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Eastern Edition - August 2016

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One-Stop Repair for Plastic Molding Equipment

Plastics manufacturers save time, reduce costs by working with single source for molding machine repairs

Investment in capital equipment for plastic injection, extrusion and blow molding is immense, with nearly 16,000 plastic manufacturing facilities in the United States and 4,000 in Canada, each operating a multitude of machines. So, too, are the demands for timely and cost effective repair and replacement of component parts to keep the equipment in good working order.

Given the vast array of mechanical, hydraulic, and electronic parts involved, the seemingly straightforward task of maintaining the equipment is often more of a logistical nightmare that involves farming out components to a variety of specialty repair shops with variable capabilities, quality, pricing, and turnaround time.

Fortunately, the repair services industry is responding by broadening its capabilities to provide more of a one-stop-shop service for plastics molders, often with facilities strategically located near major manufacturers or manufacturing regions.

Molding Equipment

Although the equipment today varies in form and function, the basic process of plastics molding often involves components common to other industries. For example, in plastic injection molding, heating elements, servo motors, gear boxes, brake assemblies, actuators, and hydraulic devices play a critical role in filling, clamping, and ejection control operations.

In addition, there are sophisticated electronic elements, such as PLC controllers to HMI control panels, which are designed to display real-time status information and alarm monitoring while

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also recording critical data for analysis.

For high volume production, high speed linear 3-axis servo gantries and robots, sprue pickers, and side entry robots may be used for operations such as part removal, stacking, sorting, packaging, part handling, and inspection.

Given the variety and complexity of machine components, repair or replacement often involves farming out specific components to specialty repair shops. But a hydraulic component repair shop does not have the capability to also repair motors. A motor repair shop cannot replace power supplies, I/O, memory, or communication cards in sophisticated PLC systems, and robotic equipment must also be repaired at a dedicated facility.

However, where these services can converge are with larger international repair service companies, such as K+S Services, which, due to size and expertise in many industries from automotive to aerospace, are equipped to offer an array of repair services under one roof.

For the plastics industry specifically, K+S, offers what it calls "the full gamut" of repair and replacement services for plastic injection, blow molding, and extrusion equipment. This includes the repair or replacement of components, including major manufacturer brands for the mechanical (servo motors, gear boxes and gear reducers, brake assemblies, vacuum pumps and blowers, air/fluid pumps, ball screws) to the hydraulic (pumps, motors, cylinders, rotary actuators, and servo valves).

The company can also handle sophisticated electronic components, including replacement of controller cards for power supply, I/O, communication, and memory, as well as human-machine interface (HMI) control panels. For robotic elements, K+S draws on

its extensive expertise in the automotive manufacturing industry.

Regardless of the type of part, it is important to look for a repair company that will conduct an initial evaluation to identify the probable cause of failure, and then repair and test the part according to the manufacturer's specifications and test procedures.

Proximity of Repairs

K+S Services has pursued a strategic model of expansion by opening new locations in close proximity to existing major plants, as well as geographic regions that attract and support U.S.-based manufacturing. The company now operates eleven facilities across the globe, including the U.S., Mexico, Canada, and Europe. More than just a store front with a lone representative that coordinates with a larger office, these repair facilities are fully equipped and functioning shops with managers, technicians, and spare parts at each location.

Proximity has many advantages for the manufacturer. First and foremost, having a repair service in close proximity means repairs can be completed faster and the maximum possible uptime maintained. Today, most manufacturing plants need replacement parts quickly due to decreased on site spare parts inventory. And in the event of an emergency, proximity can make turnaround time practically negligible. According to K+S, cases exist where a part has been picked up in the morning, repaired, tested, and returned that same day.

But if physical proximity in terms of location has its benefits, there is no relationship closer than having a repair service representative stationed within the plant itself. In K+S's Smart Total Asset Management Program (STAMP), customers are assigned a



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full-time, on-site account manager to serve as a one-stop facilitator and manager of all repairable assets within a specific plant. This includes tracking all repairs, expediting when required, shipping or delivering to and from the nearby repair facility, maintaining database integrity, streamlining and stabilizing procedures, generating a wide variety of reports, and keeping the customer informed throughout the process.

According to K+S (<http://www.k-and-s.com>), proof of the success of this business model rests with the number of corporations ascribing to it. K+S successfully services well over 800 manufacturers, and major companies such as Continental, GM, Fire Stone, Ford, Goodyear, GE Air, Chrysler, and UTC are among the current STAMP customers.

SGM Precision Triples Manufacturing Space

SKOKIE, Ill.—SGM Precision, LLC, a privately-held contract manufacturer for Fortune 500 corporations, is buying a new facility, tripling its space, and moving from Skokie after 70 years in business. The company recently announced that it will move from Skokie to a 117,000 square-foot building in Northbrook, Illinois during the fourth quarter of 2016.

SGM is a certified contract-manufacturer of high-quality, exact tolerance plastic and metal parts for some of the most well-known Fortune 500 companies in the aerospace, defense and the life-sciences industries. Able to fabricate 'custom-per-print' components from a wide range of exotic metals and phenolic thermoset laminates, SGM is an ITAR-registered AS9100-2009, Rev.C, and ISO 9001:2008 certified manufacturer. ■



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