



# PIPE

**AMW Automated Tile Plow Control Solution** 

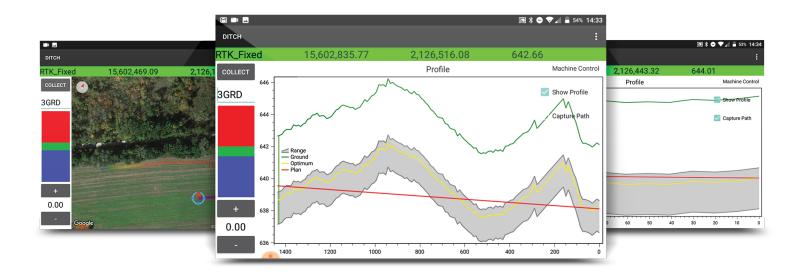
## **PIPE**

AMW PIPE is a turn key RTK GPS based Tile Plow control solution that automatically calculates tile depth and slope, then controls installation.

AMW's new PIPE Solution is based on over a decade of supplying tiling and utility professionals with software solutions for tile plows. Now, on our new Android computer platform and surveyor grade RTK, operation has been simplified and updated and includes all hardware needed to get operational in no time.

- ✓ For farm tiling, subsurface irrigation and utilities placement
- // Control pipe plow to place tile, control depth and rate of flow
- // Can create a profile going uphill or downhill
- ✓ Record actual tile placement in real time, mapping for later pipe locating
- // Pipe and Utilities installation per AMW WATERCOURSE PC design program
- Vertical Curve Technology yields predictable elevation grade changes for best results

PIPE also provides for topographical map creation by driving the terrain, and or layering a geo-referenced yield map, Google map, satellite image, aerial photo or other user defined maps to identify water ponding areas and drainage strategies, for pipe tile planning.



#### PIPE // Automated Tile Plow Control Solution

## VCT Vertical Curve Technologhy

AMW PIPE uses Vertical Curve Technology (VCT) to design drainage solutions. Once the preferred parameters are set, VCT designs a drainage solution that controls grade changes in the smallest increments possible through the drainage path, minimizing needed depth.

In the case of drain tile applications, VCT allows PIPE to be placed with acceptable drainage in unfavorable landscapes. This saves time versus conventional systems that require a point to point drainage path. VCT allows a drainage path to be designed without regard to axis alignment as laser systems do. In order to save time, PIP allows the user to topo uphill and downhill and see a live profile graph vs design, to catch errors as they occur.

- // Efficient design; tile uphill or downhill
- Profile and Bird's eye view with rotatable grid
- // Real-time depth, slope and guidance information
- // Distance report
- Export drawing of completed area
- // Wireless touch screen display
- CHC Navigation Survey grade all constellations RTK GNSS technology

## WATER COURSE

AMW WATERCOURSE is an optional Windows PC software design tool for designing a precise water management system with grading, ditches and tiling. It complies layers of map data to interpret and improve upon the natural watershed. PIPE can import an exact layout design from WATERCOURSE for professional results.



## PIPE // Key Features

| Software                                                | Tile Placement                                   |
|---------------------------------------------------------|--------------------------------------------------|
| Compatible with all GPS brands, calibrated with CHC i70 | Displays grade and direction (point to slope)    |
| Interfaces with Tractors, Remote Valves and CANBUS      | Shows scaled plan view                           |
| Works with all Plow configurations                      | Creates LAY from SVY using auto depth parameters |
| Shows plan and profile views                            | Uses 2/1 Local Point                             |
| Utilizes Profile Optimizing Technology                  | Uses State Plane Coordinates                     |
| Designed specifically for tile plow control             | Uses UTM Coordinates                             |
| Guidance                                                | Data Collection                                  |
| Uses background drawing layer for map and line work     | Creates as-built maps (.shp & .dxf)              |
| Uses .bmp for background image                          | Labels sizes of mains and laterals               |
|                                                         | Reports length of mains and laterals             |
|                                                         | Labels data points while plowing                 |

## **Specifications**

#### **AMW Preloaded Software**

- PIPE

#### Logic Instrument K101 Tablet

- 10.1" Touch Screen
- Android 5.1
- 1.92 Ghz Processor
- 5 Mega pixel camera
- IP65/MIL-STD-810G Environmental
- 10000 mAh Li-ion battery

#### **CHCNAV P3DT RTK Rover**

- 220 channel Trimble GNSS RTK engine
- L-Band, GPS, SBAS, GLONASS, BDS, GALILEO dual frequency
- Heading accuracy 0.08 degree with 2m antenna spacing
- Horizontal Accuracy: 8mm + 1ppm RMS
- Elevation Accuracy: 15mm + 1ppm RMS
- CE/FCC certified
- RJ-45, Bluetooth, Cellular & UHF coms equipped
- CHCNAV A220GR Geodetic antenna

#### **CHCNAV i70 Surveyor RTK Base**

- 220 channel Trimble GNSS RTK engine
- GPS, SBAS, GLONASS, BDS, GALILEO dual frequency
- Dual hot swappable batteries for up to 12 hrs operation
- Bluetooth, WiFi, Cellular & UHF coms equipped
- LCD Screen
- CE/FCC certified
- Horizontal Accuracy: 8mm + 1ppm RMS
- Elevation Accuracy: 15mm + 1ppm RMS

#### **DANFOSS Plus+1 CANBUS Controller**

 Auto detects vehicle type. Used to send commands to hydraulic systems

#### **Options:**

#### **Operating System Compatibility**

- Android 5.1 or higher

#### **Included Accessories with PIPE**

- i70 Hard Carrying Case with accessories, UHF antenna,  $2 \times 1$  lithium ion batteries
- Vehicle magnetic mount for i70
- Tablet power adapter, pouch, stylus and USB cable
- PIPE Quick Start Guide
- RAM Mount Kit
- All interconnect cables





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