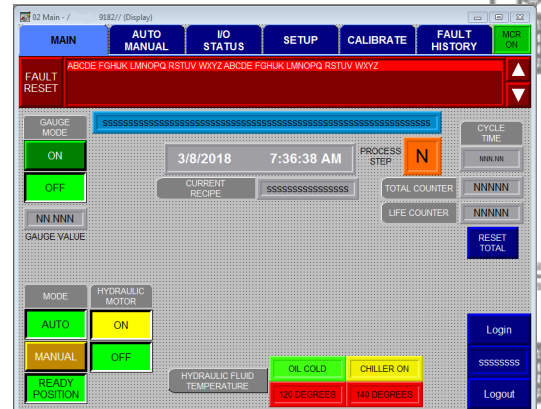
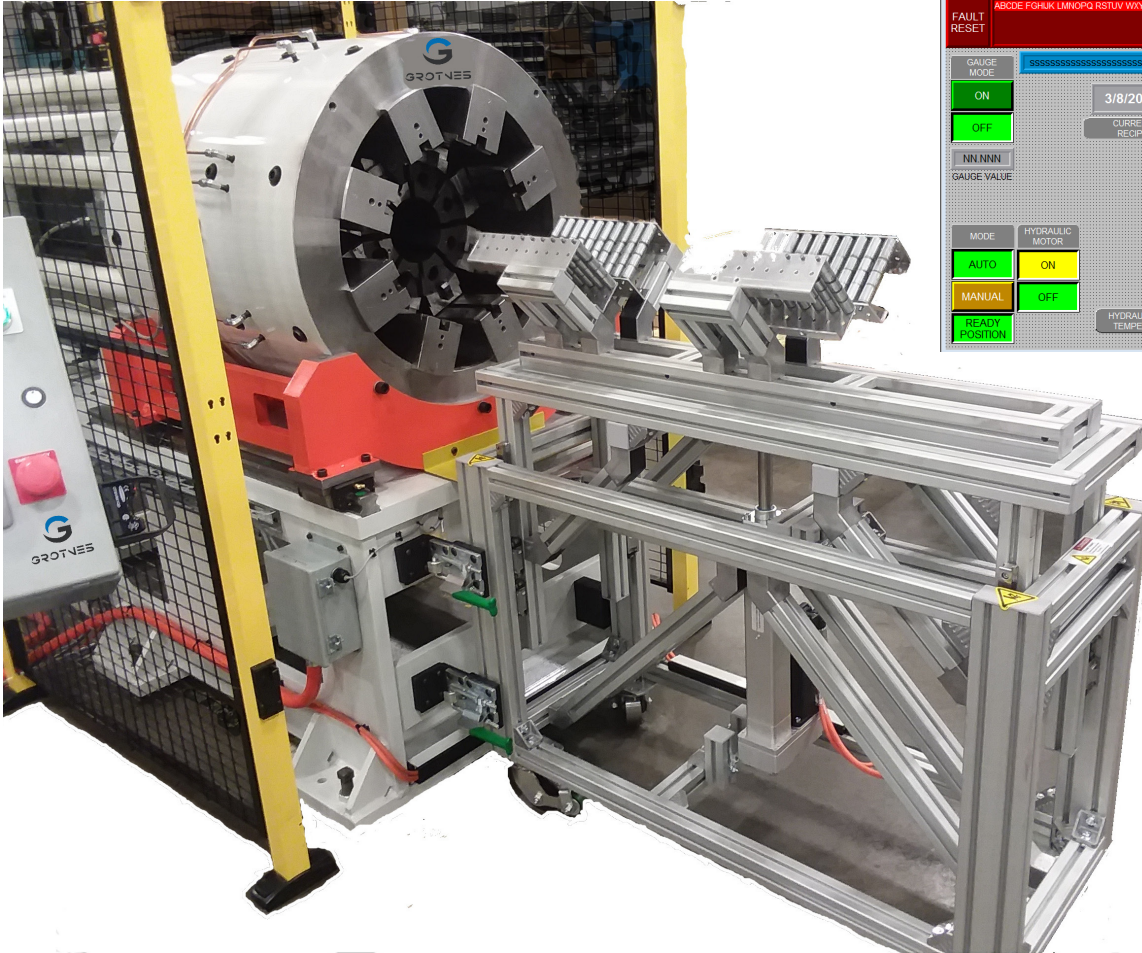




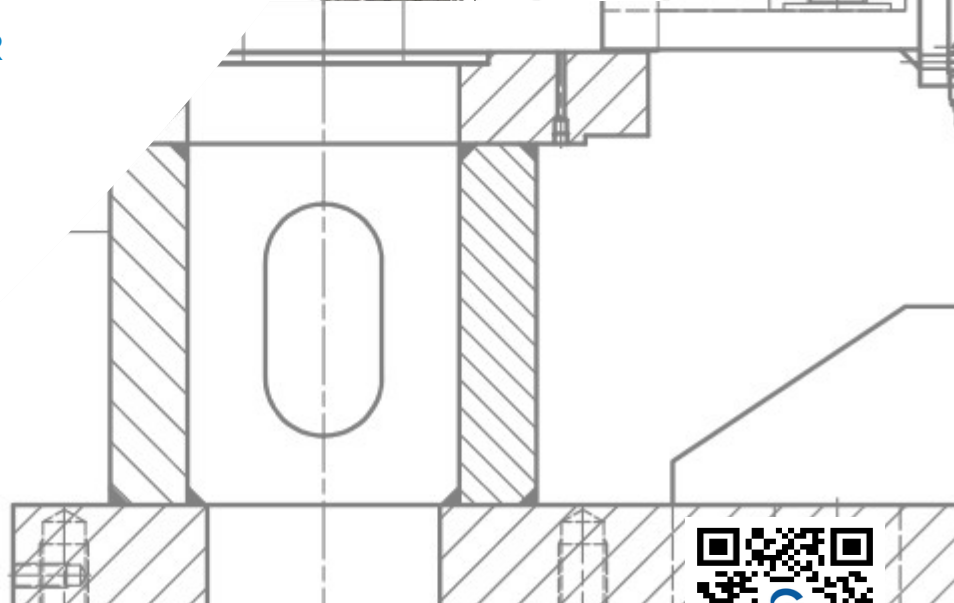
Conveyor Roller Production



12-HS-175-8 175 TON SHRINKER

The Shrinker or Circumpress is used for many applications in forming tubes and rings. This machine is ideal for forming tapered rollers for conveyors. The tooling is easily changed for different diameters and/or taper angles.

The Loading Table seen here supports the pipe on the centerline as it is formed. The Controller allows for easy operation and there is a light curtain to keep the operator safe during forming.





SHRINKING

Over 120 years of Metalforming Experience

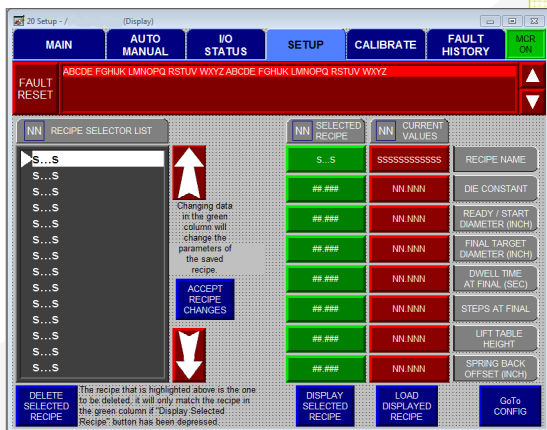
EXPANDING ROLLERS

Grotnes metalforming process solutions date back to at least the 1960's for conveyor rolls. This old advertising shows some of the solutions used to expand different styles of rollers and pulleys.

Expanding shaped/ tapered rollers involves a challenge of fitting strong slender tooling in long pipe sections

RECIPE DRIVEN CONTROLLERS

Our machines are developed with user friendly controllers that allow for easy set-up and change-over from size to size.



GROTNES
ENGINEERING DESIGN
Subject: CONVEYOR PULLEY FABRICATION

LABOR COSTS CAN BE CUT AS MUCH AS 90% USING GROTNES EXPANDING MANDREL MACHINE TOOLS TO RADIAL STRETCH FORM PULLEYS FROM STANDARD TUBING

SHAPED IDLER ROLLS

DRIVE PULLEYS

NOTE: IDLER PULLEY CHANGE SPEED FOR BEARING FIT AND LOCATION

SIMPLIFIED PRODUCTION

GROTNES RADIAL STRETCH FORMING

WHEN FORMED BY RADIAL STRETCH FORMING:

1. MACHINING TO CONTOUR OR BRAKE FORMING AND WELDING IN FIXTURE IS ELIMINATED
2. SIGNIFICANT REDUCTION OF MATERIAL IS ACHIEVED
3. A PULLEY IS FORMED IN LESS THAN A MINUTE
4. CONCENTRICITY & SIZE ARE WITH .005 OR BETTER
5. THE PULLEY ENDS MAY BE SIZED AND A LOCATION RIDGE FORMED FOR SIMPLIFIED AND CORRECT BEARING ASSEMBLY
6. VERSATILITY TO FORM WIDE RANGE OF SIZES AND SHAPES INHERENT IN SINGLE MACHINE WITH SIMPLE SETUP

(SIMPLE DIE CHANGE PERMITS WIDE VARIATION OF PULLEY CONTOUR)

OLD PRODUCTION METHODS

OLD FABRICATION METHODS

MACHINE TO FORM

1. BLANK
2. ADD CANVAS STRIPS AND SCREWS
3. WRAP STRIPS AROUND BLANK
4. SCREW IN PLACE

OR

BRAKE FORM

WELD IN FIXTURE AND GRIND THE WELD

