

Megawatt Solutions Private Limited



Renewable Energy and Energy Efficiency Industrial Solutions for
Heating, Cooling & Power Generation



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International Energy Agency (IEA) Lists MWS As Most Experienced and Top 5 Global Suppliers



Turnkey suppliers with more than 10 reference projects at the end of 2019

89	Módulo Solar	Mexico
72	Sunrain	China
66	Inventive Power	Mexico
47	Linuo Paradigma	China
32	Megawatt Solutions	India
29	Ritter XL Solar	Germany
28	SEA Sistemas de Ecoenergías Ambientales	Mexico
24	Vicot Solar Technology	China



Where to look for the world's most SHIP suppliers

solarthermalworld.org



About Megawatt Solutions

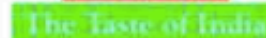


- Core Technology and Solutions Company For “***Clean, Emissions-Free Process Heating, Cooling & Waste Water For Manufacturing Industries***”
- One of Largest MNRE-Channel Partner For RE-Fossil Hybrid Energy Solutions
- Core Focus On Industrial & Manufacturing Customers
- Turnkey- Design, Engineering, Manufacturing, Commissioning & Operations
- Pan-India Presence For Projects and Service Teams
- Customers include PSU, Private, SME, Corporates, Government Agencies
- MNRE Channel partner award for special contribution

MWS Is A Market Leader in Industrial Energy Solutions



Clients



Accreditations



Go-To Company For Clean Industrial Energy Solutions

Key Solutions Include Energy Efficient Heating, Cooling, Waste Water and Power Generation Systems



MWS SOLAR FIELD

High-Temperature Solar Thermal For Displacing Fossil Fuels and Emissions In Industrial Process Heating



MWS DRY SOL

High Efficiency Sludge Dryer For Reducing Disposal Costs and Sustainable Sludge Management



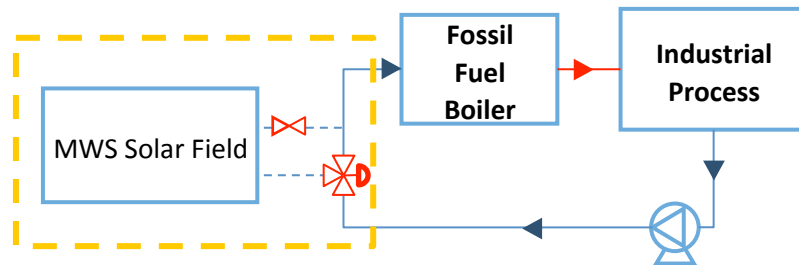
MWS TOWER EVAPORATOR

Low-Energy Waste Water Evaporator For High TDS Streams For Ensuring Compliance at Zero Maintenance

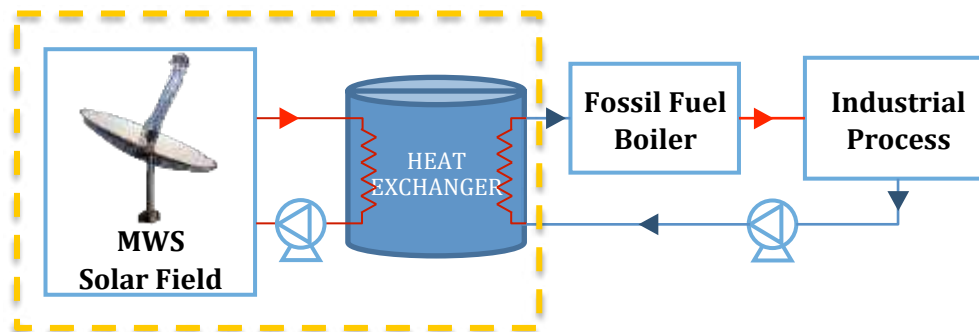


MWS Solar Field Can Be Hybridized With Existing Fuels Or Stored Thermally To Provide Uninterrupted Energy

Direct Integration



Indirect Integration



- No impact on customer processes
- Back-ended integration
- Full automation, controls and safety implemented in Solar Field

Industry	Working Fluids	Temperature Range
Pharmaceutical	Steam, Air	80°C - 230°C
Textile industry	Water, Steam	60°C - 150°C
Chemical Industry	Steam, Air	80°C - 320°C
Pulp & Paper Industry	Steam	Up to 185°C
Food Industry	Steam, Themic Oil	80°C - 280°C
Automobile Industry	Water, Steam	60°C - 200°C
Air Conditioning (VAM)	Water, Steam	60°C - 150°C



Clean Industrial Processes for Sustainable Manufacturing



MWS PROJECTS & CASE STUDIES

For Fly Ash Drying By Hot Air at 180degC



MWS Solar Field for Cooling For Driving Double Effect VAM Chiller 250 TR



For Paint Sludge Drying at 200degC



Paint & Surfactants



PRESSURIZED HOT WATER 10 Bar WITH
1 Million kcal THERMAL STORAGE



Dairy



Mondelēz
International

THERMIC OIL BASED BLEED STEAM REDUCTION IN DEAERATOR

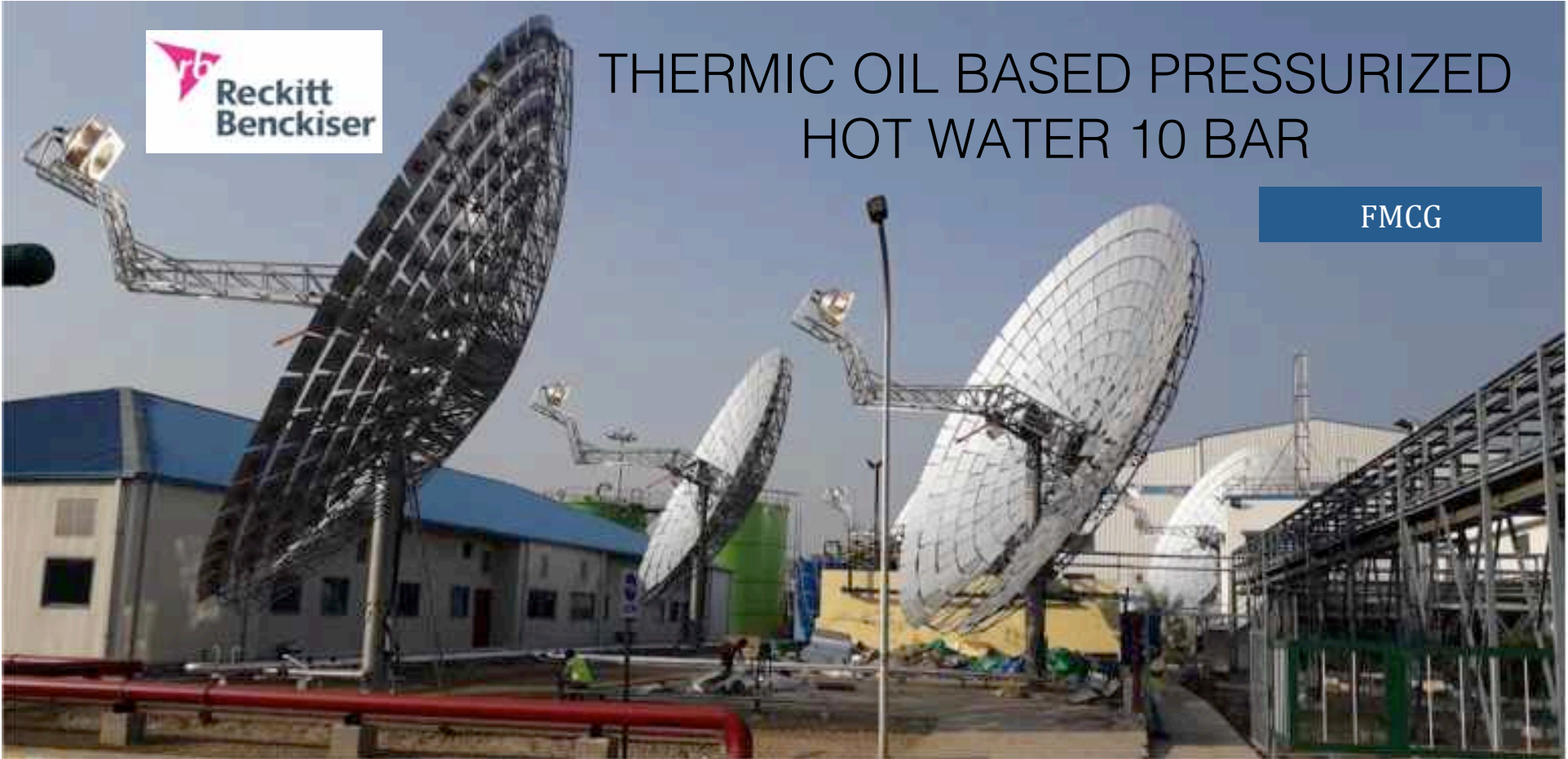
Confectionary





THERMIC OIL BASED PRESSURIZED HOT WATER 10 BAR

FMCG





MWS DRY SOL

Packaged High-Efficiency Automated Sludge Drying

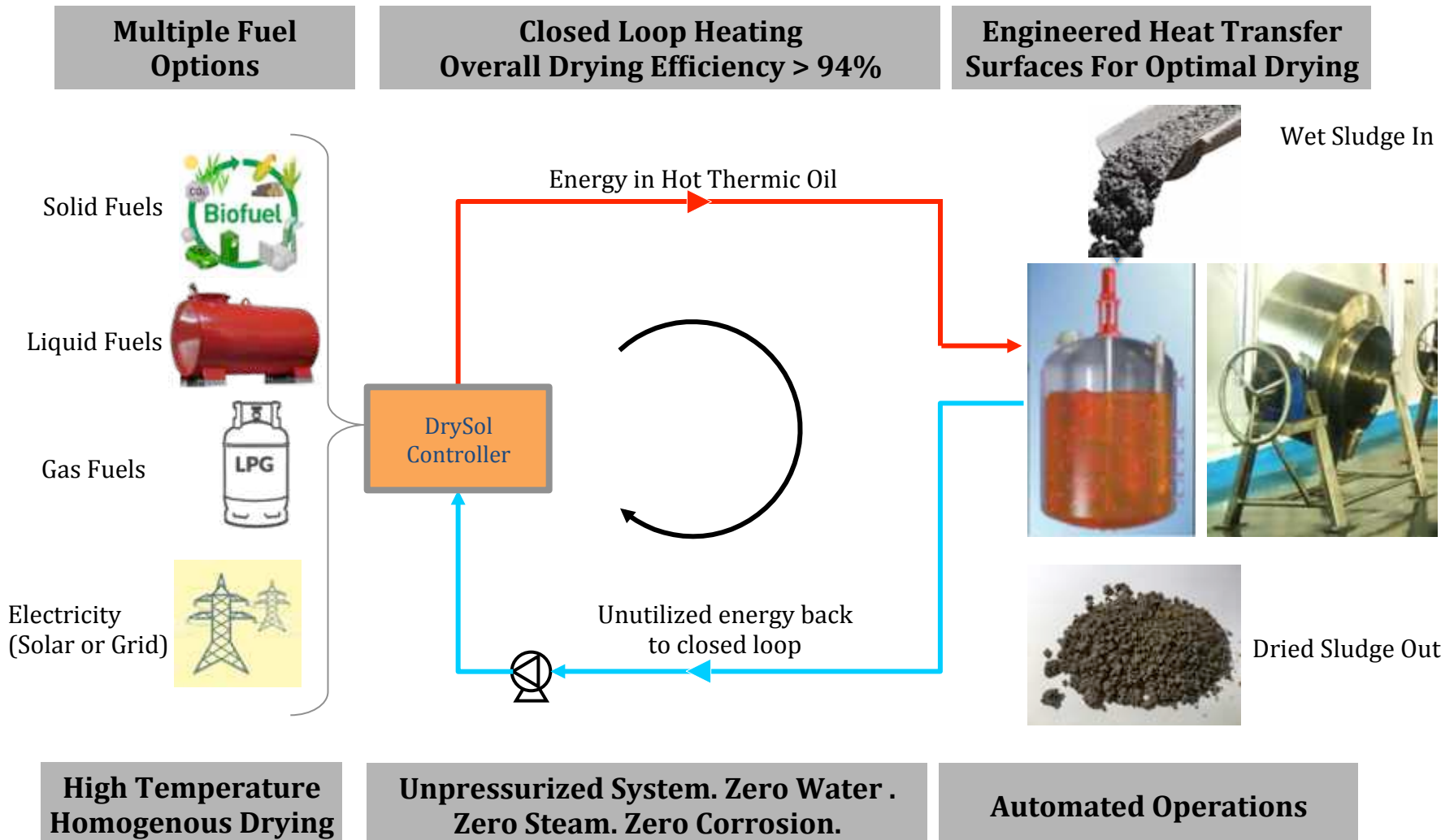
MWS DrySol



- Batch & Continuous Thermal Drier for Rapid Drying/Evaporation
- Efficiently Dewateres Slurries & Sludges to a Dry Condition
- Crucial Part Of Your ZLD Solution For Pre and Post-Mechanical Press Sludge
- Applicable To :
 - ETP Sludge and Slurries
 - Concentrate from RO plants
 - Concentrated salt slurries
 - Water based inks & paints, and other water based sludge applications
- High Heat Transfer Leading To Drying Upto > 95% Solids
- Mobile Packaged Solution on Skid
- Flexibility to Utilize Multiple Heat Sources for Drying



MWS DrySol- Working Principle

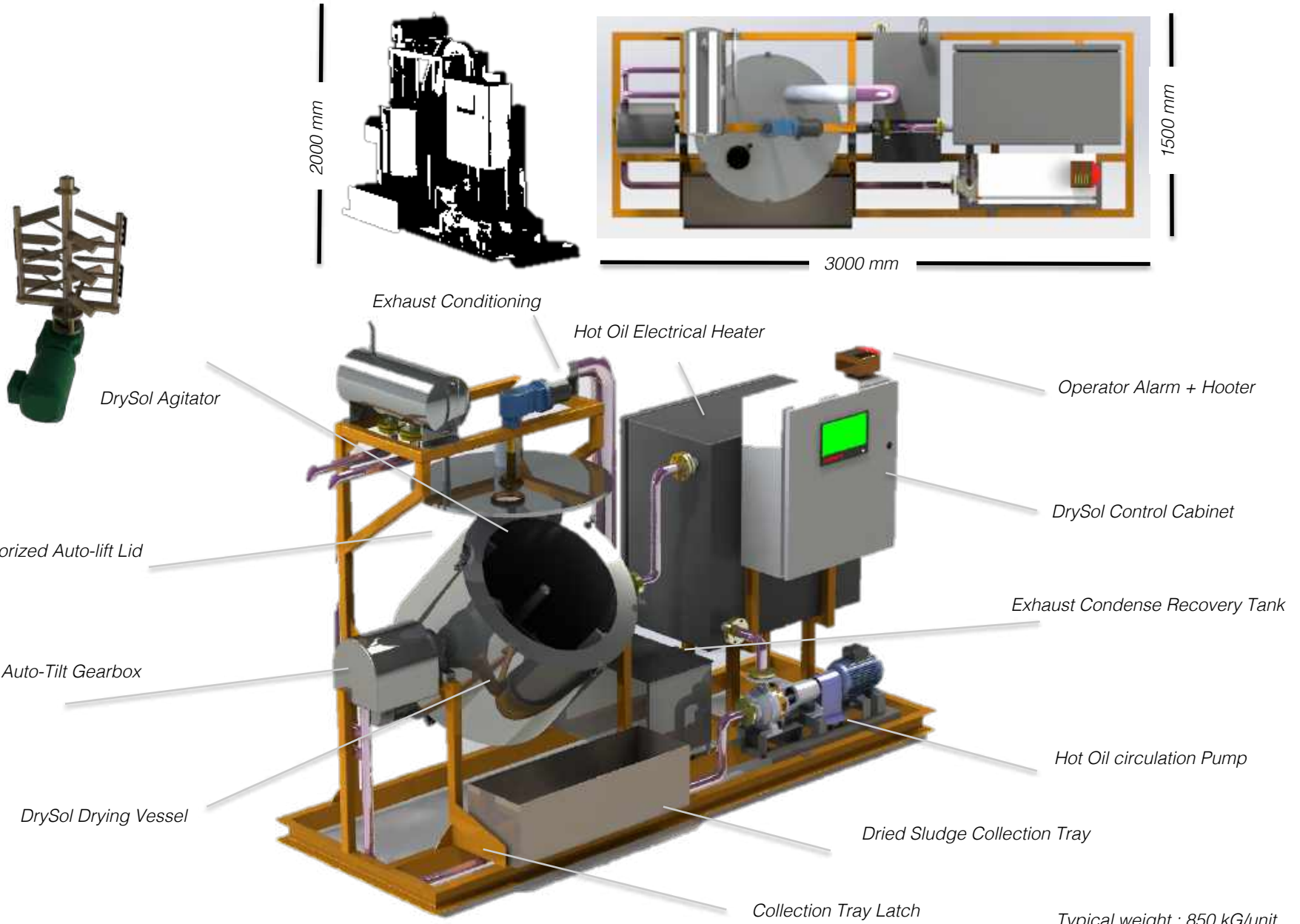


MWS DrySol- Integrated, Skid-Mounted, Packaged Electrical Heating & Drying Units



1 Heater, 2 Drier Configuration Image is Representational; Subject to Change

MWS DrySol Skid (100 kg- 2 TPD)



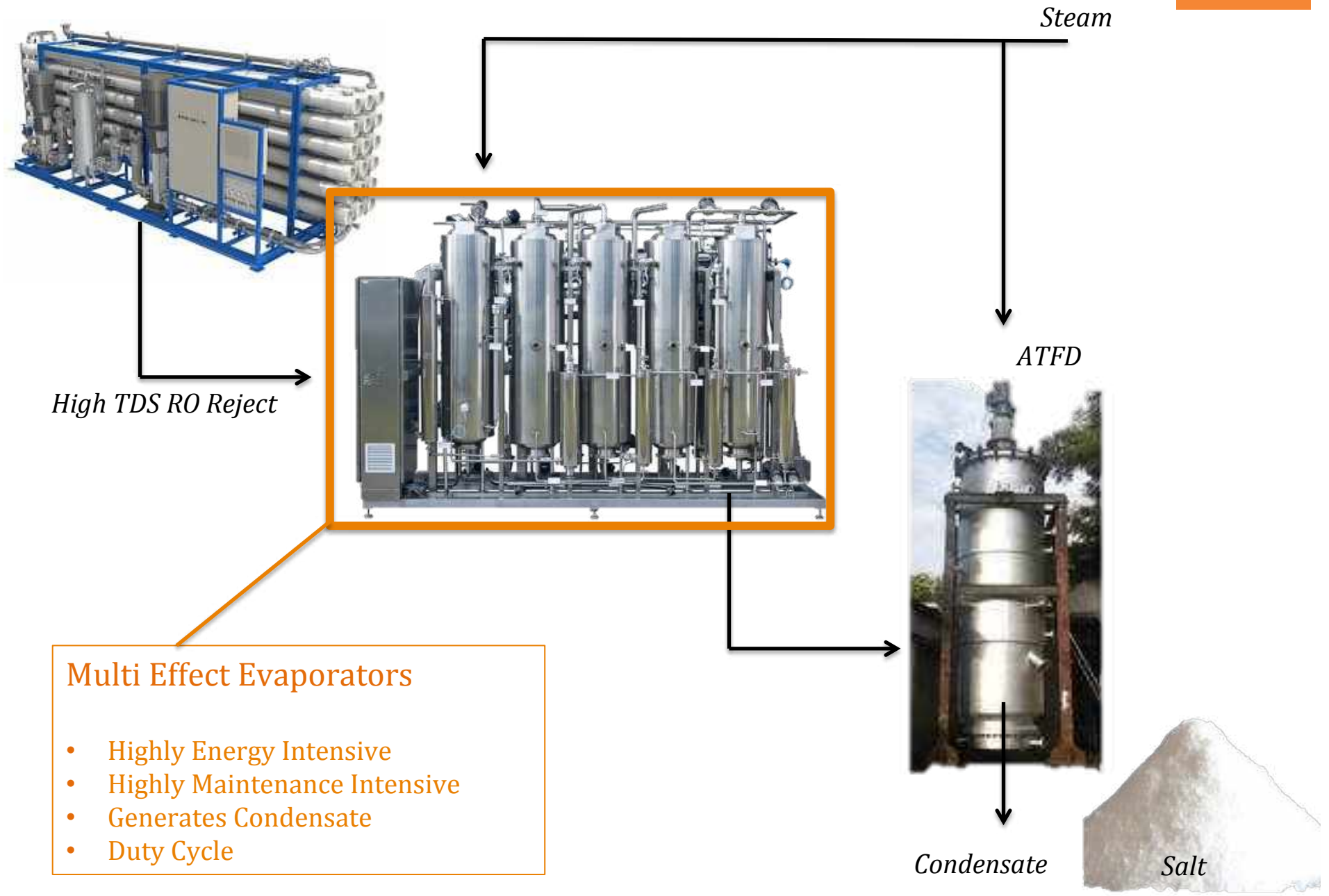
Typical weight : 850 kG/unit



MWS TEVAP

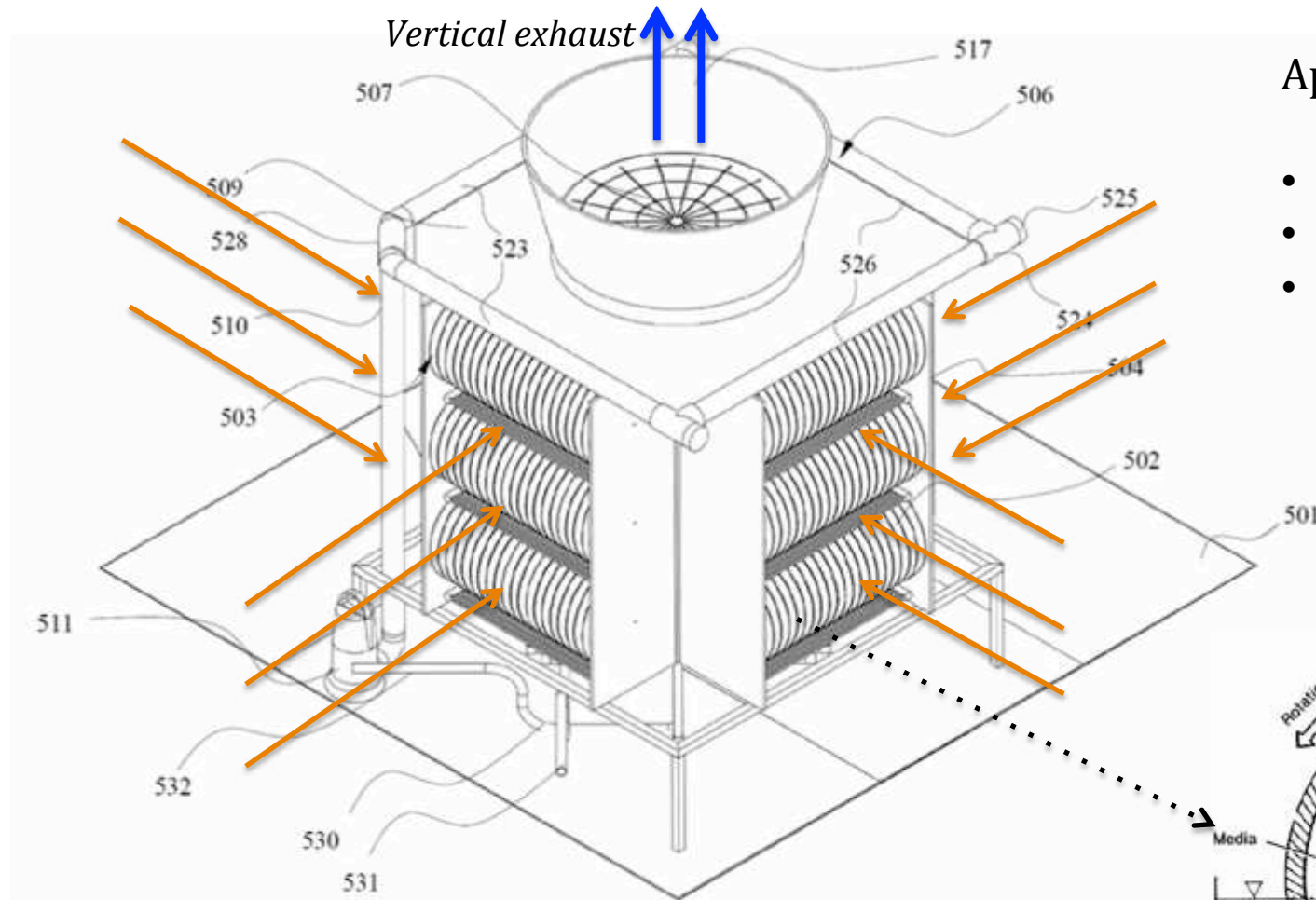
Ultra-Low Energy, Zero-Maintenance RO Reject & Waste
Water Evaporator

Current Situation



- Multi Effect Evaporators**
- Highly Energy Intensive
 - Highly Maintenance Intensive
 - Generates Condensate
 - Duty Cycle

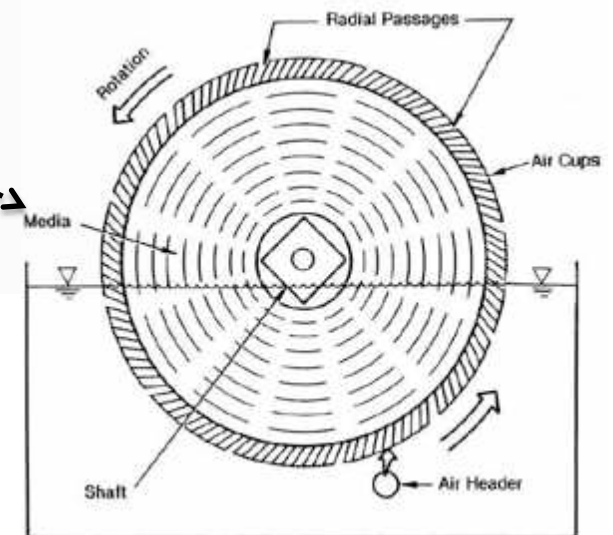
MWS Tower Evaporator & Crystallizer- A Patented Technology To Enhance Evaporation of RO Reject & Effluent Streams



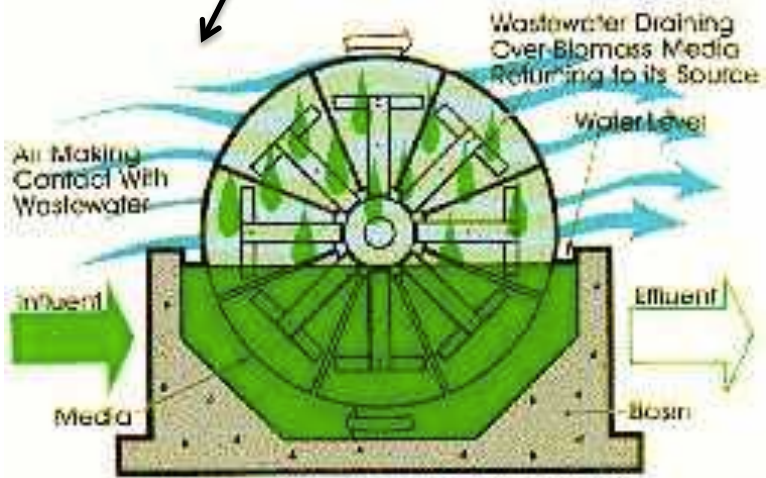
Applicable To :

- ETP Waste Water
- RO Rejects
- Salt slurries

*Highest Mass Transfer Coefficient In Given Footprint
Reject stream water occupies > 250 X surface area with self-rotating, non-metallic disks half dipped in reject stream. Four-way air inlet increases air-water interaction multifold and results in drastically enhanced evaporation.*



MWS Tower Evaporator Working Principle



Vertical Tower Design Ensures Smallest Ground Footprint Critical For Industries



MWS Tower Evaporator



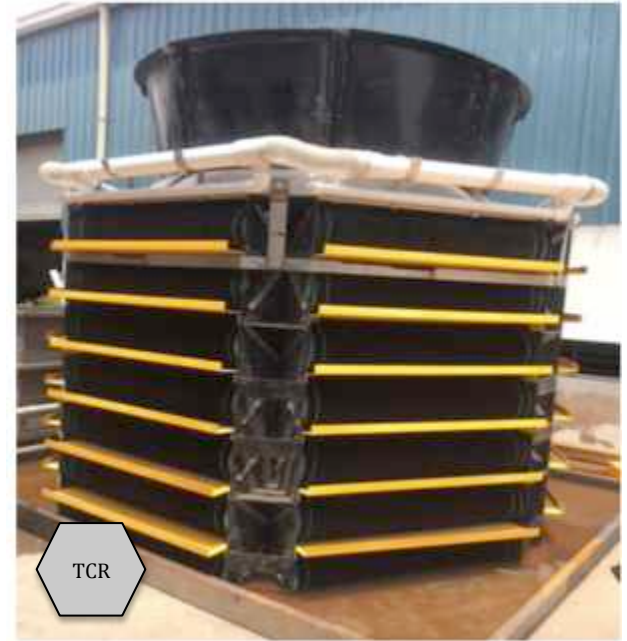
Is Field Proven Across Effluent Capacities, Qualities & Ambient Conditions



TEVAP



TEVAP



TCR



TEVAP



TEVAP

MWS Tower Crystallizer (MWS TCR)

Corrosion Resistant Rugged Design For Salty Environments



Non-Corrosive FRP Members Construction

High Rigidity Self-Supporting FRP Frame

Non-Corrosive Piping & Spray Nozzles

Non-Metallic Rotating Disk Construction

FRP- Tower Fan Blades

Chemical Resistant OS4 Motor

Water TDS > 2,00,000

Polypropylene PP, Polycarbonate PC, Stainless Steel SS304, 316, 316L, Aluminium, Mild Steel MS, etc. according to fluid type e.g. corrosive, erosive, fouling, catalytic activity, etc.

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Image is Representational; Subject to Change

Integrated with Heat Pump For Continuous Evaporation

