

MILITARY AEROSPACE		STAVATTI		MINNESOTA
SCALE	1/48	MODEL	SM-47S/T	
ENGINEER	C.R. Beskar	DRAWING NUMBER	SM-47-001109	
APPROVED		DATE	22/12/2009	

	WING	CANARD	HORIZ TAIL	VERT TAIL
AREA SQ FT.	280.00	31.50	86.07	80.14
SPAN FEET	36.00	9.00	19.14	6.50
ASPECT RATIO	4.63	2.57	1.59	1.05
TAPER RATIO	0.50/1.00	0.40	0.49/1.27	0.29
SWEEP AT 25°C	-34.56°/30.00°	46.00°	21.39°/28.25°	30.16°
ROOT CHORD FEET	7.67/10.75	5.00	8.29/5.15	9.58
TIP CHORD FEET	3.84/10.75	2.00	4.09/6.53	2.75
MAC FEET	5.97/10.75	3.71	6.43/5.86	6.80

WING
 DIHEDRAL AT 0.25C ROOT 0.00° TIP 3.00°
 INCIDENCE ROOT 0.00° TIP 0.00°
 AIRFOIL SECTION-ROOT STAVATTI SONIC 0206
 AIRFOIL SECTION-TIP STAVATTI SONIC 0204
 AVERAGE AIRFOIL SECTION STAVATTI SONIC 0205

FLAPS
 AREA SQ FT TOTAL 51.98
 DEFLECTION TAKE-OFF 10°
 DEFLECTION LANDING 30°
 MAX DEFLECTION 40°
 PERCENT OF WING CHORD 30%
 PERCENT WING AREA AFFECTED 31%
 TYPE PLAIN FLAPPERON

AILERON
 AREA SQ FT TOTAL 30.65
 DEFLECTION DEGREES DN 30°-UP 30°
 TYPE PLAIN FLAPPERON

VERTICAL TAIL
 RUDDER AREA SQ FT 21.99
 RUDDER DEFLECTION DEGREES +/- 30°
 TYPE SEMI-AERODYNAMICALLY MASS BALANCED
 AIRFOIL SECTION STAVATTI 0045

CANARD
 ELEVATOR AREA SQ FT 31.50
 ELEVATOR DEFLECTION DEGREES DN 60°-UP 60°
 TYPE ALL-MOVING DIFFERENTIAL
 AIRFOIL SECTION STAVATTI 00045
 DIHEDRAL 2.00°

HORIZONTAL TAIL
 ELEVATOR AREA SQ FT 86.07
 ELEVATOR DEFLECTION DEGREES DN 60°-UP 60°
 TYPE ALL-MOVING DIFFERENTIAL
 AIRFOIL SECTION STAVATTI 00045
 DIHEDRAL 0.00°

POWERPLANT
 NUMBER 1
 TYPE AFTERBURNING TURBOFAN
 MODEL GEAE F414-EPE
 MAXIMUM AFTERBURNING THRUST, SL-LBS 26,000
 MAXIMUM AFTERBURNING THRUST, SL-SFC 1,810
 MAXIMUM MILITARY THRUST, SL-LBS 17,400
 MAXIMUM MILITARY THRUST, SL-SFC 0,793
 ENGINE LENGTH, INCHES 156.00
 ENGINE MAXIMUM DIAMETER, INCHES 35.00
 ENGINE FAN DIAMETER, INCHES 28.00
 ENGINE DRY WEIGHT, LBS 2,651

AIR INLET
 NUMBER 2
 TYPE BIFURCATED PITOT/NORMAL SHOCK
 UNIT CAPTURE AREA, SQ IN 365
 TOTAL INLET SYSTEM CAPTURE AREA, SQ IN 730

NOSE GEAR
 NUMBER OF STRUTS 1
 NUMBER OF WHEELS PER STRUT 1
 TIRE SIZE 19.5 x 6.75-8
 PLY RATING 10TL
 INFLATION PRESSURE, PSI 110

MAIN GEAR
 NUMBER OF STRUTS 2
 NUMBER OF WHEELS PER STRUT 1
 TIRE SIZE 24 x 8.0-13
 PLY RATING 18
 INFLATION PRESSURE, PSI 285

WEIGHTS (SM-47T)
 AIRCRAFT EMPTY WEIGHT (LBS) 14,760
 DESIGN USEFUL LOAD (LBS) 19,407
 FLIGHT CREW & FIXED AMMUNITION (LBS) 1,157
 FUEL-STANDARD INTERNAL (LBS) 7,250
 WARLOAD WITH STANDARD INTERNAL FUEL (LBS) 11,000
 CLEAN TAKEOFF GROSS WEIGHT (LBS) 23,167
 MAXIMUM GROSS TAKEOFF WEIGHT (LBS) 34,167

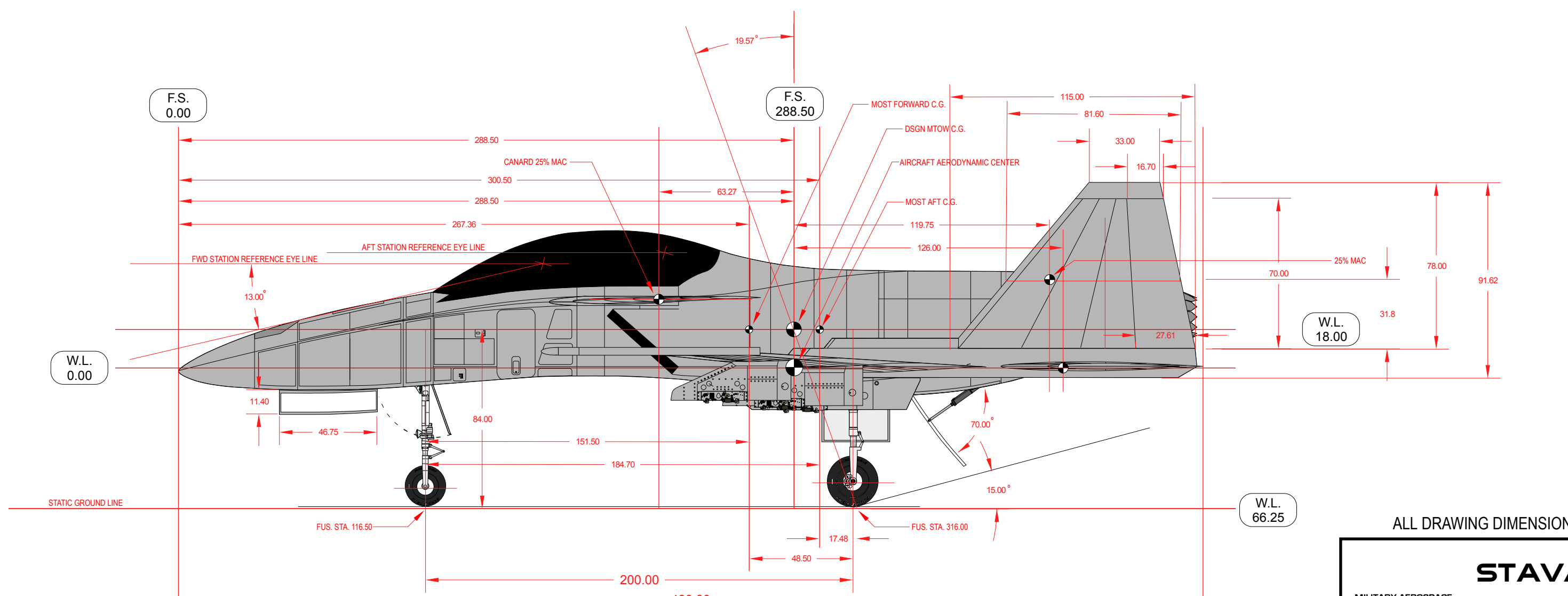
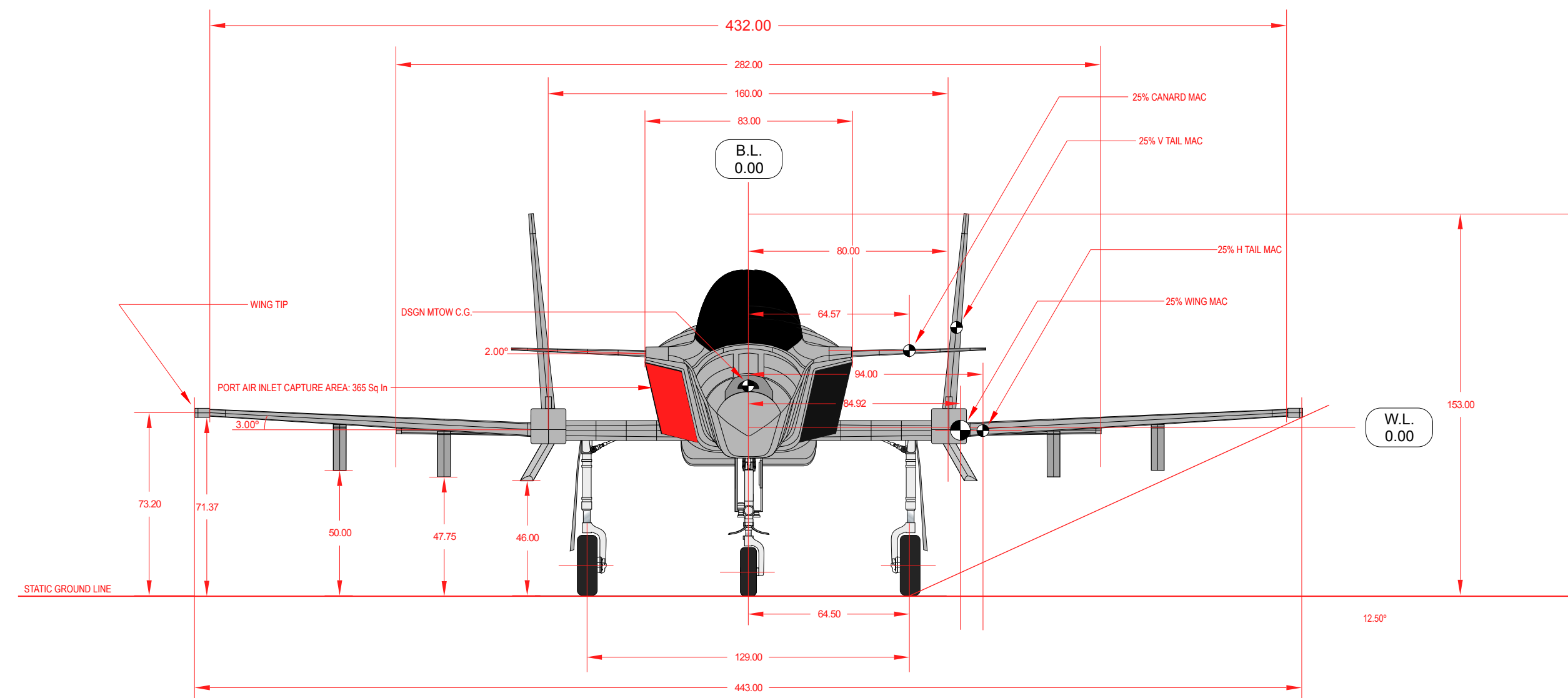
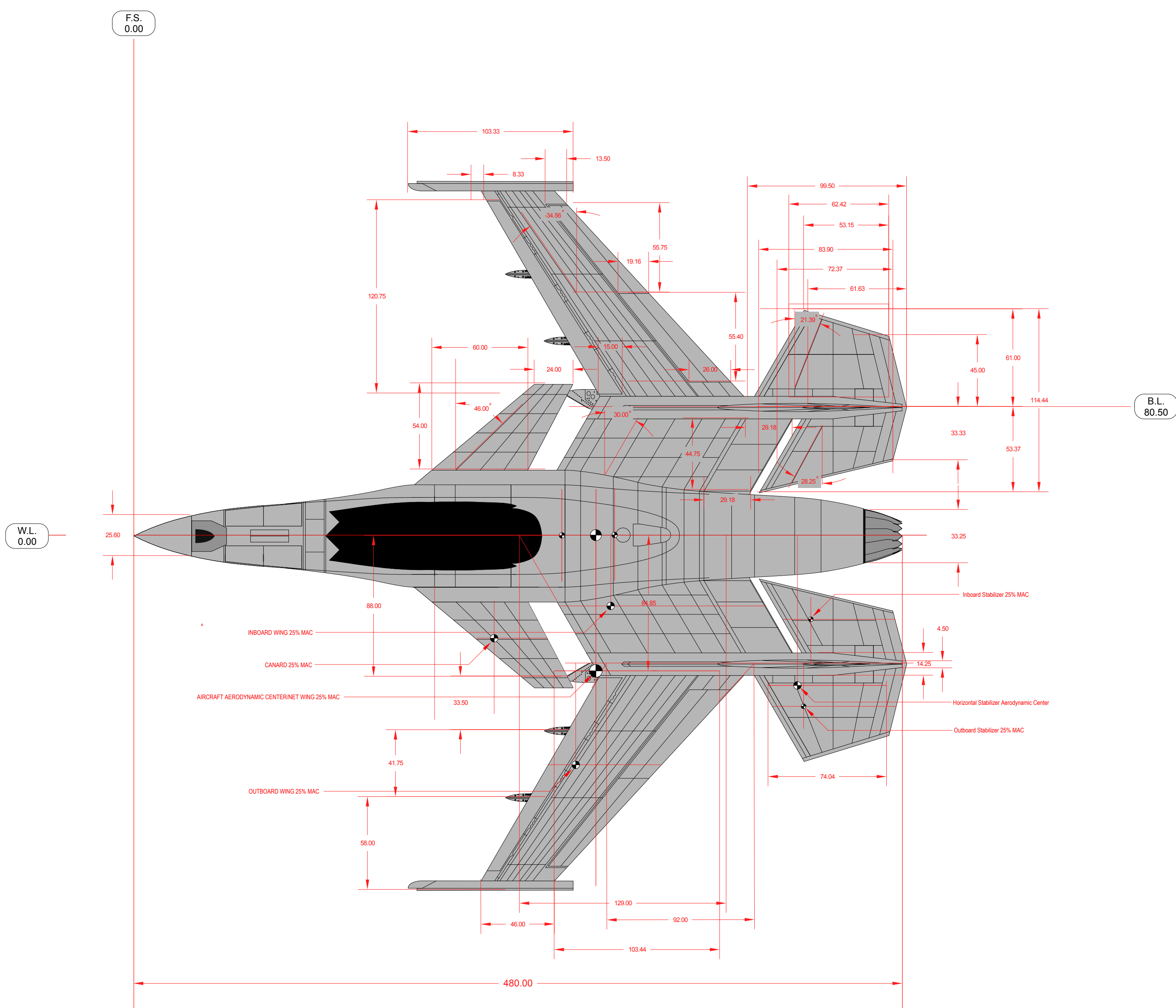
CENTER OF GRAVITY LOCATIONS
 AIRCRAFT AERODYNAMIC CENTER FROM DATUM (FT) 24.06
 AIRCRAFT AERODYNAMIC CENTER MAC (FT) 8.65
 MAC LE DISTANCE FROM DATUM (FT) 21.88

MOST FORWARD CG, % OF MAC 4.9%
 MOST FORWARD CG, DISTANCE FROM DATUM (FT) 22.28

MTOW CG, % OF MAC 25.28%
 MTOW CG, DISTANCE FROM DATUM (FT) 24.04

MOST AFT CG, % OF MAC 37.00%
 MOST AFT CG, DISTANCE FROM DATUM (FT) 25.04

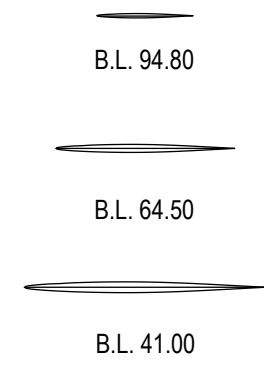
WETTED AREA (SQ FT)
 FUSELAGE 565
 EMPENNAGE SUPPORT BOOMS 134
 AIR INLETS 31
 STORES PYLONS 90
 WING 401
 CANARD 65
 HORIZONTAL STABILIZER 178
 VERTICAL STABILIZER 134
 TOTAL 1,598



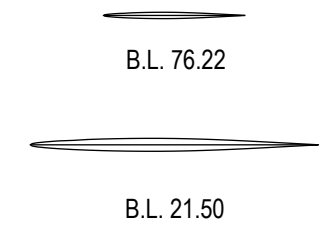
ALL DRAWING DIMENSIONS ARE IN INCHES (IN)

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MILITARY AEROSPACE	SCALE 1/48	MODEL SM-47S/T
ENGINEER C.R. Beskar	DRAWING NUMBER SM-47-001209	DATE 22/12/2009
APPROVED	GENERAL ARRANGEMENT	

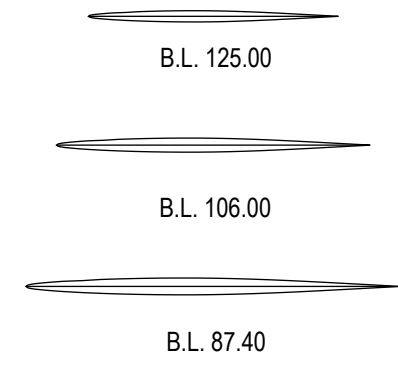
CANARD SECTIONS



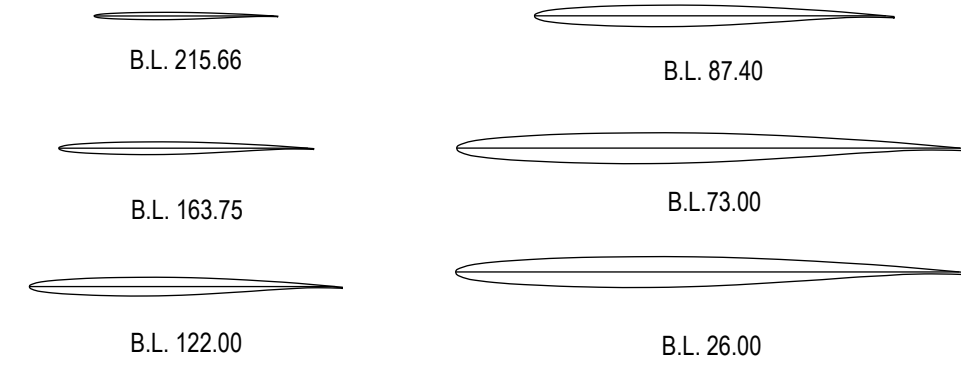
V TAIL SECTIONS



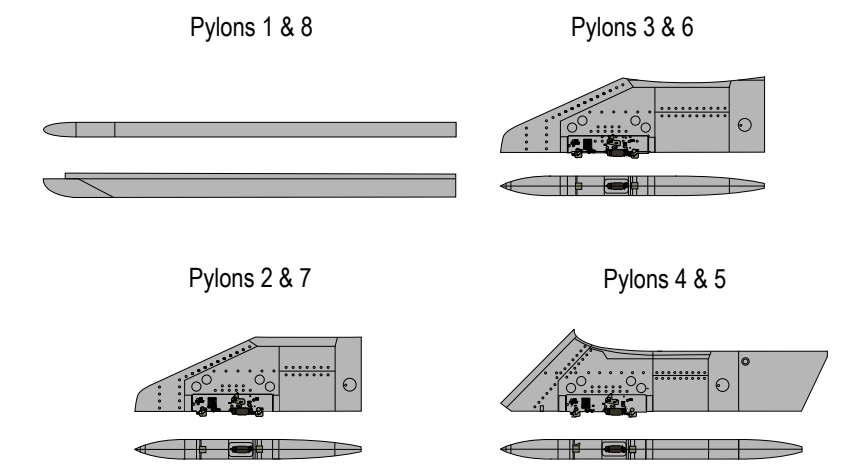
H TAIL SECTIONS



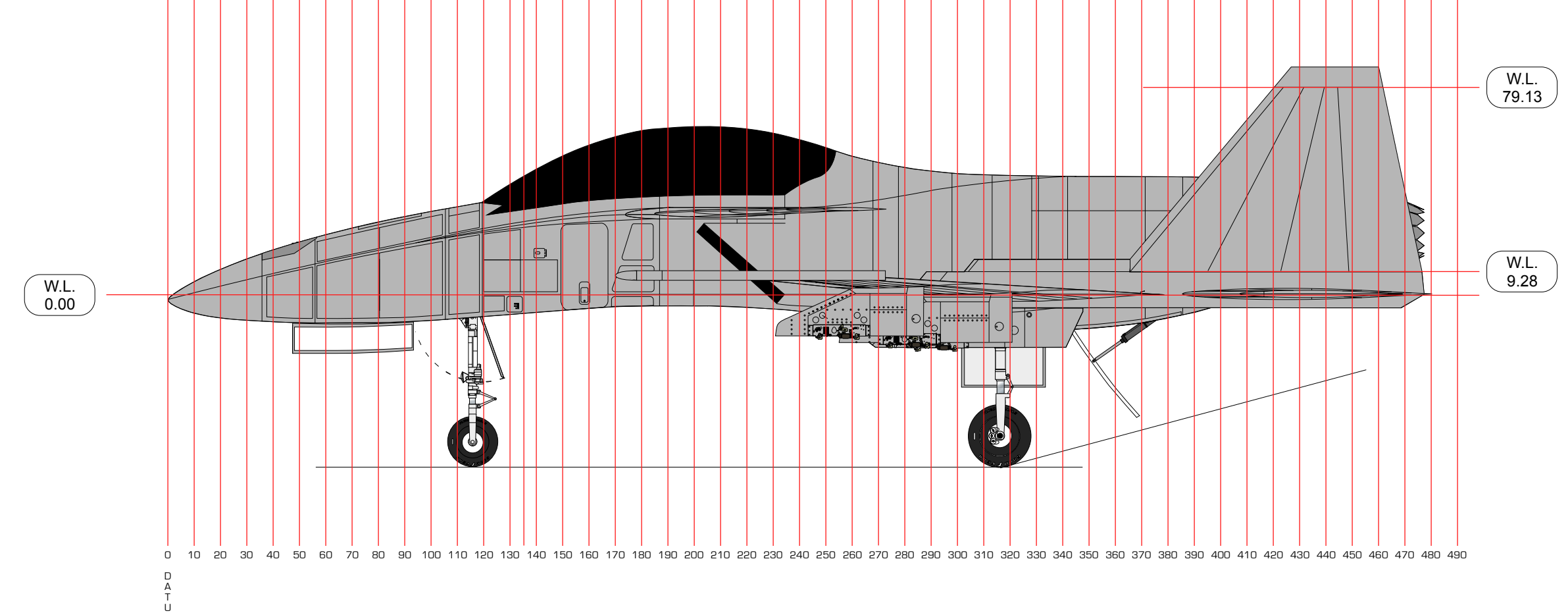
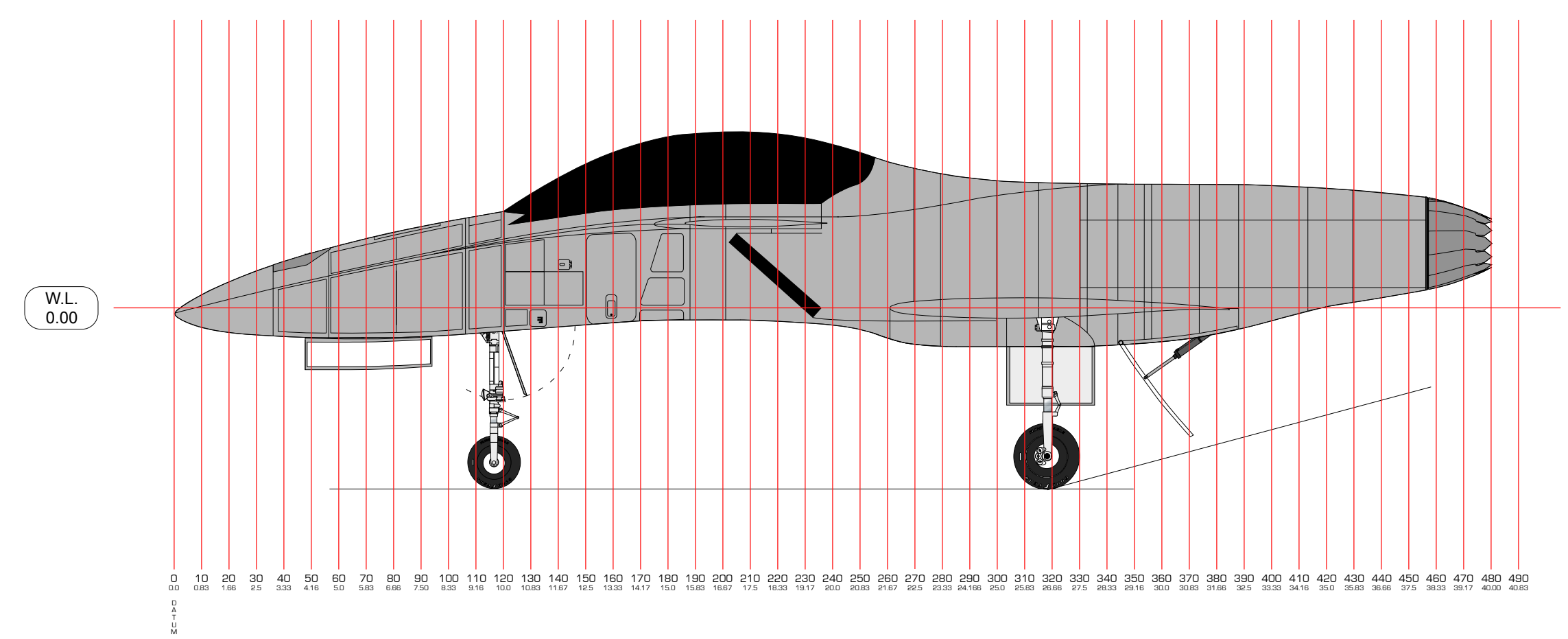
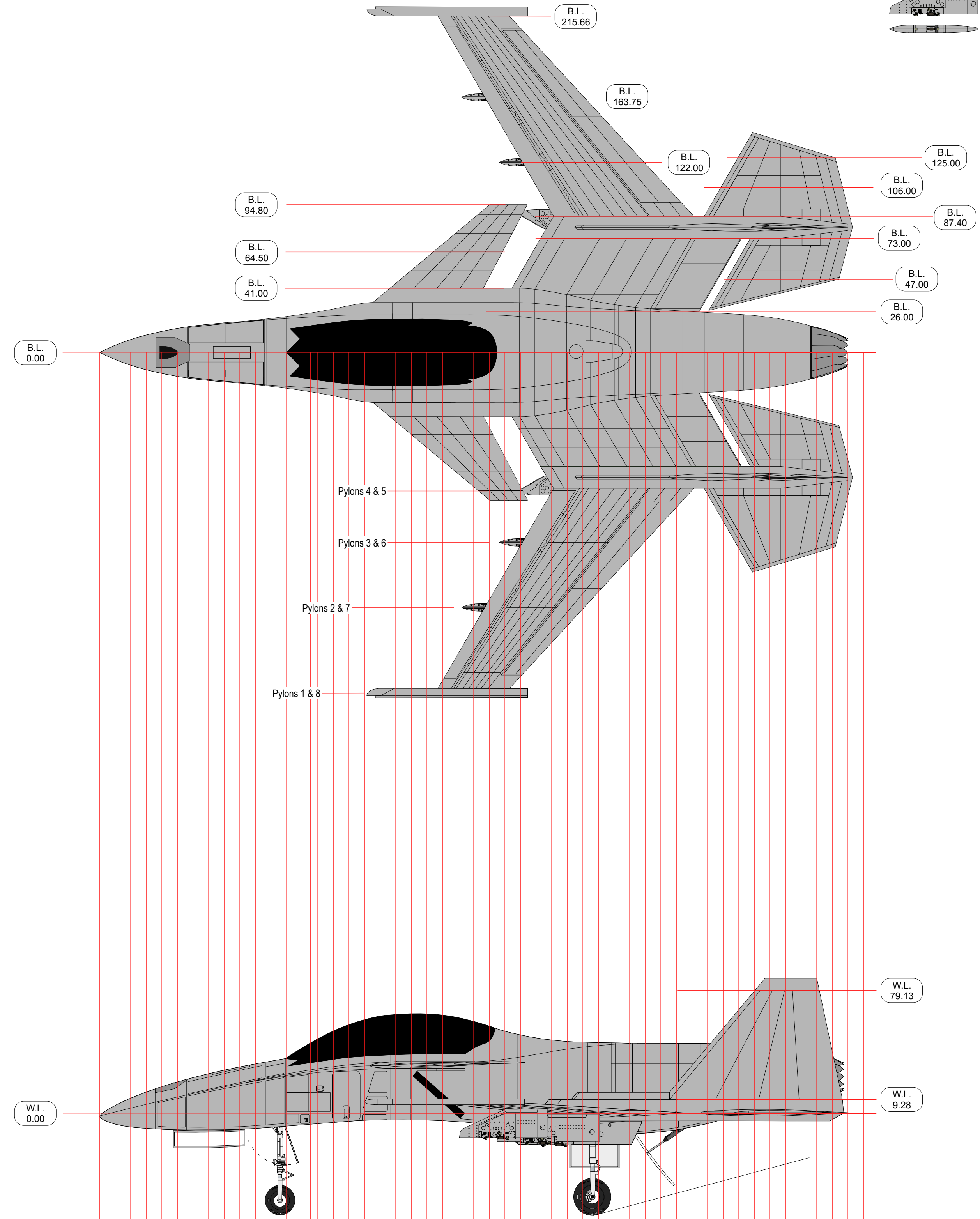
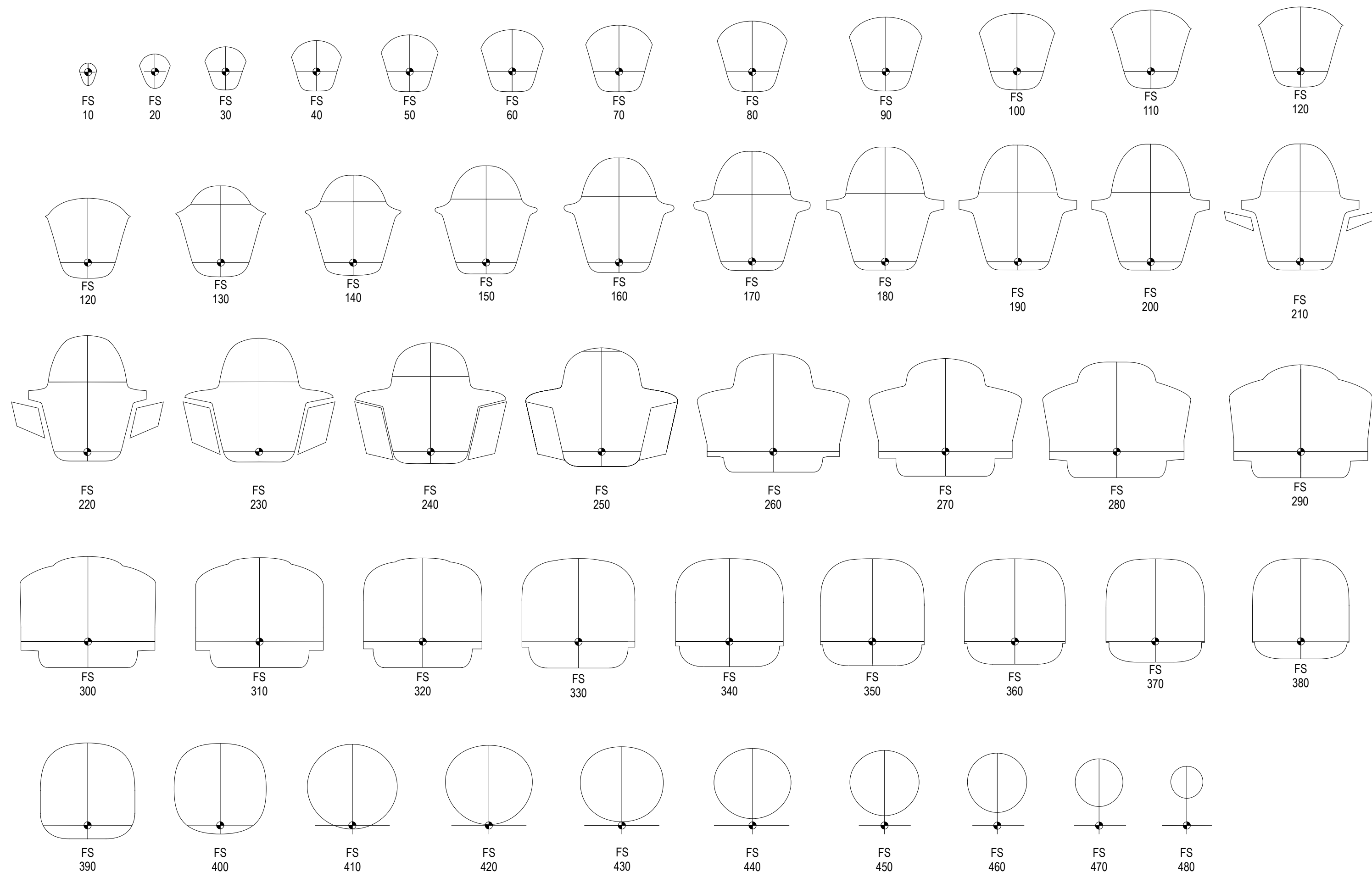
WING SECTIONS



STORES PYLONS



FUSELAGE CROSS SECTIONS



CROSS SECTION STATIONS ARE IN INCHES FROM DATUM (IN)

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