

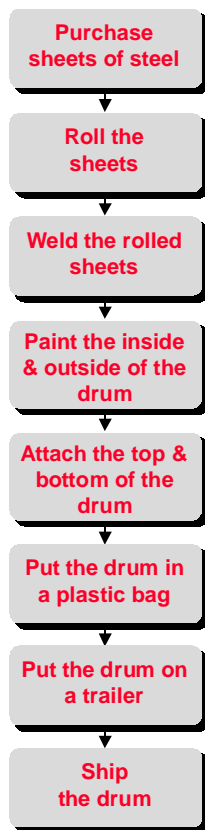
**Price...Not The Only Way To
Choose A Product
Purchasing Raw Materials Based Upon Price
Alone – How It Affects The Whole System**

by Don Brown, Vice President, Conway Management Company

Organizations which instruct their purchasing departments to purchase raw materials based upon price alone...READ ON!. The following is a true story about the negative effects of a “price only” policy.

Conway Management was asked to help improve the productivity and gross margins of a \$100 million manufacturer of steel drums. We were asked to look specifically at the processes involved in the manufacture of the drums.

The basic processes involved in the manufacture of steel drums are:



This particular drum manufacturer calculated productivity as good drums

per man hour. The historic and current results were 5.6 drums per man hour. Management had calculated that 7.0 drums per hour would achieve pre-tax profit objectives of the company. Therefore, a 25% gain in productivity was required.

The management team had been attempting to improve productivity and improve profits in the traditional way: increased capital investments in new equipment, exhorting employees to do better, bonus schemes and reducing maintenance of equipment. In spite of all these efforts, the scrap pile continued to grow and the drums per man hour remained flat.

Conway consultants listened to the people doing the work who described the problems and frustrations of their work, interviewed the managers and spent two days reviewing the various processes. As a result of this information gathering, we first recommended that all of the equipment be repaired and brought up to original manufacturers specifications. The bending machines were repaired; the welding machine was repaired and welding techniques changed, etc. After a couple of weeks the drums per man hour improved to 6.4; an increase of 14%.

We removed some of the variation from the various processes so we could now see more clearly where the major cause of waste was located. It was the welding process. The outside welding experts were brought back. They concluded the welding machines were properly set up. Something else was causing the variation and waste.

We next began to study the specifications for the steel plates. While there were specifications, they were overlooked. The purchasing department was told to buy steel plate at the lowest price per ton. Purchasing was recognized and rewarded if a positive purchase price variance was achieved each month. There was no concern about hardness, squareness, or chemistry of the steel. Only price! Our next job was to convince the president that the poor quality of the steel sheets was having a significant effect on quality, productivity and gross margin.

He had issued to order to buy steel sheets based upon price, so, convincing him the more expensive steel sheets would improve the gross margin was a hard sell. We finally convinced him to do a six week experiment. On one line we would run steel sheets that met the specifications for good welding; on the other line we would continue to run the “price only” sheets.

At the end of the six week experiment, the line running the correct quality steel was achieving 8.7 good drums per man hour and the other line running the price only steel was still at 6.4 good drums per man hour. The 8.7 result was 24% better than management’s target of 7.0 drums. The change in raw materials caused scrap to go down, rework to go down, overtime went down, on time deliveries went up, gross margin went up and pre-tax profit went up.

The whole system is important for success. In order to achieve the results, changes were required in purchasing, raw materials maintenance, machine set ups and work processes.