ORtech marine

Proper Decisions,
Better Conclusions

DUPONT®

ABCON MARINE PRODUCTS

SHIN HEUNG PRECISION
SHIN HEUNG PRECISION CO., LTD

Bawat
Ballast Water Treatment

HARSONIC

enau

ÖZAK

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About The Company

- Ortech Marine was established in 2014 to be the solution provider in Turkish Marine Business.
- Its major occupation is technical ship management, automation, repair, planned maintenance, commissioning, certificating, especially green equipment and green powered boats.

- Besides, Ortech Marine offers the followings;
  1. Ballast Water Management System (BAWAT – Danmark),
  2. Ship Exhaust Gas Scrubber (DuPont – USA)
  3. Oil Leak Stop (ABCON – Danmark)
  4. Anti-fouling Equipments (HARSONIC – Belgium)
  5. Centrifugal Oil Cleaner - dry process (SHP – South Korea)
  6. Green Purifier (SHP – South Korea)

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About The Company

7. Air Starter (SHP – South Korea)
8. ALPHA Cylinder Lubrication System spare parts (SHP – South Korea)
9. Nitrogen Generator for Chemical Tankers (Özak – Turkey)
10. A certificated plant for test and maintenance of Hydraulic Pumps & Motors up to 400 hp
11. Electric Powered Boats. (Enau – Austria)

- Ortech Marine has a high potential to become the market leader with its highly experienced personnel and with the know-how of the partnership companies.
- Ortech Marine aims at the green equipment and solution provider to become in the Marine Business Market.

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Solution Partners

DU PONT®

- Producer of high tech Ship Exhaust Gas Scrubbers,
- IMO made the decision to implement a global sulphur cap of 0.5% fuel in 2020 during the Marine Environment Protection Committee (MEPC) 70 meeting in London in October 2016.
- Since 1 January 2015, IMO MARPOL Annex VI requires all ships located inside of designated Emission Control Area (ECA) to use fuel with a sulphur content not exceeding 0.1% sulphur, or to employ an abatement technology that can be used to reduce SOx limits to a level that would be produced by the sulphur-in-fuel limits.

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Green Products

- DuPont exhaust gas cleaning systems use wet scrubbing technology to effectively reduce SOx emissions from ship engines, boilers, and heaters, in retrofits and new builds. DuPont™ Marine Scrubbers help you meet all IMO and EPA SOx emission criteria.
- DuPont™ Marine Scrubbers are the slimmest, most reliable equipment on the market. Our systems operate maintenance-free for extended periods of continuous operation to match or exceed periods between normally scheduled dry-docks.
- Our in-line engine scrubbers do not require fans, saving on maintenance and energy consumption.
- Our technology is suitable for retro-fits and new builds.
- Ortech Marine is the sole distributor to Turkish Marine Market.

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Green Company

DU PONT

SINGLE-STREAM INLET

One Exhaust Gas Source Vents to a Dedicated Scrubber

- Low installation costs in retrofits
- Requires minimal changes to existing ductwork
- Optimizes each scrubber for dedicated exhaust source
- Shorter in height

MULTI-STREAM INLET

Multiple Exhaust Gas Sources Vent to a Common Scrubber

- Fits where multiple smaller scrubbers do not if funnel space is limited
- Reduces number of installed scrubbers
- Reduces onboard auxiliary equipment
- May reduce system cost

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Green Company

DUPONT

DUPONT

DUPONT SUSTAINABLE SOLUTIONS

Maersk Successfully Demonstrates BELCO® Marine Scrubber Technology

7.18.14

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BELCO® Achieves 100% MARPOL Annex VI Compliance for All Air and Washwater Emission Criteria

PARSIPPANY, N.J., July 18, 2014 – Belco Technologies Corporation (BELCO®), a wholly owned subsidiary of DuPont, has partnered with the Maersk Group to successfully demonstrate BELCO® Marine Scrubber technology aboard the Maersk Tukang, a container ship with max TEU Capacity of 8,112.

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Green Company

DU PONT®

The BELCO® Marine Scrubber was tested over six days in May 2014 as it sailed from the Port of Algeciras, Spain, to Genoa, Italy. Representatives from BELCO® and Maersk were on board. A surveyor from the American Bureau of Shipping was also there to witness and monitor the full testing as the system awaits class certification, expected later this year.

The BELCO® Marine Scrubber was installed on the Tukangin 2013 in Qingdao, China, during a scheduled drydock. The unit is designed to clean SOx and particulates from exhaust gas emissions from a 3.2 MW auxiliary engine. Open loop tests confirmed that BELCO® achieved 100 percent compliance with MARPOL Annex VI regulations for all air and washwater emission criteria. Closed loop testing is scheduled for early fall 2014. BELCO® fully expects a successful demonstration since it has been engineering closed loop wet scrubbing systems for refineries and other land-based applications for over 20 years.

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Green Company

DU PONT®

The BELCO® Marine Scrubber reduces SOx and particulate emissions from ship engines and boilers, enabling vessels to meet sulphur emission limits as required by IMO MARPOL Annex VI regulations without switching to low-sulphur fuel. BELCO® designs and supplies slim, reliable exhaust gas cleaning systems that operate maintenance-free for extended periods of continuous operation.

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Green Products

Bawat Ballast Water Treatment

- Based on unique patented technology that represents a significant step forward in ballast water treatment.
- Bawat BWTS utilises two distinct process principles in a circulation procedure: De-oxygenation and pasteurisation.
- The de-oxygenation process effectively eradicates the zooplankton and the pasteurisation process reduces the phytoplankton and the bacteria concentrations to levels below the IMO D2 requirement.
- Bawat BWTS is suitable for vessels of all sizes, but it represents the ideal solution for large, long-haul bulk carriers, containers and tankers as its competitiveness and advantages increase with vessel size and BW capacities.

Green Solution

- The process principles are outlined below:

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Green Company

ABCON MARINE PRODUCTS

- Produces high quality stop-leak oil additives to the international shipping industry.
- The full line Bio Stop Leak additives all comply with the US 2013 EPA VGP requirements as environmentally acceptable when added in mixtures of 1 : 10 or below.
- Stern tube leakage
- Thruster and controllable pitch propeller leakage
- Leakages in hydraulic systems
- The full line Bio Stop Leak additives all comply with the US 2013 EPA VGP requirements as environmentally acceptable when added in mixtures of 1 : 10 or below.
- Ortech Marine has been offering ABCON products to its customers and solved their problems successfully.

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Green Partners

October 14, 2013
Comments Off on Hull Testimonial after 3 years on a sailboat

- Leading devices which prevent biofilm and all kind of fouling on and over board.
- Where Harsonic is used;
- Against growth on the hull,
- Against growth on Propellers or Outdrive,
- Against fouling in fuel-tanks or water-tanks,
- Harsonic has specialized in the permanent removal of biofilm in several applications, <u>without any chemicals</u>. This means **saving maintenance, saving money and saving the environment all at once.**

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Green Products

SHIN HEUNG PRECISION
SHIN HEUNG PRECISION CO., LTD

- Producing and developing diesel engine spare parts and peripherals since March 1988.
- Product range;
  1. Centrifugal Oil Cleaner - dry process (Shin Heung Precision – South Korean Company)

Oil cleaner is produced in various capacity.

- 15 – 90 lt of tank/sump volume.
- 40 – 170 lt
- 200 – 1.500 lt

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Solution Partners

SHIN HEUNG PRECISION
SHIN HEUNG PRECISION CO., LTD

2. Green Purifiers (Shin Heung Precision – South Korean Company)

Specification of Purifier System

Model	Maximum Flow Rate (SAE 40, 65℃, 7 bar)
GP200	1,140 lph
GP600	4,800 lph
GP1200	9,600 lph
GP2400	19,200 lph
GP3600	28,800 lph
GP4800	38,400 lph
GP6000	48,000 lph

※ Multiple installation of GP1200 for large sizes

▲ Purifying the emulsified oil

SHIN HEUNG PRECISION
SHIN HEUNG PRECISION CO., LTD

3. Air Starter (Shin Heung Precision – South Korean Company)

- Left or right-hand rotation.
- A wide variety of gear reductions, nozzles and pinions.
- 2.7- 10.3 bar
- Application ; medium-speed diesel engines , Oil & Gas , Haul truck, Mining Industry etc.

Model	Max.Power Kw / Hp	Max.Torque N.m / lb.f-ft	Working Pressure Bar / psi	Weight kg / lb	The type of engine
SM07Y	27 / 36	353 / 260	7 / 100	23 / 50	17 / 28 21 / 32 (up to 7 cylinder)
SM07P	27 / 36	353 / 260	7 / 100	23 / 50	21 / 31
SM10	51 / 68	476 / 350	7 / 100	34 / 75	21 / 32 (8&9 cylinder) 25 / 33, 21 / 31 23 / 30, 27 / 38
SM12	120 / 161	680 / 501	10. 3 /150	35 / 77	32 / 40

Solution Partners

4. ALPHA Cylinder Lubrication System spare parts (Shin Heung Precision – South Korean Company)

50 - 60MC(MC-C)

70 – 98 MC(MC-C)

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SHIN HEUNG PRECISION
SHIN HEUNG PRECISION CO., LTD

ISO 14001 : 2004

ISO 9001 : 2008

Certificate of MAN B&W Approval
(ALPHA & ME)

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SHIN HEUNG PRECISION
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Certificate of MAN B&W Approval (ALPHA & ME)

Certificate of MAN B&W Approval (Mechanical Lubricator)

ABS Certificate

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Green Company

- ÖZAK Industrial and Medical Gases Limited was established in 1993 to meet gas demand of industrial and medical enterprises and individuals safely, in compliance with the relevant standards and with optimum prices.
- The company constantly striving to meet its customers' needs in the optimum way and, in this context, they developed Nitrogen Generator of their own design after two years of hard and careful study. **ÖZAK Nitrogen Generator** has ceased nitrogen being an expensive gas and made it easily and economically available to everyone.

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Solution Partners

ÖZAK

- Producing nitrogen by separating air in gaseous phase is a proven technology which has been utilized for over 30 years throughout the world, especially in industrialized countries. Despite conventional air separation plants, nitrogen generators are relatively small and low cost equipment which can be owned and operated by individual users.
- It operates on the proven PSA (Pressure Swing Adsorption) principle which can produce up to 99.999% pure nitrogen economically. It is designed for maximum performance and reliability and is tested extensively in actual industrial operating conditions for perfection.

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Green Product

- ENAU is a company, dedicates it’s resources, know-how and experience to provide design and deliver fully integrated Ship Technology products and services.

- ENAU sees the urgent action needed for replenishment and refinement of the already polluted Air and Marine environment and hence takes the initiative to help contribute evolution of Marine conventional propulsion systems to extensive use of Electrical Drive systems.

Green Product

Green Ferry

Double Ended
Short-range Ferry (Kanuni)

She is being tested in Bosporus.

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