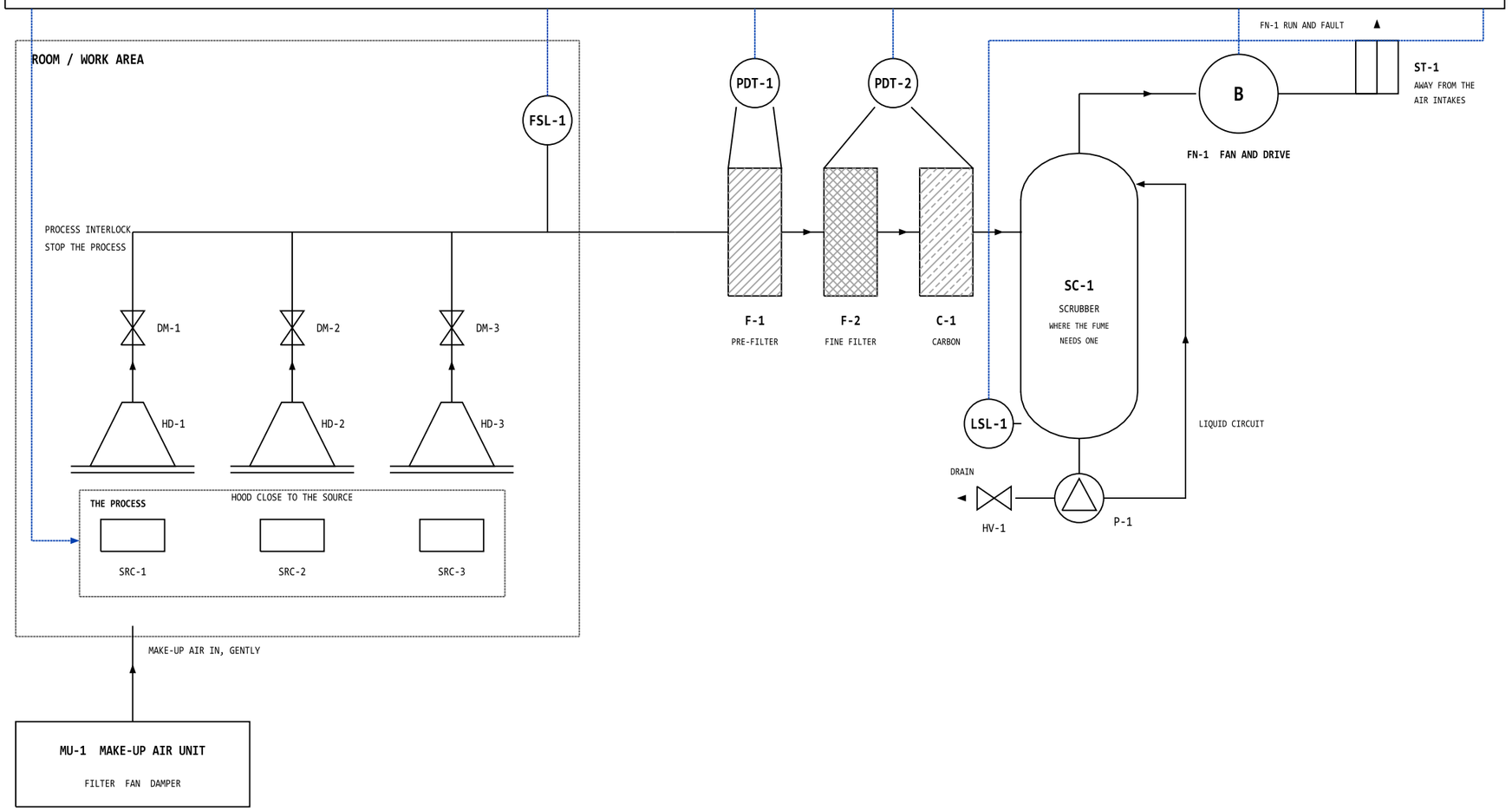
LCP-1 EXTRACTION CONTROLLER

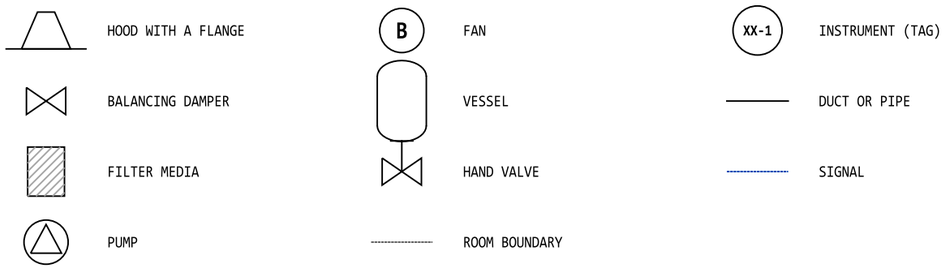
FAN DRIVE - FLOW AND FILTER READINGS - SCRUBBER LEVEL - PROCESS INTERLOCK - AIR AT EACH HOOD ON RECORD



FUME EXTRACTION SYSTEM - PROCESS AND INSTRUMENT SCHEMATIC

NOT TO SCALE - TAGS ONLY, NO PROCESS VALUES

LEGEND



HOLDS AND RELEASES

CAUSE	EFFECT
FSL-1 LOW EXTRACTION FLOW	STOP THE PROCESS, ALARM
PDT-1 PRE-FILTER LOADED	ALARM, CHANGE THE FILTER
PDT-2 FINE FILTER OR CARBON LOADED	ALARM, CHANGE THE FILTER
LSL-1 LOW LEVEL IN SC-1	STOP P-1, ALARM
FN-1 FAN FAULT	STOP THE PROCESS, ALARM

NOTES

1. REFERENCE SCHEMATIC OF A DUCTED FUME EXTRACTION SYSTEM WITH A SCRUBBER STAGE. TAGS ONLY: NO VELOCITY, FLOW, DISTANCE, EFFICIENCY, PRESSURE OR SIZE VALUE IS GIVEN.
2. HD-1 TO HD-3 ARE HOODS WITH FLANGES, PLACED AS CLOSE AS THE WORK ALLOWS TO THE SOURCES SRC-1 TO SRC-3. THE AIR A HOOD DRAWS IN FALLS OFF QUICKLY WITH DISTANCE FROM ITS FACE.
3. DM-1 TO DM-3 ARE BALANCING DAMPERS, SET AND LOCKED SO THAT EACH HOOD DRAWS ITS SHARE. THE BRANCH DUCTS JOIN THE MAIN DUCT, WHICH LEAVES THE ROOM.
4. THE FILTER STAGE IS IN ORDER: F-1 PRE-FILTER, F-2 FINE FILTER FOR PARTICLES, THEN C-1 ACTIVATED CARBON FOR VAPOURS AND ODOURS, BEHIND THE PRE-FILTER. PDT-1 AND PDT-2 READ THE PRESSURE ACROSS THEM, WHICH RISES AS THEY LOAD.
5. SC-1 IS A SCRUBBER FOR ACID AND REACTIVE FUME, WHERE THE FUME NEEDS ONE. P-1 CIRCULATES ITS LIQUID, LSL-1 PROTECTS THE PUMP AND HV-1 DRAINS THE SUMP. IT IS LEFT OUT WHERE A DRY FILTER CAN HOLD THE FUME.
6. FN-1 DRAWS THE AIR THROUGH THE WHOLE DUCT AND FILTER STAGE. ITS DRIVE CAN BE TURNED DOWN, SO THAT THE AIR CAN BE SET AT HANDOVER.
7. ST-1 LETS THE CLEANED AIR OUT, AWAY FROM THE AIR INTAKES SO THAT IT IS NOT DRAWN BACK IN.
8. MU-1 SUPPLIES MAKE-UP AIR TO THE ROOM, GENTLY, SO THAT IT DOES NOT BLOW ACROSS THE HOODS. AIR TAKEN OUT HAS TO COME BACK IN.
9. LCP-1 STOPS THE PROCESS THROUGH THE INTERLOCK WHEN FSL-1 SHOWS LOW FLOW OR FN-1 FAULTS, AND KEEPS THE AIR AT EACH HOOD ON RECORD.
10. FANS, FILTERS, SCRUBBER PARTS, DUCTING, DAMPERS AND INSTRUMENTS ARE CATALOGUE ITEMS, BOUGHT IN. FOR REFERENCE SEE EN 14175 AND ISO 21904.

REFERENCE CONFIGURATION - NOT FOR CONSTRUCTION

NEOMETRIX DEFENCE LIMITED
ENGINEERED IN NOIDA - INDIA

FUME EXTRACTION SYSTEM - REFERENCE CONFIGURATION

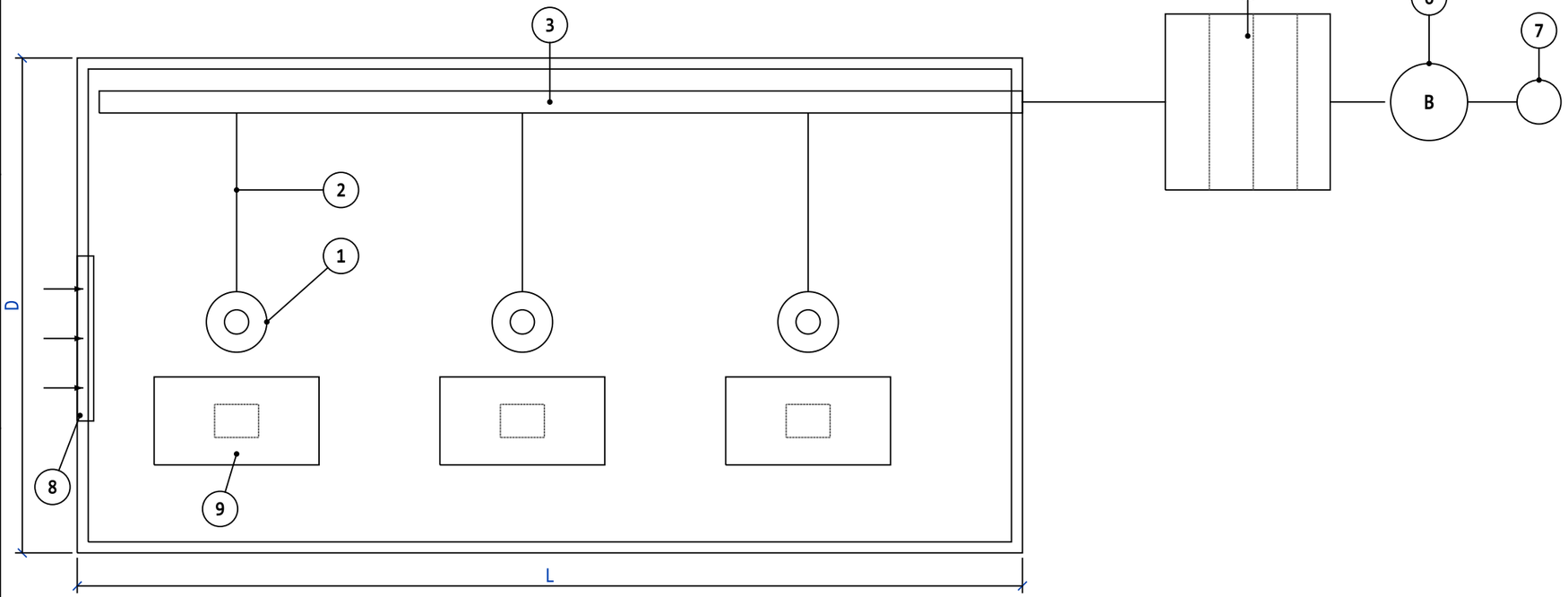
PROCESS AND INSTRUMENT SCHEMATIC

HOODS, DUCTING, FILTER STAGE, SCRUBBER, FAN AND STACK

DWG NO	SCALE @ A3	SHEET	REV
NMX-FXS-88-001	NTS	1 OF 2	A
DATE	UNITS	DRAWN	STATUS
03-11-2026	TAGS ONLY	NMX-DO	REFERENCE

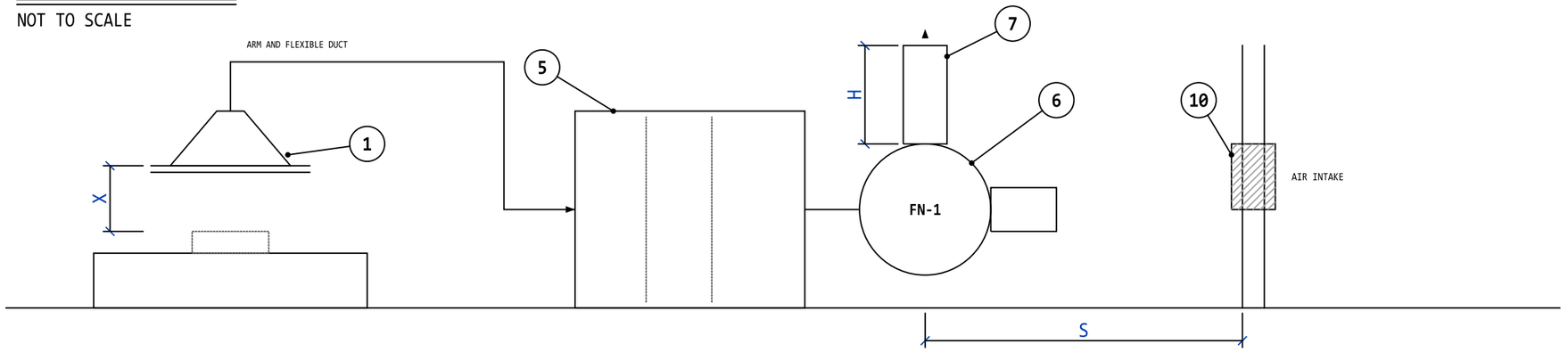
PLAN

NOT TO SCALE



ELEVATION

NOT TO SCALE



NOTES

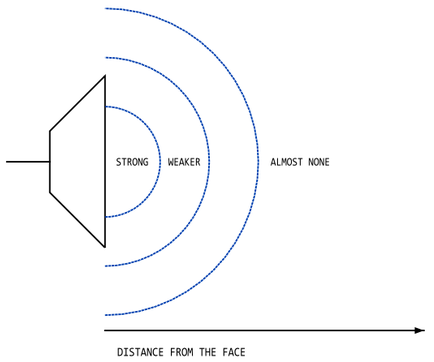
1. REFERENCE ARRANGEMENT OF A DUCTED FUME EXTRACTION SYSTEM FOR THREE WORKSTATIONS. THE LETTERS ARE DIMENSIONS SET BY DESIGN: NO VELOCITY, FLOW, DISTANCE, EFFICIENCY OR SIZE VALUE IS GIVEN.
2. L AND D ARE THE LENGTH AND DEPTH OF THE ROOM. X IS THE DISTANCE FROM THE FACE OF THE HOOD TO THE SOURCE, KEPT AS SMALL AS THE WORK ALLOWS. S IS THE DISTANCE FROM THE STACK TO THE NEAREST AIR INTAKE AND H IS THE HEIGHT OF THE STACK.
3. DETAIL A: THE AIR A HOOD DRAWS IN FALLS OFF QUICKLY WITH DISTANCE FROM ITS FACE. THE CONTOURS SHOW STRONG, WEAKER AND ALMOST NO CAPTURE. THE HOOD GOES TO THE FUME.
4. DETAIL B: A FLANGE AROUND THE MOUTH OF THE HOOD STOPS AIR ARRIVING FROM BEHIND, SO MORE OF WHAT THE HOOD DRAWS COMES FROM THE FRONT.
5. DETAIL C: THE FILTER STAGE IS IN ORDER, PRE-FILTER F-1, FINE FILTER F-2, THEN CARBON C-1. PDT-1 READS THE PRESSURE ACROSS F-1 AND PDT-2 ACROSS F-2 AND C-1, WHICH RISES AS THEY LOAD.
6. THE MAIN DUCT RUNS ALONG THE BACK WALL AND LEAVES THE ROOM TO THE PLANT AREA. MAKE-UP AIR COMES IN THROUGH THE GRILLE IN THE LEFT WALL, GENTLY, AWAY FROM THE HOODS.
7. THE CYCLE, THE INSTRUMENTS AND THE INTERLOCK ARE ON SHEET 001. CATALOGUE ITEMS ARE BOUGHT IN.

ITEMS

ITEM	DESCRIPTION
1	HOOD WITH A FLANGE
2	ARM AND FLEXIBLE DUCT
3	MAIN DUCT
4	BALANCING DAMPERS
5	FILTER HOUSING
6	FAN AND DRIVE
7	STACK
8	MAKE-UP AIR GRILLE
9	WORKBENCH AND SOURCE
10	AIR INTAKE

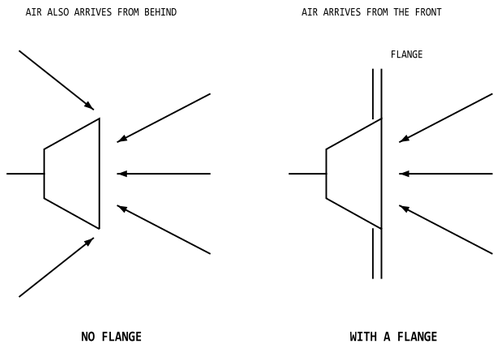
DETAIL A - CAPTURE AND DISTANCE

NOT TO SCALE



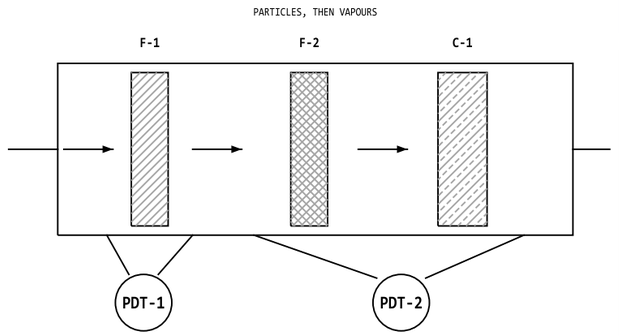
DETAIL B - THE FLANGE

NOT TO SCALE



DETAIL C - THE FILTER STAGE

NOT TO SCALE



REFERENCE CONFIGURATION - NOT FOR CONSTRUCTION

NEOMETRIX DEFENCE LIMITED

ENGINEERED IN NOIDA - INDIA

FUME EXTRACTION SYSTEM - REFERENCE CONFIGURATION

GENERAL ARRANGEMENT AND DETAILS

ROOM PLAN, ELEVATION, CAPTURE, FLANGE AND FILTER STAGE

DWG NO	SCALE @ A3	SHEET	REV
NMX-FXS-88-002	NTS	2 OF 2	A
DATE	UNITS	DRAWN	STATUS
03-11-2026	TAGS ONLY	NMX-DO	REFERENCE