

Typical values for maximum lift coefficient

These suggestions are from Roskam, Part I, pg. 91. I have given some ranges for categories other than the ones needed in your assignments to remind you to think "outside the box".

Category	$(C_{L,max})_{clean}$	$(C_{L,max})_{TO}$	$(C_{L,max})_L$
Twin engine propeller	1.2 – 1.8	1.4 – 2.0	1.6 – 2.5
Regional turboprop	1.5 – 1.9	1.7 – 2.1	1.9 – 3.3
Business jets	1.4 – 1.8	1.6 – 2.2	1.6 – 2.6
Transport jets	1.2 – 1.8	1.6 – 2.2	1.8 – 3.2
Military trainers	1.2 – 1.8	1.4 – 2.0	1.6 – 2.2
Fighters	1.2 – 1.8	1.4 – 2.0	1.6 – 2.6

When thinking about alternate configurations, a useful reference is Roskam, Part II, pp. 25 - 106. Read the pages, and study the configurations that apply to your design project, but don't forget to look also at a related category to stretch your ideas a little (see above).

Fuselage dimensionless ratios

Category	l_f/d_f	l_{fc}/d_f	θ_{fc} (°)
Twin engine propeller	3.6 – 8	2.6 – 4	6 – 13
Regional turboprop	5.6 – 10	2 – 4	15 – 19
Business jets	7 – 9.5	2.5 – 5	6 – 11
Transport jets	6.8 – 11.5	2.6 – 4	11 – 16
Military trainers	5.4 – 7.5	3	0 – 14
Fighters	7 – 11	3 – 5 (see above)	0 – 8

