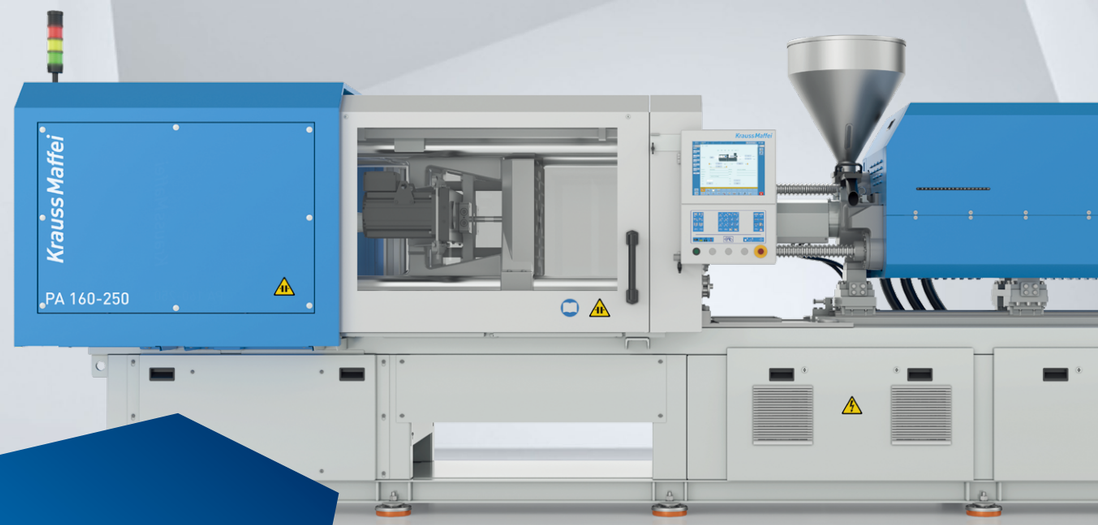
SIMPLICITY MEETS EFFICIENT PERFORMANCE.

PA – THE PERFECT INTRODUCTION TO THE WORLD OF ALL-ELECTRIC INJECTION MOLDING MACHINE

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KraussMaffei
Pioneering Plastics

krausmaffei.com

APPLICATION AREAS **OF PA**



Automotive



Medical



Technical Appliances



Packaging

Clamping / injection matrix

Camping unit	Clearance between tie bars (H x B) mm	Injection unit (Screw diameter: mm)																			
		SP 55			SP 100			SP 180			SP 250		SP 380		SP 540		SP 750		SP 1000		SP 1400		SP 2000	
		15	18	20	20	22	25	25	28	30	30	35	35	40	40	45	45	50	50	55	55	60	60	70
PA 50	420 x 370	■	■	■	■	■	■	■	■	■	■	■												
PA 80	470 x 420	■	■	■	■	■	■	■	■	■	■	■	■	■										
PA 120	520 x 470				■	■	■	■	■	■	■	■	■	■	■	■								
PA 160	570 x 520							■	■	■	■	■	■	■	■	■	■	■						
PA 200	620 x 570										■	■	■	■	■	■	■	■	■	■				
PA 250	720 x 670														■	■	■	■	■	■	■	■		
PA 320	820 x 770																				■	■	■	■
PA 450	920 x 870																							

■ Injection speed: 1, 2, 3

■ Injection speed: 1, 2

■ Only injection speed: 500mm/s

SIMPLICITY MEETS **EFFICIENT PERFORMANCE**

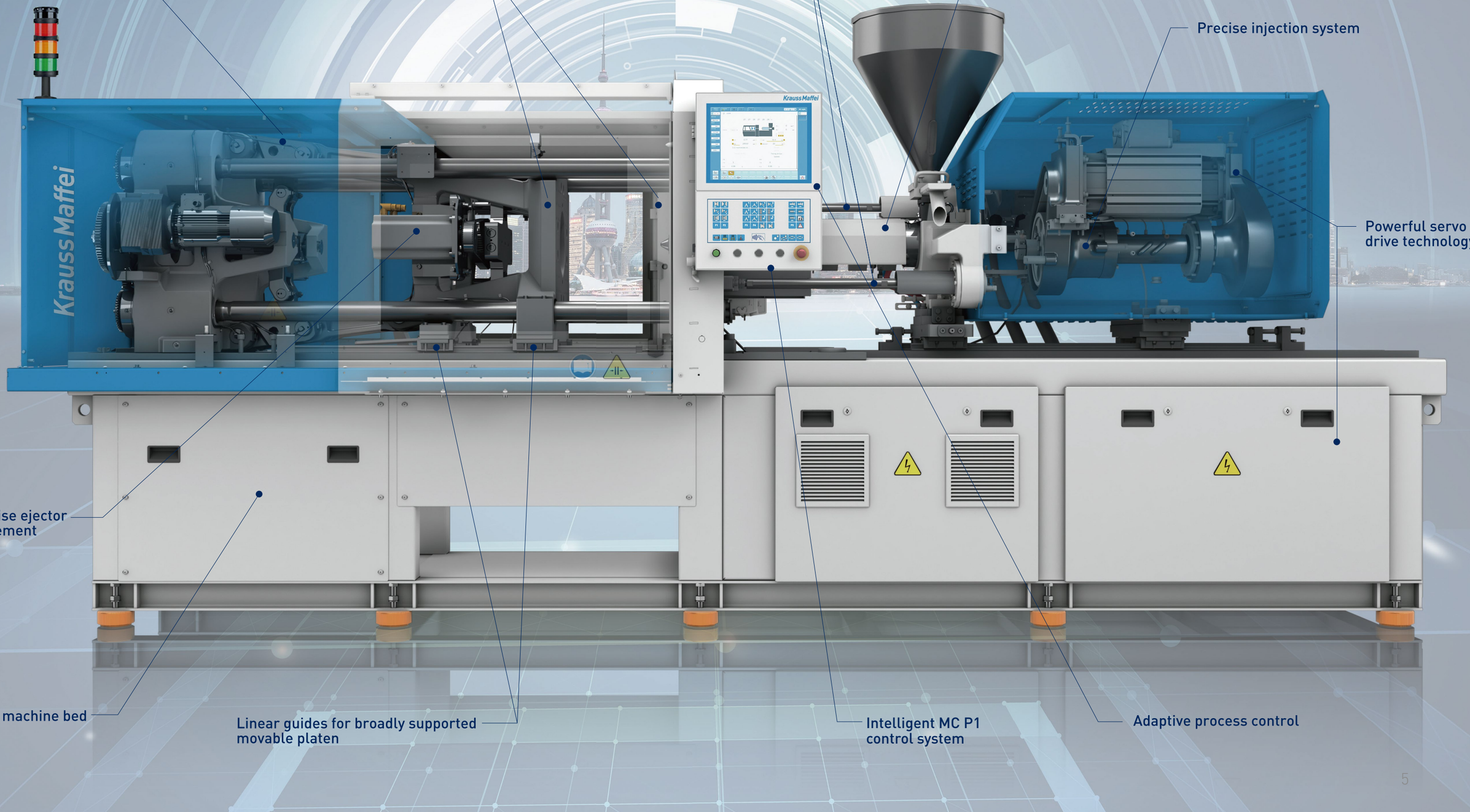
Faced with dynamic and fast growing markets, the emerging small and medium-sized enterprises and established group companies are increasingly demanding in fast response times and supply cycles from their suppliers.

With the basic injection molding machine, PA, KraussMaffei created the perfect entry-level solution for all-electric injection molding to react quickly and innovatively to market demands.

It combines high performance, easy operation and short delivery times. It can be widely used in different fields of applications, e.g. packaging, electric & electronics, medical and automotive.

Your value:

- Optimized price-performance ratio for a broad range of applications
- High level of energy efficiency thanks to all-electric machine concept
- Realization of challenging delivery times through basic machine concept with selected range of options


Symmetrical nozzle force transmission
High-performance plasticizing unit
Fast and robust
5-point double toggle
Large and stiff mold mounting platens
Precise injection system
Powerful servo
drive technology
Precise ejector
movement
Stiff machine bed
Linear guides for broadly supported
movable platen
Intelligent MC P1
control system
Adaptive process control

YOUR BENEFITS
STRENGTHS OF PA

- Optimized price performance ratio for a broad range of applications
- Easy retrofit since all preparations already foreseen in the basic machine
- High level of energy efficiency thanks to all-electric machine concept



- Upgrading possibility for hydraulic functions
- Easy integration of automation systems
- Interfaces for superior control systems available

- High-precision operation with excellent repeatability
- Low consumption of energy, water and auxiliary materials at low floor space requirement
- Short dry cycle times and parallel axis movements

- Commercial, application and service support
- Worldwide customer training capabilities
- Plastic Pioneer with strong network



Injection unit movement



15" Multi-touch color screen for machine control

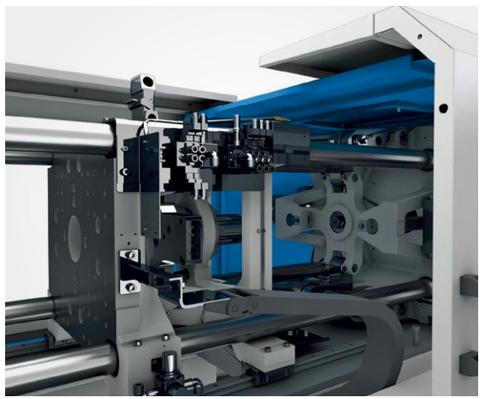


Toggle: robust, smooth and durable

SPECIAL FEATURES
OF THE CLAMPING UNIT

5 point toggle system
- Large mold opening stroke with compact design
- Robust and smooth mechanical system with minimum tolerance
- Spindle drive for crosshead with minimum mass inertia
- Ideal parallel force transmission into the moving platen
- Automatic central lubrication of the toggle via progressive distributor

Versatile drive technology: Servomotor
- High-performance servomotor for fast mold movement and dynamic clamping force build-up
- High resolution for accurate mold movement
- Sensitive mold safety function
- Highly efficient drive systems
- Clamping motor with brake enables for spring mold



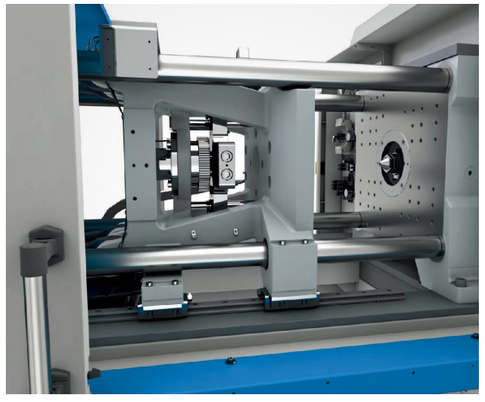
Servomotor-controlled clamping unit drive: accurate, dynamic & efficient

SPECIAL FEATURES
OF THE CLAMPING UNIT

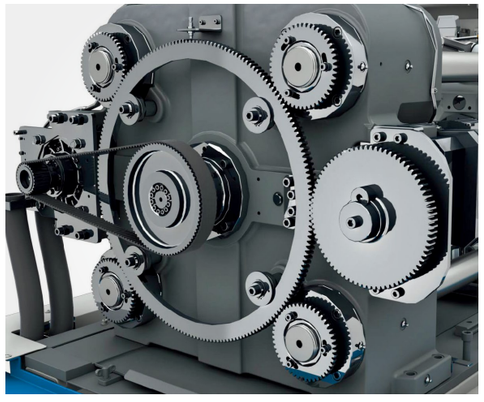
Wide range of mold heights
- Large adjustment range for the flexible use of molds with large or small mold installation heights
- Automatic mold height adjustment via the control panel for fast set-up
- Automatic clamping force regulation (optional with sensor), accuracy +/- 1%

PA enlarged mold mounting platen sizes
- Enlarged mold mounting platens in standard for universal mold use
- Broad support of the moving platen on precision linear guides for accurate mold parallelism in all positions
- Linear guides reduce friction losses by up to 80% compared to sliding guides
- Tie bars are used for force transmission only and not as a guide element, no lubricant on the tie bars

Ejector platen
- Fast and precise servo driven ejector plate with large ejector stroke
- Efficient ejector movement
- Maximum accessibility for coupling of the ejector bolts
- Quick coupling systems (optional)



Broad support on double linear guidance for optimal platen parallelism



Automatic mold height adjustment for fast set-up

SPECIAL FEATURES
OF THE INJECTION UNIT

Symmetric force transmission for leak-free nozzle contact
- Electric driven nozzle contact force build-up and injection unit aggregate movement
- Two parallel ball screws for centered force introduction without transverse forces
- No one-sided nozzle pressure, no tilting of the fixed clamping platen
- Fast nozzle contact force build-up (speed & pressure adjustable), fast injection unit movement

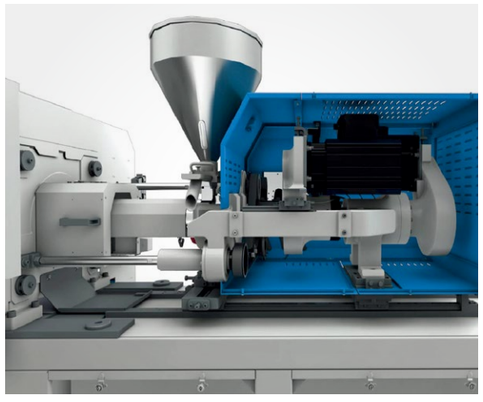
Stable processes with high-precision drive technology
- Highly efficient plasticizing drive
- Precise injection movement thanks to accurate and efficient servo technology
- Fast response behavior of the servomotor for dynamic control
- Direct measurement of the injection pressure in the flow of force for precise holding and back pressure control
- Increased injection speed (optional)
- Adaptive process control with APC plus (optional)

High throughput with outstanding melt quality
- Excellent plasticizing units design from Germany for a broad field of applications and long service life
- Optimum melt quality
- High plasticizing capacity
- Comprehensive solutions for a wide range of applications:
  - Wear-resistance, corrosion protection
  - High-performance screws
  - High-temperature applications
  - Material-specific design
  - BluePower insulating sleeves

Special executions
- Introduction, avoid material leaking
- Reduce down time and maintenance cost
- Ensure stable process ,reduce reject parts
- No tilting of the fixed clamping platen, protect mold

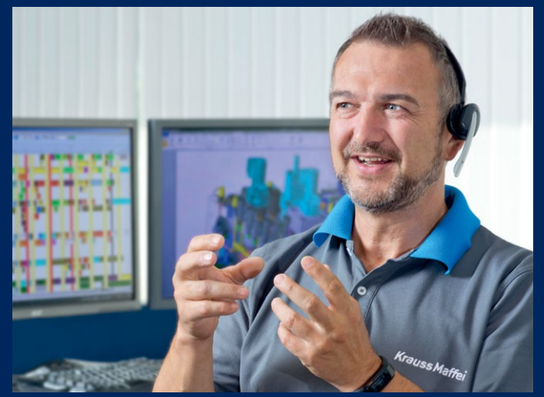


Injection unit movement via two parallel electric driven ball screws



Injection and plasticizing: accurate, dynamic & efficient





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[3] 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

KRAUSSMAFFEI – PIONEERING PLASTICS



KraussMaffei is one of the world's leading manufacturers of machines and systems for producing and processing plastics and rubber. Our brand has stood for cutting-edge technology for more than 185 years. Our range of services covers all technologies in injection molding machinery, extrusion technology, and reaction process machinery. In 2022, we expanded our portfolio to include additive manufacturing. This broad spectrum of technologies gives KraussMaffei a unique selling proposition in the industry.

With strong innovation capacity, we ensure sustainable added value for customers across their entire value chain, with standardized and individual product, process, digital, and service solutions. We deliver these services to customers in the automotive, packaging, medical, and construction industries, and to electrical and electronic product and household appliance manufacturers, among others.

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