



(5) In-Line Exhaust Valve

Clippard Instrument Laboratory Inc. offers the J-Series in-line exhaust valve, which offers fast response time and high flow rates with its 1/8" and 1/4" ports. The all-brass construction and 100% testing assures the highest level of quality. Although the primary function of this new valve is to increase cylinder speed, it also enables the use of smaller directional valves, longer control lines, and it can be used as a shuttle valve. www.clippard.com

(6) Valves

The Humphrey Model HK5 valve is designed to offer zero leakage in pneumatic applications, while the Model HKL5 valve is designed for use with reagents and other aggressive liquids and gases such as found typically in analytical instrument applications. Both models are direct-acting solenoid valves measuring 12.6-mm wide, with a 0.05 Cv flow rate, 1.5 watt power consumption, a working temperature range from 32 to 175 F and pressures from vacuum to 30 psig. The valves feature multiple porting configurations, can be used as a 2-way or 3-way, NO/NC standard fill/exhaust valves, or as a selectors or diverters, and can be mounted on a manifold or a sub-base, with custom Acrylic manifolds available upon request. The HK5 Series valves feature diaphragm-poppet valve design, which as no sliding seals, no metal-to-metal contact and requires no lubrication. The direct-acting solenoid has an isolated coil with minimal armature travel for a fast response time of 0.010/0.004 ms, and is available in a range of coil voltages. www.humphrey-products.com

(7) Magnetic Oil Filter

Halex Corp. released the Halex Coil (U.S. Patent #5,647,993), a magnetic oil filter that attaches to the outside of an existing oil filter. This reusable advanced filtration device extends equipment life and service intervals, improves element efficiency and fuel economy, and reduces downtime, emissions, soot and wear. The key to its effectiveness is the powerful rare-earth neodymium magnet of which it is constructed. The coil's magnetic field draws particles that are too small for the filter to catch to the sides of the filter. The result is cleaner oil that reduces wear and extends equipment life. www.magneticfiltration.com



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(8) Integrated Digital Electronic Control System



Parker Hannifin's Hydraulic Pump Division has introduced a new version of its 75-cc/rev displacement size P1/PD Series, medium duty variable piston pump offering an integrated digital electronic control (IDEC) capability that gives users the ability to control pump functions in real-time. Using Windows®-based software, users of the pumps can control proportional pressure, proportional displacement, electronic torque limiting, anti-stall, and constant flow settings to optimize pump performance under a full range of operating conditions. In addition to gear operating efficiency, the pumps also reduce the number of proportional valves required in a system by allowing proportional control of the pump itself. It also offers on-the-fly electronic changes in the type of control, allowing the pump to

function as a load sense, pressure comp and horsepower control during the operation of different functions in the same system. This feature allows for efficient control by acting as three different pumps in the same system. www.parker.com