Multiple kinematics create more possibilities

For linear robots in the LRX/LRX-S Series

Engineering Passion

KraussMaffei

Versatile, convenient and easy to operate
Multiple kinematics for linear robots

Multiple kinematics offer you a host of benefits for the implementation of complex automation solutions, including the assignment of associated production processes to several robot axes. The MC6 control system manages the process and all moving axes are programmed and controlled centrally using a handheld pendant.

What are multiple kinematics?

The MC6 control system from KraussMaffei was developed to allow the central programming and control of linear robots with a maximum of 24 axes. The software allows the configuration of up to four kinematic units (robots), each with six axes. Multiple kinematics are therefore the perfect starting point for the development of complex automation solutions used in production.

Multiple kinematics on LRX/LRX-S

The integral LRX version offers the added convenience of alternate operation using the panel on the injection molding machine or the handheld pendant on the robot. The standalone version of the LRX-S is a self-sufficient, independent system that includes all the advantages of the MC6 control system. This version is used in all applications where integration in the injection molding machine is not an option.

Extended options

A joint editor is used to program all the robots. Program commands and parameters can be assigned directly to the individual robots. A joint coordinate system for all axes makes it easier to control specific robots in individual operating modes.

Your benefits:

- Implementation based on the MC6 control system
- Support of four robots, each with six axes (max. 24 axes)
- Central control of movements and all peripheral signals
- Operating mode can be changed at any time
- Intelligent collision monitoring, mechanically linked axes

Flexible configuration of axes

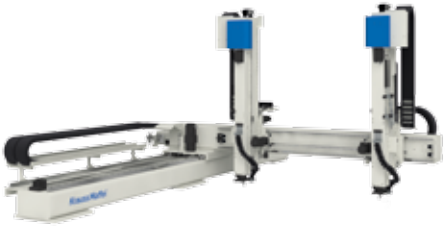
Easy identification of the active robot on operating screens

Integral collision monitoring

Customized configuration
Flexible production options

The possibilities for combining several axes can be extremely varied. The following case studies show several different application options for multiple kinematics.

Configuration
Twin X



Characteristic
Mechanically linked Y-axes on a shared X-axis

Application
Simultaneous demolding or placement process in the mold

Benefits
Save time when using a three-plate mold

Configuration
Twin Z

Characteristic
Mechanically linked X-axes on a shared Z-axis

Application
Transfer of components (handshake) during rapid component removal or stacking operations

Benefits
Space and time saved on automated units with overlapping motion ranges

Configuration
Control of additional peripheral axes

Characteristic
Additional axes (peripherals) for the standard robot

Application
Use of turntables and stages

Benefits
Central control, can also be used for external axes

MC6 multiple kinematics
Module for complex automation solutions

The MC6 control system with multiple kinematics was developed to centrally control complex automation processes. The software allows the configuration of up to four kinematic units (robots), each with six axes. A single control system can therefore program and manage up to 24 axes.

Multiple kinematics are the perfect starting point for the development of complex automation solutions used in production.

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