

BRP-Rotax INSTALLATION MANUAL

FUEL LINES

To prevent problems with vapour lock, all the fuel lines should be insulated against heat in the engine compartment. It is recommended to route the fuel lines in an appropriate distance from hot engine components and avoid sharp bends.

For a better heat dissipation it is recommended to use fuel lines made of metal whenever practicable (except for flex hoses to/ from engine).

Fuel lines should be installed by using suitable screw clamps or by ferrules.

Non drainable low points in feed, return and vent lines should be avoided. Any low points should allow for drainage of water and other contaminants.

⚠ WARNING

Non-compliance can result in serious injuries or death!

At the low points, accumulations of water can freeze and cut off the fuel flow.

INLET LINE

The inlet line should have an inner diameter of at least 7.5 mm (0.3 in). (AN-6 or 3/8").

ATTENTION

Fuel lines smaller than this diameter may have a significant impact on the proper functionality of this engine.

RETURN LINE

The return line should have an inner diameter of at least 7.5 mm (0.3 in). (AN-6 or 3/8").

ATTENTION

Fuel lines smaller than this diameter may have a significant impact on the proper functionality of this engine.

Vapour locks in the return line should be efficiently vented out of the fuel system to the atmosphere. Adequate fuel tank venting system design is imperative. Large vent lines with (most) direct routing avoiding low points are desired.

BYPASS LINE

To allow venting of the fuel system after a potential inclusion of air, there could be installed a restricted bypass line between the inlet (pressure side of the fuel pump module) and the return line. In this bypass line a restricted jet should be installed so that there is an ideal balance between short venting time and minimum fuel flow rate. The positioning and dimensioning of the jet is up to the aircraft manufacturer.

If no bypass line is installed, the pressure release in the fuel lines is very slow. This should be noted accordingly in the manuals of the aircraft manufacturer (fuel lines are possibly under full operating pressure even after engine stop).