

# Product Informations Requirements

[Ref. 2009/125/EC ErP; Regulation (UE) n. 547/2012]

The increasing need to reduce the environmental impact of various products throughout their entire life cycle (e. g. choice and use of raw materials, manufacture, packaging, transport, use and end-of-life) has given rise to Directive 2009/125/EC, from which for the water pump sector has been followed by Regulation 547/2012. The Regulation defines what is meant by a pump, which types are covered by it and the validity of its scope. Referring to the regulation the definition and the fields of use we can divide the pumps into 5 categories:

- End Suction Own Bearing (ESOB);
- End Suction Close Couple (ESCC);
- End Suction Close Couple Inline (ESCCi);
- Vertical multi-stage (MS-V);
- Submersible multi-stage (MSS);

The Regulation does NOT apply to:

- water pumps specially designed for pumping clean water at temperatures below – 10 °C or above 120 °C,
- water pumps designed exclusively for fire-fighting applications;
- volumetric water pumps;
- self-priming water pumps.

The pumps manufactured by Pentax and under the regulation, have:

- A minimum efficiency index:  $MEI \geq 0.40$
- The reference value for the most efficient water pumps is  $MEI \geq 0,70$
- Year of manufacture (ref. to the plate)
- Manufacturer's name or trademark, commercial registration number and place of manufacture (ref. to the plate)
- Product's type and size identifier (ref. to the plate)
- Hydraulic pump efficiency (%) with trimmed impeller [xx,x], or, alternatively, the indication [--.] (ref. to the plate)
- Pump performance curves for the pump, including efficiency characteristics (ref. to the catalogue)
- The efficiency of a pump with turned impeller is generally lower than that of a pump with full impeller diameter. The turning of the impeller adapts the pump to a fixed working point, resulting in lower energy consumption. The minimum efficiency index (MEI) is based on the maximum diameter of the impeller
- The operation of this water pump with variable operating points can be more efficient and economical if controlled, for example, by a variable speed motor which adapts the pump operation to the system
- Information relevant for disassembly, recycling or disposal at end-of-life (ref. to the manual)
- Reference efficiency information is available at [www.pentax-pumps.it](http://www.pentax-pumps.it)
- Efficiency graphs for  $MEI=0.7$  and  $MEI=0.4$  can be found at [www.europump.org/efficiencycharts](http://www.europump.org/efficiencycharts)