



# Compact. Efficient. Flexible. Machines in the CX series

*Engineering Passion*

***Krauss Maffei***



## Compact. Efficient. Flexible. Machines in the CX series

KraussMaffei's newly upgraded CX series offers the right solution for every customer wish. Different modules allow individual configurations for every machine – whether for contract injection molding or a technology corporation. With the fully hydraulic CX series, KraussMaffei offers especially compact, efficient and flexible two-platen machines.

Highlights of the CX series at a glance:

### **Compact**

- due to the two-platen concept with cantilever clamping unit up to 1,600 kN
- with large installation areas for peripheral equipment

### **Efficient**

- thanks to an intelligent energy management system and BluePower efficiency packages
- due to the new drive concept and state-of-the-art clamping unit hydraulics

### **Flexible**

- due to the modular design
- as 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

- Perfect overview
- Intuitive – just two taps to the desired target
- Individual user interface

### Screwless cover

- Convenient and fast access to pump area
- Additional sound insulation

BluePower  
CX 50-180

### Fully integrated automation

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

### Unparalleled: APC plus

- 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.

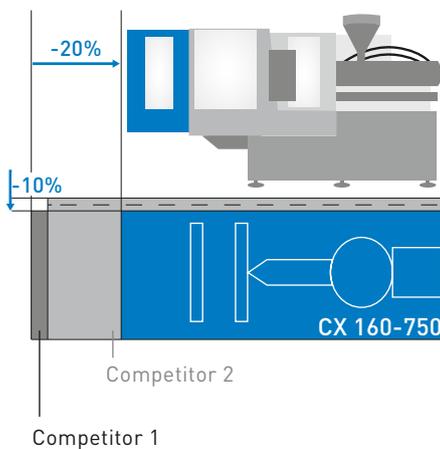
#### Compact design

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 advantages:

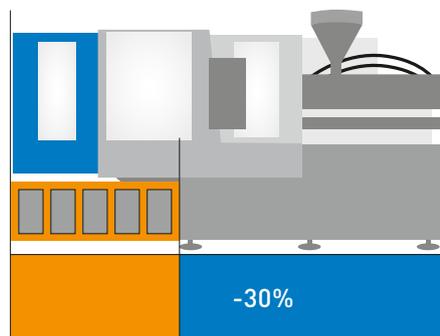
- Additional installation area below the machine
- Better use of valuable production area
- Very easily accessible

#### Compact size



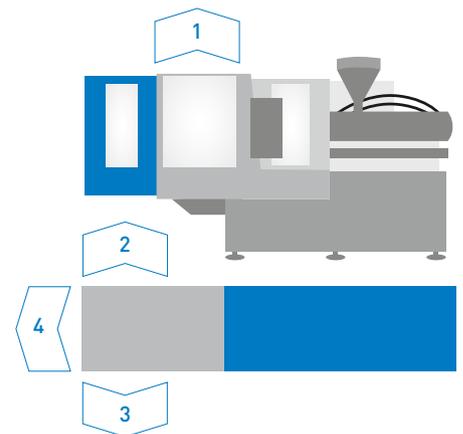
In the CX series only the ejector is positioned behind the moving platen. This means that the mold height and maximum opening width can easily be increased.

#### Additional installation area



Structured production: the area underneath the clamping unit can be used for additional peripherals, such as up to 5 heat-balancing units, or for the integration of a rejection chute.

#### Very easily accessible

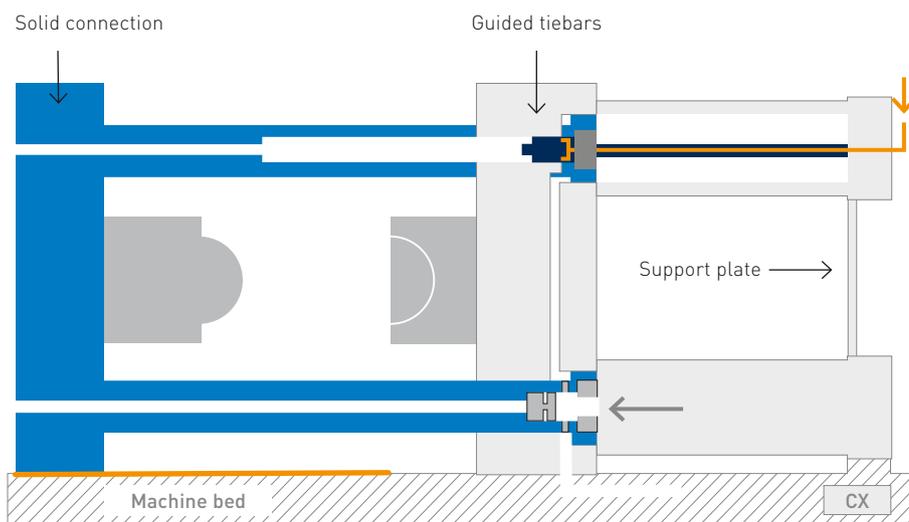


The cantilevered, 2-platen clamp allows parts transport in any direction. A clear arrangement and maximum accessibility give the operator additional support.



Structured production: installation area under the machine for additional peripheral equipment.

### Highly stable frame



Linear precision guides support over the entire clamping range.

### Proven two-platen technology

The clamping unit consists of a highly stable frame in box-type design. Forces are guided over the maximum possible distance. The four interconnected clamping cylinders guarantee a uniform distribution of forces. The result: extremely high mold weights can be used with absolute platen parallelism – no tilting, no misalignment.

#### Your advantages:

- Absolute platen parallelism
- Perfect component quality (no flash, etc.)
- Good mold protection

## Outstanding accessibility From the nozzle to the ejector



Optimal machine maintenance due to perfect ergonomics and quick fasteners

### 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 when working with 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 advantages:

- Highly reliable
- Fast and efficient setup and maintenance work
- Enough space for changing molds



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 new 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 has zero play and allows axial offset compensation. The union nut can be connected quickly to the ejector part, which greatly simplifies changeovers.

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#### Your advantages:

- Simplified setup saves time
  - Ergonomic work
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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. Regulation is always high-resolution even at low pressures.

#### Your advantages:

- 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.

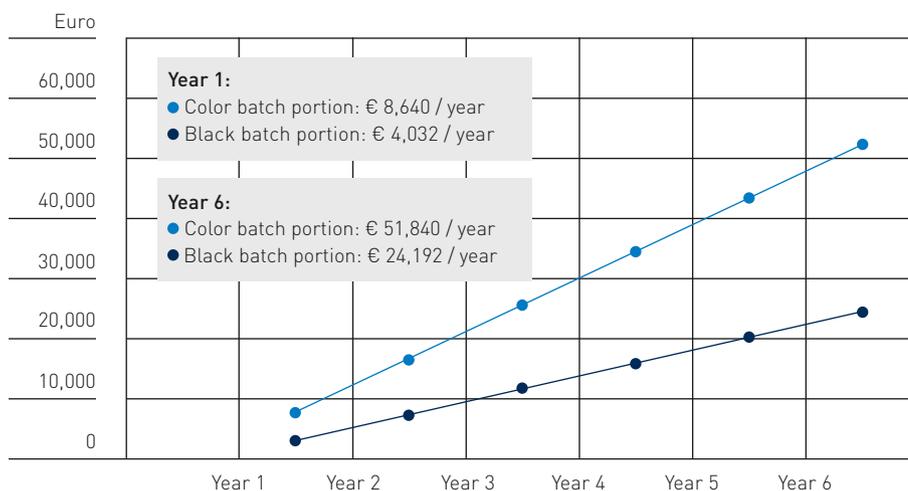
### 30% batch saving: HPS-M screw

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

- Flexible use of all materials
- Long service life due to bridge plating
- 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



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.



Leading range and long service life due to screw plating.

## On the way to zero-defect production APC plus (Adaptive Process Control)

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

### Intelligent machines

APC plus 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, APC plus always ensures the cavity is completely filled. You will therefore benefit from a uniformly high component quality, lower scrap and material costs and the simplified use of recycle.

### APC plus:

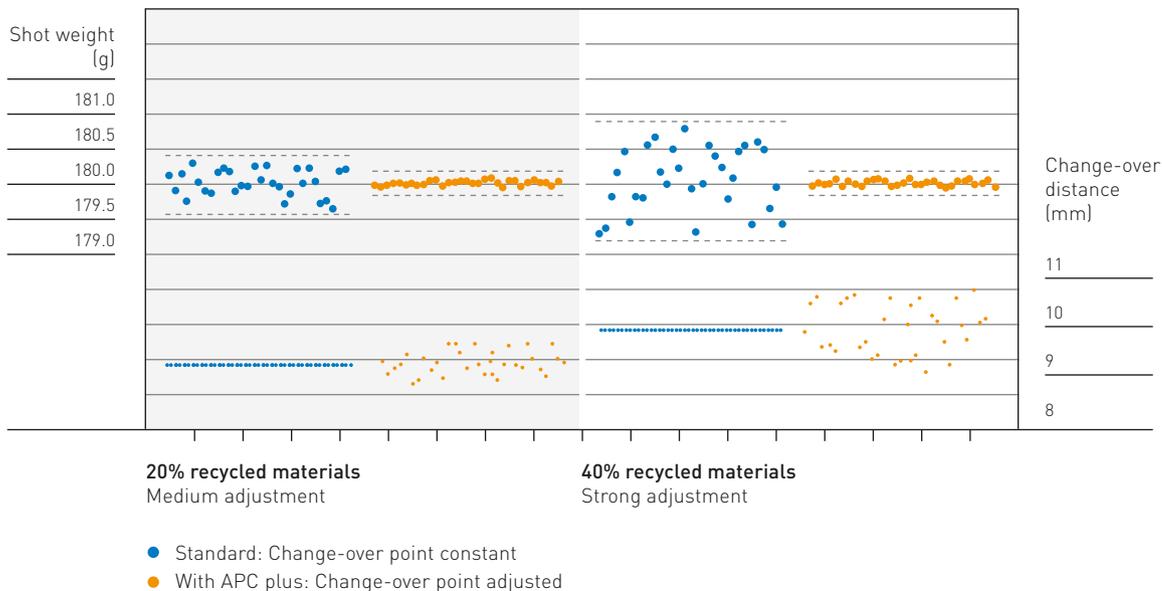
#### Perfect shot weight consistency

With APC plus, 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. Also for cascade injection molding or the manufacture of thin-walled parts, APC plus ensures perfect component quality with a constant mold volume.

#### Your advantages:

- Zero-defect production
- Saves resources and money
- Makes machine operation easier

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





## APC plus in the production of premium quality interior components with IML technology (Inmold Labeling)

Sector: Automotive

### Application: Radio/CD cover

- Number of cavities: 2 (turntable)
- Shot weight: 149 g
- Cycle time: 60 s
- Material: PC and PC / ABS and film

### Machine details: multi-component application CXZ 500-2000/750

- Clamping force: 5,000 kN
- Screw diameter:  
SP1 60 mm/SP2 35 mm

### Requirements:

- Very clean production area
- Complex process due to the component design with glass-like surface properties
- Stable processes despite frequent mold changes

### Customized solution:

- Subsequent retrofitting of APC plus
- Mold installation height and maximum opening width enlarged by 200 mm
- Servomotor-controlled rotary table
- Implementation of special core-pulling unit processes
- Installation of a flow box

### Successful use of APC:

- Significant reduction in the scrap rate (up to 30 percent) despite frequent mold changes
- Optimum accessibility
- Dust-free manufacturing of sensitive surfaces

## Increasing efficiency of energy and resources The BluePower initiative

High power consumption means high production costs. KraussMaffei's BluePower auxiliary equipment and integrated functions give you lots of fine-tuning options to reduce costs by up to 50 percent.



### Eco button: 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 35 (BluePower), cycle time 15 s, shot weight 48 g = 6 percent saving.

### Active accumulator management system

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.

### 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.

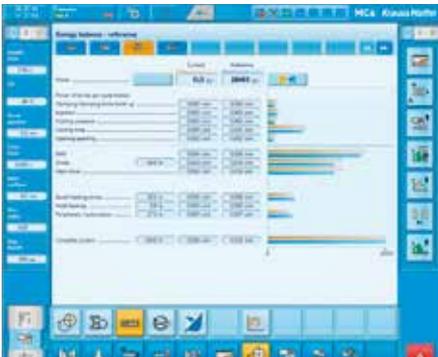
### Savings potential in brief:

- Up to 6 percent of the total energy consumption
- Simplified operation
- In standard specification
- Up to 10 percent of the total energy consumption
- Optimum planning of the start of production
- Energy savings due to accurate heating and starting of all consumers
- Included in standard specification

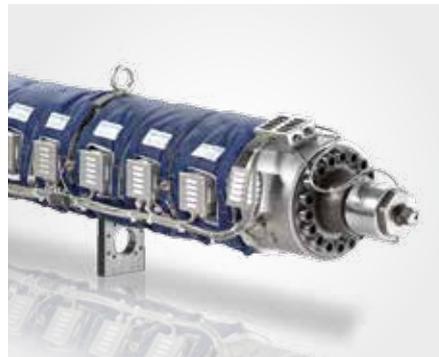
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**Your advantages:**

- Intelligent, pinpoint production planning
  - More comfortable when working with the machine
  - Active accumulator management system
  - Energy losses sustainably reduced
  - Transparent, up-to-date energy measurement
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**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.


**Full insulation for plasticizing cylinders**

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.


**Savings with BluePower drive units**

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.

**Savings potential in brief:**


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- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>- Up to 5 percent savings due to optimized cycles</li> <li>- All consumers are measured live and their values saved</li> </ul> | <ul style="list-style-type: none"> <li>- Reduced heating time</li> <li>- Energy savings up to 30 percent</li> <li>- ROI 1 to 2 years</li> </ul> | <ul style="list-style-type: none"> <li>- 10 to 40 percent reduction in energy consumption</li> </ul> |
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## The BluePower Vario Drive up to 1,600 kN Speed-variable asynchronous motor



The optional BluePower Vario Drive for injection molding machines with lower clamping forces of 350 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 new 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 advantages:

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

## The BluePower Servo Drive up to 4,200 kN Servo-hydraulic drive system



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

For the energy-related optimization of hydraulic drives, the optional 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

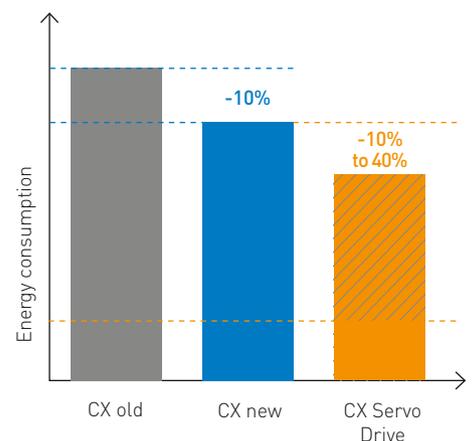
The extremely high filter quality and particularly gentle oil treatment allows the service life of the oil to be significantly increased and thus time and money to be saved.

### Your advantages:

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

### Energy assessment of the CX series

Comparative energy measurements on the CX 350 with SP2000



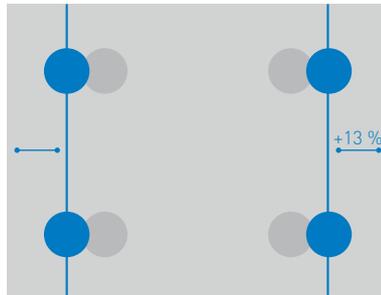
## No limits in choice of mold

### Wider platens and high mold weights

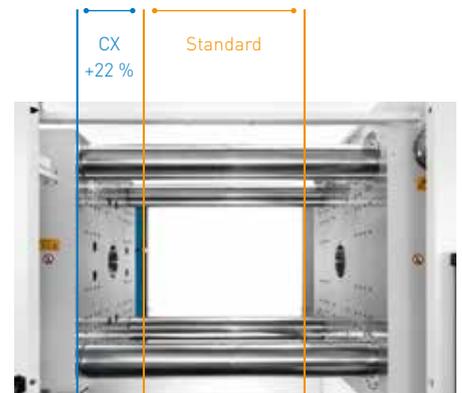
The KraussMaffei standard already provides more space for molds. Since we are not satisfied with just the standard, you have the option of choosing between different platen sizes and spacing.

#### 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 – only the installation area remains the same.



+13 percent wider platens



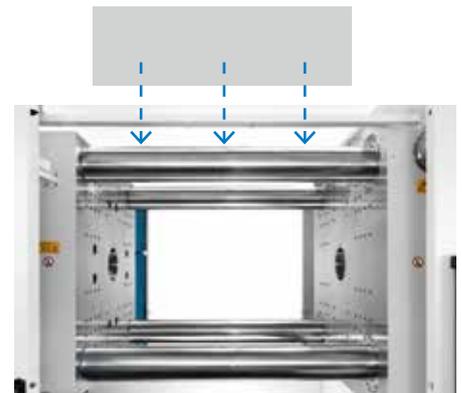
+22 percent higher opening width

#### Your advantages:

- Use of larger and heavier molds
- More flexibility
- More volume in the same installation area

#### 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.





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

## 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 multiple mold changes:

- Hydraulic bar-pulling device with automatic interlock

### Your advantages:

- Quick and simple mold changes
- Allows mold changeovers even at low shop heights

## From large to small Plasticizing unit adapter

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

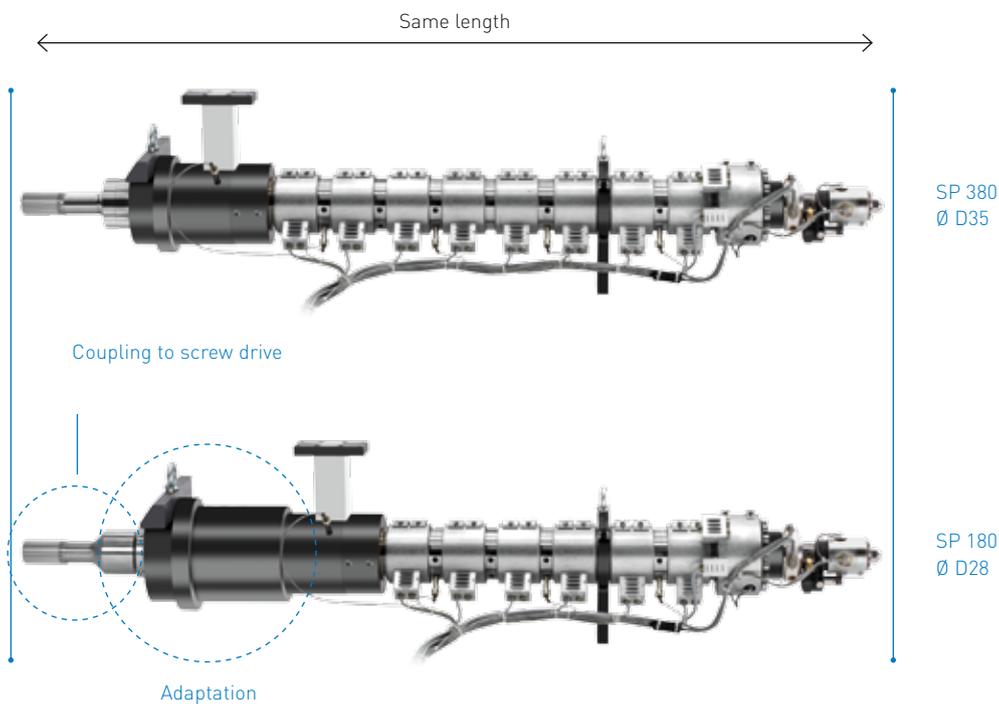
All screw diameters can be used with the adapter unit via two plasticizing units. The adapter fits perfectly on smaller units, guaranteeing optimum shot weights.

### 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 advantages:

- High flexibility in injection molding production
- Increase in production efficiency
- Service-friendly
- Very easy readjustment
- Prevents need for lengthy alterations



Maximum flexibility with optional plasticizing adaptation.

## 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

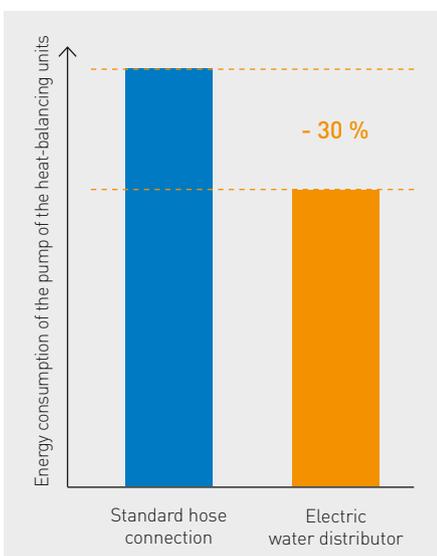
The important parameters for cooling and temperature control are automatically monitored. Delivery pressure and temperature are recorded centrally. For each individual mold circuit, the flowrate and the return flow temperature are also measured and displayed on the control system. When deviations exist,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

- 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 distributors.

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

## Predestined for cleanroom use The CX Hybrid series

The CX Hybrid series combines the advantages of hydraulic and electric injection molding machine designs and ensures maximum reproducibility with its electric injection unit.

### 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.

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### Your advantages:

- High-precision injection – five times more precise than standard
  - Maximum injection rate
  - Extremely consistent shot weights, with variations under 0.07 percent, guarantee premium product quality and a wide processing window
- 



### Absolute precision

A hydraulic machine that consistently produces first-class product quality with the precision of an electric machine: every axis of the injection unit has its own electric drive unit. 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.

# 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 advantages:

- 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

Positioning, back injection and back compression molding of extremely pressure- and temperature-sensitive decors and fabrics.

Offers great freedom for function integration and combines material properties.

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

Makes safe and precise processing of liquid and solid silicon possible.



Combines thermoforming of composite sheets with injection molding and improves structural strength with minimum weight.

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 Europap 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 and clever configuration tools

- **SplitScreen and XtraScreen:** (MC6 Multitouch) The user can keep track of all the most important production processes simultaneously on the split-screen display.
- **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.
- **Weekday timer:** New function that 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 advantages:**

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

**4. Automation setup****WizardX – The dialog-based programming assistant**

Mold setters can create a basic program that functions properly in only 4 steps using the integral handling control and graphic programming interface. The interactive communication between the user and the control system makes manual programming superfluous and eliminates programming errors.

**5. Production****Innovative features for optimized production**

- **Eco button:** 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.
- **APC plus:** Measures the melting viscosity during injection and controls the switchover point and the holding pressure in the same shot depending on the material properties – for constantly optimal mold filling.
- **Log book:** Any modifications to settings are saved to ensure maximum transparency, even during shift operation.
- **Remote service** using the Remote Manager
- **Camera function:** Even areas that are difficult to see, such as the non-operator side, can be visualized via live video streams.

**6. 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.

### Reduced investment with CX ClassiX

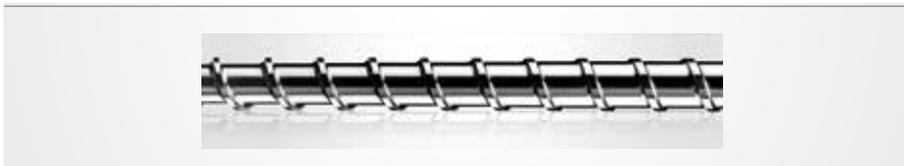
Shorter lead times and an attractive price: the ClassiX machine package combines the reliable technology of the CX series with absolute modularity and standardized options for maximum flexibility. Nearly all options from the extensive CX series catalog are available for this purpose. Choose your CX ClassiX from 150 basic machines with 420 basic combinations and a selection of another 500 possible options in proven KraussMaffei quality.

### Your advantages:

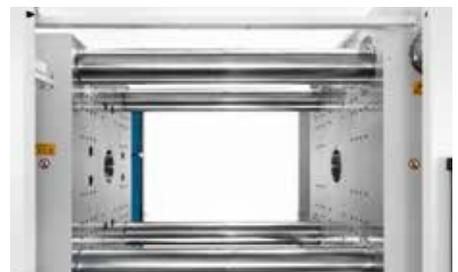
- Attractive and extensive machine package
- More options at an attractive price
- Reduced machine investment
- Shorter lead time



Plasticizing unit



x screw



ClassiX

x clamping unit

= 420 combinations

→ **420+ possible basic combinations** comprising:

- Plasticizing unit
- Screw
- Clamping unit

→ **Another 500 options**, for example:

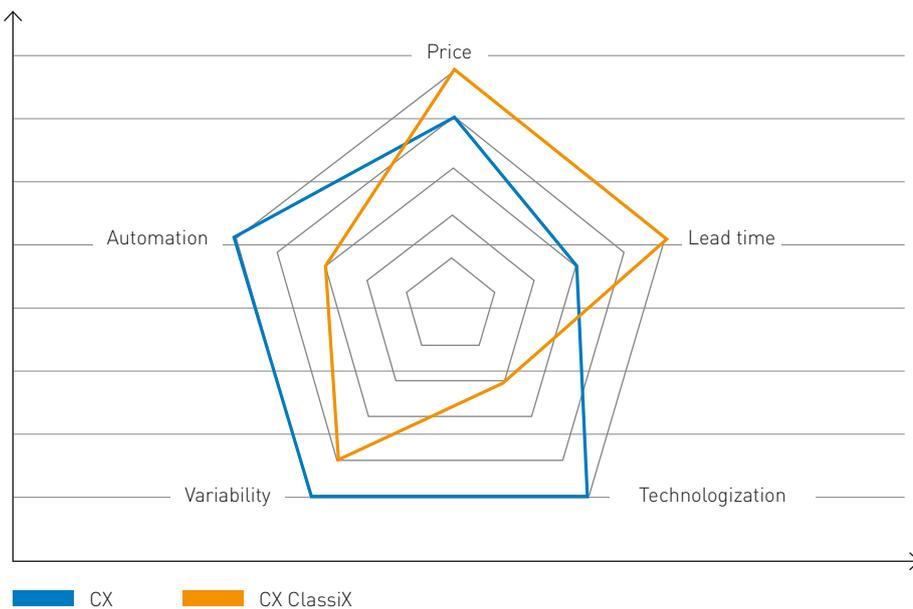
- 4 hydraulic core-pulling units on each side
- Broader platens
- Larger installation height

= 500 options



CX ClassiX model with leading range: also available with APC plus.

**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 loads 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.

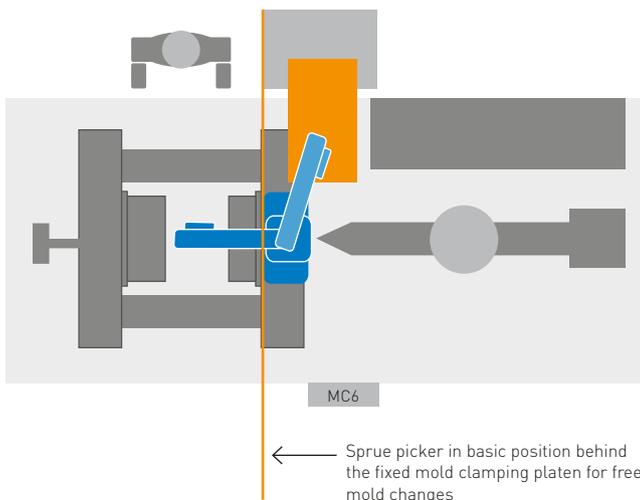
### Very easily accessible

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 rear side. Furthermore, the cumbersome movement of the picker during mold change is also not necessary. Simply bring it into the home position.

### Your advantages:

- 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

Free access to the clamping unit area on the operator rear side



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

The telescoping stroke also permits use at low shop heights. The large remove stroke offers maximum flexibility.

## Efficient use of your installation area Automation in existing machine housing

The 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.

### Your advantages:

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

### 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

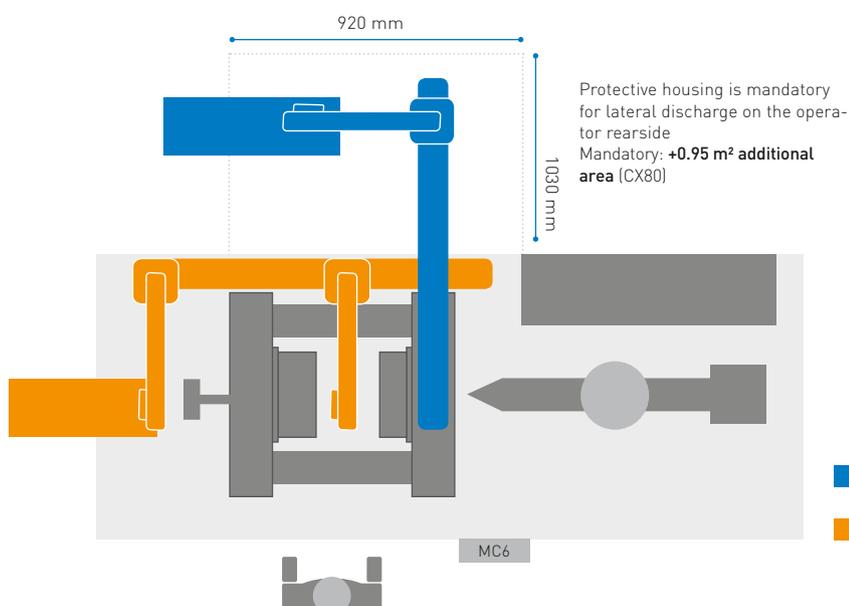
Uniform component quality is the crucial factor in production. Since the parts are no longer discharged on the operator rear side, the user has a clear view of the parts at all times – without needing to leave the operator side. With this new solution, you will save on both the protective housing costs and costs related to space.



Linear robot with discharge in lengthwise direction: Parts set down on conveyor belt in standard protective housing of injection molding machine.



Compact conveyor belt integrated in the protective housing.



- Discharge on the operator rear side
- Longitudinal discharge within the protective housing

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

## Further information which might also interest you



### Are you looking for a suitable automation solution?

We can offer you the right robot for every production task.

You can also choose special mold clamping systems or other accessories for your injection molding machines.

### You can find more information about the following for example:

- Linear robots in the LRX/LRX-S series
- Industrial robots in the IR series

### We have also compiled extensive information on the subject of service for you.

Using our general and maintenance services, you can increase the flexibility of your injection molding machines for the latest process requirements and permanently extend their performance level.

We are happy to provide you with detailed information on this.



You can find our brochures and flyers on other topics online at: [www.kraussmaffei.com](http://www.kraussmaffei.com).

On request, we would also be happy to send you information and technical data for our products free of charge.

# KraussMaffei

## A strong brand in a unique global group

### Cross-technology system and process solutions

Whether in Injection Molding, Reaction Process Machinery or Automation – the KraussMaffei brand stands for pioneering and cross-technology system and process solutions in plastics processing worldwide. For decades, our expertise, innovative ability and passionate commitment to plastics engineering have been your competitive edge. As a cross-industry system provider, we offer you modular and standardized systems as well as solutions customized to your needs.

### There for you around the world

With our worldwide sales and service network, we offer our international customers an excellent basis for a successful business relationship. Due to the close proximity to our customers, we are able to answer your individual inquiries very quickly. We work out the best possible technical and economical solution for your product and production requirements together with you. Test our machine technology for your applications and let our experts put together an individualized service package for you.

### Individualized service

Our employees from customer service, application technology and service help you with your questions and needs on every topic dealing with machines, systems and processes – around the globe, quickly and with a high level of expertise. We have developed an extensive customized service spectrum with our lifecycle design, which accompanies you throughout the entire lifecycle of your machines and systems. Take advantage of the personal interaction and flexibility we offer in our practically oriented seminars. We carry out customer-specific trainings either at your location or at our sales and service locations.

You can find additional information about KraussMaffei at: [www.kraussmaffeigroup.com](http://www.kraussmaffeigroup.com)

## KraussMaffei Group

### Comprehensive expertise

#### Unique selling proposition Technology<sup>3</sup>

The KraussMaffei Group is the only provider in the world to possess the essential machine technologies for plastics and rubber processing with its KraussMaffei, KraussMaffei Berstorff and Netstal brands: Injection Molding Machinery, Automation, Reaction Process Machinery and Extrusion Technology.

The group is represented internationally with more than 30 subsidiaries and over ten production plants as well as about 570 commercial and service partners. This is what makes us your highly skilled and integrated partner. Use our comprehensive and unique expertise in the industry.

You can find additional information at: [www.kraussmaffeigroup.com](http://www.kraussmaffeigroup.com)



The KraussMaffei Group has a global presence. Countries with subsidiaries are marked in dark blue. In the white-colored regions, the Group is represented by over 570 sales and service partners.

## Compact. Efficient. Flexible. Machines in the CX series

KraussMaffei's newly upgraded CX series offers the right solution for every customer wish. Different modules allow individual configurations for every machine – regardless of whether the operator is an injection molding subcontractor or a technology corporation. With the fully hydraulic CX series, KraussMaffei offers especially compact, efficient and flexible two-platen machines.

**KraussMaffei**

CX 200-750  
BluePower