

PRESS RELEASE



Bonfiglioli showcases its solutions for the transition to electric vehicles @iVT Expo 2023

A major force for over 40 years, Bonfiglioli conceives, designs and produces custom powertrains and drives for a wide range of electric applications. Their goal is to collaborate closely with powertrain designers and component suppliers to develop innovative and efficient tailor-made solutions. By doing so, they aim to support customers in their transition to electric solutions in both on- and off-highway vehicles. In line with its commitment to innovation, in 2021 the Group expanded further its competence centre within the Mobility & Wind Business Unit. This expansion enabled the Group to offer integrated, all in one mobile-electric powertrain solutions, designed to enhance efficiency, increase productivity and reduce the total cost of ownership for end-users.

Bonfiglioli's most recent developments were showcased at the iVT Expo 2023. In detail, on display were the EDS series - two high-tech integrated electric powertrain lines – and the 700 Series of track and slew drives for 1 to 6 ton mini-excavators.

EDS: Electric drive systems for on- and off-highway vehicles

Bonfiglioli offers electric integrated powertrains for battery-powered platforms, in order to replace conventional combustion engines and to reduce CO₂ emissions and noise levels. EDS is a modular system with an operating voltage range of 250Vdc to 450Vdc, easy to install and with an 80% less weight and volume compared to internal combustion engines with an higher power density. Easily adaptable to different vehicle architectures equipped with both mechanical and hydrostatic transmissions, in its basic configuration EDS is composed by a Permanent Magnet Motor and Inverter. The optional components that can be added to the system are Gearbox, DCDC-Converter and Telematics Control Unit.

This product family, among the others, includes EDS120 and EDS70-X/H. EDS120 is a basic powertrain configuration that includes motor and inverter to be installed on different applications both with mechanical and hydrostatic transmissions. EDS70-X/H is, instead, a powertrain positioned either transversally to the drive axle or within the centre of the vehicle which is connected to the rear axle using a prop shaft. The same powertrain could be also connected to a pump on the hydrostatic transmission applications. It comes with motor, inverter and gearbox.

A complete electric kit for Mini-Excavators

Recognizing the growing demand for sustainable and eco-friendly construction equipment, Bonfiglioli has developed a kit of products designed for battery-powered mini-excavators. Based on the evaluations given by multiple OEMs across different continents, the solution entails an extraordinary improvement in energy efficiency, surpassing industry standards by at least 20%.

More specifically, an Electric Swing Drive is combined with an Electric Track Drive and an Electric Motor for Pump Drive:

1. **Electric Swing Drive (700T Series):** The 700T series electric swing drive provides exceptional precision and power to the swing mechanism of the mini-excavator. With the rotation being the

PRESS RELEASE



most frequently used movement during the workday, electrifying it enhances energy efficiency, allowing for prolonged operation on a single charge.

2. **Electric Track Drive (700C Series):** The 700C series electric track drive optimizes the performance of the track system, increasing manoeuvrability and keeping a low level of energy consumption. Seamlessly integrated with the machine, it ensures reliable operation, even in harsh working conditions.
3. **Electric Motor for Pump Drive (BPM Series):** The BPM series electric motor is purpose-designed to drive the arm and bucket, as well as other challenging-to-electrify functions which are usually hydraulically driven. This minimizes the redesign effort, contributing to the overall energy savings.

Bonfiglioli offers a comprehensive range of highly versatile solutions that are adaptable to the customer's electrification needs. As Fabio Campana, Product Marketing Director of Bonfiglioli's M&W BU, explains: *"We can electrify the machine's drive system directly using our compact gearmotors (decentralized solution) or we can electrify just the pump, leaving the hydraulic circuit as it is, through our permanent magnetic motors (centralized solution). We therefore leave the machinery manufacturer completely free to choose the best possible solution."*

Bonfiglioli Group

Bonfiglioli designs, manufactures and distributes a wide range of gearmotors, electric motors, planetary gearboxes and inverters, capable of satisfying the most complex needs in the industrial automation, mobile machinery and renewable energy sectors. The Group offers complete solutions that serve more industries and applications than any other gearbox manufacturer and is the market leader in many areas; the three Business Units, Discrete Manufacturing & Process Industries, Motion & Robotics and Mobility & Wind Industries, express all the experience and skills acquired over the years in their respective fields of expertise. Founded in 1956, Bonfiglioli operates in 80 countries with 26 commercial sites, 20 production sites, an extensive distribution network that includes over 550 partners, and can count on over 4,700 professionals worldwide. Excellence, innovation and sustainability are the drivers that guide Bonfiglioli's growth as a company and as a team and represent the guarantee of the quality of the products and services offered to its customers.

Further information is available on the website www.bonfiglioli.com.

Media relations | Lbdi Communication – Chiara Arrigoni – carrigoni@lbdi.it – Laura Sponziello – lsponziello@lbdi.it Ginevra Fossati – gfossati@lbdi.it Tel. + 39 02 43 91 00 69 – Skype Lbdi_PR

Internal & External Communication Manager | Bonfiglioli - Laura Manfredi - Laura.Manfredi@bonfiglioli.com