



drive with us

News, events and informations from Headquarters

CONTENTS

- ▶ Exhibitions _____ 1
- ▶ KPT 10.000 _____ 1
- ▶ KFBD Fluid coupling _____ 2
- ▶ First hybrid boat for the Venice municipality _____ 2
- ▶ The Green Lido Award _____ 3
- ▶ Electric transportation for a U.S. Natural Treasures _____ 3
- ▶ An important market segment in commercial vessels industry _____ 4



KPT 10.000

In 1992 Transfluid started manufacturing the KPT product line, suitable for both electrical and Diesel applications. Since that distant year, it was clear that the KPTO would have been a winning product for Diesel applications, so the Company invested resources to improve it and enlarged the range up to when the size 27 found the right market, mainly in USA. Now, in July 2019, we are celebrating the KPTO serial number 10.000, an impressive number confirming the original expectation. You can herewith find the picture taken

at Kleemann GmbH in Germany, the successful Company who received the unit, a 19 KPTO. We had the honor to have Mr. Bernhard Steckel, Strategic Procurement Director at Kleemann, who worked with us to introduce the KPTO as a standard on their Diesel driven jaw, cone and impactor line. Mr. Steckel confirms it was the right decision to focus on the solution of using 19 and 21 KPTO on the drive line of their crushers; it is very appreciated by their Customers due to performance and reliability of the product. The KPTO sales are increasing, not only in the so called "recycling market", and therefore we are already excited for serial number 15.000!!!!



The first hybrid boat for the City of Venice

On the occasion of the first Venice Boat Show, TRANSFLUID presented the first hybrid boat for the City of Venice equipped with a HM560-12 system that combines a Diesel internal combustion engine, supplied by BIMOTOR, with a 12kW permanent magnet electric machine, powered by a battery bank of about 10 kWh. With this system, the typical Venetian TAXI of the Mayor's Fleet, delivered on June 18 at the Town Hall, navigated up to

The TRANSFLUID system allows to reconcile an eco-compatible navigation, obtained in electric mode, with a wide range and totally safe (in the face of possible adversities) navigation, obtained with the internal combustion engine, mode during which it is obviously possible to use the electric machine to recharge the batteries in "regeneration" mode. The electric motor is powered by a high-efficiency lithium battery bank



KFBD Fluid Coupling

Transfluid LLC started in 2019 the series supply of the 21KFBD fluid couplings to a Canada based snow blowers manufacturer.

The Canadian Company is market leader in manufacturing this kind of machineries, the ideal solution for cleaning rapidly accumulated snow, ice, standing water and debris off airport runways, taxiways, runway lights and aprons.

The couplings drive directly the cold air blower installed onto this kind of ground support equipment. The Transfluid 21KFBD is mounted at the output of a Caterpillar C13 engine to drive the two-stage centrifugal fan performing an air speed up to 850 km/h. (525mph).

The KFBD line of constant fill fluid couplings are specifically designed to be used in conjunction with Diesel engines and features standard SAE elastic flywheel coupling and supporting bell housing to be directly mounted at the Diesel rear end.

This robust transmission allows for a smooth no-load start-up in the most demanding applications, adding more reliability and availability of the equipment.



the Boat Show at the Arsenale. It is the first step towards an increasingly high awareness of eco-sustainable navigation, particularly urgent for the Venice lagoon. Surfing in electric mode through the small canals, producing limited wave motion and in a wonderful silence, will exalt life in the city with a new vision, also reducing the pollution rate.

The TRANSFLUID hybrid system makes it possible to optimize the efficiency of the two propulsion modules installed on board: the combustion engine and the electric machine, allowing each mode to be used at the point of highest efficiency, so that consumption can be optimized for each operating profile.

(LiFePO4), capable of powering the entire system in a ZERO emission and completely silent mode. It is also possible to increase the autonomy with the aid of an on-board generator, with less power than the main Diesel engine. This functions as a range extender which, even during electric navigation, can supply power to the propulsion batteries.

The TRANSFLUID hybrid system has the flexibility to meet the needs of most shipyards, operating in both leisure and work boating sectors. This will allow their customers to program an ecological, silent and cost-saving navigation, features that can also be extended to working vehicles for loading and unloading, passenger transport, etc.

The GREEN Lido Award

Green Lido is a proposal for sustainable urban tourism that aims to enhance the landscape and to build a wide offer of crafted, cultural and food products.

The project focuses on the concepts of healthy lifestyle, care of oneself and environmental protection, and promotes the coordination of sport activities, the improvement of the cultivation in Malamocco's vegetable gardens and electric mobility and cycling.

On June 19, Transfluid received the Green Lido Award, assigned to the project that best interprets the themes of eco-sustainable nautical mobility. The Cup was with-



drawn by Ugo Pavesi, President of Transfluid, who presented the hybrid and electric systems installed in Venice on one of the limousines of the Mayor Luigi Brugnaro's fleet

and two mototopes of which one is entirely electric. The many applications currently installed throughout Europe highlight the quality of the proposal offered by Transfluid.

Electric transportation for a U.S. Natural Treasures

United States Forest Service recently announced its commitment to the introduction of clean, sustainable electric transportation to help preservation of the environment and to enhance the visitor experience at one of the nation's natural treasures, Sabino Canyon. To facilitate the introduction of environmentally responsible transportation, the Forest Service announced the award of a five year contract to Regional Partnering

Center (RPC), to provide a fleet of zero emission, open air, 62-passenger trams. RPC has teamed up with Trams International, a leading U.S. tram manufacturer. This important project includes a very demanding duty cycle on a route featuring steep grades and several water crossings. Trams International further disclosed that it's been their professional pleasure to work closely with the Transfluid firm, supplier of all the key components for

the project. Transfluid is a 60 years old company who designs and produces hybrid and full electric systems. The plug-and-play transmission system installed on these vehicles is fully electric, the heart of which is a 100 kW (130 kW peak) permanent magnet electric machine combined with a powershift multiple speed transmission, fed by a high energy LiFePO4 battery bank and managed through a proprietary control device.





An important market segment in commercial vessels industry

A new important market segment in commercial vessels industry seems to be ready for shifting to hybrid. Transfluid recently focused its efforts in Hybrid propulsion systems for Pilot boats.

Following two important projects in the United Kingdom, a major new challenge arises from the request of an important client, yet confidential, who commissioned two boats as a trailblazer for a new generation of pilot ships with a potential fleet of several vessels operating in the Pacific Ocean.

The boats will be 24 meter long, 90 tons displacement and will be equipped with two Diesel engines MAN V6 off 600hp@2100rpm. The hybrid system, for each shaft line, consists in Transfluid's HM3350 module with 2x75kW@3000rpm Permanent Magnets Synchronous Electric motors fed from battery pack 288V.

This configuration allows four different navigation modes, from

the pure Diesel mode that ensures to reach maximum speed and long-range cruise, to the Electric mode when the vessel will sail at more than 7 knots in cruising speed up to 10 knots in peak power. Additional modes are Booster, when it's possible to sum up the power of the Diesel engine and Electric motor for an extra thrust when needed, and Regeneration with the electric machines operating as generators for fast recharging the 56,7kWh battery pack.

The hybrid propulsion goal is to combine the performance of the Diesel with the advantages of an electric propulsion such as silent sailing, zero emission in sensible areas and not negligible comfort due to lack of vibration and noise onboard. Also, when patrolling in very low speed, electric propulsion allows to preserve the Diesel engines from excessive wear due to operation outside the ideal working point. An extra advantage of using Transfluid hybrid modules is the possibility of

having additional PTOs actuated directly by the e.motors to implement on-board systems such as pulleys, hydraulic pumps or compressors for on-board auxiliary services that in this way become independent of the Diesel engine. Transfluid's hybrid system includes mechanics, electric motors, batteries with the integrated BMS and the complete management system developed entirely inside the company. Transfluid, being owner of the whole technology, is then able to supply a full plug & play solution covered by warranty and with service worldwide due to the capillary network of branches and distributors.

The two new Pilot Boats are being built under an important national Maritime Register certification, a challenge that Transfluid has willingly accepted to demonstrate the reliability of its products that have made the company a leader in parallel hybrid propulsion systems in the last ten years