's specification
- Design and production of cabinets related to electromagnetic components
- Electromagnetic products trading

ORGANIZATION, QUALITY & COMPANY METHODOLOGY

Our team checks the technical requirements for the realization of each product from the electromagnetic calculation and the design of the mechanical parts. The business organization is structured according to the ISO certification guidelines, for monitoring the quality and documentation of business processes (from technical department, purchasing, production and commercial and administrative management) to ensure the traceability of components, maximize the effectiveness of each stage in the management of the order.

OFFICER R&D

R & D manager, in accordance to the company philosophy, has matured during last 20 years of collaboration with F.E.EM. lot of experience thanks to his dedication to work and the masters obtained at KG Magnetics USA directed by Prof. McLyman and others achieved in the USA. The insertion of new engineers has provided a more complete service for every customer request.
PRODUCTION

We grow with the most common systems, such as KAN–BAN and BUFFER STOCK, adapting them to the needs of each customer. Headquartered in Varazze (IT) handles all special products, great power items and prototyping. The plant in Bulgaria manages the production of all small–sized components for massive productions and is connected to our headquarter by raw materials and finished items direct flows.

COLLABORATIONS

F.E.EM. actually co–operates with many customers; among the most popular: ABB, DANIELI AUTOMATION, GENERAL ELECTRIC, MITSUBISHI Electric, LEONARDO and ST Microelectronics.

COMMERCIAL

Our commercial agent are present in:

- Italy
- Germany
- Austria
- Switzerland
- Spain
- Portugal
- Poland
- Russia
- Ukraine
- Brasil
- Bulgaria
- France
- Belgium
- Holland
STAFF
APPLICATION AREAS

- Power Electronic
  (PCB demo ST. Microelectronics)
- Welding
- Railway
- Different industrial sectors
- Wind Power
- Solar
- Military
- Automotive
- Brushless Motors
TRANSFORMERS & INDUCTORS
Power: 5 kW
Frequency: 50 kHz
Application area: Welding

Power: 87 kW
Frequency: 10 kHz
Application area: Military
(Service equipment for F-35 Lightning II)

Voltage: 10000 V
Frequency: 30 kHz
Application area: Plasma Cutting

Power: 6 kW
Frequency: 25 kHz
Application area: Galvanic

Power: 2.5 kW
Frequency: 50 kHz
Application area: Welding

Power: 8 kW
Frequency: 70 kHz
Application area: Galvanic
Power: 22 kW  
Frequency: 45 kHz  
Application area: Welding

Power: 15 kW  
Frequency: 30 kHz  
Application area: Welding

Power: 20 kW  
Frequency: 40 kHz  
Application area: Welding

Power: 75 kW  
Frequency: 8 kHz  
Application area: Railway Traction

Power: 16 kW  
Frequency: 50 kHz  
Application area: Welding

Power: 115 kW  
Frequency: 50 Hz  
Application area: Military  
(Service equipment for F-35 Lightning II)
Inductance and current: 0.1 mH - 250 A  
Frequency: 20 kHz  
Application area: UPS

Inductance and current: 1 mH - 30 A  
Frequency: 20 kHz  
Application area: Photovoltaic

Inductance and current: 0.1 mH - 200 A  
Frequency: 20 kHz  
Application area: UPS

Inductance and current: 1 mH - 60 A  
Frequency: 30 kHz  
Application area: Corona treatment

Inductance and current: 0.2 mH - 30 A  
Frequency: 20 kHz  
Application area: Ultrasound

Inductance and current: 1 mH - 30 A  
Frequency: 5 kHz  
Application area: Railway traction
**INDUCTORS**

- **Inductance and current:** 0.7 mH - 50 A  
  **Frequency:** 40 kHz  
  **Application area:** Renewable Energy

- **Inductance and current:** 0.15 mH - 40 A  
  **Frequency:** 60 kHz  
  **Application area:** Renewable Energy

- **Inductance and current:** 7 mH - 25 A  
  **Frequency:** 8 kHz (appl.DC)  
  **Application area:** Battery charger

- **Inductance and current:** 0.2 mH - 100 A  
  **Frequency:** 25 kHz  
  **Application area:** Harmonics Filtering

- **Inductance and current:** 0.08 mH - 100 A  
  **Frequency:** 20 kHz  
  **Application area:** Induction Heating

- **Inductance and current:** 0.5 mH - 200 A  
  **Frequency:** 2 kHz  
  **Application area:** Laboratory
INDUCTIVE COMPONENTS DESIGN

Power capability up to 5 MW

Design of mechanical supports

cooling fluid circuit

TECHNICAL DATA:

Weight: 700 Kg
Dimensions: 500 x 500 x 1200 mm

Inductance: 200 uH
Current: 2000 A (rms)
Frequency: 500 Hz

LIQUID COOLED COMPONENTS DESIGN
Flat Winding Technique
(*catalogue available)

Windings for brushless motors

50 Hz - 400 Hz INDUCTIVE COMPONENTS
(*catalogue available)

OTHER PRODUCTIONS
OUR OFFICES:

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