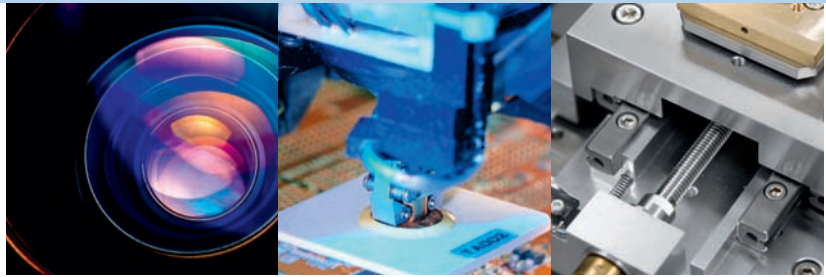




Welcome to where precision is.



Welcome to Steinmeyer!

Welcome to where precision is.

HISTORY



1927



1942



1943

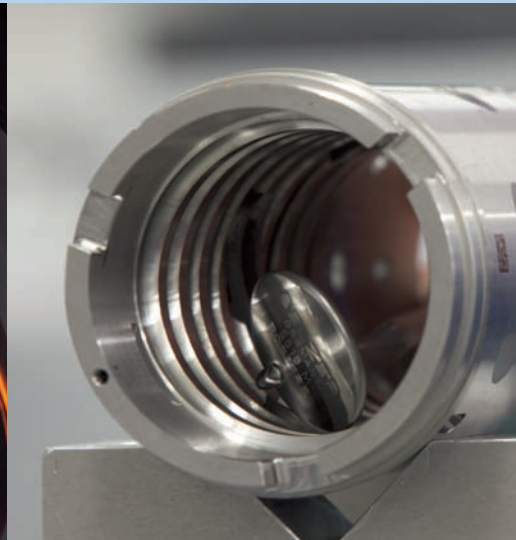
The Steinmeyer company was founded by Mr. August Steinmeyer in 1920. One year later, in 1921, he decided to specialize in micrometers, which was to become the product range for which the small company was soon to be recognized in the domestic market and abroad.

When the founder suddenly passed away in 1940, Mr. Erwin Beck assumed

leadership of the company, and subsequently acquired it in 1950. The house with its attached work shop, built by the founder in 1937, became the origin of a factory plant which occupies some 8 acres of land today. The original house still exists, but has since been converted into office and meeting space.

Beginning in the late 1960's, ball screws have been manufactured at

the Albstadt factory. About 10 years later, this new product line outgrew the legacy micrometer manufacturing, and the organization and production facility had to be tailored towards the new product line. The traditional micrometer line, which still stands for precision and reliability of Steinmeyer's products, is now manufactured at the FMS Suhl plant in Thuringia, an affiliated enterprise in the Steinmeyer group.



The production plant in Albstadt. In the midst of the 35.000m² wide factory is the original building constructed by the founder. Together with the subsidiary companies in Suhl and Dresden the Steinmeyer-Group is a leading manufacturer of precision ball screws and precision measuring equipment.



OUR PHILOSOPHY

Modern machine design places high demands on precision and reliability of its linear drives. Ball screws, which have become an indispensable engineering element, require a high degree of product knowledge. And Steinmeyer is your key partner for development, production and application engineering.

Small screws specifically prove Steinmeyer's expertise. Still setting standards after 40 years, they have been developed to a degree of perfection second to none. Similarly, machine tool design expects continuously improving performance and life figures from its linear drives. Steinmeyer is committed to being at the cutting edge - always.

Such success is impossible without careful consideration of our customers' requirements, which requires continued dialog with them. Experienced staff and the latest equipment ensure we stay at the top - which our customers have come to expect.

In aerospace applications, precision has an additional significance. It means applying approved processes over and over again - with not the slightest deviation. From raw material to the finished component to its maintenance during the entire life cycle, from design and development to qualification testing - everything must be done in a well controlled environment and an absolutely repeatable manner. On the ground as well as in the air.

AREAS OF APPLICATION

Today ball screws are used in a widely varying range of applications. Precision ball screws from 20 to over 100 mm in diameter are an indispensable element for positioning and infeed applications in today's machinery and apparatus construction.

The main challenge here is to provide a dynamic and backlash-free power transmission from rotational to linear motion while keeping a high level of stiffness and lifetime.

Miniature ball screws with diameters of 16 mm and smaller are commonly used for optical instruments, medical

engineering and other mechatronic applications. Such applications require the lowest possible friction.

Ball screws quite often have to survive special environments such as Ultra High Vacuum in electron microscopes or high temperatures during sterilization of surgical instruments.

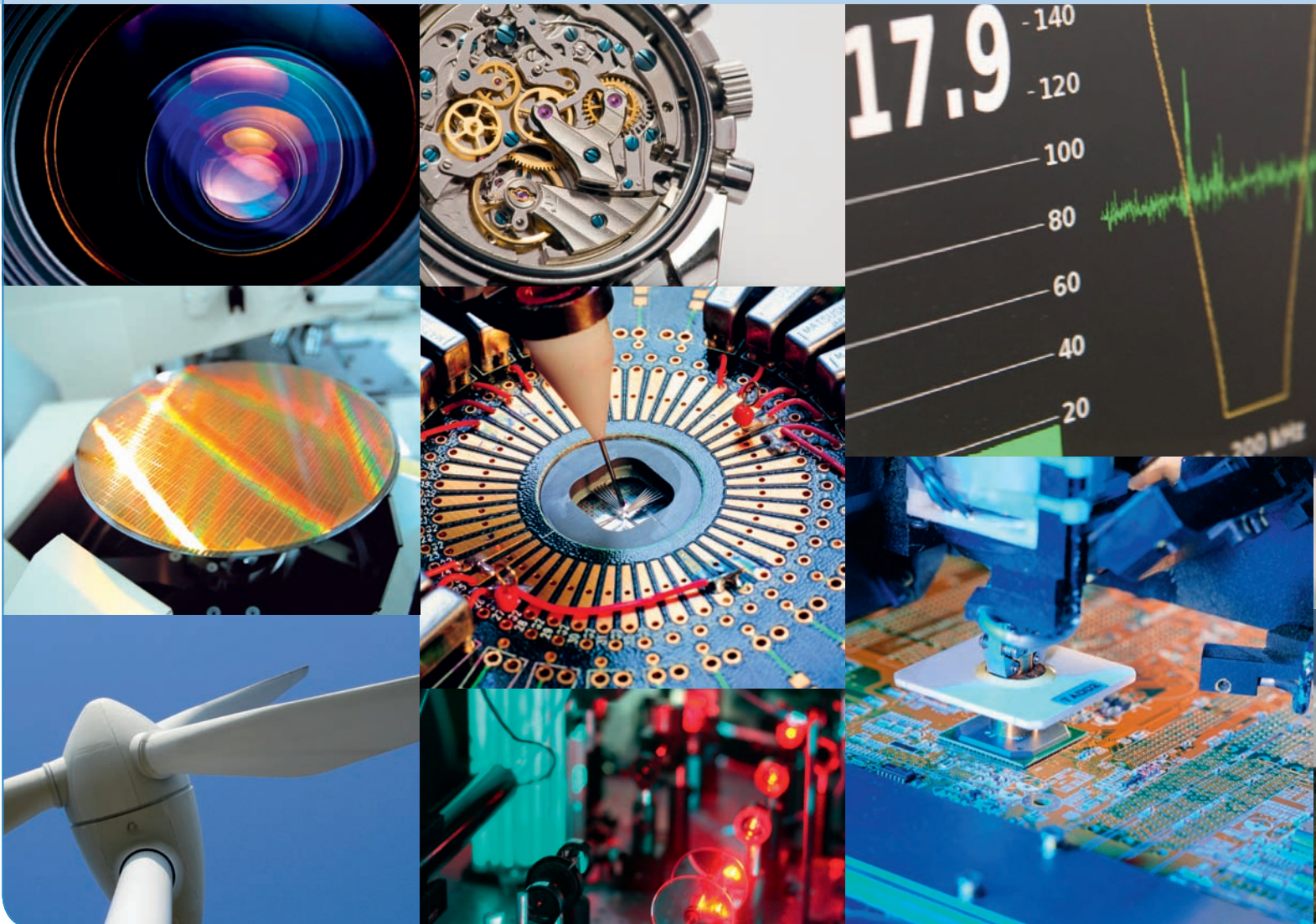
Ultra Thrust ball screws not only require bigger dimensions but also need special design solutions e.g. for injection molding machines or lifting tables.

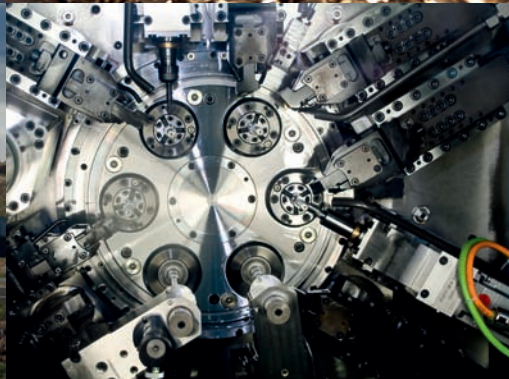
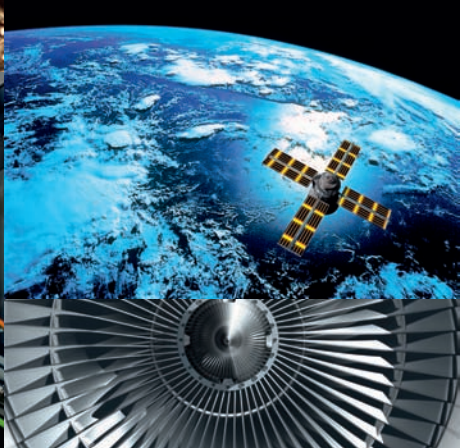
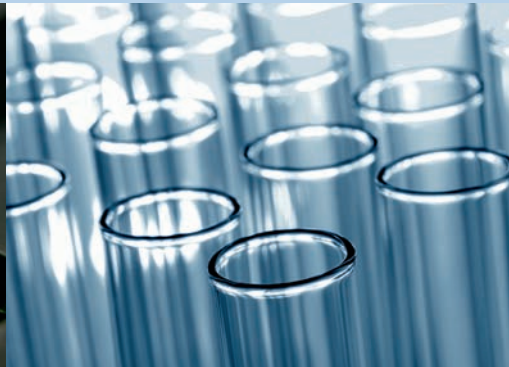
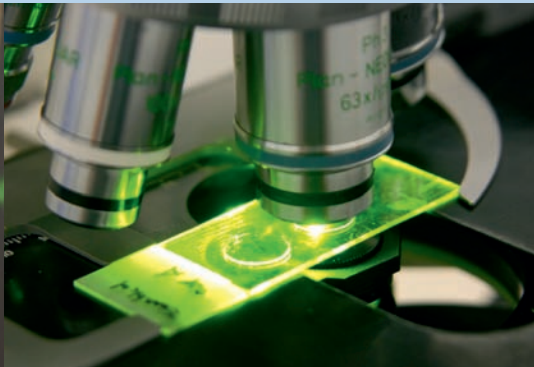
Contrary to that there are applications requiring very fine adjustment. Smallest increments, e.g. in analysis devices, are often achieved using precision ground

lead screws. Since screw shafts and nuts are matched to "nearly backlash free" they often perform better compared to other drive types.

Applications in aerospace have quite different demands on a ball screw. First of all there is uncompromising reliability under all imaginable operating conditions while the precision issue takes a back seat.

Of course design, manufacturing and testing of aerospace ball screws has to be continuously controlled to make sure that failure is impossible.





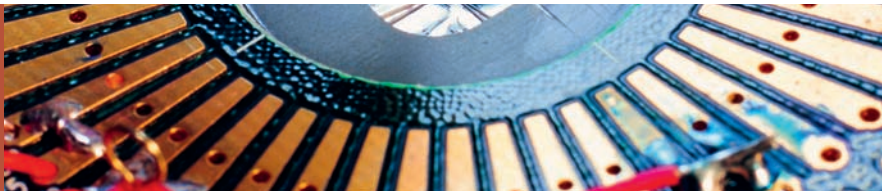
Welcome to where precision is.

PRECISION AT A GLANCE

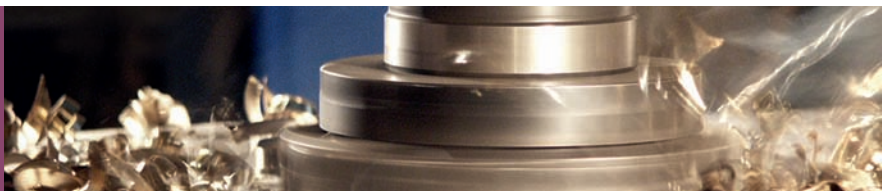
TECHNOLOGY



MINIATURE BALL SCREWS
DIAMETER 3 - 16 MM



LARGE BALL SCREWS
DIAMETER 16 - 125 MM



ULTRA THRUST
BALL SCREWS
DIAMETER 50 - 160 MM



BALL SCREWS FOR
AEROSPACE APPLICATIONS



ROTATING NUTS



PRECISION
LEAD SCREWS



This catalog contains the product range of Steinmeyer ball screws and is divided into several product categories. Because it is not possible to show all special forms and modifications please contact us to review your requirements. And please note that nearly every other nut design, diameter / lead combination and ball size as well as additional ball circuits are possible - as a custom unit. Please contact us for details.



A summary of all important criteria for the selection of an applicable ball screw including service life calculations, assembly recommendations, lubrication and maintenance.

10 - 53



Standard program for diameter 3 to 16 mm with several nut designs and standard shafts.

54 - 105



The product range for machine industry. Standard nuts according to DIN / ISO, rotating nuts to enable assembling bearings directly. Ball screws are always made according to a drawing.

106 - 145



Special design with extra large balls and matched ball return system. Ball screws are always made according to a drawing.

146 - 149



An overview of particular solutions, processes and materials from development to testing to servicing.

150 - 153



To enable higher speeds rotating nuts are often used. This chapter highlights important engineering.

154 - 157



Steinmeyer always produces lead screws according to a drawing. This chapter shows some examples.

158 - 161

