What you need, when you need it, where you need it
Foam in Place, Air in Place, Paper in Place
Function of the “in-the-box” packaging materials can range from maximum protection and blocking to simple filling of empty spaces in order to avoid clashes among the objects inside the box. “In place” systems of DUNAPACK™ packaging on demand satisfy every need, optimizing volumes and weights of packages to be shipped, thus reducing logistics costs. DUNAPACK™ “in-the-box” packaging materials can be used to provide protection or fill empty spaces to separate product. This “in place” packaging system reduces logistic costs by providing the maximum level of protection at minimal weight for packages of all sizes.

DUNAPACK™ Foam in Place is a reliable packaging technology that offers following advantages:

- Maximum available protection
- Ease of use
- Versatility
- Our state-of-the-art chemical research laboratory continually researches more efficient systems and environmentally-friendly products (DUNAPACK™ ECO), and can develop polyurethane systems to meet all applications.

2 different foaming systems are also available: the foam-in-bag system (production of foam inside a bag, with dimensions defined by user) and the direct-dispensing system.

- FOAM IN BAG:
  Performance characteristics:
  - easy to use
  - packaging produced on demand at the simple touch of a button
  - self-cleaning mixing chamber
  - constant process control provided by custom pre-installed software
  - capability to store over 500 pre-programmed packaging shapes
  - maximum width of bag: 60 cm
  - possibility of automating the identification of the right bag for the right box through the integration with a barcode scanner.
  - low maintenance

All DUNAPACK™ equipments are supplied on free loan.
DUNAPACK™ Foam in bag: Alternative uses

**Block & brace:** pillows positioned in specific areas such as edges and corners, fully protecting the object with reduced amount of material.

**Void filling:** to prevent movement inside the box.

**Preformed:** DUNAPACK™ foam in place is applied in a positive mold of the required shape, optimizing the production in series of tailor made pillows.

**Bruco™** The best option when a chain of pillows is desired to completely encapsulate products. Both the length and the dimension of pillows can be customized, and it’s also possible to vary the amount of material for filling. Pillows chains are particularly applicable to pre-production packaging.

**Preformed:** DUNAPACK™ foam in place is applied in a positive mold of the required shape, optimizing the production in series of tailor made pillows.

**TAM TAM™** Preformed may also be accomplished with DUNA-Corradiini equipment on wheels for 2 molds (TAM TAM™) or for 8 molds (PRATER™)

**PRATER™**
Ranpak systems are an extremely versatile, simple and quick way to pack, with the use of one and multi layer Kraft paper. Paper is a very flexible packaging material that may be used in various ways; paper has excellent characteristics of absorption when properly used, and can protect a wide range of products. Paper is also a valid alternative for filling empty voids and can maintain its shape in the box even when stocked for months.

Ranpak is also the most environmentally-friendly system available: all paper produced by Ranpak comes from sustainable forestry sources (FSC certified), originates from unbleached products, and is biodegradable and 100% recyclable, simplifying waste disposal for the end user.

Among the particularly suggested applications:
- Environmentally-sensitive products
- Sharp cutting objects
- Object that may require absorption capabilities (e.g. lubricated spare parts)

Ranpak PAPER IN PLACE equipments

All machines may be used in individual workstations or integrated in production lines and systems. They can be categorized in two lines: one to block/support/pad (PadPak®) and one for void filling (FillPak®).

1) PadPak® blocking and support

PadPak® is a very versatile paper packaging system, ideal for protection, wrapping, support and fastening.

All PadPak® systems are based on the use of a special 2 or 3 layer paper and a Converter: rolls are placed in the machine that folds and corrugates the paper in order to obtain a special band called a “Pad”: light, flexible but very resistant, that can be used to form pillows for a strong padding. The band is then cut on demand.

PadPak® system is particularly designed for industry, distribution, and applied logistics.

PadPak® JR is the best solution to pack fragile objects in narrow packaging environments.

PadPak® CC is designed to pack and protect small-sized articles.

PadPak® LC is perfect to protect light or fragile pre-packed products.

PadPak® SR is the ideal choice for heavy, fragile or bulk products.

System features

<table>
<thead>
<tr>
<th>PadPak® JR</th>
<th>PadPak® CC</th>
<th>PadPak® LC</th>
<th>PadPak® SR</th>
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<tbody>
<tr>
<td>Table Top</td>
<td>Stand Alone</td>
<td>Light Protection</td>
<td>High protection</td>
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<td>PadPak® JR</td>
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<td>PadPak® SR</td>
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2) FillPak® filling

FillPak® filling material protects product from damages by filling voids inside the box and preventing movement.

**FillPak® M**
FillPak® M is the best solution for low volumes or individual workstations.

**FillPak® TT**
FillPak® TT adapts itself to every workstation for a practical packaging process.

**FillPak®**
the ideal solution for a high productivity line.

**AccuFill®**
AccuFill® is designed to check your packaging material: let the machine think!

### System features

<table>
<thead>
<tr>
<th>Pack Station</th>
<th>Inline system</th>
<th>&lt; 50 boxes a day</th>
<th>&gt; 50 boxes a day</th>
<th>Manual</th>
<th>Fully automated</th>
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<tbody>
<tr>
<td>FillPak® M</td>
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<td>FillPak® TT</td>
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### POSITIONING CUSHIONING

- **PadPak®**
  - PadPak® SR
  - PadPak® LC
  - PadPak® CC
  - PadPak® JR

- **Packstation**

- **FillPak®**
  - FillPak® TT
  - FillPak® M

- **Accufill®**
PACKAGING ENGINEERING

Send us your package and let us analyze your current packaging solutions and suggest alternatives.

SYSTEM ENGINEERING

Ability to study integration and inclusion of the packaging station in your production line.

RESULTS

- G-Force test results
- Calculated costs savings
- Alternative packaging suggestion
- Decreased damage rates
Air in Place is a portable system made by a very simple, economic and compact machine and pre-cut and pre-welded joint plastic film to produce air pillows of different dimensions at time of packaging without the need of compressors or compressed-air systems. Designed to significantly reduce cost of packaging, shipment and labor, the machine produces ultra-light pillows fill all unused space inside the box.

The pillows are recyclable and reusable and the film, available in different thicknesses, supplies an excellent air retention and resistance, and may also be obtained with antistatic qualities.

The system is a clean, organized, and aesthetical alternative for bulk packaging and also significantly reduces warehouse storage requirements.

The most outstanding benefits of the AIP system are its cost-effectiveness and reduced space requirement, making it appealing to both small and large companies.
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