



Aeronautic Engines

Non-Certified



**Powerful
Efficient
Affordable**



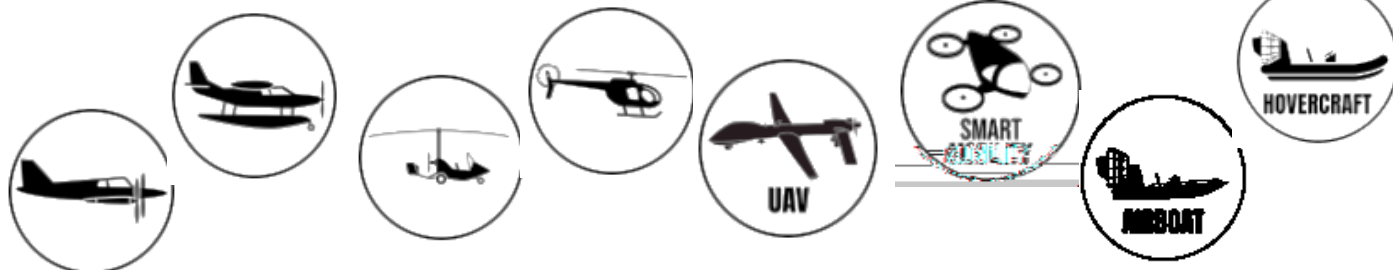
**SPIRIT
SKY LINE**

**SPIRIT
RED LINE**



16 models with clockwise or
counterclockwise rotation in tractor and
pushing configurations, delivering from 100
to 160 horsepower

Uses:



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Brief Presentation

MWfly **SPIRIT SKY LINE** and **RED LINE** non-certified aeronautic engines total 16 high performance models delivering from 100 to 160 horsepower and are offered with direct or geared drive transmissions (depending on the model), clockwise or anticlockwise rotation and tractor and pushing configurations.

They are 4-cylinder horizontally opposed (boxer type) liquid cooled motors manufactured to the highest standards to meet application requirements in a wide range of LSA and experimental single-engine or twin-engine airplanes and other aircraft (STOL, helicopters, gyrocopters, hang gliders, seaplanes and drones).

SPIRIT SKY LINE different engine models deliver 100, 122, 135 & 140 HP while those in **SPIRIT RED LINE** series deliver 115, 135 & 160 HP.

SPIRIT engines come with many accessories as standard. Additional engine accessories can be purchased separately or included in the order of any SPIRIT engine. For additional information please contact us for customized solutions to your projects.

This presentation includes an overview of engine characteristics and specifications as well as an indicative list of other non-certified engines for which MWfly engines can serve as cost-effective replacement options. For any additional information please visit our Web Platform for Supplies or contact us at sales@aviationeu.supplies.

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SKYline W011A W012A  TBO 2200 hrs		REDline W013A W014A  TBO 2200 hrs	
Model		Model	
SPiRiT 100 DIRECT DRIVE		SPiRiT 115 DIRECT DRIVE	
Applicability		Applicability	
			
Accessories included		Accessories included	
- Full redundancy ECU's - Full installed engine wiring loom - Internal generator - Voltage regulator - Start relay - Installed inductive coil - Installed cooling circuit expansion tank - Installed cooling circuit thermostat - Engine mount dampers (8) - Fuse & relay (electrical hub) - Capacitor		- Full redundancy ECU's - Full installed engine wiring loom - Internal generator - Voltage regulator - Start relay - Installed inductive coil - Installed cooling circuit expansion tank - Installed cooling circuit thermostat - Engine mount dampers (8) - Fuse & relay (electrical hub) - Capacitor	
Additional accessories available		Additional accessories available	
- Standard coolant radiator kit - Front coolant radiators for STOL (2) - Oil radiator kit - Fuel pumps & filters module (2+2) - Standard exhaust system - EMS & sensor kit - CAN aerospace interface - Bed mounting adaptors (4) - Engine-cockpit wiring loom		- Standard coolant radiator kit - Front coolant radiators for STOL (2) - Oil radiator kit - Fuel pumps & filters module (2+2) - Standard exhaust system - EMS & sensor kit - CAN aerospace interface - Bed mounting adaptors (4) - Engine-cockpit wiring loom	

Engine Type: 4-cylinder boxer - Direct Drive
Power: 100 Hp - Weight: 74 kg
Power/Weight Ratio [Hp/Kg (Hp/lbs.)]: 1.35 (0.61)
Max Power [Hp (kW)]: 100.3 (74.8) @ 3400rpm
Max Torque [Nm (Ft-lbs.)]: 205.6 (151.6) @ 3400 rpm
Dimensions L x W x H [mm (in)]: 593x762x419 (23.35x30x16.5)
Fuel - Fuel Consumption: Mogas min. AKI 90, R.O.N. 95, M.O.N. 85, LL100 - 18.1 L/h
Cooling System: Liquid cooled with a mechanical pump
 Offered with **clockwise** or **anticlockwise** rotation

Engine Type: 4-cylinder boxer - Direct Drive
Power: 115 Hp - Weight: 74 kg
Power/Weight Ratio [Hp/Kg (Hp/lbs.)]: 1.55 (0.71)
Max Power [Hp (kW)]: 115 (85.7) @ 3350rpm
Max Torque [Nm (Ft-lbs.)]: 242.9 (179.1) @ 3350rpm
Dimensions L x W x H [mm (in)]: 593 x 762 x 419 (23.35 x 30 x 16.5)
Fuel - Fuel Consumption: Mogas min. AKI 90, R.O.N. 95, M.O.N. 85, LL100 - 18.6 L/h
Cooling System: Liquid cooled with a mechanical pump
 Offered with **clockwise** or **anticlockwise** rotation

SKYline W015A W016A	REDline W019A W020A
 TBO 2000 hrs  	 TBO 1800 hrs  
Model	
SPiRiT 122 GEARED PSRU	SPiRiT 135 GEARED PSRU
Applicability	
	
Accessories included	
- Full redundancy ECU's - Full installed engine wiring loom - Internal generator - Voltage regulator - Start relay - Installed inductive coil - Installed cooling circuit expansion tank - Installed cooling circuit thermostat - Engine mount dampers (8) - Fuse & relay (electrical hub) - Capacitor	- Full redundancy ECU's - Full installed engine wiring loom - Internal generator - Voltage regulator - Start relay - Installed inductive coil - Installed cooling circuit expansion tank - Installed cooling circuit thermostat - Engine mount dampers (8) - Fuse & relay (electrical hub) - Capacitor
Additional accessories available	
- Standard coolant radiator kit - Front coolant radiators for STOL (2) - Oil radiator kit - Fuel pumps & filters module (2+2) - Standard exhaust system - Hydraulic VPP (constant speed) - Aux generator - EMS & sensor kit - CAN aerospace interface - Bed mounting adaptors (4) - Engine-cockpit wiring loom	- Standard coolant radiator kit - Front coolant radiators for STOL (2) - Oil radiator kit - Fuel pumps & filters module (2+2) - Standard exhaust system - Hydraulic VPP (constant speed) - Aux generator - EMS & sensor kit - CAN aerospace interface - Bed mounting adaptors (4) - Engine-cockpit wiring loom

Engine Type: 4-cylinder boxer – Geared PSRU
Power: 122 Hp - Weight: 79 kg
Power/Weight Ratio [Hp/Kg (Hp/lbs.)]: 1.55 (0.70)
Max Power [Nm (Ft-lbs.)]: 217.5 (160.4) @ 4000rpm
Max Torque [Hp (kW)]: 122.2 (91.1) @ 4000rpm
Dimensions L x W x H [mm (in)]: 672 x 762 x 419
(26.46 x 30 x 16.5)
Fuel - Fuel Consumption: Mogas min. AKI 90, R.O.N. 95, M.O.N. 85, LL100 - 18.5 L/h
Cooling System: Liquid cooled with a mechanical pump

Offered with clockwise or anticlockwise rotation

Engine Type: 4-cylinder boxer - Geared PSRU
Power: 135 Hp - Weight: 79 kg
Power/Weight Ratio [Hp/Kg (Hp/lbs.)]: 1.71 (0.78)
Max Power [Hp (kW)]: 135.3 (100.9) @ 4550rpm
Max Torque [Nm (Ft-lbs.)]: 218 (160.8) @ 4150rpm
Dimensions L x W x H [mm (in)]: 672 x 762 x 419
(26.46 x 30 x 16.5)
Fuel - Fuel Consumption: Mogas min. AKI 90, R.O.N. 95, M.O.N. 85, LL100 - 18.5 L/h
Cooling System: Liquid cooled with a mechanical pump

Offered with clockwise or anticlockwise rotation

SKYline W017A W018A	REDline W023A W024A
 TBO 1500 hrs  	 TBO 1200 hrs  
Model	
SPiRiT 135 DIRECT DRIVE	SPiRiT 160 DIRECT DRIVE
Applicability	
 	 
Accessories included	
- Full redundancy ECU's - Full installed engine wiring loom - Internal generator - Voltage regulator - Start relay - Installed inductive coil - Installed cooling circuit expansion tank - Installed cooling circuit thermostat - Engine mount dampers (8) - Fuse & relay (electrical hub) - Capacitor	- Full redundancy ECU's - Full installed engine wiring loom - Internal generator - Voltage regulator - Start relay - Installed inductive coil - Installed cooling circuit expansion tank - Installed cooling circuit thermostat - Engine mount dampers (8) - Fuse & relay (electrical hub) - Capacitor
Additional accessories available	
- Helicopter starter motor (8.25kg) - Standard exhaust system - EMS & sensor kit - CAN aerospace interface - Bed mounting adaptors (4) - Engine cockpit wiring loom	- Helicopter starter motor (8.25kg) - Standard exhaust system - EMS & sensor kit - CAN aerospace interface - Bed mounting adaptors (4) - Engine cockpit wiring loom

Engine Type: 4-cylinder boxer - Direct Drive
Power: 135 Hp - Weight: 74 kg
Power/Weight Ratio [Hp/Kg (Hp/lbs.)]: 1.83 (0.83)
Max Power [Hp (kW)]: 135 (98.6) @ 4650rpm
Max Torque [Nm (Ft-lb)]: 255 (188.1) @ 3900rpm
Dimensions L x W x H [mm (in)]: 592 x 762 x 410
(23.35 x 30 x 16.5)
Fuel - Fuel Consumption: Mogas min. AKI 90, R.O.N. 95, M.O.N. 85, LL100 - 34.2 L/h
Cooling System: Liquid cooled with a mechanical pump
Offered with **clockwise** **or** **anticlockwise** **rotation**

Engine Type: 4-cylinder boxer – Direct Drive
Power: 160 Hp - Weight: 74 kg
Power/Weight Ratio [Hp/Kg (Hp/lbs.)]: 2.16 (0.98)
Max Power [Hp (kW)]: 160 (119.3) @ 4650rpm
Max Torque [Nm (Ft-lb)]: 255 (188.1) @ 3900rpm
Dimensions L x W x H [mm (in)]: 592 x 762 x 410
(23.35 x 30 x 16.5)
Fuel - Fuel Consumption: Mogas min. AKI 90, R.O.N. 95, M.O.N. 85, LL100 - 41.4 L/h
Cooling System: Liquid cooled with a mechanical pump
Offered with **clockwise** **or** **anticlockwise** **rotation**

SKYline W021A W022A	REDline W025A W026A
 TBO 2000 hrs  	 TBO 1800 hrs  
Model	
SPIRIT 140 GEARED PSRU	SPIRIT 160 GEARED PSRU
Applicability	
	
Accessories included	
- Full redundancy ECU's - Full installed engine wiring loom - Internal generator - Voltage regulator - Start relay - Installed inductive coil - Installed cooling circuit expansion tank - Installed cooling circuit thermostat - Engine mount dampers (8) - Fuse & relay (electrical hub) - Capacitor	- Full redundancy ECU's - Full installed engine wiring loom - Internal generator - Voltage regulator - Start relay - Installed inductive coil - Installed cooling circuit expansion tank - Installed cooling circuit thermostat - Engine mount dampers (8) - Fuse & relay (electrical hub) - Capacitor
Additional accessories available	
- Standard coolant radiator kit - Front coolant radiators for STOL (2) - Oil radiator kit - Fuel pumps & filters module (2+2) - Standard exhaust system - Hydraulic VPP (constant speed) - Aux generator - EMS & sensor kit - CAN aerospace interface - Bed mounting adaptors (4) - Engine-cockpit wiring loom	- Standard coolant radiator kit - Front coolant radiators for STOL (2) - Oil radiator kit - Fuel pumps & filters module (2+2) - Standard exhaust system - Hydraulic VPP (constant speed) - Aux generator - EMS & sensor kit - CAN aerospace interface - Bed mounting adaptors (4) - Engine-cockpit wiring loom

Engine Type: 4-cylinder boxer – Geared PSRU
Power: 140 Hp - Weight: 79 kg
Power/Weight Ratio [Hp/Kg (Hp/lbs.)]: 1.77 (0.81)

Max Power [Hp (kW)]: 140 (103.7) @ 4650rpm
Max Torque [Nm (Ft-lb)]: 255 (188.1) @ 3900rpm
Dimensions L x W x H [mm (in)]: 672 x 762 x 419
(26.46 x 30 x 16.5)

Fuel - Fuel Consumption: Mogas min. AKI 90, R.O.N. 95, M.O.N. 85, LL100 - 19.3 L/h

Cooling System: Liquid cooled with a mechanical pump

Offered with **clockwise** or **anticlockwise** rotation

Engine Type: 4-cylinder boxer – Geared PSRU
Power: 160 Hp - Weight: 79 kg
Power/Weight Ratio [Hp/Kg (Hp/lbs.)]: 2.02 (0.92)
Max Power [Hp (kW)]: 160 (119.3) @ 4650rpm
Max Torque [Nm (Ft-lb)]: 255 (188.1) @ 3900rpm
Dimensions L x W x H [mm (in)]: 672 x 762 x 419
(26.46 x 30 x 16.5)
Fuel - Fuel Consumption: Mogas min. AKI 90, R.O.N. 95, M.O.N. 85, LL100 - 19.3 L/h
Cooling System: Liquid cooled with a mechanical pump
Offered with **clockwise** or **anticlockwise** rotation



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Alternatives to Other Non-Certified Engines (*)

80 <
HP

(*) Engines in categories not covered by MWfly can be supplied from ROTAX and other manufacturers on demand.

ROTAX



582 UL (65HP)
2 Stroke

80-120
HP



ROTAX



912 UL/UL3 (80HP)
912 ULS/ULS3 (100HP)
912 iS2/iS3 (100HP)
914 UL2/ UL3 (115HP)



JABIRU
2200 (80HP)



VIKING 90 (90HP)

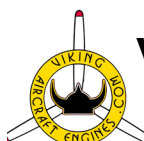
>120
-150
HP



ROTAX



915 iSA/iSA C24 (141HP)



VIKING 130 (130HP)
VIKING 150 (150HP)

> 150
HP



VIKING 195
TURBO
(195HP)

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