



24130135 GEN.2019 SERIES

CLEANROOMS ARE DYNAMIC SYSTEMS. PEOPLE AND GOODS ARE CONSTANTLY IN MOTION. INSTALLATIONS, PRODUCTION LINES AND MACHINES DO REQUIRE PERIODICAL ADJUSTMENT TO THE PRODUCTION OF DIFFERENT PRODUCTS. ACC. TO THE RELEVANT STANDARD ISO 14644-3 THE OPERATORS OF CLEANROOMS ARE OBLIGED TO GIVE PERIODICALLY EVIDENCE OF THE IN SITU AIR FLOW SITUATION BY AN AIR FLOW MAPPING SUPPORTED BY HIGH PURITY AIR FLOW MAPPERS.



SISTEMA'S AFM-NEO GEN.2019 CLEANROOM FOGGER SERIES MAKES USE OF SPECIALLY DESIGNED **HIGH PERFORMANCE PIEZOELECTRIC MODULES** TO GENERATE **UP TO 1,25 m³ OF PURE WHITE FOG PER MINUTE** (FOG DENSITY OF 187 ml/min) TO PROVIDE **7 TO 10 m OF VISIBLE AIR FLOW** BROUGHT INTO FIELD BY **ONE (STANDARD), TWO OR EVEN THREE Ø 80 mm HOSES** FOR SMALL TO LARGE SCALE 'SMOKE' STUDIES AND AIR FLOW CHARACTERIZATION IN CLEAN ROOMS, STERILE ROOMS, MEDICAL SURGERY ROOMS, ISO SUITES, ETC. THE AFM-NEO GEN.2019 CLEANROOM FOGGERS' FOG VOLUME PERFORMANCE IS ABOVE THAT OF LN2 FOGGERS YET THE AFM-NEO GEN.2019 CLEANROOM FOGGERS DO THAT USING **ONE SINGLE MEDIA . . . DI WATER OR WFI WATER**. ITS KEY FEATURES LIKE ITS **ADJUSTABLE FOG VOLUME**, ITS **ADJUSTABLE AIRFLOW**, ITS FROM 1 INTO 2 OR EVEN FROM 1 INTO 3 HOSES (Ø 80 mm) **SPLITTABLE FOG VOLUME**, ITS **CYCLE TIME WITH ONE TANK FILLING OF MIN. 45 MINUTES AT MAXIMUM FOG VOLUME OR UP TO 90 MINUTES AT LOWER FOG VOLUMES (ONLY 30 SEC FOR TANK REFILLING)** AND OPTIONAL **WIRELESS REMOTE CONTROL** MAKE IT AN IDEAL INSTRUMENT FOR ANY APPLICATIONS IN AIR FLOW TRACKING.

FOG OUTPUT CHARACTERISTICS

- ✓ GENERATING A **DENSE PAPER WHITE PURE FOG** (ENABLING FOG DENSITY ADJUSTMENTS DOWN TO TRANSPARENT FOG QUALITY)
- ✓ **CYCLE TIME WITH ONE FILLING OF 45 TO 90 MIN** (REFILLING WITHIN 30 SECONDS) DEPENDING TO SETTINGS
- ✓ **OFFERS 7 TO 10 M OF VISIBLE AIR FLOWS**
- ✓ **ENABLES SIMULTANEOUS WORK AT SEVERAL SPOTS DUE TO POSSIBLE SPLITTING OF STRD. FOG HOSE INTO 2 OR 3 OR 4 HOSES**
- ✓ **HIGHEST FOG OUPUT RATE OF ALL ULTRASONIC PIEZOELECTRIC BASED CLEAN ROOM FOGGERS IN MARKET**
- ✓ **SYSTEM SANITIZABLE WITH 6% HYDROGEN PEROXIDE OR CALCIUMHYPOCHLORIT 0,2 ML/100ML OR ISOPROPYL ALCOHOL**
- ✓ **IDEAL DROPLET SIZE RANGE ¹⁾**


< 0.3 µm:	12 %
0.3 µm – 0.5 µm:	36 %
0.5 µm – 1.0 µm:	24 %
1.0 µm – 5.0 µm:	20 %
> 5.0 µm:	8 %












¹⁾ Measured within 5 cm above piezo element at a water temperature of 7° C (before recombination effects)

TYPICAL APPLICATIONS



- ✓ AIRFLOW RECOVERY TESTS GUIDED BY ISO 14644-3 ANNEX B12
- ✓ AIRFLOW VISUALIZATION TESTS GUIDED BY ISO 14644-3 ANNEX B7
- ✓ USP 797 IN-SITU AIRFLOW ANALYSIS AND USP 800 COMPOUND PHARMACY AIRFLOW TESTS
- ✓ AIRFLOW TESTS FOR NSF 49 AND BIO-SAFETY CABINETS
- ✓ AIRFLOW REQUIREMENTS USING SEMICONDUCTOR CLEAN ROOM GUIDELINES, FEDERAL STANDARD 209E
- ✓ CONTAINMENT TRANSPORT STUDIES ON PROCESS TOOLS
- ✓ OPTIMIZATION OF EQUIPMENT LOCATIONS
- ✓ TRACKING ROUTES OF AIR INFILTRATION INTO CLEANROOMS
- ✓ PRESSURE BALANCING (ROOMS AND SPACES)
- ✓ OPERATORS TRAININGS

SYSTEM OVERLOOK, SPECIFICATIONS AND ACCESSORIES

LINE	ITEM #	PICTURE	ITEM DESCRIPTION
1	AFM24-NEO (GEN.2019)		AFM24-NEO GEN.2019 ATOMIZING FROM MINIMUM 2,60 LITER (WITH A 25 % FAN OUTPUT) TO MAXIMUM 6,40 LITER (WITH A 100 % FAN OUTPUT) OF WFI-WATER IN 45 min. MAXIMUM CYCLE TIME AT 60 min. DIMENSIONS (L x W x H) 60 x 32 x 28 cm. COMING WITH STANDARD ACCESSORIY PACKAGE . . . (1) Ø 80 x 650 mm FOG RAKE STRAIGHT VERSION, TRANSPARENT (2) 350 mm BROAD FLAT OUTPUT NOZZLE (3) 3 m FLEXIBLE TUBE WITH END TIPS (Ø 80 mm) (4) POWER CABLE
2	AFM30-NEO (GEN.2019)		AFM30-NEO GEN.2019 ATOMIZING FROM MINIMUM 2,98 LITER (WITH A 25 % FAN OUTPUT) TO MAXIMUM 8,10 LITER (WITH A 100 % FAN OUTPUT) OF WFI-WATER IN 45 min. MAXIMUM CYCLE TIME AT 75 min. DIMENSIONS (L x W x H) 60 x 32 x 28 cm. COMING WITH STANDARD ACCESSORIY PACKAGE . . . (1) Ø 80 x 650 mm FOG RAKE STRAIGHT VERSION, TRANSPARENT (2) 350 mm BROAD FLAT OUTPUT NOZZLE (3) 5 m FLEXIBLE TUBE WITH END TIPS (Ø 80 mm) (4) POWER CABLE
3	AFM35-NEO (GEN.2019)		AFM35-NEO GEN.2019 ATOMIZING FROM MINIMUM 3,46 LITER (WITH A 25 % FAN OUTPUT) TO MAXIMUM 10,20 LITER (WITH A 100 % FAN OUTPUT) OF WFI-WATER IN 45 min. MAXIMUM CYCLE TIME AT 90 min. DIMENSIONS (L x W x H) 60 x 32 x 28 cm. COMING WITH STANDARD ACCESSORIY PACKAGE . . . (1) Ø 80 x 650 mm FOG RAKE STRAIGHT VERSION, TRANSPARENT (2) 350 mm BROAD FLAT OUTPUT NOZZLE (3) 5 m FLEXIBLE TUBE WITH END TIPS (Ø 80 mm) (4) POWER CABLE
OPTIONAL ACCESSORIES			
4	FL.650.80-STR		Ø 80 x 650 mm FOG RAKE STRAIGHT VERSION, TRANSPARENT
5	FL.1300.80-STR		Ø 80 x 1.300 mm FOG RAKE STRAIGHT VERSION, TRANSPARENT
6	FL.1850.80-STR		Ø 80 x 1.850 mm FOG RAKE STRAIGHT VERSION, TRANSPARENT
7	FL.650.60-STR		Ø 60 x 650 mm FOG RAKE STRAIGHT VERSION, TRANSPARENT
8	FL.1300.60-STR		Ø 60 x 1.300 mm FOG RAKE STRAIGHT VERSION, TRANSPARENT
9	FL.1350.80-T		Ø 80 mm x 1.350 FOG RAKE T-PATTERN VERSION, TRANSPARENT, COMING WITH 80 TO 60 MM REDUCTION

LINE	ITEM #	PICTURE	ITEM DESCRIPTION
10	OUTLET.45°		45° FLEXIBLE HOSE TO BE CONNECTED TO APXX FOG OUTLET PROVIDING A STABLE OUTPUT RIGHT ON SPOT. COMING WITH SOFT TIPS BOTH SIDES.
11	TUBE.3000.80-BS		3 m FLEXIBLE TUBE WITH END TIPS (Ø 80 mm)
12	TUBE.5000.80-BS		5 m FLEXIBLE TUBE WITH END TIPS (Ø 80 mm)
13	TUBE.10000.80-BS		10 m FLEXIBLE TUBE WITH END TIPS (Ø 80 mm)
14	TUBE.3000.60-BS		3 m FLEXIBLE TUBE WITH END TIPS (Ø 60 mm)
15	TUBE.5000.60-BS		5 m FLEXIBLE TUBE WITH END TIPS (Ø 60 mm)
16	80.THROTTLE		80 mm THROTTLE VALVE FOR A 0 TO 100 % OUTPUT ADJUSTMENT AT HOSE TIP
17	80/60.THROTTLE		REDUCTION FROM 80 TO 60 mm DIAMETER WITH THROTTLE VALVE FOR A 0 TO 100 % OUTPUT ADJUSTMENT AT HOSE TIP
18	80/60 RED		REDUCTION FROM 80 TO 60 mm DIAMETER (THIS REDUCTION COMES WITHOUT THROTTLE VALVE!)
19	TUBE.CON.80		TUBE CONNECTOR COUPLING TWO HOSES MAKING IT A XL-HOSE
20	NOZ.350		350 mm BROAD FLAT OUTPUT NOZZLE
21	NOZ.500		500 mm BROAD FLAT OUTPUT NOZZLE WITH INSIDE BLADE STRUCTURE FOR A HOMOGENEOUS FOG OUTPUT
22	Y-SPLITTER.80-STRD		Y-PATTERN SPLITTER FOR SPLITTING ONE TO TWO HOSES ENABLING WORKING PARALLELY AT TWO VISUALIZATION SPOTS . COMING WITH SHORT HOSE CONNECTING AFM-NEO TO Y-SPLITTER. PLEASE CHOOSE SECOND 3 OR 5 m FLEXIBLE TUBE WITH END TIPS (Ø 80 mm) IN ADDITION.
23	Y-SPLITTER.80-THROTTLE		Y-PATTERN SPLITTER <u>ADDITIONALLY WITH BUTTERFLY VALVE IN EACH OUTGOING TUBE</u> FOR SPLITTING ONE TO TWO HOSES ENABLING A 0 TO 100 % OUTPUT ADJUSTMENT AND PARALLEL WORKING AT TWO PROJECT SPOTS . COMING WITH SHORT HOSE CONNECTING AFM-NEO TO Y-SPLITTER. PLEASE CHOOSE SECOND 3 or 5 m FLEXIBLE TUBE WITH END TIPS (Ø 80 mm) IN ADDITION.
24	LED.BOOST		LED LUMINAIRE W/ADJUSTABLE SPOT SIZE INCL. SPECIAL MULTI LENSE ARRAY (LINE PATTERNS) & HIGHER CONTRAST
25	RC.AFM.AD		ADVANCED REMOTE CONTROL FOR SYSTEM FUNCTIONS ON/OFF, SWITCH & FLASH MODE, FAN UP/DOWN, 4-3-2-1 BLOCK RUN.

AFM-NEO SERIES – CONTAMINATION FREE AIRFLOW VISUALISATION IN CLEANROOMS ACC. TO ISO 14644-3 ANNEX B7

LINE	ITEM #	PICTURE	ITEM DESCRIPTION
26	WR.PS	WORLDWIDE USE	BUILT IN WIDE RANGE POWER SUPPLY ENABLING A WORLDWIDE SYSTEM USE
27	IQ/OQ	IQ/OQ	IQ/OQ DOCUMENTATION
28	LF.AFM		CARRIAGE WITH STEERING HOLM FOR A EASY HANDLING W/O LIFTING ON THE JOB
29	BOX.GEN.2019		HEAVY DUTY TRANSPORT BOX WITH TELESCOPIC HANDLE FITTED WITH HANDLES AND HEAVY DUTY FOAM, COLOUR SILVER

UNIQUE FEATURE OF SPLITTING THE STRD. 80 MM HOSE INTO SEVERAL HOSES STILL SUPPLYING PAPER WHITE FOG ON TWO OR EVEN THREE OUTLETS

SISTEMA'S AFM-NEOs ARE WELL EQUILIBRATED CLEANROOM FOGGERS BEING THE **SMALLEST AND LIGHTEST SYSTEMS IN MARKET ENABLING CONTINUOUS FOGGING IN PAPERWHITE FOG QUALITY DURING OF 45 TO 90 MINUTES** (DEPENDING TO THE SYSTEM'S CONFIGURATION AND SETTINGS). THE DESIGN OF ITS BUILT IN HIGH-PERFORMANCE PIEZOELECTRIC MODULES (BLOCKS) IS UNIQUE IN MARKET ATOMIZING UP TO **10,2 LITERS OF DI-WATER OR WFI-WATER PER HOUR INTO MICRO SIZE FOG DROPLETS.**



THANKS TO THIS HIGH FOG QUANTITY BOTH **AFM30-NEO AND AFM35-NEO DO ALLOW SPLITTING THE 80 MM STANDARD TUBING INTO SEVERAL 80 MM HOSES** BASED ON THE Y-SPLITTER ACCESSORY AS SHOWN ON THE LEFT (SPLIT OF 1 INTO 2 HOSES FOR THE AFM30-NEO AND EVEN 1 TO 4 SPLIT OF HOSES FOR THE AFM35-NEO). THIS UNIQUE FEATURE **ENABLES USERS COVERING EITHER A LARGER AREA OR WORKING PARALLELLY ON TWO OR EVEN THREE VISUALIZATION SPOTS OF THE SAME PROJECT RESULTING IN A CONSIDERABLY SHORTER PROJECT TIME.**

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