ROM-TRENCH®

ONE SYSTEM
TWO BENEFITS

ROMOLD





ROMOLD SYSTEM CHAMBERS

IN USE BY THE GERMAN ARMY FOR OVER 15 YEARS

ROMOLD is the European market leader in the production of plastic cable and sewage chambers. Plastic chambers are applied in infrastructure projects, in the areas of water discharge, water supply, road drainage, sewer rehabilitation, pressure drainage as well as electro- and telecommunication.

ROMOLD cable chambers have been in use by the German Army for over 15 years and are also part of an IT regulation for field camps. To date, more than 3,000 chambers have been installed in field camps and other facilities.

The products are characterised by their low weight, easy handling, high durability, and a lifespan of up to 100 years. Additionally, some products are delivered in modular components, which reduces the transport volume.

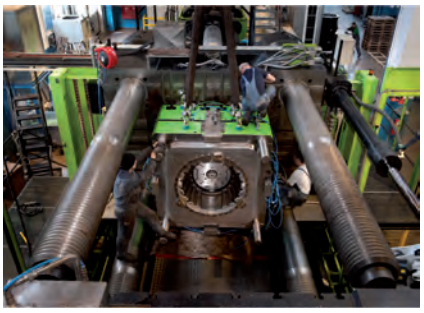
ROMOLD exclusively concentrates on chambers and is the only supplier specialised in the plastic chamber segment. ROMOLD has hence developed a level of in-depth expertise that is second to none.
Our products and services are innovative down to the last detail.

The company manufactures to the highest quality standards, ensured through continuous internal and external inspection, and is of course certified to ISO 9001. Since 2020, both the administration and the Teisendorf production site have been carbon-neutral. This gives you the assurance that, with all the flexibility, you still receive the best.

The environmentally friendly, 100% recyclable materials fulfil all common standards and are optimally designed for the user.
Polyethylene and polypropylene permanently withstand chemical attacks, mechanical stress and UV- and weather influences.



Extrusion machine



Injection moulding machine



Rotational moulding machine



ROMOLD warehouse and Production I



ROMOLD headquarters

ROM-TRENCH COMBAT TRENCH SYSTEM

A TURNING POINT IN FIELD FORTIFICATION

The patented ROM-Trench system produced by ROMOLD GmbH marks a turning point in modern trench construction: an industrial product for cable chambers was quickly transformed into a modular, tool-free combat trench designed specifically for rapid deployment by infantry.

Development of the system began at the end of 2022, and the first prototype was tested at the Lehnin military training area in 2023. The tests showed that a squad without engineering expertise can construct combat trenches much more quickly – around 4-6 metres of trench per hour compared to around 1 metre with traditional wooden construction methods.

Technically, the ROM-Trench is based on standardised plastic profiles and metal plug-in frames: the modules are lightweight, reusable and can be connected in any way to build trenches, covered fighting positions and shelters.
The trenches can be extended as required. The fire load and IR signature of the plastic profiles are similar to those at wooden structures.

Technical and conceptual trials of ROM-Trench were conducted at several Bundeswehr institutions. These include the Engineer School in Ingolstadt, WTD 41 and the WIWeB innovation laboratory „System Soldier“ in Erding.

The system demonstrated its practical suitability with various troop units, including mechanised infantry battalions and Airforce training battalions. During these installations, ROM-Trench was erected, used and adapted to existing trench systems under real terrain, manpower and training conditions.

Installations to date show above all that ROM-Trench can be employed reproducibly under very different conditions. It therefore expands the options for training, exercises and situation-adapted field fortification.



First test construction in Bad Reichenhall



Training on the fighting positions in Lehnin



Click - plug - done



Trench system in Germersheim



Trench system in Erding

ROM-TRENCH - A MODULAR SYSTEM

GUIDING CONCEPT OF A MODERN COMBAT TRENCH

Instead of the classic continuous trench, the current concept is rather:

- A distributed network of positions made up of many small segments, staggered in depth.
- Camouflage, low signature and covered transitions instead of visible concentrations.
- Integration with unmanned systems (UAS/UGS) for reconnaissance, effects, supply and casualty evacuation.
- High mobility: frequent position changes, with well-prepared alternate, fallback and decoy positions.



Overall, this is not a static, Maginot Line-style trench concept, but a flexible battlespace made up of numerous smaller, interconnected elements that operate together and can continuously adapt their signature. The lessons from Ukraine reinforce this approach: visible concentrations are identified and targeted more quickly, while smaller, connected and adaptable position elements are increasingly required.



Six arguments in favour of ROM-Trench

1. Designed in segments rather than as a line:

- The concept of modern field fortification now requires not so much a continuous trench as many functionally connected subsections. A modular system is ideally suited to this under observation: short sections, transitions and partial compartments can be combined into a distributed position..



2. Standardised geometry and clear system logic:

- Recurring components and defined dimensions simplify planning, preparation and replication. What has been understood and documented at one base can be rebuilt at another using the same system logic - without starting from scratch each time.

3. Scalable from a single section to an overall position:

- A few basic components can be used to derive both short individual sections and larger, connected solutions. This allows a trench system to grow step by step according to mission, terrain and available time - from a single covered section to staggered position elements with alternate fighting positions.

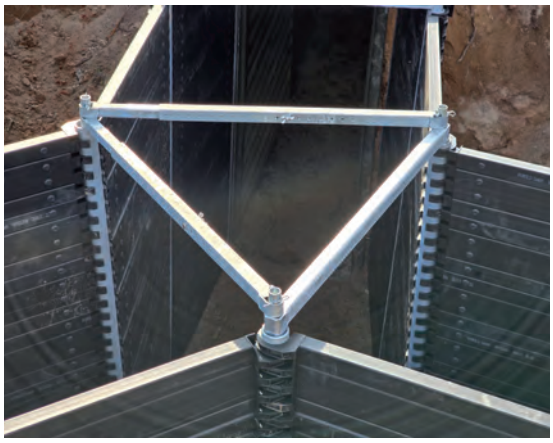


ROM-TRENCH - A MODULAR SYSTEM

GUIDING CONCEPT OF A MODERN COMBAT TRENCH

4. Plannable for training, demonstration and evaluation:

- The repeatability of the geometry facilitates demonstrations, training sequences, list of parts, installation instructions and the comparison of different build variants. Experience is therefore not only gathered, but also passed on and evaluated more effectively.



5. Adaptable during installation:

- In trench construction, soil conditions, alignment or connections often change only during the work. Under permanent surveillance pressure, recognised positions must also be reinforced, relieved or relocated more quickly. A modular system is therefore particularly useful whenever partial progress can remain usable and later adjustments do not require a complete restart.



6. Transferable between units and locations:

- Installation experience from one unit can be transferred more easily to other users when components, dimensions and assembly sequences do not have to be reinvented for each site. That is a key advantage of a genuine modular system.

Developed for training and missions

Real development work stands behind ROM-Trench:
The Modular Trench project was certified by the BSFZ as a research and development project. For users, that means a system with a clear focus on rapid installation, simple handling and high practical suitability in the field.

FüE
BSFZ
- 2026 -

COMPARING MATERIALS

WHY MODULARITY IS BECOMING MORE IMPORTANT IN FIELD FORTIFICATIONS

Field fortifications do not call for a blanket material decision, but for choosing the right material for the mission in question.
The decisive factors are availability, construction time, protective effect, logistical effort and the intended duration of use.

Wood is the classic material of field fortification. It is readily available, easy to work and useful wherever improvised construction with available means is required. Its limitations lie in the higher expenditure of time, manpower and maintenance, as well as in lower durability during prolonged use. Proper construction in wood can normally only be carried out reliably by appropriately trained personnel or with specialist support.

Concrete stands for durability and structural robustness.
Wherever long-term, stationary protective works are required, concrete remains a strong solution. This is offset by high logistical effort, great weight and limited scope for later modification or relocation.
The installation of concrete elements also regularly requires trained specialists and suitable equipment.

Plastic is particularly suitable wherever field fortifications need to be erected quickly, adapted to the terrain and reused if required.
Modular systems such as ROM-Trench are easy to transport, clear in their assembly logic and, after a short briefing, can be installed independently by the troops. Their strengths lie in high construction speed, good reproducibility and lower logistical effort than other construction methods. This makes plastic suitable not only for training and exercises, but also for situations in which speed, flexibility and available manpower are decisive.

This creates **no opposition** between proven and modern construction methods, but a functional complement: wood remains strong where local availability and classical expedient construction are paramount.
Concrete excels in permanent protective structures.
Plastic develops its advantages above all where speed, modularity, reusability and simple installation by the troops are decisive.



Wood is the proven traditional material of field fortification - available and versatile.



Concrete stands for durability and robustness - especially in long-term protective structures.



Clear installation logic: after a short briefing, troops can carry out the installation independently.



Modular, lightweight and quick to assemble: ROM-Trench is designed for rapid installation by troops.



Greater flexibility for different operational conditions and changing requirements.

WHY CHOOSE THE ROMOLD SYSTEM

THE ADVANTAGES OF PLASTIC OVER WOOD IN DIRECT COMPARISON

1. Faster construction time

- Wood requires time- and labour-intensive selecting, cutting and sorting before installation.
- ROM-Trench starts immediately after excavation with ready-to-assemble components.
- Practical trials confirm a clear time advantage over traditional wood construction.
- Trial examples: Engineer School Ingolstadt (23 m / 4 personnel / 6 h), WALDVIERTEL 25 exercise (18 m / 4 personnel / 3 h), WIWeB Erding (45 m / 3 personnel / 16 h).



2. Standardised preparation

- Dimensions, connection logic and assembly sequence are defined by the system; this reduces variation between individual squads.
- In wood construction, quality and speed depend more heavily on cutting, material quality and workmanship.



3. Predictable internal geometry

- Usable internal width and height remain consistent along the trench and make movement and connection of additional elements easier.
- Bearing points, transitions and edges are structurally defined and do not depend on round wood or sawn wood of varying thickness.
- Repeating geometries simplify the preparation of model positions and training material.
- Later additions can also be adapted more easily to dimensions that are already known.



4. Preservation of material in training use

- The material remains available after dismantling and does not require re-procurement after training.
- Individual components can be inspected, stored and replaced separately as required.
- The advantage over wood, which is consumed much more intensively, becomes particularly clear in repeated build-up and dismantling cycles.



WHY CHOOSE THE ROMOLD SYSTEM

THE ADVANTAGES OF PLASTIC OVER WOOD IN DIRECT COMPARISON

5. Staged expansion

- A trench system can begin with a functional core and be expanded later section by section.
- Expansion can be adapted flexibly to mission, terrain and available forces without rebuilding what already exists.



6. Transport and storage

- One linear metre of ROM-Trench weighs 122 kg.
- According to AR „Field Fortifications“, Annex 20.1, the comparable weight in wood is 165 kg (round wood: 330 kg).
- The individual parts weigh 2-12 kg and can therefore be handled, counted and stored more easily.



7. Repeatability in training

- The same components repeatedly create the same starting conditions - an advantage for training and comparative installations.
- Conversions between two training serials can be carried out more quickly than with fixed, nailed or individually cut wood solutions.
- Experience from one installation can therefore be transferred more easily to the next location.



8. Advantages where time and repeated use matter most

- KPlastic scores through rapid installation, reusability and fixed dimensions instead of improvised wood construction.
- Wood remains ideal where it can be properly worked on site.
- The ROM-Trench system does not replace wood; it complements it in a planned way for specific scenarios.
- The approach is especially convincing for training, repeated installations and planned stockholding.
- With changing situations and missions, the standardised construction method provides additional decision reliability.

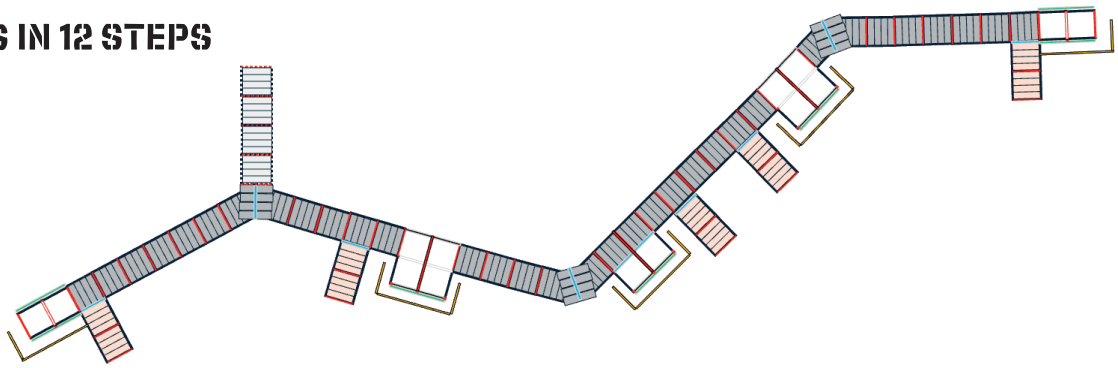


OVERALL ADVANTAGES:

=> Relief for engineer troops
=> Greater independence for the infantry
=> ***Fast + inconspicuous + quiet = maximum protection against drones***

ROM-TRENCH INSTALLATION

SUCCESS IN 12 STEPS





1. Excavating the trench



2. Levelling the base



3. Set the frame



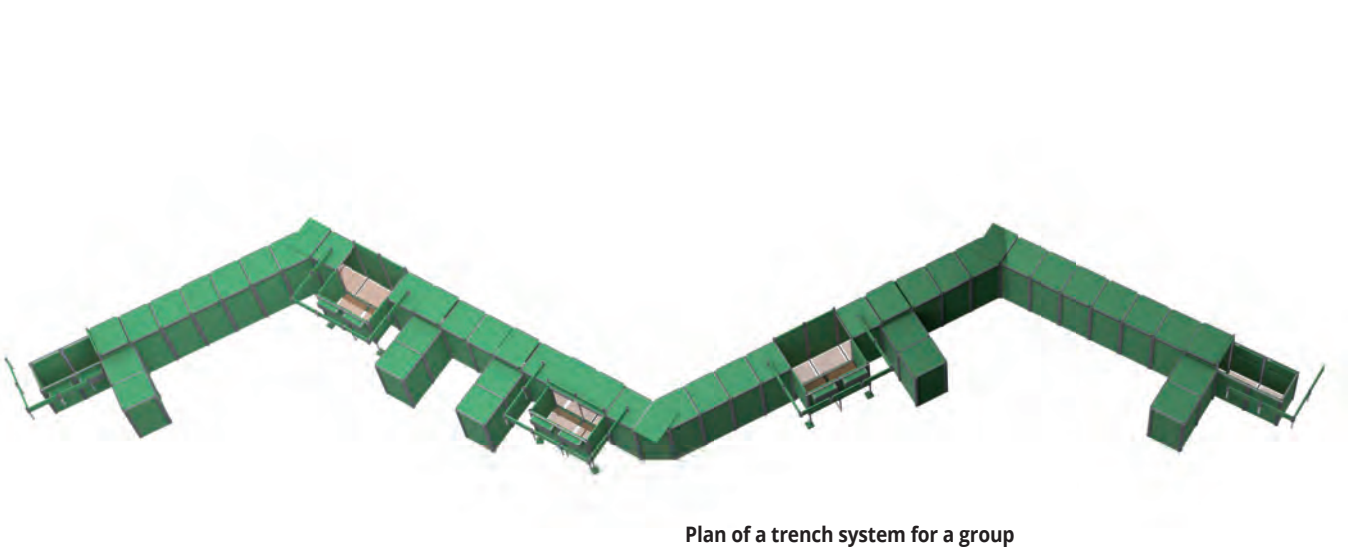
4. Stabilise with initial wall profiles and floor grids



5. Building up the walls



6. Constructing fighting positions and shelters



Plan of a trench system for a group



7. Backfilling with excavated material



8. Backfilling the floor grids



9. Laying the covers



10. Extending the fighting positions



11. Covering the covers with excavated material



12. Interior work, connecting to wood if necessary

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THE VIDEOS ON THIS TOPIC ON OUR WEBSITE



ROM-Trench Videos
https://romold.de/rom-trench-videos

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