Trimble WM-Drain Farm Drainage Solution

Water is one of nature's most precious resources, and one that farmers worldwide must utilize effectively in order to meet the ever-increasing demand for food. As much as seventy percent of the world's fresh water is used for agriculture purposes. It is essential for farmers to adopt agriculture technologies that optimize water distribution while minimizing water use.

Trimble has more than 30 years of experience in the water solution business, and our systems are proven to improve yields and reduce water.

Because Trimble knows every dollar—and every drop—counts.



Website

Contact your Trimble Ag Reseller today

NORTH AMERICA
Trimble Agriculture Division
10368 Westmoor Drive
Westminster, CO 80021
USA
+1-720-887-6100 Phone
+1-720-887-6101 Fax

EUROPE
Trimble Germany GmbH
Am Prime Parc 11
65479 Raunheim
GERMANY
+49-6142-2100-0 Phone
+49-6142-2100-140 Fax

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TRANSFORMING THE WAY THE WORLD WORKS

Trimble



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The Trimble® WM-Drain® farm drainage solution is a concept to completion toolset that streamlines the survey, analysis, design, installation, and mapping steps of surface and subsurface drainage. The WM-Drain solution ensures optimal 3D drain placement, which improves crop yields by controlling ponding, optimizing root depth, maximizing planting seasons, and minimizing nutrient loss.



BENEFIT FROM STREAMLINED DRAINAGE

- Complete all your drainage operations with one integrated solution
- Improve crop yields up to 30%
- Increase operating efficiency up to 20% compared to using laser equipment
- Maintain a more developed root zone for better nutrient absorption
- Remove excess water from the field and decrease plant stress
- Reduce field compaction and minimize soil erosion
- Use with any type of drainage plow—self-propelled, pull-type, chain, or wheel trenchers, ditches, scrapers, or any other water management implement

GET STARTED

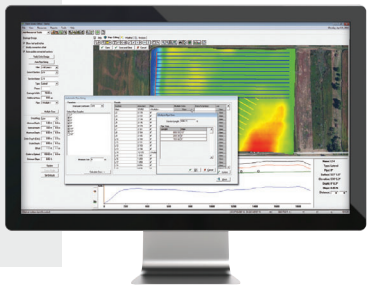
1. **Survey:** Collect 3D field data with ease
2. **Analyze:** Analyze 3D field data to make better-informed drainage decisions
3. **Design:** Design and verify a complete 3D drainage system or design drainage designs on-the-go
4. **Install:** Use your designs to precisely install your pipe or surface ditches
5. **Map:** Map the true locations of your installed drainage pipes or ditches and utilize records for future maintenance or drainage expansion projects

With Trimble Ag Software, you can wirelessly share valuable time-saving data between your farm office, vehicles, and workers out in the field.

AUTOMATIC PIPE SIZING

Calculate the recommended pipe size for all pipes within a given design, as well as generate an estimate on total cost and material required for the drainage project, to help you quickly and efficiently produce optimal drainage designs while reducing your overall costs.

- Eliminate guesswork by calculating pipe sizes automatically based on terrain, depth, drainage coefficient, and more
- Create optimal drainage designs for both large and small pipes without the difficulty of manual calculations
- Generate estimate costs for each drainage design by entering your average length of role, minimum tile length, and price per foot



1 Survey

Collect 3D field data with ease using the WM-Topo™ survey system, or either the TMX-2050™ or FmX® displays.

- Use the TMX-2050 or FmX display to record boundaries, section line alignments, and interior data of the field

2 Analyze

Analyze the 3D field data using WM-Subsurface software to make better informed drainage decisions and plans.

- View data from any angle and exaggerate the vertical to visualize the shape and slopes of the field
- Determine the various watershed zones of the field to assist with main, submain, and lateral pipe placement
- Configure contours at any interval to display the topography and relative elevations
- Enable flow arrows and tributary lines to assist with tracing the natural surface water flows
- View the field analysis over the top of aerial images to review your data in another context

3 Design

Design and verify a complete 3D drainage system using WM-Subsurface software, or design drainage lines on-the-go without having to leave your vehicles.

- Utilize Trimble Ag Software drawing tools to tie laterals to mains, create parallel lateral spacings, and clip drainage lines
- Allow Autoslope to produce optimal depth designs, in WM-Subsurface software and on the TMX-2050 or FmX display, resulting in a consistent water table, which helps to minimizes nutrient loss
- Verify that the pipe network will successfully drain to the main outlet before beginning the installation

4 Install

Take your drainage designs back to the field and utilize the WM-Drain module on the TMX-2050 or FmX display and Trimble's 3D machine control technology for precise installation of your pipe or surface ditches.

- Control the depth automatically, ensuring pipe and ditches are installed to the design
- Control the boot pitch automatically on parallel link plows, providing complete control of the machine and ensuring the best accuracy possible
- Switch to Point and Slope mode for manual slope control and installation or when using pitch-only control during RTK dropouts to ensure completion of drainage runs in adverse satellite conditions
- Utilize GNSS RTK combined with T3™ Enhanced Terrain Compensation Technology for roll-corrected 3D positioning
- Recalculate design on-the-go when the plow hits unexpected underground obstacles
- Map the as-applied drainage lines while installing to keep as a record for aiding with invoicing and locating installed pipes in the future

5 Map

Map the true location of your installed drainage pipes or ditches and utilize the records for future maintenance or drainage expansion projects.

- Automatically log 3D drain maps synchronously while the drainage machine is being controlled by the WM-Drain solution
- Transfer the mapped data using Trimble Ag Software to WM-Subsurface software, where it will be stored as an independent layer

