

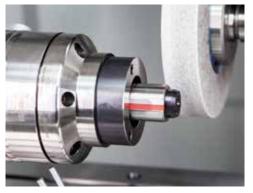
Clamping solutions »Gearing up for Precision«













#### The gear industry's go-to source for gear workholding

The grinding and gear cutting industry imposes the highest requirements on the accuracy of clamping devices. For example, the machining of gears is a complex process; top priority is placed on the right technology and manufacturing method. In this regard, all integrated components must meet the highest degree of precision. We adapt our clamping solutions to your materials. Consideration of the interference contour plays a major role here. Whether for transmission, drives or all other components in the automotive industry – HAINBUCH develops and manufactures clamping systems that guarantee economical and process-reliable machining.

#### HAINBUCH – the specialists in clamping devices

- Over 60 years of experience in workholding technology
- More than 150 patents creativity is part of our corporate philosophy
- Experts in the area of vulcanization; the combination of steel and rubber
- In-house production of composite components with mineral cast and carbon fiber reinforced plastic [CFRP]
- Quick change-over systems for reduced set-up times
- Years of experience engineering projects within the gear industry

### Our expertise shines through

With HAINBUCH solutions many customers produce in a matter that is easier, faster, and more cost-effectively. Do you want to retool faster and increase profits? If so, then you have come to the right place – gear up with us and become a HAINBUCH fan! Contact us at www.hainbuch.com | sales@hainbuch.de

## GEAR TECHNOLOGY IS IN EVERYTHING

## We have a solution for every application!





Drive shaft



Spur gear



Turbine gear



Large gear



Gear

Helical gear

Planetary gear



## HAINBUCH CLAMPING SOLUTIONS



Workpiece Bevel gear

**Clamping task** O.D. clamping and axial clamping on the fly in two machining

steps on one multi-spindle automatic lathe

Machining Turning the bore and the ball surface, incl. outside diameter

# Solution: Position-compensating clamping lever chuck

#### Workholding technology

■ Workpiece positioning via toothed workpiece end-stop

 Floating clamping taper and convex bearing supported clamping levers ensure position-compensating outside diameter clamping

By counter-holding one center, the clamping levers can be moved away and the outer diameter of the toothing can be finished





Workpiece
Clamping task
Machining

Helical gear
O.D. clamping

Honing

Solution: TOPlus mini pull-back chuck

#### Workholding technology

- TOPlus mini chuck with full surface contact between clamping head and chuck body
- Resistant to contamination
- Minimal interference contour
- I ow mass



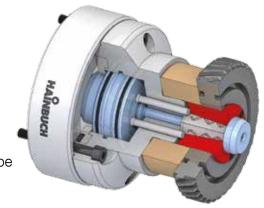


Workpiece Clamping task Machining Drive gear
I.D. clamping
Gear grinding

#### Solution: Mandrel MAXXOS

#### **Workholding technology**

- TOPlus technology for torsion-free segmented clamping bushings
- Resistant to contamination due to its hexagonal pyramid shape
- Concentric precision ≤ 0.002 mm in the premium version
- Reliable manufacturing





Workpiece Clamping task Machining Turbine gear I.D. clamping Gear grinding

#### Solution: Segmented mandrel T213

#### Workholding technology

- Large clamping and release stroke for automatic loading
- Mandrel with optimized design and a pull-back effect for increased rigidity
- Draw bolt with chamfer for easy loading
- Quick change-over interface for changing the clamping fixture in only 2 minutes



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