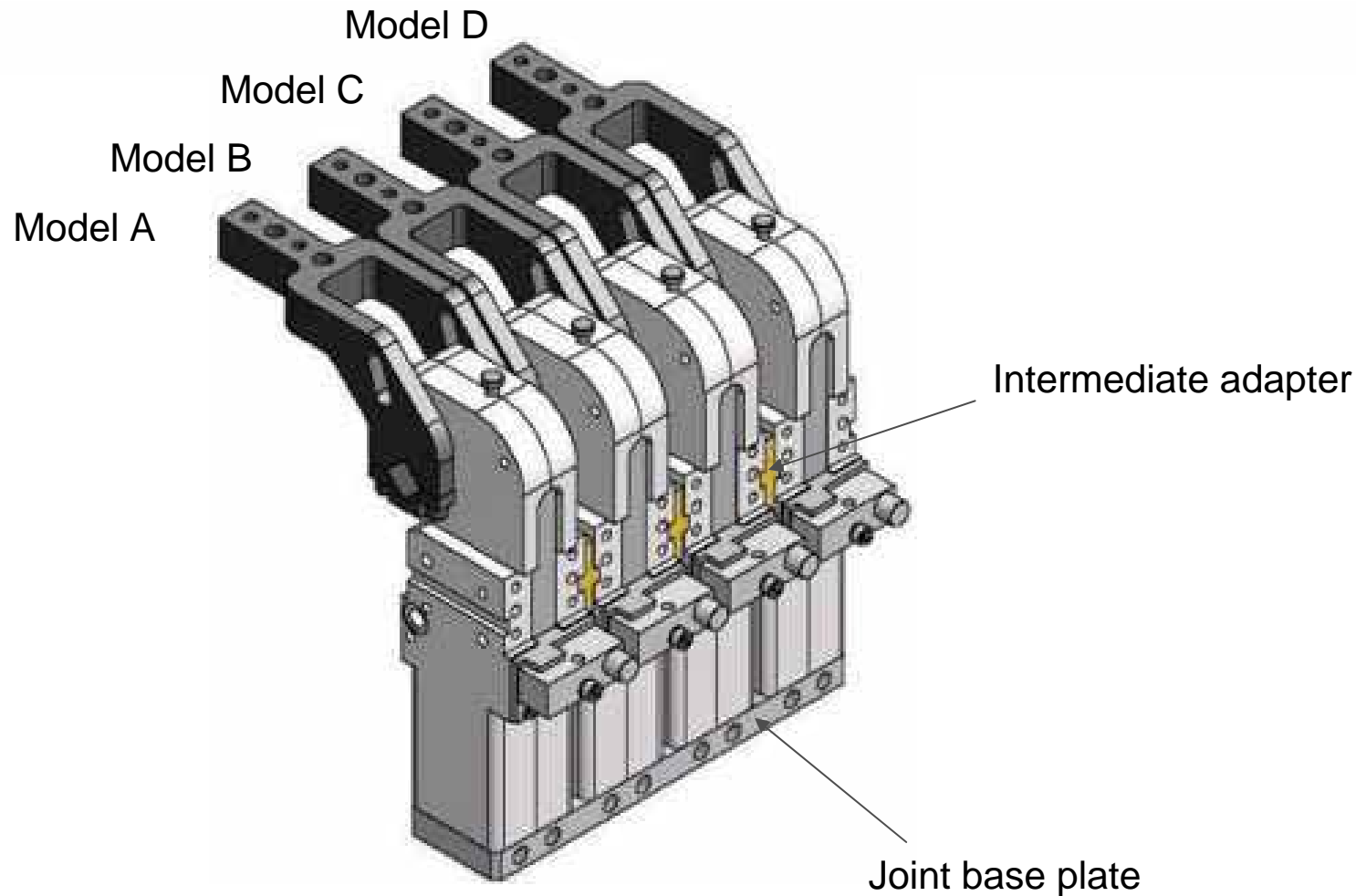


# Clamp 'Batteries'

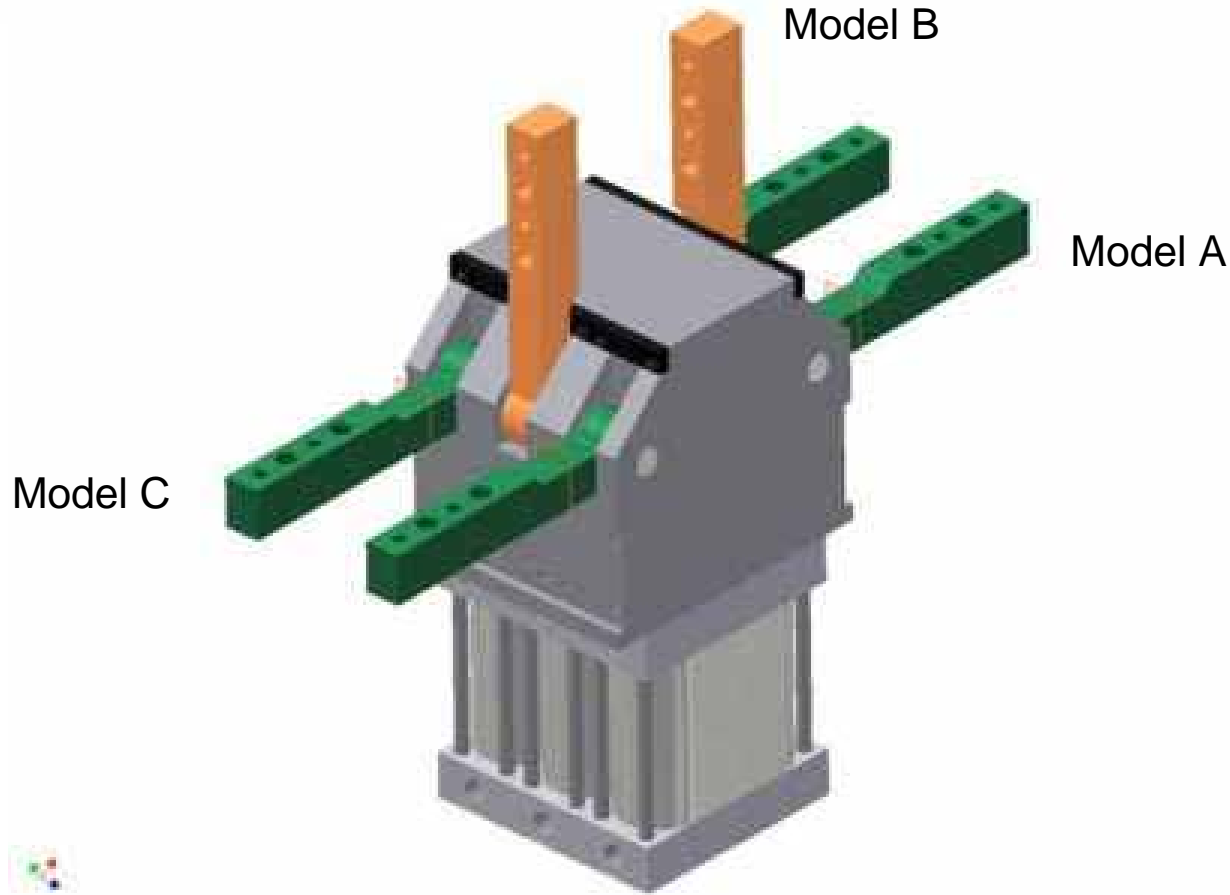
## for Multi-Model Manufacturing Systems

- In future, not one model but several should be produced in a “chaotic mixture“ by one manufacturing system
- If abandonment of complex tool changing systems is intended, all model-specific resources, such as clamps, need to be accommodated together in the fixture
- The production of specific model variants is then achieved by actuating and moving the respectively required clamps into working position, if necessary

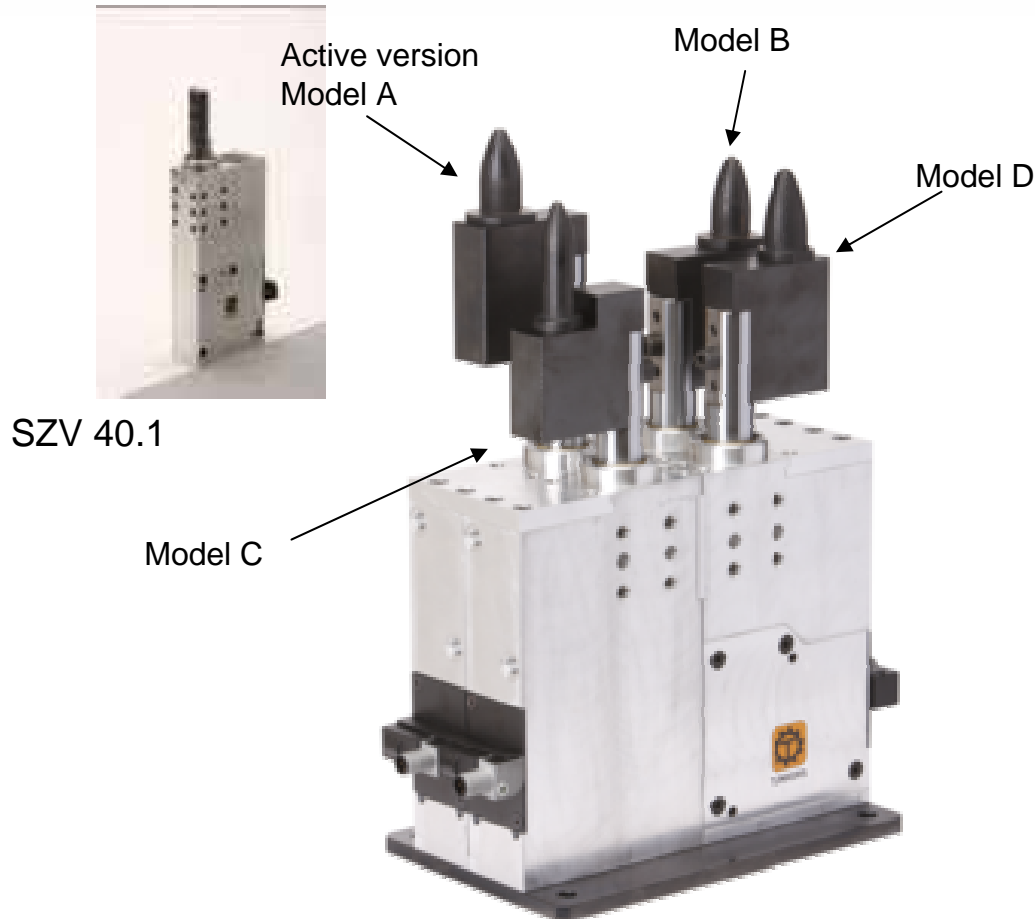
# Batterie-Like Bundling of Clamps



# Batterie-Like Bundling of Double-Arm Clamps



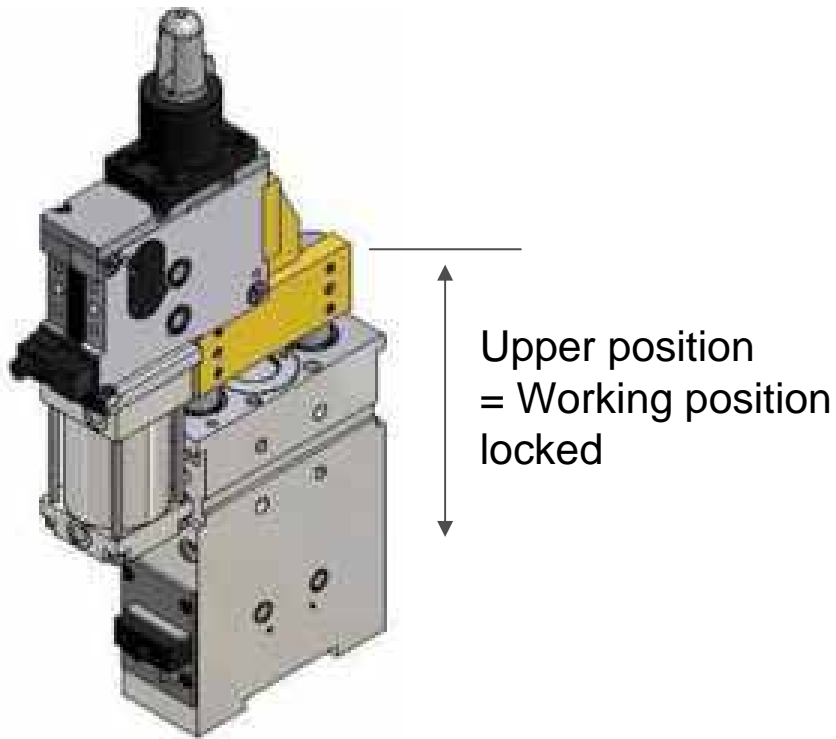
# Batterie-Like Bundling of Type-Specific Retractable Locating Pin Units



- Arrangement of the tried and tested retractable locating pin units SZV 40 as a compact block of 4 (3, 2), allowing for the realisation of four different centring operations (4 types) as to diameter, height and position
- Toggle-locked end position
- Expandable by means of modules corresponding to the range of model variants

# Pin Clamp Battery

K60 UZ pin clamp mounted to SZVD 50 lifting unit with toggle mechanism

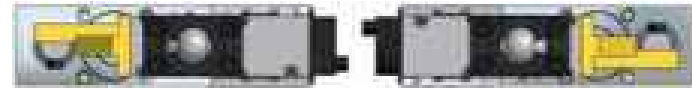


Model A

Model B

Pos. 1

Pos. 2



Model C

Model D

Pos. 3

Pos. 4

The pin clamp required for the given situation is moved from the battery into upper working position

A simple solution to satisfy the demands on multi-model manufacturing:

- A concept which can be gradually expanded with the number of variants required
- Relatively compact arrangement
- Easy control
- Use of approved serial components

Any queries?



**Contact:**

Tünkers Maschinenbau GmbH

**Joachim Bocionek / Rainer Kempken**

Am Rosenkothen 4-12

D-40880 Ratingen

Phone +49 (0) 2102-45 17-140

+49 (0) 2102-45 17-223

Fax +49 (0) 2102-45 17-191

+49 (0) 2102-45 17-191

E-mail: [joachim.bocionek@tuenkers.de](mailto:joachim.bocionek@tuenkers.de) [rainer.kempken@tuenkers.de](mailto:rainer.kempken@tuenkers.de)

[www.tuenkers.de](http://www.tuenkers.de)