



INDUSTRIAL WASHING MACHINES

# crusader

ISSUE 2

...taking hygiene to the 21st Century

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## Beating a drum for the environment

For Friars Pride, one of the UK's leading suppliers of ingredients and consumables to the fast food sector, cleaning the reusable drums in which it delivers its popular frying oil was becoming increasingly problematic. The company's washing processes were labour intensive and relied on the uncertain performance of an ageing washing machine.

A new custom-designed carousel drum washer from Industrial Washing Machines (IWM) not only provided a complete solution, but also delivered valuable additional benefits in terms of cost reductions and environmental impact.

Unlike most suppliers of frying oils, Friars Pride delivers its oil in 25-litre returnable drums. This benefits the company's customers, as they don't have to dispose of the empty drums and, potentially at least, it benefits the environment as the drums can be used many times over before they are eventually discarded.

Recently, however, it was becoming clear to the Friars Pride management that the cleaning procedures the company was using were failing to meet these objectives.

After carefully analysing Friars Pride's requirements, the engineers at IWM developed a purpose-designed carousel-type washing machine that has a throughput of 200 drums per hour. It delivers drums that are clean and dry both inside and out, and are, therefore, ready for immediate reuse.

The machine uses a detergent hot wash, with the wash water recirculated from a heated tank to minimise both energy and water consumption. A hot rinse from fresh water is provided and, after washing and rinsing, the drums are dried by a high velocity air knife system. This achieves excellent energy efficiency as the rapid movement of the air automatically raises its temperature, which means that only a low-energy heat source is required.

An important feature of the design is that the drums are indexed through the machine rather than being fed continuously. This means that the drums come to a halt in the wash, rinse and drying sections of the machine, allowing these processes to be optimised, thereby guaranteeing that consistent results of the highest standard are obtained. The machine incorporates comprehensive safety features, including light curtains and the latest fault-tolerant safety relay systems.



IWM has designed the new machine to be fully automatic in operation – only the loading and unloading of the drums require manual intervention – and the labour costs associated with operating it are therefore low.

In terms of washing efficiency, the machine is not only meeting Friars Pride's requirements but substantially exceeding them, as was convincingly demonstrated during proving trials at the IWM factory. As an aid to setting up and checking the mechanical functions of the machine, Friars Pride had supplied a number of sample drums.

When the Friars Pride representatives examined these after the test, they expressed considerable surprise – the machine had cleaned all of the drums perfectly and they were ready for reuse. Unknown to IWM, however, Friars Pride had anticipated that the drums might be damaged during the tests, and had therefore supplied a selection that it considered to be ready for disposal as it believed that they were too heavily soiled to be cleaned effectively!

As a direct result of the efficiency of the IWM machine, Friars Pride has found that it can now clean almost all of the drums returned by its customers. This saves the company money on the purchase of new drums, and it also protects the environment by greatly reducing the number of drums that have to be disposed of as waste.

As was anticipated, the new machine is also using far less energy, water and detergent than its predecessor, leading to even more cost savings and further reductions in environmental impact.

**"Even with our old washing machine, adopting reusable drums for the delivery of frying oil was better from an environmental point of view than using the disposable containers that are so common in our industry," said Nigel Swepson, operation manager of Friars Pride.**

**"With our new machine from IWM, these environmental benefits have been increased many times over, and they are now accompanied by very substantial cost savings."**

**"We're delighted with the results and there is no doubt that the savings the machine makes possible will mean that we will very quickly recoup the money we've invested in it and its installation."**



# IWM cleans up with USA deal!

Already one of the UK's largest and most successful suppliers of washing and sanitising equipment for industrial and commercial applications, Birmingham-based Industrial Washing Machines (IWM) is now making increased inroads into the demanding United States market.

IWM has entered into a partnership agreement with CM Processing Solutions, an established provider of services to the food processing industry with its headquarters in California, and this agreement

has already resulted in the sale of a variety of machines to new users in the USA.

"We always design and manufacture our machines to meet the highest international standards," said Carl Hollier, Managing Director of IWM, "and we've been very successful in achieving export sales to Europe and many other parts of the world. However, even with the right products and the right prices, the USA is a tough market to crack unless you have high-quality local representation."

"That's exactly what CM Processing Solutions is providing, and we're confident that as a result, these very gratifying initial sales will be followed up by a regular flow of orders. That's not only good for our new American partner but also for us, as it will support our investment in UK manufacturing."

"We're delighted to be working with IWM," said Mark Corser, CEO of CM Processing Solutions. "We have a strong reputation for supplying equipment that offer outstanding

value for money while meeting the most exacting requirements for quality and performance, and the IWM products most certainly tick all of these boxes. In addition, they're well suited to the needs of North American users, and they ideally complement our existing product range. In short, we predict a big future for IWM products in the USA."



## New combination washer offers total flexibility with efficiencies

For organisations that use both Dolav and Eurobin containers, Industrial Washing Machines (IWM) is now offering a versatile money-saving combination container washer. This innovative machine can wash any mix of Dolav and Eurobin containers at a rate of up to 40 per hour, thereby making it unnecessary to use separate machines for each type of container, even in high volume applications.

Not only does this mean big savings in initial costs, since only one machine needs to be purchased rather than two, running and maintenance costs are also significantly reduced. In addition, because of the small footprint of the combination machine, large space savings are possible.

Ideally suited for applications involving sausage meat, meat pastes and similar food debris, combination container washers use sustained jetting with hot water and detergent to guarantee effective and dependable cleaning. Running costs and environmental impact are minimised by recirculating the wash water from a heated tank, and by using an efficient rotary filtration system that reduces the need for water changes.

The machines can be supplied configured for electrical, gas or steam heating, according to the users requirements. As standard, all versions employ a cold rinse using a solenoid-controlled fresh waster supply from the mains. Options for heated and chemically assisted rinsing are also available.

Like all products from IWM, the new combination container washers have been designed to offer a long service life and to require a minimum of maintenance. Spare parts are inexpensive and easy to change and, for maximum user convenience, they can be ordered directly from the IWM website.





# IWM makes cleaning as easy as IBC!

For one of Europe's suppliers of flavourings and essences for the food industry, Industrial Washing Machines (IWM) has developed a dedicated IBC (industrial bulk container) washer that combines efficiency with low running costs.

The new washing machine is a key element in the service offered by the company, which includes cleaning, filling, sealing, labelling and storing customers' IBCs. The new machine takes the place of the manual washing process formerly used by the company, which was both time consuming and wasteful in its use of water and detergent.

Although the R20 IBC washer was initially developed specifically to meet the requirements of the flavouring and essences company, IWM is now making it available to other users in order to satisfy the growing demand for convenient and cost-effective equipment to sanitise IBCs.

The R20 washer is readily adaptable to meet the needs of individual users, but the version supplied is capable of up to 20 cleaning cycles per hour. The IBCs are individually loaded using a forklift truck, and are cleaned by an electrically operated mechanical arm that provides a 360° turbo-jet wash and rinse. The cleaning jets are positioned automatically through the IBC aperture to provide optimum cleaning performance.



The outside of the IBC is cleaned by a set of travelling jet nozzles positioned around the outside of the containers. The jets have been configured to ensure that the valve area, which can often present problems, is cleaned effectively and completely. To ensure water economy and to reduce environmental impact, the IBCs are washed with recirculated hot water before being flushed with fresh mains water – other options are available according to requirements.

The machine is constructed of stainless steel throughout, and features a robust streamlined design that is not only hygienic, but also allows easy access to all areas for cleaning and maintenance. To permit the washing process to be fine-tuned to suit different levels of

soiling, the washing and rinsing cycle times are independently adjustable, and the machine is provided with a programmable detergent dosing system.

R20 IBC washers, whether standard or customised, are manufactured entirely in the UK and are available on short deliveries. Based on proven technology, they are competitively priced and are backed by IWM's renowned maintenance and support services.



## Industrial Washing Machines ups its capacity for racks

With the capacity to wash up to 40 racks per hour, the new R40 rackwasher from Industrial Washing Machines (IWM) is an ideal and cost-effective choice for cleaning and sanitising racks in high-volume applications, such as those found in food smoking operations.

Designed to combine compact construction with high efficiency and low running costs, the R40 uses an automatically timed wash and rinse cycle that eliminates unnecessary water and energy usage.

The cabinet-type R40 machines are available in standard floor-mounting versions or in pit-mounting versions that incorporate the novel sealed-pit technology which IWM has developed to maximise hygiene. The machines can be supplied in single-door versions for washing one rack at time, and in two-door versions for straight-through washing operations.

All versions provide complete and effective washing, even for racks with heavy soiling, by using sustained jetting with hot water and detergent during the wash cycle. IWM's unique travelling jet system ensures that maximum pressure is delivered from the high power wash jets to all areas of the racks being washed. For maximum economy, the wash water is recirculated from a heated tank, and effective filtration is provided as an aid to reducing the frequency of water changes needed.

For typical applications, the new R40 rackwashers from Industrial Washing Machines are supplied with a cold rinse system that uses fresh water from the mains supply. Solenoid control ensures that water usage is kept to a minimum. For special applications, and particularly those where rapid drying is needed, the machines are alternatively offered with a hot rinse system that uses water from an additional heated tank.

# It's 1,000 and counting for IWM!

Industrial Washing Machines (IWM), one of the UK's most innovative manufacturers of washing and sanitising equipment is celebrating the completion of its 1,000th machine since they moved to their present premises, almost 14 years ago. And the very first machine supplied by the company from these premises – serial number 0001 – is still performing to specification and is still in daily use. The 1,000th machine, a T200 traywasher, is destined to wash distribution crates for a grocery supply company in Lancashire.

## **“Right from the outset, delivering quality and value for money have always been a key objective for us,”**

said Carl Hollier, managing director of IWM, “and I believe that the longevity of Machine 0001 is an excellent demonstration that we’re meeting these objectives. The machine has a hard life – it’s a tray washer in a chicken hatchery; day in, day out it has to clean trays that are heavily soiled with chicken droppings.”

“Despite this, the machine has proved to be consistently reliable and it’s still working well. This is, however, a typical example of longevity among our products. In fact, the vast majority of the thousand machines we’ve supplied over the

last 14 years are still in service today, and those that aren’t have generally been retired because the user’s requirements have changed rather than because of any falling off in performance.”

Supplying 1,000 machines over the last 14 years equates to an average production rate of six machines per month, every single month. The company is justly proud of this achievement, especially as the period covered includes more than a year of the present deep recession, which left most UK manufacturers struggling for orders.

The company reports that, while six machines a month is its historical average, its current production rate is substantially higher and estimate that machine 2,000 will be delivered in 2017. In addition to the reputation it has established for the quality and durability of its products, it is also committed to innovation. It has, for example, recently introduced machines that save energy by washing with cold water, and heat pumps that recycle energy that would otherwise be wasted in hot-wash machines.

## **“We listen to our customers and work hard to give them what they want,”**

said Carl Hollier, “and this approach is clearly working for us. Not only is our thousandth machine already on its way to the end user – we have orders for many more on our books from companies operating in all industries around the world.”

## IWM slashes utensil washer energy usage!

By using innovative heat pump technology, Industrial Washing Machines Ltd (IWM) can now reduce by more than 60% the energy needed to heat the water used in the wash tanks of its popular EDI series of utensil washers. In addition, steam emission from the machines is virtually eliminated, which means that further big savings can be made on the extraction systems used to vent the machines to atmosphere, and that there is no build up of humidity or heat in the rooms where the machines are used.

The heat pumps used with IWM’s EDI utensil washers are essentially devices for moving heat from a body at a low temperature to a body at a higher temperature. They work on exactly the same principle as an ordinary domestic refrigerator, which takes heat from the food inside and moves it into the warmer air of the room in which the refrigerator is working.

IWM’s new HP2 and HP3 heat pumps extract heat that would otherwise be wasted from the air surrounding the machine, and ultimately from the warm air that is produced by the utensil washer when it is operating. The heat is used to raise the temperature of the water in the wash tank, which means that no other form of tank heating is needed.



Taking into account the energy used by the heat pump itself, this arrangement allows energy savings of 60% or more to be achieved. This means that operating costs for the utensil washer are greatly reduced, along with the machine’s environmental impact. The payback period depends on the operating conditions of the machine and the price the user pays for energy, but IWM has calculated that in a typical application, the additional cost of the heat pump will be recovered in around two years.

HP2 heat pumps are suitable for use with IWM’s EDI 6 and EDI 8 utensil washers, while the HP3 model is intended for use with the larger capacity EDI 13 and EDI 13 ALTA machines. HP2 and HP3 heat pumps are compact units that are readily accommodated on top of the utensil washer, so no additional floor space is needed. They are available as an option on all new utensil washers, and can be retrofitted by IWM to existing machines.



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## IWM SHOWS

- **Pro2Pac, 13-16 March 2011**  
ExCel, London, Stand TBC
- **PPMA, 27-29 September 2011**  
NEC, Birmingham Stand TBC