



Cold forming and process integration at the same time in one machine - only AMBA can do that.

We use our **ALL-IN-ONE PRINCIPLE** also for the production of cold-formed tubes: The complete process is performed by one single machine – fully automatically, without any reclamping or cumbersome handling.

## ALL-IN-ONE TUBE FORMING MACHINE

- Cold forming of tubes with varying cross-section
- One-sided or double-sided symmetrical forming
- hroughput rate: 30-60 pieces per minute, which is more than ten times of conventional technique
- Tube diameters of up to 50 mm | 2"
- Automated feeding from a high-capacity buffer
- Significantly less personnel and tooling costs

Cold-formed tubes generally have better strength behaviour and surface finish than hot-formed tubes. Comparing to machining processes, there is no loss of material. Cold massive forming achieves the highest material utilisation and has the lowest specific energy requirement in relation to the finished part weight compared to hot massive forming and especially to machining.

For example, cold forming in the all-in-one machine can produce a component from a thinner tube that has the same strength as a thicker, hot-formed one.

## THE BENEFIT:

Lower material costs and lower component weight.



## Car seat shafts

A customer has been using one of our machines to produce tubes in a combined hydraulic forming and machining process. The finished tubes feature six sections of three different diameters. The customer achieves tolerances of ± 0.05 mm | 0.002" while dramatically reducing the

