



# Drive with us

News, events and information from Headquarters

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## News from Headquarters

We are pleased to welcome Mr. Gianluca Pagani, is our new Technical and R&D Director. He will be sharing his extensive expertise in electrical motors, and electrical products in general, to help us develop and penetrate new markets.

However, this is not the only change in our staff. In fact, Mr. Domenico Gianese has become our new Operations Director. He will use his technical skills and knowledge of TF products to improve the efficiency of our production.

We are sure they will both do a great job!

### Celebrations

1957 - 2017: Transfluid's 60th anniversary

## Transfluid's successes in Morocco New clients & commissions from: TF France

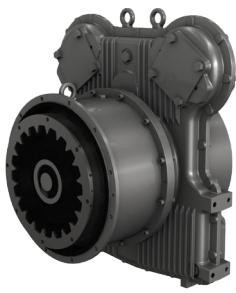
Siemens Morocco has purchased 10 conveyor belt units for OCP Morocco, preferring us over our competitors:  
2 x 24KPTB – B3M70 Df 710x30 + Brakes TFDS2 TF80/60  
3 x 27KPTB – B3M80 Df 710x30 + Brakes TFDS2 TF80/60  
1 x 27KPTB – B3M80 Df 710x30 + Brakes TFDS3 TF200/60  
4 x 29KPTB – B3M80 Df 710x30 + Brakes TFDS3 TF200/60

The engine/power speed values used are 450kW@1500rpm and 685kW@1500rpm. OCP has been using KPTB fluid coupling units for quite some time. They are extremely satisfied with them, as they stand out for their reliability and easy maintenance. They have never broken down.

Price was another convincing element

for their decision. In fact, our price was lower than our competitors. We won the project because we had affordable prices and suitable delivery terms, but above all, our units fully meet our Customer's requirements, both from a technical and performance point of view.





## Application & Products

### MPD 14 for marine engines

The above-mentioned Splitter Box is now ready to be easily installed on all marine engines thanks to a spacer to be installed 20 cm from the engine housing. As you can see from the sample drawing, a new option has been designed to prevent the pump from interfering with the turbo and piping circuit of major engine brands.

In fact, the typical marinization on the engine rear side was limiting the installations of the above splitter boxes between the flywheel and marine gear-box.

We are confident that this dedicated development will concretely extend our and your sales opportunities on small-medium size vessels. As you already know, the auxiliary PTO available on both engine and gear box is rather limited. As a result, this further improvement would tangibly increase interest and demand from shipyards, engine, and gear box manufacturers.

# Innovative Technology: Jet Recovery Power (JRP)

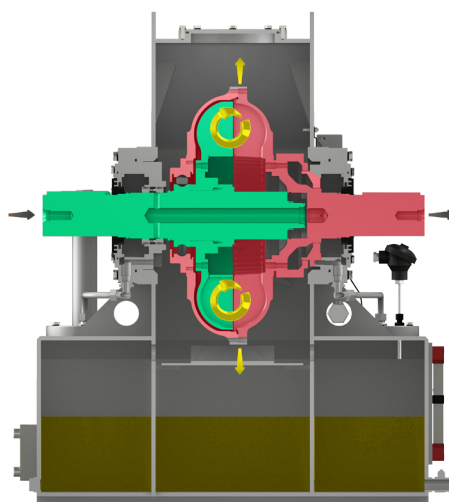
Our Technical Department works hard to improve our products. Recently, we have developed a solution that increases the performance of both our KSL and KPT fluid couplings.

In the power transmission business, and more generally in any high-tech industrial market, what sets apart a leader from the followers is the capability of a company to develop new solutions and to think "outside the box". In this regard, Transfluid is a true leader. We have been innovating the market for six decades with ground-breaking solutions applied to state of the art products spanning in several power transmission markets, including the conservative world of hydrodynamic variable speed drives. In the late 80s, Transfluid caused quite a stir with the Flow Control Concept, a revolutionary speed controlling system that proved to be competitive, reliable and efficient in a market otherwise dominated by the scoop tube concept. More recently, Transfluid has introduced new, high technological features to the KSL variable speed drive line, consisting in a revolutionary CAN bus based control panel and instruments. Now, after several

months of research and a thorough testing process, Transfluid has announced a new, exciting feature that will be added to the Flow Control System, i.e the Jet Recovery Power system. This simple, yet smart, device increases the efficiency of fluid couplings and limits the sound pressure. By studying oil flowing through drain orifices, Transfluid engineers, have designed an innovative device, which transforms an additional part of the internal oil pressure generated by centrifugal force into torque instead of heat losses. This device, which redirects the orifice flow in a more efficient way, also reduces the overall fluid coupling noise dramatically. The test bench results for the test unit are stunning:

- Fixed losses reduction at 1800rpm: 25%
- Noise reduction at 1800 rpm: 5 dB(A)

The Jet Recovery Power system will be installed on all new KSL and KPTB fluid couplings, with great benefit for all our customers, who can now count on more efficient and silent units and other users.



# Transfluid's Hybrid System for a cargo boat in Venice

In early 2016, Transfluid supplied their HM2000-40 Hybrid Transmission with two 20 kW (27hp) electric machines for a 12 meter (40'), 20-ton displacement cargo boat operating in the Venice lagoon.

This cargo boat is one out of more than one thousand similar vessels operating in Venice and its lagoon. Boats like this transport goods, waste and construction materials across the region.

To facilitate loading and unloading operations, these vessels are often equipped with a crane. The HM2000 is provided with a PTO, which allows this operation to be performed in both electrical and diesel mode.

Moreover, hybrid drives facilitate the maneuvering of heavy vessels through Venice's narrow canals.

This is accomplished through electric machines, which provide high torque at very low speed.

Additionally, when required, the booster function, which is the combination of diesel and electric power, is a valid help when operation becomes difficult.

The electric machine charges the batteries quickly and efficiently when in diesel sailing mode, as it works as a generator. This provides the boat an extended range when



**Work Boat**  
1 x FPT 125 kW(167 hp)-2800 rpm - 1 x Transfluid HM2000-2x20kW/3000 rpm  
1 x Transfluid Revermatic 11-700 marine gear  
(Italy)

compared with other types of propulsion. Silent operation is a key aspect of this application. Often, these boats sail at night to serve hotels, restaurants, shops, and construction sites. Venice residents and tourists are very sensitive to noise. Transfluid's Hybrid achieved another outstanding result. In fact, sea trials have shown significant fuel saving compared to traditional drives. Late this summer, the boat entered into service in a fleet of 130 similar boats owned and

operated by a beverage delivery company. Transfluid manufactures Hybrid and Electric Transmissions for the propulsion of a wide variety of vessels. We produce most drive line components, such as the elastic coupling, clutch, split power drive, electric machine, marine gear, and electronic control (hardware and software). On the other hand, the frequency drive, battery, battery charger and CanBus cables come from specialized partners. All aspects of the hybrid drive system are controlled by Transfluid's integrated proprietary software.

## in the next issue of "Drive with us"...



**SOLARWAVE**  
Pleasure Boat  
2 x Nanni Diesel 153 kW(205 hp)-3600 rpm  
2 x Transfluid HM560-20kW/3000 rpm  
(Switzerland)



**YANMAR MARINE BV**  
Pleasure Boat  
1 x YANMAR 324 kW(440 hp)-3300 rpm  
1 x Transfluid HM2000 2 x 20 kW/3000 rpm  
(Japan)



## Automatic Powershift Transmissions with Generator For Passenger Trams

**A fruitful collaboration with MIT (Marine & Industrial transmissions) distributor**

We sold 18 units (stage 2 coming up with further 54 units) of SPD11ST (SAE 3 - 11 ½) + full Automatic Transmission Rangermatic 31-700 with TSC (Transmission Shifting Controller) + Drop Box DP280 + Permanent Magnet Generator (27kW@3000rpm) or SAE B Head PTO for the Municipality Authority of United Arab Emirates, for a train to be operated during 2020 World Expo in Dubai.

The installed engine is a Ford WSG-1068 LPG - gross power/speed 153kW @ 3200rpm - net power to Transmission 118kW @ 3200rpm

Our customer wanted a compact package from a single manufacturer who engineered and industrialized a "standard" scope of supply to meet all installation needs. Our specs. made the vehicle more flexible, adapting to dimensional limitations and

increasing passengers' comfort. One example is the Air-Co in which the relevant electric motors are powered by our 27kW P.M. generator (500V / 150Hz @ 3000rpm

The key to success was the idea of implementing our solution to the vehicle's equipment. Comparisons

with any other manufacturer are impossible, as Transfluid is one of the few manufacturers that can arrange full automatic transmissions for highly professional use. This is why we don't fear any competitor when it comes to complete power train transmission.

