

# TM.P news



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## New Test Rig for API Pumps in TM.P. Test Centre

Termomeccanica Pompe has been making for some years investments aimed at strengthening its presence in the Oil&Gas market through a project that, apart from revisiting the low-end range (standard pumps designed in compliance with API610 standards) in an attempt at creating a product "catalogue" satisfying all the requirements of the reference market, provides for the construction of a new multi-station test rig in the Test Center.

This rig is dedicated mainly to the performance tests of these new products that, because of their characteristics as standard machines and the high volume of sales this market involves, require high-productivity and particularly flexible test circuits.

### Test Center

Termomeccanica Pompe test center covers an area of about 4,000 m<sup>2</sup> and is divided into four spans fitted with cranes with a loading capacity of 50 tons max and a working height of 10m. The power available is given by three systems: one with 2.5 MW at 50Hz with 3/6kV voltage, one reaching 11 MW at 50Hz and 10.35 kV maximum voltage and a 60Hz system with 4.5 MW maximum power at 13,800V. On the other hand, for low voltages (400V) there are two panels fitted with soft starter allowing to start motors of 250kW max. For the performance tests of vertical pumps, 10m deep tanks are available, connected to a piping and open conduit system called "high flow circuit", where machines with capacities up to 65,000 m<sup>3</sup>/h can be tested.

The test center is also fitted with a hot test circuit with water up to a 200 °C for high-pressure multi-stage horizontal pumps (450 barg max.) and another closed circuit test system for tests with diathermic oil up to 350 °C and 250kW max. power used for pump mechanical validation in Oil&Gas applications.

The test center has also equipment such as electrical motors, variable speed devices and reducers to be used when the order operating systems are not available.

### New Circuit

The new circuit dedicated to API horizontal pumps has been totally designed and manufactured by Termomeccanica Pompe according to API, ISO and HI international reference test standards.

It is a closed circuit, nearly completely underground, designed with stainless steel pipes and equipment. A measurement line and flow control system

allows to perform various tests all at the same time. The circuit is connected to a big feeding tank installed under the floor that is also connected to a secondary circuit for pressurization or vacuum creation. Two lines rely on this secondary circuit: one of compressed air to pressurize the main circuit and one connected to a vacuum pump, allowing the main circuit to reach pressure values approaching absolute vacuum. This allows to carry out cavitation tests (NPSH) without any throttle valve in the suction pipes of the various stations, avoiding the possible formation of two-phase fluid and ensuring even pump feed.

1.5 MW pumps can be tested and rotational speed can be modified via a series of inverters allowing frequency variations between 50 and 120 Hz. The circuit has been developed with a flexible modular concept with three benches divided according to their power capability: Rig 1 for power up to 75kW; Rig 2 for power between 75 and 500 kW; Rig 3 for power greater than 500 kW. The test can be carried out both with a Termomeccanica motor and with the Customer's motor. A PLC control system allows to carry out the test automatically and remotely selecting the type of pump to be tested. The circuit has been designed to maximize productivity and makes it possible to install, test and disinstall a pump in just two hours. These times guarantee a **test capacity of at least 600 pumps/year**.

Summarizing, the operating features of the machines that can be tested are as follows:

- Rate flows between 3 and 2,400 m<sup>3</sup>/h
- Delivery pressures up to 100 barg
- NPSH available from 0m to 48m
- Power up to 1.5 MW



New Test Rig for API 610 Pumps Type OH2, BB2, BB5, VS1, VS4 and VS6.

## Termomeccanica Celebrates its 100 Years by Opening its Doors from 14 to 16 June



Management Team Termomeccanica 2012

In mid June, Termomeccanica celebrated its Centenary with its employees, the city of La Spezia, customers, suppliers and other partners during 3 dedicated days. The event made it possible to go back over the 100 years of history and challenges that brought the company to its current success.

The main historical stages of the company can be summarized as follows:

### • The Origins

The company is formed in 1912 as "A. Cerpelli & Co." at the same time as the Italian mechanical development, supplying subsidiary material (pumps and compressors) to the naval industry.

### • Entry into IRI and Finmeccanica

In 1934, following the economic crisis, the company becomes part of IRI – Istituto per la Ricostruzione Italiana (Institute for Italian Reconstruction) – and becomes "Termomeccanica Italiana".

The company starts again in 1945 and in 1949 becomes part of Finmeccanica.

During the following years, Termomeccanica Italiana develops a wide range of pumps and compressors for the water, energy and industry sectors and creates the know-how in the designing and manufacturing of big systems that grows stronger in the Seventies, turning towards environmental plant engineering.

### • EFIM and Crisis Period

A difficult period starts in 1982 changing ownership from Finmeccanica to state-owned EFIM.

In March 1987, the company lays off 700 staff, going from 1200 to 500. In July 1992, EFIM is wound up and the future of its former companies will be decided in the next 2½ years.

### • Privatization and Revival

In January 1995, Termomeccanica Italiana is "saved" with the transfer of its business to "Termomeccanica SpA", including various shareholders, amongst which Banca Intesa SanPaolo, one of the most important Italian bank groups. Under the leadership of the shareholder-manager Enso Papi, the production and company structures are redesigned. In 1999-2000, the company historical activities become operating companies controlled by Termomeccanica SpA as holding company. *TM.E. S.p.A. Termomeccanica Ecologia*, *TM.P. S.p.A. Termomeccanica Pompe* and *TM.C. S.p.A. Termomeccanica Compressori* are established.

### • Today

15 years after privatization, the commitment, professionalism and determination of both management and employees have led Termomeccanica to become a successful group. Numbers, constantly growing since 1996, speak for themselves: consolidated profits have gone from 64.2 million Euros in 1996 to 195.6 million Euros in 2011. During the same period, profitability has gone hand in hand with growth, giving net profits of 103 million Euros, 45% of which has gone to increase the net assets. Employment has increased too, the number of staff going from 414 in 1996 to 1013 in 2011.

The financial viability of the Termomeccanica group allows to look to the future with optimism and places it in a favourable position to face its next development phase: consolidation of the core business and continuation in the internationalization process, already strong in the companies of the mechanical pole - TM.P and TM.C - that export over 80% of their production.

(Based on articles published in the local press on 16/06/2012).

## New Power Generation Orders for Both TM.P. e TM.C.

### 12 million Euro Order in Saudi Power Generation for TMP

Last April, Termomeccanica Pompe signed a new 12 million Euro contract for a supply to the "PP10" plant to be fulfilled within 2014 in Saudi Arabia in the Riyadh area.

The order is related to the conversion of a structure for gas-turbine power generation into a combined-cycle power station and therefore with a relevant number of steam turbines equalling 25.

With a total of 40 units x 75MW each, the plant shall have an impressive total power of **3,000 MW**.

The end user is SEC, Saudi Electricity Company, while the EPC Contractor to carry out the installation, TM.P.'s direct customer, is BEMCO International, based in Beirut.

Between March and December 2013, TM.P. shall therefore supply BEMCO with **120 boiler feed water pumps, complete with electrical motors**, to be installed in the 25 steam generators.

The manufacturing of some components of the supply shall be made by the controlled companies TM.P. Termomeccanica Service Sud (Massafra) and Termomeccanica Saudia Co. Ltd. (Al Jubail workshop).



Boiler feed water pump

### TM.C.'s Order for Turkish Power Generation

Following the strategic expansion lines of its product and solution portfolio, TMC and its Partner ADICOMP, have strung together another success in the Power Generation market.

TMC acquired the order for 2 biogas compression skids, based on the SCA30 compressor, with 16.5 barg delivery pressure and variable speed device, for the Turkish municipality of Ambarli (Istanbul).

The supply includes designing and manufacturing a mixing station mixing compressed biogas with the natural gas of the city pipeline.

If the mixing values vary and don't comply with the customer's specifications, the mixing station can adjust the compressor speed by sending appropriate signals from the control room, ensuring correct mixing flow rates.

The two compressors supplied feed two Solar (Caterpillar group) gas turbines for a production of effective power of 16MW. The final destination is the Ambarli waste disposal plant, in the Istanbul harbour area, that will purify water and dispose of urban waste, with a digester, for about 2 million people/equivalent while the final client is the PWT-Faber Turkish-German consortium.

The supply was delivered last May and June.

Find underneath photo and machine details

- Fluid: biogas
- Electrical motor rated power: 250kW
- Delivery pressure: 16.5 barg
- Flow rate: 1260 Nm<sup>3</sup>/h
- Weatherproof (for outdoor installation)
- Inverter controlled
- "Oil- & water-free"
- "Explosion-proof" – ATEX area 2



Biogas compression skid

## flash news

### TM.P. and TM.C. take part in the IRPC (International Refining & Petrochemical Conference) Conference-Exhibition

On 12, 13 and 14 June TM.P and TM.C. exhibited at one of the most important international events for operators in the Oil & Gas sector, the 2012 IRPC Conference held at Mico-Milano Congressi.

The Conference is a forum where the main players in that market can share experiences and ideas on the latest technological and operating progresses in the Refining & Petrochemical industries.

The main hosts were ENI (event host sponsor), Walter Tosto (Gold Sponsor) and ABB (Silver Sponsor).

For TM.P and TM.C., participation in the event is part of the strategy to strengthen their presence in the Oil&Gas and Petrochemical markets.



### TM.P. takes part in WETEX 2012 Dubai

Termomeccanica Pompe exhibited at the **Water & Energy Technology & Environment Exhibition (WETEX)** that took place in Dubai from 13 to 15 March. This is a very important annual event for the Water, Energy and Environment sectors of the GCC countries and internationally, organized by DEWA (Dubai Electricity & Water Authority), the main government purchasing body for energy and water products and services in Dubai.

Present in the Gulf since the Seventies, today TM.P. boasts a wide number of machines installed in key plants in the Energy & Desalination, Oil & Gas, Water and Industrial Transmission sectors. The company considers the area strategically important and therefore decided not to miss the event, a preferred meeting point with its main customers and end users in the area such as DEWA, SEWA, ADEWA, ADCO, GASCO, ADNOC, TAKREER and DUBAL.

TM.P. exhibited through its Sharjah Branch Office (SAIF Zone), operational since 2008 to strengthen its local position and optimize customer relationships.

The General Manager and members of the Sales & Marketing Department of the Service Division of the Parent Company as well as the General Manager of the UAE Branch attended.



The editors of this issue are:

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## Our mission

To contribute to the success of our customers through our experience and know-how. We pursue this goal giving the utmost consideration to the hard work and commitment of employees and suppliers, respecting Environment and complying with expectations of our Shareholders.

