



**DATA SHEET  
SPIRIT 180Hp  
PSRU**

Document  
**E-DTD.W027.001**

Edition

**A**

Revision

**1**

***SPIRIT 180 TURBO PSRU***

**SPIRIT180**  
**TURBO LINE**  
**MWFLY PSRU**



***Applicability***



**TRANSLATED**

**FREE DISCLOSURE**

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## Engine data

|  |   |
|--|---|
| Model/Code   | Spirit 180 Turbo PSRU / W027 (left rotation) – W028 (right rotation)  |
| Type   | 4 cylinder boxer - 4 Stroke fuel (Otto cycle)   |
| Displacement [cm <sup>3</sup> (in <sup>3</sup> )]  | 2545 (155)  |
| Weight [Kg (lb)]                                   | 101 (222,6) dry   |
| Dimension L x W x H [mm (in)]                      | 705 x 749 x 600 (27,76 x 29,49 x 23,62)   |
| Stroke X Bore [mm (in)]                            | 81 x 100 (3,18 x 3,93)  |
| Compression Rate                                   | 8,5 ÷ 1   |
| Critical Altitude [ft]                             | 20000   |
| Max Overpressure Ratio                             | 1,39  |
| Fuel   | Mo.GAS min. AKI 90, R.O.N. 95, M.O.N. 85, LL100   |
| Cooling System                                     | Liquid with mechanical pump   |
| Lubrication  | Semi-dry sump, pressure oil feed assisted with internal pump  |
| Timing System                                      | 2 valves per cylinder with S.O.H.C. (Single Over Head Camshaft)   |
| Timing Driving System                              | Gear + chain with automatic chain tensioner   |
| Pre-installed Accessories (included in the weight) | Engine wiring loom, voltage regulator, start relay, dampers, ignition coils, cooling expansion tank, intercooler with hoses |

## Transmission

|  |  |
|--|--|
|   |  |
| Type   | Gearbox with helical gear (separate lubrication)       |
| Transmission ratio   | 1 ÷ 1,732  |
| Max Propeller Speed [rpm]  | 2450   |
| Damper   | Elasto-dissipative with Active Damping Control (A.D.C) |
| Optional   | Integrated constant speed hydraulic governor           |

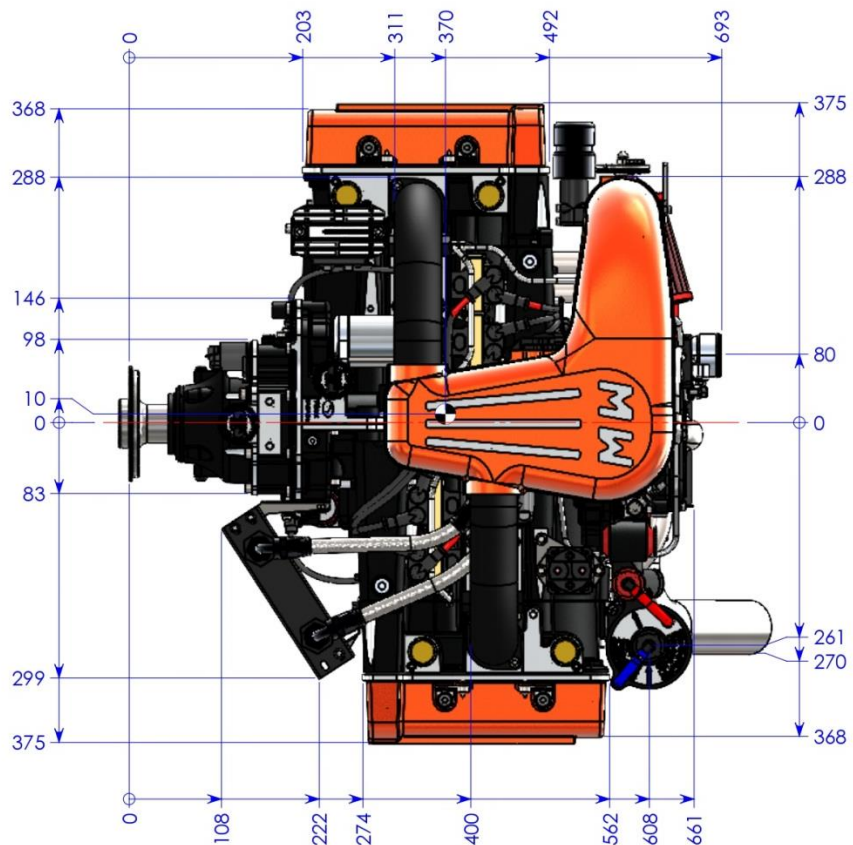
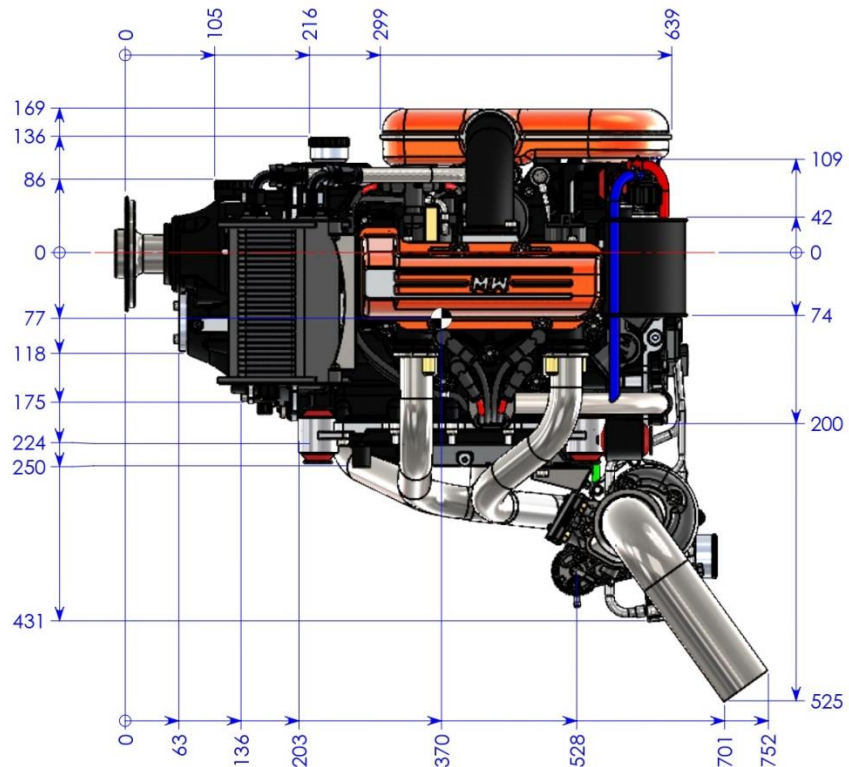
## Electric data

|  |   |
|--|---|
| Generator                                  | Permanent magnet, oil cooled, 260W (12,5V-21A)  |
| Optional Generator                         | 750W (12,5V-60A); 2250W (12,5V-90A); 2250W (25V-180A)   |
| Starter                                    | Electric starter 0,65kW with anti-kickback clutch   |
| F.R.I.S. (Full Redundancy Injector System) | ECU with dual injection and ignition; altitude and temperature compensation; Limp Home strategy |
| CAN Data Transmission                      | CAN Aerospace protocol  |

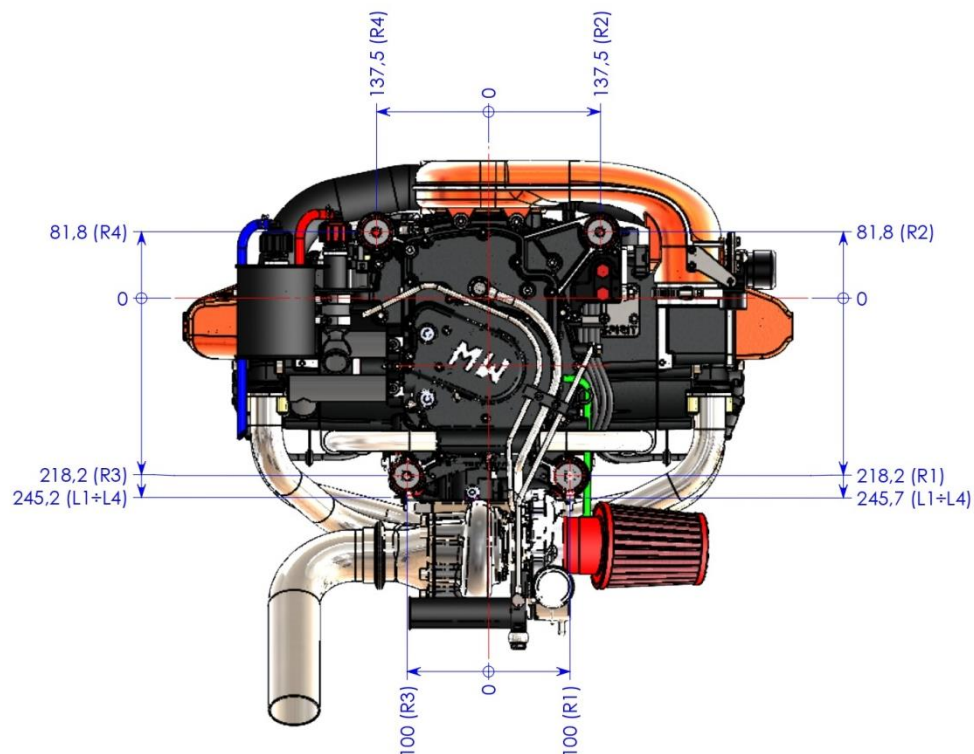
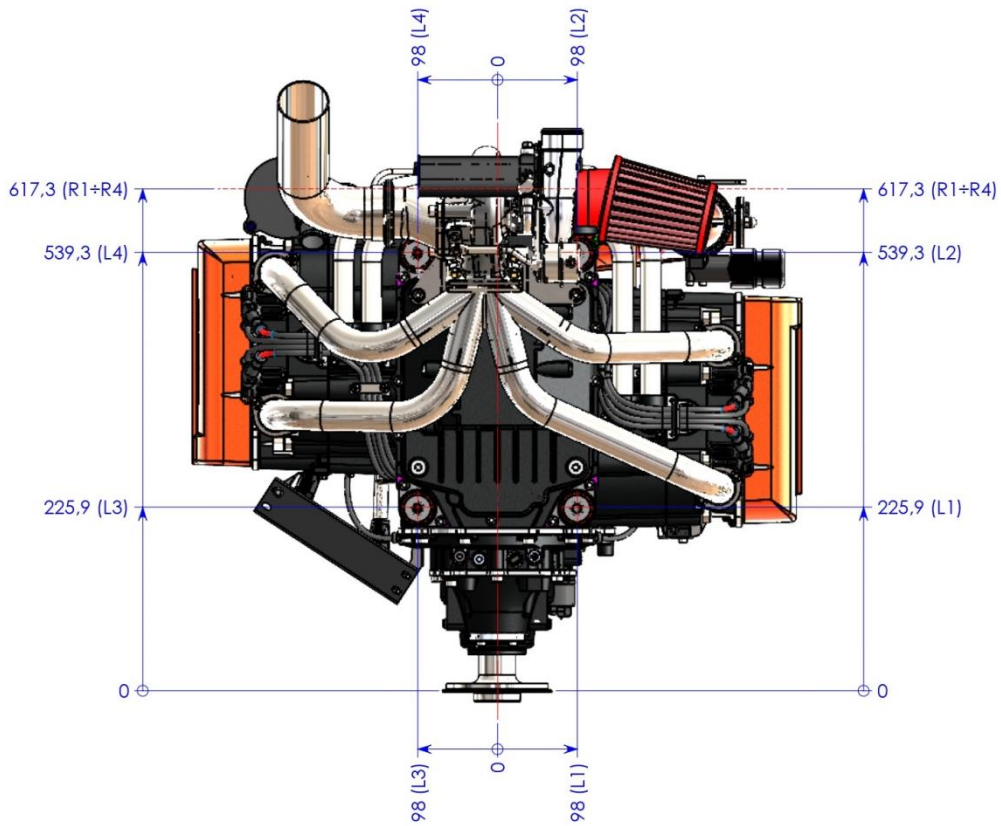
## Performance

|                                |                        |
|--------------------------------|------------------------|
| Max Power [kW (Hp)]            | 132,4 (180) @ 4200 rpm |
| Max Torque [Nm (lb-ft)]        | 301 (222) @ 4200 rpm   |
| Max Continuous Power [kW (Hp)] | 110,3 (150)            |
| Max Engine Speed [rpm]         | 4250                   |
| Power/Weight [Hp/Kg (Hp/lb)]   | 1,78 (0,81)            |
| Fuel Cons. [Kg/h (lb/h)]       | 14,2 (31,3) @ 75Hp     |
| TBO [h]                        | 2000                   |

## DIMENSIONS



## ATTACHMENT POINTS







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