

# C172 PERFORMANCE

## Specifications and Limitations

*Performance figures given at 2300lbs (MAUW) and speeds in KIAS unless specified otherwise.*

### Structural Limitations

Gross weight (take-off and landing)	2300 lbs
Baggage allowance (area 1)	120 lbs (54kgs)
Baggage allowance (area 2)	50 lbs (23kgs)
Baggage allowance (max combine area 1 and 2)	120 lbs (54kgs)
Flight load factor (flaps up)	+3.8g – -1.52g
Flight load factor (flaps down)	+3.0g – 0

### Speeds

Never Exceed Speed (Vne)	160 kts (red line)
Maximum structural speed (Vno)	128 kts (top of green arc)
Maximum flap extended speed (Vfe)	85 kts (top of white arc)
Stall speed clean/cruise configuration (Vs)	47 kts (bottom of green arc)
Stall speed in landing configuration (Vso)	41 kts
Maximum demonstrated crosswind component	15 kts
Maximum maneuvering speed (Va)	2300lbs 97 kts 1950lbs 89 kts 1600lbs 80 kts

### Speeds for normal operation

Normal take-off climb out speed	60-70 kts
Short field take off	lift off 50ft, 50ft 59kts
Best rate of climb speed	73-67 kts, sea level to 10,000ft
Normal approach flaps 30°	55-65 kts
Normal approach flaps up	60-70 kts
Short field landing	60 kts

### Speeds for emergency operation

Engine Failure after take-off	65 kts flap up, 60 flap down
Forced landing	65 kts flap up, 60 flap down
Precautionary landing	60 kts full flap

### Cruise Performance\*

Cruise at 2000ft pressure altitude	2300 rpm 105 KTAS, 6.3 gph
Cruise at 10,000ft pressure altitude	2300 rpm 101 KTAS, 5.6 gph

*\*Cruise figures provided from the pilots operating handbook should be used with a contingency factor, a block cruises speed and fuel flow that allows for contingency and climb and descent are normally applied.*