# **Typical application:**

Suitable for a variety of marine applications, including seawater cooling systems, low temperature cooling systems, high temperature cooling systems, ballast water pumps and fire pumps.

1. Invention patent product. Patent number: ZL 201510051291.1;

#### 2. High reliability:

- · Shorter pump height to significantly reduce vibration and noise;
- Imported high-performance composite material for wear ring is optional to ensure the longest service life and lowest wear;
- Durability and service life are highly improved through optimized structure and precision processing;

### 3. Footprint and weight reduced:

 Re-optimization targeting marine service. Reducing the weight by up to 30% and reducing the product height by up to 20% compared to well-known international marine pumps;

### 4. High efficiency:

 Energy-saving products by using optimized hydraulic model (high-order equation G2-A surface design method) to improve efficiency and cavitation performance; in conformance with MEI0.7 European energy-saving standards; efficiency is about 5% higher than well-known international marine pumps;

#### 5. Easy to maintain:

- Modular design; the main components of different structures (back cover, bracket, shaft, etc.) are interchangeable. Altering or upgrading the configuration only requires to replace the relevant parts module while keeping installation dimensions unchanged;
- Mechanical seal and impeller can be replaced without disassembling the pump volute, motor or bracket. The maintenance time can be saved by about 50% compared with well-known international marine pumps;
- Mechanical seal is standard configuration; double mechanical seal or packing seal is optional;
- 7. Pump can be upgraded to common self-priming pump or strong self-priming pump for cavitation-prone installations;
- Double volute design greatly reduces the radial force of the pump and the weight of the pump casing;



适用于多种船舶应用场合,包括海水冷却系统、低温冷却系统、高温 冷却系统、压载水泵和消防泵。

1、发明专利产品 专利号: ZL 201510051291.1;

## 2、高可靠性:

- 泵高度大幅降低,振动及噪音显著减小;
- 通过优化的结构及精密加工,显著改善耐用性及使用寿命;
- 3、减小占用空间及减轻重量:
- 针对船用的特点进行了重新优化,比知名国外船用泵重量减少最大达到30%,产品高度最大降低约20%;

## 4、高效率:

• 节能产品,全新优化的水力模型(高阶方程G2 - A面设计方法), 提高了效率和汽蚀性能,全部满足MEI0.7欧洲节能标准,比知名 国外船用泵效率提高约5%;

## 5、易维修维护:

- 模块化设计,不同结构的主要部件(后盖,支架,轴等)通用,改 变或升级配置只需要替换相应的零件模块,外形安装尺寸不变;
- 泵可在不拆卸泵体、电机和支架的情况下更换机封和叶轮,维修和 更换时间比知名国外船用泵厂产品节省约50%;
- 6、机械密封为标准配置;可选配双机封或填料密封;
- 7、对于易汽蚀安装场所,产品可升级为普通自吸泵或强自吸泵;
- 8、双蜗壳设计,大大减小泵的径向力和泵壳的重量;

MARINE & OFFSHORE OIL & GAS POWER UTILITY GENERAL INDUSTRY