

# COMPACT. EFFICIENT. FLEXIBLE.

EXPERIENCE OUR CX SERIES  
INJECTION MOLDING MACHINES



**Krauss Maffei**  
*Pioneering Plastics*



Machine/  
clamping force  
in to

Clamping force in to	SP 55				SP 100				SP 180				SP 380				SP 750				SP 1000		
	15	18	20	22	20	22	25	28	25	28	30	35	30	35	40	45	40	45	50	55	50	55	60
CX 50																							
CX 65																							
CX 80																							
CX 110																							
CX 130																							
CX 160																							

	SP 750				SP 1000			SP 1400			SP 2000			SP 3000			SP 4300		
	40	45	50	55	50	55	60	55	60	70	60	70	75	70	80	90	80	90	100
CX 200	■	■	■	■	■	■	■	■	■	■									
CX 250					■	■	■	■	■	■	■	■	■						
CX 300																			
CX 350														■	■	■			
CX 420																	■	■	■

# COMPACT. EFFICIENT. FLEXIBLE. MACHINES IN THE CX SERIES

KraussMaffei's proven CX series offers the right solution for every customer wish. Thanks to a variety of components, the machines can be configured for any situation – whether for contract injection molding or a technology concern. The fully hydraulic CX series allows KraussMaffei to offer exceptionally compact, efficient and flexible two-platen machines.

Highlights of the CX series at a glance:

## **Compact thanks to**

- Two-platen concept with cantilever clamping unit up to 1,600 kN
- Ample floor space for peripheral devices

## **Efficient thanks to**

- Intelligent energy management with BluePower servo drive as standard
- Optimum accessibility
- For high standards due to one-of-a-kind clamping unit design and maximum platen parallelism

## **Flexible thanks to**

- Modular design
- As a high-performance basis for advanced technologies

# TRANSPARENT TECHNOLOGY

## A FASCINATING TOUR OF THE CX INJECTION MOLDING MACHINE

### Compact two-platen clamping unit

- Cantilevered (up to CX 160)
- Ultra-high precision
- Additional installation area
- Lubricant-free clamping unit



### User-friendly MC6 control system

- Perfect overview
- Intuitive – destination reached with just two clicks
- Individual user interface

### Easy accessibility

- Convenient and fast access to pump area

BluePower  
CX 20-180



### Fully integrated automation

- Space-saving and highly dynamic
- Integrated into control system

### One-of-a-kind: APCplus

- Zero-defect production
- Perfect component quality

### High-performance plasticizing unit

- Maximum reproducibility
- Constant melt quality
- In-line injection unit

### BluePower solutions

- Vario Drive and Servo Drive save energy
- Intelligent energy management

# ROBUST AND SPACE-SAVING THE FLEXIBLE MULTI-TALENT WITH A COMPACT DESIGN

KraussMaffei was one of the first manufacturers to introduce two-platen technology and continues to develop it today. The result is a compact, efficient and flexible multi-talent on the very highest technological level: a machine that is seen as a trendsetter throughout the industry.

## Cantilevered clamping unit

The clamping unit is cantilevered up to 1,600 kN, offering lots of space under the machine for additional peripheral equipment. Access to the conveyor belts is also ideal. A narrow support foot provides additional stability on larger injection molding machines.

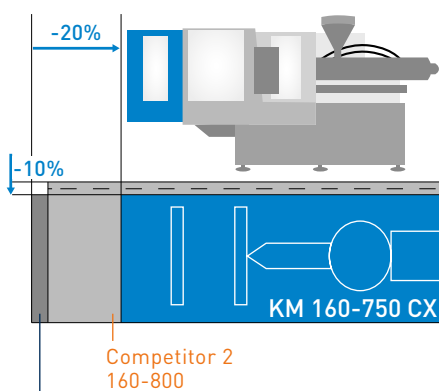
## Compact design

Thanks to the two-platen technology developed by KraussMaffei, the CX is especially compact. Compared to other manufacturers, 10 to 20 percent of the area has been saved.

## YOUR BENEFITS:

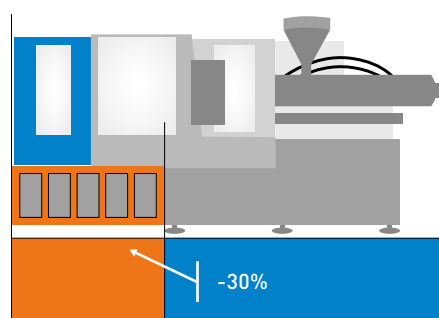
- Additional floor space below the machine
- Better use of valuable production area
- Very easily accessible

## Compact design



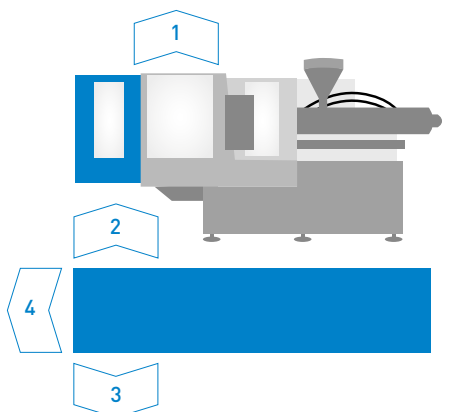
In the CX series, only the ejector is positioned on the moving clamping area. This means that the clearance can be easily extended and also that there is a maximum opening width.

## Additional installation area



Structured production: The area underneath the clamp can be used for additional peripherals, e.g. for up to 5 heat-balancing units or for the integration of a rejection chute.

## Very easily accessible



Thanks to the cantilevered clamping unit, any transport system can be used. All objects underneath the clamp are clearly visible and can be easily removed.

# OUTSTANDING ACCESSIBILITY FROM THE NOZZLE TO THE EJECTOR

## Easy viewing and perfect accessibility

The large, transparent windows allow optimal viewing into the machine. The large doors in the safety housing can be completely folded back or slid open. All important areas are thus very easily accessible, greatly reducing set-up times.

## More comfortable work on the machine

The insulating mats in the pump area reduce the volume of the machine by 3 dB. For the human ear that means noise is reduced by half.

### **YOUR BENEFITS:**

- Everything at a glance
- Fast and efficient setup and maintenance work
- Enough space for changing molds



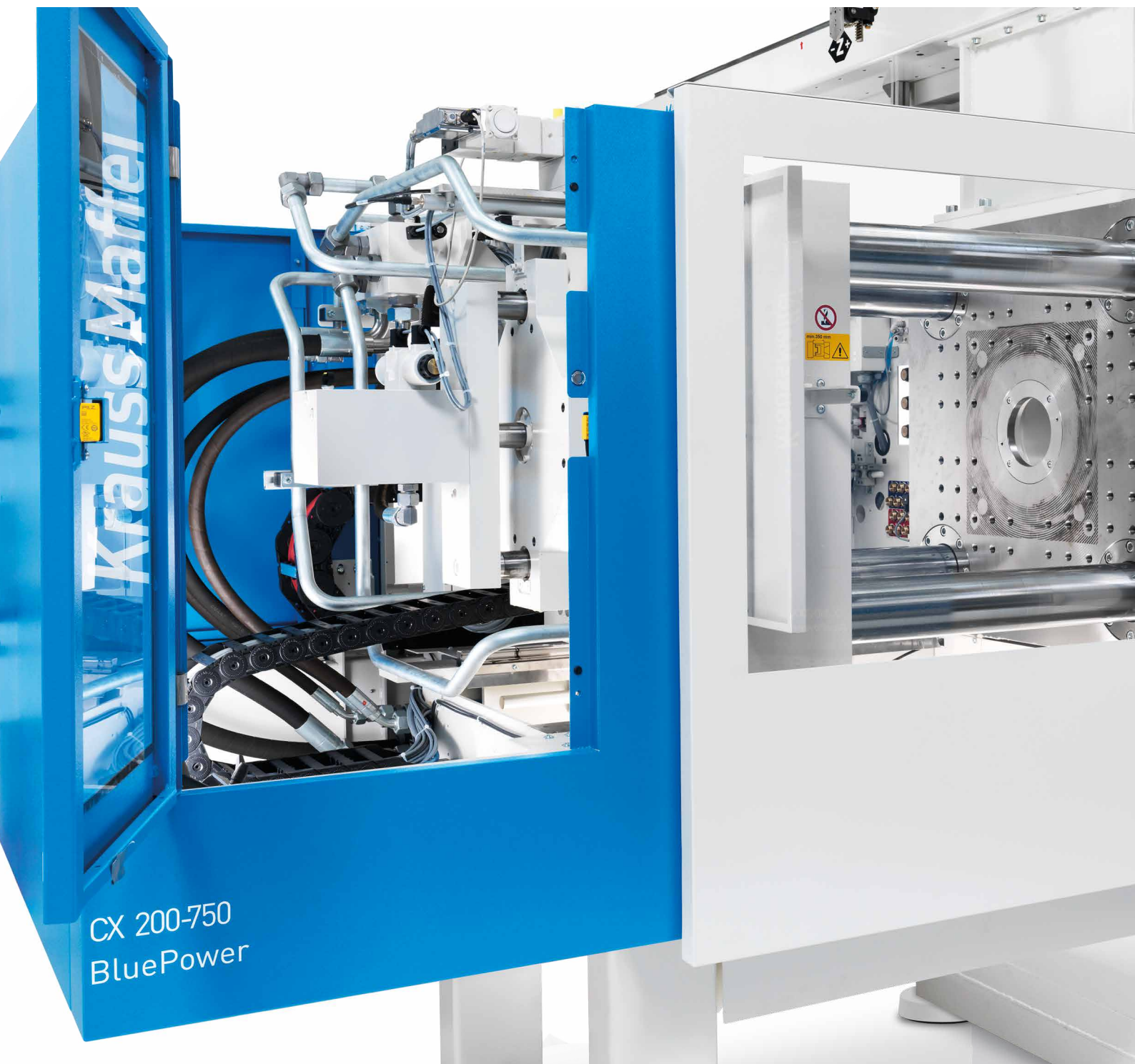
*Optimal machine maintenance due to perfect ergonomics and quick fasteners*



*First-class noise insulation and extremely simple maintenance due to quick access*



**EASIER ACCESS,  
MORE FLEXIBLE SETUP  
LARGE EJECTOR AREA**





### Optimum accessibility

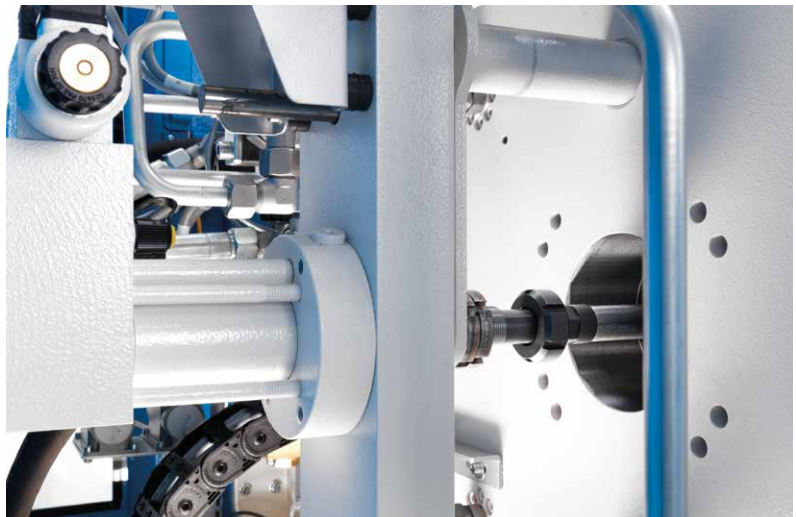
The ejector area of the CX is particularly easy for the user to access. This greatly simplifies all work, such as coupling the mold ejectors.

### Flexible ejector coupling

The new ejector coupling has a threaded adapter set for securing the mold ejector bolts with different female threads. The connection is free of play and permits an axis offset compensation. The union nut can be connected quickly to the ejector part, which greatly simplifies changeovers.

### YOUR BENEFITS:

- Simplified setup saves time
- Ergonomic work



*Flexible ejector coupling for fast setup,  
also available with adapter set*

# MINIMUM REJECT RATES – MAXIMUM PROFITS THE INJECTION UNIT – A MASTERPIECE

Plasticizing systems are the heart of a machine and the core competence of KraussMaffei. They are distinguished in particular by their excellent shot weight consistency. This allows you to minimize your reject rate and produce the best quality products.

## In-line injection unit

On the proven in-line injection units with a rotary piston design, the force is transferred centrally via the injection rotary pistons to the screw. The regulation is always high-resolution, even at low pressures.

## YOUR BENEFITS:

- Maximum shot weight consistency
- First-class reproducibility



## Optional: electric screw drive

The electric screw drive can save cycle times due to independent plasticizing during the clamping movement.



# SAVES ON MULTIPLE COUNTS: MATERIAL, TIME, ENERGY AND MONEY! THE HIGH-PERFORMANCE SCREW

## Leading range of screws and check valves

Depending on the part requirement, special plasticizing systems containing specific screws, non-return valves and cylinder fittings are available in our product portfolio. Additional requirements such as wear resistance to adhesion, abrasion and corrosion are taken into account in this respect. The wide range of plasticizing screws includes, for example, solutions for processing all common plastics.

## 30 percent batch savings: HPS-M screw

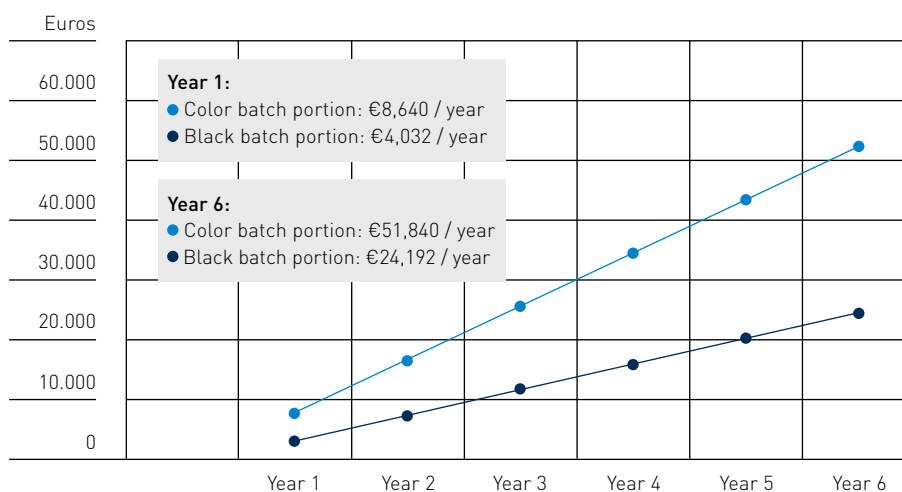
Together with the check valve, the robust efficiency and precision consistently produce outstanding outcomes. The screw enables a high throughput and guarantees a uniform material, thanks to an excellent mixture, allow-

ing expensive master batch portions to be saved. Moreover, scrap rates are minimized and longer service lives are realized due to the gentle materials processing.

## YOUR BENEFITS:

- Flexible use of all types of materials
- Long service life due to hard faced screw flights
- Check valve for homogeneous color distribution in the component
- Up to 20 percent shorter color change times due to HPS-M screw

## Sample calculation for 10 percent savings: 30 s cycle, 200 g shot weight, 6,000 production hours/year



Leading range and long service life due to screw plating.

*Thanks to excellent melt homogeneity, the batch portion has been reduced by 0.4 percent ( $\Delta$ : 3.5 percent: 3.1 percent) compared to standard screws.*

# ON THE WAY TO ZERO-DEFECT PRODUCTION APCPLUS (ADAPTIVE PROCESS CONTROL)

With APCplus, material-related fluctuations can be compensated for precisely and quickly. The APCplus function continuously analyzes and regulates the injection molding process for all thermoplastic series.

## Intelligent machines

APCplus recognizes process fluctuations, which can be caused by changing ambient conditions or fluctuating viscosity, and independently adopts counteractive measures. Based on the melt compressibility of different materials, APCplus always ensures the cavity is com-

pletely filled. You will therefore benefit from a uniformly high component quality, lower scrap and material costs and the simplified use of recyclate.

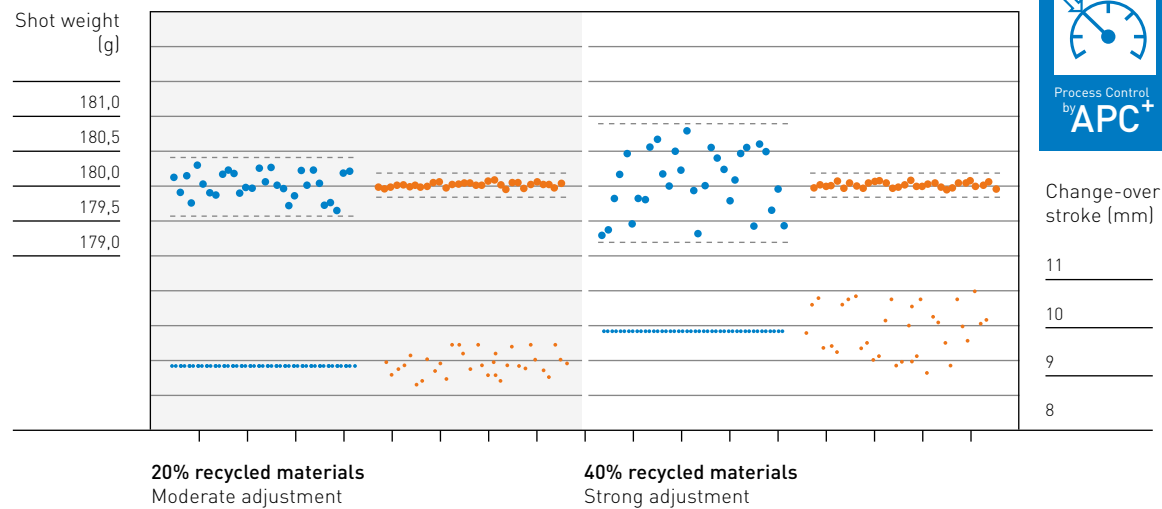
## APCplus: Perfect shot weight consistency

With APCplus, we are providing numerous intelligent features, such as the capacity of the machine to account for the specific behavior of the raw material. The optimized user-friendliness makes process control easier. For cascade injection molding or the manufacture of thin-walled parts as well, APCplus ensures perfect component quality with a constant mold volume.

## YOUR BENEFITS:

- Zero-defect production
- Saves resources and money
- Simplified machine operation

Shot weight consistency: use of recycled materials of 20% and 40% – each with and without APCplus





## APCplus when manufacturing complex plug-in connections

Industry: Electrical and electronics

### Application:

#### Plug-in connection with three metal inlays

- Number of cavities: 1
- Shot weight: 25 g
- Cycle time: 30 s
- Material: PA GF

### Machine details: CX 80-180

- Clamping force: 800 kN
- Screw diameter: 28 mm

### Requirements:

- Space-saving integration of the automation
- High efficiency when positioning and insert molding the metal parts
- Followed by an advanced inspection routine

### Customized solution:

- Complete manufacturing cell with injection molding machine and automation on a footprint of less than 20 m<sup>2</sup>
- High insertion accuracy of the robot of under 0.1 mm when positioning the metal inlays

### Successful implementation of APCplus:

- 100 percent process stability and thus uniformly high component quality
- Every part is a good part
- Smooth and secure installation of the plug in the connection



# INCREASING ENERGY AND RESOURCE EFFICIENCY

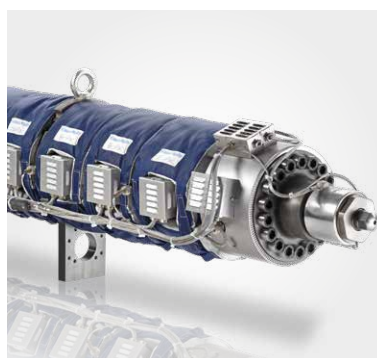
## THE BLUEPOWER INITIATIVE

High power consumption means high production costs. KraussMaffei's standard BluePower servo drives and their many integrated functions offer lots of fine-tuning options that make it possible for you to reduce consumption and costs by up to 50 percent.



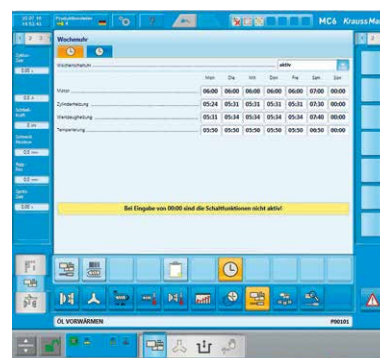
### Savings with BluePower drive units as standard

KraussMaffei uses the Vario Drive for forces up to 1,600 kN and the Servo Drive from 2,000 kN. Both variants achieve the highest possible efficiency with additional noise reduction.



### Full insulation for plasticizing barrel

A precisely fitting sleeve of multi-layered glass fleece sewn into a protective fabric significantly reduces energy consumption. The insulating sleeves sustainably reduce radiation losses from the heating tapes to the environment.



### Weekly Timer: intelligent, highly accurate production planning

With Weekly Timer, the machine operators can precisely set the desired start of production. An intelligent process is used to automatically teach the MC6 control system the length of the preheating phase and it is ready for operation at exactly the right time.

### Savings potential in brief:

- 10 to 40 percent reduction in energy consumption
- Reduced heating time
- Energy savings up to 30 percent
- ROI one to two years
- Optimum planning of the start of production
- Energy savings due to accurate heating and starting of all consumers
- Included in standard specification



## YOUR BENEFITS:

- Intelligent and precise production planning
- More comfortable work on the machine
- Active accumulator management
- Energy losses sustainably reduced
- Transparent, up-to-date energy measurement



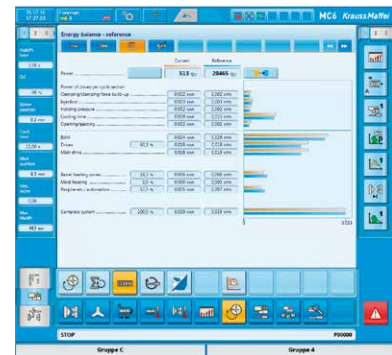
### ecoAssistant: Energy efficiency at the push of a button

Simply press the Eco button to adopt the most efficient energy settings. This assistant evaluates the best energy settings within 5-20 cycles. Example: CX 50 (BluePower), cycle time 15 s, shot weight 48 g = 6 percent savings.



### Active accumulator management

The storage management function is available under "Accumulator". This works out the best possible accumulator operating pressure and saves energy. It is actively disabled for applications which do not require the power of the accumulator. Additional recharging is thus not necessary.



### A complete overview: energy analysis tool

This tool shows the total energy consumption in the actual state compared to a reference. Furthermore, the energy consumption is displayed for all cycle sections. Peripheral equipment, heating and automation connected to the injection molding machine are also measured.

### Savings potential in brief:

- Up to six percent of the total energy consumption
- Simplified operation
- In standard specification

- Up to 10 percent of the total energy consumption

- Up to five percent savings due to optimized cycles
- All consumers are measured live and their values saved

# THE BLUEPOWER VARIO DRIVE UP TO 1,600 kN VARIABLE-SPEED ASYNCHRONOUS MOTOR

The BluePower Vario Drive for injection molding machines with lower clamping forces of 500 to 1,600 kN provides for low energy consumption and noise emissions.

## Variable-speed asynchronous motor

You can significantly reduce the energy consumption of your KraussMaffei machine with the optional BluePower Vario Drive with frequency converter – all while generating less noise! All drive systems on the CX series have been completely reworked with the addition of the variable-speed asynchronous motor (Vario Drive). This results in substantially improved efficiency and reduced idling capacity.

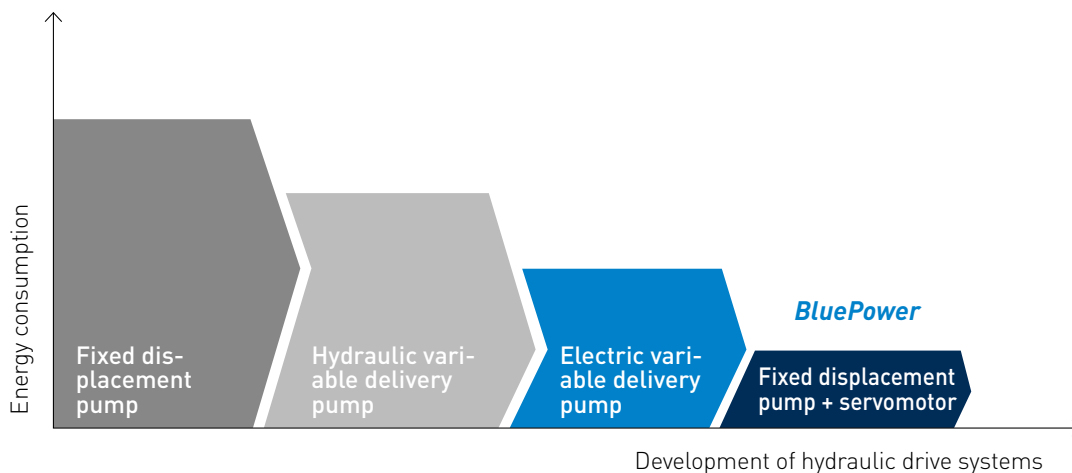
The intelligent control system always specifies the most energy-efficient operating point. The system constantly optimizes itself based on new information. This leads to greatly reduced energy consumption.


The reduced speed contributes to lower noise emissions from the injection molding machine. This makes working with the machine much more pleasant.

## YOUR BENEFITS:

- 10 to 30 percent less energy consumption
- Enhanced employee protection
- Efficient manufacturing

## Minimal energy consumption with the BluePower Vario Drive Comparison with other pump systems





*Another variable delivery pump can be optionally retrofitted at any time. This allows parallel movement of the ejector and use of the cores during the clamping movement*

#### **YOUR BENEFITS:**

- 25 percent longer oil service life
- 10-40 percent energy savings

## THE BLUEPOWER SERVO DRIVE UP TO 4,200 KN SERVO-HYDRAULIC DRIVE SYSTEM

For the energy-related optimization of hydraulic drives, Servo Drive Technology uses the high dynamics of servomotors to adapt the rotational speed of the hydraulic system pump, always in conformity with the actual need. Therefore, depending on the application and machine model, the energy consumption is up to 40 percent lower than for previous solutions.

#### **Rotation speed drops toward 0**

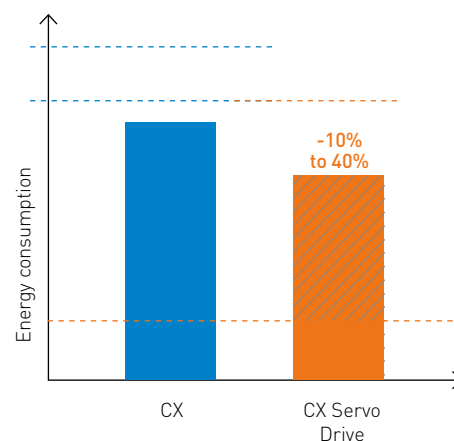
In every injection molding process there are phases in which the machine is not active. In these phases, the rotational speed of the BluePower Servo drive unit drops toward zero and hardly any power is used.

#### **Autonomous oil filter system**

The extremely high filter quality and particularly gentle oil treatment allows the service life of the oil to be significantly increased and thus time and money to be saved.

#### **Energy assessment of the CX series**

Comparative energy measurements on the CX 350 with SP2000



# NO LIMITS IN CHOICE OF MOLD WIDER PLATENS AND HIGH MOLD WEIGHTS

The KraussMaffei standard already provides more space for molds. Since we are not satisfied with just the standard, you have the option of choosing between different platen sizes and spacing.

## 40 percent larger mold volume

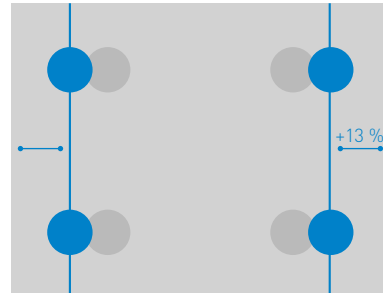
To offer you more flexibility when using your mold, the platens can be enlarged by up to 13 percent and the opening width by up to 22 percent – while the floor space remains the same.

## High mold weights

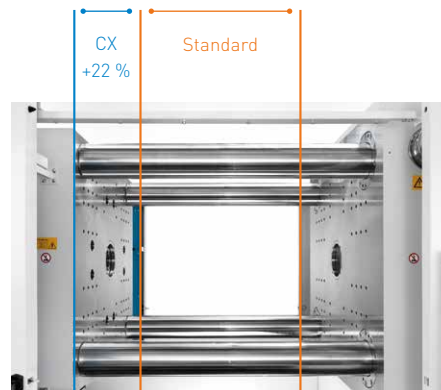
The implemented molds are as diverse as their applications. Its stable clamping design means the CX can hold molds with higher weight than other manufacturers. The uninterrupted machine bed means the platen parallelism remains constant, even for heavy molds.

### ***YOUR BENEFITS:***

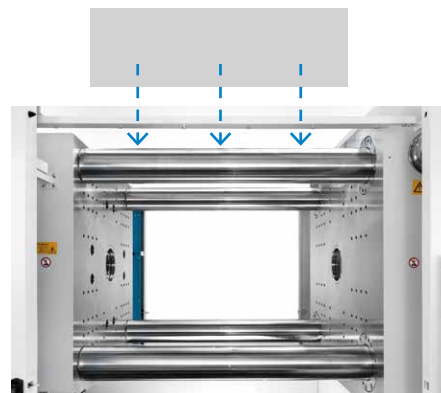
- Use of heavier and larger molds
- More flexibility
- More volume in the same floor space




+13 percent wider platens



+22 percent higher opening width



A large industrial machine, the KraussMaffei bar-pulling system, is shown in a clean, white environment. The machine features a prominent horizontal arm with the 'KraussMaffei' logo in blue. Below the arm, a vertical column supports a complex mechanism for pulling and positioning bars. A control panel with a digital display is visible on the right side of the machine. The overall design is sleek and functional, typical of modern industrial equipment.

*Even complex molds can be installed simply by removing the bar. The mold can even be introduced laterally for low shop heights.*

**KraussMaffei**

#### **YOUR BENEFITS:**

- Quick and simple mold changes
- Allows mold changeovers even in low-ceilinged halls

## **ALWAYS THE RIGHT SOLUTION MANUAL OR FULLY AUTOMATIC BAR-PULLING**

The trend is towards increasingly large and complex molds. KraussMaffei offers two variants for bar-pulling – depending on your preferences – so that these molds can be installed quickly on the CX.

#### **Bar-pulling solutions for the CX series**

##### **Solution for few mold changes:**

- Hydraulic bar-pulling device with manually released bar screws or manual locking

##### **Solution for many mold changes:**

- Hydraulic bar-pulling device with automatic interlock

# FROM LARGE TO SMALL ADAPTATION OF THE PLASTICIZING UNIT

Flexibility is everything in modern manufacturing. The optional plasticizing unit adapter provides more flexibility in machine assignment and enables the use of smaller shot weights.

## High flexibility

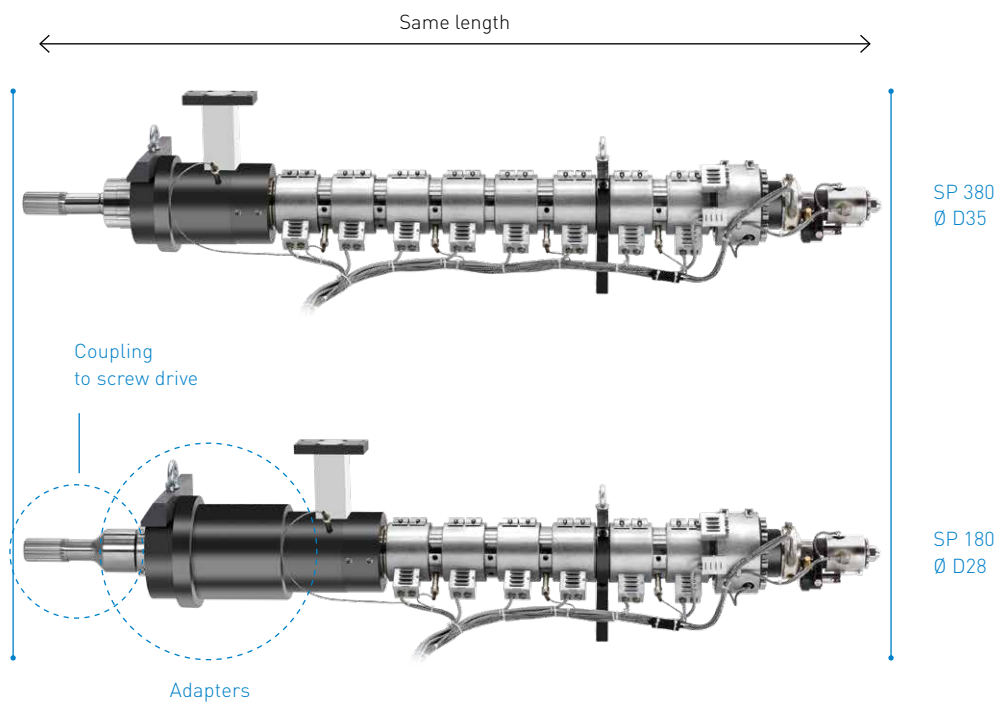
All screw diameters can be used with the adapter unit via two plasticizing units. The adapter fits perfectly on smaller units, guaranteeing optimum shot weights.

## Simple installation

Even when using the adapter, neither the length nor the installation position are changed; no alterations are necessary. It is also possible to use standard plasticizing.

## YOUR BENEFITS:

- High flexibility in injection molding production
- Increase in production efficiency
- Service-friendly
- Very simple retrofitting
- Prevents lengthy alterations





# PREDESTINED FOR CLEANROOM USE CX SERIES

Applications for medical technology require very high product cleanliness and quality. The CX series is medical-compatible, even in standard models.

## Ideal for high-precision requirements

The hydraulic clamping unit – clean and compact – in combination with the electric injection unit ensures a high performance level for parallel plasticizing and injection rates of up to 300 mm/s. The machine concept with cantilevered clamping unit makes high cleanroom classes possible. That makes them an efficient universal solution in the electronics and medical industries as well as for the production of sophisticated technical parts.

## Absolute precision

A hydraulic machine that delivers consistently high precision and first-class product quality. For example, the mold can be opened and the ejector activated during plasticizing. The exact control and high-precision movement of the drive units guarantee processes with maximum repeatability and extremely tight tolerances.

## YOUR BENEFITS:

- Extremely compact and space-saving design
- Extremely clean and easy to maintain (high-gloss, antistatic surfaces)
- Easy access for mold installation and cleaning
- Suitable for use in cleanroom class ISO 14644



# A CRITICAL FACTOR IN EFFICIENT MANUFACTURING

## FAST AND TARGETED CONTROL WITH ELECTRIC WATER DISTRIBUTORS

The quick, targeted cooling of finished parts is a critical factor in efficient manufacturing. KraussMaffei uses electric water distributors integrated into the MC6 control system to improve this aspect even more.

### Automatic monitoring

The important parameters for cooling and heat-balancing are automatically monitored. Delivery pressure and temperature are recorded centrally. For each individual mold circuit, the flowrate and the return flow temperature are also measured and displayed on the control system. When deviations exist, the machine

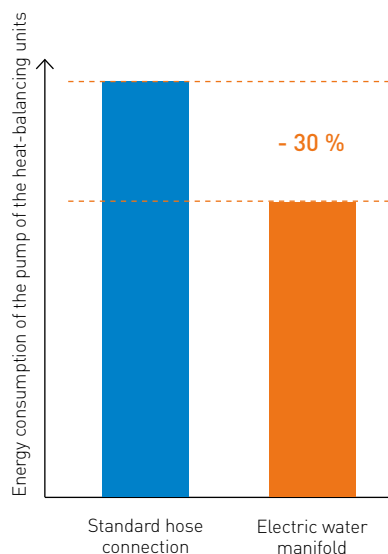
generates an error message. Quality fluctuations can thus be avoided. An important step toward zero-defect production.

### 30 percent less energy

Due to significantly larger cross-sections of the water distributor hose connection, pressure loss and potential energy loss are greatly reduced.

### YOUR BENEFITS:

- Less downtime due to high process stability
- Easy, central operation
- Documentation option
- Improved cooling effect
- Efficient production



*Up to 30 percent lower energy consumption by the pump of the heat-balancing units with the use of new water distributor.*



*Lower energy consumption on heat-balancing units due to significantly larger supply line cross-sections.*

# THE BASIS FOR SUCCESSFUL SPECIALIZATION CX AS THE IDEAL PLATFORM FOR ALL TECHNOLOGIES

## Platform for first-class product quality

Our decades of expertise, our innovative ability and our passionate commitment to plastics engineering give you the competitive edge.

KraussMaffei offers integrated processes which are implemented well beyond the standard for the production of premium quality products. The CX series is the ideal platform for this.

## YOUR BENEFITS:

- Production of plastic parts with additional functions
- Long-term success with the technological leader, KraussMaffei

## The CX is the high-performance basis for advanced technologies

Robust machine technology specialized for free-flowing thermosets.

Offers great freedom for function integration and combines material properties.

Allows maximum cleanroom classes due to lubricant-free clamping unit.

Enables safe and precise liquid and solid silicone processing.

Combines thermoforming of organo sheets with injection molding and improves the structural strength while retaining minimal weight.

Direct compounding combines injection molding with compounding technology and opens up completely new possibilities for individually combining starting materials and processing them in a single-stage process.

Reduces weight, improves stability and shortens cycle times.

Makes gentle processing of unsaturated polyester molding compounds possible due to optimal plasticizing and feed systems.



# UPPERMOST PRIORITY: USER FRIENDLINESS FROM LOGGING IN TO QUALITY ASSURANCE

With the intuitive MC6, KraussMaffei has developed a system that improves every facet of machine operation for the user. Our experienced software specialists always strive to develop useful functions that keep navigation simple.

## 1. LOGGING IN



### Quick, reliable start

- **RFID badge:** Certified in accordance with Europmap 65, provides quick and easy access to personalized work area.
- **Password-protected levels:** Flexible security settings prevent misuse.

## 2. DATA MANAGEMENT



### Easy to load and save

- Save and load data via a USB stick, central computer or remote operation
- Data records recalculated automatically to match the current machine size (e.g. screw diameter)

## 3. MACHINE SETUP



### Quick to program, clever configuration tools

- **Process Designer:** Process sequences are easy to create and all ongoing processes are displayed visually. If required, processes can be created and modified easily by dragging and dropping or using intuitive swipe movements.
- **Barrel Heating Assistant:** Use the assistant to load cylinder temperature profiles from a comprehensive material database in seconds. When the plastic material scheduled for processing is selected, the MC6 calculates the correct setpoints for the temperature profile.
- **Weekly Timer:** This function automatically calculates the switch-on times for oil preheating and cylinder temperatures. The specified production start time is essential for the calculation, which also incorporates the ideal heating time.

## YOUR BENEFITS:

- RFID and password-protected levels for a quick, reliable start
- Quick to program, clever configuration tools (SplitScreen, XtraScreen, Process Designer, Barrel Heating Assistant, Weekly Timer)
- Interactive communication between automation system and control unit
- Innovative features such as live streaming and remote service via Remote Manager, Eco Button, APCplus and many more.
- Energy efficiency, improved cycle times and process reliability save valuable resources
- Quick and efficient process control

### 4. PRODUCTION



#### Innovative features for optimized production

- **ecoAssistant:** Simply click the Eco button to adopt the most efficient energy settings for the machine.
- **Cycle time analysis:** The user can continuously check the cycle and setup times, which are clearly displayed in bar graph format (comparison of reference times and actual values), to determine whether all the processes are running correctly and identify any untapped potential.
- **APCplus:** Monitors the melt viscosity during injection and regulates the change-over point and holding pressure in the same shot in accordance with the material characteristics – for constantly optimal mold filling.
- **Log book:** Any modifications to settings are saved to ensure maximum transparency, even during shift operation.
- **Remote service** with Remote Manager
- **Camera function:** Even areas that are difficult to see, such as the non-operator side, can be visualized via live video streams.

### 5. ANALYSIS



#### Analysis tools for quick and efficient process control

- **Actual value log:** Stores all relevant parameters, including statistical evaluations and tolerance monitoring data.
- **Trend graphs:** Graphic illustration of selected parameters. Special feature: long-term graphs can be displayed for several months to identify even the smallest variations.
- **Graph analysis package:** Illustration of up to ten selected graphs (e.g. pressure graph) with tolerance range and area monitoring.
- **XR control charts:** Numerical and graphical process evaluation using statistical assessment criteria (process capability).
- **dataXplorer:** Continuous process monitoring and documentation for additional process analysis

# LEADING RANGE OF OPTIONS AND COMBINATIONS ATTRACTIVE CX CLASSIX MACHINE PACKAGE

The CX series is highly flexible and in conjunction with the ClassiX range is a cost-effective special version that satisfies all your requirements. At the same time, it offers the most comprehensive range of options for individual solutions for all industries.

Choose your CX ClassiX from 150 basic machines with 420 basic combinations and a selection of 500 additional options in proven KraussMaffei quality.

## Reduced investment with CX ClassiX

Shorter lead times and an attractive price: the ClassiX machine package combines the reliable technology of the CX series with absolute modularity and standardized options for maximum flexibility. Nearly all options from the extensive CX series catalog are available for this purpose.

## YOUR BENEFITS:

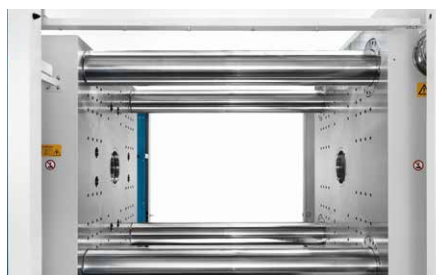
- Attractive and extensive machine package
- More options at an attractive price
- Reduced machine investment
- Shorter delivery time



Plasticizing unit



x screw



ClassiX

x clamping unit

= 420 combinations

- **420 possible basic combinations** consisting of:
  - Plasticizing system
  - Screw
  - Clamping unit

- **Additional 500 options**, for example:
  - Four hydraulic core pullers on every side
  - Wider platens
  - Larger installation height

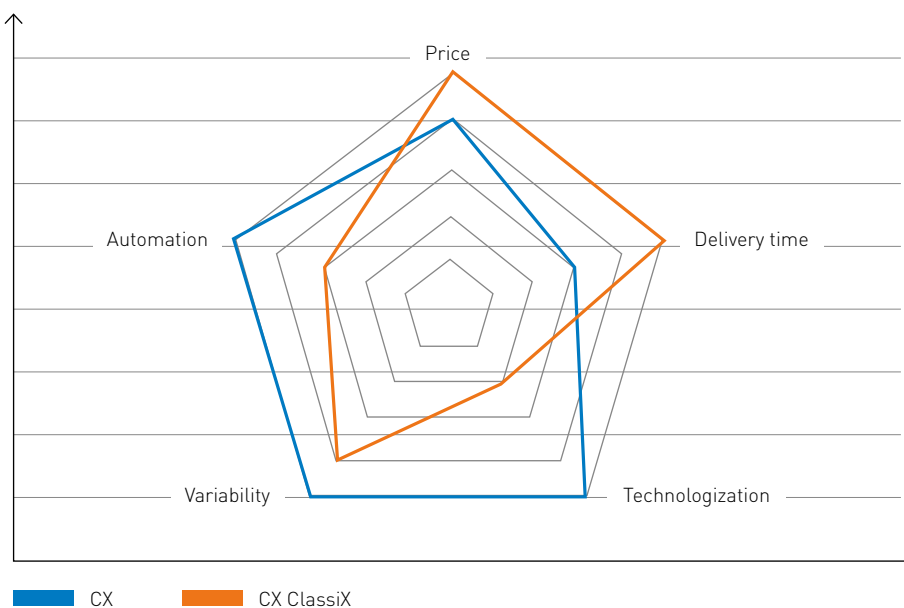
= 500 options





**CX ClassiX model with leading range: also available with APCplus.**

#### Main features of the CX ClassiX: maximum flexibility at an attractive price



#### The cost-effective special version for standard applications

The CX ClassiX can be easily adapted to your product requirements and manufacturing processes.

# SPACE-SAVING, ENERGY-EFFICIENT AUTOMATION THE SPX10 SERVOMOTOR-CONTROLLED SPRUE PICKER

## Stable design

With the SPX10 servomotor-controlled sprue picker, KraussMaffei expands upon diverse automation options and significantly increases user-friendliness compared to pneumatic solutions. Its compact design and stability enable the safe and reliable demolding of payloads up to 1000 g. The servo drive ensures highly dynamic demolding and precise repeatability, thus conserving energy and resources.

## Quick demolding

The freely selectable standby position of the gripper allows the demolding time to be greatly reduced. Quick machine cycles can be implemented easily.

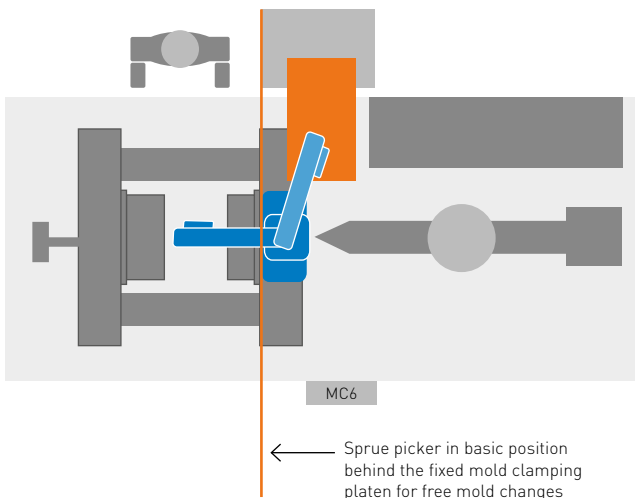
## Saves up to 99 percent compressed air

In manufacturing, even air costs money. Pneumatic axes need compressed air to put them in motion and sometimes lose air due to leaks in lines. The energy-efficient servo drive is driven almost completely electrically, and saves up to 99 percent or more of expensive compressed air.

## Very easily accessible

Machine and sprue picker, located in the same protective housing, form a complete system. This complete system is the most space-saving solution on the market. Since the chute is located behind the solid platen, the user can access the clamping unit at any time. The sprue chute with nozzle safety gate is integrated on the operator rearside. Furthermore, the cumbersome movement of the picker during mold changes is also not necessary. Simply bring it into the home position.

Free access to the clamping unit  
area on the operator rearside



## YOUR BENEFITS:

- Safe sprue demolding
- Integration into the MC6 machine control system
- Fast demolding time due to intermediate stroke
- Saves 99 percent of compressed air
- 85 percent power savings
- Fast startup and easy mold change
- Long product lifecycle

*Everything in the protective housing: in the home position,  
the sprues can be transported away via the chute.*

# EFFICIENT USE OF YOUR INSTALLATION AREA

## AUTOMATION IN EXISTING MACHINE HOUSING

The LRXplus linear robot is putting KraussMaffei on a new path. Discharge via the clamping unit and the integration of the conveyor belt into the machine housing mean that no additional protective housing is necessary. This saves space and costs.

### Space-saving

Unlike standard solutions in which robots carry the parts away laterally, robots with the new CX move to the clamping unit in a lengthwise direction and place the parts into the protective housing. All peripherals are integrated into the machine in a small area.

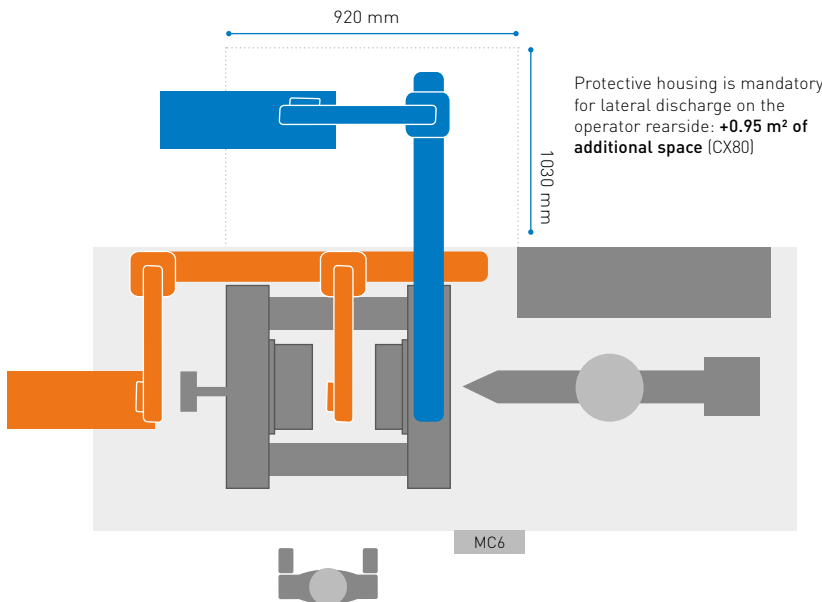
### Lower costs and a clear layout

Uniform component quality is the crucial factor in production.

Since the parts are no longer discharged on the operator rearside, the user has a clear view of the parts at all times – without needing to leave the operator side. With this solution, you will save on both the protective housing costs and costs related to space.

### YOUR BENEFITS:

- Efficient use of your floor space
- Four CX cells fit on the footprint of three standard systems
- Simplified quality control
- Quicker reaction options
- No additional protective housing



- Discharge on the operator rearside
- Longitudinal discharge within the protective housing

*In this KraussMaffei solution, all peripherals are located in a small area.*



# OUR WORLDWIDE EXPERTISE IS YOUR ADVANTAGE **DIGITAL & SERVICE SOLUTIONS**

With your KraussMaffei machine, you have chosen a product that delivers the highest levels of productivity and reliability. In addition to our range of machinery, KraussMaffei focuses on comprehensive and future-oriented solutions, innovative business models and an innovative portfolio of digital products.

## **Customer service at the touch of a button**

The process of digital transformation is becoming faster and easier than ever for the customer. Our Digital & Service Solutions unit makes your production chain even more flexible and efficient with future-oriented solutions. KraussMaffei thus globally provides an all-inclusive customer service package and networks machines and processes with each other. Our global support offers a sound basis for your local long-term success.

## **Individual challenges in mechanical engineering call for intelligent solutions**

With our services portfolio, we support you throughout your machine's lifecycle with a strong focus on your specific needs. In order to satisfy your wishes, we offer you a wide range of solutions in order to ensure maximum availability and optimum productivity of your machines.

## **Technology<sup>2</sup> as a unique selling proposition**

KraussMaffei is the only supplier in the world with a product range comprising the most important machine technologies for plastic and rubber processing: injection molding machinery, automation, reaction process machinery and extrusion technology. KraussMaffei is represented worldwide with more than 30 subsidiaries and over 10 production plants as well as about 570 commercial and service partners. Working together with our customers and partners, we are thus in a position to offer vast and unique expertise in the industry.

**You can find further information at:**  
[www.kraussmaffei.com](http://www.kraussmaffei.com)

# KRAUSSMAFFEI – PIONEERING PLASTICS



## Extensive expertise from a single supplier

KraussMaffei is one of the world's leading manufacturers of machinery and systems for producing and processing plastics and rubber. Our brand has been synonymous with cutting-edge technology for over 180 years. Our product range includes all technologies in injection molding, extrusion and reaction process machinery. KraussMaffei has a unique selling proposition in the industry as a result. By drawing on our proven innovative capacity, we can guarantee our customers sustained additional value over their entire value-adding chain through our standardized and individual product, process, digital and service solutions. The range of our products and services allows us to serve customers in

many sectors including the automotive, packaging, medical and construction industries. We also supply manufacturers of electrical and electronic products and household appliances.

## At your service all over the world

KraussMaffei is represented all over the world. Subsidiaries provide you with support in the countries shown in light blue. Our sales and service partners take care of you in the regions shown in white.

You can find all contact information at  
[www.kraussmaffei.com](http://www.kraussmaffei.com)

# COMPACT. EFFICIENT. FLEXIBLE.

EXPERIENCE OUR CX SERIES  
INJECTION MOLDING MACHINES



***[kraussmaffe.com](http://kraussmaffe.com)***