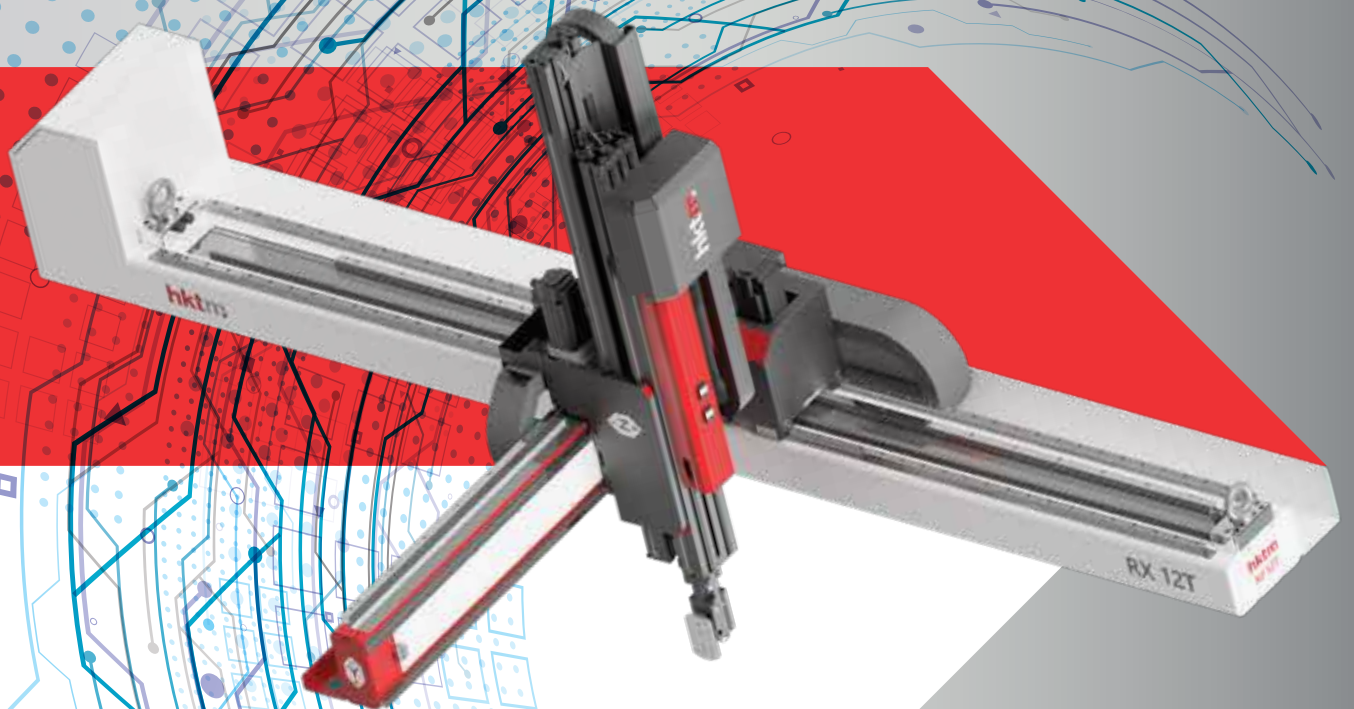


hktm | ROBOT



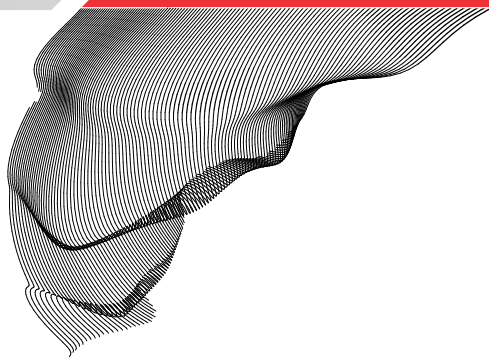
FAST **ROBUST**
COMPATIBLE

User Freedom and
Robust
Mechanical Design
for **Plastic Injection
Machines**

Easy Control and
Appropriate
**Design for
Plastic Injection
Machines**

Our dreams give shape to our ideas, while our ideas form our strength.

When drawing upon our strength emanating from engineering, we care to respect all living creatures and environment, to ensure that people live and work safely, to create awareness and innovation, to promote internal and external training, to raise our quality criteria at all times, and to share our knowledge that grows with increased experience



We started in 1998 to provide the integration of engineering with art; industry with nature; plant with environment; and technology with life.

To understand, develop, direct the motion, as well as to make efforts to bring it under control by taking inspiration from the motion's nature have become our purpose of foundation.

By raising our quality to international standards and relying on the strength acquired from our being an R&D center to develop technological items and projects in all systems that need to be controlled, we achieve a phenomenal success in realizing significant projects, both locally and globally.

As an umbrella organization of partner firms specialized in their field of operation that are compatible with our engineering infrastructure, we combine expertise in great projects.

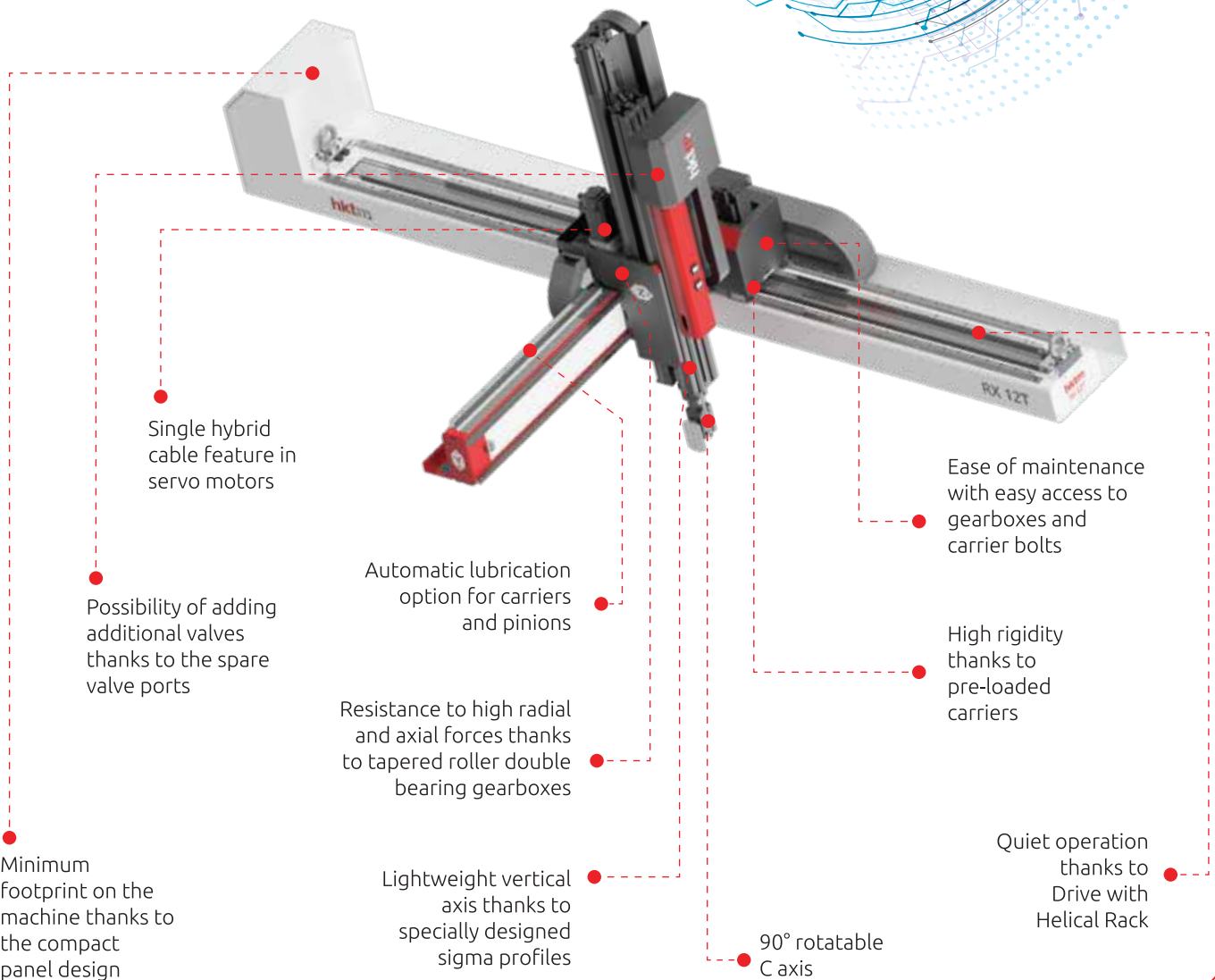
Specialized in different motion and control technologies and engaged in multidisciplinary engineering solutions that are held up as an example, we keep on manufacturing in an attempt to become a global center for control technologies of industrial motion.

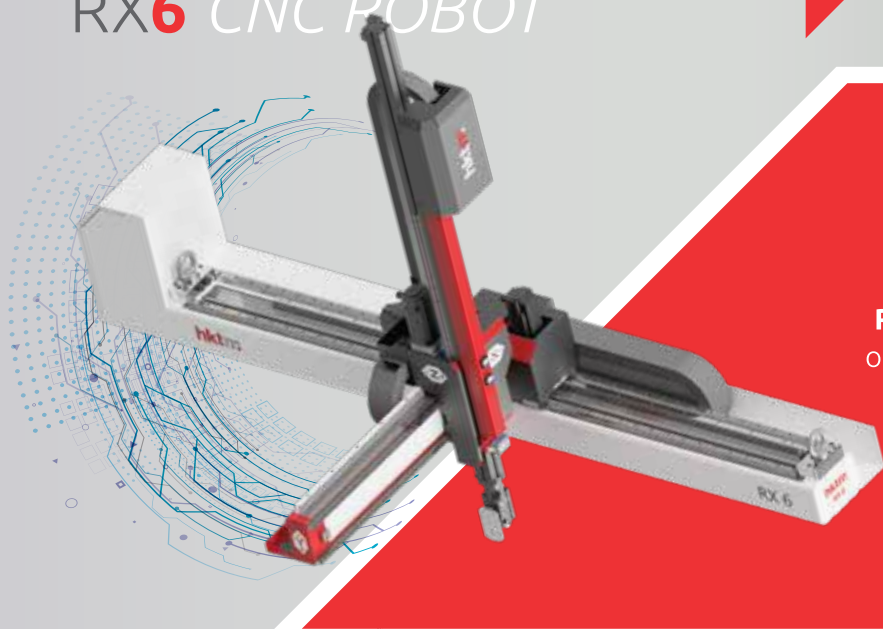
This is why engineering is one of the most creative ways to make dreams come true.



FAST **ROBUST** COMPATIBLE

RX series robots, together with the knowledge of HKTM, sectoral experience and advanced technology, **have been designed for plastic injection machines.**





RX series robots, together with the knowledge of HKTm, sectoral experience and advanced technology, **have been designed for plastic injection machines.**

RX6 robot model ensures that the production is optimum and the cycle is serial with standardized stroke lengths and axis speeds for small and medium sized injection machines.

RX series robots **can be learned quickly and easily** thanks to the software designed with the principle of user friendly.

FAST ROBUST COMPATIBLE

Control Flexibility with Tablet PC



Control flexibility thanks to the wireless connection that can be integrated with all tablet computers.

A specially designed user-friendly interface that is easy to learn and teach.

Smart Vibration Control



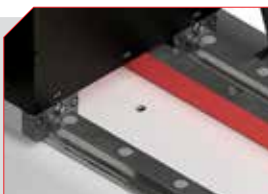
Thanks to positioning speed optimization, vibration caused by external impact is minimized actively.

Remote Access with Internet Connection



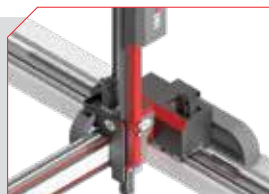
Possibility of additional training and software version update via remote connection.

Optimized Drive and Guiding System



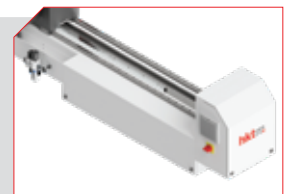
A fast, precise and silent operating motion system thanks to the drive and Guiding system optimized for operating at high speeds and accelerations.

Fixed X Axis Design



Thanks to fixed X Axis design, there are no moving parts behind the mounting plate. It provides free space for obstacles such as building beams, platforms, ventilation ducts that may be on the machine

Integrated Control Panel



The control panel enables external electrical connections to be made by bus cable and also enables external equipment to be controlled directly. Custom design control panel, which is mounted on traverse axis, saves space in the plant.

RX6 CNC ROBOT

Thanks to the dynamic servo motors, high precision linear movement components and engineering of Bosch Rexroth, RX series robots are able to keep their pace and positions for each cycle at pick and place, insert placement, IML and quality assurance applications.

Thanks to **Bosch Rexroth's** new generation axis **control system ctrlX**, RX series robots integrate seamlessly and easily into all injection molding machines and applications and complete the machine.

Compact Design

- Low footprint on machine thanks to the compact design
- Additional free space thanks to the control panel located on main axis

Lightweight and High Speed Structure

- Reinforced horizontal axes providing high rigidity
- Thanks to special designed double railed aluminium vertical profile, optimized in-out times at IML and insert applications
- High quality servo motors and high precision linear movement components (Bosch Rexroth) for all axes

Integrated Line Filter

- Standard line filter minimizes the interference by responding to them and makes a more secure process possible.

Easy Control

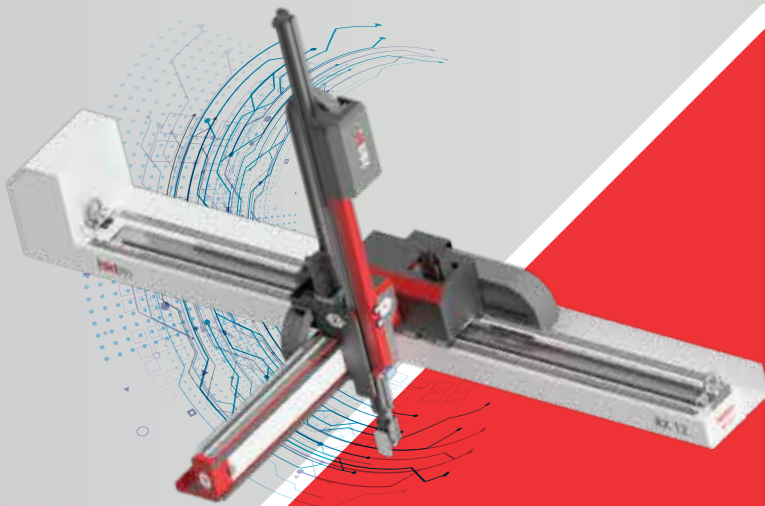
- Integration with all injection machines via Euromap interface (12 or 67)
- I/O support for robot arm equipment
- High speed communication with axes via EtherCAT protocol

User Interface

- 10.4" large screen
- Easy control and maximum efficiency of use with a specially designed user interface



Model	Payload (kg)	Pick and Place X Axis (mm)	Horizontal Stroke Z Axis (mm)	Vertical Stroke Y Axis (mm)	Appropriate Machine Tonnage (ton)
RX6	6	450 / 690	1450 / 1950 / 2450	600 / 800 / 1000 / 1200	25-450



RX series robots, together with the knowledge of HKTm, sectoral experience and advanced technology, have been designed for plastic injection machines.

RX12 robot model has been designed for medium and large machinery tonnages. Optimized for picking applications. Stroke sizes determined according to machine measures allow your machine and robot to work in a compact manner.

RX series robots can be learned quickly and easily thanks to the software designed with the principle of user friendly.

FAST ROBUST COMPATIBLE

Control Flexibility with Tablet PC



Control flexibility thanks to the wireless connection that can be integrated with all tablet computers.

A specially designed user-friendly interface that is easy to learn and teach.

Smart Vibration Control



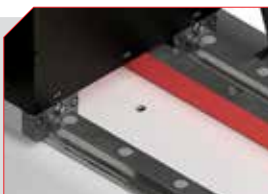
Thanks to positioning speed optimization, vibration caused by external impact is minimized actively.

Remote Access with Internet Connection



Possibility of additional training and software version update via remote connection.

Optimized Drive and Guiding System



A fast, precise and silent operating motion system thanks to the drive and Guiding system optimized for operating at high speeds and accelerations.

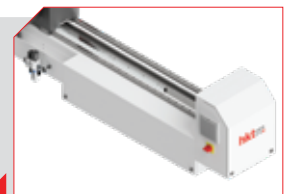
Fixed X Axis Design



Thanks to fixed X Axis design, there are no moving parts behind the mounting plate.

It provides free space for obstacles such as building beams, platforms, ventilation ducts that may be on the machine

Integrated Control Panel



The control panel enables external electrical connections to be made by bus cable and also enables external equipment to be controlled directly. Custom design control panel, which is mounted on traverse axis, saves space in the plant.

RX12 CNC ROBOT

Thanks to the dynamic servo motors, high precision linear movement components and engineering of Bosch Rexroth, RX series robots are able to keep their pace and positions for each cycle at pick and place, insert placement, IML and quality assurance applications.

Thanks to **Bosch Rexroth's** new generation axis **control system ctrlX**, RX series robots integrate seamlessly and easily into all injection molding machines and applications and complete the machine.

Compact Design

- Low footprint on machine thanks to the compact design
- Additional free space thanks to the control panel located on main axis

Lightweight and High Speed Structure

- Reinforced horizontal axes providing high rigidity
- Thanks to special designed double railed aluminium vertical profile, optimized in-out times at IML and insert applications
- High quality servo motors and high precision linear movement components (Bosch Rexroth) for all axes

Integrated Line Filter

- Standard line filter minimizes the interference by responding to them and makes a more secure process possible.

Easy Control

- Integration with all injection machines via Euromap interface (12 or 67)
- I/O support for robot arm equipment
- High speed communication with axes via EtherCAT protocol

User Interface

- 10.4" large screen
- Easy control and maximum efficiency of use with a specially designed user interface



Model	Payload (kg)	Pick and Place X Axis (mm)	Horizontal Stroke Z Axis (mm)	Vertical Stroke Y Axis (mm)	Appropriate Machine Tonnage (ton)
RX12	12	700 / 900	1950 / 2450 / 2950	1000 / 1200 / 1400	350 - 900



RX series robots, together with the knowledge of HKTM, sectoral experience and advanced technology, have been designed for plastic injection machines.

RX12S robot model has been designed for medium and large machinery tonnages. It has a specially designed double rail vertical axis for high precision applications needed in IML and metal insert applications. Stroke sizes determined according to machine measures allow your machine and robot to work in a compact manner.

RX series robots can be learned quickly and easily thanks to the software designed with the principle of user friendly.

FAST ROBUST COMPATIBLE

Control Flexibility with Tablet PC



Control flexibility thanks to the wireless connection that can be integrated with all tablet computers.

A specially designed user-friendly interface that is easy to learn and teach.

Smart Vibration Control



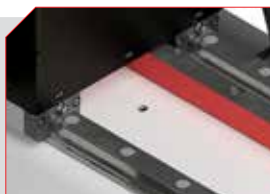
Thanks to positioning speed optimization, vibration caused by external impact is minimized actively.

Remote Access with Internet Connection



Possibility of additional training and software version update via remote connection.

Optimized Drive and Guiding System



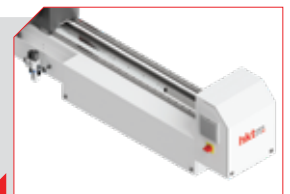
A fast, precise and silent operating motion system thanks to the drive and Guiding system optimized for operating at high speeds and accelerations.

Fixed X Axis Design



Thanks to fixed X Axis design, there are no moving parts behind the mounting plate. It provides free space for obstacles such as building beams, platforms, ventilation ducts that may be on the machine

Integrated Control Panel



The control panel enables external electrical connections to be made by bus cable and also enables external equipment to be controlled directly. Custom design control panel, which is mounted on traverse axis, saves space in the plant.

RX12S CNC ROBOT

Thanks to the dynamic servo motors, high precision linear movement components and engineering of Bosch Rexroth, RX series robots are able to keep their pace and positions for each cycle at pick and place, insert placement, IML and quality assurance applications.

Thanks to **Bosch Rexroth's** new generation axis control system **ctrlX, RX series robots** integrate seamlessly and easily into all injection molding machines and applications and complete the machine.

Compact Design

- Low footprint on machine thanks to the compact design
- Additional free space thanks to the control panel located on main axis

Lightweight and High Speed Structure

- Reinforced horizontal axes providing high rigidity
- Thanks to special designed double railed aluminium vertical profile, optimized in-out times at IML and insert applications
- High quality servo motors and high precision linear movement components (Bosch Rexroth) for all axles

Integrated Line Filter

- Standard line filter minimizes the interference by responding to them and makes a more secure process possible.

Easy Control

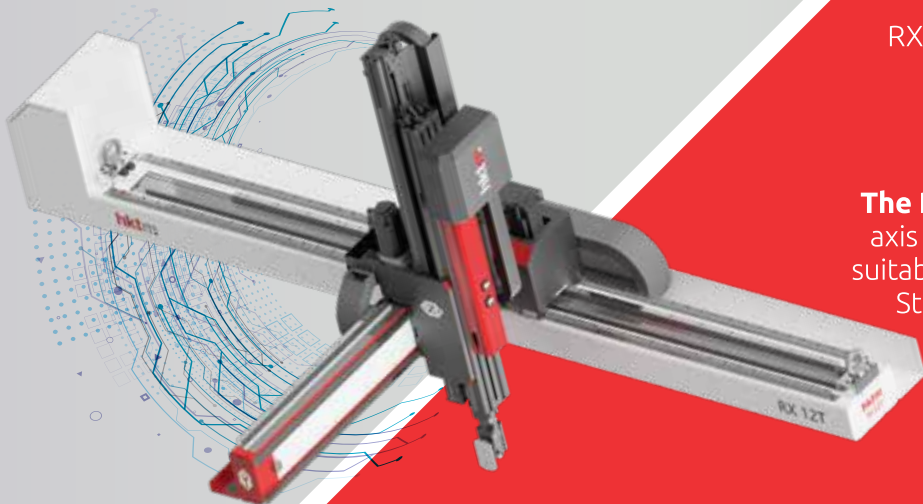
- Integration with all injection machines via Euromap interface (12 or 67)
- I/O support for robot arm equipment
- High speed communication with axles via EtherCAT protocol

User Interface

- 10.4" large screen
- Easy control and maximum efficiency of use with a specially designed user interface



Model	Payload (kg)	Pick and Place X Axis (mm)	Horizontal Stroke Z Axis (mm)	Vertical Stroke Y Axis (mm)	Appropriate Machine Tonnage (ton)
RX12S	12	700 / 900	1950 / 2450 / 2950	1200 / 1400 / 1600	350 - 900



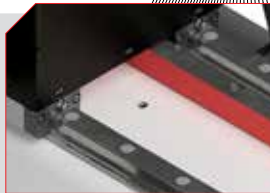
RX series robots, together with the knowledge of HKTM, sectoral experience and advanced technology, have been designed for plastic injection machines.

The RX12T robot model with telescopic vertical axis is designed for low ceiling production areas, suitable for medium and large machine tonnages. Stroke sizes determined according to machine measures allow your machine and robot to work in a compact manner.

RX series robots can be learned quickly and easily thanks to the software designed with the principle of user friendly.

FAST ROBUST COMPATIBLE

Optimized Drive and Guiding System



A fast, precise and silent operating motion system thanks to the drive and Guiding system optimized for operating at high speeds and accelerations.

Fixed X Axis Design



Thanks to fixed X Axis design, there are no moving parts behind the mounting plate. It provides free space for obstacles such as building beams, platforms, ventilation ducts that may be on the machine

Remote Access with Internet Connection



Possibility of additional training and software version update via remote connection.

Control Flexibility with Tablet PC



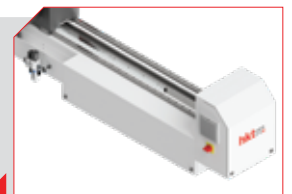
Control flexibility thanks to the wireless connection that can be integrated with all tablet computers. A specially designed user-friendly interface that is easy to learn and teach.

Smart Vibration Control



Thanks to positioning speed optimization, vibration caused by external impact is minimized actively.

Integrated Control Panel



The control panel enables external electrical connections to be made by bus cable and also enables external equipment to be controlled directly. Custom design control panel, which is mounted on traverse axis, saves space in the plant.

RX12T CNC ROBOT

Thanks to the dynamic servo motors, high precision linear movement components and engineering of **Bosch Rexroth**, RX series robots are able to keep their pace and positions for each cycle at pick and place, insert placement, IML and quality assurance applications.

Thanks to Bosch Rexroth's new generation axis control system ctrlX, **RX series robots** integrate seamlessly and easily into all injection molding machines and applications and complete the machine.

Compact Design

- Low footprint on machine thanks to the compact design
- Additional free space thanks to the control panel located on main axis

Lightweight and High Speed Structure

- Dual-rail, two-stage telescopic vertical axis design
- Reinforced horizontal axes providing high rigidity
- Thanks to special designed double railed aluminium vertical profile, optimized in-out times at IML and insert applications
- High quality servo motors and high precision linear movement components (Bosch Rexroth) for all axles

Integrated Line Filter

- Standard line filter minimizes the interference by responding to them and makes a more secure process possible.

Easy Control

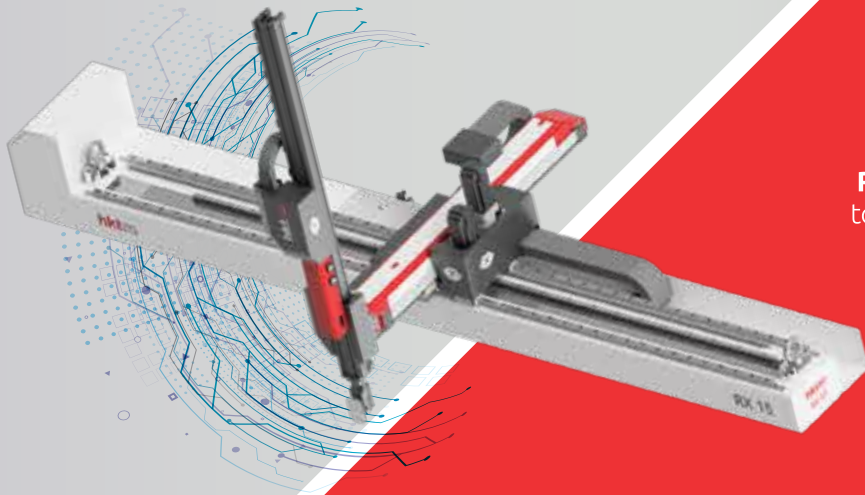
- Integration with all injection machines via Euromap interface (12 or 67)
- I/O support for robot arm equipment
- High speed communication with axles via EtherCAT protocol

User Interface

- 10.4" large screen
- Easy control and maximum efficiency of use with a specially designed user interface



Model	Payload (kg)	Pick and Place X Axis (mm)	Horizontal Stroke Z Axis (mm)	Vertical Stroke Y Axis (mm)	Appropriate Machine Tonnage (ton)
RX12T	12	700 / 900	1950 / 2450 / 2950	1200 / 1400 / 1600	350 - 900



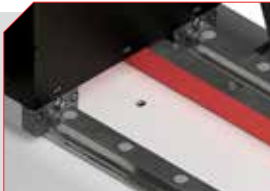
RX series robots, together with the knowledge of HKTm, sectoral experience and advanced technology, have been designed for plastic injection machines.

RX15 robot model is designed for medium machine tonnages. Thanks to the movable X axis, the moment on the axis is reduced. In this way, it is ensured that injection applications with heavy parts and holders are carried out more safely. Stroke lengths determined according to machine dimensions allow your machine and robot to work compactly.

RX series robots can be learned quickly and easily thanks to the software designed with the principle of user friendly.

FAST ROBUST COMPATIBLE

Optimized Drive and Guiding System



A fast, precise and silent operating motion system thanks to the drive and Guiding system optimized for operating at high speeds and accelerations.

Movable X Axis



Higher load carriage capacity and lower total height thanks to Movable X Axis design. It offers the optimum mechanical system for large-sized robot hand designs.

Remote Access with Internet Connection



Possibility of additional training and software version update via remote connection.

Control Flexibility with Tablet PC



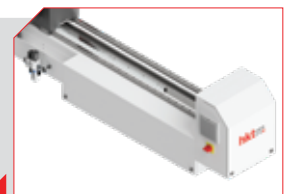
Control flexibility thanks to the wireless connection that can be integrated with all tablet computers. A specially designed user-friendly interface that is easy to learn and teach.

Smart Vibration Control



Thanks to positioning speed optimization, vibration caused by external impact is minimized actively.

Integrated Control Panel



The control panel enables external electrical connections to be made by bus cable and also enables external equipment to be controlled directly. Custom design control panel, which is mounted on traverse axis, saves space in the plant.

RX15 CNC ROBOT

Thanks to the dynamic servo motors, high precision linear movement components and engineering of **Bosch Rexroth, RX series robots** are able to keep their pace and positions for each cycle at pick and place, insert placement, IML and quality assurance applications.

Thanks to Bosch Rexroth's new generation axis control system ctrlX, RX series robots integrate seamlessly and easily into all injection molding machines and applications and complete the machine.

Compact Design

- Low footprint on machine thanks to the compact design
- Additional free space thanks to the control panel located on main axis

Powerful and Dynamic Structure

- High rigidity and high precision thanks to steel profile axles
- Dedicatedly optimized drive and Guiding system provides high speed and acceleration
- Higher load carriage capacity thanks to X axis with body movement

Integrated Line Filter

- Standard line filter minimizes the interference by responding to them and makes a more secure process possible.

Easy Control

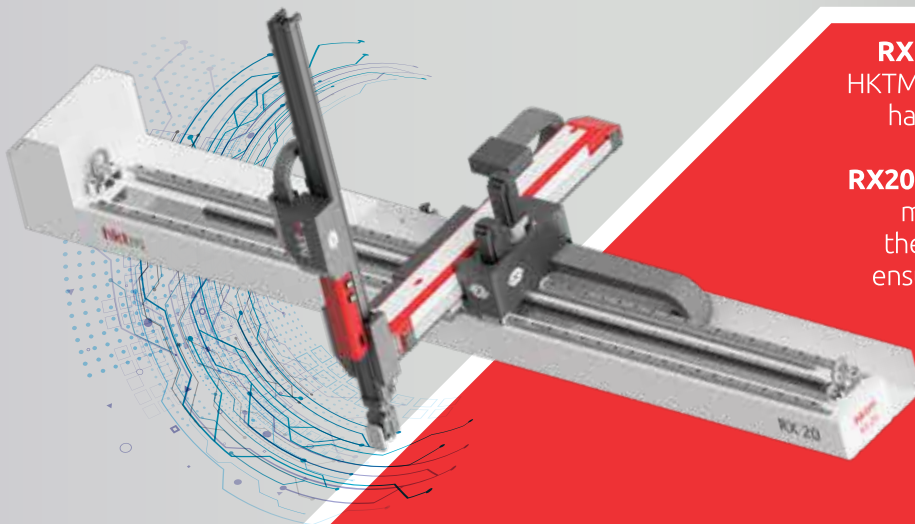
- Integration with all injection machines via Euromap interface (12 or 67)
- I/O support for robot arm equipment
- High speed communication with axles via EtherCAT protocol

User Interface

- 10.4" large screen
- Easy control and maximum efficiency of use with a specially designed user interface



Model	Payload (kg)	Pick and Place X Axis (mm)	Horizontal Stroke Z Axis (mm)	Vertical Stroke Y Axis (mm)	Appropriate Machine Tonnage (ton)
RX15	15	700 / 800 / 900	1950 / 2450 / 2950	1400 / 1500	450 - 1000



RX series robots, together with the knowledge of HKTm, sectoral experience and advanced technology, have been designed for plastic injection machines.

RX20 robot model is designed for medium and large machine tonnages. Thanks to the movable X axis, the moment on the axis is reduced. In this way, it is ensured that injection applications with heavy parts and holders are carried out more safely. Stroke lengths determined according to machine dimensions allow your machine and robot to work compactly.

RX series robots can be learned quickly and easily thanks to the software designed with the principle of user friendly.

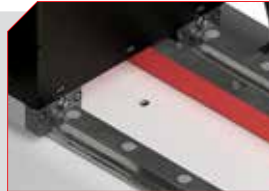
FAST ROBUST COMPATIBLE

Movable X Axis



Higher load carriage capacity and lower total height thanks to Mobile X Axis design. It offers the optimum mechanical system for large-sized robot hand designs.

Optimized Drive and Guiding System.



A fast, precise and silent operating motion system thanks to the drive and Guiding system optimized for operating at high speeds and accelerations.

Remote Access with Internet Connection.



Possibility of additional training and software version update via remote connection.

Control Flexibility with Tablet PC



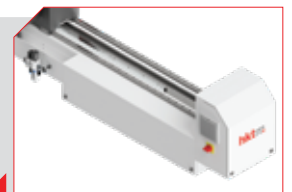
Control flexibility thanks to the wireless connection that can be integrated with all tablet computers. A specially designed user-friendly interface that is easy to learn and teach.

Smart Vibration Control



Thanks to positioning speed optimization, vibration caused by external impact is minimized actively.

Integrated Control Panel



The control panel enables external electrical connections to be made by bus cable and also enables external equipment to be controlled directly.

Custom design control panel, which is mounted on traverse axis, saves space in the plant.

RX20 CNC ROBOT

Thanks to the dynamic servo motors, high precision linear movement components and engineering of **Bosch Rexroth**, RX series robots are able to keep their pace and positions for each cycle at pick and place, insert placement, IML and quality assurance applications.

Thanks to Bosch Rexroth's new generation axis **control system ctrlX**, RX series robots integrate seamlessly and easily into all injection molding machines and applications and complete the machine.

Compact Design

- Low footprint on machine thanks to the compact design
- Additional free space thanks to the control panel located on main axis

Powerful and Dynamic Structure

- High rigidity and high precision thanks to steel profile axles
- Dedicatedly optimized drive and Guiding system provides high speed and acceleration
- Higher load carriage capacity thanks to X axis with body movement

Integrated Line Filter

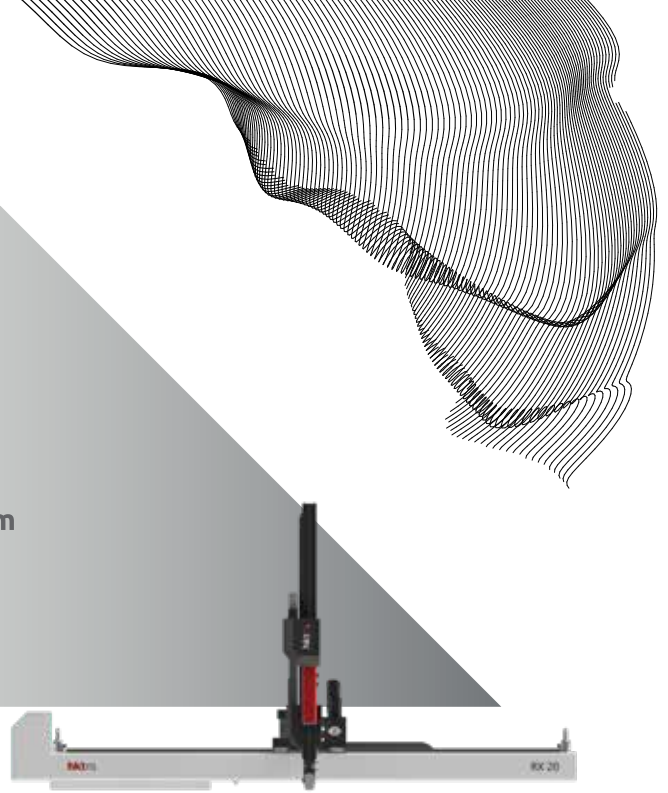
- Standard line filter minimizes the interference by responding to them and makes a more secure process possible.

Easy Control

- Integration with all injection machines via Euromap interface (12 or 67)
- I/O support for robot arm equipment
- High speed communication with axles via EtherCAT protocol

User Interface

- 10.4" large screen
- Easy control and maximum efficiency of use with a specially designed user interface



Model	Payload (kg)	Pick and Place X Axis (mm)	Horizontal Stroke Z Axis (mm)	Vertical Stroke Y Axis (mm)	Appropriate Machine Tonnage (ton)
RX20	20	700 / 800 / 900	1950 / 2450 / 2950 / 3450	1400 / 1500 / 1600	450-1000



RX series robots, together with the knowledge of HKTm, sectoral experience and advanced technology, have been designed **for plastic injection machines**.

RX25 robot model has been designed for medium and large machinery tonnages. Thanks to the movable X axis, the momentum on the axis has been reduced. In this way, it is ensured that injection applications with heavy parts and holders are carried out more safely. Stroke lengths determined according to machine dimensions allow your machine and robot to work compactly.

RX series robots can be learned quickly and easily thanks to the software designed with the principle of user friendly.

FAST ROBUST COMPATIBLE

Remote Access with Internet Connection



Possibility of additional training and software version update via remote connection.

Smart Vibration Control



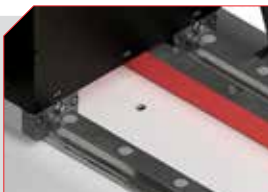
Thanks to positioning speed optimization, vibration caused by external impact is minimized actively.

Control Flexibility with Tablet PC



Possibility of additional training and software version update via remote connection.

Optimized Drive and Guiding System



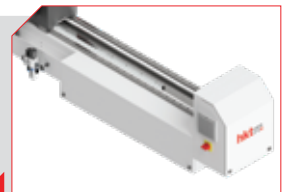
A fast, precise and silent operating motion system thanks to the drive and Guiding system optimized for operating at high speeds and accelerations.

Movable X Axis



Higher load carriage capacity and lower total height thanks to Movable X Axis design. It offers the optimum mechanical system for large-sized robot hand designs.

Integrated Control Panel



The control panel enables external electrical connections to be made by bus cable and also enables external equipment to be controlled directly. Custom design control panel, which is mounted on traverse axis, saves space in the plant.

RX25 CNC ROBOT

Thanks to the dynamic servo motors, high precision linear movement components and engineering of **Bosch Rexroth**, RX series robots are able to keep their pace and positions for each cycle at pick and place, insert placement, IML and quality assurance applications.

Thanks to Bosch Rexroth's new generation axis **control system ctrlX**, RX series robots integrate seamlessly and easily into all injection molding machines and applications and complete the machine.

Compact Design

- Low footprint on machine thanks to the compact design
- Additional free space thanks to the control panel located on main axis

Powerful and Dynamic Structure

- High rigidity and high precision thanks to steel profile axles
- Dedicatedly optimized drive and Guiding system provides high speed and acceleration
- Higher load carriage capacity thanks to X axis with body movement

Integrated Line Filter

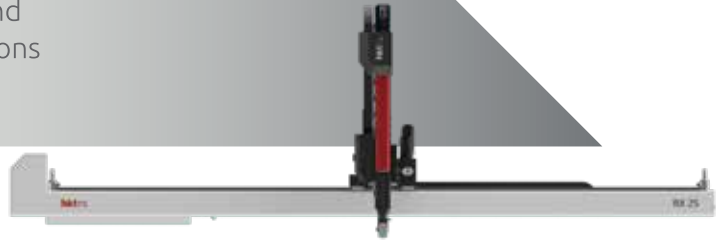
- Standard line filter minimizes the interference by responding to them and makes a more secure process possible.

Easy Control

- Integration with all injection machines via Euromap interface (12 or 67)
- I/O support for robot arm equipment
- High speed communication with axles via EtherCAT protocol

User Interface

- 10.4" large screen
- Easy control and maximum efficiency of use with a specially designed user interface

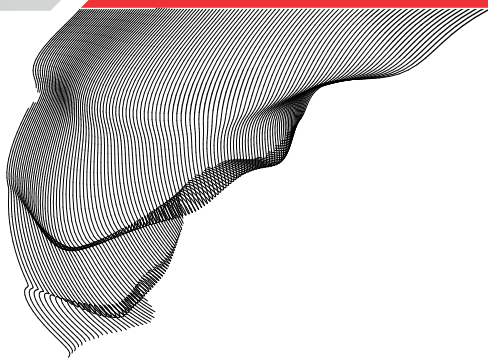


Model	Payload (kg)	Pick and Place X Axis (mm)	Horizontal Stroke Z Axis (mm)	Vertical Stroke Y Axis (mm)	Appropriate Machine Tonnage (ton)
RX25	25	900 / 1200 / 1500	2450 / 2950 / 3450 / 3950	1600 / 1950	650 - 1400



Motion and control systems designed in line with customer demands are modelled and worked into 3D on computers in the design department, and their simulation and checks are done.

We are combining the changing market requirements with up-to-date technologies to develop new systems and projects, while carrying our studies together with universities and scientific institutions.

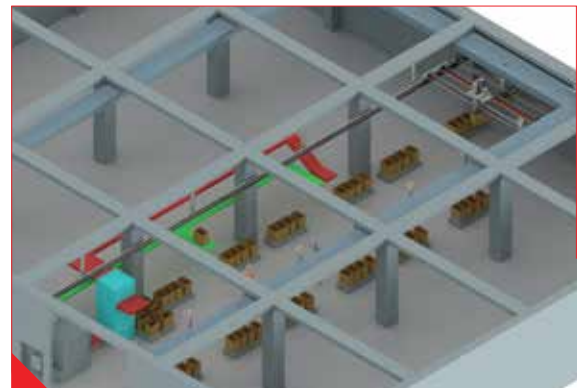
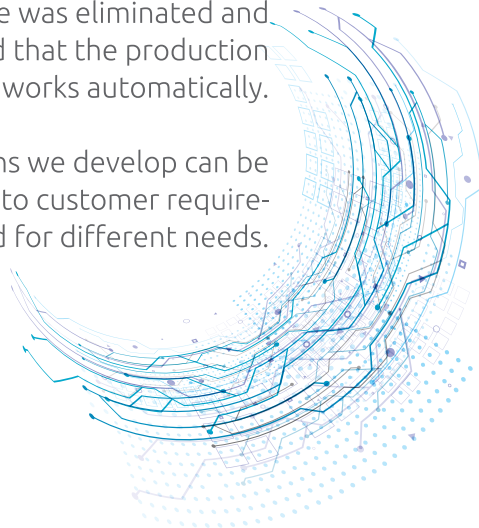


Mega Cartesian Robot Solutions For Production Halls

We are increasing the production efficiency through mega-sized custom Cartesian robots for systems where several production machines work in the same production hall, just as in the plastic injection sector.

Thanks to our Cartesian robot system that can serve 18 plastic injection machines on an area of 720 m² and that we developed for a customer who manufactures plastic covers, the automation level in production halls was increased. This way, the need to hire one person for each machine was eliminated and it was ensured that the production hall works automatically.

The modular solutions we develop can be reshaped according to customer requirements and specialized for different needs.



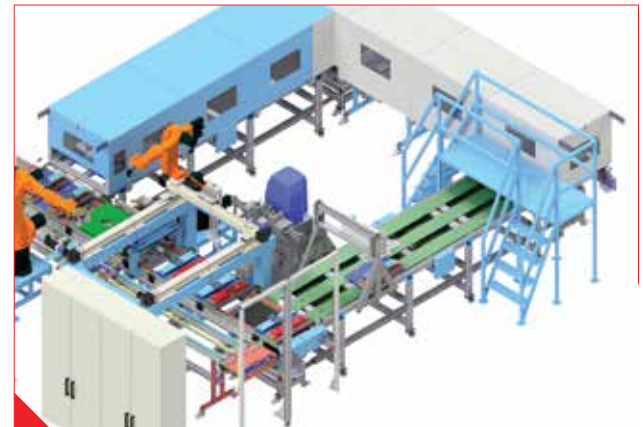
Special Robotic Solutions



Special Solutions for Bonding Lines

With the motion control technologies, we are offering bonding lines customized to needs, especially for the white goods sector, with single or double component bonding agents and sealers with different technical specifications.

After applying plasma cleaning to activate the surfaces of the parts to be bonded, high bonding strength is ensured with the single or double component bonding agents, which are applied to desired positions with low tolerance ranges through the robotic solutions developed.



Special Robotic Solutions

Aside from Cartesian robots, we can also use the six axis and similar robot systems to offer solutions for special automation project needs of our customers.



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