



Upflow limestone contactors of constant height
for the remineralisation of desalinated water

Remineralisation of SWRO Ras Abu Fontas 3, Qatar, 168000 m³/d



Remineralisation of SWRO La Calata, Tenerife, 10000 m³/d

Catalogue

 **DRINTEC™**
Experts in water remineralization



LIMESTONE CONTACTOR IN VERTICAL TANKS OF FRP/PP/SS316

Diameter (mm)	Max. height (mm)	Flow* (m ³ /d)	Material
600	4000	20 - 80	FRP / PP / SS316
800	4000	35 - 140	FRP / PP / SS316
1000	5750	60 - 365	FRP / PP / SS316
1200	5750	80 - 525	FRP / PP / SS316
1380	5750	110 - 695	FRP / PP / SS316
1625	5750	150 - 960	FRP / PP / SS316
2000	5750	230 - 1460	FRP / PP / SS316
2325	5750	310 - 1970	FRP / PP / SS316
2500	5750	350 - 2280	FRP / PP / SS316
3000	5750	500 - 3390	FRP / PP / SS316

*May vary with permeate characteristics and water temperature.

Characteristics	
Flow direction	Upflow
Filtration media	Granulated calcite (CaCO ₃)
Contact time	10-30 minutes
Turbidity at the outlet	< 1 NTU**
Autonomy	30 days
Operating pressure	Up to 8 bar
Outlet pressure	Atmospheric / Pressurised
Internal paint	For drinking water
External paint	UV light resistant
Design temperature	Up to 65 °C
Time between backwashings	At startup and then every 6-12 months
Manufacturing standard	UNE-EN-13121, ASME X Class II Stamped, ASME Sec VIII, ASME-'U' Stamped
Manufacturing country	Spain

** Assuming good quality calcite as per our recommendations



Side view



Isometric view

LIMESTONE CONTACTOR IN HORIZONTAL FRP TANKS

Dimensions mm (l x w x h)	Maximum flow* (m ³ /d)
4790 x 1625 x 2000	1100
4790 x 1625 x 2250	1400

*May vary with permeate characteristics and water temperature.

Characteristics	
Designed to reduce the height and minimize visual impact	
Flow direction	Upflow
Contact time	10-30 minutes
Maximum inlet pressure	3 bar
Outlet pressure	Atmospheric
Internal resin	For drinking water
External paint	UV light resistant
Turbidity at the outlet	< 1 NTU**
Autonomy	30 days
Design temperature	Up to 65 °C
Filtration media	Granulated calcite (CaCO ₃)
Time between backwashings	At startup and then every 6-12 months
Manufacturing standard	UNE-EN-13121
Manufacturing country	Spain

** Assuming good quality calcite as per our recommendations



Remineralisation of SWRO Alicante II, Alicante, 80000 m³/d



Remineralisation of SWRO Ashdod, Israel, 384000 m³/d

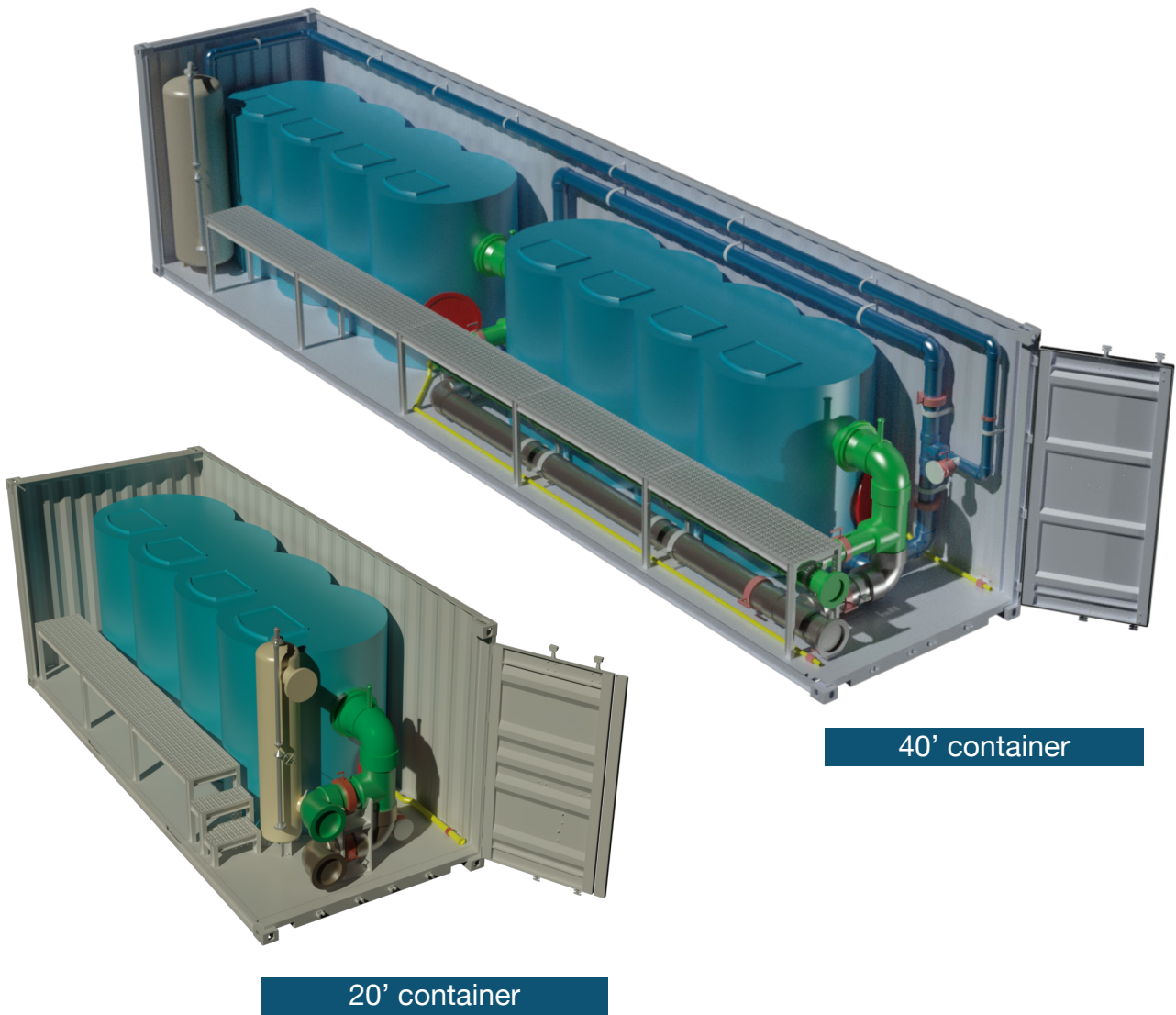
LIMESTONE CONTACTOR IN RECTANGULAR CONCRETE CELLS

Width (m)	Length (m)	Flow* (m ³ /d)
2,02	5,02	1460 - 4870
2,02	6,02	1750 - 5840
4	4	2300 - 7680
2,02	8,02	2330 - 7780
3,02	6,02	2620 - 8730
3,02	7,02	3050 - 10180
4	5,79	3335 - 11120
4	6,07	3500 - 11650
4	6,41	3700 - 12300
4	6,69	3850 - 12850
4	7,72	4450 - 14820
4	8	4600 - 15360
4	8,28	4770 - 15900
4	8,62	4965 - 16550
4	8,9	5100 - 16970

*May vary with permeate characteristics and water temperature.

Characteristics	
Flow direction	Upflow
Contact time	10-30 minutes
Maximum inlet pressure	8 bar
Outlet pressure	Atmospheric
Turbidity at the outlet	< 1 NTU**
Autonomy	30 days
Filtration media	Granulated calcite (CaCO ₃)
Time between backwashings	At startup and then every 6-12 months
Internal parts supplied by DrinTec™	<ul style="list-style-type: none"> • Underdrain floor (HDPE) • Modular spillways (FRP) • Upper limestone feeding system of calcite (various plastics)
Manufacturing country	Spain

** Assuming good quality calcite as per our recommendations



40' container

20' container

LIMESTONE CONTACTOR IN CONTAINERS

Container (feet)	Maximum flow* (m ³ /d)
20	1100
40	2800

*May vary with permeate characteristics and water temperature.

Characteristics	
Flow direction	Upflow
Maximum inlet pressure	3 bar
Outlet pressure	Atmospheric
Turbidity at the outlet	< 1 NTU**
Autonomy	30 days
Design temperature	Up to 65 °C
Required material for operation	Granulated calcite (CaCO ₃) & CO ₂ / H ₂ SO ₄
Time between backwashings	At startup and then every 6-12 months
Energy consumption	0 kWh/m ³
Manufacturing standard	UNE-EN-13121
Manufacturing country	Spain

** Assuming good quality calcite as per our recommendations



Low pressure CO₂ Dissolver of SWRO Ras Abu Fontas 3, Qatar, 168000 m³/d



Low pressure CO₂ Dissolver of SWRO Adeje, 30000 m³/d

DOWNFLOW LOW PRESSURE CO₂ DISSOLVER IN FRP/SS316

Diameter (mm)	Flow (m ³ /d)	Max. height (mm)	Material
80	20-30	4000	PVC
100	30-50	4000	PVC
125	40-75	4000	PVC
150	60-110	4000	PVC
200	110-190	4000	PVC / FRP / SS316
250	170-300	4000	PVC / FRP / SS316
300	270-470	4000	FRP / SS316
400	430-760	4000	FRP / SS316
500	700-1230	4000	FRP / SS316
600	980-1710	5750	FRP / SS316
800	1740-3040	5750	FRP / SS316
900	2220-3890	5750	FRP / SS316
1000	2710-4750	5750	FRP / SS316
1200	3900-6840	5750	FRP / SS316
1380	5170-9050	5750	FRP / SS316
1625	7170-12540	5750	FRP / SS316
2000	10860-19000	5750	FRP / SS316

Characteristics

Characteristics	
Designed to maximize CO ₂ dissolution without overdosing	
Operating pressure	0,2 bar higher than the permeate water pressure
Nominal pressure	Up to 8 bar
CO ₂ injection pressure	0,2 bar higher than water pressure
Flow direction	Downflow
Bottom of the tank	Round with 3 legs
Top of the tank	Round with purge flange
Internal paint	For drinking water
External paint	UV light resistant
Design temperature	Up to 65 °C
Required material for operation	Gaseous CO ₂
Manufacturing standard	UNE-EN-13121, ASME X Class II Stamped, ASME Sec VIII, ASME-'U' Stamped
Manufacturing country	Spain



DrinTec™ is a brand of LCCH S.L.U.
Canary Islands
Spain
+34 922 00 60 30
info@lcch.es
<https://www.drintec.com>