Production Goes Up 61% When Bauer Skate Replaces O.B.I.'s with one Automated Minster S2 Press and Transfer Dies

Ice skating is one of the world's fastest growing activities. Bauer Skate, Kitchener, Ontario, Canada, has long been recognized as a leader in quality ice skates for all purposes. These internationally known skates are made in all types for ice hockey, figure skating, racing and plain old recreation. They're worn by men, women, juniors and tots, the top professionals, amateurs and beginners. Ice skating is a surprisingly big sport.

In 1965 Greb Industries Limited, producer of sport shoes acquired the company and it became their Bauer Skate Division. A natural marriage. The demand for more and more ice skates has been building for several years, making it imperative for Bauer to turn to highly automated production systems for manufacturing skate hardware.

PRODUCTION BOTTLENECK

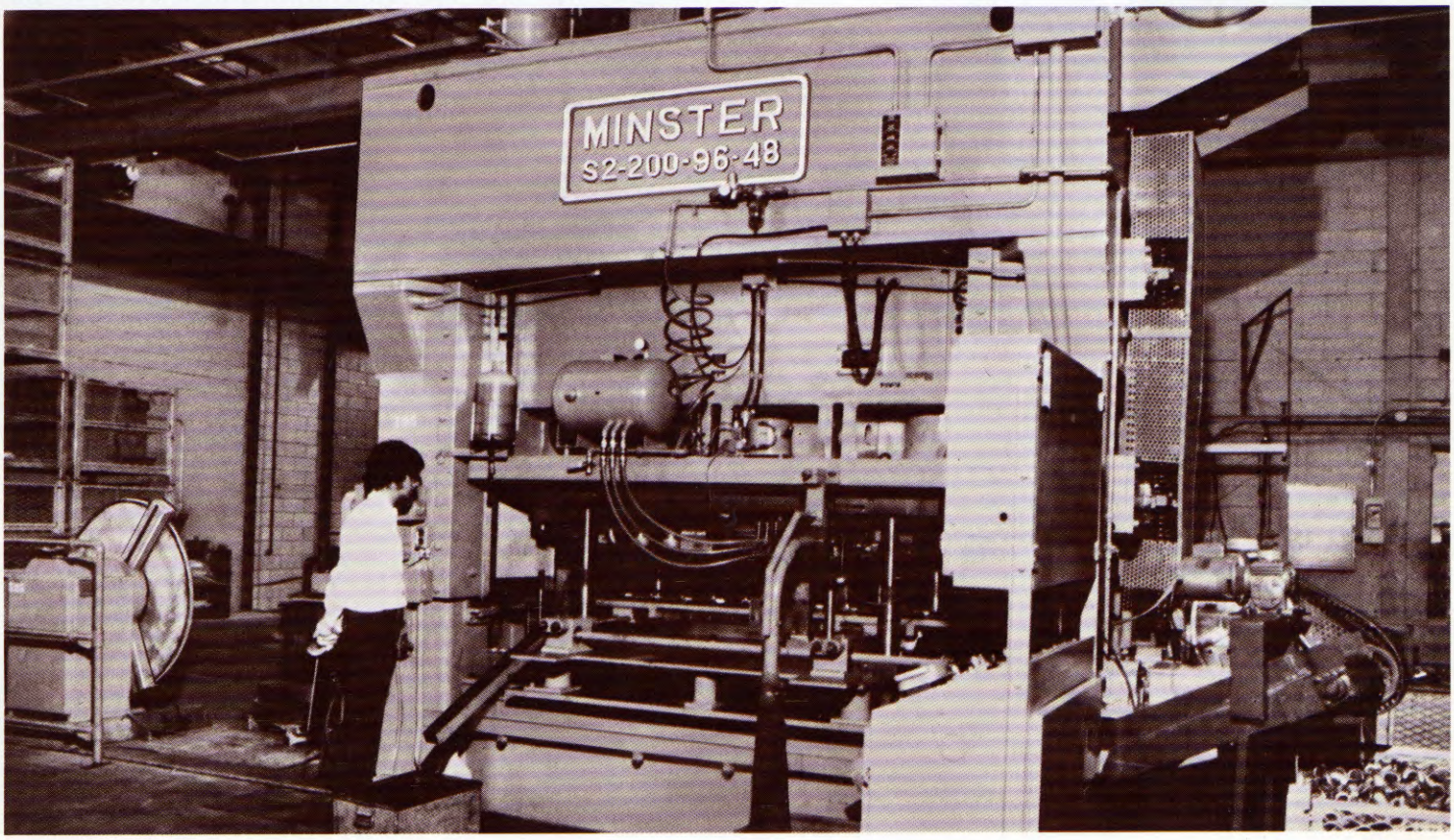
One bottleneck was the production of "toe and heel cups" for tubular skates. Mr. Craig Wormald, Plant Manager says "Basically it involved a big labor cost for us to produce these parts and we had insufficient equipment on which to meet production quantities." Heel cups were produced on ten older O.B.I. presses requiring ten operators doing ten operations. Toe cups required nine of the same presses and operators. The need for more efficient production was evident. Wormald stated, "To produce the needed parts, as we were doing, required another line of ten O.B.I. presses and operators for two more work shifts. We had to find another way."

EQUIPMENT SELECTION

A careful study by Bauer's project group revealed that the cups could be produced best in a reasonably standard Two Point Straight Side Press with transfer dies. The single piece toe and heel cups, difficult and intricate parts made of a special deep draw quality mild steel from .032" to .038" thick, were critical to the quality of finished skates. The parts are subjected to stresses from sudden starts, stops, and turns in pro ice hockey. Bauer Skate Division has taken this step to keep pace with sales demand.

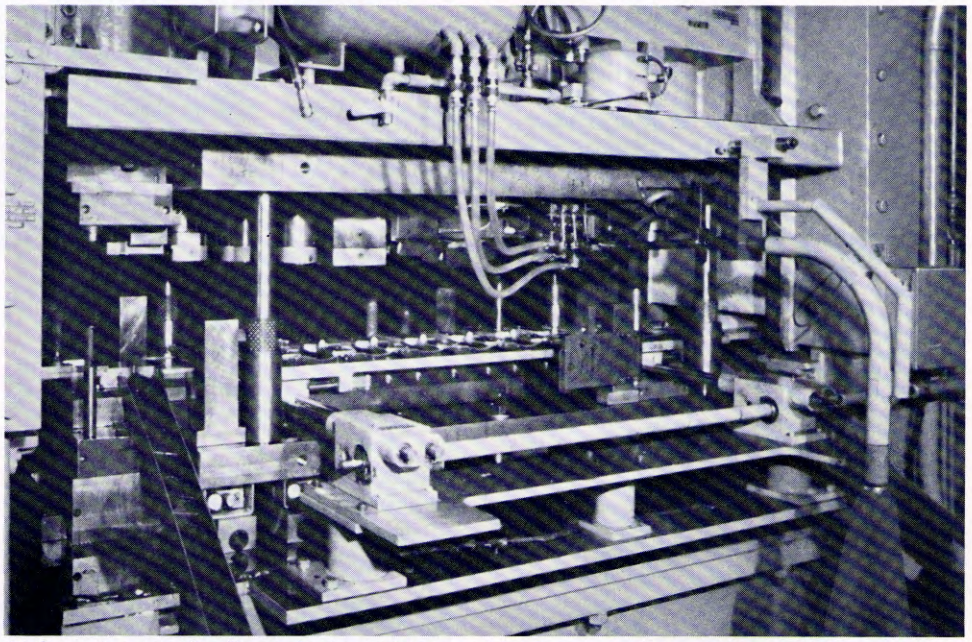
Mr. Craig Wormald, Plant Manager

Minster 200 ton S2 Two Point Straight Side Press has mass and rigidity for smooth transfer die production.



MINSTER PRESS SPECIFICATIONS

A nearly standard Minster 200 ton capacity S2 Single Geared, Twin Drive Straight Side Press was ordered and built in Canada. It features four piece tie-rod construction, eight adjustable bronze lined gibs, has a 12″ stroke, 96″ x 48″ area of slide, bolster and bed and a speed range of 0-40 spm. Minster's patented MonitorFlow® recirculating lubrication system continues oil flow to all bearings, gibs and slide counterbalances...constantly monitoring lines to signal faults if any occur. The centralized press control is the pedestal type. The machine was arranged for transfer dies and equipped with a hitch feed, stock lubricators, coil reel and finished parts conveyor. When it went into production, the ten older O.B.I.'s went on other needed jobs.



Eight station transfer die producing 1300 toe and heel cups per hour at 23 spm. (Old way...800 cups per hour on ten O.B.I.'s.)

MINSTER PRESS AND TRANSFER DIES BOOSTED PRODUCTION BY 61%

The older ten O.B.I., ten operator method produced 800 parts per hour. The Minster press and transfer die method produces 1300 parts per hour.

Only one operator is required. (The others were shifted to other jobs as Bauer is constantly seeking employees). Labor cost per part went down dramatically as production rates went up. Toe cups are made in an 8 station die, drawn at 23 spm. Heel cups are drawn at 19 spm in a 12 station die.

MANY BENEFITS ACCRUE FROM NEW PRODUCTION SYSTEM

Eliminating press operator jobs has been no problem, in fact, the ability to meet production demands increased jobs. Since 1969 Bauer has gone from 65 to 240 employees. In addition to a 61% production increase and lower part cost, there has been a significant material savings due to using full strip width and eliminating skeleton between blanks. Floor space was also saved with 1 press vs 10, and less space needed for parts handling.

The next time you see a hockey player make a sudden high speed turn for the goal, chances are he'll be wearing Bauer skates with toe and heel cups made in this Minster press.

Toe and Heel cups, one piece, deep drawn parts which connect skate blade to shoe are designed to withstand rigors of all types of professional ice skating.