

3 S))))

**SUCCESS HAS MANY
COMPONENTS.**

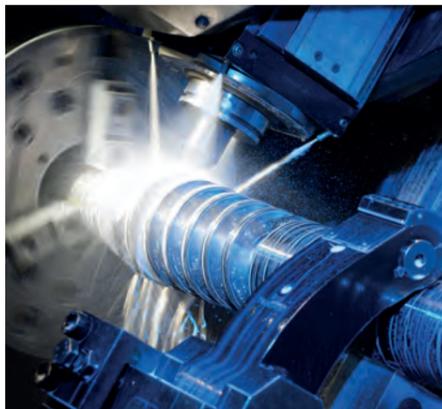
3S) is who makes them.

WE MAKE COMPONENTS THAT MAKE THE DIFFERENCE.

Specific industries require specific solutions - 3S is who delivers them: customised key components for extrusion, filtration and plastics processing. Our screws and cylinders are made with the highest precision, manufactured using the very latest machinery and supported by the expertise of our highly qualified specialists.

Innovations such as our LASEX® laser deposition welding process, developed in-house, and replaceable wear sleeves in cylinder construction, significantly extend the service life of the components. We make this possible by continuous research, state-of-the-art manufacturing technology and the passion for precision of the entire 3S team.

And we go even further by supporting our customers along the full life cycle of their components by providing an extensive range of services. This includes the professional regeneration of screws and cylinders, precise wear measurements, and the rapid creation of technical drawings using the latest 3D CAD technology during repair work, or directly on site at the customer's machine. These services guarantee sustainable performance and maximum reliability.



OUR STRENGTH

is the way we bring together technology, experience, and intuition. Working together closely with our customers results in solutions that are precisely custom-built to meet individual requirements - durable, efficient and innovative.



PART OF THE EREMA GROUP

The 3S team has been developing custom-built components for challenging applications since 1991. As part of the EREMA Group, we use our expertise to contribute to the extraordinarily high quality and resilience delivered by EREMA plastic recycling machines.

EXTRUDER SCREWS
PROTECTED AGAINST THE TOUGHEST WEAR

3S) IS A WHOLE TURN AHEAD.

We focus on your specific requirements. Our single screws and twin screws are exactly matched precision parts. Conical and cylindrical. Co-rotating and counter-rotating. Ultimately wear resistant for every application.

SINGLE SCREWS

3S makes screws for extrusion and injection moulding. Up to a length of 6500 mm and a diameter of 500 mm. Single and multiple sections. In various designs.

For all extrusion applications:

- Matched to the cylinder material: nitrided screws or deposition armoured screws for extra wear resistance, with a range of armouring materials. Used for applications in the food and chemical industries as well as ceramic and rubber extrusion.
- Screws made of special materials for specialised applications. Screw accessories such as parts for mixing and shearing, screw tips and non-return valves are also part of the wide 3S product range.

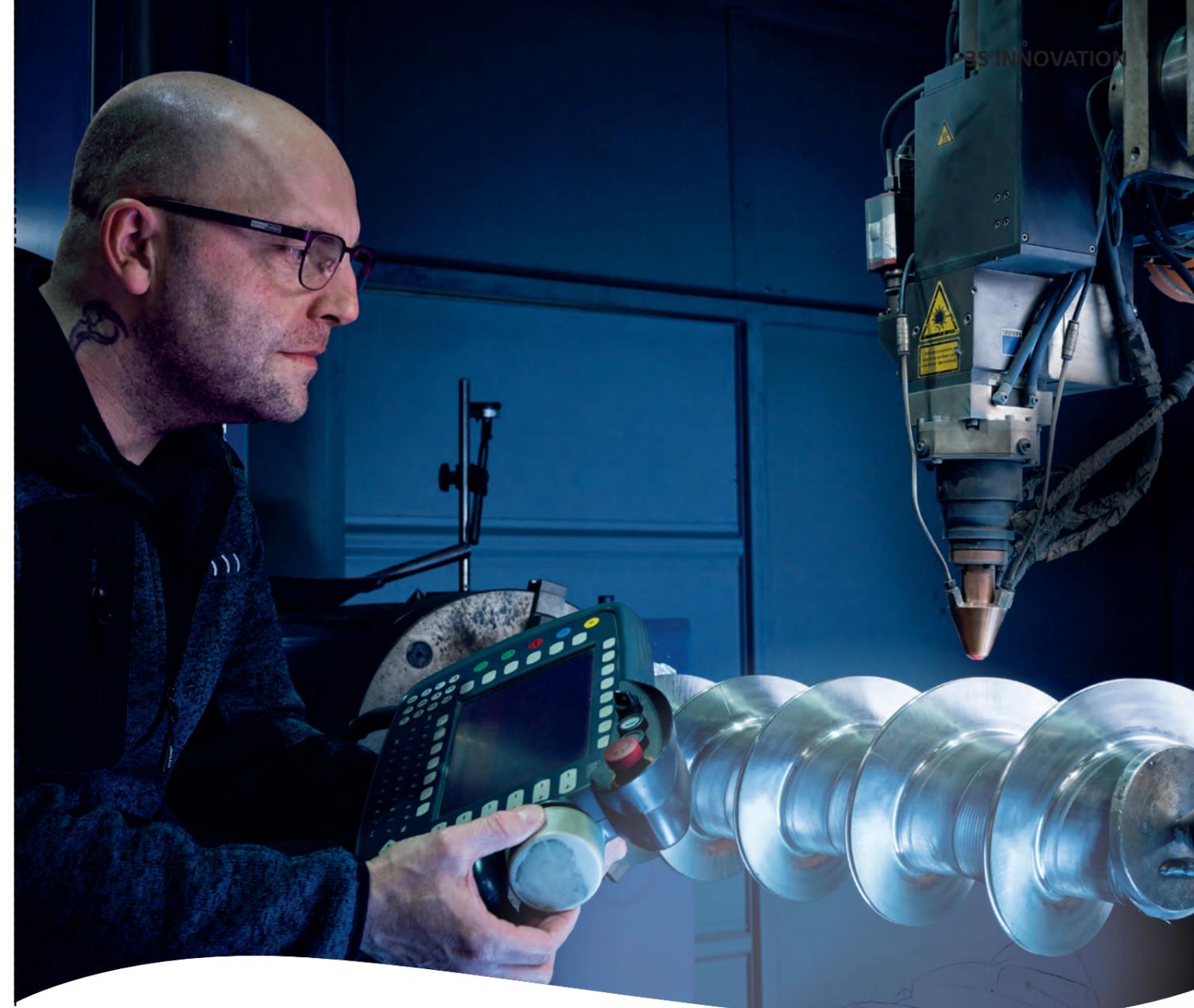
TWIN SCREWS

Twin screws - co-rotating and counter-rotating - are manufactured in a cylindrical or conical design. Molybdenum-coated screws and screws armoured using a CNC plasma welding system offer alternatives to nitrided screws in terms of wear protection.



YOUR ADVANTAGES IN A NUTSHELL:

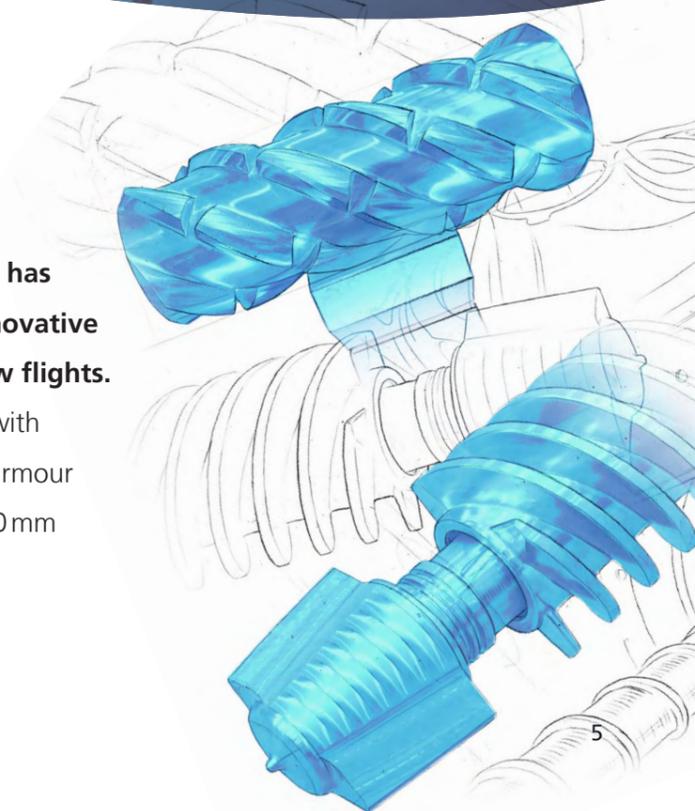
- High quality materials
- Precision processing
- Manufactured to your specifications
- Long service life



LASEX® - PRECISION WITH LASER DEPOSITION WELDING

Working together with a research institute, 3S has developed the LASEX® process, which is an innovative solution for the laser metal deposition of screw flights.

A laser beam is used to melt the deposition metal with pinpoint accuracy. This efficient process is used to armour screws between 1 and 6 metres long and 50 to 500 mm in diameter to make them wear-resistant.





3 s))))

PASSION FOR PRECISION AND PRODUCTIVITY.

PRECISION FIT WITH PERFECTLY MATCHED MATERIALS.

For both single screws and twin screws, 3S offers cylinder solution systems that include an innovation in conical twin screws.

CYLINDERS FOR SINGLE SCREW EXTRUDERS

Cylinders to meet every possible specification. In nitrided or bimetallic spun qualities, with grooved or smooth bores, and a choice of cooling systems.

Your advantages in a nutshell:

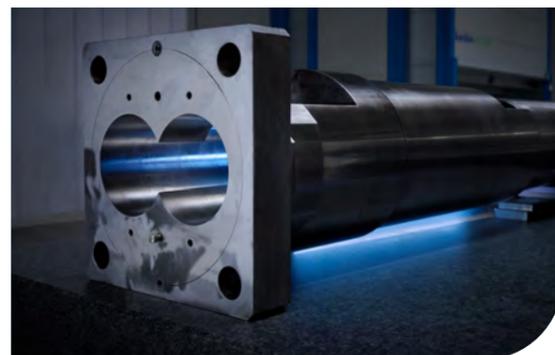
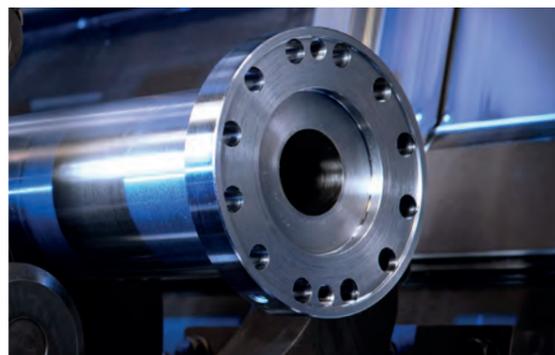
- Wear protected design
- Optimum thermal transmission
- High quality materials
- Long service life

CYLINDERS FOR TWIN SCREW EXTRUDERS

We deliver conical and parallel twin screw cylinders as well as cylinder sections for compounding machines. One of the highlights of twin screw extruders is the wear sleeve inside the cylinder, developed by 3S. The advantage of this hardened tool steel sleeve is that it can be replaced completely and as often as required if it is subject to wear. This greatly increases the service life of the cylinder as a result.

Your advantages in a nutshell:

- High precision
- Wear-protected conical and parallel versions
- Long service life

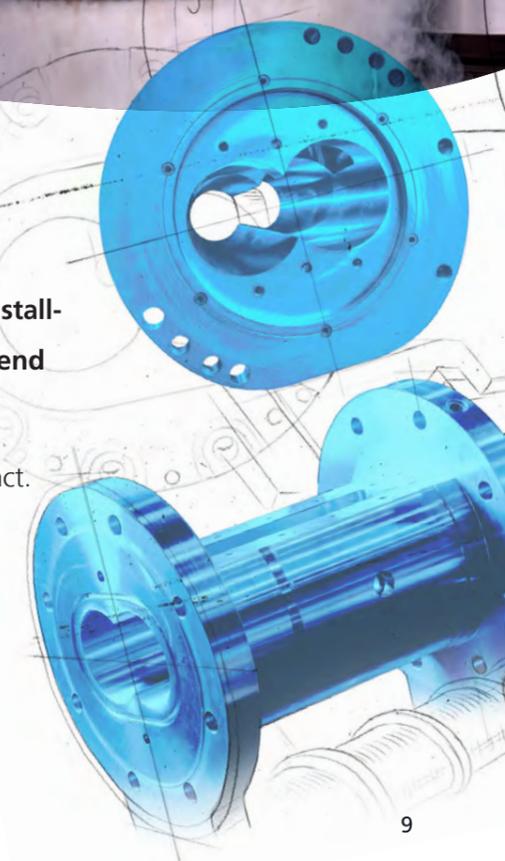


INNOVATION

WORLD PREMIERE IN CYLINDER CONSTRUCTION

3S revolutionises the design of conical twin screw extruders by installing replaceable wear sleeves made of hardened tool steel that extend the service life of conical cylinders by a factor of four.

- Wear sleeves are replaceable, while the cylinder housing remains intact.
- 4 times longer service life compared to nitrided version
- Uniform hardness guarantees a longer service life of the wear sleeve
- Wide range of high-performance materials for custom-built products
- Everything from a single source for optimised pairing of cylinder and screw materials.



BECAUSE TECHNICAL KNOW-HOW COUNTS

SERVICE. PRECISION. PARTNERSHIP.

REGENERATION

Wear on screws and cylinders is unavoidable. A reduced throughput rate and inferior quality output have a severely negative impact on production. Regeneration in good time keeps screws and cylinders on top form. By regenerating the extruder unit, you not only increase productivity, but also extend the service life of your system by improving wear protection.



WEAR MEASUREMENT

With the wear inspection service from 3S, you have an overview of the condition of screws and cylinders at all times. This means there are no surprise machine malfunctions, which could result in long production downtimes. In coordination with production, the process combinations are checked for wear at your premises or at 3S so that repair work and replacement components can be planned long term. What is more, thanks to the WISCEB technology developed by 3S, it is now possible to reliably measure wear on conical twin screw cylinders.



CAD SERVICE

QUICKLY AND EASILY TO THE EXACT DRAWING.

An additional service offered by 3S is to create drawings of screws and cylinders. This can be carried out during a repair, for example, but also at short notice on site at the customer's premises.



STATE-OF-THE-ART MANUFACTURING

Technologies are subject to ongoing development, but one thing stays the same: at 3S we manufacture components with the highest precision and reliability. The very latest machines, operated by specially trained professionals, guarantee quality at the highest level. Our machinery is always up to date to make sure we can meet customers' specifications directly in-house. Every investment in new technology is an investment in precision and the productivity of our customers.





3S SCHNECKEN + SPINDELN + SPIRALEN BEARBEITUNGSGES.m.b.H

ROITHAM LOCATION

Pühretstraße 3
A-4661 Roitham
Tel: +43 (0) 7613 5004 . Fax: 5005
office@3s-gmbh.at

WARTBERG LOCATION

Vogel und Noot Straße 6
8661 St. Barbara
Tel: +43 (0) 3858 4257 50
office@3s-gmbh.at



digital brochure
www.3s-gmbh.at/en/downloads/