

Aurelia® turbines: the new generation

Renewable energy is globally changing needs for power generation. While today fossil fuel based power generation is still largely centralized, by 2030 2/3 of new energy capacity in the world will be decentralized. In the traditional energy market output and consumption have also been relatively stable and pricing mechanisms have been fixed. Decentralized power generation based on renewable energy is the opposite. It requires flexible supporting power. Power production must be adjusted quickly depending on the weather changes as well as price of energy in the market. High-efficient Aurelia® A400 turbines allow flexible small scale heat and power generation in decentralized grids. Energy efficiency of A400 may be up to 20 % superior to same size microturbines so far commercially available. Turbines can use biogas, natural gas, hydrogen, synthetic gases, biodiesel, diesel based on mineral oil and other gases and liquids as fuel. High efficiency and choice of fuels guarantee low emissions.

www.aureliaturbines.com



FPT Industrial Stage V portfolio for Power Generation

Based on its long-lasting know-how in the agriculture and construction powertrain fields, FPT Industrial has created an exclusive advanced solution to comply with the most stringent emissions standards around the world. This expertise is also available for Power Generation engines, which have recently seen the introduction of Stage V in the European markets. The Stage V debut does not have to be an obstacle for OEMs. It was certainly not an impediment for FPT Industrial, since the Brand took advantage of HI-eSCR2, its innovative after-treatment system (ATS) patented solution. HI-eSCR2 not only ensures the compliance with Stage V, but still grants best-in-class performance and total cost of ownership for customers. This ATS integrates a maintenance-free filtering device on the SCR catalyst, which allows the compliance with tightened limits on Particulate Matter (PM) emissions within a compact package. In Power Generation, this technology is applicable for engines above 56 kW and below 560 kW. The N67 Stage V is a flagship in the mid-range offering from FPT Industrial. It is a 6.7-liter engine, with six cylinders in-line, delivering gross power of 200 kW at 1,500 rpm. This model also provides reliability and durability, with an easy maintenance and long oil service intervals, up to 600 hours.

www.fptindustrial.com

Wärtsilä X-Ahead project gets government funding to promote carbon-neutral economy

The technology group Wärtsilä has been granted funding of EUR one million to support its research in the field of Power-to-X technology. The X-Ahead project is aimed at developing deep expertise of both the technical and business potential of Power-to-X, which will be used to promote a carbon-neutral economy for Finland. It will also act as a base for defining Wärtsilä's role in this field as part of the global transition to carbon-neutral solutions. The funding has been granted by Business Finland, a state-run public agency for funding important research projects. Power-to-X is an umbrella term for various emerging technologies that utilise renewable electricity, CO2 captured from the air or directly from emissions streams and combining it with hydrogen to create carbon-neutral and renewable synthetic fuels. In the future, fossil fuels will be replaced by these renewable synthetic fuels to mitigate climate change. Under its X-Ahead project, Wärtsilä will form and lead a strong network of universities, research industries, and small and medium-sized enterprises on a national, as well as a global scale. This will result in the development of an effective ecosystem around Power-to-X research, which will be enriched with best global practices to produce meaningful national and international benefits.

www.wartsila.com/energy/

Absolute Encoders MEM40-Bus CANopen: Fast, compact-sized, easy to program



CANopen communication protocol is widely employed in industrial networks, as it allows for a fast, easy and effective data transfer. By means of CANopen interface Elap small-sized encoder MEM40-Bus communicates with any PLC-controlled system. The multiturn absolute encoder complies with standards CiA DS301, DS406, DS 305, featuring the functions of Class 2. It provides all the typical functions of a smart encoder, i.e. diagnostic for parameter, position and temperature errors, and settable operating parameters – number of revolutions, steps, rotation direction and one preset value. The different settings are managed by the system master. The node address and baud rate can be set via LSS or, for the type MEM41B, by means of dip-switches - which makes programming even easier. MEM40B are supplied in multiturn version with 29 bit resolution. The encoder comes with metal housing, and round flange, solid or hollow shaft, to meet any application requirement. The electrical connection is by M12 connector. The stout case ensures a high protection degree to enable applications in severe industrial environments. The innovative electronic construction technology - involving no mechanical gear - allow to reach high acceleration and speed values and grants the transducer a long life.

www.elap.it

New petrochemical contract awarded to a Maire Tecnimont-Led Consortium in the Russian Federation

Maire Tecnimont SpA announces that its subsidiary Tecnimont S.p.A., as majority leader of the consortium including MT Russia LLC, Sinopec Engineering Inc. and Sinopec Engineering Group Co., Ltd Russian Branch, has signed an EPSS contract (Engineering, Procurement and Site Services) with Amur GCC LLC, a subsidiary of PJSC Sibur Holding. The contract's overall value is approximately € 1.2 billion, the significant majority of which pertains to the Maire Tecnimont Group. The contract relates to the petrochemical development of the Amur Gas Chemical Complex (AGCC). AGCC is the downstream expansion of the Amur Gas Processing Plant (AGPP), a package of which Maire Tecnimont Group is currently executing in Svobodny city, located in the Amur region in the Far East of the Russian Federation, close to the border with China. The project entails the implementation of several large-scale polyolefin units, and its Mechanical Completion is expected within 2024. This project is going to be one the largest petrochemical facilities in the world and will be fed with products associated to natural gas of the AGPP project. The entire gas development initiative - composed of AGPP and AGCC - located in the Amur region, represents therefore a gamechanger in the global energy processing scenario.

www.mairetecnimont.com

C&E: safety and innovation since 1988

After years of experience in the Aircraft Warning Lights field, LUXSOLAR (a brand of C&E GROUP Srl) launches a new series of Ex Medium Intensity Obstruction Lights, whose innovative features have been certified ATEX and IECEx for the use in hazardous areas. The internal R&D department has recently achieved a way to apply protection against optical radiation - as per EN60079-28 - to LUXSOLAR products, finding a smart solution to respect both the requirements of optical radiation limit (according to ATEX/IECEx rules) and light angles/intensity (according to ICAO Annex 14 and EASA rules). Today C&E is the first and sole company in the world to offer LED Medium Intensity Obstacle Light Type A (a day time white flash of 20 000 candelas) "op is" certified. Apart from Ex beacons, the LUXSOLAR family of LED Aircraft Warning Lights includes a complete series - from low (10 candelas) to high intensity (200 000 candelas) - of obstacle lights for safe area, suitable to warn aircrafts of the presence of skyscrapers, bridges, cranes, tanks, cooling towers, chimneys, wind turbines, telecom towers.

www.luxsolar.com



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