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MIK SCH supplies cam-driven tool changers and tool-changing systems for metalcutting machinery. These carry out all the movements required for changing tools in a mechanically synchronised way. MIK SCH tool changers are suitable for installation in horizontal and vertical machines as well as installation adjacent to and opposite the spindle. Depending on the weight of the tool and the radius of the gripping arm, changeover times of less than 0.5 seconds are possible.

They also feature the acknowledged advantages of cam gears: **Fast – Accurate – Low-maintenance.**

The systems can be supplied for all common tool holders.
**HTC tool changer**

MIKSCH's HTC tool changer is especially suited to horizontal installation positions.

**Designation:** HTC145 and HTC146  
**Tool weight:** up to 15 kg  
**Installation position:**  
- horizontal  
- the tool changer can be positioned adjacent to or opposite a spindle  
**Drive:**  
- three-phase brake motor  
- three-phase motor  
- servo motor  
**Tool holders:**  
- SK-40  
- BT-40  
- HSK-63, HSK-80  
- Capto-C6  
- Kenametal-KM63  
**Mirrored version can be supplied (HTC146)**

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**CUT tool changer**

The four sizes and universal installation positions make MIKSCH's CUT tool changer a real all-rounder.

**Designation and tool weight:**  
- MAN20 for tool weights of up to 3 kg  
- CUT31 for tool weights of up to 8 kg  
- CUT41 for tool weights of up to 15 kg  
- CUT51 for tool weights of up to 25 kg  
**Installation position:**  
- horizontal and vertical  
- the tool changer can be positioned adjacent to or opposite a spindle  
**Drive:**  
- three-phase brake motor (standard)  
- three-phase motor  
- servo motor  
**Tool holders:**  
- can be supplied for all common tool holder versions  
**Mirrored version can be supplied**

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*Installation adjacent to spindle*

*Installation opposite horizontal spindle*
The MTC tool changer is especially suited to horizontal installation positions. Depending on how the tool changer is positioned at the installation site, the drive may be fitted either to the side or directly on the housing.

**Designation:** MTC050 and MTC052

**Tool weight:** up to 45 kg

**Installation position:**
- horizontal
- the tool changer can be positioned adjacent to or opposite a spindle.

**Drive:**
- Versions:
  - three-phase brake motor
  - three-phase motor
  - servo motor
- Attachment:
  - to the side of the housing
  - directly on the housing

**Tool holders:**
- SK-50
- BT-50
- HSK-100
- Capto-C8
- Kennametal-KM100

Mirrored version can be supplied (MTC052)

MIKSCH’s standard range contains two different types of gripper arms: the BP and BPS versions

**BP gripper arm (rotating grippers)**

The gripper arm is equipped with rotating grippers. The gripper arm’s first movement is a rotary movement: It swivels into the tool.

**Designation:** BP gripper arm

**Tool weight:** up to 45 kg

**Centre distance:** up to 800 mm

**Tool holders:** can be supplied for all common tool holder versions

**BP gripper arm**

The gripper arm is equipped with rotating grippers that give the tools lateral support. The gripper arm’s first movement is a lifting movement:

**Designation:** BPS gripper arm

**Tool weight:** up to 45 kg

**Centre distance:** up to 800 mm

**Tool holders:** can be supplied for all common tool holder versions

**BPS gripper arm (straight grippers)**
A MIKSCH tool-changing system is a combination of a magazine and tool changer with gripper arm. MIKSCH distinguishes between tool-changing systems with disk magazines and those with chain magazines.

**CTM tool-changing system**

The CTM tool-changing system comprises a disk magazine with rotary indexing table combined with a CUT tool changer with gripper arm.

The tool case in the disk magazine swivels 90° into the tool change position to allow the gripper arm to grip the tools.

**Designation and tool weight:**
- CTM20 for tool weights of up to 3 kg
- CTM30 for tool weights of up to 8 kg
- CTM40 for tool weights of up to 15 kg
- CTM50 for tool weights of up to 25 kg

**Installation position:** horizontal and vertical

**Drive:**
- three-phase brake motor (standard)
- three-phase motor
- servo motor

**Tool holders:**
- can be supplied for all common types of tool holder

**Number of spaces:** 12, 20, 30, 48

All CTM tool changing systems can be supplied in a mirrored version.
The MCS tool-changing system consists of a MCM chain magazine with tool changer. The tools are removed from the spindle and magazine using the tool changer with gripper arm and then replaced. To do this, the tool case swivels 90° into the tool change position.

**Designation:** MCS tool-changing system

**Tool weight:** up to 45 kg

**Installation position:** horizontal and vertical

**Drive:**
- chain magazine: servo motor
- tool changer:
  - three-phase brake motor
  - three-phase motor
  - servo motor

**Tool holders:**
- SK-25 – SK-60
- HSK-25 – HSK-160
- other versions can be supplied to match sizes

**Number of spaces:** 20 – 60

The transfer case of the transfer unit takes the tool out of the magazine gripper of the MIKSCH chain magazine by moving from the rear over the tool holder. The transfer case then moves to the side and makes the tool available for other assemblies, e.g.:

- for a tool changer with gripper arm
- for another chain magazine

**Designation:** MCM chain magazine

**Tool weight:** up to 45 kg

**Installation position:** horizontal and vertical

**Drive:** servo motor

**Tool holders:**
- SK-25 – SK-60
- HSK-25 – HSK-160
- other versions can be supplied to match sizes

**Number of spaces:** 20 – 60

MCS040 tool-changing system:
equipped for HSK-A63 tool holder

MCM050 chain magazine with transfer unit:
equipped for Capto-C8 tool holder
All magazines that transfer tools directly to spindles are known as pick-up magazines.

**MDM disk magazine**

The MIKSCH MDM disk magazine is a pick-up system. The disk and tool grippers serve as the tool magazine. The magazine is driven directly by a servo motor and makes the tools available at the transfer position.

- **Designation:** MDM disk magazine
- **Tool weight:** up to 25 kg
- **Installation position:** vertical
- **Drive:** servo motor
- **Tool holders:** can be supplied for several tool holder versions
- **Number of spaces:** 12, 20, 30

**MCM chain magazine**

The MIKSCH MCM chain magazine is a pick-up system. Tool grippers which serve as tool magazines are fitted on the chain links.

- **Designation:** MCM chain magazine
- **Tool weight:** up to 25 kg
- **Installation position:** horizontal and vertical
- **Drive:** servo motor
- **Tool holders:**
  - SK-25 – SK-60
  - HSK-25 – HSK-160
  - other versions can be supplied to match sizes
- **Number of spaces:** 20 – 60