

## **A FINE LINE: DESIGNING A COOKING LINE THAT WORKS**

A cooking line is a culinary team's office. Just as with any space where efficiency, speed, and accuracy are required, a cooking line must be properly set up to allow for the culinary team to perform. Upon first glance, it may be difficult to evaluate how well a particular cooking line is designed; there are an infinite number of issues that must be considered, and each operation is unique. But there is more to a well-designed cooking line than simply placing equipment under the exhaust hood. Listed below are some of the issues to consider when developing the cooking equipment layout.

### What's Under the Hood?

This may sound basic, but first consider whether you have the right equipment. The configuration won't matter unless you have selected the equipment required to support the menu and cooking style. I have seen some owners, operators, and designers who did not understand this concept. In one instance, I was called in because a facility indicated that they needed more heat lamps – the current heat lamps would not allow them to store a sufficient number of plates in the window. This was an automatic red flag to me ... plates shouldn't sit in the pick-up window long, if at all. After a review of the facility, I determined that the equipment selected was not suited for the operation. The original designer had provided two cooking lines, one for bulk preparation and one for a la minute preparation. My investigation revealed that the operators were using the bulk cooking line for their a la minute production. In other words, they had the wrong tools for the task. No matter how good the culinary team was, they could not have been successful, as the equipment limited their production and disrupted the timing of the expeditor. The equipment selection directly attributed to delayed service, as orders for an entire party would frequently be held for one entrée that took longer to produce. The end result was unsatisfied customers, lost revenue, and unnecessary stress placed on the staff, amongst other issues.

### Set Up Stations

A common mistake made in the layout of a cooking line is neglecting to properly create specific stations that efficiently and conveniently support the production tasks required. Congestion and bottlenecks in production are frequent repercussions when stations are not properly set up. Consider a concept that requires significant production from both the sauté and broil stations. If these two stations are located too close to one another, or overlap, the culinary staff will constantly be in one another's way. In another example of trouble arising from poor or no station design, let's say that the menu requires a significant number of appetizers that combine hot and cold ingredients. If the hot and cold production areas are located too far from one another, assembling dishes that require both ingredients will be cumbersome and difficult. Can you imagine trying to prepare eight entrées at once with food passing back and forth in front of you on a regular basis? It is an unnecessary obstacle.

In order to properly set up stations within the cooking line, the menu and menu mix must be evaluated. The menu determines the ingredients that are required for each entrée, and the method in which they are prepared. The menu mix determines the quantity of each product to be prepared. Both factors must be considered in order to determine the most effective line layout.

### Code Issues

When it comes to certain code issues, your configuration preferences will take a back seat to the regulations upheld by your local jurisdiction. A fryer, for example, must be separated from an open flame (i.e. a six burner gas range) by 16" or a vertical shield. This is to prevent the flame from coming in contact with the oil, a flammable substance. While this requirement may not be desirable for the operator, it is dictated by local and national codes. As with most design challenges, however, there are typically a number of creative solutions that will meet both local code requirements and the operator's needs.

### Employee Safety

The line layout should consider the safety of the employees. Placing a piece of unprotected equipment, such as a fryer or charbroiler, on the end of a cooking line, near a walk way, poses an unnecessary risk for injury. The risk that an employee will accidentally come in contact with dangerous equipment, or use the equipment in an improper manner, is too great. Typically, an enclosed or non-cooking piece of equipment should be located at the end of the line to eliminate potential injuries.

Employee safety can also be maintained through equipment specifications and options. The provision of a floor trough in front of a kettle, for example, will reduce spills and make the process of removing product easier. In another example, the provision of a fryer filter (whether built-in or mobile) will ensure that employees are handling the oil, a potentially hazardous job, in a safe manner. Equipment should also be installed at usable working heights. If employees are forced to work with equipment such as ovens or steamers that are not conveniently accessible, accidents are more likely.

### Preventing Rollout

While not the primary consideration when determining a cooking line configuration, the final layout can either help or hinder the escape of smoke, heat, steam, and grease laden vapor into the kitchen. Fryers and charbroilers, for instance, produce a significant amount of smoke and grease laden vapor. Steamers and kettles, by comparison, do not. The equipment releasing large quantities of contaminants into the air should be placed towards the interior of the line, where possible, to ensure better capture. Placing the taller equipment pieces at the ends of the line will also improve capture of the smoke, steam, heat, and grease laden vapor by guiding these contaminants towards the main capture area.

### Conclusion

There are numerous factors to consider when determining the most efficient line layout for a particular operation. While they cannot all be discussed in this column, proper consideration of the issues listed above will ensure that your configuration will help, not hinder, the efforts of your culinary team. So ... how does your line layout stack up?