

# Case Study – Closure Body

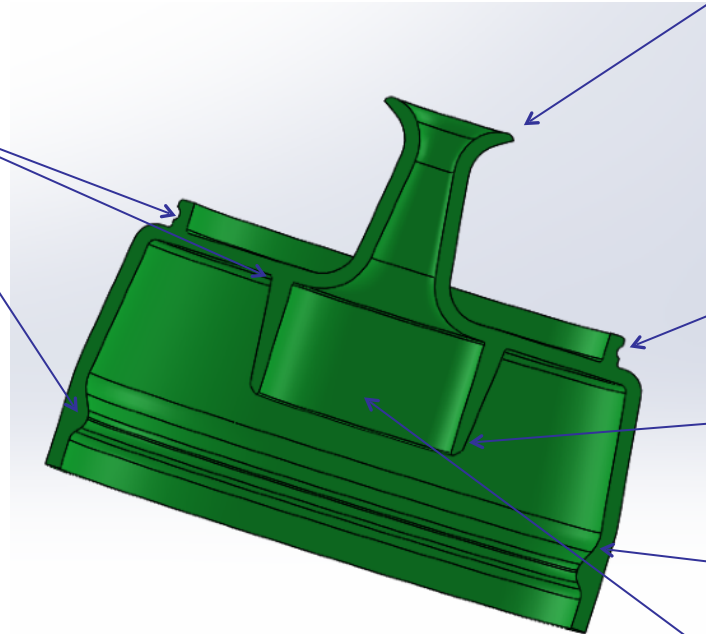
- *Preliminary part design*
  - *Dust cover*
  - *Closure body*
- *Closure Body design is critical*
- *Resin not defined*
- *Annual production volume of 80 mill parts required*
- *Required information:*
  - *Part design review*
  - *Required number of cavities*
  - *Cycle breakdown & cycle limitations*



# CyDesign™ - Advanced

## Part Design Review

Large wall section



End of spout: Critical for split line requires modification to prevent subterainien slides

Gating: to be revied, split line & small nozzle to have clearance to spout

To be optimized for demolding

Radius on end - Requires modification for split line

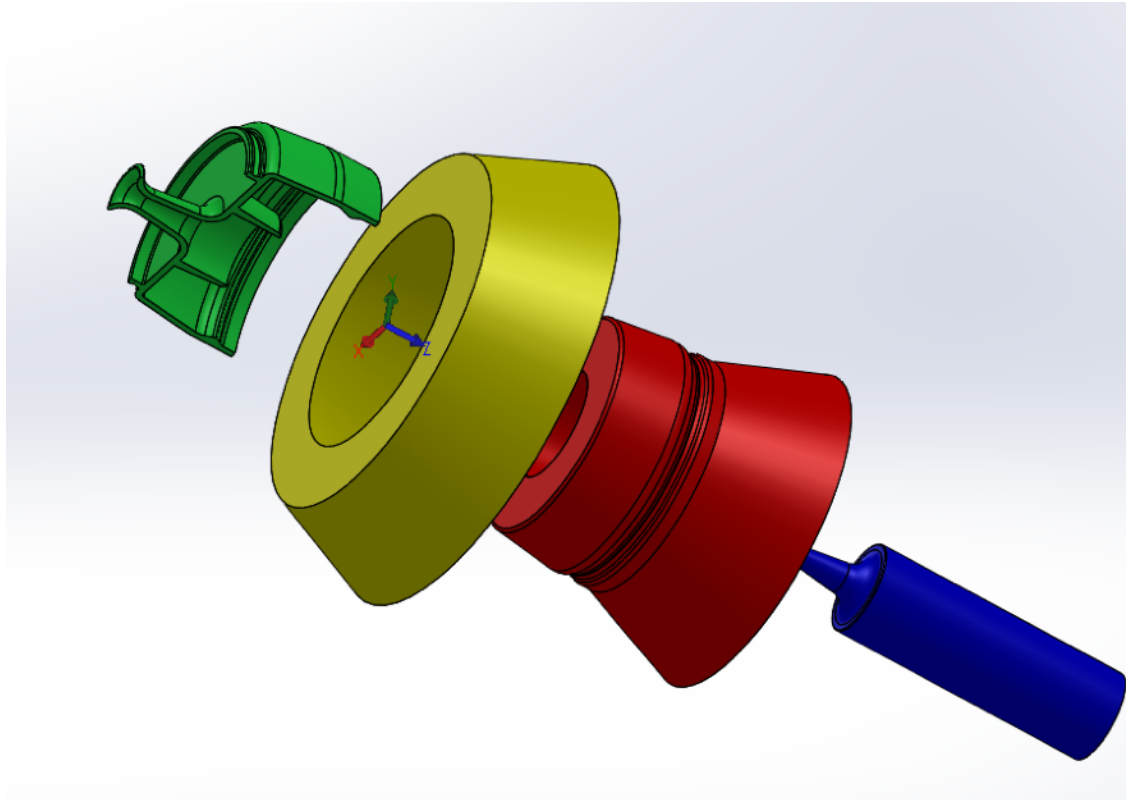
Snap beat: undercut to deep, issue & defomration during demolding

Smal diamter: cooling access limited:  
- Pin for spout will be hot

# ***Case Study – Closure Body***

- *Resin:* *HDPE*
- *Part weight:* *6,2 gr.*
- *Resin temp:* *230°C*
- *Mold concept:* *Stripper ejection, single stage*

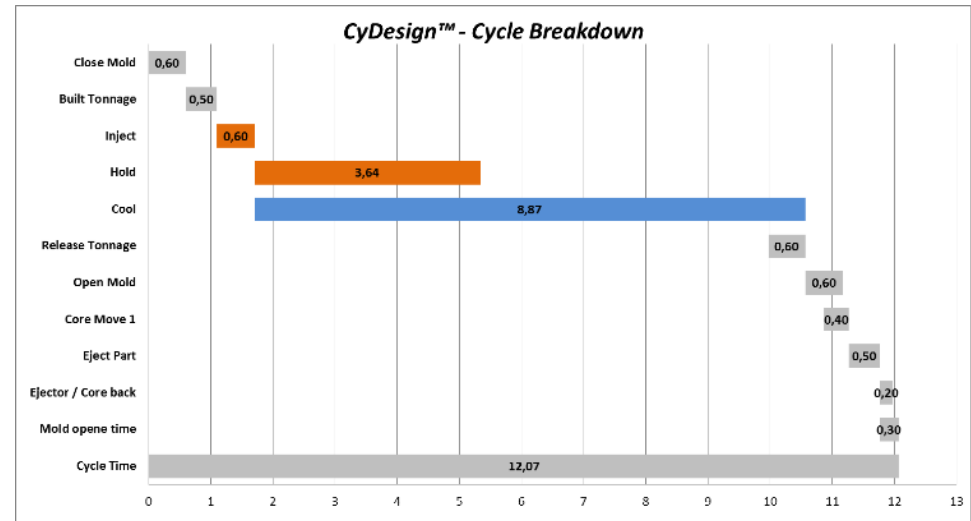
# ***Basic Mold Concept***



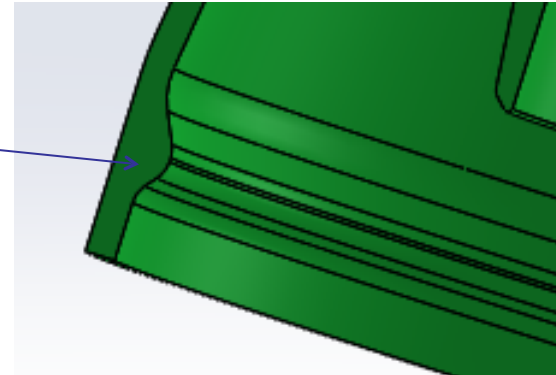
- *Basic Mold Concept to predict cycle time*

# Solution – Bevor Optimization

- 32 cavity mold
- Annual output: 64,4 mill. parts
- Single-stage ejection
- Spout requires redesign
- Optimization of undercuts for demolding
- Cycle limitation is the snap beat to the body
- Cycle time prediction: 12,1 sec

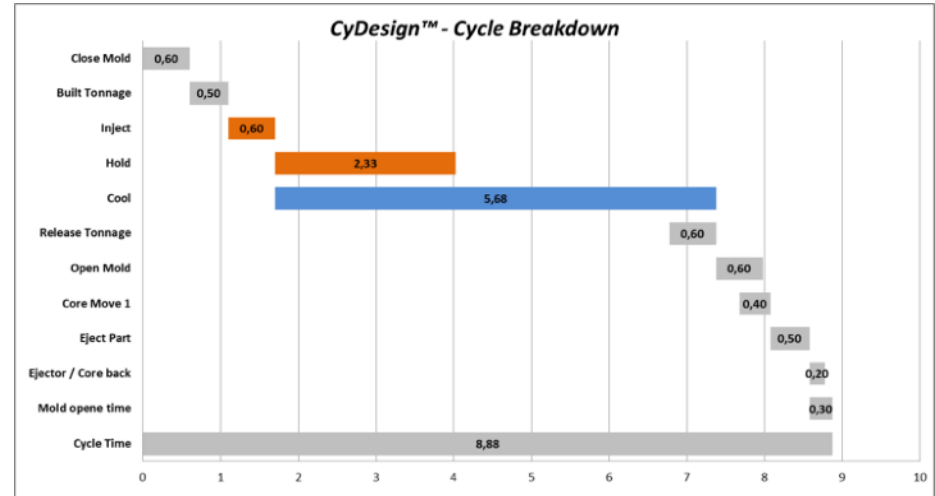


Cycle  
limitation:  
Snap beat



# Solution – Optimization

- *Optimization of wall thickness*
  - Reducing cooling time
  - Part weight reduction by 16 %
- *32 cavity mold*
- *Annual output: 87,6 mill. parts*
- *Single-stage ejection*
- *Spout requires redesign*
- *Optimization of undercuts for demolding*
- *Cycle time prediction: 8,9 sec*



# **Implas**

# **Compay Overview**

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April 2019