



## Industrial Grinders N.V.

In late May 1974, Lawrence Bridgeman, the general manager of the German plant of Industrial Grinders N.V., scheduled an afternoon meeting with his sales manager, accountant, and development engineer to discuss the introduction by the French firm Henri Poulenc (a competitor) of a plastic ring substitute for the steel rings presently used in certain machines sold by Industrial Grinders (I.G.). The plastic ring, then new to the market, not only had a much longer life than the I.G. steel ring but also apparently had a much lower cost. Bridgeman's problem stemmed from I.G.'s large quantity of steel rings on hand and the substantial inventory of special steel for their manufacture. After a thorough survey, he had found that the special steel could not be sold even for scrap; the total book value of these inventories exceeded \$93,000.

For nearly 70 years I.G. had manufactured industrial machines for sale in numerous countries. The particular machine involved in Bridgeman's dilemma was made only at the company's German plant, which employed several thousand people, in Cologne. The different models were priced between \$4,500 and \$6,820 and were sold by a separate sales organization. Parts, which accounted for a substantial part of the company's business, were sold separately. As with the steel rings, these parts could often also be used on similar machines manufactured by competitors. The company's head office was in Holland. In general the plants were allowed considerable leeway in administering their own affairs; the Dutch office, however, was easily accessible by correspondence or by telephone or during executive visits to the individual plants.

In the early 1970s, competition had become fairly strong; Japanese manufacturers, with low-priced spare parts, had successfully entered the field. Other companies had appeared with lower-quality and lower-priced machines. There was little doubt that future competition would become more intense.

The steel ring manufactured by I.G. had a normal life of about two months, depending upon the extent to which the machine was used. A worn-out ring could be replaced in a few seconds, and although different models of the machines required from two to six rings, the rings were usually replaced individually as they wore out.

The sales manager, Harry Greiner, had learned of the new plastic ring shortly after its appearance and had immediately asked when I.G. would be able to supply them, particularly for sale to customers in France, where Henri Poulenc was the strongest competition faced by I.G. Anders Ericsson, the development engineer, estimated that the plastic rings could be produced by mid-September; the necessary tools and equipment could be obtained for about \$1,800. Ericsson had initially raised the issue of the steel-ring inventories that would not be used up by September. Greiner

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*Rohan Weerasinghe, research assistant, prepared this case under the supervision of Associate Professor M. Edgar Barrett as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. This case was adapted from the "Stardust Grinder Company," copyrighted by IMEDE.*

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believed that if the new ring could be produced at a substantially lower cost than the steel ones, the inventory problem was irrelevant; he suggested that the inventory be sold, or if that was impossible, thrown away. The size of the inventory, however, caused Bridgeman to question this suggestion. He recalled that the size of the inventory resulted from having to order the highly specialized steel in large amounts so that a mill would be willing to handle the order.

Greiner reported that Henri Poulenc was said to be selling the plastic ring at about the same price as the I.G. steel ring; since the production cost of the plastic ring would be much less than the steel, he emphasized that I.G. was ignoring a good profit margin if it did not introduce a plastic ring. As the meeting concluded, it was decided that the company should prepare to manufacture the new ring as soon as possible but that until the inventories of the old model and the steel were exhausted, the plastic ring would only be sold in those markets where it was offered by competitors. It was expected that the new rings would not be produced by any company other than Henri Poulenc for some time, and this meant that no more than 10% of I.G.'s markets would be affected.

Shortly after this, Hein Van Boetzalaer, from the parent company in Holland, visited Cologne. During a review of company problems, the plastic-ring question was discussed. Although the ring was only a small part of the finished machines, Van Boetzalaer was interested in the problem because the company wanted to establish policies for the production and pricing of all such parts that, in total, accounted for a substantial portion of I.G.'s revenues. Van Boetzalaer agreed that the company should proceed with plans for its production and try to find some other use for the steel; he then said, "If this does not seem possible, I would, of course, expect you to use this material and produce the steel rings."

A few days after Van Boetzalaer's visit, both Ericsson and Greiner came in to see Bridgeman. Ericsson came because he felt that since tests had indicated that the plastic ring had at least four times the wearing properties of the steel ring, it would completely destroy demand for the steel ring. He understood, however, that the price of the competitive ring was very high (perhaps even higher than the I.G. steel ring) and he felt that the decision to sell the plastic ring only in markets where it was sold by competitors was a good one. He observed, "In this way we will probably be able to continue supplying the steel ring until stocks, at least of processed parts, are used up."

Greiner still strongly opposed sales of any steel rings once the plastic ones became available. If steel rings were sold in some areas, he argued, while plastic rings were being sold elsewhere, customers who purchased steel rings would eventually find out. This would harm the sale of I.G. machines—the selling price of which was many times that of the rings. He produced figures to show that if the selling price of both rings remained at \$320.40 per hundred, the additional profit from the plastic rings (manufactured at a cost of \$66.60 per hundred versus the \$263.85 per hundred for steel rings) would more than recover the value of the steel inventory, and do so within less than a year at present volume levels. Bridgeman refused to change the decision of the previous meeting but agreed to have another discussion within a week.

Anticipating this third meeting and also having Van Boetzalaer's concern in mind, Bridgeman obtained the data displayed in *Table A* from the cost department on the cost of both plastic and steel rings.

Bridgeman also learned that the inventory of special steel had cost \$26,400 and represented enough material to produce approximately 34,500 rings. Assuming that sales continued at the current rate of 690 rings per week, without any further production, some 15,100 finished rings would be left on hand by mid-September. Bridgeman then recalled that during the next two or three months the plant would not be operating at capacity; during slack periods, the company had a policy of employing excess labor (at about 70% of regular wages) on various make-work projects rather than laying the men off. He wondered if it would be a good idea to use some of this labor to convert the steel inventory into rings during this period.

Table A

	<b>100 Plastic Rings</b>	<b>100 Steel Rings</b>
Material	\$ 4.20	\$ 76.65
Direct labor	15.60	46.80
Overhead <sup>a</sup>		
Departmental	31.20	93.60
Administrative	<u>15.60</u>	<u>46.80</u>
Total (cost)	<u>\$66.60</u>	<u>\$263.85</u>

a. Overhead was allocated on the basis of direct labor dollars. It was estimated that the variable overhead costs included here were largely fringe benefits related to direct labor and amounted to 80¢ per direct labor dollar or about 40% of the departmental amounts.

### Question

What action should Bridgeman take? Why?