



# Single Screws

# About GTS

## Tradition & Innovation

Since 1995, GermanTwinscrewS has been shaping extrusion technology with precision-engineered screw and barrel systems. Every rotation represents efficiency, reliability, and German innovation.

### ♥ of Extrusion

For more than three decades, GermanTwinscrewS GmbH has been a trusted partner in plastics and petrochemical processing. With customers in more than 100 countries, we combine technical expertise, German engineering excellence, and a strong commitment to sustainability.





# Introduction to Single Screw Technology

## The Classic Solution — Reinvented by GTS

Single screws remain one of the most versatile solutions in plastics processing. Whether for extrusion, compounding, injection molding, or petrochemical applications — they combine simplicity with high performance.

### Key benefits of GTS single screws:

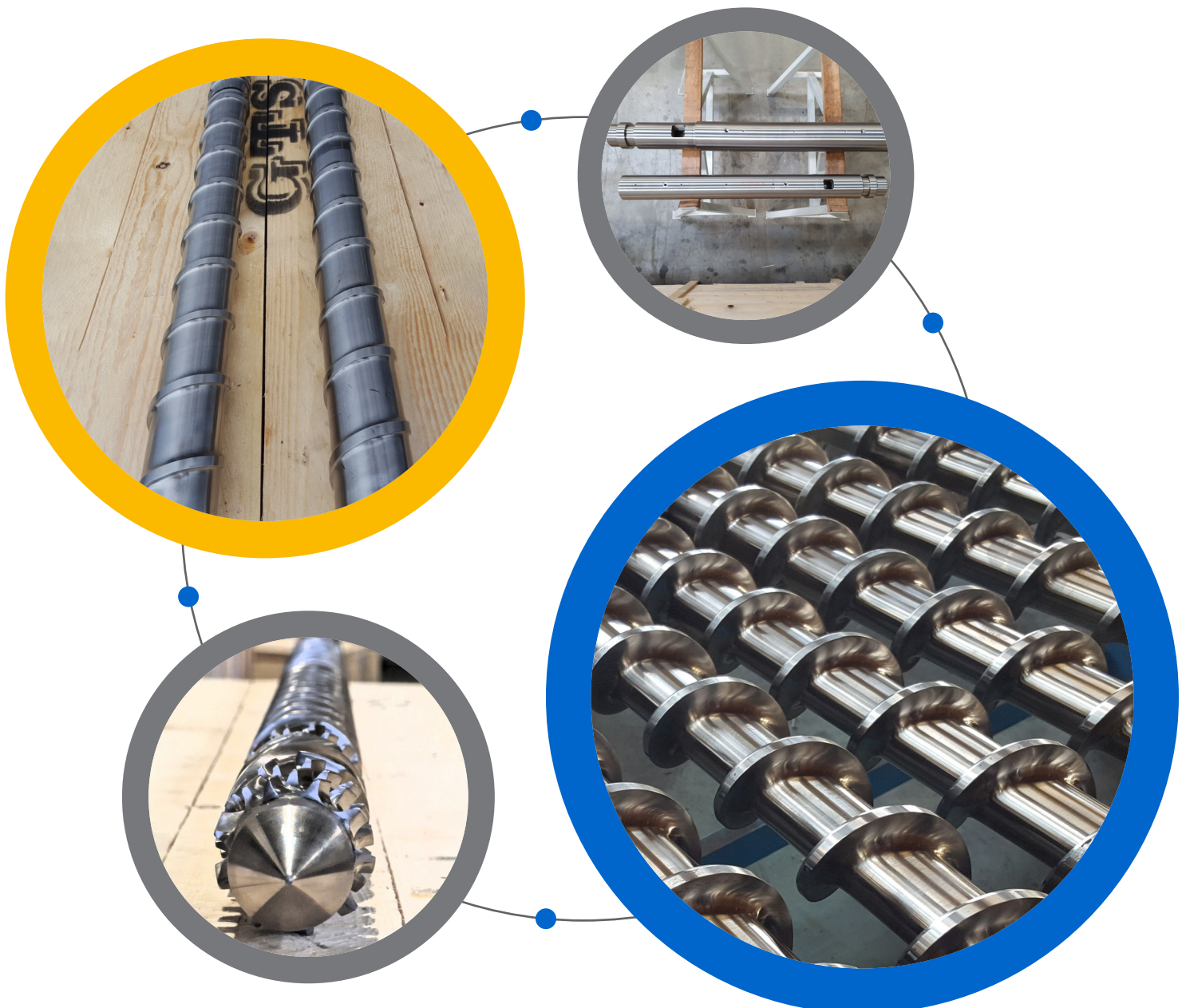
High throughput  
with excellent  
melt homogeneity

Flexibility for  
powders, pellets,  
liquids, or blends

Long service life  
due to advanced  
wear protection

Customizable  
geometries for every  
process requirement

Where others see a standard solution, GTS sees an opportunity for optimization.



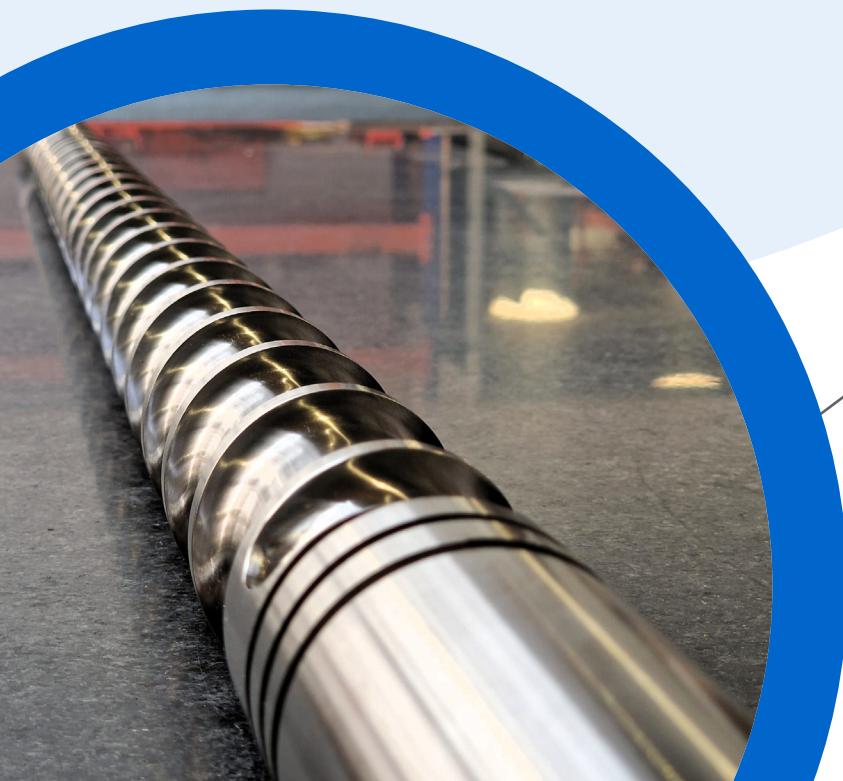
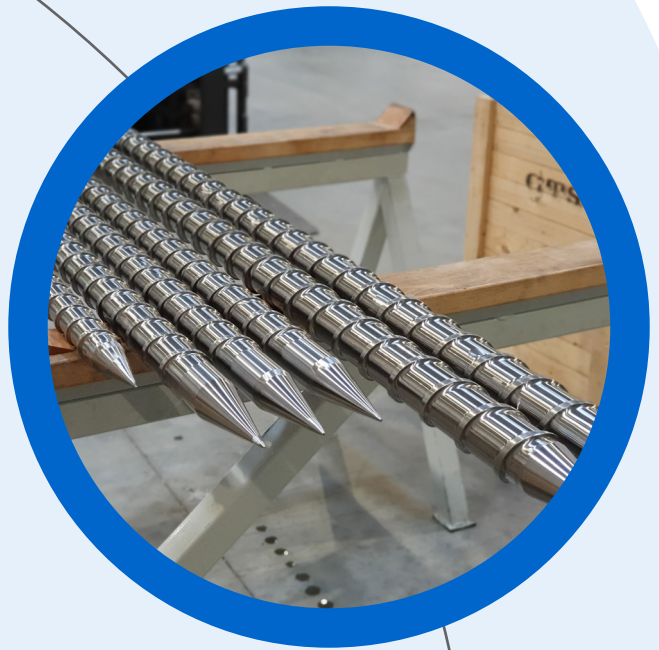
# Single Screws for Plastics Processing

## Versatility Across Materials

From PVC to PE and advanced technical polymers, GTS single screws cover the full spectrum of plastics processing. Each screw is designed with optimized compression ratios and precise geometries, ensuring consistent output and superior product quality.

In film and sheet extrusion, they provide stable throughput and uniform thickness. In profile extrusion, they ensure precise feeding and controlled melting. And in compounding, they achieve reliable mixing of additives and fillers no matter how complex the formulation.

Every screw we manufacture can be tailored to your unique material requirements, or built as an exact replacement for existing equipment. With GTS, you receive a solution that integrates seamlessly into your process while delivering measurable improvements in performance.







# Large Single Screws for Petrochemicals

## Power for Global Production

In the petrochemical industry, output and reliability are everything. Many of the world's most important resins like polyethylene are produced on large single screw extruders.

GTS designs and manufactures screws and barrels that withstand continuous high-speed operation for decades. Their geometry ensures crystal-clear, defect-free resins, whether the process requires pressure or non-pressure operation. By integrating vacuum ports, our screws offer even greater flexibility for removing volatiles and guaranteeing consistent melt quality.

We use only high-alloy steels and advanced surface treatments, such as deep gas nitriding, to maximize wear resistance. The result is a system that runs with stability shift after shift, year after year — securing your competitiveness in global production.



# Special Applications

## Beyond the Standard

GTS single screws are also designed for demanding specialty processes:



### Foam extrusion:

cooling screws for high-output foam production



### Rubber & elastomers:

robust designs with strong compression zones



### Recycling:

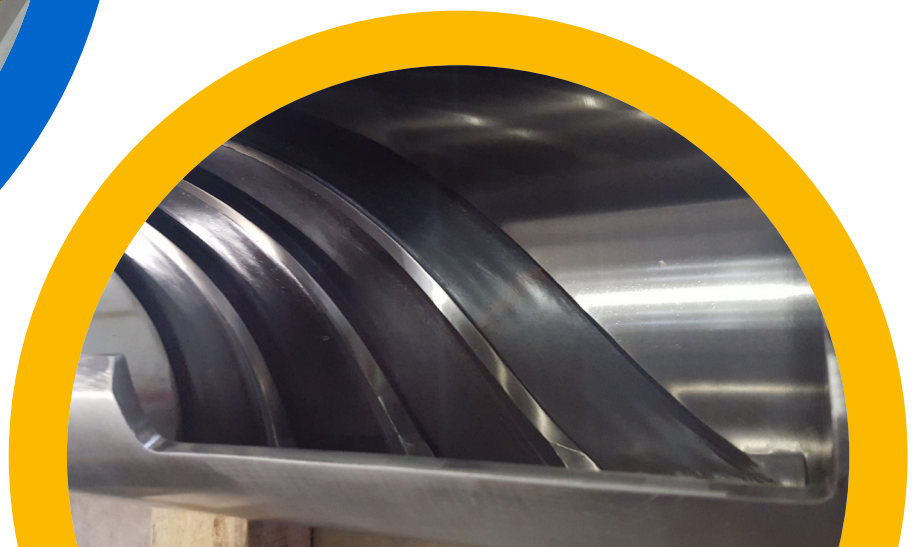
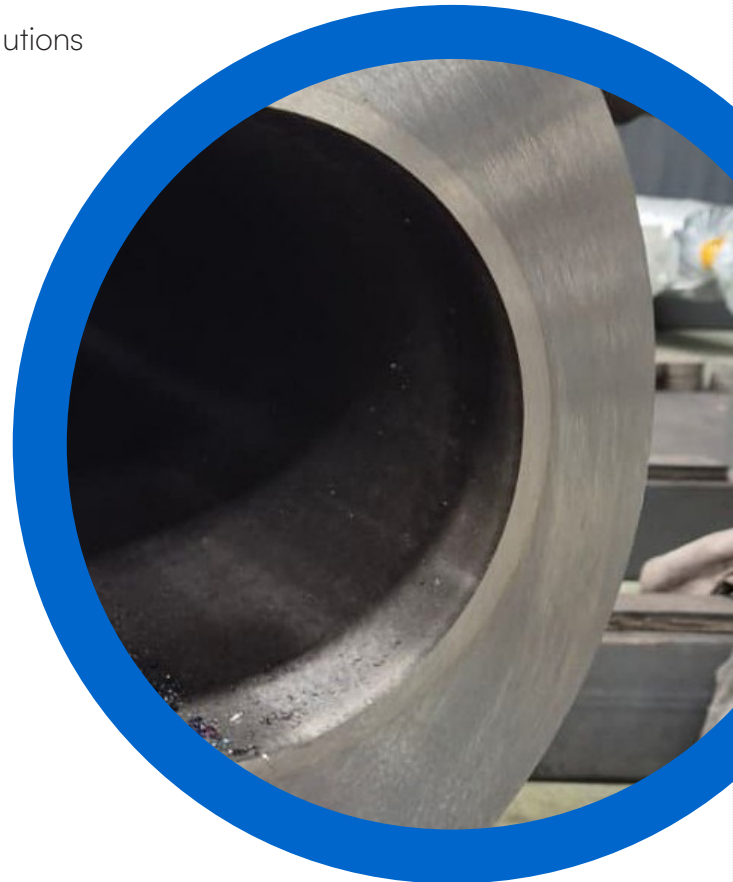
optimized screws for regrind and mixed materials



### Food & pharma polymers:

precise processing under strict quality demands

Our engineers work closely with you to create solutions that match your unique requirements.





# Engineering Options & Wear Protection

## Designed for Longevity

Every production environment is different — that is why we offer a wide range of materials and coatings:

Gas nitriding  
for durable  
surfaces

PTA or laser cladding  
for advanced wear  
protection

Bimetallic barrels  
for extreme  
applications

Liquid temperature-  
controlled  
barrels for stable  
processing

This ensures that GTS single screws keep running — year after year, shift after shift.

## Why GTS? — Your Benefits at a Glance

Decades of  
experience in  
single screw

Customized solutions  
for every polymer  
and application

Reliable  
performance and  
extended service life

Worldwide  
presence and fast  
delivery times

Strong partnership  
from concept to  
completion





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We invite you to contact us to learn more about our products and services. Our team is ready to discuss your specific requirements and offer customized solutions.

Best regards,

Your GermanTwinscrewS GmbH Team

♥ of Extrusion

