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## **A bit of history - but Auld Valves looks to the future with XYZ**

Founded in 1833, Glasgow-based Auld Valves is a manufacturer of reducing, control and safety valves, with a reputation for quality and innovation being the company that patented the first full-bore regulator valve. Supplying a diverse customer base around the world including oil and gas, nuclear and shipbuilding, it continues to offer a full foundry service producing castings in steel, stainless steel, bronze, phosphor bronze, aluminium bronze and cast iron. This on-site foundry capability allows Auld Valves to offer short lead times of 4 to 6 weeks on its made to order valves. Recent investment in machining technology from XYZ Machine Tools is further enhancing those service levels.

Machining at Auld Valves has traditionally either been sub-contracted or carried out on a range of manual lathes and radial-arm drills. However, with business growing on the back of recent orders for valves for the two new aircraft carriers HMS Queen Elizabeth and HMS Prince of Wales, along with planned work on the new BAE Systems Type 26 Frigates for the Royal Navy and others around the world, investment had to be made. Initially the intention was to purchase a single XYZ SLX 425 ProTURN lathe through grant funding, but in discussion with the grant provider, it was decided the better option was to double up. “Our plan was to just start with one machine, but the feasibility study proved that going for double the capacity was the correct move as it gives us added machining flexibility,” says Tom McLarnon, Technical Engineer, Auld Valves. “Having the two machines has enabled us to bring more work back in-house enhancing our service to customers. Another big plus is that we can manufacture what we want, when we want it rather than being dictated by minimum order quantities imposed by sub-contractors.”

The arrival of the machines brought an opportunity for two young operators to step over from manual to CNC and, as part of the investment Auld Valves purchased the offline



programming system from XYZ Machine Tools in anticipation of machining some of their more complex components. The ease of use of the ProtoTRAK control, however, has seen the two operators programming the majority of jobs at the machine. “We did use the offline system initially, and we have also imported DXF files into the control, but the ProtoTRAK is so easy it’s just as quick to develop programs while stood next to the machine,” says Tom McLarnon. “This ease of use has made it much more practical to manufacture one-offs and small batches quickly. The set-up and cycle time savings we are seeing are in the order of 60 per cent over highly-skilled operators using manual machines. And as a lot of our valves are made to order we can keep stock to a minimum while still being able to deliver to short lead times.”

“Having the foundry on-site gives us a major advantage over our global competitors, and now by advancing our machining capability we can continue to provide exceptional speed of delivery on the one-off and smaller batch quantities that we specialise in. The further advantage of the simplicity of operation that comes with the XYZ SLX is that while we have two operators running them on a regular basis, there is no issue with others stepping over from the manual machines to cover for holidays and sickness. They have the confidence to do this due in part to the TRAKing system on the SLX lathe, that allows them to run through programs using the handwheels prior to going to full CNC mode.”

The XYZ SLX 425 sits in the middle of the ProTURN lathe range and is available with between centre distances of 1250 mm or 2000 mm with a maximum swing in the gap of 700 mm (480 over bed). Power is provided by a 7.5 kW (10hp) spindle with a spindle bore of 80 mm and speeds from 25 to 2500 revs/min in three ranges. The ProtoTRAK SLX control features straightforward conversational programming and alongside the TRAKing facility is constant surface speed and Verify solid model graphics. There is a quick change toolpost as standard with the option of either a four- or eight-position auto indexing toolpost.

Images:



Top left: Tom McLarnon (right) discussing the machining of a valve destined for the XYZ SLX 425 machines

Top right: The operators program most jobs at the machine due to the ProtoTRAK control's ease of use

Left: The two XYZ SLX 425 ProTURN lathes have made major improvements to Auld Valves productivity



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