Advanced Weapons Flexibility

Feedback from the recent conflicts such as the Balkans, Afghanistan and Iraq has confirmed that operational requirements are changing.

Users of airborne platforms have also recognized this trend and are themselves imposing appropriate demands on equipment and systems suppliers. Users no longer want a specific aircraft for each operational role. They require a multi-role/swing-role platform that is capable of undertaking all roles (air-to-air, air-to-ground, maritime strike and reconnaissance).

The Gripen has been developed to meet a wide range of operational requirements which include a variety of missions. The multi-role capability of Gripen, and its ability to change roles in the air at the press of a button, results in a unique swing-role, multi-mission flexibility.

To fulfil the various missions that Gripen could be asked to undertake the aircraft has a variety of stores integrated and freedom of choice when it comes to the nationality of the weapons supplier. The customer has the choice to match Gripen together with stores from the United States of America, Europe and other regions of the world or from the indigenous suppliers with relative ease.

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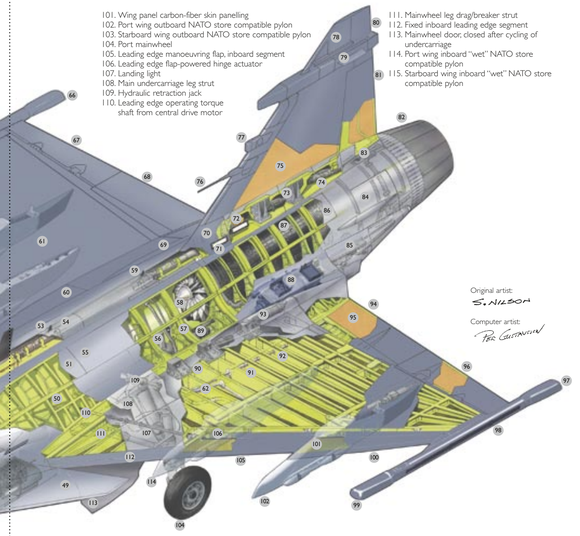
GRIPEN

The graphical representations herein are artistic impressions based on the latest available information within the Public Domain and should not be taken as establishing any commitments on the part of Gripen International.

Multi-role Capability

Pylon station	1	2	3	4	5	3	2	1	
Carriage mass (kg)	110	600		250	1100	1300			
Air-to-Air IR Missiles	⊗	⊗	⊗			⊗	⊗	⊗	AIM-9 Sidewinder, AIM-9X Sidewinder, AIM-132 ASRAAM, A-Darter, IRIS-T, Python 4, Python 5
Air-to-Air Radar Missiles		⊗	⊗			⊗	⊗		AIM-120 AMRAAM, Meteor, R-Darter, Derby
Air-to-Surface Missiles		⊗	⊗			⊗	⊗		AGM-65 Maverick, Brimstone
Smart Bombs		⊗	⊗		⊗	⊗	⊗		Lizard II/III (500, 1000, 2000 lb), SPICE, SDB (GBU-39/B) Paveway II (GBU-10/-12/-16), Paveway III (GBU-22/-24), JDAM/JDAM-ER (GBU-31/-32/-38
Anti-ship Missiles			◉			◉			RBS 15
Bombs		⊗	⊗		⊗	⊗	⊗		Mk80 Series General Purpose Bombs (250, 500, 1000, 2000 lb)
Stand-off weapons			▣			▣			DWS 39,TAURUS KEPD 350, AGM-154 JSOW
ECM Pod		◔		◔					BOQ-X300
Recce Pods				◔	◔				RecceLite, MRPS, VICON 18/72C
FLIR/LDP Pod				◔					Litening G III
AACMI Pod	●							●	EHUD/FPR
Fuel Tanks			▽		▽	▽			Fuel drop tank
27 mm Gun						Ⓖ			Mauser 27mm Gun



General Description

Gripen is the first of the new generation, multi-role combat aircraft to enter service. Using the latest available technology it is capable of performing an extensive range of air-to-air and air-to-surface operational missions and employing the latest weapons. Gripen is designed to meet the demands of current and future threats, while at the same time meeting strict requirements for flight safety, reliability, training efficiency and low operating costs. Gripen is in service with the Swedish, Czech Republic and Hungarian Air Forces and has also been ordered by the South African Air Force. The UK Empire Test Pilots' School (ETPS) is operating Gripen as its advanced fast jet platform for test pilots worldwide.

Principal features of the Gripen

- Netcentric Fighter: A truly Network Centric new generation multi-role fighter with the world's most highly developed secure and multi-frequency data link, providing total situational awareness for the pilot in all roles.
- Superior Sensor Fusion: A fully integrated avionic mission system operating on five 1553B digital data bus highways. This provides total sensor fusion resulting in enhanced combat capability guaranteeing precision delivery of smart weapons.
- Smart Digital Cockpit: An advanced fully digital cockpit layout with 3 large color, Multi-Functional Displays (MFD) and Hands-On-Throttle-And-Stick (HOTAS) provide the pilot with a superior combat advantage. Don't need, don't show.
- See First – Kill First: A combination of low radar, IR and visual design features, along with the long range Ericsson PS05 multi-mode radar and sensor fusion, including world leading new generation weapon integration, ensures a high kill ratio in long range engagements.
- Outstanding Agility: The world's most agile fighter for close combat. A combination of advanced aerodynamic layout utilising a combined close-coupled canard – delta configuration and a triplex, digital fly-by-wire Flight Control System (FCS) leads to a winning Dog-Fight capability.
- High Operational Tempo: Gripen's high operational availability, rapid turn-around and minimal support requirements lead to sustained high sortie rates giving Commanders the ability to meet the most demanding operations with minimum resources.
- Affordability: Gripen achieves the lowest operating cost of any fighter currently in operational service. This is accomplished by combining advanced system design, high technology modern components and the highly reliable Volvo RM12 engine.
- Future development: The Gripen is built to be adaptable to the changing threats and operational requirements that a modern air force faces. Many Gripen features are implemented in software. This means that growth and modification are much easier to design and implement. In most cases costly hardware changes can be avoided.

GRIPEN

1. Gripen C Cockpit
2. Pitot tube
3. Vortex generating strakes
4. Glass-fiber radome
5. Automatic Direction Finder (ADF) Antenna
6. Ericsson PS-05 multi-mode radar
7. Cockpit front pressure bulkhead
8. Yaw vane (Under forward fuselage and out of view)
9. Lower Ultra High Frequency (UHF) antenna (Under forward fuselage and out of view)
10. Incidence vane
11. Formation lighting strip
12. Rudder pedals
13. Windscreen
14. Wide angle Head Up Display (HUD)
15. Cockpit canopy, hinged to port
16. Canopy breaker Miniature Detonating Cord (MDC)
17. Starboard air intake
18. Martin-Baker Mk10L zero-zero ejection seat
19. Cockpit rear pressure bulkhead
20. Engine throttle lever
21. Port side console panel
22. Cockpit section composite skin panelling
23. Nose wheel door with integral taxying light
24. Retraction actuator
25. Twin-wheel nose undercarriage
26. Hydraulic steering jacks
27. 27mm cannon
28. Port air intake
29. Boundary layer splitter plate
30. Air conditioning system heat exchanger intake duct
31. Avionics equipment compartment, access via nose wheel bay
32. Retractable, telescopic flight refuelling probe
33. Cockpit rear avionics shelf
34. Starboard canard foreplane
35. Global Positioning System (GPS) antenna
36. Fuselage strake, port and starboard
37. Heat exchanger and exhaust ducts
38. Environmental control system equipment for cabin pressurisation and equipment cooling
39. Self sealing fuel tank between intake ducts
40. Canard foreplane hydraulic actuator
41. Refuelling probe hinged door
42. Foreplane hinge mounting trunion
43. Port intake ducting
44. Temperature probe
45. Port navigation light
46. Cannon ammunition door
47. Circuit breaker access panel
48. Formation lighting strips
49. Port canard foreplane carbon-fiber composite structure
50. Centre-fuselage aluminium alloy frame structure
51. Aluminium alloy skin panelling
52. Dorsal Very High Frequency (VHF) antenna
53. Optional TACtical Air Navigation (TACAN) antenna
54. Dorsal spine fairing
55. Central fuselage integral fuel tank
56. Port hydraulic reservoir, dual system
57. Wing attachment fuselage main frames
58. Engine compressor intake
59. Identification Friend or Foe (IFF) antenna
60. Wing attachment carbon-fiber composite cover panel
61. Starboard wing integral fuel tank
62. Fuel system piping
63. Leading edge dog-tooth
64. Starboard leading edge two-segment manoeuvring flap
65. Wing tip launcher and Radar-Warning Receiver (RWR) antennas
66. Starboard rear position light
67. Starboard outboard elevon
68. Starboard inboard elevon
69. Overwing elevon actuator housing
70. Bleed air spill duct
71. Formation lighting strips
72. Automatic flight control system equipment
73. Fin root attachment joints
74. Rudder hydraulic actuator
75. Carbon-fiber skin panelling with honeycomb substrate
76. Flight control system dynamic pressure sensor
77. Radar warning antenna
78. Fincap UHF/VHF antenna
79. Integrated Landing System (ILS) antenna
80. Strobe light / anti collision beacon
81. Carbon-fiber composite rudder
82. Variable area afterburner nozzle
83. Nozzle control actuator (3)
84. Port airbrake panel, closed
85. Airbrake hydraulic jack
86. Afterburner ducting
87. VolvoAero Corp RM12 afterburning turbofan engine
88. Auxiliary Power Unit (APU)
89. Ventral airframe-mounted accessory equipment gearbox
90. Titanium wing root attachment fittings
91. Port wing integral fuel tank
92. Multi-spar wing panel primary structure
93. Inboard elevon hydraulic actuator
94. Port inboard elevon
95. Elevon carbon-fiber skin panelling with honeycomb substrate
96. Port outboard elevon
97. Rear quadrant radar warning antenna
98. Wing tip missile launch rail
99. Port forward quadrant radar warning antenna
100. Leading edge manoeuvring flap, outboard segment

GRIPEN

Dimensions

Wingspan	8.4m (27 ft 6 in)
Length	14.1m (46 ft 3 in)
Height	4.5 m (14 ft 8 in)
Max Take-Off Weight	14 tonnes (30,870 lbs)