



# DYNA-CELL

Compact Robotic Bending Cell



# Pressbrake Automation

Virtual Sales Session – 2021

## CONTENT

- Unique Selling Points
- Cell Components
- Programming
- Sold Installations



# DYNA-CELL

## 4 KEY UNIQUE SELLING POINTS



### Affordable

2 x standalone Press Brake cost

Low cost per part



### Universal and Quality

Versatile gripper to handle a wide variation of parts

Combo gripper with cups and clamp

Designed to eliminate part re-gripping with swivel

Quality Assurance with Easy Form Laser

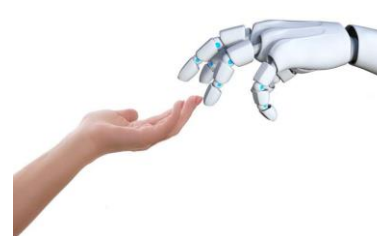
Process stability and consistency



### Easy Programming

10/10 rule

- 10 minutes program preparation
- 10 minutes tool set-up and first part production!



### Collaborative and Flexible

Fast switch between manually and automated run

Extra capacity due to robot

One Intuitive Touch-B controller

# PRESSBRAKE AUTOMATION RE-THOUGHT!

BEND

DYNA-CELL



SUPERFAST AND  
SIMPLE  
PROGRAMMING

COST NOT MORE  
THAN TWO  
STANDALONE  
DYNA-PRESSES



AUTO-ADAPTING  
UNIVERSAL  
GRIPPER

STANDALONE AND  
AUTOMATED





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CELL COMPONENTS



# DYNA-CELL

BEND

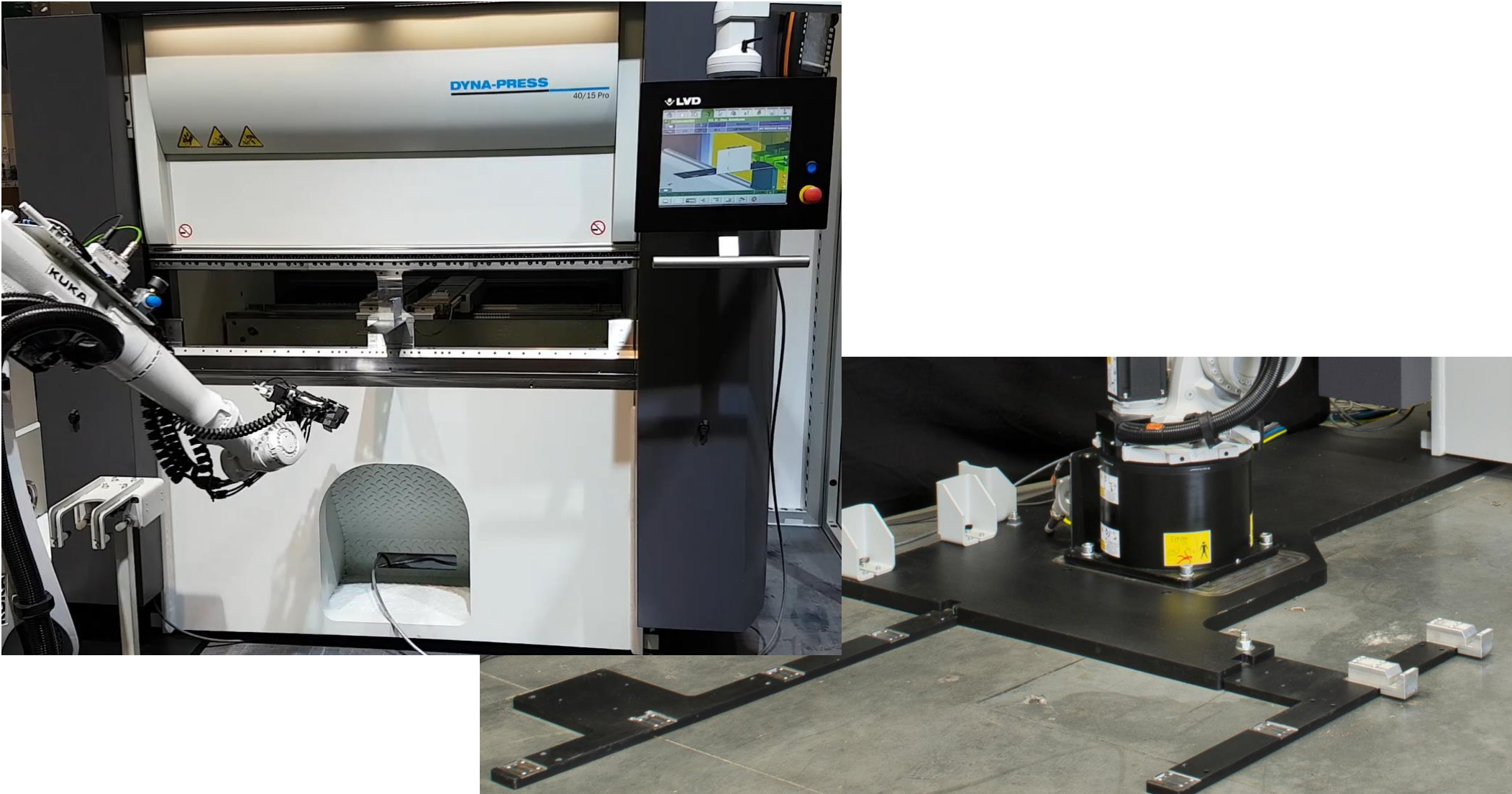
## COMPONENTS



# DYNA-CELL : Dyna-Press Pro

BEND

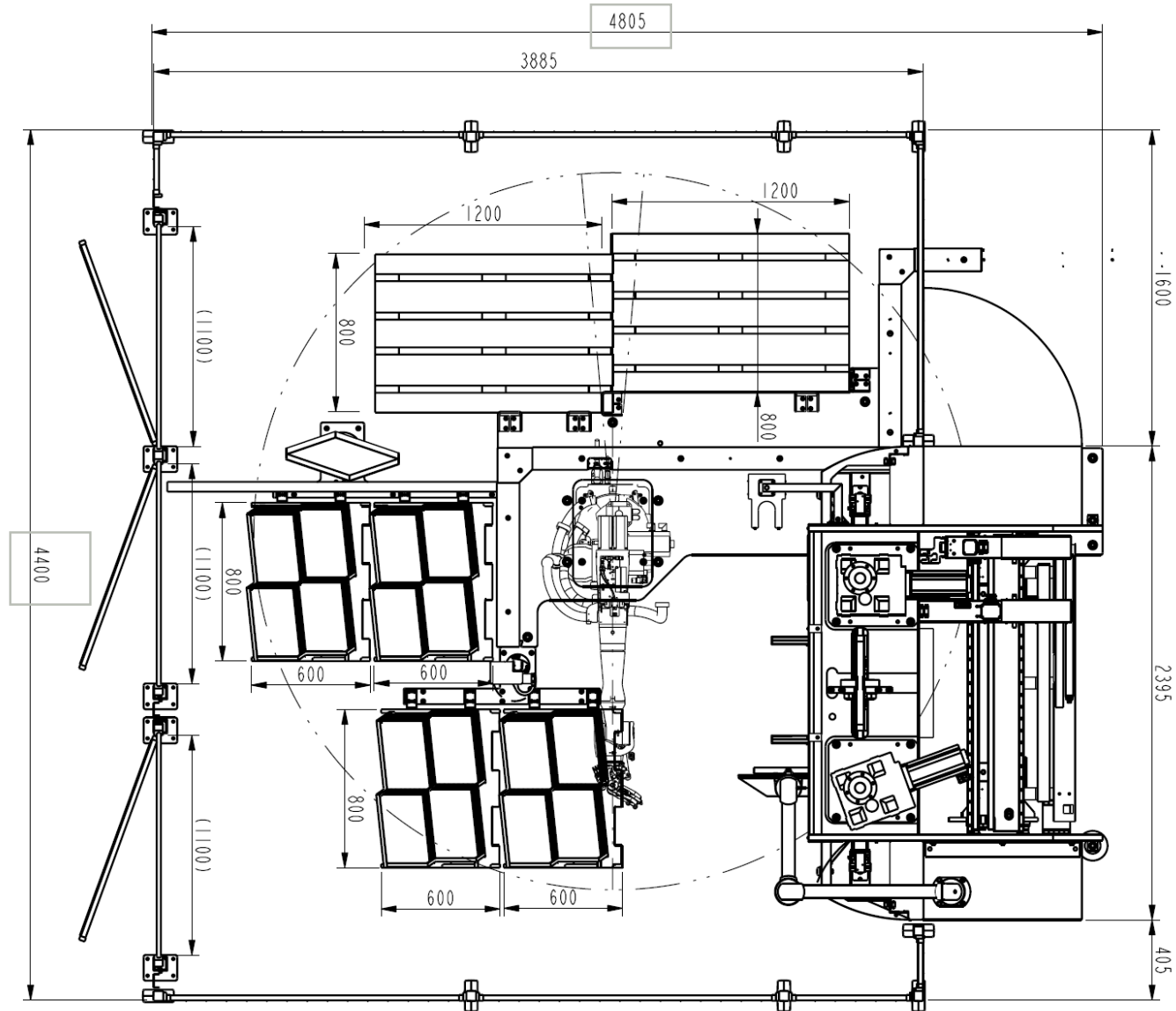
Electrical pressbrake 40ton / 1500mm



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BEND

LAYOUT - COMPACT 4805x4400mm





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BEND

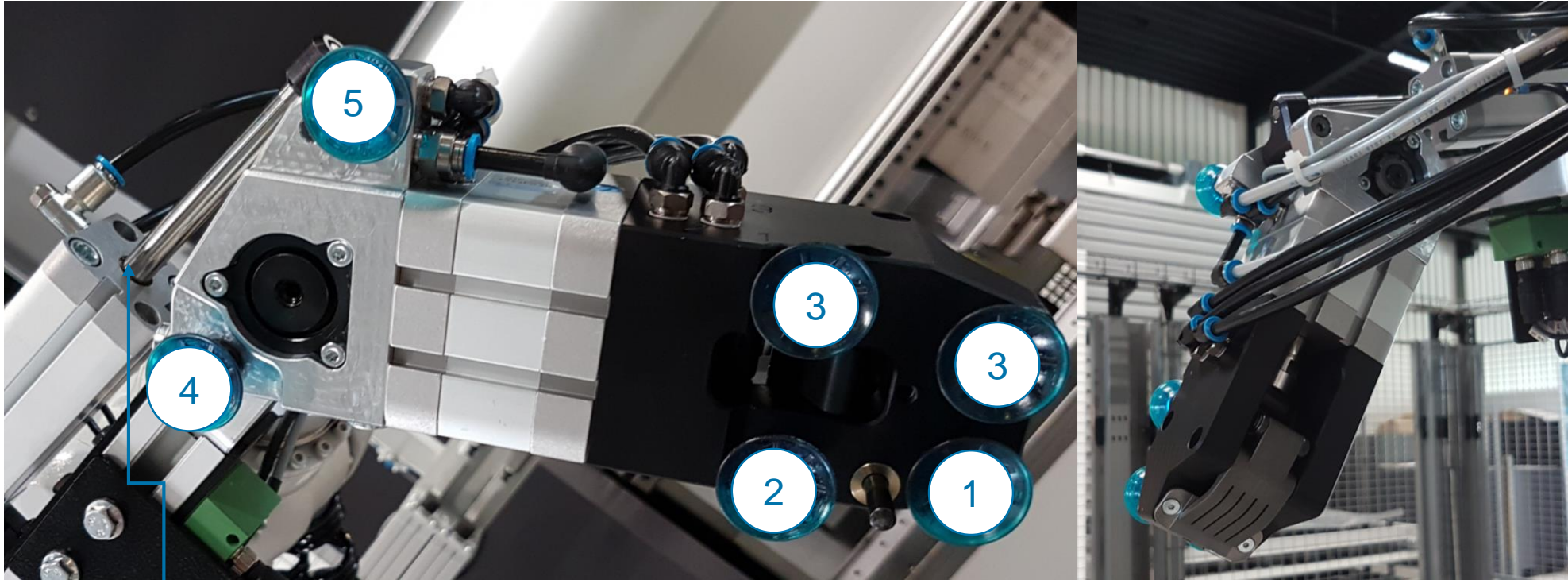
KUKA Robot 12kg payload – 1810mm reach



# DYNA-CELL

Universal Combi Gripper

BEND



Swivel head

Gripping with 4 cups

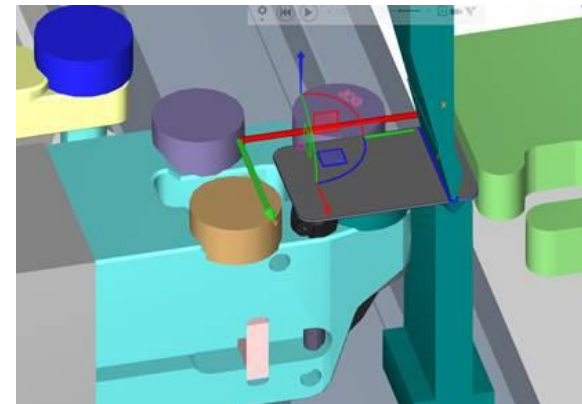
Min size of base flange :  $80 \times 80 + \text{die width}/2$

Gripping with 2 cups

Min size of base flange :  $80 \times 35 + \text{die width}/2$

Gripping with 1 cups

Min size of base flange :  $50 \times 35 + \text{die width}/2$



# DYNA-CELL

BEND

Centring Table – Double sheet detector

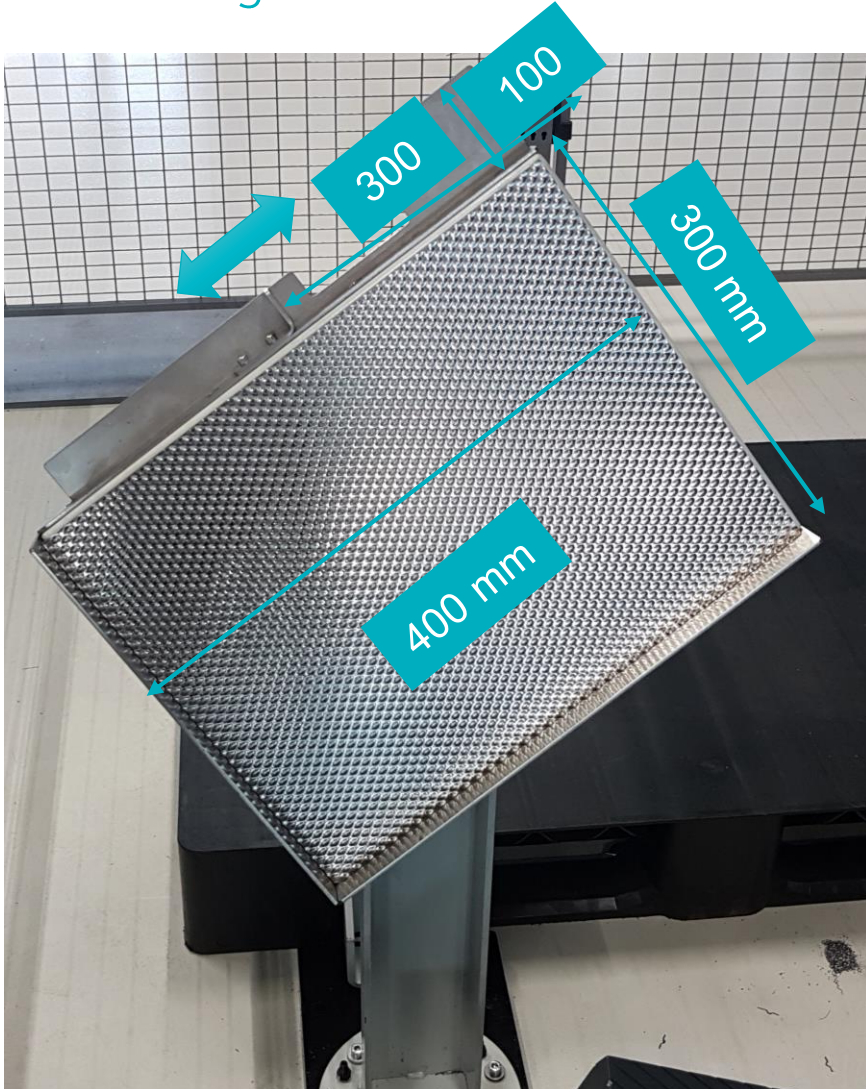
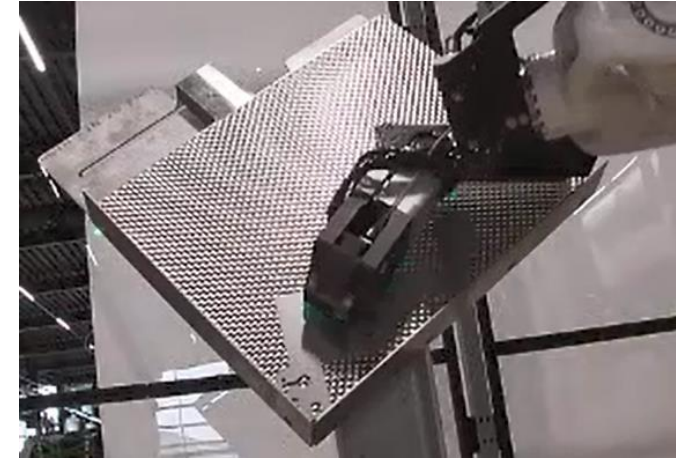


Table Size : 400x300 mm  
Upper Size : 300x100mm

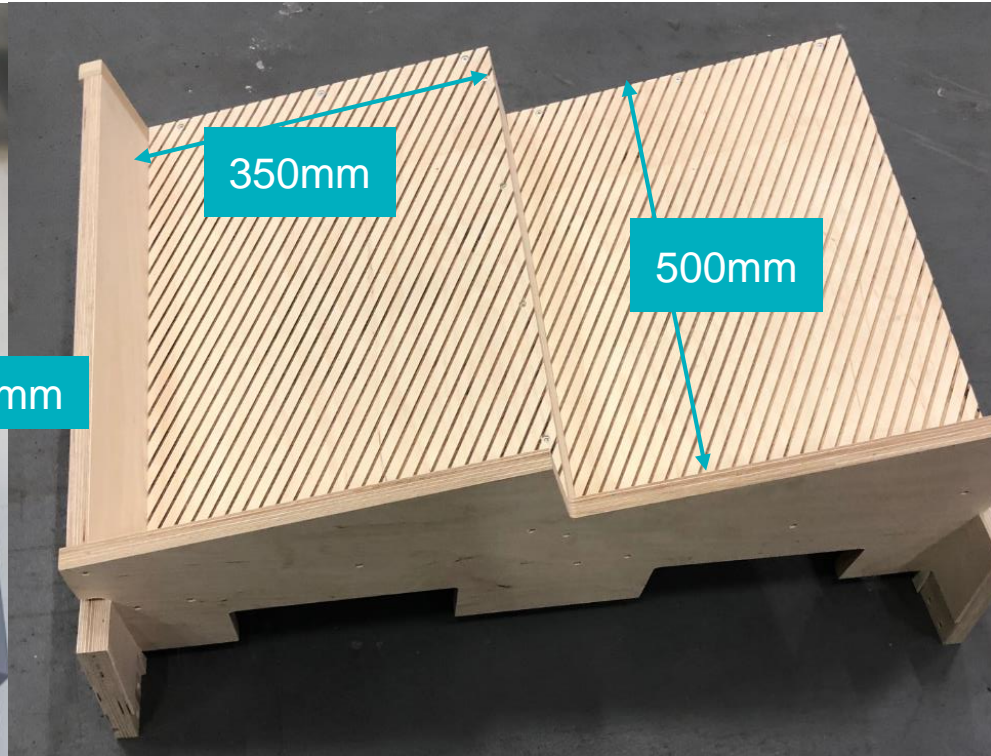
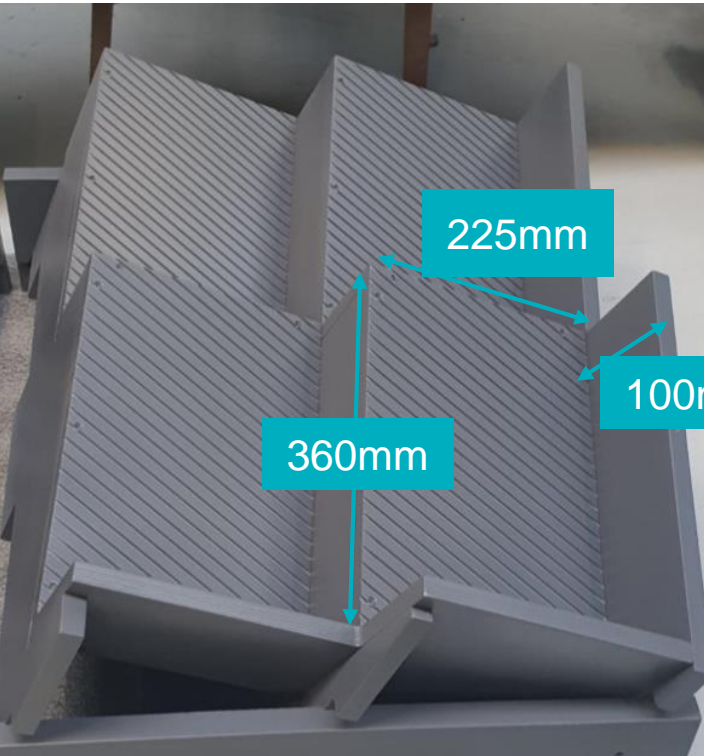
To use with vacuum cups  
Stainless steel bubble surface



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## Input Stations

BEND



Pallet 2x (350 x 500)

Pallet 4x (225 x 360)

Pallet 9x (150 x 220)



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Regrip Station

2 clamping cylinders

125 mm between cylinders

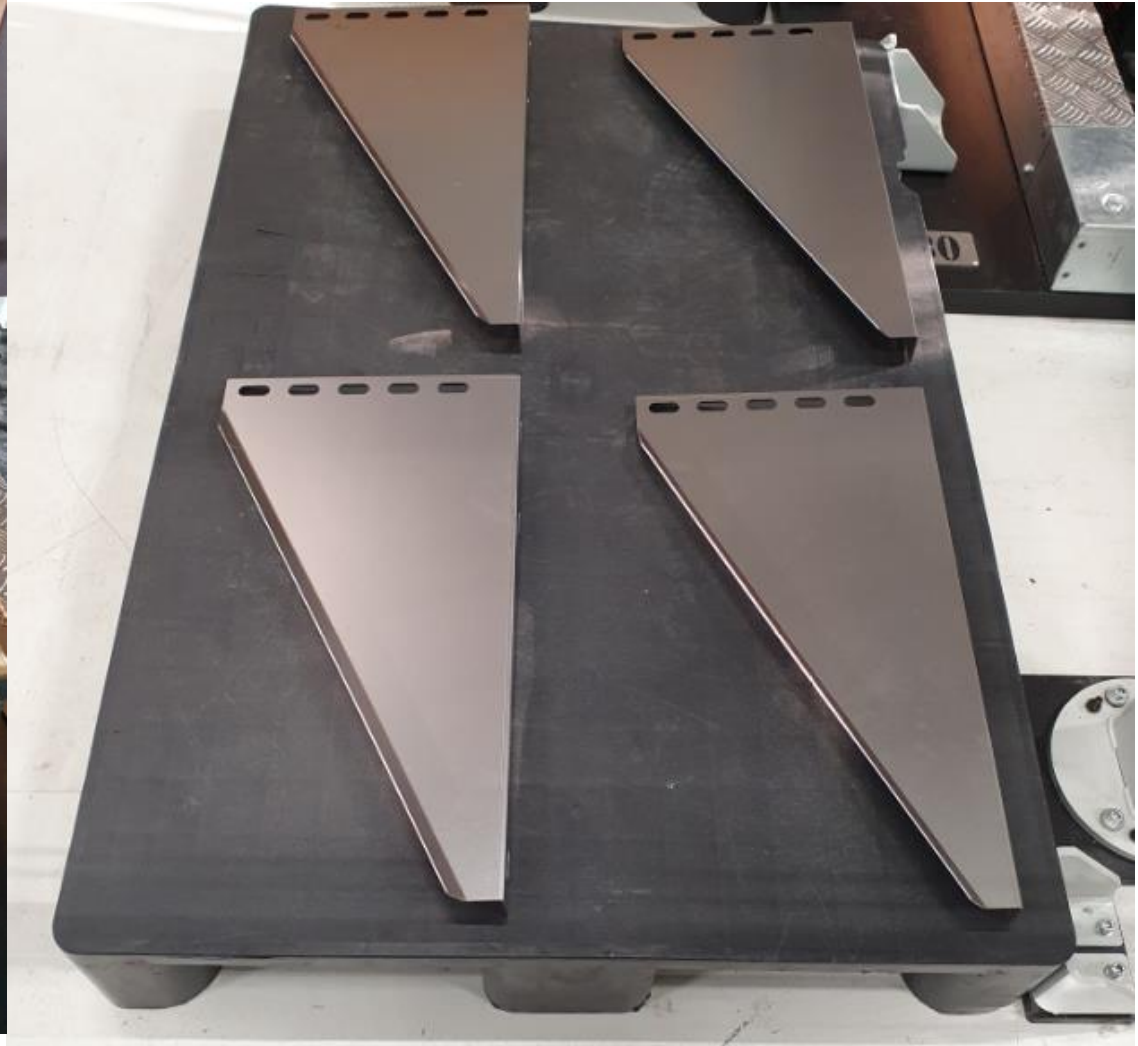


BEND

# DYNA-CELL

BEND

Output Stations



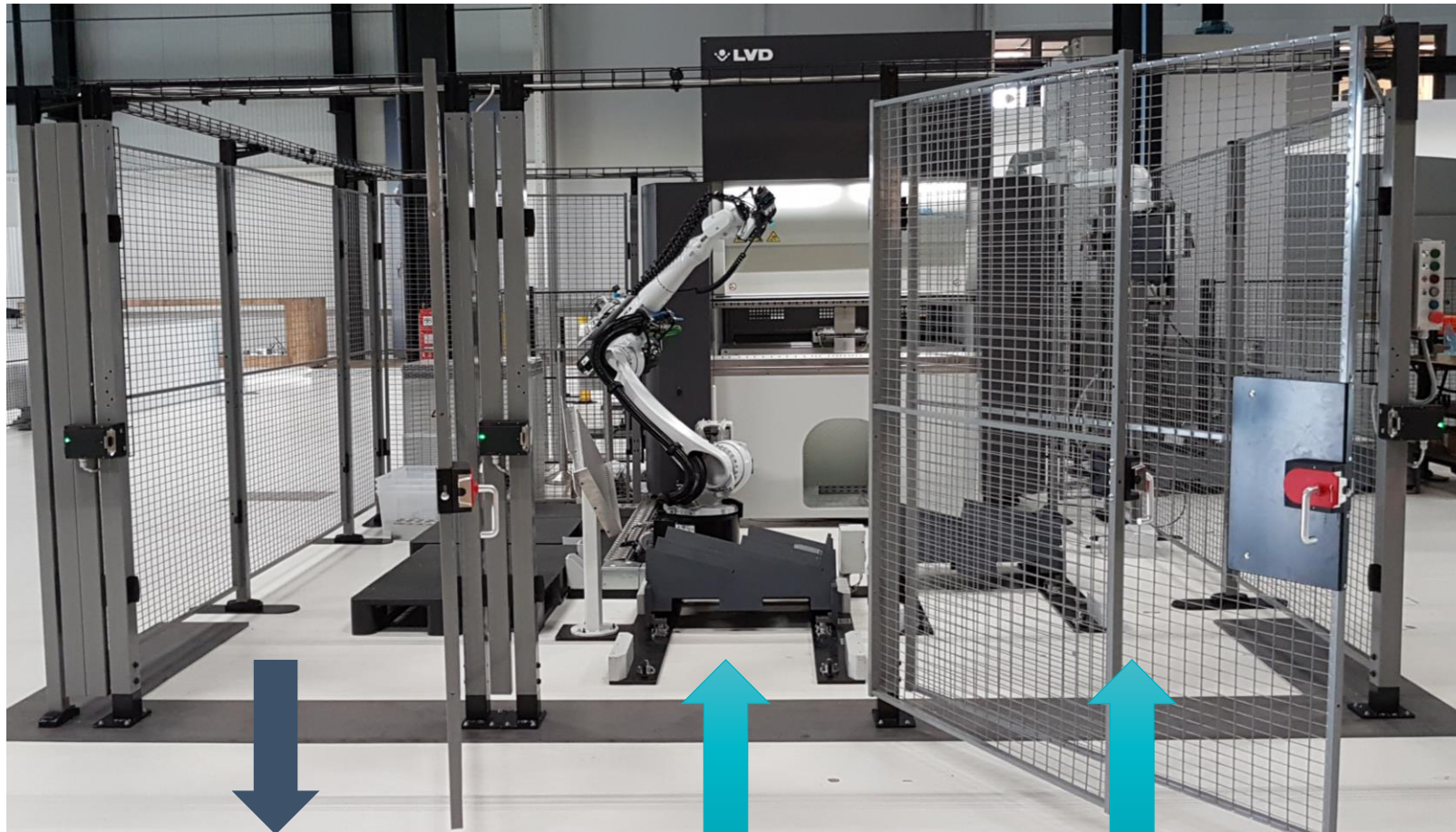
# DYNA-CELL

BEND

## FENCING

2x Entrances for input pallets

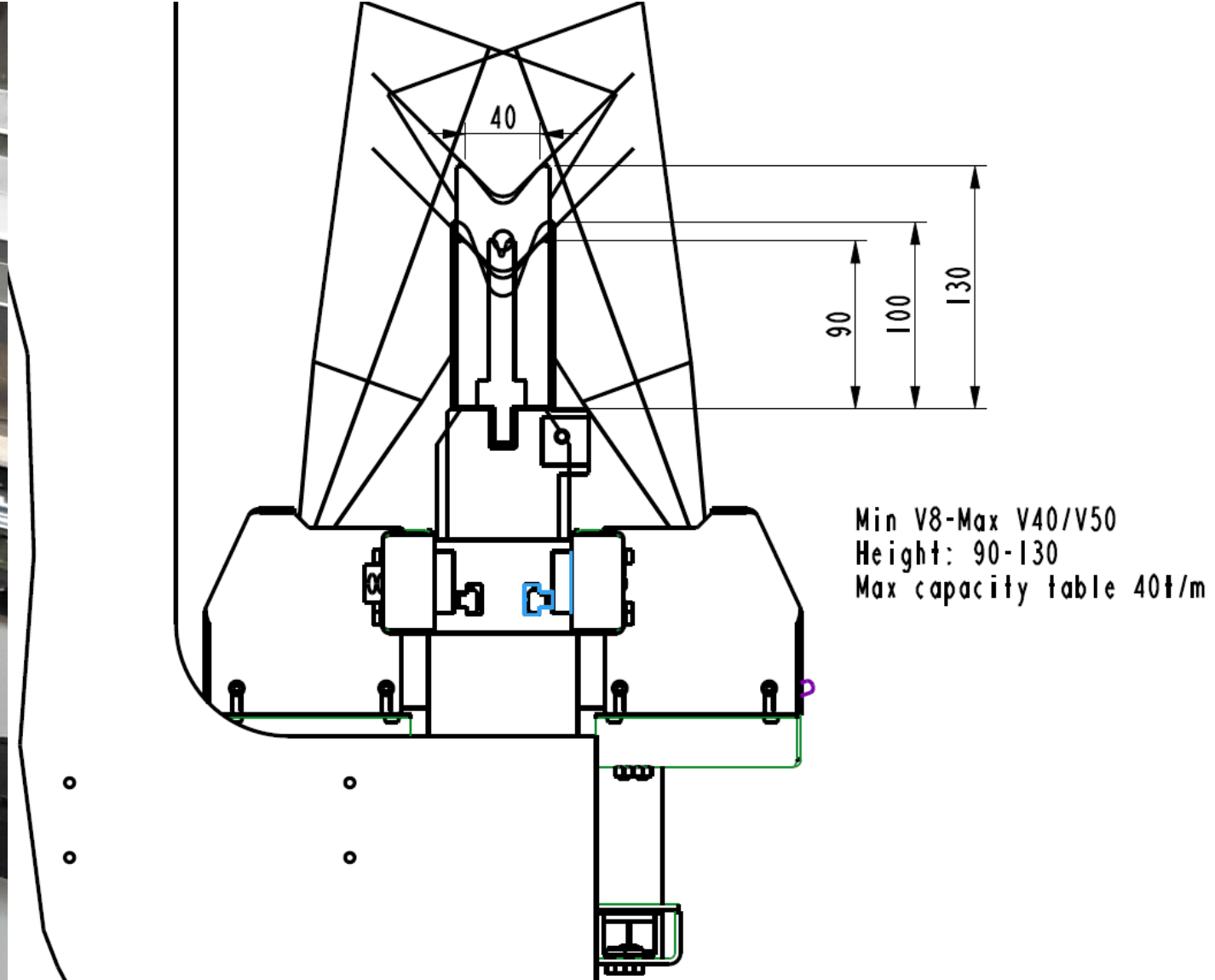
1x Entrance for output pallets or boxes



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Easy-Form Angle Measurement System

BEND

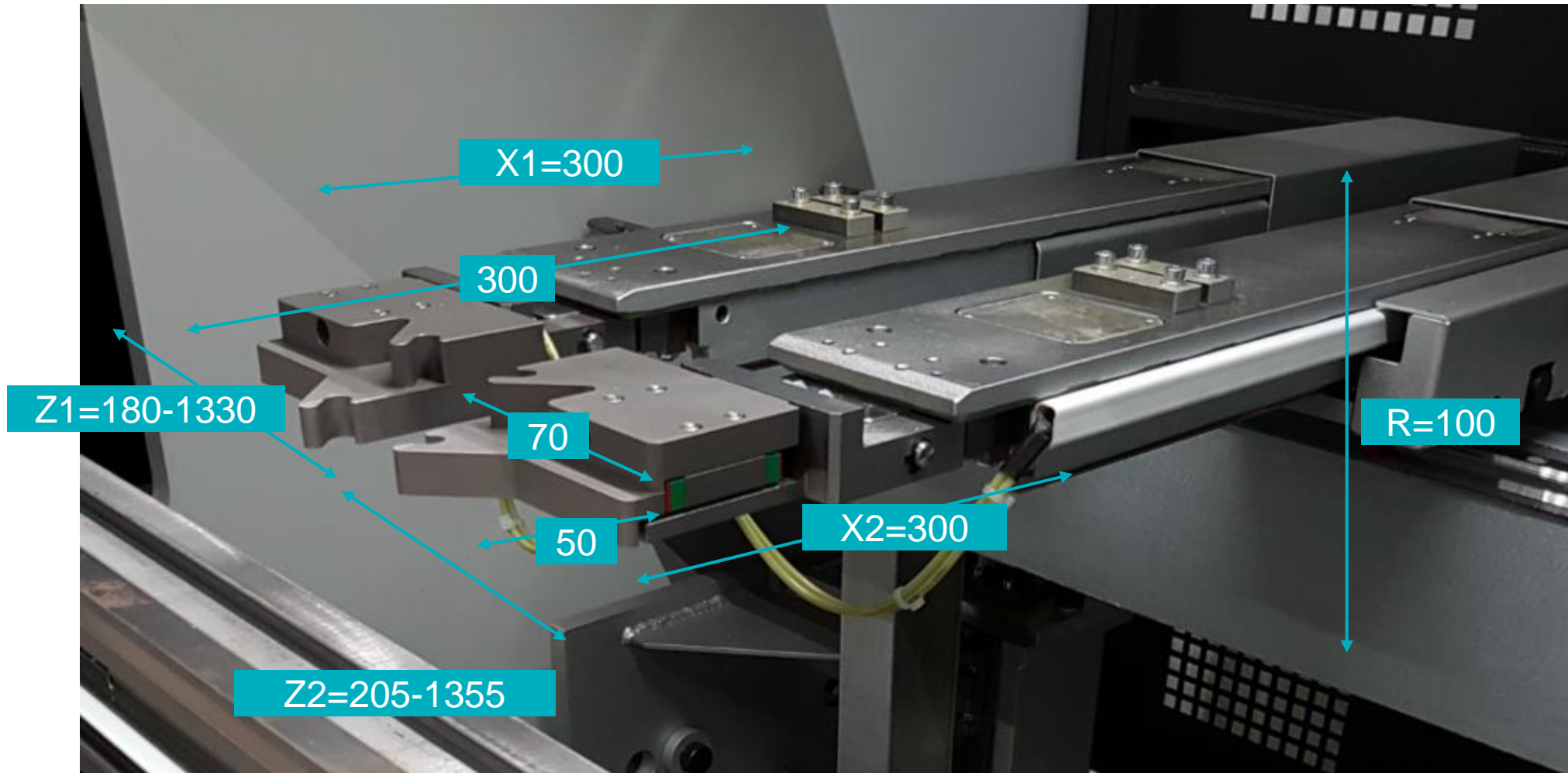




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BEND

X1 X2 Z1 Z2 R axis backgauge with contacts



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BEND

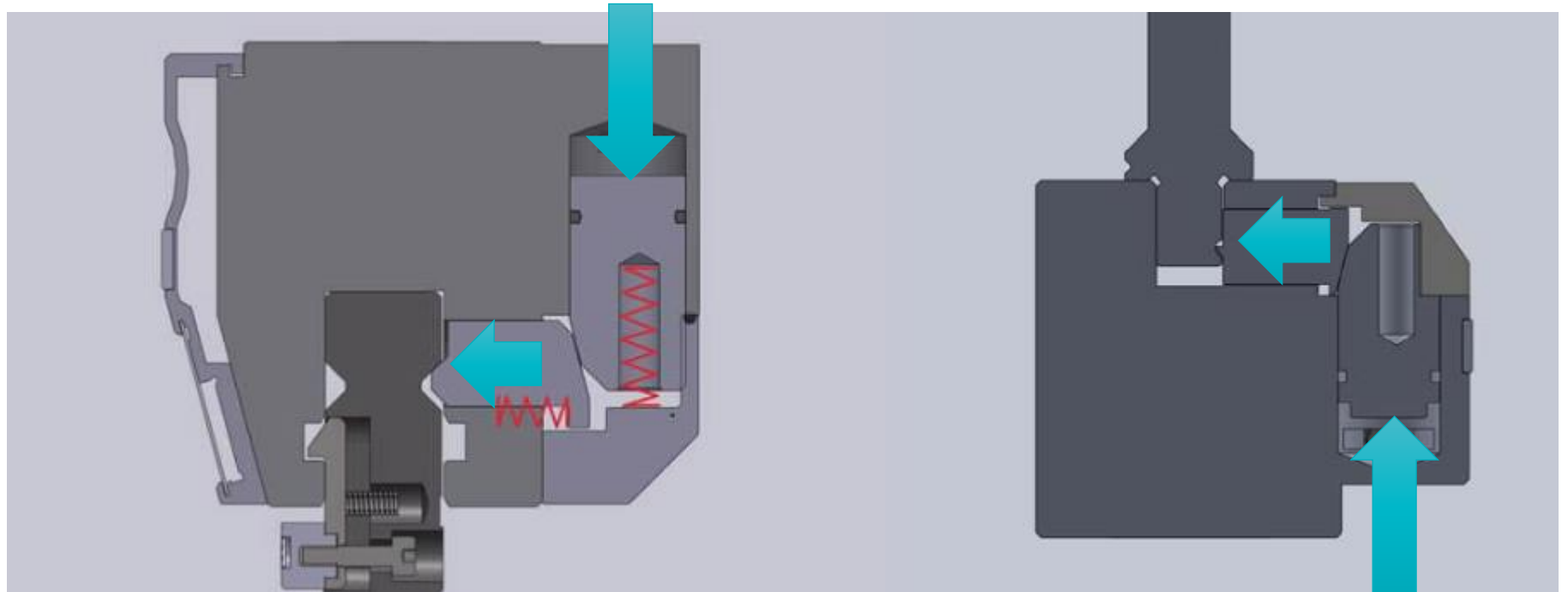
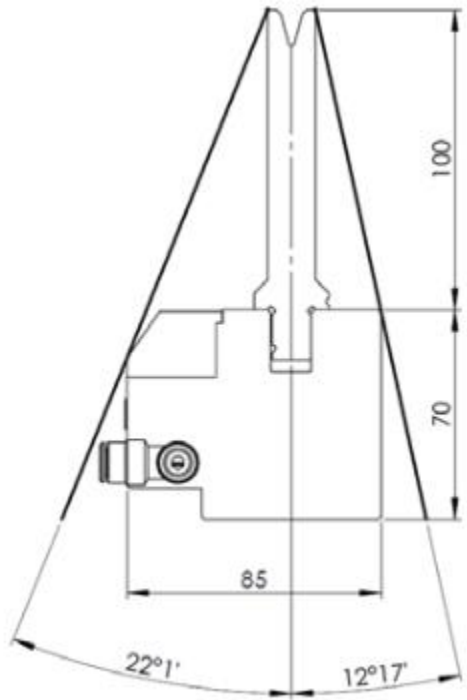
Pneumatic clamping on table and ram



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BEND

Pneumatic clamping on table and ram



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## TOUCH-B CONTROLLER

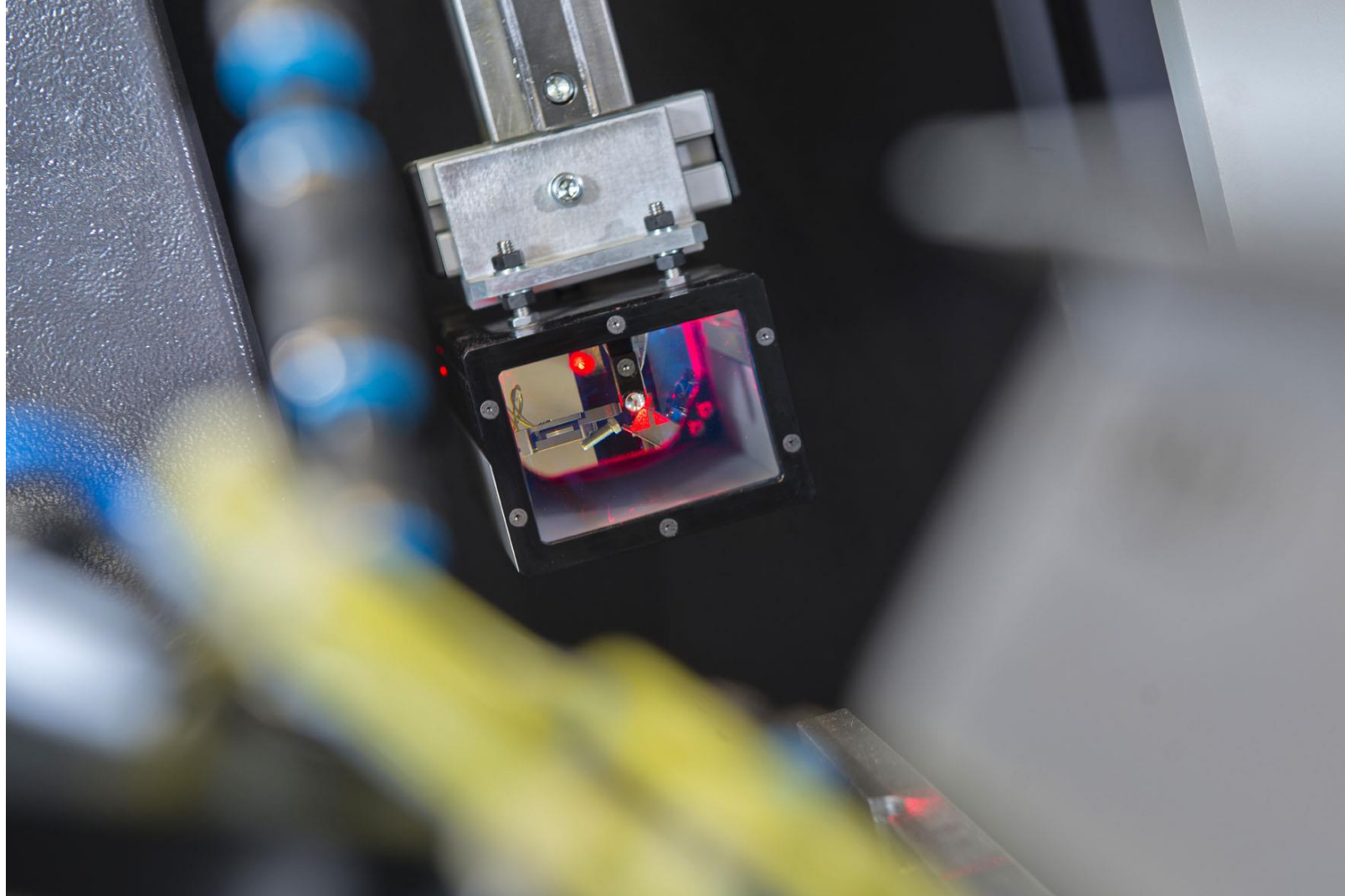
BEND



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LASERSAFE

BEND





# DYNA-CELL Programming

DYNA-CELL  
PROGRAMMING

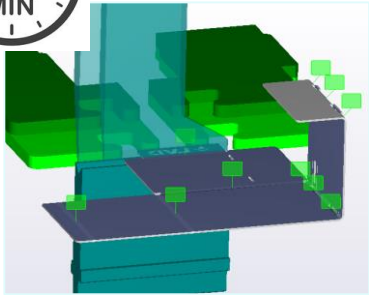


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## 10/10 RULE – PROGRAMMING SEQUENCE



2  
MIN



### Program press brake off-line with CADMAN-B

Import CAD data in LVD Bending programming system CADMAN B

Automatic Calculation of program for press brake

Export result to Robot Programming System

2  
MIN



### Bend part manually on press brake

Bend one part manually using the off-line generated program.

Check the part if it is within angle and leg distance tolerances

8  
MIN



### Program robot off-line with CADMAN-SIM

Import result in the Robot Programming System CADMAN-SIM

Automatic calculation of gripper and robot positions

Automatic calculation of collision free path

Generate program for robot and combine result with result of CADMAN B and export to press brake database.

8  
MIN



### Bend part with robot

Bend at least one part and verify the robot path and approach points.

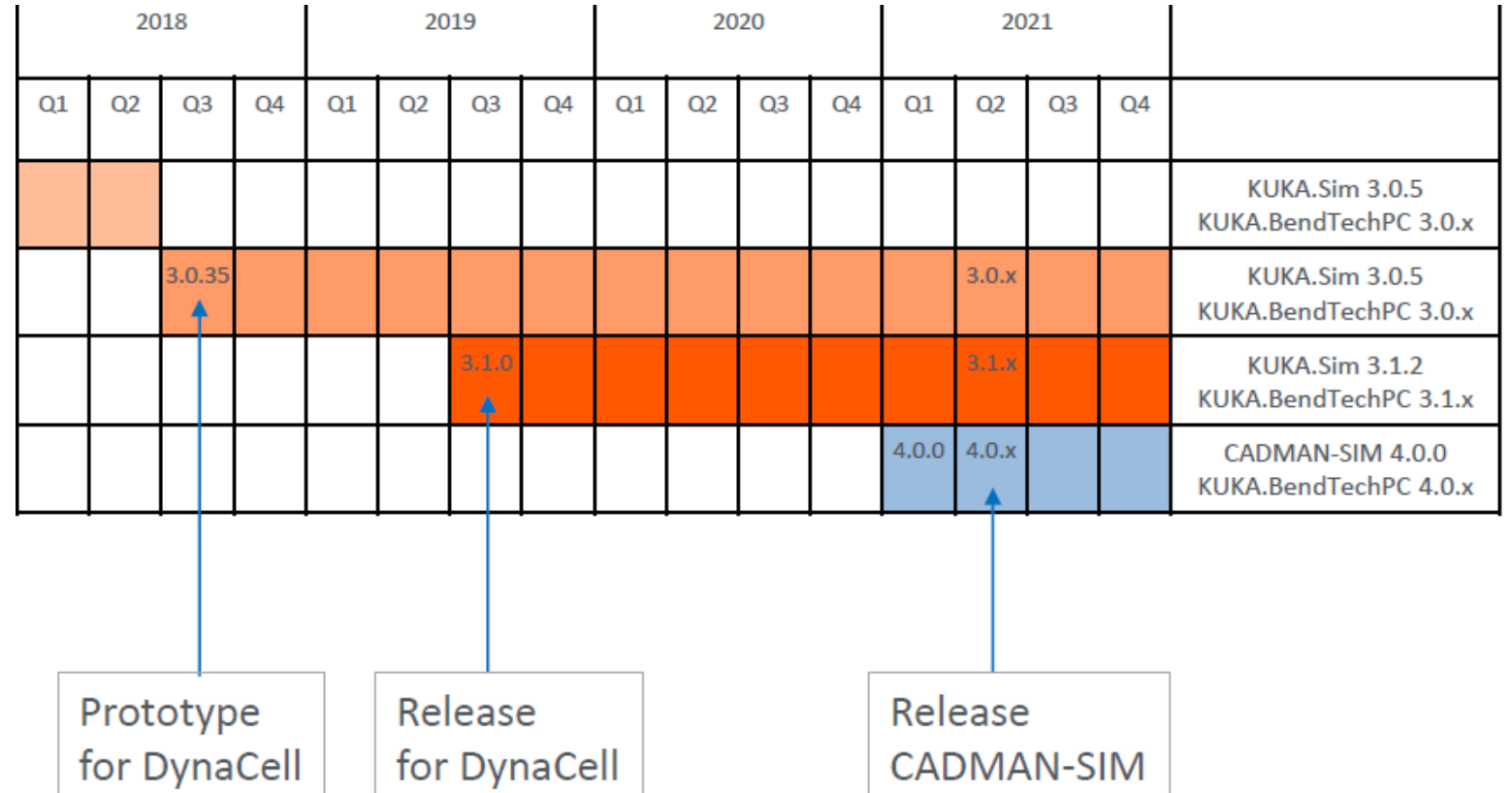
When the program is ok, start the production.

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NEW RELEASE CADMAN-SIM APRIL 2021

## CADMAN-SIM

- LVD BRANDING
- NEW IMPROVEMENTS
- READY FOR ULTI-FORM



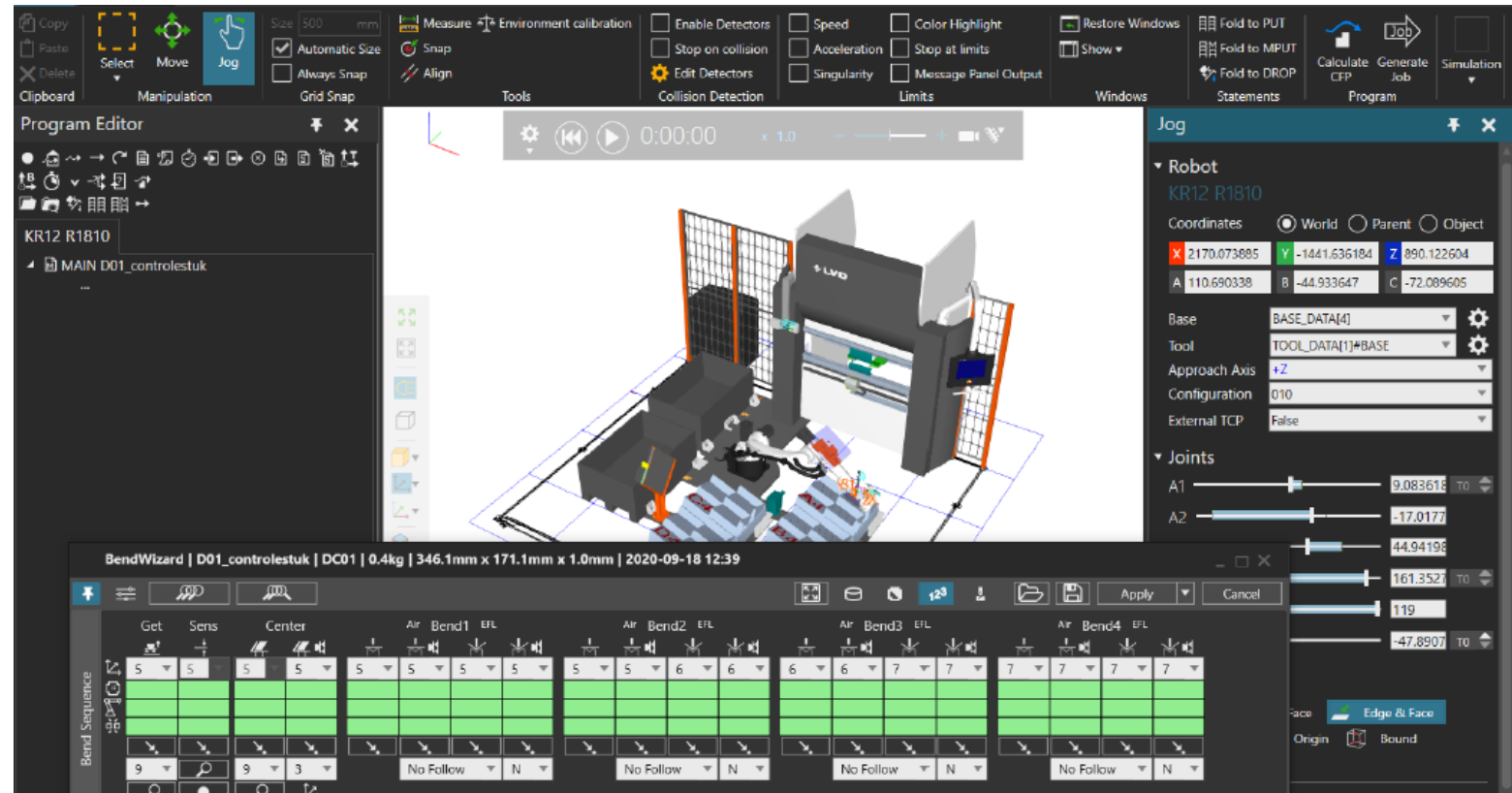


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## NEW RELEASE CADMAN-SIM IMPROVEMENTS

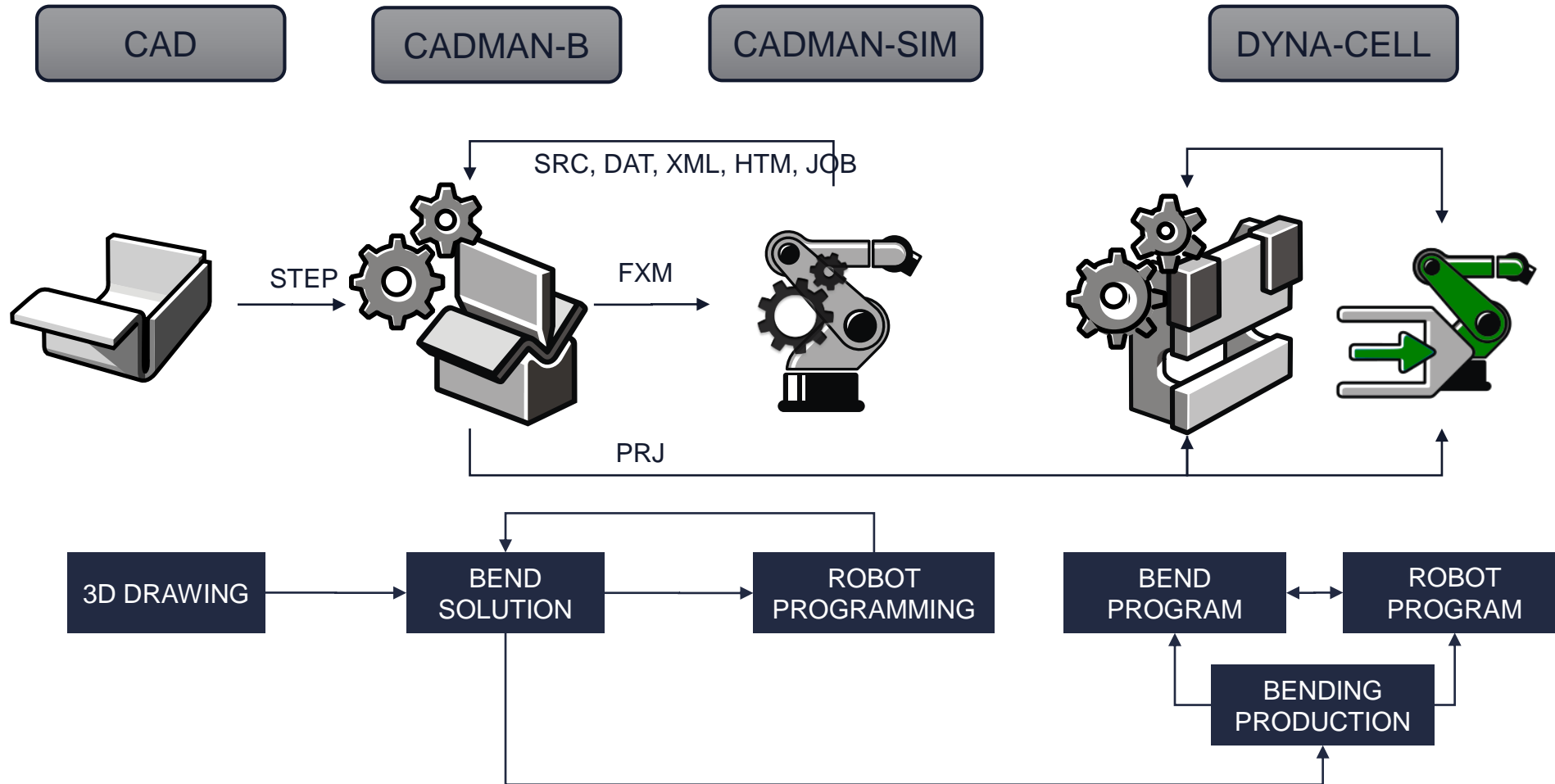
### CADMAN-SIM

- OPTIMALISATION OF ROBOT MOVEMENTS AND CYCLE TIMES
- EXTENSION OF THE DROP FUNCTION OVER 2 BOXES
- JOBLIST ON CONTROLLER FOR PARTS BEND BY THE ROBOT
- AUTOMATIC SELECTION OF INPUT PALLET RELATED TO THE PART DIMENSIONS



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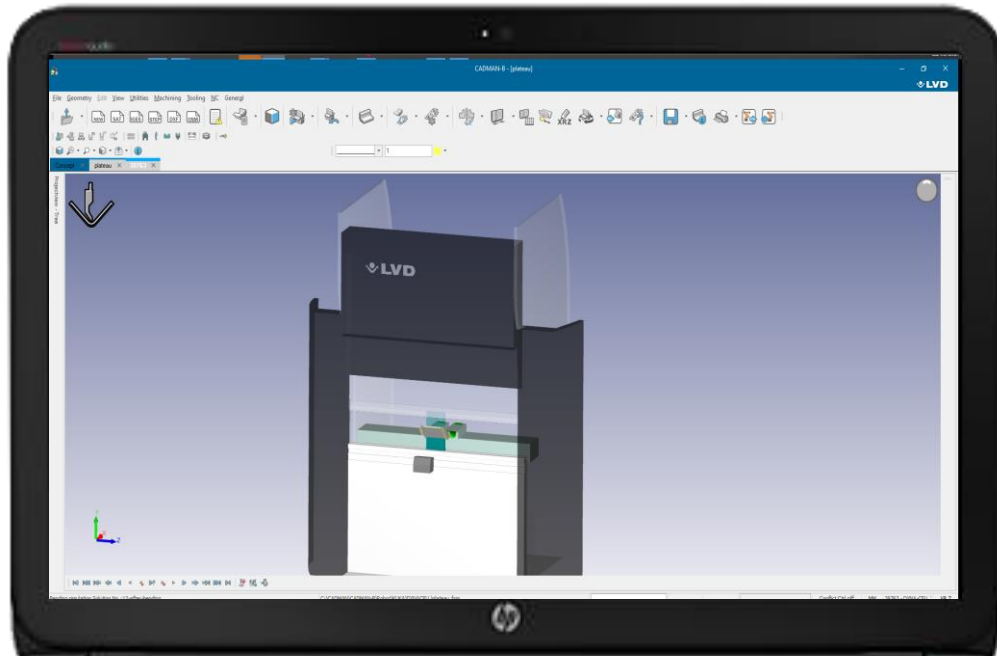
## PROGRAMMING FLOW



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## PROGRAM EXAMPLE

### CADMAN-B BEND SOLUTION



### CADMAN-SIM ROBOT SOLUTION





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INSTALLATIONS / PROJECTS



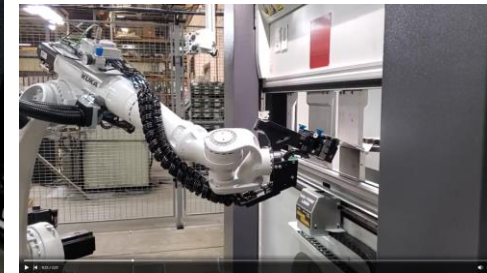
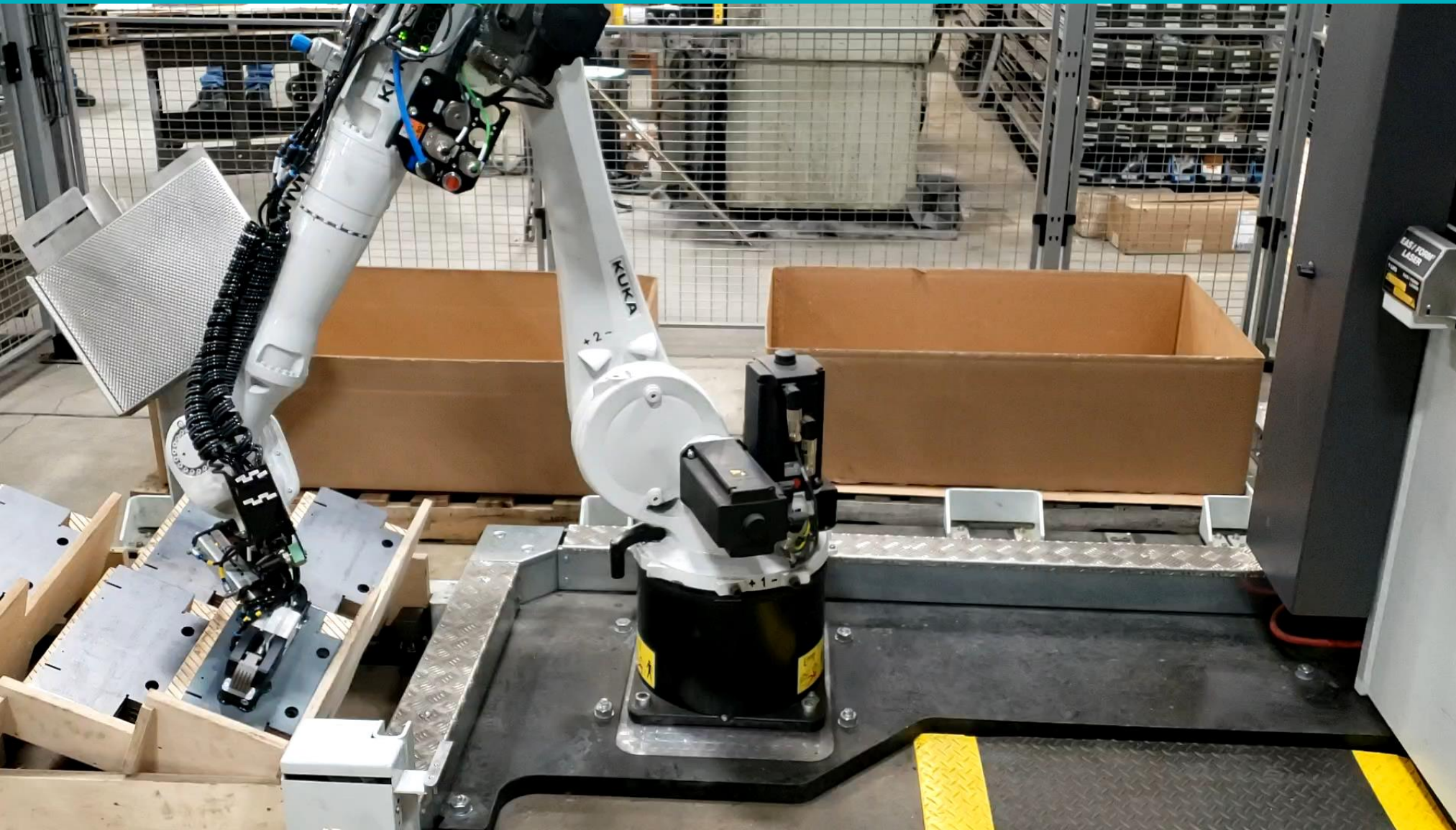
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TPSM (UK)



# DYNA-CELL

MERCER (USA)



# DYNA-CELL

SAEMT (FR)



# DYNA-CELL

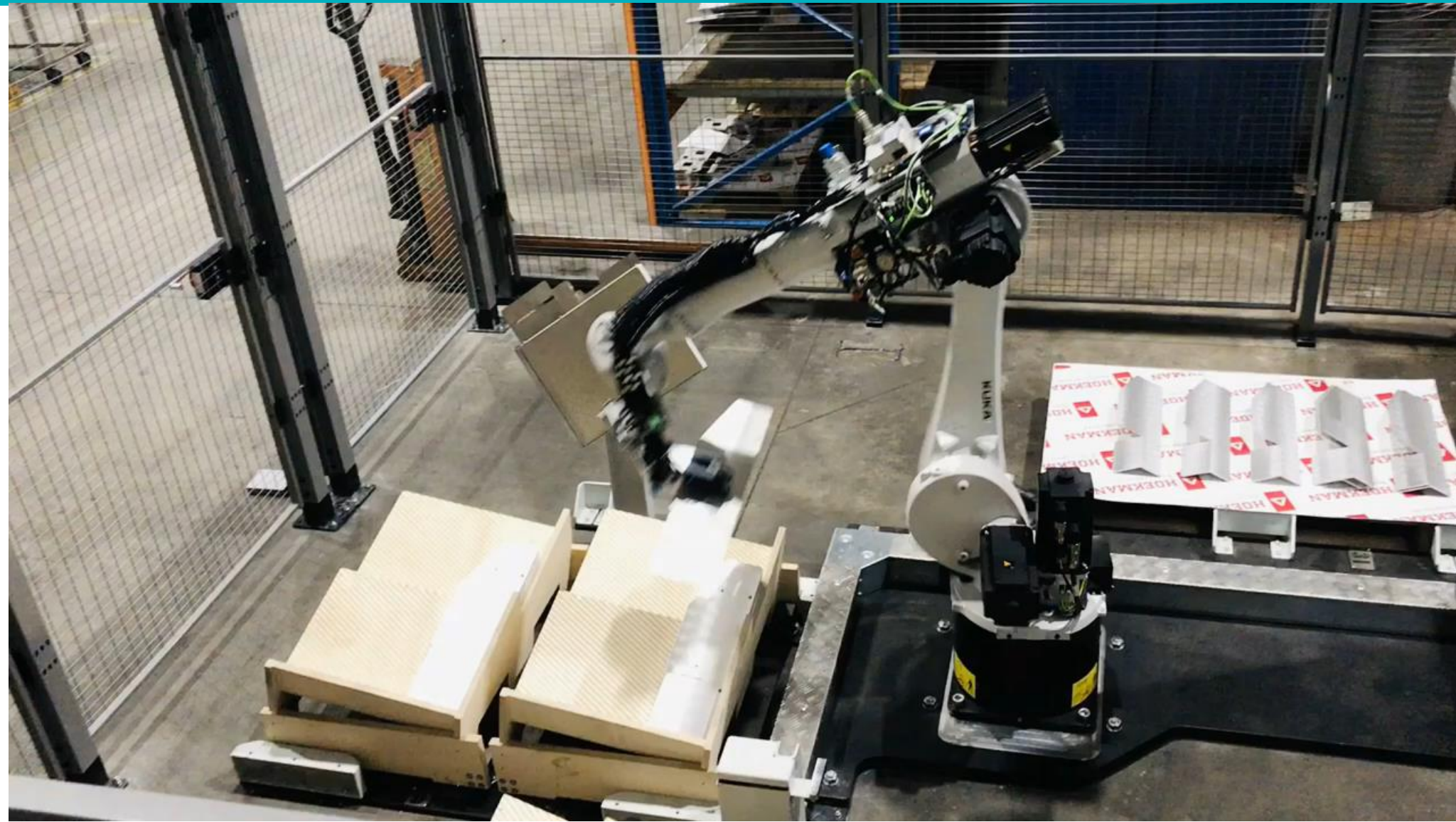
AGNP (FR)





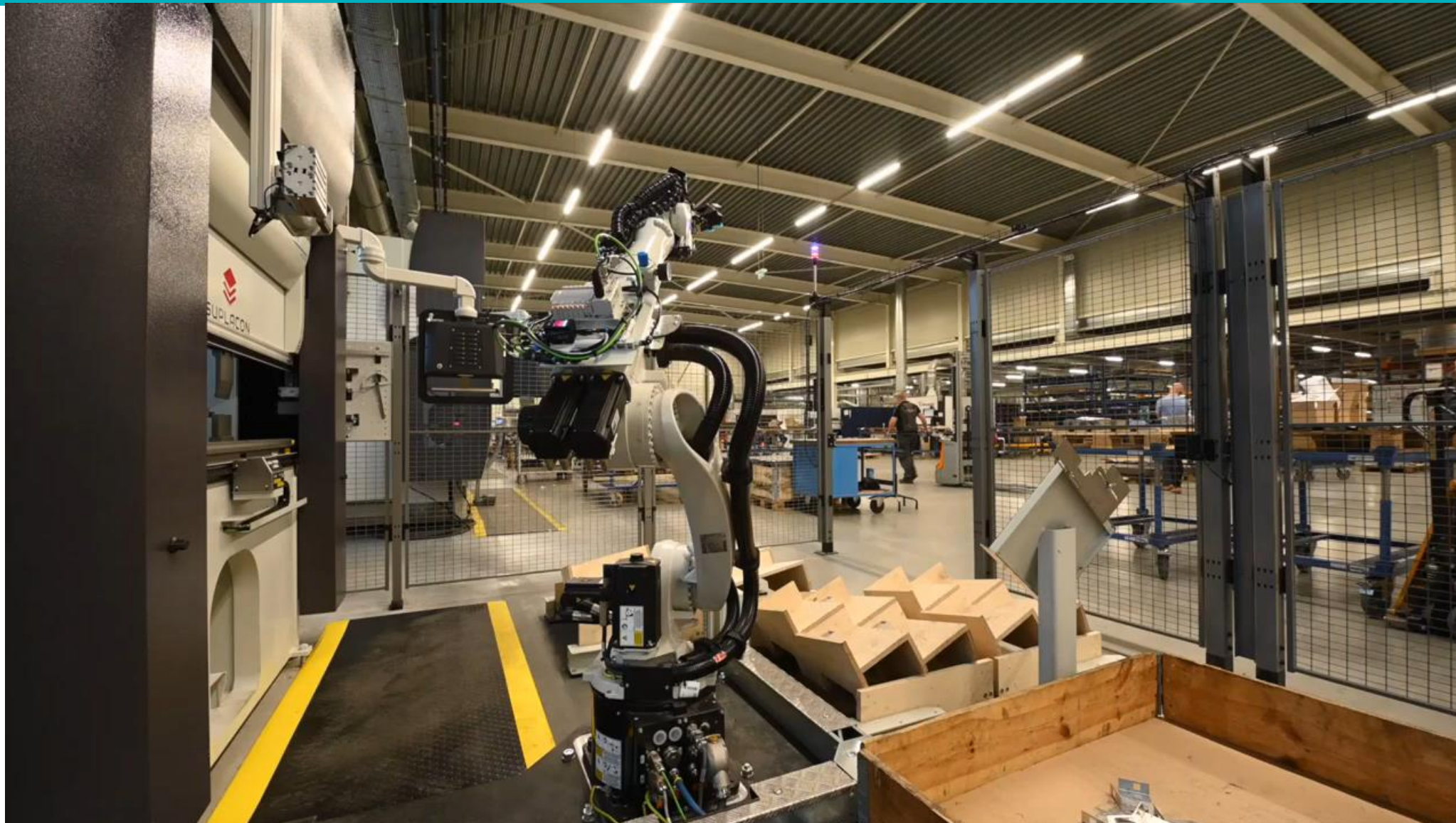
# DYNA-CELL

HOEKMAN RVS (NL)



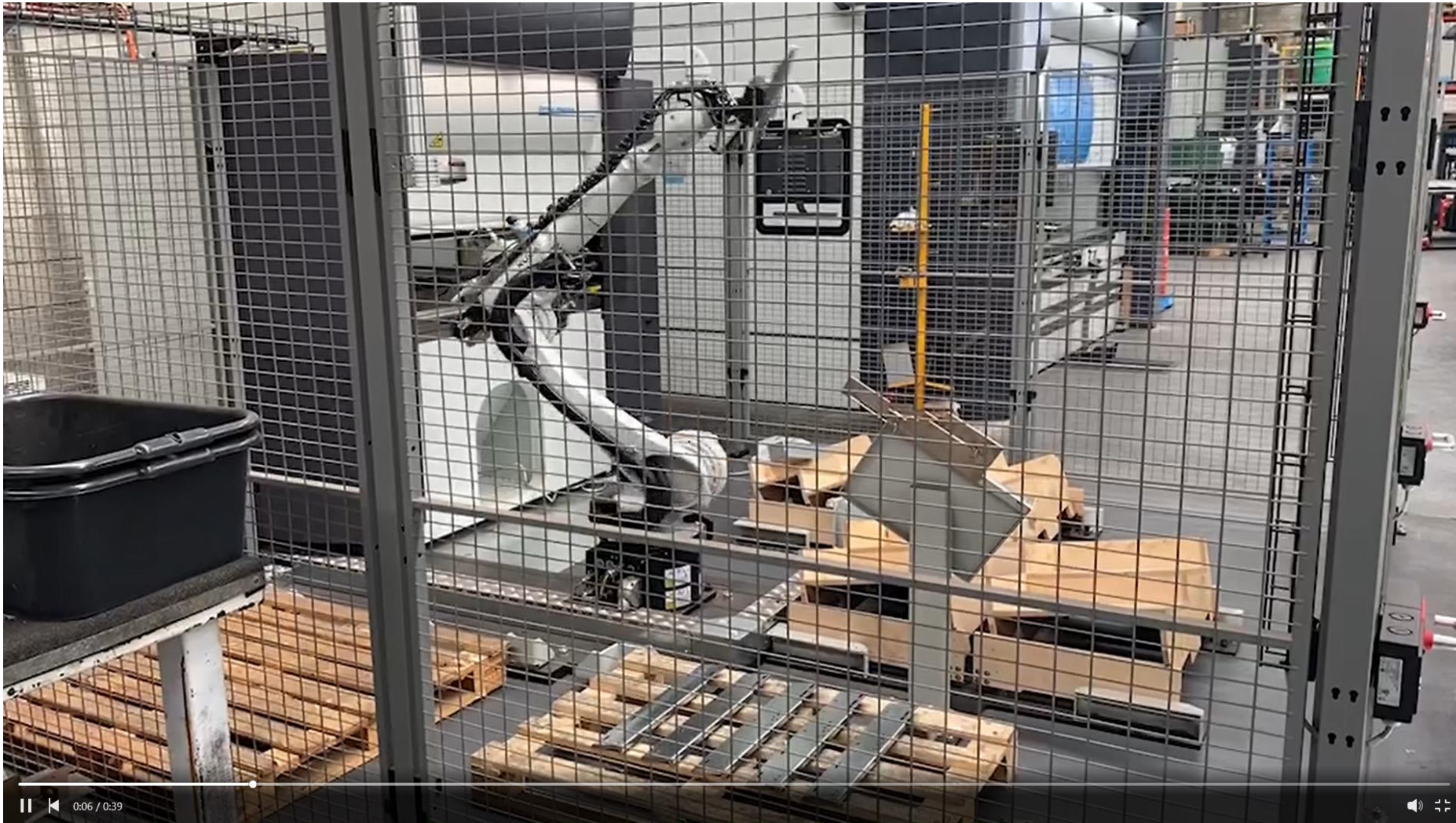
# DYNA-CELL

SUPLACON (NL)



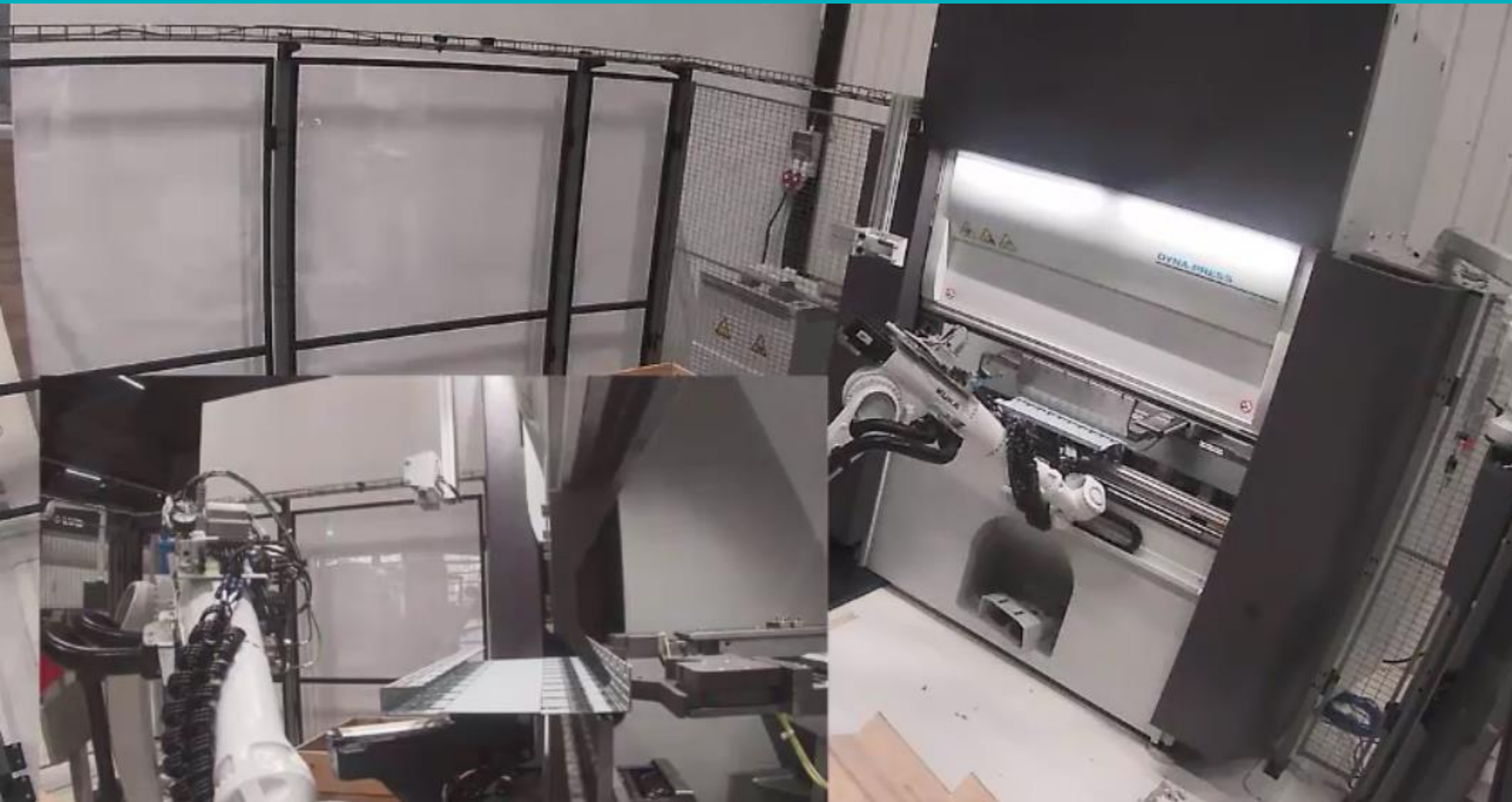
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DVR METAL INDUSTRIES (AUSTRALIA)



# DYNA-CELL

PRODUCTION OF MULTIPLE SMALL PARTS



# DYNA-CELL

PRODUCTION OF MULTIPLE SMALL PARTS

**Thank you for your attention!**