

Diesel electric hybrid tractor at EIMA 2021

The Antonio Carraro SRX Hybrid said to cut fuel consumption by more than 25%

Antonio Carraro (AC), which specialises in development of tractors for specialised agriculture, has unveiled what the company claims is the first compact tractor concept featuring a hybrid electric drive system. The tractor was shown for

the first time at the recent EIMA 2021 Agricultural and Gardening Machine show in Bologna, Italy.

The SRX Hybrid has a drivetrain developed by the AC R&D division, working in conjunction with Ecothea, a start-up company from the Turin

Hydreco introduces new heavy-duty EPVJ mini joystick

There are a variety of options when it comes to electrical controls for mobile applications. The best have a strong design and incorporate the latest technology, which is true of the EPVJ mini joystick.

Made in Italy, the new joystick uses a reliable REED magnetic switch (incorporating a neodymium magnet) and has four on-off functions as standard.

The mini EPVJ is suitable for placement in smaller spaces, or for armrest or console mounting. It offers a strong structure and great reliability.

This is a solution for heavy-duty applications in agriculture (small tractors for vineyards, orchards, and fruit/vegetable picking). It can also be used in forestry scenarios, such as firewood processors.

The electric and magnetic technology used in the mini EPVJ delivers a longer working life in all situations, including outdoor operations where the joystick could be subjected to a range of environmental issues, including rain and snow.



EPVJ mini joystick



Antonio Carraro SRX Hybrid at EIMA 2021

Polytechnic, specialising in the design and prototyping of electric vehicles for agricultural applications.

The drivetrain is fitted to the most complex tractor in the Antonio Carraro range, an isodiametric model with reverse drive and articulated frame. The model is intended for use in specialised agriculture where manoeuvrability is critical.

POWERTRAIN INFO

The tractor carries over the standard three-cylinder, 1.8 L diesel engine producing 55 kW, which features a common rail turbo intercooler fuel injection system. This is combined with a 20 kW electric motor for a combined output of 75 kW (102 bhp).

Interaction between the diesel engine and electric traction motor/generator drive is managed by an electronic power control unit developed

specifically for this type of machine. Antonio Carraro says that the architecture of the hybrid diesel-electric powertrain supports continuous traction when working in various situations, such as combined with a forklift or loader.

The electric motor is located between the engine and the gearbox. This design



Cab of the SRX Hybrid tractor, with LCD control panel for powertrain management

New pumps and new production facility for Hydreco

Hydreco Hydraulics Italia MD talks to DPI about new products and expanded production capability.

By **Roberta Prandi**

Hydreco, part of the Duplomatic Group, has introduced the new HY2 range of external gear pumps for mobile applications, including earth-moving, construction, agricultural, forestry and municipal machinery.

“There are two groups in the new pump range, called HY1 and HY2. Group HY2 will be the most widely used and is already in production,” says Michele Guiati, Hydreco’s managing director.

Guiati says that a new assembly plant was opened at the company’s Parma location in 2021 to manage production of the new pump series and the related motors. The factory will double production capacity in Italy.

He adds that Group HY1 pumps will be the first to enter production, while two further HY2 pump versions are under development; a low noise version and one which features a cast iron outer casing.

“We have undertaken an important investment plan to expand and improve the Motion Control solutions package we offer,” says Davide Vaccina, managing director of Hydreco Hydraulics Italia. “The new facility in Parma incorporates a production plant that, when fully operational, will have three production lines. We expect to conclude the launch



HY2 tandem external gear pump from Hydreco

of the new gear pump range at the beginning of 2022 with the Group HY3 units.”

The investment will further include a new series of directional control valves, HIC blocks and joysticks, completing the full product range.

According to the two managing directors, one of the most important capabilities of Hydreco is product customization. It’s a customer offering that demands flexible manufacturing, a feature which will be supported by the new production facility in Parma.

GOING GLOBAL

With headquarters in Poole, UK, Hydreco has a global footprint which extends to locations in the US, India and Australia, in addition to Italy. Hydreco Hydraulics Italia is the company’s key competence centre for the development of new products and solutions within the group.

The company produces advanced motion control solutions for mobile operating machines, including joysticks and hydraulic pedal boxes, power units and electric/electronic pedals, together with CANbus machine control systems, banked valves and hydraulic cylinders.

With the addition of the new pumps, Hydreco can offer a full range of external gear pumps featuring aluminum bodies and cast-iron flanges and covers. These are available in multiple configurations and with different flange types, with connections for suction, delivery and shafts.

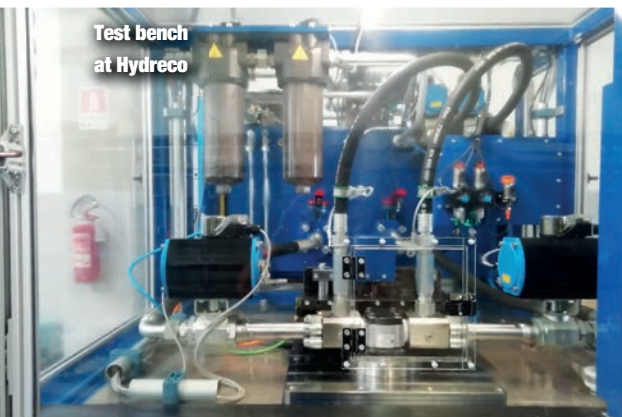
dpi



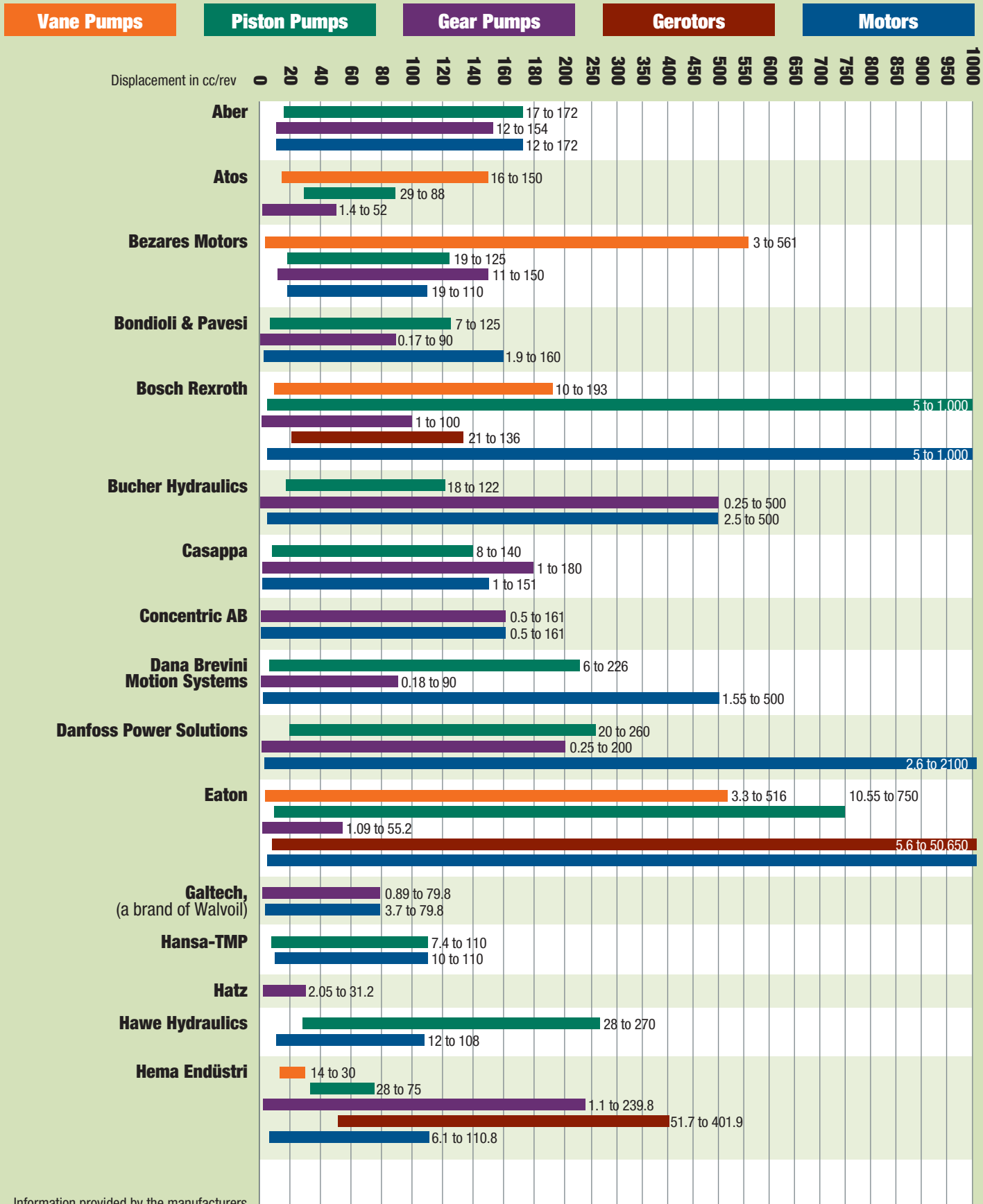
We have undertaken an important investment plan to expand and improve the Motion Control package we offer.”

DAVIDE VACCINA,
Hydreco Hydraulics Italia

Test bench at Hydreco

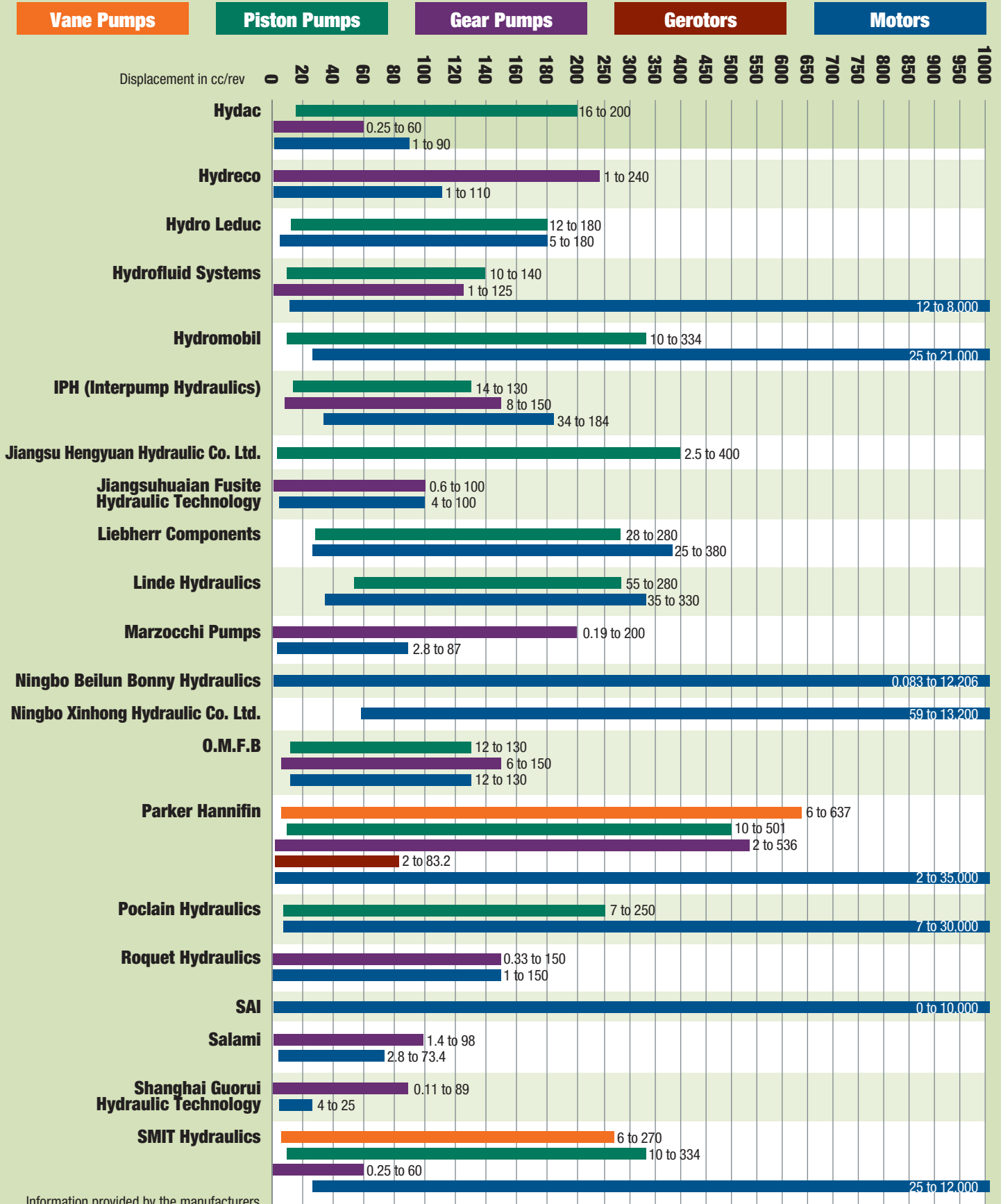


2021 MOBILE HYDRAULIC SPECS-AT-



Information provided by the manufacturers

PUMPS & MOTORS A-GLANCE 2021



Information provided by the manufacturers