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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 18690.1-2009

**Agricultural irrigation equipment -- Filters for micro-irrigation --
Part 1: Terms, definitions and classification**

农业灌溉设备 微灌用过滤器 第1部分：术语、定义和分类

(English Translation)

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Foreword

GB/T 18690 "micro-irrigation of agricultural irrigation equipment filter" is divided into the following three parts.

- Part 1. Terms, definitions and classifications;
- Part 2. strainer;
- Part 3. self-cleaning screen filter.

This part of GB/T 18690 "micro-irrigation of agricultural irrigation equipment filter," Part 1.

This section identical with ISO 9912-1:2004 "micro-irrigation Agricultural irrigation equipment - filters - Part 1. Terms, definitions and classification" (In English).

This section is equivalent translation ISO 9912-1:2004.

For ease of use, this section made the following editorial changes.

The term --- "ISO 9912 in this section" to "this Part";

--- Deleted international standards foreword.

Appendix A of this section is an informative annex.

This part is proposed by China Machinery Industry Federation.

This part of the National Standardization Technical Committee (SAC/TC201) Agricultural machinery centralized.

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GB/T 18690.1-2009/ISO 9912-1:2004

Introduction

Irrigation system components, especially dripper clogging micro irrigation encountered major problems one. Cause clogging material debris, organic and inorganic suspended particles (sand, residues, dirt, algae and aquatic insects), chemical precipitate (calcium carbide, magnesium carbide, calcium sulfide, a metal oxide and metal hydrides) and biological suspended solids (sticky secretions and fiber). Severe blockage is usually caused by the above substances mixed effect.

Occluding material impact due to water (see Appendix A lists of irrigation water) varies. For surface water, water quality may vary with season Changes and chemical injection varies. In addition, clogging failure also depends on working conditions, pumping fluid state, irrigation systems and injected chemical substance.

Irrigation system in the role of the filter is likely to clog or corrode the system of various substances element is removed from the water. Of course, in typical Under irrigation conditions, in view of the scope of suspended solids in water the size and hardness of large, complete removal of all suspended solids is impossible.

In addition, basic or hard water conditions, combined with high biological activity and/or high organic suspended solids content, through the filter material Ease the pipe wall and emitter condensation caused by blockage. Thus, according to the water quality it is different, it is necessary irrigation systems of different elements into a sequence Column uses two or more filters to clog minimized.

For the problem of water and high filtration efficiency, the filter itself blockage may also be a major problem, the need for frequent cleaning it would prevent the entire irrigation system operation.

In order to plug the substance from irrigation water to isolated and/or removal can be used in various ways, or draw or separation. Separation surface points from (gravity separated from the surface, the pressure surface separation or self-loop surface), centrifugation, entrapping or block, etc., which may in turn use.

GB/T 18690.1-2009/ISO 9912-1:2004 Agricultural irrigation equipment micro-irrigation filters Part 1. Terms, definitions and classification

1 Scope

GB/T 18690 in the provisions of this part agricultural micro-irrigation systems, particularly pressure micro-irrigation system filters used terms and definitions, it gives the filter according to the structure, working principle and features as well as filtration classification.

This section fails the filtered water type of filter classification.

This part is not used for drinking water or home water filters used classification.

2 Terms and definitions

The following terms and definitions apply to this section.

Using permeable medium and/or centrifugal component may clog irrigation systems substance isolated from the water, and take measures to these objects Mass media or from the permeable element is removed by centrifugation, the medium or the element separation process material clogging ability to recover.

The main large particles from the filtered water separation, to reduce the blockage of the filter element on the filter element and reduce head loss process.

Use of the pool at the end of the gravel barrier, by gravity separation of suspended particles from the water one kind of suspended particulate removal methods.

Using a separation element inclined, such as screens, grids or filters and other means of gravity separation of suspended particles and larger plugs from the water of a no kind of pressure separation method.

Self rotary technology allows filtered water cyclone separator generates centrifugal force that is greater than the specific gravity of water blockage was separated from the water A method.

The collection filter blockage inside a filter medium as in three-dimensional space.

Use a screen or other suitable filter media, the use of self-rotation technique (with or without flow regulation), the plugs from the water points A filtering method from out.

GB/T 18690.1-2009/ISO 9912-1:2004