



Global Energy Collaborations

Always Collaborating to make Future Brighter and Economical



Offers Most Versatile Air – to - Water Generator in purest form for Public Health Benefit manufactured to best and beyond FDA pure water norms

WATER!

We make it
We purify it
We dispense it







Global Energy Collaborations, in its quest to offer utmost unique solutions for providing water to village and urban level have selected and partnered with Water-Maker India, a AWG manufacturing company of 111 year old industrial group in India, whose base company Jeena & Company, is a a leader in global logistics in India.

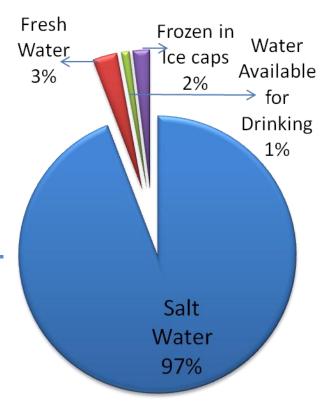
It is in the unique business of "water extraction from the atmosphere". It designs and manufactures a range of air to water machines which are distributed worldwide.



Facts About Water



- ♦ 80% of earth's surface is water.
- 97% of this is salt water.
- 3% of this is fresh water.
- ♦ 1% of this is available for drinking.
- ♦ 2% of balance water is frozen in ice caps.





Drinking Water Scenario in India and practically in every developing and under developed countries worldwide

Alternate Water

- Pure drinking water is the single biggest issue facing India today.
- Most water sources are contaminated by sewage & agricultural run offs.
- ◆ There are over a 100 million cases of diarrhoea a year & over 0.5 million die of this disease.
- ♦ 66 million people in over 200 districts face fluoride contamination.
- Over 15 million face arsenic poisoning.











The United Nations estimates that 880 million people lack safe sources of drinking water.





The Basic Concept



- Rivers are the source of most of the water used by people for everything from drinking to industrial applications.
- ◆ The atmosphere contains 10 times the volume of fresh clean water in all the rivers combined.
- ♦ No one has tapped it ...till now.

Future Brighter and Economical





How much water does the air contain?

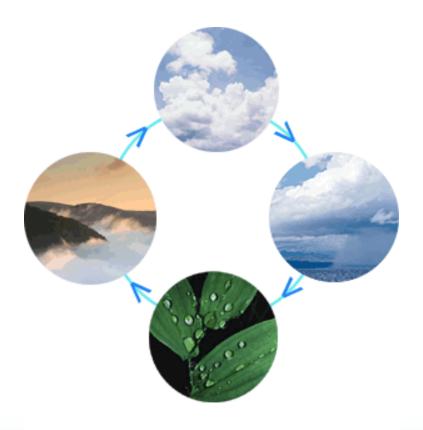
- Over 3 million trillion gallons of water.
- We have the technology to extract it.





The Water Cycle





The water cycle is the non-stop circulation of water from the atmosphere to the Earth and back again.





Always Collaborating to make Future Brighter and Economical







We have developed a "super charged" version of dehumidification devices utilizing specially designed heat exchangers for our air to water generators which produce thousands of litres of clean purified water per day.





Water Production Process



Air

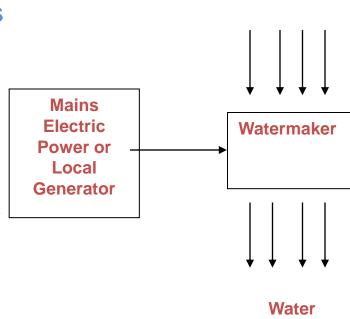
 Requiring only electricity, WaterMaker uses refrigeration techniques that are optimized to condense water from air.

 Blower driven forced air is drawn into the system through an electrostatic filter.

Within the machine's exterior a housing compressor circulates refrigerant through a coil array located in the path of the air.

♦ The chilled coils provide a temperature differential between the air and coil surface resulting in condensation.

Heat is removed by a heat exchanger. Freeze protection is thermostatically controlled.





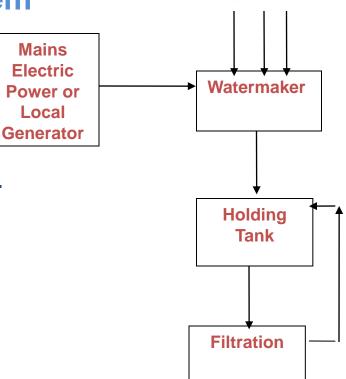
Water Storage & Filtration System

 The condensation is funneled into a holding tank.

◆ A level switch located in the holding tank controls the machine's water making cycle.

• Water in the holding tank is periodically pump circulated first through an ozone generating ultraviolet light chamber (kills bacteria) and second through a series of high and low density charcoal filter (removes solids and oxygenates) & finally back to the holding tank.

- The water filtration cycle is both flow controlled (upon dispensing) and time controlled.
- Water is dispensed by tap valve diversion during the water filtration cycle.



It's about life

Alternate Water

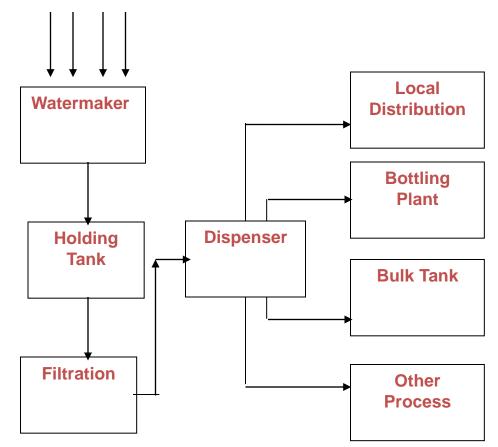




Water Dispensing System



- Once the water is produced the system is ready for dispensing.
- ◆ This ranges from an incorporated drinking fountain to a connection to dispensers, automated bottling line, dedicated piping or connection to a local distribution system.



Future Brighter and Economical





Alternate Water

WaterMaker Water Recovery Capacity (WRC)

(approximate)

AIR	TEMP	RH	WRC
°F	°C	%	% of rated capacity
50	10	40	20
70	21	40	30
90	32	40	40
50	10	60	30
70	21	60	50
90	32	60	80
50	10	80	60
70	21	80	90
77	25	80	100
90	32	80	110
97	36	90	130



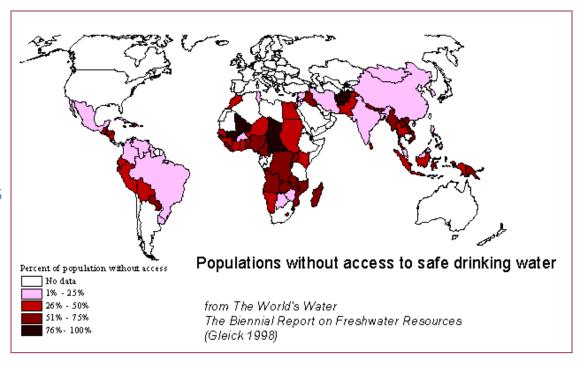




WaterMaker Targeted Areas



- WaterMakers will work most efficiently in warm areas with high humidity.
- Our WaterMakers are ideal for the areas where nearly 70% of the world's populations reside and where the world's most acute water crisis exists.







WaterMaker vs. World Health Organization Guidelines

ELEMENT	WATERMAKER	WHO GUIDELINES	OTHER CHARACTERISTICS	WATERMAKER	WHO GUIDELINES
Arsenic	<0.01	0.01 max	Color	<1	15 max
Antimony	< 0.001	0.005 max	Turbidity	<1	5 max
Lead	<0.01	0.01 max	pH @ 25'C	6.6	-
Mercury	< 0.001	0.001 max	Conductivity	21	-
Chromium	<0.01	0.05 max	Taste	Acceptable	Acceptable
Cadmium	< 0.001	0.003 max	Odor	Acceptable	Acceptable
Calcium	0.05	-	Total Dissolved Solids	1	1000 max
Copper	0.2	2.0 max	Total Alkalinity	<1	-
Iron	<0.01	0.3 max	Total hardness	<1	-
Zinc	0.02	3.0 max	Nitrate nitrogen	<0.01	11.3 max
Selenium	<0.01	0.01 max	Flouride	0.3	1.5 max
Beryllium	<0.01	-	Chloride	1	250 max
Magnesium	0.03	-	Sulphate	1.7	250 max
Manganese	<0.01	0.5 max	Sodium	0.2	-
Barium	<0.1	0.7 max	Phosphate	<0.01	-
Boron	<0.01	0.3 max	Silica	0.04	-
Molybdenum	<0.01	0.07 max	Total Aerobic Plate Count	110	-
Nickel	<0.01	0.02 max	Coliforms	0	-
Aluminum	<0.01	0.2 max	Total Trihalomethanes	< 0.005	0.1



WaterMaker Engineered Systems



- WaterMaker Systems can produce from 20 litres to over 1000 litres and multiples thereof per day.
- Machines perform as per their rated output if RH is between 70% 75% and temperature range is from 25°C 32°C.
- If these factors are higher output will increase.
- If lower, output will decrease.







Rated Water production capacity in 24 hrs	23 – 26 litres
Working Conditions for rated capacity	25° - 32°C & 70 - 75% RH
Actual Size (H x W x D) in cms	78 x 49 x 54
Size with packing (H x W x D)	90 x 61 x 58.5
Nett Weight in kgs	55 Kg
Gross weight in kgs	60 Kg
Power Consumption in kW	0.42
Power Supply (Volts, frequency, phase)	230/ 50/ single
Refrigerant	R 22
Top tank capacity in liters	
Bottom tank capacity in liters	13 litres
Noise level in dB	55 dB
No. of UVs in the machine	2









Rated Water production capacity in 24 hrs	120 litres
Working Conditions for rated capacity	25° - 32°C & 70 - 75% RH
Actual Size (H x W x D) in cms	119 x 80 x 74
Size with packing (H x W x D)	132 x 87 x 87
Nett Weight in kgs	170 Kg
Gross weight in kgs	205 Kg
Power Consumption in kW	2.71
Power Supply (Volts, frequency, phase)	230/ 50/ single
Refrigerant	R 22
Top tank capacity in liters	
Bottom tank capacity in liters	51 litres
Noise level in dB	65 dB
No. of UVs in the machine	2
Air flow rate (cfm)	1250









Rated Water production capacity in 24 hrs	250 litres
Working Conditions for rated capacity	25° - 32°C & 70 - 75% RH
Actual Size (H x W x D) in cms	168.5 x 74 x 81.5
Size with packing (H x W x D)	185 x 80 x 88
Nett Weight in kgs	350 Kg
Gross weight in kgs	400 Kg
Power Consumption in kW	5
Power Supply (Volts, frequency, phase)	230/ 50/ single
Refrigerant	R 22
Storage tank capacity in liters	105 litres
Noise level in dB	67 dB
No. of UVs in the machine	3
Air flow rate (cfm)	2500







Rated Water production capacity in 24 hrs	500 litres
Working Conditions for rated capacity	25° - 32°C & 70 - 75% RH
Actual Size (H x W x D) in cms	168.5 x 145 x 81.5
Size with packing (H x W x D)	185 x 160 x 88
Nett Weight in kgs	620 Kg
Gross weight in kgs	690 Kg
Power Consumption in kW	10
Power Supply (Volts, frequency, phase)	230/ 50/ single
Refrigerant	R 22
Storage tank capacity in liters	250 litres
Noise level in dB	69 dB
No. of UVs in the machine	3

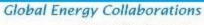






Rated Water production capacity in 24 hrs	1000 litres
Working Conditions for rated capacity	25° - 32°C & 70 - 75% RH
Actual Size (H x W x D) in cms	200 x 185 x 229
Size with packing (H x W x D)	215 x 191 x 237
Nett Weight in kgs	1200 Kg
Gross weight in kgs	1500 Kg
Power Consumption in kW	17.15
Power Supply (Volts, frequency, phase)	440/ 50/ three
Refrigerant	R 22
Storage tank capacity in liters	600 litres
Noise level in dB	74 dB
No. of UVs in the machine	6
Air flow rate (cfm)	13800







THE WM 1000m MOBILE



Rated Water production capacity in 24 hrs	1000 litres
Working Conditions for rated capacity	25° - 32°C & 70 - 75% RH
Actual Size (H x W x D) in cms	490 x 180 x 190 (L x B x H)
Size with packing (H x W x D)	Placed securely in 20' container
Nett Weight in kgs	1680 Kg
Gross weight in kgs	(
Power Consumption in kW	17.0
Power Supply (Volts, frequency, phase)	440/50/ three
Refrigerant	R 22
Storage tank capacity in litres	360 (addl. capacity optional)
Noise level in dB	74 dB
No. of UVs in the machine	6
Air flow rate (cfm)	13800







Rated Water production capacity in 24 hrs	2200 litres
Working Conditions for rated capacity	25° - 32°C & 70 - 75% RH
Actual Size (H x W x D) in cms	200 x 185 x 320
Size with packing (H x W x D)	215 x 191x 400
Nett Weight in kgs	2500 Kg
Gross weight in kgs	3000 Kg
Power Consumption in kW	36
Power Supply (Volts, frequency, phase)	440/ 50/ three
Refrigerant	R 22
Storage tank capacity in liters	1500 litres
Noise level in dB	78 dB
No. of UVs in the machine	6
Air flow rate (cfm)	28900







Rated Water production capacity in 24 hrs	5000 litres
Working Conditions for rated capacity	25° - 32°C & 70 - 75% RH
Actual Size (H x W x D) in cms	200 x 185 x 560
Size with packing (H x W x D)	215 x 191 x 585
Nett Weight in kgs	3800 Kg
Gross weight in kgs	4100 Kg
Power Consumption in kW	85
Power Supply (Volts, frequency, phase)	440/50/three
Refrigerant	R 22
Storage tank capacity in liters	2800 litres
Noise level in dB	80 dB
No. of UVs in the machine	10
Air flow rate (cfm)	69000







Advantage WaterMaker



WaterMaker... Makes Pure Drinking Water from Air

- Produces water directly from air.
- Needs no water source.
- Totally free from bacteria.
- Quality as per BIS/WHO norms.
- Recycles & cleans the air.
- Is an effective dehumidifier.
- Water produced from WaterMaker is cheaper than bottled water.
- Is easy & cost efficient to maintain.
- Contains no harmful chemicals, pesticides or minerals.
- Better than nature intended.

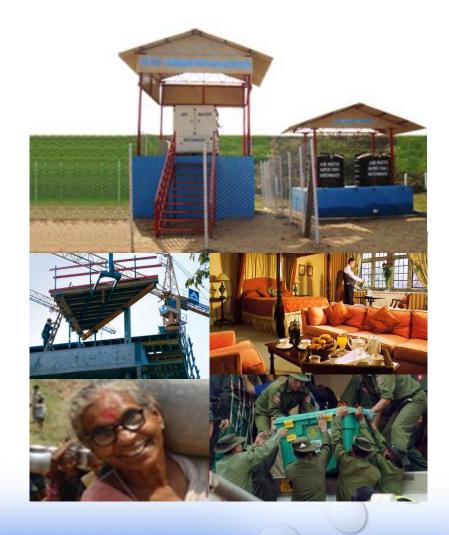




Uses of WaterMaker



- Commercial establishments
- Construction & infrastructure
- Industries / Factories
- Homes
- Hospitals
- Educational Institutions
- Wildlife resorts
- Mining
- Off-shore platforms
- Govt. installations
- Defense Forces
- Rural community development
- Emergency relief







First Rural Project in the World to supply Drinking Water from Air



Jalimudi in Andhra Pradesh is the world's first village to use atmospheric water technology.

PROBLEM FACED:

- Few taps in the village.
- Water contamination.
- Nearest river source over 3 km away.
- Ground water contained fluoride.
- Hours wasted in collection of water.





First Rural Project in the World to supply Drinking Water from Air



SOLUTION

- ✓ The use of unique atmospheric water technology to produce and distribute potable purified water from the air.
- ✓ Proposed by WaterMaker India to the Panchayat as a pilot case.
- ✓ The 1000 litre air water generator, stabilizer and storage tanks provided by WaterMaker India.
- ✓ Land allocated by village Panchayat to set up the Water Station.
- ✓ Power requirements met.
- ✓ Team effort at grass roots level. Local officials of the Govt. of AP, the Collector of East Godavari Dist, RWS Dept and other authorities involved in project.
- ✓ Jalimudi Water Station inaugurated by then MLA, Shri Chittoori Ravindra on 17th Feb 2009.







It's about life

First Rural Project in the World to supply Drinking Water from Air



RESULT

- The 500 villagers of Jalimudi now drink clean safe water.
- Have their own secure and constant supply of purified water.
- Spend their time in more productive pursuits.
- Benefit from better health.
- Spend less on health care.

WaterMaker India is committed to such projects in cooperation with the Government/NGO/socially responsible organizations/international bodies.





Water-maker AWGs are available worldwide for your service:





India
Africa
Middle East
Far East
South America
Europe





Thank You

Please call us or e - mail for Any further project or sales Arrangement in your region



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