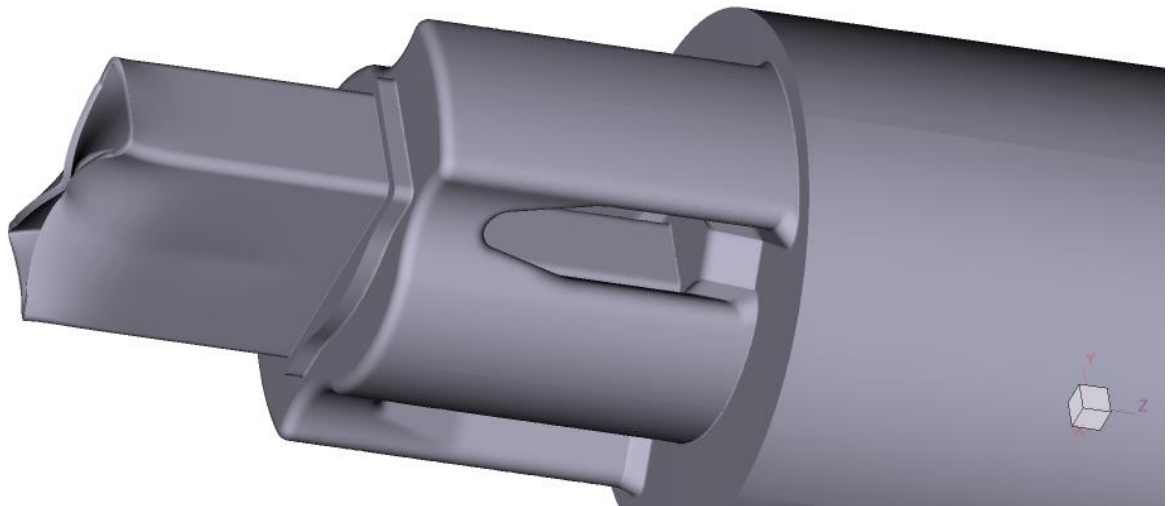


Process name:	Process [1]
Workpiece material:	6063
Billet temperature:	480 °C
Billet diameter:	130 mm
Billet length:	540 mm
Tool material:	H13 for extrusion
Friction conditions:	Extrusion
Die set temperature:	450 °C
Bolster and sub-bolster temperature:	150 °C
Ram temperature:	420 °C
Container temperature:	420 °C
Problem type:	Profile flow after die filling
Coupled deformation:	Yes
Ram velocity:	5 mm/s
Profile velocity:	9.72 m/min
Records count:	20
Solving time:	19 min 31 s
Extrusion ratio:	32.3899
Filling time:	14.4996 s
Extrusion load:	9.981 MN

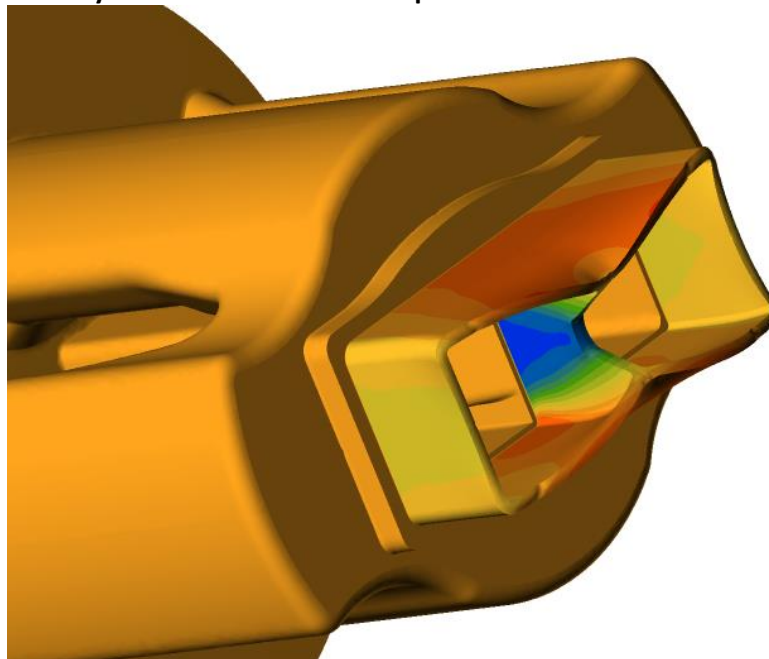
Profile front-end:

QForm 10.1.7



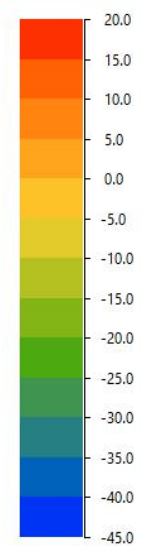
Comment: unbalance flow. Fold in the center.

Velocity deviation distribution in profile:



QForm 10.1.7

Velocity deviation [%]



Max : 15.5424
Min : -40.3147

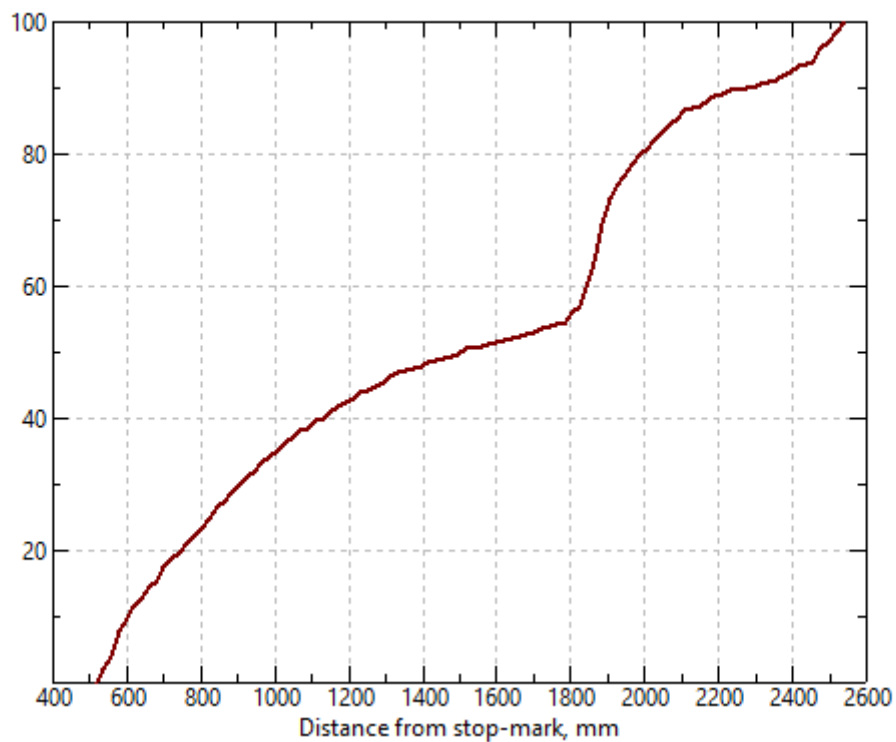
Comment: Center is very slow.

Temperature distribution in profile:



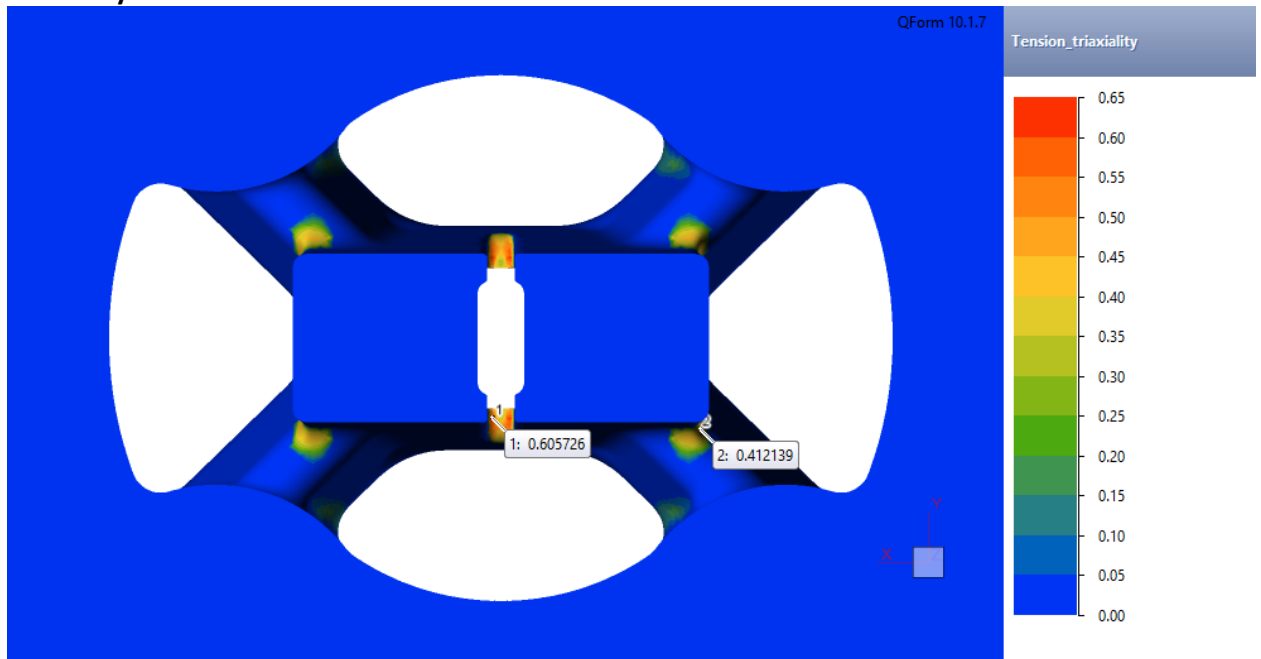
Charge weld:

Workpiece - New material percentage (transversal seam), %



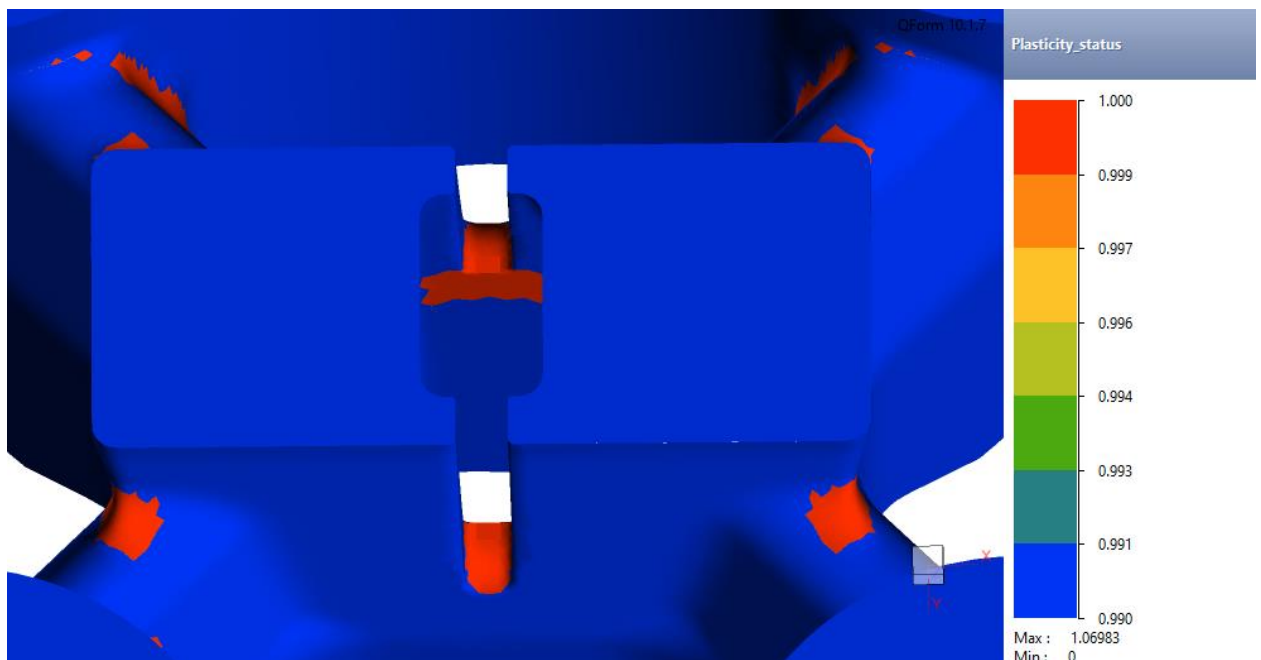
Comment: Quite big scrap.

Triaxiality value:

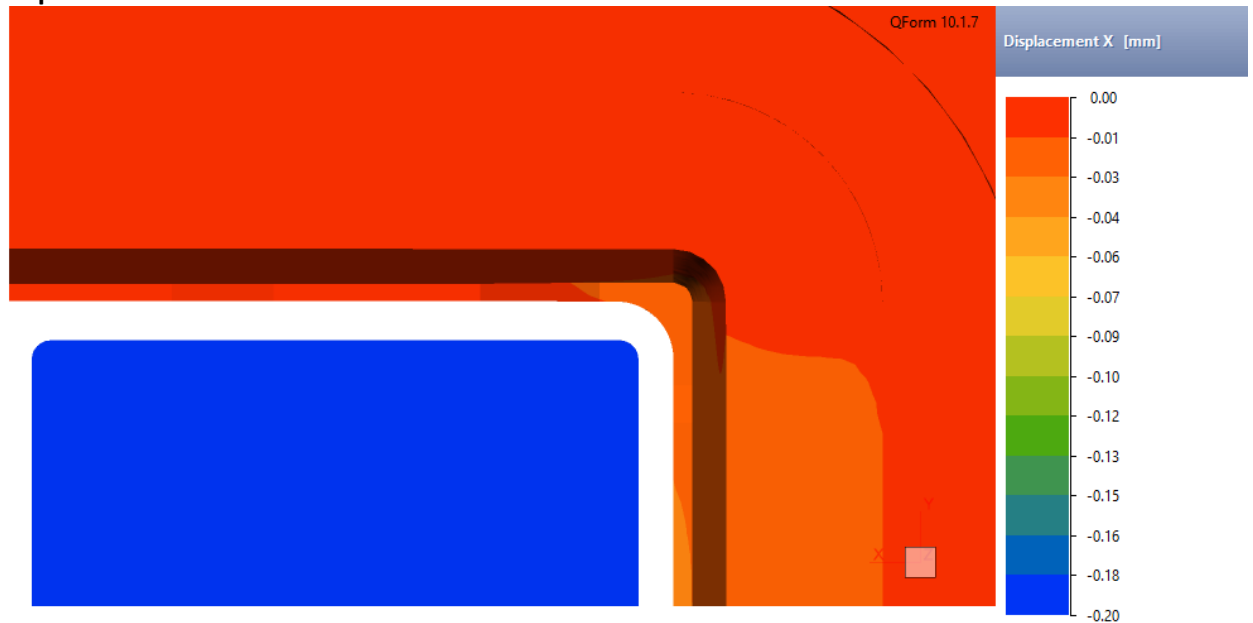


Comment: Reference value is 0.55. Make sure that final design doesn't exceeds this value. Otherwise, acceptable tool life isn't guaranteed

Mandrel plastic zone:

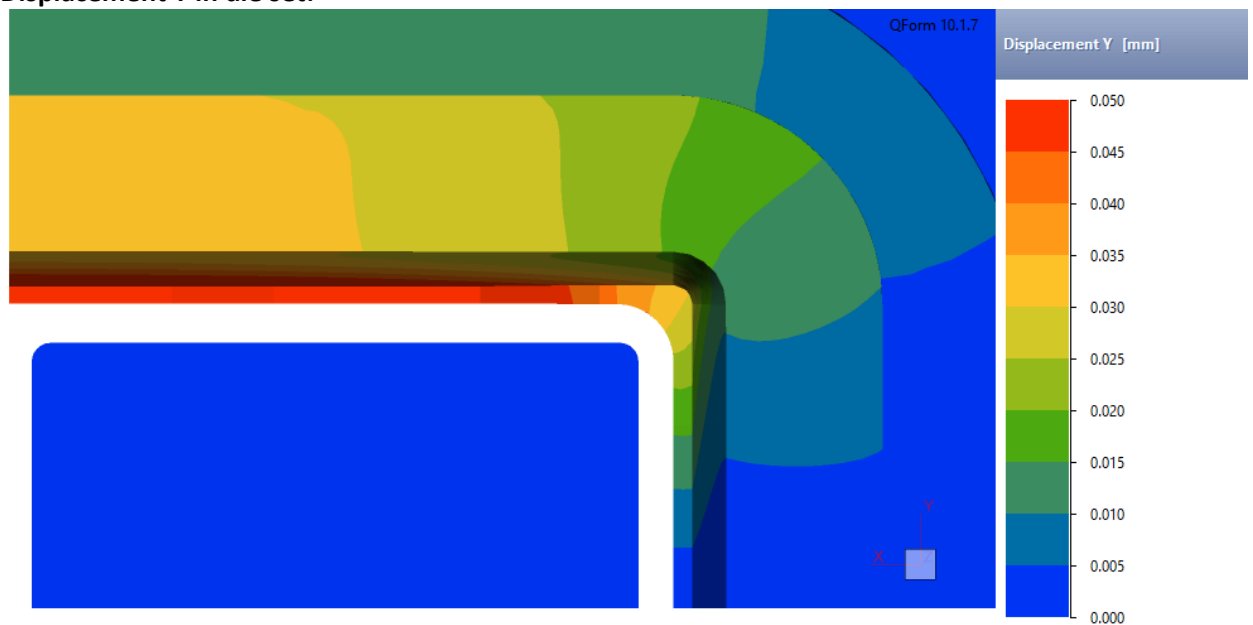


Displacement X in die set:

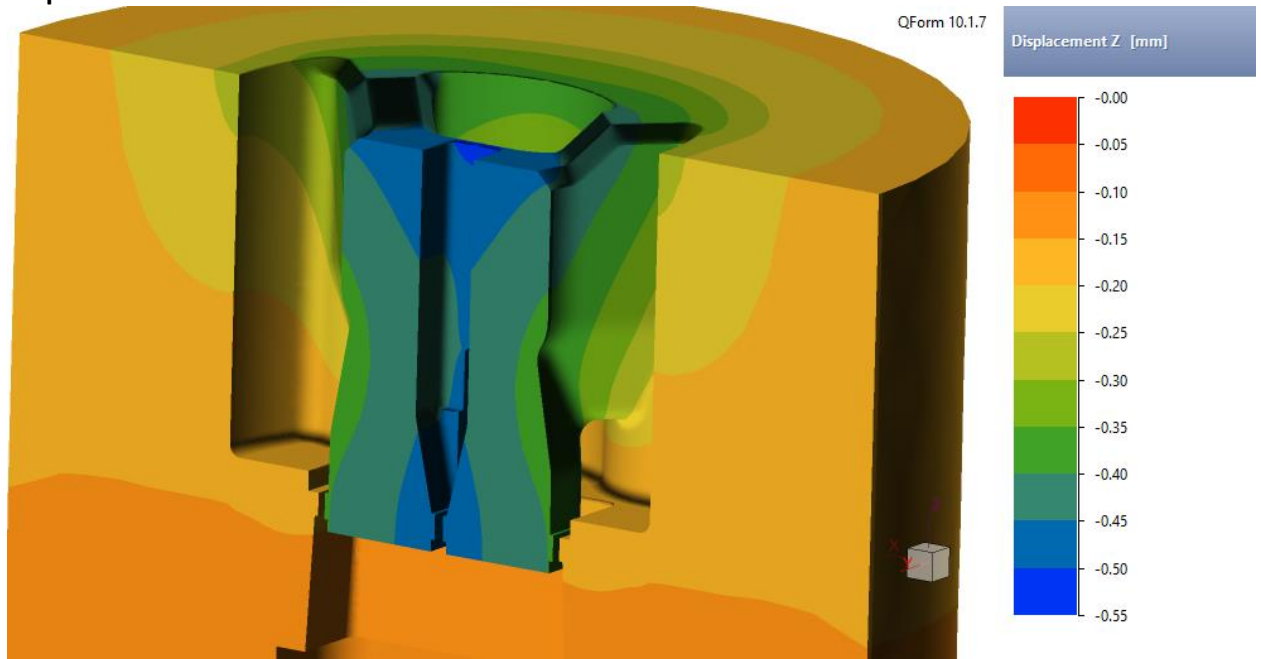


Comment: Out of tolerances.

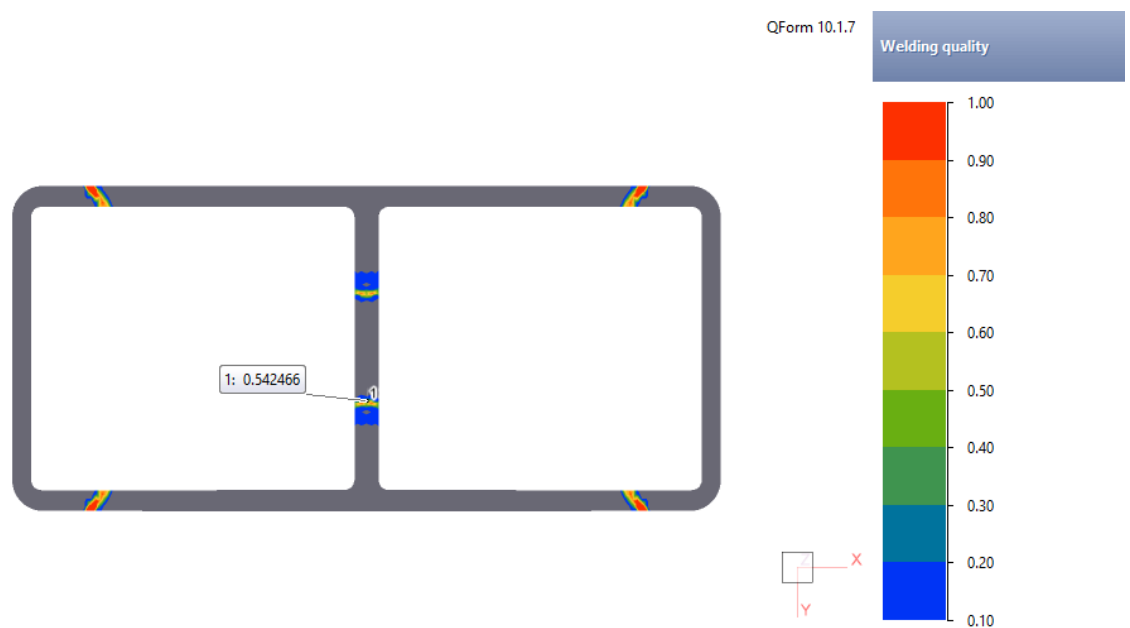
Displacement Y in die set:



Displacement Z in die set:



Welding quality:



Comment: Structural welding should be guaranteed.