



Counter rotating **Twin Screws**

Who is GTS?

About Us

♥ of Extrusion

Tradition & Innovation since 1995

GermanTwinscrewS GmbH is a leading global manufacturer of screws and barrel systems for the plastics and chemical industries. From our beginnings in 1995 to today, we have become a trusted partner for customers in over 100 countries.

Our success is built on three pillars:



Technical expertise:

more than 30 years of experience in rheology, fluid mechanics, and process engineering.



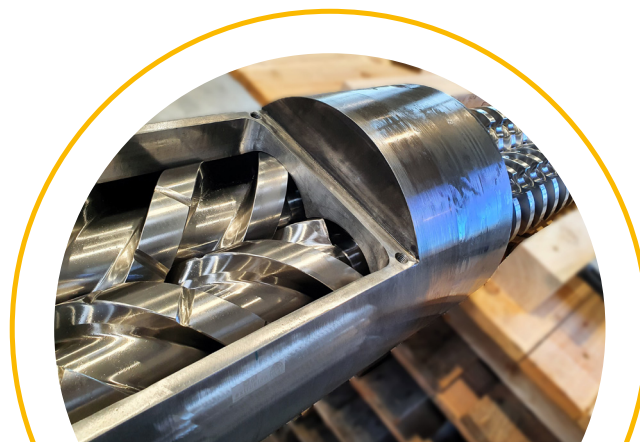
German engineering:

precision manufacturing for the highest durability.



Customer focus:

personal consultation, fast response times, and worldwide service.





Introduction to Counter-Rotating Twin Screws

The Industry Standard in PVC Processing

Counter-rotating twin screws are indispensable wherever powders must be transformed into homogeneous melts with perfect gelation and surface quality. At GTS, we master the chamber conveying principle to achieve:

Wide process
window for
stable output

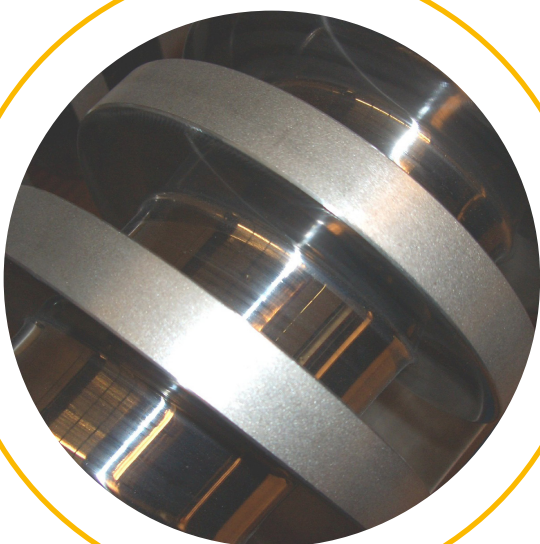
Efficient
melting and
homogenization

Bubble-free
compounds
with flawless
surfaces

High output
rates — up to
6000 kg/h

Long-term
process
stability with
closed internal
tempering

From profiles to pipes, from sheets to foamed products — GTS counter-rotating systems ensure efficiency and consistency in every application.



Parallel Counter-Rotating Twin Screws

High-Output Specialists for Pipes, Profile and Sheets

Parallel (non-conical) counter-rotating screws are designed for applications that require long processing sections, highest throughput, and robust durability.

Their geometry allows extended zones for degassing, homogenization, and mixing. This makes them particularly effective in:

Pipe & Profile extrusion —

from pressure-resistant water pipes to large-diameter sewage systems and heavy weight profiles

Sheet production —

compact or foamed sheets with smooth, printable surfaces.

High-output operations —

for best gelation with highest impact

Your benefits with GTS parallel systems:

Stable production even at high throughputs

Long service life thanks to wear-protected barrels and bimetallic options

Process flexibility for a wide range of PVC and powder-based formulations



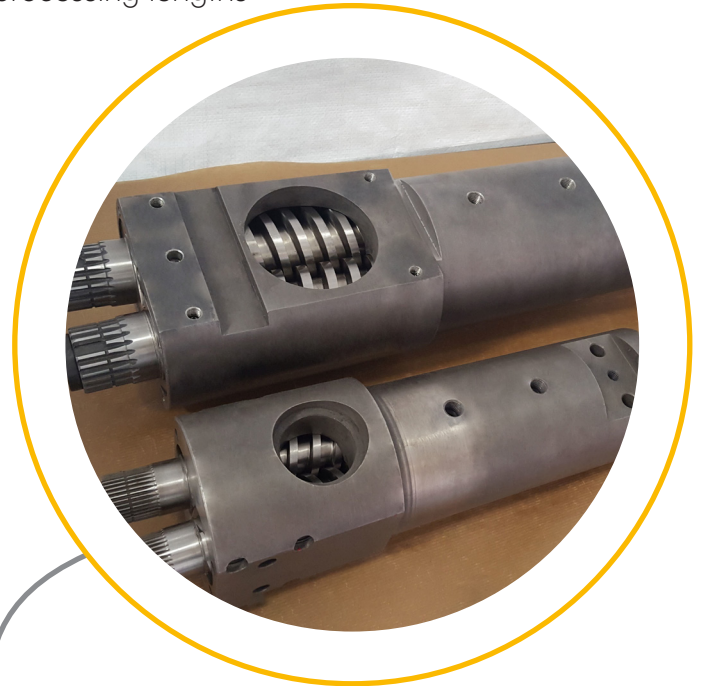
Conical Counter-Rotating Twin Screws

Compact Power for Profiles and Specialty PVC

Conical counter-rotating screws are ideal where high torque and strong compression are needed in a compact machine layout. Their tapered design delivers efficient melting and reliable feeding of powders within shorter processing lengths often used in co-extrusion

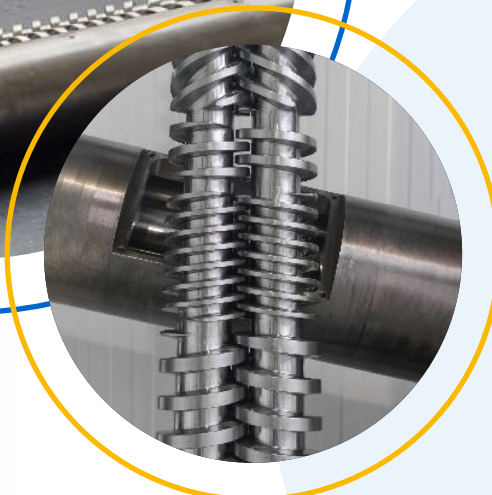
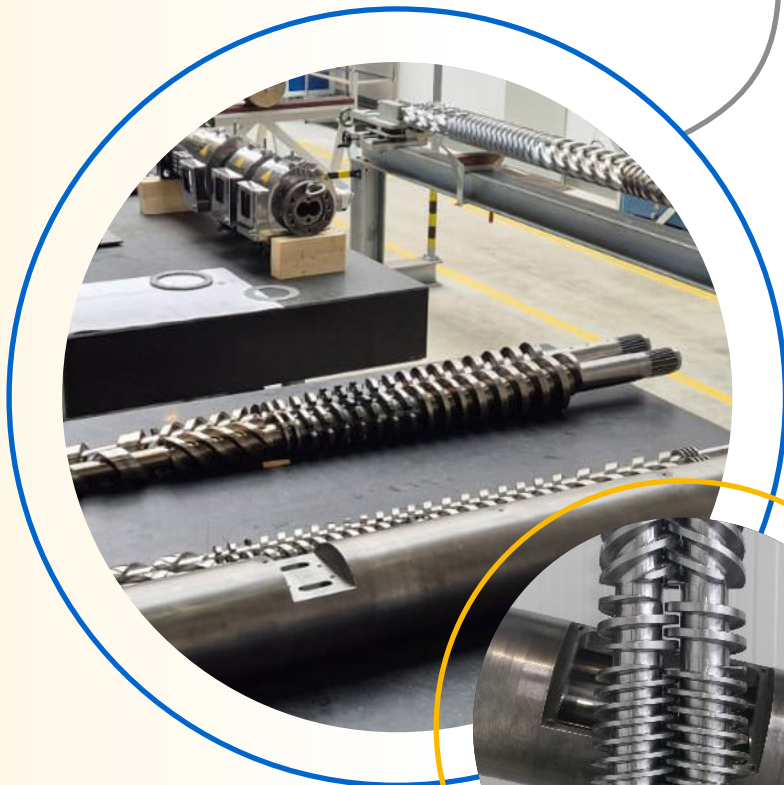
They are widely used in:

- **Profile extrusion —**
e.g. window frames,
and technical profiles
- **Specialty PVC —**
including CPVC
and highly filled
formulations or ABS
- **Compact production
lines —**
where floor space and
torque density are
critical



Your benefits with GTS conical systems:

- Strong torque build-up in a short processing
- Excellent gelation for demanding PVC applications
- Optimized for powder feeding and compact machine design



Twin Screws in Action — Where Performance Meets Application

From window profiles to petrochemical plants — GTS twin screws power the world of plastics. Each technology brings unique strengths to different production fields:

Building & Construction:

Counter-rotating systems for pipes, profiles with high precision and surface quality for window frames, siding, and technical profiles.



WPC (Wood-Plastic Composites):

Reliable processing of wood-filled PVC with strong wear protection for decking, cladding, and profiles.



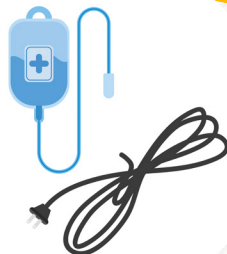
Sheets & Foamed Products:

Perfect gelation and smooth surfaces for compact and foamed sheet applications, including Celuka processes.



Specialty Applications:

Custom counter-rotating systems for medical applications, Celuka processes, and niche PVC products.



With GTS, you don't just choose a screw type you choose a solution tailored to your industry.

Why GTS? —

Your Benefits at a Glance

Long-term process
security and
maximum efficiency

In-house R&D, -
software for PVC
process simulation

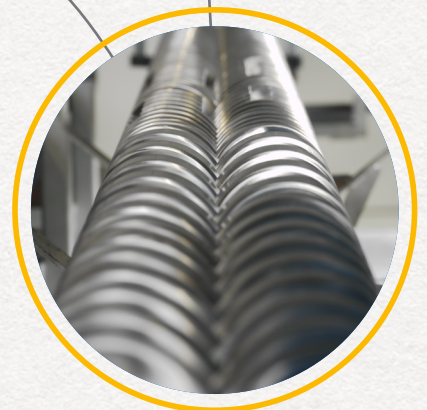
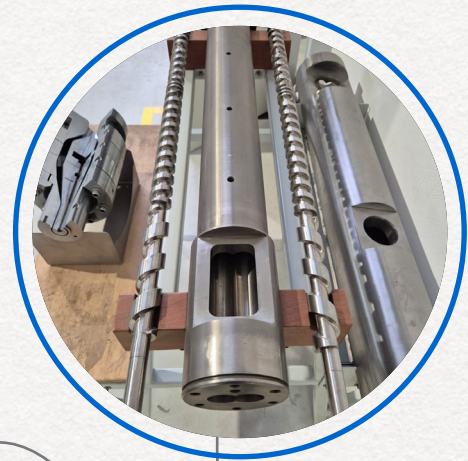
Laboratory for
Materials Science
- Polymers and
Metallic Materials

Spare parts and
service for all
extruder brands

Global presence, fast
communication, and
short delivery times

Tailor-made
solutions for every
application

With GTS, you have a partner who speaks your language — technically, reliably, and with a focus on the future.





GermanTwinscrewS GmbH

📍 Segelmacherstraße 4, 26605
Schirum, Germany

☎ +49 4943 9999 110

✉ sales@germantwinscrews.de

🌐 www.germantwinscrews.de

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

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