

# HEART OF INJECTION



FUEL INJECTION SYSTEMS
since 1930

#### THE COMPANY

### **PRODUCT RANGE**

O.M.T. - Officine Meccaniche Torino S.p.A.

Founded over 80 years ago, Officine Meccaniche Torino (O.M.T. S.p.A.), has served engine builders with dependable, high quality fuel injection equipment from the early days of large diesel engine development.

In the intervening years, OMT's know-how and technology have always kept pace with the demands of builders and end users of low and medium speed engines and the evolution of the marine propulsion, power generation, gas compression and rail traction markets.

In particular, as a fully integrated producer, OMT has regularly invested a high percentage of its revenues in fuel injection research and the production facilities needed to produce the high quality and on-time deliveries demanded by its customers.

The overall result is a range of dependable, high technology fuel injection systems for a full range of distillate and heavy fuels. Significantly, in the present phase of emissions-dominated engine development, OMT fuel injection systems are enablers of cleaner, more efficient diesel and dual-fuel combustion for emissions compliant engines with optimised fuel efficiency and maximised power density.

Testifying to this success, OMT has gained certifications from the leading international quality assurance authorities, including all the most important marine classification societies.







The OMT product range includes a full spectrum of fuel injection systems and components for low and medium speed diesel and dual fuel engines, as well as related test equipment. It comprises:

- Fuel injection pumps for distillate and heavy fuels
- Fuel injection valves
- Nozzles and atomizers
- · Plungers and barrels for fuel lines
- Electronic injectors for Common Rail systems
- High pressure fuel pipes/single and double wall
- Delivery valves
- · Automated fuel injection test rigs
- High pressure safety valves
- Power electronics for driving pumps and injectors
- Electro-hydraulic actuators















#### RESEARCH AND DEVELOPMENT

The OMT R&D department is committed to advancing the state-of-the-art of large engine fuel injection to the benefit of all aspects of engine performance and - importantly - overall engine life cycle costs.

In a process of simultaneous engineering, OMT cooperates closely with engine builders to produce fuel injection system capable of meeting the challenges of modern large engine development. A major emphasis is currently attaining the reduction in NOx emissions required under the IMO Tier III limitations for ships in Emission Control Areas while minimising fuel consumption as a route to lower operating costs, reduced greenhouse gas emissions and conserving fossil fuel resources.

A major recent achievement by OMT and its customers has been the development of common rail fuel injection systems with unique levels of flexibility in terms of injection timing and injection rate at consistently high injection pressures.

The latest equipment for computing and simulating thermal fluid dynamic processes, in conjunction with leading edge materials science and intensive testing, all guarantee that systems and components produced at OMT offer high performance and excellent availability in operation.







## **QUALITY SYSTEMS**

OMT considers quality to be the heart of its company policy.

The effectiveness of OMT's quality systems is confirmed by the Swiss S.Q.S. Certification, certifying conformity to the ISO 9001:2008 and ISO 14001:2004 standards.

As required by the ISO/SC7 regulations, each component is subjected to a comprehensive programme of thorough testing.

The Quality Assurance team at OMT operates in complete autonomy and applies rigorous verification standards in collaboration with the production and planning departments. The result is a guarantee of absolute compliance with customer requirements on durable and reliable high performance fuel injection products.

Tests are principally carried out in two laboratories, both equipped with the most up-to-date instrumentation: the chemistry/physics lab was designed to execute structural and chemical tests on materials, both before and after heat treatment; the metrology lab is equipped to measure all internal and external dimensions of OMT products, including three dimensional shapes.

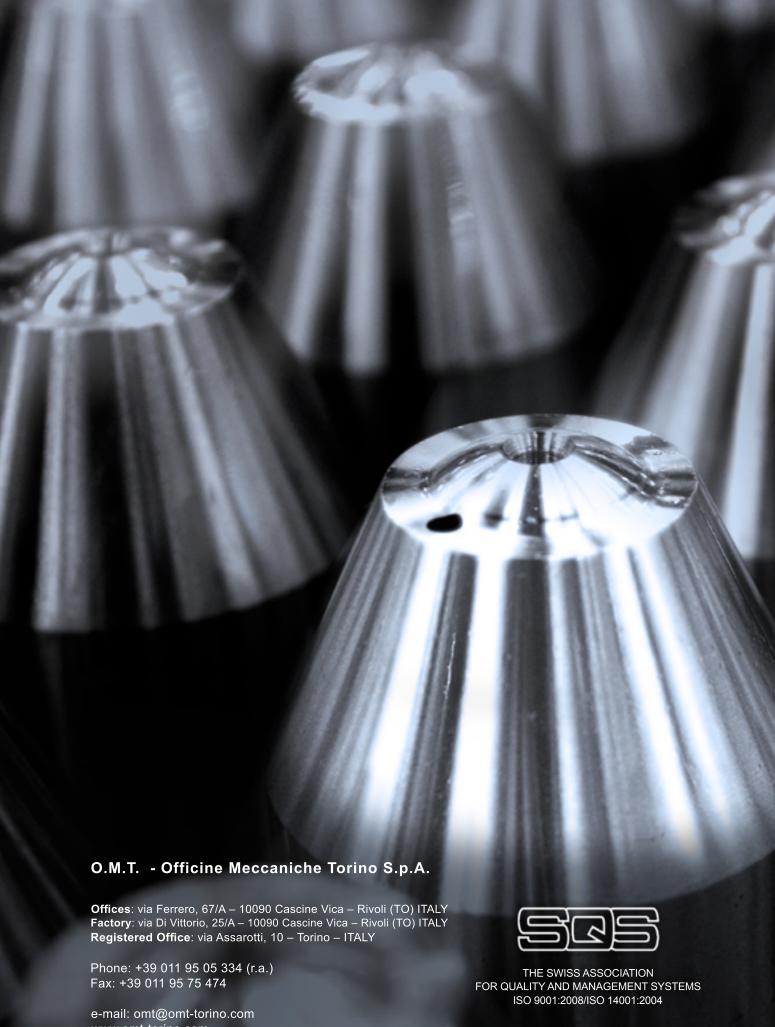
OMT's in house heat treatment facilities have available all the specialised, up-to-date equipment essential for economic, reproducible production processes and their testing and certification.

Documentation, storage of test samples and the statistical processing of data acquired during quality control operations allow OMT to intervene in real time in production processes to introduce any necessary modifications to procedures and so maintain the standards of production requested by the customer.

All testing is carried out in accordance with operative modes and methods and the test conditions prescribed by standardisation authorities.







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