

# TM.P news



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Project Developed in-house  
Authorisation from the tribunal of La Spezia  
N. 5/08 dtd. 02/12/2008

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June 2011, issue 02

## Mundra Power Plant – Gujarat, India: Start-up of the first of 10 mega pumps

Termomeccanica Pompe (TM.P.) has supplied, in co-operation with its historical Indian partner Kirloskar Brothers Ltd., 10 seawater circulation pumps for the «**Mundra ultra Mega Power Project**», the fossil fuel power plant of Mundra, located in the Kutch district of Gujarat. The power plant includes 5 generating units, of 800 MW each, for an overall plant power totaling 4,000 MW. The circulation pumps have a unit flow rate of 63,000 m<sup>3</sup>/h, with a motor power of 5,200 kW. This is one of the world's largest power plant



Impeller installation

cooling systems located at a single site. To better illustrate things, the ten TM.P. pumps move an amount of water equivalent to 1/10 of the average flow of the Po river at its mouth, while the overall power of the plant is three times the power of the La Spezia plant. Termomeccanica Pompe has performed the hydraulic and detailed design of the pumps, supplied the rotating part, the technological core of the pumps, and tested the model at its Test Centre of La Spezia. This supply is a further result of the foreign expansion policy that the company initiated over the past years and follows other projects which have already been completed in India, including the largest irrigation pumping system in the world at Sardar Sarovar located in the state of Gujarat.

Last April, TM.P. received the visit of a delegation from Kirloskar Brothers Ltd. (K.B.L.). During such visit, the decision was made to extend for another 5 years the agreement on the seawater circulation pumps, expiring next October. In addition, a co-production agreement was signed for the manufacturing of condensate extraction pumps for super-critical conventional power plants for the Indian market: TM.P. will manufacture the hydraulics, core of the machine, while K.B.L. will manufacture the other components.

## A new manager for Termomeccanica Compressori



**T.M.C. S.p.A.** - Termomeccanica Compressori, has been under the leadership of a new **General Manager**, **Emiliano Maianti**, since December 1st 2010. Mr Maianti is a

Telecommunication Engineer with an Executive Master in Business & Administration from the Polytechnico di Milano University and with a strong experience in the Oil & Gas and Power Generation sectors.

The role of the new General Manager, who became Managing Director in May 2011, is to support the business and team of the screw compressor sector of Termomeccanica Group's mechanical pole towards expansion and diversification.

Today, Termomeccanica Compressori (T.M.C.) is one of the last remaining manufacturers of "non-packaged" screw compressors in the world and is actually the only one remaining in Italy and Europe. With 90% of its production, T.M.C. serves the air end (air compression) market, while the remaining 10% involves the compression of gases other than air and special applications such as powder transport (in the Food and Construction markets). The company's export level is a proof of the worldwide presence of its products: exports currently represent almost 85% of the turnover and include markets such as the **United States, Korea, Germany, Brazil, Turkey and China**, which benefits from the active contribution of the **T.M.C. SS** subsidiary, headquartered in Shanghai and currently operating in China.

The T.M.C. family also includes a team in Taranto-based **TM.P. Termomeccanica Service Sud**, where mechanical machining facilities for the



large-sized rotors, TM.C.'s flagship's product, are located. The highly innovative content of such rotors is recognized by market and sector professionals alike.

Termomeccanica Compressori's objectives for the next years are:

- Consolidating the global business of the company after an economic crisis that is not yet over. The aim is to fidelize TM.C.'s Customer portfolio by maintaining the quality, reliability and performance of the product appropriately, all of which associated to the professionalism of the team and of the Customer Service offered, from pre- to post-sales.
- Expanding business to new products and new markets:

The Product portfolio may be broadened through a Research and Development focused on the offer of solutions based on innovation and strong added value perceived by the company's market; New market niches, where the typicality of the TM.C. product may bring novelty and added value to Customers, are already being explored, such as in the Petrochemical and Oil&Gas sectors: the recent success of TM.C. compressors on the American market for a Vapour Recovery System related to a methane application can be cited as such an example.

\* "non packaged" compressors: compressors not complete of "package", i.e. the series of auxiliary elements for air compression of which the TMC compressor constitutes the essential element.

## IDA Conference Santa Margherita Ligure 16-18 May 2011

### Desalination Industry Action for Good

The conference organized by **IDA - Desalination Industry Action for Good** was held in Santa Margherita Ligure from May 16 to May 18; the proceeds of the conference are to be used for a humanitarian project of **Rotary International**.

The event was a remarkable success, with approximately 150 participants and the support of Italian and international sponsors such as GE Power & Water, Norit X-Flow, **Termomeccanica Pompe**, OTV, ACWA POWER, Acciona Agua, FISIA Italimpianti, Energy Recovering Inc., Degremont, Toray Membrane Europe, and Victaulic.

The special role played by Italian companies with the "**Special Italy for Desalination**" session is to be highlighted. Termomeccanica Pompe has actively been involved in the organization of such session, which has seen the participation of Ansaldo Sistemi Industriali, Auma, Fluiten, Italvalv, Parcol, Terex Reggiane Desalination and **Termomeccanica Ecologia**.

To date, the funds raised by IDA and Rotary International have been estimated to approximately 120,000.00 USD. This sum shall be used over the next two years to build 10 new wells and to re-activate other existing but non-operational wells in the Ankililoaka desert area in Madagascar, an area inhabited by a population with a high percentage of children. The expected result is a remarkable improvement of the drinking water supply for the inhabitants of the area, with one well every 1,000 inhabitants instead of the current figure of one well every 1,850 inhabitants.

**Termomeccanica Pompe** has actively supported the initiative since its inception as, in addition to corresponding to a noble cause, it also presented very interesting business opportunities for the Italian industry involved in the desalination sector, including its component suppliers.



"Symbolic IDA check presented to Rotary International during the closing ceremony of the event"

## Strategic supply for a new Combined Cycle Gas Turbine power station in UK

**Termomeccanica Pompe** is entering the English Energy market through the acquisition of an important order for the supply of the main pumps for a new Combined Cycle Gas Turbine (CCGT) power station owned by **EDF Energy**, the wholly-owned UK subsidiary of the French EDF Group. The new power plant, which will be constructed at **West Burton** site, 39 miles from Nottingham, is composed of 3 units with a total installed power of 1,300MW, to be added to the existing 2,000 MW coal fired power station.

Works commenced on site in January 2008 and the power station will be ready for commercial operation at the end of 2011, with a life of 25 years. Once completed, the CCGT plant will generate enough power to supply the needs of around 1.5 million homes.

**Termomeccanica Pompe's** scope of work mainly consists in supplying all the strategic pumping systems. In particular:

- N. 6 boiler feed water pumps (flow rate: 346.9 m<sup>3</sup>/h; head: 1717,7 m) completed with electrical motors with a power of 2.400kW, lubrication, cooling and pre-warming systems, and an external hood for noise protection.
- N.6 main circulating cooling pumps (flow rate: 11.952 m<sup>3</sup>/h; head: 26,5 m) completed with electrical motors with a power of 1.100 kW and electro-hydraulic butterfly valve.
- N.6 auxiliary cooling pumps (flow rate: 1.430 m<sup>3</sup>/h; head: 25,9 m) completed with electrical motors with a power of 160 kW.

## Reaching for Excellence (A.R.D.E.) Project The latest initiatives of the Teamwork Competence Team

The commitment of the Competence Teams to the objectives of the Reaching for Excellence project continues.

The "Teamwork" Competence Team proposed on Friday May 27<sup>th</sup> the second edition of the "Effective teamwork" workshop, involving even the newly-recruited employees of Termomeccanica Pompe.

Theoretical contents and practical training have been revised taking into consideration the feedback obtained from the first experience so as to make the workshop more effective and richer in ideas for further development.

In parallel, the work on company Safety issues has been continued.

A restyling of the whole company emergency signage, related to both content and form, has been promoted and implemented.

A leaflet entitled "General safety regulations" will soon be available at reception for



The supply also includes all the strategic spare parts as well as supervision during erection, commissioning and start-up. From a technical point of view, it should be emphasized that the casing design is based on a finite element stress analysis simulating extreme thermal and pressure transient conditions. To date, the supply of all pumps and relevant accessories has been completed and all strategic spare parts will be delivered by the end of 2011.

Termomeccanica Pompe's visitors. This initiative is part of the broadest project for the divulgation and visibility of the main company Safety Instructions. Such initiative will reach completion with the creation of information signs specific to the company's macro-area (such as workshop, test centre and warehouse) and of a general presentation to be displayed on the screen located in the reception area.



## flash news

### Students of the La Spezia University Hub Visit Termomeccanica Pompe

On May 6th, our company held the now traditional annual training reserved to the students attending the 2<sup>nd</sup> year of the degree course in Mechanical Engineering of the La Spezia University Hub, accompanied by Prof. Alessandro Brosio, Energy Systems professor at the University of Genoa.

Yet again this year, attendance has been especially good, with 25 students present.

Following a presentation of our main products and a brief digression on the history of the company and the international markets where we are present, the functional and geometrical characteristics of a series of typical components of the centrifugal pumps of our production range (impellers, volutes, diffusers, joints, seals, etc.) were illustrated by means of slides and drawings.

The visit of our workshops enabled the students to view and analyse in detail many pump parts typologically similar to the components described during the presentation, thus allowing them to acquire a more tangible awareness of the design and manufacturing issues.

Finally, the students were able to appreciate the flow of the production process, from arrival of materials, through machining and assembly up to functional test.



### Termocarispezia wins the 2011 women's basketball Italy Cup

Termomeccanica S.P.A. is an official sponsor of the women's basketball team Basket Spezia Club, better known as Termocarispezia, which plays in the A2 series championship.

The athletic year has just finished with an exciting victory in the final four of the Italy Cup at Chieti against the Cus, the home team.

Great satisfaction at the Spezia team for bringing to the Region a national basketball trophy which was never won before.

«We are putting into the showcase an historical trophy – states Mr. Armani, the president – an exemplary proof of the great determination of our collective. A deserved success for all the work we have done this year».



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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.

