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## ABOUT TESTING PERFORMANCES OF POOLS AND SPAS FILTERS

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Category: 2 Filter Testing

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Private swimming pool market is a growing one with many suppliers offering consumers different types of pools with different water filtration techniques: cartridges, precoat and sand filters are broadly used.

The absence of standard methods to evaluate the ability for use of filters and to report their performances make the choice more a question of price rather than a question of quality what biases the competition.

IFTS has been committed by the European professional organisations of swimming pool filter and equipment manufacturers to search develop and validate tools allowing the characterization of the filtration efficiency, the retention capacity (or life), the resistance to flow fatigue and the burst pressure of these products, whatever their type and operating principle.

The lecture will present how the filtration efficiency and the retention capacity are measured in specific conditions representing real life filter operating conditions.

The test principles (multipass, filter/pump group, water, end test criteria), equipments (test loop, cleanup filters, sensors, contaminants, particle counters), validation criteria (particle counts, cleanliness, concentration), data records and processing (filtration efficiencies, instantaneous and average, filtration rating ( $S_{80\%}$ ), retention capacity) are described and typical results are shown.

Bio

Nicolas PETILLON is a graduate engineer in Chemical engineering, has a Ph.D. in Chemical engineering and physic chemistry.

Nicolas used to be test engineer by one automotive filter supplier (SOGEFI FILTRAUTO) and professor in chemical engineering at the university of CAEN (FR).

Nicolas is now the Laboratory Manager of the Institute of Filtration in AGEN France and of IFTS inc in New jersey.

Nicolas is a leading expert in national, European and ISO expert groups drafting standards on liquid contamination control and filter testing. He was appointed project leader for two of the ISO test standard methods. He has authored numerous papers and lectures on liquid filter testing.