



## Unique Weld Cylinder Offers Single or Multi-Stage Configurability

### Challenge:

A customer was historically using a 2 stage multi-force cylinder for their chain link fence welding application. Depending on the gauge of the chain link fence, many times they needed to reduce the 2 stage multi-force design into a single stage, single force design. Their tooling required the cylinder to be the same dimensionally regardless of how much force was being generated. Having two separate cylinder designs (a 2 stage design and a single stage design) with the same external dimensions was problematic. Requiring operators to properly reduce inlet pressure was impractical and using a pressure reducing valve at the tool was too expensive. To achieve the single force design, the customer disassembled the cylinder and eliminated one piston seal, thereby creating a single stage design. This was a labor intensive process, which often lead to leakage problems at start up.

### Solution:

Bimba provided a unique solution, developing a cylinder that offers a single stage or 2 stage force by turning a screw. Bimba provided a design that closed access to a second piston, creating a single force design. Allowing access to the second piston by reversing the screw, created a multi-force design on the end of stroke.

### Benefits:

- **Single or multi-stage.**
- **Easily adjustable by turn of a screw.**
- **Multi-stage provides double the output force of the single stage.**

### Other Applications:

- **Joining**
- **Punching**
- **Marking**
- **Coining**

