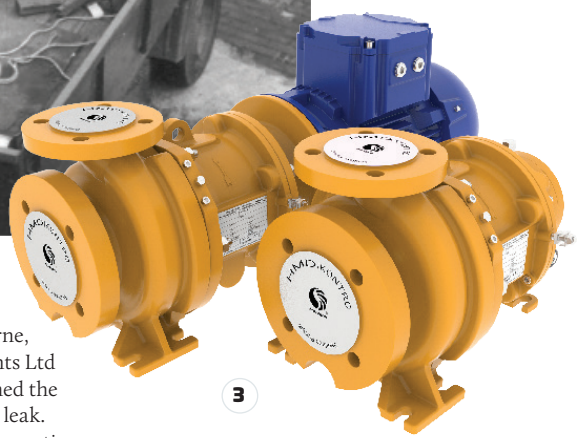
Eight decades of innovation

David Clark CEng, Honeywell Sundyne HMD Kontro's senior engineering manager, who's been with HMD for more than half of its 80-year history, reflects on the company's pioneering past and the future of sealless pump technology







1. HMD invented the world's first sealless magnetic drive pump in 1947

2. David Clark CEng, Honeywell Sundyne HMD Kontro's senior engineering manager

3. Today HMD pumps support a wide range of chemical applications

WP: Where did the HMD story begin?-

DC: HMD was founded in 1946 in Eastbourne, UK as Hydraulic & Mechanical Developments Ltd by Geoffrey and Charles Howard, who formed the company to develop a pump that would not leak. In 1947, HMD pioneered the first sealless magnetic drive pump for Imperial Chemical Industries (ICI) Huddersfield for a hot oil (Dowtherm) application at 300°C (572°F).

WP: What has HMD learned over the last 80 years?

DC: The need for sealless pumps in chemical, industrial, petrochemical, refining and clean energy applications continues to grow. Harsh & toxic chemicals have always posed challenges for pumps with mechanical seals due to leakage concerns. Certain fluid-types and temperatures cause reliability issues for mechanical seals.

The simplicity, safety and reliability of sealless magnetic drive pumps prevent leaks, increase production uptime, and ensure safety for operators, companies & the environment.

WP: Why is this important today?

DC: When HMD was founded in 1946, the global population was 2.4 billion. Today it's 8.3 billion. People need energy, food, plastics, synthetic-fiber clothing and pharmaceuticals - all areas where sealless pumps shine. Demand for chemical, petrochemical and energy production isn't just a function of population – it's also influenced by the fact that society is more urbanized today and global per-capita incomes are higher than they were in 1946. All of these factors boost demand in industries that prefer sealless magnetic drive pumps.

WP: What is HMD focusing on today?

DC: Our mission over 80 years has not changed. We're still driven by the need to deliver safe and reliable pumps that eliminate leaks and protect workers and the environment. Now as a part of Honeywell Technologies, we're leveraging new resources and advanced materials to optimize energy efficiency, deliver better secondary control & containment, and provide greater overall value to customers.

Our work with Honeywell UOP offers a broader view to market needs when it comes to applications like HF alkylation, renewable fuels, Sustainable Aviation Fuels (SAF), CCUS, advanced recycling, and others.

We're expanding our portfolio of ASME-B73.3, ISO-2858/15783 and API-685 pumps with broader coverage, additional hydraulic sizes and design innovations that improve performance and simplify maintenance. The HMD portfolio has always been based on a simple, modular design that maximizes standardization and interchangeability of components. This enables faster upgrades onsite with streamlined commissioning. It optimizes inventory and provides faster delivery times for customers.

To sum things up, I'd say we've learned a lot over the last 80 years. We're applying each lesson to ensure that we offer even greater value to our customers in the years ahead.

ABOUT THE AUTHOR
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