

Roto-Sieve® in MBR applications

The following statement was written by Bob Manwaring at Waste Tech Inc which is our contact for Roto-Sieve® drums screens in USA:

“We have approximately fifteen projects in operation with multiple perforated rotary drum screens over a period of three years with many more in design.

The advantage of the Roto-Sieve® filter perforated fine screen was demonstrated admirably on the Point Loma WWTP, San Diego, CA which was the Title 22 test site for all MBR's in USA conducted by a joint cooperation between CDM and MWH Global Engineers.

There are a number of reports and papers publishing extolling the advantages of the Roto-Sieve® filter perforated drum screen as pre-treatment ahead of MBR process plants including no seals, integral overflow, self cleaning, competitively priced, reliable operation for guaranteed continuity, high rate of capture of the small chain toilet paper fibers which tend to spin in the pre-aeration zone generating threads which grow into long strands which wrap around the hollow fiber membranes and cause too frequent backwash which weakens the structure of the hollow fiber membrane to the point that it breaks.

The Roto-Sieve® filter screen has validated its excellent performance in preventing this problem and is recognized as the best available solution, the horizontal design of the rotary drum makes it ideal for handling rags, grit and stones which are transported out of the screen by the internal auger built inside the drum, compared with internal fed double band screens which have at least six vertical side seals thru which the small chain fibers escape, and which have limited ability to handle rags and stones, and do not have an integral overflow to return excess flow back to the upstream of the process train and not downstream which allows the fibers to enter the MBR process. Double flow band screens used ahead of MBR's are always installed after the grit trap compared with the Roto-Sieve® filter perforated rotary drum screen which is installed ahead of the grit system. The double flow screens therefore require installation of an additional screening step ahead of the grit trap which is obviously not required with the Roto-Sieve® filter screen.

There are many proven advantages in the design and application of the Roto-Sieve® filter perforated drum screens ahead of MBR process plants, over a continuous 2 year period we have tested the screen at Point Loma on all MBR's required to have Title 22 accreditation and our success during this time has led to many opportunities for the Roto-Sieve® filter screen.”