



Process development, process optimization, machine design  
KraussMaffei Berstorff TechCenters for a wide range of extrusion tests

*Engineering Value*

***KraussMaffei***  
***Berstorff***

## TechCenters for customer testing under real production conditions

The focal points of the KraussMaffei Berstorff TechCenters in Germany and the USA are the development of process ideas for new products or applications and testing of measures to increase production reliability and improve productivity in production.

Covering a total area of more than 3,000 square meters, the TechCenters are available for sophisticated and complex extrusion tests under realistic production conditions. The TechCenters house 14 state-of-the-art machines ranging from a small laboratory system through to a production machine. They can test different machines and processes for the following applications:

- Compounding
- Manufacturing of plastic films and sheets
- Foam extrusion
- Production of technical rubber products and tire components

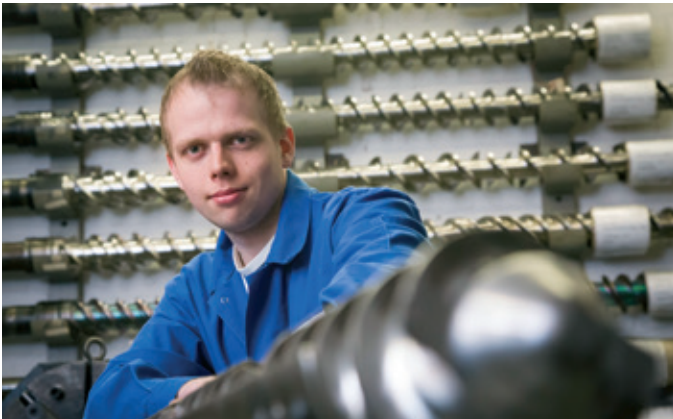
The modular designed machines in the TechCenters can easily be adapted to your special task and fitted with the necessary additional equipment in order to cover a wide range of extrusion tasks. With 50 qualified engineers and technicians, you can test and optimize every process step, every screw geometry and every barrel configuration here under operating conditions using your own material. We then safely transfer the results to a KraussMaffei Berstorff production machine.

### New processes, products and applications

In our capacity as a technology partner, we will help you find the best extrusion and processing technology for your particular task. The extensive know-how of our employees is available to you in our TechCenters - from assistance in making improvements to formulations and the design of screws and machines through to complete production optimization. Our application engineers will formulate individual solution concepts with you. They specialize in finding the most efficient alternative to produce your application. Obtain economic advantages by arranging for our extrusion technology to be adapted precisely to your requirements and production conditions. You can also expect lower development costs because we, as a partner, provide you with a perfectly functioning infrastructure. This means that there's nothing standing in the way of a new product.

### Process optimization

The best extrusion line only functions as well as its settings allow. This has impacts on product quality, throughput rates and energy consumption. At the KraussMaffei Berstorff TechCenters we have numerous ways to optimize your machines and processes. We will jointly formulate with you parameters which we can transfer to your machines in order to increase production reliability, product quality and throughput. You therefore gain your leading edge through the most efficient machine and process design.



An extensive range of screw geometries is available for testing.



Our employees in the TechCenter formulate optimum machine configurations for maximum product quality.



Experienced employees adapt the TechCenter machines precisely to the required task.

### Initial examinations

Thanks to close contacts with machine part suppliers, raw material producers, universities and research institutes, it is possible to carry out further analyses and studies during the tests.



Initial material examinations are carried out by experienced and qualified process engineers

### Training of employees and customers

The TechCenter offers customers and employees individual training courses on machines and systems in the TechCenter. Training and optimization are closely interlinked in the TechCenter in order to provide customers with genuine value-added.

System	Components + accessories	General application
<b>Profile production system</b>	<ul style="list-style-type: none"> <li>- GE 90 KS rubber extruder</li> <li>- Various molds and dies, straight head, crosshead or hose module</li> <li>- Microwave channel and hot air channel</li> <li>- Cooling channel, caterpillar haul-off, downstream vulcanization</li> </ul>	<ul style="list-style-type: none"> <li>- Single-component rubber and silicone profiles</li> <li>- Co-extrusion of rubber and silicone profiles</li> <li>- Tube and hose extrusion</li> <li>- Throughput rates up to 450 kg/h</li> </ul>
<b>Roller head system / calender</b>	<ul style="list-style-type: none"> <li>- GE150 KS rubber extruder</li> <li>- RH head up to an injection width of 1200 mm</li> <li>- 3-roll calender up to a working width of 1200</li> </ul>	<ul style="list-style-type: none"> <li>- Rubber sheets or rubber strips for the production of printing blankets, rubber roofing membranes, conveyor belts and sealing strips.</li> <li>- Tire components - inner liners</li> </ul>
<b>GE 90 rubber technology Extrusion technology</b>	<ul style="list-style-type: none"> <li>- GE 90 pin barrel extruder</li> <li>- Different process parts, molds and dies</li> </ul>	<ul style="list-style-type: none"> <li>- Coating of rollers and cores,</li> <li>- Feeding of twin-screw extruders via a gear pump,</li> <li>- Special or user-defined applications</li> </ul>
<b>GE 150 rubber technology Extrusion technology</b>	<ul style="list-style-type: none"> <li>- GE 150 pin barrel extruder</li> <li>- Vacuum pin convert process part</li> <li>- Different molds, dies, tread head or adjustment head</li> </ul>	<ul style="list-style-type: none"> <li>- Tire components - tread strips or core</li> <li>- Large-volume rubber profiles for the construction industry</li> <li>- Special or user-defined applications</li> </ul>
<b>AUMA</b>	<ul style="list-style-type: none"> <li>- Single- or twin-drum AUMA</li> </ul>	<ul style="list-style-type: none"> <li>- Pressing of floor coverings (composites, PVC), vulcanization of rubber strips, welding of plastic films</li> </ul>
<b>Covermatic system</b>	<ul style="list-style-type: none"> <li>- GE 120 KS rubber extruder</li> </ul>	<ul style="list-style-type: none"> <li>- Coating of rollers, sleeves or pipes</li> </ul>
<b>Compounding</b>	<ul style="list-style-type: none"> <li>- ZE 25 UTX UG laboratory extruder</li> <li>- ZE 40 UTX twin-screw extruder</li> <li>- ZE 60 UT twin-screw extruder</li> <li>- ZE 60 UTX twin-screw extruder</li> <li>- ZE 42 Basic twin-screw extruder</li> </ul>	<ul style="list-style-type: none"> <li>- Plasticizing and alloying, filling and reinforcing, compounding of master batches, reacting and degassing</li> <li>- Throughput rates: 5 - 2500 kg/h</li> </ul>
<b>Foam extrusion</b>	<ul style="list-style-type: none"> <li>- Schaumex 90</li> <li>- Schaumtandex ZE 40 / KE 90</li> </ul>	<ul style="list-style-type: none"> <li>- Physically foamed pipes, profiles, sheets, beads</li> <li>- Throughput rates 20 - 150 kg/h</li> </ul>
<b>Film and sheet technical extrusion</b>	<ul style="list-style-type: none"> <li>- ZE 60 UT A/R twin-screw extruder</li> <li>- Co-extruders as required</li> <li>- Flat sheet dies from 600 to 1500 mm</li> <li>- 3-roll planet calender Ø 425 x 1500 mm</li> <li>- 8-roll tempering line Ø 250 x 1500 mm</li> <li>- Downstream for EVA film production</li> </ul>	<ul style="list-style-type: none"> <li>- Premium quality transparent / optical films</li> <li>- Single- and multi-layer films and sheets</li> <li>- Laminated and/or stamped films and sheets</li> <li>- Films and sheets made of highly filled, pre-crosslinked or adhesive polymers</li> <li>- Throughput rates 100 - 600 kg/h</li> </ul>
<b>Suitable additional equipment</b>	Additional equipment is available both for plastic technology and rubber technology, e.g. metering systems, vacuum devices, winders, haul-offs, pelletizing systems, filtration and pressure build-up systems, conveyor belts, etc.	

Our experts in our TechCenters in Germany and the USA will help you to continuously optimize your products and processes.

We can offer you decades of test experience. Customized machines can be designed based on your requirements from a few kilograms up to several tonnes of raw materials. Based on the results we will prepare machine concepts and offers for you.