that are ozone resistant to help you meet state and federal guidelines.

Automatic Fillers

Automatic fillers are designed generally for larger operations that require a significantly higher quantity of filled bottles per day. Again, selection should be consistent with a realistic assessment of the volume of business you have projected.

Some equipment can produce 1,000 or more large bottles an hour. If you are looking for a high-volume automatic filler, you should consider a self-contained production unit that includes a washer, filler and capper.

It is best to acquire all elements of your production line from one manufacturer to ensure maximum component compatibility for production efficiency. The more automatic the system, the less personnel are required to operate it. The best systems can be handled by one or at most two operators.

Other important automatic filler features to look for include:

- The right speed and capacity for your needs;
- Stainless steel construction this is a must to minimize maintenance, increase effective sanitation and provide longer service life;



- Stainless steel built-in product water supply tanks;
- A unit that does not recycle unused or spilled filler water back to the supply tank in order to eliminate the possibility of product contamination;
- A lift-and-hold function during the filling process to minimize wear on bottle bottoms and increase service lives;
- An effective clean room environment. Higher-quality automatic filler lines will provide clean, pressurized filtered air chambers as an integral part of the equipment. If not, the entire operation must be housed in a clean room with a controlled filtered ambient atmosphere;
- Automatic fill levels, for consistently uniform bottle fill levels; and
- A versatile capper system that is able to accommodate a range of bottle sizes.

Considerations

The most important consideration in selecting a bottle filler is a unit's production rate. This rate must be adequate to meet the requirements of your business at start-up or in the future. You do not want to be underequipped, making it difficult to serve your clientele well.

On the other hand, you do not want to choose a filler that is much larger than you need because of the potentially higher overhead and smaller bottom line.

Of course, you should also have confidence in your equipment supplier to ensure that you are obtaining accurate presale advice, quality equipment and after-sale support. Look for an equipment source that has solid experience in the bottled water industry and is willing to consult with you about your plant requirements prior to purchase. *wqp*

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application—bottled water

The key factor in choosing a bottle filler is fitting the equipment's output rates to the capacity your facility requires to meet customer demand. There are two ways in which you can go wrong: installing a filler that may cost less than others but cannot deliver the quantity of bottles you need per day, or installing a filler with a production rate that far exceeds the volume you need now or will need in the

foreseeable future.

To help you make these decisions, choose an equipment manufacturer that will have your best interests in mind and that has extensive experience in the bottled water industry (with both startup businesses and those that are expanding their capabilities).

Generally speaking, there are three types of fillers for the large-bottle (3- to 5-gal) market: manually operated, semiautomatic and fully automatic. Each is targeted to a particular niche in the bottled water market.

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Selecting the right bottle filler for your facility

By Bruce Kucera

Manually Operated Fillers

Start-up businesses with limited capital—or companies that simply want to add bottled water as an extension of their product line—often choose the simplest, least expensive equipment. This allows them to test the market and determine demand for products in their operating areas before investing in larger or more sophisticated equipment.

Manually operated fillers fit this purpose. Designed specifically for small operations and start-ups, these single-bottle units can handle up to 60 bottles an hour with only one operator required.

Look for fillers that are easy to operate. Typically, the operator simply places the washed bottles directly under the fill head and then opens the ball valve to initiate the filling process. When completed, the operator closes the ball valve.

Some fillers also come with a cap applicator to complete the bottling process. The best machines are constructed of stainless steel for durability and easy maintenance and cleaning, which contributes to general facility sanitation and water quality.

Semiautomatic Fillers

For larger start-up companies, or companies that have outgrown the ability to keep up with demand with the manually operated filler, there are a variety of semiautomatic fillers available that can process several bottles at a time.

Several important factors should be considered but high among them, of course, is choosing the filler that best meets your business's needs for the immediate or foreseeable future in terms of production rates.

Other important considerations include:

Capability to handle different sized bottles. Some units are available with adapter kits that permit switching from processing 3- and 5-gal bottles to bottles as small as 12 oz. This versatility can provide opportunities to expand product offerings, thereby increasing profits.

Ease of operation. The bestdesigned fillers do not require highly trained operators. Look for a filler that is well designed, including automatically controlled filling to ensure volume and nozzle height. This control will minimize wasted water and provide a consistent level of water in each filled bottle. Some semiautomatic fillers include a manual cap chute and cap press system.

Adjustable filling table height. You will want a filler that can be adjusted easily to work well with a variety of available conveyors on the market.

Simple design. The simpler the filler is designed and manufactured, the easier it is to operate and maintain. This generally will result in longer service life and less hands-on time.

Quality construction. Choose equipment made of stainless steel and other food grade-approved materials

