BERLIN, GERMANY

MAGNI FIELD

MAGNIFIELD

Find the best choice for your **fields**

MAGNIFIELD-HSS1 · Physical magnetic water treatment for irrigation,
Integrated Water Solutions for Crops & Animal Husbandry

MAGNIFIELD-HSS1
Flanged inline magnetic water

Magnetic Water Treatment

Core Competence & Heritage

- With decades of specialized experience in water management, Magnifield focuses on advancing non-chemical, physical water conditioning technologies. Our established background drives continuous innovation in ecological engineering, delivering proven performance in high-demand fluid conditioning applications.

- Engineered and manufactured under rigorous quality assurance protocols, the Magnifield-HSS1 is purpose-built to withstand intensive agricultural operations and heavy industrial environments, especially where water exhibits severe mineral saturation.

Operating Principles & Technology

The Magnifield-HSS1 is engineered to condition fluid dynamically as it flows through the pipeline, transferring magnetic energy directly into the passing stream. Utilizing a proprietary matrix of up to 24 sequenced magnetic zones that oscillate between 10,000 and 15,000 Gauss (1 to 1.5 Tesla), the system continuously applies high-intensity physical fields to the fluid. This proprietary architecture delivers up to tenfold higher efficiency compared to conventional setups, protected by specialized internal engineering. The system provides a fully sustainable, zero-chemical, and energy-efficient conditioning solution that operates at peak technological standards.

At a fundamental level, the conditioning process is governed by magnetic-hydromagnetic resonance driven by Lorentz force interactions. The primary operational variables governing process efficiency are pipeline fluid flow velocity and the precise flux density of the magnetic induction field.

24	10- 15K	~10x	2002
Cascaded magnetic fields in a single unit	Gauss field strength (1– 1.5 T)	Efficiency vs. comparable constructions	Working in water treatment since

Amazing Effects in the Field

Agricultural Impact & Field Results

- Accelerated, healthier crop development
- Reduced irrigation requirements
- Lower fertilizer consumption
- Balanced, lower soil pH
- Decreased soil salinity levels

The Magnifield Advantage

- Enhanced fruit pigmentation and larger yields
- Substantial water and fertilizer savings
- Maximized operational profitability

Why Partner with Magnifield?

The Synergy of Magnetic Fields & Water

When targeted magnetic flux intersects running water, the fluid undergoes a measurable physical transformation into "biologically active" water. By altering molecular charge distribution and reducing cluster size, this process significantly enhances fluid bioavailability and cellular permeability.

The resulting conditioned water dissolves essential minerals far more rapidly, accelerating nutrient transport directly across plant and animal cell membranes. This optimization maximizes resource efficiency from every gallon, unlocking the true operational power of non-chemical water conditioning.

Functional Technology Highlights

- Decreases surface tension
- Minimizes fluid viscosity
- Boosts mineral solubility
- Accelerates soil infiltration and oxygen absorption, optimizing nutrient uptake for crops and soil systems

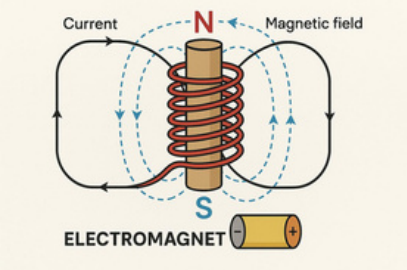
Structural Transformation & Physical Mechanism

Untreated irrigation water naturally binds into dense, bulky molecular clusters. This high-clustering effect elevates surface tension and fluid viscosity, impairing soil infiltration and preventing critical minerals from fully dissolving near root zones. When water remains in this tightly bound state, a significant portion of applied hydration and dissolved fertilizer simply runs off or evaporates before reaching the root architecture, driving up operational input costs.

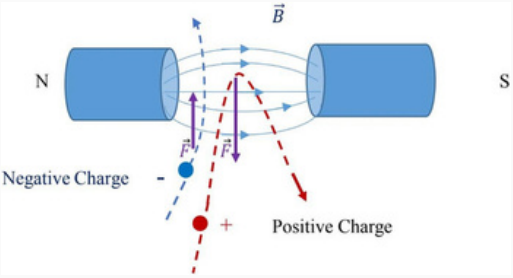
The Magnifield-HSS1 alters this internal structure by reorganizing large groupings into micro-clusters. By subjecting the passing stream to sequenced hydromagnetic fields, the system weakens hydrogen bonds and decreases intermolecular cohesion. This physical restructuring lowers fluid resistance, enabling effortless percolation through compact soil profiles and plant vascular capillaries for superior nutrient delivery.

As a result, crop root zones experience immediate gains in cellular hydration and mineral bioavailability. The reduced surface tension allows conditioned water to act as a more efficient solvent, breaking down encapsulated soil nutrients and accelerating systemic sap flow. This delivers robust vegetative vigor, mitigates moisture stress during peak temperatures, and ensures maximum physiological output per cubic meter of applied water.

Operational Mechanism



Electromagnet: current flow generates a cascaded magnetic field



Lorentz's force acting on charged particles as water passes through the field

Deployment in Agricultural Water Infrastructure

The Magnifield Advantage

Integrating our physical conditioning unit into your supply network delivers measurable gains:

- Cuts irrigation water needs by 10% to 30% through superior soil penetration.
- Reduces fertilizer use by improving nutrient solubility and preventing leaching.
- Lowers pesticide and herbicide inputs by strengthening natural plant immunity.
- Boosts harvest output by 10% to 25% by optimizing cellular hydration and systemic sap circulation.
- Enhances crop flavor, pigmentation, and overall quality by promoting balanced trace mineral uptake.
- Extends post-harvest shelf life and firmness, reducing spoilage during storage.
- Balances soil pH while flushing trapped mineral salts from root zones.
- Elevates essential nutrient and vitamin density across all harvestable crops.
- Accelerates seed germination speed and ensures uniform seedling emergence across planting rows.
- Stimulates expansive, fibrous root systems that drive deeper into the subsoil for superior nutrient uptake.
- Mitigates heat and drought stress by sustaining cellular hydration under high temperatures.
- Optimizes pipeline discharge rates by decreasing fluid friction for uniform pressure across drip emitters.
- Conserves energy and resources by cutting pump runtimes and operating pressure.
- Prevents new mineral buildup while clearing existing limescale from piping.
- Accelerates soil desalinization by leaching accumulated salts 1 to 1.5 meters below the active root zone.
- Boosts livestock health, daily weight gain, and disease resistance via optimal hydration.
- Maximizes aquaculture biomass and lowers disease rates by enhancing oxygen utilization.

10 – 30%	10 - 25%+	1 – 1.5m
Reduction in water usage	Increase in yield	Soil desalinization depth in year one

Water Efficiency, Crop Output & Salinity Control

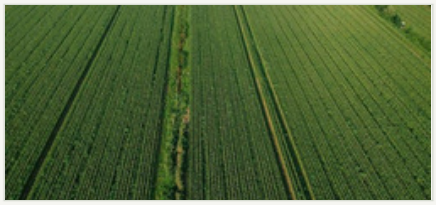
Implementing Magnifield-HSS1 magnetic conditioning transforms agricultural irrigation by maximizing water efficiency and driving significant resource conservation. Growers can deploy this physical treatment to cut overall water consumption, mitigate dissolved mineral burdens, and advance eco-friendly farm management. Furthermore, the system unlocks the viable use of marginal water supplies—such as brackish sources and treated effluent—enabling productive cultivation while expanding usable irrigation reserves.

Conditioned Water Delivers

- Elevate water productivity
- Boost yield harvested per gallon consumed
- Enhance produce quality
- Extend shelf life
- Intensify taste
- Mitigate soil salinity and clear fields
- Decrease chemical usage
- Protect environmental health

Crop Irrigation Benefits

- Accelerates crop maturity cycles by roughly 15–20 days
- Expands harvest yields by approximately 15% to 100%
- Lower Plant disease vulnerability and outbreak rates
- Enhance the flavor, texture and overall market grade



Optimizing Soil Salinity Control

Excessive soil salinization restricts root development and blocks vital nutrient uptake, posing a major threat to farm productivity. The Magnifield-HSS1 mitigates the adverse effects of brackish irrigation water by significantly upgrading fluid solubility, percolation rates, and soil infiltration capacity.

Through targeted physical conditioning, the system restructures water dynamics to facilitate deeper soil flushing, actively leaching toxic mineral salts away from the root zone. Empirical field data confirms that magnetically conditioned fluid flushes substantially higher salt concentrations than standard water while simultaneously boosting dissolved oxygen levels across the soil profile.

Enhancing Livestock Vitality & Output

Empirical trials indicate that magnetically conditioned water delivers measurable advantages for herd health, poultry development, and overall livestock performance. Studies conducted on broiler flocks demonstrate notable advancements in skeletal density and systemic blood metrics.

Field applications confirm reduced mortality levels, accelerated daily weight gain, higher egg yields, and superior carcass meat grades across various breeding operations.

Reported results

2–3× reduction in mortality

5–7% higher average weight gain

~10% improvement in egg-laying performance

Dairy Herd & Milk Production

Conditioned water significantly streamlines routine milking operations. Udder rigidity frequently delays mechanical extraction; the Magnifield-HSS1 helps soften udder tissue, accelerating milk flow and easing extraction cycles. Livestock consuming conditioned water consistently exhibit stronger immune responses and reduced disease susceptibility.

Using conditioned water drastically lowers total bacterial counts in raw milk while serving as an effective, chemical-free agent for barn and facility sanitation. Furthermore, integrating a magnetic unit directly into post-milking transfer lines doubles the raw milk storage life within holding tanks.

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