

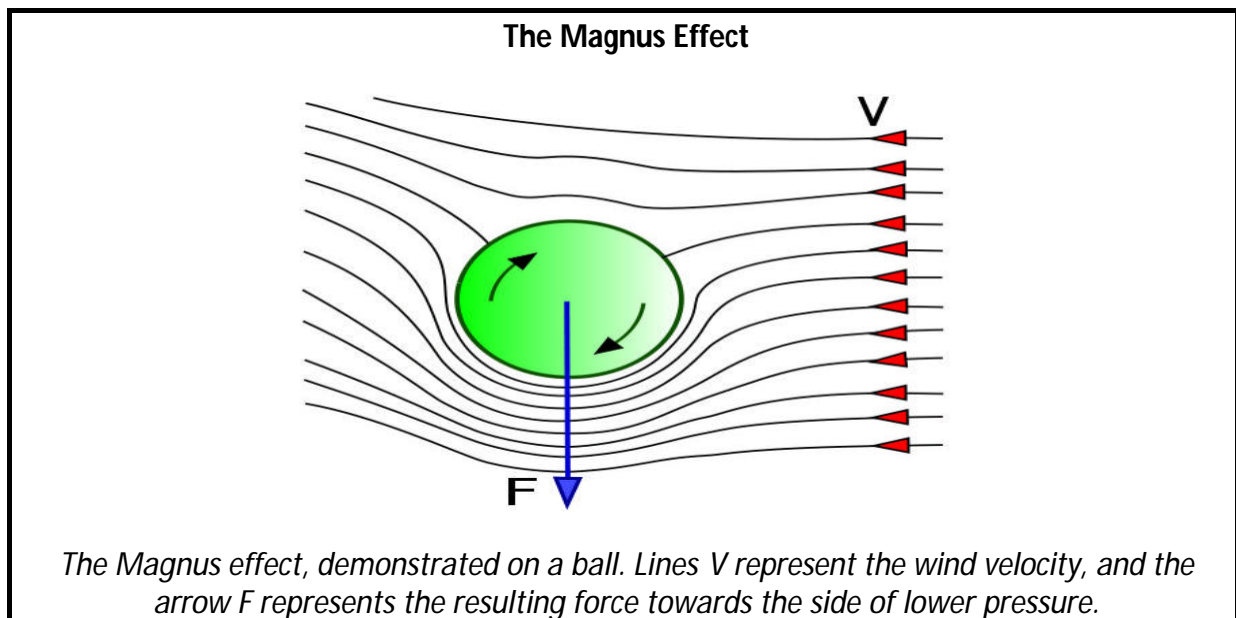
State-of-the-art Ship docks in Ireland

The world's most innovative cargo ship E-Ship 1 is expected to dock in Dublin Port over the summer, delivering wind turbines for Castledockrell Wind Farm in Wexford. The ship is owned by Enercon, which has supplied 25pc of the wind turbines installed in Ireland so far.

The E-Ship 1 is remarkable in many aspects and represents a full scale demonstration of numerous innovations to make cargo ships more energy efficient and economic. The most visible characteristic of the ship are four about 27m tall cylinders, which are rotating at variable speed to create lift on the cylinder body, supporting the ship-like sails

Burke Shipping Group was in charge of handling the ship on her maiden mooring in Ireland. Commenting on the arrival of E-Ship 1 a spokesperson from the company said 'Burke shipping group are a leader in handling Wind Turbines in Ireland, with a dedicated team of professionals trained in handling Turbine equipment. We have handled Turbine equipment in Belfast, Dublin, Waterford, Cork, Fenit, Foynes and Killybegs over the last number of years.'

The E-Ships so-called "Magnus Effect" also give a spinning soccer ball a bent flight path during a corner kick in lay-person's terms. Due to the rotating cylinders, a highly efficient diesel-electric drive – including a steam turbine for exhaust heat, a special aerodynamic hull, an innovative propeller design and other improvements – the ship is expected to reduce fuel consumption significantly.



The two electric ship motors are modified Enercon wind turbine synchronous generators.

The E-Ship 1 is 130m long and due to its optimised, flexibly adjustable cargo bay, able to load many more wind turbine components than a conventional cargo ship. On its first

regular journey it is delivering nine Enercon E-70 wind turbines including tower parts and blades for Castledockrell Wind Farm, currently under construction in Co Wexford.

Here are some photo's of the E-Ship 1 taken in Dublin Port:



Hull of E-Ship 1



E-Ship Unloading



The Marine Wind Farm

The wind farm will consist of 18, 120m tall turbines with a total capacity of 41.4 MW and will supply more than 100,000 people with clean, green energy in the future.

The service and maintenance of the wind farm will be provided by Enercon's Tralee-based company Enercon Wind Farm Services Ireland. Since its foundation in 1984, Enercon has supplied 16,000 wind turbines to more than 30 countries with a total power capacity approaching 20GW and is the global leader in gearless wind turbine technology.

The quickly expanding company, operates five service stations in Ireland and is employing an increasing amount of specialists such as installation technicians and site managers.

The E-Ship 1 will deliver the other nine wind turbines to the fleet maintained by Enercon Wind Farm Services Ireland in the next year.



Other Irish Companies involved in Green Marine Energy

Island Shipping and its sister company Island Maritime is a multi-disciplinary marine organisation supplying a variety of construction, engineering, and vessel services to the Marine sector in Ireland the UK and Europe.

Island Shipping is based in Wicklow. They have sent us some photos of their ships supplying the wind farms off the North Atlantic coast. See how big the wind farm towers are in comparison to the supply ship.





With thanks to Island Shipping

Source: The IMDO & <http://www.siliconrepublic.com/>, September 2010