

RESIDENTIAL ELEMENTS PRODUCT MANUAL



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CHENGDU MEIFUTE MEMBRANE ENVIRONMENTAL PROTECTION TECHNOLOGY CO., LTD.

THE LEADER OF SPECIAL MEMBRANE R&D AND APPLICATION

As a core subsidiary of Meifute Environmental Protection Industry Group, it focuses on the research and development and production of special membrane technology products. It is currently the only high-tech enterprise in China that has the ability to develop and produce a full range of special membranes such as reverse osmosis (RO), nanofiltration (NF) and ultrafiltration (UF).

Meifute takes scientific research as its primary productive force, introduces digital management of R&D and production models, and has established an internationally leading Institute of Special Membrane Materials, Institute of Applied Sciences and Intelligent Manufacturing Center. It has the technical capabilities of the entire industry chain of special membranes, including "membrane material R&D, membrane component R&D and manufacturing, membrane system design and manufacturing and membrane technology application", and can provide customers with professional and systematic products and technical services.

Meifute Special Membrane is specially used for sewage treatment. It has the special properties of "high flux, high anti-fouling, and high cycles of concentration". Different from the application fields of traditional filtration membranes, it is suitable for high-difficulty, high-concentration, high-quality recycled water utilization and other fields. The cost-effective solution can not only solve the pollution control problems for customers, but also realize the resource utilization of water, achieving multiple benefits for the environment, economy and society. At present, special membranes have been successfully applied to sewage treatment in more than 30 fields such as pharmaceuticals, chemicals, electroplating, printing and dyeing, petroleum and petrochemicals, coal chemical industry, electronics, etc., and have won high recognition from customers.

COMPANY INTRODUCTION

Founded in 1999, Meifute Environmental Protection Industry Group has always focused on the exploration and innovation of environmental pollution prevention and control and resource utilization. After more than 20 years of development, the group has grown into a high-tech enterprise with comprehensive environmental service capabilities, such as technology research and development, core equipment manufacturing, consulting and design, engineering construction, investment and operation.



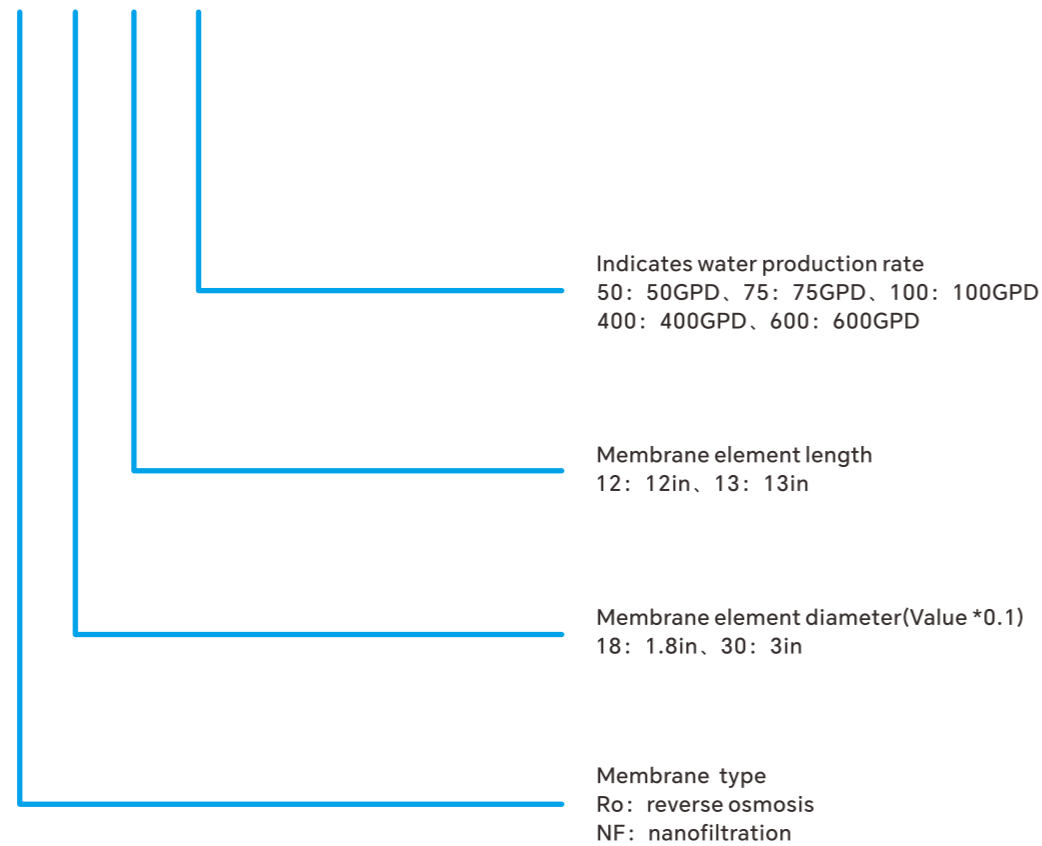
60000 m² production base **4** fully automated membrane production lines

PRODUCT DESCRIPTION

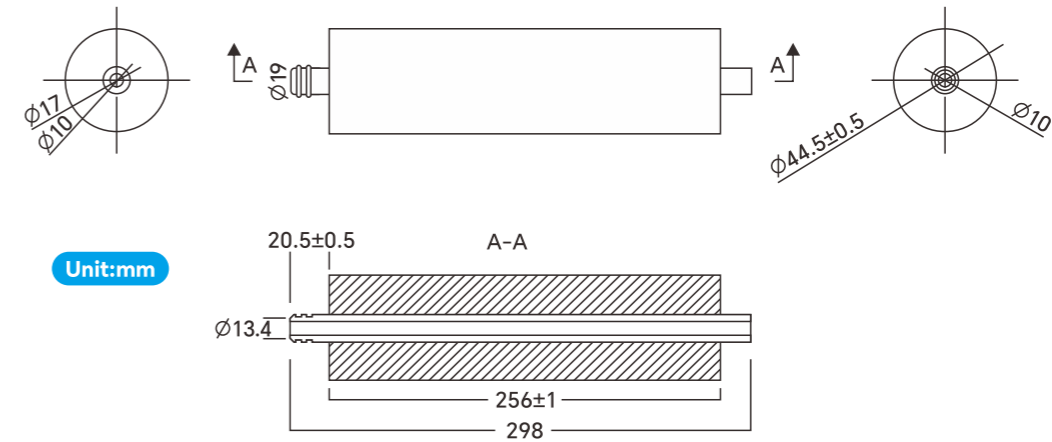
The RO residential element is a terminal product developed by Meifute Company specifically for residential water purifiers. As the core component for the in-depth purification and enhancement of tap water and other potable water sources, the RO residential element effectively removes organic compounds, microorganisms, viruses, and the majority of ions, ensuring absolute safety for drinking water. The unique interfacial polymerization process ensures that the membrane product achieves high water output while maintaining a dense desalination layer. The smoothness of the membrane sheet surface, coupled with near electrical neutrality, reduces the adhesion of pollutants, exhibits good pressure resistance and integrity, and possesses strong resistance to fouling.

Membrane Element Naming Convention

RO 18 12 - 75



RO 1812 MEMBRANE ELEMENT



Specifications and Models	Effective Membrane Area ft ² (m ²)	Stable desalting rate	Produced Water Quantity GPD
RO1812-50	4.5(0.42)	≥97%	50
RO1812-75	4.5(0.42)	≥96%	75
RO1812-100	4.5(0.42)	≥95%	100

NOTE The produced water quantity of a single membrane element varies within the range of ±15%

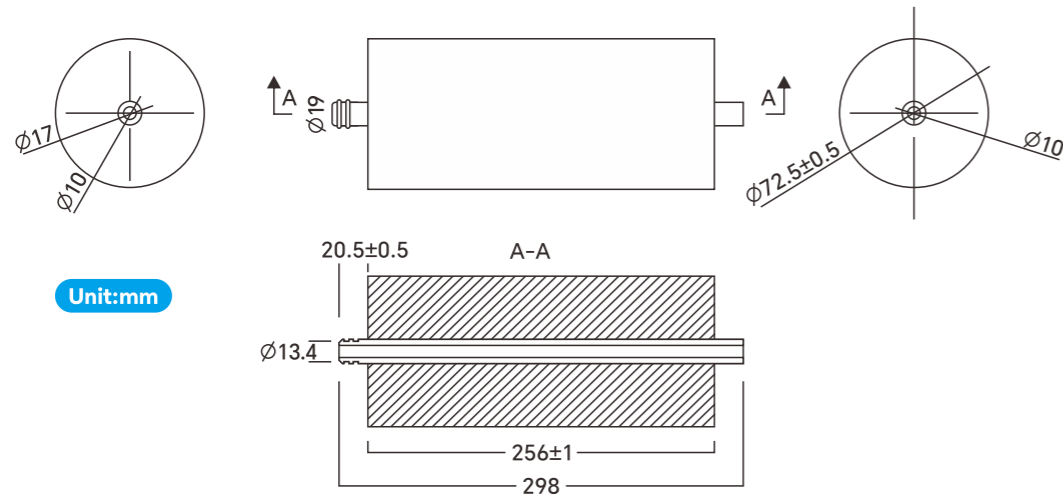
PERFORMANCE TEST CONDITIONS

- ① Test liquid type ----- 500 ppm NaCl
- ② test pressure----- 60 psi (0.42 MPa)
- ③ Test liquid of----- 7.5~8.0
- ④ Test liquid temperature----- 25°C
- ⑤ Recovery rate----- 40%

OPERATING LIMIT

- ① Maximum operating pressure ----- 150psi
- ② Maximum influent temperature ----- 45°C
- ③ Maximum influent SDI15 ----- 5.0
- ④ Maximum influent turbidity ----- 1.0NTU
- ⑤ Maximum residual chlorine concentration ----- 0.1mg/L
- ⑥ Influent pH range during continuous operation ----- 5-9

RO 3012 MEMBRANE ELEMENT



Unit:mm

Specifications and Models	Effective Membrane Area ft ² (m ²)	Stable desalting rate	Produced Water Quantity GPD
RO 3012-400	16.1(1.5)	≥95%	400
RO 3012-600	18.4(1.7)	≥94%	600

NOTE The produced water quantity of a single membrane element varies within the range of ±15%

PERFORMANCE TEST CONDITIONS

- ① Test liquid type ----- 500 ppm NaCl
- ② test pressure----- 80 psi (0.55 MPa)
- ③ Test liquid of----- 7.5~8.0
- ④ Test liquid temperature----- 25°C
- ⑤ Recovery rate----- 50%

OPERATING LIMIT

- ① Maximum operating pressure ----- 150psi
- ② Maximum influent temperature ----- 45°C
- ③ Maximum influent SDI15 ----- 5.0
- ④ Maximum influent turbidity ----- 1.0NTU
- ⑤ Maximum residual chlorine concentration ----- 0.1mg/L
- ⑥ Influent pH range during continuous operation ----- 5-9

CUSTOMIZED RO MEMBRANE ELEMENTS

Customized RO membranes Elements are a professional customization service offered by Meifute, based on its advanced membrane sheet and membrane element design and manufacturing technology, tailored to meet the individual needs of customers.

THE CUSTOMIZABLE RANGE FOR OUR PRODUCTS IS AS FOLLOWS

WATER PRODUCTION RATE

From 20GPD to 2000GPD

DIMENSIONS

Roll Diameter from 40mm to 200mm

CENTRAL TUBE LENGTH FROM

100mm to 1100mm