

PRODUCT DATA SHEET

NANTRA™ Q Series For the largest treatment plants



OVERVIEW

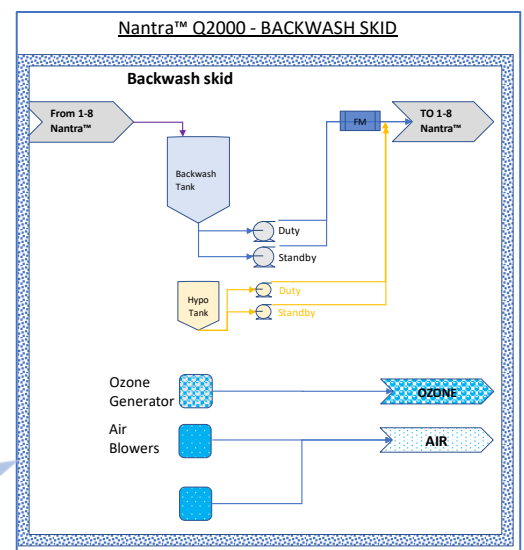
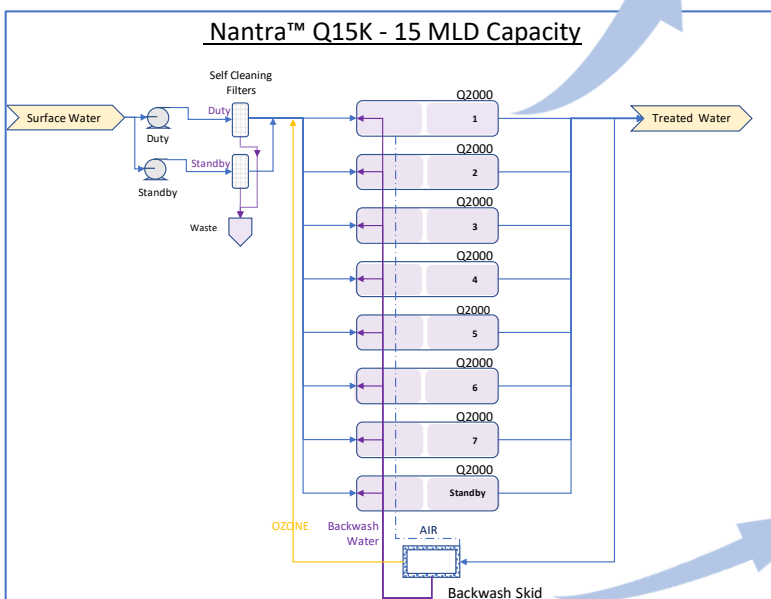
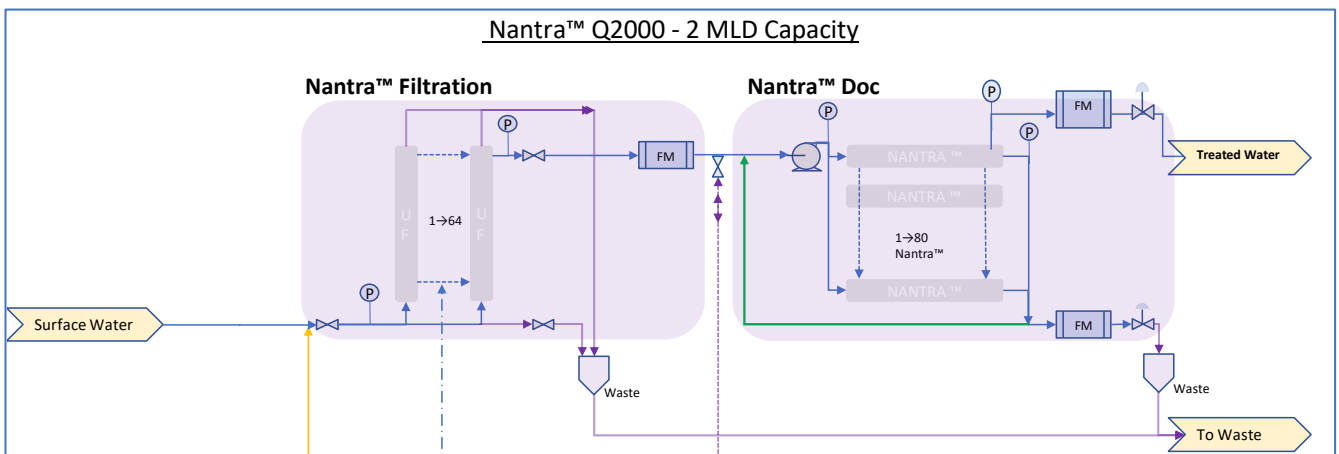
Akvotek's Nantra™ Q plants are designed to treat surface water with <3000 NTU to achieve a potable water quality via a 2-step membrane treatment process.

The Nantra™ Q2000 is the building block for larger plants. Up to 7 Nantra™ Q2000 can operate for 1 backwash system.


The standard treatment process involves pre-filtration, Ultrafiltration, and NantraDoc™ as the 2nd Stage membrane.



STANDARD SPECIFICATIONS



* Chlorine is added for Membrane Disinfection and Final Water Quality

Parameter	Units	Q-2000		Q15K
Permeate Flow Rate	m ³ /day	2,200	x7	154,000
Permeate Recovery Rate	%	70-95 (varies according to feed water and configuration)		
Permeate TSS	mg/L	Below limit of detection		
Raw Water TSS	mg/L	Up to 3,000		
E-Coli, Coliforms		<1/100ml		
Cryptosporidium, giardia removal		6 Log Removal		
Permeate Colour		< 5 Hazen		
Raw Water Colour		Up to 300 Hazen true colour		
Raw Water Temperature	°C	1-40		
Power Consumption	kW.hrs/m ³	0.21		

STANDARD INCLUSIONS + OPTIONS

Membranes	Q2000	Q-4000	Q-6000	Q15K
Nantra™UF – See data sheet	64	128	192	448
Nantra™DOC – See data sheet	80	160	240	560
Equipment	Q2000	Q-4000	Q-6000	Q15K
Low Pressure Feed Pump 304SS or 316SS Close Coupled Centrifugal, Carbon/Ceramic/NBR Mech Seal 304 Frame	✓	✓	✓	✓
Skid Mounted Plant and Equipment 304SS frame and fittings	○	○	○	○
Containerised System Self-contained standard sea container with Lighting, aircon/ventilation included Container Safety Certificate provided for ocean shipping	✓	✓	✓	✓
Low Pressure Backwash Pump 316SS CC centrifugal Carbon/Ceramic/NBR Mech Seal 304 Frame	✓	✓	✓	✓
Air Blower Side channel blower with air filtration, silencer and safety blow off valve IP55	✓	✓	✓	✓
Pre-Filtration Manual to fully automatic options available in SS with local IP 55 controls	✓	✓	✓	✓
Ozone System Generation, injection, monitoring and injection Incl. Ozone Destructor	○	○	○	○
Membrane CIP System Electronically controlled variable flowrate solenoid driven diaphragm dosing pump/s and tank. Wetted parts - ceramic, PTFE, 316 s/steel	✓	✓	✓	✓
PLC Control System (+HMI) High Speed HMI with both Unitronics or Rockwell options available Remote Monitoring GSM, Modem or Ethernet – iPad Compatible	○ ✓	✓	✓	✓
Permeate Distribution System Inclusive of tanks/pumps/pipework/control etc	○	○	○	○
Electrical Cabinet and Wiring - NEMA 4, IP65 Switchgear – soft start and VSD available IH3 High Efficiency Motors, NEMA 56J Frame, TEFC/IP55	✓	✓	✓	✓
Instrumentation	Q2000	Q4000	Q6000	Q15K
Pressure Gauge/s and Transmitter – 304/316SS - Yokogawa /Emerson*	✓	✓	✓	✓
Flow Gauge/s and Transmitter 304/316SS ADMAG Magnetic Flow Meters*	✓	✓	✓	✓
Flow Totalizer – Electronic + Mechanical	✓	✓	✓	✓
Control Valves 316SS, globe, Emerson/Spirax Sarco*	✓	✓	✓	✓

✓ = Standard Supply, ○ = Optional Supply, ☒ = Not Applicable

* Specification can be adapted to Client Requirements