

impeller having ten blades. This completes the validation of CFD Simulation provided that **forward impeller with ten blades** has higher efficiency when compared to other centrifugal fan impellers

V. Conclusion

The three parameters Static pressure, velocity & mass flow rate obtained from CFD simulation analysis are correlated with all the types of impeller designs at variable speeds validation method. A Comprehensive simulation is performed providing a conclusive performance optimization of centrifugal fan achieved by **ten blades forward impeller** showing better static pressures with respective variable speeds and approaching nearer velocities of eight blade forward curved impeller. And it is also resulting that without curvature of forward blades showing better results than with curvature forward blades.

VI. References

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