

## CENTRAL FILL - FOR EVERYONE

There is a crisis in the health care industry that is looming larger every year. There is a critical shortage of pharmacists and a growing demand for prescription drugs due to our aging population, and the explosion of new pharmaceutical based treatments. Over the last 20 years, Pharmacy Benefits Managers (PBMs), insurance companies, and large pharmacy chains have begun to meet this challenge by consolidating and centralizing their dispensing operations into what is commonly referred to as central fill or mail order operations. Some examples of these include Medco, Express Scripts, Kaiser, Walgreens, and CVS.

Central fill or mail order operations take advantage of economies of scale by centralizing operations allowing a much more efficient use of resources including pharmacists, automation, inventory, facilities, and much more. Central fill is especially effective for refills for maintenance drugs where the patient does not require pharmacist consultation. These refills are often just mailed directly to the patient's home and do not even need to be handled at the retail store. By leveraging automation and workflow software, central fill operations can dramatically reduce the cost per fill while at the same time improving throughput, safety, accuracy, and security.

- Cost per fill – traditional dispensing of prescriptions is a labor intensive process - from labeling to counting, verifying, and packaging. A typical pharmacist can only process 250 to 300 prescriptions per day and that is without any patient interaction. Automated systems can increase that productivity by as much as 5x. Centralizing operations will provide much more efficient management of inventory by reducing the duplicate excess stock across many retail outlets. A centralized solution allows the cost of the automation and facilities to be spread over higher volumes and among all participants.
- Safety – humans make mistakes, especially toward the end of long shifts. Automation can perform many of the tedious repetitious tasks such as labeling, dispensing, transporting, order consolidation, packaging, and sorting all while maintaining a detailed audit log of everything that affects a patient's prescription. Automation does not get tired and if properly installed and maintained can provide years of dependable service. Many technologies exist to ensure safety including vision systems and barcode and RFID identification for verification and tracking.
- Accuracy – many devices exist for assisting a pharmacist or technician to count pills or dispense items accurately and efficiently. However, as volumes increase, the opportunity for errors increases. Automation can greatly reduce the opportunity for errors by ensuring consistency and by leveraging technology to verify the results of automatic operations.
- Security – drug diversion and pilfering present a wide-spread problem in pharmacy operations. A central fill is no different, but does present a more controlled environment for addressing security. Automation can provide better accounting of the drugs and audit of who has had access to them. Fewer people working with drugs mean fewer security risks.

SEI Integration has been working with automation for over a decade. SEI has the experience of integrating large central fill systems using industry leading technology as well as designing and building custom dispensing, sorting, and packaging systems. Unlike larger automation companies, SEI Integration offers the flexibility of both integration with existing industry leading equipment and technology as well as access to our advanced pieces of equipment not available anywhere else in the industry.

- Solid Dosage dispensing – our new state-of-the-art dispensing technology offers superior security, accuracy, and throughput with unmatched scalability. With the ability to dispense thousands of prescriptions per hour and yet scale from 10 dispensers to hundreds of dispensers, our equipment is designed to grow with your business without requiring a huge initial capital investment. Utilizing point-of-dispense barcode scanning and highly-accurate counting we offer unsurpassed performance and safety.
- Unit-of-use Solid Dosage dispensing – our state-of-the-art dispensing technology is also offered as the first-of-its-kind hospital central fill that automatically dispenses solid dosage prescriptions into daily time-of-day patient specific packages for distribution directly to in-patients. With bar code technology and tamper proof patient specific packaging, patient safety is raised to a new level and nursing staff can focus on patient care.
- Order consolidation – our unique static bin order consolidator facilitates the marriage of solid dosage dispensing with common irregular shaped item dispensing and addresses one of the most significant challenges facing automation by bringing a complete patient order together for verification and packaging. This highly-scalable solution provides one of the most dense sort footprints in the industry. The applications for this product are virtually limitless.
- Automated packaging – our variable multi-bagger provides features not found in any other bagger available today. It produces a variable sized bag on-the-fly depending upon the volume of the items needing to be packaged. This form, fill, and seal bagger does this while labeling, verifying, and pre-sorting the packaged product at speeds ranging from 400 to 1,000 bags per hour.

Until now, central fill and mail order solutions have been too expensive for all but the federal government and the really large PBMs, insurance companies, and retail chains. Smaller chains and independent pharmacies have been forced to compete without the benefit of a central fill solution. SEI Integration has been focused on bringing equipment to the market that offers superior performance, accuracy, safety, and security that scales easily and comes at a price point that enables smaller pharmacy groups to begin utilizing central fill with as few as 2,500 prescriptions per day, but will scale to 100,000 prescriptions per day. Our equipment is open and can be integrated with any leading pharmacy automation equipment or software. SEI is ready to work with any customer or group of pharmacies to tailor a system that will account for their current needs and provide a path for growth for years to come. Central fill is critical to the future of the entire pharmacy industry. It is not just for the “big chains” any more.