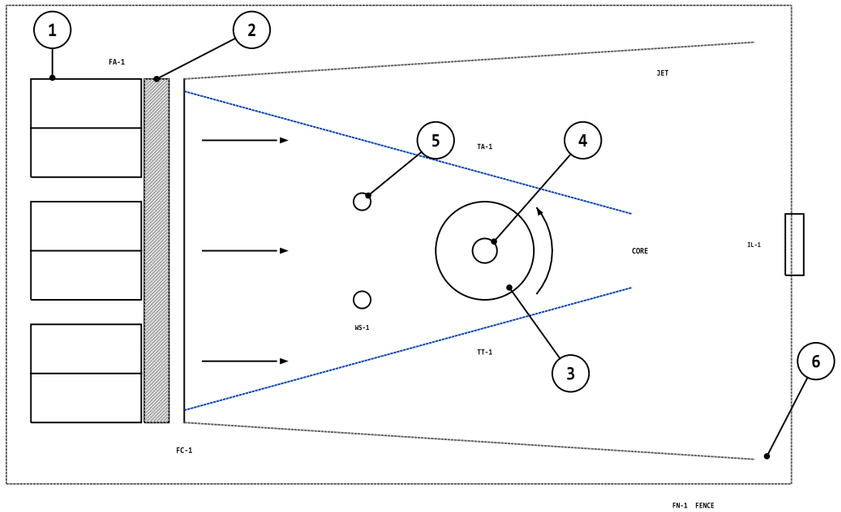
PLAN - WIND SIMULATOR

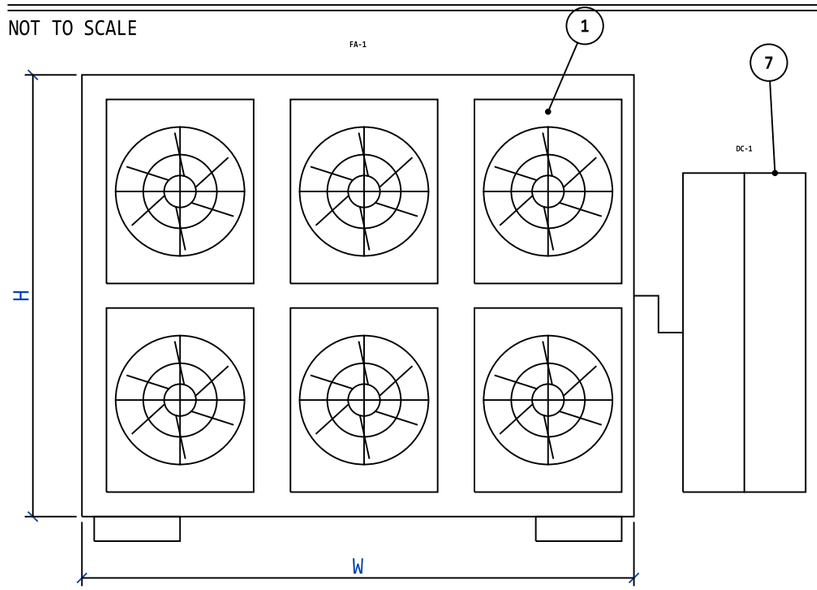
NOT TO SCALE



THE SIMULATOR BLOWS AN OPEN JET TO THE RIGHT: THE FAN ARRAY FA-1 THROUGH THE FLOW CONDITIONER FC-1; THE JET IS EVEN ONLY IN ITS CORE, WHICH SHRINKS WITH THE DISTANCE, SO THE TEST ARTICLE TA-1 ON ITS TURNTABLE TT-1 SITS IN THE CORE AND THE SENSORS WS-1 STAND UPSTREAM OF IT; THE FENCE FN-1 AND ITS INTERLOCK IL-1 KEEP PEOPLE AND LOOSE FIXINGS OUT OF THE JET

FRONT ELEVATION - FAN ARRAY

NOT TO SCALE



NOTES

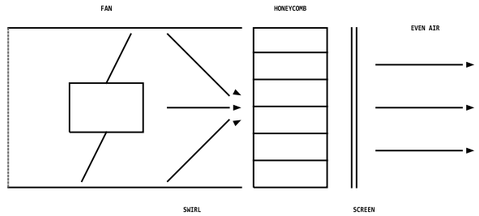
1. REFERENCE ARRANGEMENT OF A WIND SIMULATOR. LETTERS ARE QUANTITIES SET BY DESIGN: NO SPEED, POWER, FORCE, SIZE, COUNT OR TIME VALUE IS GIVEN.
2. THE PLAN SHOWS THE FAN ARRAY FA-1, THE FLOW CONDITIONER FC-1, THE SPREADING EDGES OF THE JET AND ITS SHRINKING EVEN CORE, THE TEST ARTICLE TA-1 ON THE TURNTABLE TT-1, THE WIND SENSORS WS-1 UPSTREAM OF IT, AND THE FENCE FN-1 WITH ITS INTERLOCK IL-1. THE FRONT ELEVATION SHOWS THE ARRAY: A FRAME OF FAN UNITS AND THE DRIVE CABINET DC-1. THE NUMBER OF FANS IN A REAL ARRAY IS WHAT THE TEST ARTICLE NEEDS.
3. DETAIL A: A FAN UNIT IN SECTION WITH THE FLOW CONDITIONER. DETAIL B: THE CONTROL LOOP. DETAIL C: THE HONEYCOMB. NO AIRCRAFT AND NO PERSON IS DRAWN: A MAST STANDS IN FOR THE TEST ARTICLE.
4. THE SEQUENCE OF A CAMPAIGN AND THE CURVES ARE ON SHEET 002. THE FANS, THE MOTORS, THE DRIVES AND THE WIND SENSORS ARE CATALOGUE ITEMS, BOUGHT IN. THE SOUND ENCLOSURE AND THE SUPPLY ARE NOT SHOWN.

ITEMS

ITEM	DESCRIPTION
1	FAN ARRAY FA-1
2	FLOW CONDITIONER FC-1
3	TURNTABLE TT-1
4	TEST ARTICLE TA-1
5	WIND SENSORS WS-1
6	FENCE FN-1, INTERLOCK IL-1
7	DRIVE CABINET DC-1

DETAIL A - FAN UNIT IN SECTION

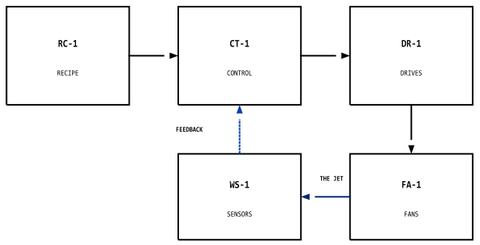
NOT TO SCALE



THE FAN THROWS ITS AIR WITH A TWIST; THE HONEYCOMB STRAIGHTENS IT AND THE SCREEN EVENS THE SPEED, AT SOME COST IN PRESSURE; THE AIR LEAVES STRAIGHT AND THE SAME ACROSS: THE FLOW CONDITIONER FC-1

DETAIL B - THE CONTROL LOOP

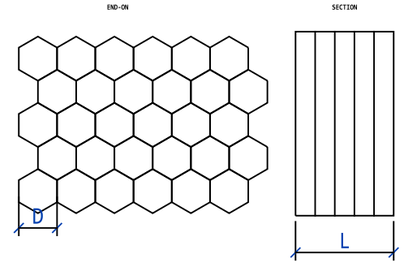
NOT TO SCALE



THE RECIPE ASKS FOR A SPEED; THE CONTROL COMPARES IT WITH WHAT THE UPSTREAM SENSORS READ AND ADJUSTS THE DRIVES; THE LOOP CAN ONLY ASK FOR WHAT THE FANS CAN GIVE, WITHIN A LIMIT ON THE SPEED

DETAIL C - THE HONEYCOMB

NOT TO SCALE



A HONEYCOMB IS A BUNDLE OF LONG NARROW CELLS: THEIR LENGTH L IS SEVERAL TIMES THEIR WIDTH D; TOO SHORT AND THE SWIRL PASSES, TOO LONG AND IT COSTS PRESSURE

REFERENCE CONFIGURATION - NOT FOR CONSTRUCTION

NEOMETRIX DEFENCE LIMITED

ENGINEERED IN NOIDA - INDIA

WIND SIMULATOR - REFERENCE CONFIGURATION

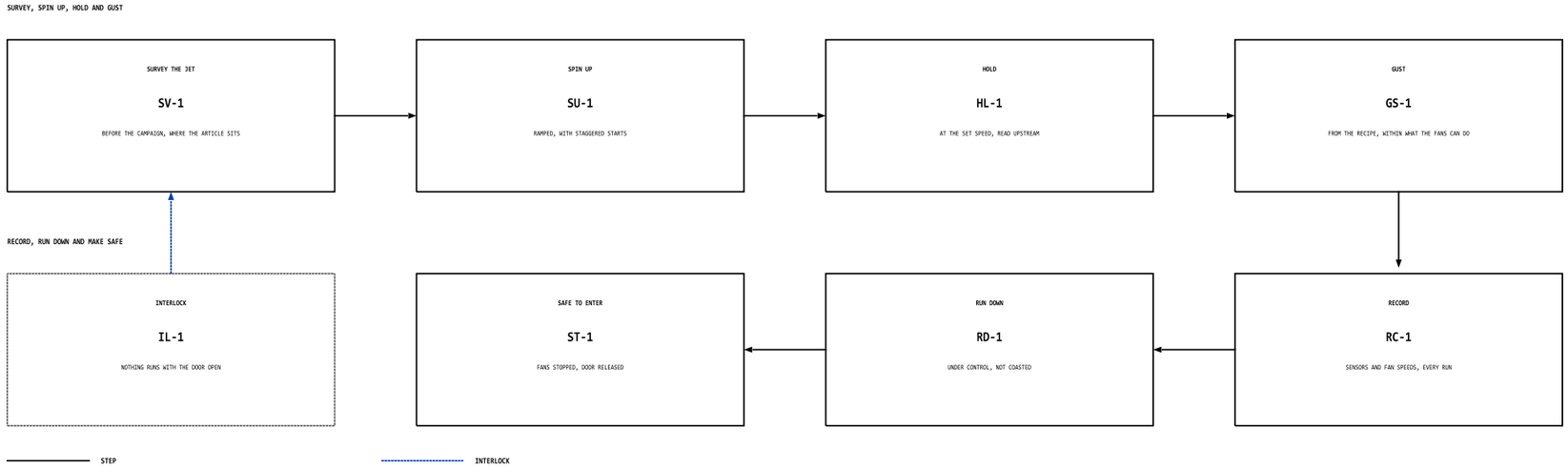
ARRANGEMENT AND DETAILS

THE SIMULATOR, THE FAN ARRAY AND THREE DETAILS

DWG NO	SCALE @ A3	SHEET	REV
NMX-WSM-119-001	NTS	1 OF 2	A
DATE	UNITS	DRAWN	STATUS
21-11-2026	TAGS ONLY	NMX-DO	REFERENCE

SEQUENCE OF A CAMPAIGN - WIND SIMULATOR

NOT TO SCALE

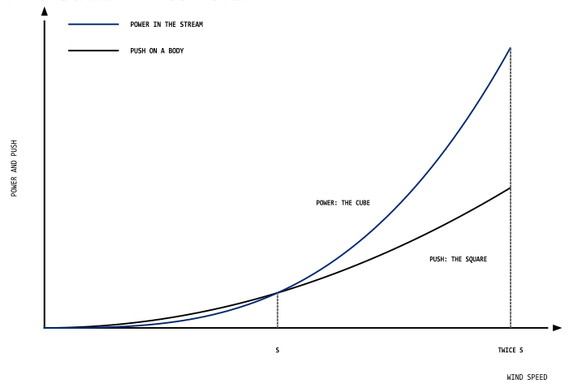


NOTES

1. REFERENCE SEQUENCE AND CURVES OF A WIND SIMULATOR. TAGS AND LETTERS ONLY: NO SPEED, POWER, FORCE, SIZE, COUNT OR TIME VALUE IS GIVEN.
2. THE SEQUENCE: SURVEY THE JET SV-1, SPIN UP SU-1 WITH STAGGERED STARTS, HOLD HL-1, GUST GS-1 FROM THE RECIPE, RECORD RC-1, RUN DOWN RD-1 UNDER CONTROL, AND SAFE TO ENTER ST-1. THE INTERLOCK IL-1 LETS NOTHING RUN WITH THE DOOR OPEN.
3. DETAILS A TO C ARE COMPUTED FROM SIMPLE RELATIONS IN RELATIVE UNITS: A PICTURE OF THE IDEA, NOT A MEASUREMENT. THE ARRANGEMENT IS ON SHEET 001.
4. THE SPEEDS, THE GUST PROFILES AND THE LIMITS OF A REAL SIMULATOR COME FROM THE CUSTOMER'S TEST ARTICLE AND TEST AND ARE WORKED OUT FOR EACH SIMULATOR.

DETAIL A - POWER AND PUSH

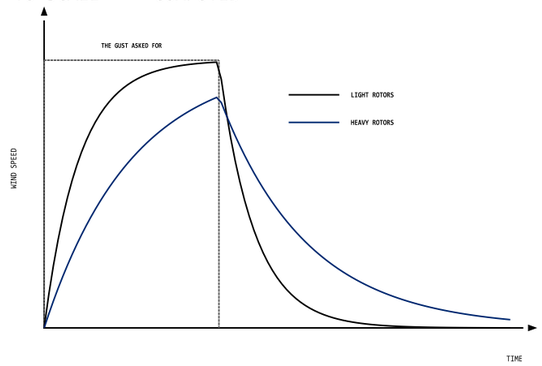
NOT TO SCALE - COMPUTED



THE POWER IN A STREAM GOES WITH THE CUBE OF ITS SPEED AND THE PUSH ON A BODY WITH THE SQUARE: A LITTLE MORE WIND COSTS A GREAT DEAL MORE POWER; COMPUTED IN RELATIVE UNITS: A PICTURE OF THE IDEA, NOT A MEASUREMENT

DETAIL B - GUST AGAINST FANS

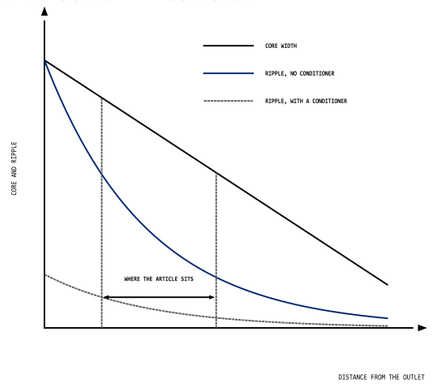
NOT TO SCALE - COMPUTED



A ROTOR HAS INERTIA, SO THE GUST THAT COMES OUT IS A SMOOTHED COPY OF THE GUST ASKED FOR: LIGHT ROTORS FOLLOW IT, HEAVY ROTORS ROUND IT OFF AND LOSE ITS PEAK; COMPUTED IN RELATIVE UNITS: A PICTURE OF THE IDEA, NOT A MEASUREMENT

DETAIL C - JET AGAINST DISTANCE

NOT TO SCALE - COMPUTED



THE EVEN CORE OF A JET SHRINKS WITH DISTANCE, AND THE RIPPLE FROM THE SEPARATE FAN JETS DIES AWAY; A FLOW CONDITIONER LEAVES LITTLE RIPPLE, SO THE ARTICLE SITS IN THE BAND; COMPUTED, RELATIVE UNITS: A PICTURE OF THE IDEA, NOT A MEASUREMENT

REFERENCE CONFIGURATION - NOT FOR CONSTRUCTION

NEOMETRIX DEFENCE LIMITED
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WIND SIMULATOR - REFERENCE CONFIGURATION

SEQUENCE AND CURVES

THE SEQUENCE OF A CAMPAIGN AND THE CURVES OF THE IDEA

DWG NO	SCALE @ A3	SHEET	REV
NMX-WSM-119-002	NTS	2 OF 2	A
DATE	UNITS	DRAWN	STATUS
21-11-2026	TAGS ONLY	NMX-DO	REFERENCE