

# Boost Profits with EZ BioPac<sup>®</sup> Single-Use Powder Transfer



**ILC DOVER**  
creating what's next»

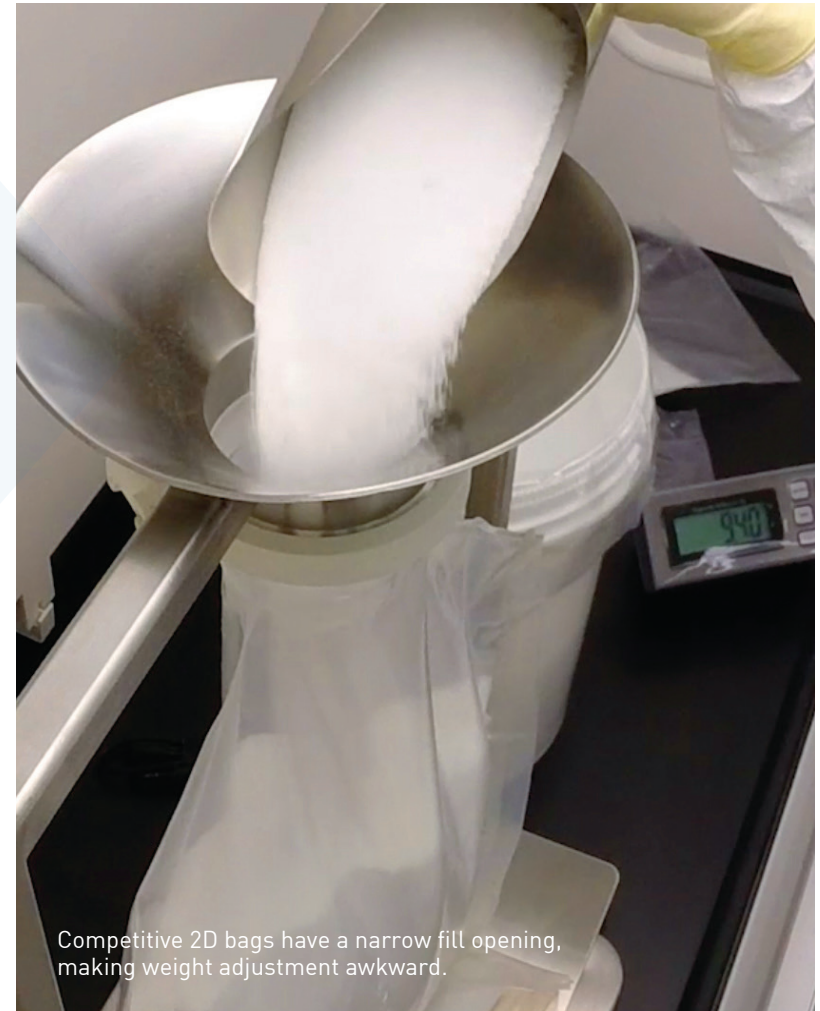
**DoverPac**  
containment solutions»

# Meeting the challenges of biopharmaceutical powder manufacture.

**Today, manufacturers are optimizing open-suite facility design to maximize throughput and profitability.**

Key to this initiative is minimizing product loss due to feedstock spills, waste and cross contamination. Improving the safety of workers is also a driving factor, through reduced exposure to airborne particles and lowering the risk of particle ignition. In order to accomplish both, a highly efficient powder transfer and containment system is required — one that is designed exclusively for powders, not one adapted from a liquid transfer system.

The EZ BioPac® single-use system is the fastest, most efficient solution. Its larger diameter top opening permits easy filling and fine-tuning of final weight. It is suitable for a wide range of filling/dispensing volumes, flow rates and product weights. Plus, its rugged, disposable transfer bags feature anti-static properties, assuring fast, complete discharge into process vessels.



Competitive 2D bags have a narrow fill opening, making weight adjustment awkward.

# 10

## EZ BioPac®: TEN advantages, ONE smart solution.

### 1 Ease of Fill

Liquid-based bag systems have narrow openings, slowing fill time. EZ BioPac's generous opening speeds filling while reducing risk of overfills, spills or surface contamination.

### 2 Fine-tuning

Narrow-neck bags make removing material to fine-tune weight difficult. EZ BioPac's big opening allows fast fine-tuning with a large scoop.

### 3 71% faster fills

In direct comparison trials, the larger the design of the EZ BioPac® bag's larger opening and skirt reduced fill times substantially, compared to traditional 2D transfer bags.

Filling Trials—Time to Fill to 5.0 kg

| Test #   | Test Media        | EZ BioPac®                  |                             | 2D Transfer Bag             |                             |
|----------|-------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
|          |                   | Process Fill Time (min:sec) | Process Fill Time (min:sec) | Process Fill Time (min:sec) | Process Fill Time (min:sec) |
| Trial #1 | Magnesium Sulfate | 2:03.91                     | 3:09.21                     |                             |                             |
| Trial #2 | Magnesium Sulfate | 1:54.66                     | 3:01.06                     |                             |                             |
| Trial #3 | Magnesium Sulfate | 1:37.07                     | 3:24.13                     |                             |                             |



ILC Dover EZ BioPac™ bag with generous fill opening and protective skirt.



## 4 Reduced contamination risk

Competitive single-use bag surfaces can become contaminated from product spills or overflows. EZ BioPac's outer skirt folds down to protect the frame and bag exterior, then up again to seal contaminants inside.

## 5 Two sealing options

EZ BioPac® bags can be sealed by ILC Dover's robust crimping system (shown) or by making a Z-fold by hand and securing with attached cable ties.

## 6 Separate discharge outlet

Unlike competitive 2D bags, EZ BioPac® bags feature a separate discharge outlet that ensures a clear, clean discharge path and fast product transfer.

## 7 18% faster discharge

Discharge Trials—Time to Discharge 5.0 kg

| Test #  | Test Media | Discharge Time (sec) |                 |
|---------|------------|----------------------|-----------------|
|         |            | EZ BioPac®           | 2D Transfer Bag |
| Trial 1 | Flour      | 1:49.0               | 1:45.0          |
| Trial 2 | Flour      | 1:51.81              | 2:03.07         |
| Trial 3 | Flour      | 1:21.42              | 2:10.70         |



## 8 No product residue

EZ BioPac's ArmorFlex®114 film has static dissipative properties, preventing product from clinging inside the bag, maximizing value and assuring accurate dispense volumes.

## 9 Self-supporting frame

Other bag systems can tip over or move. EZ BioPac's strong, lightweight frame secures bags of various volumes during filling and scooping. No need for barrels or containers.



# 10 Full range of bag volumes and flange sizes

To provide maximum flexibility for its customers, and to guarantee the right size product for all applications, ILC Dover makes EZ BioPac® bags available in a full range of capacities and flange sizes.

| EZ BioPac™<br>Volume, L | Sanitary Flange Sizes Available |    |    |    |        |        |    |    |
|-------------------------|---------------------------------|----|----|----|--------|--------|----|----|
|                         | 1.5"                            | 2" | 3" | 4" | DN 100 | DN 150 | 6" | 8" |
| 1                       | ✓                               | ✓  | ✓  | ✓  |        |        |    |    |
| 5                       | ✓                               | ✓  | ✓  | ✓  |        |        |    |    |
| 10                      | ✓                               | ✓  | ✓  | ✓  | ✓      |        |    |    |
| 25                      |                                 | ✓  | ✓  | ✓  | ✓      | ✓      | ✓  | ✓  |
| 50                      |                                 |    |    |    | ✓      | ✓      | ✓  | ✓  |
| 100                     |                                 |    |    |    |        | ✓      | ✓  | ✓  |

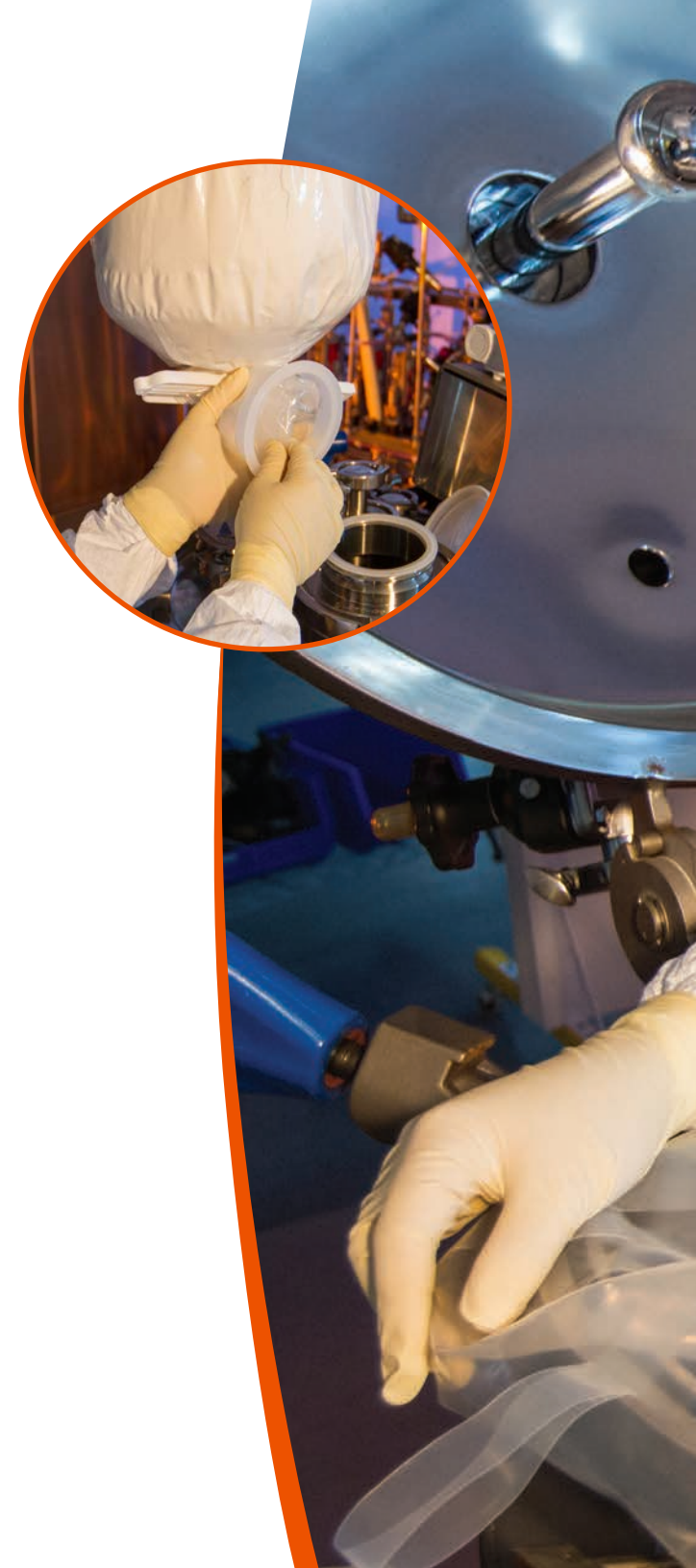
## Certified quality for GMP and peace of mind.

EZ BioPac's ArmorFlex film meets FDA and 2002/72/EC requirements and EP 3.1.3 test conditions. In addition, it complies with FDA 21 CFR and passes USP <661> Physiochemical Tests for Plastics, USP <88> Class VI (7-day implant), USP <87> biological reactivity (in vitro) and Chilworth incendivity tests. Its permanent anti-stat has a 5-year shelf life and replaces migrating additives. EZ BioPac® is also tested for solvent resistance and a DMF has been filed with FDA.



### TO ORDER OR LEARN MORE

about the EZ BioPac® single-use bag system, please send an email to [customer\\_service@ilcdover.com](mailto:customer_service@ilcdover.com), call **1-800-631-9567** or visit us at [www.ilcdover.com](http://www.ilcdover.com).





## ABOUT ILC DOVER

Founded in 1947, ILC Dover specializes in products and technologies that provide unparalleled protection for people and equipment in hostile environments. We have been the sole designer and manufacturer of NASA space suits since manned Apollo missions began in 1967. And we're "creating what's next" for future missions to Mars. We are also leveraging these competencies in materials, soft goods and film-based solutions to protect humans against infectious or deadly diseases and chemical, biological, radiological and nuclear contamination. In the pharmaceutical and biopharmaceutical industries, we provide powder transfer packaging, liners and containment systems, FDA-compliant films, equipment enclosures, and PAPRs to protect workers against active pharmacological agents.

Additionally, we are world leaders in engineered inflatable and lighter-than-air products for use by the military and homeland security, plus products for flood, smoke and fire protection and infrastructure security. ILC Dover's design engineers can also partner with you to custom-create a product or technology for your precise application or need. Let us "create what's next" for you. Learn more about us at [www.ilcdover.com](http://www.ilcdover.com)

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