

# TECHNOLOGICAL EDGE FOR R & D APPLICATIONS AND SMALL BATCH PRODUCTION

DISCOVER OUR ZE 28  
BLUEPOWER CONCEPT



***Krauss Maffei***

*Pioneering Plastics*

# A MULTI-TALENT FOR DEVELOPMENT WORK AND SMALL BATCH PRODUCTION WITH HIGH COMPLETE SYSTEM EFFICIENCY

With the extensive modular range of barrel sections and screw components, the ZE 28 BluePower laboratory extruder is a future-oriented machine for all research and development tasks.

It also provides a significantly larger processing window for small batch production with the screw diameter of 28 mm, its diameter ratio Da/Di of 1.65 and high performance of 42 kW with a screw speed of up to 1200 rpm. It boasts numerous unique selling propositions, and easily meets the higher requirements of the developers and processors in all aspects of complete system efficiency – i.e. energy efficiency, cost-efficiency, availability, performance, and product quality.

## Customized processing unit

The extremely flexible modular design of 10 different 4D and 6D barrel sections with 6D openings for the filling and degassing zone, as well as various screw elements, is the prerequisite for customizing the configuration of each twin-screw extruder.

## Perfect wear resistance

The sturdy design and the innovative, state-of-the-art technology of the new ZE 28 BluePower laboratory extruder, are the basis for the safe operation of the extruder in 24/7 production. The new replaceable barrel liners guarantee high wear resistance against abrasion and corrosion for a variety of processes.

## Higher production reliability

Another highlight of the laboratory extruder is a twin-screw side unit for the lateral degassing of melts. This unit increases production reliability, particularly for tough or sticky products.

The UltraFeed vacuum technology is specially designed for filler materials with low bulk density. The vacuum removes the air before the filler materials reach the processing area of the extruder. This degassing thus allows a higher share of filler materials to be supplied to the process or a significantly higher throughput.

Basically, all side auxiliary units are installed on the base frame of the extruder via a swivel arm. This ensures minimal space requirements and easy handling.

## YOUR ADVANTAGES:

- High throughputs
- Lower energy consumption
- High wear resistance
- Good accessibility

**UltraGlide**

Quick removal  
of screws

**Perfect wear resistance**

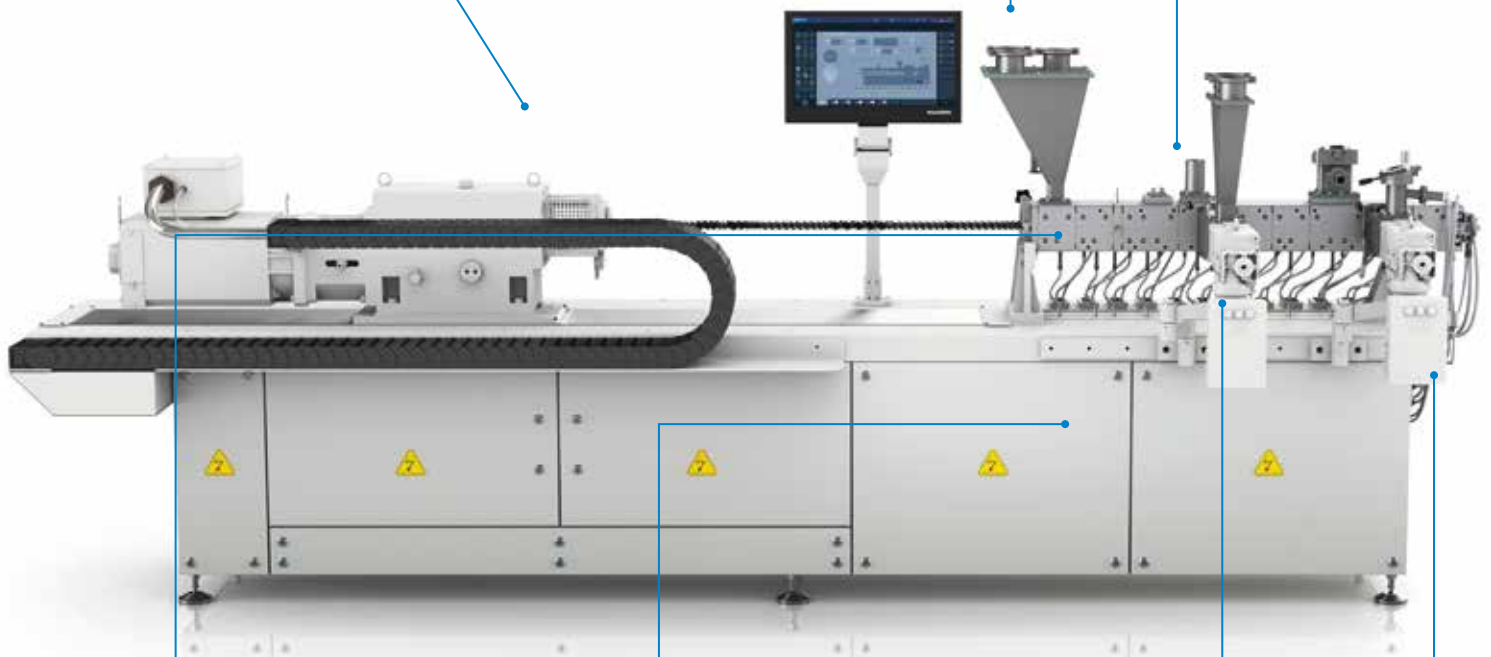
With replaceable  
wear liners

**Control technology – C7 control system**

Connection to the digital future

**Superior modular design  
thanks to 4D and 6D housing**

Customized process unit



**Effective cooling**

Innovative temperature  
control system

**Enlarged and optimized**

Side feeder with UltraFeed

**Increased free volume**

Thanks to diameter ratio  
 $D_a/D_i$  of 1.65

**Safe degassing**

Side product holding-  
down device

### C7 control – connection to the digital future

The new C7 control system gives you complete control over the entire extrusion line with direct and fast access to the individual units in the higher-level plant network. The numerous monitoring, control and automation functions create the basis for optimum product quality and high process reliability. With its versatile interfaces, the C7 controller is ideally equipped for the data world of tomorrow. In addition to the proven conventional methods (USB, PDFE xport), various network-based data interfaces (e.g. OPC/UA, Euromap84) are available for accessing machines and operating data.gung. Internal and external data recorders support you in in the analysis and optimization of processes.

### UltraGlide for perfect mixing processes

With UltraGlide, in just a few seconds the operator pulls the filled screws out of the fixed process unit. In all stages of the process or recipe development the quality of the mixing process can be visually and qualitatively

controlled, and also quantitatively assessed with sampling. Moreover, the screw elements can be cleaned and replaced without removing the downstream units.

### For smooth working

Another plus: Behind every ZE 28 BluePower laboratory extruder there is the comprehensive service offering of KraussMaffei, in addition to the high ease of maintenance thanks to good accessibility. The full potential of the laboratory extruder is available at all times – thanks to perfectly coordinated, preventative maintenance packages, remote functions, and a global service network.

### Technical data

Drive output	42 kW @ 1.200 rpm (screw speed)
Throughput	20-200 kg/h
Screw diameter	28 mm
Processing length	up to 56 L/D
Max. screw speed	1.200 rpm
Max. screw torque	2 x 165 Nm



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ZE 28 BluePower

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# 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)



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