Smart Eco Water
www.smartecowater.com

Ecological solutions for the use of water
Soluciones ecológicas para el aprovechamiento del agua
Soluções ecológicas para o uso da água
Solutions écologiques pour l'utilisation de l'eau
Soluzioni ecologiche per l'utilizzo dell'acqua
Экологические решения по использованию воды

SMART ECO WATER
Tax Number: 5206995736
Address Spain: Av. Zaragoza, Bloque 6, Nº3.
03130, Santa Pola, Alicante, España.

+34 634 077 903 **+34 692 058 845**
comercial@smartecowater.com
http://smartecowater.com

Smart Eco Water

CERTIFICATIONS / CERTIFICACIONES

ANALYSIS OF WATER PROCESSED WITH OUR EQUIPMENT

ANALISIS DEL AGUA PROCESADA CON NUESTROS EQUIPOS

PLANS TECHNICAL SHEET AND DIAGRAMS

PLANOS FICHA TÉCNICA Y ESQUEMAS

DRINKING PLANTS FOR SALT OR BRACKISH WATER AT LOW COST AND HIGH PERFORMANCE
PLANTAS POTABILIZADORAS PARA AGUA SALADA O SALOBRE DE BAJO COSTO Y ALTO RENDIMIENTO
USINE D'EAU À FAIBLE COÛT ET À HAUTE PERFORMANCE POUR L'EAU SALÉE OU L'EAU SAUMÂTRE
PLANTA DE ÁGUA DE BAIXO CUSTO E ALTO DESEMPENHO PARA ÁGUA SALGADA OU ÁGUA SALBOBRA

+34 634 077 903
+34 692 058 845
wxid_v0n0oj6xrji822
juliosuarezrodriguez

Commercial department
comercial@smartecowater.com

Commercial technical department
comercial2@smartecowater.com

http://smartecowater.com

"Drinking Water Within Everyone's Reach" *"Agua Potable al alcance de Todos"*
« L'eau potable à la portée de tous » *"Água potável ao alcance de todos"*

CE

DECLARATION OF CONFORMITY

Smart Eco Water LTD
Burgas c., p.c.8000, Meden Rudnik, 396 bl, 2 gate, 3 fl.,
16 of. - Bulgaria
Phone : +359877742343
Web : www.smartecowater.com
E-mail : comercial@smartecowater.com

The product meets the technical requirement of the under standards and hence fulfils the technical requirements of the following directives.

Product Name.....: Desalination module

Model.....: DB8SW100M.00.00.00.000

Directive(s).....: 2014/35/EU Low Voltage Directive,
2014/30/EU Electromagnetic Compatibility Directive
2006/42/EC Machinery Directive

Standard(s).....: EN IEC 61000-6-1:2019, EN IEC 61000-6-3 :2021, EN 60204-1:2018, EN ISO 12100:2010

Name Surname.....: Roman Tolstopiatov
Date of Issue.....: 05.10.2023
Signature.....

BULGARIA SMART EKO WATER Ltd

CE

Our equipment is CE certified and certified to EN 60204-1, EN ISO 12100, EN 61000-6-1, EN 61000-6-3 .. including energy efficiency, and Russian Federation Tin 3460013967.

*** We have Russian and international patents available for the entire range of machinery and technologies designed by our engineering department.**

ATTESTATION OF CONFORMITY

ATTESTATION OF CONFORMITY

Name and Address of Attestation Holder:
Smart Eco Water LTD
Burgas c., p.c.8000, Meden Rudnik, 396 bl, 2 gate, 3 fl., 16 of. - Bulgaria

Name and Address of Manufacturer:
Smart Eco Water LTD
Burgas c., p.c.8000, Meden Rudnik, 396 bl, 2 gate, 3 fl., 16 of. - Bulgaria

Brand:
SmartEcoWater

Product Name:
Desalination module

Product Model:
See Annex I

Document Number
SE-1199-01-061023

Date of Issue:
06.10.2023

Expiration Date:
06.10.2024

Test Report Number:
EMC-1199-01
LVD-1199-01
LVD-1199-02

Test Required:
EN IEC 61000-6-1:2019
EN IEC 61000-6-3 :2021
EN 60204-1:2018
EN ISO 12100:2010

The product meets the technical requirement of the above standards as mentioned in the reference test reports and hence fulfils the technical requirements of the following directives

2014/35/EU Low Voltage Directive
2014/30/EU Electromagnetic Compatibility Directive
2006/42/EC Machinery Directive

CGS Test confirms type which is mentioned above according to the [Annex I] Essential Health and Safety Regulations of 2006/42/EC Machinery Directive with inspection report. Manufacturer must ensure that assessment of conformity with internal checks on the manufacture of above product according to the Annex VIII of 2006/42/EC.

This document is only valid for the equipment and configuration described, in conjunction with the test data detailed above reference test reports. Document was issued on voluntary basis and does not imply meeting Notified Body conformity assessment procedure for the product.

The CE Mark, under the responsibility of the manufacturer or the importer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.

SIGNATURE

CGS TEST HİZMETLERİ TEKNİK KONTROL VE BELGELENDİRME ANONİM ŞİRKETİ
Ferhatpaşa Mahallesi 23. Sk. No:17/1 Ataşehir İstanbul/TÜRKİYE
www.cgstestmerkezi.com

ATTESTATION OF CONFORMITY

ATTESTATION OF CONFORMITY

Annex I

Product Model:
DB8SW100M.00.00.00.000
DB8SW100M
DM8SW100
DB8SW100
DB8SW020
DB4SW010
DB8SW060

Document Number
SE-1199-01-061023

Date of Issue:
06.10.2023

Expiration Date:
06.10.2024

Test Report Number:
EMC-1199-01
LVD-1199-01
LVD-1199-02

Test Required:
EN IEC 61000-6-1:2019
EN IEC 61000-6-3 :2021
EN 60204-1:2018
EN ISO 12100:2010

The product meets the technical requirement of the above standards as mentioned in the reference test reports and hence fulfils the technical requirements of the following directives

2014/35/EU Low Voltage Directive
2014/30/EU Electromagnetic Compatibility Directive
2006/42/EC Machinery Directive

CGS Test confirms type which is mentioned above according to the [Annex I] Essential Health and Safety Regulations of 2006/42/EC Machinery Directive with inspection report. Manufacturer must ensure that assessment of conformity with internal checks on the manufacture of above product according to the Annex VIII of 2006/42/EC.

This document is only valid for the equipment and configuration described, in conjunction with the test data detailed above reference test reports. Document was issued on voluntary basis and does not imply meeting Notified Body conformity assessment procedure for the product.

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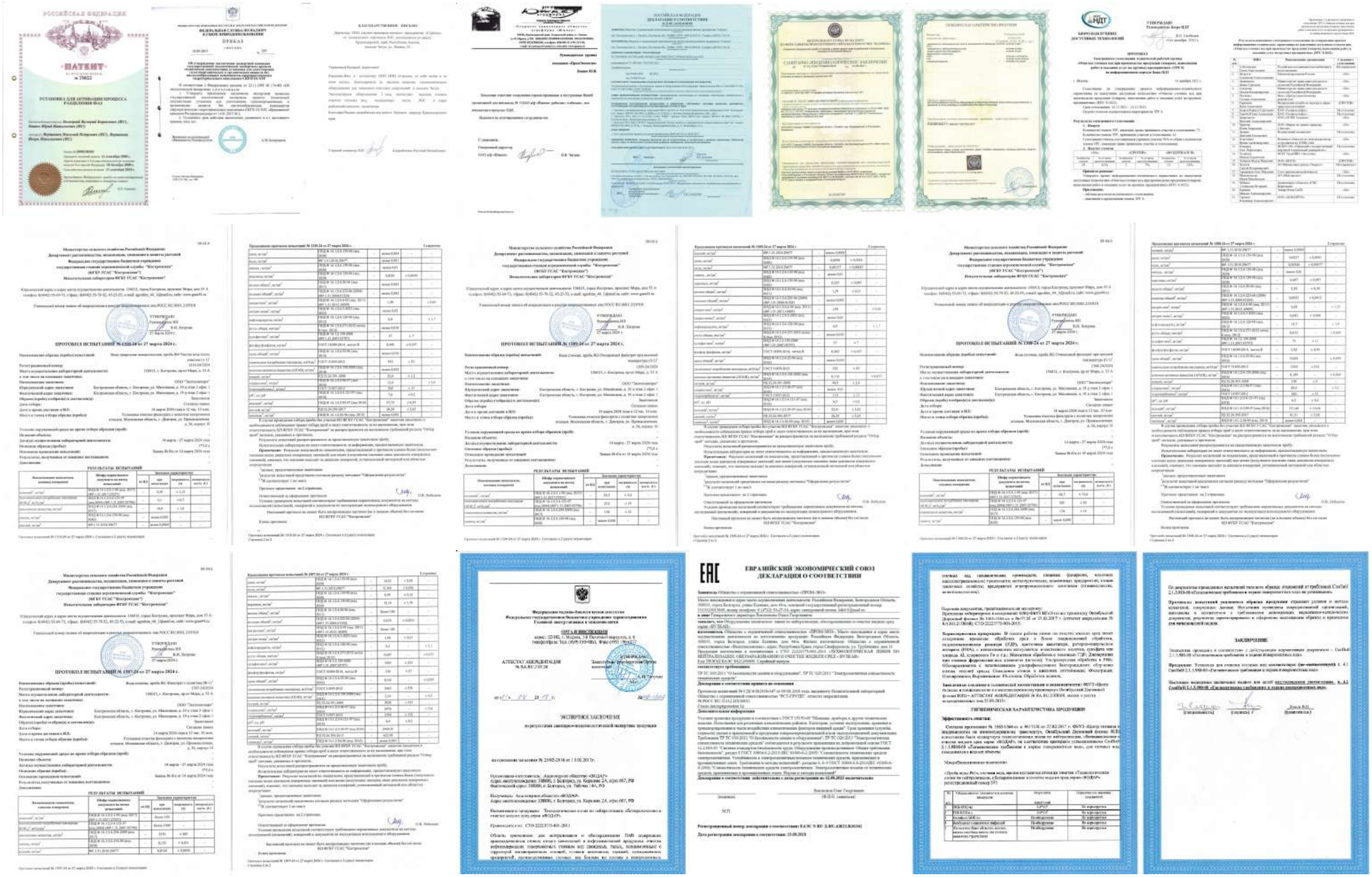
SIGNATURE

CGS TEST HİZMETLERİ TEKNİK KONTROL VE BELGELENDİRME ANONİM ŞİRKETİ
Ferhatpaşa Mahallesi 23. Sk. No:17/1 Ataşehir İstanbul/TÜRKİYE
www.cgstestmerkezi.com

Certificates, Patents and Technical Certifications

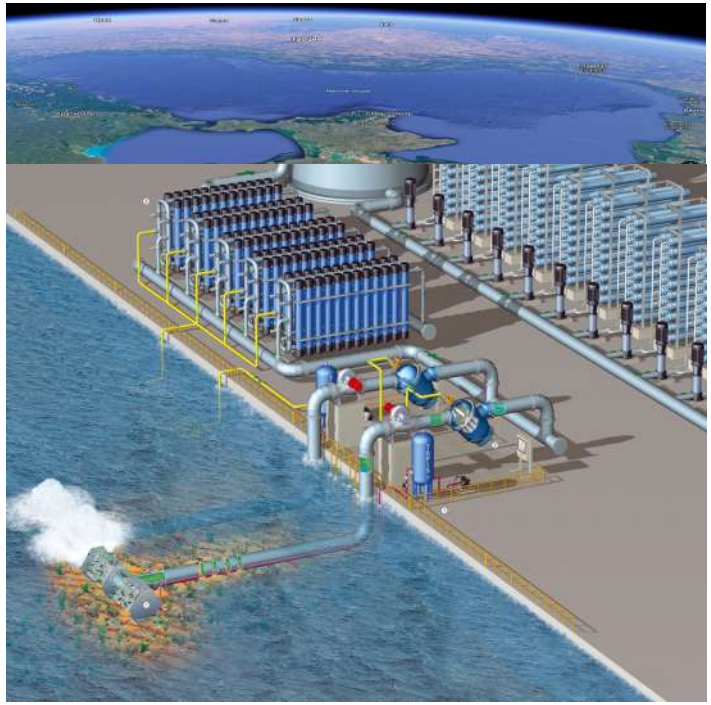


Environmental impact

Analysis carried out in the Dead Sea, the most salty in the world, showing the results obtained
To produce some eclogical damage in marine fauna and flora, 474.016 years would have to pass

Ecological solutions for water use

Black Sea surface	Kg2	413 000
Black Sea water volume	Kg3	545 000
m3 in 1 km3		1 000 000 000
Black Sea water volume	m3	545 000 000 000 000
Salts in 1 m3 of Black Sea water	kg	18
Salts in the Black Sea	kg	9 810 000 000 000 000
The salt will increase by 1m3	kg	20
Will turn to salt in the Black Sea	kg	10 900 000 000 000 000
The difference between was and is		1 090 000 000 000 000
The volume of desalinated water	m3 /day	140 000
Water consumption	m3 /day	350 000
Brine	m3 /day	210 000
Pickles per year	m3 /year	76 650 000
Salts in 1 m3 of brine	kg	30
Salt poured into the sea in the form of brine	kg	2 299 500 000
How long will that take	Years	474 016



Impact on Black Sea Salinity
During concentrate download
salt of a desalination plant
With capacity
of 140,000 cubic meters / day.

12. ANALISYS

Some analyses carried out during the operation of our reverse osmosis desalination equipment

Mediterranean Sea water analysis carried out in Alicante, Spain on 02/15/24
Mediterranean Sea water sample (Original source for water purification)

Centro Tecnológico de Seguridad Alimentaria
Ctra. Madrid, Km. 4. Mercalicante
Oficina 1ª, Pta 2ª – Edif. Mercado
03114 Alicante
T. (+34) 965 28 17 18
www.ctsalimentaria.com

INFORME DE RESULTADOS

REFERENCIA: V136_240215_1BAGM

DATOS DEL CLIENTE:

NOMBRE: SMART ECO WATER GROUP, S.L
CIF/NIF: B-56837909
DIRECCIÓN: Avda. Zaragoza, 6
CÓDIGO CLIENTE: C-V136
CP/POBLACIÓN: 03130 Santa Pola (Alicante)

DATOS DE LA MUESTRA:

DESCRIPICIÓN DE LA MUESTRA: Agua de mar

RESPONSABLE DE TOMA DE MUESTRA: Andrea Montoya
FECHA TOMA MUESTRA: 15-02-24 **HORA:** 08:45 h
FECHA RECEPCIÓN: 15-02-24

FECHA INICIO ANÁLISIS: 19-02-24
FECHA FINALIZACIÓN ANÁLISIS: 22-02-24

[1]ANÁLISIS MICROBIOLÓGICO

PARÁMETROS	*RESULTADO*	*LÍMITE LEGAL*	*MÉTODO DE ENSAYO*
Escherichia coli	**10 ufc/100ml**	0 ufc/100 ml	ITM1-03-5L
Enterococcus fecales	**7 ufc/100ml**	0 ufc/100 ml	ITM1-09-5L

Según RD 3/2023
1: Utilización de recipiente estéril con Tiosulfato sódico cristalizado ($Sr_2O_3Na_2 \cdot 5H_2O$) para neutralizar el efecto bactericida del cloro
La muestra se mantiene en refrigeración desde su recepción en el laboratorio hasta el día de su procesado
En negrita los valores fuera del límite establecido.

Documento realizado, revisado y firmado electrónicamente por:
CENTRO TECNOLÓGICO DE SEGURIDAD ALIMENTARIA, S.L
CIF: B-54676580
Araceli Sánchez-G Valencia
Responsable de Laboratorio

FIN DEL INFORME Nº V136_240215_1BAGM
Fecha de emisión: 28/03/2024
Nº Total de páginas - 1

Centro Tecnológico de Seguridad Alimentaria
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03114 Alicante
T. (+34) 965 28 17 18
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INFORME DE RESULTADOS

REFERENCIA: V136_240215_1BAGFQ

DATOS DEL CLIENTE:

NOMBRE: SMART ECO WATER GROUP, S.L
CIF/NIF: B-56837909
DIRECCIÓN: Avda. Zaragoza, 6
CÓDIGO CLIENTE: C-V136
CP/POBLACIÓN: 03130 Santa Pola (Alicante)

DATOS DE LA MUESTRA:

DESCRIPICIÓN DE LA MUESTRA: Agua de mar

RESPONSABLE DE TOMA DE MUESTRA: Andrea Montoya
FECHA TOMA MUESTRA: 15-02-24 **HORA:** 08:55 h
FECHA RECEPCIÓN: 15-02-24

FECHA INICIO ANÁLISIS: 15-02-24
FECHA FINALIZACIÓN ANÁLISIS: 25-03-24

ANÁLISIS FÍSICO-QUÍMICO

PARÁMETROS	*RESULTADO*	*UNIDADES*	*MÉTODO DE ENSAYO*
Sólidos en suspensión*	23 ± 6	mg/l	GRAVIMETRÍA
pH (a 20ºC)	7,89	unidades de pH	ELECTROMETRÍA
Salinidad	33,2	g/l	CONDUCTIMETRÍA
Oxígeno disuelto*	8,10 ± 0,41	mg/l	ELECTROMETRÍA
Carbono orgánico total*	1,17 ± 0,23	mg/l	COMBUSTIÓN-IR
Nitrógeno total*	<5,0	mg/l	ESPECTROFOTOMETRÍA
Nitrato*	<10,00	mg/l	ESPECTROFOTOMETRÍA UV-VIS
Nitrito*	<0,05	$mgNO_2/l$	ESPECTROFOTOMETRÍA UV-VIS
Fósforo total*	<0,50	mg P/l	ESPECTROFOTOMETRÍA
Clorofila A*	<5,0	µg/l	ESPECTROFOTOMETRÍA

*Ensayo realizado por laboratorio colaborador. Trazabilidad: A / 567837
La muestra se mantiene en refrigeración desde su recepción en el laboratorio hasta el día de su procesado

FIN DEL INFORME Nº V136_240215_1BAGFQ
Fecha de emisión: 27/03/2024
Nº Total de páginas - 2

Documento realizado, revisado y firmado electrónicamente por:
CENTRO TECNOLÓGICO DE SEGURIDAD ALIMENTARIA, S.L
CIF: B-54676580
Araceli Sánchez-G Valencia
Responsable de Laboratorio

Analysis of Mediterranean Sea water carried out in Alicante, Spain on 02/15/24
Cold water sample for human consumption (Result after the purification process with the reverse osmosis machine)

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Ctra. Madrid, Km. 4. Mercalicante
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03114 Alicante
T. (+34) 965 28 17 18
www.ctsalimentaria.com

INFORME DE RESULTADOS

REFERENCIA: V136_240215_1aAGFQ

DATOS DEL CLIENTE:

NOMBRE: SMART ECO WATER GROUP, S.L
CIF/NIF: B-56837909
DIRECCIÓN: Avda. Zaragoza, 6
CÓDIGO CLIENTE: C-V136
CP/POBLACIÓN: 03130 Santa Pola (Alicante)

DATOS DE LA MUESTRA:

DESCRIPCIÓN DE LA MUESTRA: AFCH (Agua Fría Consumo Humano)

RESPONSABLE DE TOMA DE MUESTRA: Andrea Montoya
FECHA TOMA MUESTRA: 15-02-24 **HORA:** 08:45 h
FECHA RECEPCIÓN: 15-02-24

FECHA INICIO ANÁLISIS: 15-02-24
FECHA FINALIZACIÓN ANÁLISIS: 15-02-24

ANÁLISIS FÍSICO-QUÍMICO

PARÁMETROS	*RESULTADO*	**LÍMITE LEGAL*	*MÉTODO DE ENSAYO*
pH (a 20ºC)	6,78 unidades de pH	[6,5 - 9,5] unidades de pH	ITFQ1-04-5L
Conductividad (a 20ºC)	1867 µs/cm	2500 µs/cm	ITFQ1-05-5L
Turbidez	0,07 UNF	4 UNF	ITFQ1-06-5L
Amonio	0,012 mg/l	0,5 mg/l	ITFQ1-07-5L
Cloro libre	0,0127 mg/l	1 mg/l	ITFQ1-08-5L
Cloro combinado	0,0006 mg/l	2 mg/l	ITFQ1-10-5L

* Según RD 3/2023
UNF: Unidades Nefelométricas de Formazina
La muestra se mantiene en refrigeración desde su recepción en el laboratorio hasta el día de su procesado

Documento realizado, revisado y firmado electrónicamente por:
CENTRO TECNOLOGICO DE SEGURIDAD ALIMENTARIA, S.L
CIF: B-54676580
Araceli Sánchez-G Valencia
Responsable de Laboratorio

FIN DEL INFORME Nº V136_240215_1aAGFQ
Fecha de emisión: 08/03/2024
Nº Total de páginas - 1

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03114 Alicante
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INFORME DE RESULTADOS

REFERENCIA: V136_240215_1AGM

DATOS DEL CLIENTE:

NOMBRE: SMART ECO WATER GROUP, S.L
CIF/NIF: B-56837909
DIRECCIÓN: Avda. Zaragoza, 6
CÓDIGO CLIENTE: C-V136
CP/POBLACIÓN: 03130 Santa Pola (Alicante)

DATOS DE LA MUESTRA:

DESCRIPCIÓN DE LA MUESTRA: AFCH (Agua Fría Consumo Humano)

RESPONSABLE DE TOMA DE MUESTRA: Andrea Montoya
FECHA TOMA MUESTRA: 15-02-24 **HORA:** 08:45 h
FECHA RECEPCIÓN: 15-02-24

FECHA INICIO ANÁLISIS: 19-02-24
FECHA FINALIZACIÓN ANÁLISIS: 22-02-24

[1]ANÁLISIS MICROBIOLÓGICO

PARÁMETROS	*RESULTADO*	*LÍMITE LEGAL*	*MÉTODO DE ENSAYO*
Aerobios mesófilos a 22ºC	1 x 10^3 ufc/ml	< 1 x 10^3 ufc/ml	ITM1-01-5L
Coliformes totales	no se detecta/100ml	0 ufc/100 ml	ITM1-04-5L
Escherichia coli	no se detecta/100ml	0 ufc/100 ml	ITM1-03-5L
Clostridium perfringens	no se detecta/100ml	0 ufc/100 ml	ITM1-07-5L
Enterococcus fecales	no se detecta/100ml	0 ufc/100 ml	ITM1-09-5L

Según RD 3/2023
1: Utilización de recipiente estéril con Tiosulfato sódico cristalizado ($S_2O_3Na_2 \cdot 5H_2O$) para neutralizar el efecto bactericida del cloro
La muestra se mantiene en refrigeración desde su recepción en el laboratorio hasta el día de su procesado

Documento realizado, revisado y firmado electrónicamente por:
CENTRO TECNOLOGICO DE SEGURIDAD ALIMENTARIA, S.L
CIF: B-54676580
Araceli Sánchez-G Valencia
Responsable de Laboratorio

FIN DEL INFORME Nº V136_240215_1AGM
Fecha de emisión: 08/03/2024
Nº Total de páginas - 1

Some analyses carried out during the operation of our reverse osmosis desalination equipment

Mediterranean Sea water analysis done in Alicante, Spain on 02/15/24
Reject sample or waste water (waste water obtained after the purification process with the reverse osmosis machine)

Centro Tecnológico de Seguridad Alimentaria
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03114 Alicante
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www.ctsalimentaria.com

INFORME DE RESULTADOS

REFERENCIA: V136_240215_1CAGFQ

DATOS DEL CLIENTE:

NOMBRE: SMART ECO WATER GROUP, S.L
CIF/NIF: B-56837909
DIRECCIÓN: Avda. Zaragoza, 6
CÓDIGO CLIENTE: C-V136
CP/POBLACIÓN: 03130 Santa Pola (Alicante)

DATOS DE LA MUESTRA:

DESCRIPICIÓN DE LA MUESTRA: Agua residual

RESPONSABLE DE TOMA DE MUESTRA: Andrea Montoya
FECHA TOMA MUESTRA: 15-02-24 **HORA:** 09:00 h
FECHA RECEPCIÓN: 15-02-24

FECHA INICIO ANÁLISIS: 15-02-24
FECHA FINALIZACIÓN ANÁLISIS: 08-04-24

ANÁLISIS FÍSICO-QUÍMICO

PARÁMETROS	*RESULTADO*	**LÍMITE LEGAL*	*MÉTODO DE ENSAYO*
Sólidos sedimentables*	<0,10 ml/l	10 ml/l	DECANTACIÓN
Sólidos en suspensión*	23 ± 6 mg/l	1.000 mg/l	GRAVIMETRÍA
Sólidos gruesos*	AUSENCIA	-	EXAMEN VISUAL
Color*	<1 mg/l Pt/Co	-	ESPECTROFOTOMETRIA UV
Conductividad	**56.200 µs/cm**	5.000 µS/cm	CONDUCTIMETRÍA
pH (a 20ºC)	7,44 unidades de pH	6-9 unidades de pH	POTENCIOMETRÍA
DQO*	<400 mgO_2/l	1.000 mg/l	ESPECTROFOTOMETRÍA
DBO_5*	<10 mgO_2/l	1.600 mg/l	MANOMETRÍA
Carbono orgánico total*	0,91 ± 0,18 mg/l	-	COMBUSTIÓN-IR
Cloruros*	19.900 ± 2.985 mg/l	-	IC
Fluoruros*	<4,00 ± 0,60 mg/l	12 mg/l	IC
Fosfatos*	<0,04 mg/l	-	ESPECTROFOTOMETRÍA
Nitrato*	<10 mg/l	-	ESPECTROFOTOMETRIA UV-VIS

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www.ctsalimentaria.com

PARÁMETROS	*RESULTADO*	**LÍMITE LEGAL*	*MÉTODO DE ENSAYO*
Sulfato*	3.310,00 ± 496,50 mg/l	-	IC
Sulfuros*	<0,05 mg/l	2 mg/l	ESPECTROFOTOMETRÍA
Aceites y grasas*	0,79 ± 0,16 mg/l	100 mg/l	FTIR
Detergentes aniónicos*	0,03 ± 0,01 mg/l	-	ESPECTROFOTOMETRÍA (MBAS)
Hidrocarburos totales del petróleo*	<0,16 ± 0,03 mg/l	15 mg/l	FTIR
Nitrógeno amoniacal*	<4 mg/l	60 mg/l	ESPECTROFOTOMETRÍA
Nitrógeno Kjeldahl*	0,59 ± 0,35 mg/l	-	KJELDAHL
Ecotoxicidad/materias inhibidoras (Vibrio fischeri)*	<1 equitox/m3	-	BIOLUMINISCENCIA
Aluminio*	<0,04 mg/l	15 mg/l	ICP/OES
Arsénico*	<0,005 mg/l	1 mg/l	ICP/MS
Bario*	0,0076 ± 0,0008 mg/l	10 mg/l	ICP/MS
Boro*	**4,71 ± 0,47 mg/l**	3 mg/l	ICP/MS
Cadmio*	<0,00040 ± 0,00004 mg/l	0,5 mg/l	ICP/MS
Cobre*	<0,020 ± 0,002 mg/l	5 mg/l	ICP/MS
Cromo VI*	<0,04 mg/l	1 mg/l	IC
Cromo III*	<0,001 mg/l	-	ICP/MS
Cromo*	<0,0040 ± 0,0004 mg/l	5 mg/l	ICP/MS
Hierro*	<0,002 mg/l	10 mg/l	ICP/MS
Manganeso*	<0,002 mg/l	2 mg/l	ICP/OES
Mercurio*	<0,050 µg/l	0,1 mg/l	ICP/OES
Níquel*	<0,004 mg/l	5 mg/l	ICP/MS

El alcance de este informe analítico se limita únicamente a la muestra descrita anteriormente.
De conformidad con el Reglamento Europeo de Protección de Datos (UE) 679/2016 y la Ley Orgánica 3/2018 de 5 de diciembre, de Protección de Datos y Garantía de los Derechos Digitales le comunicamos que los datos objeto de este tratamiento en el presente documento son responsabilidad de CENTRO TECNOLOGICO DE SEGURIDAD ALIMENTARIA S.L. con NIF: B-54676580 y con domicilio en CARRETERA DE MADRID KM 4 - MERCALICANTE. EDIFICIO MERCADO. 2ª PLANTA, OFICINA 1º, C.P. 03114. ALICANTE y con teléfono 965.28.17.18 y email info@ctsalimentaria.com
La información que los datos que nos facilita se precisan para prestarle el servicio solicitado. Los datos se conservarán mientras se mantenga la relación comercial o durante los años necesarios para cumplir con las obligaciones legales. Los datos no se cederán a terceros salvo en los casos en que exista una obligación legal.
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Ctra. Madrid, Km. 4. Mercalicante
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03114 Alicante
T. (+34) 965 28 17 18
www.ctsalimentaria.com

PARÁMETROS	*RESULTADO*	**LÍMITE LEGAL*	*MÉTODO DE ENSAYO*
Plomo*	<0,005 mg/l	1 mg/l	ICP/MS
Selenio*	<0,01 mg/l	0,5 mg/l	ICP/MS
Zinc*	<0,04 mg/l	10 mg/l	ICP/MS
Aldehídos*	<0,50 mg/l	-	ESPECTROFOTOMETRÍA
Cianuro*	<0,005 mg/l	2 mg/l	FOTOMETRÍA
Fenoles*	<0,003 mg/l	2 mg/l	CG/MS
Pesticidas/plaguicidas en agua*	<0,05 µg/l	-	LC/MS
Sulfitos*	<20 mg/l	-	IC

* Valores orientativos según Ley 5/2002, de 3 de junio, sobre vertidos de aguas residuales industriales a los sistemas públicos de saneamiento
*Ensayo realizado por laboratorio colaborador. Trazabilidad: A / 567839
La muestra se mantiene en refrigeración desde su recepción en el laboratorio hasta el día de su procesado
En negrita los valores fuera del límite establecido.

Documento realizado, revisado y firmado electrónicamente por:
CENTRO TECNOLÓGICO DE SEGURIDAD ALIMENTARIA, S.L.
CIF: B-54676580
Araceli Sánchez-G Valencia
Responsable de Laboratorio

FIN DEL INFORME Nº V136_240215_1CAGFQ
Fecha de emisión: 09/04/2024
Nº Total de páginas - 3

El alcance de este informe analítico se limita únicamente a la muestra descrita anteriormente.
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Some analyses that were carried out during the operation of our reverse osmosis desalination equipment

ГИЦ ПВ® Аккредитованный Главный контрольно-испытательный и научно-методический центр питьевой воды (ГИЦ ПВ)
Регистрационный № РОСС RU.0001.21.ПВ06 (Ростехрегулирование)
Аттестат аккредитации ИЛЦ № ГСЭН.RU.ЦОА.565 (Роспотребнадзор)
117571, Российская Федерация, г. Москва, пр-т Вернадского, 86, стр. 7, оф. 126
Тел./факс: (495) 936-8-936 E-mail: voda@gicpv.ru www.gicpv.ru

«Утверждаю»

Генеральный директор

Ю.Н. Гончар

Протокол испытаний № 1589-1/08
«02» июля 2008 г.

Всего листов: **2**

Заказчик: **ООО «ТЕХНОПРОМ»**
Испытуемый объект: Образец морской воды
Дата проведения испытаний: 30.06. – 02.07.2008 г.

Результаты испытаний:

№ п/п	Номенклатура показателей, единицы измерения	Значение показателя	ПДК (предельно допустимая концентрация), по [1]	Метод испытаний (ссылка на НД)
1.	Алюминий, мг/дм^3	< 0,04	0,5	ГОСТ 18165-89
2.	Железо общее, мг/дм^3	0,11	0,3	ФР.1.31.2005.01433 МУ 08-47/165
3.	Марганец, мг/дм^3	< 0,005	0,1	МУК 4.1.1516-03
4.	Кадмий, мг/дм^3	< 0,0002	0,001	МУК 4.1.1516-03
5.	Медь, мг/дм^3	< 0,0006	1,0	МУК 4.1.1504-03
6.	Мышьяк, мг/дм^3	< 0,005	0,05	МУК 4.1.1510-03
7.	Ртуть, мг/дм^3	< 0,00005	0,0005	МУК 4.1.1512-03
8.	Свинец, мг/дм^3	< 0,0002	0,03	МУК 4.1.1504-03
9.	Кальций, мг/дм^3	212,2	25 – 130,0**	РД 52.24.403-95
10.	Магний, мг/дм^3	567,6	5 – 65,0**	ГОСТ 23268.5-78
11.	**Натрий, мг/дм^3**	**4730,0**	**200,0**	РД 52.24.365-95
12.	Калий, мг/дм^3	18,9	20,0**	РД 52.24.393-95
13.	**Нитраты, мг/дм^3**	**98,9**	**45,0**	ПНДФ 14.1:2.4-95
14.	Нитриты, мг/дм^3	< 0,02	3,0	ПНДФ 14.1:2:3-95
15.	Щелочность, ммоль/дм^3	3,6	0,5 – 6,5**	РД 52.24.493-95
16.	Гидрокарбонаты, мг/дм^3	219,6	30 – 400,0**	РД 52.24.493-95
17.	**Жесткость общая, °Ж**	**57,9**	**7,0**	ГОСТ Р 52407-2005
18.	Водородный показатель (pH), ед.	7,9	6,0 – 9,0	ПНДФ 14.1:2:3.4-121-97
19.	Нефтепродукты, мг/дм^3	< 0,005	0,1	МУК 4.1.068-96
20.	Мутность, ЕМ/дм^3	< 0,5	2,6	ГОСТ 3351-74
21.	Цветность, град.	< 5	20	ГОСТ 3351-74
22.	Привкус, баллы	1	2	ГОСТ 3351-74
23.	Запах, баллы	2	2	ГОСТ 3351-74
24.	Перманганатная окисляемость, мг/дм^3	< 0,25	5,0	ПНДФ 14.1:2:4.154-99
25.	Аммиак (по азоту), мг/дм^3	0,12	2,0	ПНДФ 14.1:2.1-95
26.	Сульфаты, мг/дм^3	19,7	500,0	ПНДФ 14.1:2.159-2000
27.	Хлориды, мг/дм^3	50,0	350,0	ПНДФ 14.1:2.111-97
28.	Фториды, мг/дм^3	< 0,02	1,5	РД 52.24.360-95
29.	Сульфиды (сероводород), мг/дм^3	< 0,002	0,003	ПНД Ф 14.1:2:4.178-02
30.	Общая минерализация, мг/дм^3	125,0	1000,0	ПНД Ф 14.1:2.114-97
31.	ОМЧ (общее микробное число), КОЕ/мл	0	50	МУК 4.2.1018-01
32.	Общие колиформные бактерии, КОЕ/100 мл	Отсутствие	Отсутствие в 100 мл	МУК 4.2.1018-01
33.	Термотолерантные колиформные бактерии, КОЕ/100 мл	Отсутствие	Отсутствие в 100 мл	МУК 4.2.1018-01

Вывод: По исследованным показателям данный образец воды соответствует требованиям, предъявляемым СанПиН 2.1.4.1074- 01 «Питьевая вода. Гигиенические требования к качеству воды централизованных систем питьевого водоснабжения. Контроль качества».

Ответственный за проведение испытаний:

Руководитель ИЦ А.В. Павлова

Примечание:

[1] - «Питьевая вода. Гигиенические требования к качеству воды централизованных систем питьевого водоснабжения. Контроль качества. **СанПиН* 2.1.4.1074–01».**

* - Санитарно-эпидемиологические правила и нормативы.

** - Нормативы физиологической полноценности питьевой воды в соответствии с **СанПиН 2.1.4.1116-02**. «Питьевая вода. Гигиенические требования к качеству воды, расфасованной в емкости. Контроль качества».

Протокол распространяется только на образцы, подвергнутые испытаниям.

Передача протокола или его копий третьим лицам без разрешения ГИЦ ПВ и согласования с заказчиком не допускается.

Some analyses that were carried out during the operation of our reverse osmosis desalination equipment

ГИЦ ПВ® Аккредитованный Главный контрольно-испытательный и научно-методический центр питьевой воды (ГИЦ ПВ)

Регистрационный № РОСС RU.0001.21.ПВ06 (Ростехрегулирование)

Аттестат аккредитации ИЛЦ № ГСЭН.RU.ЦОА.565 (Роспотребнадзор)

117571, Российская Федерация, г. Москва, пр-т Вернадского, 86, стр. 7, оф. I 26

Тел./факс: (495) 936-8-936 E-mail: voda@gicpv.ru www.gicpv.ru

«Утверждаю»

Генеральный директор

Ю.Н. Гончар

Протокол испытаний № 1589-3/08

«02» июля 2008 г.

Всего листов: 2

Заказчик: **ООО «ТЕХНОПРОМ»**

Испытуемый объект: Образец морской воды

Место отбора пробы воды: окончательный

Дата проведения испытаний: 30.06. – 02.07.2008 г.

Результаты испытаний:

№ п/п	Номенклатура показателей, единицы измерения	Значение показателя	**ПДК** (предельно допустимая концентрация), по [1]	Метод испытаний (ссылка на НД)
1.	Алюминий, мг/дм^3	< 0,04	0,5	ГОСТ 18165-89
2.	Железо общее, мг/дм^3	0,05	0,3	ФР.1.31.2005.01433 МУ 08-47/165
3.	Марганец, мг/дм^3	< 0,005	0,1	МУК 4.1.1516-03
4.	Кадмий, мг/дм^3	< 0,0002	0,001	МУК 4.1.1516-03
5.	Медь, мг/дм^3	< 0,0006	1,0	МУК 4.1.1504-03
6.	Мышьяк, мг/дм^3	< 0,005	0,05	МУК 4.1.1510-03
7.	Ртуть, мг/дм^3	< 0,00005	0,0005	МУК 4.1.1512-03
8.	Свинец, мг/дм^3	< 0,0002	0,03	МУК 4.1.1504-03
9.	Кальций, мг/дм^3	< 1,0	25 – 130,0**	РД 52.24.403-95
10.	Магний, мг/дм^3	< 0,25	5 – 65,0**	ГОСТ 23268.5-78
11.	Натрий, мг/дм^3	51,2	200,0	РД 52.24.365-95
12.	Калий, мг/дм^3	7,9	20,0**	РД 52.24.393-95
13.	Нитраты, мг/дм^3	< 0,1	45,0	ПНДФ 14.1:2.4-95
14.	Нитриты, мг/дм^3	< 0,02	3,0	ПНДФ 14.1:2:3-95
15.	Щелочность, ммоль/дм^3	< 0,17	0,5 – 6,5**	РД 52.24.493-95
16.	Гидрокарбонаты, мг/дм^3	< 1,0	30 – 400,0**	РД 52.24.493-95
17.	Жесткость общая, °Ж	0,2	7,0	ГОСТ Р 52407-2005
18.	Водородный показатель (pH), ед.	5,0	6,0 – 9,0	ПНДФ 14.1:2:3.4-121-97
19.	Нефтепродукты, мг/дм^3	< 0,005	0,1	МУК 4.1.068-96
20.	Мутность, ЕМ/дм^3	1,7	2,6	ГОСТ 3351-74
21.	Цветность, град.	5	20	ГОСТ 3351-74
22.	**Привкус, баллы**	**3**	**2**	ГОСТ 3351-74
23.	Запах, баллы	2	2	ГОСТ 3351-74
24.	**Перманганатная окисляемость, мг/дм^3**	**14,00**	**5,0**	ПНДФ 14.1:2:4.154-99
25.	Аммиак (по азоту), мг/дм^3	< 0,04	2,0	ПНДФ 14.1:2.1-95
26.	**Сульфаты, мг/дм^3**	**908,9**	**500,0**	ПНДФ 14.1:2.159-2000
27.	**Хлориды, мг/дм^3**	**8025,0**	**350,0**	ПНДФ 14.1:2.111-97
28.	Фториды, мг/дм^3	0,37	1,5	РД 52.24.360-95
29.	Сульфиды (сероводород), мг/дм^3	< 0,002	0,003	ПНД Ф 14.1:2:4.178-02
30.	**Общая минерализация, мг/дм^3**	**16950,0**	**1000,0**	ПНД Ф 14.1:2.114-97

Ответственный за проведение испытаний:

Руководитель ИЦ _____ А.В. Павлова

Примечание:

[1] - «Питьевая вода. Гигиенические требования к качеству воды централизованных систем питьевого водоснабжения. Контроль качества. **СанПиН* 2.1.4.1074–01**».

* - Санитарно-эпидемиологические правила и нормативы.

** - Нормативы физиологической полноценности питьевой воды в соответствии с **СанПиН 2.1.4.1116-02**. «Питьевая вода. Гигиенические требования к качеству воды, расфасованной в емкости. Контроль качества».

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Comparative analysis of seawater and treated water with our equipment Part 1

SPECTRUM LABORATORIES (PENANG) SDN BHD
(Company No.: 290941-X)
1904, Tkt. 1, Jalan Bukit Minyak, Taman Sri Mangga, 14000 Bukit Mertajam, Seberang Perai Tengah,
Pulau Pinang, Malaysia. Tel: 604-5075168, 5075188. Fax: 604-5074243. E-mail: spectrumlabpg@gmail.com

MS ISO/IEC 17025 TESTING SAMM NO. 111

CERTIFICATE OF ANALYSIS

Company	:	Meche System Sdn. Bhd
Lab. No	:	W / 1705 / 589 (1)
Date Sample Received	:	15 th May 2017
Date Sample Reported	:	26 th May 2017
Sample Description	:	Sea Water
Sample Marking	:	Sea Water – 15/05/17

PARAMETER	METHODS	RESULT
Total Dissolved Solids, mg/l	APHA 2540 C	34,550
+ Silt Density Index	In House Method	15.3
Turbidity, NTU	APHA 2130 B	60
Calcium as Ca, mg/l	APHA 3111 B	299.00
+Boron as B, mg/l	APHA 3120 B	3.01
Magnesium as Mg, mg/l	APHA 3111 B	1,227
Ammoniacal Nitrogen, mg/l	APHA 4500 NH_3 B, C	ND < 0.07
Sodium as Na, mg/l	APHA 3111 B	791
Potassium as K, mg/l	APHA 3111 B	320.00
+Barium as Ba, mg/l	APHA 3120 B	ND < 0.002
Strontium as Sr, mg/l	APHA 3111-B	3.49
Iron as Fe, mg/l	APHA 3111-B	0.18
Manganese as Mn, mg/l	APHA 3111-B	ND < 0.01
Silica as SiO_2, mg/l	APHA 4500 SiO_2 D	1.28
Chloride as Cl, mg/l	APHA 4500 Cl C	30,715
Sulfate as SO_4, mg/l	APHA 4500 SO_4 E	2,761
Fluoride as F, mg/l	APHA 4500 F-D	0.25
*Bromide as Br, ppb	APHA 4110 B	ND < 0.5
Nitrate as NO_3, mg/L	APHA 419D (14th)	1.64
Bicarbonate as mg $CaCO_3$/l	OSRMA p334-336	109.5
Oil & Grease, mg/l	APHA 552ρ B	ND
pH	APHA 4500 H+B	7.7
* Color, TCU	APHA 2120 B	< 5
#Free Residual Chlorine, mg/l	APHA 4500 Cl F	ND < 0.02
+#Combined Residual Chlorine, mg/l	APHA 4500 Cl F	ND < 0.02
Total Hardness as mg $CaCO_3$ /l	APHA 2340 C	7,430
Aluminium as Al, mg/l	APHA 3500 Al B	0.74
Mercury as Hg, mg/l	APHA 3112 B	ND < 0.001
Cadmium as Cd, mg/l	APHA 3111 B	ND < 0.003
Selenium as Se, mg/l	APHA 3114 C	ND < 0.01
Arsenic as As, mg/l	APHA 3114 C	ND < 0.01

SPECTRUM LABORATORIES (PENANG) SDN BHD
(Company No.: 290941-X)
1904, Tkt. 1, Jalan Bukit Minyak, Taman Sri Mangga, 14000 Bukit Mertajam, Seberang Perai Tengah,
Pulau Pinang, Malaysia. Tel: 604-5075168, 5075188. Fax: 604-5074243. E-mail: spectrumlabpg@gmail.com

MS ISO/IEC 17025 TESTING SAMM NO. 111

Lab Report No : W / 1705 / 589 (1)
Date : 26 th May 2017

PARAMETER	METHODS	RESULT
Cyanide as CN, mg/l	OSRMA p 456	ND < 0.02
Lead as Pb, mg/l	APHA 3111 B	ND < 0.01
Chromium as Cr, mg/l	APHA 3111 B	ND < 0.01
Copper as Cu, mg/l	APHA 3111 B	ND < 0.01
Silver as Ag, mg/l	APHA 3111 B	ND < 0.02
Zinc as Zn, mg/l	APHA 3111 B	ND < 0.02
*Chloroform, mg/l	APHA 6232 C	< 0.002
*Bromoform, mg/l	APHA 6232 C	< 0.001
*Dibromochloromethane, mg/l	APHA 6232 C	< 0.001
*Bromodichlomethane, mg/l	APHA 6232 C	< 0.002
*Aldrin, mg/l	APHA 6630-B	< 0.000001
*Dieldrin, mg/l	APHA 6630-B	< 0.000002
*Chlordane, mg/l	APHA 6630-B	< 0.000001
*DDT, mg/l	APHA 6630-B	< 0.000002
*Heptachlor, mg/l	APHA 6630-B	< 0.000001
*Heptachlor Epoxide, mg/l	APHA 6630-B	< 0.000001
*Hexachlorobenzene, mg/l	APHA 6630-B	< 0.000001
*Lindane, mg/l	APHA 6630-B	< 0.000001
*Methoxychlor, mg/l	APHA 6630-B	< 0.000002
*Endosulfan, mg/l	APHA 6630-B	< 0.000002
*2,4-D, mg/l	APHA 6630-B	< 0.00002
Total Coliform, MPN/100ml	APHA 9221 B	4.0
Escherichia coli, MPN/100ml	APHA 9221 F	< 1.8

NOTE :
- APHA means Standard Methods for the Examination of Water and Wastewater, (American Public Health Association), 21st Edition, 2005.
- OSRMA means Official, Standardised & Recommended Methods of Analysis, 2nd Edition, 1973.
- ND means Not Detected.
- \+ means Not SAMM Accredited.
- # means the holding time for the analysis was exceeded.
- * means Subcontracted.

Attn : Mr. Kent
Meche System Sdn. Bhd
C-20-06, Kompleks Danau Kota,
Taman Zeta @ Zetapark,
67, Jalan Taman Ibu Kota,
Setapak 53300 Kuala Lumpur.

Ms. C. Y. NG
B. Sc., AMIC
Senior Chemist
IKM No. A 4619/2004

K.L. Office : Lot 14, (PT 5015) 2nd Floor, Jalan Pendamar 27/90, Seksyen 27, 40000 Shah Alam, Selangor. Tel: 603-51928188, 51923188. Fax: 603-51918188.
Johor Office : 18A, Jalan Molek 2/5, Taman Molek, 81100 Johor Bahru, Johor Darul Takzim. Tel: 607-3539288, 3532088, 3537088. Fax: 607-3581088.

Comparative analysis of seawater and treated water with our equipment Part 2

SPECTRUM LABORATORIES (PENANG) SDN BHD
(Company No.: 290941-X)
1904, Tkt. 1, Jalan Bukit Minyak, Taman Sri Mangga, 14000 Bukit Mertajam, Seberang Perai Tengah,
Pulau Pinang, Malaysia. Tel: 604-5075168, 5075188. Fax: 604-5074243. E-mail: spectrumlabpg@gmail.com
MS ISO/IEC 17025 TESTING SAMM NO. 111

CERTIFICATE OF ANALYSIS

Company	:	Meche System Sdn. Bhd
Lab. No	:	W / 1705 / 589 (2)
Date Sample Received	:	15 th May 2017
Date Sample Reported	:	26 th May 2017
Sample Description	:	Water
Sample Marking	:	UF Water – 15/05/17

PARAMETER	METHODS	RESULT
Total Dissolved Solids, mg/l	APHA 2540 C	34,210
+ Silt Density Index	In House Method	0.37
Turbidity, NTU	APHA 2130 B	1.0
Calcium as Ca, mg/l	APHA 3111 B	296.00
+Boron as B, mg/l	APHA 3120 B	2.75
Magnesium as Mg, mg/l	APHA 3111 B	983
Ammoniacal Nitrogen, mg/l	APHA 4500 NH_3 B, C	ND < 0.07
Sodium as Na, mg/l	APHA 3111 B	620
Potassium as K, mg/l	APHA 3111 B	245.00
+Barium as Ba, mg/l	APHA 3120 B	ND < 0.002
Strontium as Sr, mg/l	APHA 3111-B	3.38
Iron as Fe, mg/l	APHA 3111-B	ND < 0.02
Manganese as Mn, mg/l	APHA 3111-B	ND < 0.01
Silica as SiO_2, mg/l	APHA 4500 SiO_2 D	ND < 0.04
Chloride as Cl, mg/l	APHA 4500 Cl C	34,909
Sulfate as SO_4, mg/l	APHA 4500 SO_4 E	2,435
Fluoride as F, mg/l	APHA 4500 F-D	0.25
*Bromide as Br, ppb	APHA 4110 B	ND < 0.5
Nitrate as NO_3, mg/L	APHA 419D (14th)	0.49
Bicarbonate as mg $CaCO_3$/l	OSRMA p334-336	108.1
Oil & Grease, mg/l	APHA 5520 B	ND
pH	APHA 4500 H^+B	7.8
* Color, TCU	APHA 2120 B	< 5
#Free Residual Chlorine, mg/l	APHA 4500 Cl F	ND < 0.02
+#Combined Residual Chlorine, mg/l	APHA 4500 Cl F	ND < 0.02
Total Hardness as mg $CaCO_3$ /l	APHA 2340 C	6,827
Aluminium as Al, mg/l	APHA 3500 Al B	ND < 0.02
Mercury as Hg, mg/l	APHA 3112 B	ND < 0.001
Cadmium as Cd, mg/l	APHA 3111 B	ND < 0.003
Selenium as Se, mg/l	APHA 3114 C	ND < 0.01
Arsenic as As, mg/l	APHA 3114 C	ND < 0.01

SPECTRUM LABORATORIES (PENANG) SDN BHD
(Company No.: 290941-X)
1904, Tkt. 1, Jalan Bukit Minyak, Taman Sri Mangga, 14000 Bukit Mertajam, Seberang Perai Tengah,
Pulau Pinang, Malaysia. Tel: 604-5075168, 5075188. Fax: 604-5074243. E-mail: spectrumlabpg@gmail.com
MS ISO/IEC 17025 TESTING SAMM NO. 111

Lab Report No : W / 1705 / 589 (2)

Date : 26 th May 2017

PARAMETER	METHODS	RESULT
Cyanide as CN, mg/l	OSRMA p 456	ND < 0.02
Lead as Pb, mg/l	APHA 3111 B	ND < 0.01
Chromium as Cr, mg/l	APHA 3111 B	ND < 0.01
Copper as Cu, mg/l	APHA 3111 B	ND < 0.01
Silver as Ag, mg/l	APHA 3111 B	ND < 0.02
Zinc as Zn, mg/l	APHA 3111 B	ND < 0.02
*Chloroform, mg/l	APHA 6232 C	< 0.002
*Bromoform, mg/l	APHA 6232 C	< 0.001
*Dibromochloromethane, mg/l	APHA 6232 C	< 0.001
*Bromodichlomethane, mg/l	APHA 6232 C	< 0.002
*Aldrin, mg/l	APHA 6630-B	< 0.000001
*Dieldrin, mg/l	APHA 6630-B	< 0.000002
*Chlordane, mg/l	APHA 6630-B	< 0.000001
*DDT, mg/l	APHA 6630-B	< 0.000002
*Heptachlor, mg/l	APHA 6630-B	< 0.000001
*Heptachlor Epoxide, mg/l	APHA 6630-B	< 0.000001
*Hexachlorobenzene, mg/l	APHA 6630-B	< 0.000001
*Lindane, mg/l	APHA 6630-B	< 0.000001
*Methoxychlor, mg/l	APHA 6630-B	< 0.000002
*Endosulfan, mg/l	APHA 6630-B	< 0.000002
*2,4-D, mg/l	APHA 6630-B	< 0.00002
Total Coliform, MPN/100ml	APHA 9221 B	2.0
Escherichia coli, MPN/100ml	APHA 9221 F	< 1.8

NOTE :
- APHA means Standard Methods for the Examination of Water and Wastewater, (American Public Health Association), 21st Edition, 2005.
- OSRMA means Official, Standardised & Recommended Methods of Analysis, 2nd Edition, 1973.
- ND means Not Detected.
- \+ means Not SAMM Accredited.
- # means the holding time for the analysis was exceeded.
- * means Subcontracted.

Attn : Mr. Kent
Meche System Sdn. Bhd
C-20-06, Kompleks Danau Kota,
Taman Zeta @ Zetapark,
67, Jalan Taman Ibu Kota,
Setapak 53300 Kuala Lumpur.

Ms. C. Y. NG
B. Sc., AMIC
Senior Chemist
IKM No. A 4619/2004

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Johor Office : 18A, Jalan Molek 2/5, Taman Molek, 81100 Johor Bahru, Johor Darul Takzim. Tel: 607-3539288, 3532088, 3537088. Fax: 607-3581088.

Comparative analysis of seawater and treated water with our equipment Part 3

SPECTRUM LABORATORIES (PENANG) SDN BHD
(Company No.: 290941-X)
1904, Tkt. 1, Jalan Bukit Minyak, Taman Sri Mangga, 14000 Bukit Mertajam, Seberang Perai Tengah,
Pulau Pinang, Malaysia. Tel: 604-5075168, 5075188. Fax: 604-5074243. E-mail: spectrumlabpg@gmail.com
MS ISO/IEC 17025 TESTING SAMM NO. 111

CERTIFICATE OF ANALYSIS

Company	:	Meche System Sdn. Bhd
Lab. No	:	W / 1705 / 589 (3)
Date Sample Received	:	15 th May 2017
Date Sample Reported	:	26 th May 2017
Sample Description	:	Water
Sample Marking	:	RO Water – 15/05/17

PARAMETER	METHODS	RESULT
Total Dissolved Solids, mg/l	APHA 2540 C	550
+ Silt Density Index	In House Method	0.25
Turbidity, NTU	APHA 2130 B	0.70
Calcium as Ca, mg/l	APHA 3111 B	0.19
+Boron as B, mg/l	APHA 3120 B	1.44
Magnesium as Mg, mg/l	APHA 3111 B	0.30
Ammoniacal Nitrogen, mg/l	APHA 4500 NH_3 B, C	ND < 0.07
Sodium as Na, mg/l	APHA 3111 B	10.41
Potassium as K, mg/l	APHA 3111 B	2.30
+Barium as Ba, mg/l	APHA 3120 B	ND < 0.002
Strontium as Sr, mg/l	APHA 3111-B	ND < 0.01
Iron as Fe, mg/l	APHA 3111-B	ND < 0.02
Manganese as Mn, mg/l	APHA 3111-B	ND < 0.01
Silica as SiO_2, mg/l	APHA 4500 SiO_2 D	ND < 0.04
Chloride as Cl, mg/l	APHA 4500 Cl C	245.95
Sulfate as SO_4, mg/l	APHA 4500 SO_4 E	5.5
Fluoride as F, mg/l	APHA 4500 F-D	ND < 0.04
*Bromide as Br, ppb	APHA 4110 B	ND < 0.5
Nitrate as NO_3, mg/L	APHA 419D (14^{th})	0.71
Bicarbonate as mg $CaCO_3$/l	OSRMA p334-336	4.4
Oil & Grease, mg/l	APHA 5520 B	ND
pH	APHA 4500 H^+B	8.2
+ Color, TCU	APHA 2120 B	< 5
#Free Residual Chlorine, mg/l	APHA 4500 Cl F	ND < 0.02
+#Combined Residual Chlorine, mg/l	APHA 4500 Cl F	ND < 0.02
Total Hardness as mg $CaCO_3$ /l	APHA 2340 C	7.0
Aluminium as Al, mg/l	APHA 3500 Al B	ND < 0.02
Mercury as Hg, mg/l	APHA 3112 B	ND < 0.001
Cadmium as Cd, mg/l	APHA 3111 B	ND < 0.003
Selenium as Se, mg/l	APHA 3114 C	ND < 0.01
Arsenic as As, mg/l	APHA 3114 C	ND < 0.01

SPECTRUM LABORATORIES (PENANG) SDN BHD
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MS ISO/IEC 17025 TESTING SAMM NO. 111

Lab Report No : W / 1705 / 589 (3)
Date : 26 th May 2017

PARAMETER	METHODS	RESULT
Cyanide as CN, mg/l	OSRMA p 456	ND < 0.02
Lead as Pb, mg/l	APHA 3111 B	ND < 0.01
Chromium as Cr, mg/l	APHA 3111 B	ND < 0.01
Copper as Cu, mg/l	APHA 3111 B	ND < 0.01
Silver as Ag, mg/l	APHA 3111 B	ND < 0.02
Zinc as Zn, mg/l	APHA 3111 B	ND < 0.02
*Chloroform, mg/l	APHA 6232 C	< 0.002
*Bromoform, mg/l	APHA 6232 C	< 0.001
*Dibromochloromethane, mg/l	APHA 6232 C	< 0.001
*Bromodichlomethane, mg/l	APHA 6232 C	< 0.002
*Aldrin, mg/l	APHA 6630-B	< 0.000001
*Dieldrin, mg/l	APHA 6630-B	< 0.000002
*Chlordane, mg/l	APHA 6630-B	< 0.000001
*DDT, mg/l	APHA 6630-B	< 0.000002
*Heptachlor, mg/l	APHA 6630-B	< 0.000001
*Heptachlor Epoxide, mg/l	APHA 6630-B	< 0.000001
*Hexachlorobenzene, mg/l	APHA 6630-B	< 0.000001
*Lindane, mg/l	APHA 6630-B	< 0.000001
*Methoxychlor, mg/l	APHA 6630-B	< 0.000002
*Endosulfan, mg/l	APHA 6630-B	< 0.000002
*2,4-D, mg/l	APHA 6630-B	< 0.00002
Total Coliform, MPN/100ml	APHA 9221 B	< 1.8
Escherichia coli, MPN/100ml	APHA 9221 F	< 1.8

NOTE :
- APHA means Standard Methods for the Examination of Water and Wastewater, (American Public Health Association), 21st Edition, 2005.
- OSRMA means Official, Standardised & Recommended Methods of Analysis, 2nd Edition, 1973.
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Comparative analysis of seawater and treated water with our equipment Part 4

SPECTRUM LABORATORIES (PENANG) SDN BHD
(Company No.: 290941-X)
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Pulau Pinang, Malaysia. Tel: 604-5075168, 5075188. Fax: 604-5074243. E-mail: spectrumlabpg@gmail.com
MS ISO/IEC 17025 TESTING SAMM NO. 111

CERTIFICATE OF ANALYSIS

Company	:	Meche System Sdn. Bhd
Lab. No	:	W / 1705 / 589 (4)
Date Sample Received	:	15 th May 2017
Date Sample Reported	:	26 th May 2017
Sample Description	:	Water
Sample Marking	:	Final Treated – 15/05/17

PARAMETER	METHODS	RESULT
Total Dissolved Solids, mg/l	APHA 2540 C	650
+ Silt Density Index	In House Method	0.48
Turbidity, NTU	APHA 2130 B	1.5
Calcium as Ca, mg/l	APHA 3111 B	0.04
+Boron as B, mg/l	APHA 3120 B	1.49
Magnesium as Mg, mg/l	APHA 3111 B	0.35
Ammoniacal Nitrogen, mg/l	APHA 4500 NH_3 B, C	ND < 0.07
Sodium as Na, mg/l	APHA 3111 B	12.10
Potassium as K, mg/l	APHA 3111 B	2.98
+Barium as Ba, mg/l	APHA 3120 B	ND < 0.002
Strontium as Sr, mg/l	APHA 3111-B	ND < 0.01
Iron as Fe, mg/l	APHA 3111-B	ND < 0.02
Manganese as Mn, mg/l	APHA 3111-B	ND < 0.01
Silica as SiO_2, mg/l	APHA 4500 SiO_2 D	ND < 0.04
Chloride as Cl, mg/l	APHA 4500 Cl C	262.95
Sulfate as SO_4, mg/l	APHA 4500 SO_4 E	5.2
Fluoride as F, mg/l	APHA 4500 F-D	0.14
*Bromide as Br, ppb	APHA 4110 B	ND < 0.5
Nitrate as NO_3, mg/L	APHA 419D (14th)	0.62
Bicarbonate as mg $CaCO_3$/l	OSRMA p334-336	9.4
Oil & Grease, mg/l	APHA 5520 B	ND
pH	APHA 4500 H^+B	8.0
+Color, TCU	APHA 2120 B	< 5
#Free Residual Chlorine, mg/l	APHA 4500 Cl F	ND < 0.02
+#Combined Residual Chlorine, mg/l	APHA 4500 Cl F	ND < 0.02
Total Hardness as mg $CaCO_3$ /l	APHA 2340 C	8.8
Aluminium as Al, mg/l	APHA 3500 Al B	ND < 0.02
Mercury as Hg, mg/l	APHA 3112 B	ND < 0.001
Cadmium as Cd, mg/l	APHA 3111 B	ND < 0.003
Selenium as Se, mg/l	APHA 3114 C	ND < 0.01
Arsenic as As, mg/l	APHA 3114 C	ND < 0.01

SPECTRUM LABORATORIES (PENANG) SDN BHD
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MS ISO/IEC 17025 TESTING SAMM NO. 111

Lab Report No : W / 1705 / 589 (4)
Date : 26 th May 2017

PARAMETER	METHODS	RESULT
Cyanide as CN, mg/l	OSRMA p 456	ND < 0.02
Lead as Pb, mg/l	APHA 3111 B	ND < 0.01
Chromium as Cr, mg/l	APHA 3111 B	ND < 0.01
Copper as Cu, mg/l	APHA 3111 B	ND < 0.01
Silver as Ag, mg/l	APHA 3111 B	ND < 0.02
Zinc as Zn, mg/l	APHA 3111 B	ND < 0.02
*Chloroform, mg/l	APHA 6232 C	< 0.002
*Bromoform, mg/l	APHA 6232 C	0.079
*Dibromochloromethane, mg/l	APHA 6232 C	0.003
*Bromodichlomethane, mg/l	APHA 6232 C	< 0.002
*Aldrin, mg/l	APHA 6630-B	< 0.000001
*Dieldrin, mg/l	APHA 6630-B	< 0.000002
*Chlordane, mg/l	APHA 6630-B	< 0.000001
*DDT, mg/l	APHA 6630-B	< 0.000002
*Heptachlor, mg/l	APHA 6630-B	< 0.000001
*Heptachlor Epoxide, mg/l	APHA 6630-B	< 0.000001
*Hexachlorobenzene, mg/l	APHA 6630-B	< 0.000001
*Lindane, mg/l	APHA 6630-B	< 0.000001
*Methoxychlor, mg/l	APHA 6630-B	< 0.000002
*Endosulfan, mg/l	APHA 6630-B	< 0.000002
*2,4-D, mg/l	APHA 6630-B	< 0.00002
Total Coliform, MPN/100ml	APHA 9221 B	< 1.8
Escherichia coli, MPN/100ml	APHA 9221 F	< 1.8

NOTE :
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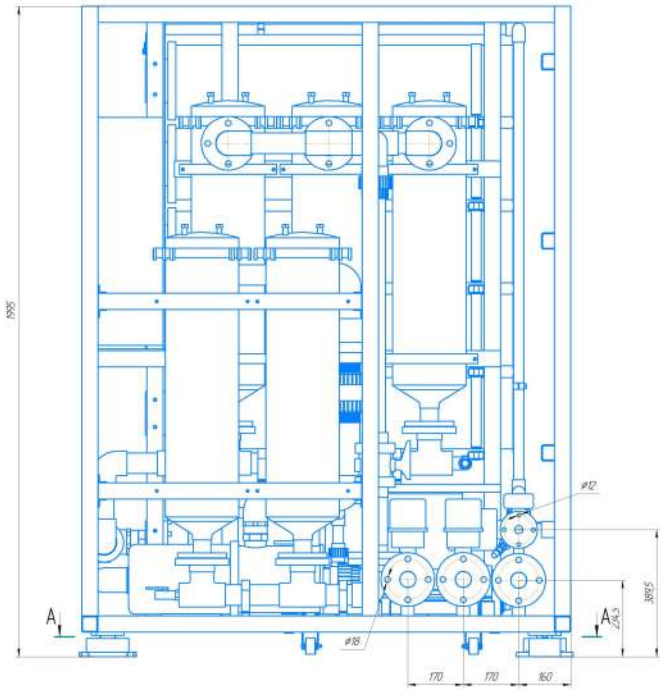
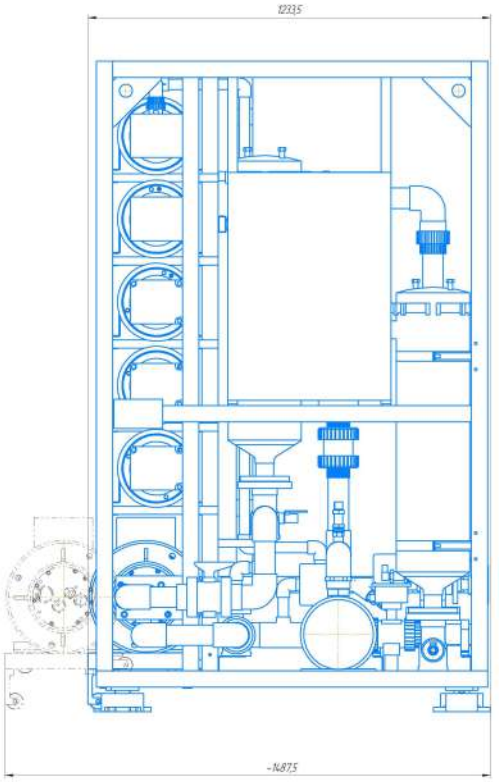
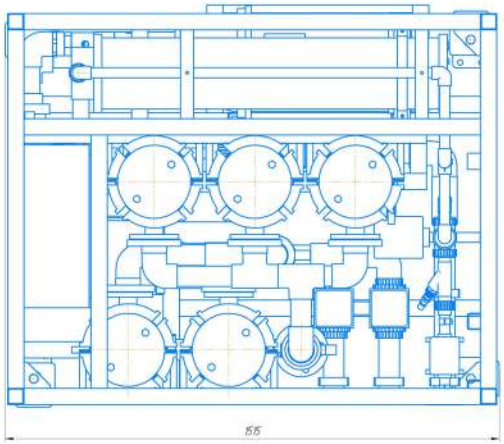
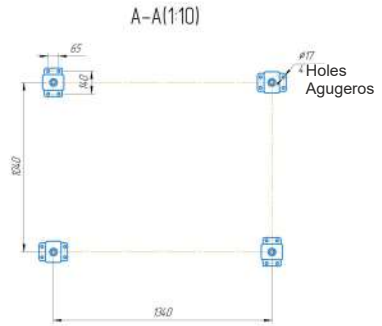
Equipment diagram with capacity for 100m3 per day Part 1

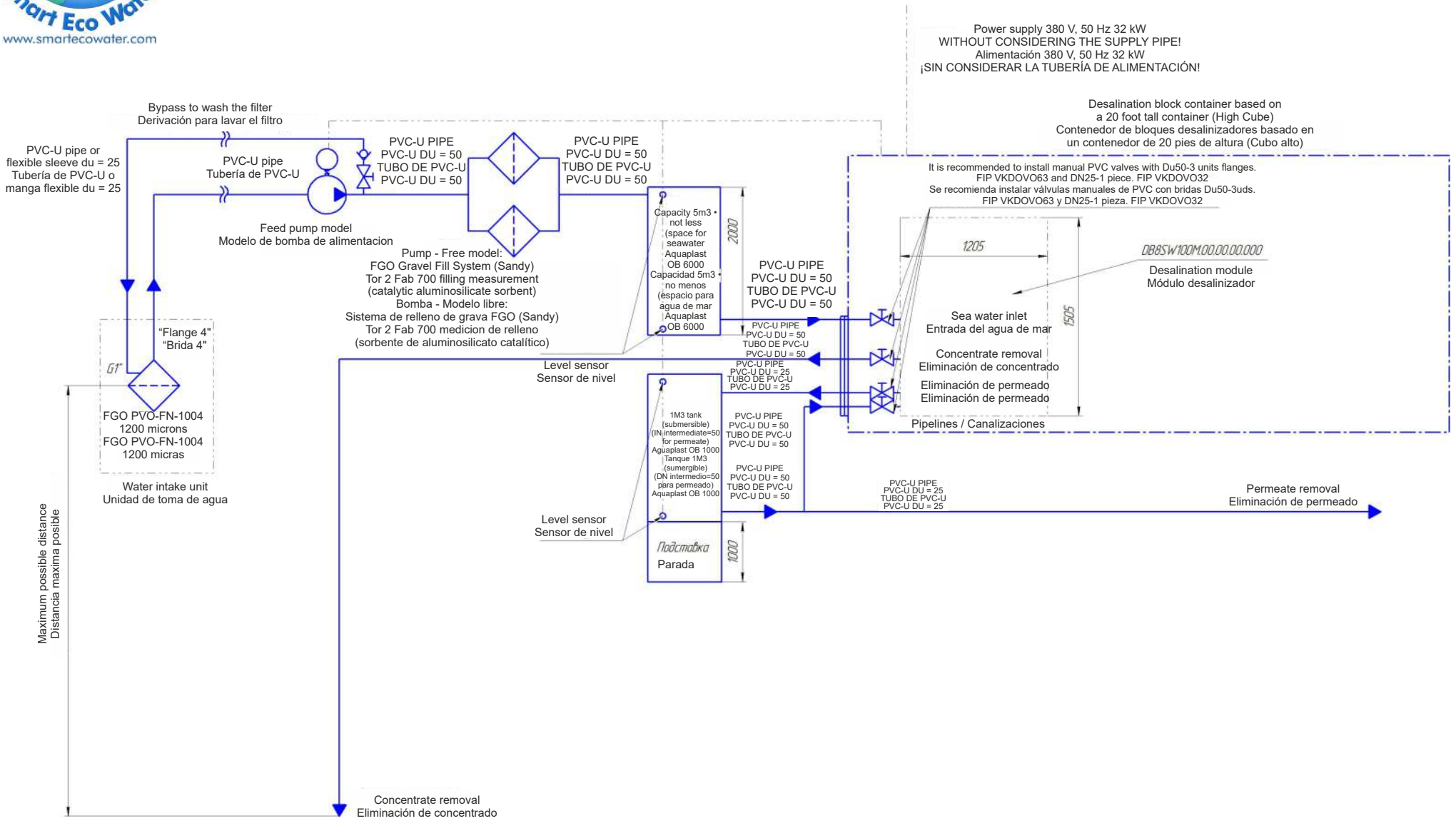






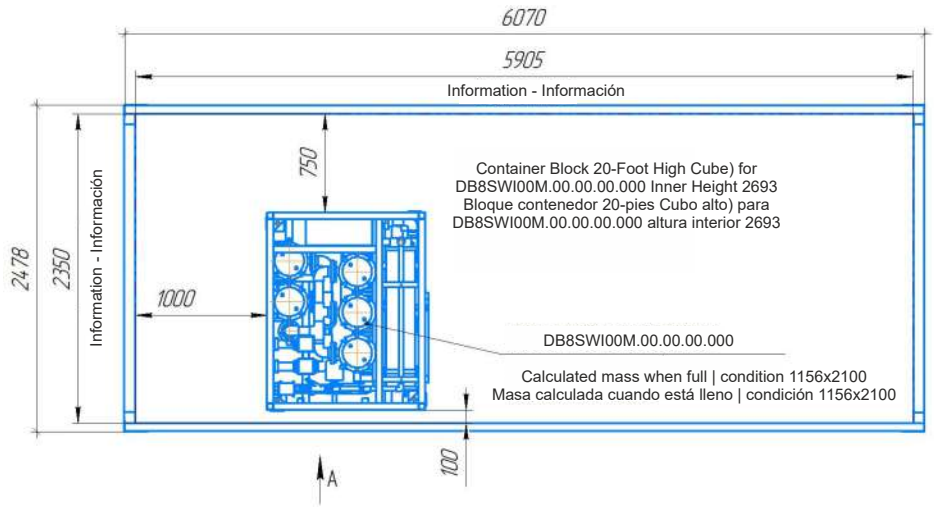


Equipment diagram with capacity for 100m3 per day Part 2



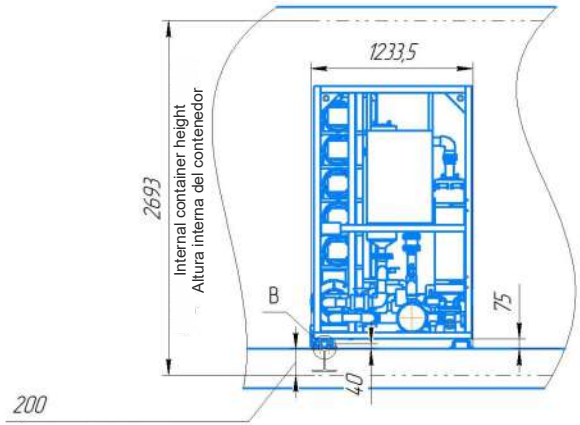
Equipment diagram with capacity for 100m3 per day Part 3

Floor plan
Plano en planta



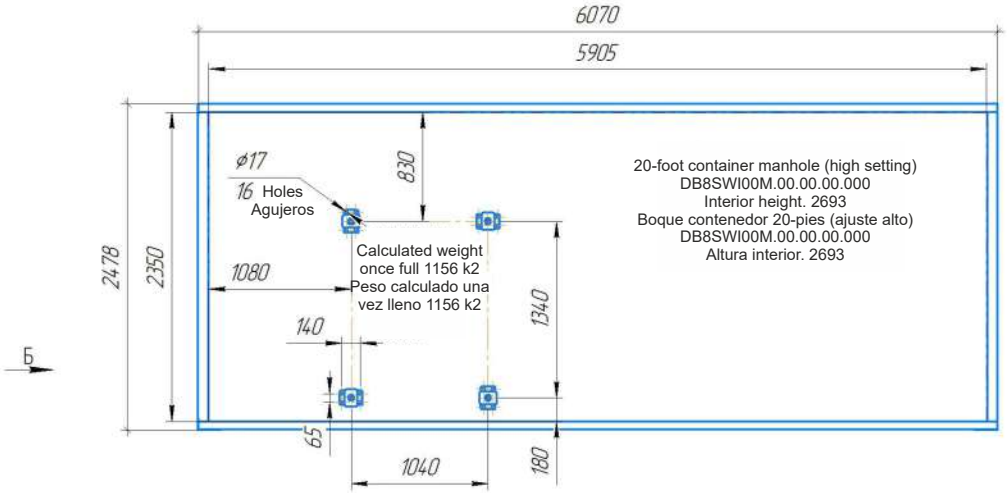
A

(Container wall)
(Pared del contenedor)

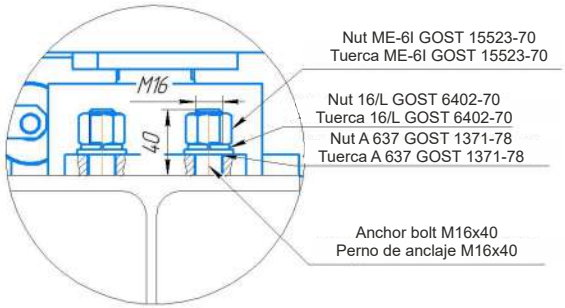


False height for reinforcement (at the discretion of the container manufacturer/floor).
Falsa altura para refuerzo (a criterio del fabricante/piso del contenedor).

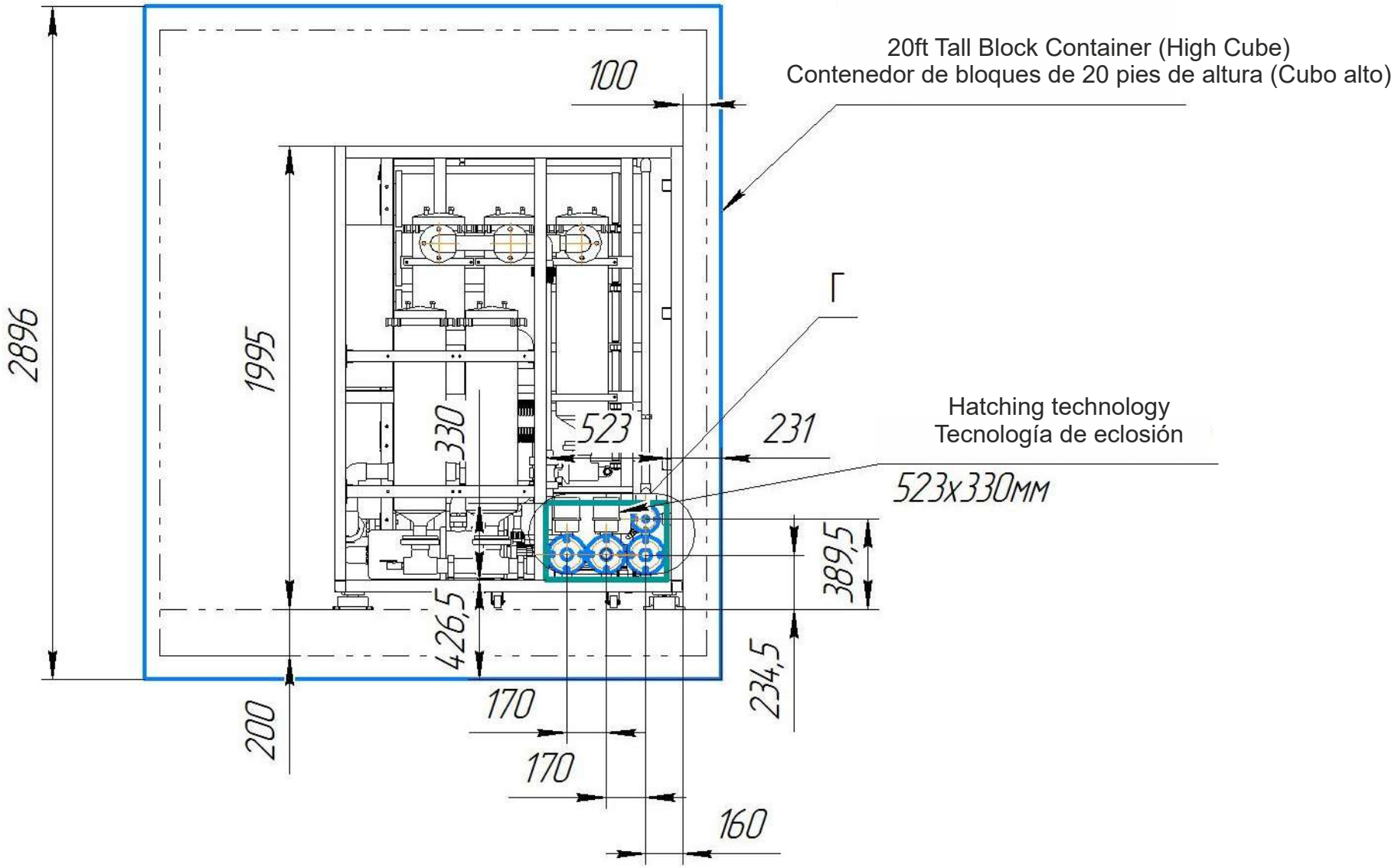
Damper location diagram for installation
DB8SWI00M.00.00.00.000
Diagrama de ubicación del amortiguador para la instalación
DB8SWI00M.00.00.00.000



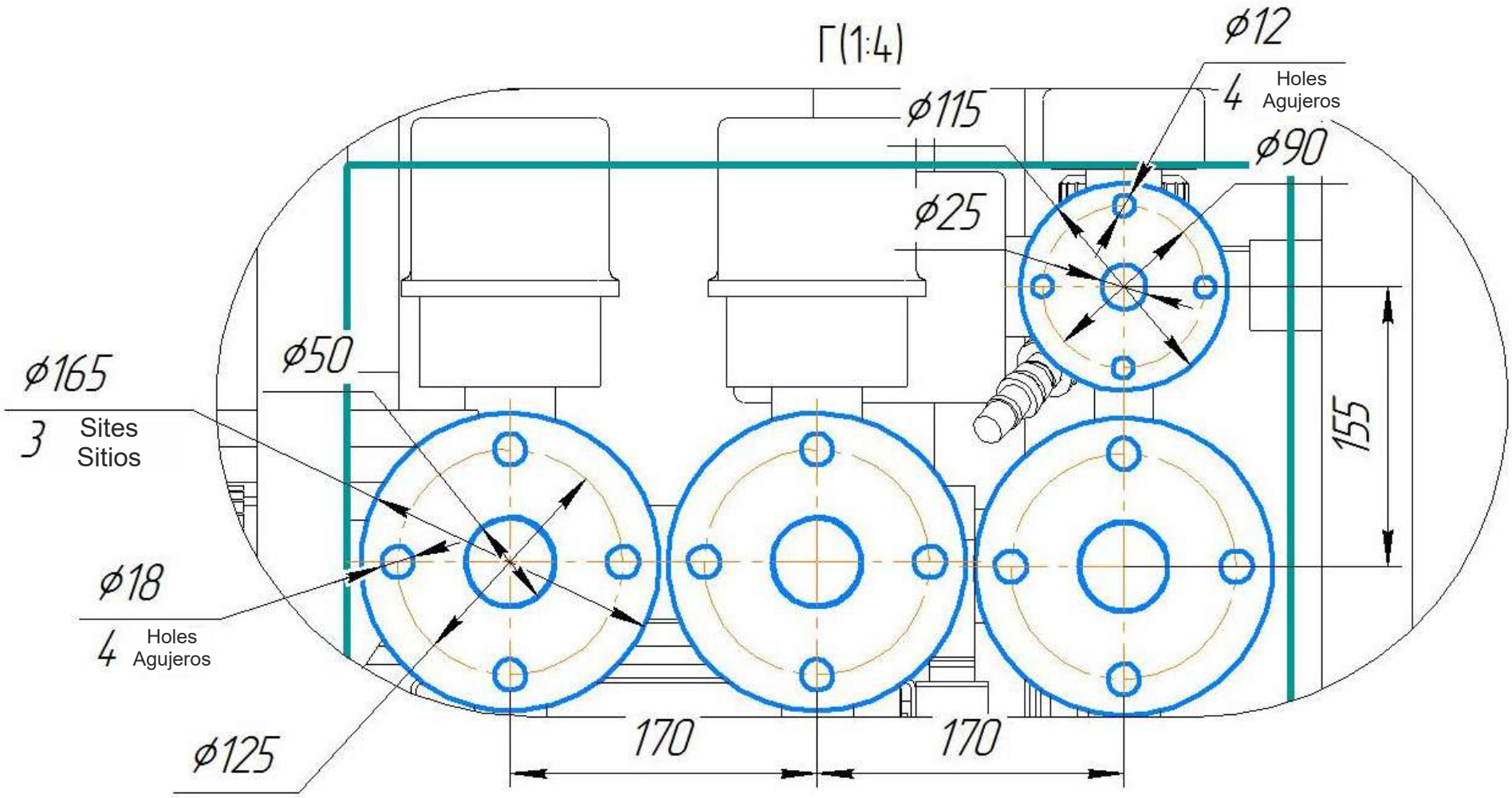
B(1:2)



Equipment diagram with capacity for 100m3 per day Part 4



Scheme of the machinery with capacity for 100m3 per day 4



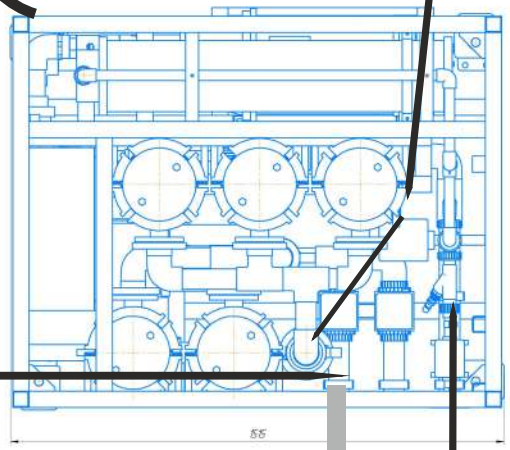
Installed Power

380 v
17 kw / h

Output
+ Distribution
- 1,2 l/s

Ø 1 1/4"

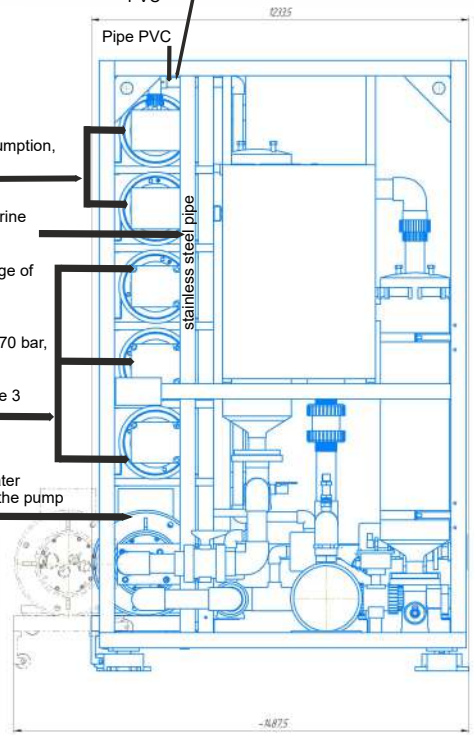
From the three pretreatment filters, water flows to two filters fines with a particle size of 10 micrometers.



Another part of the concentrated brine purified under high pressure (using this additional energy from the water) is returns to the two membranes superiors.
These membranes, in addition, They supply approximately 15% more drinking water clean that is sent to the system general supply for consumption.
In this way, 40% is obtained of clean drinking water for consumption, saving 15% of costs energy in recovery.

Then drinking water purified (25%) is sent for consumption through the pipeline PVC

Pipe PVC



Part of the concentrated brine purified (approximately 2 times higher than water sea) is sent to the discharge of return to the sea or a well.

Under the pressure P = 45 -70 bar, depending on salinity and sea water temperature, the water passes through the 3 lower membranes.

Through the pipe, the water pre-purified sea goes to the pump high pressure

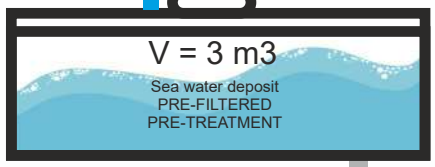
Later it passes into an intermediate tank of seawater (V = 5 M3 minimum). This deposit is necessary for the supply of water in case of an unscheduled shutdown of the feed pump.

From the intermediate tank, the seawater driven by another pump included in the desalination machine (under pressure P= 2-4 bar), sent through the pipe to the three pretreatment filters with a magnitude of 50 micrometer particles.

The rest of the purified concentrated brine is sends the discharge back to the sea or a well.

The mineralization of water is carried out in this piece, through a device that sends impulses obtaining the appropriate dose of mineralization residual brine, this process is controlled directly through the software included in the equipment

The sand filter that retains layers of oil, fuels and small suspensions.

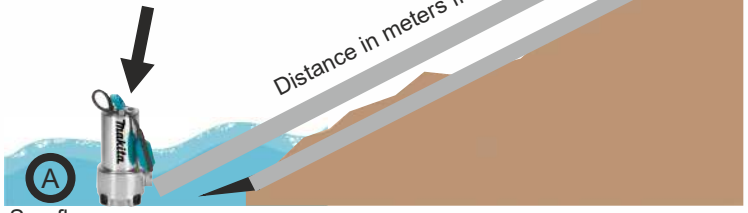


masl (Meters above sea level)
Installation height masl ?
Input Output

Brine return to the sea

Sea water enters the feed pump through the filter system.
The reticulated filter that retains large algae and small shellfish and other impurities of a certain size.

Distance in meters from A to B



Ø 1 1/4" = 32 mm. Approximate

12 m. Maximum → m b s l (Meters below sea level)

Ideal internal diameter of pipes: 32 mm.

DB8SW100M.00.00.00.000DS
Desalination module assembly

ATTENTION!

1. The manufacturer is constantly improving the design, so the operational and technical documentation may not reflect individual changes caused by modernization.
2. The data sheet must always be with the product.

1. GENERAL INFORMATION

1.1. Manufacturer: SMART ECO WATER

1.2. Index: DB8SW100M

1.3. Factory number: №1

1.4. Date of manufacture: 31/07/2023

2. PURPOSE

2.1 Desalination module assembly DB8SW100M is designed to produce drinking conforming to Sanitary/Hygienic Norms and Regulations quality water from sea water, EC, BO3, USEPA.

2.2 Desalination of sea water is carried out automatically by the method of reverse osmosis by supplying source water using a feed pump to the desalination module.

2.3. The module operation is based on the water filtration at a pressure above osmotic pressure through semi-permeable membranes having the ability to pass water and retain molecules and ions of dissolved substances (reverse osmosis method).

The reverse osmosis process is a separation of desalinating water into two streams - a concentrate, containing the bulk of dissolved substances, and a permeate (fresh water). The concentrate is dumped into the sea, the permeate (fresh water) is used as a drinking water.

2.4. Desalination module assembly composition DB8SW100M (on a single frame):

- Hydraulic drive;
- Membrane casing, 5 pcs.;
- Control cabinet;
- Distribution block;
- Block of final filters;
- Block of primary filters;
- Permeate flow meter;
- Concentrate flow meter;
- Frame assembly:
- Feed pump unit.

All units are assembled on a space frame of a closed type.

All units are interconnected by pipelines and flexible hoses according to the hydraulic scheme.

SPECIFICATIONS:

The main technical characteristics are given in the table:

№	Parameters	Value
1	Nominal capacity*, m3/day, not less than	100
2	Operating pressure MPa (kgf/cm2), no more than	5,5 (55)
3	Power consumption, kW, no more than	22
4	Dry weight, kg, no more than	800
Dimensions		
5	Length, mm	1515
6	Width, mm	1233
7	Height, mm	1995

* Standard conditions for performance calculation:

– Salinity of source water – 32,000 mg/l;

– Water temperature – plus 25°C;

- Working pressure - 5.5 MPa.

Purchased component parts undergo input control at the manufacturing plant in accordance with the regulations at the enterprise.

3. DELIVERY COMPLETENESS:

Product Designation	Product Name	Quantity	Serial Number	Note
DB8SW100M.00.00.00.000	Desalination Module	1	№1	-
DB8SW100M.00.00.00.000SPTA	Spare Parts Kit	1	-	-
Operational Documentation				
DB8SW100M.00.00.00.000DS	Data Sheet	1	-	-
DB8SW100M.00.00.00.000RE	Operational Manual	1	-	-

Smart Eco Water
smartecowater.com

DB8SW100M.00.00.00.000DS
Desalination module assembly

4 MANUFACTURER WARRANTY

Warranty period for DB8SW100M is 36 months from the date of commissioning while the consumer observing the conditions of transportation, storage, installation and operation, but not more than 18 months from the date of receipt by the consumer.

5 ACCEPTANCE CERTIFICATE

DB8SW100M desalination module assembly, serial number _____№1_____, manufactured and tested in accordance with the requirements of the current design documentation, scientific and technical documentation, conforms to the design documentation and is approved as fit for operation.

Control test data:

Controlled Parameters	Rev.	Denomination Value	Results Tests
Nominal Capacity	m3/day	100	**101,37**
Working Pressure	MPa (kgf/cm2)	5,5 (55)	**5,53**
Power Consumption	kW	22	**21,78**

Responsible for acceptance:

Director SmartEcoWate

6. DISPOSAL

DB8SW100M The desalination module is made of environmentally friendly materials and does not pose a danger to people and the environment after the end of its service life.

Metal can be recycled.

7. PACKAGING, STORAGE AND TRANSPORT

Packing and preservation is performed in accordance with the requirements of technical specifications or drawing documentation.

Transportation by any type of enclosed transport with positive temperature maintaining. Sending by transport packages and containers or by other means, ensuring the safety of the unit from external mechanical damage.

Warranty counterfoil №. 1

was withdrawn on «_____»
_____20____

Contractor
_____

Completed work

break line

Coupon No. 1 for warranty repairs

Date of sale «_____» _____20____

Completed work

break line

Buyer «_____» _____20____

Contractor «_____» _____20____

epair cost

A coupon without a data sheet is invalid. In case of loss of a data sheet and warranty cards, duplicates are not issued, and the buyer loses the right to warranty repairs.

Warranty counterfoil №. 2

was withdrawn on «_____»
_____20____

Contractor
_____

Completed work

break line

Coupon No. 2 for warranty repairs

«Date of sale _____» _____20____

Completed work

break line

Buyer «_____» _____20____

Contractor «_____» _____ 20____R

Repair cost

A coupon without a data sheet is invalid. In case of loss of a data sheet and warranty cards, duplicates are not issued, and the buyer loses the right to warranty repairs.

QUALITY DEPARTMENT

+34 634 077 903 / +34 692 058 845

comercial@smartecowater.com

http://smartecowater.com

Information filters and membranes:

The unit is delivered with a prefiltration system Classification 20 and 10. equivalent to 5 µm (microns), in disk filters and self-cleaning sleeves.

This is enough to clean most of the seawater before passing through the OI membrane.

In our case, filtering systems are conceived in a simpler way.
For the pre-filtering, only a multilayer tax filter (to different granulometries) will be required with the aim of catching and separating solids in suspension, primarily improving the clarity of the water while reducing the load of the filters, and damage is avoided to the high pressure pump of the OI system.

They have been designed to allow self-limit, from the investment of circulating flow with "clean water"

This process is 100% controlled by the system software, who emits the order so that the "retro washed" is carried out automatically and quickly, with clean water at high pressure (in ranges of; 60-65 bar = 870-942 LB/PSI.

As attached data:

> Let us understand that Zeolite -based filters are generally used to neutralize elements present in deep wells, or very polluted., And certain characteristics must be taken into account to determine the method that will be applied, from the analysis of the water of water of The source that you want to improve for use.

In our case, if there is high pollution, the incorporation of a zeolite load filter can be considered. But this will be determined by the water analysis of the source available for treatment, whether we talk about sea water or other source, therefore, this additional filter can not necessarily be useful and functional; The decision regarding the need to include it is at the discretion of our engineers, after obtaining the definitive values of the water to be processed.

(Zeolite, are part of the aluminosilicates and cations, whose porous characteristics allow to catch within their pores certain components present in the water, such as iron, heavy metals, ammonia, in addition to contributing to compensate/reduce acidity -Ph- of the water).

Inverse Osmosis Membranes Desalination.

- Elimination of water dissolved contaminants (degree of elimination> 99%) of the type; mineral salts, dissolved organic matter, heavy metals, pesticides, radioactive elements, etc.

- Combined filtration/diffusion process through a semipermeable membrane, thanks to high pressure, salts free water flows through the membrane, and is collected in a central tube (product or permeated), while concentrated water In Sales it circulates in parallel to the membrane (rejection or brine).

The membranes are manufactured with polymers and are encapsulated inside PFV pressure tubes.

In the indications described above, the salty or brackish water purification process is described, obtained from the OI for which, our equipment is finely designed and calibrated, so we can only add that our OI filtering system , it is by far the most efficient, effective, simple and economical, and in terms of performance within the current offer available in the market, and for its operational configuration without chemical reagents, it is also ecological.

Smart Eco Water It offers a high price/value ratio for your investment, thanks to the fact that the design considers in an integral way; Durability (15 to 20 years), the low investment in facilities to house the equipment because they are ultra compact designs, which do not demand large and expensive infrastructure investments, leaving the client consideration the possibility of hosting the equipment, even, even, Within containers that according to the measures and capacity of the equipment can be 10 '(up to 100 m3/7.5 m2), 20' (up to; 200 m3/14.8 m2), 40 '(up to 400 m3/ 29 m2) (10, 20, 40 feet).

As part of the desalination equipment, Smart Eco Water can supply a unit of its own design, capable of restor Production costs, but guarantees the independent continuity of the process by a cycle very similar to the original completed.

This recovery treatment that will last about 8 to 10 hours, will leave the OI membrane in conditions of use at a value equivalent to 90%.

Inverse Osmosis Membranes Desalination.

The re-minization of the water obtained with our equipment, is adjusted from factory according to standardized parameters, and is another of the automated processes of the system.

The terms can be discussed and adjusted in coordination with the technical team of **Smart Eco Water**.

It is important that the client takes into account that for **Smart Eco Water** to give a broad 3 -year warranty on the operation of their equipment, and may indicate that the useful life of the equipment is 15 to 20 years, depending on the use, avoiding the corrosion of its components for at least 15 years; It is necessary to make a series of adjustments both in the equipment operating parameters to adapt the 100% water potability based on the analysis of the same, as well as for a special anticorrosion treatment that necessarily entails a necessary process of tests and measurements, to guarantee the durability of all components of the equipment.

Therefore, the client must assess not only the excellent benefits offered by our teams, but also that **Smart Eco Water** takes great care of the quality, durability and proper functioning of the equipment, preventing the client from being affected by breakdowns or deterioration of the deterioration of the Equipment, being able to know that our team will function totally automatically and uninterrupted during the necessary period of time to supply 100% drinking water.

Design and operation

The operation of the unit is based on the filtration of water at a pressure greater than the osmotic pressure through semipermeable membranes that have the ability to miss the water and retain molecules and ions of dissolved substances (reverse osmosis method).

The inverse osmosis process is a separation of desalinated water into two currents: a concentrate, which contains most of the dissolved substances, and a permeated (fresh water).

The concentrate is poured into the sea or the well or is about the use to obtain 100% ecological salt, the permeated (fresh water) is used as drinking water.

An inverse osmosis membrane with a selectivity of 98-99% allows to obtain drinking water from sea water or brackish.

At the same time, fine impurities, organic and inorganic colloids, bacteria, viruses and microflora are almost completely eliminated from water.

The desalination of seawater, river or brackish water wells by reverse osmosis occurs when water pressure at the membrane entry exceeds osmotic pressure.

The value of osmotic pressure depends on the nature of dissolved substances and their concentration, therefore, the greater the salinity of the inlet water, the greater the value of the osmotic pressure.

Inverse Osmosis Membranes Desalination.

The re-minization of the water obtained with our equipment, is adjusted from factory according to standardized parameters, and is another of the automated processes of the system.

The amount of water losses obtained by reverse osmosis depends on the following factors:

- Input water pressure.
- Concentration of salts and minerals in the inlet water.
- Inlet water temperature.

The nominal capacity of the plant is calculated at a temperature of the inlet water of 25 ° C and a concentration of salt of 36 g/l.

When the unit is turned on, the presence of external pressure is verified.
In the case of seawater (no less than 0.2 MPa).

At low pressure, the unit shows an error message, the operation of the high pressure pump is stopped until external pressure appears at the entrance of the OM-005 unit.

At normal pressure, the unit is launched.

The exterior water is fed through the prefiltration station to the fine filtering unit, where it is mechanically cleaned with impurities of up to 5 microns of size.

After cleaning, the water prepared through the high pressure pump enters the desalination unit for the desalination of seawater.

After passing through the reverse osmosis membrane, the flow is separated in permeated and concentrated.

The cost of obtaining drinking water with pretreatment with our equipment complying with all the requirements of the World Health Organization (WHO), the EU, the Usera and the Sanitary Regulations and Standards (SRN) does not exceed 0.4 $/m3 , which is significantly lower than the expenditure produced by other equipment currently available.

The filter, the membranes and the main device are able to filter and clean 100% of fuels and oils, in addition to the salt and chemical elements contained in the water.

As is known, Smart Eco Water carefully takes care of all the components of our teams comply with the best standards, in fact, for this reason we offer a minimum guarantee of 3 years.

CHARACTERISTICS
Filter (bag), washable.
- Productivity 4-6 cubic meters/hour ...
- Stainless steel body
- Weight 15 kg
- Dimensions ... 350 x 320 x 1200
- 50 microns and 10 microns

Amount per 100 cubic meters/day - 50 microns 3 pieces ... 10 microns - 2 pieces.
Number of membranes 5 sh

DATA SHEET

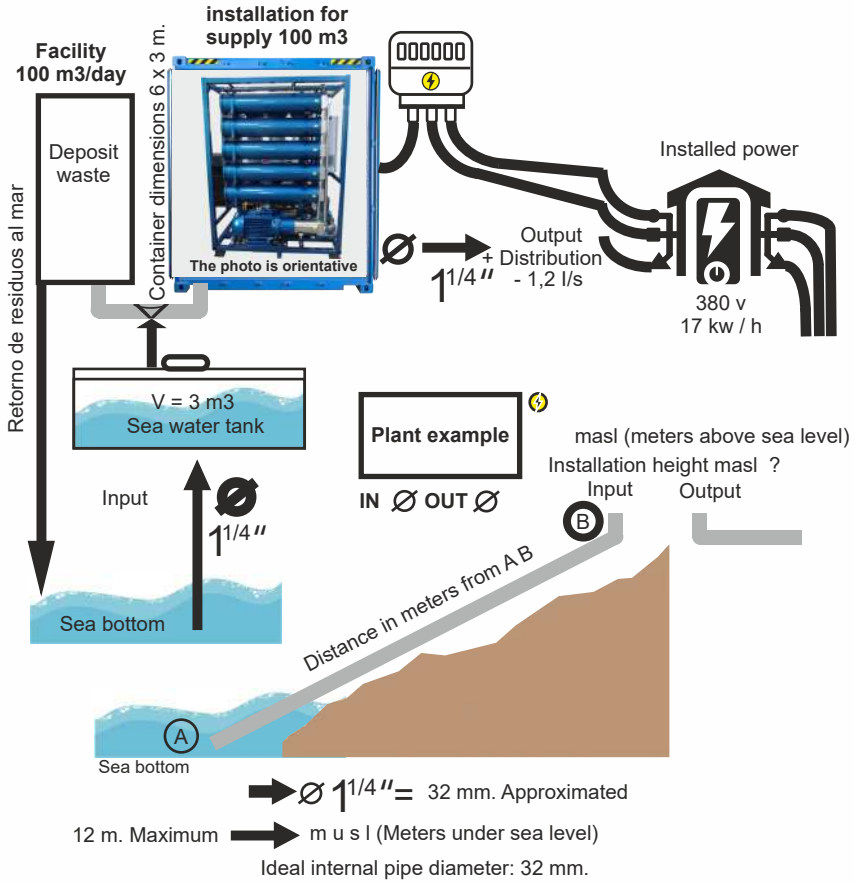
Max-8040 SWC6 membrane elements

		LOW	HIGH
Production		600PSI	800PSI
	Purified water (perimeter)	25m3/day	50m3/day
	Nominal selectivity	99.6%	88.8%
	Maximum	99.4%	99.7%
	Boro Selectivity (mean)	83.0%	91.0%
Element Type Configuration		Element Spiral	
	Menbrane polymer	Composite polyamid	
	Nominal surface	440ft2 (40. 8m2)	
Max work parameters.	Max. Pressure	1200PSI pressure (8.27 MF[illegible])	
	Max. Chlorine concentration	<0.1 ppm	
	Max. Working temperature	45ºC	
	PH fingerboard (pH clean)	2.0 - 11.0 (1-13)	
	Max. Water turbidity	1.0 NTU	
	Max. Colloidal Index Value		
	SDI source water (15 minutes)	5.0	
	Max. Origin water consumption	3.6 m3/hour	
	Max. Water permeated fraction		
	Origin for each element	10%	
	Max. Pressure drop for each element	10psi (0,07 MPA)	

SUPPLY SCHEMES

SEA WATER INSTALLATION DIAGRAM

The following scheme explains the detailed operation of a desalination plant for the production of 100 m3 per day.



INSTALLATION SCHEME OF BRAICKISH WATERS OF WELL AND RIVER

The following scheme explains the detailed operation of a brackish water treatment plant for the production of 100 m3 of drinking water per day.