

STERAPORE 5600 Series (FF) Data Sheet



Element Specifications

Product specifications for membrane elements are given below.

Specifications indicated in this manual may be subject to change without notice.

Table 10-1 Element Specifications

Item		Unit	Specifications
Element model number		—	56E0040SA
Nominal membrane surface area		m ²	40
Direction of hollow fiber membrane		—	Vertical
Material	Hollow fiber membrane	—	PVDF (polyvinylidene fluoride)
	Potting resin	—	Polyurethane resin
	Reinforcing resin	—	Polyurethane resin
	Water collection pipe	—	ABS Resin
	Support pipe	—	SUS304
Nominal pore size		μm	0.05
Outer diameter of hollow fiber membrane		mm	1.65
Element dimensions (D×W×H)		mm	30 × 1,250 × 2,000
Dry weight		kg	Approx. 15
Connection		mm	φ24 × 2 locations Upper element permeate header/lateral
Operating conditions	Design filtration flow*	m ³ /(day · element)	5 to 20
	Filtration mode	—	Submerged suction filtration (out-in filtration)
	Normal trans membrane pressure	—	Initial trans membrane pressure: -15 kPa or above
	Normal temperature	°C	5 to 40
	pH range of raw water	—	5 to 9
	Oil content range of raw water	—	Normal hexane extracts 150 mg/L or below (excluding mineral oils)
	pH range for cleaning	—	1 to 11
	MLSS range (Membrane Tank)	mg/L	Recommended range of application: 5,000 to 10,000 (min: 3,000, max: 15,000)
	Other		Silicon antifoaming agents may not be used.

* Design filtration flow is calculated based on the assumption that flux is between 0.2 and 0.8 m³/(m²·d). It differs according to the raw water conditions, operating temperature, etc.

Module Specifications

Product specifications for modules are given below.

Specifications indicated in this manual may be subject to change without notice.

Please select a hoist and other equipment for lifting modules while taking the weight of the module, chains and connecting pipes into account. If the product has been operated at a trans membrane pressure significantly beyond the range specified in this manual, it is possible that an extreme amount of clogging has occurred, which may cause the product to exceed its wet weight.

Table 10-2 Module Specifications List (Element used: 56E0040SA)

Item			Unit	Specifications				
Module model number			—	56M0400FF	56M0800FF	56M1200FF	56M1600FF	56M2400FF
Element	Model no.		—	56E0040SA				
	No. of elements		pcs.	10	20	30	40	60
	Dimensions (D×W×H)		mm	30 × 1,250 × 2,000				
	Nominal membrane surface area		m ²	40				
Module	Module membrane surface area		m ²	400	800	1200	1600	2400
	Dimensions	Depth	mm	1,524	1,524	1,524	1,524	1,524
		Width	mm	940	1,390	1,870	2,320	3,416
		Height	mm	2,798	2,798	2,798	2,798	2,798
	Weight	Dry	kg	400	600	800	1,000	1,550
		Lifting*1	kg	500 to 1,000	800 to 1,800	1,100 to 2,600	1,400 to 3,400	2,100 to 5,100
	No. of permeate adapters required		pairs	20	40	60	80	120
	Connection to treated water (JIS10K)		—	65A Flange × 2	65A Flange × 2	65A Flange × 2	65A Flange × 2	65A Flange × 4
	Guide pipe specifications		—	50A	50A	80A	80A	80A
Diffuser part	Diffuser	Model number	—	FB-10W	FB-20W	FB-30W	FB-40W	FB-60W
	Connection (JIS10K)			80A Flange	80A Flange	80A Flange	80A Flange	80A Flange × 2
Diffuser air	Minimum aeration rate		Nm ³ /min	0.8	1.5	2.2	2.9	4.4
	Maximum aeration rate		Nm ³ /min	1.7	3.1	4.5	5.9	9.0
	Standard aeration rate		Nm ³ /min	1.5	2.7	3.8	5.0	7.7
	Diffuser pressure loss (Maximum)		kPa	1.1	1.1	1.1	1.1	1.1
Minimum water depth			m	3.0	3.0	3.0	3.0	3.0
Standard center-to-center distance for modules		Depthwise	2.2 m or greater (The wall-to-center distance for modules adjacent to walls must be 1.1 m or greater.)					
		Widthwise	Secure a sufficient distance for tying in pipes or lifting the module.					
Operating conditions	Filtration mode		—	Submerged suction filtration (out-in filtration)				
	Normal trans membrane pressure		—	Initial trans membrane pressure: -15 kPa or above				
	Normal temperature		℃	5 to 40				
	pH range of raw water		—	5 to 9				
	Oil content range of raw water		—	Normal hexane extracts 150 mg/L or below (excluding mineral oils)				
	pH range for cleaning		—	1.0 to 11.0				
	MLSS range (Membrane Tank)		mg/L	Recommended range of application: 5,000 to 10,000 (min: 3,000; max: 15,000)				
	Design filtration flow*2		m ³ /(day・module)	80 to 320	160 to 640	240 to 960	320 to 1,280	480 to 1,920
	Other		—	Silicon antifoaming agent may not be used.				

* 1 Reference lifting weight when wet. The actual lifting weight differs according to the operating conditions and the amount of adhered sludge.

* 2 Design filtration flow is calculated based on the assumption that flux is between 0.2 and 0.8 m³/(m²·d). It differs according to the raw water conditions, operating temperature, etc.

Standard accessories

- Water collection adapter (permeate adapter)

Accessories not included

- Guide rail
- Chains and shackles
- Chain blocks and cranes
- Slings and lifting beams
- Filtered water hose and pipes, air hose and pipes
- Protective sheets and covers