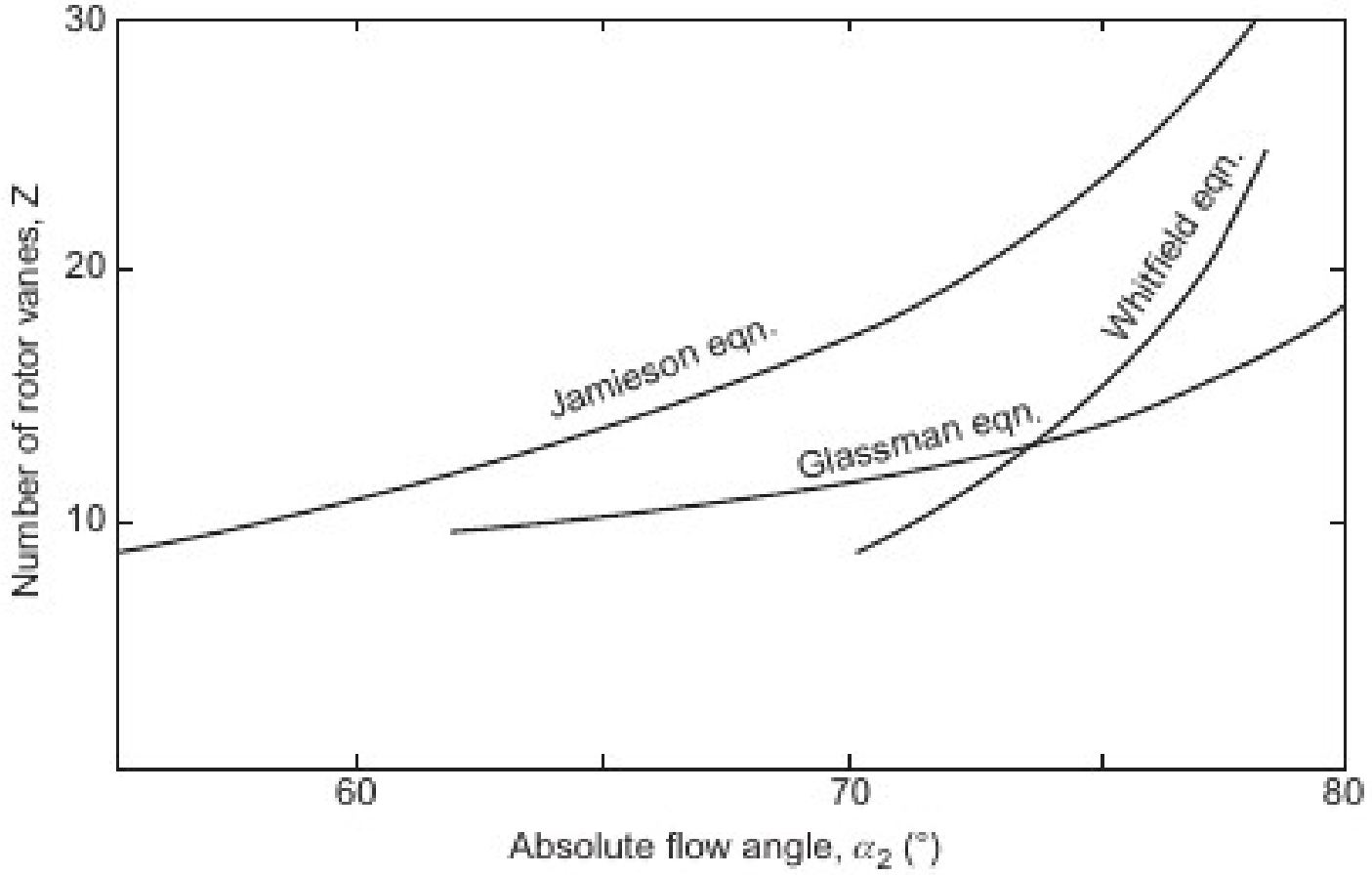
Radial turbines



Flow angle at rotor inlet as a function of the number of rotor vanes.

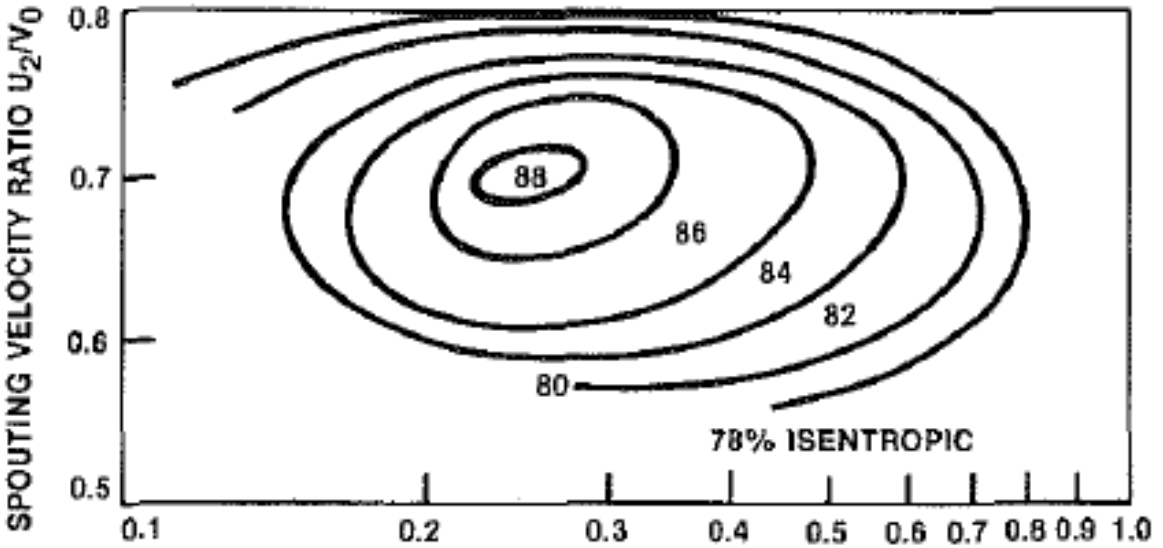


Fig. 1 Attainable efficiency levels of radial inflow turbines nes.

From Rodgers, C., & Geiser, R. (1987). Performance of a high-efficiency radial/axial turbine. Journal of Turbomachinery, Transactions of the American Society of Mechanical Engineers, 109.

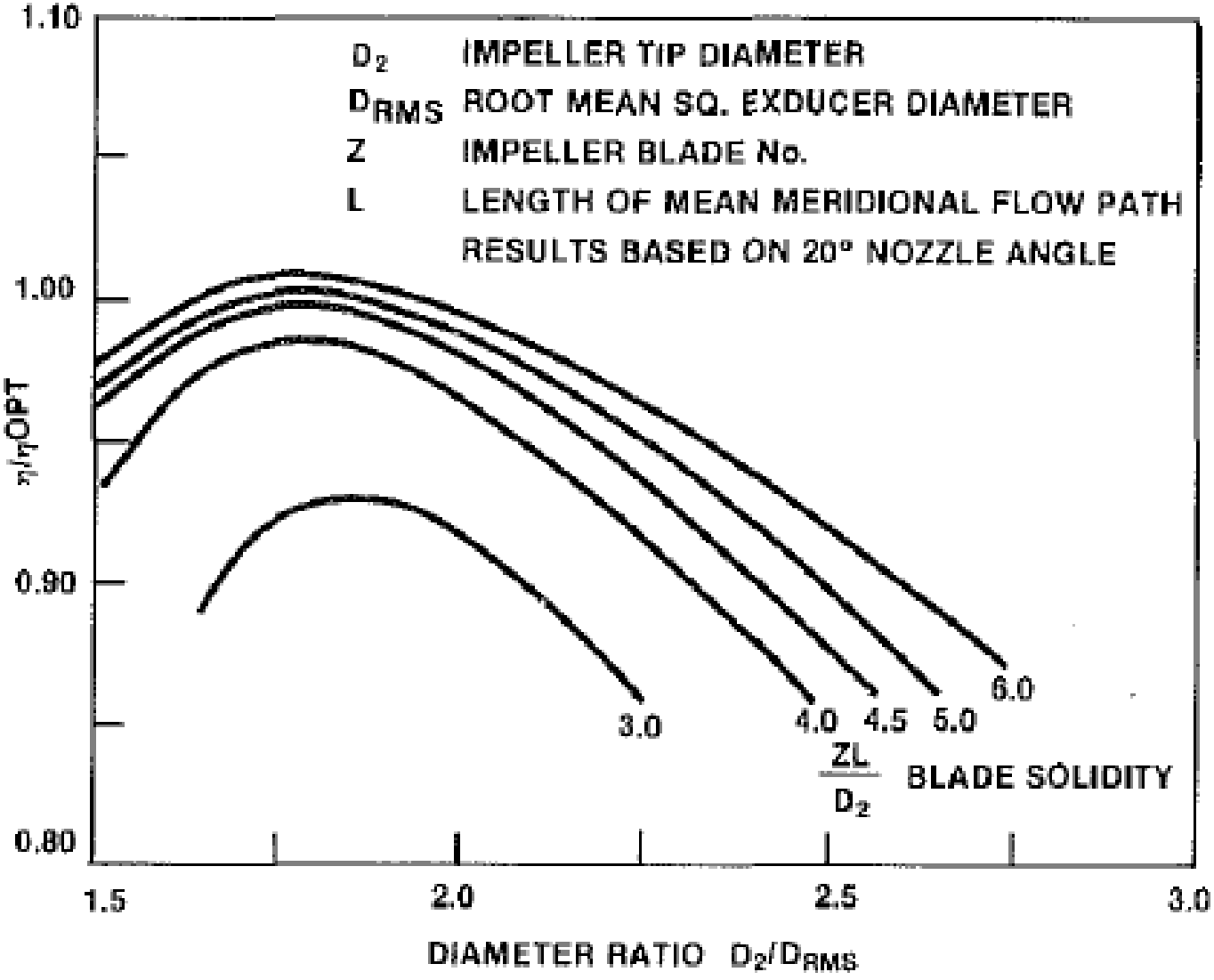
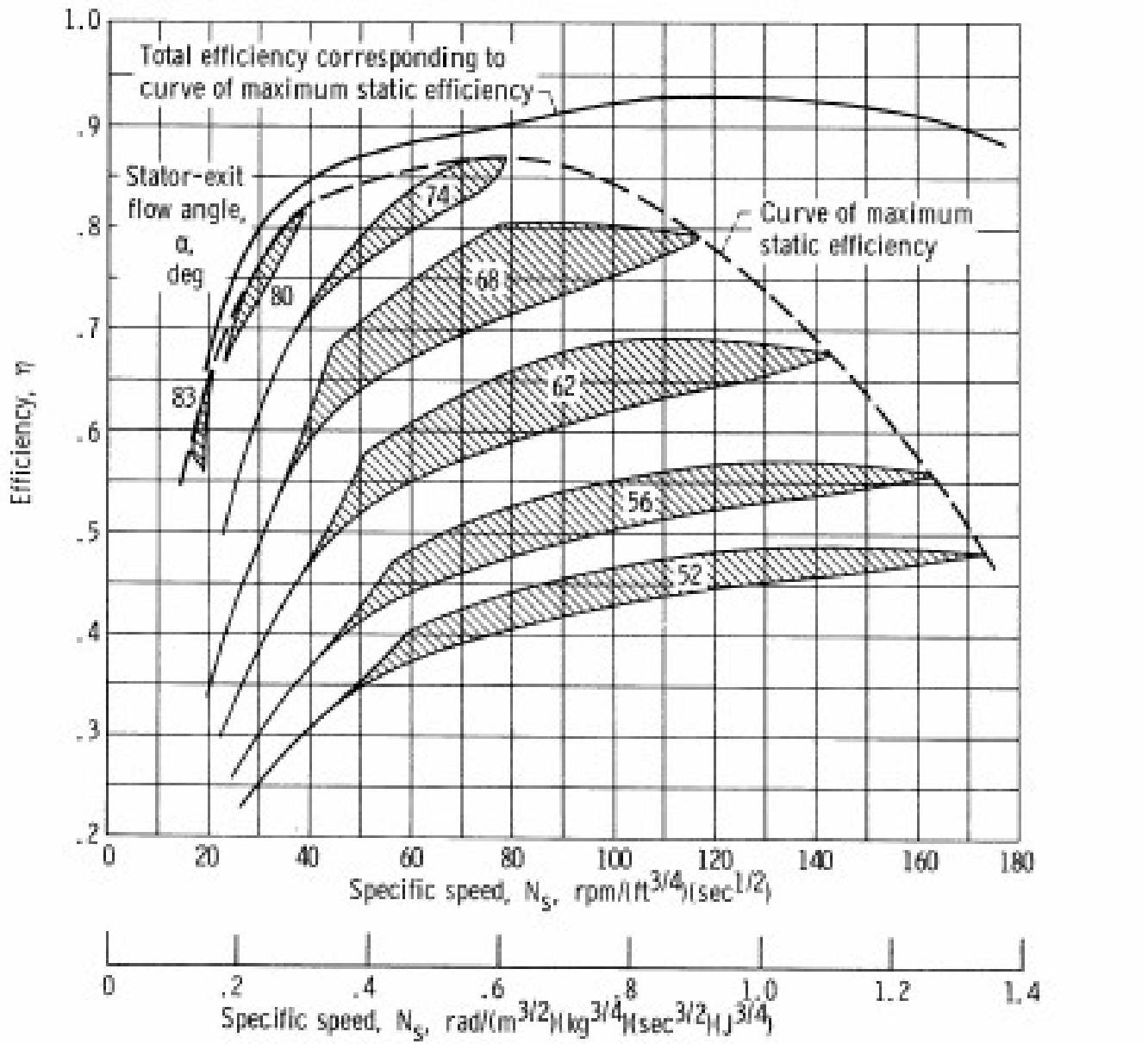


Fig. 2 Effect of rotor solidity on radial turbine efficiency

From Rodgers, C., & Geiser, R. (1987). Performance of a high-efficiency radial/axial turbine. Journal of Turbomachinery, Transactions of the American Society of Mechanical Engineers, 109.



Effects of vane solidity and rotor radius ratio on the efficiency ratio of the IFR turbine.

From Rohlik, H. E. (1968). Analytical determination of radial-inflow turbine design geometry for maximum efficiency. NASA TN D-4384.