Next-generation IS machinery supported by evolving LATTIMER solutions

Across global container manufacturing, LATTIMER continues refining IS variable equipment for the servo era. New tong systems, neck ring mechanisms and redesigned take-out arms reflect a broader push toward higher accuracy, durability and productivity as glass plants pursue greater process consistency and operational efficiency worldwide.

Lattimer has become one of the most recognisable names in the glass container manufacturing industry, supplying IS variable equipment to more than 70 countries each year from manufacturing sites in the UK and the US.

BUILDING ON A LEGACY OF INNOVATION AND EXPANSION

The company's reputation has long been built on quality and innovation - attributes that remain as important today as they were in 1941 when Lattimer was founded. In recent years, this foundation has been reinforced through strategic acquisitions, including Hunprenco Limited in 2022 and Hartmann and Bender in 2023. As increasing numbers of servo-controlled machines are introduced across the industry, many of the 40,000 part numbers currently available in the Lattimer portfolio are no longer required. In their place, manufacturers are seeking faster, lighter and more versatile products capable of meeting demands for improved product quality, process consistency and higher productivity. Many Lattimer products have become industry standards. The challenge now is ensuring that the company's portfolio not only supports the new generation of IS machines but also continues to deliver clear value for customers investing in this equipment. Over the past year, Lattimer has introduced several new products that are gaining strong adoption while continuing the company's long-standing reputation for delivering customer value.

ENGINEERING SOLUTIONS FOR MODERN IS MACHINE REQUIREMENTS

One example is Lattimer's Neck Ring Mechanism, manu-

factured with a number of subtle but critical differences. A hardened and ground piston and rod provide closely toleranced, low-backlash, synchronised opening and closing of the flights. A heavy-duty spring ensures rapid return to the home position once compressed air is released, while roller bearings on the shaft allow smooth, resistance-free rotation during inversion of the neck ring arms. The simplified design also supports easier maintenance. The mechanism's robust construction enables trouble-free operation over many years and is available in a limited range of variants to suit different machine types. Customer growth and expansion into new markets have also driven demand for variable equipment for new machines. Within the past two years, Lattimer's range of products for the NIS machine has grown significantly. In particular, the NIS Varying Centre Distance Tong Head (VCD) has proven highly popular due to technical advancements designed to deliver longer service life and higher levels of accuracy, improving overall performance. Another development is the second-generation Parallel Tong, which introduces a simple but effective new design using many of the same components found in the Anti-Wink Tong Holder. One of the most common areas for critical container defects occurs around the neck during pickup. The parallel action of this new Tong Holder provides smoother and more precise movement, allowing pickup much closer to the mould. This can significantly reduce cycle time, as the Tong Holder is suitable for closed-mould pickup. The unit has also been designed as a compact assembly that can directly replace standard tongs.

EXPANDING PRODUCT DEVELOPMENT AND MANUFACTURING CAPABILITY

Lattimer's quick-change aluminium Blowhead, available in single, double, triple and quad gob configurations, combines strength and durability with interchangeable steel wear parts. This design extends service life while reducing lifetime operating costs. The company also manufactures a wide range of ductile iron mould holders -both blow and blank- each year, including industry standards and customer-specific designs. However, many standard holders have limitations in terms of speed and mould-closing pressures. Lattimer's design team

is therefore reviewing the current range of popular holders, incorporating design changes aimed at increasing strength and durability while maintaining accuracy and arm parallelism. Manufacturing processes for Neck Ring Arms have also undergone a comprehensive review aimed at reducing costs while guaranteeing product quality and accuracy. New casting designs have been introduced alongside revised manufacturing methods that reduce the number of operations required to produce finished parts. New variants allow wear areas of the arms to be replaced quickly -within minutes- rather than requiring time-consuming grinding and re-welding often carried out in plants. A product line redesigned specifically for servo machines is the Lattimer Take Out Arm range. These arms have been engineered as compact, robust and maintenance-friendly units available with both belt and silent chain drive. Because the repeated cycling of take-out arms can generate significant forces, the Lattimer design ensures that input and output shafts are fully supported and securely located to reduce the risk of failure. Many readers will already know that Lattimer supplies a full range of IS variable equipment, including both standard parts and those specific to particular machines, companies or containers. Mould holders, baffle arms, blowhead arms, tong heads and cartridges, inserts and lock rings are all available. Less widely known is the company's range of checking fixtures. Produced to order, these fixtures allow plants to verify the condition and accuracy of components -including tong heads, neck ring arms, inserts and mould holders- before installation on a machine. Lattimer continues to encourage customers to visit its production facilities. Recent improvements include updated equipment layouts within manufacturing departments, installation of new machines and a reorganisation of the assembly department, including the creation of a dedicated Neck Ring Mechanism assembly and testing area. These changes are intended to streamline manufacturing processes and increase productivity and efficiency. Operating in an increasingly competitive environment, Lattimer continues to pursue excellence across all areas of the business while reinforcing its commitment to supporting customers in achieving their own operational goals. ■

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