

# ***Functional Automation Solutions***

***Maus***  
ROTATIONSGIESSFORMEN



family-run business since 1925,  
with a production area of 5000m<sup>2</sup>



8 CNC machining centers, with a working  
space up to 6000 x 3000 x 1500mm and  
5-axis



62 years of experience in manufacturing  
aluminium rotational moulding tools



plenty CAD-Workingstations and professio-  
nally trained CAD/CAM Employees



37 years of in-house aluminium foundry  
casting capacity of 1350kg



over 60 exporting countries



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[www.maus-gmbh.de](http://www.maus-gmbh.de)



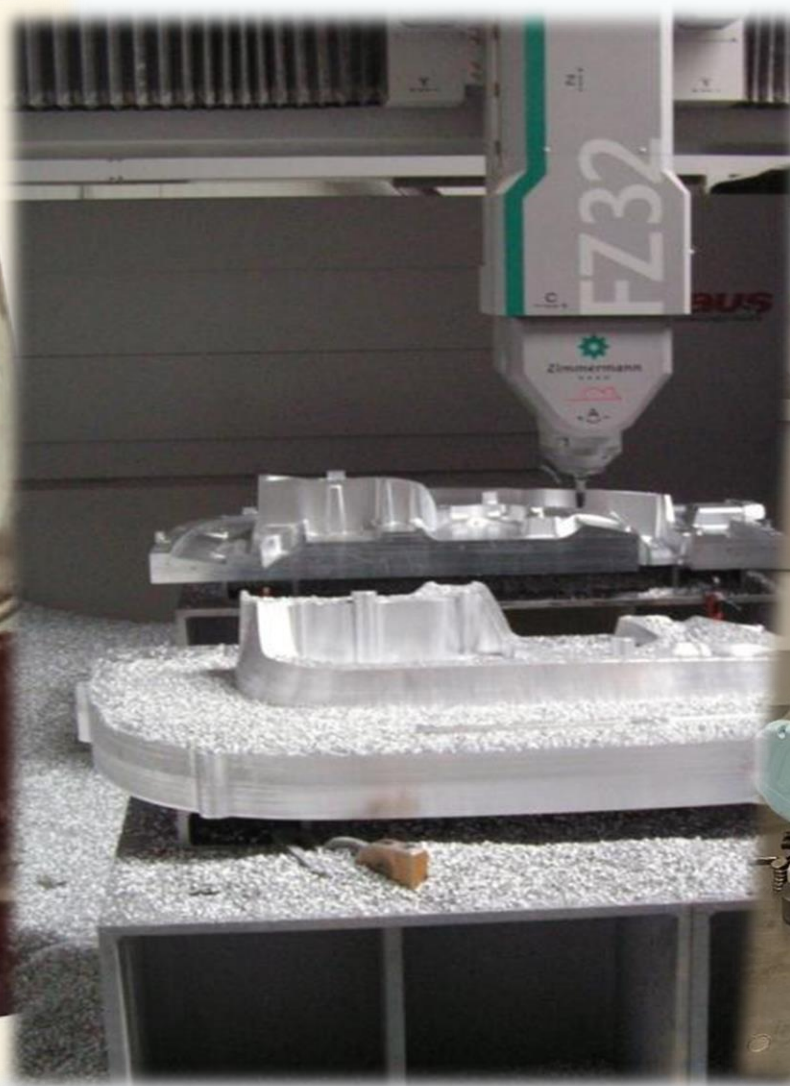
# History

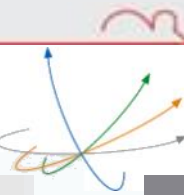
# Presence

# Future?



August Maus, Firmengründer





## **Range of Services**

Design \* Construction \* Patternmaking  
Digitizing \* Re-engineering \* FEA \* Mock-ups  
Prototype Molds \* Prototype Parts

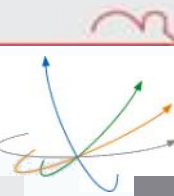
**CNC & Cast (*Fast-Cast*)  
& Hybrid Aluminum Rotational Molds  
conventional or electrical heated**

Permanent Coatings \* Mold Accessories  
Automation \* Performance Solutions  
Modifications \* Repairs \* Refurbishments

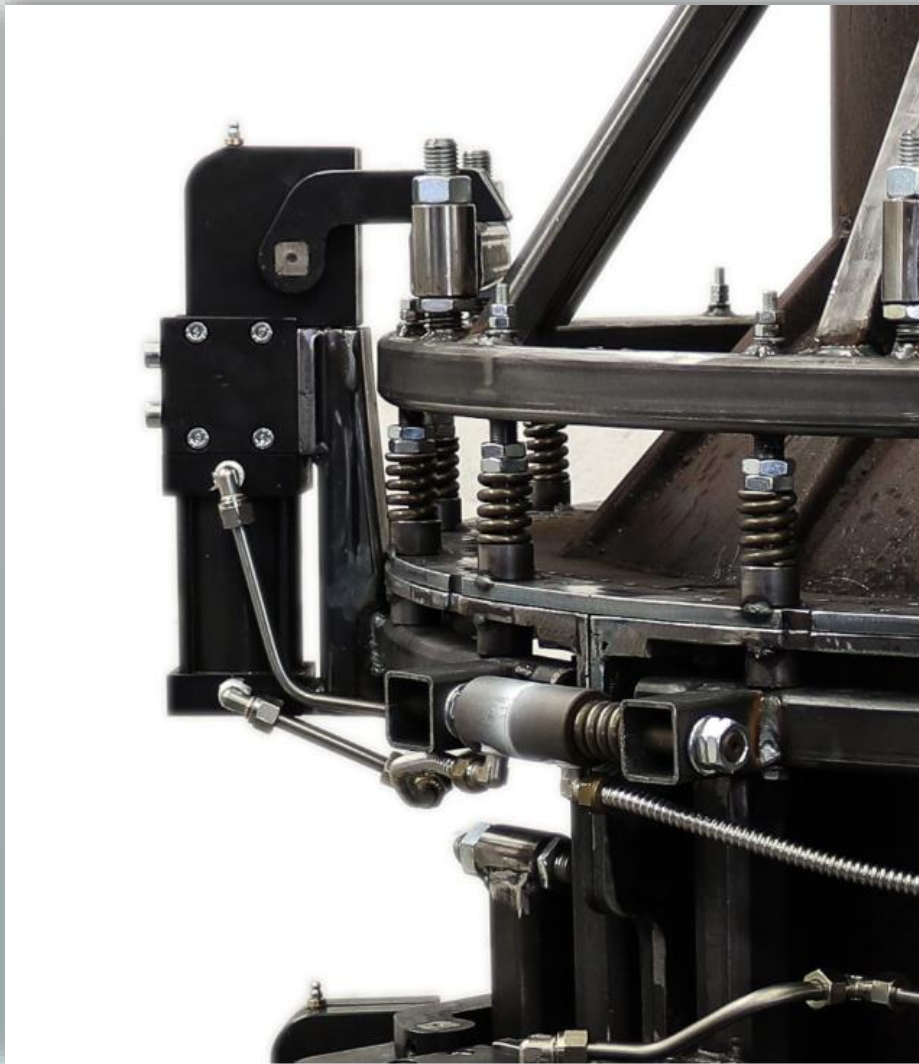


***MAUS – Standard  
Automation systems  
for traditional  
rotational molds***

***maus***  
ROTATIONSGIESSFORMEN

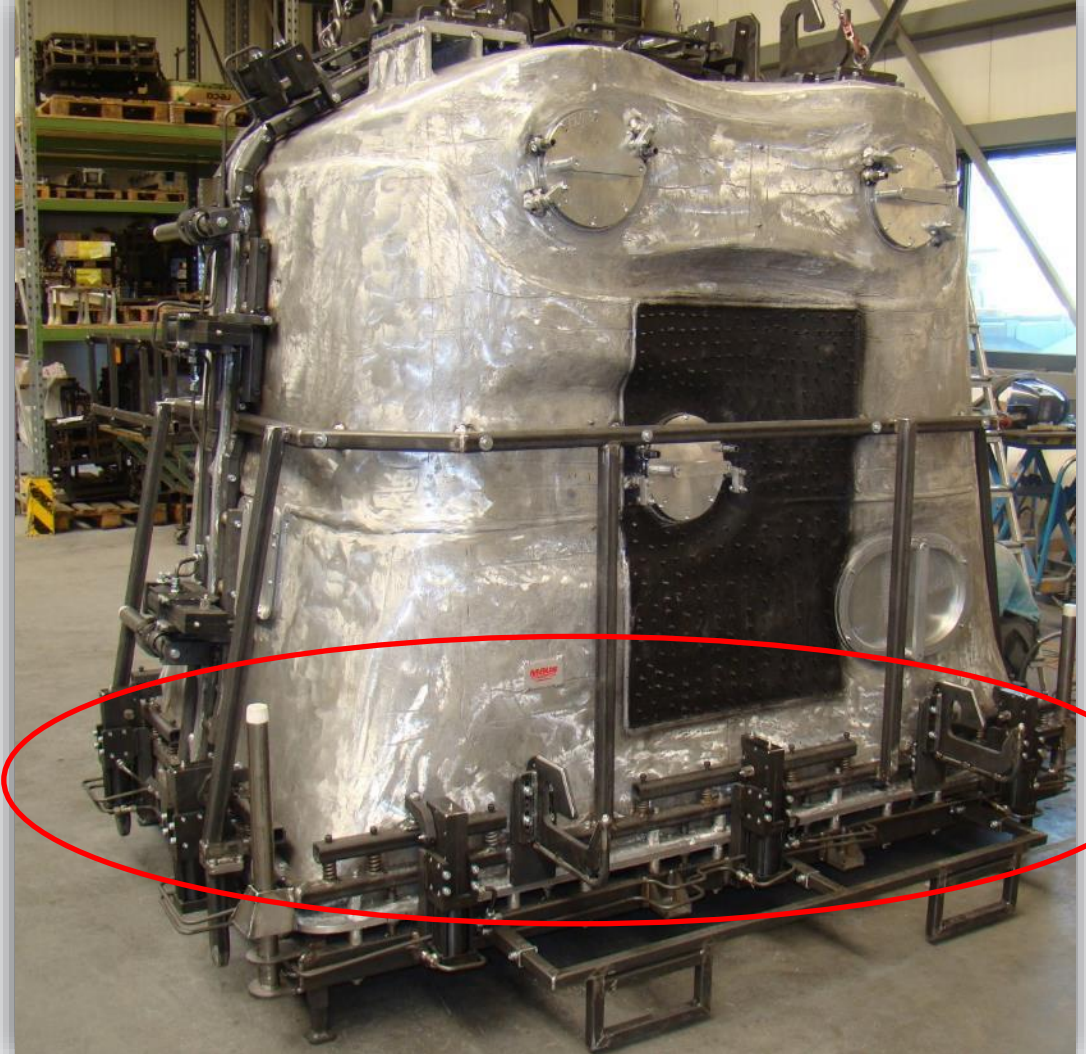
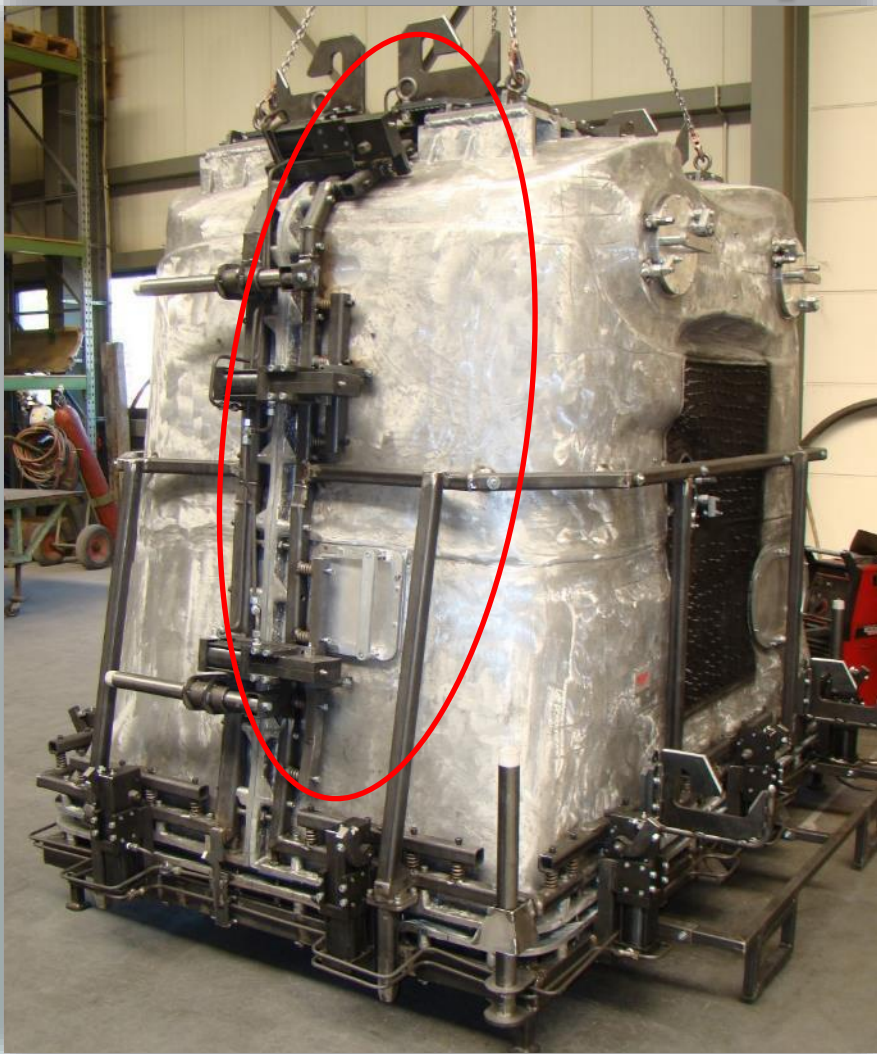


# MAUS -XL and -S pneumatic closure

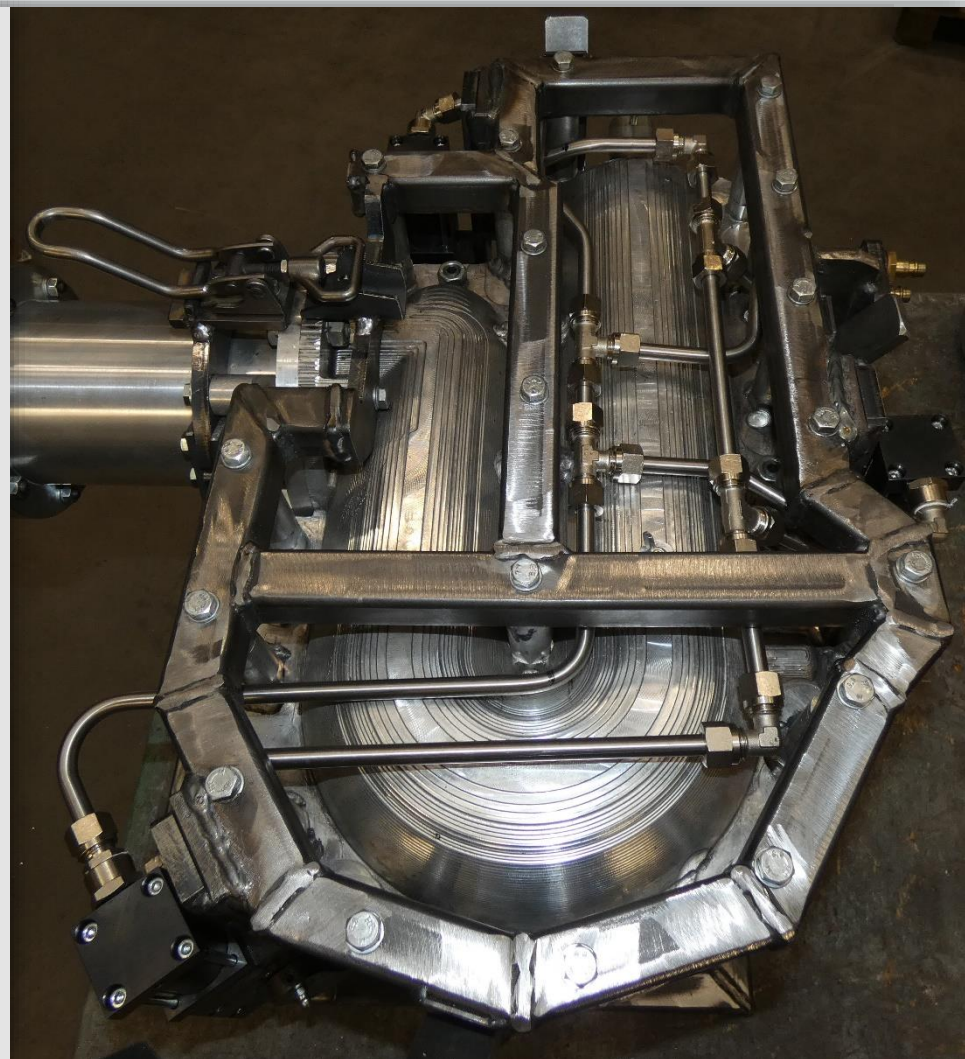
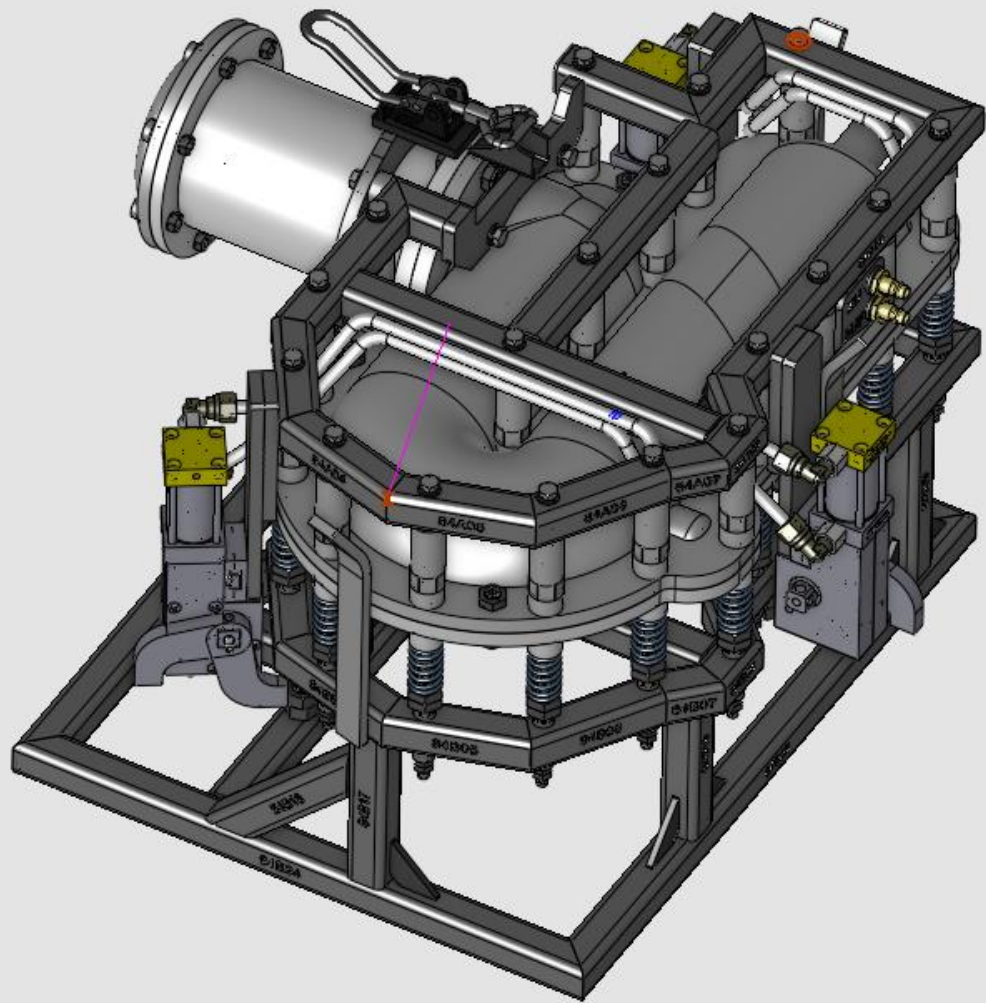


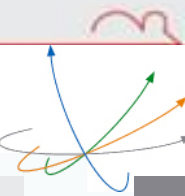
- ✓ Designed for rotomolding
- ✓ Automatic opening/closing
- ✓ Heat resistant
- ✓ Easy visual controllability
- ✓ Pressure-less and safe system (external air to open/close)
- ✓ Powerful closure (>390KG)
- ✓ Easy maintenance

# XL Clamps on cast 3-piece mold, 4m<sup>3</sup>



# S-Clamps on CNC 3-piece mold, 0,02m<sup>3</sup>



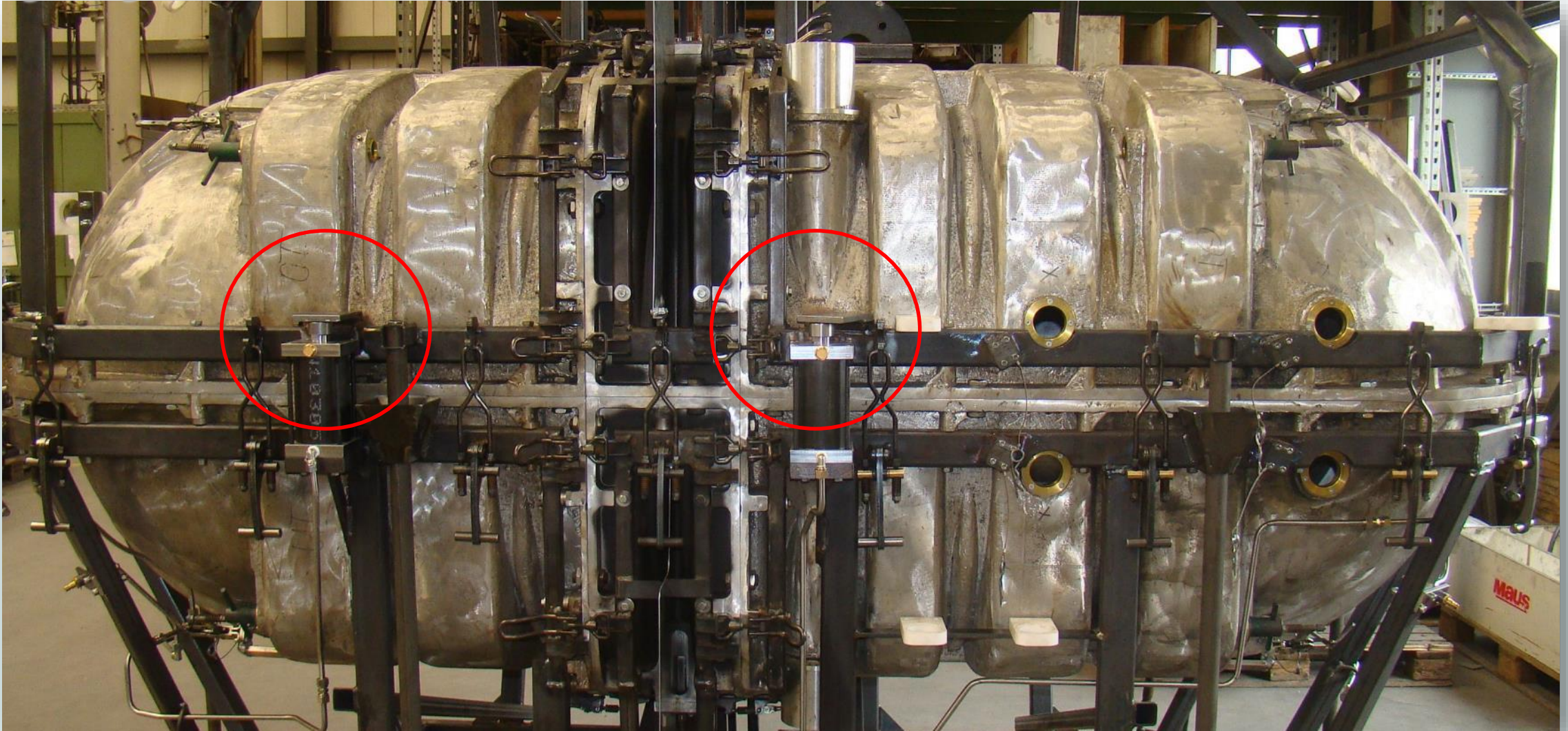


# Pneumatic prying cylinders



- ✓ Designed for rotomolding
- ✓ Easy & simultaneously prying
- ✓ Powerful but gentle stroke
- ✓ Preventing mold distortion
- ✓ Preventing flange damages
- ✓ Ease of operation
- ✓ Easy maintenance

# Pry-cylinders on Cast/CNC combination mold, 6m<sup>3</sup>



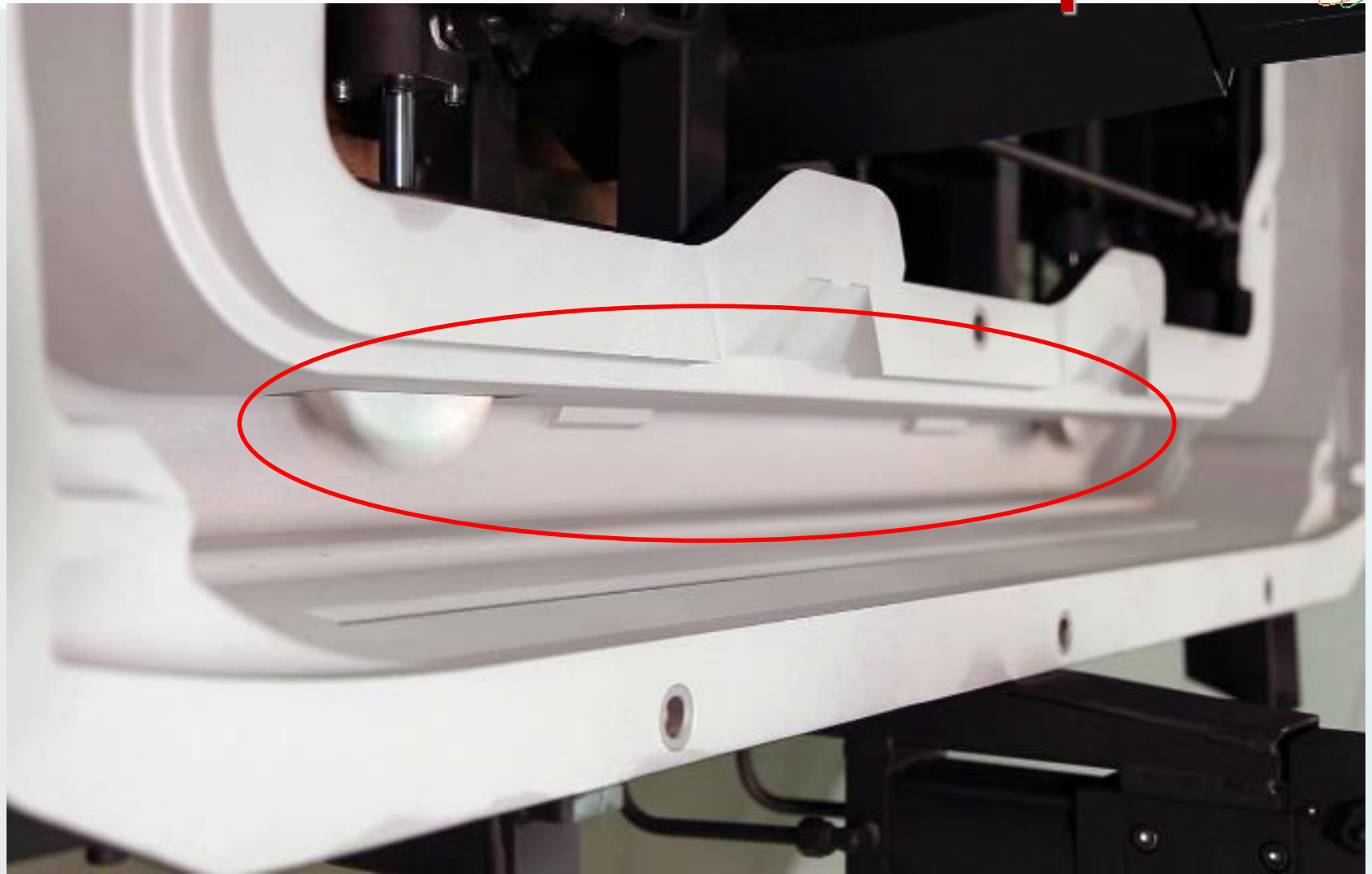


# Pneumatic push/pull cylinders



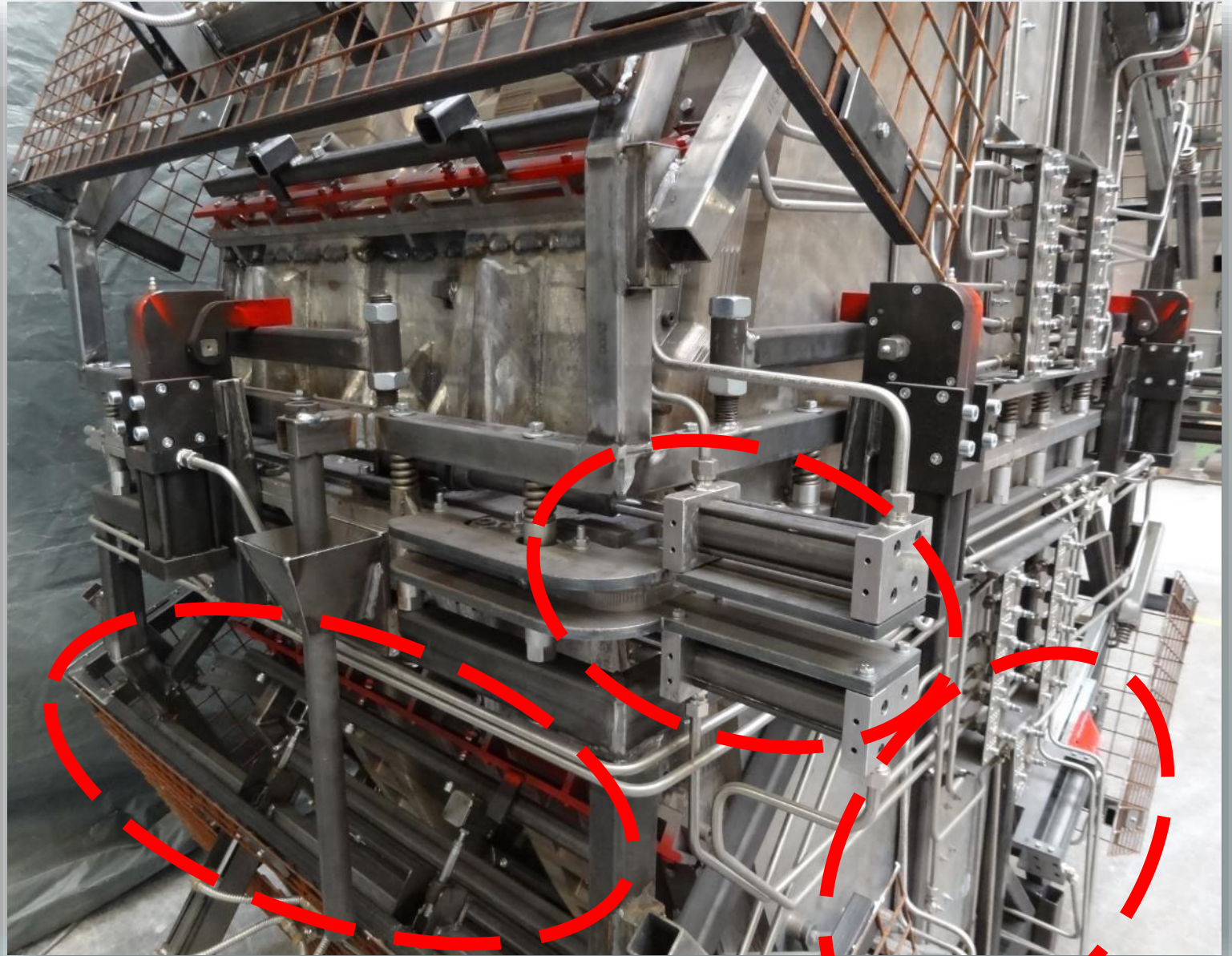
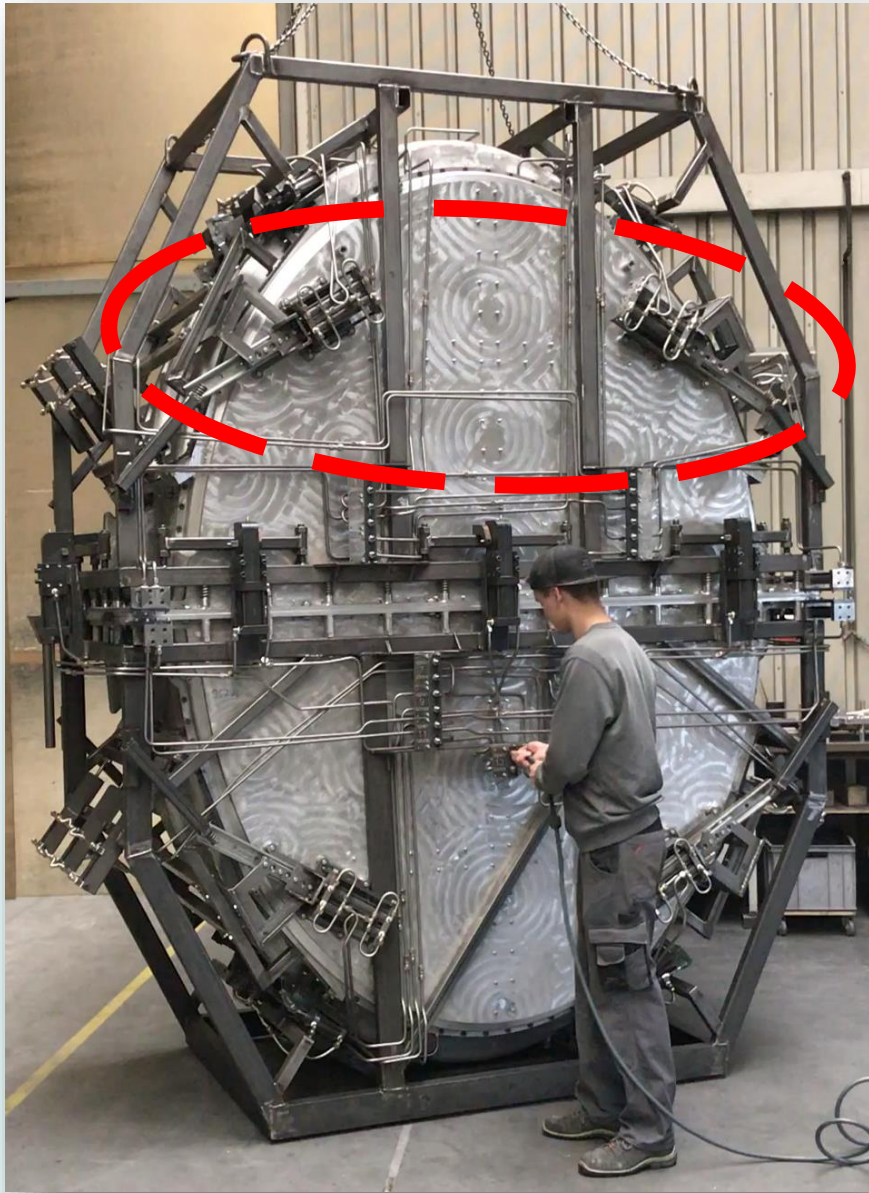
- ✓ Designed for rotomolding
- ✓ Easy & simultaneously motion
- ✓ Powerful stroke, throttled
- ✓ Option to sequence
- ✓ Customized sizes available
- ✓ Ease of operation
- ✓ Easy maintenance

# Pneumatic retraction of loose parts

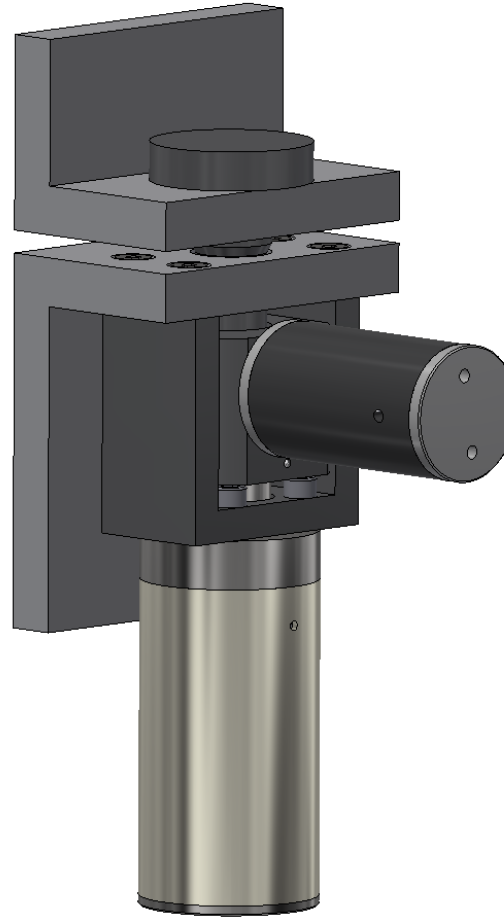
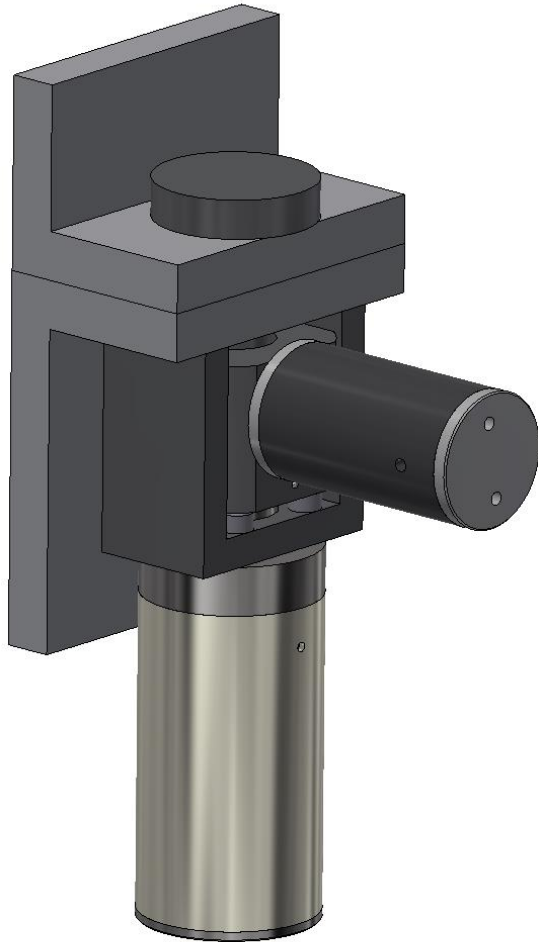


# Pneumatic ejectors



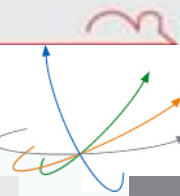


# NEW Close/Pry cylinders



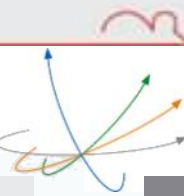
- ✓ Designed for roto
- ✓ Small footprint
- ✓ For smaller molds
- ✓ Guidance + Close + pry motion
- ✓ Simultaneous
- ✓ Ease of operation
- ✓ Easy maintenance

# NEW Close/Pry cylinders

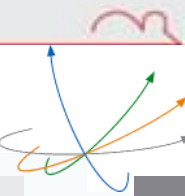


- ✓ Designed for roto
- ✓ Small footprint
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- ✓ Guidance + Close + pry motion
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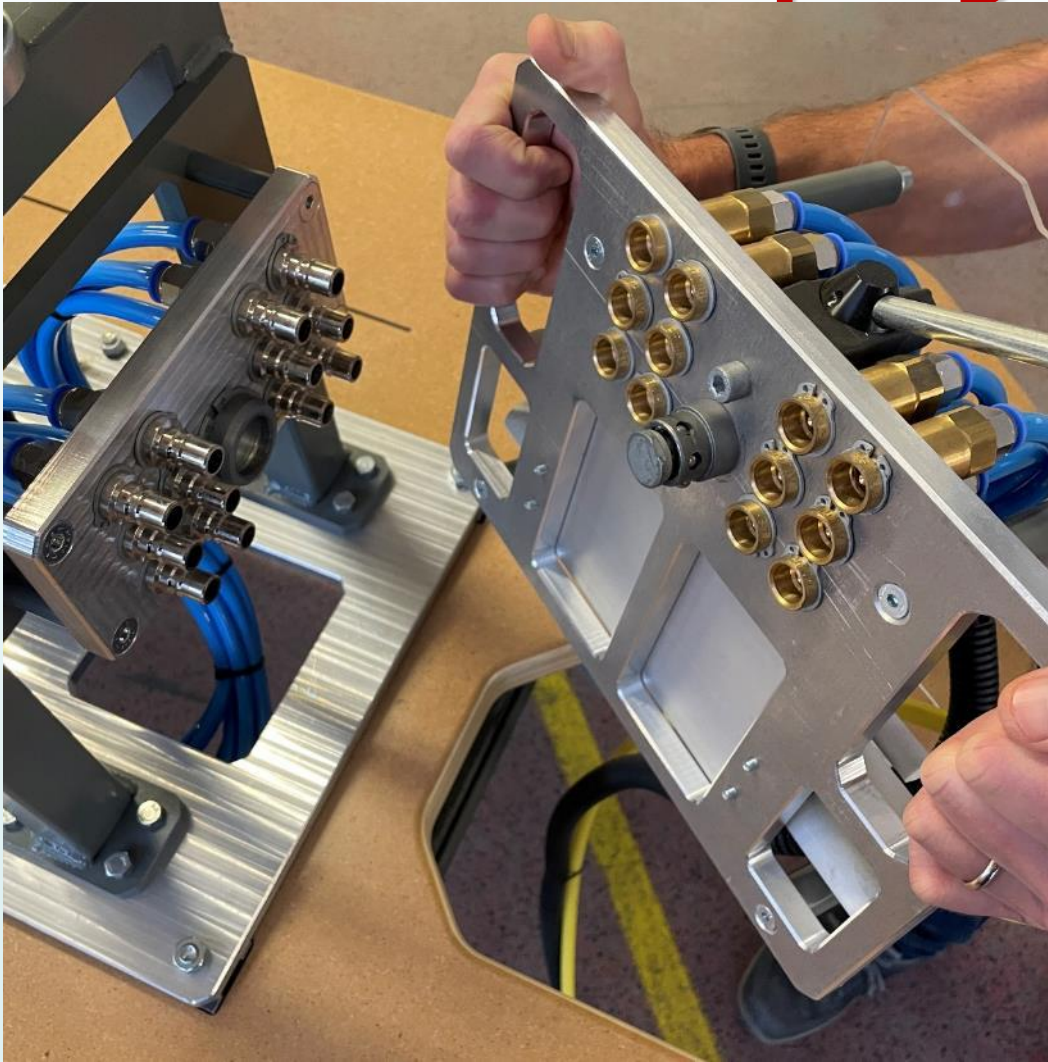
# MAUS Drop-Box



- ✓ Double-walled stainless steel housing, with high-performance insulation
- ✓ Maus-Hole plunger opens/blocks the opening to the mold
- ✓ Best flow of powder due to friction reduction & release properties of BMC-C40 coating
- ✓ Suitable for **24/7** production



# Multi-Coupling for Automation systems

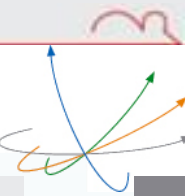


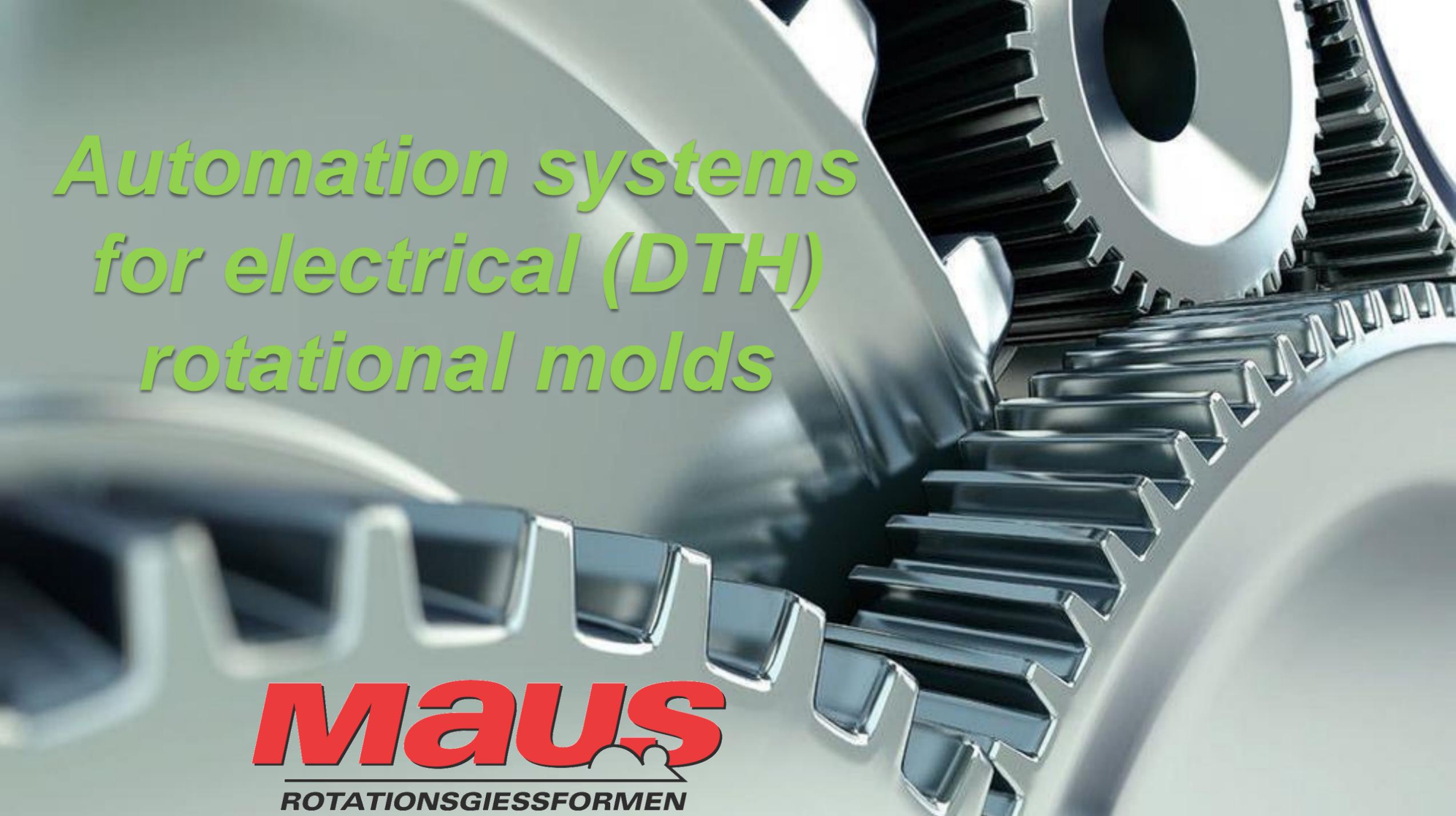
- ✓ Interface for mold automation
- ✓ Easy & quick connection
- ✓ Secure operation (H&S)
- ✓ Repeatable, fool proof
- ✓ External control unit
- ✓ Easy operation
- ✓ Adoption to various molds

# Connection of Multi-Coupling



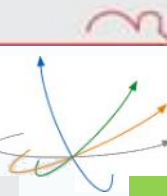
# Multi-Coupling for Automation systems





*Automation systems  
for electrical (DTH)  
rotational molds*

***Maus***  
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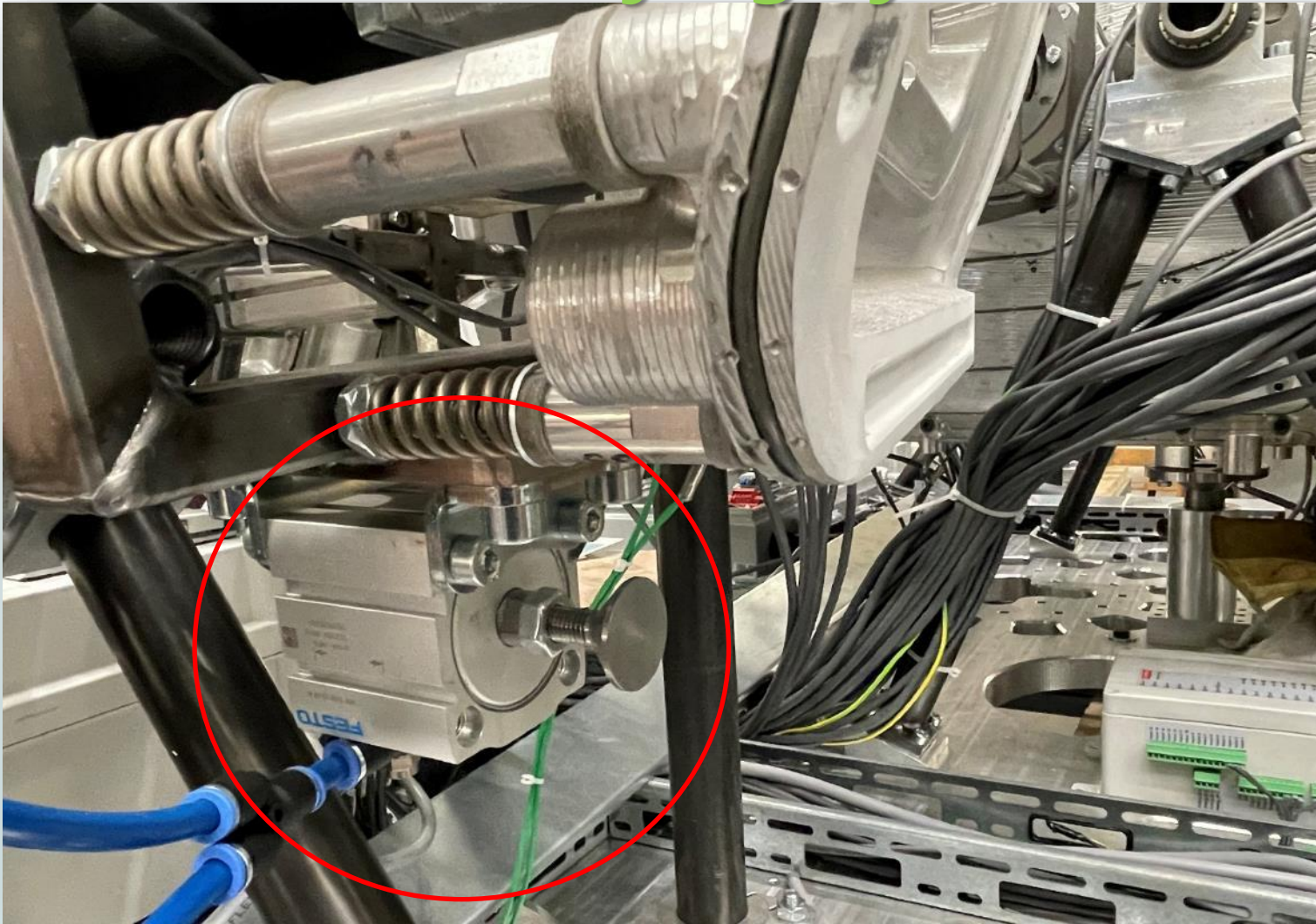
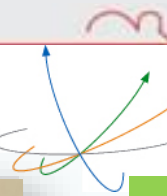


# Pneumatic clamps for Robomoulds

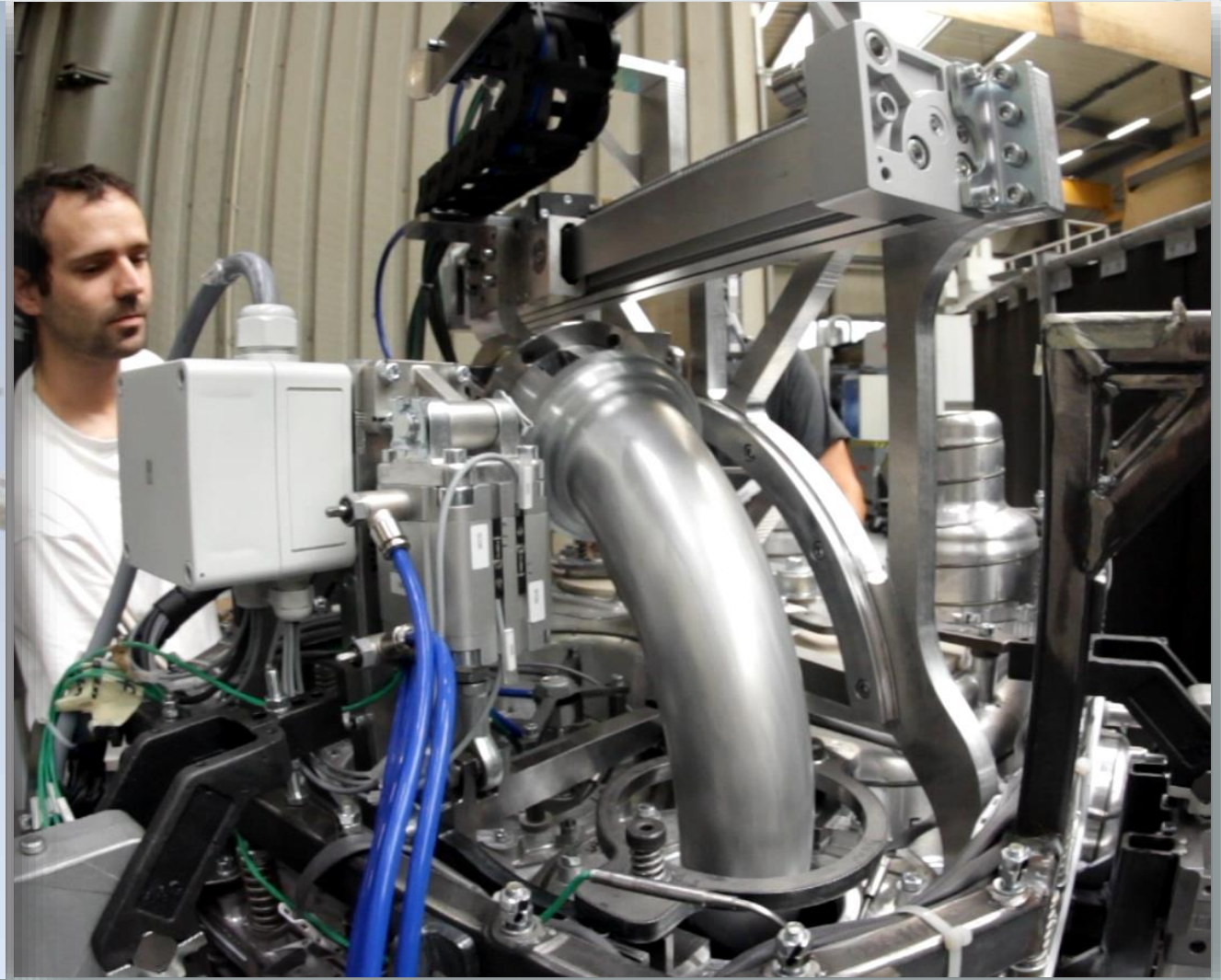
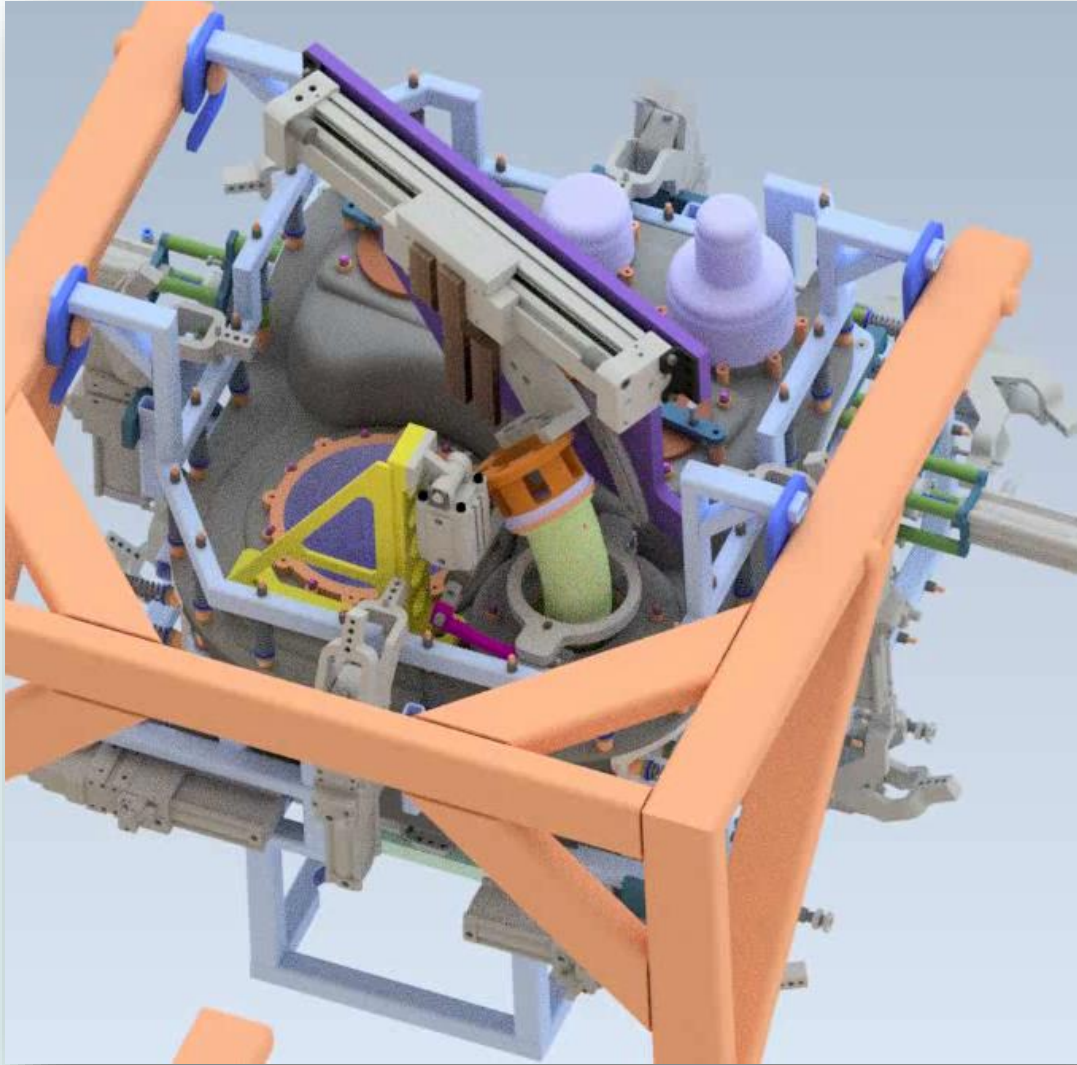


- \* "Off the shelf" clamps
- \* Different brands/models available
- \* Attractive prices
- \* Digital signals for controllability !
- \* Light weight
- \* Limited heat resistance
- \* Easy maintenance

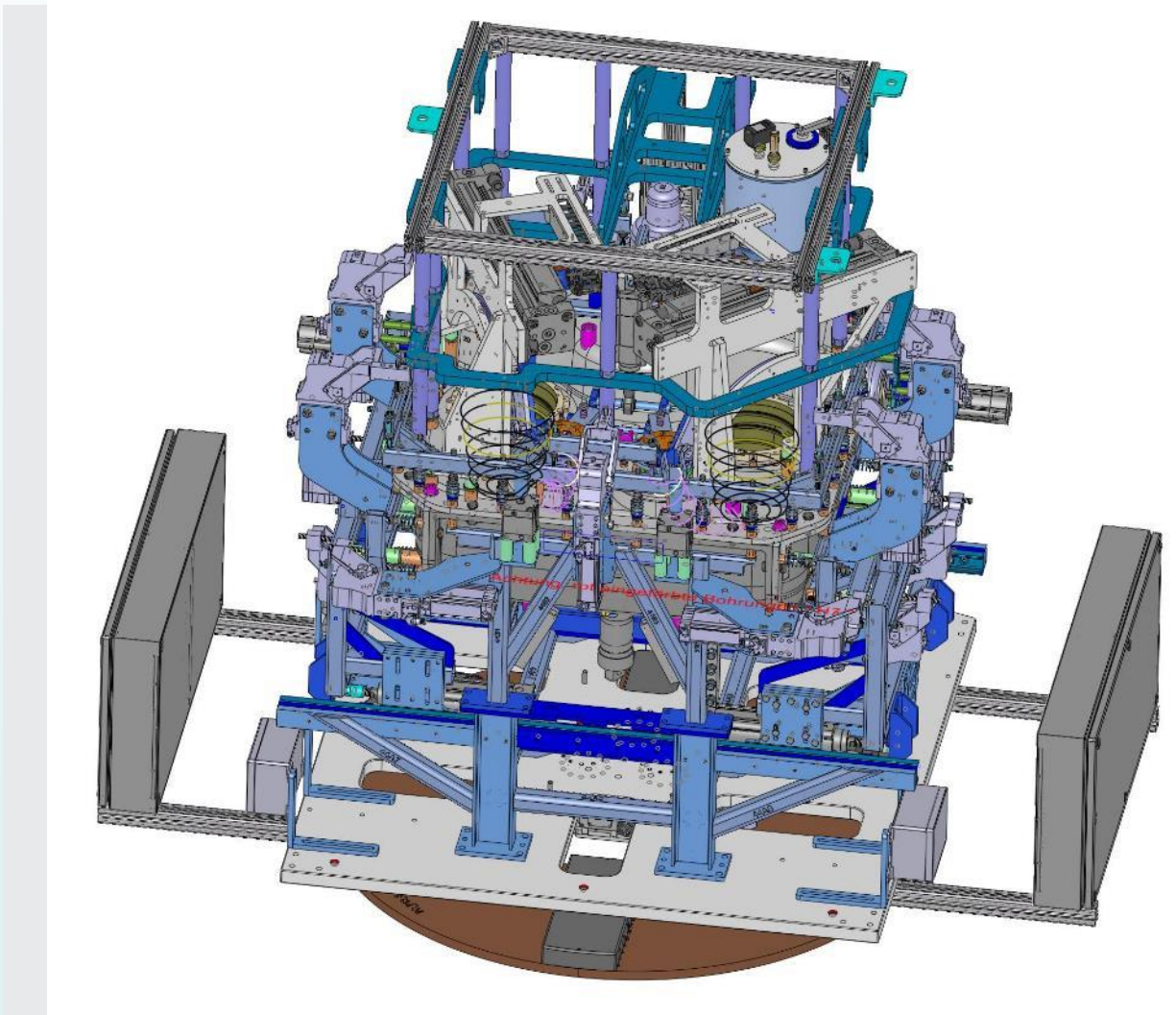
# Prying cylinders for Robomoulds



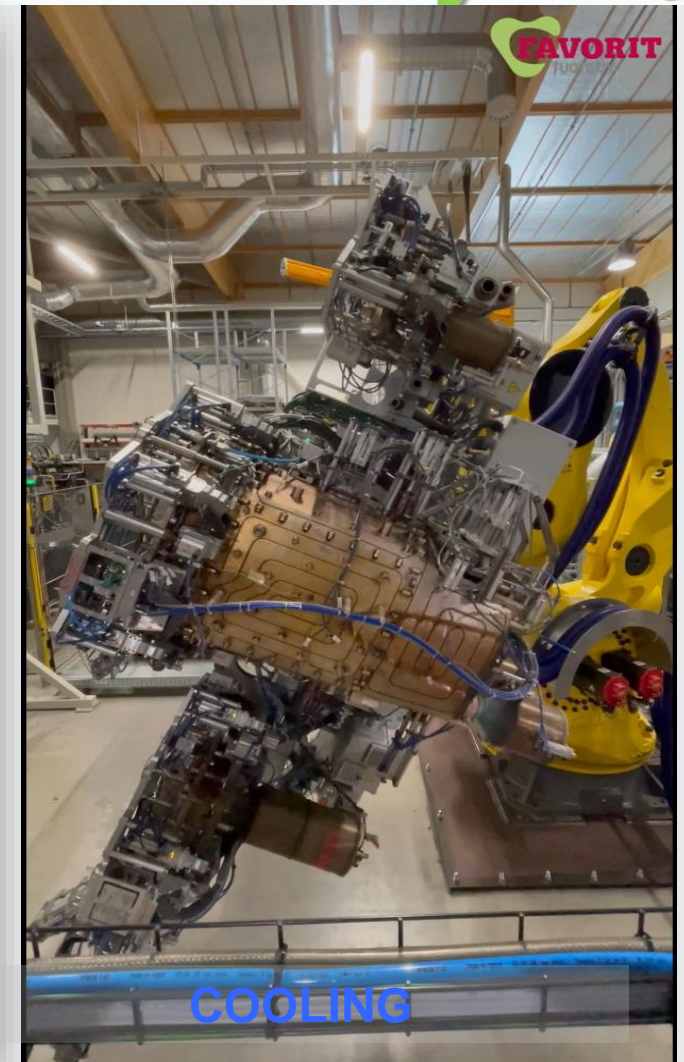
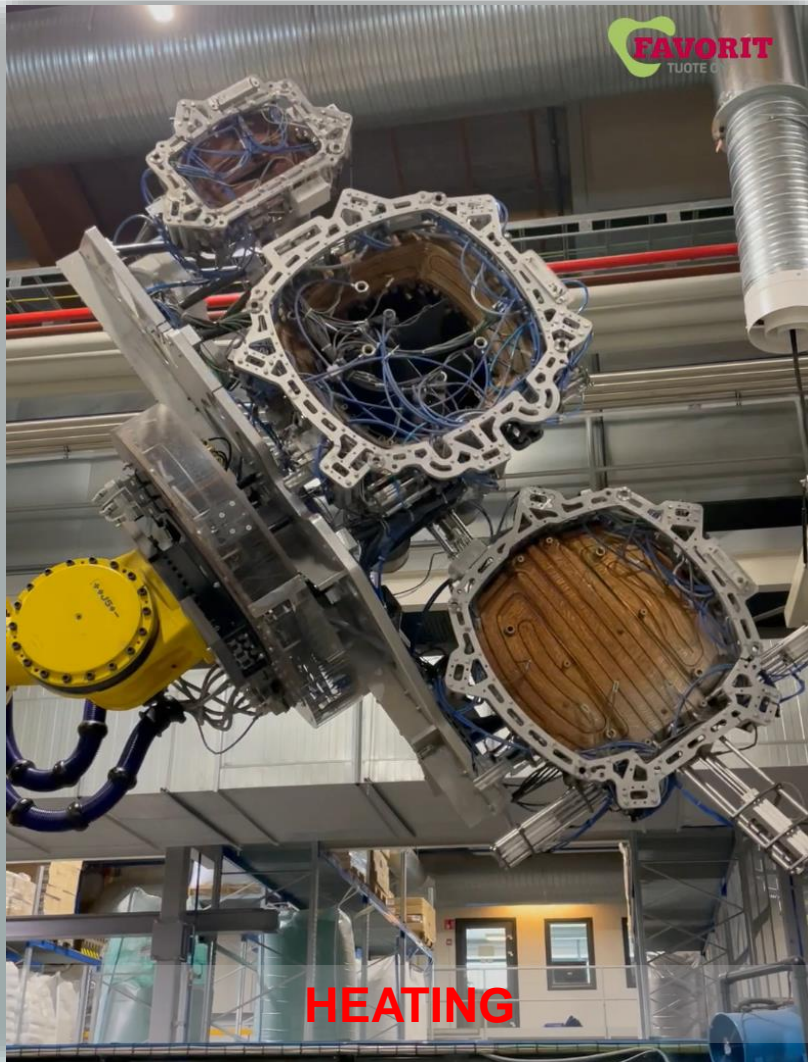
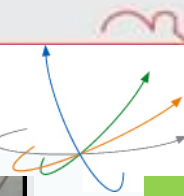
# Automatic retraction for Robomould



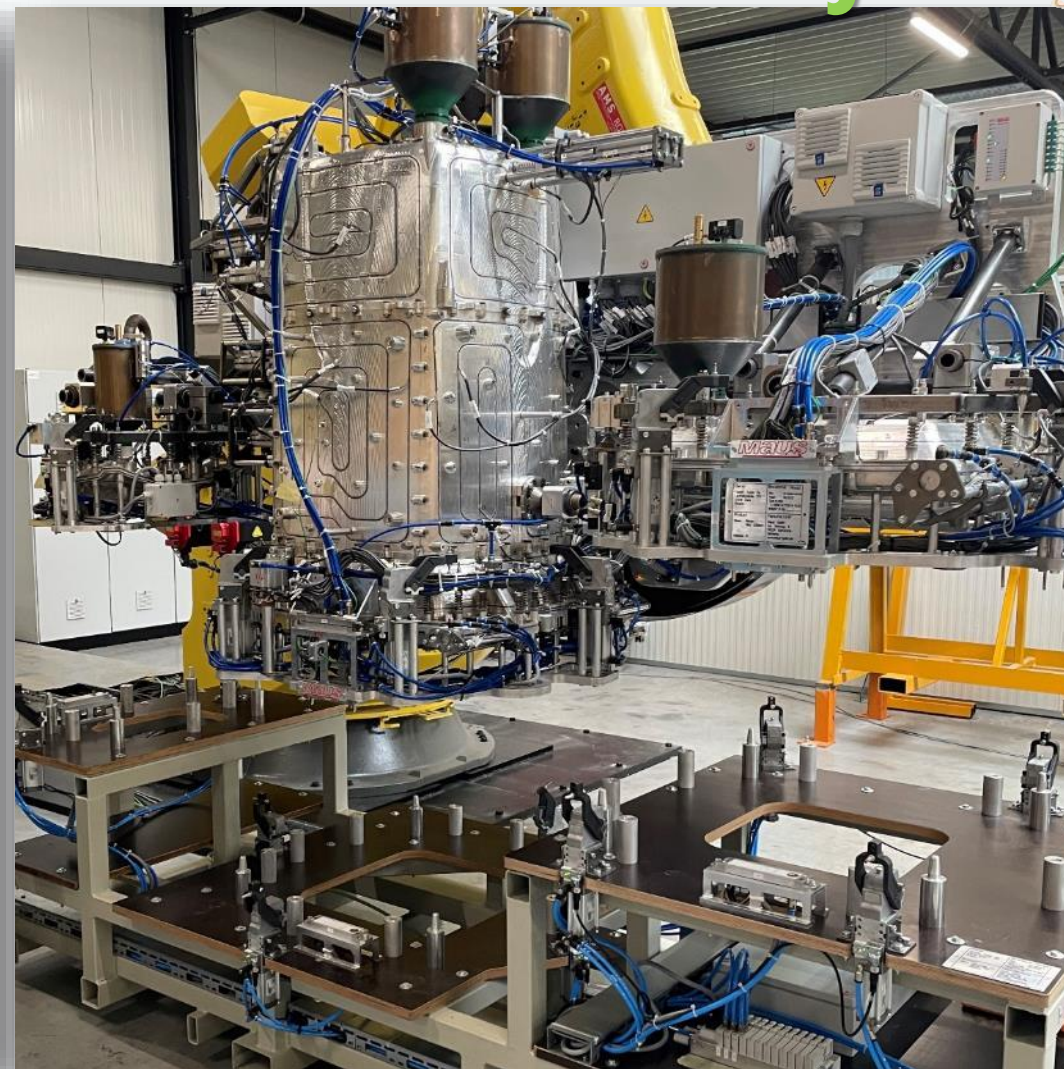
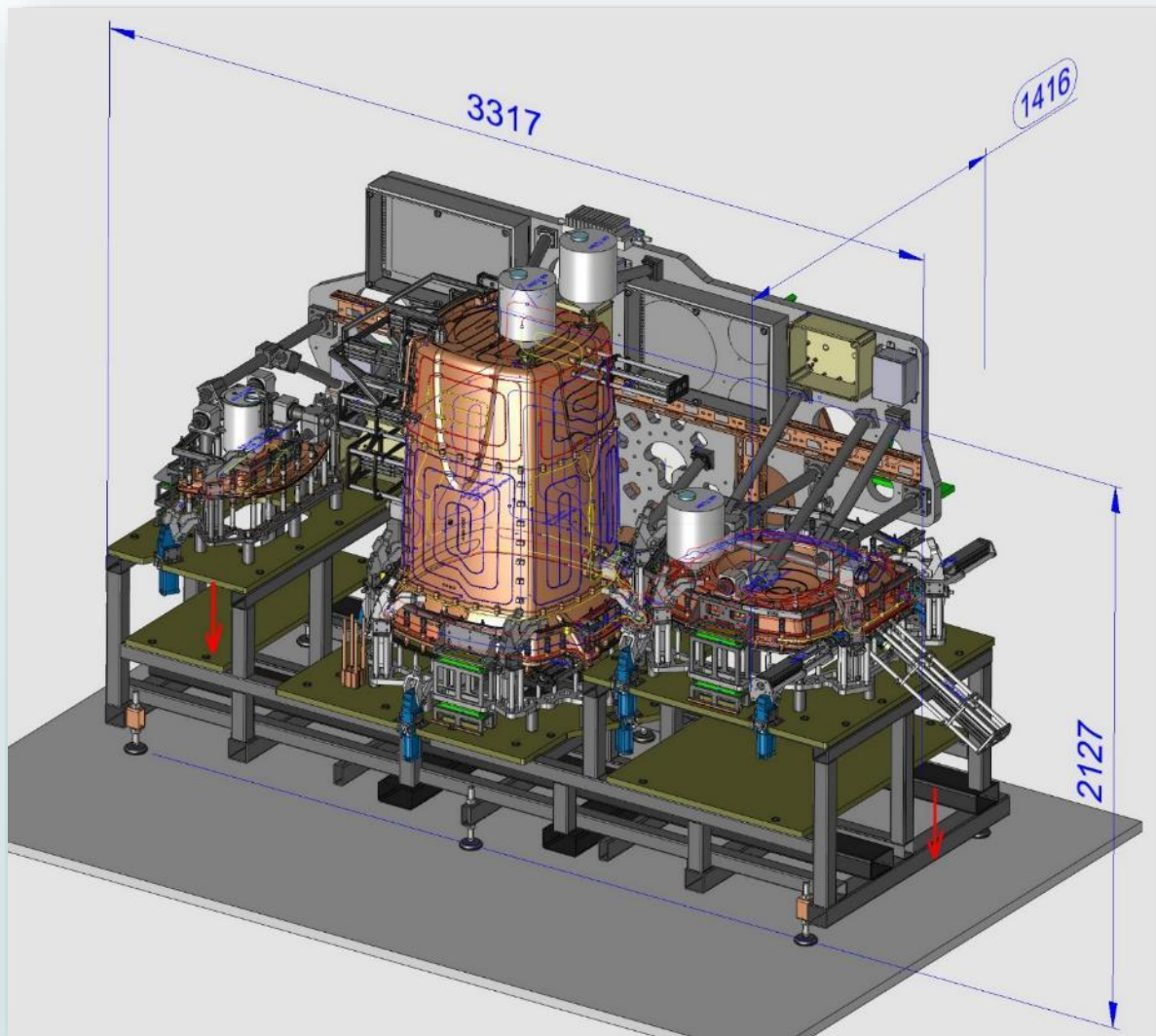
# Automatic mould change



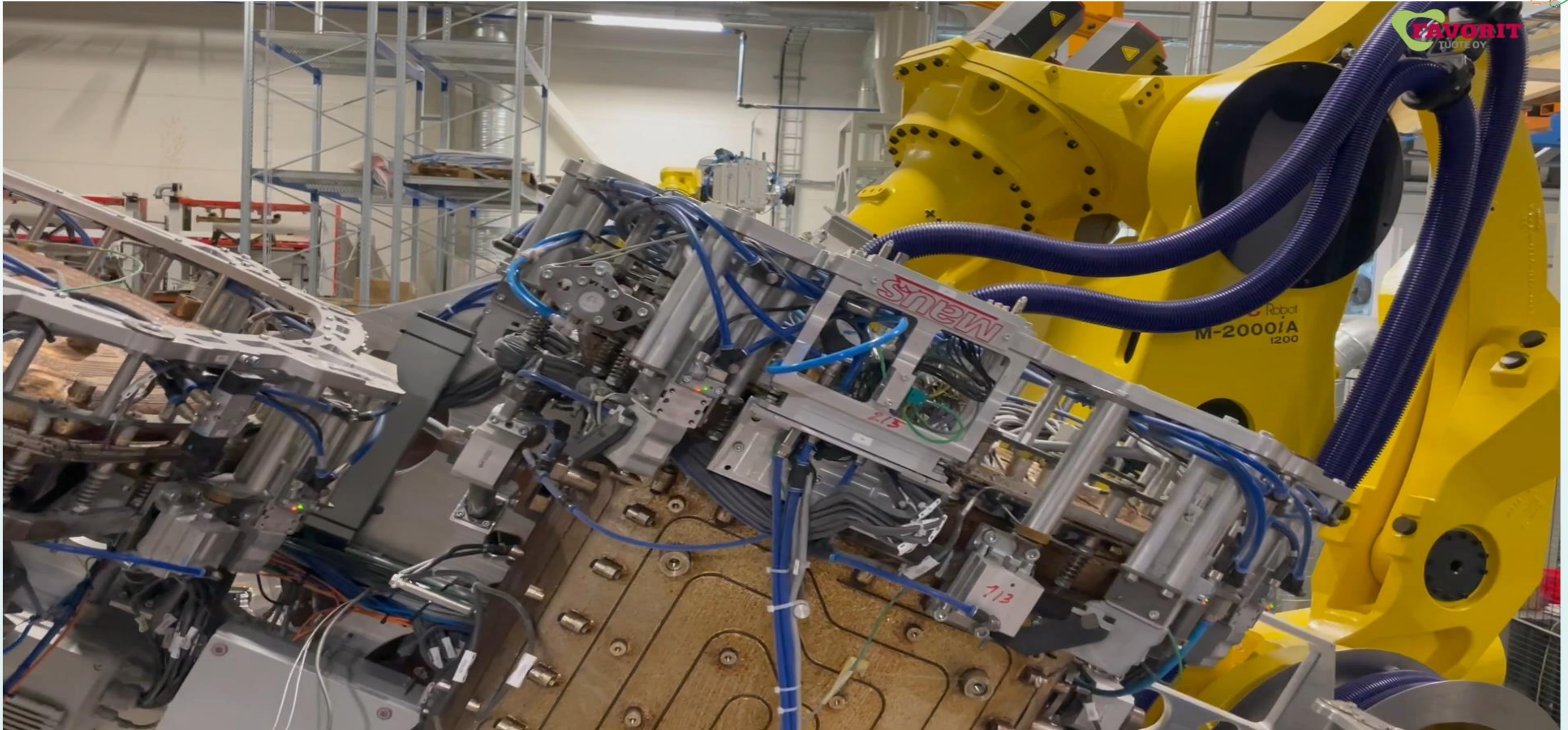
# Autonomous Robomould Project



# Autonomous Robomould Project



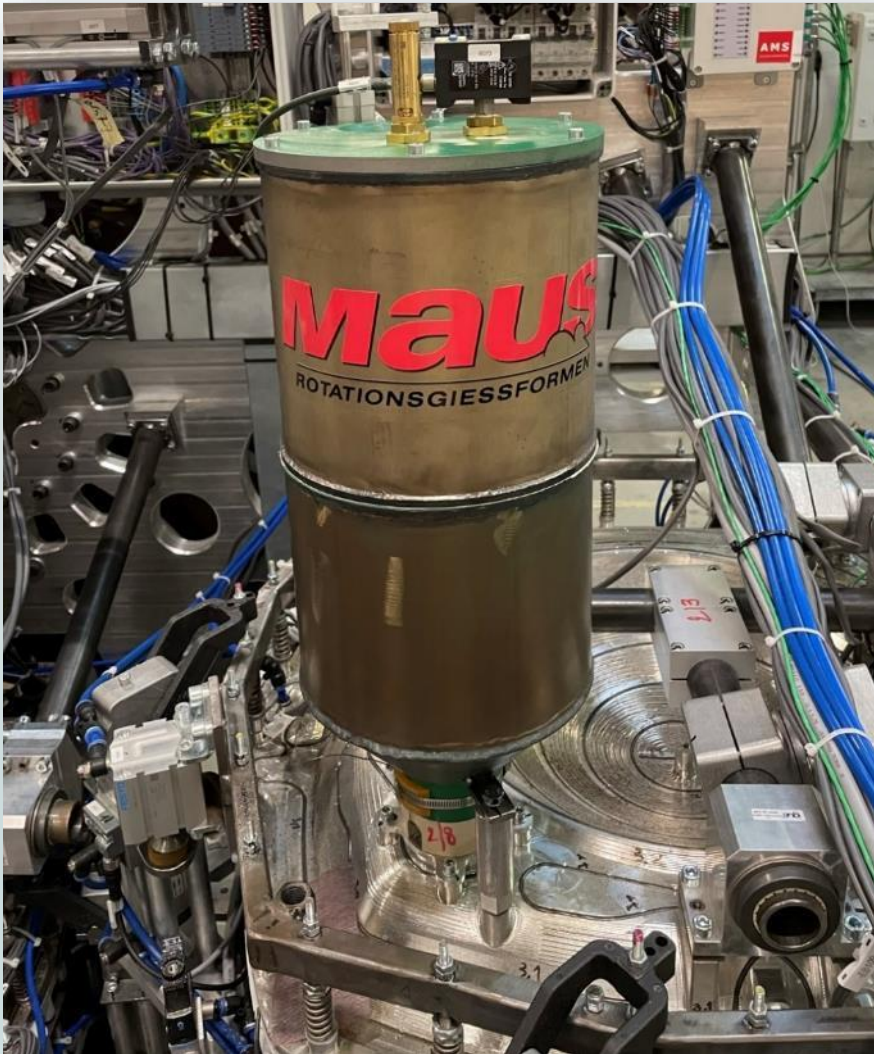
# COOLING



# OPENING / DEMOLDING

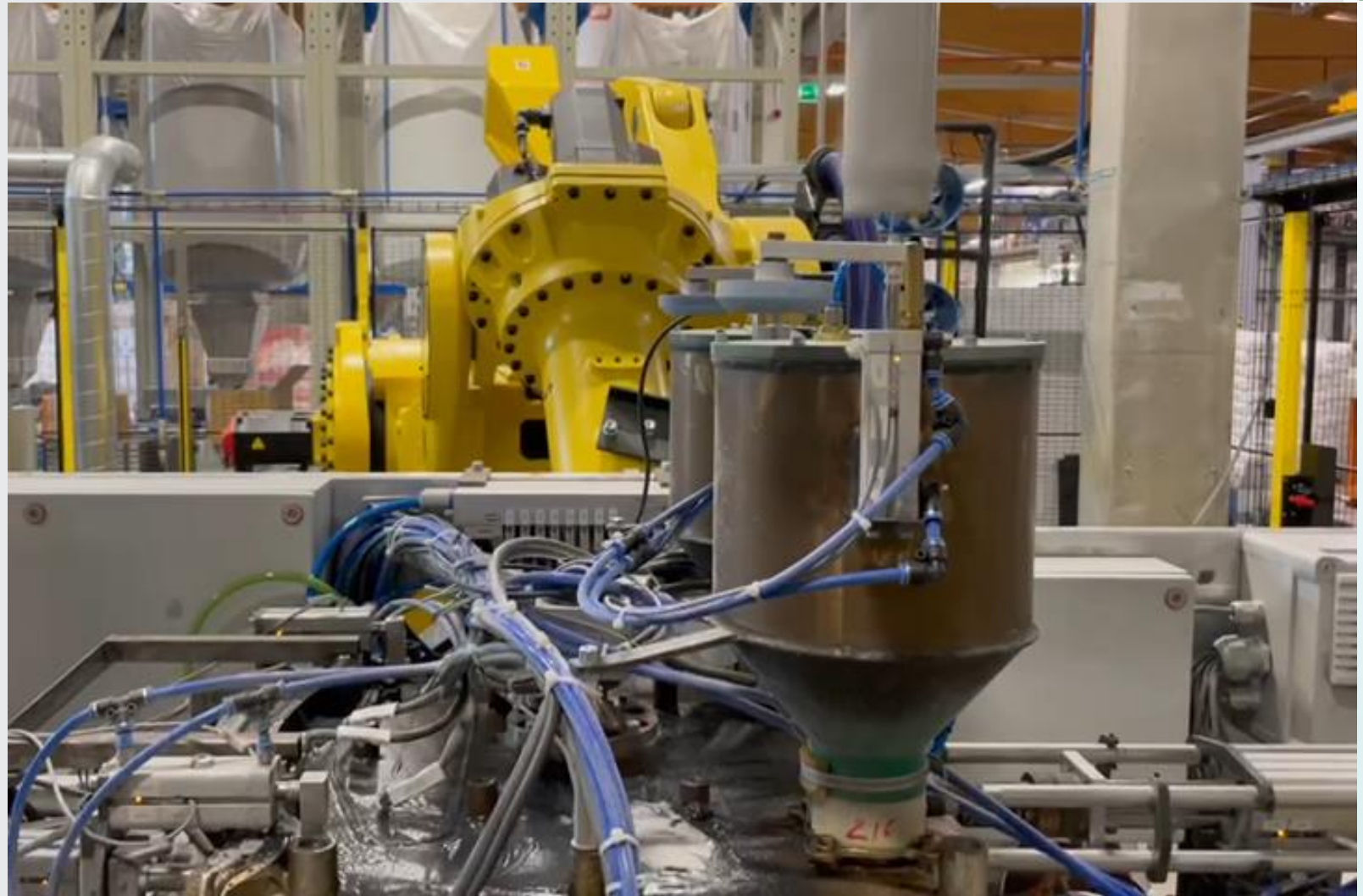
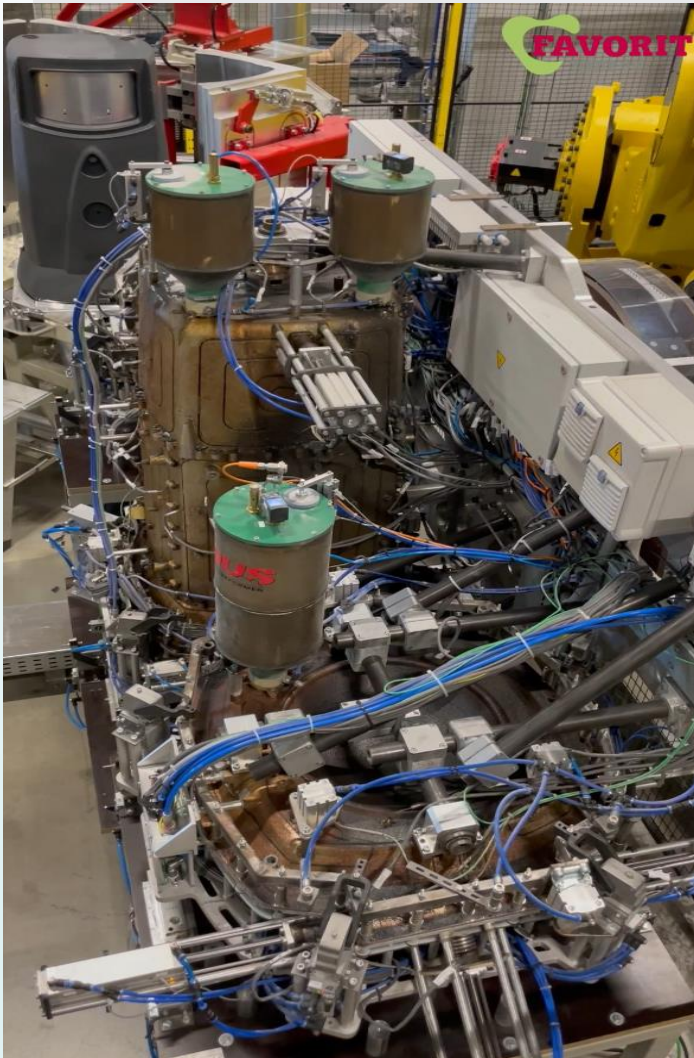
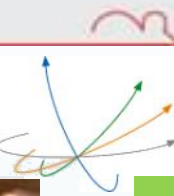


# „Multibox“ for Filling, Venting, Control ...

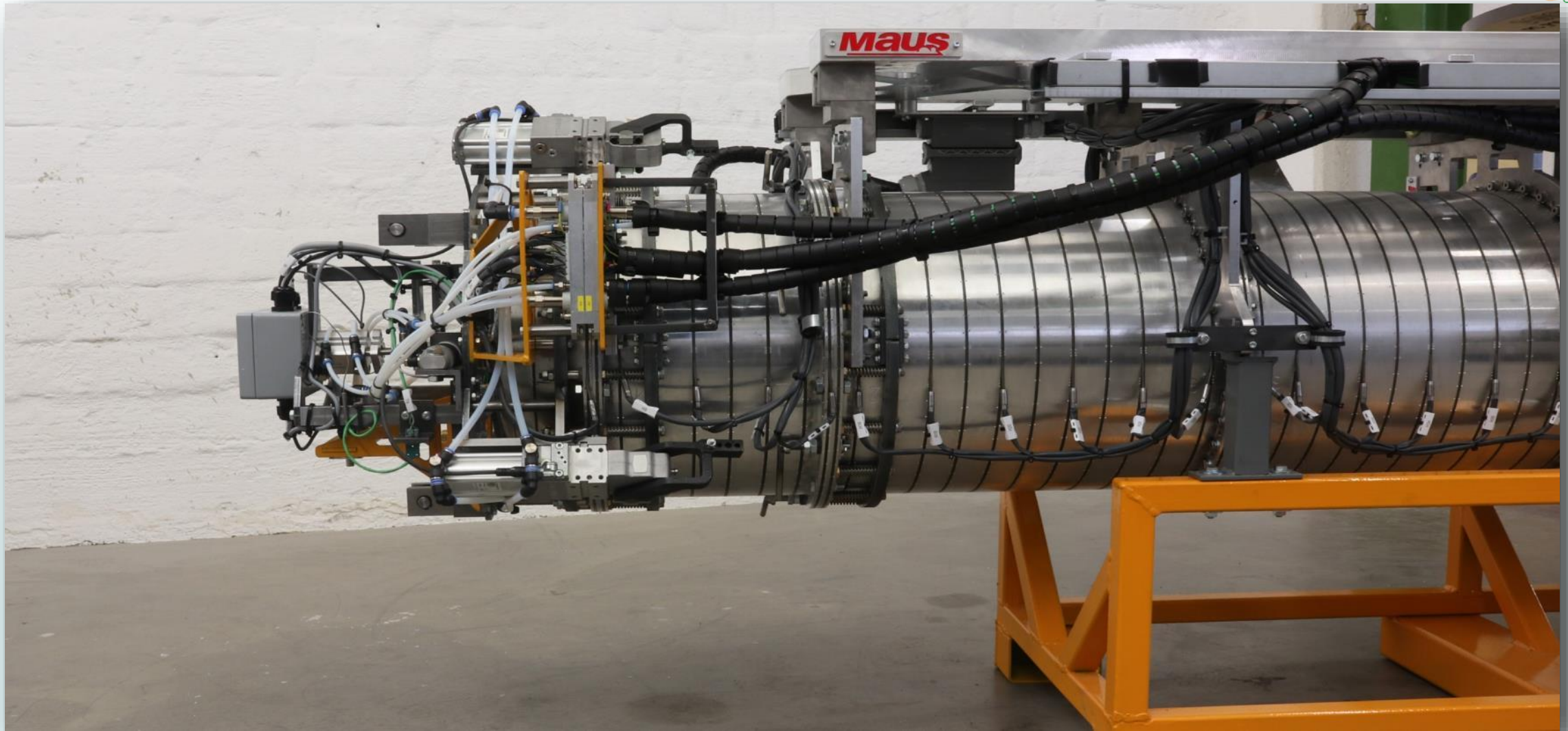
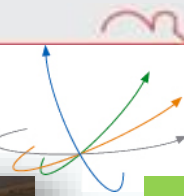


- \* Non insulated hopper/reservoir
- \* Inside C40 coated
- \* Electrical pressure control
- \* Safety valve exits
- \* Active venting (pressurization)
- \* Built-in Thermocouple for PIAT
- \* Easy maintenance

# CLOSING / FILLING



# Combination-Mold with and w/o extension



# Fully automated production of Hydrogen Liner





[www.maus-gmbh.shop](http://www.maus-gmbh.shop)



# THANK YOU FOR YOUR ATTENTION

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MAUS GmbH – Rotational Moulds [www.maus-gmbh.de](http://www.maus-gmbh.de)

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