

# INJECTION MOLDING MACHINES

ALWAYS THE RIGHT TECHNOLOGY  
FOR YOUR APPLICATION.



**Krauss Maffei**  
*Pioneering Plastics*

# OUR EXPERTISE – YOUR BENEFITS

Satisfied customers around the world trust in KraussMaffei injection molding solutions. Our machines and technologies give you the certainty of having invested in a highly flexible and high-performance solution for your manufacturing project. We stand by you with advice in every phase of your project, from the initial idea all the way to successful series production. Expand your competitive advantage with us at your side!

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# AT HOME IN YOUR INDUSTRY

Your priorities are our priorities. As pioneers of injection molding technology, we have stood by our customers from every branch of industry for decades. Our wide-ranging expertise gives us an advantage that we want to pass on to you. Expect injection molding technology at the very highest level—fully customized to the current needs and future topics of your industry. To stay in the leading position going forward, KraussMaffei invests continuously in developing new machine technologies and application processes—true to our slogan: Pioneering Plastics.



## Automotive industry

The use of high-end plastic components in vehicle manufacturing is virtually unlimited—whether advanced components for the car body, reducing the component weight or smart surfaces in the interior. From development to cost-effective high-performance series production, we are the right partner to be at your side.



## Consumer goods

Advanced design, high function, cost-cutting efficiency—plastics provide their benefits in everyday applications. As an experienced turnkey supplier, we offer you fully automated machines and systems for your individualized requirements in production.



#### Electrical and electronics

Whether for connectors with metal inlays, handles for power tools or smart surfaces in consumer electronics – we offer you customized system solutions composed of injection molding technology and automation that enable you to implement your production with high quantities at low article costs.



#### Medical technology

KraussMaffei has decades of experience in developing high-performance and precision injection molding solutions in the medical technology and pharmaceutical industry. Together with leading partners, we develop customized system solutions based on injection molding machines specially configured for medical applications.



#### Packaging and logistics

Low weight, special shaping for optimized handling and the lowest production costs: crates, pallets and large containers made of plastic provide decisive advantages in logistics. We stand by your side, providing comprehensive advice from the initial idea to series production.



#### White goods

We can offer you complete production solutions for both small and large household conveniences. It makes no difference whether the product is an electric shaver, vacuum cleaner or washing machine. With our solutions, we set new standards in offering you the surface finish and functional integration you need.



***YOUR BENEFITS:***

- Highly skilled project consultation
- Network of leading system partners
- High-performance and reliable machine technology
- High service availability worldwide
- Leading digital solutions

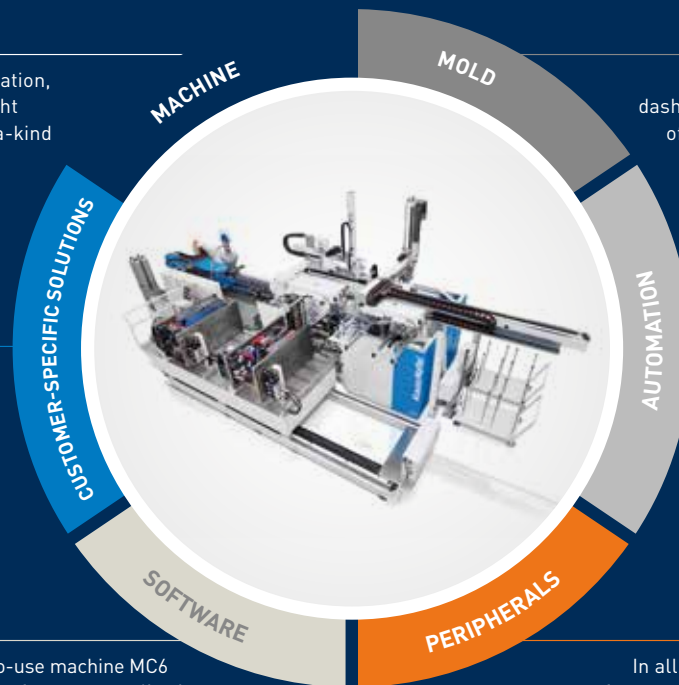
# EVERYTHING FROM A SINGLE SOURCE

KraussMaffei always provides you with a tried-and-tested complete solution with attention to detail. We offer many proprietary components, have an excellent network of leading peripheral and system partners and offer a comprehensive range of services around the world. This is what makes us a reliable partner for your successful injection molding production.

Customized for your application, we provide you with the right machine from our one-of-a-kind portfolio

In injection molding production, customized requirements are on the everyday agenda. At KraussMaffei, you receive a solution that is customized to your application

With our flexible and easy-to-use machine MC6 control systems, get the most from your application



From a small pipette tip to the dashboard of a vehicle: in all areas of application, we work with the leading moldmakers

From the combined portfolio of KraussMaffei Automation and leading system partners, you always receive the optimal solution for your application

In all areas of peripherals, we draw from a global network of market-leading partners

# YOUR APPLICATION OUR MACHINE TECHNOLOGY

Our customers come from a wide variety of industries and no two applications are alike. Each application has its own requirements for the technology. With our one-of-a-kind injection molding portfolio, KraussMaffei offers the entire range you need to successfully implement all industrial applications.



*Automotive industry*



*Electrical and electronics*



*Medical technology*



*Consumer goods*



*Packaging and logistics*











*White goods*



## THE RIGHT TECHNOLOGY FOR ANY APPLICATION FROM A ONE-OF-A-KIND PORTFOLIO

Our portfolio includes machine series with various properties. The following table shows which is right for your industry and application.

	PX	CX	GX	MX	precisionMolding	powerMolding
 Automotive industry	●	●	●	●	●	●
 Infrastructure & construction solutions	●	●	●	●	●	●
 Medical technology	●	●			●	
 White goods	●	●	●	●	●	●
 Consumer goods	●	●	●	●	●	●
 Packaging & logistics	●	●	●	●	●	●
 Electrical & Electronics	●	●	●		●	●
 Optical solutions	●	●	●	●	●	●

# PX

## 500 – 4,000 kN

### ALL-ELECTRIC INJECTION MOLDING MACHINE: POWER MEETS FLEXIBILITY

The PX series is the answer to your requests for more flexibility while increasing productivity. You can assemble your PX precisely to your production requirements from a wide selection of components according to the modular principle.

#### **FLEXIBLE**

- A wide variety of combinations of clamping units and injection units thanks to divided machine base
- Enlarged mold clamping platen for flexible use of molds of various sizes without increased clamping force
- Large choice from a broad range of screws and nonreturn valves for all processing requirements

#### **PRODUCTIVE**

- Perfect platen parallelism even with high mold weights thanks to linear guidance of moving platens
- High reproducibility and repetition accuracy
- Centered nozzle contact force for maximum precision thanks to parallel injection unit barrel
- High-precision and dynamic drive technology

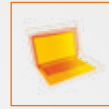
#### **EFFICIENT**

- Intelligent energy management through efficient drive system with integrated energy recovery
- High efficiency thanks to low conversion losses
- Low maintenance expenses thanks to ideal accessibility such as ejector, media supply, etc.



**Optional:**  
APCplus (Adaptive Process Control) for optimal shot weight consistency and process stability

**Modular design:**  
Clamping unit, injection unit and drive can be combined individually



High-performance injection unit,  
precise and efficient

Extensive automation solutions

Broad-based movable mold  
platen on stable linear guides

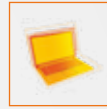
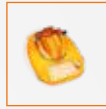


Clamping unit with fast and robust  
5-point double toggle

Integrated servo hydraulics

User-friendly MC6  
control system

Maximum free space  
for parts logistics



Fully integrated automation

Compact two-platen clamping unit

Inline injection unit

Krauss Maffei

CX 35-180  
BluePower

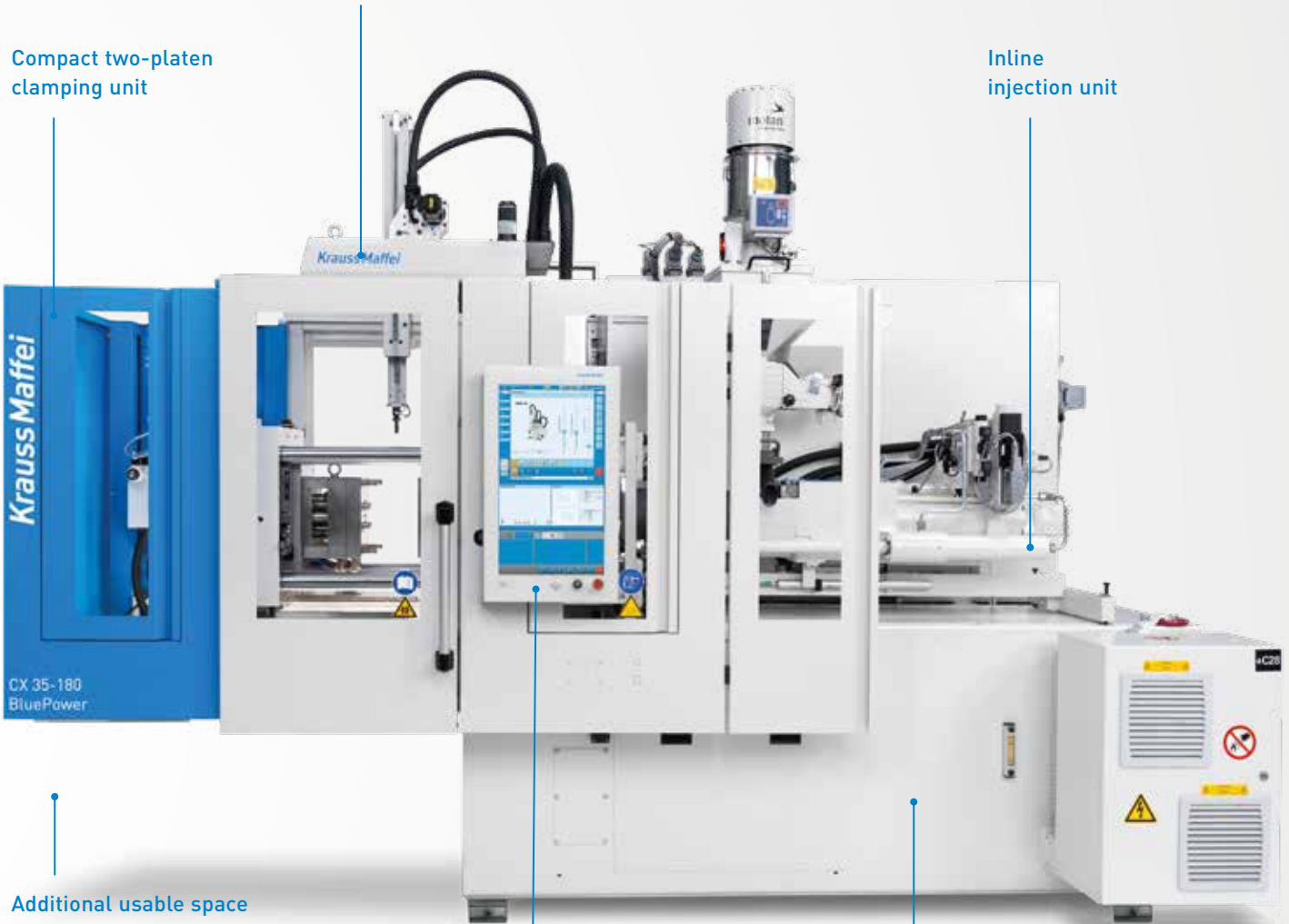
Additional usable space below the clamping unit

User-friendly  
MC6 control system

Up to 50% energy saving with  
BluePower efficiency packages

BM6L, BM6L  
CX 35-180

Krauss Maffei



# CX

## 500 – 4,200 kN

### FLEXIBLE GENERALIST WITH COMPACT DESIGN

Each machine can be configured individually: In the fully hydraulic CX series, KraussMaffei offers outstandingly compact, efficient and flexible technology and provides the basis for expansion with all available special processes.

#### COMPACT

- Compact two-platen clamping unit (cantilevered to 1,600 kN)
- Ample floor space for peripheral devices

#### EFFICIENT

- Intelligent energy management and BluePower efficiency packages
- New drive concept and clamping system hydraulics

#### FLEXIBLE

- Modular design
- A high-performance base for additional technologies



**Optional:**  
APCplus (Adaptive Process Control) for optimal shot weight consistency and process stability

**Modular design:**  
Clamping unit, injection unit and drives can be combined individually

A cost-effective **CX ClassiX** special edition is also available for standard applications

# GX

## 4,000 – 14,500 kN

### THE NEW DIMENSION OF INJECTION MOLDING

The GX series combines the first-class, hydromechanical two-platen design with single-piston injection system. The modular structure enables the compact two-platen clamping unit to be configured individually with all available injection units.

#### **POWERFUL**

- An extremely short dry cycle time
- High precision with maximum dynamic performance
- Low energy consumption

#### **EASY TO USE**

- Excellent accessibility
- Fast mold set-up
- Intelligent and user-friendly control system

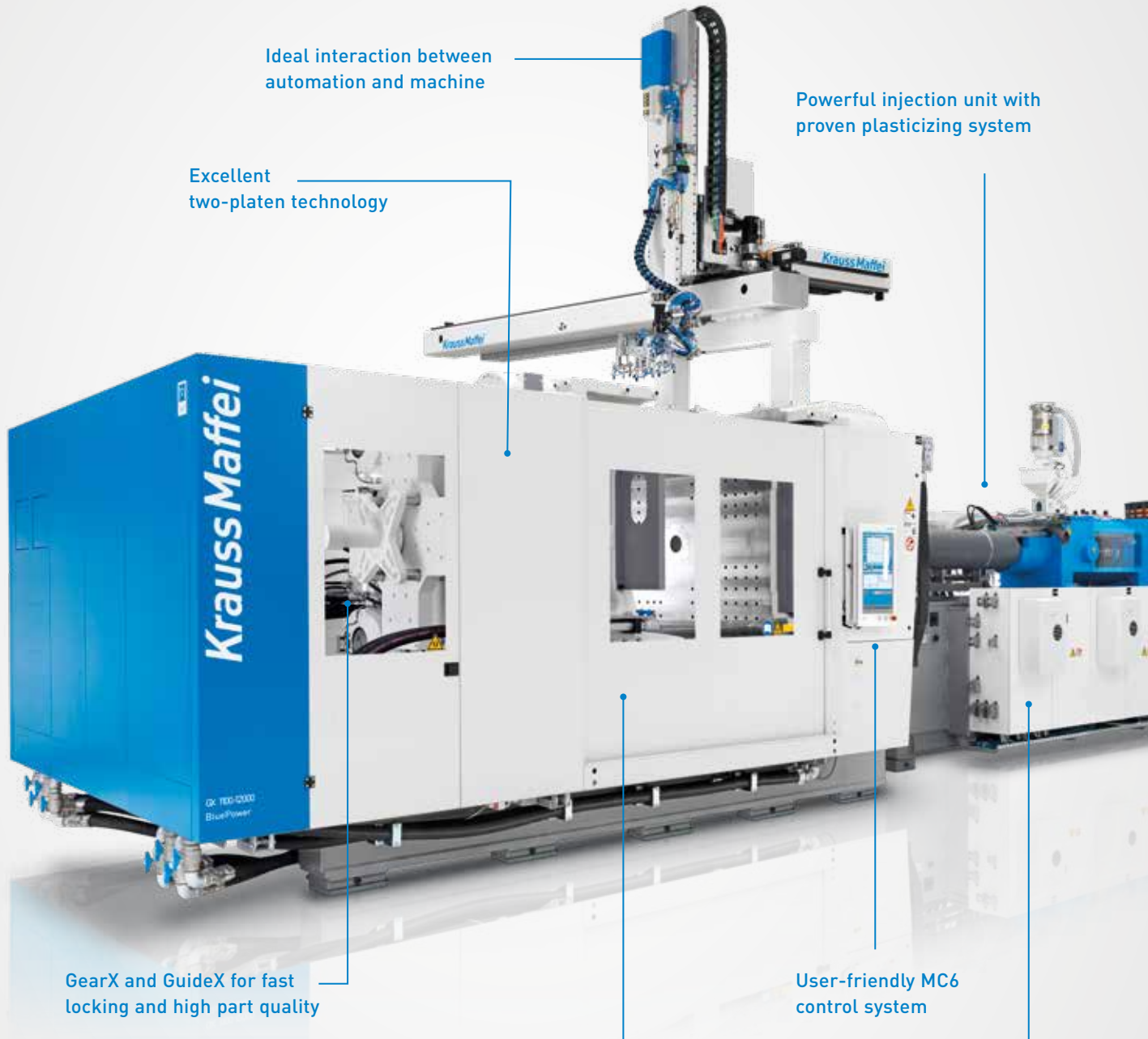
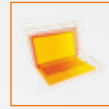
#### **VALUE STABLE**

- A robust clamping and injection unit
- Low maintenance effort and expense
- Simple retrofitting



**Optional:**  
APCplus (Adaptive Process Control)  
for optimal shot weight consistency  
and process stability

**Modular design:**  
Clamping unit, injection unit and  
drive can be combined individually



Ideal interaction between automation and machine

Powerful injection unit with proven plasticizing system

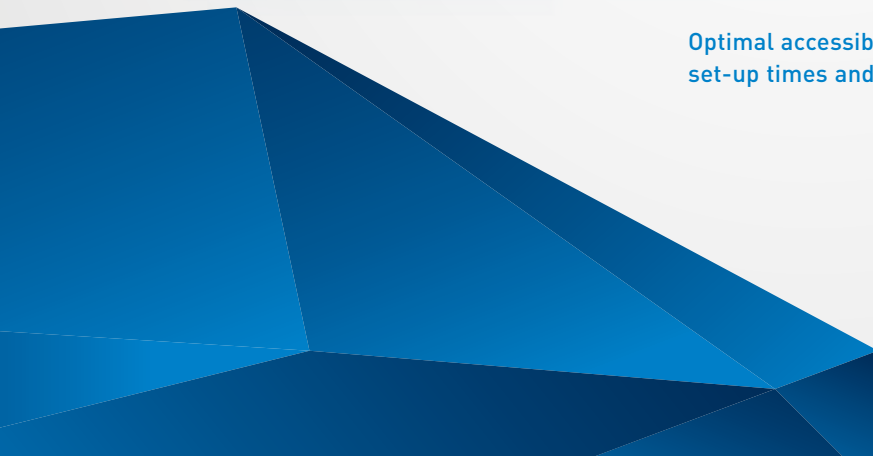
Excellent two-platen technology

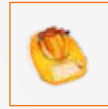
GearX and GuideX for fast locking and high part quality

User-friendly MC6 control system

Optimal accessibility for short set-up times and easy maintenance

Performance-adapted drive concepts for all performance levels





Ideal interaction between automation and machine

Tried-and tested screws and non-return valves

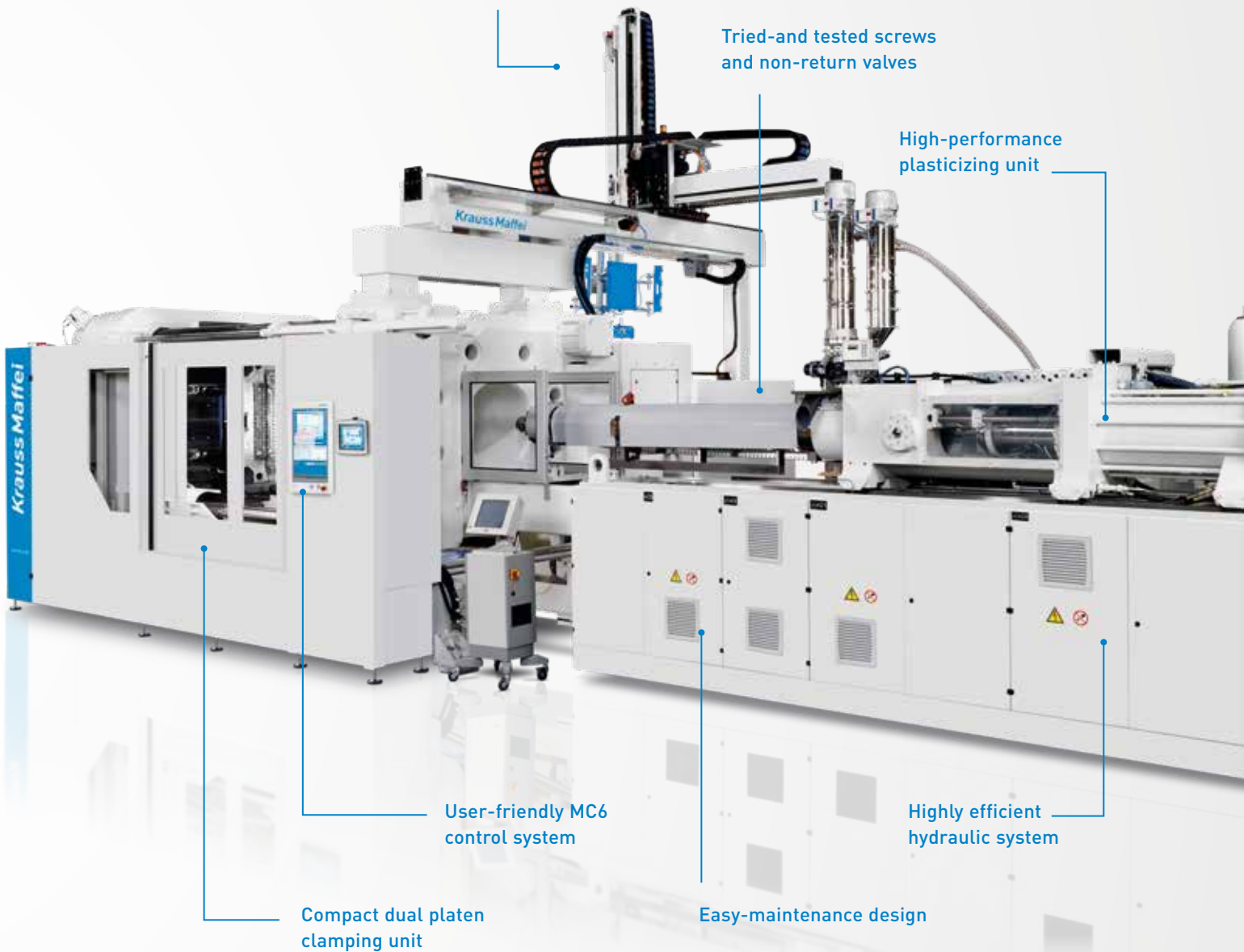
High-performance plasticizing unit

User-friendly MC6 control system

Highly efficient hydraulic system

Compact dual platen clamping unit

Easy-maintenance design





# MX

## 10,000 – 55,000 kN

### HIGH-PERFORMANCE, VERSATILE AND DURABLE INJECTION MOLDING MACHINE

KraussMaffei is the market leader in large-scale injection molding machines. Our MX Series is recognized around the world and is principally characterized by the hydromechanical two-platen clamping unit, which we developed ourselves. The product range spans from compact injection molding units with basic automation and highly complex manufacturing cells, through to complete factory planning.

#### **POWERFUL**

- Maximum speed combined with maximum precision
- Outstanding melt quality and excellent shot weight consistency
- High level of part quality

#### **VERSATILE**

- Customer-specific solutions
- A wide range of technologies
- Intelligent and user-friendly control system

#### **DURABLE**

- Construction and components optimized according to load case
- Low maintenance expenses and simple retrofitting
- Intelligent pairing of premium-quality materials



**Optional:**  
APCplus (Adaptive Process Control) for optimal shot weight consistency and process stability

**Modular design:**  
Clamping unit, injection unit and drive can be combined individually

# PRECISIONMOLDING

500 – 3,200 kN

## THE PERFECT ENTRY POINT TO THE WORLD OF ALL-ELECTRIC INJECTION MOLDING

The precisionMolding combines a high performance level, easy operation and short delivery times. KraussMaffei offers you the perfect entry-level solution for all-electric injection molding that allows quick, innovative responses to market requirements.

### **EFFICIENT**

- High-precision injection molding processes with excellent repeatability
- Proven high-end plasticizing units
- Short drying cycle times and parallel axis movement
- High energy efficiency thanks to the all-electric machine concept

### **EASY TO OPERATE**

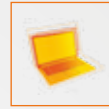
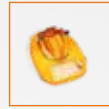
- User-friendly MC P1 control system
- Easy integration of automation solutions
- Features interfaces for higher-level control systems

### **COST-EFFECTIVE**

- Optimized price-performance ratio for a broad range of applications
- Quick lead times thanks to modular machine concept with wide range of options
- Proven KraussMaffei quality for reliable part production



**Optional:**  
APCplus (Adaptive Process Control)  
for optimal shot weight consistency  
and process stability



All-electric clamping unit designed for dynamic range and precision with a central 5-point toggle



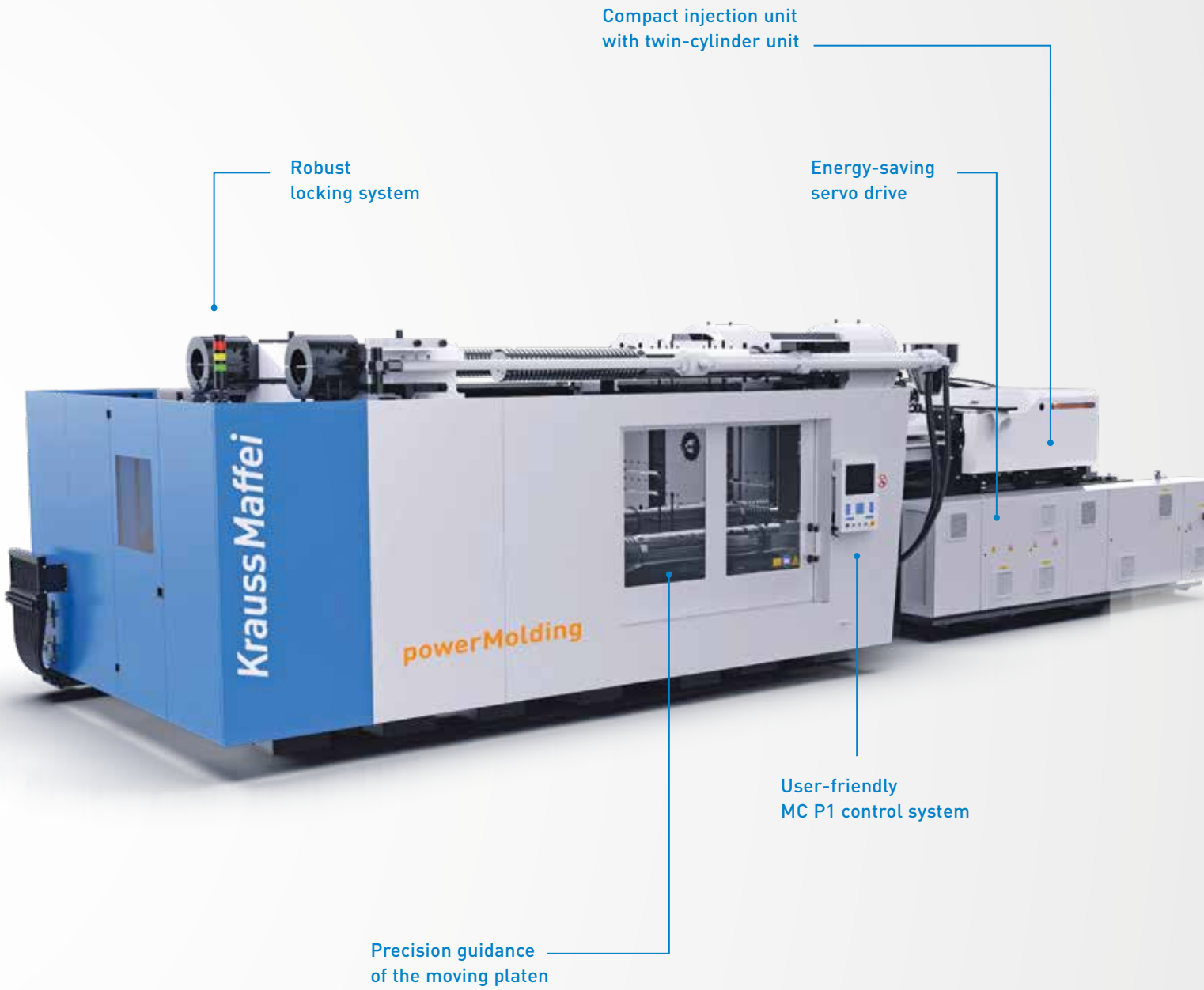
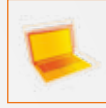
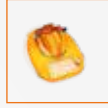
Symmetrical force transmission for leak-free nozzle contact

Powerful injection unit with proven plasticizing system

Clamping unit with large mold clamping platens

User-friendly MC P1 control system

Easy-maintenance design



Robust locking system

Compact injection unit with twin-cylinder unit

Energy-saving servo drive

Krauss Maffei

powerMolding

User-friendly MC P1 control system

Precision guidance of the moving platen

# POWERMOLDING

## 6,500– 16,000 kN

### POWER MEETS LIGHTNESS

The powerMolding hydraulic two-platen injection molding machine represents a high degree of performance capacity in conjunction with fast availability and easy operation. Along with the modular machine concept with customized assortment of options, we offer you quick lead times to increase your efficiency and competitiveness even more.

#### **EFFICIENT**

- High-precision injection molding processes with excellent repeatability
- High energy efficiency thanks to BluePower servo drive technology
- High shot weight consistency
- Optimized price/performance ratio for a broad range of applications

#### **DURABLE**

- Locking system with high wear resistance
- Maintenance-friendly tiebar connection

#### **EASY TO USE**

- User-friendly MC P1 control system
- High-performance multicore CPU
- New control panel tailor-made for standard applications



**Optional:**  
APCplus (Adaptive Process Control)  
for optimal shot weight consistency  
and process stability

**Modular design:**  
Clamping unit and injection unit  
can be combined individually

# INJECTION MOLDING MACHINES PORTFOLIO OVERVIEW



		PX	CX	GX
Clamping force min.	kN	500	500	4,000
Clamping force max.	kN	4,000	4,200	14,500
Machine design		Toggle lever	2-platen	2-platen
<b>Plasticizing</b>	Hydraulic	—	●	●
	Electric	●	○	○
<b>Injection</b>	Hydraulic	—	●	●
	Electric	●	—	—
<b>Nozzle contact</b>	Hydraulic	●	●	●
	Electric	—	—	—
<b>Nozzle shut-off</b>	Pneumatic	○	○	○
	Hydraulic	○	○	○
<b>Clamping unit movement</b>	Hydraulic	—	●	●
	Electric	●	—	—
<b>Ejector</b>	Hydraulic	●	●	●
	Electric	○	—	—
<b>Core-pulling</b>	Pneumatic	○	○	○
	Hydraulic	○	○	○
	Electric	○	○	○
<b>Cascade</b>	Pneumatic	○	○	○
	Hydraulic	○	○	○
	Electric	○	○	○

- Standard
- Optional
- Not applicable

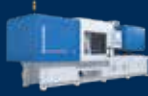


**MX**

10,000

55,000

2-platen



**precisionMolding**

500

3,200

Toggle lever



**powerMolding**

6,500

16,000

2-platen

●	—	●
○	●	○
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# PRODUCTIVITY BOOST FOR YOUR PRODUCTION

Automation is becoming ever more important as a decisive success factor in production. From the combined portfolio of KraussMaffei Automation leading system partners, you always receive the optimal solution for your production.



## SPX10 sprue picker

*Fast. Precise. Economical.*

- The telescoping stroke makes the SPX10 ideally suited for use in low buildings
- With programming wizard and integration into the MC6 control system, these sprue pickers are one of the most compact solutions on the market



## LRX linear robot

*Productive. Intuitive. Cost-effective.*

- Reliable with flexibility for expansion
- Works with both KraussMaffei machines and other manufacturers' machines
- Particularly intuitive control system—ideal for beginners and personnel with less training



## Industrial robot IR

*Endless. Flexible. Outstanding.*

- Freely programmable movement sequences for large swiveling ranges
- In-house design of various gripper concepts for the most challenging applications
- Intuitive control concept for adapting to individual kinematic units



## System solutions

*Customized. Turnkey. Ingenious.*

- The one-stop shop for a wide variety of production requirements
- Extensive portfolio of peripheral devices
  - Integration of customer-provided materials
  - Scalable control concepts
  - Highly productive modular solutions with integration of various technologies such as insertion technologies, IML and FiberForm

# PROCESSING TECHNOLOGIES – AS DIVERSE AS YOUR REQUIREMENTS

Many products cannot be manufactured with standard injection molding technology. Thanks to our longtime experience and exceptional application understanding, our technology portfolio offers the right solution for your task.

**CELLFORM**  
FOAM TECHNOLOGIES

**FIBERFORM**  
THERMOPLASTIC  
LIGHTWEIGHT CONSTRUCTION

**MULTINJECT**  
MULTI-COMPONENTS

**CLEANFORM**  
CLEANROOM TECHNOLOGY

**DCIM**  
DIRECT COMPOUNDING  
INJECTION MOLDING

**GIT / WIT**  
GAS AND WATER INJECTION  
TECHNOLOGY

**COLORFORM**  
PAINTING IN THE MOLD

**IMC**  
INJECTION MOLDING  
COMPOUNDING

**POLYSET & DUROSET**  
DUROMER PROCESSING

**COINJECTION**  
BARRIER

**IMD**  
IN MOLD  
DECORATION

**SILCOSET**  
SILICONE PROCESSING

**DECOFORM**  
OVER-MOLDING OF  
DECORATIONS & TEXTILES

**IML**  
IN-MOLD LABELING  
PACKAGING

**SPINFORM**  
SPINFORM TECHNOLOGY

**DMH**  
DYNAMIC MOLD  
HEAT-BALANCING

**INSERTFORM**  
INLAY METHODS

**STAMPFORM / ICM**  
INJECTION COMPRESSION  
MOLDING TECHNOLOGIES





# 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>3</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)

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