



star
in action...

Doughty Precision Engineering, Nottingham

In-cycle gear cutting cuts 3 ops down to 1



Stainless steel plug shells for aerospace connectors are traditionally produced by Doughty Precision Engineering (DPE) in three operations, one on a fixed-head lathe and two on a gear shaper. **Now the same component is machined 30 per cent faster** on a twin-spindle Star SV-32 sliding-head lathe followed by a single shaping operation.

The time saving will not end there. In the same way that DPE and Star initially developed a special hobbing attachment that transferred machining of the shell's ratchet teeth to the SV-32, the Nottingham-based subcontractor and the machine supplier are now working together on another attachment that will allow the slider to complete the remainder of the shaping, ie machining of the alignment teeth.

In other words, a part that used to require transfer from one of three fixed-head, 3-axis bar lathes to one of five gear shapers for two additional operations, will in future come off the Star complete. This will allow one operator to be deployed on different work, reducing still further the already substantially lowered cost of producing plug shells.

Said Peter Doughty, "The 9-axis Star SV-32 has cut one minute out of the mill-turning, which includes threading, boring, reaming, slotting and broaching. We have also got rid of one handling operation by incorporating the cycle to shape the ratchet teeth. When we transfer alignment key shaping onto the Star later this year, **we will eliminate inter-operation handling altogether.**"

the name in sliding-headstock technology

“ Sliders draw less than half the power of an equivalent fixed-head lathe, so are less costly to run. ”

**Peter Doughty
DPE**