

EPS densifier cuts labor and disposal costs for Best Buy Country's largest consumer electronics retailer finds solution from JWR, Inc. and Bright Technologies.



Best Buy has been a household name in consumer electronics for the past 35 years, since the typical television set had a 19-inch screen. Over the decades, “big screen” TVs have become commonplace, with the average size now approaching 50 inches.

At the same time, Best Buy has broadened its product offerings to include large appliances like refrigerators, washers and dryers and range ovens. In fact, appliance sales at the Minnesota-based retailer have been growing by upwards of 10 percent per year.

All those TVs and large appliances require foam packaging to keep them safe on the journey from manufacturer to distribution center to customer. Last year, Best Buy handled 3.5 million pounds of expanded polystyrene packaging, or EPS.

Because it's bad for the environment – and also extremely expensive – to dump some 1,750 tons of EPS into landfills, Best Buy began using hot-melt densifiers to compact the foam into recyclable blocks. However, the aging densifier technology that Best Buy deployed posed challenges over the years as the volume of EPS rose along with the retailer's market share:

- The hand-fed units required manpower to fill them with EPS, creating additional labor expense
- The machine's throughput wasn't fast enough to avoid a bottleneck in processing the mounting volume of EPS
- The odor created by hot-melt densification rankled employees

In mid-2014 Best Buy asked Cory Gardner with JWR, Inc., a trusted Sebright Products, Inc. dealer and service provider for almost 30 years, to help source a better solution.

Samples of the different density foams that needed to be processed in high volumes were sent in for testing and the Bright Technologies model D30 Densifier system handled it all without a problem. In 2015 Best Buy invested in that solution, JWR, Inc. implemented a complete system to optimize space and efficiencies from Bright Technologies, a division of Sebright Products, Inc. in Hopkins, Michigan.

“Recyclers will pay more for our block than the melted type because the molecular composition of the EPS can only be heated up to six times before it gets brittle. Not heating up the material to recycle it, it gives it another life.” -Al Valkema, National Sales Director, Sebright Products



The Bright D30 Densifier is fed by a conveyor that fills a hopper with EPS. The machine then uses cold compaction to densify the foam into blocks at a rate of up to 300 pounds per hour. (The Bright D120

"We've dramatically cut back on our waste hauling. That was one of our driving forces to procure this equipment." - Kurt Kurzawa, Program Manager – Logistics Recycling & Enterprise Waste, Best Buy

can process even more EPS, up to 1,200 pounds per hour.)

Not only does the Bright D30 have throughput 8 times faster than densifiers Best Buy previously used, but the foam blocks that come out are more cost-effective to ship. Compacted to a density of up to 22

pounds per cubic foot, the foam blocks can be double stacked and fill a truck with up to 40,000 pounds for delivery to recyclers – compared to a truckload of loose foam that weighs only about one ton.

With the Bright D30 Densifier operating in distribution centers across the country, Best Buy is saving on labor costs and cutting back on waste removal expense. Instead of emptying a trash compactor daily and having the contents hauled away at a substantial cost per day, the compactors at Best Buy distribution centers now need to be emptied only every five to seven days – even longer at some sites.

Plus, the recyclable foam blocks create a new revenue stream for Best Buy, which gets paid by the pound of densified EPS. And the blocks stay out of the landfill, getting recycled into new EPS or products such as picture frames and park benches.



ADVANTAGES OF BRIGHT TECHNOLOGIES DENSIFIERS

- Operate unattended, reducing labor costs
- High volumes of EPS are not a problem with processing rates of up to 1,200 pounds per hour
- Combine with PBX2 Pre-Breaker to handle a semi load of large EPS pieces every two hours
- Cold compaction technology does not melt EPS in the densification process
- Resulting foam blocks have density of up to 22 pounds per cubic foot for cost-effective shipping
- Optional Auto Shear saves time by cutting off "log" of discharged EPS blocks into lengths selected by the operator
- Long lasting: The first Bright densifier was built in 1995 and remains in service still today!

**BEST
BUY**

It is now standard operating procedure for every building Best Buy opens to have Bright Technologies densification equipment to reduce labor and disposal costs.



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