



# Irrigation

## The SmartDitch® System

A Superior Channel Liner Solution for  
Agricultural & Municipal Irrigation

Water Flow Control  
Erosion Control  
New Construction & Rehabilitation

# Irrigation

## It's About Putting Water Where It Is Needed Most

Normal arid and dry climates, unpredictable droughts, declining ground and surface water supplies combined with growing populations and increasing water demands makes the job of 'managing water' in many U.S. regions extremely challenging. Water resource management is about:

- ▶ Containing every drop of water that is received
- ▶ Channeling water with minimal evaporation and leakage
- ▶ Capturing and redirecting water from drains and wasteways

In other words, it is about putting the water where it is needed most so our farmlands, municipalities, and communities — dependent on irrigation — can flourish.



*Water shortages threaten the lands of our farmers, the homes, businesses and industries of our communities; and the environmental health of our desert basins and mountain ranges. The shortage has prompted struggles for sustainable clean water supplies.*

### SmartDitch System Specified By:

- ▶ The Natural Resources Conservation Service
- ▶ The U.S. National Forest Service
- ▶ South Dakota Rocky Mountain Power
- ▶ U.S. Army Corps of Engineers
- ▶ DOT Sites including: Wisconsin, Utah, New Mexico, and Michigan
- ▶ Canadian Ministry of Transportation

## Introducing The SmartDitch® and MegaDitch™ Systems for Irrigation Canal Repair and Construction

SmartDitch is a water tight solution for both new channel construction and channel rehabilitation in agricultural irrigation systems. The durable, UV resistant HDPE channel liner system is engineered to keep water in and help direct it to where it is needed most.

SmartDitch's unique corrugated design helps regulate water flow from nominal to steep grades. Ease of installation is what sets this product apart from other ditch lining or ditch repair technologies. No special tools are required. Its light weight and flexible construction makes it easy to transport and install, even where access is difficult and uneven terrain exists.



*Many irrigation ditches, canals and laterals run through uneven terrain and difficult-to-access areas.*



## SmartDitch® for Small Irrigation Ditch Applications

The standard SmartDitch system is available in 12" and 24" depth trapezoidal shaped ditches, as well as a 24" depth, semi-circular shaped ditch. This design is best suited for relining the thousands of miles of earthen and damaged concrete ditches serving the many rural agricultural communities across the U.S.

### SmartDitch Benefits

- ▶ Eliminates sidewall erosion and the subsequent sediment that can end up in the ditch
- ▶ Excellent flow properties
- ▶ Does not erode, crack or corrode when exposed to weather, erosion, ground movement or freeze/thaw cycles
- ▶ Engineered with self-scouring ability that helps keep channels clear and reduces ditch maintenance
- ▶ Has a wide range of fittings to tie into existing systems such as bulkheads, multi-directional-sections, gate valves, transitions, flared inlets/outlets
- ▶ HDPE construction is safe for use in irrigation waters



*Ditch Bosses walk the ditches every day in rural farming communities. They make sure the ditches are maintained, that the farmers are getting their fair share and the water remains protected and clean.*

## MegaDitch for Large Irrigation Ditch and Canal Applications

The SmartDitch MegaDitch is an expandable channel lining system specifically designed for the construction and/or rehab of very large, concrete-lined and earthen irrigation ditches and canals. MegaDitch is engineered with adjustable sidewalls to conform to the variety of slopes and grades. The base and wall sections can be assembled for maximum expandability and fit both flat-bottom and V-bottom channel profiles.

### MegaDitch Benefits

- ▶ Virtually unlimited expansion capabilities
- ▶ HDPE is extremely durable and corrosion resistant
- ▶ Lightweight and easy to install
- ▶ Deep-ribbed design provides strength and exceptional flow control
- ▶ Ideal for difficult to access, uneven terrain or steep slopes
- ▶ Less expensive to install than new concrete channels
- ▶ Excellent impact resistance with a material tensile strength at 3400 psi. If SmartDitch becomes damaged by severe impact, replacing an 8ft section is quick and easy.



*No sandblasting or special equipment is required for SmartDitch MegaDitch installation. See the MegaDitch brochure for installation instructions.*

## SmartDitch is Engineered for Quick Installation



*SmartDitch is engineered to be easily installed on top of cracked or eroded earthen or concrete ditches.*



*SmartDitch is light enough to be hand-carried to the damaged ditch area. No arduous ditch preparation or sandblasting is necessary prior to installation.*



*SmartDitch sections, manufactured in 8' - 10' lengths, are ready for joining.*



*The SmartDitch anchoring system installs quickly and secures the system permanently into the ground. Earthen and concrete anchoring systems are available.*

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## SmartDitch System – Engineered by Penda Corporation

SmartDitch is manufactured by North America's largest and most advanced plastics production operations – Penda Corporation.

As the #1 heavy-gauge thermoforming manufacturer in North America, Penda channels its expertise in plastic engineering and manufacturing into three market-leading businesses:

- ▶ Truck bed liners and tonneau covers for both Original Equipment Manufacturers (OEM) and aftermarket
- ▶ Aftermarket HDPE thermoformed water management solutions
- ▶ Custom solutions for manufacturers of every kind

Penda is a global leader in materials research, product development and manufacturing, with a 40-year heritage of developing and producing award-winning products.



### For More Information

SmartDitch is manufactured in the USA. It is a safe, economical, long-lasting, and environmentally sound irrigation channel lining solution. For more information on the SmartDitch and the MegaDitch HDPE Channel Lining Systems contact:



866.576.2783 • [www.smartditch.com](http://www.smartditch.com)