

# Agricultural Heat Exchangers

## Optimizing Growing Conditions for Agricultural Crops

A warm growing medium is often essential for the enhanced growth and maturation of plants. MAGEN's **all plastic** heat exchangers, specifically modified to work well in rough environmental conditions, offer optimal solutions for temperature regulation and control. High resistance to corrosion, scale, salts and fertilizers make plastic the ideal choice.



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**MAGEN**  
ECO-ENERGY

## Agrimat

### Root-Zone Heating System for Greenhouses

A homogeneous mat of sleek Polypropylene panels, comprising numerous tubes seamlessly joined together by over-molding injection technology, is installed at the base of the growing units. Hot water running through the tubes yields a uniform heat at the selected medium temperature that speeds up the growing processes.

#### Features and Advantages of the Agrimat system:

- Constant and controlled temperature throughout the root zone
- Safe and economical positioning of all types of growing trays
- Energy-saving system for heating greenhouse space during the cold season
- Flexibility and simple assembly and dismantling.  
Growing units can also be used without the heating system
- Easy cleaning and sanitizing
- Can handle a working pressure of up to 4 Bar (60 PSI) at 60° C
- Dimensions:**  
Length - unlimited  
Width - at intervals of 30 Cm (1ft) ~ 30/60/90...Cm



## Marine Aquaculture

### Solar collectors and heat exchangers for heating and cooling aquaculture water ponds

More efficient and economical artificial growing facilities utilizing **solar energy** are gradually replacing traditional fishing. Creation of an optimal environment demands that natural conditions (simulating the sea) be replicated together with highly advanced temperature control. The immersion of MAGEN's Polypropylene all-plastic heat exchangers (tailor made to client's specifications) into the cultivating pond is the ideal solution.

#### Advantages:

- Effectively heat large quantities of water to the desired temperatures
- Safe, clean, non-corrosive - no risk of dangerous chemicals or rust discharge
- Regulation of water temperature/capacity maintains uniform/accurate conditions
- Aesthetically, the product integrates beautifully with the existing pond
- Direct solar seawater heating **reduces energy costs**



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