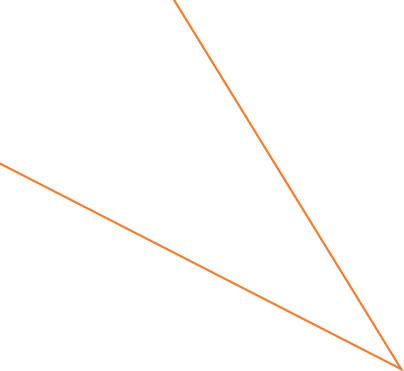


PRODUCTIVITY. EFFICIENCY.  
VERSATILITY.

INDUSTRIAL LARGE SCALE ADDITIVE  
MANUFACTURING EXTRUDER AND ROBOT SYSTEMS



**KraussMaffei**  
*Pioneering Plastics*



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

- Broad range of integration possibilities
- High wear resistance Screw design
- Performance Motion Control Servo Motor for high requirements in terms of dynamic response and precision
- High range of technical polymers and high-performance composites
- Tested and Qualified with over 180 years engineering experience

With advanced technology and proven industrial expertise, our extruder is built for reliability and efficiency. At KraussMaffei, we have in-house production capacity and development capabilities, allowing us to manufacture and assemble our solutions with meticulous attention to quality and precision. This ensures our products meet the highest standards of performance.

# PRINTCORE

## INDUSTRIAL ADDITIVE MANUFACTURING EXTRUDER

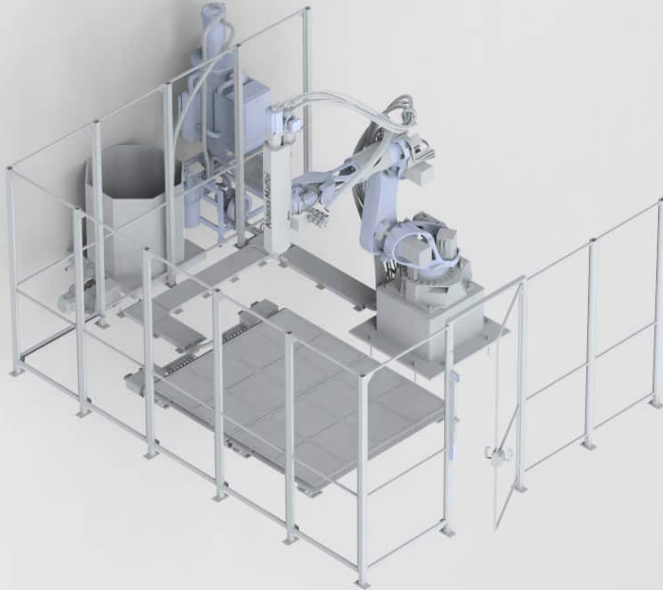
Built on decades of pioneering innovation. KraussMaffei additive: a high-performance Extruder offering unmatched versatility and efficiency. Developed using our extensive expertise, the extruder sets new industry standards, allowing for a broad range of discharge rates tailored to any production need.

### The highlights at a glance:

- Maximum output	30 and 70 kg/h*
- Screw diameter	35 mm
- Weight	140 kg
- Maximum extruder temperature	400 °C
- Adjustable heating zones	4
- Nozzle diameter	2 - 20 mm
- Melt temperature measurement	0 -450 °C
- Required time for nozzle change	< 15 min
- Dimensions WxDxH	230x260x1900 mm <sup>3</sup>
- Electric heating power (400V)	5 kW
- Drive System	Servo Drive
- Cable Connector	Harting locked
- Processes medium and high temperature materials like Glass and Carbon Fiber filled PC and PEI reliable and durable due to selected metal alloys for screw and barrel design	

\* The maximum output rate depends on the system load capacity, the material conveying process, and the design of the material feeder system.

# INDUSTRIAL ROBOTS FOR ADDITIVE MANUFACTURING



## **Flexible and modular engineering**

With KraussMaffei Automation we combine decades of experience in industrial robotic applications with the ability to deliver fully customizable production solutions for some of the world's most renowned customers.

By integrating additional linear and external axes, we offer greater flexibility, enabling tailored automation setups that enhance efficiency and productivity. With a global footprint and a commitment to innovation, KraussMaffei is your trusted partner for advanced automation and individualized industrial solutions.



### **Feeding System and Dryer**

Material drying is connected with the material supply by a vacuum supply system. This allows for continuous production without intervention by an operator.

### **Robotic System**

Industrial Standard and high payload capacity and modular working areas. Precise path control accuracy and repeatability, crucial for creating detailed and complex structures.

### **printCore - Industrial HP Extruder**

With melt flow control for a higher production speed, high part quality and precise material output in continuous operation.

### **Robot Control Panel**

Siemens SINUMERIK ONE and Run MyRobot/Direct Control PLC concept integrates seamlessly into your machine tool environment, utilizing the full spectrum of CNC and drive functionality. With this advanced control system, additional robot control units are unnecessary, allowing for streamlined operations.

### **Heated vacuum printing table**

16 individually controllable zones allow for optimal use of the space. Depending on requirements, multiple mounting surfaces can be configured with a pre-settable printing table temperature. Max. printing bed temperature 180 °C.

### **Robotic safety cell**

State-of-the-art robotic safety cell, equipped with durable PC panels, ensures maximum protection and visibility for operators. Designed with advanced safety features, it provides a secure environment for automated processes, while maintaining clear oversight. The modular design allows for easy integration into any production line, ensuring both flexibility and compliance with the highest safety standards.

# PERIPHERAL SOLUTIONS

## CONTINUOUS PRODUCTION ON INDUSTRIAL STANDARDS

### Vacuum-Heated Buildtable

- Build table size 2 m x 2,5 m
- Vacuum zones 16
- Max. temperature 180 °C

Optimal layer adhesion and efficient workflow with our vacuum heating table, featuring inter-changeable printing plates. Designed for easy and quick setup, this system allows seamless placement and removal of components without risking damage.



### Material drying system

- Dryer volume 150 - 400 dm<sup>3</sup>
- Max. drying temperature 140 °C
- Min. drying temperature 50 °C

### Material Conveying System

- Conveying volume per hour 30 or 70 kg
- Dustfilter

### Material silo

- Fill capacity 1500 dm<sup>3</sup>
- Scale system with level measurement





## MATERIAL VARIETY FOR QUALITY COMPONENTS

High-performance plastics such as ABS, PC, PEI, and PP are processed and used in various applications including molds & tools, jigs & fixtures, end-use parts, and design. This wide range of materials offers versatile application possibilities tailored to specific industrial requirements.

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## WITH EXPERT SUPPORT

We offer comprehensive support in material testing and qualification phases for unknown materials and customer-specific compounds to achieve the desired process parameters. Furthermore, we assist our customers in material qualification, ensuring optimal results for their production processes.

# Krauss Maffei

## Additive

### Decades of Expertis. Tomorrow's Technology.

As part of KraussMaffei Technologies GmbH, KraussMaffei Additive brings together decades of engineering excellence and innovation in plastic processing to lead the future of additive manufacturing. Our high-performance extruders, developed with precision and versatility in mind, offer groundbreaking solutions for industries looking to scale their production capabilities. With in-house manufacturing, adherence to the highest industry standards, and the backing of KraussMaffei's global service network, we deliver advanced, reliable, and sustainable additive manufacturing technologies tailored to your needs.



***kraussmaffei.com***