

## CASE STUDY

# TransPennine



## Demco products improve track drainage for major TransPennine Railway Station Upgrade project

The TransPennine Route Upgrade (TRU) is a multi-billion-pound project of railway improvements between Manchester, Huddersfield, Leeds and York in the UK.

Demco (a brand of MGS Ltd) helped specify, prove, manufacture & supply TerraDrain™ and TerraLine™ products to improve Track & line-side drainage at Morley Station near Leeds.

### Challenge

The TransPennine rail route spans 70 miles, 23 stations, 6 miles of tunnels, nearly 30 level crossings and runs over and under dozens of bridges and viaducts.

The project between Manchester and York will provide better connections, with more frequent and faster trains, which run on a greener and more reliable railway.

A key objective is improving track drainage to ensure even extreme rainfall does not affect rail services or safety.

The Demco TerraRange of pipes chosen to be installed under the existing track ballast needed a very long life and to be exceptionally strong to eliminate the need for major excavations and deep burial.



## Solution

With decades of experience supporting railway drainage infrastructure, Demco first became involved in the project at the design phase by introducing the benefits of TerraDrain™ and TerraLine™.

TerraDrain™ is perforated to help drainage, whilst TerraLine™ is a solid carrier pipe. Both can withstand a very high load and thus can be laid as shallow as 300mm under the track, reducing overall installation cost and time.

Both products also comply with Network Rail's Design for Reliability (DfR) and London Underground's M 3360 A2 drainage specifications and have held a Network Rail Certificate of Acceptance (PA05/02084) since 2005.

Throughout all GRIP (Governance for Railway Investment Projects) stages, our involvement continued, including proving our pipes under loading with our deflection calculation programme.

Our team were also on site to give technical support to the civil engineers installing the drainage.

## Products used

1. Demco TerraLine 17
2. Demco TerraDrain 17
3. Demco TerraDrain 11

Demco also work closely with Cubis Systems which manufactures a wide range of Network Rail approved catchpits products for use alongside TerraDrain™ and TerraLine™.

## Results

Overall, Demco was involved in this major project for nearly two years - from design to completion.

Demco manufactured and supplied over 1,400 metres of Demco TerraDrain & TerraLine pipes which is now providing excellent drainage over a 500-metre stretch at the new Morley Station.

TerraDrain™ and TerraLine™ will deliver a minimum of 60 years of maintenance free service.

**“With climate change, drainage is more important than ever in ensuring the safety of tracks and trains. Whilst our products may not be visible to passengers, we take enormous pride in helping drive the rail industry forward”**

DAVID BLAND,  
DEMCO DIVISION MANAGER (RAIL)