

The HydroBall System

Non-Powered[™] Globally Patented Automatic Tube Cleaning System

INTRODUCTION

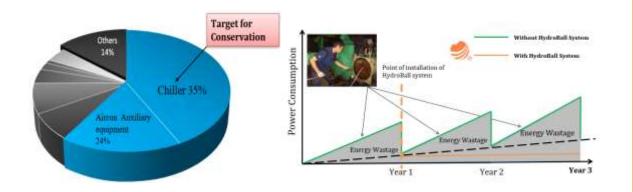
HydroBall Technics (SEA) Pte. Ltd. was established in 2003 under the Directorship of Mr. Renny Yeo & Mr. Peter Soh. We are the principal manufacturer of the award-winning automated tube cleaning HydroBall System, with 42 patents in 21 Countries. We are a key player in a fast-growing energy-efficiency products and services industry with distributors and customers both locally and internationally. We received the Innovator Award in 2004 from THE ENTERPRISE CHALLENGE (TEC) under the Prime Minister's Office. We are engaged in the generation of intellectual property related to efficient industrial water cooling and energy conservation in chillers and large process plants using water-cooled shell-and-tube heat exchangers. We aim to deliver practical resource conservation solutions with short payback periods, and we are moving forward to expand our business internationally.

THE PROBLEM WITH WATERCOOLED SHELL & TUBE HEAT EXCHANGER

During Aeration in the cooling tower, cooling water picks up airborne particles such as dust, soot and microbes. The high temperature of the heat transfer process transforms these airborne particles and soluble salts into scales which clog up the condenser inner tubes, raising energy cost and degrading the performance of the entire system. Manual cleaning is costly & involves chiller shutdown.

CHILLERS USE AT LEAST 35% OF ENERGY CONSUMPTION

Fouling can be very costly since it directly results in increased electricity consumption, interrupted operation, and increased maintenance costs.



Chillers use about 35% of total energy in a building

HydroBall System is the perfect cost-effective solution that eliminates equipment downtime and optimizes energy utilization of water-cooled heat exchangers (including chillers) by automatically keeping heat exchanger tubes perpetually free from the effects of scaling and particulate fouling. This ensures optimal heat exchange efficiency, contributing to the prevention of unnecessary energy loss, and resulting in lower cost of operation."

BENEFITS OF THE HYDROBALL SYSTEM

1) Non-powered

Does not require pumps or diverters to activate each cleaning cycle.

2) Double Loop System

Warm water leaving the condenser does not re-enter the condenser with cooling water.

3) No Loss of Water

No discharge of water after each cleaning cycle.

4) Effective Against Particulate Fouling

Particulate fouling can rapidly occur in a dusty environment.

5) Energy Saving

Particulate Scaling & fouling can increase chiller energy consumption by more than 20% if not mitigated. HydroBall system prevents scaling and fouling at all times.

6) Reliable Performance

HydroBall Technics provides a reliable maintenance programme to ensure no uptrend in CAT readings.

7) Ease of Installation & Maintenance

Advantages of the Innovative Product

The revolutionary HydroBall System does not only <u>eliminate equipment</u> <u>downtime</u>, but also <u>optimizes energy consumption</u>. Customers can <u>save up</u> <u>to 30% energy</u> by installing our sound engineering design system.

Customers that Benefited from our Innovative Product

Nanyang Technological University(NTU), NUS, Polytechnic in Singapore, SMRT, PUB, PSA, HDB Hub, Keppel, IRAS, MDIS, MOF, ICA Building, OUB Building, OCBC, Istana, Home Team Academy, JTC Food Hub, Carlton Hotel, Police Coast Guard Brani, Changi Water Reclamation Plant (WRP), Orchard The Heeren, Supreme Courts of Singapore, Urban Redevelopment Authority (URA), Orchard Paragon, Wafer Fabrication Plant, SATS (ICC1), Singapore Airport Terminal, Changi Prison, Hospitals, Singtel Comcentre... and many more.

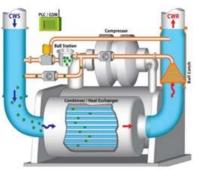
Distributorship

have distributors in Malaysia, Indonesia, Vietnam, Cambodia, Thailand & other countries.

OUR CERTIFICATE

ISO 9001 : 2015, ISO 14001 : 2015, ISO 18001 : 2007, ISO 45001 : 2018, Singapore Registered Contractor from BCA.gov.sg, Membership No: SGBP 2019-2048 from SBF.gov.sg, Singapore Green Building Product Certified 4 ticks Leadership from SGBC.sg, TEC Award from Prime Minister's Office, 2011 Singapore Environment Achievement Award US Patent: US 8,943,633 B2, China Patent: 100424461..etc

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41 patent claims in 21 countries

