



Air Arms, Hailsham

Star lathes cope with oversize aluminium bar



Today's high-level air-powered rifles incorporate leading-edge design and are manufactured to demanding tolerances. For example, Air Arms' EV2 Mk4 is powered by compressed air at 200 bar and is capable of firing 100 consecutive 0.177 inch pellets through a 15 mm diameter hole at 50 metres!

To achieve this level of accuracy and performance, high precision machine tools are used including two Star sliding-head CNC mill-turn centres.

Air Arms' production manager Alan George commented, "As our manufacturing philosophy changed to production for stock, the greater throughput demanded shorter cycles times and manufacture of larger batches to achieve the benefits of lower cost and ready availability of parts for more-efficient assembly.

"That in turn steered us towards sliding-headstock technology, but weight is critical for an air rifle so many of our parts are machined from 33.5 mm diameter aluminium bar, which is on the upper capacity limit of sliders.

"This, coupled with being told that aluminium is supposedly not a good material for sliders, tilted our decision at the outset in favour of fixed-head lathes. However, we replaced those in 2009 with a pair of 32 mm capacity sliding-head lathes from Star GB - an ECAS 32T and an SR-32J."

Air Arms immediately noticed the improvement in throughput, not least as a result of 24/7 running. The Stars are now producing more than 150 different parts in one hit. Both lathes are equipped with JBS double-tapered, compensating guide bushes and high-pressure coolant.

the name in sales of sliding-head lathes

"As a first-time user of sliders, we were heavily reliant on Star's excellent service and support."

**Alan George
Production Manager
Air Arms**