



SPLASH!

NEWS FROM MEIKO, THE INTERNATIONAL BRAND FOR PROFESSIONAL WAREWASHING TECHNOLOGY



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Catering to the Web crowd: brainfood at Google



The World Wide Web is the encyclopaedia of the 21st century. As users, we retrieve information from a deluge of data which links up the entire world. Diving into this flood of data means accessing the Internet via search engines which provide virtual interfaces between yesterday, today and tomorrow. They provide us with ultra-fast access to information, facts and figures. Seek and you shall find!

 The market leader among search engine providers is the American technology company Google Inc. Launched in 1998, Google quickly rose to the top of the international rankings.

When it came to choosing a site for its biggest research and development facility outside the USA, the company decided on Switzerland. Today, this centre houses a


team of 750 creative people from 75 different nationalities who work on projects including Google Maps, YouTube, Gmail and AdWords (Google advertising). Together with Google Search – which the Zurich team also works on – these rank among the search engine provider's most successful services.

The Zurich-based Googlers (a.k.a. Zooglers) enjoy a workplace atmosphere which aims to inspire the development of new, innovative

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New subsidiary in Hong Kong

 Meiko has opened a new subsidiary in Hong Kong as part of its strategy to develop its competitiveness for the Asia-Pacific region.

Meiko Clean Solutions Hong Kong Ltd. has opened for business in Kowloon Bay, Hong Kong, marking another step in the German company's worldwide growth.

"Opening an office in Hong Kong further expands our remarkably successful operations in the strategic Asia-Pacific growth region," says Meiko Managing Director Dr.-Ing. Stefan Scheringer, "and it also provides us with a base for serving customers in Macao and Taiwan."



Dr.-Ing. Stefan Scheringer

Louis Lam, General Manager, Sales and Service, who has been working in the industry for nine years and has built up excellent connections and expertise in the field, heads up the new Meiko Hong Kong subsidiary.

Google also offers a choice of catering options. The company understands that a balanced diet increases people's motivation and mental abilities.

Catering to the Web crowd: brainfood at Google

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services. It includes a model railway, bright and colourful walls, communication zones in every corner, igloos and recycled gondolas for making phone calls, pool tables, table football games, a nursery, fitness and spa facilities and endless stocks of food and drink – all free.

The company is choosy about who it hires, selecting only the best of the world's IT experts and keeping them loyal and motivated. It does this by creating a lifestyle ambience with fun highlights, relaxation and leisure facilities and freedoms that 'traditional' employees can only dream about. The entire working environment is focused on promoting creativity.

Google applies some unusual motivational techniques, very much aware that people need space and flexibility to be creative. With some 12,000 square metres of space (two buildings of seven and five floors, respectively), the Zurich offices are testament to this unconventional approach, providing an inspiring environment for everyone who works there.



dressings, fruit and speciality cheeses. Everything is clearly labelled to cater to vegetarians and vegans and to help people make healthy choices, with a green dot indicating a healthy choice, a yellow dot urging restraint and a red dot for special treats!

Kitchen operations are in full swing for the morning, lunchtime and evening shifts, both out front and behind the scenes. Zooglers are welcome to invite friends and family members to eat with them, so the

Google accepts no delays when it comes to implementing innovations and it is equally demanding when it comes to catering. Whenever a new innovation is launched, the caterer is expected to acknowledge the latest step forward, as Wolfgang Wieland, managing director of Royal Business Restaurants GmbH (Switzerland), explains: "We come up with something to match the theme. We also serve dishes to reflect various national and international public holidays. That could mean specialities from



Everyone has their own dedicated workspace, but the company's policy is that people can work wherever they want.

Google employees don't work longer hours than traditional employees, but the time difference means they often work on a different schedule. Variety is therefore a key part of their working lives – and that's particularly true for their work-life balance. The Google health programme "Optimise your life" encourages staff both to stay active and to relax, offering a fitness studio, massage and relaxation areas, a laptop-free meditation space and a cinema featuring the latest computer games.

From restaurant counters to buffet options, Zooglers choose whatever they need to boost their brainpower morning, noon, and night – and any time in between. As well as the Millway restaurant on the ground floor (also accessible via a tube slide from the first floor) and the Fork outlet which specialises in Asian cooking, employees can also make use of the microkitchens located on every floor. Coffee, soft drinks, cakes and snacks are all on hand to break up the working day.

In line with Google's corporate identity and management policies, the catering company Royal Business Restaurants GmbH (Switzerland) offers an impressive array of culinary delights.

The Google team have been enjoying freshly prepared dishes for the last three years. They are spoilt for choice at both lunch and dinner with a range of options prepared right in front of them, from fish and meat to vegetables and side dishes and from a wok kitchen to a chargrill counter.

Self-service buffets are also available, offering soups, desserts, bread, salad bars, home-made

number of meals served each day can easily reach 1,200.

Chef de cuisine Franz Ays expects only the very best: "We need multifunctional dishwashing technology from a company that provides outstanding service. And the results have to be perfectly hygienic and sparkling clean."

the USA, India, China or Mexico and we cater to just about every nationality, so whatever we make has to be authentic! The Google employees give our kitchen staff constructive feedback. The challenge we face as the caterer is to satisfy the varied tastes of a multicultural workforce every single day. And that's a challenge we're more than happy to meet!"

Google Warewashing

An impressive array of Meiko technology services the catering operation at Google.


- 3 x FV40.2 G-GiO undercounter dishwashers – featuring reverse osmosis water treatment for sparkling clean, spot and smear-free washing results
- DV120.2 pass through – extra-tall interior clearance height to accommodate taller ware, such as sheet baking pans
- FV130.2 and FV250.2 – pass-through utensil washers
- M-iClean UM+ GiO – combining beauty, simplicity and intelligence in one stylish package, dishwashing time just got a lot more colourful!
- GK60 – salad washer for ultimate hygiene
- B230 KV- VAP – high volume, variable speed, ideal for varied wash loads including crockery and melamine
- M-iQ K-M54 V6 N22 P6 – the most efficient, environmentally-friendly large volume warewasher on the market





The Meiko M-iQ at Frimley. Crucially, the machine did not require the installation of an overhead ventilation canopy.

Hospital puts Dishwashing Claims to the Test

 **High-volume warewashing systems are a specialist solution for users such as inflight caterers, hospitals, hotels, and educational establishments.**

The question for hospital caterers has always been how to determine 'best value' amidst a lack of comparative data.

Meiko UK began selling its new M-iQ range of rack and flight transport dishwashers in 2010, claiming 30 percent savings over the previous generation of machines. Now they have contacted their users to find out if the new machines have delivered on that promise.

Frimley Park Hospital NHS Foundation Trust was the first site in the UK to install an M-iQ in early 2011. Four years later, Kevan Wallace, Assistant Hotel Services Manager, Catering, gives his verdict on the machine's performance, service and running costs.

Water consumption: A running cost comparison* prepared by Wallace for senior management demonstrated that the new M-iQ would consume just over half the volume of the previous machine: 280,320 litres annually instead of 448,950.

Compared to a competitor's product with similar specifications, which consumes 318,645 litres, the M-iQ saved 38,325 litres. *(based on 2,184 operating hours per year)

Detergent reduction: "Because the M-iQ works so efficiently, we were able to lower the dosage compared to the old machine. Our consumption has fallen by almost 50 per cent, from four 20-litre drums per week to just two drums. Rinse aid consumption has also dropped considerably."

Detergent running cost comparison: 1,955 litres a year for the M-iQ compared to 3,837 for the old machine and 2,135 for the competitor's machine.

Energy reduction: Wallace noticed an immediate drop in power consumption when the new M-iQ began operating. Frimley operates a cook-fresh plated meals system and all food is prepared and cooked using a mix of gas and electric powered equipment.

"The old dishwashing machine consumed so much power that we used to find the kitchen was starved of power at peak times. We were using all the power we had available. The new M-iQ operates much more efficiently. It has reduced the demand for power so much that I was able to install a new oven rated at 42 amps!"

Energy running cost comparison: 57,439 kW hours annual consumption for the M-iQ, compared to 96,096 for the old machine and 63,336 for the competitor's machine.

Running cost per hour @ 2011 prices: M-iQ: £3.74, old machine: £6.77, competitor's machine: £4.11

Other benefits: "Good washing results, which is exactly what you want. No ventilation canopy is required because the M-iQ helps keeps the moisture level in the room down; there is very little steam in the air. Visitors that come here to look at our system have commented on the fact there is no curtain on the front of the machine. I explain this is not needed because the machine draws the heat back inside to pre-heat incoming cold water."

"The control system helps us record temperatures and the self-diagnostic display tells us what is wrong with the machine, for example, if a door has not been closed properly."

"A reverse osmosis water treatment system was also added to the M-iQ after installation. This helps provide sparkling results, especially for stainless steel ware. We use a smaller Meiko machine for glassware which also has RO. We use Meiko machines throughout the hospital."

"And it's so quiet compared to the old machine!"

Service and maintenance: "There have been no major issues with the M-iQ machine. We have a five-star service contract with Meiko, so our machines are well looked after."

"One other thing I would like to say is that Meiko is a specialist; that's their business. Other companies diversify and handle many other products as well as dishwashers, but Meiko specialises in dishwashing alone. Their engineers are also very knowledgeable."




Kevan Wallace



Fresh cooked porridge is part of the breakfast offer at Frimley.

École Polytechnique, Paris: 3,500 meals per day, perfect for M-iQ and...

 Dubbed the "X," the École Polytechnique is a French technical university founded in 1794.

Its status is that of a public educational and research institution under the supervision of the Ministry of Defence. It is a founder member of ParisTech, the Paris Institute of Technology, one of the hubs of research and tertiary education in France.

With 500 engineers graduating each year, it occupies a campus covering 160 hectares at Palaiseau, Essonne, Paris. Famous graduates include Henri Becquerel, Maurice Allais, Albert Jacquard, Valéry Giscard d'Estaing, Serge Dassault, Carlos Ghosn and Dove Attia.

Almost 4600 students, researchers, lecturers and administrators are to be found, but this number is expected to grow to 70,000 a few years from now.

The École has installed the M-iQ and WasteStar vacuum food waste handling system to optimise both the dishwashing process and the collection and utilisation of organic waste from its dining hall.

"Le Magnan" restaurant, serves up to 3500 meals per day, with 1700 served in 75 minutes!

SAVINGS

Following the introduction of the M-iQ and WasteStar systems, nine people work in the dishwashing area, instead of the original 16. The machines wash 6 tonnes of dishes and automatically sort 15,000 items of cutlery at every mealtime.

This project was managed with the expert input of restaurant consultancy G.SIR and Hersant & Partners.

Jean-Luc Gillet, Catering Supervisor of the École Polytechnique: "The solutions developed by Meiko

enabled us to automate part of the dishwashing and stacking operation. This increases the efficiency of restaurant staff, improves their working conditions and the quality of service we offer to our customers. The equipment also enables us to respond to the major increase in the number of meals served by the restaurant every day."

Pierre Rameau, Central Services Manager of the École Polytechnique: "The facilities for the treatment

and use of the organic waste offered by the Meiko systems greatly influenced our choice. They fit perfectly into our policy of sustainable development. That's one step well under control, particularly thanks to the information system on the levels of the storage tanks.


"The collection truck now calls less than once per month. This investment therefore also allows us to reduce our operating costs."

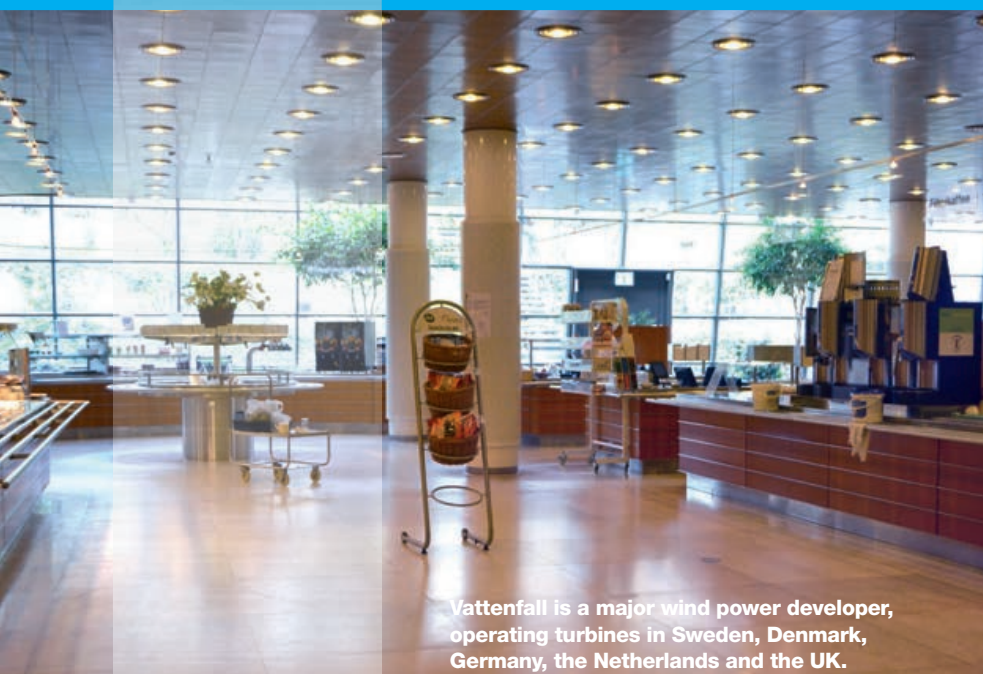


Less labour required and biogas is generated from the leftover food waste...savings all round!

WasteStar vacuum food waste storage holding area offers sparkling clean hygiene.

GreenEye blinks at Vattenfall in Hamburg

 The energy company Vattenfall has won acclaim for its in-house canteen operations, which are run by the facility management company ISS VSG GmbH. Plenty of dirty dishware is produced in this process – but sparkling results are guaranteed thanks to an innovative M-iQ dishwashing machine with cutting-edge GreenEye technology from Meiko.



Vattenfall is a major wind power developer, operating turbines in Sweden, Denmark, Germany, the Netherlands and the UK.

Double-digit savings



The new generation of M-iQ machines with GreenEye technology gives the green light to further efficiency improvements in energy, detergent and water consumption. This innovative technology


actively detects gaps between rows of washware on the conveyor belt. GreenEye responds by only activating the wash and rinse function for specific sections of the belt where dishware is detected. Green



More than 48,000 students attend the university!

Students and staff rely on Meiko for clean cutlery and crockery.

Zhejiang University: Top 100 dining

 Located in the historical and picturesque city of Hangzhou, Zhejiang University is a prestigious institution of higher education with a long history.

Qiushi Academy, the predecessor of Zhejiang, was founded in 1897 and was one of the earliest modern academies of higher learning established in China.

Research spans 12 academic disciplines, covering philosophy, economics, law, education, literature, history, art, science, engineering, agriculture, medicine and management. With seven faculties and 37

colleges and schools, Zhejiang has, as of June 2014, more than 45,678 full-time students. In addition, there are about 3,407 international students.

Five campuses cover an area of 4,503,741 square meters and Meiko's involvement on site is equally enormous. Zhejiang has 13 B-Tronic dishwashers, three wide band BA machines, one AZP 80 dewatering unit, plus numerous conveyors and tray stackers and six K-Tronic dishwashing machines. Meiko DV 80.2 hood type dishwashers feature in 17 canteens over the five campuses.

The equipment was specified, supplied and installed by Meiko Wash-Up Technologies Ltd, based in Zhongshan, Guangdong Province, a wholly-owned subsidiary of Meiko Germany and as equally strictly committed to Meiko quality standards. Staff are trained at the Meiko factory in Germany to ensure the full transfer of technical 'know how' to China. Every dishwasher leaving the Zhongshan factory has been thoroughly tested to guarantee the highest Meiko quality standards and its safe and reliable operation.

Meiko China Sales Manager explained that Zhejiang University previously operated its dishwashers on steam power.

"But the steam consumption was very high and we suggested changing to using electrical power for heating, as it would save energy and improve the environment.

"The design features of the dishwashing systems, especially the belt conveyor systems, tray stackers and the AZP 80 food waste dewatering machine have reduced manpower, breakages and saved considerably on running costs."

The Meiko AZP 80 food waste compact dewatering system reduces the volume of food waste by up to 85% and converts this into an easy to handle, semi-dry organic bio-waste product that can be used as a biogas energy source, fertilizer or compost (if local legislation allows).

The system is simplicity itself to operate; for use in kitchens and food preparation areas, food waste can be loaded by hand into the waste hopper for processing. Alternatively, the AZP 80 can be integrated into the dishwashing system and fed with



food waste via pipework from the flushing trough (view the video on YouTube: MEIKO AZP 80).

Continues Meiko China: "The Zijiang canteen building is a winner in the 'Top 100 National Dining Room Awards', earning an 'A' grade. About 36,000 square meters in size, it runs over three floors including one floor underground. There are in total eight restaurants, feeding more than 20,000 teachers and students.

"The Xiuxian Restaurant alone features one BA124PG-CSS TOP and two BTA240 wide band dishwashers, two conveyors, one AZP80 and 4 tray stackers.

"The reason they chose Meiko was to lower their running costs, save water, electricity and chemicals. The wash room environment is also more comfortable and more labour efficient."

AZP 80 food waste dewatering systems can operate stand-alone or as part of a system, as here, receiving waste via a flushing trough.



GreenEye actively detects gaps between rows of washware on the conveyor belt.

Pictured left to the right: Bernhard Böttel, Stefan Wilke (Catering ISS VSG GmbH Hamburg), Sabine Sörensen (Meiko Hamburg)

lights indicate which belt or line should be loaded with the next batch of dishware. "This technology offers us the potential to achieve additional double-digit savings," says B. Böttel, regional manager of Facility ISS Hamburg, highlighting the benefits of GreenEye. The new M-iQ machine is a similar size to the previous dishwasher and uses the same loading system, so the basic configuration of the dishwashing operations hasn't changed. "The only thing that's different is the sorting process," says Böttel. "The plates are placed on the belt one behind the other instead of next to each other. The team that operates the machine had no problem adapting to that. The M-iQ with GreenEye technology really is the ultimate in dishwashing excellence."



Sophisticated conveying systems combined with state of the art warewashing service Vodafone's new catering concept.



A new style of staff restaurant

With some 11,000 employees and a turnover of 9.6 billion euros in Germany alone, Vodafone GmbH is one of the biggest companies in the German telecommunications arena and one of the leading telecommunications providers in Europe.

Some 5,000 people work on Vodafone's mobile, fixed line, Internet and broadband businesses at its German headquarters in Düsseldorf, creating services designed to reinforce the company's innovation leadership in the telecommunications market.

Since moving to its new head office on the Vodafone campus in March this year, the company has introduced a new staff catering concept.

parliament in Berlin, guests of the Essen Philharmonic Orchestra and various Michelin-starred restaurants.

Cucic compares the restaurant service for Vodafone employees to managing a sophisticated system catering operation, saying that it is "a bit like a hotel without any rooms!" The concept is boosted by the presence of Nelson Müller, who puts together the menu for "his own pavilion" where he hosts events once a month. His specialities include stuffed breast of guinea fowl and 'Königsberger Klopse', a Prussian speciality of meatballs in a white sauce with capers which forms part of the 'Food & culture' selection of dishes. A flat rate menu is available (starter, main course and dessert) and customers can expect to

tills registering a total of some 8,000 transactions when snacks and conference catering are taken into account.

Careful analysis of customer behaviour – combined with plenty of experience – ensures that none of the counters are neglected. "There's no point in having one restaurant serving lots of meals and another one hardly serving any at all," says Cucic, explaining why accurate planning is so important.

The overall planning of the catering facilities was entrusted to the engineering firm Reisner & Frank GmbH. One of the cornerstones in the planning process was deciding how to collect the dirty dishware and get it clean – a major logistical challenge which the engineering firm had to solve. The contractor for the kitchen and wash-up areas – Flügel Großküchentechnik GmbH (Essen) – chose Meiko as a subcontractor for the dishwashing area.

The most complex part of the system was the conveyor technology required to transport the dirty dishware from the tray return point in the ground floor restaurant to the wash-up area on the first basement level.

The three conveyor belts in the restaurant where customers leave their dirty dishes run at full capacity during opening hours. The conveyor technology is highly sophisticated, using both horizontal and vertical conveyors to take the ware straight to the wash-up area.

The dishes pass from one floor to the next en route to their destination, with the conveyor belt running along hidden tunnels beneath the restaurant ceiling. Junctions and points are used to bring the various belts together into a single direct line to the wash-up area. It is essential that the whole system operates smoothly and reliably because much of the transportation process takes place inside tunnels.

The dishwashers are also a great example of cutting-edge excellence. The five flight type dishwashing machines from Meiko's M-iQ series make light work of the dirty dishware from the restaurant areas as well as the ware used in food production.

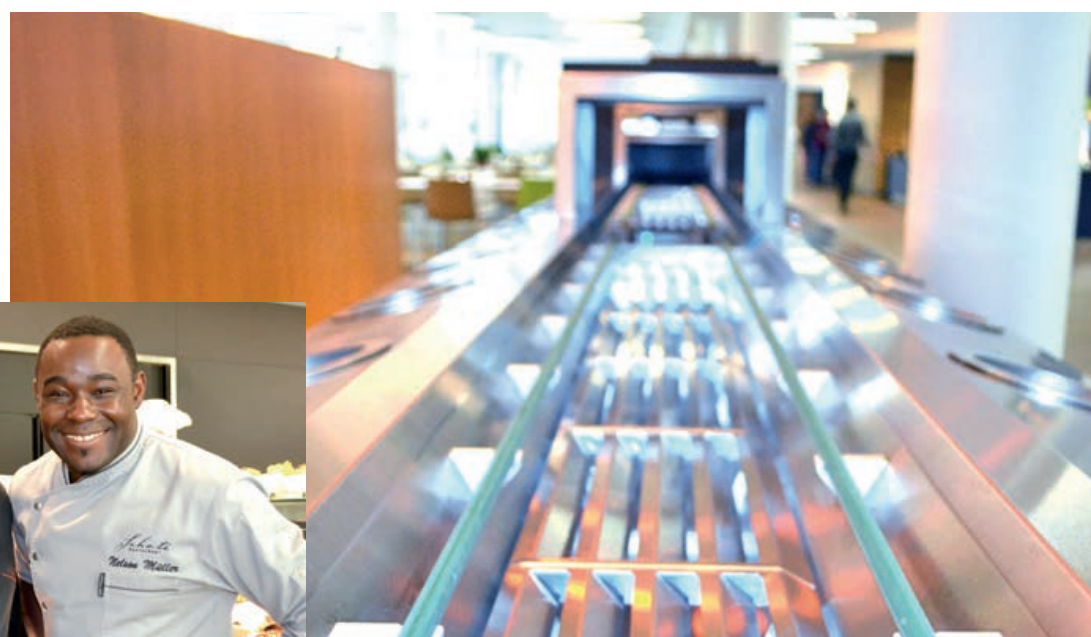
The machines are extremely sparing in their use of resources. They give an important boost to the cost-efficient running of the entire kitchen and deliver outstanding results, allowing Cucic and his 90-strong team to concentrate fully on their food preparation tasks, even at peak times.

As well as serving the Vodafone employees in the restaurant, the kitchen team also caters to other customers in four building complexes, plus a total of 87 kitchenettes with coffee and tea facilities.

Horizontal and vertical conveyors utilize hidden tunnels beneath the restaurant ceiling.



Executive Chef Branislav Cucic and celebrity chef Nelson Müller: Celebrity pulls in the crowds!



With 1,200 square metres of floor space and five themed pavilions offering a range of cuisines for up to 1,200 people at a time, Vodafone's staff restaurant provides a varied and memorable eating experience.


Since opening in December 2012, the in-house catering service has been run by ARAMARK Holdings GmbH, which worked in tandem with Vodafone and Michelin-starred celebrity chef Nelson Müller to put the new catering concept into action. This was the first staff catering project for Executive Chef Branislav Cucic at Aramark.

Before getting involved in communal catering, he managed two Kofler Company locations in Frankfurt and Düsseldorf, applying his skills as a chef de cuisine to preparing food for members of the German

pay between three and 10 euros for their top-class meals. Nelson Müller uses many of his own recipes in the Vodafone restaurant. "I was immediately attracted by the idea of offering high quality and freshness and sourcing ingredients from local suppliers," Müller says. From the curious to the hungry, Müller's celebrity status pulls in the crowds, with the number of customers at his counter rising by 10 percent whenever the celebrity chef gets a break from filming.

In addition to the Nelson Müller pavilion, which is managed by Rainer Sarrazin when the celebrity chef is away, Vodafone employees can also enjoy four additional show cooking counters with titles such as "mypizza", "freshgreen", "trendfood", "mypasta" and "dailyspecial". The five pavilions serve up to 2,600 meals a day, with the Vodafone restaurant

Enhanced food offering and level of service at Canford School, Dorset

 **Canford School is a leading coeducational independent school for day and boarding pupils, in the village of Canford Magna, near to the market town of Wimborne Minster in Dorset, south west England.**

Canford is a full boarding school – there is no weekly boarding – and there are 635 pupils. There are over 100 teaching and support staff, making the staff/pupil ratio 1:7.5 (which compares to a figure of 1:17 in the state school sector, according to the DoF in 2012/13).

Canford's main building is Grade 1 listed and forms the nucleus of the school including the dining facilities. It was designed by Edward Blore and later added to by Sir Charles Barry in the mid-19th century. Here, nearly 14,000 meals are served to pupils and staff every week by a 45-strong full and part time catering team, which includes 13 chefs.

The kitchen also provides catering for the school's sporting events and societies and, out of term time, for weddings and civil ceremonies. Some 30-40 events are held weekly at peak times, with the catering service ranging from hot drinks and snacks to full service dining and match teas for the school's sports teams.

Two years ago, catering equipment distributor CKE Service refurbished and redesigned the main kitchen, incorporating the latest generation of combi ovens and high-pressure bratt pans.

"CKE's work had helped to enhance the food offer and level of service," says Jane Giddy, Head of Catering Operations. "What we were especially keen to see from the dishwashing supplier was good support over the long term in terms of maintenance

and spare parts. Availability of spare parts had been a problem in the past, so we were keen to engage a company which offered an efficient and quick replacement service when needed."

CKE recommended Meiko as the new supplier to replace the school's ageing rack transport dishwasher, noting in particular Meiko's reputation for after sales service and maintenance support.

SO GOOD, THEY INSTALLED IT TWICE

The urgent need for replacement meant that the Meiko M-iQ rack transport dishwasher was installed as soon as possible. A few months later, the machine was taken out and then re-installed to accommodate a new floor for the dishwash area, work that could not be completed during term-time.

"We would have liked to have a flight machine but were restricted to the existing space," continues Giddy. "However, the rack machine ticks all the boxes in terms of ease of use and wash quality – it handles all the dishes and trays. We also had a Meiko DV 80.2 GiO pass-through dishwasher installed to handle the glassware and cutlery as a separate process. That combination works really well in a small area and, with the two machines working together, we have noted a definite improvement in quality."




Photo courtesy Canford School



Pictured right, Jane Giddy, Head of Catering Operations at Canford School with the new Meiko M-iQ and DV80.2GiO dishwashers.

Canford has also taken a full service and maintenance contract in line with its policy of having key items of equipment maintained by their respective manufacturers.

Seiyo Compass Group, Tokyo: Better results than expected

 The new staff restaurant at the Hamamatsucho Building in Tokyo owned by NERG Toshiba Co. Ltd serves 2,500 meals a day – and the dishwashing machines work six hours a day, five days a week. "The problem with the previous dishwashing system was that it created a bad working environment," says Mr. Akira Takanashi, Seiyo-Food Compass Group, who planned the new facilities. **"The dishwashing room was so hot and humid that the door was kept open to release the steam which then escaped from the room and reached the dining area, damaging the ceiling."**

Seiyo Food-Compass Group Co. Ltd recommended Meiko as a warewashing partner. Takanashi continues: "I wanted a dishwashing machine with lower exhaust and heat emissions because there was no way of boosting the primary ventilation system in the existing building."

"Utility running costs are critical for a contracted food service company because they're included in the contract, which means the operating costs need to be minimised as much as possible."

Mr. Akira Takanashi, Seiyo-Food Compass Group, planned the new staff restaurant facilities.

"After carefully examining the M-iQ specifications and comparing it to the previous system, I decided on two M-iQ machines plus a water circulation trough and mobile sink."

"Now when we close the door of the dishwashing room the area stays cool and the conditions are still comfortable for the operators. What's more, we've kept the running costs within budget. The steam consumption dropped so radically that I thought the measuring device was broken, but it was fine! It shows that the M-iQ's steam consumption is actually lower than the figure stated in Meiko's technical data."

"I would like to have more variation in conveyor speeds. I understand the importance of DIN, but I believe that variable conveyor speeds give more operating flexibility."



Mr. Watanabe, Seiyo-Food Compass Group Manager, adds: **"The new machines make the whole process easier. Washed dishes come out dry, but not too hot. There's less limescale build-up than you get with other machines and the M-iQ uses far less rinse aid and detergent than the previous system."**

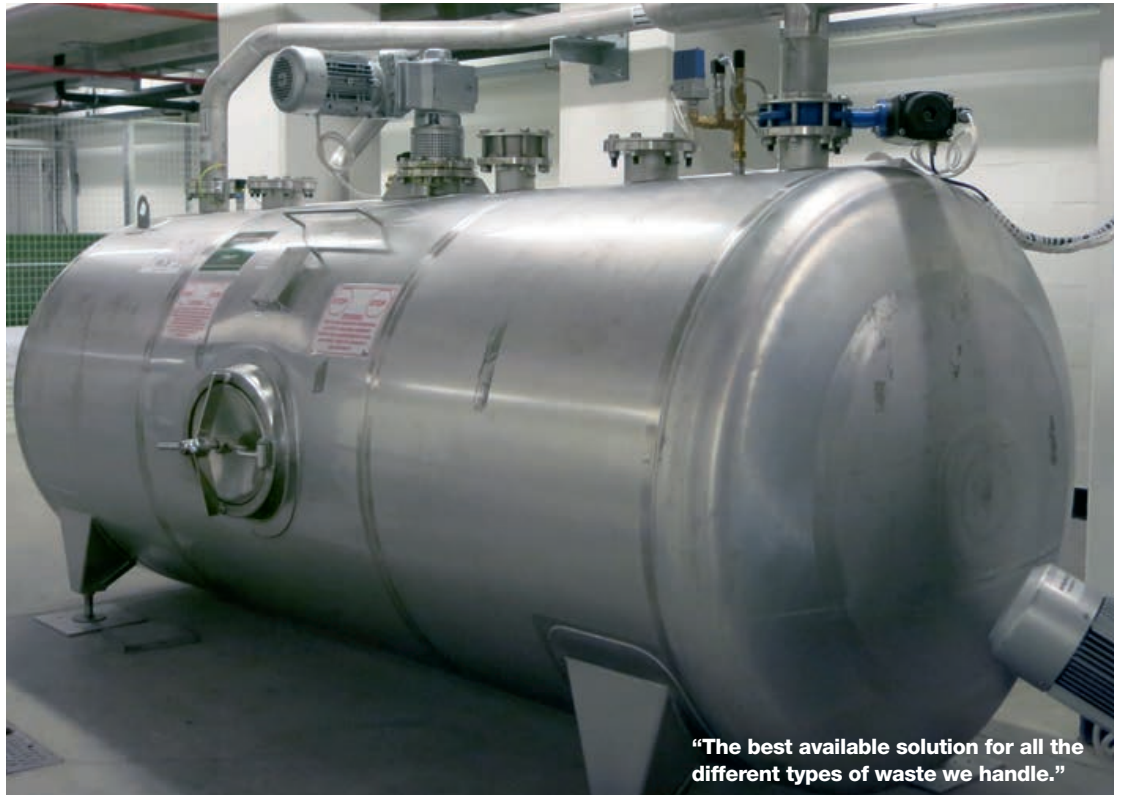
"For a contracted food service company, utility (operation) cost is critical because such cost is included in the contract, which means operational costs need to be minimized as much as possible."

WasteStar food waste disposal system from Meiko handles two tons of waste a day at the European Parliament in Brussels

 The food waste transportation and disposal system at the European Parliament had been out of action for years. But the Brussels-based institution recently replaced it with a new WasteStar system from Meiko. The new system was supplied and installed by Sabemaf s.a., Meiko's Belgian distribution partner.

Producing some 5,000 meals a day, the kitchens at the European Parliament are probably one of the biggest in the Brussels region in terms of capacity. One of the key challenges of preparing and serving so many meals is how to dispose of all the organic waste stemming from the kitchens and the leftovers on people's plates. As well as producing large amounts of normal kitchen waste, the European Parliament also has to deal with an extraordinary quantity of orange skins – around one ton a day.

Disposing of such huge quantities of food waste is no easy matter – and nor is deciding how to retrieve it from the multiple collection points scattered over the various levels of different buildings. The solution requires powerful, superbly designed technologies



"The best available solution for all the different types of waste we handle."

"We were determined to achieve optimum hygiene. We also wanted to cut down the distances to waste collection points, because all those trips back and forth take time."



which are perfectly tailored to the specific environment. That's why Sabemaf installed Meiko's WasteStar food waste disposal systems in the József Antall (JAN) building and a second, shared system for the two adjacent European Parliament buildings Altiero Spinelli (ASP) and Paul-Henri-Spaak (PHS).

Equipment installed in the JAN building

This building contains no central service kitchen, so Sabemaf installed two collection points for food waste in the two restaurant wash-up areas. The waste deposited at these two collection points is then conveyed down to the third basement level (-3) using a suction system, where it is ground up and stored in a 920 litre extraction tank. From there it is transported to a 5,500 litre holding tank. A stirrer in the holding tank keeps the waste in constant motion until it is collected for disposal. In addition to these primary waste channels, the system also extracts the sludge and fats which collect in the grease trap that filters all the waste water from the wash-up areas. This waste, which is also organic, can pass through the same recycling process as the rest of the food waste.

The JAN building required a technical solution which was capable of bridging the distance and the difference in height between the waste holding tank and the connection point for the tanker truck. The waste is first conveyed horizontally for about 40 metres before being raised some 25 metres to reach the tanker. To enable some five tons of waste to be transferred in one go, the Meiko system boosts the suction power of the truck by injecting compressed air into the holding tank.



Equipment installed in the ASP and PHS buildings

This system is far larger and more elaborate, comprising a total of seven waste collection points. One of these has a capacity of 2,200 litres and is specifically designed to grind up the orange skins which are collected from the machines used to prepare fresh orange juice.

Waste collection points were installed in the kitchen, vegetable area and pre-rinse area, as well as in the multiple wash-up areas distributed throughout the ASP building. The most distant collection point is the one located in the wash-area of the PHS building.

The 920 litre extraction tank and the 18,000 litre holding tank are housed in a protected area of the ASP building car park together with additional technical components. The system also includes an extraction system for the oils used in deep frying which enables the operator to pump used oil directly to the 18,000 litre holding tank.

A complex and extensive pipe network

One of the challenges Sabemaf faced was to make as much use as possible of the existing pipelines. Much of the existing pipe system had to be replaced due to problems with leaks and numerous changes to the pipeline layout. This was particularly challenging in the European Parliament buildings because they were not designed to cater to major renovation work and are almost permanently occupied. These complications meant that the project stretched over several months, with some of the work taking place at night.


Customer feedback

Axel Pratte, who is responsible for specialist technical systems at the European Parliament, is delighted with the results: "We're completely satisfied with the installation of the Meiko WasteStar system. The old waste disposal system had been out of action for a number of years, so we needed a new solution. The pipe network suffered from regular blockages and the unpleasant smells in some areas of the building were a big problem for a lot of people who work here. It was clear that things couldn't go on like that!"

Pratte adds: "By replacing our old waste disposal system we were determined to achieve optimum hygiene and make a clear separation between the dirty and clean parts of the system. We also wanted to make life easier for the people who work here by cutting down the distances to waste collection points, because all those trips back and forth take time. Thanks to the grinding system, the new waste disposal system has reduced the volume of waste considerably, which means we can store more. By separating up the waste we're achieving our goals of minimising our impact on the environment and reducing the costs associated with both waste disposal and recycling."

"Meiko's WasteStar system helps us quickly move large quantities of waste away from the point of disposal and makes it easy to reduce their volume. The system also takes up less space than conventional waste containers and eliminates the problem of unpleasant odours. I'm confident we now have the best available solution for all the different types of waste we handle, whether it comes from the kitchens, the wash-up areas, or the orange juicing machines."

Recommended for Warewashing

 Meiko leads the catering industry in warewashing innovation and after sales support.

Featured here is a recent installation at the 570-bed **Royal Glamorgan Hospital** near Llantrisant, Wales.

The dishwashers offered major savings in ventilation and running costs – but it was an extended warranty combined with Meiko's outstanding after sales support which sealed the deal for budget-conscious Catering Manager Stephen Barnard.

In December 2014 the hospital replaced its two flight machines with a steam-heated M-iQ BM54 V6 P6 flight dishwasher plus a DV 80.2 GiO hood type dishwasher with tabling.

The M-iQ handles the crockery and trays. It features an innovative heat recovery system which guides hot air against the direction of the dishwasher, blowing it back from the exit point to the point of entry. That eliminates the need for a heat pump to remove hot air from the machine. Cooled to approximately 22 degrees, the air can now be fed straight back into the wash-up area.

The corner-mounted DV 80.2 GiO handles the glassware and cutlery and features a built-in reverse osmosis module for sparkling hand-polished results. An integrated AirConcept condensate hood cools the working environment by capturing waste heat and feeding this back to pre-heat the incoming cold water, saving approximately 17% in energy costs.

As a result, neither machine required the installation of an overhead exhaust canopy. Removing the need for overhead ventilation led to substantial cost savings. Together with Meiko's redesign of the dishwash area and extended warranty, it proved to be a winning combination for Stephen Barnard.



Parts such as wash arms which need to be removed for manual cleaning on M-iQ machines are colour-coded blue. That makes them easily identifiable whatever the language of the operator and ensures quicker and more reliable cleaning. Essentially the machine cleans itself automatically using water from its tank, so only the sections with large blue plastic markers need to be cleaned manually.

m
MEIKO

Meiko dishwashing machines had already demonstrated their worth at the nearby Princess of Wales Hospital, Bridgend. **"We wanted the same machines across the estate to avoid having to retrain staff to work on different machines."**

Barnard also expressed his enthusiasm for Meiko's extended warranty: "I didn't want to be hit by any big bills later on; they come straight out of my budget," he said. "Extended warranties help us budget costs and provide best value for the Trust."

Heat recovery can remove the need for overhead ventilation, as seen at The Royal Glamorgan Hospital.

An investment for your future

Hospitals and care homes choose Meiko's new generation of M-iQ dishwashers for three main reasons:

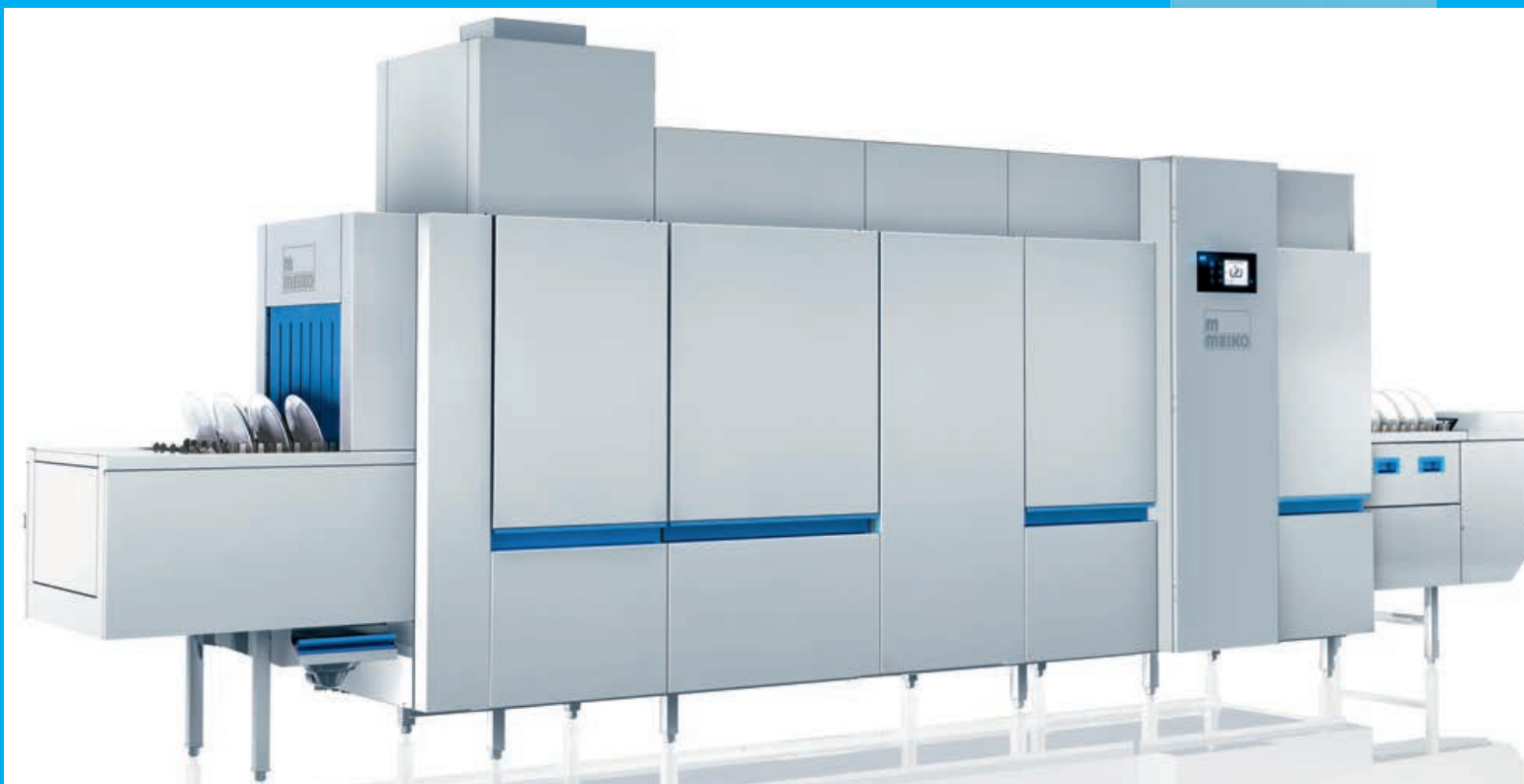
1. The washing results are better than ever! Meiko's GiO reverse osmosis (RO) technology is optionally available on all M-iQ machines. GiO reverse osmosis removes 99% of minerals from the water, including bacteria and viruses, to produce ultra-clean water for rinsing and spotless results for cutlery and crockery, glassware and containers. In addition, a new airflow system means it is no longer always necessary to use a heat pump or overhead ventilation canopy to remove hot air from the machine. Cooled to approximately 22 degrees, the exhaust air from the dishwasher can now be fed directly back into the wash-up area at a comfortable temperature for staff.

2. M-iQ means life for the manager is easier; the control system features modern interfaces (Bluetooth plus the option of GSM/GPRS), making it simple to download essential information such as a history of wash and rinse temperatures, water and chemical consumption. The fully automated self-cleaning cycle ensures hygiene, while the items that require manual cleaning are colour-coded in blue, making staff training easy and intuitive.

3. But the most astounding differences between M-iQ and the other machines on the market are its financial savings and sustainability! M-iQ reduces operating costs by 30 per cent without sacrificing quality. Meiko can prove that the consumption of energy, water and chemicals are


all substantially reduced, offering better performance than any other machine. This, in conjunction with the labour savings and improved efficiency, means the choice of M-iQ is the smart choice for the planet as well as the budget!

The most astounding differences between M-iQ and the other machines on the market are its financial savings and sustainable credentials.



Since it was founded in 1872, the German technical inspections organisation 'TÜV Rheinland' has been a byword for safety, quality and efficiency in regard to people, technology and the environment. Over the decades the testing organisation has evolved into one of the world's leading providers of technical services, specialising in the fields of testing, inspection, certification, consulting and training. The TÜV Rheinland corporate group currently employs some 19,300 people worldwide.

TÜV Rheinland praises Meiko quality

 From industrial services to mobility and consumer goods, the 2,000 people who work at the headquarters of TÜV Rheinland in Cologne devote their time to ensuring the safe and efficient operation of technical systems and products.

Quality is a hallmark of the business both internally and externally. "We see ourselves as a conservative yet modern company which appreciates tradition and shared values," says chef de cuisine Miguel Contreras, who conjures up high-quality culinary experiences at TÜV Rheinland. He only works with certified suppliers who provide high-quality products, and he chooses his partners based on ethics, sustainability and environmental principles, explaining that "it's the philosophy we've chosen, it's what we believe in".



Quality and sustainability are what count in all the restaurant areas – from the meals themselves to the kitchen equipment. Three years ago TÜV Rheinland worked with Meiko to renovate and modernise the wash-up area in the TÜV tower while retaining the same basic layout of the kitchen and dishwashing zones.



"We've seen energy and water savings of more than 30 percent compared to our previous machine. I'm very impressed with Meiko and its products – not just its flight type dishwashers, but also its semi-automatic machines, pot and pan washers, rack conveyors and M-iClean undercounter dishwashers, which are used in all our kitchens."

In fact TÜV Rheinland was so impressed that it decided to install Meiko's new M-iQ generation of dishwasher in the new kitchen of the Seehaus bistro, complete with the optional extra of GreenEye technology.

GreenEye gives the green light to even more efficiency in energy, detergent and water use. This intelligent technology actively detect gaps between rows of washware on the conveyor belt. It responds by only activating the wash and rinse function for specific sections of the belt where dishware has been detected.

"GreenEye is definitely worth having," enthuses Contreras. "During the busiest period at lunchtime we use the full width of the machine feed belt. But during the first and last 30 minutes of the food counter opening times we switch on GreenEye technology because we have much smaller amounts of dishware going through the machine. It doesn't sound long, but it's worth having because we only have to load one belt during those periods, **so we ultimately reduce our consumption of energy, water and detergent by 50 percent for an hour each day.**"

Working out how to move the dishware around the Seehaus building was complicated, because the kitchen is in the basement and the restaurant is on the ground floor. To transport everything up and down "we worked with Meiko again to design the conveyor technology, because this time we had to take into account important safety issues due to the vertical and horizontal layout of the system," Contreras explains.

He adds: "Meiko's M-iQ dishwashing machines run like a reliable, beautifully engineered car. And we've **also taken a giant leap forward in terms of reducing background noise.** The machines are really very quiet, and that has a positive impact on the whole wash-up area and working atmosphere. I'm more than happy to sing Meiko's praises for the consulting and planning work, the dishwashing technology itself and the top-class service we get from the Meiko dealer in Leverkusen – they get top marks from me!"



Chef de Cuisine Miguel Contreras:
"I'm more than happy to sing Meiko's praises for the consulting and planning work, the dishwashing technology itself and the top-class service."

The executive chef runs two kitchens and two staff restaurants on a day-to-day basis, supported by a crew of 25 people who serve up to 1,500 customers a day. The TÜV Rheinland site has steadily expanded over the past few years, with various buildings appearing alongside the TÜV tower, which has the main staff canteen on its ground floor. New additions include the Seehaus office building which features an additional kitchen, bistro restaurant and terrace. The range of food on offer is as varied as the services provided by TÜV Rheinland itself. At the main canteen, guests can choose between daily specials, wok dishes, bistro meals, stews, pizzas and a higher-priced special dish such as sea bream or steak.

The restaurant also includes a salad bar and dessert bar as well as a baked potato counter which has been popular at TÜV Rheinland for years. The Seehaus restaurant serves a smaller selection of dishes to some 500 customers a day, with choices including a daily special, a pasta counter, chargrill dishes, salads and desserts.

"Meiko was the perfect partner to help us optimise all the processes," says Contreras, praising the company's flexibility when it came to fulfilling special requirements. In this case these included a lowered feed line to allow additional personnel to be deployed at the feed point of the M-iQ dishwashing machine, as well as an additional conveyor hatch to allow trolleys to be shifted into the wash-up area in the event of stoppages.

Another new feature planned by Meiko is the conveyor technology at the tray return point in the canteen which includes a napkin chute. Napkins no longer reach the wash-up area because customers simply throw them into the chute at the tray return point. "When you're dealing with some 1,500 customers, that makes life that little bit easier for the wash-up team," says Contreras. Time is money – and that's why the TÜV chef praises the "exceptionally positive results" of the M-iQ dishwashing machines when it comes to saving resources.

The wash-up area at the Brüderkrankenhaus Sankt Josef Hospital in Paderborn

Better Indoor Air Quality and lower spending on Ventilation



Michael Mayer, Meiko Regional Sales Manager, Germany – Austria – Switzerland; Werner Sowa Catering Manager and Markus Jordan Chief Engineer/Technical Director.



Control panel: It takes only a few seconds via the intuitive wash control system to update the operating logs required by hygieneregulations such as DIN 10510.

 Werner Sowa, Head of Catering Operations at the Brüderkrankenhaus in Paderborn, explains how the hospital achieved major improvements by renovating the wash-up area. "We're realigning ourselves and ensuring we are well-equipped to provide key catering services. These improvements have been earmarked for a maximum of six institutions in the Paderborn region." The Paderborn kitchen produces 700 meals a day plus 120 bulk meal packs for external catering.

Even before getting the green light to completely renovate the production and distribution areas, Sowa was determined to tackle the wash-up area first. "We want top-class hygiene and a more economical dishwashing process – and at the same time we want to achieve optimum indoor air quality with tangible improvements for the people who work here," says Sowa. That's why the kitchen manager also took into account the effect of the dishwashing

machines on kitchen ventilation. "Our market analysis showed us that the figures for exhaust air and the effects on room temperature caused by dishwashing machines vary enormously from one supplier to the next."

By selecting a M-iQ machine it became clear that the hospital could save thousands of euros on ventilation technology while significantly reducing energy use, leading to improved indoor air quality in the wash-up area.


"Our new dishwashing technology no longer requires a connection to an HVAC system," enthuses Sowa. The hospital chose a M-iQ from Meiko, including the 'M-iQ AirConcept' module which specifically enhances ventilation and indoor air quality. The wash-up area has seen the exhaust air from dishwashing equipment drop from a previous figure of 1,800 m³ an hour to just 170 m³. And the

temperature of the air emitted by the machine is now just 22°C instead of 35°C.

Werner Sowa admits he's pleased: "We've optimised every aspect of the wash-up area. We've seen tangible improvements in the indoor air quality, especially on hot days when the temperature outside reaches 30°C. Even then we maintain an indoor air temperature of about 26°C without any additional cooling." And there's still plenty in store for the catering department in the weeks and months ahead, with the next task being to optimise the production and distribution areas.

Markus Jordan, Chief Engineer/ Technical Director adds the additional purchase of a Meiko WasteStar vacuum food waste disposal system coupled with the M-iQ as a stroke of luck: "This has effectively solved the problem of wet waste disposal."

City of London School for Boys

 Outside flows the River Thames and to the north is the dome of St Paul's Cathedral: an altogether inspiring environment in which to study and grow up.

Situated in the 'Square Mile', the City of London School caters for about 900 boys aged 10 to 18 and occupies a surprisingly large site, with a courtyard and upper playground providing light, fresh air and plenty of room for boys to practise sports, to run and to play.

There are some 100 teaching staff and another 100 in supporting roles. Lunchtime sees around 750 meals served, but the kitchen also caters for hospitality and external functions.

During a summer break, the wash-up area was redesigned to provide additional space for a new sorting station and a larger capacity dishwasher to cope with increased numbers.

"Meiko were one of three suppliers we called in to tender," explains Graham Jefferys, Senior Building Surveyor for the City of London school.

"We knew the Meiko name for good reasons. We were very keen to see running cost reductions and an improvement in quality, but the key issue from our point of view was aftercare; if it all goes wrong, what happens? Both I and the school staff came to the same conclusion and we chose Meiko mainly because of the aftercare they are able to provide."



The school is now the proud owner of an M-iQ rack transport dishwasher. There is no need for overhead extraction because the M-iQ recycles energy from inside and around the dishwasher using its built-in heat pump. This cut the cost of installation.

A separate FV 40.2 G GiO glasswasher was also installed, chiefly to handle the more limited volume of glassware from functions and events.

Catering Manager Rebecca Senior of Holroyd Howe who manages the school's catering contract comments: "Meiko has delivered everything they said they would do. It has been brilliant; great installation, engineers and training!"

"Meiko's Business Development Manager Mark Sharland provided full training for the staff. He has been excellent throughout; what he says,



he does. Queries get an instant response.

"That said, the price of the new system was also right, without a doubt.

"The cleaning of the machine is much improved and quicker. It is much easier because all the parts that need cleaning are clearly indicated in blue.

"We're also making substantial savings on chemicals. We used to use 2 x 20 litre containers a week, now it's down to just 1 x 20 litre container a week.

"The whole process was excellent, Meiko handled it all, from the initial quote to installation, training, the spot-check after it had been running for a week... They are on the end of the phone if I need them; I couldn't ask for better!"

Photo left: Preparing for lunch service, dishwash operator Aloysius showing off the M-iQ's interior and the blue fittings that indicate which parts need to be removed for cleaning.




The impressive campus of the University of Minnesota.
Photo courtesy of Patrick O'Leary.

University of Minnesota: Savings add up

**Nelson Hard,
Contract Manager
for the sixth-largest
campus in the US:**
"I like that M-iQ
saves water and
energy. Any machine
that needs water to
fully function needs
to be using it
conservatively."



 The University of Minnesota, Twin Cities, is a public research university located in Minneapolis and St. Paul, Minnesota. It is the oldest and largest campus within the University of Minnesota system and has the sixth-largest main campus student body in the United States, with 51,853 students in the 2012–2013 year.

Across the campus there are over a dozen dishwashing machines. In 2013, the University installed their first M-iQ flight type conveyor, predicted to save almost \$4,000 a year compared to the leading competitor of similar size. Savings are approximate and based on average usage/capacity, during a 266 day school year.

Nelson Hard – Contract Manager: "Energy savings is a campus-wide focus for the University. When it comes time to replace machines, efficiency is our main goal. Meiko has really impressed me. We put a bid out to Meiko and one other manufacturer and **after comparing the energy savings – our engineers determined the Meiko machine would payback its price differential in about a year;** not counting the continued savings of detergent, water and sewage which would make the savings add up even faster.

"We installed the M-iQ flight type conveyor in our 17th Avenue residence hall. I like the machine's

adjustable belt speeds and especially the manual cleaning parts that are clearly marked in blue. Since the curtains can only be hung in the correct place, the staff can't mistakenly put them back in the wrong spot, which happens often on our non-Meiko machines.

"I like that M-iQ saves water and energy, which is great from a budgetary standpoint. But, I **love the environmental savings.** Any machine that needs water to fully function needs to be using it conservatively."



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**MEIKO Maschinenbau
GmbH & Co. KG**, Englerstraße 3,
77652 Offenburg, Germany

Editor:

Mike Sawyer, Louvet Turner Coombe

Person responsible under

German Press Law: Regine Oehler

Design/Layout: Klass Design UG

Printed by: Dinner-Druck GmbH,
Schlehenweg 6, 77963 Schwanau



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