Welcome to
MAXIMUM Separation Systems Inc.

The MAXIMUM Separation System is a dental amalgam separator that removes dental amalgam, thus removing mercury from dental wastewater before it is discharged into the public sewer system and the environment. With the growing global awareness of mercury pollution from dental wastewater in our environment, the need for the proper management of dental amalgam waste, rather than the current disposal methods of this hazardous waste, has never been greater. According to the Scandinavian Institute of Dental Materials (NIOM):

* Corrosion of amalgam will release mercury.
* Corrosion of small particle waste is increased due to the high surface/volume ratio.
* Mercury is released and accumulates especially in fish and their predators.

A cost effective way for small and large dental offices and institutions to manage their amalgam waste is pollution reduction at the source with the use of the MAXIMUM Separation System.

WHAT MAKES THE MAXIMUM SEPARATION SYSTEM SIMPLY BETTER?

* It has been certified to ISO 11143 standard.
* It can be retrofitted into existing dental vacuum systems.
* It is located BEFORE the vacuum pump, thus removing the amalgam waste before it is agitated by the vacuum pump impellers. This decreases the release of mercury and reduces wear on the pump.
* The process is patented in the USA, Canada, and the U.K.

CHECK THE FACTS

* Treatment of dental waste effluent for Hg and other metals without additional pumps or filters
* Continuous remote electronic monitoring
    * Alarm if waste bypasses separator
* Processes all amalgam
    * Allows for one container to deal with all waste amalgam from operatories and suction lines
* No disruption to vacuum system when in operation or when changing collection containers
    * Office shutdown not required to change tanks
* Large settle tank capacity
    * Reduces frequency of waste handling services
* Includes spill containment
* Reduces wear on vacuum pump

    * Installs ahead of the vacuum pump so no untreated waste including air abrasion particles goes through pump impeller
* Centralized system
    * Eliminates the cost and hassle of multiple chairside units
* No moving parts
    * Provides more reliability
    * Reduces release of mercury through agitation and heat generated in the vacuum pump
* ISO 11143 certified
    * Exceeds the internationally recognized standard for amalgam removal in dental waste effluent.
* 5 year warranty for defects in material and workmanship and 1 year warranty for electrical/electronics.

For product specifications and test results, click on our Product page. For additional knowledge, see our Background page. If you need more information, please take a look at our frequently asked questions. If you are interested in distributing our product, have a look at our Licensing page.

WHY SEPARATE?

There has been much debate about whether or not to continue the use of dental amalgam. While the number of amalgam restorations that are being placed are on the decline, the real dilemma is what is to be done with those that are already in place. In 1993, it was estimated that 150 million amalgam restorations were placed in the USA, weighing over 75 tons [Osborne]. There are 22 billion existing amalgam restorations that will eventually have to be removed. It is this removal process that is a concern for many dentists, governmental agencies, dental associations and the general public. Dr. P.L. Fan (et al) stated, "In locations where other sources of mercury discharge have been substantially reduced or are virtually eliminated, reduction of the mercury discharge from dental offices may make noticeable differences."

There is not a law, in any country, banning the use of dental amalgam, however, there are existing laws in place regarding pollution levels of dental office wastewater. Governmental agencies are striving towards point of source wastewater treatment, as presently there is a strain on the centralized wastewater treatment facilities. The collection and distribution of the sludge containing mercury or mercuric compounds from these treatment facilities onto farmers' fields should be reduced or eliminated before they are introduced into the water table or our food chain. No new laws are required for the treatment of dental office wastewater, just enforcement of existing ones.

Some may consider that the most important reason for amalgam separation is legal risk management. The fact that untreated dental office waste effluent contains significant amounts of pollutants is driving pollution, health and environmental authorities to target dental offices as the source of unacceptable mercury pollution. Commissions and task forces are being struck at municipal, state, provincial and federal levels to develop regulations to curb the pollution coming from dental offices. The dental associations' strategy to deny the problem and refuse to implement a professional self-regulated solution is forcing the government into action by imposing the use of amalgam separators, as has been done in Europe.

In Canada, the Canadian Council of Ministers of the Environment (CCME), which consists of the Ministers of Environment from the federal, provincial and territorial governments, has endorsed a Canada-Wide Standard for Mercury in Dental Amalgam. This includes the Best Management Practice of the use of an ISO 11143 certified amalgam separator, to achieve the end goal of a 95% national reduction in mercury releases from dental amalgam discharges to the environment by 2005. Several local governments have passed bylaws requiring dentists to install amalgam separators.

In the USA, there are numerous local and state agencies that are requiring dentists to install amalgam separators.

Most dentists lease their office space. Most commercial leases contain covenants by the tenant that prohibit the discharge of pollutants into the building, including its sewer systems. As landlords are held responsible for the discharge of amalgam from their buildings into the public sewer system, they will look to their dentist tenants for indemnification for damages and fines and issue directions to cease the discharge of amalgam into the building sewer system. Without amalgam separators, a dental office may be unable to do removal and replacement of existing amalgam fillings. We encourage you to ask your lawyer and insurance agent about the impact of discharging amalgam/mercury into the public sewer system. F. Wallace Clancy & Son Ltd., a Canadian insurance company, has stated that " to our knowledge, there is no insurance available for the knowing discharge of pollutants"[Elliott]. The onus remains with the individual dentist and stricter regulations may be forthcoming[Chilibeck].

The MAXIMUM Separation System is certified to ISO standards for amalgam separators and is the industry leader in removal of waste amalgam. Using the MAXIMUM Separation System allows a dentist to avoid the legal liability issues associated with the discharge of amalgam waste into the environment. The 'cradle to grave' burden summarizes this: 'Once a dentist mixes and places an amalgam restoration, the legal responsibility for the ultimate disposal of it is established, and that lies upon the dentist.'

The question is not "Why separate?", but "Why not separate?"

MAXIMUM Separation System Development

For more information about the models available, visit our Product page.

Canadian Patent:2,335,586 Canadian Patent Pending, U.S. Patent:6,592,754,U.S. Patent:6,692,636, U.S. Patent Pending U.K. Patent:GB 2358594

http://www.amalgamseparators.com