Application Story

Unitronics Simplifies Modifications to Oil Purification Machinery

In an age of continuous technological advancement, making modifications to virtually *any* technological tool can become a complicated and expensive process. In many cases, starting fresh is often easier than costly, time consuming maintenance.

ISOPur Fluid Technologies of North Stonington, Connecticut, has been developing advanced purification systems for hydraulic and lubrication oil used in high-performance, mission-critical industrial machinery for over 13 years. Their oil purification machinery does not just filter oil, it actually purifies it by charging the particles in the oil, causing them to agglomerate into big particles. The big particles are then easily filtered out of the system, resulting in the removal of varnish precursors from hydraulic oil.

Within their control system for an oil filtration skid, the need to eliminate a proprietary microprocessor board was quickly becoming a very difficult and expensive task to plan for. To keep up with the need of the market without spending valuable time and money, ISOPur needed to find an off-the-shelf, type product that was easily configurable, inexpensive and compact.

With Unitronics' **Vision120™** integrated PLC and HMI, **ISOPur's production time was cut from what could have taken them about 15 months or more, to about 3**. One of Vision's™ greatest advantages for ISOPur was the easy to use software that allowed engineers to quickly translate to the VisiLogic programming environment. This made setting up the modbus communication protocol with the motor control drive fast and easy. Using an open serial protocol, the second communication port was set aside for downloading and occasional communication between the PLC and a Parker particle monitor to confirm proper filtration.

Aside from discrete I/O for switches, indicators and alarms, Vision120™ also gave ISOPur the ability to add additional I/O. With the expansion abilities at hand, they were given the chance to work with easy to use linearization Function Blocks that were able to convert analog signals to engineering units, like PSI.

To cater to ISOPur's visual needs, the Vision120's™ built-in interface was able to serve as the operator's control terminal for monitoring the machine's performance. Having the panel as an integrated part of the PLC allows it to instantaneously display the relevant data, such as alarms, trending, parameters etc. from the system at all times.

"Unitronics was able to supply ISOPur a supportable, versatile and configurable solution." Says ISOPur's Vice President of Sales and Marketing, David Cummings. **"They met both our customer's expectations as well as our engineering needs without exceeding our budget."**

For more information, please feel free to visit Unitronics' website at www.unitronics.com.
If you're are interested in the ISOPur Product contact David Cummings at dcummings@isopur.com or visit their web site at: www.isopur.com.