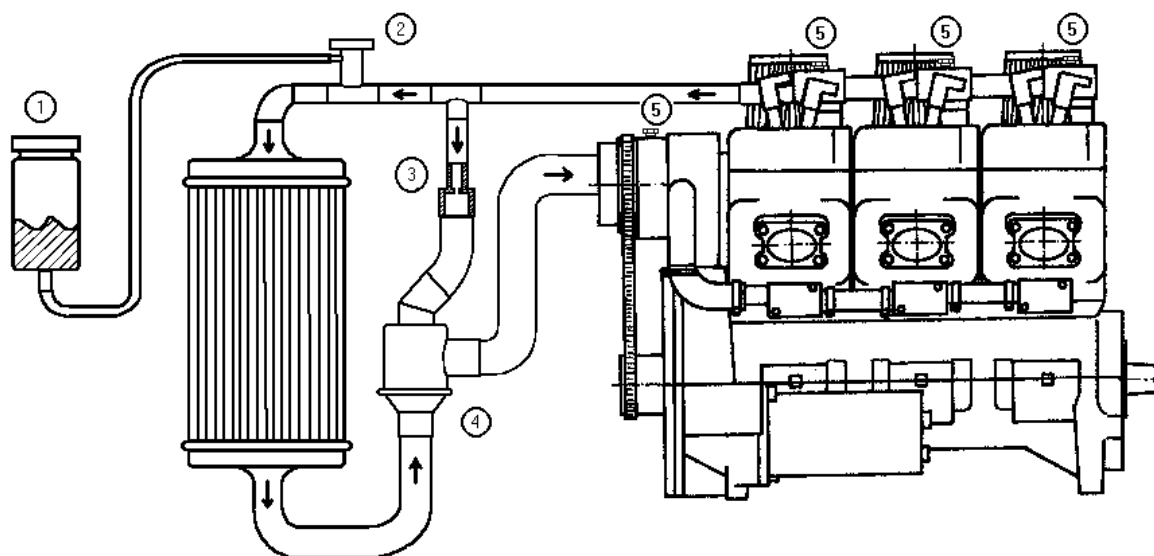
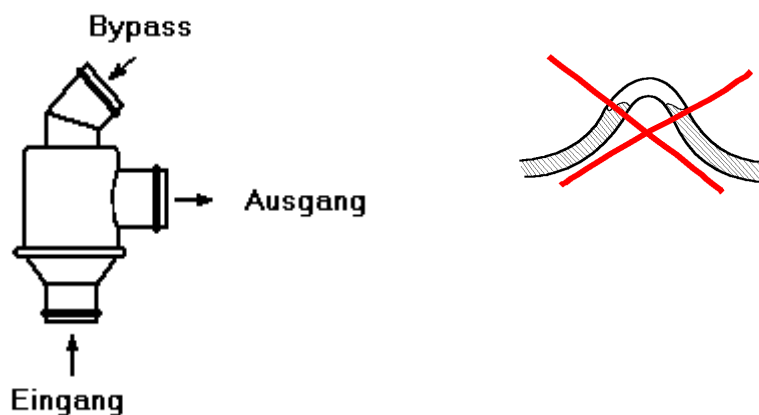




# Sauer Flugmotorenbau GmbH



- 1 – compensation tank
- 2 – filler cap with integrated expansion tank
- 3 – reduction with throttle
- 4 – thermostat
- 5 – ventilation screws



## Function

The water pump is pumping the cooling water through the cylinders into the cylinder heads. From there it is flowing back via the bypass through the thermostat into the water pump. By throttling the flow speed the reduction results in a faster heating of the engine. As soon as the operating temperature is reached, the thermostat opens the inlet and closes the bypass opening. Now the cooling water is flowing from the engine through the radiator via the thermostat into the pump.

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## Instructions for laying of coolant system

- The diameter of hose must be at least 22 mm (internal diameter)
- The material used for hose must be resistant against coolant withstanding an operation temperature of 120°C continuously and 140°C shortly with a system pressure of 1,5 bar.
- Take care not to exchange the connections of thermostat
- Install throttle in the bypass lead
- Mount the water filler cap on topmost point of cooling system
- Take care to lay the cooling system in a way that steam bubbles arising in the engine can go up into the expansion tank of the filling cap.
- The compensation tank has to be placed at maximum 200 mm below the filling cap.
- Take care to operate the engine also in summer times with ant-freezing solution (for aluminium engines) (protection against corrosion)
- The water filling cap must be filled to the brim
- In cold condition the compensation tank must be filled with coolant about 1/3.
- Take care to vent the cooling system thoroughly before the engine is started..
- Take care to warm up the engine at mid speed (about 3.000 rpm) until the coolant temperature is decreasing (because of retarded thermostat opening the temperature shortly can be more than 90°C)
- When the engine has run for some time it is required to check the level of cooling water and possibly to refill cooling water.
- The coolant temperature should not exceed 118°C.

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