



# **HOSPITAL LAUNDRY PLANNING FILE**





## **Laundry Systems for healthcare institutions**

### **WHY INSTALL AN ON-PREMISES HEALTHCARE LAUNDRY?**

#### **1. Launder everything on premises.**

A Milnor on-premises laundry can handle all of a healthcare institution's clean fabric needs in a simple manner. Milnor washer-extractors can process patient gowns, pajamas and personal apparel, adult diapers, towels, linens, mattress covers, blankets, pillows, plus such items as employee uniforms, slip covers and cleaning rags. Many types of rugs and drapes can be processed in a Milnor on-premises laundry.

#### **2. Enhance the image of your institution.**

Many operators have enhanced their image of quality, and brightened their patient's environment, through tasteful fabric selection. Everything from linen to drapes can be selected in the colors and patterns of your choice and processed in your Milnor equipment.

#### **3. Get more use from less inventory.**

An on-premises laundry provides more use from less inventory. Smaller stocks meet your needs since you are no longer dependent on pickup and delivery. Towels, linens, and patients' apparel can be laundered immediately after use and be ready again in about an hour if necessary. Smaller inventories mean less storage space and more money for investment elsewhere.

#### **4. You won't be caught short.**

On-premises laundering eliminates "caught short" situations. It gives you a ready supply of adult diapers, linens, towels, patient gowns, and pajamas. This is especially important during weekends and holidays when outside services are not available.

#### **5. Control quality, sanitation.**

On-premises laundering assures quality processing because you are in control. You can prolong fabric life by using a distinct formula for the specific degree of soil. Milnor's E-P Plus® washer-extractors make this easy, with several specific formulas developed and field-tested by chemists for healthcare facilities. Milnor washer-extractors also combine commercial washing action with the ability to wash at high temperatures so you can be sure sanitary safeguards can be maintained. Milnor StaphGuard® washer-extractors, installed in a wall separating clean and soiled areas, are available for medium and large sized institutions where infection control is vital.

### **WHAT IS NEEDED FOR AN ON-PREMISES LAUNDRY?**

#### **1. Equipment**

Operating a healthcare on-premises laundry is simple. Washer-extractor, dryer, sink, folding table, and supplies are generally all you need. Often, an institution's existing hot water, gas, and electrical services are sufficient. An on-premises laundry is basically an extension of your present services.

A top quality washer-extractor, with a proven track record in commercial use, brings professional laundering ability to your institution. It will make better use of water and soap, improve washing quality, and handle bulky items. It's best to get a machine with a large cylinder, which provides the ability to launder items such as diapers, mop heads, and cleaning rags.

Dryers can use gas, steam or electric heat (gas is regarded as the most efficient). For faster drying and less wrinkling of polyester materials, it is generally desirable for the dryer to be rated at a slightly larger capacity than the washer-extractor. An area for folding is necessary, too. A 2' x 6' table proves sufficient for most institutions. After folding, the items simply have to be stored.

## **2. Space**

An on-premises laundry doesn't require much space. An equipment room or an existing linen storage room is adequate for many facilities. An unproductive room with a poor location may also be used or a combination of these rooms could be used in a large institution. A larger, central laundry can serve affiliated facilities near each other. A Milnor dealer's laundry planning department provides specially prepared layout drawings for facilities at no charge.

## **3. Labor**

In some institutions there is no need for additional help. Existing housekeeping and maintenance employees can handle the laundry during the slower parts of the day. Equipment that is easy to operate is essential to maintain consistent quality and production. Milnor's E-P Plus machines are particularly easy to use. The operator simply loads the machine, pushes a button to select the formula, pushes the start button, and can go on to other tasks since the machine requires no more attention.

## **WHAT SHOULD YOU LOOK FOR IN A WASHER-EXTRACTOR?**

### **1. Easy operation**

The washer-extractor you select should have easy, automatic controls that make operation simple and free the operator to handle other duties. With Milnor's preprogrammed E-P Plus machines, the operator simply matches the type of goods being loaded to the formula named for these goods ("towels", for example), then pushes a button. Operation of field-programmable formulas is similar. Formulas on the alphanumeric display can be named to match goods, making selection easy. Because so little judgment is required, new employees get the knack quickly. Substitute employees can take over with ease, too.

Automatic supply injection further reduces operator responsibility and helps ensure consistent quality. MILNOR machines readily accept liquid chemicals, making hookup fast and easy. Other factors to look for are a large, accessible door for fast loading/unloading, and door safety interlock which prevents opening while the machine is operating.

### **2. Laundering quality**

Washing flexibility should not be sacrificed for operation simplicity. Only a commercial washer-extractor, with professional tumble washing action, can properly clean stained linen, soiled diapers, and dirty apparel.

A cylinder with a large diameter should be among the top priorities when choosing a washer-extractor. The large diameter provides the lift and drop action necessary to clean hard-to-laundry items. When comparing machines, compare actual cylinder dimensions and specific cubic foot volumes.

Also, look for microprocessor controls which give a greater range of processing choices as well as more accurate control over how goods are processed. The preprogrammed formulas in Milnor machines were developed specifically for the needs of healthcare facilities. They are not common-denominator formulas. The formulas differ in number, type, time and temperature of baths, as well as supply injection. By pushing a button, these formulas can be adjusted for either permanent press or all-cotton fabrics. The machines are available in 25 to 160 lb. capacities.

### **3. Heavy duty construction**

Rugged construction -- from top quality materials -- is imperative if you expect long-term service. Check competitive brands to see if their construction stands up to Milnor specifications. Compare spec literature. There can be a big difference in quality.

Milnor machines stand apart from others with features like:

- large, tapered roller bearings and a triple shaft seal to shield the bearings from water on classic rigid-mount and soft-mount machines
- ball bearings and double water seal prevent grease loss and contamination on cabinet machines
- the exclusive use of continuous, rather than spot, welding for greater strength and reliability
- the simplicity and dependability of heavy duty, single-speed motors
- pre-extract load balancing speed to reduce vibration and extend machine life, and
- a console constructed of heavy gauge materials



**ABOVE:** A view of Westport Linen Services' recently refurbished wash aisle in Baton Rouge, including a new CBW and 50 bar press that's helped this healthcare operator increase throughput, while cutting water consumption from 1.65 gal per lb. to 0.8 gal/lb.

## 'OUTSTANDING PERFORMANCE' WESTPORT LINEN SERVICES, LLC

With over 35 years in the laundry industry, owners Eddie Lefeaux, John Landry and Josh Landry have grown the company from its founding in 1999 into the largest exclusive healthcare linen provider in the state with laundry facilities in Baton Rouge, New Orleans and Lafayette.

The laundry, which runs 10 hours a day, six days a week, has a long

history utilizing Pellerin Milnor equipment—in fact, they have consistently run a nine module 76032 CBW® with 110 lb load capacity and a 12 module 76039 CBW with 150 lb load capacity since 2001. However, as their demands grew, so did their need for a higher output.

Thus, in February of 2017, Westport Linen worked with Pellerin Laundry Machinery Sales

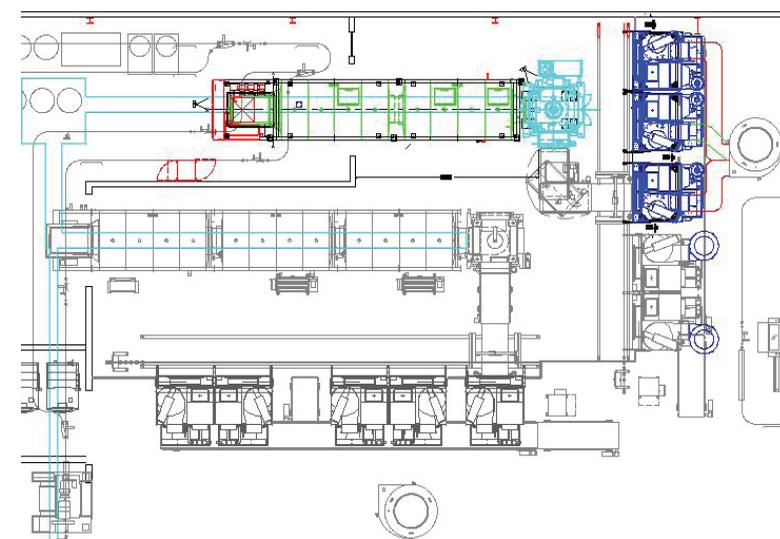
Company (authorized Milnor dealer) Vice President, Scott McClure, and Territory Manager, Shawn Ryan, to update their facility. They replaced their 76032 CBW with an eight module with 150 lb, load capacity 76039 PulseFlow® technology tunnel system, and added a 50 bar single stage press, to meet their needs.

PulseFlow technology works by combining True Top Transfer

with a standing bath and controlled intermittent counterflow in every process module. This achieves a more efficient use of chemical energy while using the lowest possible amount of water. Because dedicated rinse modules are not required, PulseFlow technology allows for increased production from fewer dual-use modules. PulseFlow tunnels also feature the RecircONE® pump arrangement for an exceptionally fast wet down and immediate washing.

Westport Linen has already seen benefits from incorporating this technology. In just six months, they have noticed a significant increase in efficiency of both sling weight and transfers per hour—all of which they attribute to the PulseFlow tunnel installation. Where their two original CBW tunnels had limitations on batch size per sling, they are now able to increase their sling load weight by approximately 15% after adding their larger capacity PulseFlow batch washer. Additionally, Westport Linen was also able to increase the number of batches per hour by nearly 20% due to PulseFlow's faster wash times.

Further, Lefeaux credits their increased productivity in load capacity and transfers per hour to Milnor's PulseFlow tunnel, stating, "We have acquired new customers which has increased our overall weekly washer output to over 500,000 pounds. We used to wash 400,000 pounds per week in the same ten-hour shifts. So now we are able to get 25% more weight out in the same amount of time."



**ABOVE:** A schematic view of the layout of wash aisle equipment at the Baton Rouge plant of Westport Linen Services, including tunnel washers and dryers.

Additionally, Westport Linen has also seen significant savings in water consumption. In fact, their plant-wide water consumption has dropped by nearly 50%. "Our overall water usage has decreased from 1.65 gal/lb to 0.8 gal/lb after installing our new PulseFlow tunnel," says Lefeaux.

PulseFlow technology is engineered to do just that through its unique design of interrupted counterflow, controlled flow, dual-use modules, and full water availability. Water, delivered by high-volume inverter pumps with vigorous flow, only flows for rinsing, which occurs during the last 25–35% of the cycle and results in better rinsing action and far less water consumption.

Lefeaux adds, "Dependability plus reliable service equals outstanding performance." For both Westport Linen, Milnor machinery, and Pellerin Laundry

Machinery Sales Company, this holds true—and together, they create an effective combination that will continue to benefit the healthcare laundry for years to come.

For more information, please visit [www.milnor.com](http://www.milnor.com) or call 504.467.9591. 



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# Florida keys in to **major** healthcare laundry efficiencies

Florida Hospital Laundry is achieving 106% efficiencies thanks to the installation of state-of-the-art **Milnor** equipment

**T**he Clean Show in June this year marked another successful exhibition for Pellerin Milnor Corporation, where the company proudly displayed the Milnor PulseFlow technology continuous batch washer (CBW).

The eight-module PulseFlow technology tunnel washer attracted a constant flow of traffic to the Milnor booth and was received with great interest and enthusiasm.

Milnor also had a skeleton model of the PulseFlow tunnel washer on display, which demonstrated to attendees exactly how Milnor's True Top Transfer technology is the most efficient form of tunnel batch washing.

Florida Hospital Laundry in Apopka, Florida has been benefiting from Milnor's PulseFlow technology since July 2013. Together with Sam Kielman, Milnor regional sales manager and Bill Bell, regional vice president of sales for Steiner Atlantic Corporation (authorised Milnor dealer), Florida Hospital Laundry management collaborated to develop a laundry facility that delivers on average 231,332kg per week (510,000lb) or

approximately 12,031 tonnes per year (26,525,000lb). The laundry, run by Adventist Health System, runs two 12-module PulseFlow 68kg CBW washers, with a third system on order. Each PulseFlow tunnel washer loads a 56 bar high-speed single stage press. The batch washing systems load a shared independent dryer 'POD' system consisting of six pairs of double batch gas heated dryers. The facility also runs three 77kg (170lb) washers and one 91kg (200lb) washer for smaller loads.

## Reduced costs

Florida Hospital Laundry operates the two Milnor PulseFlow CBWs approximately eight hours a day, six days a week, at a rate of 2,595kg (5,720lb) batch washer per hour producing a total of 5,190kg (11,440lb) per hour. The overall laundry operates approximately 12-14 hours a day, six days a week, which includes drivers, engineers, production staff, office staff and linen supply service. The laundry runs its own fleet, bringing linen from 15 surrounding hospitals to the facility every day. Scott

Sadlier, senior director of laundry services at Florida Hospital Laundry, has noticed a substantial reduction in energy costs. "Milnor has a track record of being a work horse with a history of a long life span. We maintain 38-42 bag drops per hour without jeopardising quality," he comments.

While up to 42 bag drops per hour/tunnel has previously been deemed impossible to accomplish regularly, Milnor's efficient system allows Florida Hospital to achieve it consistently. Maximising the CBW washers to capacity, Sadlier notes that operation at Florida Hospital averages 106% efficiency compared to last

year's 92%.

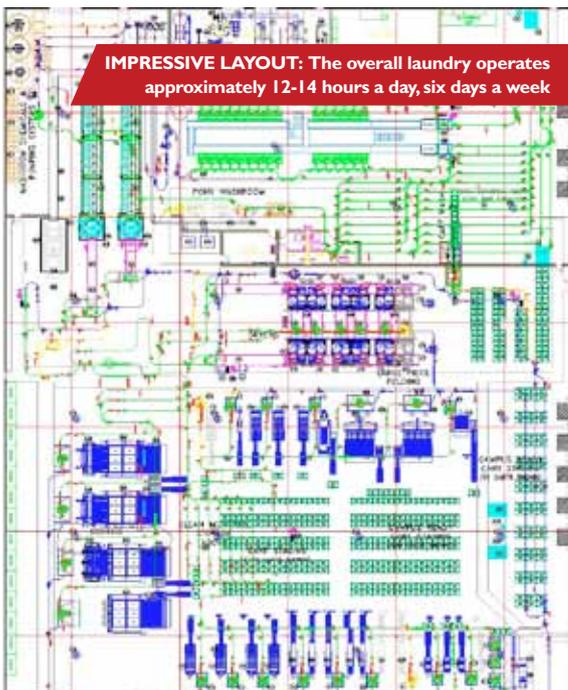
The laundry is able to reach consistent high production output starting with the design of the machinery. The wash process begins with the PulseFlow CBWs, which are loaded by an automated soil rail system. The RecircONE first module recirculation feature quickly wets down the goods and allows for chemistry to start its job in the first module. PulseFlow also provides highly efficient dilution by way of standing bath washing. The washing process happens very quickly in a Milnor PulseFlow tunnel because of its spacious cylinder with standing baths in each module. Chemical equilibrium, where water around the goods is at the same chemical concentration as the water in the goods, is achieved in under 40 seconds. At that point, the chemistry in the wash process has completed its task.

Then, in the last third of the transfer cycle, the PulseFlow high velocity rinse is initiated. The PulseFlow rinse is a precisely measured high velocity rinse to dilute the suspended soil from the bath. A second dilution then ensues by the True Top Transfer design. The Milnor True Top Transfer moves linen by lifting the goods out of the water, draining the free water, and then sliding the goods into the next compartment. This process happens in one continuous movement, and movement from one module to the next takes just 3.5 seconds. After the transfer, the goods are immediately submerged in cleaner water. Only the water trapped in the goods moves forward, with very little free water.

The result is high quality washing and rinsing producing hygienically clean linen with an average water consumption of 3.75 liters per kilogram (0.45 gallons per pound) of linen processed.

## Most efficient

Sadlier also notes that the Milnor CBW washers "are the most efficient equipment in our facility. The PulseFlow batch washers have allowed high levels of production on the clean-side without having to add capital



**IMPRESSIVE LAYOUT:** The overall laundry operates approximately 12-14 hours a day, six days a week



**PROFESSIONAL PARTNERSHIP:** Bill Bell (left) regional vice president of sales for authorised Milnor dealer Steiner Atlantic Corporation and Scott Sadlier, senior director of laundry services at Florida Hospital Laundry



**MOST EFFICIENT:** Scott Sadlier, senior director of laundry services at Florida Hospital Laundry notes that the Milnor CBW washers “are the most efficient equipment in our facility”



**HARD PRESSED:** Each batch washer discharges to a 56 bar single stage press. The presses have rapid flow hydraulic pumps so goods can be pressed longer under maximum pressure

to maintain customer demands”.

Each batch washer then discharges to a 56 bar single stage press. The presses are designed with rapid flow hydraulic pumps so goods can be pressed longer under maximum pressure. To add more time under pressure, a safety rated light curtain was mounted on the discharge-end of the press that eliminates wasteful time for a mechanical door to raise as the goods are transferring from the press.

Milnor has also created a continuous

workflow by integrating automated sling systems to transport linen between machines throughout the laundry process.

There are no shuttles in Florida Hospital, which eliminates gated areas and cart congestion. After extraction, the impressive press-to-dryer rail system automatically carries two washed loads overhead in one bag to the next available storage belt between any of the six pairs of Milnor dryers. After a load has been dried, the dryer discharges the linen onto a belt that takes the load to a

clean-side rail system, which is waiting to transport the load to its next destination. As soon as the dryer discharge door closes, the load door opens allowing the linen waiting on the belt to load within seconds. This optimises dryer efficiency. Florida Hospital Laundry is also equipped with touchscreen controls throughout the facility. All batches are tracked as they progress through the machines, and all data is saved.

Additionally, the tunnels' Mentor controls have been embedded with a video of the load chute for the respective CBW, while the MultiTrac control has camera feeds to all photo-eye sensors on the discharge conveyors. The laundry also utilises the highly efficient Chicago Dryer finishing equipment, which complements PulseFlow technology seamlessly.

Sadlier says: “Just as important as equipment, it is important that the sales representative understands business needs and what management is looking for. Bill Bell (with Steiner Atlantic Corporation) has always been a great partner and continues to understand what the needs of our business are today as well as what future needs will be.” ■

### For more information

on Pellerin Milnor Corporation, tunnel washers, or our authorised dealers, please visit [www.milnor.com](http://www.milnor.com) or call (504) 467-9591.

CBW®, Mentor®, MultiTrac™, PBW™, PulseFlow®, and RecircONE® are Pellerin Milnor's registered trademarks.



**ABOVE:** Laundry managers at Texas Healthcare Linen, a hospital-owned central laundry in Abilene, TX, said they wanted a “state-of-the-art facility.” To realize their goal of efficient, high-quality processing, they chose wash equipment from Pellerin Milnor Corp.

## TEXAS HEALTHCARE LINEN, LLC

**T**exas Healthcare Linen (THL), LLC, a 48,000 square foot state-of-the-art laundry in Abilene, Texas, has grown to process 265,000 pounds of healthcare linen per week (13.8 million pounds per year) since 2011, nearly doubling in size since inception. What makes it a successful cutting-edge laundry, General Manager JoeMax Tomlin explains, is a combination of responsible production management and quality equipment.

THL was built by hospitals, for hospitals. The laundry is owned by Hendrick Medical Center (Abilene, TX), Medical Center Hospital (Odessa, TX), and Midland Memorial Hospital (Midland, TX) and is managed by Foussard Montague Associates. In order to grow with the ever-evolving healthcare market, THL provides healthcare linen on a rental basis, as well as offering dust control and hospitality products based on what the market requires.

When the plant moved to its current location, the owners met with Stephen Helms, territory manager for authorized Milnor dealer Pellerin Laundry

Machinery Sales Company, to discuss incorporating the newest CBW® tunnel washer arrangement, PulseFlow® technology, into their plant. “We wanted it to be a state-of-the-art facility,” JoeMax explains, “and that starts with wash equipment.”

The plant is now home to two 8-module, 150 lb. capacity PulseFlow technology CBW washers and eight Milnor automated system dryers. The laundry also runs several Milnor pony washers, including three 150 lb. washer-extractors and one 40 lb. washer-extractor, flatwork finishing equipment, an automated rail system, and take-away conveyors.

Each of Milnor’s PulseFlow tunnel modules is a double drum consisting of a shell and a basket – just like a washer-extractor. This feature, combined with Milnor’s True Top Transfer design and PulseFlow technology’s high velocity rinsing for effective washing, contributes to the tunnels’ low water consumption, low maintenance fees, and overall increased utility savings. Further, True Top Transfer works by using perforated scoops to lift and drain the goods before

transferring them into the next processing module. This introduces the goods to progressively cleaner water with each wash transfer and allows very little free water to move forward.

According to JoeMax, Texas Healthcare Linen’s tunnels currently produce hygienically clean healthcare linen with a consistently low water usage of 0.4–0.5 gallons per pound.

Texas Healthcare Linen was certified by TRSA as a Hygienically Clean Healthcare laundry in June of 2015. According to TRSA, Hygienically Clean Healthcare laundries are “verified by third-party inspection and their capability to produce hygienically clean textiles as quantified by ongoing microbial testing.” THL continues to maintain certification by undergoing and passing quarterly testing, and Milnor’s PulseFlow technology tunnels continue to withstand the test.

“Our plant was built as a healthcare plant and quality is important to our hospitals,” says JoeMax. “Our Milnor PulseFlow tunnels are the heartbeat of our operation, and the biggest factor in the quality of our product, as well as the efficiency of our facility. And we trust them day in and day out as if they (our CBW tunnels) were members of our team here.” Texas Healthcare Linen has plans to extend their tunnels and add two more automated system dryers in the future, all while continuing to serve their customers with clean, high quality linen. **TS**



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**BELOW:** Texas Healthcare Linen General Manager JoeMax Tomlin described the two Pellerin Milnor tunnels shown below as the “heartbeat of our operation.” These 8-module, 150 lb. capacity tunnels process hygienically clean textiles at a highly efficient rate of 0.4–0.5 gallons per pound.





# HOSPITAL WASHER-EXTRACTOR CAPACITIES

	Weight In Lbs.	MILNOR 25 lb. models	MILNOR 35 lb. models	MILNOR 40 lb. models	MILNOR 45 lb. models	MILNOR 60 lb. models	MILNOR 80 lb. models	MILNOR 100 lb. models	MILNOR 140 lb. models	MILNOR 160 lb. model	MILNOR 275 lb. model
Queen sheets	1.9	13	18	21	24	32	42	53	74	84	145
Double sheets	1.8	14	20	23	26	34	46	57	80	91	157
Twin sheets	1.3	20	28	32	36	48	64	80	112	128	220
Pillow cases	0.3	100	140	160	180	240	320	400	560	640	1100
Blankets	2.2	11	16	18	20	27	36	45	64	73	125
Bed pads	2.8	9	13	15	16	22	29	36	51	58	100
Pillows	1.6	16	22	25	28	38	51	63	89	101	174
Bath towels	0.4	63	88	100	113	150	132	250	350	400	688
Hand towels	0.2	139	194	222	250	333	148	556	778	889	1528
Wash cloths	0.1	417	583	667	750	1000	533	1667	2333	2667	4583
Bath mats	0.5	50	70	80	90	120	160	200	280	320	550
Table cloths (54x54)	0.7	34	48	55	62	82	110	137	192	219	377
Table cloths (72X 72)	1.2	22	30	35	39	52	70	87	122	139	239
Napkins (20x20)	0.12	208	292	333	375	500	667	833	1167	1333	2292
Dress (Uniforms)	0.7	36	50	57	64	86	114	143	200	229	393
Aprons (bib)	0.4	63	88	100	113	150	200	250	350	400	688
Aprons (tea)	0.2	125	175	200	225	300	400	500	700	800	1375
Pants	1.15	22	30	35	39	52	70	87	122	139	239
Shirts	0.5	50	70	80	90	120	160	200	280	320	550
Draperies (84x96)	5.91	4	6	7	8	10	14	17	24	27	47
Entry mats (36x60)	7.99	3	4	5	6	8	10	13	18	20	34
Furniture covers	2.08	12	17	19	22	29	38	48	67	77	132
Cleaning rags	0.11	227	318	364	409	545	727	909	1273	1455	2500
Mop heads 12"	0.5	50	70	80	90	120	160	200	280	320	550
Mop heads 24"	1.1	23	32	36	41	55	73	91	127	145	250

*These figures are based on sample items. Weights and sizes of some brands differ, and therefore the figures should be used only as guidelines*

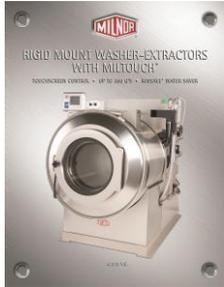
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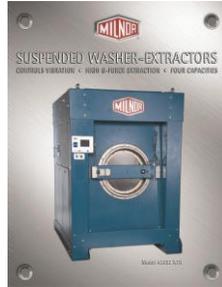
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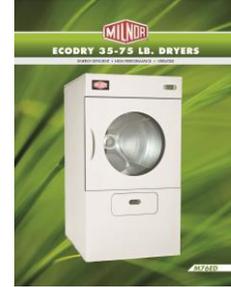
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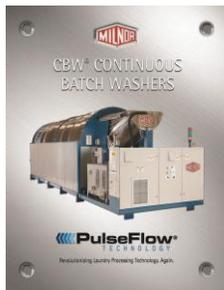
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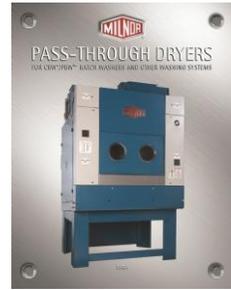
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