



Engineering Services for Advanced Nuclear Energy

Hayward Tyler combines decades of nuclear pump and vessel operating experience with trained engineers using state-of-the-art computer aided design tools.

These tools — including Computational Fluid Dynamics (CFD), rotor dynamics, and Finite Element Analysis (FEA) — enable us to engineer safe and reliable pump, motor, and vessel solutions for advancing nuclear energy technology.

Whether your project requires limited scope engineering efforts, or clean sheet design and build of novel pump, motor, and vessel technology, Hayward Tyler has the in-house engineering, manufacturing and test capabilities to deliver on your unique challenges.

ASME Section III, Division 5 Certification

Hayward Tyler is at the forefront of contributions to the discussion on ASME Section III, Division 5 standards. Our ASME certificates and stamps are applicable for Division 5 design.

KEY CAPABILITIES:

- \rightarrow Conceptual, preliminary and final hydraulic design
 - Clean sheet development of new hydraulics
 - Modification of hydraulics to suit molten salt applications
 - Multiphase simulations to evaluate entrainment of cover gas
- → Fluid Film bearing design and stability analysis
- → Seismic evaluation for design basis events
- → Thermal analysis taking into consideration:
 - Significant thermal gradients
 - Time-dependent material properties
 - Creep-fatigue interactions
 - Transient analysis for thermal shock or heat soaking
- → Create or assist component design specification development
 - Independent code calculation review
 - Rotor Dynamic Analysis and validation through testing
 - Analysis of structural natural frequencies and forced response concerns
- → Custom engineered test stand for pump validation and testing





Increase Technical Readiness

Hayward Tyler is here to help at every stage.

You can rely on Hayward Tyler at each level of technical readiness. From initial research to operations, we have the expertise you need to ensure critical performance, efficiency, and reliability.



HAYWARD TYLER

For further information about Engineering Services for Advanced Nuclear Energy, contact your local salesperson or email vermont@haywardtyler.com

Engineered solutions for the global energy sector

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