

## Pit & Composting Toilets

Earthen pit privies or outhouses have been around for centuries to help contain and dispose of human waste. Even today, much of the world's population depends on these primitive toilets. Within the U.S., they are still present in remote and rural areas where usage is minimal or where the infrastructure to handle and treat sewage doesn't exist.

Even though these units are inexpensive to build and require little maintenance, rapid buildup of waste solids and offensive odors can become a problem. Excavation and relocation is expensive and time consuming.

Composting toilet technology addresses most of these concerns and is a good choice when other alternatives don't exist. However, they do require a larger initial investment and higher skill level to operate. If overloaded or undersized, composting toilets can suffer from the same effects as pit toilets.

Both pit and composting toilets are unique in that the waste is never moved from where it's deposited. As with other types of systems that rely on sewers or tankers to transport it for treatment elsewhere, these toilets "process" their waste onsite and in place.



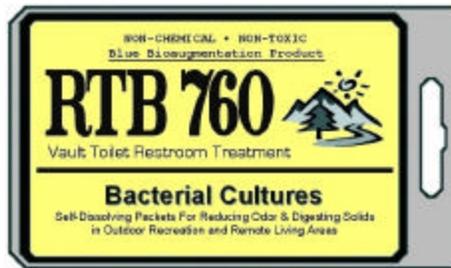
RTB 740 speeds up the natural digestion process in both pit and composting toilets. Along with this increase in digestion efficiency, odors are controlled by preventing their formation. Pit toilets will not have to be emptied or moved as often and composting toilets will function better with less chance of overload. This rapid level of degradation can also ease the environmental concerns over many of these toilets.

Because these toilets are not pumped and the waste is left to decompose in its natural state, no dyes or fragrances are used in RTB 740.

## Vault Toilets

Concrete or polyethylene vault toilets are typically found in high-use remote areas not served by a sewer system. Unlike an earthen pit toilet that loses much of its liquid content to the surrounding soil, a vault toilet is designed to retain it. By storing it this way, groundwater contamination is minimized and pumping is made much easier. Once removed, the waste is hauled to a treatment plant for final processing.

Along with the typical concerns about odor, waste solids can build up and compact in the bottom of the vault. The pumper truck, which operates by vacuum, can inadvertently remove only the liquids and leave the solids behind. This accumulation can cause additional odor problems and requires more frequent pumping to make up for the loss of holding capacity.



RTB 760 will increase the digestion of all waste solids and help to liquefy them so pumping is faster, easier and more complete. Waste cone development under each riser will also be dramatically reduced as bacterial activity erodes its base. With less waste exposed to the air, the potential for fly problems is also greatly minimized.

As far as odor is concerned, RTB 760 will reduce it biologically without the use of toxic deodorant chemicals. By preventing them from forming in the first place, there is nothing to mask or attempt to cover up later. Even the newer style SST-vented vaults can benefit from increased odor control and ease of pumping.

Because these toilets are pumped and have a relatively high liquid content, an aqua-blue, biodegradable dye is used in RTB 760. This functions as a visible indicator to both the applicator and the user of an ongoing treatment program.

## Portable Toilets

Portable toilets are similar to vault toilets in the respect that both are holding tanks that need to be pumped or dumped when full. However, their difference is mainly in capacity. A vault toilet may contain hundreds of gallons of waste that has accumulated over weeks or months of use. A portable toilet, on the other hand, has only a fraction of this capacity and gets heavy use for a short period of time only. Dumping or pumping is usually done within a couple days to a week.

Because these units are small and the user's proximity to the waste tank quite close, odor control is extremely important. Up until recently, toxic chemical deodorants were the only thing available for this purpose. The theory behind them is a simple one: Kill everything in the tank to prevent odors from forming and then mask whatever stink is left with a strong fragrance. However, in reality, this is seldom the case. Additional chemicals must be added every couple of days to kill off the bacteria that comes with each and every toilet visit. It is a difficult balance to maintain and one that becomes harder the longer the toilet is used and in service.



RTB 780 will control these offensive odors in all portable toilets and blackwater holding tanks without the use of hazardous chemicals. It will stimulate a different type of bacterial activity that will help to liquefy solids and prevent the formation of these odors biologically. By pre-digesting the waste solids, dumping and cleaning will be much easier and faster than ever before.

Because people expect to see and smell a colored and scented treatment product in these types of toilets, RTB 780 contains a biodegradable blue dye and apricot fragrance.

# RTB 700 Series Products

Prices as of January 1st 2003

## Pit & Composting Toilets



- Individual Package  
**\$14.95** (6 Packets)
- 20 Package Box  
**\$299.00** (120 Packets)
- 25 lb. Bulk Bucket  
**\$650.00** (400 Packets)

Natural Colored Bacterial Product  
in Self-Dissolving Packets

For Toilets That Are Not Pumped

Apply one packet per toilet, pit or chamber once a week

## Vault Toilets



- Individual Package  
**\$16.95** (6 Packets)
- 20 Package Box  
**\$339.00** (120 Packets)
- 25 lb. Bulk Bucket  
**\$750.00** (400 Packets)

Blue Dyed Bacterial Product  
in Self-Dissolving Packets

For Toilets That Are Pumped Periodically

Apply one packet per toilet or riser once a week

## Portable Toilets & Holding Tanks



- Individual Package  
**\$18.95** (6 Packets)
- 20 Package Box  
**\$379.00** (120 Packets)
- 30 lb. Bulk Bucket  
**\$850.00** (400 Packets)

Blue Dyed Bacterial Product PLUS Apricot Fragrance  
in Self-Dissolving Packets

For Toilets That Are Pumped or Dumped Often

Apply one packet per toilet or tank once a week

## How Much Do I Need ?

Based on a single seat or riser toilet, simply multiply the number of toilets you want to treat by the number of weeks these toilets are in use. This will give you the number of packets needed for the duration of your season. The following are just a few typical examples:

One package (6 packets)  
will treat 1 toilet for up to 6 weeks

One box (120 packets)  
will treat 8 toilets for up to 15 weeks

One bucket (400 packets)  
will treat 15 toilets for up to 26 weeks

## Other Considerations

If you have a pit or vault toilet that is partially full or was not emptied from the previous season, we recommend a higher than normal dosage (up to four packets), just once, when beginning treatment. This higher amount will help to inoculate the waste mass more effectively and improve waste digestion in the months ahead.

If an individual toilet has two (or more) seats or risers connecting to a common pit, tank or chamber, your needs should be based on two packets per week rather than just one.

It is not necessary to continue treatment after your season is over and your toilets are no longer in use. Once the influx of new waste has stopped, the packets you've applied in the past will continue to function as long as the waste pile does not freeze. Treatment should resume in the spring when the toilets are in use once again.

It is also important to realize that every outdoor toilet is a unique biological system. As such, it may not be necessary to use our product in every toilet you operate or manage. Start by using our products in your worst toilets first. Continue with the treatment of others if concerns about odor or solids become self-evident.

If the intended use of our products is in a residential toilet system with limited visitation (family members or small groups), the dosage can be decreased to one packet per month. These might include sites such as remote hunting cabins and isolated fishing camps.

*All self-dissolving packets orders shipped complete with instructions, application guidelines and MSDS.*



**Microbiologic LLC**

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## RTB 700 Series Bacterial Products for Outdoor Restrooms

Reduces Odor & Digests Solids in  
Pit, Vault, Portable & Composting Toilets in  
Outdoor Recreation Areas & Remote Living Areas



**DRY BACTERIAL CONCENTRATE**

**SELF-DISSOLVING PACKETS**

IN USE NATIONWIDE BY:

Bureau of Land Management  
National Park Service  
USDA Forest Service  
US Army Corps of Engineers  
Boy Scouts of America  
Girl Scouts USA

