

ATLANTA



ATLANTA
GROTNES
MACHINE COMPANY

GROTNES

한국대리점

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ATLANTA GROTNES

Founded in 1956 by Eugene and Charles Grotnes, Atlanta Grotnes Machine Company has specialized in developing and building metal forming equipment adaptable to a wide variety of industries. In 1965, Eugene Grotnes became sole owner; and in 1975, his son Carl joined the company becoming a fourth generation Grotnes to design and build custom machinery.

In the late 1800's, Charles G. Grotnes, who had come to this country from Norway, established a company in Chicago, Illinois. In the beginning he developed machines for the cooperage and automotive wheel-rim industries, pioneering in forming metal parts by rolling, expanding and shrinking. In the early 1900's, his son Carl joined the firm continuing the development of rim equipment as well as creating many of the basic machines used today in the production of steel pails and drums, washers, and dryers. By the mid-thirties the name Grotnes was known world-wide.

Carl Grotnes sold his company in 1949 remaining with the new owners until his retirement in 1954. Eugene joined the company in 1952 as a design engineer shortly after graduating from Purdue University. In 1956, he and his brother decided to leave the Chicago firm and start their own company in Atlanta, Georgia to serve the same basic industries.

Following the tradition of his father and grandfather, Eugene has designed and patented a number of innovative machines while the company has expanded into developing equipment for the fibre drum and transformer industries as well as for manufacturers of various products such as oil filters, hot

water heaters, microwave ovens, high pressure vessels and lawn mowers.

In 1975, Carl Grotnes II joined the company having also graduated from Purdue University with a degree in mechanical engineering. As fourth generation, he has contributed to the growth of the company by designing and adding patents of his own.



Eugene Grotnes and Carl Grotnes II

Atlanta Grotnes moved into its present plant in 1967, and since then has expanded four times, replacing most all of its original machine tools and adding the latest CNC equipment. Today Atlanta Grotnes is known world-wide, having machines installed from Australia to Africa, North and South America, Asia and Europe.

Design

With over 30 years of designing and manufacturing experience and a heritage dating back almost a century, Atlanta Grotnes is uniquely qualified to supply you with the right design solution for your production machinery requirements. All of our machines are individually designed and engineered to your needs and specifications.

We begin with a review of your specific manufacturing needs, including the product, material specification, production requirements, and services available. From this information, our staff of engineers begins the process of designing a machine which will produce your needed part efficiently and economically. Our years of prior experience in finding solutions for a broad range of products is used to help us find the right solution for you.

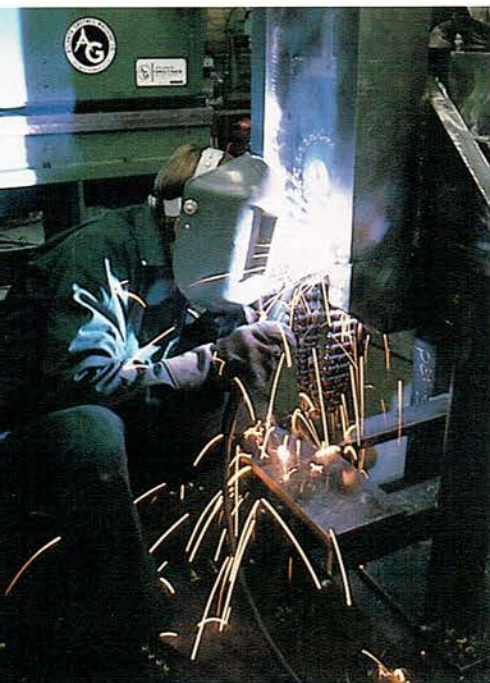


Assembly

Our assemblers are trained from the beginning that quality is first and foremost. They are highly skilled people who take pride in their workmanship. They are knowledgeable in all phases of assembly work including mechanics, hydraulics, pneumatics, and electrics.

Machine Department

Atlanta Grotnes is equipped with the latest machine tools and our machine operators are highly skilled craftsmen. There have been many advances in the machine tool industry, and we are continuously seeking and acquiring the latest state of the art.



Production machinery from ATLANTA GROTNES uses one, or all of three methods — expanding, shrinking, and roll forming. Each process produces a particular end product, and the process which would be used to produce your product will be determined by your individual needs.

Expanding

Through this process, a hollow or enclosed sided metal part is formed into its final shape by a series of dies which expand outward to stretch the metal into the size and profile desired. Intricate contours and sharp profiles are easily formed. Beads, threads, flanges, bosses, flutes or practically any contour can be formed by expanding.

Most expanding machines are built to accommodate a range of product sizes. Parts having different sizes and shapes can be formed on the same machine by changing the tooling. An important advantage of expanders is reduced material requirements and machining costs effecting considerable savings.

Expanding is used extensively by the appliance, automotive, aerospace, and container industries.



Shrinking

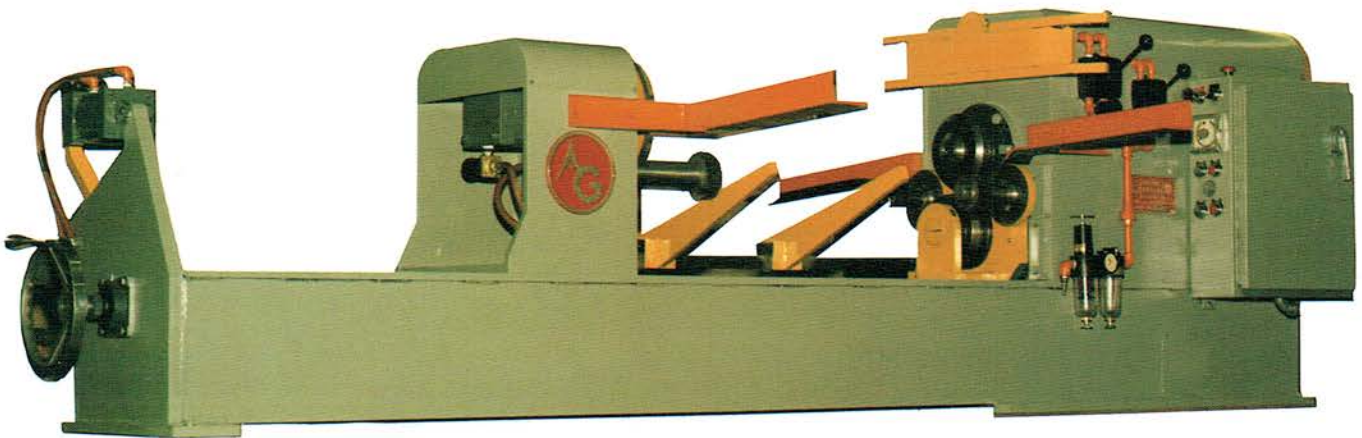
With this procedure, the opposite of expanding is achieved; the metal is formed or sized by compression to a smaller diameter. Circumferences of material can be reduced either in localized areas or along their entire length. The movement of forming dies, which are mounted on movable jaws, is radially inward. This forming procedure also increases the part's strength by cold-working the metal. There is no inherent limitation to a minimum diameter, the length-to-diameter ratio, or the maximum wall thickness that may be formed.

The process is well suited to forming a variety of tapers, spherical sections, inward beads, offsets and contours. For some applications, both expanding and shrinking are combined in a single machine.

Roll Forming

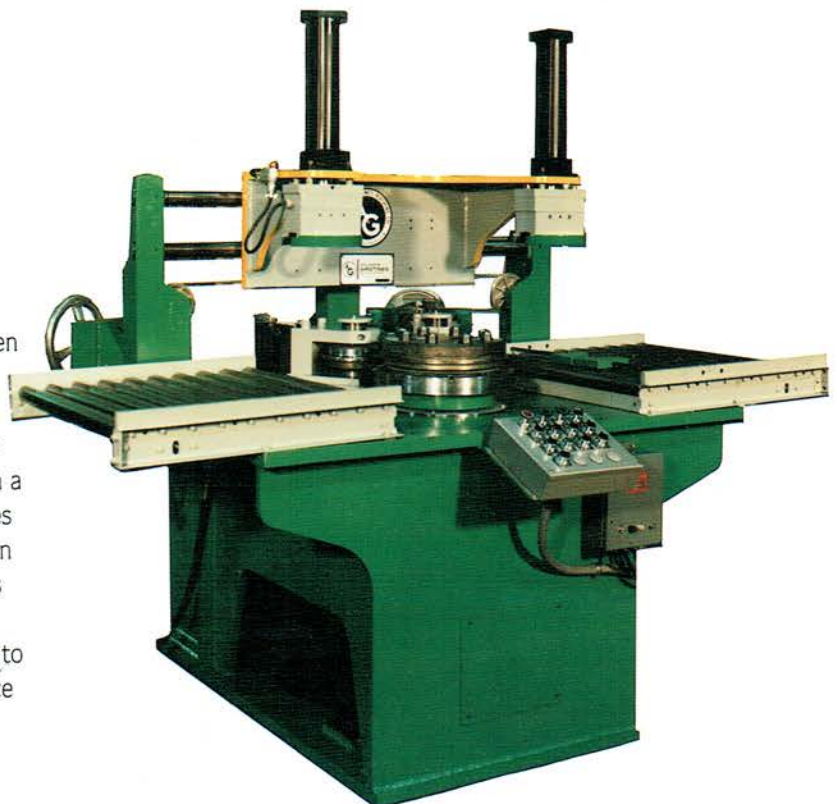
This is a continuous process for forming straight sided cylinders or rings into shapes of essentially uniform cross section. The material is fed between a pair of forming rolls (male and female) which progressively shape it until the desired cross-section is

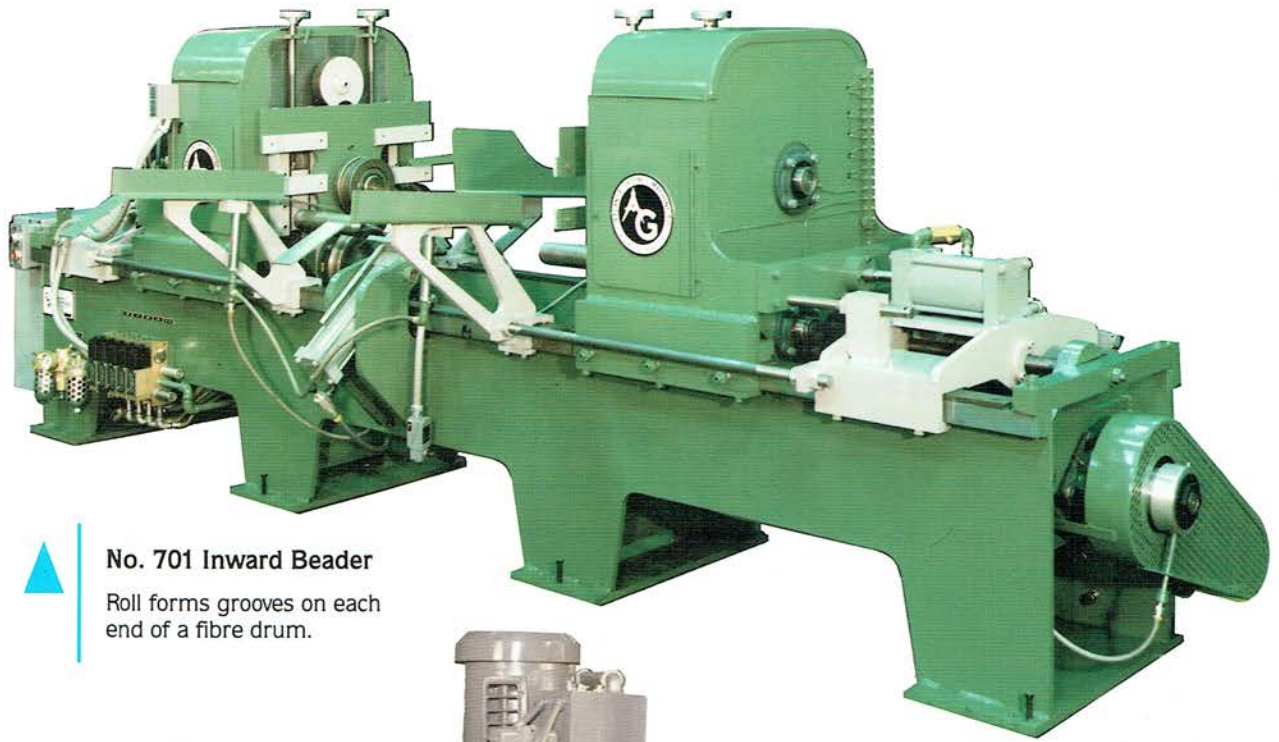
produced. During the process only bending takes place; the thickness of the metal is not changed except for a slight thinning at the bend radii. When more intricate parts are required, each unit may be processed in two or more forming operations.



Combination Roll Forming/ Shrinking/ Expanding

In recent years ATLANTA GROTNES has been developing machines that use a combination of the three major processes. A part may be expanded and then revolved as a roll moves in to form a groove or reduced profile. In some cases a form is expanded on the part and then a roll is used to sharpen its profile. This has the advantage of lowering the tonnage requirements for forming due to the rolling process and holding tolerance inherent with the expanding process.





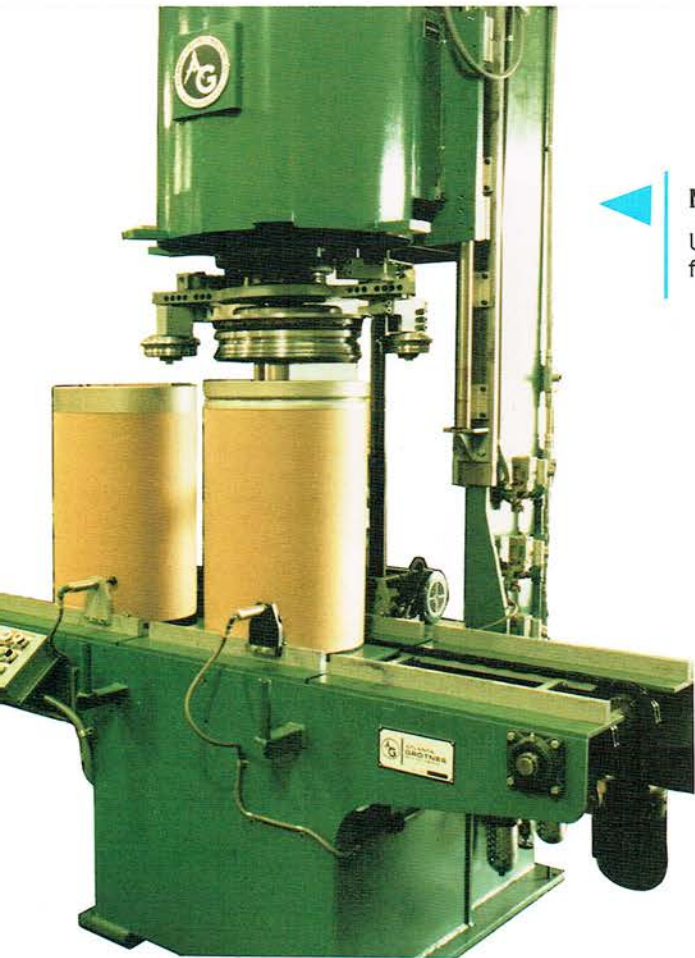
No. 701 Inward Beader
Roll forms grooves on each end of a fibre drum.



No. 402 Bottom and Top Presses
Clinches the bottom element, bottom band and the top band to a fibre drum.

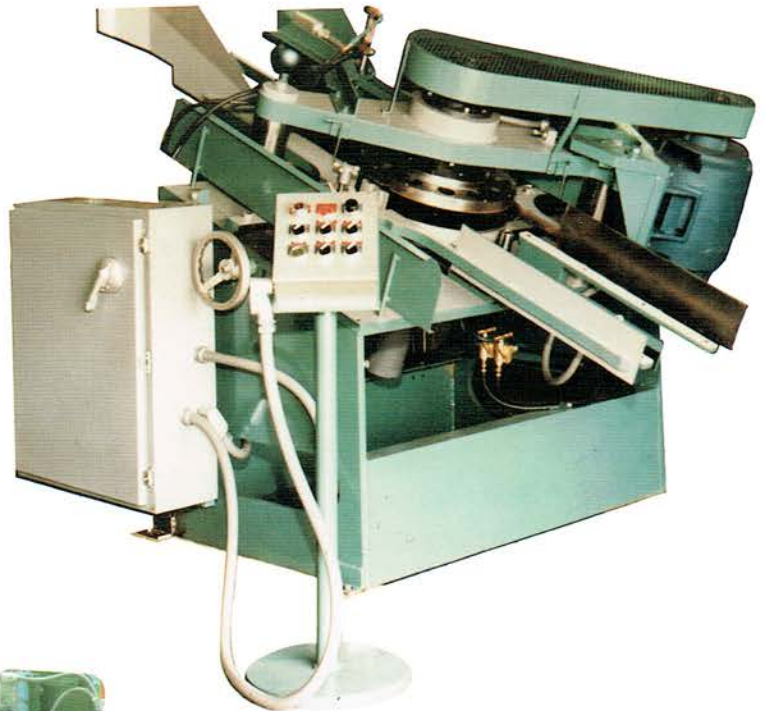


No. 420 Tube Cutter
Parts a fibre tube into a number of pieces of desired lengths.



No. 701 Vertical Groover

Used in an automatic vertical line for forming the groove in a fibre drum.



No. 46S Cover Hemmer

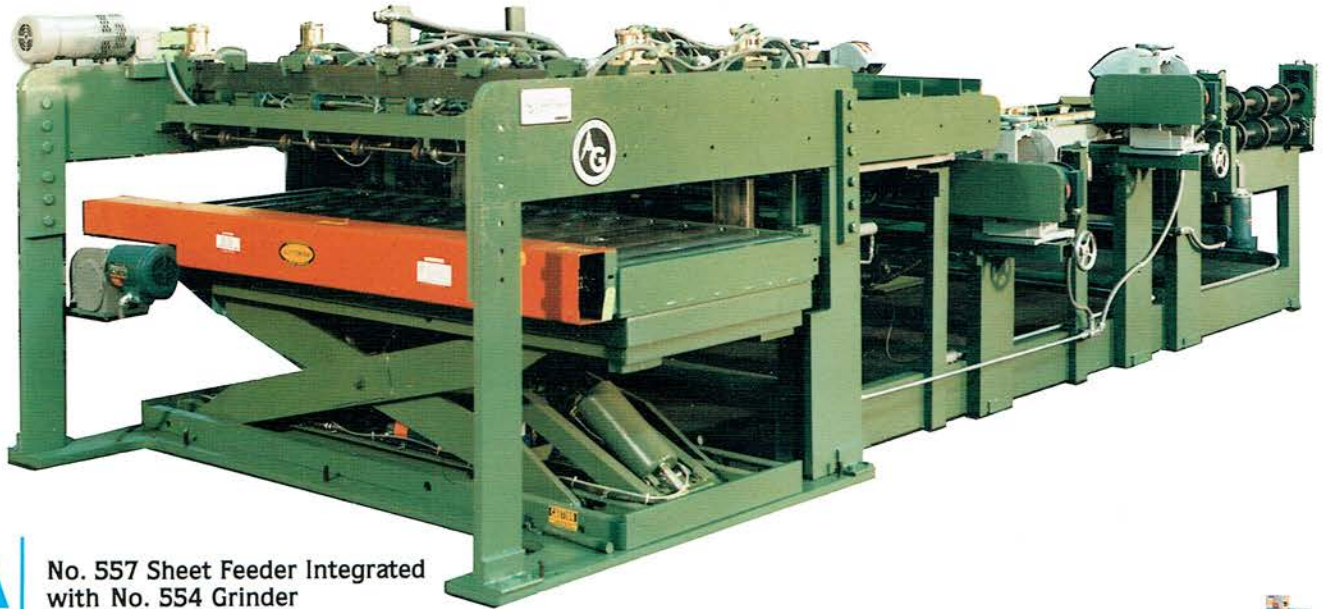
Automatically rolls the edge over on a steel cover after it has been blanked and formed in a press. A version of this machine is used as a precurler for steel container ends.

No. 500 Convolute Winder

Automatically winds fibre tubes with selectable combinations of three elements which are inner liner, barrier, and outside wrap.

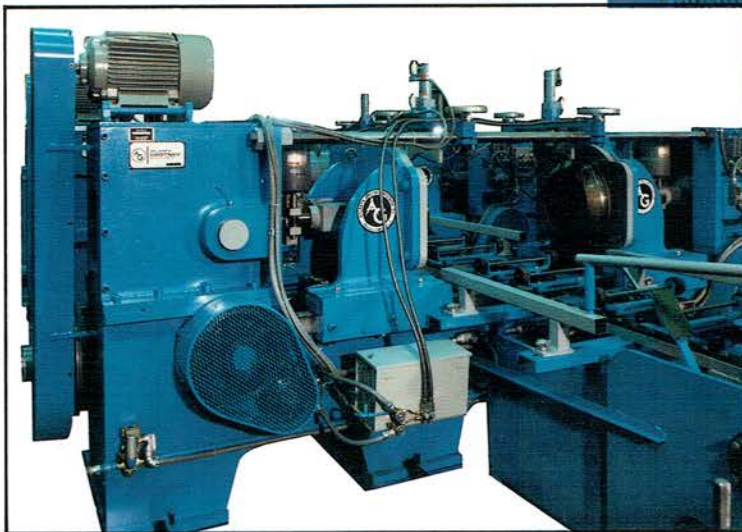
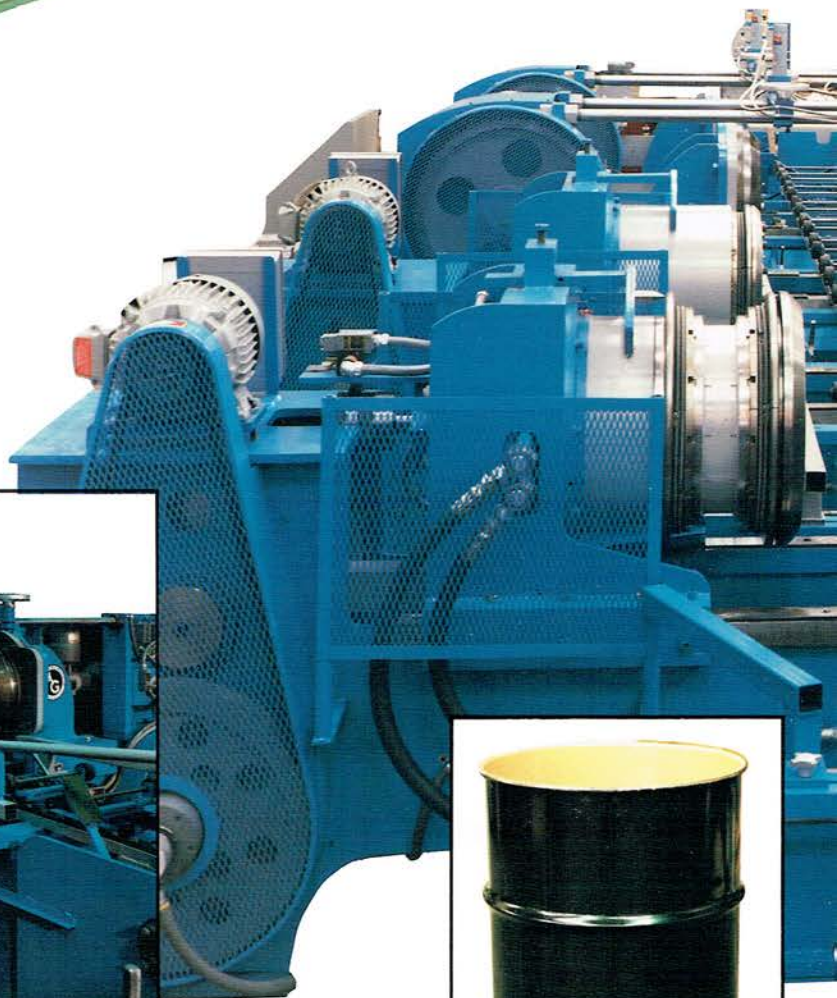


Finished fibre drum



No. 557 Sheet Feeder Integrated with No. 554 Grinder

Feeds sheet steel from a stack for further processing. In this case the sheet is fed into an edge grinder, which cleans the edges before being coiled and welded.



No. 603 Flanger

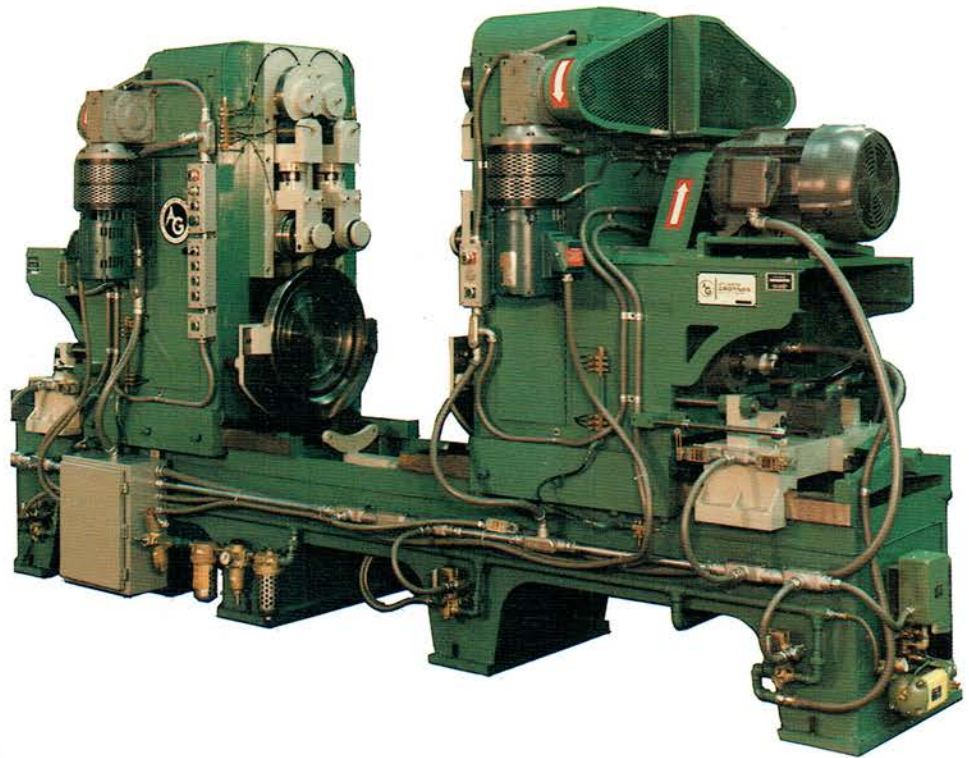
Forms a flange on each end or a flange on one end and a curl on the other end of a steel cylinder.



Finished steel drum

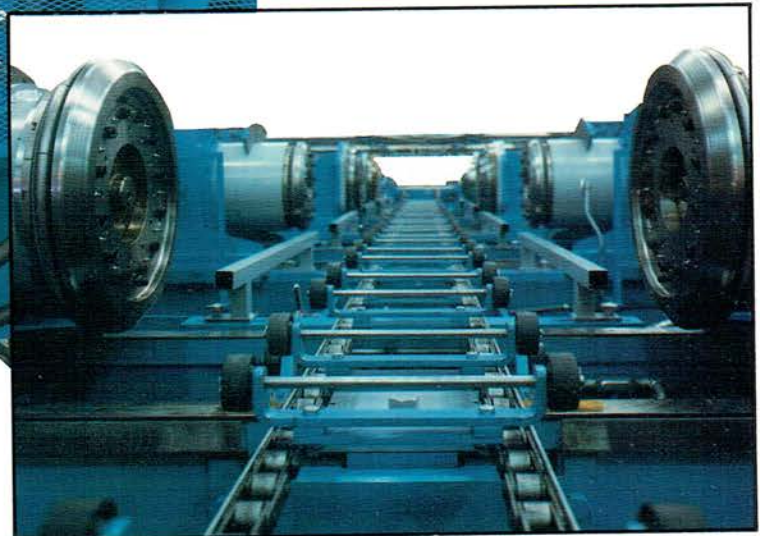
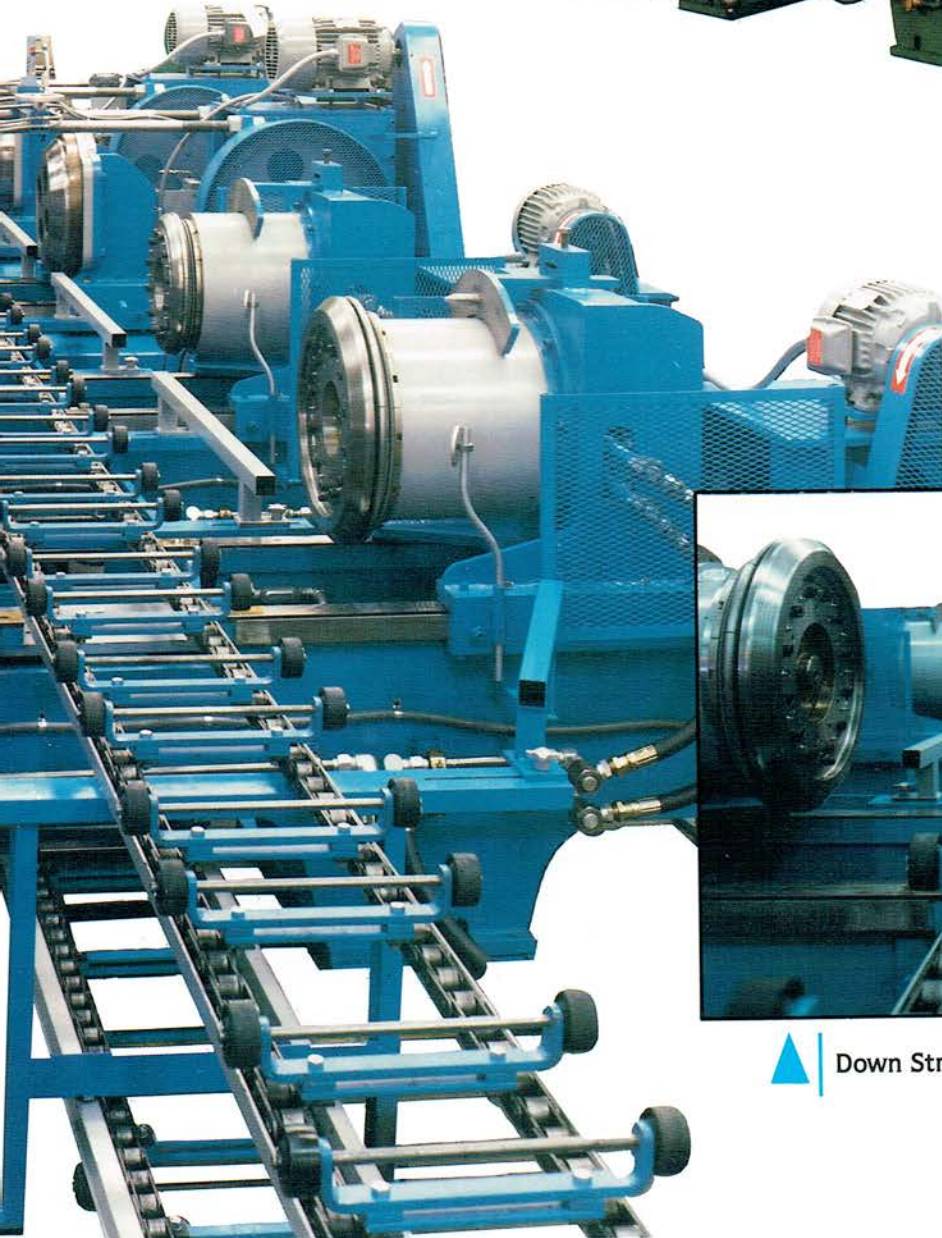
No. 955 4 IC Seamer

Heavy duty high speed seamer for assembling ends onto a steel container by double seaming. Unique in its design and patented, it is currently the most widely used seamer in the steel drum industry.



High Speed Steel Drum Line

Produces 55 and 30 gallon steel drums at a rate of 800 per hour.



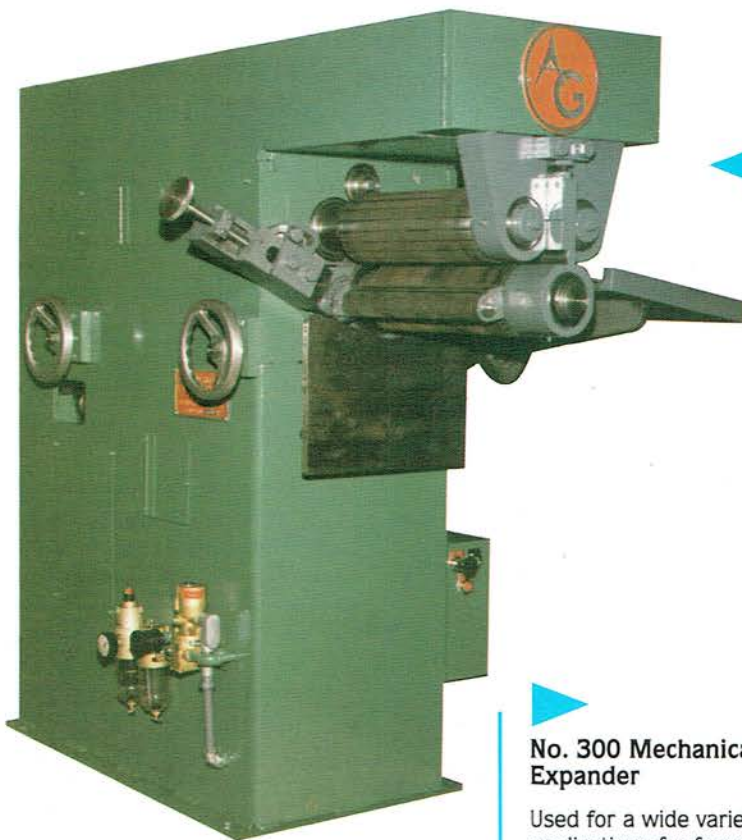
Down Stream View of Steel Drum Forming Line



View of forming dies

No. 50/30 Expander Shrinker

Forms an inward flange on a lawn mower deck which creates a vacuum for picking up grass clippings. With this design concept a flange can be formed on most any configuration of a mower deck.



No. 10 Pyramid Roller

Coils a flat steel strip into a circle. Used to coil automobile wheel rim stock for further processing. It has a fourth roll which gives greater control of coiled diameter and helps create a flat on each end at the gap which is often desirable for butt welding and trimming.

No. 300 Mechanical Expander

Used for a wide variety of applications for forming cylindrical parts. Machine shown is tooled to form a washer tub.



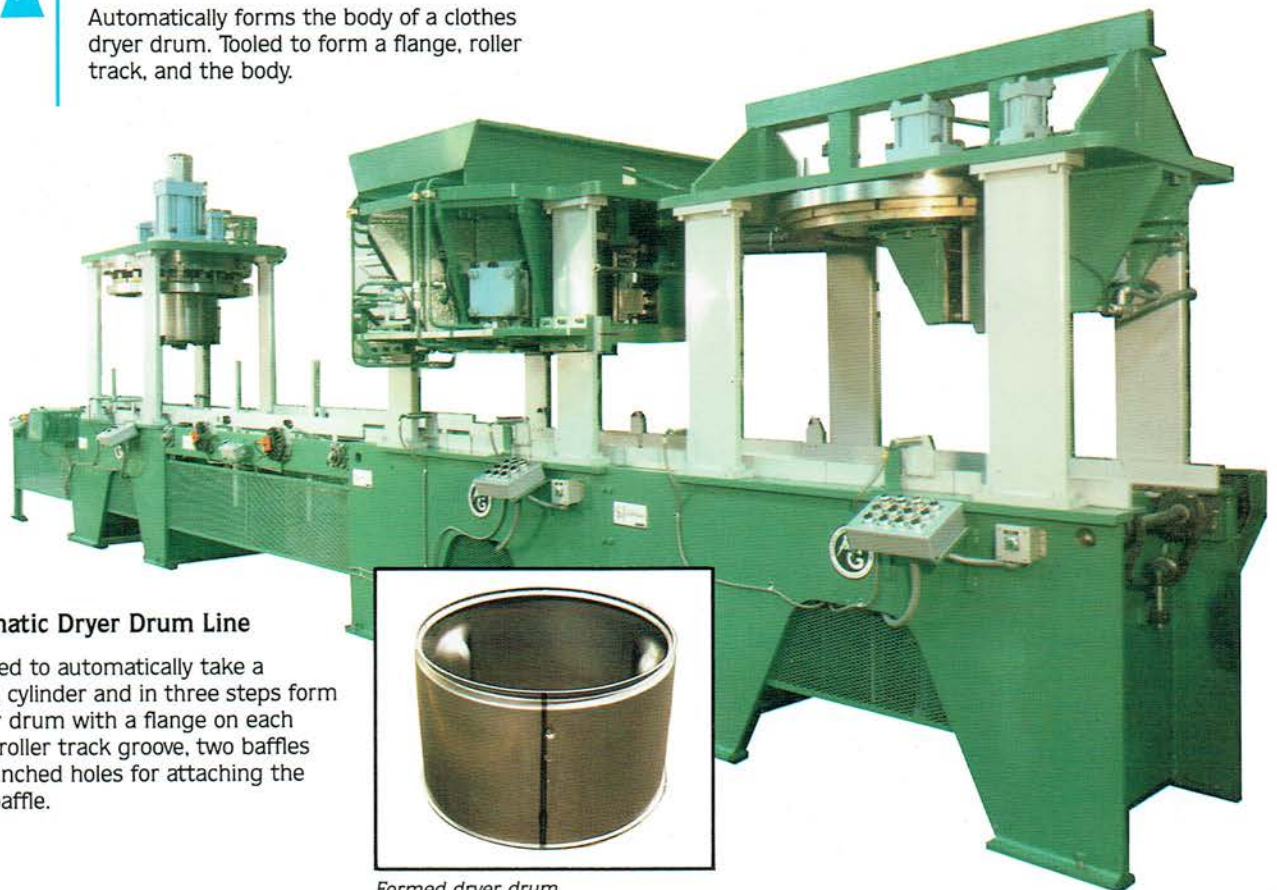


No. 302 — HV Expander

Automatically forms the body of a clothes dryer drum. Tooled to form a flange, roller track, and the body.

No. 20 Weld Trimmer

Trims the flash off of a butt welded metal part, bringing it close to parent metal thickness.

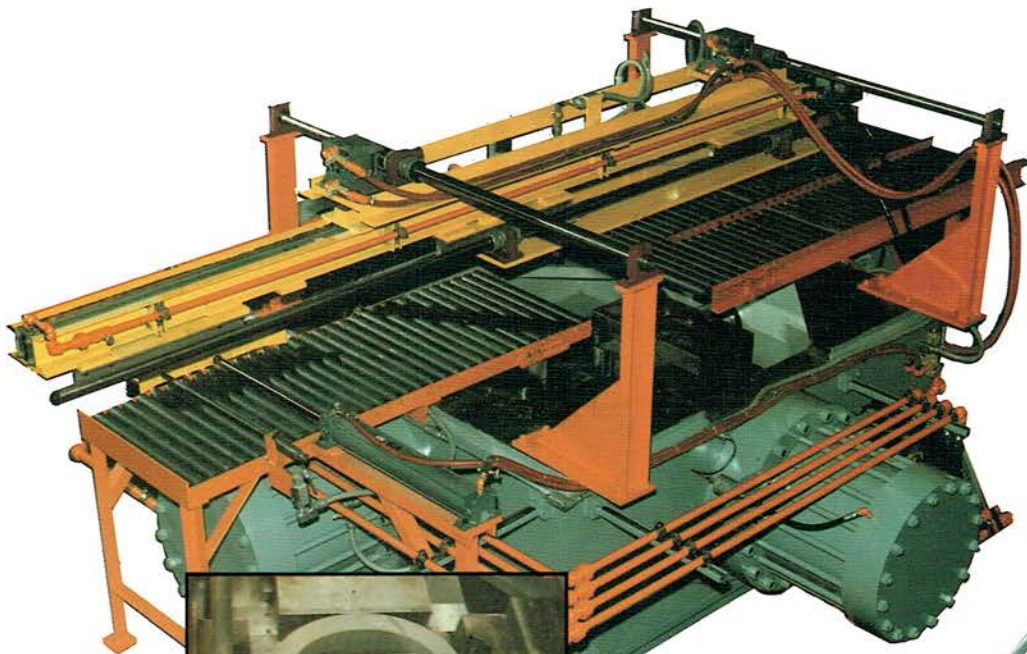


Automatic Dryer Drum Line

Designed to automatically take a welded cylinder and in three steps form a dryer drum with a flange on each end, a roller track groove, two baffles and punched holes for attaching the third baffle.

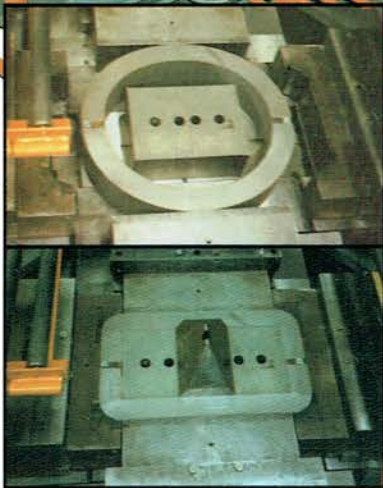


Formed dryer drum



300 Ton Core Press

Forms a toroidal wound transformer core into a rectangular shape.

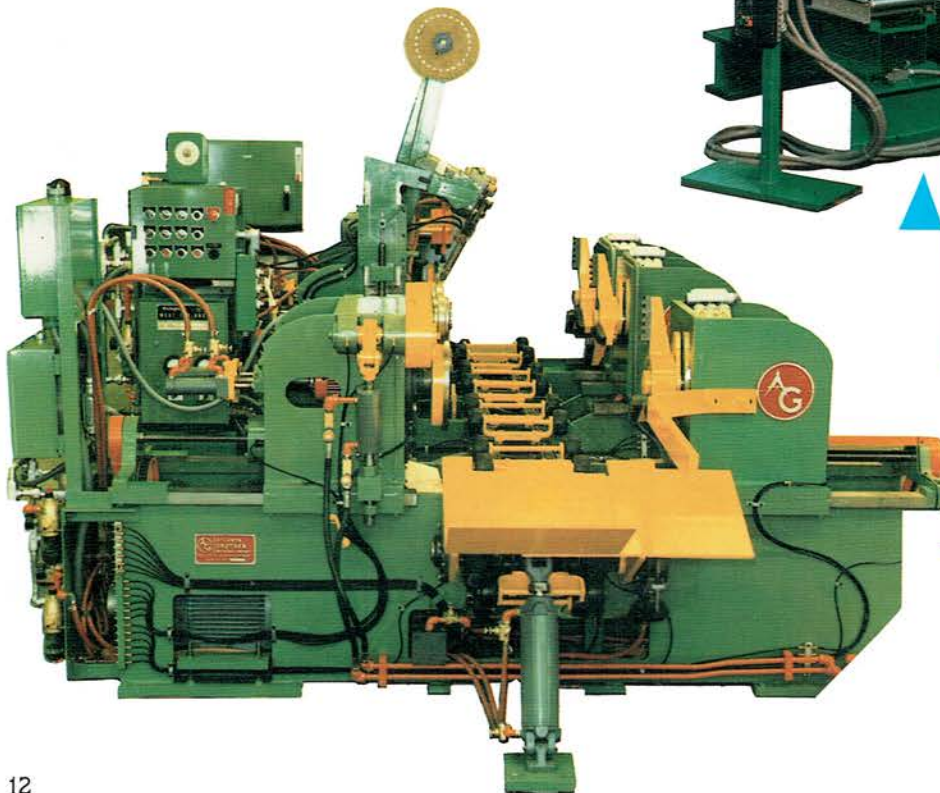


Before and after stages of forming



No. 126 B Transformer Tank Tester

The tank is pressurized and inspected for leaks by applying a soap solution in critical areas. Designed so that the tank can be tipped and rotated for inspection of the bottom.

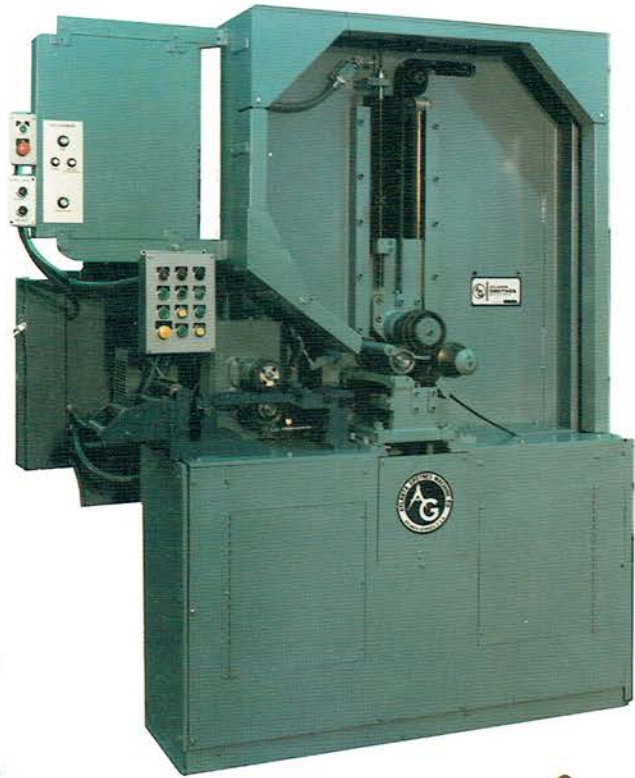


Transformer Tank Assembly Line

Roll forms the bottom onto the tank body and welds it around the circumference to make a leak proof tank.

No. 023 Transformer Core Wrapper

Winds a toroidal form distribution transformer core. Each turn is automatically cut with a controlled gap and overlap.

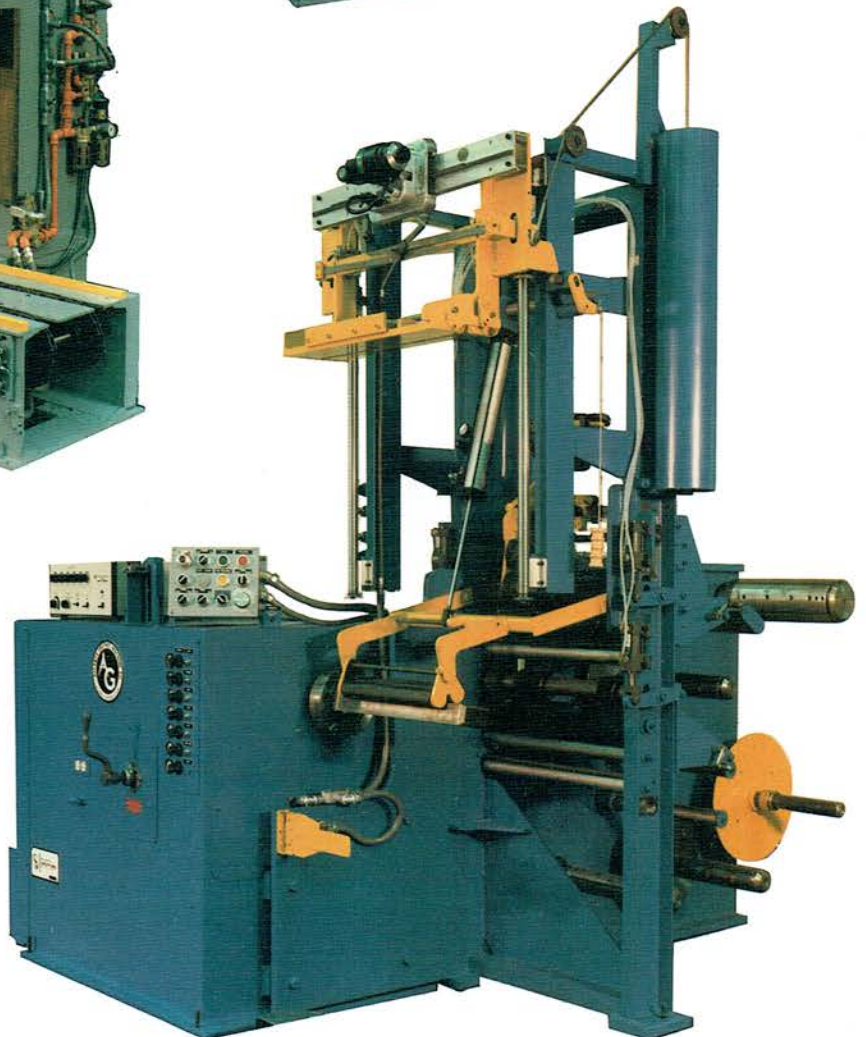


No. 809 Expander and No. 709 Beader

Automatically sizes the body and forms the cover locking bead on transformer tanks.

No. 013 Coil Winder

Winds distribution transformer coils built with paper insulation. AL Strip Conductor, AL or Copper Strap and AL or Copper Wire.





No. 303 Double Ended Expander

Sizes each end of a hot water tank, so that the end heads can be pressed in for an accurate fit before welding. Arranged for quick change over in tank lengths and diameters.

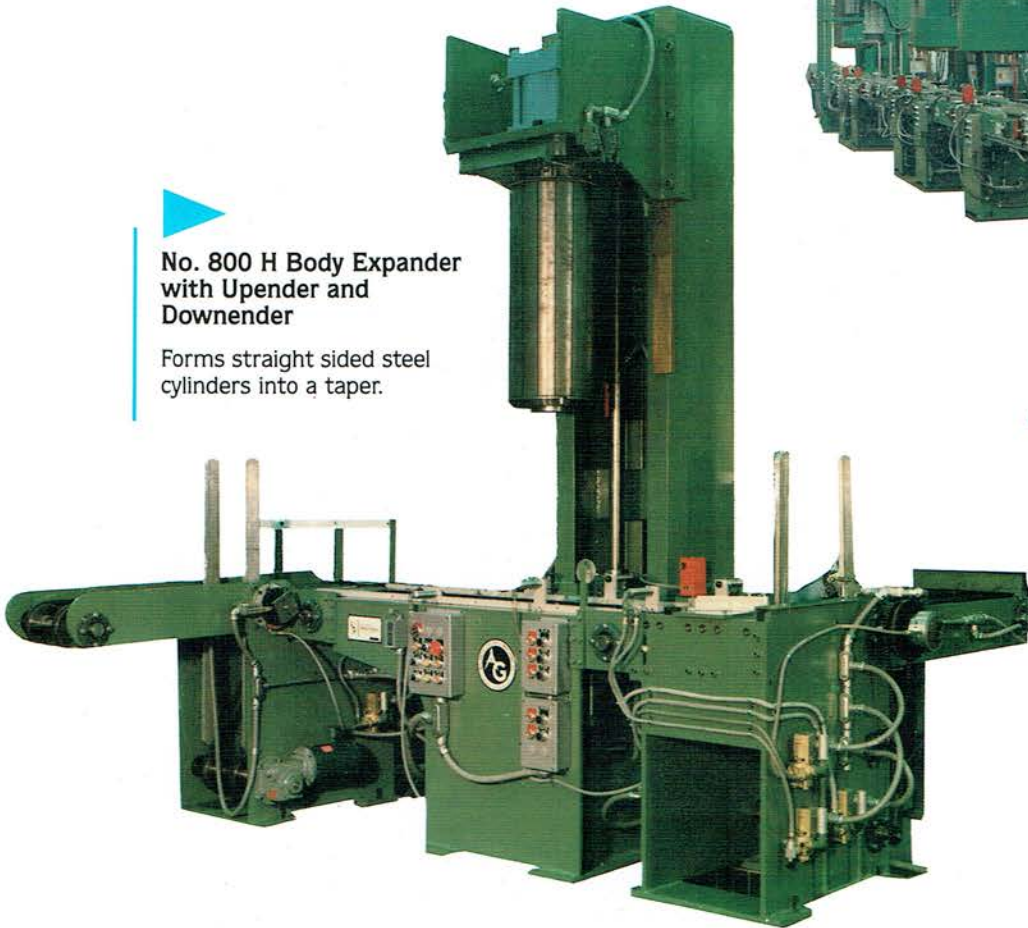


16 thru 30 Gallon Steel Container Line

High speed fully automatic line which completely forms and assembles steel containers having a variety of sizes and profiles at a rate of 900 per hour.

No. 800 H Body Expander with Upender and Downender

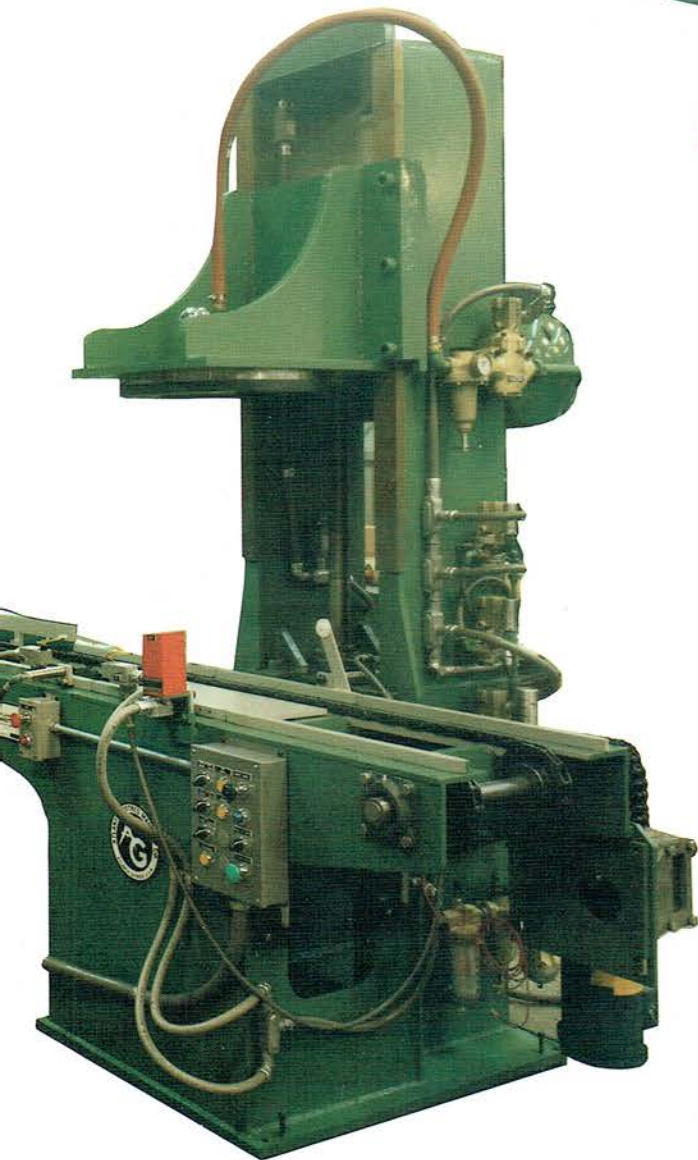
Forms straight sided steel cylinders into a taper.





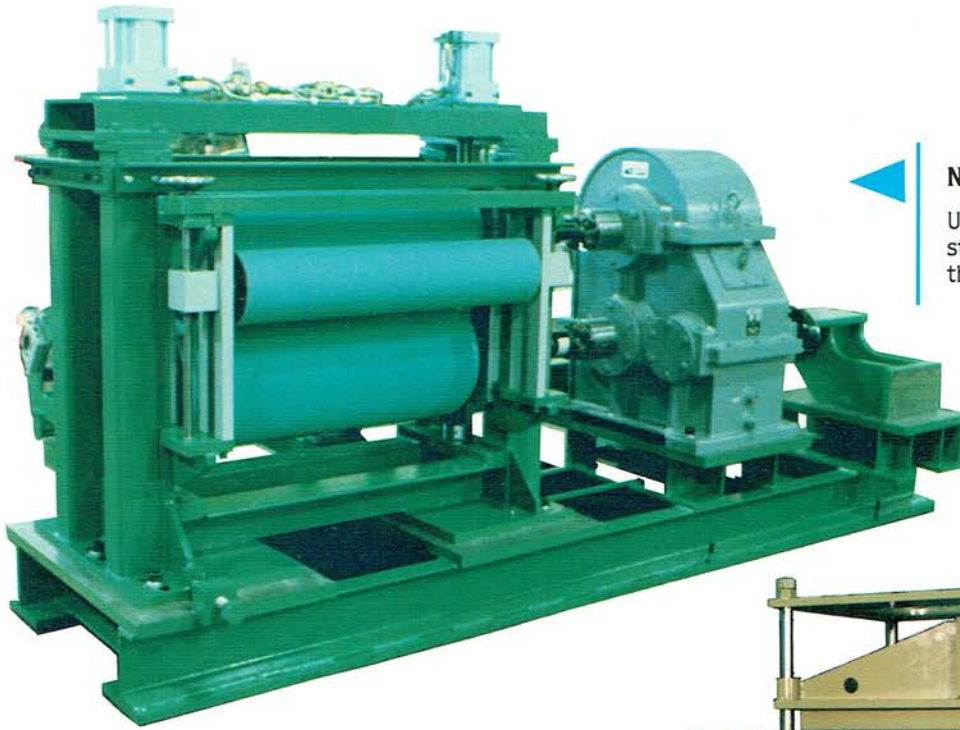
No. 404 Head Press

Presses the plus and minus head into a hot water tank body.



No. 804 Pail Bead and Curler

Forms a curl or flange on the top end of a 5 gallon pail and also forms a bead into the body.



No. 1520 Drag Stand

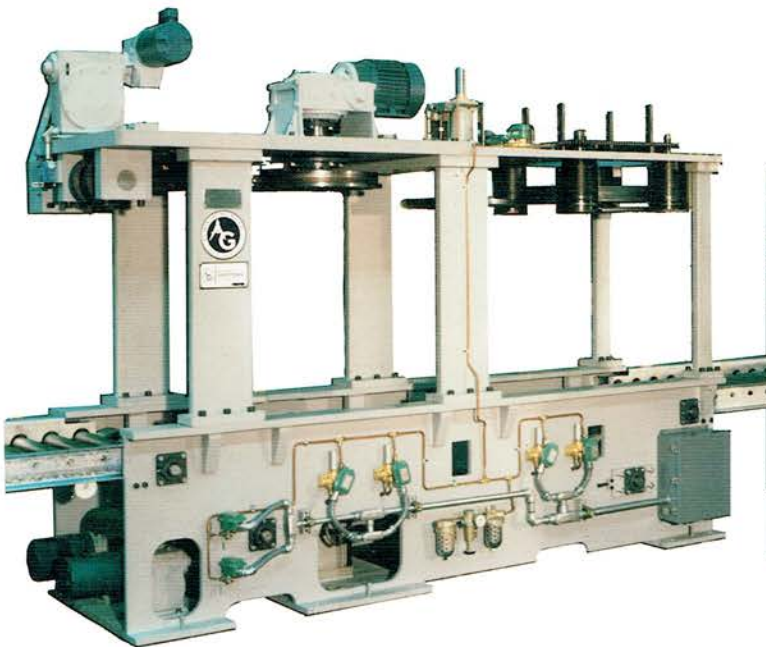
Used to create tension on strip steel as it is being rewound after the slitting operation.

No. 914 Microwave Oven Seamer

Attaches the front and back panel to the cavity of a microwave oven by double seaming.

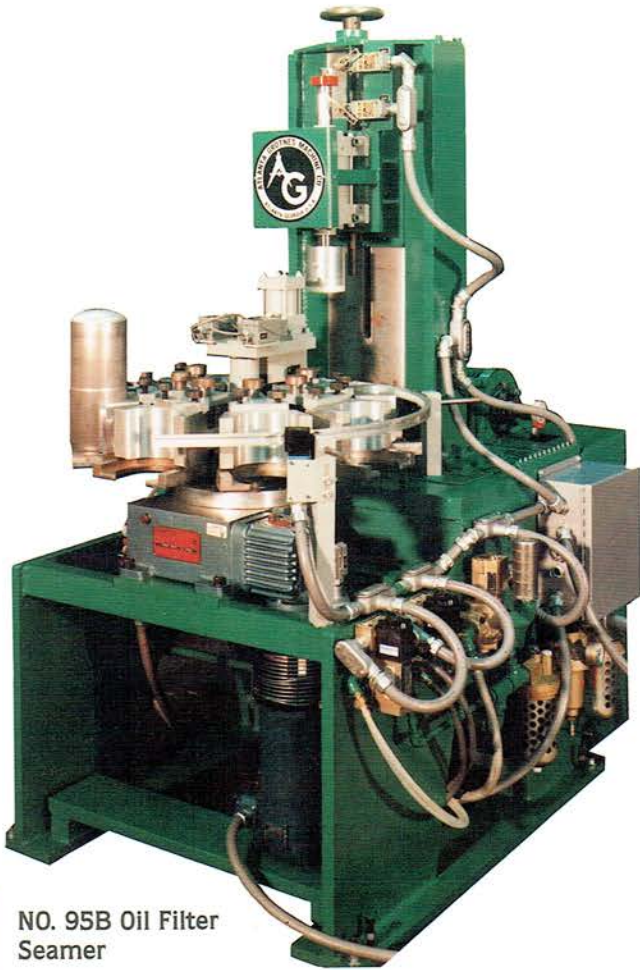


Finished microwave cavity



No. 908 Seamer with Lid Loader

Automatically places a lid and double seams it onto a 55 gallon drum filled with nuclear waste.



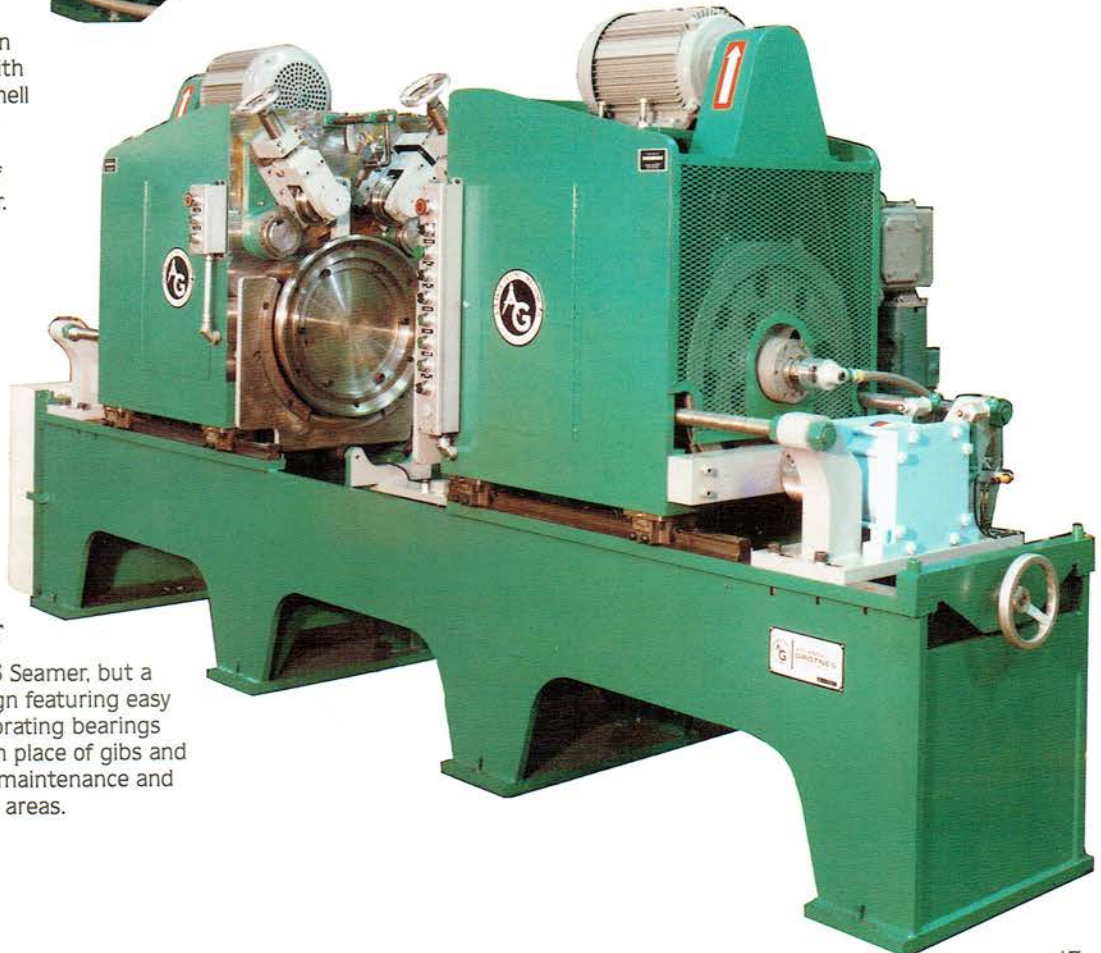
NO. 95B Oil Filter Seamer

Automatically loads an oil filter assembled with the filter elements, shell and cover, seams the cover to the shell and unloads it at a rate of 2,000 pieces per hour.



No. 2 Roll Former

Forms aluminum angles and flat bars into curved shapes.



No. 950 Seamer

Similar to the 955 Seamer, but a more recent design featuring easy setup and incorporating bearings and pivot shafts in place of gibs and slides for ease of maintenance and reduction of wear areas.

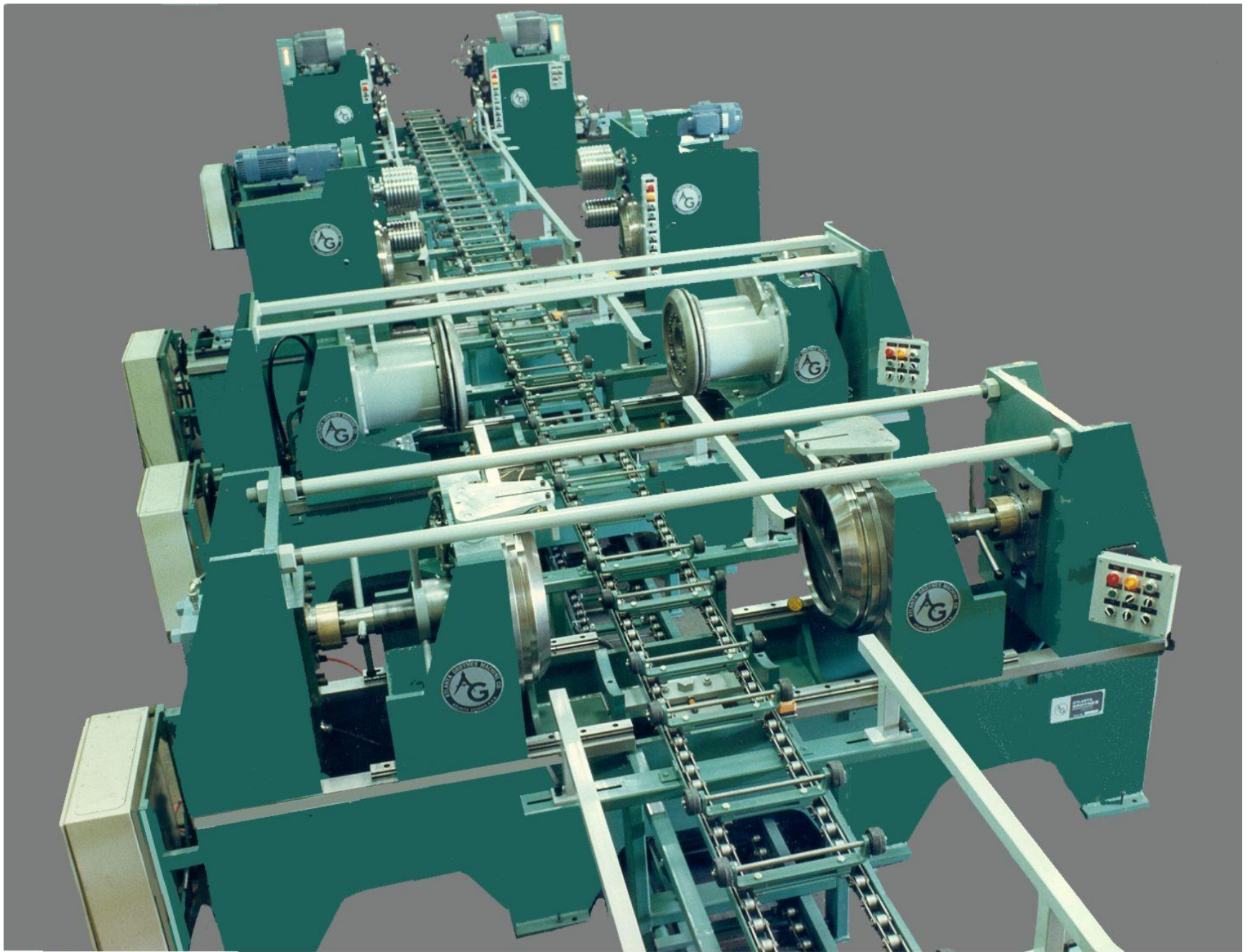
Horizontal Drum Production Equipment

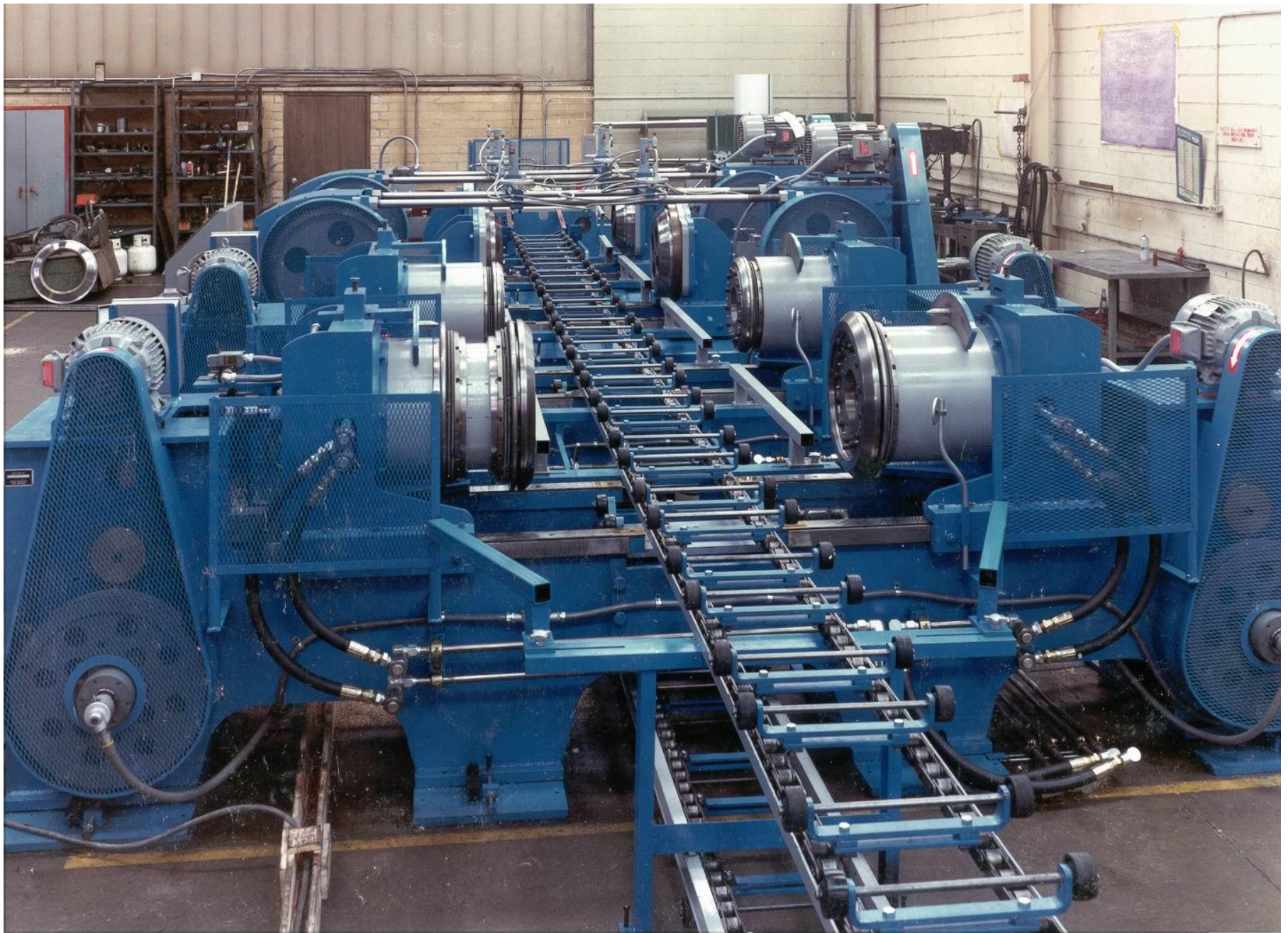


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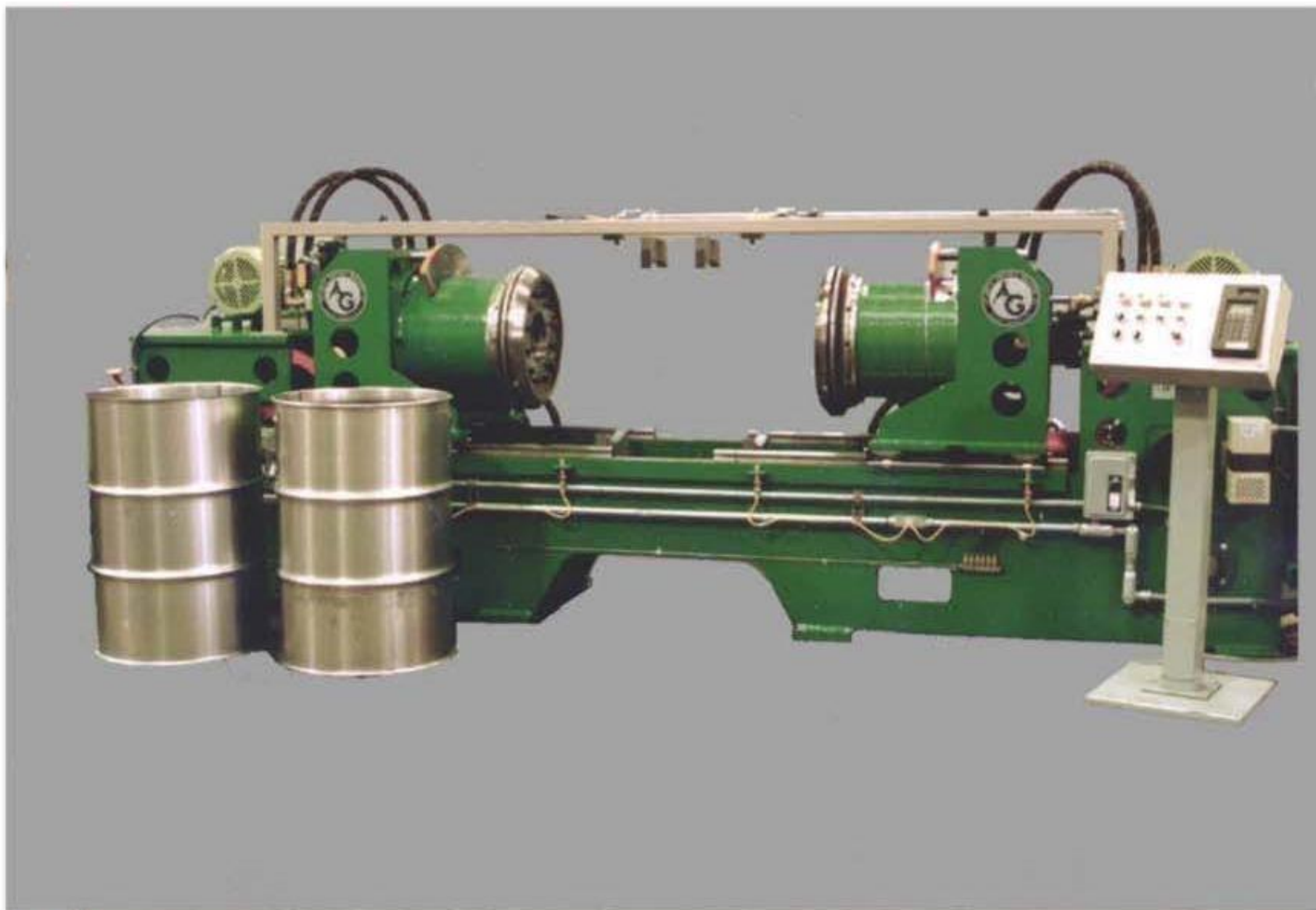


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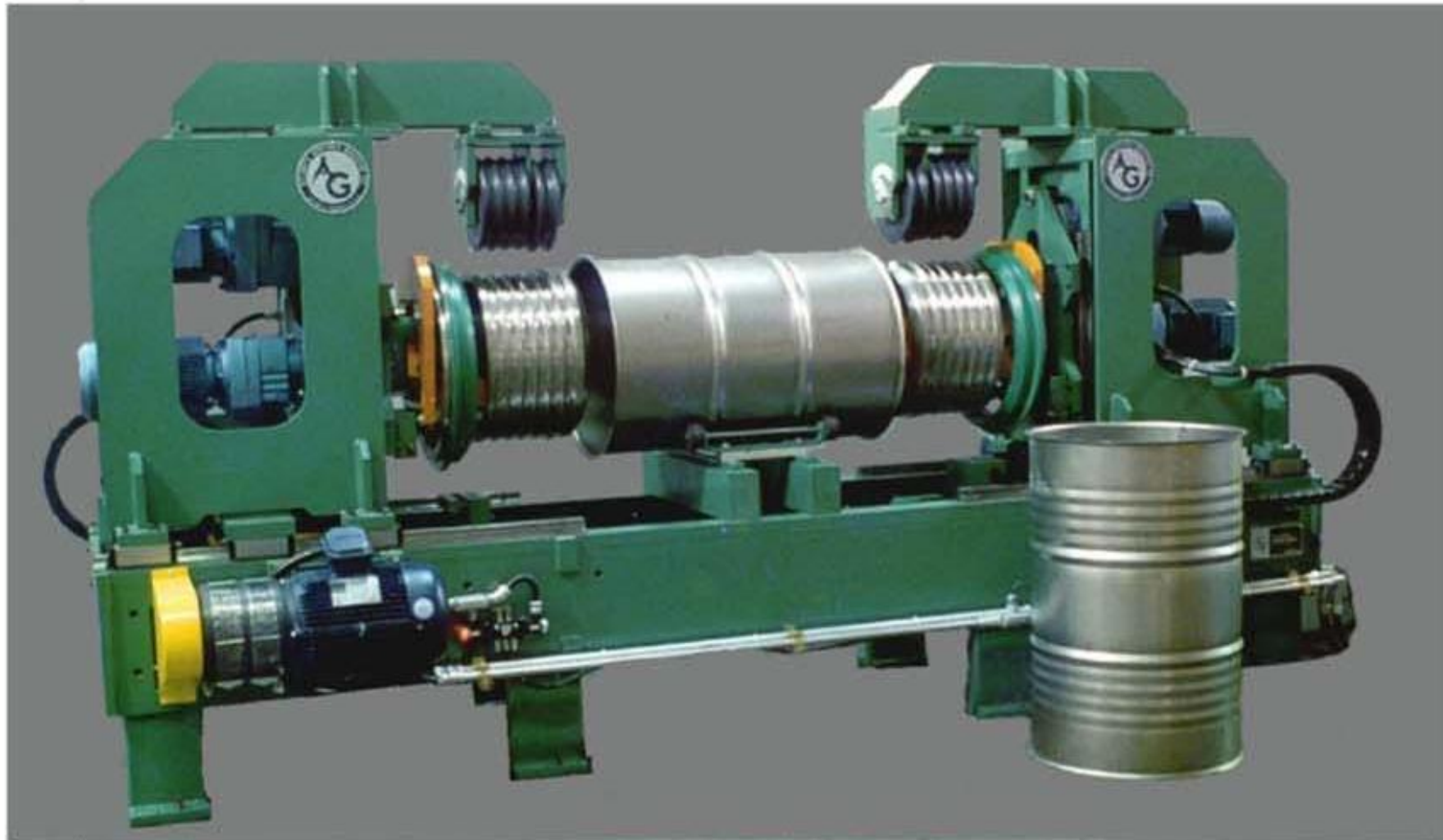
55/30 GAL. DRUM FORMING LINE

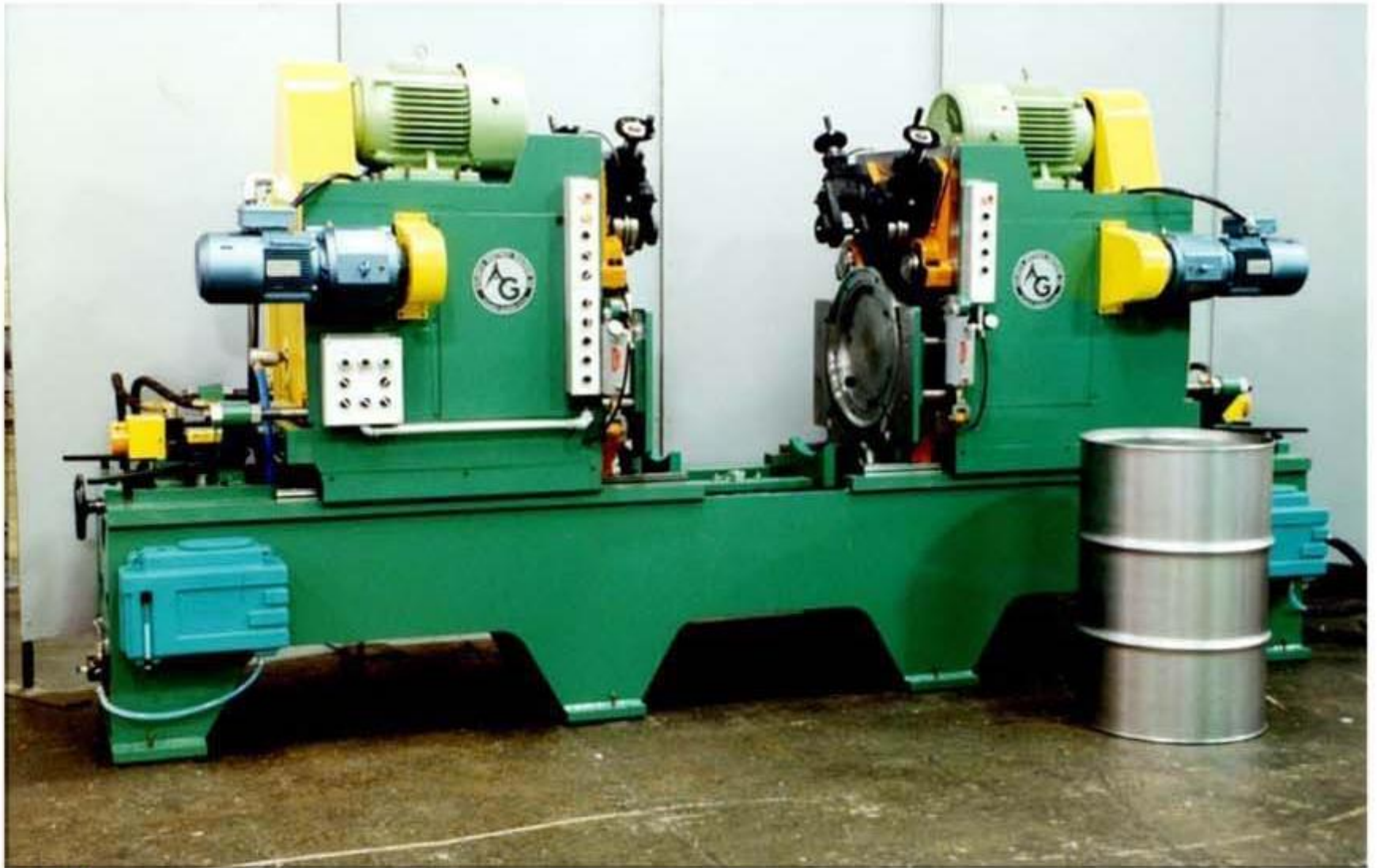
720 PER HOUR STEEL DRUM PRODUCTION MACHINES





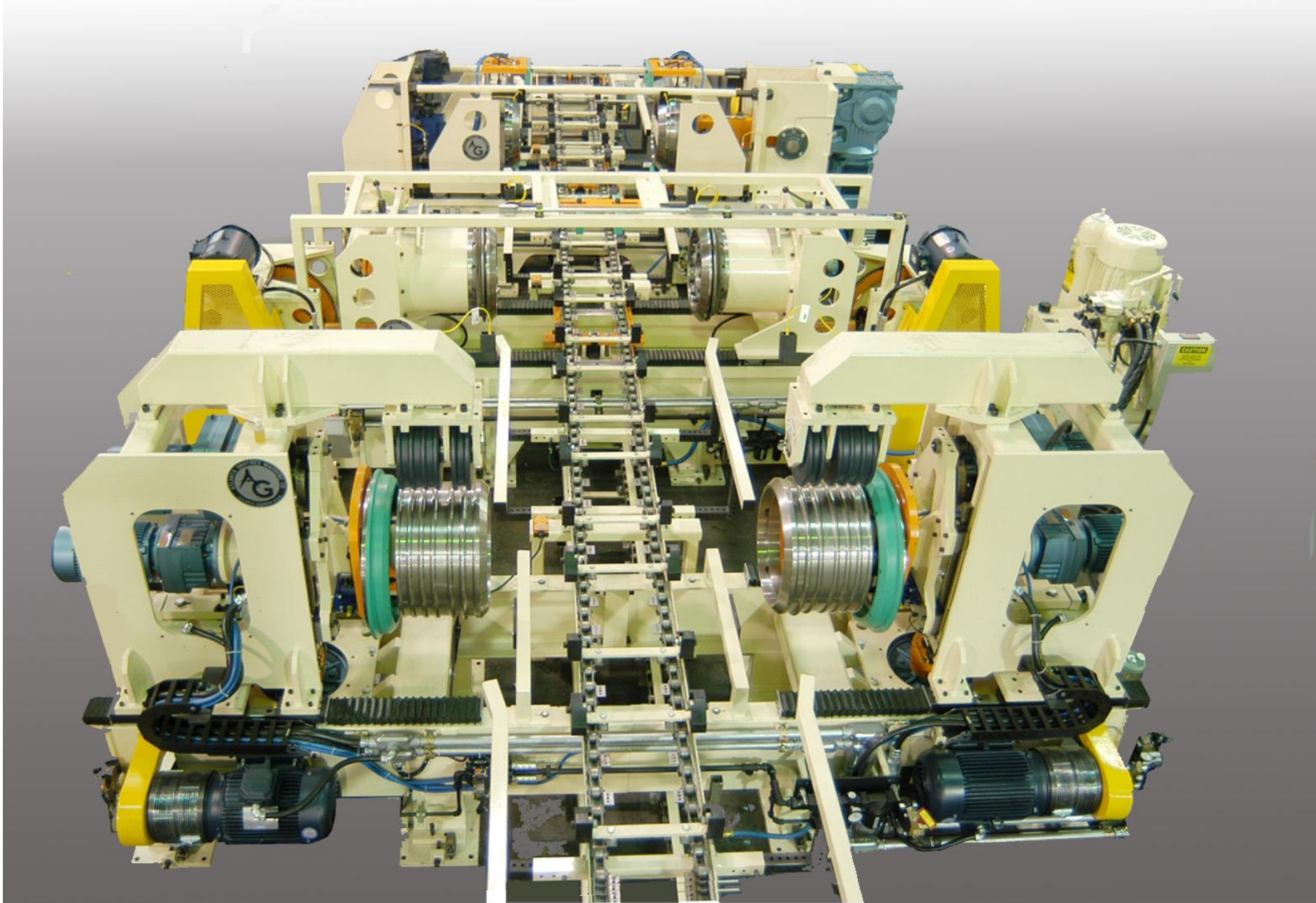
720 PER HOUR STEEL DRUM PRODUCTION MACHINES





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**950 4 IC SEAMER
EQUIPPED WITH OPTIONAL 3 RD ROLL**

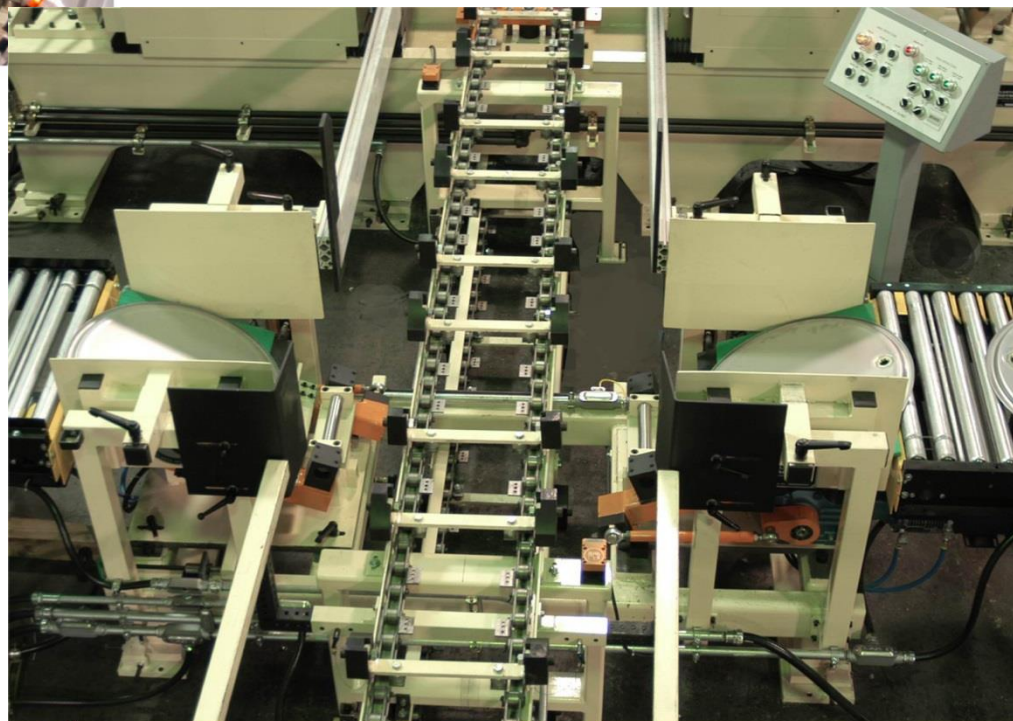


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720 PER HOUR STEEL DRUM FORMING LINE
655 FLANGER 856-2X BEADER 751 "W" BEADER/COURRGATOR 540 CONVEYOR



912 LID LOADER WITH LID CONVEYORS



912 LID LOADER
OVERHEAD VIEW

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