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# VERTICAL DOUBLE DISC FOR BRAKE DISC GRINDING

VDD585/30-IT2

Index Table Workdrive

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2022



More than

**130**  
MACHINES

Sold worldwide  
for cast iron disc

**COATED  
BRAKE DISC**

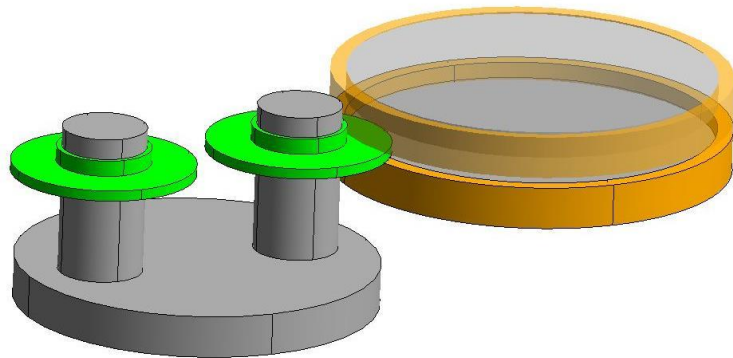
4 projects in  
development /  
testing phase

Testing machine  
**AVAILABLE**

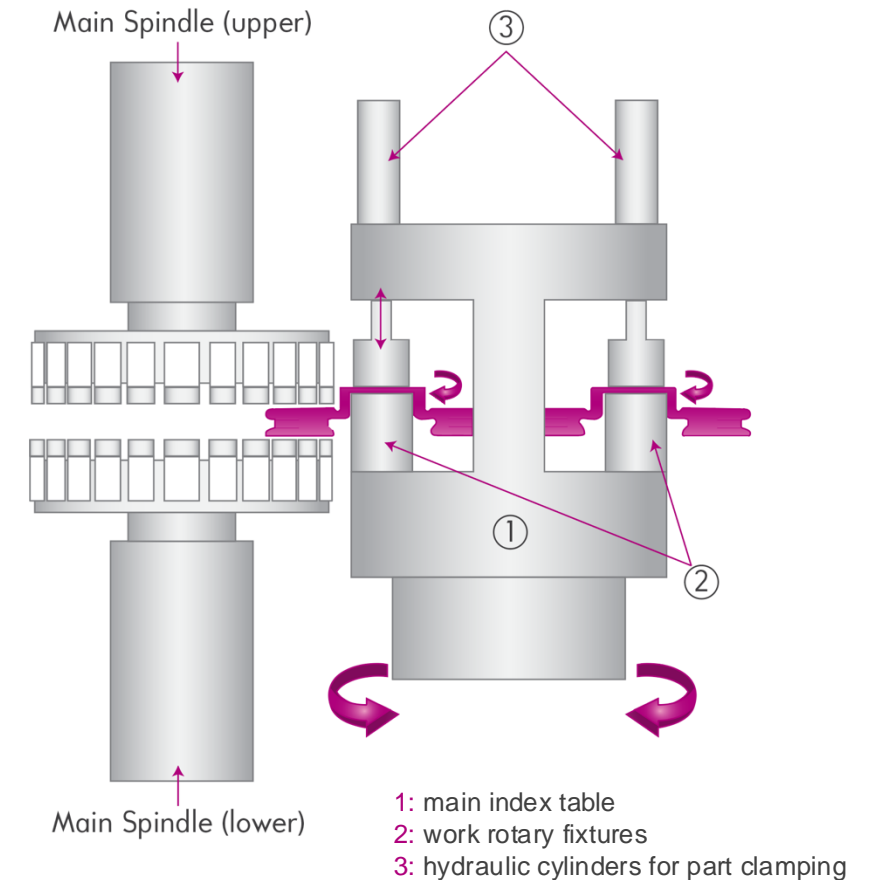
At Fives Daisho Japan and  
Fives Giustina starting in  
October 2022

Best solution when tight tolerances are required:

- Max. external diameter: 450 mm
- Squareness between bore and flat surfaces
- Parallelism (DTV)
- Productivity with 1 part / cycle
- Loading / unloading in idle time

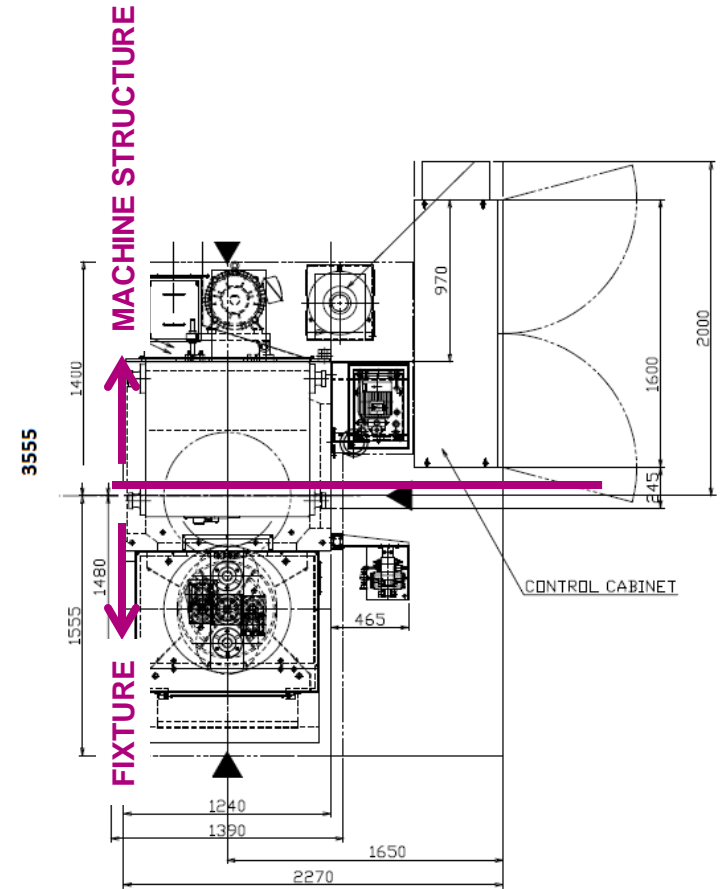
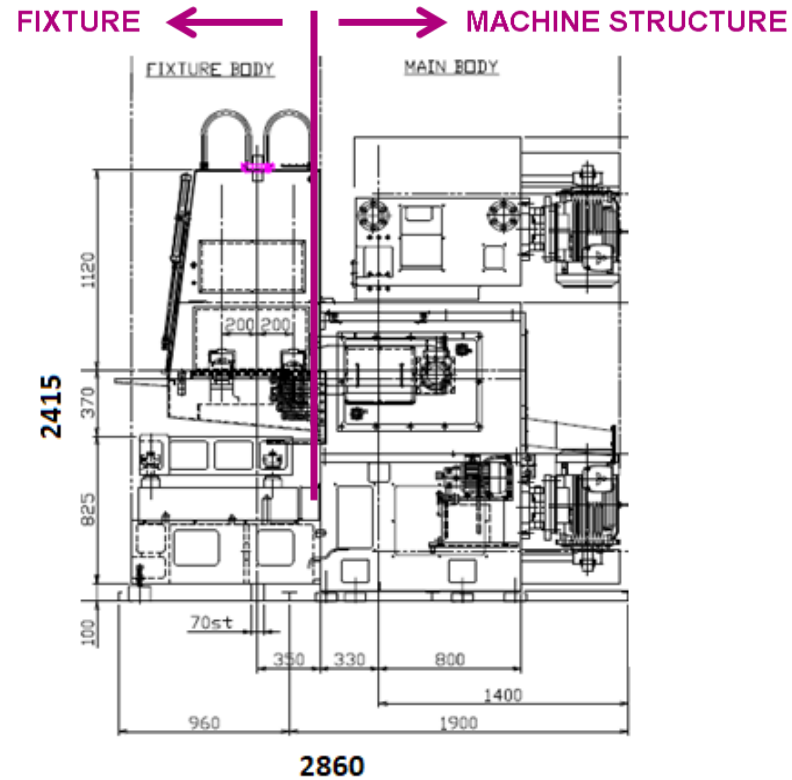


## HYDRAULIC CYLINDER



## Modular, compact and precise

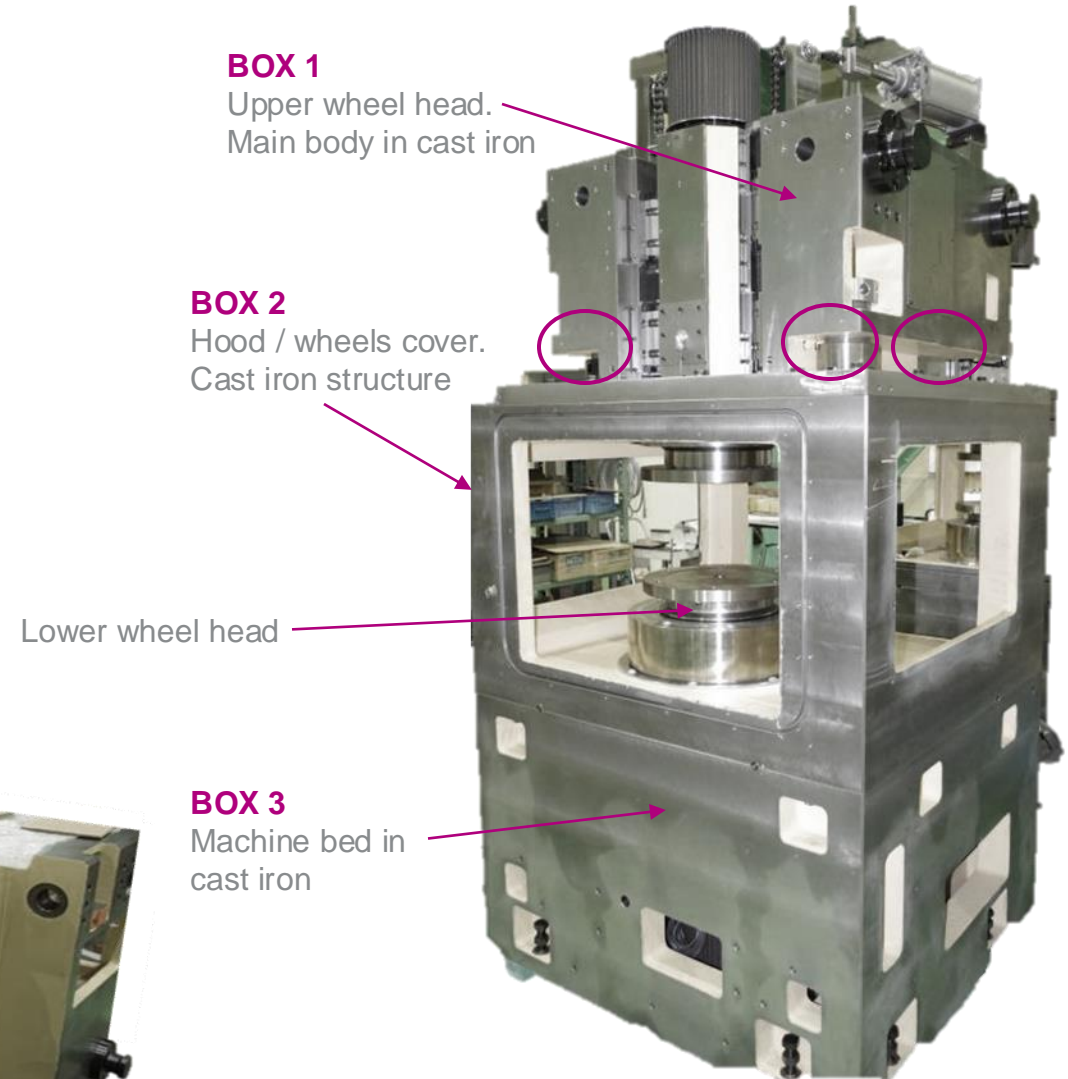
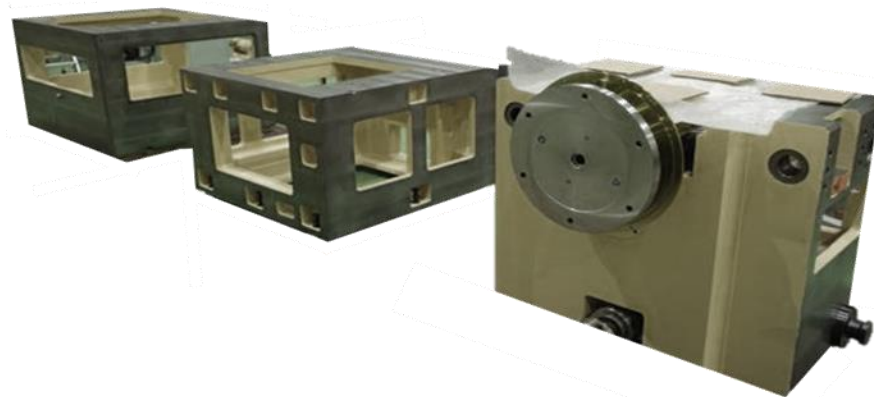
- Compact design
- Modular design: the bed is applied to a standard well proven base machine
- Tight tolerances achievable due to part rotating between the wheels
- Easy to load / unload parts





## Three block box structure (cast iron)

- High stiffness
- Tilting mechanism of the upper wheel head based upon three points of calibration
- Robust design to guarantee long-term stability of the machine even during heavy duty usage



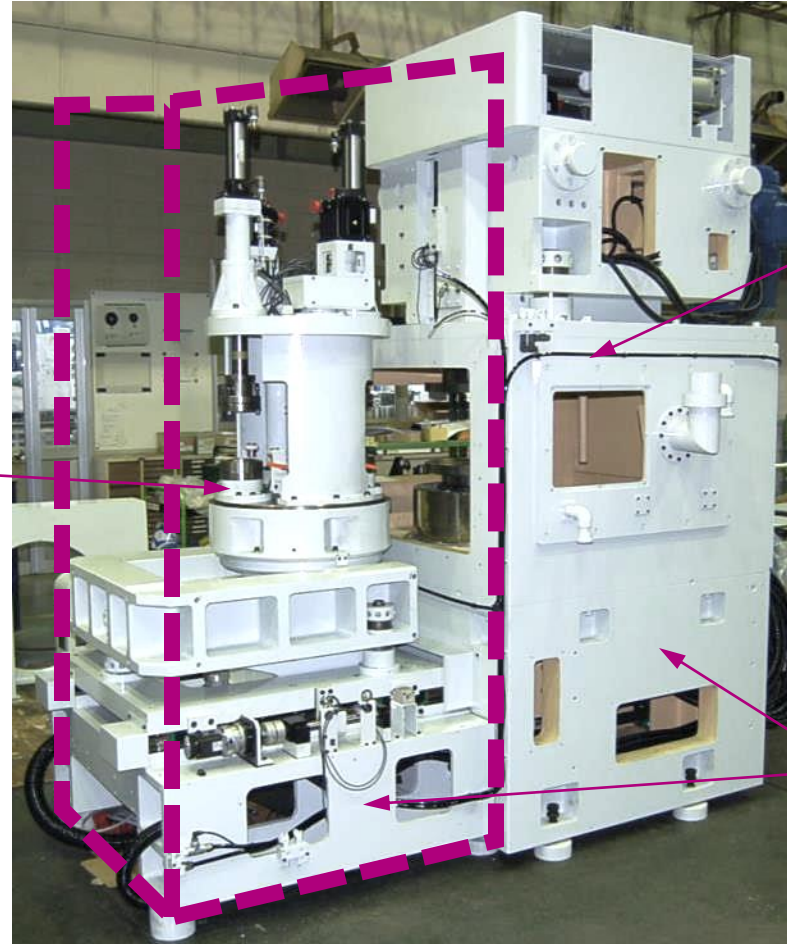
## Two wheel heads (BOX 3) including:

- Two wheel spindles mounted on a linear slide bearing. The main spindle is manufactured with solid type forged steel to bear heavy grinding operations
- Spindles weight balancing system through chain and cylinders
  - Smooth grinding
  - Ball screw has a longer life
- Belts to transmit the rotation to the spindles
- Spindles and transmission for the wheels rotation are separated
- Spindles are rotated through pulleys
- Low power of the wheels rotation motors thanks to the pulley's ratio:
  - Lower power consumption
  - Max. torque at disposal
  - Cost effective maintenance
- Both wheel spindles are fed with servo motors through high precision ball screws and optical scale if requested



## Productivity

- One part ground at time
- Loading / unloading in idle time



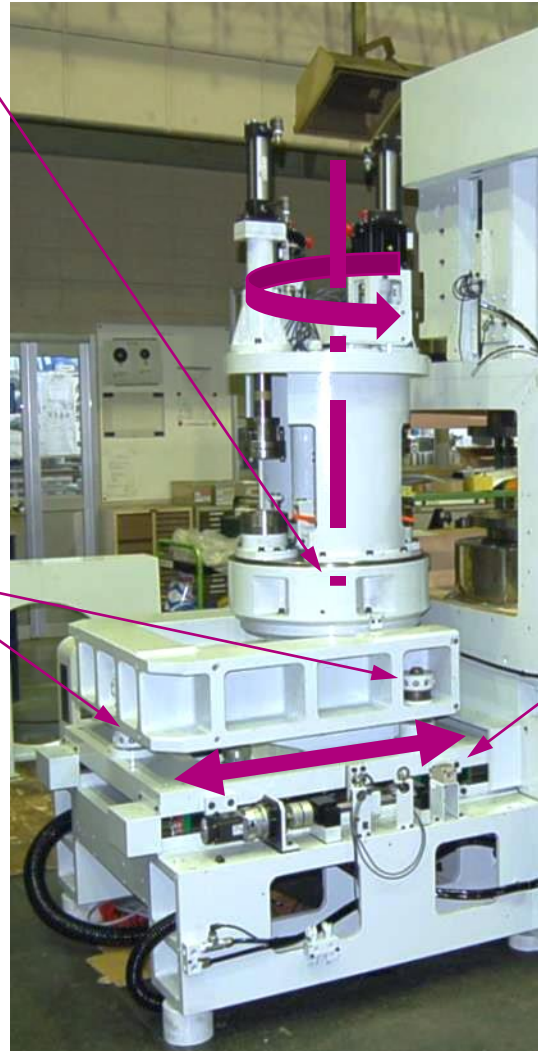
## Modularity

- Standard vertical double disc machine

## Reliability

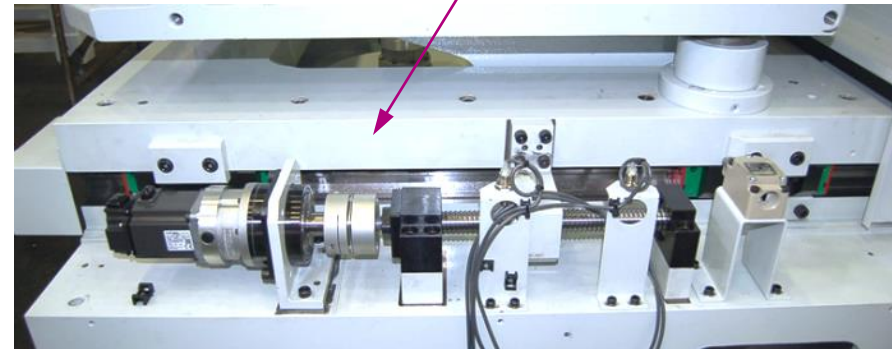
- Cast iron box beds with thick walls and ribless design for best stiffness, damping and thermal stability

Rotating table with CNC for best control of speed and movement



Three point of setting

Infeed table with CNC axis and encoder for best control of speed and movement





## Top quality

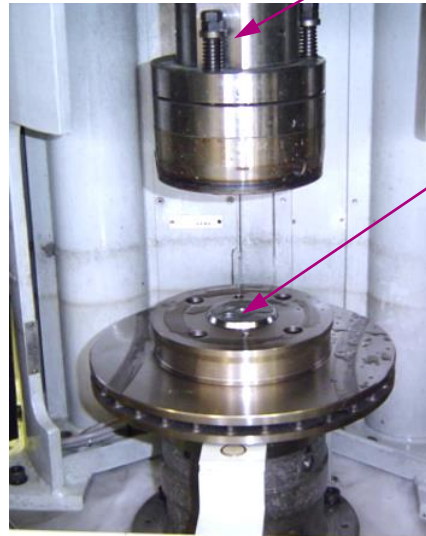
The fixture is composed of:

- Main index table
- Two-part rotating stations with clamping systems (one between the wheels and the other in the loading / unloading area)

Quality is assured by rigid clamping on datum points / part face and fixture alignment with wheels

## Part clamping

- Dedicated jig datum

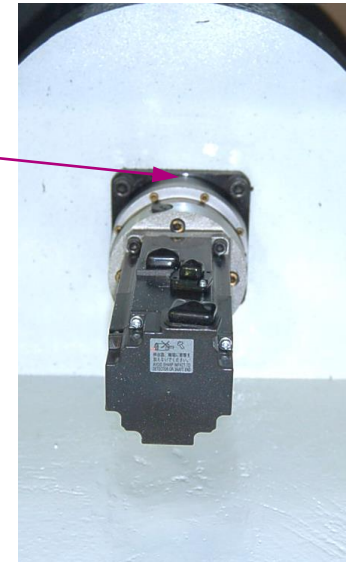


## Clamping

- Part clamping by hydraulic cylinder

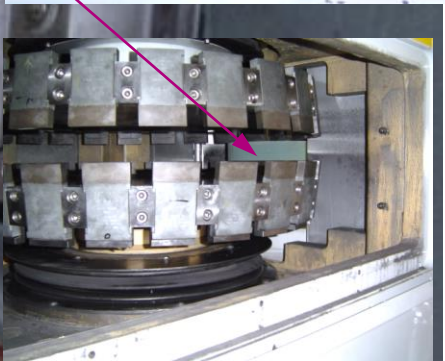
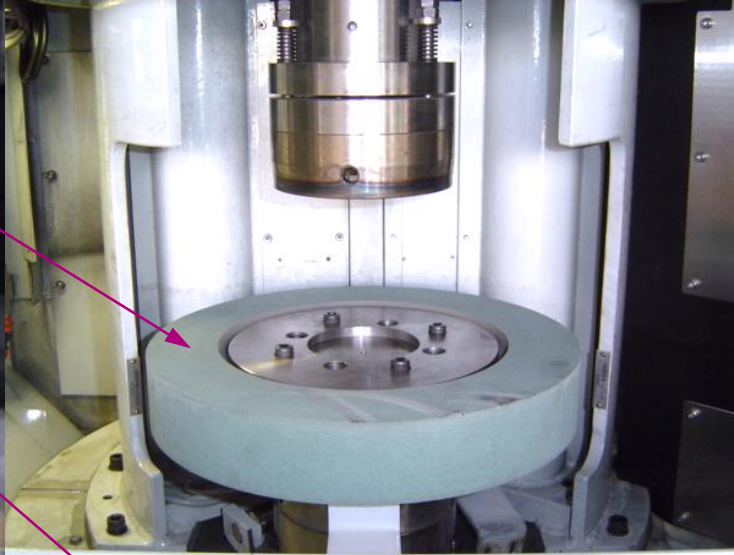
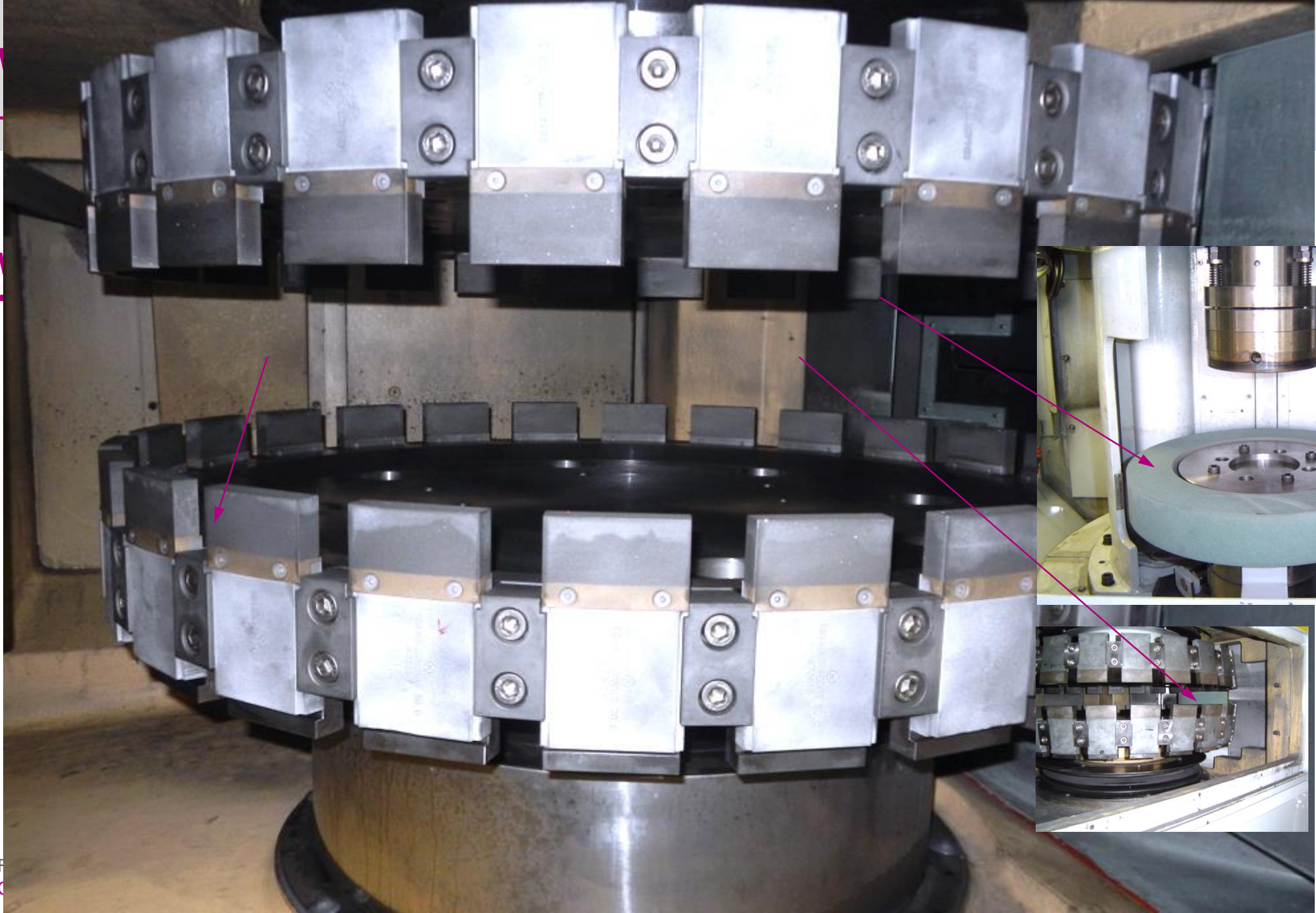
## Work drive

- Part rotation driven by CNC





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### Gantry loader solution





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