



Customer Experience: Cleanroom



SITE:

Salofa Oy
Salo

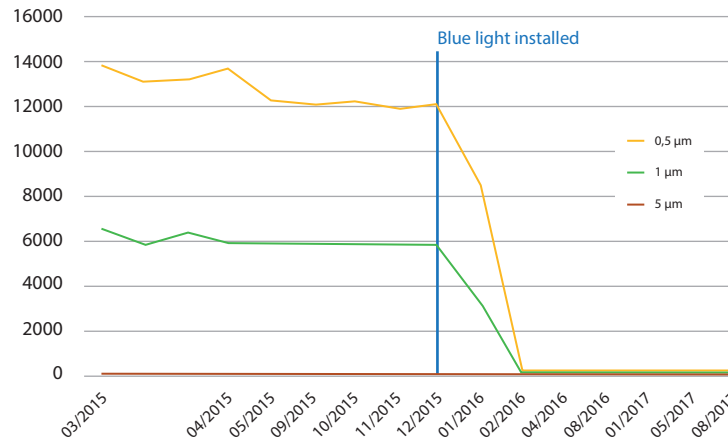


PROBLEM:

The cleanroom at Salofa is used to manufacture products for the health sector, which places exceptionally high demands on the facility. Every stray particle or microbe in the cleanroom is a potential risk for the quality of the product and the health of the end-user. Particle and microbe levels are monitored constantly to ensure the high standard of production.

SOLUTION:

WiSDOM AiR photon disinfection lights were installed on the cleanroom ceiling. The timer-controlled system is completely automatic, cleaning the space at night when no employees are present. Apart from the installation of the LED Tailor photon disinfection system, no other changes were made in the facility or to the work undertaken there.



BENEFITS:

“The number of particles less than 1.0 µm in diameter decreased by over 98% and that of particles 1.0–5.0 µm in diameter by over 60%, so we are extremely happy with the outcome! Tubes for specialized medical care must be sterilized before delivery to the customer, and thanks to the LED Tailor solution our sterilization costs have clearly come down. The system has now been in place for more than two years. We reached the current level of cleanliness within the first month, so the situation is very stable.”

– Jarmo Nykänen, Plant Manager

Maximum number of particles in air per m³ and the particle sizes

ISO class	≥ 0,1 µm	≥ 0,2 µm	≥ 0,3 µm	≥ 0,5 µm	≥ 1 µm	≥ 5 µm
1	10	2				
2	100	24	10	4		
3	1 000	237	102	35	8	
4	10 000	2 370	1 020	352	83	
5	100 000	23 700	10 200	3 520	832	29
6	1 000 000	237 000	102 000	35 200	8 320	293
7				352 000	83 200	2 930
8				3 520 000	832 000	28 300
9				35 200 000	8 320 000	293 000

Before the test

Max level class - 8 cleanroom (requirement)	Particle size (µm)	29.6.2015 measure point 3	8.9.2015 measure point 3	5.10.2015 measure point 3	3.11.2015 measure point 3	3.12.2015 measure point 3
3 520 000	0,5	12255	12122	12234	11988	12112
832 000	1,0	5824	5805	5818	5785	5797
29 300	5,0	30	30	31	30	30

After installing the photon disinfection system, 2016

Max level class - 8 cleanroom (requirement)	Particle size (µm)	11.1.2016 measure point 3	8.2.2016 measure point 3	22.2.2016 measure point 3	7.3.2016 measure point 3	2.3.2016 measure point 3
3 520 000	0,5	8 512	220	213	228	194
832 000	1,0	3 212	127	52	81	78
29 300	5,0	25	7	7	12	13

After installing the photon disinfection system, 2017

Max level class - 8 cleanroom (requirement)	Particle size (µm)	9.1.2017 measure point 3	6.2.2017 measure point 3	6.3.2017 measure point 3	13.3.2017 measure point 3	3.4.2017 measure point 3
3 520 000	0,5	169	173	165	168	174
832 000	1,0	57	61	66	64	86
29 300	5,0	7	8	7	9	12