

PRACTICAL IMPLEMENTATION UV-C DOSE VALUES AIR300 EQUIPMENT

AIR 160

AIR300

UVC x 60W -> 100%	UV-C x 96W -> +60% = 160%
DOSE 4,23 MJ/CM2	DOSE 4,23 MJ/CM2
AIRFLOW 50M3/HR -> 100%	AIRFLOW 80M3/HR -> +60% = 160% --- AIRFLOW AT 100M3/HR -> UVC DOSE AT 5,28 MJ/CM2
CORONA REDUCTION LOG 4 (LOG1=90%) (LOG2=99%) (LOG3=99,9%) LOG4 = 99,99%	CORONA REDUCTION LOG 4 (LOG1=90%) (LOG2=99%) (LOG3=99,9%) LOG4 = 99,99%
	AIRFLOW 160 M3/HR -> UVC DOSE 2,12 MJ/CM2 -> LOG3 = 99,9% CORONA REDUCTION
	AIRFLOW 320 M3/HR -> UVC DOSE 1,06 MJ/CM2 -> LOG 2 = 99% CORONA REDUCTION
	AIRFLOW 640 M3/HR -> UVC DOSE 0,53 MJ/CM2 -> LOG 1 = 90% CORONA REDUCTION
	AIRFLOW CAPACITY 1250M3/HR -> CORONAVIRUS REDUCTION BELOW LOG1 ***
	AIRFLOW AT 100M3/HR -> UVC DOSE AT 5,28 MJ/CM2
	AIRFLOW AT 50M3/HR -> UVC DOSE AT 2,64 MJ/CM2

UVC DOSE is reflected in Milli-Joule/cm2 (Milli-Watt/cm2/sec) -> 1 Milli-Joule = 1000 Micro-Joule (1000 Micro-Watt/cm2/sec)

LOG1 CORONA REDUCTION IS ESTABLISHED AT A DOSE OF 0,6 MJ/CM2 IN ONE SINGLE AIR-PASS ... NEXT AIRPASS LOG2 REDUCTION ... NEXT AIRPASS LOG3 REDUCTION AND SO ON ___ MULTIPLE LOG REDUCTION IS ACHIEVED BY EITHER INCREMENTING THE DOSE OR THE NUMBER OF AIRPASSES.

IN A ROOM SIZE 25 X 25 X 3 M. -> 1875 M3. ___ PROVIDING A DOSE OF 0,6 MJ/CM2 AT A LOG1 AIRFLOW SPEED OF 600M3/HR ALL THE AIR IN THE ROOM IS TREATED IN 3 HOURS.

THAT IS THE ROOMSIZE LIMIT TOWARDS A PROPER TREATMENT AT A LOW CONTAMINATION LEVEL ___ 1.5M DISTANCES RESPECTED, PROPER SURFACE HYGIENE, PPI'S (*) IN PLACE ETC.

BETTER TREATMENT AT A HIGHER DOSE (TO COMBAT A HIGHER CONTAMINATION LEVEL) IS DONE BY EITHER

- 1) A SMALLER ROOMSIZE
- 2) PLACING ANOTHER SECOND OR THIRD UNIT
- 3) REDUCING THE AIRFLOW SPEED

(*) PPI'S PERSONAL PROTECTION ITEMS SUCH AS FACEMASKS AND GLOVES