

ROLL FORMERS

PROCESS

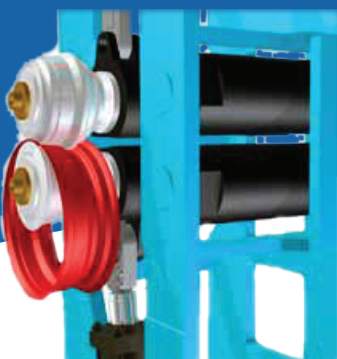
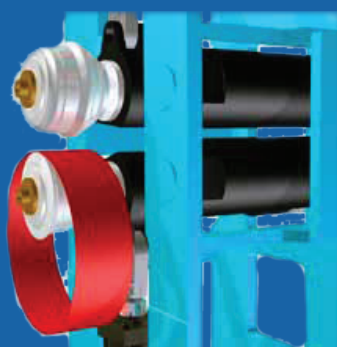
Principle of a Roll Former

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.



Parts with Special Profiles

Fontijne Grotnes Roll Formers are widely used in several industries. 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 in cylindrical blanks, pipe ends and coiled rings. When producing parts of different diameters having the same profile, tooling costs and set-up times are minimized.

Applications

Sizing and forming applications for the automotive industry such as wheel rims, brake drums and emission shells. These emission shells are first profiled on a Fontijne Grotnes Roll Former. After profiling, the shells are calibrated on a Fontijne Grotnes Expander.

Roll forming seal rings for valves, pipe couplings, fittings and spigot joints. The pipe couplings are formed from preformed blanks of mild steel.

Seal rings for valves are first formed on a Roll Former, guaranteeing a smooth surface finish. After forming, these rings will be shrunk to close tolerances.



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.

