

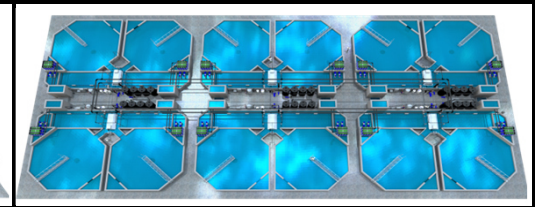
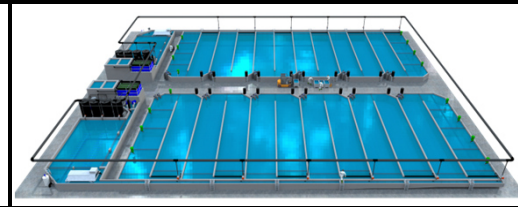
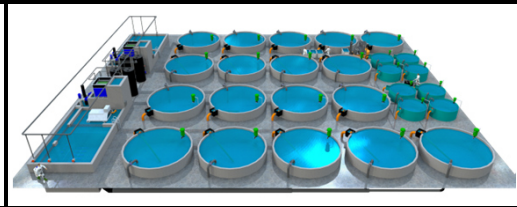
Spec Sheet_rex-m Recirculating Aquaculture Systems_Growout

based on the example of different fish species and rex-m system solutions for medium-scale and large-scale fish farming



Design Parameter	Medium-scale Farming			Large-scale Farming			Large-scale Farming		
Fish species	PIKEPERCH	PORTION TROUT	STURGEON	PORTION TROUT	CAVIAR	STURGEON	PORTION TROUT	LARGE TROUT	SALMON
Production yield	90 t/a	120 t/a	80 t/a	400 t/a	4 t/a	300 t/a	1760 t/a	1600 t/a	1440 t/a
Unit weight	1300 g/pcs	500 g/pcs	2000 g/pcs	500 g/pcs	10500 g/pcs	2000 g/pcs	500 g/pcs	2200 g/pcs	4850 g/pcs
Stocking rate	4-fold/a	6-fold/a	4-fold/a	6 n-fold/a	1-fold/a	4-fold/a	6-fold/a	6-fold/a	6-fold/a
Stocking material	12 g/pcs	10 g/pcs	10 g/pcs	10 g/pcs	3000 g/pcs	10 g/pcs	24 g/pcs	24 g/pcs	475 g/pcs
Production time	15 months	7 months	15 months	7 months	50 months	15 months	6 months	12 months	12 months
Temperature	24 °C	16 °C	21 °C	16 °C	21 °C	21 °C	16 °C	16 °C	14 °C
Medium stock	42 t	23 t	34 t	78 t	137 t	129 t	348 t	547 t	587 t
Maximum stock	57 kg/m³	46 kg/m³	56 kg/m³	49 kg/m³	58 kg/m³	58 kg/m³	52 kg/m³	72 kg/m³	74 kg/m³
Feed amount	101 t/a	114 t/a	99 t/a	380 t/a	96 t/a	371 t/a	1673 t/a	1767 t/a	1689 t/a
Crude Protein	54 %	41 %	44 %	41 %	50 %	44 %	41 %	38 %	38 %
Nitrate-level	250 mg/l	330 mg/l	230 mg/l	330 mg/l	215 mg/l	230 mg/l	330 mg/l	330 mg/l	330 mg/l

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Process Technology	Parallel Circular Tanks DENI			Raceway Loops DENI			Circular Tank Twins DENI		
rex-m system solution	Parallel Tanks ⁴⁷⁰	Parallel Tanks ³⁷⁰	Parallel Tanks ⁴⁰⁰	Raceway Loops ¹²⁰⁰	Raceway Loops ²⁸⁸⁰	Raceway Loops ¹⁴⁴⁰	Tank Twins ¹²⁰⁰	Tank Twins ¹²⁰⁰	Tank Twins ¹²⁰⁰
Quantity RAS	2 pcs	2 pcs	2 pcs	2 pcs	1 pcs	2 pcs	8 pcs	8 pcs	8 pcs
Need for space	45 m x 39 m	45 m x 39 m	45 m x 39 m	57 m x 51 m	66 m x 51 m	66 m x 51 m	102 m x 48 m	102 m x 48 m	102 m x 48 m
Total volume	1240 m³	1040 m³	1080 m³	3400 m³	3570 m³	3920 m³	13120 m³	13120 m³	13120 m³
Capacity water Treatment	410 kg feed/d	510 kg feed/d	390 kg feed/d	1780 kg feed/d	370 kg feed/d	1470 kg feed/d	7560 kg feed/d	6800 kg feed/d	6440 kg feed/d
Installed capacity	56 kW	56 kW	47 kW	183 kW	90 kW	153 kW	556 kW	556 kW	556 kW
Medium water demand	0,31 %/d	0,16 %/d	0,38 %/d	0,32 %/d	0,87 %/d	0,80 %/d	0,24 %/d	0,32 %/d	0,39 %/d
Capacity well	9 m³/h	5 m³/h	7 m³/h	21 m³/h	22 m³/h	35 m³/h	75 m³/h	69 m³/h	78 m³/h
Compressed Air	620 m³/h	620 m³/h	620 m³/h	6100 m³/h	3800 m³/h	4480 m³/h	6560 m³/h	6560 m³/h	6560 m³/h
Oxygen demand	109 t/a	76 t/a	76 t/a	111 t/a	165 t/a	226 t/a	1131 t/a	1384 t/a	1529 t/a
Habitat	940 m³	740 m³	800 m³	2400 m³	2880 m³	2880 m³	9600 m³	9600 m³	9600 m³
Recirculation	361 l/s	319 l/s	259 l/s	801 l/s	510 l/s	801 l/s	3843 l/s	3843 l/s	3843 l/s
Microscreening	80 µm	80 µm	80 µm	80 µm	80 µm	80 µm	80 µm	80 µm	80 µm
Nitrification [NH4-N]	23 kg/d	19 kg/d	20 kg/d	66 kg/d	41 kg/d	75 kg/d	280 kg/d	267 kg/d	266 kg/d
Nitrification [NH4-N]	18 kg/d	13 kg/d	14 kg/d	43 kg/d	21 kg/d	58 kg/d	193 kg/d	193 kg/d	187 kg/d
Denitrification [NO3-N]	10 kg/d	8 kg/d	9 kg/d	22 kg/d	12 kg/d	25 kg/d	112 kg/d	113 kg/d	93 kg/d
UV-disinfection	3,5 kW	3,5 kW	2,8 kW	8,4 kW	4,2 kW	8,4 kW	33,6 kW	33,6 kW	33,6 kW
Ozonation	100 g/h	100 g/h	100 g/h	400 g/h	200 g/h	400 g/h	1600 g/h	1600 g/h	1600 g/h

Periphery RAS

Depending on climate, local costs, restrictions and optional equipment following peripheral aspects need to be taken into account: Plot of land, buildings, HVAC (Heating-Ventilation-Air Conditioning), electrical installation, water supply, oxygen supply, sewage plant, salt water resistance, automation, monitoring, feeding, harvesting, grading, counting, fish transport, sanitary facilities, office, store rooms, processing plant, planning costs, costs for project execution, etc.

