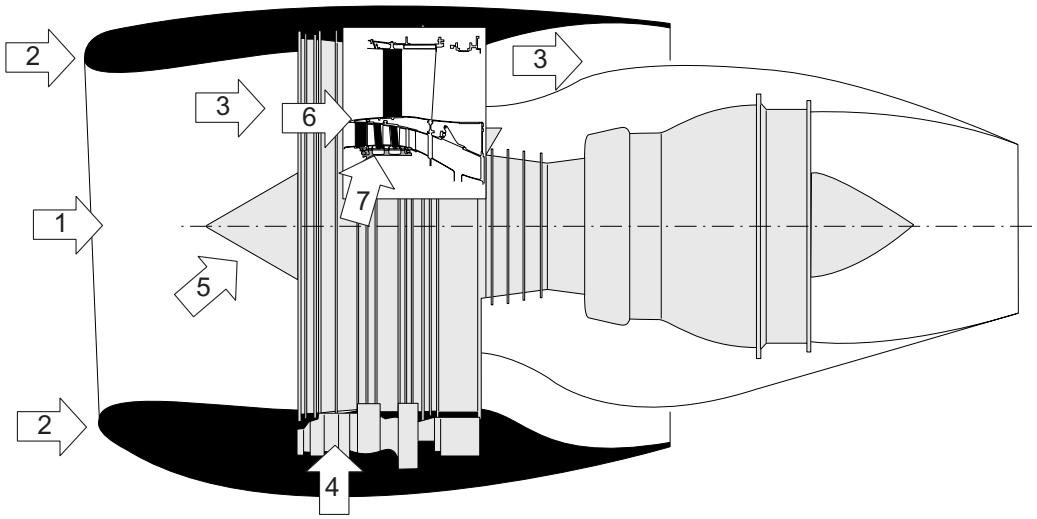
Important geometric parameters of a nacelle engine which influence the effects of rain during operation.



1. Face of the nacelle entrance and its position relative to the engine inlet
2. Geometry of the nacelle lip
3. Engine inlet and diffuser geometry
4. Position of the fan relative to the "hilite"
5. Geometry and properties of the spinner
6. Geometry and properties of the splitter
7. Geometry of the low-pressure compressor, depending on geometry of the spinner

Ill. 5.1.1-2

Illustration 5.1.1-2 (Ref. 5.1-16): *The behavior of an engine in heavy rain is especially dependent on the engine's geometric values, such as the size, arrangement, and shape of its components. In addition to the above parts, the arrangement of air vents and bleed valves inside the compressor can have a pronounced effect on the behavior of engines with a large amount of water in them. The total amount of water taken into the engine depends on the scoop factor (calculated by the diameters of the components in the flow duct of the intake area) and the flight speed (Ill. 5.1.1.5). The distribution of water between the bypass and the engine core is affected by the flow feed at the intake, the spinner, the fan, and the geometry of the flow channel between the fan exit and the front of the splitter ("6").*