

Swing-8 MBR module

Thin-film composite flat-sheet MBR module · example build Swing-8-2-4

Overview

Swing-8 is a thin-film composite flat-sheet MBR module. The membrane is a permanently wetted dry film, PVDF or PVDF with graphene. High packing density in a rectangular footprint that often retrofits close to a hollow-fiber footprint, usually with new permeate plumbing and guide rails. Coarse-bubble air scour, not fine bubble. CIP with sodium hypochlorite and citric acid in reverse flow plus relaxation, not a pressurized backwash. Service is one cartridge at a time.

Key features

- Thin-film composite flat sheet, permanently wetted dry film; ships and handles dry
- PVDF or PVDF with graphene; PES option in development
- 0.04 µm UF standard; 0.4 µm MF available
- Compact rectangular footprint; often a near 1:1 retrofit of hollow-fiber tanks
- Continuous coarse-bubble scour; specific air falls as decks are added
- Replace a cartridge, not a module: 114 sheets / 12.5 m² per Swing-8 cartridge
- Tall builds: up to 4 decks per section, then a gap and a 4-sided enclosure
- BABA path at the module (project-specific)
- Rental and trial modules available, subject to availability

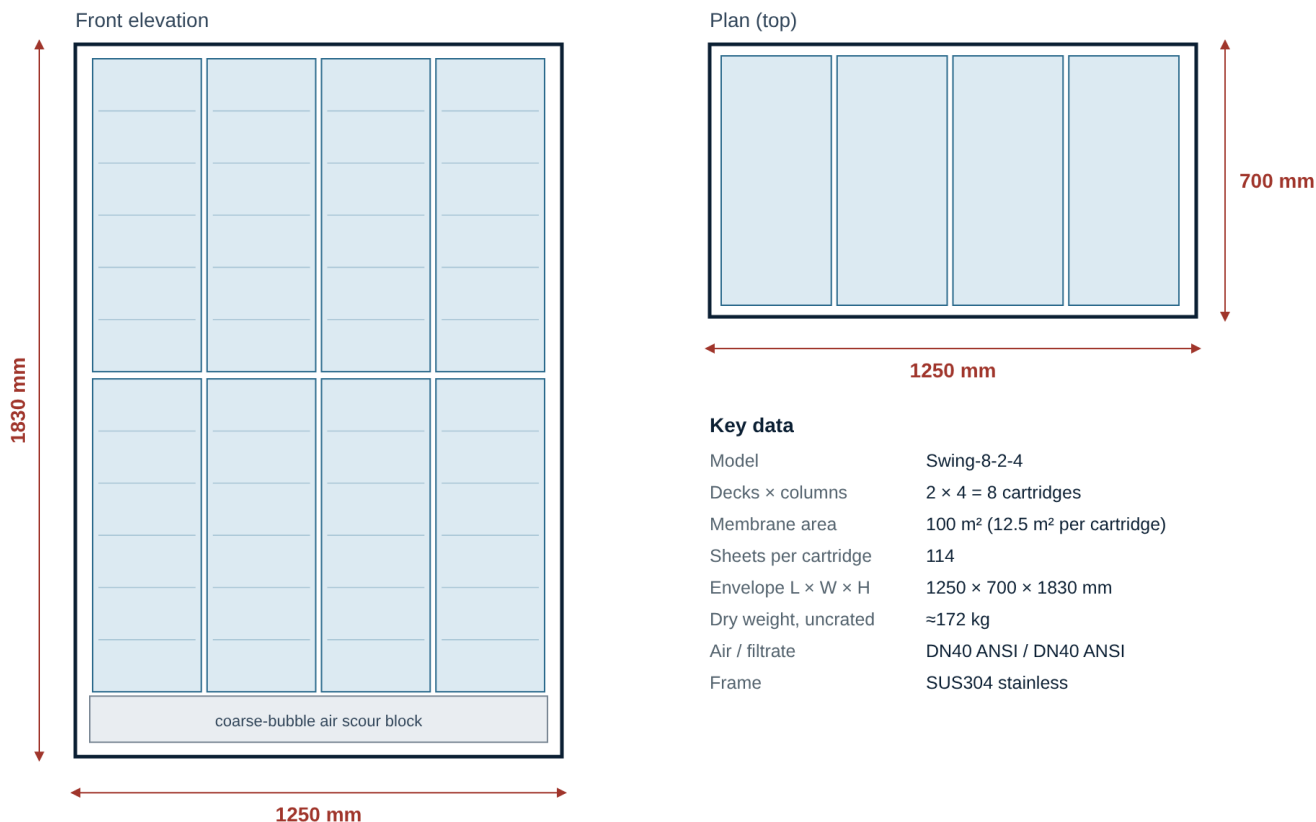
Specifications

Parameter	Value
Membrane area per cartridge	12.5 m ²
Sheets per cartridge	114
Sheet size	250 × 250 mm
Cartridge dimensions	528 × 520 × 252 mm
Cartridge dry weight	11.3 kg
Membrane	PVDF or PVDF + graphene; permanently wetted dry film
Pore size	0.04 µm UF standard · 0.4 µm MF available
Design flux, municipal (guidance)	15 LMH long life · 20 LMH average · 25 LMH peak; ~20% derate to net (8 min on / 2 min off)
Industrial flux (guidance)	Typically < 15 LMH; set per project
CIP recovery, municipal	NaClO 3000–5000 mg/L, then citric acid 1–2%; each 2.5 L/m ² , > 4 h
CIP maintenance, municipal	NaClO 300–500 mg/L or citric 500–1000 mg/L; 2.0 L/m ² , > 30 min, every 7–10 days
CIP method	Reverse flow + relaxation; purge NaClO before the acid step
Air scour	Coarse bubble, continuous for MBR; UF duty intermittent at ~2× MBR air
Specific air by decks (approx.)	1 deck ~13.5 · 2 decks ~9.0 · 3 decks ~6.5–7 · 4 decks ~5.5–6 L/min·m ²
Swing-8-2-4 envelope (L × W × H)	1250 × 700 × 1830 mm
Swing-8-2-4 area / cartridges	100 m ² / 8
Swing-8-2-4 dry weight, uncrated	≈172 kg
Swing-8-2-4 air / filtrate	DN40 ANSI / DN40 ANSI
Frame	SUS304 stainless
Model coding	Swing-8-X-Y: X = decks, Y = columns; area = 12.5 × X × Y m ²
Module spacing	40–60 cm between outer legs (headers not included)

Flux figures are design guidance, not a warranty or performance guarantee; final design flux is set in the project proposal. CIP doses are typical; confirm the site recipe with Zyramic.

Swing-8-2-4 dimensional drawing

Swing-8-2-4 · overall dimensions (schematic)



Other Swing-8-X-Y builds scale by decks (X) and columns (Y): area = 12.5 × X × Y m².
Schematic for selection only. Certified drawings issued with the quotation. © 2026 Zyramic, Inc.

Example configuration. Other Swing-8-X-Y builds scale by decks (X) and columns (Y). Schematic for sales use; certified drawings are issued with the quotation.