THAT MAKES SENSE

Clamping solutions for turning and milling operations

Overview of our main products
The HAINBUCH modular system.
FLEXIBILITY IS KEY

**Clamping device** rotating
- TOPlus chuck
- TOPlus mini chuck
- SPANNTOP chuck
- SPANNTOP mini chuck
- TOROK manual chuck

**Clamping element**
- Clamping head – O.D. clamping
  - All round clamping
  - 3 different versions:
    - For raw material, precision machining, and for in-house machining
    - An abundance of profile clamping possibilities
    - Coolant-resistant, rubber-metal connection, prevents chips in the chuck
  - Clamping range Ø 8 – 190 mm
  - Concentricity < 0.005 mm can be achieved

**Adaptation clamping device**
- MANDO Adapt mandrel – I.D. clamping
  - Quick change-over from O.D. to I.D. clamping without adjusting, due to CENTREX interface
  - Concentricity < 0.005 mm can be achieved between chuck taper and mandrel taper
  - Clamping range Ø 8 – 190 mm

**Clamping device** stationary
- MANOK plus manual stationary chuck
- HYDROK hydraulic stationary chuck

**Clamping element**
- Jaw module size 145 or 215 – jaw clamping
  - Deadlength 3-jaw clamping
  - Can be used rotating and for stationary applications
  - Change-over from clamping head or mandrel clamping to jaw clamping in less than 2 minutes

**Adaptation clamping device**
- Face driver adaption
  - Spring-loaded center
  - Hard metal face driver
  - Extremely quick change-over without disassembling the chuck [1 min.]
- Morse taper adaption
  - Adaptation possibility via morse taper
  - Assembly without adjusting [1 min.]
Clamping devices  rotating
HYDROK hydraulic stationary chuck
chuck
jaw clamping
Adaptation clamping device
Morse taper adaption
Face driver adaption
I.D. clamping
Clamping head – O.D. clamping
Morse taper adaption
Extremely quick change-over without
Hard metal face driver
Spring-loaded center
Can be used rotating and for stationary
Quick change-over from O.D. to I.D. clamping
All round clamping
Assembly without adjusting [1 min.]
Deadlength 3-jaw clamping
Clamping range Ø 8 – 190 mm
Quick change-over from O.D. to I.D. clamping without adjusting,
mmandrel clamping to jaw clamping in less than 2 minutes
Clamping range RD 4 – 160 mm
Ideal for situations with limited installation space
Better tool accessibility
Significantly reduced interference contour
Coolant-resistant, rubber-metal connection,
An abundance of profile clamping possibilities
Concentric precision < 0.015 mm possible
Ideal for situations with limited installation space
Better tool accessibility
Concentric precision < 0.015 mm possible
Concentric and eccentric machining in a single
Infinite eccentric adjustment via the C-axis
Minimal inertia losses
Sensitive manual clamping is possible
Eccentric chuck
Clamping without draw bolt, consequently
of the clamping segments
Minimizes vibration
Concentric precision < 0.010 mm possible
Concentric precision < 0.015 mm possible
Ideal for situations with limited installation space
25 % higher holding power than SPANNTOP mini
Unequalled rigidity due to full-surface contact
of the clamping segments
Absorbs vibration
Concentric precision < 0.015 mm possible
25 % higher holding power than SPANNTOP nova
Unequalled rigidity due to full-surface contact
of the clamping segments
Absorbs vibration
Concentric precision < 0.015 mm possible
Typical HAINBUCH features, such as user-friendly set-up, full passage, parallel clamping, optimal power conversion, extreme rigidity and superior holding power, as well as minimal wear and tear
Concentric precision < 0.010 mm possible
**Manual chuck**

- Sensitive manual clamping is possible
- Concentric precision < 0.010 mm possible
- Minimal inertia losses

**Jaw chuck**

- Extremely fast conversion [2 min.] to I.D. clamping with the MANDO Adaptn mandrel-in-clamping-device or to O.D. clamping with the SPANNTOP Adapt chucks
- Through-bore passage bushings or end-stop bushings that can be changed from the front
- Fast jaw change with individual unlocking at high change-over accuracy and suitable for the «Reishauer» system, straight gear cutting

**Eccentric chuck**

- Infinite eccentric adjustment via the C-axis
- Concentric and eccentric machining in a single clamping set-up
- Different eccentric dimensions are possible with the same chuck and clamping head
- Minimal inertia losses

**Quick change-over system**

- Dramatic reduction in clamping device change-over times [5 minutes with a hoist]
- Change-over accuracy between machine adapter and clamping device adapter < 0.002 mm – without alignment
- Machine-overlapping utilization of clamping devices
- No loss in rigidity, in comparison with clamping devices that are bolted directly on the machine

**TOROK** [manually actuated chuck]

- Clamping elements
  - Clamping head
- Adaptations
  - Jaw module
  - Morse taper adapter

**B-Top3** [with CENTREX interface]

- Clamping elements
  - Jaws, different models
- Adaptations
  - MANDO Adapt
  - SPANNTOP Adapt [with end-stop, without through-bore]
  - SPANNTOP Adapt M [without end-stop, with through-bore]

**Eccentric chuck** [adjustable via C-axis]

- Clamping elements
  - Clamping head RD

**centroteX** [high-speed clamping device change-over]

- Adaptation examples
  - SPANNTOP nova + clamping device adapter
  - Jaw chuck B-Top3 + clamping device adapter
  - MANDO mandrel + clamping device adapter
MANDO T211 [pull-back / with draw bolt]

- Vibration dampening due to vulcanized segmented clamping bushings
- Workpiece stabilization through axial draw force applied against the workpiece end-stop
- Form-compensating, segmented clamping bushings upon request
- Clamping range Ø 20 – 200 mm
- Concentric precision <0.010 mm possible

Clamping elements
- SB segmented clamping bushing

Adaptations
- SAD segmented clamping bushing [for machining to size]

MANDO T212 [pull-back / without draw bolt]

- Vibration dampening due to vulcanized segmented clamping bushings
- Workpiece stabilization through axial draw force applied against the workpiece end-stop
- Clamping without draw bolt, consequently ideal for blind bores
- Clamping range Ø 8 – 190 mm
- Concentric precision <0.010 mm possible

Clamping elements
- SB segmented clamping bushing

Adaptations
- SAD segmented clamping bushing [for machining to size]

MANDO T812 [deadlength / without draw bolt]

- Radial clamping, no pull-back against workpiece stop – ideal for grabbing from the main spindle
- Clamping without draw bolt, consequently ideal for blind bores
- Clamping range Ø 8 – 100 mm
- Concentric precision <0.020 mm possible

Clamping elements
- SB segmented clamping bushing

Adaptations
- SAD segmented clamping bushing [for machining to size]

Quick change-over system

CENTREX [pallet system]

- Extremely high repeatability [<0.003 mm]
- The draw-in force is not transmitted to the centering, since it is separated from the draw-in mechanism
- Absolute zero point, self-centering even under thermal expansion
- Extremely rigid due to flat contact of base plate and pallet

CENTREX pallet system
**MANOK** [manual stationary chuck]

- Sensitive manual clamping is possible
- Ideal for 5-side machining
- Repeatability <0.010 mm

**Clamping elements**

- Clamping head RD

**MANOK plus** [manual stationary chuck with adaptation possibilities]

- Sensitive manual clamping is possible
- Workpiece stabilization through axial draw force applied against the workpiece end-stop
- Short and stable clamping
- Ideal for 5-side machining
- Repeatability <0.010 mm

**Clamping elements**

- Clamping head SE
- MANDO Adapt
- Jaw module

**HYDROK** [hydraulic stationary chuck with adaptation possibilities]

- Ideal for automated clamping
- Outer contour: angular contour allows lower space requirement
- Repeatability <0.010 mm

**Clamping elements**

- Clamping head SE
- MANDO Adapt
- Jaw module

**ms/hs dock** [actuation unit for stationary mandrel clamping]

- Mandrels can be used on the machining center
- Ideal for 5-side machining
- Clamping range Ø 8 – 200 mm
- Play-free centering even at bore tolerances up to ±0.6 mm

**Adaptations**

- MANDO T211 [with draw bolt]
- MANDO T212 [without draw bolt]
- MANDO T812 [without draw bolt]
**End-stop systems – vario** [manually adjustable end-stops]

- End-stop depth can be variably adjusted in 1 mm-increments
- Standardized workpiece end-stops
- Minimal time expenditure for set-up
- End-stop construction is virtually superfluous
- Perpendicularity on the contacting end-stop part < 0.02 mm
- Practical storage box
- Can be used rotating and stationary

**Made to order instead of mass production**

We never say, «No way». Whether large chuck, clamping devices made of carbon or special mandrels: We always have an individual solution even for unique special requirements. Our experts develop these solutions together with you. They push the technology to its limits, prefer leaving the beaten path, think outside of the box, and approach their work with passion, enthusiasm, and a wealth of invention.

**Advantages of HAINBUCH special solutions:**
- A custom solution tailored to your requirements
- Optimized manufacturing processes
- State-of-the-art manufacturing possibilities due to the latest clamping device technologies

**We find the best solution for you**

Questions? We are ready to help!
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You can find us all over the world!
Clamping head change-over [10 sec.]

- Clamping device with clamping head
- Remove clamping head
- Clamping device without clamping head
- Insert a clamping head
- Clamping device is set-up

Change-over to mandrel adaptation T211 [1 min.]

- Remove clamping head
- Insert MANDO Adapt T211
- Fit on segmented clamping bushing
- Screw in draw bolt
- Clamping device is set-up

Change-over to jaw module [2 min.]

- Clamping device with clamping head
- Remove clamping head
- Insert jaw module
- Secure jaw module
- Clamping device is set-up

Change-over to face driver adaptation [1 min.]

- Clamping device with clamping head
- Remove clamping head
- Insert face driver
- Secure face driver
- Clamping device is set-up

Change-over to morse taper [1 min.]

- Remove clamping head
- Insert morse taper
- Secure morse taper
- Insert center
- Clamping device is set-up