



# Increased flexibility and greater cost-efficiency in profile extrusion 32D twin-screw extruders – profile series

*Engineering Value*

***Krauss Maffei***  
***Berstorff***

# Facts and figures regarding the 32D twin-screw extruder profile series

## Applications



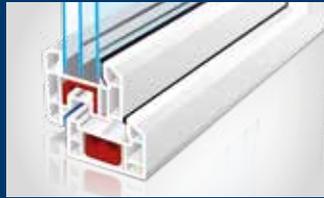
Cable ducts

Window profiles in core technology,  
extruded with regrinds

Foam profiles



Coextruded window main profiles



Window profiles

### Other applications

- Secondary chamber/multi-chamber profiles
- Gutters
- Door/shutter systems
- Window sills
- Technical profiles
- NFC/WPC profiles
- Siding solutions
- Special customer-specific solutions

## Technical data and dimensions of the 32D twin-screw extruder series

	KMD 75-32/P	KMD 90-32/P	KMD 114-32/P	KMD 133-32/P
Output range [kg/h]	120 – 260	180 – 390	250 – 550	360 – 800
Motor power output [kW]	29	44	68	94
Screw torque, max. [Nm]	10 140	18 000	35 700	56 200
Screw speed, max. [min <sup>-1</sup> ]	26	22	17	15
Screw length [L/D]	32	32	32	32
Screw diameter [mm]	75	90	114	133
Screw heating/cooling	Internal	Internal	Internal	Internal
Extrusion height [mm]	1000	1150	1150	1150
<b>Dimensions [mm]</b>				
Length incl. adapter	4330	5070	6250	7340
Width incl. control cabinet	1070	1170	1210	1490
Height incl. hopper	2415	2520	2580	2665

## **32D twin-screw extruder profile series**

### **Increased flexibility and greater cost-efficiency in profile extrusion**

In the area of profile extrusion the market is placing increasingly higher demands on production: Excellent quality, maximum flexibility and increased cost-efficiency.

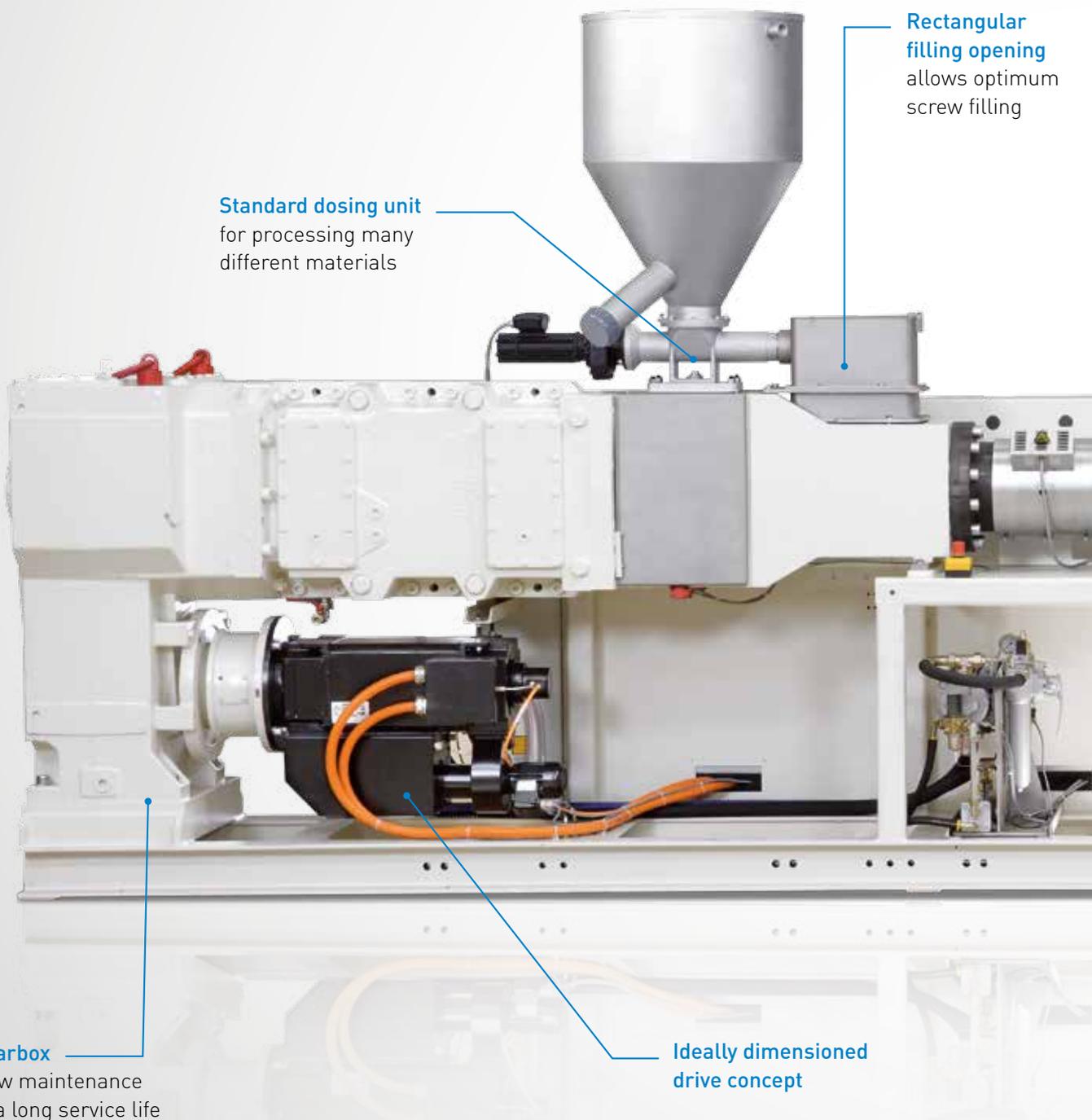
The 32D twin-screw extruder series from KraussMaffei Berstorff satisfies all conditions for optimum profile extrusion.

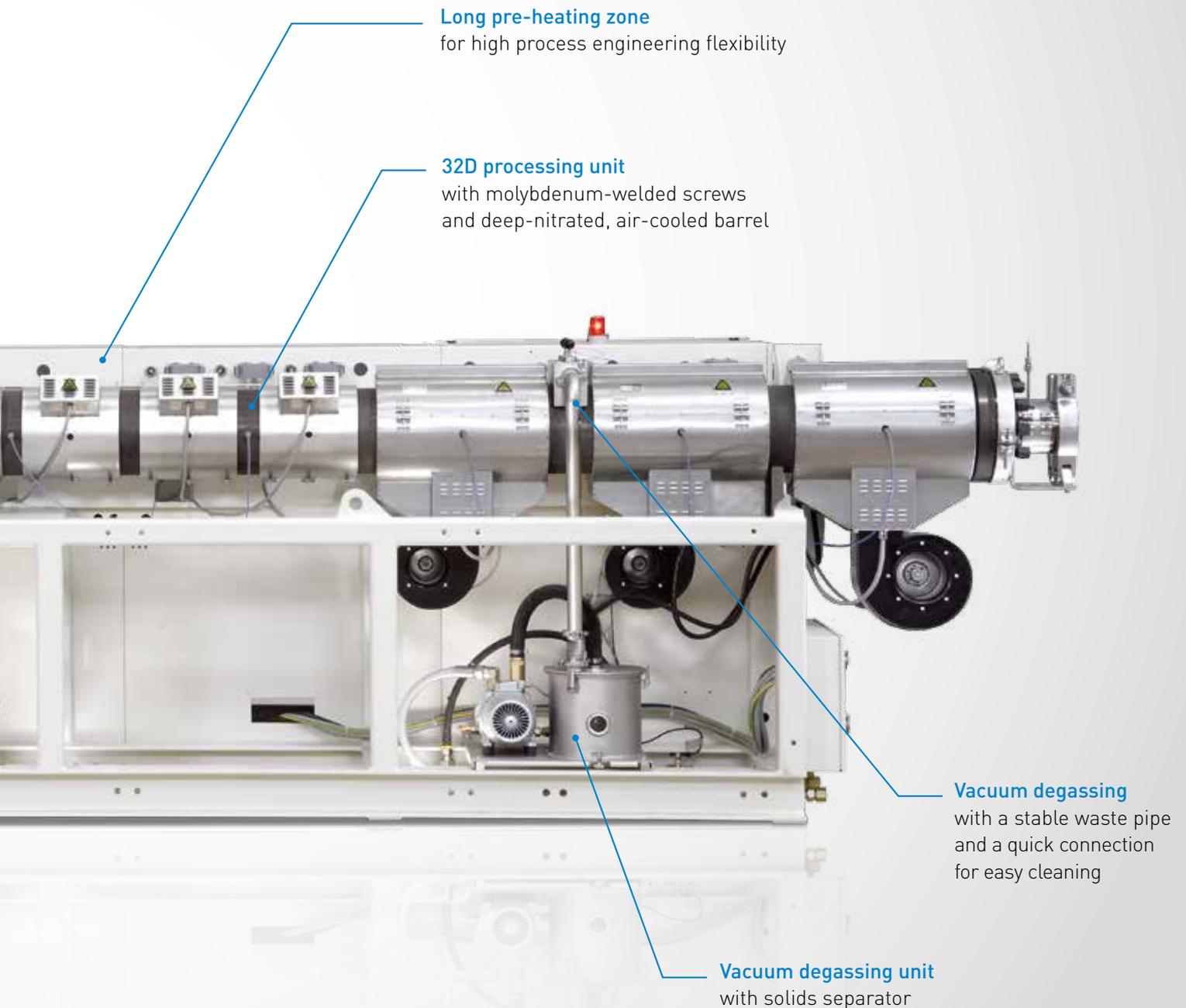
#### **The highlights at a glance:**

- Superb profile quality coupled with high production flexibility
- Improved melt homogeneity thanks to a long processing unit
- Extension of the processing window thanks to a long processing unit
- Optimum design for high demands: High-performance extrusion for maximum cost-efficiency
- Flexible extruders for maximum cost-efficiency

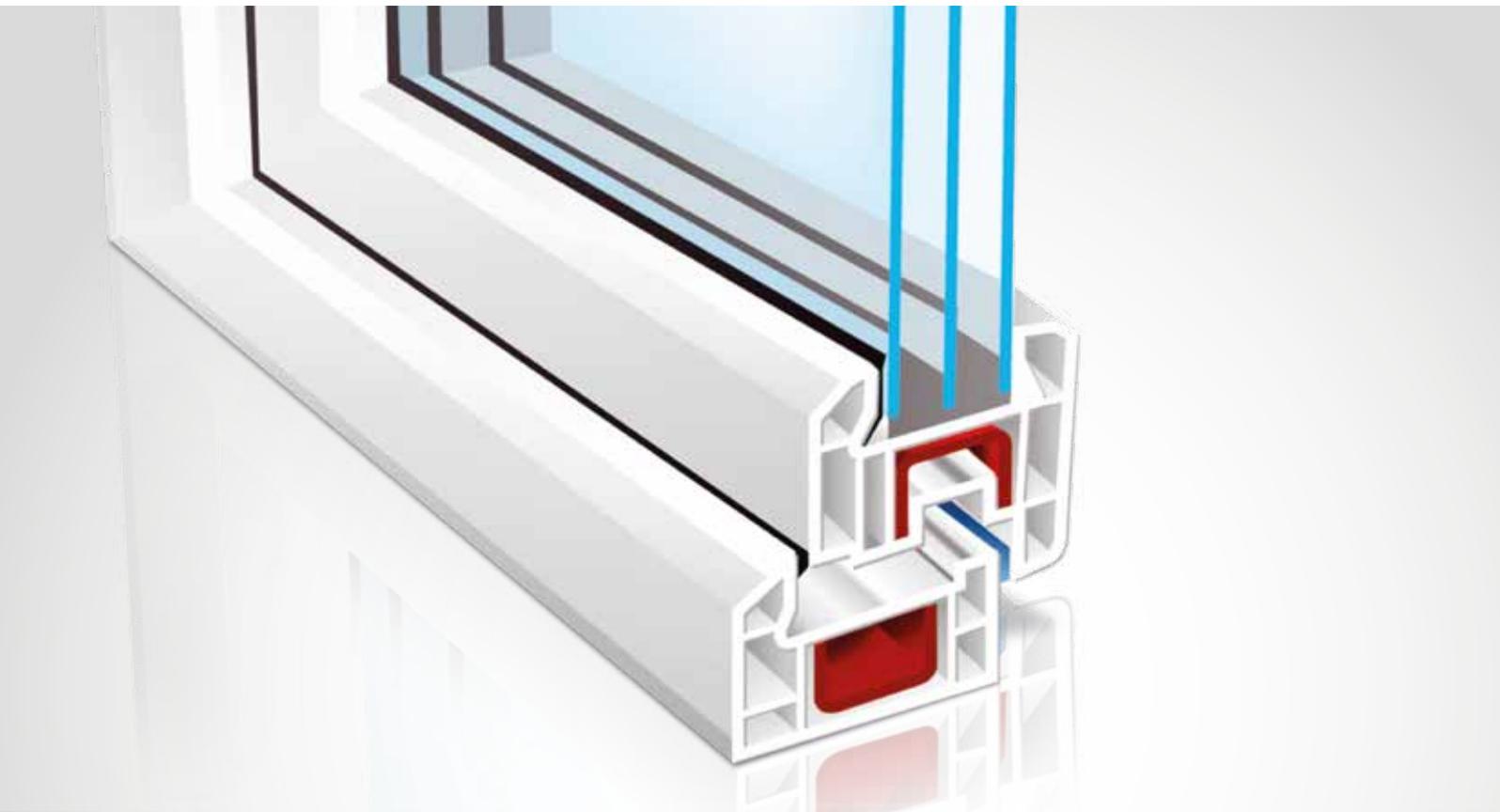
# Impressive encounter

## Take a tour of the 32D twin-screw extruder for profile extrusion





## Top-class results in profile extrusion More flexibility thanks to technically perfectly coordinated components



All parallel KraussMaffei Berstorff twin-screw extruders for profile production are equipped with processing units in the length 32D.

### **The screw concept**

The screw concept of the 32D twin-screw extruder series is characterized, in particular, by three advantages: It optimizes material processing, improves melt homogeneity and permits a very wide processing window when processing many different materials.

### **Focus on pre-heating zone**

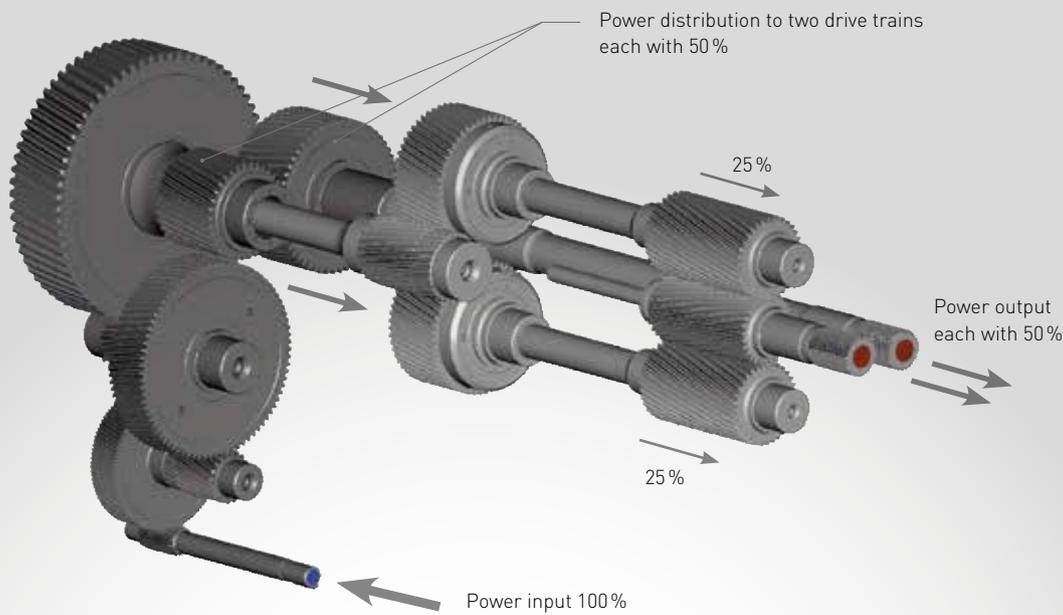
As the L/D ratio of the screw increases, so does the pre-heating zone. This produces a positive effect: Thanks to the

increased pre-heating zone and the lower peripheral screw speed, the plasticizing process can be influenced better through control of the barrel temperature.

### **Higher output rate**

Thanks to the optimized concept of the screw and the entire drive unit, the 32D twin-screw extruder series sets new standards in terms of cost-efficiency: The output rate can be increased with machines having the same screw diameter by up to 20 %.

## High-performance extrusion – KraussMaffei Berstorff has the perfect solution for every task



Optimum power distribution  
in the gearbox

Irrespective of the extrusion solution which you select in your production, KraussMaffei Berstorff has a technically impressive and highly economical system for this purpose.

### Powerful gearbox

The 32D twin-screw extruder series is characterized by high output rates. An extremely powerful gearbox is required to safely attain the high screw torques. We have used precisely this: The gearbox has a compact, robust and low-vibration design, is oriented precisely and

rigidly to the processing unit, is designed to absorb external forces and screw back pressure forces, and also provides easy access to the screw couplings and screw shaft seals.

# C6 control system – flexible system for open-and closed-loop control and monitoring of an extrusion line

With its new, innovative C6 control system, KraussMaffei Berstorff offers fast, direct access at all times to the individual units of an extrusion line, the extruders which work conjointly to produce the product, and to integrated downstream equipment.

With its numerous monitoring and control functions, the C6 control system ensures optimal production preparation and transparency throughout the production process, thereby satisfying the most stringent requirements for excellent product quality and a high level of process reliability.

## Multi-touch technology for intuitive operation

The C6 control system is equipped with the latest multi-touch technology and state-of-the-art hardware components. A high-resolution 24-inch full HD screen provides an optimal overview. The intuitive operation and clear screen layout facilitate fast intervention and provide a comprehensive process overview. Units and functions can easily be operated and activated via the touchscreen display. With the C6 control system, KraussMaffei Berstorff has placed a particular emphasis on maintaining continuity in the design

in terms of both its operation and its functionality, which have proven successful over a great many years.

## Maximum flexibility

The C6 control system offers the user an incredibly high level of flexibility. The composition of parameter pages can be chosen freely, and display and parameter texts can be tailored to individual requirements. In addition, the system components can be connected and disconnected as required.

## Fast, secure access management using RFID technology

The C6 control system allows fast, secure access by means of non-contact identification using RFID readers. Remote diagnostics via the Internet and data interfaces to connect to the company network tip the balance to make the C6 control system the perfect solution for all your extrusion line's control tasks.

## Your benefits:

- Modern, innovative operating philosophy
- Fast, intuitive operation
- Highly flexible
- Maximum process reliability
- Optimal monitoring of integrated system concepts and standalone machines
- A variety of user-friendly models



## Various operating configurations are available



Swivel-mounted on switching cabinet (standard version)



Mounted on switching cabinet door, tilting (option)



Boom-mounted version (option)



Mobile version (option)

# Extrusion or coextrusion

## The 32D twin-screw series is very impressive

We have the right answers to all questions in connection with profile extrusion.

### Maximum flexibility

The 32D series features maximum flexibility in processing different formulations and materials, changing a formulation, using different molds and easy handling of the machine.

### Constant quality

The 32D series provides over a defined performance range constant product quality with homogeneous profile surfaces, smooth inner surfaces even at a high output rate, minimum weight meter fluctuations and high mechanical strength.

### Significant improvements

The long processing unit and the lower peripheral screw speeds lead to significant improvements: The ratio between heating energy and shear energy is optimized substantially in favor of heating energy, thus making your production more flexible. The processing window is even wider and process reliability much higher.

### Compact coextrusion

The models in the conical series are available both in the standard design as stand alone extruders and as coextruders for profile extrusion. Coextrusion is an important trend in plastics processing. For example, window main profiles are made of cost-effective recycling material in the core or in the non-visible area of the profile and only a thin outer layer is applied

from colorfast new material. KraussMaffei Berstorff supplies a wide product range of coextruders and unique, space-saving coextrusion concepts such as column or piggyback combinations. In addition to ever scarcer recyclates, producers are increasingly using dry blends made of materials with a high filler proportion due to cost reasons. The type of application, but also the available production space determine the extruder arrangement.

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### Your advantages:

- High processing reliability
  - Improved melt homogeneity
  - Wider processing window
  - Optimum melt homogeneity
  - High, constant product quality
  - Low maintenance
  - Higher cost-efficiency due to the long service life of the processing unit with increased output
  - Substantial improvement in the price-performance ratio
- 



Coextrusion combination with the twin-screw extruders KMD 63 K/P and KMD 75-32 /P

## OEE Plus Boosting cost-efficiency for you



High overall equipment efficiency (OEE) is a fundamental prerequisite for your company's success. KraussMaffei Berstorff's product portfolio comprises tailored machines and lines along with perfectly matched services that increase the economic efficiency and the sustainability of your production. Benefit from our proven know-how of extrusion technology in any application.



Availability



Performance



Quality



For more information about OEE Plus, visit:  
[www.kraussmaffeiberstorff.com/oeplus](http://www.kraussmaffeiberstorff.com/oeplus)

## KraussMaffei Berstorff

### A strong brand in a unique global group

#### Value-proven Extrusion Technology solutions

Around the world, KraussMaffei Berstorff stands for reliable and value-proven solutions in Extrusion Technology. These range from using individual extruders for degassing in polymerization, compounding, pipe, profile, film and sheet extrusion, physical foaming and the manufacture of technical rubber articles and intermediates for tire production up to complete extrusion lines. All machines and systems from KraussMaffei Berstorff are custom-configured, for example for the chemical, automotive, construction, packaging or pharmaceutical industry.

#### There for you around the world

KraussMaffei Berstorff is your partner – from the first planning meeting through development of the best possible technical and business solution up through commissioning, servicing and production of your system. We guarantee high-quality advice, solution expertise, reliable spare parts logistics and fast-reacting service during each phase. Our goal is increasing your success.

#### Individualized service

Benefit from KraussMaffei Berstorff's reliable service. Our customer service team and experienced fitters, technicians and engineers are there for you as quickly as possible and even help on location to optimize your systems and processes and to minimize downtime as much as possible. Rely on our highly skilled repair and spare parts service

You can find additional information about KraussMaffei Berstorff at:  
[www.kraussmaffeiberstorff.com](http://www.kraussmaffeiberstorff.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 light blue. In the white-colored regions, the Group is represented by over 570 sales and service partners.

# Increased flexibility and greater cost-efficiency in profile extrusion: The 32D twin-screw extruder series

During production, it combines superb profile quality with high production flexibility and excellent cost-efficiency. The long processing unit of the twin-screw extruders improves melt homogeneity significantly and extends the processing window considerably.

The series is also ideally designed to cope with something which the market now increasingly expects and demands from production, i.e. flexible profile extrusion for maximum cost-efficiency.