

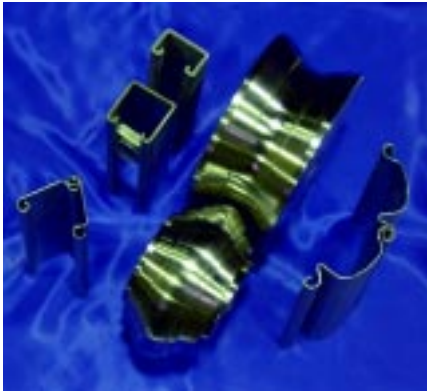


Few mature industries continue to require the supple flexibility required of roll form tool making. Phoenix Tool Company provides a tooling service that tunes to your company's design and engineering approach, equipment configuration, and need for consultation and confidentiality. We consistently hit the right balance of material specification, machining precision, project turnaround, and cost containment.

The result is high confidence tooling for almost every aspect of the roll forming industry.

Roll Forming

Engineered assembly processes are limited by the precision of the details. Phoenix Tool tooling is the critical first step in keeping assembly operations clean and trouble free.



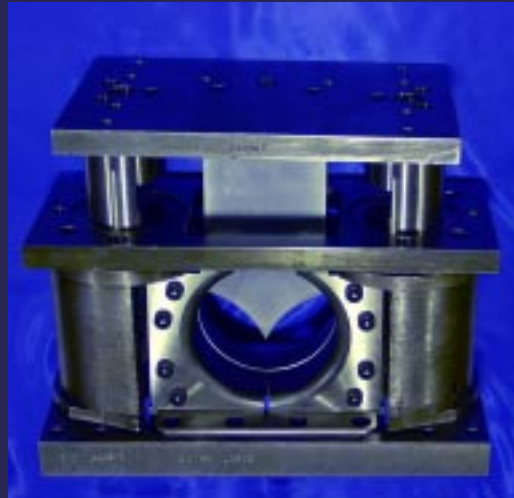
Tube

Maintaining versatile high production capabilities is crucial to profitability. Phoenix Tool tube forming rolls, turks head rolls, and shafts keep a steady geometry and feed through locking, welding and sizing operations.



ID Finishing

A clean ID provides versatility in secondary operations. Phoenix Tool ID finishing tools and fixtures ensure clean fitting mated tubular products and prevent deformation during punching and bending on mandrels. Phoenix Tool is a world leader in Stainless tube flash control.



Cut Off Dies and Jaws

Fast, clean cut-offs reduce dimpling and burrs. Phoenix Tool cut-off jaws hold the tube tight and right, while our cut-off dies slide with smooth and sharp strokes.

Specialty Tools

New and unconventional applications? Phoenix Tool will take the time and care needed to bring your processes and products to market expeditiously and accurately.

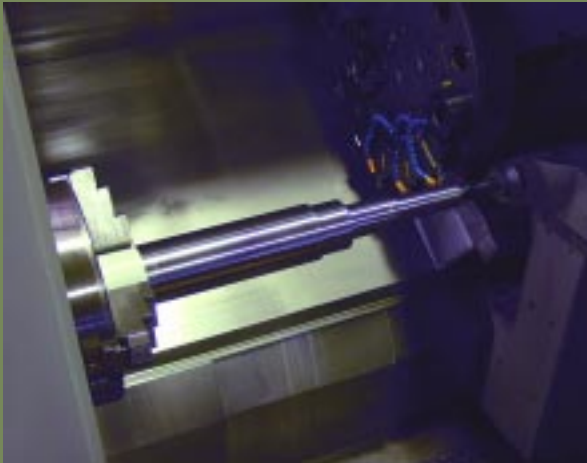


Supple Flexibility in roll form tool making is a function of mind and machine.

Phoenix Tool Company receives orders accompanied by CAD files, prints, sketches, part numbers or simply worn parts. We may be called upon to follow established procedures or devise our own best methods of creating new tooling or refurbishing and rebuilding our customer's worn tooling. Our mix of CNC equipment gives us considerable manufacturing flexibility and precision – translating into top-level confidence that your tooling will install right, run right and calibrate right. A small amount of downtime can mean hundreds or thousands of lost linear feet. Defective tooling can mean hours of secondary operations or discounted sales. Our job is to prevent and limit those losses to the best of our ability – an ability that has won and maintained continued confidence from our customers.

We generally import and create 2-axis profile layouts and orthogonal projections on *AutoCAD LT. The shift of turning work to CNC machines has lead to a greater focus on standardizing and planning the machining operations. This is of particular advantage in remanufacturing chipped and galled rolls, where we can automatically track the operations on the first piece to generate exact matches on succeeding mated rolls. This shift to CNC machining began in 1985 with the retrofit of a Bridgeport mill with a TRAK AGE CNC head. This was followed in succession with a dedicated CNC mill, and the development of CNC turning and grinding operations.

CNC Turning for forming rolls, bead rolls, mandrels, and shafts.



HAAS 15"/37.5 cm hydraulic chuck, 12 tool change
HAAS 8"/20 cm pneumatic chuck, 10 tool change
EMCO bar machine, 1"/2.5 cm chuck, 12'/3.6m
bar feed, 8 tool turret.

Supplemental Operations: Heat Treating, Mechanical Assembly, Brazing (carbide to steel)

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CNC Milling for ID scarfing tools, cut-off jaws and dies

TRAK DPM with extended z,
25"/62.5 cm x 16"/40 cm x
18"/45 cm.

Bridgeport with TRAK AGE
standard z, 24"/60 cm x
12"/30 cm x 12"/30 cm.



CNC Surface Grinding for slides and finished clamps

Bridgeport/Harig with magnetic chuck 6"/15 cm x 18"/45 cm using
both programmable profile capability and profile wheels.

