

WATER911 – SMDT
***(Synopex Mobile Drinking
water feeding Trailer)***



www.synopex.com

Contents



1. Company Profile

2. WATER911-SMDT

(Synopex Mobile Drinking water feeding Trailer)

Company Profile

Overview

Overview

CEO	Son, Kyoung-Ik	
Turnover	USD 199 million (As of Dec. 2010)	
Employee	Dongtan	About 560 employee
	Pohang	About 130 employee
Key Products	Dongtan	<ul style="list-style-type: none"> • Touch-screen • Tempered Glass • Key-PBA
	Pohang / Daegu	<ul style="list-style-type: none"> • Water Treatment System • High-performance Filter • Eco-friendly Packing Materials
Website	www.synopex.com	
Location	<ul style="list-style-type: none"> • Pohang (Head office) • Seoul/Dongtan/Giheung/Daejeon /China/Gimhae/Gimcheon/Daegu 	

Key Accounts



- Touch-screen
- Tempered Glass
- Key-PBA



Water Treatment

- Daegu Water treatment System

History

- 1985. 04 Foundation
- 1994. 11 Development and sales of water treatment filter
- 2006. 02 Started Filtration System Business
- 2006. 06 M&A with Yoowon Telecom and Shinyang P&P
- 2006. 07 Technology Transfer & localization of Nano-composite membranes with Korea Research Institute of Chemical Technology
- 2006. 08 Developed High-performance filters for Semiconductor / LCD
- 2007. 09 Developed Nano-composite membranes(NF)
- 2008. 04 Developed High-performance filters for CMP Slurry
- 2008. 12 Developed High-performance hollow fiber membranes
- 2009. 02 Signed MOU with Eqlim Danesh Co.(IRAN)
- 2009. 03 M&A with membrane and water treatment engineering company
- 2009. 07 Started Water Business Group
- 2009. 08 M&A with Water Treatment Systems Equipment Manufacturers
- 2010. 03 Registered the patent under the title of 'Nano separation method/equipment of saline water from Kim-chi salting process'
- 2010. 04 Registered the patent under the title of 'Small package type water supply facilities system by purifying a subterranean water or a valley water by using Ultra filter'
- 2010. 06 Registered the patent under the title of 'Manufacturing system of compost and liquid fertilizer from livestock excretion'
- 2010. 07 Registered the patent under the title of 'Small package type water supply facilities system by purifying a groundwater or a valley water by using RO membrane'
- 2010. 10 Developed Reverse Osmosis membrane(RO)
- 2011. 01 Registered the patent under the title of 'Treatment system of fluoride wastewater using membrane / Remove T-N, T-P, color from effluent and effluent reuse system using membrane'
- 2011. 02 Registered the patent under the title of 'Removal system / method of phosphorus from wastewater'
- 2011. 06 Registered the patent under the title of 'Reue system of sodium hydroxide from textile manufacturing process'
- 2011. 09 Registered the patent under the title of "Industrial wastewater effluent reuse system and technology using MF/RO Membrane"



- **Hold lots of registrations related to water treatment professional company**
- **Hold patents for membrane & lots of intellectual properties**
- **Secure Membrane Technologies in the field of water treatment**
- **Developed Ultra filtration(PAN type) & Gas separation membranes for the first time in Korea**
- Hold patents related to Gas separation membranes
- **Manufactured Cartridge Micro-Depth Filter using Melt-Blown Technology for the first time in Korea**

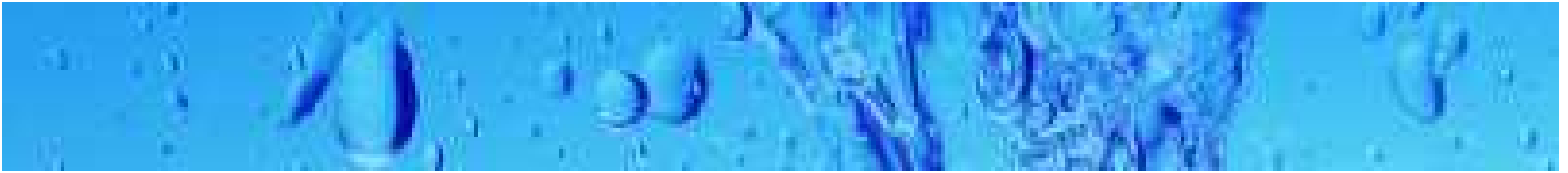
Registration Certificate

No.	Registration Certificate	Issuing Organization	No.	Registration Certificate	Issuing Organization
1	Certificate of R & D Center	Korean Industrial Technology Association	8	Registration of water protection facilities	Provincial Government in Gyeongsang buk-do
2	Factory License	Pohang	9	Management services of Private sewage treatment facilities	Pohang City Hall
3	KS A ISO 14001	Korean Standard Association	10	Construction Certificate	Pohang City Hall
4	KS Q ISO 9001	Korean Standard Association	11	Registration of toxic material dealer	Pohang City Hall
5	Product Certificate(Polyethylene paper)	Korean Standard Association	12	Appointment of Gyeongbuk Pride Product	Provincial Government in Gyeongsang buk-do
6	Product Certificate(rust-free paper)	Korean Standard Association	13	Appointment of Employment leading company in Korea	Provincial Government in Gyeongsang buk-do
7	Appointment of Water quality management Agencies	Local Environmental Protection Agency	14	Private Sewage treatment Design & Construction	Pohang City Hall



Patents

	Patents	Registration NO.	Date	Remark
1	Nano separation method of Saline Water From Kimchi salting Process	No. 10-0950558	2010. 03. 24	Registered
2	Nano separation method of Saline Water From Kimchi salting Process	No. 10-0950559	2010. 03. 24	Registered
3	Small package type water supply facilities system by purifying a subterranean water or a valley water by using Ultra filter	No. 10-0956871	2010. 04. 30	Registered
4	Manufacture System of Compost and Liquid Fertilizer form Livestock excretion	No. 10-0966279	2010. 06. 18	Registered
5	Small package type water supply facilities system by purifying a subterranean water or a valley water by using RO Membrane	No. 10-0974184	2010. 07. 30	Registered
6	Fluoride Wastewater treatment System and Technologies using Membrane	No. 10-1007522	2011. 01. 05	Registered
7	Sewage, wastewater reuse & effluent T-N, T-P, chromaticity removing System and Technologies using Membrane	No. 10-1009574	2011. 01. 13	Registered
8	Phosphorus removing System and Technologies in Sewage & wastewater	No. 10-1018636	2011. 02. 23	Registered
9	Caustic soda Wastewater Recovery System in textile manufacturing	No. 10-1044620	2011. 06. 21	Registered
10	Industrial wastewater effluent reuse system and technologies using MF/RO Membrane	No. 10-1067835	2011.09.20	Registered



WATER911-SMDT

(Synopex Mobile Drinking water feeding Trailer)

WATER911(SMDT) Introduction

What is WATER911(SMDT)

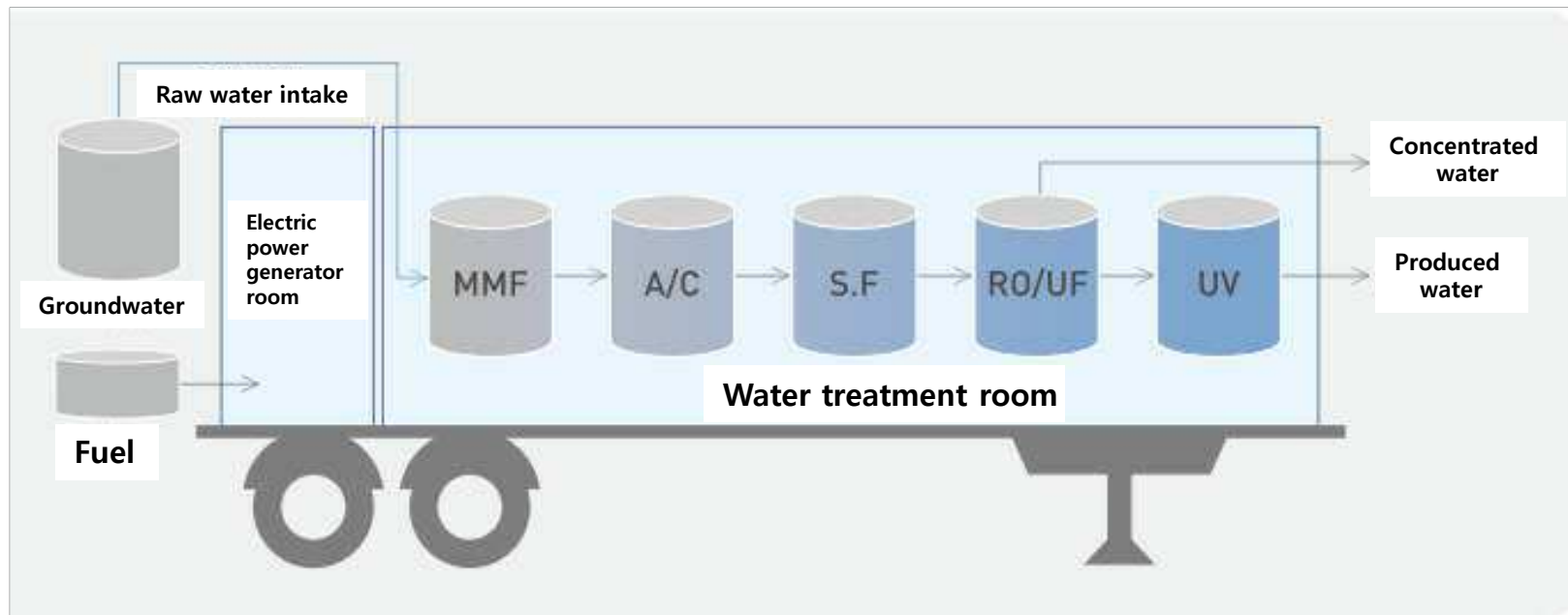
- ✓ Definition: **SMDT**(**S**YNOPEX **M**obile **D**rinking water feeding **T**railer) is equipped with a power generator and water treatment system inside of the container. SMDT is available to supply clean water **at any time** and **any place using on-site water source** with **mobility and fully equipped** water treatment system.
- ✓ Purpose : SDMT can supply sanitary and reliable water in construction sites, small islands, coastal area, disaster areas and places troubled with electricity.
- ✓ Components: Diesel power generator, Pre-treatment system, Membrane system, Post-treatment system

WATER911(SMDT) Features & Expected Effects

- ✓ Supply sanitary and stable water in construction sites, disaster areas, islands and no electricity area
- ✓ Door to Door service and Emergency Resilient
- ✓ Remove heavy metals, ionic substance perfectly and guarantee water quality
- ✓ Available to Customize system depending on the raw water quality
- ✓ Using on-site water source and produce drinking water
- ✓ Compact design with small footprint
- ✓ Fully controlled Automatic operation with PLC control

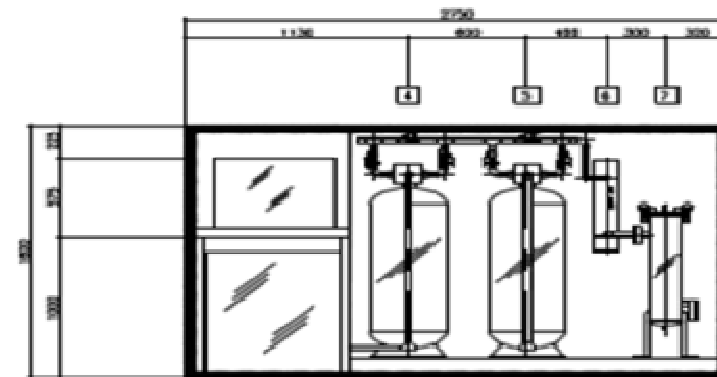


WATER911(SMDT) Process

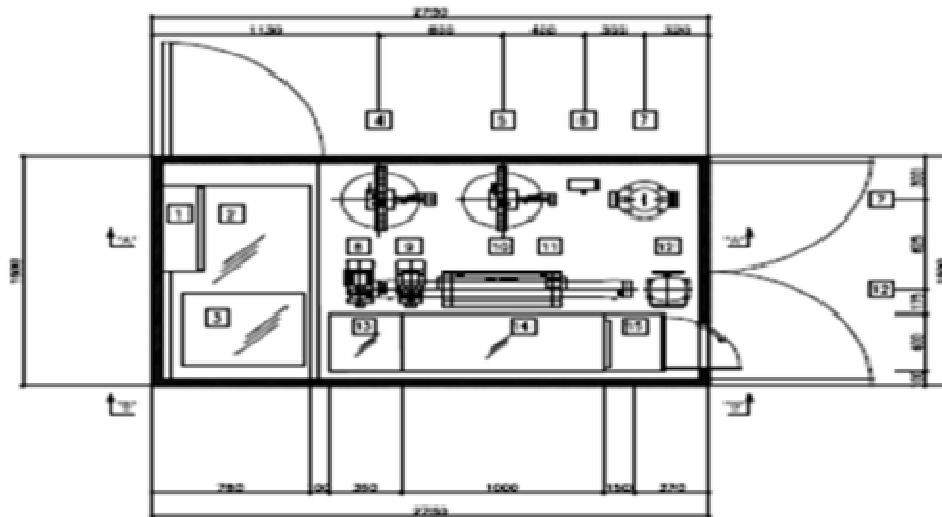


WATER911(SMDT)-20 Composition

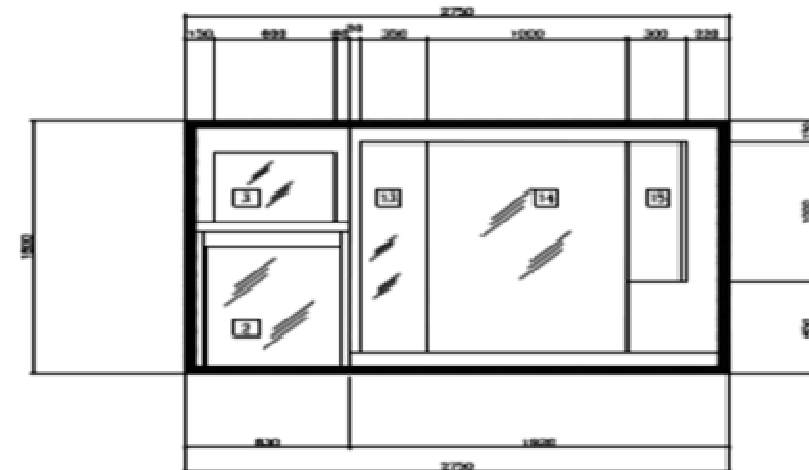
NO	DESCRIPTION	Q'CTY	NO	DESCRIPTION	Q'TY
1	TOOL BAR	1	9	RAW WATER PUMP	1
2	GENERATOR	1	10	RO UNIT	1
3	OIL TANK	1	11	UV LAMP-B	1
4	MULTIMEDIA FILTER	1	12	HIGH RRESSURE PUMP	1
5	ACTIVATED CARBON FILTER	1	13	PRODUCT WATER TANK	1
6	UV LAMP-A	1	14	GROUND WATER TANK	1
7	SAFETY FILTER	1	15	ELECTRIC PANEL	1
8	BOOSTER PUMP	1	16	MINERAL SUPPLY	1



MAIN SECTIONAL "A-A"



GROUND FLOOR PLAN

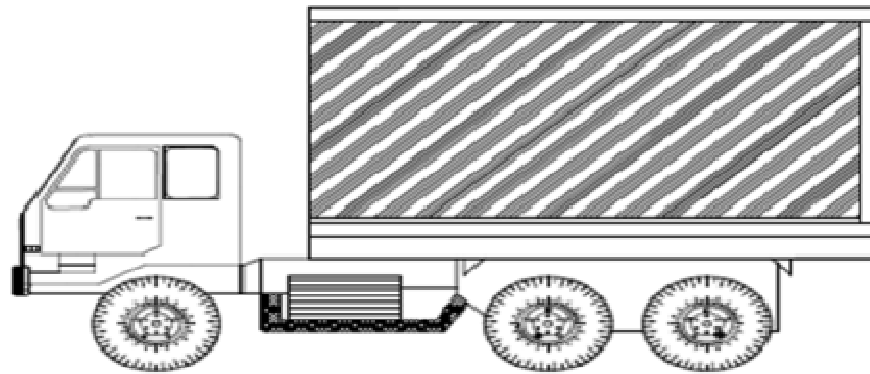


MAIN SECTIONAL "B-B"

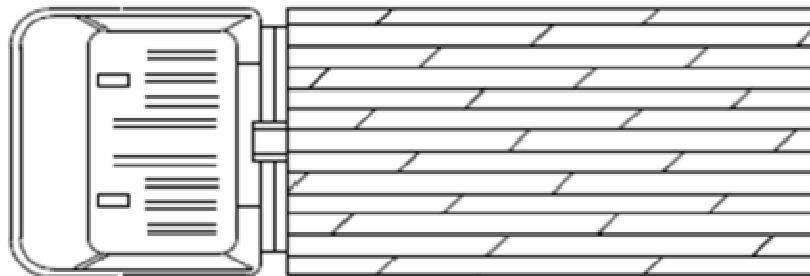
WATER911(SMDT)-20 View

- **WATER911(SMDT)-20 (1.2 ton truck)**
Capacity : 1 m³/hr (20 m³/day) : 10,000 person/day

[1.2 TON TRUCK]

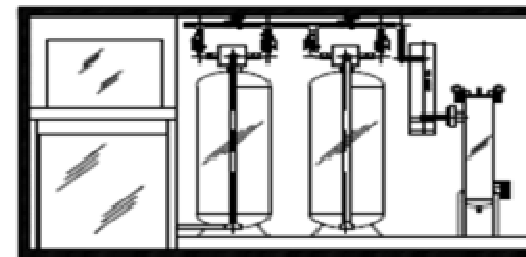


TRUCK SECTION VIEW

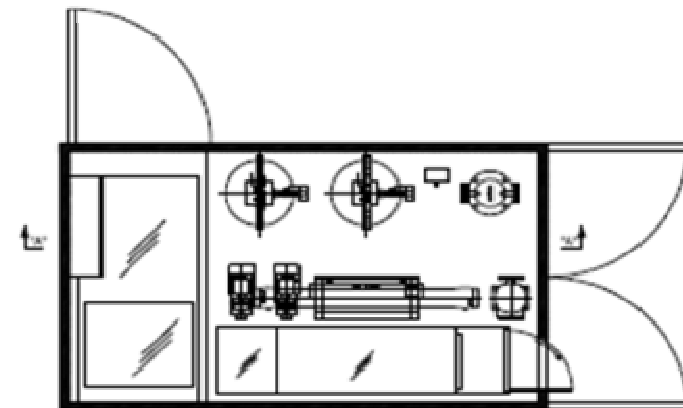


TRUCK PLAN VIEW

[CONTAINER]
L 2750 x W1600 x H1800



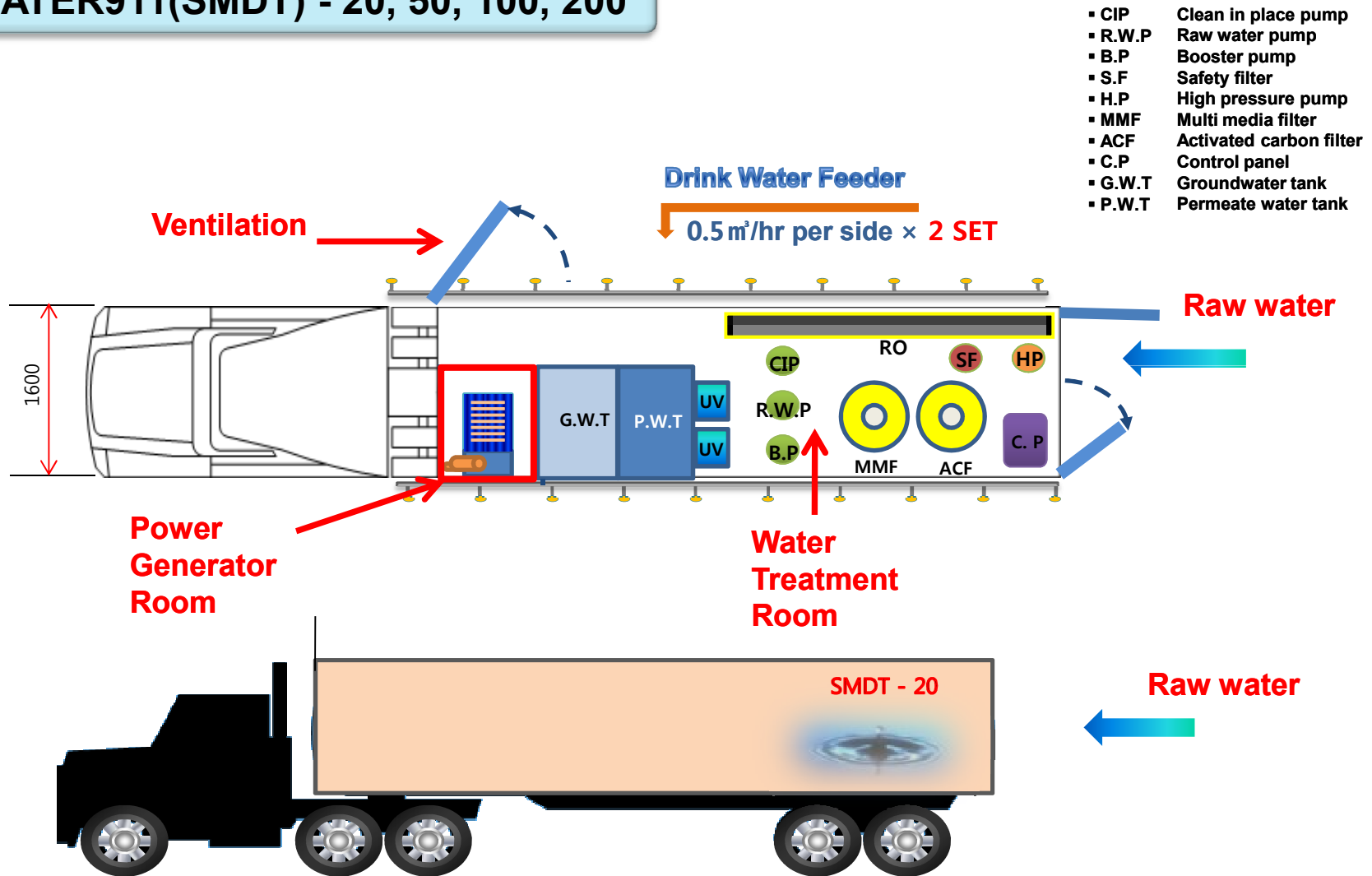
CONTAINER SECTION VIEW



CONTAINER PLAN VIEW

WATER911(SMDT) System

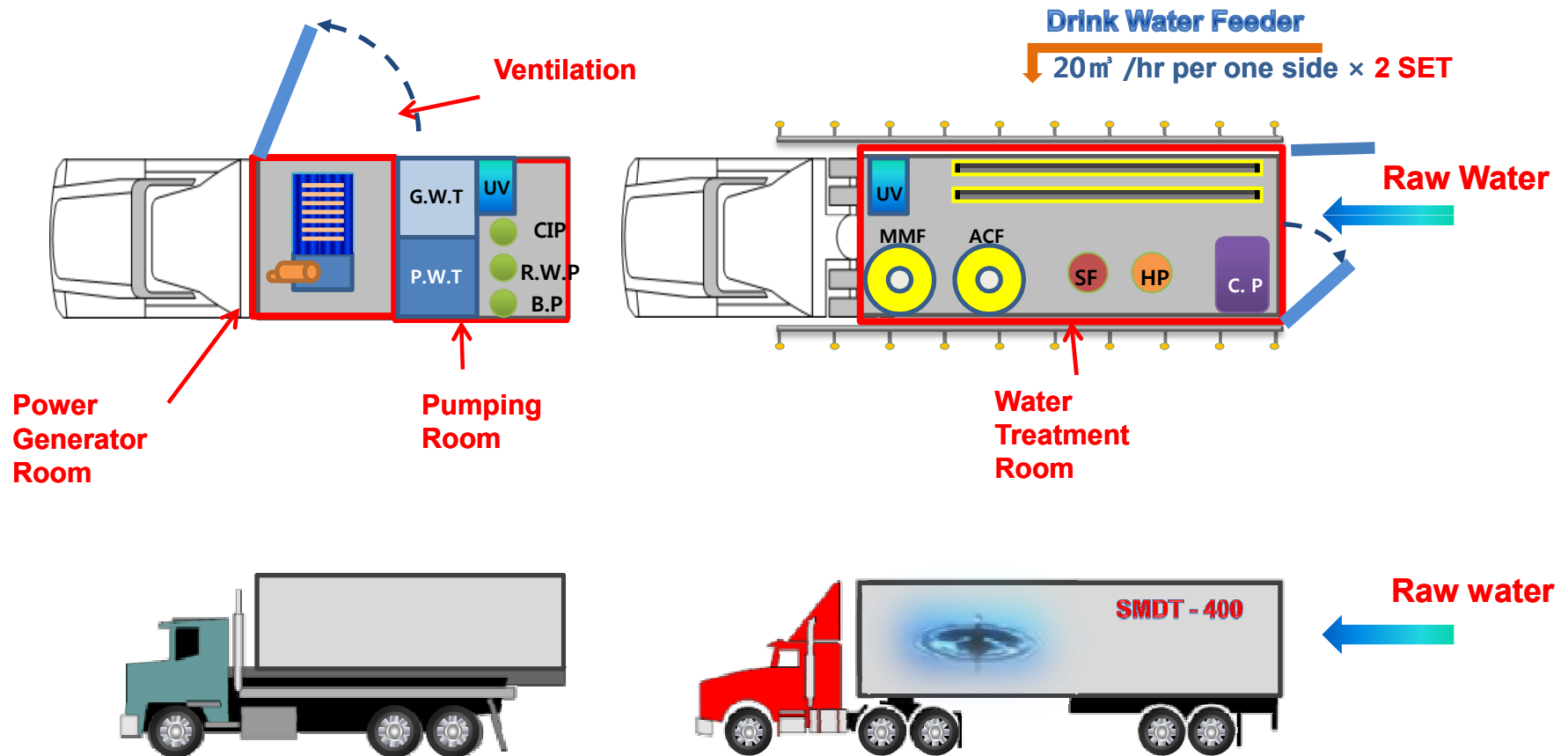
WATER911(SMDT) - 20, 50, 100, 200



WATER911(SMDT) System

WATER911(SMDT) – 400 (2 Container)

➤ Capacity : **20 m³/hr (400 m³/day) : 200,000 person/day**



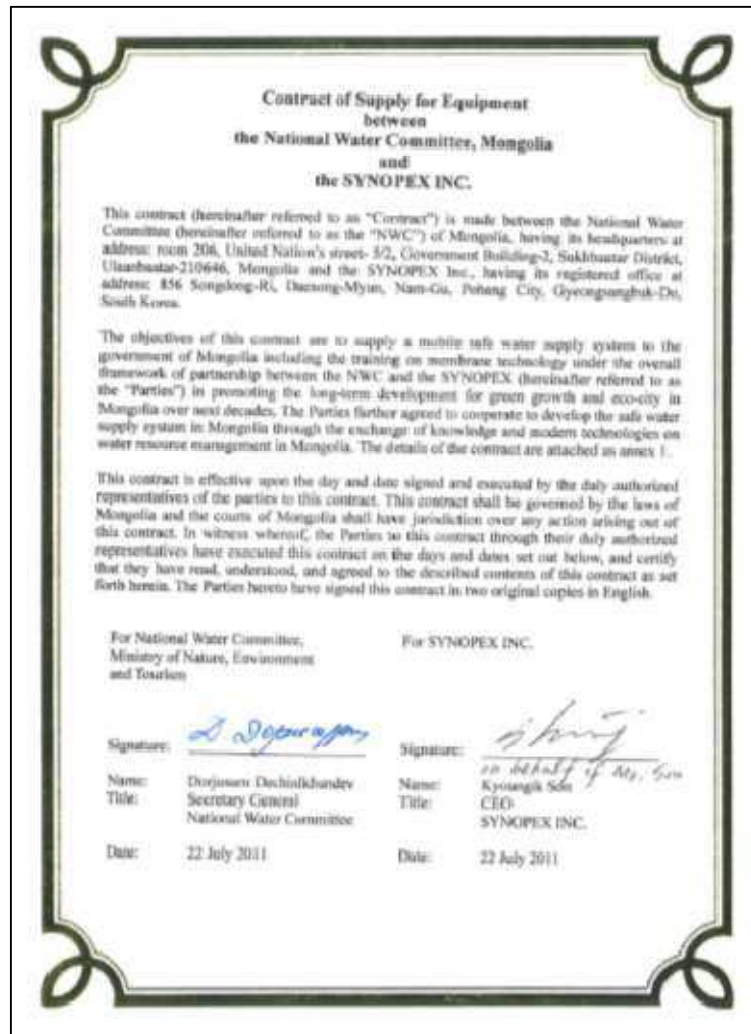
WATER911(SMDT) Classification

Classify	SMDT-20		SMDT-50		SMDT-100		SMDT-200		SMDT-400	
Vehicle	1.2 ton truck		2.5 ton truck		5 ton truck		9.5 ton truck		5 ton truck + 9.5 ton truck	
Container dimension	W1.8mxL3.3mxH1.8m		W1.9mxL4.3mxH1.8m		W2.3mxL5.9mxH2.6m (20ft, standard)		W2.3mxL12mxH2.6m (40ft, standard)		W2.3mxL18mxH2.6m	
Capacity (20hr/day)	1 m ³ /hr (20m ³ /day)		2.5 m ³ /hr (50m ³ /day)		5 m ³ /hr (100m ³ /day)		10 m ³ /hr (200m ³ /day)		20 m ³ /hr (400m ³ /day)	
Generator	Gasoline generator, (10 Kwh x 60Hz)		Gasoline generator, (10 Kwh x 60Hz)		Diesel generator, (20 Kwh x 60Hz)		Diesel generator, (40 Kwh x 60Hz)		Diesel generator, (60 Kwh x 60Hz)	
Water Quality	TDS (mg/L)	Hardness (mg/L)	TDS (mg/L)	Hardness (mg/L)	TDS (mg/L)	Hardness (mg/L)	TDS (mg/L)	Hardness (mg/L)	TDS (mg/L)	Hardness (mg/L)
	< 150	< 50	< 150	< 50	< 150	< 50	< 150	< 50	< 150	< 50
Fuel	Gasoline		Gasoline		Diesel		Diesel		Diesel	
Drinking water (2 ℓ/person.day)	10,000 people		25,000 people		50,000 people		100,000 people		200,000 people	
Living water (200 ℓ/person.day)	100 people		250 people		500 people		1,000 people		2,000 people	
Total price (USD)	\$ 131,600		\$ 219,300		\$ 307,000		\$ 394,700		\$ 526,300	

- FOB in Busan port
- The quotation might be adjusted to fluctuations in exchange rates.

Contract & MOU signed with NWC

- SYNOPEX has **signed MOU & Contract** with NWC(National Water Committee in Mongolia) for **SMDT supply** through UN Fund.



- **MOU** between SYNOPEX and NWC in promoting the long-term development for Green growth and Eco-city in Mongolia through SMDT for next decades.
- **Contract** between SYNOPEX and NWC for SMDT supply in Mongolia
- Complete supplement of SMDT-20 (18. Nov. 2011).



WATER911(SMDT) Pictures



WATER911(SMDT) Pictures



WATER911(SMDT) Pictures



WATER911(SMDT) Pictures



Your excellent selection makes better future!!

THANK YOU!!

***Contact point for further questions
within SYNOPEX INC.***

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