

Perfect Protective Packaging

**FOAMplus®** —  
Foam cushioning for perfect product protection





## Safely packed with FOAMplus® foam cushioning

FOAMplus® foam packaging offers excellent cushioning. The polyurethane foam expands automatically, ensuring that voids are filled completely. The foam cushioning makes it impossible for packed products to move during shipping.

### Protective functions of FOAMplus®

- Cushioning
- Void Fill
- Block and Brace

Protective packaging with FOAMplus® foam cushioning stands up to all manners of stresses during transport.

### Applications

- Reverse logistics (return shipping)
- Spare parts logistics
- Cost-effective to original protective packaging
- Alternative to molded parts made of EPS (Styrofoam®), EPP and PE
- Shipments containing heavy and breakable products
- Art, ceramics, glass, etc.
- Medical devices



### The advantages of FOAMplus®

- **Effective:** Extremely impact-resistant, high cushioning
- **Superior foam quality:** Equal cushioning with up to 45 percent less material used than alternative foam packaging systems
- **Robust:** Effective for very heavy articles or items with sharp edges
- **Individual:** Adapts to the contours of the product during hardening
- **Universal:** Protects articles of almost all dimensions, shapes and weights
- **Versatile:** Void fill, block and brace or cushion as required
- **Space saving:** On-demand systems for minimum storage





**FOAMplus® alternative**

**Packing with FOAMplus® Tubes**

- FOAMplus® Tubes for smart packaging
- Protect products quickly and reliably with the foam cushion chains FOAMplus® Tubes—benefit from the high-quality protection of polyurethane foam
- FOAMplus® Tubes are produced using the foam-in-bag system FOAMplus® Bag Packer<sup>2</sup>
- The length of the cushion chain as well as the size and volume of the filling are freely selectable
- Foam cushioning tubes perfectly suited to advance production
- Boxes can be flexibly arranged with two cushion chains
- Film sections without filling are also possible—only cushion areas that require it

**FOAMplus® solutions**

**Pre-Molding with FOAMplus®**

- Outsource the production with us or make cushions in-house
- Produced and delivered from 18 North American locations
- Accurate design and consistent production guaranteed
- Multiple polyurethane foam densities to meet your cushioning needs
- State of the art CAD software designs
- Can be created to pass ISTA testing
- Reduce material and improve DIM Weight efficiency


**FOAMplus® machine types**

## FOAMplus® Bag Packer<sup>2</sup> provides foam packaging at the touch of a button

**Foam cushioning**

- Manufactured flexibly at high speed
- Two film widths of 18" and 24"

**System integration**

- Offline individual packing station
- Inline conveyor packaging stations

**Model variants**

- Stand-alone system
- Height-adjustable with add-on table
- Table-top model

**Containers**

- 15 gallons
- 55 gallons
- 275 gallons

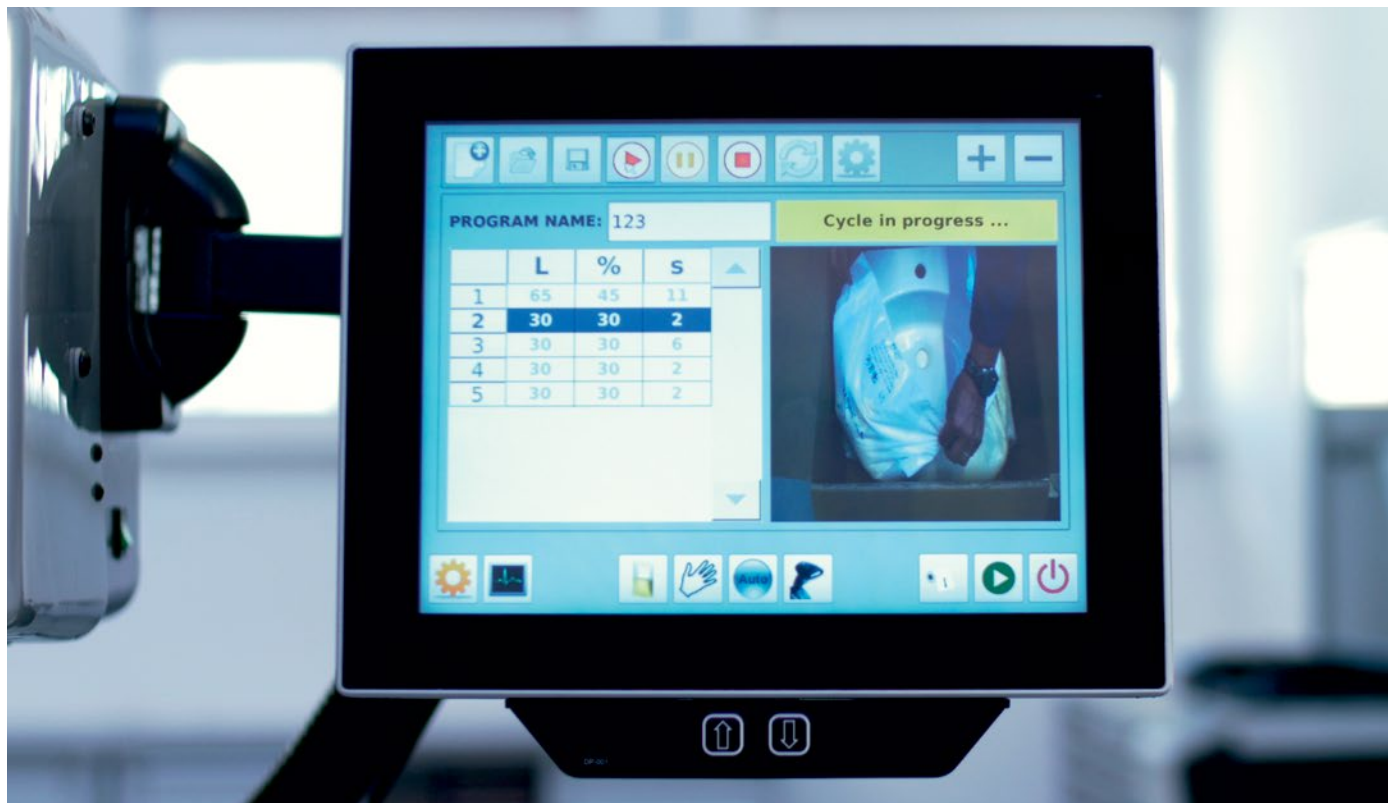

 The Bag Packer<sup>2</sup> at a glance

Models	Table-top model	Stand-alone	Height-adjustable
<b>Dimensions (H x D x W)</b>	41.75" x 39.38" x 63"	79.88" x 43.5" x 63"	75" – 95" x 47.25" x 63"
<b>Weight</b>	407 lbs	579 lbs	619 lbs
<b>Voltage</b>	220 V, 30A	220 V, 30A	220 V, 30A
<b>PSI</b>	90	90	90
<b>Speed</b>	23 bags per minute	23 bags per minute	23 bags per minute





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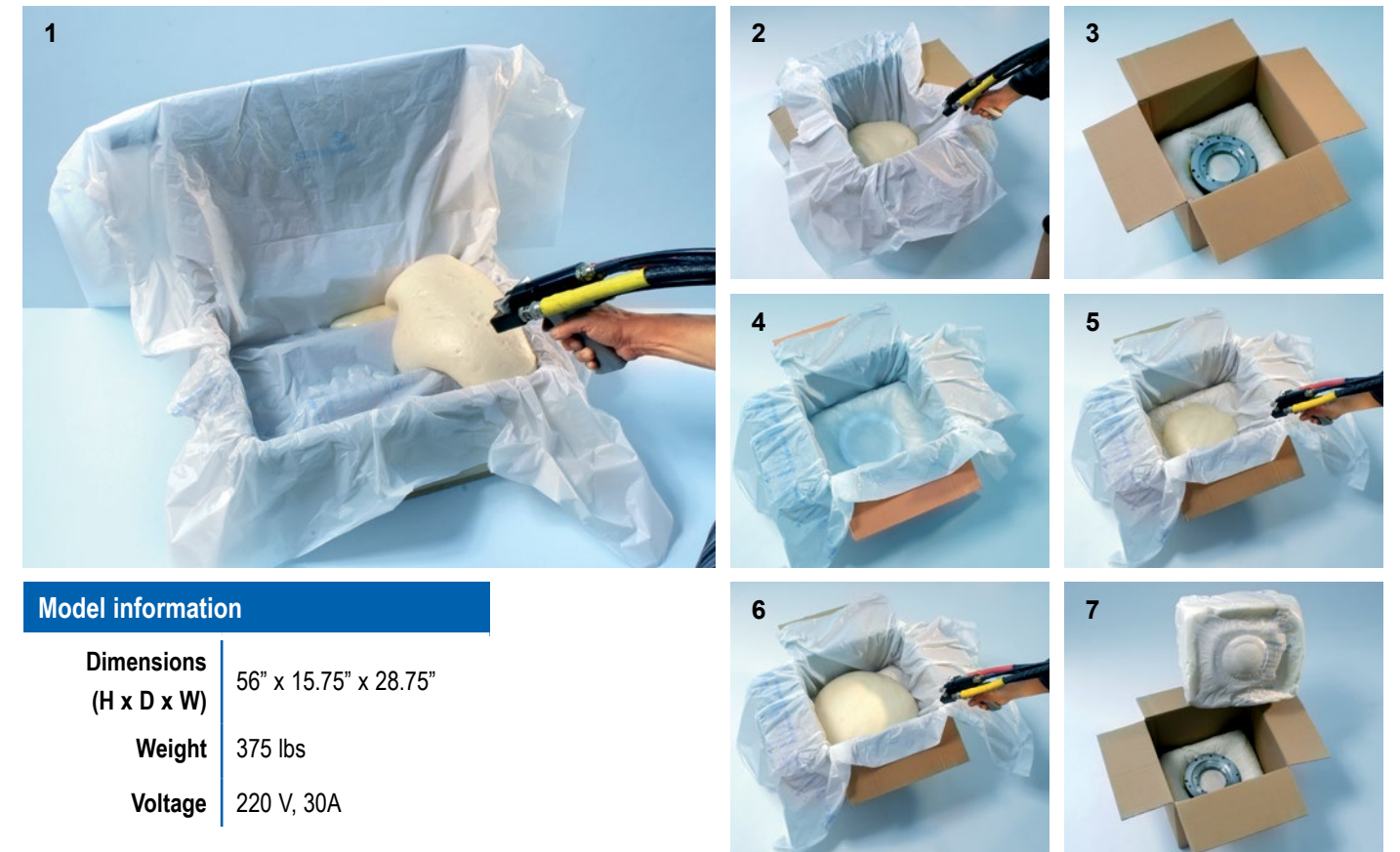
## Smart packaging with FOAMplus® Barcode Scanning

- Scanning the barcode on the carton triggers the output of foam bags with a touch of a button
- Barcodes identifying foam cushioning in defined sizes and filling volumes are saved within the software database
- Images on the computer screen illustrate how to position the packaging and the item being shipped
- Barcode reader is available upon request
- The software can be integrated into a customer's network, but not required


**FOAMplus® machine types**

## FOAMplus® Hand Packer for complex and large packaging requirements

- Ideal solution for large and heavy goods
- Packing multiple products in one box
- Firmly secure goods with challenging contours
- Self-cleaning mixing chamber


**Model information**

<b>Dimensions</b> (H x D x W)	56" x 15.75" x 28.75"
<b>Weight</b>	375 lbs
<b>Voltage</b>	220 V, 30A



## FOAMplus®—Films, foam types, containers

Storopack produces all films at its own production sites. This guarantees consistently high product quality and reliability of supply.

### FOAMplus® standard film

Co-extruded, durable film quality in three roll widths

### FOAMplus® ESD film

Anti-static FOAMplus® film meeting the requirements for electrostatic dissipative materials

### FOAMplus® separating film

Separating films of varying widths for the Hand Packer



### FOAMplus® foam types

- Universal light—.29 lbs per cubic foot
- Universal medium—.62 lbs per cubic foot
- Universal heavy—1.19 lbs per cubic foot

### Benefits of Universal foam

- Higher foam yield
- Less material weight
- Superior protection
- Lower shipping costs
- Source reduction

### FOAMplus® containers

Storopack offers containers in three different sizes

- 15 gallon metal drums
- 55 gallon metal drums
- 275 gallon bulk containers

Components A and B are required to produce foam. Convenient: Storopack takes care of picking up and disposing of the empty containers.



### FOAMplus® Reference Project

## Effective transport safety for a direct-selling company

<b>Products</b>	Workshop supplies, assembly and fastening articles
<b>Machines</b>	15 FOAMplus® Bag Packers
<b>Output within the packaging area</b>	Around 20 seconds per package
<b>Total output</b>	10,000 packages per day

### Challenge



Creating an efficient packaging process and ensuring perfectly protected products—those were the requirements of a leading provider of workshop, assembly and fastening articles for tradespeople and industrial companies. In order to prepare packages for shipping as quickly as possible after commissioning, the packers have to be able to work quickly with the protective packaging system. As the provider has a very

large product range and therefore the contents of packages varies greatly, breakable and heavy articles occasionally also ship together in one box. As a result, the products have to be fixed firmly in position and stabilized within the box by the packaging.

### Solution

FOAMplus® foam cushioning in film bags fulfills these requirements in every respect: The cushioning holds all items within the package firmly in place, offers optimal cushioning for heavy items and increases the crushing resistance of the box. 15 Bag Packers fill the bags rapidly, cleanly and conveniently “at the touch of a button”.



As a result, the company is also ideally positioned for additional expansion plans and now packs all products securely and effectively for transport. Only recently, the group extended the capacity of its central warehouse by more than half.

### Our customer's view:

“ With FOAMplus® we have a protective packaging system which allows us to work quickly and ship products to our customers in a safe and well-protected way. Moreover, the system hardly requires any storage space and our workspace remains clean. FOAMplus® has improved our transport reliability.

**FOAMplus® Reference Project**

## Additional convenience for a manufacturer of refrigerators and freezers

<b>Products</b>	White goods
<b>Equipment</b>	One FOAMplus® Bag Packer <sup>2</sup> Molds for pre-molding
<b>Output in the packaging area</b>	Around 20 seconds per pre-molded shape
<b>Total output</b>	Around 240 packages per day


**Challenge**

Heavy compressors require packaging. The different models often have a challenging geometry with protruding parts. The new protective packaging solution should reduce the number of packaging options stored without increasing costs for inner packaging.

**Solution**

In an ergonomically-optimized packaging area which is fitted with the foam-in-bag system FOAMplus® Bag Packer<sup>2</sup>, the packing employees produce perfectly-fitting top and bottom cushions as required. Moreover, the customer can produce made-to-measure inner packaging in complex shapes using pre-molding processes. As the FOAMplus® universal foam offers an excellent ratio of cushioning to volumetric weight, the overall costs of the protective packaging have remained the same.

**Our customer's view:**

“ FOAMplus® is a real step forward for our protective packaging system. The Storopack solution offers us reliability, attractive overall costs and added convenience.

## Sustainability & environmental protection

**Conserving resources with FOAMplus®**

Resources are required to produce protective packaging. But without effective packaging or if packaging is used incorrectly, the products being transported could be damaged. Producing more goods is a waste of resources. Storopack is therefore committed to the effective and efficient use of protective packaging: Only a little foam is required for maximum protection.

To create the packaging foam, two liquid components free of CFCs (chlorofluorocarbons) and HCFCs (hydrochlorofluorocarbons) are combined to create polyurethane. In addition, the high-yield foam expands to up to 280 times its liquid volume.

**REUSE means...**

FOAMplus® foam packaging can be reused for multiple shipments of the same products.

**REDUCE means...**

FOAMplus® foam packaging and the corresponding production process is designed to reduce the use of natural resources. During transport, the lightweight packaging also helps reduce fuel consumption.

**RECYCLE means...**

Post-consumer or production waste from FOAMplus® foam packaging can replace primary raw materials: Within the general waste flow, FOAMplus® foam is an outstanding fuel for modern waste-combustion plants producing energy from waste.







**North American Headquarters**

Cincinnati  
4758 Devitt Drive  
Cincinnati, Ohio 45246

Phone +1 513 874 0314

Fax +1 513 874 2955

[www.storopack.us](http://www.storopack.us)

[packaging.us@storopack.com](mailto:packaging.us@storopack.com)