

AXIAL-FLOW IMPELLERABSTRACT OF THE DISCLOSURE

An axial-flow impeller having a maximum blade width less than 20% of the impeller diameter, the pitch angle at the radial position 0.6 is $12\sim 22^\circ$, the width at the tip end portion of the blade is $12\sim 75\%$ of the width at the radial position 0.6, the pitch angle at the tip end portion of the blade is $5\sim 10^\circ$ smaller than the pitch angle at the radial position 0.6, the width at the root of the blade is 40% or more of the width at the radial position 0.6 and the pitch angle at the root of the blade is $25\sim 50^\circ$. An axial-flow impeller having a maximum width of the blade 20% or more of the impeller diameter, the radial position of the maximum width portion is $0.4\sim 0.8$, the pitch angle of the maximum width portion is $12\sim 22^\circ$, the width at the tip end portion of the blade is $12\sim 75\%$ of the maximum width, and the pitch angle at the tip end portion of the blade is $5\sim 10^\circ$ smaller than the pitch angle at the maximum width portion, the width at the root of the blade is $40\sim 100\%$ of the maximum width, and the pitch angle at the root of the blade is $25\sim 50^\circ$.

Fig. 8