

Clean Water, Clean Earth

Litree provides a wide range of water purifying solutions, including

- ☐ Municipal water treatment
- ☐ Industrial processing water treatment
- ☐ One-step solution to household water problems
- ☐ Public application, such as offices, restaurants, airports, hotels, hospitals and schools
- ☐ One-step solution to outdoor drinking
- ☐ Municipal wastewater treatment
- ☐ Industrial wastewater treatment



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Manufacturer

Hainan Litree Purifying Technology Co.,Ltd.
Suzhou Litree UF Membrane Technology Co.,Ltd.

UF Membrane Module

Leading Ultrafiltration Technology

LEADING IN UF TECHNOLOGY

The Company

Litree Enterprise is a professional hi-tech group specialized in research, development and manufacturing of ultra-filtration (UF) water purification equipments and systems.

Litree has two UF membrane production sites in Haikou and Suzhou.

Litree possess many national and international patents in UF membrane technology, UF products are widely used in municipal water supply, rural

water quantity improvement, industrial processing water supply, municipal sewage treatment and recycling, industrial waste water recycling, and seawater desalination, etc.

Litree UF products are exported to many countries and regions, Litree has established subsidiaries in North America, Europe and Turkey, providing prompt technical support and service to clients around the world.



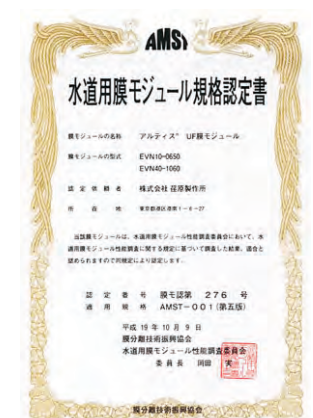
International Certifications



NSF Certification (US)



CDPH Title 22 (US)



AMST (Japan)

Pressurized Vessel UF Module

PVC Inside-out

Features

- PVC alloy membrane material with improved hydrophilicity
- Pores are evenly distributed with high precision
- Unique anti-fouling membrane surface
- High and stable flux
- Operating under low pressure with less energy consumption
- High physical strength and chemical resistance

Specifications

Model	LH3-0650-V	LH3-1060-V	LH4-1080-V
Design flux	0.4-1.0 m³/h (106-264 gal/h)	1.6-3.2 m³/h (432-845 gal/h)	2.4-4.8 m³/h (634-1268 gal/h)
Permeate turbidity ①	<0.1 NTU		
Active membrane area	10 m²	40 m²	60 m²
Module dimensions	Ø 187x1398 mm	Ø 277x1715 mm	Ø 305x2315 mm
Membrane type	Inside-out hollow fiber		
Membrane material	Improved PVC		
Nominal pore size	0.01 µm		
Inside/outside diameters of hollow fiber	1.0 / 1.6 mm		

① Permeate turbidity refers to the measurement value with raw water turbidity < 50 NTU.
The data above is for reference only, raw water used for testing comes from the city of Haikou.

Typical Operating Conditions

Operating mode	Dead end or cross flow
Suggested trans-membrane pressure (TMP)	0.02-0.08 MPa (2.9-11.6 psi)
Max. inlet pressure	0.3 MPa (43.5 psi)
Max. TMP	0.15 MPa (21.8 psi)
Max. backwash TMP	0.25 MPa (36 psi)
Max. operating temperature	40 °C
pH range	2-13
Backwash flux	175 LMH
Backwash time	20-180 sec
Backwash interval	20-60 min



Application



Municipal water plant

Applied module:	LH3-1060-V
In operation since:	September 2007
Capacity:	300,000 m³/day (79 mgd)
Location:	Taiwan

Silica material process ultra-pure water treatment

Applied module:	LH3-1060-V
In operation since:	Phase I in 2008 Phase II in 2009
Capacity:	19,000 m³/day (5 mgd)
Location:	Sichuan, China

Water reclamation

Applied module:	LH3-1060-V
In operation since:	January 2007
Capacity:	12,000 m³/day (3.17 mgd)
Location:	Shanghai, China

Coal wastewater treatment

Applied module:	LH3-1060-V
In operation since:	May 2007
Capacity:	8,000 m³/day (2.1 mgd)
Location:	Heilongjiang, China

Seawater desalination

Applied module:	LH3-1060-V
In operation since:	May 2004
Capacity:	4,800 m³/day (1.27 mgd)
Location:	Malaysia

Integrated Equipment

The core element of the equipment is LH3-1060-V & LH3-0650-V inside-out UF membrane module

Features

- High removal rate of suspended substance, microorganism, colloid and impurities
- Realize unattended operation with the convenient remote monitoring services
- Standardized module configuration with a wide design flux range
- Integrative design, convenient installation and operation
- Low operating cost, easy maintenance
- Long service life

Application Field

- Small scale municipal water supply
- Rural water supply
- Public place drinking water supply
- Food and beverage processing water treatment
- Reclaimed water reuse



Application



Drinking water purification system

Feed water:	Well water
In operation since:	September 2011
Capacity:	360 m ³ /day (79 mgd)
Location:	Lagos, Nigeria



Rural water supply system

Supply scope:	Rural schools and residents
Project since:	2012
Population covered:	350,000 persons
Location:	over the Hainan islands, China



Small scale municipal water supply

Supply scope:	Small towns
Project since:	2009
Quantity of adopted systems:	150 units
Location:	over Malaysia



Displaced persons centralized water supply

Supply scope:	Displaced persons in WenChuan earthquake
Quantity of adopted systems:	86 units
Population covered:	280,000 persons

Pressurized Vessel UF Module

PVDF Outside-in

Features

- Pores are evenly distributed with high precision
- Unique anti-fouling membrane surface
- High and stable flux
- Operating under low pressure with less energy consumption
- High physical strength and chemical resistance

Specifications

Model	LW3-0660-F	LW2-0960-F
Active membrane area	40 m ²	50 m ²
Model dimensions	Ø224x1810 mm	Ø271x1860 mm
Membrane type	Outside-in hollow fiber	
Membrane material	PVDF	
Nominal pore size	0.02 µm	
ID/OD of hollow fiber	0.7 / 1.3 mm	

Typical Operating Conditions

	LW3-0660-F	LW2-0960-F
Max. inlet pressure	0.3 MPa(43.5psi)	
Max.TMP	0.25 MPa(36psi)	
Max. operating temperature	38 °C	
pH range	2 - 12	
Forward flush flow	2.0 - 3.0 m ³ /h	3.0 - 4.5 m ³ /h
Forward flush time	20-30 sec	
Backwash flow	4.0 - 6.0 m ³ /h	5.0 - 7.5 m ³ /h
Backwash time	20-60 sec	
Air scouring flow	2.5 - 5.0 m ³ /h	5.0 - 12.0 m ³ /h



Application



Olympic Village wastewater treatment

Capacity : 20,000m³/day (5.28 gmd)
In operation since : October 2013
Raw water : Domestic wastewater
Location: Sochi, Russia



Reclaimed water treatment of WWTP

Capacity: 7,500 m³/day (1.98 mgd)
In operation since: October 2012
Raw water: Wastewater treatment plant
Location: Tianjin, China



Mine wastewater treatment

Capacity: 1,380 m³/day (0.36 gmd)
In operation since: November 2012
Raw water: Mine waste water
Location: Shanxi, China

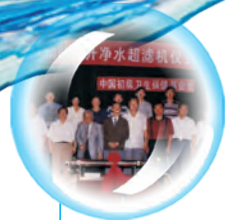
NOV 1992

The first UF filter was put into use.



SEP 1998

Litree donated over USD 200,000 worth of water purification equipment and established 60 water stations to solve drinking water problems in disaster area.



JUL 2007

Litree USA R&D center was established.



OCT 2007

Litree UF membrane modules were applied to Kaohsiung Kaotan Municipal Water Plant in Taiwan. The water treatment capacity is 300,000 m³/day.



MAY 2008

Litree donated over USD 1,500,000 worth of water purification equipment during the Wenchuan earthquake. On May 27th, Litree Love Middle School was established in Shifang City, Sichuan.



MAY 2009

Litree European (the Netherlands) sales center was established.



DEC 2009

Shandong Dongying Nanjiao Municipal Water Plant went into operation. It was the first large-scale municipal water plant that used domestically manufactured UF membrane. It was also the first project that adopted immersed PVC membrane in municipal water treatment.

MAY 2010

Litree supplied and maintained all direct drinking water equipment for Shanghai World Expo, providing direct drinking water for 73,000,000 visitors from 260 countries. Litree direct drinking water equipment provided 150,000 tons of water during the 184 days of running.



MAY 2011

Litree Turkey sales center was established.

JAN 2013

Litree European service center was established.



NOV 2013

The latest innovation technology - PVC reinforced UF membrane was launched in Amsterdam.