



**Counter rotating
Twin Screws**

Who is GTS?

About Us

Heart 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



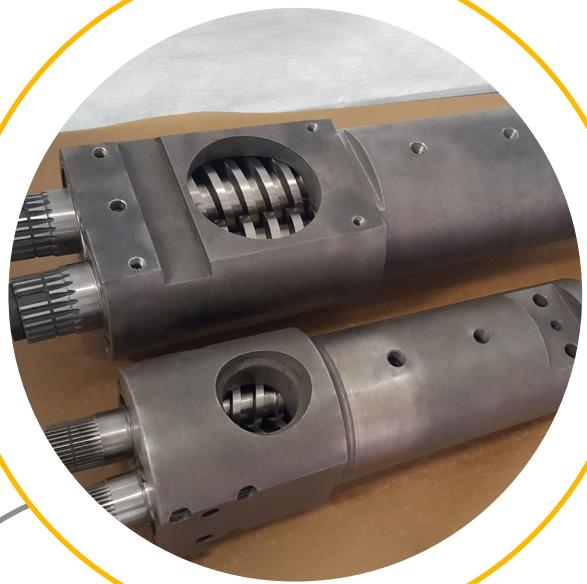
Conical Counter-Rotating Twin Screws

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:

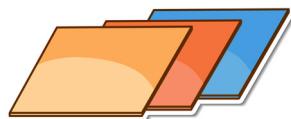
Building & Construction:

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



Sheets & Foamed Products:

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



WPC (Wood-Plastic Composites):

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



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.





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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

