



2022 Adriatic Sea, Italy **Renewable Energies**

There are many studies involving wave motion and the consequent production of energy; the so-called 'WAVE ENERGY'.

In fact, different versions of cymoelectric systems are continuously being tested, which make it possible to exploit wave patterns in the sea. All these systems share a similar theory in their functioning and their constituent parts. In fact, there is always the sea with the waves and their repeated but variable motion, a 'collecting' system of water when it fills and air when it empties (or which compresses and relaxes according to the wave's progress), and a connected generator that allows the conversion of kinetic energy into electricity, usually a turbine. Careful temperature control is always necessary. Tempco has designed and built a pilot plant for this purpose that harnesses the energy captured by a gyroscopic system, which counteracts wave motion. It is a rather simple system with specific peculiarities related to design and thus installation. In fact, the platform subjected to the wave motion will suffer considerable stress and heeling, so the support structure is also designed accordingly. Reliable heat exchange is ensured by redundancy in the control and circulation systems.