

Company	Exhibits	Product/ System/ Application
ARGO-HYTOS	HIT - Hybrid Integrated Tank®	<p>The hybrid tank is a ready-to-install complete module. All required tank functions are already integrated.</p> <p>Advantages of the ARGO-HYTOS hybrid tank:</p> <ul style="list-style-type: none">- Installation of a complete module in the machine- Complex geometries can be realized- Weight reduction- High mechanical strength and thermal stability by using Polyamide- There is no risk of leakage between the filter head and the tank- Excellent corrosion resistance- Multiple ports save hose collection manifold- Tool-free assembly of Quick-Connect fittings- Cost savings compared to traditional tank solutions- Copy-protected filter elements- Tank development "Made in Germany"
Balluff	Digitalization of Hydraulics	<p>The Balluff positioning system BMP with IO-Link is the trade fair innovation 2019 and is at the center of the new exhibit. The positioning system measures the current piston or gripper position absolutely and without contact.</p> <ul style="list-style-type: none">- Modular concept for greater flexibility – measuring range up to 256 mm- Wide transparency – continuous checking of piston position in tight spaces with analog voltage and current output as well as IO-Link interface- Reliable results – application-relevant linearity and repeat accuracy- High process security – low temperature drift and high quality electromagnetic compatibility- Ideal for Industry 4.0 – format change, condition monitoring and predictive maintenance

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Bosch Rexroth	Cytrobox with draw cushion axes	<p>CytroBox hydraulic power units have a power range from 7.5 kW to 30 kW, and offer an intelligent combination of speed variability, synchronous motors and axial piston pumps. Efficiency is achieved via the optimum adjustment of servo motor and pump, and also by demand-oriented energy consumption. So, at partial or zero loads the speed is lowered, saving energy, while at full load it's increased. This flexibility delivers energy savings of up to 80 percent compared to units driven at constant speeds.</p> <p>Furthermore, the included CytroConnect IoT service unlocks the potential of IoT Technologies to operators as a Pay-per-Use Service – Plug&Play and riskless. All information on the power unit is easily at hand anywhere you go – whether component states and operation point, upcoming maintenance needs or predictive analytics utilizing the Rexroth Online Diagnostics Network (ODiN).</p>
Bucher	Hydraulic Compact Drive Alpha-X	<p>4-quadrant demonstrator of a hydraulic compact drive in a closed circuit.</p> <p>The compact drive has a very high energy efficiency and can recover potential energy. Commissioning is easy, even without hydraulic knowledge. Knowledge of electrical drive technology is sufficient.</p> <p>The Bucher Hydraulics data logger is used to measure the operating points and condition. The data is visualized on a monitor.</p> <p>In the life demo, a gradual reduction in efficiency is simulated and detected by the data logger.</p> <p>The demonstrator is operated in position control mode.</p>
Emerson (Aventics)	AES Control Module	<p>The AVENTICS AES control module offers an interaction of many products: a simple, intelligent solution for simple positioning tasks.</p> <p>The analog control module evaluates local signals: highly dynamic and without additional load on the PLC. The analog sensor is easy to mount. The electro-pneumatic pressure controller ED02 is compact, highly dynamic and, if required, several ED02 can be interlocked to form a single unit. The AV-EP pressure regulator and the analog control module can both be integrated into the AVENTICS-Advanced Electronic System (AES), enabling communication via a serial interface in all common fieldbus systems.</p>

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Fluitronics	Smart Hydraulic Manifold – Elektro meets Hydraulics!	<p>Smarter hydraulic manifold – worldwide data provision of local measuring, actuator and system functionality</p> <p>We will be demonstrating how Fluitronics – specialist for OEM systems and drive solutions – implements the theme of “Intelligent Hydraulics” under the heading “Electro meets Hydraulics”. The aim is to exploit the advantages of well-established hydraulic circuitry and combine them with those offered by the electronics and software technology sectors. These can also be interwoven with system requirements with a view towards “functional safety” in accordance with ISO13849.</p> <p>The shown demonstrator-manifold has the ability to record and process technical data, such as pressure and other signals and convey them to the CAN-Bus. Optionally, PWM signals for proportional valves can also be controlled.</p> <p>In combination with a modern CAN-gateway, the information contained within the intelligent hydraulic manifold can be prepared for worldwide accessibility and be integrated into Cloud-Service solutions. An example of IoT in hydraulics.</p> <p>We therefore invite you to obtain a sound insight into finding out how “Electro meets Hydraulics” could be a benefit to you and your drive solutions by consulting our specialists at the exhibition.</p>
MOOG	Electrohydrostatic Actuation System	<p>The Moog Electrohydrostatic Actuation System (EAS) is a modular actuation system comprised of a Electrohydrostatic Pump Unit (EPU), Moog Servo Drive (MSD) and Moog manifold. Adding a cylinder as part of the system is also a common option.</p> <p>At the heart of the system is the Moog EPU that combines the benefits of both electric and hydraulic actuation in a self-contained product and enables the system to deliver a higher energy\efficiency and environmental cleanliness.</p>