

1. Be shure about the Problem

1.1 Length differece?

1.1.1 All Temperatures are ok?

- 1.1.1.1 Die 450°C to 470°C
 - All around the Die no bigger difference than 5°C
 - start first billet 20°C warmer
- 1.1.1.2 Billet - Hollow Die 490° to 460° C
 - Flat Die 470 to 440°C
- 1.1.1.3 Container heating works correct
 - 400° to 420°C
- 1.1.1.4 run out Profile runout Temperature should be between 540° and max. 570° C
- 1.1.1.5. Material flow is equal!
 - If the flow is not equal, the Mandrel moves and you get a length Problem

1.1.2 Bolster

- 1.1.2.1 use the optimal Bolster (5 -15mm Distance to the Backer)
- 1.1.2.2 be sure that the Bolster is absolutly flat
 - short Check every time after using, and onth a year a currently Check
- 1.1.2.3 to critical Profiles and big die size warm up also the Bolster to 250°

1.1.3 Extrusion Press Adjustment

- 1.1.3.1 Container Center to the die Center in a circle of 1mm
 - Check it minimum every week
- 1.1.3.2 Die Holder stay in Angel to the Plate

2.2 Problem with Profil Form

2.2.1 Temperatures are ok

- 2.2.1.1 Die min.440°C to 490°C
- 2.2.1.2 Billet start Billet 20°C warmer
- 2.2.1.3 Container heating works correct (400°C to 420°C)
- 2.2.1.4 run out Profil runout Temperatur should be over 540°C

2.2.2 Bolster

- 2.2.2.1 use the optimal Bolster (10-15mm distance to the Profile)
- 2.2.2.2 be shure that the Bolster is flat!
- 2.2.2.3 to critical Profiles warm up also the Bolster to 250° - 300°C

2.2.3 Machine adjust

- 2.2.3.1 Press alignment and Container to the die in a circle of 1mm
- 2.2.3.2 Die Holder stay in Angel to the Plate

2.2.4 Die design

- 2.2.4.1 check the inlaid proportion
 - 2.2.4.1.1 use a list to find out wich proportion is the right for your Presses
 - 2.2.4.1.2 but thinking about the difference to the material flow on a differnt lay out
- 2.2.4.2 can the material goes to the press canal in the same time
 - 2.2.4.2.1 this is not always easy, but very important
- 2.2.4.3 Prevent, that big details at the Profile are not in a direct material flow
- 2.2.4.4 Mandrel under cut
 - 2.2.4.4.1 be shure that the under cut is all over the same
 - because it is not, you have a different lever and the mandrel goes away
 - 2.2.4.4.2 Also you can do more under cut on the outside, because you can stabilised for the flexion