



## Rhomberg Sersa Machine Capability

Equipment details and methodology



Bringing innovation and engineering excellence to the rail sector



# We have the capability to deliver in-line excavation, parallel working, single line and single bore tunnel working and a production line approach.

The Rhomberg Sersa Machine Group is a unique and specialist in-line excavation and re-ballasting system that represents a step-change in track renewals in the UK.

Using this system Rhomberg Sersa Machine Group has the capability to deliver in-line excavation, parallel working, single line and single bore tunnel working and a production line approach all supported by a dedicated, experienced and multi-skilled team comprising:

- Multi-skilled On-Track Machine operators
- Safety critical staff (SWL1/2)
- S&C and plain line renewal
- On-Track Machine maintenance staff
- Full technical support
- Planning capability cradle to grave

## Our versatility is unparalleled in the UK rail industry

Rhomberg Sersa Machine Group offers a comprehensive and proven range of services that includes:

- S&C renewals (excavation and re-ballast)
- Plain line renewals (excavation and re-ballast) with additional benefits when undertaking these activities on single line, single bore tunnels, island platforms and terminus stations
- Drainage backfill
- Bottom ballast on plain line renewals (MFS and UMH)
- Top ballast on plain line renewals (MFS and UMH)
- Heavy S&C refurbishment works

Our comprehensive fleet consists of:

### MFS+

Material conveying and hopper wagon (rail and crawler modes)

### UMH

Universal material handling wagon

### ITC BL4

High capacity in-line road rail excavator

### MFS 2000

Multi-speed conveyor system





# Our fleet and capability

We have full access to all High Output Operation Base locations in the UK though our principal base of operations in Kingmoor Sidings, Carlisle. Our facilities enable us to be entirely self-sufficient.



MFS+

## Material Conveying and Hopper Wagon

The MFS+ is used for continuous conveying, storage and subsequent transportation of excavated material.

The MFS+ can be used in the forward working direction to discharge new ballast, waste material and other material ready for conveying. It can also be coupled with other MFS wagons of a similar design.

The machine has the ability to change from rail wheels to crawler mode.

Machine capacity 60 tonnes.

ITC BL4

## High Capacity In-Line Road Rail Excavator

The ITC BL4 is used to rapidly excavate bottom ballast on S&C and plain line renewal projects.

When combined with our MFS+ On Track machines and MFS 2000 wagons it can facilitate single bore tunnel and single line excavations with the future potential to be utilised for Adjacent Line Open operations.

The ITC BL4 eliminates the traditional renewal requirements for a spoil wagon train on the adjacent line and multiple On Track Plant within the excavation.



Factoid in Here



A large yellow Plasser & Theurer UMH-1 Universal Material Handling machine is shown in operation on a railway track. It is discharging a large pile of dark, granular material (likely ballast or gravel) from its collector belt. The machine has a long, articulated conveyor system. A worker in an orange safety vest is visible on the machine. The background shows a clear blue sky and some trees. The machine has "Plasser & Theurer" and "UMH-1" written on its side. A "huber" logo is visible on a red and white barrier in the foreground. A "RHOMBERG SERSA" logo is also visible on the side of the machine. A "WOES" sign is visible in the background.


UMH

## Universal Material Handling Wagon

The UMH is a standard railway vehicle consisting of a collector belt, a swivelling conveyor, a mid-mounted chute delivery system and two ballasting belts arranged beneath the frame on both sides of the vehicle.

Bulk material from multiple MFS 2000 wagons can be discharged onto the collecting belt of the UMH and distributed through the three systems, depending on the required application.

Factoid  
in Here

A long train of yellow MFS 2000 Multi-Speed Conveyor System wagons is shown traveling through a tunnel. The wagons are loaded with material and are moving along the tracks. The tunnel has a series of large, arched concrete supports. The lighting is bright, and the train is the central focus of the image.

MFS 2000

## Multi-Speed Conveyor System

The MFS 2000 is used for continuous loading and unloading. During work, MFS 2000 wagons are used for continuous conveying and storing, as well as for transportation of the excavated material through the UMH or MFS+.

Wagon  
capacity  
40 tonnes.





For more information please contact:

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