

Blender Systems Production Operations

Innovation in Blending Technology

Enhance quality control, increase product quality and reduce production costs by implementing a SERVOLIFT IBC blending and material handling system.

To insure compatibility with your products we offer a complete range of IBC types and blenders such as round, square, and rectangular.

We offer complete, in-house, consulting and designing services to aid your company in employing an IBC handling and blending operation. From the initial concept to the plant survey and manufacturing of the equipment and systems, Servolift has the experience and knowledge to get your process online today.



The Advantage:

Proven Designs - Scalable Systems - Unmatched Experience

Pedestal Blender - Cage Clamping

Simplicity, Reliability & cGMP

All the things you need from a blender system





STANDARD FEATURES

- Variable speed control with digital speed indication
- Bin clamping-compensation System
- Powder levelling system
- Digital timer
- Position control
- Emergency Stop
- Interlocked clamping and blending for 100% fail-safe operation
- Allen Bradley PLC & VFD all UL parts

OPTIONAL ITEMS

- Recipe control blending with Allen Bradley PanelView HMI or Industrial Computer
- Integration of NIR unit (for PAT)
- Reversing blending with timer
- Explosion proof
- Rotation counter (with auto stop)
- 21 CFR Part 11 compliant controls
- Light Guards, Laser Guards and Safety Gates



The SERVOLIFT cage clamping system employs the smallest and cleanest clamping device in the industry, backed by the experience of having delivered hundreds of units. The system works by raising the bottom, IBC self-aligning "L-Forks" to the top frame. The top frame has four self leveling pads to equalize the pressure on your IBC corners.

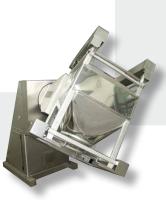
Details...they make the difference







SERVOLIFT makes blenders for every IBC type and brand



Lifter Blender Systems

Lifter blenders were invented by SERVOLiFT over 30 years ago and today we are still at the forefront of this innovative technology. By combining a standard Servolift Lifting Column and our Standard Cantilevered Blending Drive, you can create a machine that will allow you to perform both filling and discharging steps that otherwise would have to happen with additional equipment.

To date we have built several hundred of these machines and thus offer our client's security in knowing that they are purchasing a proven system.

Most systems we build use our side arm clamping system, as seen in the many photos, however, we also make lifter blenders with cage clamping design.

Our lifter blenders also allow geometric blending of multiple size bins in the same blender as we grab the bins at their "blender bars" - so the same geometric blend center is used for a 300-liter as used





Unit buried in wall with High Containment docking from above





Unit with Powered Clamping



Unit with manual clamping & Bin Lift-off cart system

SERVOLIFT is one of the world's largest builders of bin and drum tumble diffuse blending machines and systems. Our experience spans all types of blending techniques. Servolift machines employ the latest advances in controls and engineering and are the smallest and most reliable systems you can purchase.

Bin Blending and handling system can reduce your material handling up to 66%

What is Bin Blending

Bins or IBCs (IBC is the correct technical name, it stands for Intermediate Bulk Container) are the best method of handling and blending and transferring any less-than-4000 liter batch powder product. The process of blending is very simple, basically the products are tumble diffused to the point of homogenization by continuously rotating the bin. Servolift offers a whole host of bin types and blenders for total flexibility to our client's varied processes.

Traditionally batch powder processes have been blended in fixed shell blenders such as the V-Blender, Double-Cone Blender and the Ribbon Blender. After each product change the blender shell must be washed, dried and tested for accurate cleaning. This process can put the blender out of operation for up to six (6) hours. In a Bin Blending operation the blender is only a holder for the bin, meaning that bins can be blended all day. Generally one bin blender can replace several fixed shell blenders.



Is a Bin System Economical and Why Should My Company Employ One?

In fact it probably is the only reasonable method of handling any batch product, provided Vacuum transfer is not acceptable. Especially true for the Pharmaceutical and Nutraceutical industries where products can segregate and cleaning validation is paramount to time savings. Here are some points to ponder about the potential costs savings to your company:



- 1. Reduced Facility Costs: If multiple shell blenders can be replaced, your entire blending operation can be done in one small room. Besides lower construction costs consider the reduced HVAC requirements that one room needs versus several. Cross contamination should be a non-issue as no product will be exposed to the blending room environment.
- **2. Highest Throughput:** As the blender can run all day you will achieve the most productivity with a bin blending system versus any fixed-shell blending system.
- 3. Reduced Labor Costs: Fixed shell blenders take a long time to fill and empty, compared to bin blending. In fact the time savings can be as high as 66% for a properly specified and installed bin system. Generally Fixed Shell blenders are loaded from the floor above by gravity or by a Vacuum System. This means that all the products have to be handled from the dispensary (weighing area) and then discharged again into the blender (versus loading directly in the bin). The loading process is usually dusty, non-ergonomic and labor intensive compared to bin system. In a bin blending operation the materials are loaded directly into the bin, which can take place in the dispensary and easily done in a high containment method.
- **4. Increased Product Quality:** Fixed shell blenders require the products to be transferred after blending into a drum or bin. Every time the product is transferred some segregation can take place. In a Bin blending operation the product is transferred to the next operation directly from the Bin (Blending container), eliminating this extra transfer. Furthermore, in many operations some steps that required the products be exposed to the "open" environment or additional transfer equipment can be eliminated, thus reducing the chance of foreign substances entering the product.



