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## **Circular economy, thanks to eternal aluminium**

One of the most important targets for our business in 2022 and for the forthcoming years is to better support the aluminium casthouses that deal with aluminium recycling. Tomorrow Technology has always had a particular focus on this “green” sector, and we believe it is appropriate to invest in new ideas and technology.

But not everyone knows what it means to recycle aluminium. Recycling aluminium goes far beyond the consideration we usually have for “paper recycling”. The classic Italian espresso coffee moka pots are almost always produced with recycled aluminium, just like frying pans and many other daily utensils that we use in our kitchens, bicycle gears, park benches, streetlamps and radiators that heat

our homes. Each recycled kilogram of aluminium saves 95% of energy compared to the same aluminium amount extracted from bauxite. Few people are aware that recycling is one of the virtues of Italy, and when it comes to “re-produced” aluminium, only the U.S.A. and Japan do better than our country.

Recycling aluminium is good for the environment, gives value to the companies, educates consumers about the importance of presorting recyclable materials, all in all, it makes us better people. Studying recycling and offering technological products for it is one of the most fascinating ways to better understand the future trends. The aluminium metal is an exceptional material: it is light, durable, non-magnetic, resists to denting and corrosion, an excellent thermal and electrical conductor and, most of all, it is 100% recyclable. Nowadays, life would be impossible without this metal. Aluminium is used in building constructions, aeronautical engineering, microchips, spacecraft, Venetian blinds, cars, pens and furniture, external power lines or embedded into lamps, protecting covers for phone lines and packaging, cans, spray bottles and pans.

At present, over 48% of all aluminium in Italy comes from recycling and the results from presorting, recycling and recovery are so positive that they make Italy the model for the whole Europe. Within this scenario, Tomorrow Technology plays a very important role with its special vehicles and dedicated equipment for the rapid and precise management of the subsidiary operations for the aluminium: recycling and melting process.

Tomorrow Technology's furnace tending vehicles are

designed for charging solid metal into the furnace, skimming dross and cleaning the bottoms and sidewells of furnaces. These vehicles are highly efficient and customizable, as they are designed to fit the specific needs of the customer. Generally speaking, the tending vehicles feature a high charging capability (up to 10 net tons), horizontal telescope arm length stroke up to 12 m., quick changes of the tooling and 4-wheel drive and sharp turning radius. They also include diagnostic assistance and PLC set-up through remote internet connection with T.T.'s main office in Italy.

Since the vehicle operator plays a key role, these furnaces tending machines have been engineered to enhance the ergonomics of the operator cabin and provide a control and adjustment system that improves productivity. The cabin is outfitted with a comfortable, well-designed environment where the working position can be customized. A lifting system on the cabin is also installed to ensure the driver visibility in certain difficult working conditions. The pilot-operated proportional joysticks make it possible to operate the vehicle in a well-controlled and efficient manner during all charging, skimming and cleaning activities.

In addition, the tending vehicles have low operating costs, which are the result of a systematic development of their design along with careful selection of the mechanical, hydraulic and electrical components installed on the machine. Powered by high performance low emission engines, the vehicles run at low rpm in order to provide fuel savings and prolong their operating life. Tomorrow Technology offers a full training course for operators and maintenance personnel, with careful instructions being provided regarding how a preventive maintenance program can also contribute to low maintenance costs.

Based in Padova, Italy, T.T. Tomorrow Technology S.p.A. has over two decades of experience supplying specialized vehicles and automated equipment to the primary and secondary aluminium industry. The company partners with customers to develop and deliver the most suitable solutions that are simultaneously efficient and reliable. The company's core products include furnace tending vehicles and systems for aluminium casthouse operations and carbon technology for cleaning, handling and slotting anodes for primary aluminium smelters. This equipment has been delivered to aluminium producers around the world, from China to Europe, the Middle East to Russia, North America and Mexico.

T.T. Tomorrow Technology looks to its future with the certainty that it is on the right path. The company completed the construction of a new 3,000 sqm production facility in 2021. Connected to its main operations, the new facility utilizes the best available technologies to provide assembly and testing of vehicles and equipment. This will reduce lead times and enable the company to satisfy the increasing demands of the aluminium industry.



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## Your **Technology** for today & Tomorrow.

We are aware not all customer needs are the same, thus customisation has become the key element of our success. We design tailored vehicles and equipment, offering a wide range of personalized solutions, to ensure their maximum performance and reliable operations.



SYSTEMS AND EQUIPMENT FOR THE ALUMINIUM INDUSTRY

**T.T. Tomorrow Technology S.p.A.**

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