

BUSINESS MEETINGPRODUCTION - Contd.Quality - Contd.

Modern quality programs include a cost-of-quality analysis which attempts to identify those costs directly attributable to quality. This identification then becomes the measuring tool for all program additions. Traditional thinking usually associates higher quality with higher costs because quality improvements are associated with reduced output rates and increased inspection operations.

A contemporary cost-of-quality plan, as defined by the American Society for Quality Control and Quality Academics, differentiates between preventative/appraisal costs and internal or external failure costs. Preventative and appraisal costs are those charges incurred as a result of in-house inspection and evaluation of incoming raw materials, work in process and finished product. Internal and external failure costs are those charges associated with scrap, rework, customer returns (e.g. Warranty Repair), and product liability.

Analysis of the current quality program indicates the preventative-appraisal stages are not sufficiently emphasized. This probably causes greater expense in the internal and external failure area.

The proposed 3-year plan will address organization, reform, cost-of-quality analysis, machine/process capabilities studies, process reviews, gaging and calibration and process control based on statistically sound sampling plans.

Cost
(Key Strategy #2)

A portion of Production's engineering efforts are currently directed at applying advanced technology to Firearm's manufacturing. Recent accomplishments in this area include:

- o Multipost welding of Vent Ribs to Shotgun Barrels - simultaneous welding of all the rib posts has provided increased output and eliminated the need to stress relieve the Barrels after welding.
- o Manipulator operation of the Centerfire Barrel Blank Upsetter - This is Ilion's first successful application of a programmable Manipulator in gun manufacturing.