Thermaco® BIG DIPpER®

BIG DIPpER® Case Histories

Fast Food Restaurants & Cafeterias

KFC Meets Environmental Demands

Management Specialists, Inc. manages eleven KFC stores in northeastern Pennsylvania. A major problem developed at their Berwick location, which had no grease pretreatment device. At that time, the restaurant discharged an average of 500 ppm of FOG (fats, oils and grease) into the sewer, well above the 200 ppm limit set by the city. Punitive action by the City of Berwick loomed on the horizon, and it became apparent that something needed to be done.

Rich Costill, maintenance manager for Management Specialists, says that he became familiar with Big Dipper at a trade show where he procured literature about the product line. His alternative to installing a Big Dipper unit was to rip out his parking lot and install large, concrete trap. This was an expensive option to using an automatic grease interceptor directly at the source inside the kitchen.

When Management Specialists presented their plans to install a Big Dipper to the Berwick sewer officials, they dropped their threat of punitive action and authorized a monthly sampling of kitchen effluent. After installation of a Big Dipper W-200-IS, samplings demonstrated that the FOG content dropped from an average of 500 ppm to just 75 ppm. In fact, there have been times when the samplings have been as low as 7 ppm.

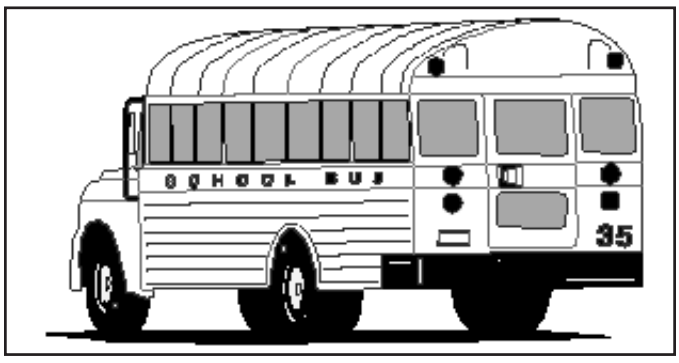
As a result, Management Specialists installed Big Dipper units in each of their other ten KFC stores. At the Buckhorn Mall in Bloomsberg, PA, the Big Dipper is used as an example for other restaurants. The KFC there was the only restaurant in compliance with the Berwick pretreatment program. These sewer officials are extremely satisfied with the Big Dipper and its ability to remove effluent grease.

According to Costill, one of the best aspects of a Big Dipper system is its reliability. Some of his units have been in operation for nine years and have never had a problem. There have been substantial money savings, as well. The high maintenance cost of pump truck services as well as sewer line jetting have been avoided by using Big Dipper systems.

School System Makes The Grade

What does one do when the municipal wastewater authority places a mandate on all establishments involved in the preparation, processing and serving of food to install some form of grease interception within 90 days or face sewer surcharges or fines? This dilemma faced the Wilson County (NC) School System and its ten school cafeterias.

The City of Wilson decided in mid-1996 that it was time to put a curb on the amount of effluent grease and oils (FOG) emptied into its sewer lines. Under the new ordinance, all enterprises involved in preparation of food were required to install some sort of grease interception device. According to Mary Vann Sitton, Director of Child Nutrition Services for the school system, there was one simple route to take.



Through an association with Andrew Etheridge, at that time a local restaurant owner and now a Big Dipper sales affiliate, Mrs. Sitton was introduced to the Big Dipper® line of automatic grease & oils removal systems. Andrew had been working in an advisory capacity to the Wilson Wastewater Management Division during this period. After some further research, Mary Vann and her colleagues decided to install Big Dipper W-200-IS point source grease removal systems into each of the ten cafeterias in the school system.

In their first year of operation, Sitton says that the school system and the wastewater division could not be more pleased with the results. An inspector from the city monitors effluent flows from the cafeterias each month with impressive results. The samplings are most always well below the 200 ppm limit set by the sewer authority. Mrs. Sitton is also impressed with the ease of installation, maintenance and service provided by the Big Dipper.

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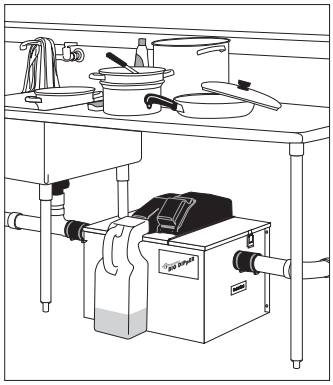
Big Dipper® a "Gyro" for New Zealand Sub Shop

In 2003, Mike Lee and Ryan Dawkins brought Zero's Subs and its famous "Zero's Grinder" to New Zealand. They secured the rights for New Zealand and Australia and opened their first store in October 2003 in North Shore City, followed by another in Auckland with a third about to open in Henderson.

When the first Zero's opened, it was located in an existing building. Before they could open, the Local Authority stated that they needed to install a grease trap as required by the New Zealand Building Code. As this restaurant was retrofitted into an existing building, there was no pretreatment device for kitchen grease in place. They had never experienced any grease problems as they had only just opened the Zero's store. The owners had several options available to meet the code.



Big Dipper W-200-IS

The fact that Zero's wanted to open in an existing building but also desired flexibility of where they could open for future stores narrowed their options to point-source units. They looked at both Big Dippers and a passive system that utilized enzymes for grease breakdown.

On the recommendation of their installing plumbers, (who now will only use Big Dippers due to previous call backs for the enzyme traps they used to install) they put a Big Dipper in their first store. They now have Big Dippers as standard specifications for all future stores.

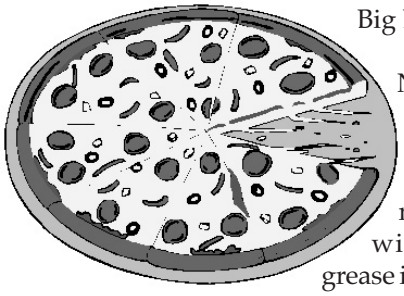
They opted for Big Dipper systems for their kitchens as it gave them flexibility of installation, did not require regular pump outs, did not involve the use of chemicals or enzymes & associated costs incurred by other systems and it blended in with their other kitchen equipment. After calculating the costs of other alternatives, they found that the Big Dipper worked out as the most cost effective.

Zero's found that the Local Authorities had no hesitation in approving the Big Dipper due to previous installations throughout the city and country. These officials are also satisfied with the Big Dippers as they are a proven grease removal system, are easy to inspect, do not depend on staff getting the enzyme mixture right or the owners not buying enzymes due to high costs.

Mary's Pizza Solves Space Constraints

Mary's Pizza Shack, headquartered in Boyes Hot Springs, CA, was presented with a problem ten years ago when it opened its store in Napa Valley area. Not only did they face compliance standards and high installation costs for grease interceptors, but had major space constraints as well.

Vince Albano, Operations Manager for Mary's Pizza Shack, first became familiar with Big Dipper® systems in 1990. They were finalizing plans for their store in Sonoma and faced tough pretreatment compliance standards. Vince says that at that time "the Napa Sanitation Department advised us to look at the Big Dipper system."



Not only did they face tough pretreatment standards and high installation & maintenance costs associated with conventional grease interceptors, but faced space restrictions. There simply was not enough room to install a large, outdoor concrete grease trap. Vince also wanted a low maintenance unit. So, Mary's Pizza turned to Big Dipper. The ease of installation, compact footprint and immediate results delighted those involved. The Sonoma installation was the first of many for Mary's Pizza, eventually installing Big Dippers into its remaining six stores around Northern California.

In the Sonoma store, the Sanitation Department required that the Big Dipper be independently tested. In fact, this unit was tested three times by three different agencies in one year with tests ranging from polar and nonpolar grease, suspended solids and dissolved solids. The results were impressive, passing all tests with flying colors.

In terms of avoided maintenance costs by using Big Dipper systems, Vince estimates that he saves over $1,000 per store per year. He is impressed by the ease of installation, low maintenance required and operation reliability. He has become a big advocate of the Big Dipper line.

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Airport Restaurants Flying High With Big Dipper

Airports are by nature a whirlwind of activity. People coming and going, eating and running, waiting around. To accommodate these wayward travelers, airport authorities are turning more and more to commercial & retail means to keep people occupied. One of the most simple ways of occupying travelers is to provide a wide assortment of restaurants.

The Pittsburgh (PA) International Airport sets a good example for this trend. A domestic and international hub for a leading US air carrier, the airport handles over 20.5 million passengers a year making it the 15th busiest airport in the nation in terms of operations. It also features numerous shops and other retail outlets to keep travelers busy.

Feeding these passengers are 37 restaurants dotting the wings of the airport terminal. With so many restaurants in a relatively compact space, problems associated with grease were inevitable.

"We started experiencing grease-related problems almost one year after opening day in 1992," states Ron Chalovich, the plumbing & piping supervisor for the Alleghany County Airport Authority. Ron and his crew maintain the plumbing that services the almost 15,000 acres of the airport. His men are also responsible for servicing the grease traps handling the effluent for each restaurant. "Over the years, we had to replace lengths of pipe, clean up spills and jet out lines & manholes. These problems were a direct result of grease." As these problems intensified, Ron actively sought a solution.

"For a while, we tried dumping bacteria down the drain and into the grease traps. This had little if no effect. Around 1999, I ran across an advertisement in an industry magazine about automatic traps. I contacted the factory, and we installed one into the kitchen of one of our restaurants." This took place in early 2000. The results were impressive. Since then, nine more units have been installed, with more in the future.

"I like the Big Dipper because it cleans itself out. If there is a passive trap in a restaurant, people either don't want to clean it out or they don't know that they have to clean them out. It used to tie up two of my plumbers an hour to clean out each trap every few weeks. With the Big Dipper, the restaurants now can take care of the traps because each unit takes care of itself. All the restaurants have to do is to take the collected grease down to a central area, where the rendering company takes it away. This has enabled my crew to focus on the more important things at the airport."

Big Dipper Rectifies Enzyme Mess

Pettitt's is a supermarket chain with 10 stores located in Southeast Ireland. Five years ago, the Big Dipper sales affiliate in Ireland was asked to attend a crisis meeting at the store in Athy, County Kildare. He was first shown a groove traversing the car park to meet the main street. The groove was approximately 200 feet in length. It was caused by the replacement of the 6-inch discharge pipe from the store to the town sewer. This 6-inch pipe had to be completely replaced due to grease-induced arteriosclerosis.

To make matters worse, this store was located below the level of the street sewer, which meant they also had a sewage lift station. Consequently, they had continual problems with the lift station pump. This store had two conventional below ground grease interceptors that were being treated with enzyme dosing. The supermarket management informed their various enzyme suppliers of their continual problems with the lift station, unaware of their growing problem in the 6-inch discharge pipe.

The enzyme suppliers suggested increasing the dosage. This continued until they discovered the problem with the 6-inch discharge pipe, despite the fact that at this stage they were spending $360 per week on enzyme dosing. When the pipe was replaced and the lift station overhauled they decided that the grease problem was to be eliminated.

Upon inspection, the main grease generator was pinpointed as the combi-steam oven. This oven cooks approximately 1,800 chickens per week. A Big Dipper model W-350-IS (with one extra wheel) was installed under the combi-steam oven. Five years on, the lift station does not have any problems with grease. A recent closed circuit television survey of the 6-inch discharge pipe revealed that the atheriosclerosis has been eliminated. In this particular store, the Big Dipper removes on average 15.6 US gallons/115 pounds of grease per day. Big Dipper is now the automatic choice of grease interceptor in all Pettitt's Stores.

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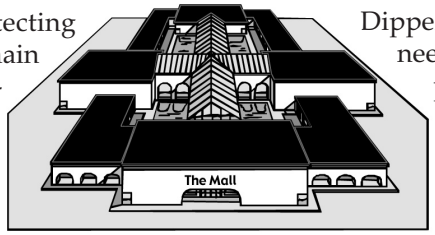
Shopping Malls & Resorts

Shopping Mall Solves Engineering Quandary

Newport On The Levee is an upscale shopping plaza in Newport, KY on the banks of the Ohio River across from Cincinnati, OH. With over 25 retailers & entertainment establishments and nine full service restaurants (with more on the way), the Mall is expected to accommodate between 5 and 6 million visitors a year.

When the mall entered its final design stages in 2000, an interesting situation for engineers arose. Situated directly beside an earthen levee protecting Newport from Ohio River floods, the main structure of the mall rests atop a four-level parking garage. As specified, two 1,000 gallon grease traps originally were meant to service the kitchen effluent from the nine foodservice establishments.



However, the room needed to accommodate a pump truck for servicing these large passive traps was simply not available due to the low headroom of the ceiling in the garage. The bulky pump trucks simply would not fit into the garage. The Designers were also uncomfortable with the long runs necessary to get from the retail area to an exterior location for a grease trap.

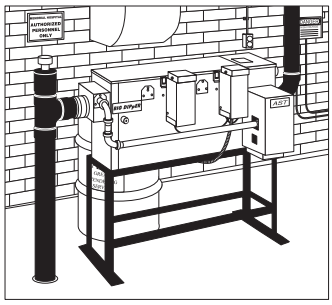
A solution to this problem was found by installing two Big Dipper W-1000-AST Automatic Grease & Oils Removal Systems. The units handle 100 GPM flows each and are located on the top parking level directly below the retail area, pretreating kitchen effluent from the mall's restaurants. The self-cleaning function of the Big Dipper units assures that no pump trucks are needed for service. Grease & oils transfer pumps transport the grease & oils from the Big Dipper to collection barrels located in service areas for easy removal by local rendering companies.

Installed in the middle of 2001, each unit removes about 15 gallons of grease each week while requiring only 15 minutes of attention. The Big Dippers take up only one parking space apiece, so very little room was required for installation. A metal safety enclosure covers each unit, helping keep the ambient air around the Big Dipper warm in the cold, Midwest winters.

Resort Relishes Big Dipper

The Westin Salishan Lodge & Golf Resort is a 205 room resort in Gleneden Beach, Oregon. At peak season, almost 1,000 meals are prepared each day. Approximately two years ago, the lodge underwent extensive renovations. One of the main targets was the kitchen, which was being serviced by two 30 GPM passive grease traps.

According to Chief Engineer Bill Welsh, "We had to frequently call our rooter to blast the way through our lines. We also had to find the low man to get down and clean the traps out each week," says Welsh. Other problems included foul air getting into the ventilation system. "When we opened the traps to clean them out, the smell would move next door to our air handlers. In no time, the entire lodge reeked of rancid grease."



Big Dipper W-750-AST

Though the Lodge is in a beautiful location aesthetically, there is one minor setback: the local wastewater treatment plant lay across the street. "After we installed the passive traps, the plant began getting grease balls in their works. Every time we jetted out our lines, they received the grease plugs," states Welsh. "They knew exactly where it was coming from." The sewer authority began to prod the resort to do something.

Finally, the situation came to a head. "When the resort was sold to the present owners in 1996, one of the stipulations was that we do something about our grease traps. We simply did not have enough room outside to install a large trap, and we wanted to get away from small passive traps." A local plumber steered Welsh towards Big Dippers. "He thought they would provide a solution to the problems we were having. We did some research, removed the two 30 GPM passive traps and installed twin W-750-AST removal systems. Each unit handles a 75 GPM flow, so we plumbed everything in the kitchen to the interceptors."

"We installed the Big Dippers in the middle of 1996. We have cut down on maintenance time considerably. We used dual systems so we could redirect the kitchen flow from one unit to the other while performing routine maintenance. Nor do we have to find the low man to go down there to take care of the systems. On a heavy day, the systems remove about five gallons of grease. The sewer authority is happy, as well. They no longer get grease plugs from our line. What's more, I'm the chief engineer and could find anybody to take care of the Big Dippers. However, I consider them 'my babies.' I like check them over myself."

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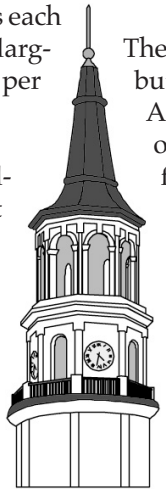
Universities & Hospitals

Brown University No Longer Blue About Grease

Brown University in Providence, Rhode Island is an Ivy League institution with an enrollment of almost 8,000 graduate & undergraduate students. In order to feed these hungry students, there are five main eating establishments producing a prodigious number of meals each day. During the school year the Sharpe Refectory (largest of the dining halls) produces up to 5,500 meals per day alone.



Along with the many meals served daily, a large volume of grease is also generated. This by-product caused significant problems in the early 1990's. The University originally had large, passive traps handling kitchen effluent. These required a great deal of maintenance, and were simply not doing the job. The facilities department was having to jet out the sewer lines frequently, trying to avoid backups. In addition, the Narragansett Bay Commission (a pretreatment authority based in Providence) began requiring all facilities with commercial kitchen operations to come into compliance with its newly enacted pretreatment ordinance. A solution was needed.

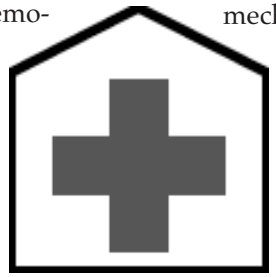
One specification that the University wanted to make sure was included in whatever solution was available was to have an internal solids strainer to handle the large amounts of solids going down the drains. The solution that best met the requirements of the University was found in the Big Dipper Automatic Grease & Oils Removal Systems.

The Sharpe Refectory also acts as a central meal distribution center to several other dining sites on campus. As such, it generates a heavy quantity of grease and oils. Around 1993, a total of 10 units ranging in size from 20 GPM point source units to 75 GPM central grease removal units were installed in the Refectory. Smaller point source units were installed elsewhere around the campus at the other dining establishments. In all, a total of 18 Big Dippers were installed on campus.

According to Joseph Barboza, Facilities Manager for Brown University, the units have worked quite well. "We have not had to jet out our sewer lines associated with the kitchens once since we installed the units. We appreciate the flexibility of the Big Dippers - we can maneuver the units around when we modify or expand our kitchen layouts. We're very happy with the product." Maintenance requirements have been reduced, and the school has also stayed consistently in compliance with the NBC.

Hospital Remedies Grease Affliction

A hospital waiting area can sometimes be an intimidating place. It should be as non-threatening a place as possible. But what happens when the placid solitude of the lobby is interrupted by teams of maintenance employees cleaning and sanitizing the floor after a wastewater backup? This was a scene at Lawrence & Memorial Hospital, a modern 250-bed facility in New London, CT. The hospital had experienced backups in its mechanical room on average of twice a month for many years. When one of these backups spilled over into the adjacent main lobby of the facility, the maintenance department knew it was time to act.



According to Bill Davis, Maintenance Manager for the hospital, the cause of these frequent backups was greasy effluent from the 1,500 meals prepared each day by the kitchen. "The kitchen was being serviced by a 40 gallon per minute manual trap which was cleaned once every shift. This unit was simply too small and inefficient to handle the kitchen flows no matter how well we took care of it. The kitchen also introduced enzymes into the pipes to try and help alleviate the problem."

None of these preventative measures had any effect on the constant backups plaguing the hospital's collection system. "I estimate we were spending in the neighborhood of $50,000 a year dealing with these problems. This included cleaning and sanitizing the area around the mechanical room, servicing our trap, and jetting out the sewer lines. We had to jet the lines every month at a cost of up to $2,600. In some cases, we had to replace the lines. It also took our staff about eight to ten hours of work to clean and sanitize the area every time we had a flood." A solution was needed.

In June of 1998, a Big Dipper W-1000-AST was installed at the hospital. As part of the project, the fixtures that Davis observed to be the major contributors of greasy effluent were re-plumbed to the Big Dipper system. "We haven't had any backups related to kitchen grease since we installed the unit. We're pulling out about 25 gallons of grease per week. We're now in complete control of the grease coming from the kitchens, removing it before it has a chance to get into our sewer lines."

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Hospitals & Food Manufacturing

Hospital Resolves Grease Malady

Mission St. Joseph's Health System is a sprawling complex of buildings located in the mountains of Asheville, NC. Consisting of twin facilities located across the street from one another, there are over 850 beds for patients. Over 7,000 meals per day are prepared between the two facilities.

To avoid problems caused by greasy kitchen effluent, large passive traps were installed. According to Lloyd Garren, Facility Plumbing Supervisor, these simply did not work. "The facility suffered many blockages and backups as a result of grease. We spent a great deal of time cleaning out our passive traps, probably four to five hours at a time. It was a bad situation with the odors and the mess." Morgan McWhirter, Facility Services Supervisor, estimates that they had to jet out their lines once every two to three weeks.

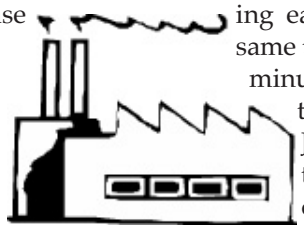
An attempt was made to solve the situation using enzymes, also to no avail. According to McWhirter, "Enzymes & chemicals were not a good option. We're a constant flow system. The enzymes never had a chance to grow and do their job. The sewer department was skeptical as well; these measures simply took the grease out of our operation and sent them down the sewer line." A solution was needed. In July of 2000, a Big Dipper W-1000-AST was installed at the Mission Memorial Hospital campus, replacing the passive traps.

"In the beginning, I was the biggest critic of the Big Dipper. I didn't think it would work. I was wrong," says Garren. The system removes up to 30 gallons of grease every two weeks. They have not had to jet out their lines since installation, and maintenance has decreased dramatically. "We spend maybe an hour a week performing routine maintenance on the units." In October 2000, another W-1000-AST was installed in the St. Joseph's Hospital campus across the street.

It was also a cost effective solution as well. Says McWhirter, "I was spending approximately $16,000 to $18,000 a year on chemicals alone, let alone the costs associated with rooting out our sewer lines. Both Big Dipper systems will have paid for themselves in a year."

California Candy Maker Reduces Grease and Oils Discharge

American Licorice Co. of Union City, CA has been in operation since 1914. Around 1988, the local sewer authority informed the factory that it was out of compliance with the limits imposed by its pretreatment program. The cause of this situation: the licorice pan wash area. Long strands of licorice are laid out upon greased pans and run through an oven. At the end of this assembly, the licorice is removed and the pans are sent through a pan washer. The residual grease and oils were released into the sewer line.



American Licorice sought a solution in order to avoid fines from the sewer department for noncompliance. Maintenance-intensive passive traps had been used previously with little effect. According to Jose Loza, Maintenance Supervisor and a 30-year veteran, they became familiar with Big Dipper Automatic Grease & Oil Removal Units in 1989. "We wanted to make sure that the oils were removed from the pan washer effluent before it reached the sewer. The lines were inspected each week."

The solution was to install two T-unit Big Dippers on their automated conveyor washing lines in the middle of 1989. After installation and sampling, the Big Dipper units lowered the grease and oil reading from 650 ppm to around 175 ppm, well below the sewer district's 300 ppm limit. These early generation T-units (which utilized a large, curved blade to remove grease & oils) operated flawlessly for ten years before an upgrade to three newer generation W-200-IS wheeled units in 1999.

"The units operate up to seventeen hours a day, servicing each of our pan washers. They run at the same time as the washers. We spend about twenty minutes each week on maintenance, much less than we could expect with a manual trap." Jose estimates that each unit removes around three gallons of grease every two to three days.

"The sewer people check our lines every month. We haven't had any complaints from our quality control department, and they are the ones who hear bad news from the sewer people."

American Licorice Co. has been serviced by Big Dipper equipment for almost fifteen years, and Jose Loza expects efficient grease removal to continue for the next fifteen. "We are happy with our Big Dipper systems, and the sewer authority is happy with us."

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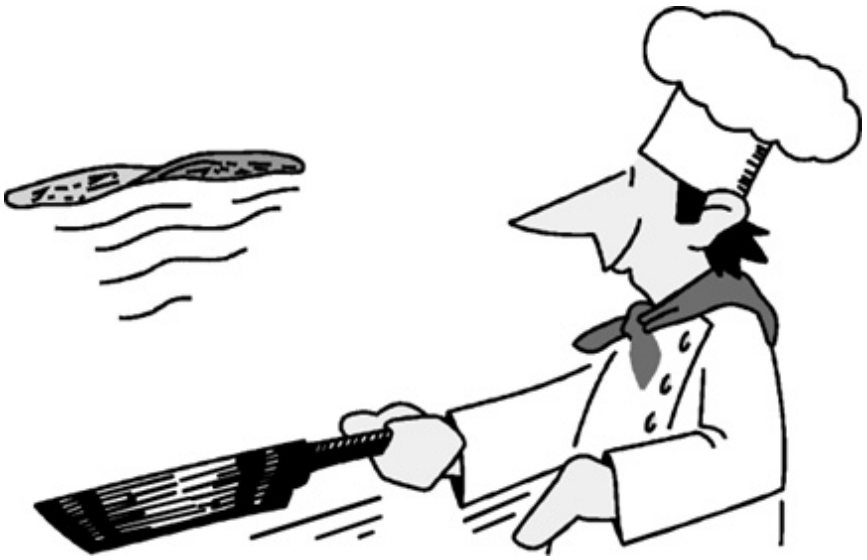
Culinary School Trims The Fat

Johnson & Wales University in Providence, Rhode Island is one of the premier culinary arts institutions in the United States. Sporting an enrollment over 4,750 aspiring chefs, the majority of the classrooms on its Providence campus are fully functioning kitchens. Johnson & Wales also maintains several off campus "Practicum Facilities" where students receive hands-on training in the arena of hotel & restaurant management.

Like Brown University, the Narragansett Bay Commission began to prod Johnson & Wales University in early 1992 to do something about its kitchen effluent. The school and its nearly 4,000 meals generated there per day was a concern of the NBC pretreatment program. A lift station adjacent to the University's Harborside Campus faced many maintenance problems caused by grease and oils. The Narragansett Bay Commission's maintenance department also had to jet out the sewer lines coming out of the University on a frequent basis. They occasionally had to do this as often as once a week.

Each classroom on campus is a fully functioning kitchen, used up to three times a day for instruction. Not only do the faculty of Johnson & Wales train students in the culinary arts, but they also train students how to run an entire restaurant. This instruction includes grease trap maintenance practices. Previous to installing Big Dipper systems, each kitchen was serviced by a manual, passive trap. However, even the most eager of aspiring chefs loathed getting down on their hands and knees to scoop the unappealing grease and oils out of there. Consequently, the traps were neglected and problems developed. An alternative was definitely needed.

Around 1992, Regulatory Administrator Ken Harvey became acquainted with Big Dipper. "We were looking for an alternative that would last a long time, was simple to use, and had flexibility. The simplicity of operation was a key factor; our kitchens are used for instruction, sprayed down and cleaned up, and the next class begins. There is not a lot of time for maintenance. Flexibility was also important. We rearrange our kitchens on a frequent basis, and we needed something that could be moved and/or altered to fit into our kitchens. The Big Dipper seemed the best alternative."



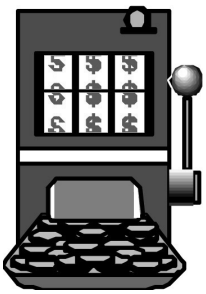
Between 1992 and 1993, over forty Big Dippers were installed into the classrooms of Johnson & Wales. Each was plumbed to the pot washing stations. True to their expectations, maintenance times have been slashed. At the beginning of each semester, the engineering department trains the chef/teacher how to maintain the Big Dipper units in the kitchens. In turn, each chef/teacher trains their students on maintenance. The flexibility factor has also been achieved; the units can be field-modified to operate either on rightward or leftward draining sink, and can be moved around the kitchen as it is upgraded.

Most importantly, the school has consistently been in compliance in the eight years since installation of Big Dippers. The City of Providence has not experienced any problems with the lift station adjacent to the campus. Three months after installations began, the grease balls disappeared from the station. With the automatic action of Big Dippers, the world's future chefs can spend more time creating culinary masterpieces rather than spending time scooping out grease traps.

Casino Mops Up Grease Problem

Argosy Casino & Hotel, located in Lawrenceburg, IN, can expect to accommodate over 7 million visitors while serving over 1 million meals during an average year.

The casino currently has approximately 2,200 employees, none busier than John Bailey. As the first shift Maintenance Supervisor, John oversees six employees. Their expertise ranges from plumbing to mechanical to electrical work. As such, they don't have a whole lot of time to worry about maintaining grease traps.



Unfortunately, the facility experienced backups in the kitchen from the outset. "When we moved to our new location, we had a 20-gallon per minute passive trap handling the entire kitchen flow. This unit was simply inadequate to service our kitchen needs. To address this issue, we installed a 120-gallon per minute passive grease trap. This interceptor did not work for us, either. We were pumping this trap on average twice a month at a cost of $500 apiece. We were also having to jet out our kitchen lines every quarter at $1,500 per visit. A lot of time was spent caring for the passive trap, but despite all of our efforts we were still having backups one right after the other."

After two years of frequent sewer line jetting and pumping of the passive grease traps, the maintenance & engineering staff knew it was time to act.

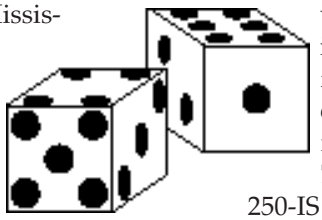
"We had had enough of dealing with the manual passive type grease traps, so we wanted an alternative. The casino facility operations director had become familiar with Big Dipper automatic grease and oils removal systems through an industry trade show in late 1997. We did a little research, weighed all of our alternatives, and decided that the Big Dipper seemed like the best option to meet our needs. So, in October of 1999, we installed two Big Dipper W-1000-AST automatic interceptors to service our kitchen waste water flows."

John states that the units have been working well. "Since the installation of the units, we've had no backups from the kitchen effluent. We never knew how much grease was being generated from of our kitchen until we installed the Big Dippers and began their operation. We're removing the grease before it has a chance to get into our sewer lines, before it gets a chance to plug up our pipes. And we're removing quite a lot of grease, probably between 30 to 40 gallons per week per unit."

Casino Finds Bigger Not Necessarily Better

The Gold Strike Casino in Tunica, MS is a riverboat facility on the Mississippi River. Originally opened in 1995, the casino has had some form of a Big Dipper servicing its kitchen since its construction.

The location of the first system, a W-750-IS, was not the most convenient for maintenance. It was shoehorned into a space beneath the riverboat under a small maintenance room with an access cover about 2' by 2'. Besides being hard to access, this space opens out to the Mississippi River. It was not uncommon to open the hatch after rain and come face to face with a none-to-friendly water moccasin. So the reluctance to get into a cramped, dank and possibly occupied pit to service the Big Dipper is apparent.



According to Cecil Hanks, Director of Facilities and Chief Engineer of the Gold Strike, the W-750-IS system worked well. However, there were the maintenance issues as well as sizing issues. The casino recently had added a 1,200 room hotel and upgraded its restaurant facilities with a buffet-style restaurant, a steak house, a food court and a gourmet restaurant. For the hotel guests and nearly 1,500 employees, this translates into an average of 5,000 meals being prepared per day. With the influx of new food preparation facilities, the 75 GPM Big Dipper was simply not enough to handle the effluent flows.

"While we are not yet under the auspices of a pretreatment program, we do realize that we need to maintain control of our grease situation. And with the expansion of our facilities, we wanted better flexibility with our interceptors. The larger, centralized unit was in a bad location and was difficult to service properly. With this knowledge, we decided to install source units directly into our kitchens." As a result, the W-750-IS was removed and 6 W-200-IS's, 1 W-250-IS and four FS-1 Flat Strainers were installed into the casino's three kitchens.

"The end result is we are removing around 60 gallons of grease per week. It's a lot easier to maintain units installed underneath a sink and not beneath the riverboat itself. We have a lot more flexibility, as well. We can shuffle units around if we decide a sink is not generating a lot of grease and install it where grease *is* a problem."

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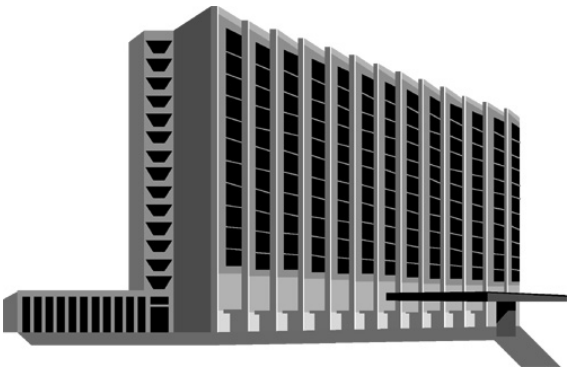
Hotel Passes Go, Saves Time In Atlantic City

The Sheraton Hotel in Atlantic City, New Jersey is a modern hotel boasting 502 guest rooms. Located on Ocean Way across the street from the Atlantic City Convention Center, the hotel also maintains three banquet rooms, 12 meeting rooms, and one restaurant serving breakfast and lunch. In addition to all of this, the Sheraton also serves as the national headquarters of the Miss America Organization. It's a good thing that the kitchen effluent is being serviced by a Big Dipper W-750-AST, because with all the other activities going on there seems to be little time to maintain a large, in-ground grease trap.



The Atlantic City Water Authority requires all commercial kitchens to have some sort of grease interceptor to collect grease before it reaches the sewer lines (as do almost all major metropolitan areas). When the Sheraton Hotel was being constructed, several options were available to the hotel, including pre-cast in ground grease traps as well as automatic-type interceptors like the Big Dipper. For the specifiers, there was no contest. A W-750-AST system was installed.

According to Dave Werner, an engineering mechanic at the hotel, it was a wise decision. "The Big Dipper is very effective at screening out solids in the flow while removing a substantial amount of grease. It's also very easy to maintain; I check the collection container on a daily basis to make sure it isn't overflowing, and every week I'll spray off the strainer baskets and clean the wiper blades. That definitely beats getting on my hands and knees with a manual trap and cleaning out all that grease by hand. The Big Dipper does it all for you."

In a busy hotel in an even busier setting, it's hard to find time to properly maintain an inefficient manual trap. And Dave Werner, one of the busiest employees at the hotel, agrees: "I've worked at other hotels with manual traps, and I'd pick the Big Dipper over them any day."

Some Fat's O.K.

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