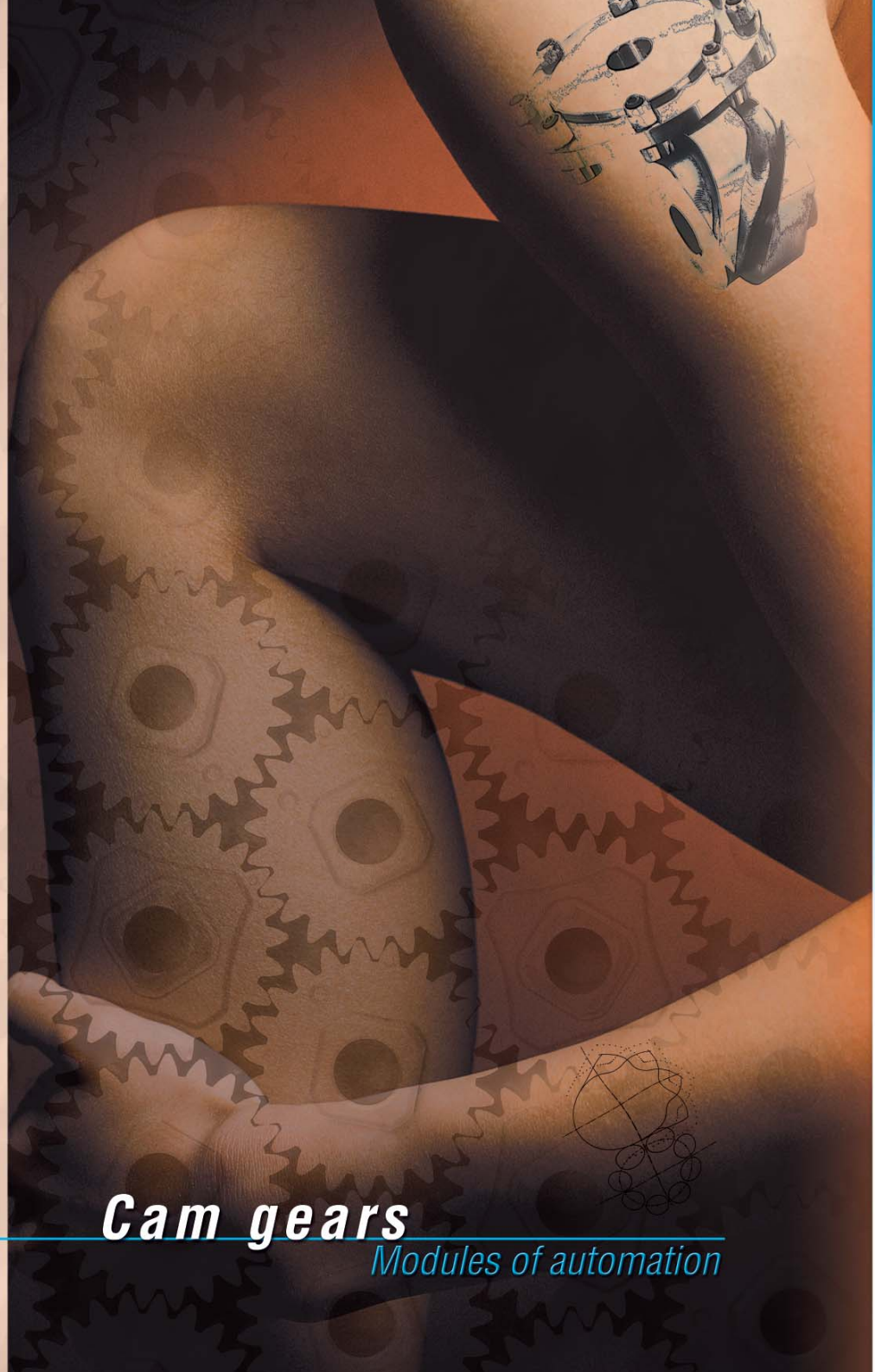

Cam gears

Modules of automation

MIKSCH accelerates

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MIKSCH accelerates Cam gears

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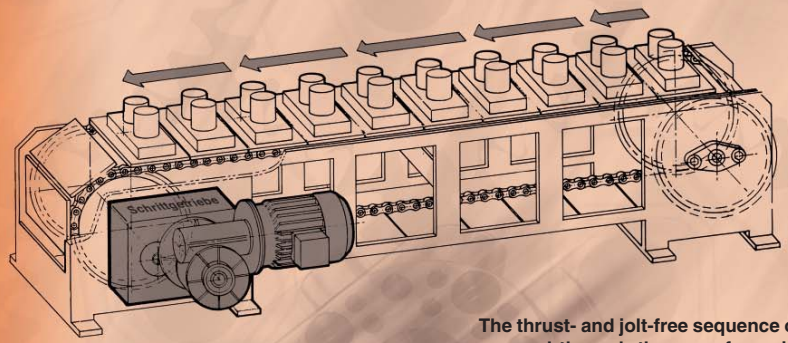
Index drives

Index drives execute a stepping motion on the output shaft when the input shaft turns continuously. Each stepping motion is followed by a dwell. Thanks to the positive connection in the drive system, the output element is locked in position during the dwell.



The thrust- and jolt-free sequence of the motions is ensured through the use of special transfer functions.

rotoblock

The MIKSCH ***rotoblock*** index drive is based on a globoidal cam. The input and output axis are situated rectangularly to each other. The direction of rotation of the input and output shafts can be selected at will.

Standard number of stations: 1-24

Cycles/min.: up to 1.000

Torque: up to 13.000 Nm

Design:
As installation kit or as housed unit with and without drive

CF 2

The MIKSCH **CF2** index drive is based on a cylinder cam. The input axis is rectangular to the output axis. The direction of rotation of the input and output shafts can be selected at will.

Standard number of stations: 3-24

Cycles/min.: up to 300

Torque: up to 1.500 Nm

Design:
As installation kit

CF 3

The MIKSCH **CF3** index drive is based on a complementary disk cam. The input axis is arranged in parallel to the output axis. The output shaft always rotates in the opposite direction to the input shaft.

Standard number of stations: 1-8

Cycles/min.: up to 1.000

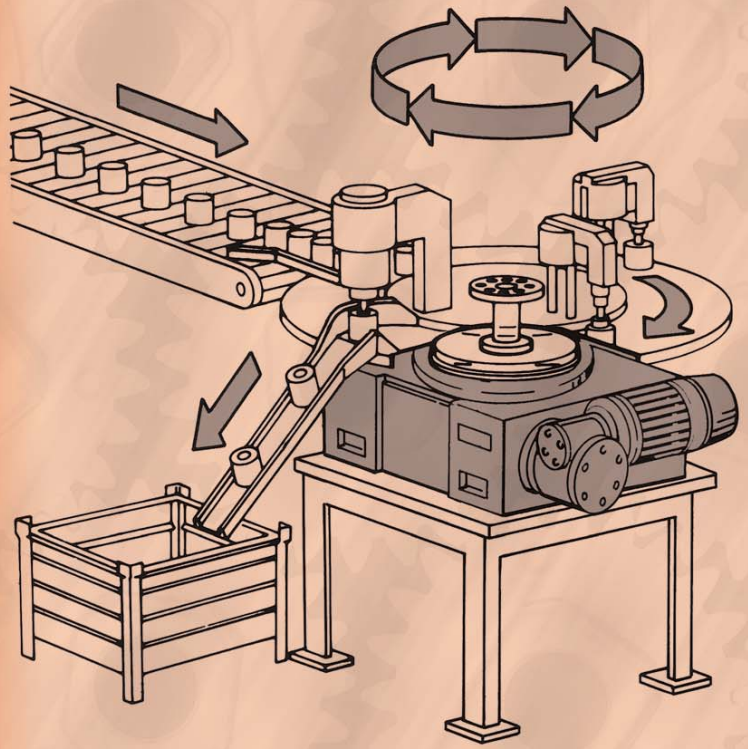
Torque: up to 6.000 Nm

Design:
As installation kit or as housed unit with and without drive

Rotary index tables

Rotary index tables execute a step-by-step motion of a stably-seated rotary table when the input shaft is rotated continuously. Each stepping motion is followed by a dwell. Thanks to the engagement in the drive system, the output shaft is locked in position during the dwell. Generously-dimensioned cam followers and the cross-roller seating of the rotary table ensure high reliability and positioning accuracy with MIKSCH rotary index tables.

The thrust- and jolt-free sequence of the motions is ensured through the use of special transfer functions.



Rotary index tables

RIGIDIAL

The MIKSCH **RIGIDIAL** rotary index table is based on a globoidal cam. The input axis is positioned rectangular to the axis of the rotary table.

Standard number of stations: 2-32

Cycles/min.: up to 100

Torque: up to 20.000 Nm

Design:
As housed unit with and without drive

INTERMICO

The MIKSCH **INTERMICO** rotary index table is based on a cylindrical cam. The input axis, as with the **RIGIDIAL** rotary index table, lies rectangular to the axis of the rotary table.

Standard number of stations: 2-32

Cycles/min.: up to 100

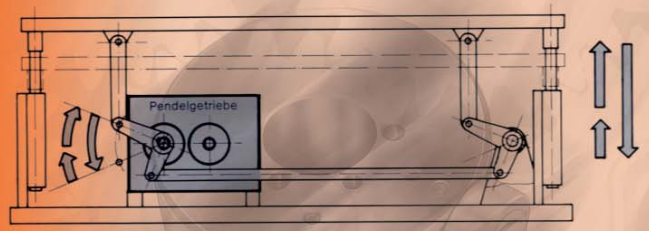
Torque: up to 60.000 Nm

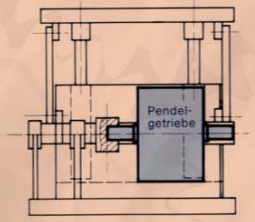
Design:
As housed unit with and without drive

Special feature of INTERMICO rotary index tables:
Suitable for heavy loads, high mass moments of inertia and harsh ambient conditions.

Oscillating drives

When the input shaft is turned, oscillating drives effect backwards and forwards motions on the output shaft. The sequence of motion can be largely specified in accordance with the customer's wishes.





rotoblock

The MIKSCH ***rotoblock*** oscillating drive is based on the same constructional principles as the index drive – a globoid cam. The input axis is rectangular to the output axis.

Standard oscillating angle: max. 120°

Cycles/min.: up to 1.000

Torque: up to 10.000 Nm

Design:
As installation kit or housed unit with and without drive

Oscillating drives

CF 3

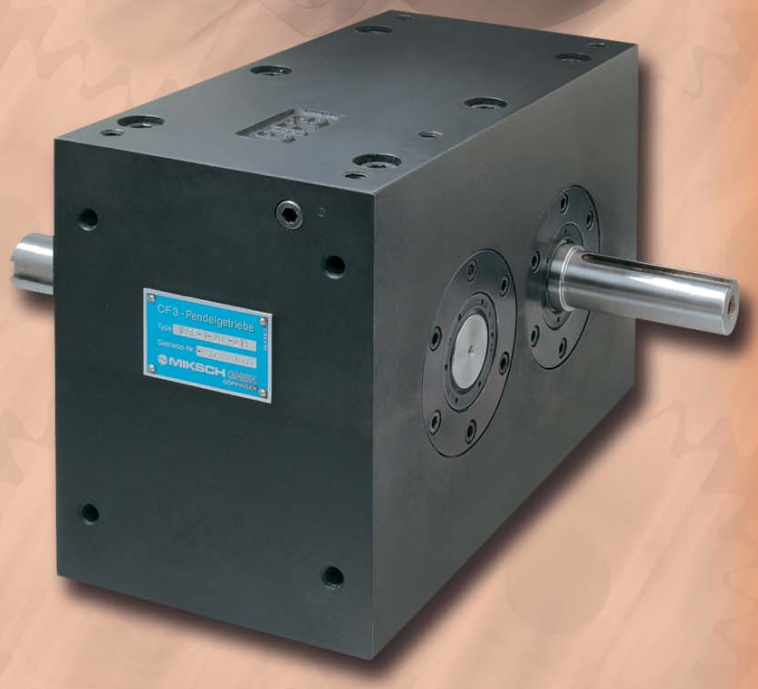
The basis of the MIKSCH **CF3** oscillating drive is the design of the **CF3** index drive, a complementary disk cam with parallel arrangement of the input and output shaft.

Standard oscillating angle: max. 60°

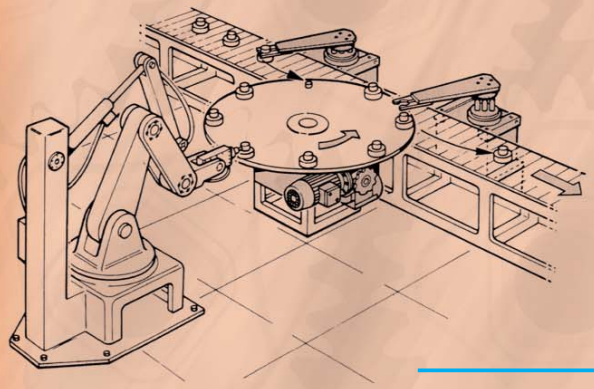
Cycles/min.: up to 1.000

Torque: up to 6.300 Nm

Design:
As installation kit or housed unit with and without drive



Planar and 3D motions can be generated very easily with handling units.
The most well-known are the pick & place motions, for loading and unloading assembly machines and machine tools. Thanks to the forced synchronization of two or three axial motions, virtually any type of path can be produced.



Planar motions
H(*)T / H(*)G

H(*)T:
The device is based on the MIKSCH tandem drive (see page 13) with secondary moving carrier plate. The output shaft is a plate on which the workpieces can be assembled.

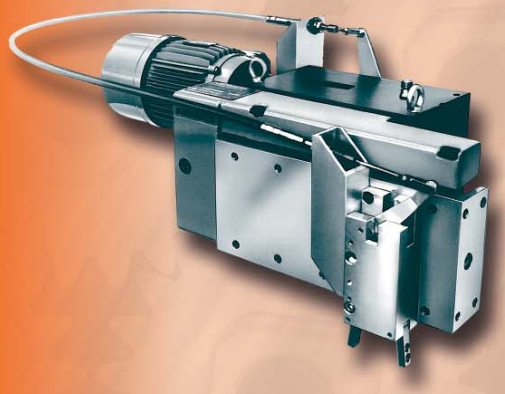
X lift: up to 480 mm

Y lift: up to 120 mm

Installation position: freely selectable

Design: As housed unit

The input can be effected either via an input shaft, a built-in worm gear or using a drive braking motor.



H(*)G:
This device is based on two disk cams with secondary crank drive. The output shaft in this case is also a plate.

X lift: up to 60 mm

Y lift: up to 40 mm

The input is effected via a free input shaft or via a drive motor.

Handling units

3D motions
MAN(*) / H(*)S

Both MIKSCH handling units can execute lift / oscillate motions or lift / step motions.

MAN(*):
The drive is based on a globoid / groove cam. The transfer of motion is form-fitted. The output element is a shaft.

Standard number of stations: 2-8

Standard oscillating angle: 90°, 120°, 180°

Y lift: up to 200 mm

Design:
As housed unit with and without drive

H(*)S:
The drive is based on a globoid / complementary disk cam. The transfer of movement is also form-fitted in this case. The output shaft takes the form of a flange.

Standard number of stations: 2-8

Standard oscillating angle: 90°, 120°, 180°

Y lift: up to 160 mm

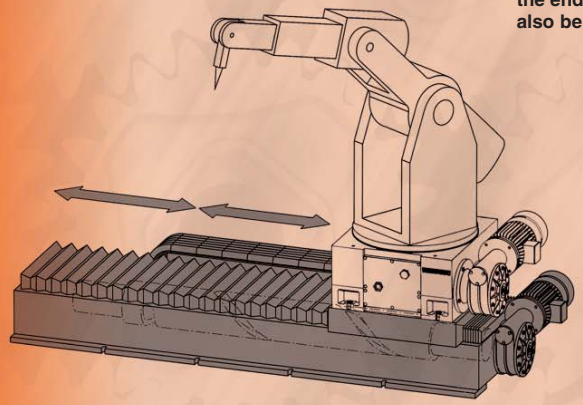
Design:
As housed unit with and without drive

(*) Size designator

Linear units

The MIKSCH linear units form the ideal basis for quickly transporting heavy workpieces (from approx. 25 kg). A carriage, firmly positioned in steel housing, is moved linearly via a rotating cylinder cam. Lifts of up to approx. 2,500 mm can be effected.

The carriage and the guides are selected according to the load profile. The use of thrust- and jolt-free transfer functions ensures harmonious motion. By reversing the direction of rotation of the motor at the end stops, the carriage's direction of travel can also be reversed.



AMC

The direction of motion is horizontal and the load organization acting on the carriage can be configured at will. The special feature is the closed housing and the positioning of the roller on the underside. This means that this type of device can be used for applications where there is a high level of dirt.

SMC

Horizontal direction of motion with carriage lying on top.

TMC

Horizontal direction of motion with carriage arranged to the side.

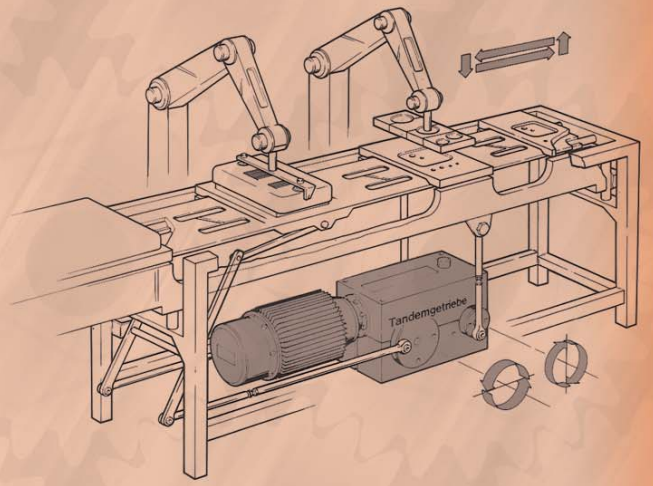
EMC / ETC

Vertical direction of motion.

Tandem drives

The MIKSCH tandem drive combines two cam drives in a single, compact housing. Two cams, which are fitted to a common cam shaft, are used to force-synchronize the two motions.
By rotating the input shaft, step or oscillating motions can be effected on the output shaft. These can be combined at will.

The sequence of motions can be specified with a wide range of possibilities.



INTERMICO

The compact design and forced synchronization of multiple motions offer the ideal basis for generating planar motions via secondary crank drives.

The tandem drive is based on two complementary disk cams. The input shaft and output shaft are arranged in parallel. The design of the **INTERMICO** tandem drive is based on the MIKSCH **CF3** drive (pages 5 and 9).

Standard number of stations: 1-8

Standard oscillating angle: up to 60°

Torque: up to 500 Nm

Design:
As housed unit with and without drives

MIKSCH accelerates

Signaling devices

MIKSCH cam drives optionally can be equipped with other functional assemblies, such as signaling devices and torque limiters.

Attachment for microswitch

A control cam is attached to the cam shaft. This actuates a switch fitted by the customer. The signal from this switch enables the input to be turned off when the cam drive is paused.
The way in which the switch is actuated (with a cam follower, roller follower or contact-free) must be specified by the customer, since various cam types are used. The scope of delivery includes a plate on which the customer can mount the switch.

Cam control units

Cams are situated on a drum, and these cams can be set as required to provide the customer with signals relating to the positions of the input shaft.
The MIKSCH cam control unit can be equipped with and without gear pre-stage (type FC). The version with gear pre-stage (type FCR) is used if the signals are distributed over several cam rotations.

Torque limiters

To effectively protect the cam drive from overload, the flow of force at the output element must be interrupted. At the same time, it must be possible, after eliminating a problem, to restart the working cycle in a phase-synchronous way.
MIKSCH provides specially-developed torque limiters for this purpose that have been designed based on the requirements of cam drives.

LCS

MIKSCH has developed the **LCS** type specially for ***rotoblock*** drives.

GSR

The MIKSCH **GSR** type has been developed specially for **CF3** drives in the 65P-130P range and for **INTERMICO** tandem drives.