

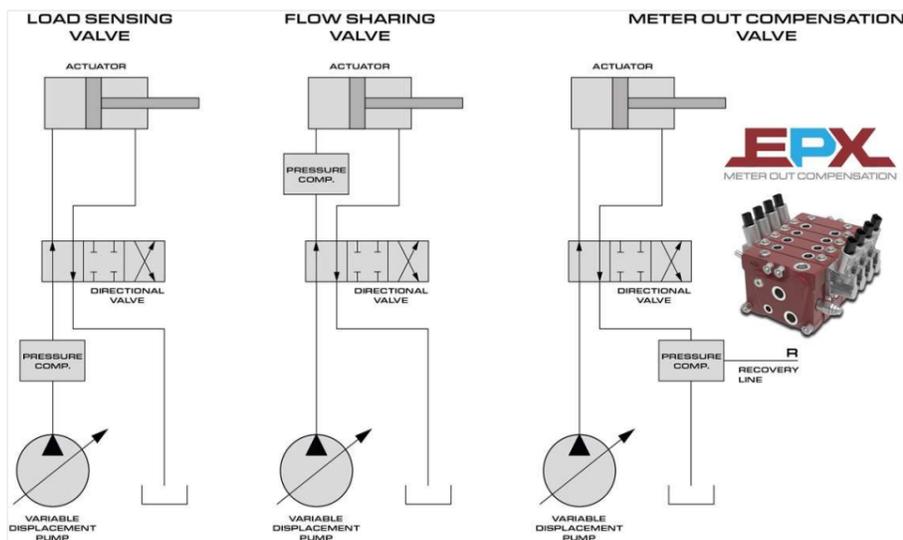
Walvoil introduces ALS-EPX at bauma

By Roberta Prandi | 22 August 2022

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Italian hydraulics specialist Walvoil will present at bauma 2022 a solution to increase efficiency of the hydraulic system and its components. The system combines Adaptive Load Sensing (ALS) for reduced consumption and energy dissipation, with Meter Out Compensation (EPX) technology to recover energy.

The Walvoil ALS-EPX utilizes specially designed components: pump, directional control valve, electronic control unit, and operator interface, combined with a strong electronic integration. It enables to use pressure control functions paired with flow-sharing directional control valves of the Walvoil DPX and EPX series. The system manages and conditions the load sensing signal of the circuit in order to reduce consumption and optimize control.



With ALS the joint control of the hydraulic directional control valve and the pump makes it possible to cut down pressure drops due to the pressure margins of the metering system. ALS can be used as an integral part of the hydraulic directional control valve or fitted to the variable displacement pump.

With EPX technology, the new EPX Series directional control valves by Walvoil enable the management and recovery of hydraulic energy in mobile machines. Recovery is achieved by a specially designed compensator acting in two ways: by implementing an active-type recovery during simultaneous operations of multiple machine functions; and by providing passive-type recovery due to drag loads, i.e. by reusing inertial

energy that is usually lost through fluid lamination to tank.

With the energy recovered through an EPX Series directional control valve it is possible to: charge a battery set through a hydraulic motor connected to an alternator+inverter, make the power available in the hydraulic system for reuse by machine functions, and store it in hydraulic accumulators.

Studies conducted by Walvoil show energy savings of up to 5% with ALS and overall energy savings of up to 20% when combined with EPX, depending on the type of application.

Walvoil will exhibit in hall A3.339



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