Sizing of high lift devices using Parapy: output file

Saved at: 2020-05-07 16:16:37.758978
Planform file name: test_planform2
The HLDs were sized using the CL_max of the clean wing provided by the user in the main file.
No external analysis was carried out.

Input parameters:

wing_span	= 15.0 m
root_chord	= 6.0 m
taper_inner	= 0.65
taper_outer	= 0.3
kink_position	= 4.0 m
flap_gap	= 0.2 m
sweep_deg	= 35.0 deg
dihedral_deg	= 4.0 deg
front_spar	= 0.2 x/c
rear_spar	= 0.6 x/c
outer_flap_lim	= 0.7 y/b
fuselage_radius	= 1.5 m
clmax	= 1.8
twist	= 2.0 deg
speed	= 100.0 m/s
airfoil_name	= ex3
flap_type	= Plain

Output parameters:

Cl_max clan	= 1.4
Delta Cl_max	= 0.4
Flap hinge location	= 0.93 x/c
Flap deflection	= 45 deg
Stall AoA	= Unknown deg
Flaps per wing	= 1
Inner flap area	= 39.6967 m^2
Outer flap area	= 55.9062 m^2

Other parameters

Mach number	= 0.2915
Kink chord	= 3.9 m
Tip chord	= 1.17 m

Cross section of airfoil with the flap system: