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## The new product TOWERCLUTCH

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Founded in Milan - Italy - in 1957, Transfluid has always been a point of reference in the world of industrial transmission equipment and the standard its

competitors measure themselves with. Fluid couplings, variable speed drives, brakes, clutches, couplings and hydraulic transmissions constitute the core of the product line, while ultra-modern technology, careful selection of materials and meticulous assembly are the key ingredients in the recipe that has placed those products at the forefront of the market.

As natural development toTransfluid's power transmission product range, the TowerClutch fulfills a growing market demand for a disconnectable, compact dry clutch with high capacity hydraulic pump pads. With the ability to easily drive multiple implements, leading manufacturers of mobile machinery have been finding applications for its use in rock crushers, wood chippers, drill rigs, waste grinders, road mills and reclaimers. Additionally, reliability and the flexible modular design of the TowerClutch make it useful in marine applications such as work boats, tugs and dredges.

### Main features

Assembled with time tested and proven heavy-duty production products and components the TowerClutch provides unsurpassed performance and reliability. The oil/air actuated dry clutch (HF series) is flanged to the engine through an innovative splitter box (Stelladrive series) which mounts to standard SAE engine flywheel and housing connections. The splitter box pump pads accommodate SAE B, C, D, or E hydraulic pumps with the possibility to disconnect each of them by installing the CC650 pump clutch. Torsional vibrations dampening and compensation of radial and angular misalignment are assured by a flexible coupling mounted on TowerClutch's input.

The TowerClutch is a self-standing transmission. The hydraulic block, feed pump, filter and the MPCB- R5 electronic controller with wire harnesses are completely preassembled in a compact user-friendly design that eliminates additional plumbing and wiring associated with similar products. The MPCB-R5 controller can be wired for single system control or interfaced with the machines main control system in order to integrate remote e-stop buttons and other features.

### Advantages

The self-adjusting integrated HF clutch drastically reduces downtime and maintenance costs. It contains a multi disc dry clutch that is rigidly connected to the splitter box and has an output shaft capable of transmitting torque either radially by a pulley or in line with a cardan shaft or flexible coupling. TheTowerClutch is remotely operated and uses oil or air pressure

forengagement. The robust splitter box eliminates flywheel side loads and torsional vibrations associated with modern high torque industrial engines. In extremely heavy-duty applications, the optional Kevlar friction discs assure machine uptime and extended operating life. In addition to hydraulic pumps, the TowerClutch heads accept a variety of unique accessories such as pulleys, stub shaft PTOs, cardan shafts, pump clutches and electric motor/generators.

### **Electronic control and relevant benefits**

#### ADVERTISEMENT

The MPCB-R5 electronic controller softly engages the driven machine, monitors operation parameters, prevents clutch overload and engine stall, and protects the TowerClutch and engine from unexpected failures. This durable device has IP67 protection and operating temperature range from -30°C to +80°C. It is equipped with parametric software that can be tuned to each machine duty cycle and starting requirement. The CANBUS SAE J1939 and CANBUS open communication protocols allow the MPCBs integration into any CANBUS compatible machine networkthereby transmitting status, warning and alarm messages via a single IP67 bus cable. The MPCB-R5 processes and generates signals that continuously monitor input and output speeds, oil temperature and oil pressure. The controller is installed on the TowerClutchwith resilient mounts to dampen vibrations and shorten electric harness length.

#### Source: TRANSFLUID S.p.A.

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