

Technology market
“RESEARCH TO BUSINESS”

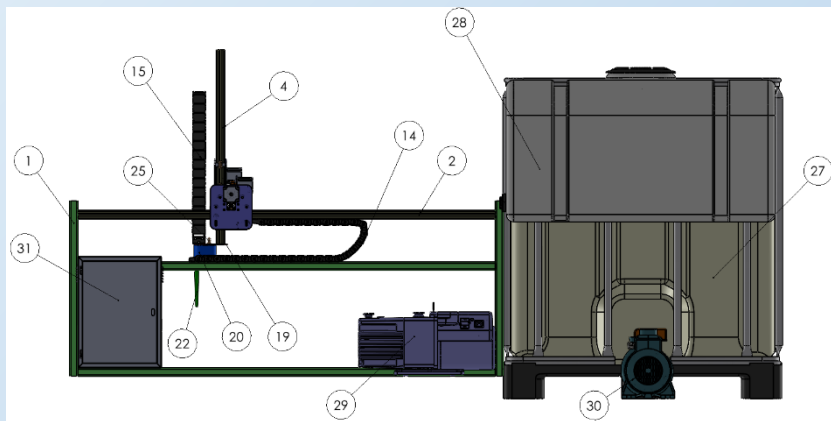
Offer № 019UM

Automated System for Sowing, Watering and Chemical Treatment

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An automated system for sowing, watering, fertilizing and chemical treatment has been developed at TU – Sofia, for which a utility model has been issued in Bulgaria.

Application № 5752



There is a wide variety of sowing machines, collectively called drills, used in the field. They are used after the pre-sowing tillage and in most cases are adapted for sowing only. In the field, chemical weed control and fertilization are also carried out mechanically. Existing drip irrigation systems are applicable to almost all crop species. They can be used in the field and in greenhouses.

On greenhouse farms, sowing, fertilizer and chemical weed control operations are currently carried out exclusively by hand, making the produce more expensive.

Technical solution

Researchers from TU-Sofia have invented an automated system for greenhouse farms that combines and automates the processes of sowing, watering, fertilizing and chemical treatment in one system. By using it, the costs of labour, processing time, water, materials and consumables are reduced. The automated system includes four modules:

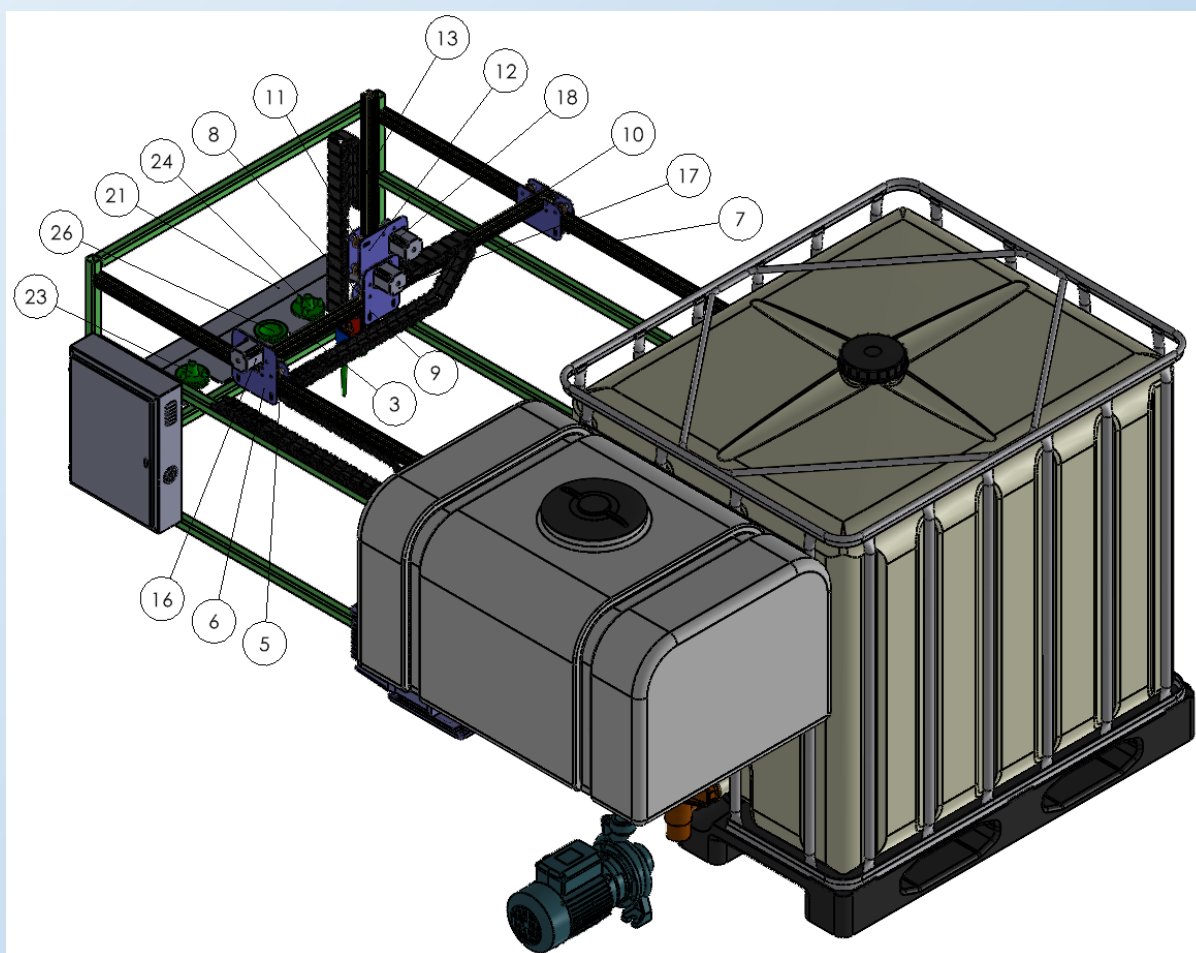
- module "working area";
- module "tools";
- module "power and control";
- module "store".

Application and advantages

The field of application of the automated system is for carrying out agricultural activities in greenhouse farms. The advantages of the automated system are expressed in the following possibilities:

- working with different seeds, fertilizers and chemicals;
- changing the quantities of delivered components;
- changing the locations of the delivery points of the components;
- modular structure, allowing it to be configured according to the needs of each client;
- changing the working area of the system taking into account the specific task.

Technological images



Contact for this offer



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