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REMINGTON ARMS COMPANY, INC.
FIREARMS PROCESS RESEARCH DIVISION
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CBW *CBW*
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FLEXIBLE RECEIVER MANUFACTURING SYSTEM

Development of Basic Data for the Commercial Project is now expected to be complete by July 1, 1984. The Snyder machine runoff/acceptance tests have been delayed to the week of May 7, 1984 due to a problem with flutter in the "Z" feed axis.

It is becoming increasingly apparent that the system being proposed will not fit into existing Building 60 without major building renovations. Alternatives to this problem are being investigated.

SMALL PARTS "FMS"

Machining center specifications have been completed and sent to 11 vendors for price and delivery quotations.

SERIAL NUMBER RECORDING SYSTEM - PHASE II

System installation is scheduled to begin in July with full system operation in September 1984.

GFM AUTOMATION

Parts are now being produced at a cycle rate of 1 minute 38 seconds (versus a goal of 1:23). The critical element is the robot's GFM load/unload time (now 18 seconds vs. a goal of 13 seconds). EDL engineers will be here April 26th to investigate shortening cycle time to meet the goal.

FLEXIBLE ASSEMBLY SYSTEM

Use of a vision system on this project is being scrutinized.

ROTARY BELL ATOMIZERS

Recurring problems in achieving acceptable results with the rotary bell atomizers indicated that a reformulation of RK-W would be necessary. Apparently, the finer atomization was

causing finish to dry before it reached the part. A reformulation was tried with 5% butyl cellosolve to slow drying and 1% Imron 259s to reduce fisheyes. Excellent results were obtained.

Minor auxiliary equipment changes will be made and another test will be run in preparation for a Trial & Pilot run.

AUTOMATED SANDING

The Foster-Miller, slack belt, fore end sanding concept is being further refined. Major conclusions reached from tests at the 3M CAM Center were that; less surface area of the part can be sanded than we had hoped due to a 10^0 limitation on belt flexure, and; a single pass with one grit is technically and economically feasible. This would greatly reduce machine complexity and set-up problems.

Personnel from Gebruder-Hau were on plant to observe our sanding process and discuss machine concepts and requirements. They will prepare and submit a proposal for a rotary type multi-stationed machine.

AUTOMATED BIRCH FINISHING

The extreme polarity of the current stain during electrostatic tests caused high current draw in the spray lines. Dilution of the birch stain with toluene to reduce this effect produced a high resistance mixture that would spray well, but had very little color to apply to the parts. Whitaker-Haynes has developed an electrostatic stain that will be tested for flow characteristics when line time is available. They have also supplied a clear curable varnish for electrostatic topcoat

testing.

CUT CHECKERING DEVELOPMENT

o Stocks - Bostomatic

All drawings for M/870 Restyle fixtures and floating heads with special Z-prime axis have been forwarded to the Tool Room. All standard components are on order. Expected completion date for both is May 15.

o Fore Ends - CO.RE.MA.

Fixtures for production of M/870 Restyles have been designed. Drawings are ready to be sent out for normal purchasing procedures. We have requested build completion of the six (6) fixtures by June 1st. Two (2) fixtures built in-house are available for Trial & Pilot use.

COST EVALUATION

Our best prospect for an arms length quotation on birch and walnut long stocks, Canada Spool & Bobbin, Ltd. has declined to quote citing tolerances and other technical difficulties.