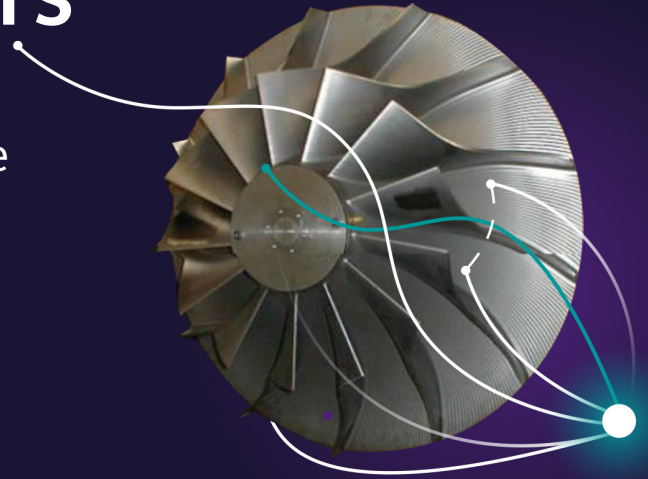


# Advanced impeller design for turbo compressors

Building on a legacy of proven success for unmatched performance and reliability.

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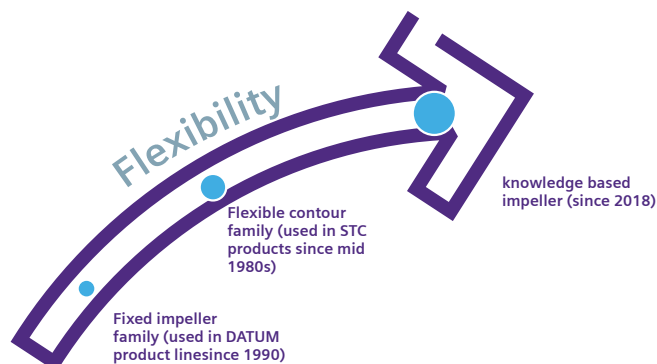
We've reimagined impeller design using a knowledge-based approach, combining decades of aerodynamic expertise with advanced design automation. This innovation delivers tailored performance, reduced equipment size, and enhanced reliability across a wide range of operating conditions.

This next-generation impeller is built on a foundation of proven principles, referenced designs and state of the art engineering tools. It enables high reliability, even when process conditions vary, and supports faster engineering cycles with fewer design iterations.

## Benefits:

- Shorter axial length allows for smaller, more space-efficient compressors.
- Tailored blade geometry optimizes efficiency across a wide range of operating conditions.
- Standardized design principles reduce uncertainty and improve operational dependability.
- Engineered for high-speed performance without exceeding stress limits.
- Rule-based design streamlines the engineering process and delivers performance comparable to fully custom impellers, without the risk of performance loss.

## Impeller design concepts



## The service value:

We leverage our advanced impeller technology to boost the performance of your existing high-speed compression equipment through expert revamps and upgrades, applicable to our equipment and other OEMs. Designed for flexibility, it accommodates any molecular weight gas stream, from light to heavy, and can be tailored to prioritize efficiency, operating range, or a balance of both—depending on your process needs.

The impeller's optimized blade geometry reduces axial length, enabling more compact stage spacing and maximizing performance and throughput in limited space. For corrosive or reactive gas environments, material selection can be customized to protect against corrosion and improve long-term durability. Leveraging our cross-product design expertise, we offer both open and closed impeller configurations, allowing us to deliver the best-fit solution for your specific application.

This revamp approach brings added value to the market by:

- Enhancing rotordynamic performance for improved reliability
- Increasing efficiency and reducing power consumption—lowering carbon footprint
- Delivering cost savings through fewer stages and optimized impeller sizing
- Supporting capacity increases without expanding stage spacing
- Reducing impacts on drive systems, including motors, gas turbines, steam turbines, and auxiliaries.

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