

The proposed method for determining the open flow area of the blade channel of an axial flow turbine implies determining the coordinates of the boundary line of the open flow by photogrammetry, while photographing the optical image of the boundary line from two points. To form the optical image of the boundary line, a light beam from a point light source is used that passes through a slot screen and is directed along a tangent to the edge of the turbine blade. The strip light beam that is formed by the slot screen impinges on the line of the intersection of the turbine blade by the plane that is perpendicular to the surface of the adjacent blade and passes through the coordinate point of origin. The angle between the light beam and the direction of photographing is not more than 90 degrees. The slot of the screen is arranged nonparallel to the section of the boundary line that defines the height of the open flow. The coordinate of the points of the boundary line are used to determine the open flow area. The present invention allows the measurement accuracy to be increased.