

Palisade MBR

Polymer plate flat sheet MBR with targeted scour on every plate. Designed by Zyramic and built in Poughkeepsie.

0.04 µm PES Permanently wetted plate membrane, no PFAS on the plate	12.5 to 21 LMH Preliminary design flux, stated in LMH only	Targeted scour Detachable manifold feeds air at every solid plate	Chemical CIP No operational backwash
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MODULE DATA

130 and 260 plate arrangements

PARAMETER	130 PLATE	260 PLATE
MEMBRANE AREA	≈136.5 m ² ≈1,469 ft ²	≈273 m ² ≈2,938 ft ²
PRELIMINARY PERMEATE	≈41 to 69 m ³ /d 7.5 to 12.6 gpm	≈82 to 136 m ³ /d 15 to 25 gpm
MODULE SCOUR AIR	≈82 Nm ³ /h 48 scfm	≈163 Nm ³ /h 96 scfm
FRAME	304 stainless standard. 316 optional.	
KEY CONNECTION	2.5 in Schedule 40	
PILOT PATH	Rental cassette available	

Area, flow, air, and TMP values are preliminary design data; the project quotation sets final values. Single deck dimensions are confirmed on the project quotation.

PLATE AND OPERATING BASIS

Plate engineering data

PARAMETER	METRIC	US
AREA PER PLATE	≈1.05 m ² , both faces	≈11.3 ft ² , both faces
PANEL	1,047 × 502 mm, 7.60 mm thick	41.2 × 19.8 in, 0.299 in thick
CHANNEL GAP	6.40 mm	0.252 in
MEMBRANE	0.04 µm PES. Permanently wetted. Store wet or dry. No glycol. Advanced hybrid PES sheet sourced from Germany. No PFAS on the polymer plate.	
DESIGN FLUX	12.5 to 21 LMH. Flux stated in LMH only.	
PRELIMINARY TMP	At or below 15.2 kPa	2.2 psi
MLSS RANGE	3,000 to 12,000 mg/L. Same concentration basis.	
FILTRATION CYCLE	Typically 8 min filtration and 2 min relaxation. Cycle remains project specific.	

AIR SCOUR

Targeted scour on every plate

A detachable manifold places air at each solid plate so flow rises through the channels between plates. The plates are solid: air and water do not pass through the plate. Scour rises only in the channels between plates.

CLEANING

Chemical CIP. No operational backwash.

Palisade is CIP cleaned and not backwashed. Cleaning frequency and chemistry are issued for the feed, operating trend, and project design.

WEIGHTS

Estimated net dry weight

BASIS	METRIC	US
PER 1.0 M ² PLATE	1.8 kg	4 lb
MODULE	150 to 450 kg	331 to 992 lb

From the Qianli module catalog used as the Palisade equivalent. Net weight basis. Crating is a project detail.

MODULE ENVELOPES

Overall dimensions for planning

MODULE	A	B	C	D
PALISADE, TWO STORY	2,130 mm 83.9 in	959 mm 37.7 in	3,329 mm 131.1 in	1,931 mm 76.0 in
PALISADE, ONE STORY	2,106 mm 82.9 in	959 mm 37.7 in	1,346 mm 53.0 in	2,007 mm 79.0 in

A overall length. B overall width. C overall height. D module length. Preliminary approximate 260 plate double deck envelope $\approx 2,134 \times 945 \times 3,048$ mm ($\approx 7.0 \times 3.1 \times 10.0$ ft). Certified envelope dimensions are confirmed on the project quotation and submittal package.

Zyramic manufactures the modules.

Designed by Zyramic and built in Poughkeepsie. Plates are cut, welded, assembled, and packed in Poughkeepsie. Highest US content in the line. BABA claimed at the module. Choose Palisade when domestic content and plate serviceability matter. Duty: submerged MBR.

Performance basis: Palisade area, flow, flux, air, and TMP values are preliminary design data and remain subject to field validation. Final performance is set by feed testing and the approved project design basis.

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