

IPC® FLEX SERIES

IPC® MEMBRANE TECHNOLOGY

BLUE FOOT's patented Integrated Permeate Channel (IPC®) membrane delivers unmatched robustness and reliability in MBR applications.

The integrated construction eliminates weak interfaces and delamination risk, enabling backwash pressures of up to 2 bar and long-term performance even under the most demanding conditions.

Our unique membrane construction performs under varied feed conditions, delivering the highest quality treatment, built on **unbreakable membranes**. Always.

KEY TECHNICAL FEATURES

PVDF MEMBRANE

Industry-proven material of choice for submerged MBR applications.

OPEN FLOW MODULE DESIGN

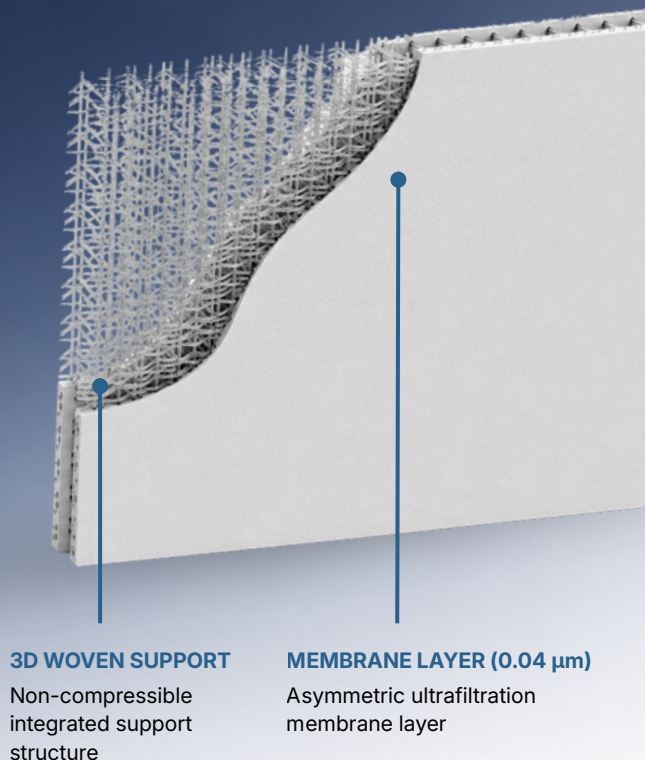
No top or bottom headers required, reducing solids accumulation and flow restrictions.

BACKWASH UP TO 2 BAR

Robust construction enables high efficient backwashing even under challenging conditions.

EFFECTIVE CLEANING

Even flow distribution across the entire membrane surface for reliable physical cleaning and long-term performance.



IPC® - INTEGRATED PERMEATE CHANNEL

Fully integrated membrane sheet construction where the membrane layer is cast directly into the 3D woven support structure, forming a single composite without bonding interfaces.

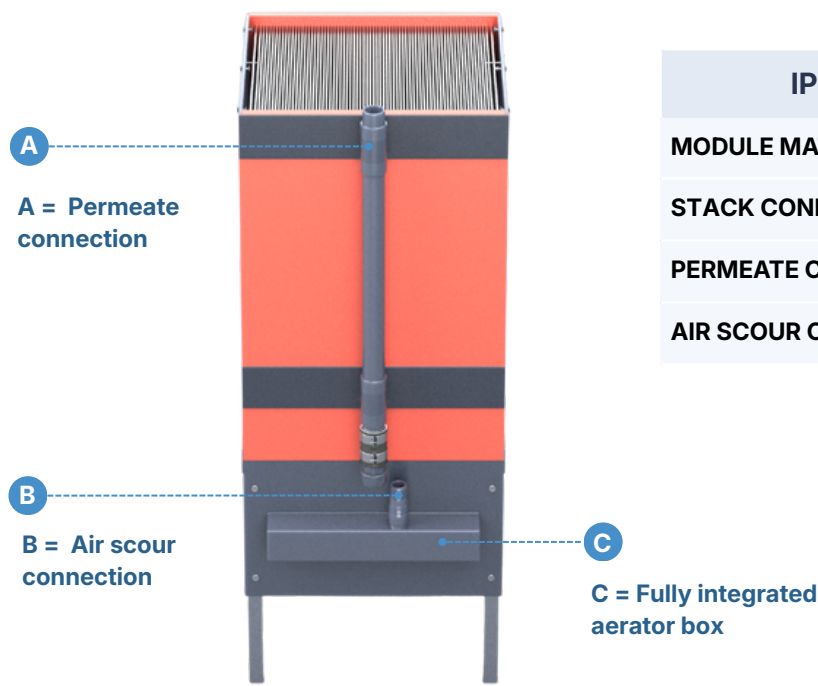
The result is a stronger, more robust membrane designed for superior mechanical strength, reliability and process performance.

IPC® MEMBRANE TECHNICAL SPECIFICATIONS

MEMBRANE TYPE	Ultrafiltration
NOMINAL PORE SIZE	0.04 µm
MEMBRANE MATERIAL	PVDF
MEMBRANE LAYER DEPTH	> 600 µm
MEMBRANE ENVELOPE THICKNESS	3.8 mm
STRUCTURE	Integrated composite with 3D woven structure
BACKWASH PRESSURE	Up to 2 bar
PRESERVATIVE	Glycerol + conservation additive

IPC® membrane sheets are integrated into standardized modules for faster system integration and quicker startup. Each IPC® Flex module contains 73 membrane sheets, providing 97 m² of effective membrane area.

With a fully integrated aerator box, IPC® Flex modules deliver efficient aeration and reliable performance under varying conditions.



IPC® FLEX MODULE SPECIFICATIONS	
MODULE MATERIALS	PVC, PU, SS316L
STACK CONFIGURATION	from 1 - 3 modules high
PERMEATE CONNECTION (A)	PVC - DN65 - Ø 75 mm
AIR SCOUR CONNECTION (B)	SS316L - DN40 - Ø 48 mm

IPC® FLEX TYPICAL OPERATING PARAMETERS			
FILTRATION		CLEANING	
FLUX	20 - 60 l/m ² .h	PHYSICAL	Aeration and backwash
TMP	-20 to -500 mbar	CEB ¹	NaOCl: 500 – 2000 ppm: (1 to 2 times per month)
MLSS	4 - 15 g/l		Citric acid: 0.5-2.0%: (2 to 4 times per year)
OPERATING TEMPERATURE	1 to 40°C	pH-RANGE	2 – 11 (max. 30°C)
BACKWASH		AERATION	
FLUX	40 - 120 l/m ² .h	MEMBRANE DIFFUSER	medium size bubble aeration
TMP	+50 to +1000 mbar	AIRFLOW	45-60 m ³ /h per stack

¹ Chemical Enhanced Backwash: cleaning via permeate channel

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IPC® FLEX STACK CONFIGURATIONS

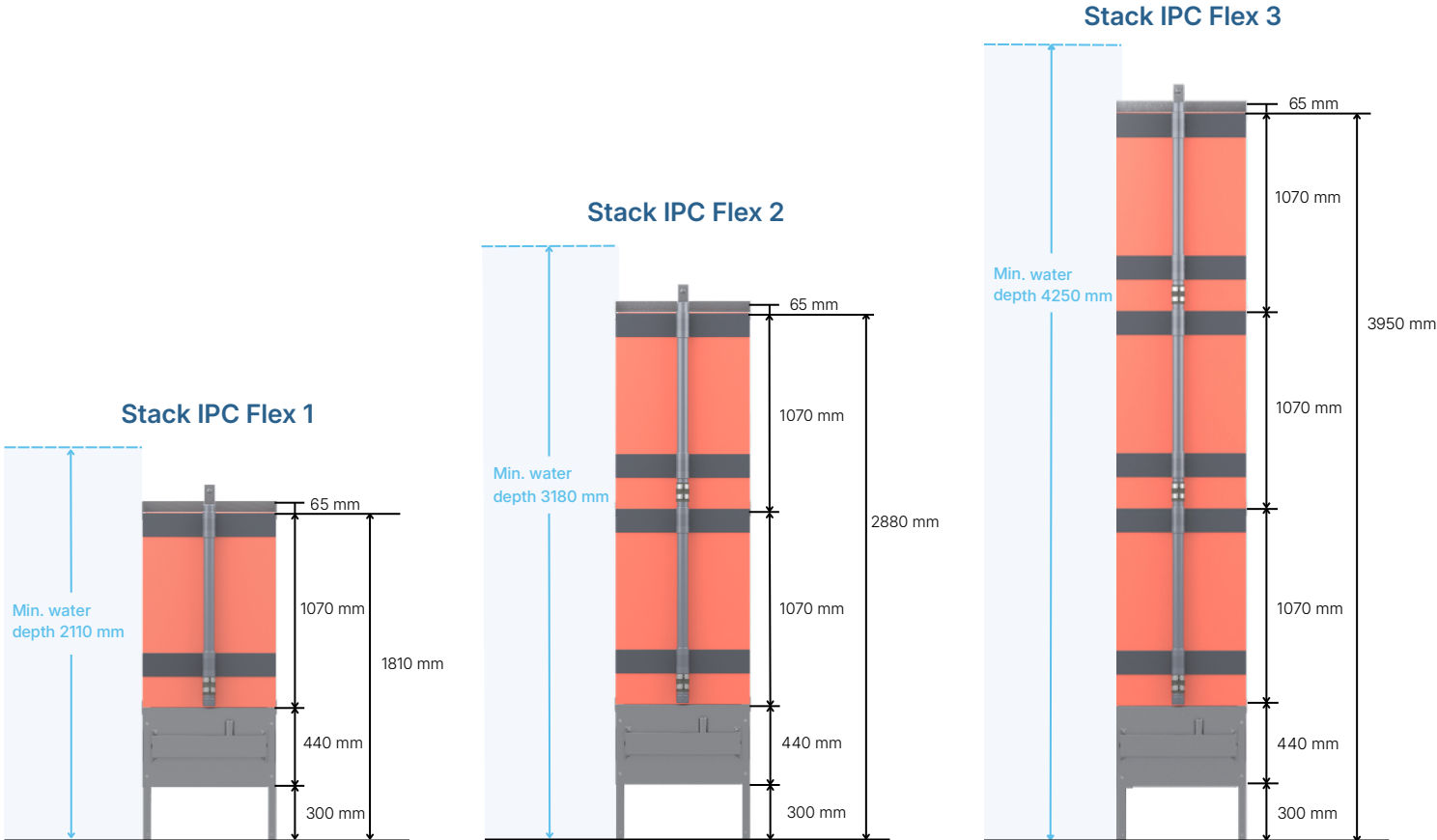
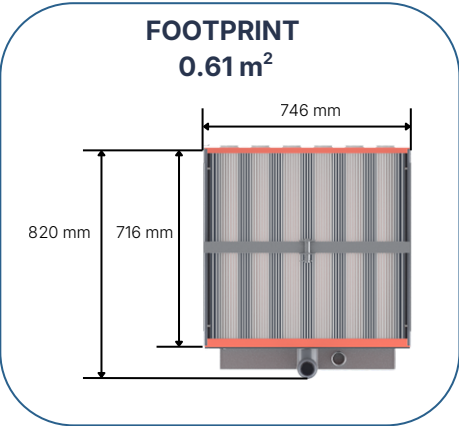
MULTIPLE CONFIGURATIONS ONE COMPACT FOOTPRINT

The IPC® Flex is available in different stack heights to fit your capacity requirements.

COMPACT FOOTPRINT
All configurations share the same footprint.

SCALABLE TO YOUR NEEDS
Choose the stack height that fits your installation and performance targets.

PROVEN PERFORMANCE
Engineered for reliability, durability and long-term performance.



STACK	NET MEMBRANE AREA (m ²)	DIMENSIONS			WEIGHT DRY (kg)	REQUIRED MIN. WATER DEPTH (mm)
		LENGTH (mm)	WIDTH (mm)	HEIGHT (mm) ¹		
Stack IPC Flex 1	97	746	716	1810	225	2110
Stack IPC Flex 1.5	143	746	716	2340	315	2640
Stack IPC Flex 2	194	746	716	2880	400	3180
Stack IPC Flex 2.5	240	746	716	3410	490	3710
Stack IPC Flex 3	291	746	716	3950	575	4250
Aerator box	-	736	790	740	48	-

¹ Including aerator box, excluding lifting device

IPC® FLEX STACK COMPONENTS

The IPC® Flex Series consists of modular submerged ultrafiltration stack configurations based on IPC® membrane technology.

Stack configurations are available from Flex 1 up to Flex 3, including intermediate Flex 1.5 and Flex 2.5 configurations.

The modular stack construction uses standardized components across the product range for simplified assembly, installation, and parts management.

The exploded view illustrates the main construction components of the IPC Flex 3 configuration.

Component quantities per stack configuration are listed in the table below. All specifications and dimensions are subject to change without prior notice.

POS.	DESCRIPTION	FLEX 1	FLEX 1.5	FLEX 2	FLEX 2.5	FLEX 3
1	Module IPC Flex	1	1.5	2	2.5	3
2	Aerator Flex	1	1	1	1	1
3	Holding plate standard Flex - SS316L	2	4	4	6	6
4	Lifting device standard Flex - SS316L	1	1	1	1	1
5	Rubber sleeve Flex - DN65	-	1	1	2	2
6	Sleeve clamp - SS316L - DN65 (110 mm)	2	4	4	6	6
7	Bottom plug Flex with sleeve - DN65	1	1	1	1	1
8	Bolt - SS316L - M8x1,25 (16mm) - Allen key	18	30	30	42	42
9	Aeration pipe for Aerator Flex ¹	6	6	6	6	6
10	Aerator tube gasket ¹	6	6	6	6	6

¹ Components of the Aerator Flex.

EXPLODED VIEW - STACK FLEX 3

