



## Beautiful, Safe Beaches Do Not Happen By Chance

*Mike McPherson, President  
Cherrington Beach Cleaners  
Jamestown, ND 58402, USA*

Beautiful and pleasant beaches rarely occur naturally anymore. With offshore ship traffic dumping trash, and human pollution impacting beaches with every tide, targeted, committed efforts are required to keep beaches beautiful. Hand labor or simple tine raking will not

accomplish this goal because they can't effectively clean below the beach surface.

The most efficient and effective means for keeping beaches safe and healthy is "lift and sift" mobile screening. This is a mechanical process whereby the beach sand is screened. The entire top layer of beach sand and debris are lifted and carried up over an oscillating, sifting screen. Everything larger than the selected screen-hole size is loaded into the machine's hopper for removal, while the sand is immediately returned, cleaned, aerated and fluffy, back to the beach.



## Beach building – removing sharp coral and rocks

Dredged beaches are being built all over the Middle East and present a unique set of beach cleaning challenges. First, the coral and shells buried in the dredged sand are sharp and can be particularly annoying to beach goers, causing painful cuts to bare feet. Secondly, this type of debris is particularly hard on standard design beach cleaning equipment.

The most successful screeners are uniquely designed and capable of standing up under these abusive beach conditions. These screeners are built with non-rotating, solid steel, sifting screen that is powered to oscillate and quickly separate the sand and debris. The vibratory screen does not rotate and it cannot stretch, run crooked, or be broken by sharp coral or shells. These screeners are strong and durable, able to lift and screen the sand up to at least 15cm deep, and with regular use they solve the problem of the coral and rocks “growing” up out of the base below the cleaned beach surface.

## Oil spill cleanup

Oil enters the sea from many sources, including ballast water, natural seeps from the seafloor, and spills of oil being transported on cargo ships. Depending on the volume and source, some of this oil comes ashore as tar balls, and some in pools that contaminate the beach sand.

Tar balls, which are coated with sand, are removed via mobile screening the same way small stones would be. Contaminated sand, on the other hand, requires a special technique to skim off the polluted sand without destroying the beach. Screeners that have a light footprint and can set the digger point to a predetermined depth, as shallow as 1-2cm, will skim off only the top layer of contaminated sand. During this process, the woven wire screen is replaced with a perforated steel sheet and the oscillator is turned off to prevent screening, and instead, to accomplish loading the contaminated sand for processing off site.

## Off shore dumping

While offshore dumping is prohibited worldwide, sadly, it happens every day. Whether it is trash, litter, medical waste, or debris washed out to sea from rivers and streams and then returning to the beach, these all make beach maintenance a growing concern.

“Lift and sift” mobile screening is a fast and most effective means of removing this type of debris quickly and easily on a regular basis. Screening not only maintains the natural beauty of the beach, but it also prevents birds from consuming plastic by accident, and minimizes the amount of dangerous bacteria growing in the moist beach sand, while dead marine life may be decaying on the shoreline.

## Cigarette filters

Cigarette filters are a common pollutant on public as well as resort beaches. “Lift and sift” mechanical screening is the most efficient way to remove them because the entire beach surface is conveyed onto the sifting screen where everything larger than the screen-hole size is removed. A mobile screener should offer a variety of easily interchangeable screen-hole sizes to allow the user to choose the most suitable screen for the task at hand. Hand labor or other types of beach cleaning methods have a difficult time picking up such small objects, especially those below the surface and out of sight.

## Beaches for today's patrons & tourists

Blue Flag beaches appreciate all of the benefits of this process of beach screening. This effective and efficient method is unmatched by other designs. The “lift and sift” method greatly reduces ecoli and bacteria growth in the sand by opening the sand to the sun's purifying rays. This cleaning method proves much more effective than hand labor because the screening process removes items below the surface, things you can't see today, and won't reappear tomorrow; looking like you never cleaned the beach, just the day before.