

ROLL FORMERS

PROCESS



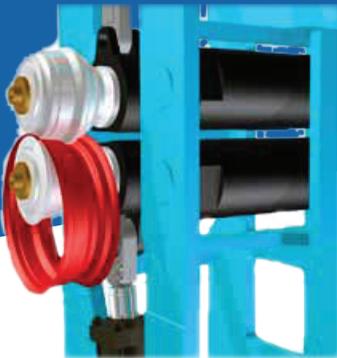
Principle of a Roll Former

The forming rolls are mounted on the upper and lower spindle.

The coiled and welded cylindrical blank is positioned over the rolling die of the lower spindle.

The lower spindle is raised to achieve contact between blank and both forming rolls. As spindles rotate, the part revolves between the rolling dies, and the lower spindle continues to elevate and transmit applied force to form the metal.

Thus, the forming operation is accomplished through a combination of rapid die rotation (forming rolls), part rotation and continuous upward feed of the lower spindle.



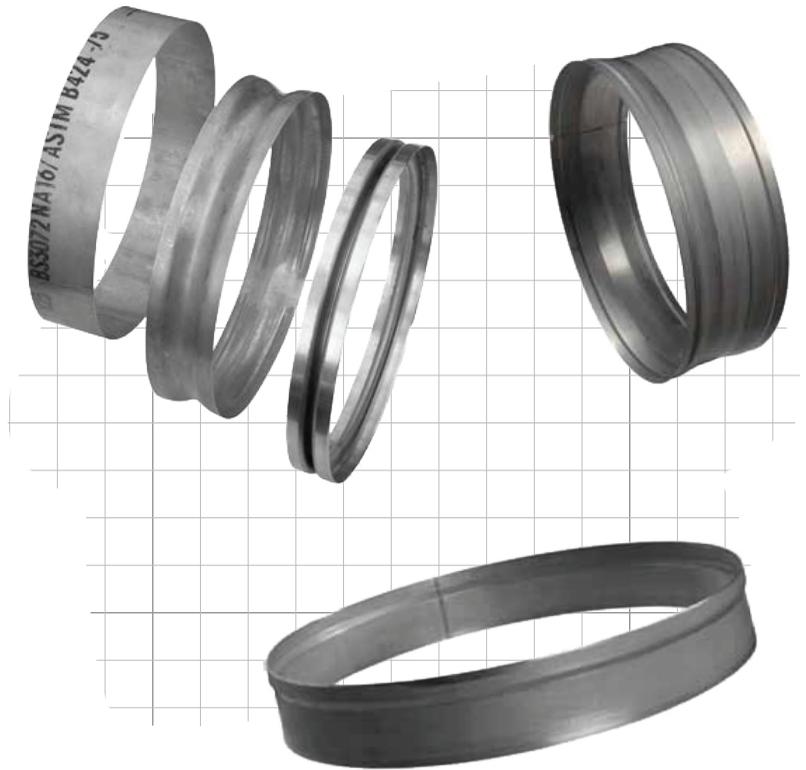
Jet Engine Components

Roll forming is widely used to form profiles in turbine rings made from a variety of materials such as, inconel, titanium, and aluminum based alloys. Fontijne Grotnes' Roll Formers are used when fine detail and excellent surface quality are required. They are capable of forming complex profiles with very high accuracy and repeatability.

Applications

Profiled rings for the aerospace industry are formed on Fontijne Grotnes Roll Formers.

Aerospace parts are made from tubing, pipe or coiled and welded blanks and are formed on the Roll Former into straight sided cylinders or rings. Besides, these rings can be expanded or shrunk on Fontijne Grotnes Expanders or Shrinkers.



Benefits

Perfect for both long production runs due to their highly accurate and repeatable operation as well as for short runs due to their easily accessible tooling areas, which reduces set-up and tool change.

The single end design is also highly flexible. Single end machines can form a wide range of part thicknesses, widths and diameters.

Once a group of parts with the same profile and material thickness is established, any part in that group can be made with the same tooling. This efficient use of tooling keeps tooling costs and labor to a minimum.

