ELOXIRAS® LOGISTIC Series

ELOXIRAS® LOGISITIC-T — September 2021

Specifications

ELOXIRAS® LOGISTIC-T models are designed for the treatment of marine and brackish water during live fish transport in trucks. ELOXIRAS® LOGISTIC-T series are equipped with an auxiliary treatment line which acts as a back-up line to enhance security.

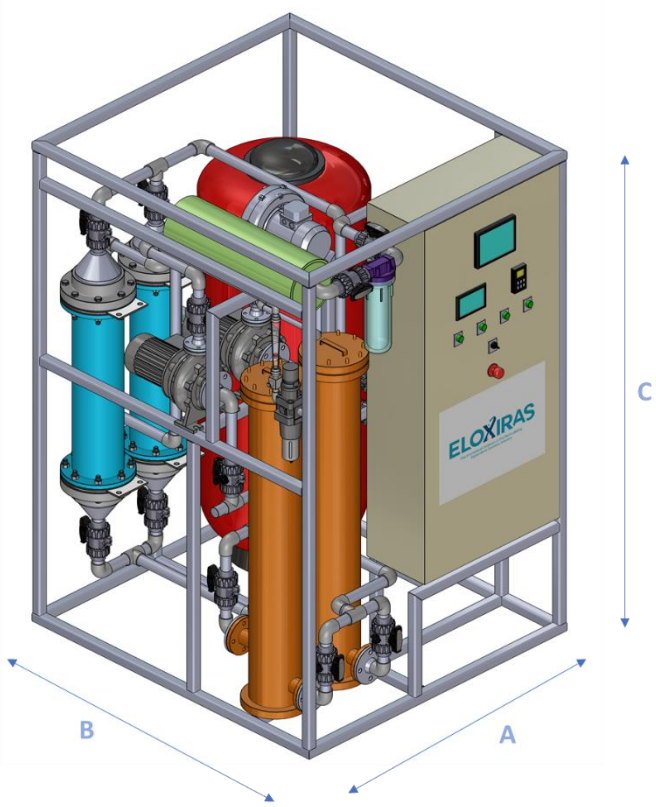
ELOXIRAS® LOGISTIC series allow the remote control via a web browser.

Tank volume (m^3)	Max. biomass capacity (kg)	Flowrate (m^3/h)
25	10,000	5

Functionalities

Pre-treatment	➡
ELOXIRAS® reactor -ELOXrc15-	➡
Cleaning system.	➡
Post-treatment	➡
Electrical control cabinet with PLC	➡
Manual valves	➡
Temperature control system	Optional
Oxygenation system	Optional
Remote monitoring & operation	➡

Dimensions



Proven technology

ELOXIRAS® LOGISTIC-T contributes to increase the live fish transport range, as well as to improve the culture water quality. High TAN removal and disinfection capacities are achieved.

- TAN removal rate: - > 90% per pass - 192 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: close circuit - 0 L -
- Power consumption: max. 1.92 kW

O&M costs

	O&M costs*
Energy consumption	68%
Post-treatment regeneration	2%
Reactor cleaning system	-
Reactor maintenance**	30%

*Values based on a continuous use.
**Value based on a lifetime of 2 years.

Dimensions A x B x C (m)	1.4 x 1.3 x 2.1
Footprint (m^2)	1.8
Estimated no load weight (kg)	750
Estimated load weight (kg)	1,300

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www.eloxiras.com

ELOXIRAS® CONCEPT

July 2019

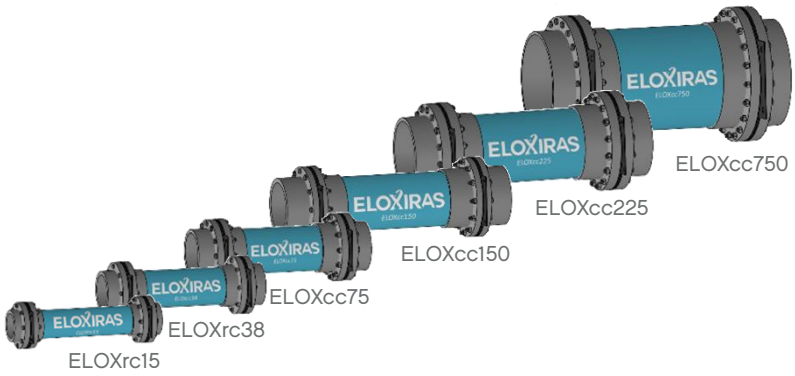
Specifications

ELOXIRAS® is an innovative process for the treatment and reuse of marine and brackish water. It is developed to enhance the productivity and to reduce the environmental impact of the Recirculating Aquaculture Systems (RAS).

Functionalities

Pre-treatment	Not included
Feed pump	Not included
ELOXIRAS® reactor	➸
Cleaning system	➸
Post-treatment*	➸
Electrical control cabinet	➸
Manual valves	➸
System for protection against moisture and splash	Optional

*Degasser unit not included.



Standard models

Model	ELOXIRAS® reactor model	Tank volume (m^3)	Flowrate (m^3/h)	Max. TAN removal rate (g TAN/day)*	Disinfection capacity	Energy consumption (kWh/g TAN)
MINI-30	1 x ELOXrc2	1	1 – 2	38	> 3 log	0.04
MINI-150	1 x ELOXrc15	5	5 – 10	192		
MINI-300	1 x ELOXrc15	10	10 – 20	360		
MINI-600	1 x ELOXrc38	20	20 – 40	720		
HYBRID-1500	2 x ELOXcc75	50	50 – 100	1,800		
HYBRID-3000	2 x ELOXcc150	100	100 – 200	3,600		
HYBRID-6000	2 x ELOXcc225	200	200 – 400	7,200		
HYBRID-12000	4 x ELOXcc225	400	400 – 800	14,400		
HYBRID-18000	2 x ELOXcc750	600	600 – 1,200	21,600		

*Value estimated considering the pretreatment step recommended by APRIA Systems.

O&M costs

Model	Energy consumption	Post-treatment regeneration	Reactor cleaning system	Reactor maintenance*
MINI-30	17%	7%	-	76%
MINI-150	22%	8%	-	70%
MINI-300	34%	13%	-	53%
MINI-600	39%	15%	-	46%
HYBRID-1500	51%	20%	3%	26%
HYBRID-3000	54%	21%	3%	22%
HYBRID-6000	57%	22%	3%	18%
HYBRID-12000	57%	22%	3%	18%
HYBRID-18000	57%	22%	3%	18%

*Value based on a lifetime of 2 years.

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ELOXIRAS® MINI 4.0 SERIES

ELOXIRAS® MINI-30-4.0 July 2019

Specifications

ELOXIRAS® MINI Series are designed for small scale RAS (Recirculating Aquaculture Systems) facilities. It offers compactness and adaptable treatment capacity.

ELOXIRAS® MINI 4.0 Models allow the remote control via a web browser.

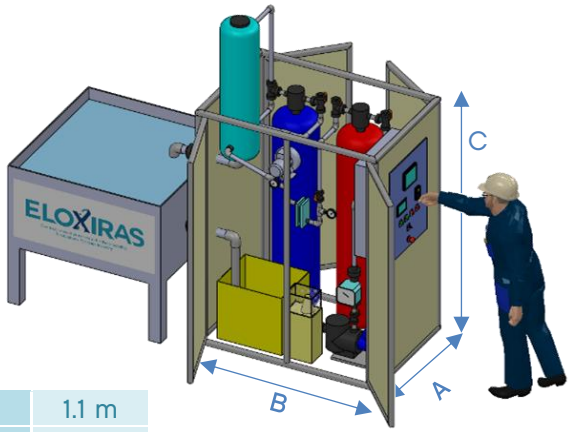
Tank volume (m^3)	Max. treatment capacity (kg feed/day)	Flowrate (m^3/h)
1	1	1 – 2

Other ELOXIRAS® Models:
- MINI Concept
- MINI Basic
- MINI Comfort
- HYBRID Concept
- HYBRID 4.0

Functionalities

Pre-treatment	➸
ELOXIRAS® reactor -ELOXrc2-	➸
Cleaning system	➸
Post-treatment	➸
Electrical control cabinet with PLC	➸
Automatic valves	➸
ORP monitoring	➸
pH monitoring	➸
TAN monitoring	Optional
Total chlorine monitoring	➸
Temperature control system	Optional
Oxygenation system	Optional
Consumption analysis	Optional
Remote monitoring & operation	➸

Dimensions



A	1.1 m
B	1.6 m
C	2.8 m

Estimated footprint: 1.8 m^2

O&M costs

	O&M costs*
Energy consumption	65%
Post-treatment regeneration	3%
Reactor cleaning system	-
Reactor maintenance**	32%

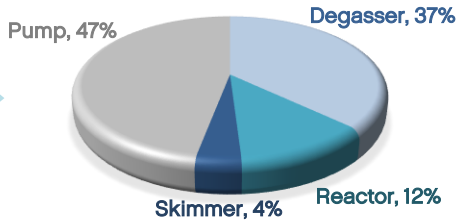
*Software license cost not included.
**Value based on a lifetime of 2 years.

Proven technology

ELOXIRAS® MINI-30-4.0 is designed to provide flexibility with an immediate response to water treatment requirements. High TAN removal - with no significant nitrate accumulation - and disinfection efficacies are achieved.

- TAN removal rate: - > 90% per pass - 38 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: 200 – 480 L/kg feed
- Energy consumption: 0.34 kWh/g TAN*

* Lower values using other models: e.g. 0.13 kWh/gTAN



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ELOXIRAS® MINI 4.0 SERIES

ELOXIRAS® MINI-150-4.0 — July 2019

Specifications

ELOXIRAS® MINI Series are designed for small scale RAS (Recirculating Aquaculture Systems) facilities. It offers compactness and adaptable treatment capacity.

ELOXIRAS® MINI 4.0 Models allow the remote control via a web browser.

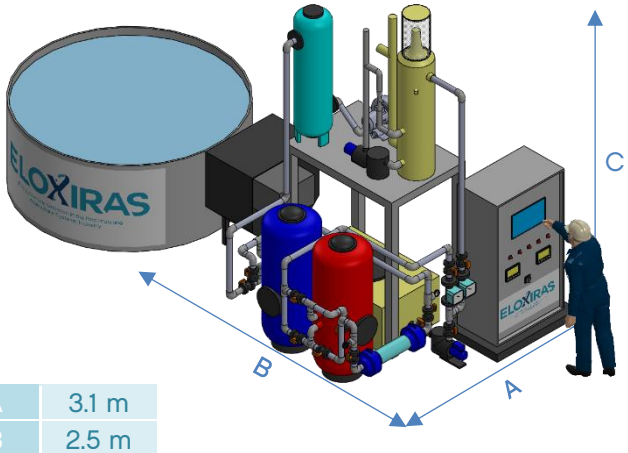
Tank volume (m^3)	Max. treatment capacity (kg feed/day)	Flowrate (m^3/h)
5	5	5 – 10

Other ELOXIRAS® Models:
- MINI Concept
- MINI Basic
- MINI Comfort
- HYBRID Concept
- HYBRID 4.0

Functionalities

Pre-treatment	✓
ELOXIRAS® reactor -ELOXrc15-	✓
Cleaning system	✓
Post-treatment	✓
Electrical control cabinet with PLC	✓
Automatic valves	✓
ORP monitoring	✓
pH monitoring	✓
TAN monitoring	Optional
Total chlorine monitoring	✓
Temperature control system	Optional
Oxygenation system	Optional
Consumption analysis	Optional
Remote monitoring & operation	✓

Dimensions



A	3.1 m
B	2.5 m
C	4.1 m

Estimated footprint: 7.8 m^2

O&M costs

	O&M costs*
Energy consumption	60%
Post-treatment regeneration	4%
Reactor cleaning system	-
Reactor maintenance**	36%

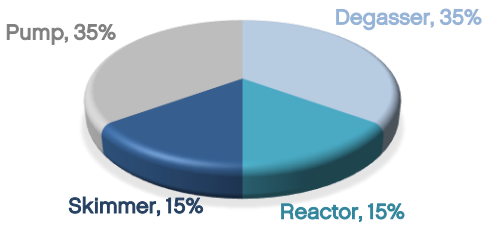
*Software license cost not included.
**Value based on a lifetime of 2 years.

Proven technology

ELOXIRAS® MINI-150-4.0 is designed to provide flexibility with an immediate response to water treatment requirements. High TAN removal - with no significant nitrate accumulation - and disinfection efficacies are achieved.

- TAN removal rate: - > 90% per pass - 192 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: 200 – 480 L/kg feed
- Energy consumption: 0.20 kWh/g TAN*

* Lower values using other models: e.g. 0.13 kWh/gTAN



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ELOXIRAS® MINI 4.0 SERIES

ELOXIRAS® MINI-300-4.0 July 2019

Specifications

ELOXIRAS® MINI Series are designed for small scale RAS (Recirculating Aquaculture Systems) facilities. It offers compactness and adaptable treatment capacity.

ELOXIRAS® MINI 4.0 Models allow the remote control via a web browser.

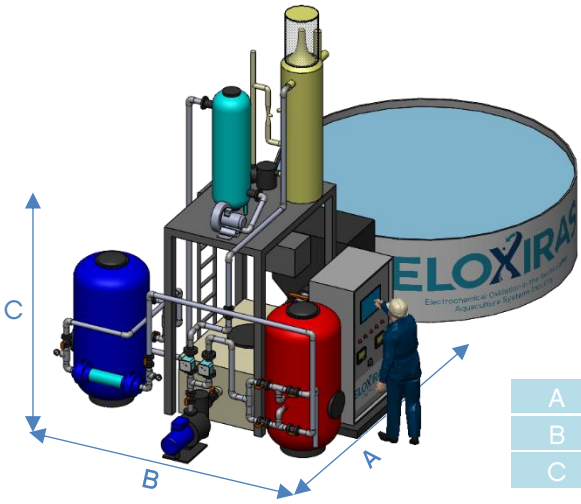
Tank volume (m^3)	Max. treatment capacity (kg feed/day)	Flowrate (m^3/h)
10	15	10 – 20

Other ELOXIRAS® Models:
- MINI Concept
- MINI Basic
- MINI Comfort
- HYBRID Concept
- HYBRID 4.0

Functionalities

Pre-treatment	➸
ELOXIRAS® reactor -ELOXrc15-	➸
Cleaning system	➸
Post-treatment	➸
Electrical control cabinet with PLC	➸
Automatic valves	➸
ORP monitoring	➸
pH monitoring	➸
TAN monitoring	Optional
Total chlorine monitoring	➸
Temperature control system	Optional
Oxygenation system	Optional
Consumption analysis	Optional
Remote monitoring & operation	➸

Dimensions



A	4.3 m
B	3.1 m
C	5.0 m

Estimated footprint: 13.3 m^2

O&M costs

	O&M costs*
Energy consumption	70%
Post-treatment regeneration	6%
Reactor cleaning system	-
Reactor maintenance**	24%

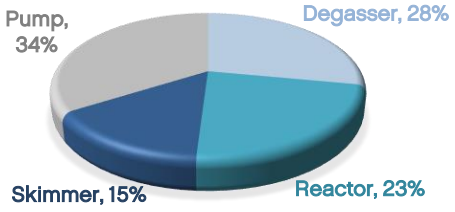
*Software license cost not included.
**Value based on a lifetime of 2 years.

Proven technology

ELOXIRAS® MINI-300-4.0 is designed to provide flexibility with an immediate response to water treatment requirements. High TAN removal - with no significant nitrate accumulation - and disinfection efficacies are achieved.

- TAN removal rate: - > 90% per pass - 360 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: 200 – 480 L/kg feed
- Energy consumption: 0.17 kWh/g TAN*

* Lower values using other models: e.g. 0.13 kWh/gTAN



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ELOXIRAS® MINI 4.0 SERIES

ELOXIRAS® MINI-600-4.0 July 2019

Specifications

ELOXIRAS® MINI Series are designed for small scale RAS (Recirculating Aquaculture Systems) facilities. It offers compactness and adaptable treatment capacity.

ELOXIRAS® MINI 4.0 Models allow the remote control via a web browser.

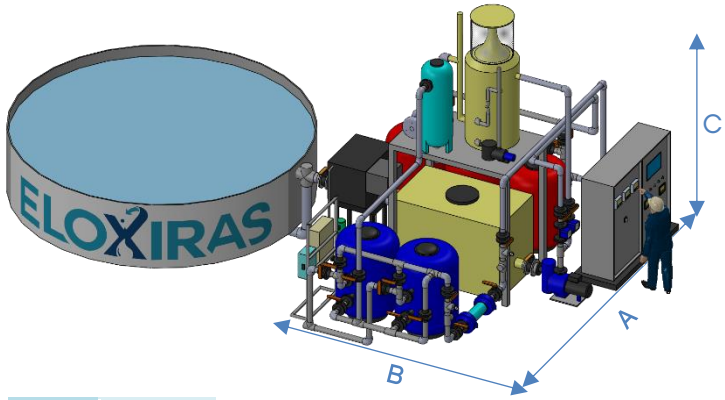
Tank volume (m^3)	Max. treatment capacity (kg feed/day)	Flowrate (m^3/h)
20	30	20 – 40

Other ELOXIRAS® Models:
- MINI Concept
- MINI Basic
- MINI Comfort
- HYBRID Concept
- HYBRID 4.0

Functionalities

Pre-treatment	✓
ELOXIRAS® reactor -ELOXrc38-	✓
Cleaning system	✓
Post-treatment	✓
Electrical control cabinet with PLC	✓
Automatic valves	✓
ORP monitoring	✓
pH monitoring	✓
TAN monitoring	Optional
Total chlorine monitoring	✓
Temperature control system	Optional
Oxygenation system	Optional
Consumption analysis	Optional
Remote monitoring & operation	✓

Dimensions



A	6.2 m
B	5.2 m
C	4.9 m

Estimated footprint: 32.2 m^2

O&M costs

	O&M costs*
Energy consumption	75%
Post-treatment regeneration	6%
Reactor cleaning system	-
Reactor maintenance**	19%

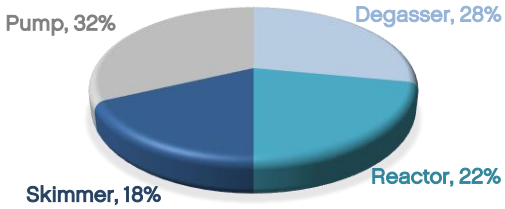
*Software license cost not included.
**Value based on a lifetime of 2 years.

Proven technology

ELOXIRAS® MINI-600-4.0 is designed to provide flexibility with an immediate response to water treatment requirements. High TAN removal - with no significant nitrate accumulation - and disinfection efficacies are achieved.

- TAN removal rate: - > 90% per pass - 720 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: 200 – 480 L/kg feed
- Energy consumption: 0.17 kWh/g TAN*

* Lower values using other models: e.g. 0.13 kWh/gTAN



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ELOXIRAS® HYBRID 4.0 SERIES

ELOXIRAS® HYBRID-1500-4.0 July 2019

Specifications

ELOXIRAS® HYBRID Series are designed for the treatment and reuse of marine and brackish water at large RAS (Recirculating Aquaculture Systems).

ELOXIRAS® HYBRID 4.0 Models allow the remote control via a web browser.

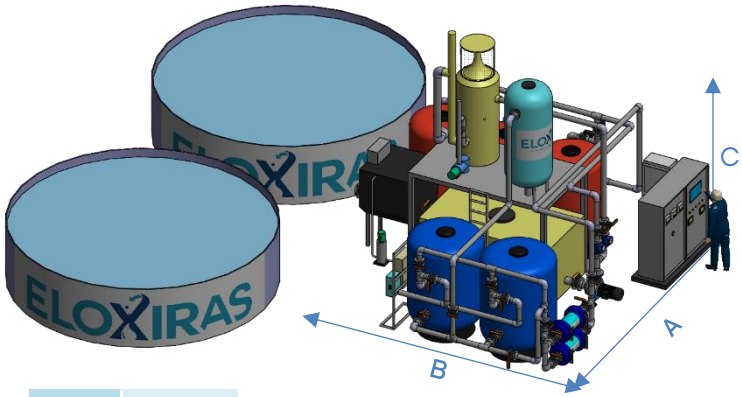
Tank volume (m^3)	Max. treatment capacity (kg feed/day)	Flowrate (m^3/h)
50	50	50 – 100

Other ELOXIRAS® Models:
- HYBRID Concept
- MINI Concept
- MINI Basic
- MINI Comfort
- MINI 4.0

Functionalities

Pre-treatment	➽
ELOXIRAS® reactor -ELOXcc75-	➽
Cleaning system	➽
Post-treatment	➽
Electrical control cabinet with PLC	➽
Automatic valves	➽
ORP monitoring	➽
pH monitoring	➽
TAN monitoring	Optional
Total chlorine monitoring	➽
Temperature control system	Optional
Oxygenation system	Optional
Consumption analysis	Optional
Remote monitoring & operation	➽

Dimensions



A	7.4 m
B	6.7 m
C	5.3 m

Estimated footprint: 49.6 m^2

O&M costs

	O&M costs*
Energy consumption	82%
Post-treatment regeneration	10%
Reactor cleaning system	1%
Reactor maintenance*	7%

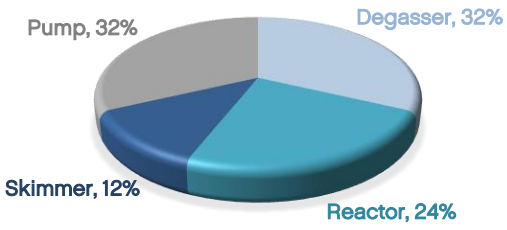
*Software license cost not included.
**Value based on a lifetime of 2 years.

Proven technology

ELOXIRAS® HYBRID-1500-4.0 contributes to increase the production capacity, as well as to decrease the environmental impacts. High TAN removal and disinfection capacities are achieved.

- TAN removal rate: - > 90% per pass - 1,800 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: 200 – 480 L/kg feed
- Energy consumption: 0.16 kWh/g TAN*

* Lower values using other models: e.g. 0.13 kWh/gTAN



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ELOXIRAS® HYBRID 4.0 SERIES

ELOXIRAS® HYBRID-3000-4.0 July 2019

Specifications

ELOXIRAS® HYBRID Series are designed for the treatment and reuse of marine and brackish water at large RAS (Recirculating Aquaculture Systems).

ELOXIRAS® HYBRID 4.0 Models allow the remote control via a web browser.

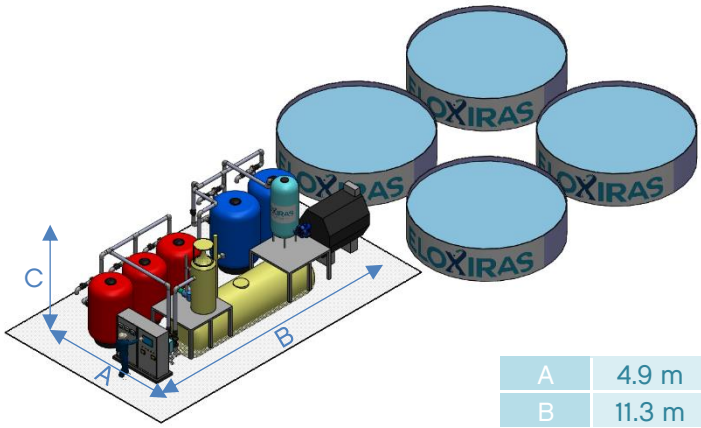
Tank volume (m^3)	Max. treatment capacity (kg feed/day)	Flowrate (m^3/h)
100	100	100 – 200

Other ELOXIRAS® Models:
- HYBRID Concept
- MINI Concept
- MINI Basic
- MINI Comfort
- MINI 4.0

Functionalities

Pre-treatment	➸
ELOXIRAS® reactor -ELOXcc150-	➸
Cleaning system	➸
Post-treatment	➸
Electrical control cabinet with PLC	➸
Automatic valves	➸
ORP monitoring	➸
pH monitoring	➸
TAN monitoring	Optional
Total chlorine monitoring	➸
Temperature control system	Optional
Oxygenation system	Optional
Consumption analysis	Optional
Remote monitoring & operation	➸

Dimensions



A	4.9 m
B	11.3 m
C	4.2 m

Estimated footprint: 55.4 m^2

O&M costs

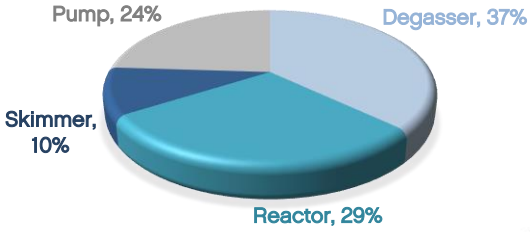
	O&M costs*
Energy consumption	80%
Post-treatment regeneration	9%
Reactor cleaning system	2%
Reactor maintenance*	9%

*Software license cost not included.
**Value based on a lifetime of 2 years.

Proven technology

ELOXIRAS® HYBRID-3000-4.0 contributes to increase the production capacity, as well as to decrease the environmental impacts. High TAN removal and disinfection capacities are achieved.

- TAN removal rate: - > 90% per pass - 3,600 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: 200 – 480 L/kg feed
- Energy consumption: 0.13 kWh/g TAN



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ELOXIRAS® HYBRID 4.0 SERIES

ELOXIRAS® HYBRID-6000-4.0 July 2019

Specifications

ELOXIRAS® HYBRID Series are designed for the treatment and reuse of marine and brackish water at large RAS (Recirculating Aquaculture Systems).

ELOXIRAS® HYBRID 4.0 Models allow the remote control via a web browser.

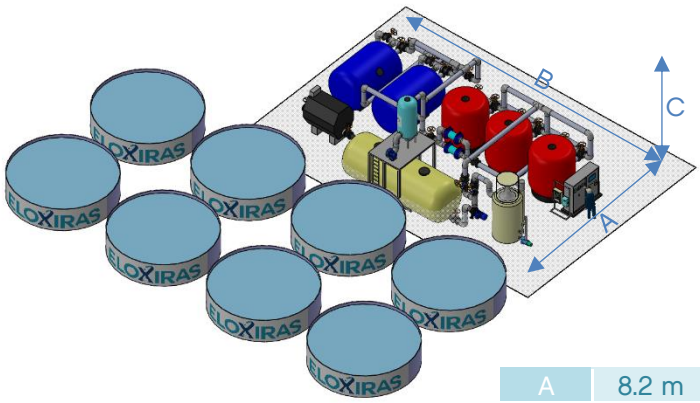
Tank volume (m^3)	Max treatment capacity (kg feed/day)	Flowrate (m^3/h)
200	200	200 – 400

Other ELOXIRAS® Models:
- HYBRID Concept
- MINI Concept
- MINI Basic
- MINI Comfort
- MINI 4.0

Functionalities

Pre-treatment	➡
ELOXIRAS® reactor -ELOXcc225-	➡
Cleaning system	➡
Post-treatment	➡
Electrical control cabinet with PLC	➡
Automatic valves	➡
ORP monitoring	➡
pH monitoring	➡
TAN monitoring	Optional
Total chlorine monitoring	➡
Temperature control system	Optional
Oxygenation system	Optional
Consumption analysis	Optional
Remote monitoring & operation	➡

Dimensions



A	8.2 m
B	15.3 m
C	4.6 m

Estimated footprint: 126 m^2

O&M costs

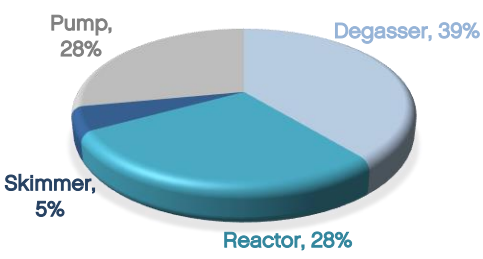
	O&M costs*
Energy consumption	82%
Post-treatment regeneration	9%
Reactor cleaning system	2%
Reactor maintenance*	7%

*Software license cost not included.
**Value based on a lifetime of 2 years.

Proven technology

ELOXIRAS® HYBRID-6000-4.0 contributes to increase the production capacity, as well as to decrease the environmental impacts. High TAN removal and disinfection capacities are achieved.

- TAN removal rate: - > 90% per pass - 7,200 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: 200 – 480 L/kg feed
- Energy consumption: 0.13 kWh/g TAN



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ELOXIRAS® HYBRID 4.0 SERIES

ELOXIRAS® HYBRID-12000-4.0 July 2019

Specifications

ELOXIRAS® HYBRID Series are designed for the treatment and reuse of marine and brackish water at large RAS (Recirculating Aquaculture Systems).

ELOXIRAS® HYBRID 4.0 Models allow the remote control via a web browser.

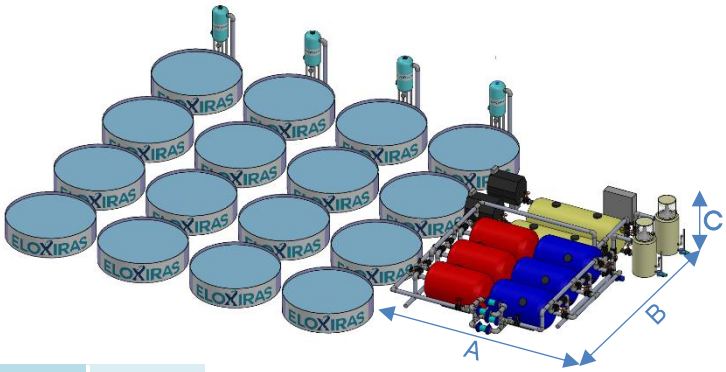
Tank volume (m^3)	Max treatment capacity (kg feed/day)	Flowrate (m^3/h)
400	400	400 – 800

Other ELOXIRAS® Models:
- HYBRID Concept
- MINI Concept
- MINI Basic
- MINI Comfort
- MINI 4.0

Functionalities

Pre-treatment	➡
ELOXIRAS® reactor -ELOXcc225-	➡
Cleaning system	➡
Post-treatment	➡
Electrical control cabinet with PLC	➡
Automatic valves	➡
ORP monitoring	➡
pH monitoring	➡
TAN monitoring	Optional
Total chlorine monitoring	➡
Temperature control system	Optional
Oxygenation system	Optional
Consumption analysis	Optional
Remote monitoring & operation	➡

Dimensions



A	14 m
B	18 m
C	4 m

Estimated footprint: 252 m^2

O&M costs

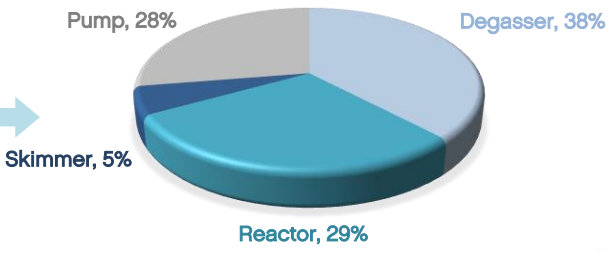
	O&M costs*
Energy consumption	82%
Post-treatment regeneration	9%
Reactor cleaning system	2%
Reactor maintenance*	7%

*Software license cost not included.
**Value based on a lifetime of 2 years.

Proven technology

ELOXIRAS® HYBRID-12000-4.0 contributes to increase the production capacity, as well as to decrease the environmental impacts. High TAN removal and disinfection capacities are achieved.

- TAN removal rate: - > 90% per pass - 14,400 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: 200 – 480 L/kg feed
- Energy consumption: 0.13 kWh/g TAN



APRIA Systems
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ELOXIRAS® HYBRID 4.0 SERIES

ELOXIRAS® HYBRID-18000-4.0 July 2019

Specifications

ELOXIRAS® HYBRID Series are designed for the treatment and reuse of marine and brackish water at large RAS (Recirculating Aquaculture Systems).

ELOXIRAS® HYBRID 4.0 Models allow the remote control via a web browser.

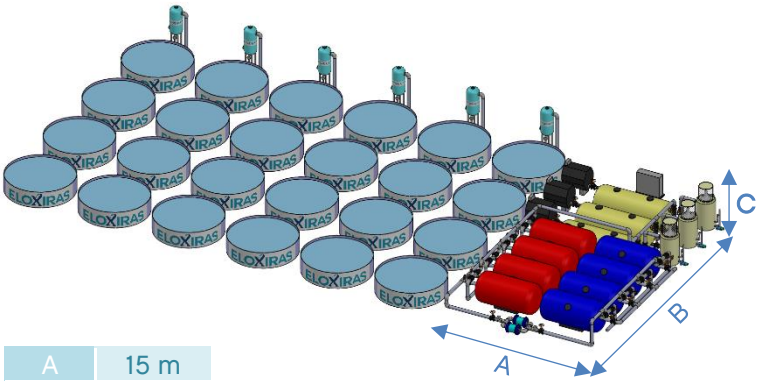
Tank volume (m^3)	Max treatment capacity (kg feed/day)	Flowrate (m^3/h)
600	600	600 – 1,200

Other ELOXIRAS® Models:
- HYBRID Concept
- MINI Concept
- MINI Basic
- MINI Comfort
- MINI 4.0

Functionalities

Pre-treatment	➡
ELOXIRAS® reactor -ELOXcc750-	➡
Cleaning system	➡
Post-treatment	➡
Electrical control cabinet with PLC	➡
Automatic valves	➡
ORP monitoring	➡
pH monitoring	➡
TAN monitoring	Optional
Total chlorine monitoring	➡
Temperature control system	Optional
Oxygenation system	Optional
Consumption analysis	Optional
Remote monitoring & operation	➡

Dimensions



A	15 m
B	25 m
C	4 m

Estimated footprint: 375 m^2

O&M costs

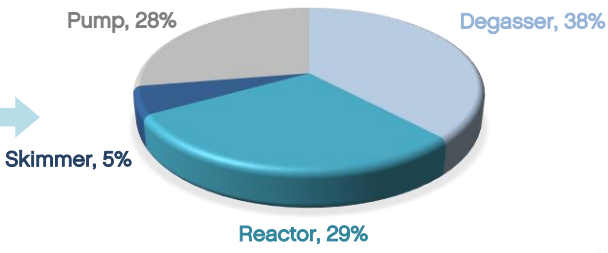
	O&M costs*
Energy consumption	83%
Post-treatment regeneration	9%
Reactor cleaning system	2%
Reactor maintenance*	6%

*Software license cost not included.
**Value based on a lifetime of 2 years.

Proven technology

ELOXIRAS® HYBRID-18000-4.0 contributes to increase the production capacity, as well as to decrease the environmental impacts. High TAN removal and disinfection capacities are achieved.

- TAN removal rate: - > 90% per pass - 21,600 g TAN/day
- Disinfection capacity: > 3 log
- Water exchange rate: 200 – 480 L/kg feed
- Energy consumption: 0.13 kWh/g TAN



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