Performance, speed, stability, and durability... all key attributes of the **Phoenix Series Swing-Arm Robots** makes them ideally suitable for sprue separation and parts removal on injection molding machines from 15 tons to 300 tons.

The **Phoenix Series Swing-Arm Robots** have four pneumatic-driven axes of motion. The horizontal axis pulls the runner/parts away from the mold. The vertical axis lifts the runner/parts out of the mold area. The swing axis pivots the arm over the safety gate to outside of the injection molding machine where the runner/parts are released after the arm re-extends. In addition, the standard wrist axis on the arm rotates the gripper to enable orientation of runner/parts.

The **Phoenix Series** offers the fastest take-out times available for sprue separation and parts removal. The self-lubricating pneumatic drive system ensures low maintenance, exceptional stability and reliability. This series of robots are constructed on modular principles to ensure high precision and lightness. The main arm rides vertically on a linear slide-rail and slides horizontally on two roller guide-ways; no maintenance is required and smooth running and the elimination of play/slack is ensured. Travel cushions on the vertical axis minimize vibration and ensure smooth deceleration; hydraulic shock absorbers are fitted on the crosswise axis for efficient damping.

For maximum flexibility the arm can be easily adjusted to release runner/parts at the operator or the rear side of the machine. The swing angle can be freely adjusted between 60 to 90 degrees through a positive, but easily adjusted location fitting on the cylinder-driven oscillating arm. The manual clamp system on the **Phoenix Series** of robots allows them to swing clear of the mold area in seconds without the use of any tools. The built-in ratchet mechanism, which controls motion of the robot arm out of the mold area, enables easy mold changes or maintenance.

Fast, responsive and reliable pneumatic control units are integrated at the side of the robot. Moving speeds on all axes are fully adjustable. The main arm safety lock prevents the arm from descending in the event of loss of air pressure. The sprue is monitored by a sensor contained inside the gripper assembly. The vacuum generator and freely adaptable end-of-arm suction tooling are supplied as standard accessories.

The **Phoenix Series** utilizes a microprocessor control system which includes an easy to operate hand-held controller. The controller features a large LCD display and adjustable digital timers and counters providing simple programming for repeatable operations.

The **Phoenix Series Swing-Arm Robots** utilize the industry standard of Euromap12/SPI robot interface, thus allowing the unit to be easily moved from one machine to another.