



AFM35-NEO WITH Y-SPLITTER

## BACKGROUND OF APPLICATION

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 CLEAN ROOM FOGGERS.

## **AFM 35 NEO**

THE AFM35-NEO CLEANROOM FOGGER USES A HIGH PERFORMANCE TRASONIC MODULE OF 35 PIEZOELECTRIC CERAMICS TO GENERATE IN ITS CLASS UNMATCHED 1,25 CUBIC METERS OF PURE FOG PER MINUTE WITH 170 ML OF FOG DENSITY PER MINUTE TO PROVIDE 5 TO 7 M OF VISIBLE AIR FLOWS FOR SMOKE STUDIES IN CLEAN ROOMS, MEDICAL ROOMS, ISO SUITES, BARRIER ISOLATORS, FUME HOODS AND SIMILAR APPLICATIONS IN CLEAN ROOMS. THE AFM35-NEO IS THE ONLY ULTRASONIC BASED AIR FLOW MAPPER / CLEAN ROOM FOGGER THAT COMPETES IN FOG VOLUME AND FOG DENSITY (PURE WHITE) WITH ANY AVAILABLE LN2 BASED CLEAN ROOM FOGGER (THIS AT THE ONLY EXCEPTION OF SISTEMA'S LN2 FOG MACHINE AP35). YET ITS UNIQUE CRITERION IN THIS COMPETITION IS THAT THE AFM35-NEO (ONLY NEEDS DI WATER OR WFI WATER TO PRODUCE THIS HIGHER VOLUME OF WHITE DENSE PURE FOG AND NOT A MEDIA OF TWO COMPONENTS LIKE LN2 AND DI WATER AS WITH THE LN2 FOGGERS.

## FOG OUTPUT CHARACTERISTICS



DENSE PAPER WHITE PURE FOG

CYCLE TIME OF 80 MIN OF WHICH 50 MIN WITH PURE WHITE FOG

SUFFICIENT IN VOLUME FOR A VOLUME SPLIT INTO TWO HOSES BOTH PROVIDING PURE WHITE FOG SIMULTANEOUSLY ATOMIZING UP TO UNMATCHED 170 ML OF DI-WATER PER MINUTE INTO 1,25 CUBIC METERS OF WHITE FOG PER MIN.

5 TO 7 M OF VISIBLE AIR FLOWS

HIGHEST FOG OUPUT RATE OF ALL ULTRASONIC PIEZOELECTRIC BASED CLEAN ROOM FOGGERS IN MARKET

## 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

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



## SPECS AND FEATURES

CASING AND TANK IN ELECTROPOLISHED STAINLESS STEEL

DIMENSIONS OF (L X H X W) 571 X 293 X 325 MM

NET WEIGHT OF 20 KGS

TANK CAPACITY OF 10 L

MAX. CYCLE TIME OF 80 MIN OF WHICH 50 MIN ARE WITH PURE WHITE FOG.

ULTRASONIC MODULE OF 35 PIEZOELECTRIC CERAMIC DISCS

0 - 100 % ADJUSTMENT OF FOG INTENSITY AND DENSITY

MICRO FAN, 24 V, IP 68

FOG OUTLET Ø OF 80 MM)

DOTMATRIX DISPLAY FOR INDICATION OF OPERATING STATE AND ALL OPERATING FUNCTIONS

ELECTRONICAL WATER FILL LEVEL SURVEY VIA 3 CAPACITIVE SENSORS

TEMPERATURE SURVEY FUNCTION

ELAPSED TIME METER

REDUNDANCY FUNCTION ENABLING THE SYSTEM FUNCTIONALITY EITHER WITH 3 OR 2 OR 1 ULTRASONIC BLOCS IN CASE OF SINGLE BLOC FAILURE

SOFT START ELECTRONIC

SELF MONITORING FUNCTIONALITY

COMING WITH STANDARD ACCESSORIES INCLUDING

90 – 264 VAC WIDE RANGE POWER SUPPLY COVERING 90 . . . 264 VAC, 47 . . . 63 HZ, 5 A @ 230 VAC, 3 A @ 115 VAC

BUFFER FUNCTIONALITY IN CASE OF UNSTABLE POWER SUPPLY GRIDS

650 MM STRAIGHT PATTERN TRANSPRENT FOG RAKE OF 80 MM IN Ø

Y-PATTERN SPLITTER ENABLING SPLITTING OF ONE TUBE INTO TWO TUBES BOTH PROVIDING PURE WHITE FOG SIMULTANEOUSLY AND ENABLING WORKING SAME TIME ON TWO SEPARATE SPOTS

2 SETS OF FLEXIBLE TUBE (L X Ø) OF 3.000 X 80 MM PLUS FITTINGS

TUBE - TUBE CONNECTOR COUPLING TWO SINGLE TUBINGS

POWER CABLE

24 MONTHS WARRANTY

CE-COMPLIANCE CERTIFICATE







USER MANUAL



## SYSTEM OVERLOOK AND ACCESSORIES

LINE	ITEM #	PICTURE	ITEM DESCRIPTION
<b>AFM35-NEO GEN.2019 SERIES - 230 OR 115 VAC VERSIONS W/STRD. ACCESSORIES (POWER CABLE + 5 M TUBING)</b>			
1	<b>AFM35-NEO (GEN.2019)</b>		<b>AFM35-NEO GEN.2019</b> ATOMIZING FROM <b>MINIMUM 3,46 LITER</b> (WITH A 25 % FAN OUTPUT) TO <b>MAXIMUM 10,20 LITER</b> (WITH A 100 % FAN OUTPUT) OF <b>WFI-WATER</b> IN 45 min. MAXIMUM CYCLE TIME AT 90 min. POWER CABLE + 3 M TUBING INCLUDED.
<b>OPTIONAL ACCESSORIES</b>			
2	FL.650.80-STR		<b>Ø 80 x 650 mm FOG RAKE</b> STRAIGHT VERSION, TRANSPARENT
3	FL.1300.80-STR		<b>Ø 80 x 1.350 mm FOG RAKE</b> STRAIGHT VERS., TRANSPARENT
4	FL.1800.80-STR		<b>Ø 80 x 1.800 mm FOG RAKE</b> STRAIGHT VERS., TRANSPARENT
5	FL.650.60-STR		<b>Ø 60 x 650 mm FOG RAKE</b> STRAIGHT VERSION, TRANSPARENT
6	FL.1300.60-STR		<b>Ø 60 x 1.300 mm FOG RAKE</b> STRAIGHT VERS., TRANSPARENT
7	FL.1300.80-T		
8	OUTLET.45°		<b>45° FLEXIBLE HOSE</b> TO BE CONNECTED TO APXX FOG OUTLET PROVIDING A STABLE OUTPUT RIGHT ON SPOT. COMING WITH SOFT TIPS BOTH SIDES.
9	TUBE.3000.80-BS		<b>3 m FLEXIBLE TUBE</b> WITH END TIPS (Ø 80 mm)
10	TUBE.5000.80-BS		<b>5 m FLEXIBLE TUBE</b> WITH END TIPS (Ø 80 mm)
11	TUBE.10000.80-BS		<b>10 m FLEXIBLE TUBE</b> WITH END TIPS (Ø 80 mm)
12	TUBE.3000.60-BS		<b>3 m FLEXIBLE TUBE</b> WITH END TIPS (Ø 60 mm)
13	TUBE.5000.60-BS		<b>5 m FLEXIBLE TUBE</b> WITH END TIPS (Ø 60 mm)
14	TUBE.CON		<b>TUBE CONNECTOR</b> COUPLING TWO HOSES MAKING IT A XL-HOSE
15	NOZ.350		<b>350 mm BROAD FLAT OUTPUT NOZZLE</b>
16	NOZ.500		<b>500 mm BROAD FLAT OUTPUT NOZZLE</b> WITH INSIDE BLADE STRUCTURE FOR A HOMOGENEOUS FOG OUTPUT
17	Y-SPLITTER		<b>Y-PATTERN SPLITTER</b> FOR SPLITTING ONE TO TWO HOSES ENABELOING WORKING SAME TIME AT TWO VISUALIZATION SPOTS. COMING WITH ADDITIONAL SHORT HOSE CONNECTING APXX WITH Y-SPLITTER.



LINE	ITEM #	PICTURE	ITEM DESCRIPTION
18	LED.BOOST		<b>LED LUMINAIRE W/ADJUSTABLE SPOT SIZE INCL. SPECIAL MULTI LENSE ARRAY (LINE PATTERNS) &amp; HIGHER CONTRAST</b>
19	FLEX.KIT-80/60/50		<b>FLEXIBILITY KIT ENABLING A SPLITTING OF THE STANDARD Ø 80 mm INTO TWO Ø 50 mm HOSES. INCLUDING ONE Y-SPLITTER CONNECTING DIRECTLY TO THE AFM-NEO'S FOG OUTLET + TWO Ø 80 TO Ø 50 mm REDUCTIONS (WITH INSIDE THROTTLE VALVE FOR A FROM 0 TO 100 % OUTPUT ADJUSTMENT IN EACH OF THE Y-ADAPTER OUTLETS) PLUS 2 UNITS OF THE 3 m Ø 50 mm HOSE. AS MAJOR PROS THIS FLEXIBILITY KIT ENABLES WORKING ON TWO SPOTS PARALLELY WITH POSSIBILITY OF INDIVIDUALLY ADJUSTMENT OF THE FOG OUTPUT FROM 0 TO 100 % IN EACH OF THE TWO Ø 50 mm HOSES AND GOING INTO NARROW OR CORNER SPACES NOT REACHABLE WITH A STANDARD Ø 80 mm HOSE.</b>
20	RC.AFM.BASIC		<b>BASIC REMOTE CONTROL</b> FOR ALL SYSTEM FUNCTIONS ON/OFF, SWITCH MODE AND FLASH MODE
21	RC.AFM.AD		<b>ADVANCED REMOTE CONTROL</b> FOR SYSTEM FUNCTIONS ON/OFF, SWITCH & FLASH MODE, FAN UP/DOWN, 4-3-2-1 BLOCK RUN.
22	WR.PS	<b>WORLDWIDE USE</b>	<b>BUILT IN WIDE RANGE POWER SUPPLY</b> ENABLING A WORLDWIDE SYSTEM USE
23	LF.AFM		<b>CARRIAGE WITH STEERING HOLM</b> FOR A EASY HANDLING W/O LIFTING ON THE JOB
24	80/60 RED.THR		<b>THROTTLE VALVE</b> FOR A 0 TO 100 % OUTPUT ADJUSTMENT AT HOSE TIP & <b>REDUCTION FROM 80 TO 60 mm DIAMTER</b>
25	BOX.GEN.2019		<b>HEAVY DUTY TRANSPORT BOX WITH TELESCOPIC HANDLE</b> FITTED WITH HANDLES AND HEAVY DUTY FOAM, COLOUR SILVER



## REFERENCE EXTRACT



## FURTHER REFERENCES 2018/2019

**SANDOZ** CANADA AND AUSTRIA**LAM RESEARCH** USA**REGENERON** USA AND IRELAND**ALLERGAN** USA AND BRAZIL**MESA3** USA**MSD ANIMAL HEALTH** UK**OPTIMA PHARMA** GERMANY**NOVO NORDISK** FRANCE**LIFECORE** USA**BC TECHNOLOGY** GERMANY**ESPRIT VALIDATION** FRANCE**NOVARTIS** USA AND SINGAPORE**PFIZER** ITALY AND USA**GSK** UK AND CANADA**ADVANCED AUTOMATICS** USA**SANOFI** USA**TECNOLOG PHARMA** UKRAINE**HEMOPHARM** SERBIA**OCTAPHARMA** FRANCE**IGIENAIR** (QUALIFIER) FRANCE**PHARMASERV** GERMANY**HYGENIKS** USA**TEVA PHARMA** USA**AMGEN** USA**ALCON** BELGIUM AND USA**PERFORMANCE VALIDATION** USA**BOEHRINGER I.** GERMANY & CHINA & USA**FRESENIUS KABI** SOUTH AFRICA AND USA**ROMPHARMA** ROMANIA**PJSC TECNOLOG** UKRAINE**HEX GROUP** (QUALIFIER) BELGIUM / FRANCE**LDMI** (QUALIFIER) FRANCE**CAS** (QUALIFIER) SWITZERLAND