

UPRISE | BATON ROUGE, LOUISIANA MAY 2026

LUNCH TIME PRESENTATION

Reframing Nuclear Heat: From Future Concept to Commercial Reality

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Partnership Video | NuScale, ENTRAI Energy, Doosan

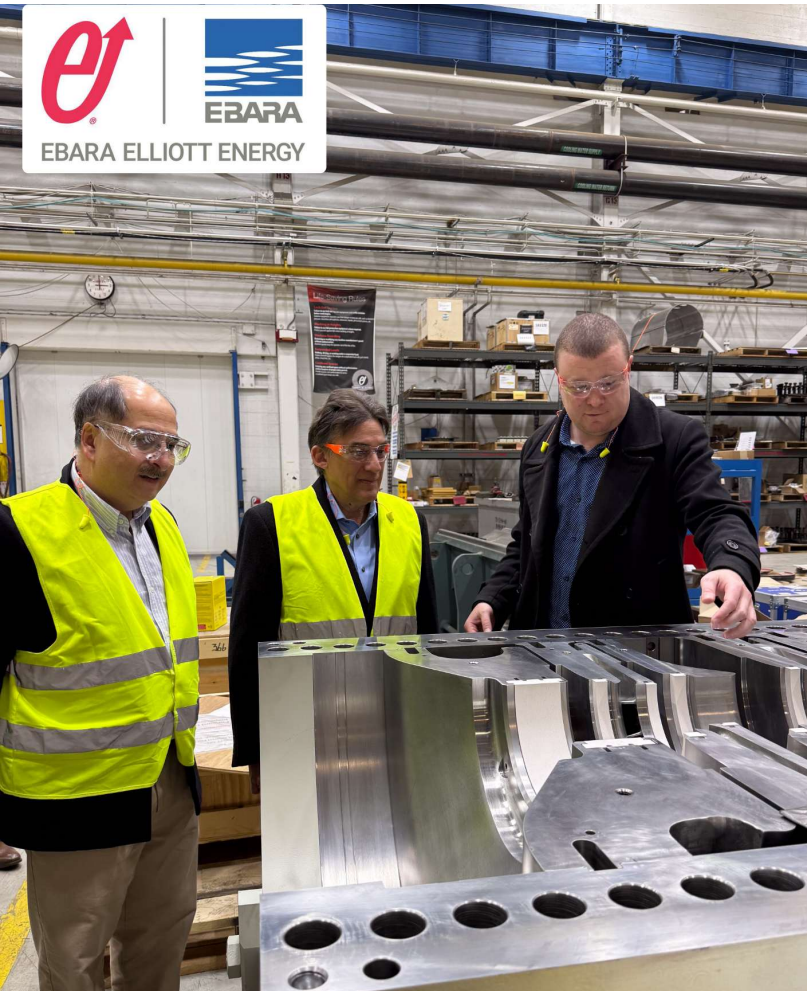


<https://www.youtube.com/watch?v=D9PyxEbhcIQ>

Nuclear Process Heat is Viable and Available

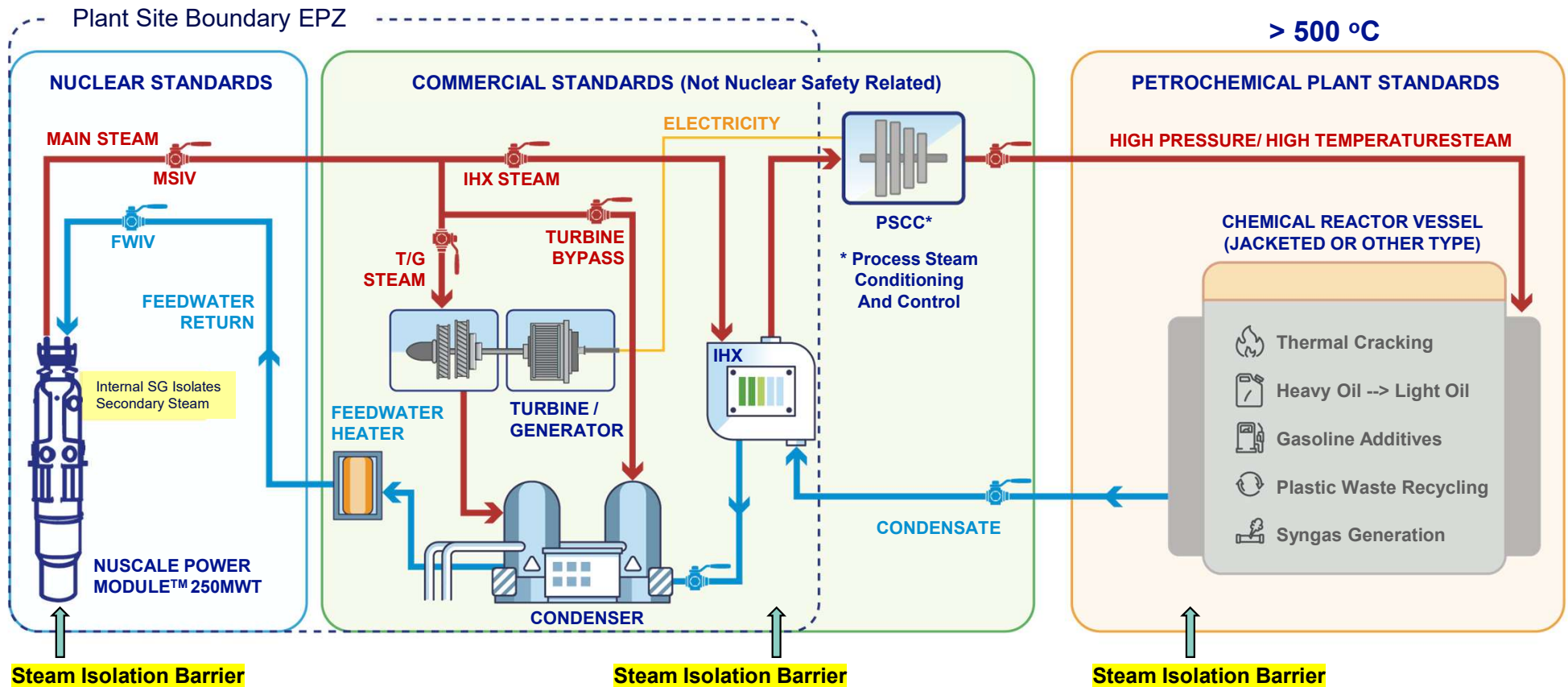
- The NuScale Power Module is near-term deployable and capable of producing competitive high-temperature process steam and power at industrial scale.
- NuScale Power Modules are NRC-approved and [already in fabrication](#).
- Commercial power projects with the [Tennessee Valley Authority \(TVA\)](#) and [RoPower](#) are currently being negotiated for deployments in the 2030 time-frame.
- Independent assessments from Oak Ridge National Laboratory and Idaho National Laboratory show technical and financial viability of using NuScale's nuclear heat for petrochemical processes.
- ENTRA1 Energy has created a financial model that fits petrochemical industry needs.
- Ebara Elliott Energy and NuScale have teamed to produce an industrial scale, high-temperature steam compressor demonstrator in 2027. Now seeking partners for field tests.

Industrial Process Steam, Demonstration and Field Testing



- NuScale and Ebara Elliott have established a program to demonstrate and field test a high temperature ($>500^{\circ}\text{C}$) steam compression system at commercial scale at a petrochemical plant.
- The compressor will be fabricated by Ebara Elliott and demonstrated at its test facilities in Jeannette, Pennsylvania in 2027.
- Following demonstration, the system will be transported and deployed at an industrial petrochemical site for field testing.
- NuScale and Ebara Elliott are seeking a petrochemical industry partner to deploy it at a petrochemical facility using steam in 2028.

Steam Conditioning via Compression/Heating



Ebara Elliott Energy

High Temperature Compressors

Utilizing SMR Steam for Industrial Heat

Louis Stanley

Compressor Dev Engineer – R&D

Lstanley@elliott-turbo.com

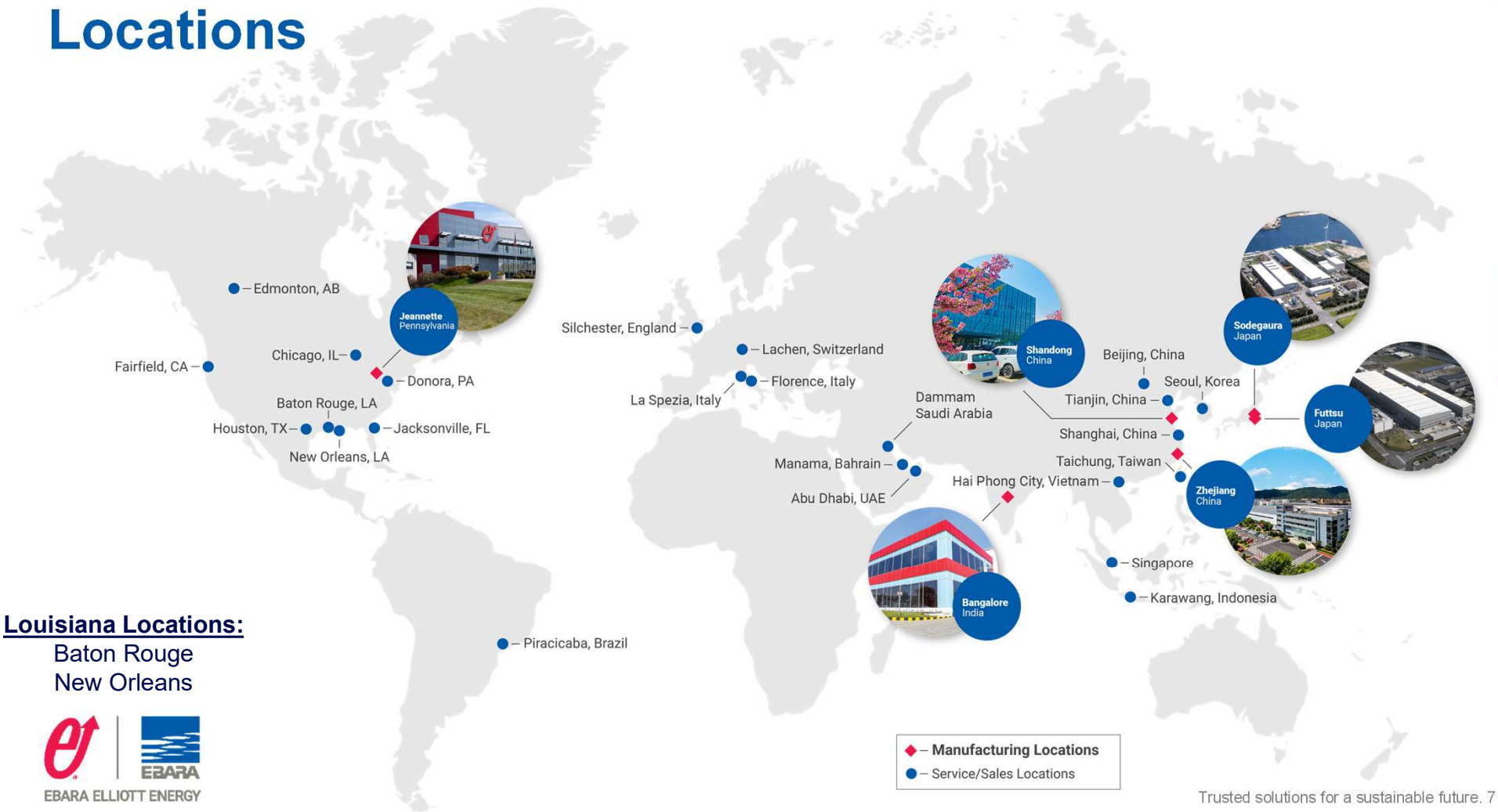


EBARA ELLIOTT ENERGY



Trusted solutions for a sustainable future. 6

Locations



Louisiana Locations:

Baton Rouge
New Orleans



◆ — Manufacturing Locations
● — Service/Sales Locations

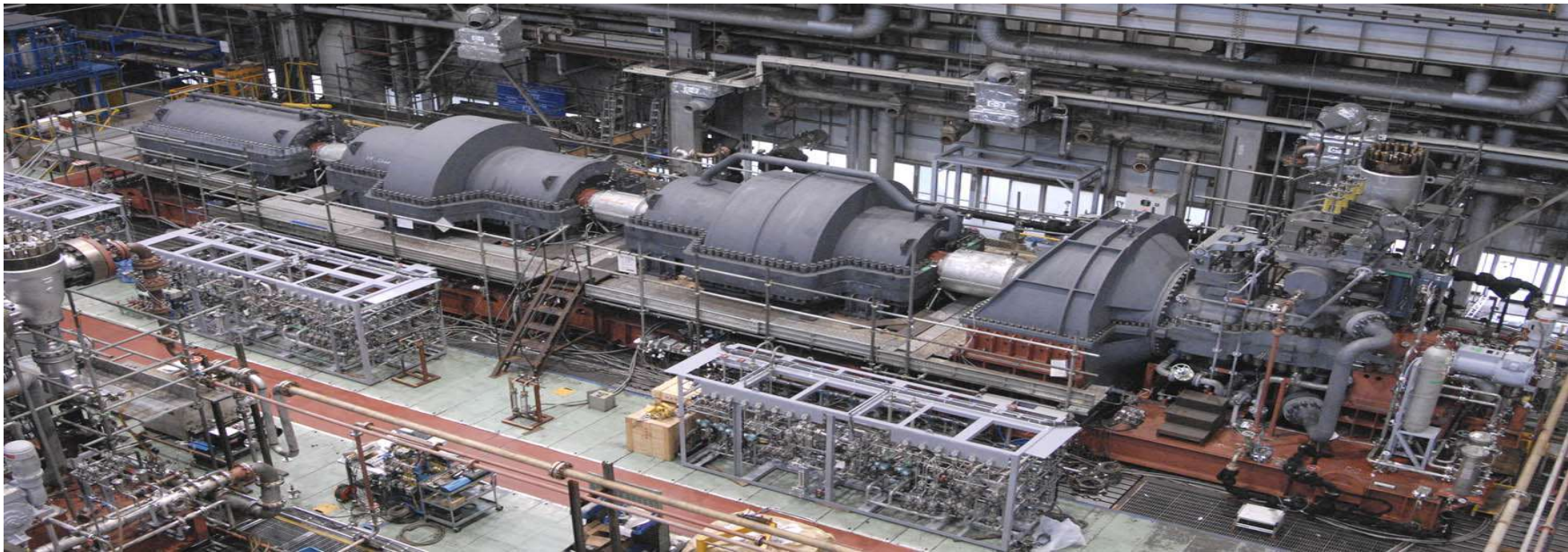
Trusted solutions for a sustainable future. 7

Centrifugal Gas Compressors

API 617 Between Bearing Compressors

Petrochemical, Refining, LNG,

15 Frame sizes from ~1,000cfm to >400,000icfm



High Temperature Steam Compressor Development

Based EEE's legacy of critical unspared compressors for the petrochemical industry

Engineering and Design of demonstrator compressor

Demonstrator target: 500°C

Engineering road map temperatures beyond 600°C

Target test date: 2027



High Temperature Turbomachinery

Single Stage Compressors (API 617):

>50 "P/PH" Compressors > 230°C (450°F) , 16 >315°C (600°F)

Multistage Compressors (API 617):

>40 "M" compressors > 260°C (500°F)

High Temperature Blower:

700°C inlet, 724°C MAWT

Blower for Demonstration Molten Carbonate Fuel Cell

Mechanical Drive Steam Turbines (API 612):

Powers >100MW

Installations with Steam inlet temperatures to: 535°C (995°F)

Installations with pressures to 125barg (1800psi)

Power Recovery Expander:

Power >30MW

Inlet Temperatures to 760°C (1400°F)

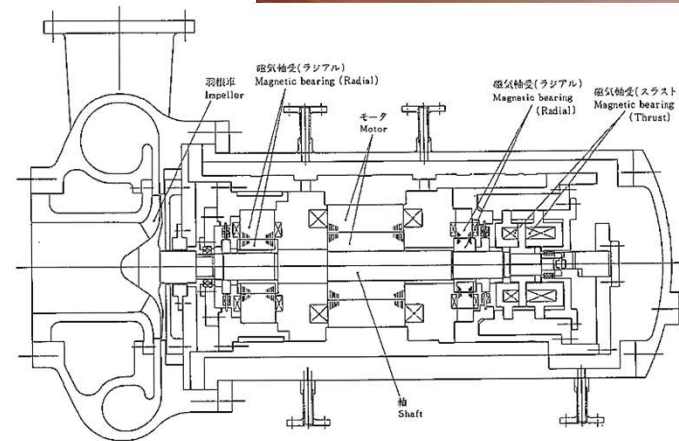
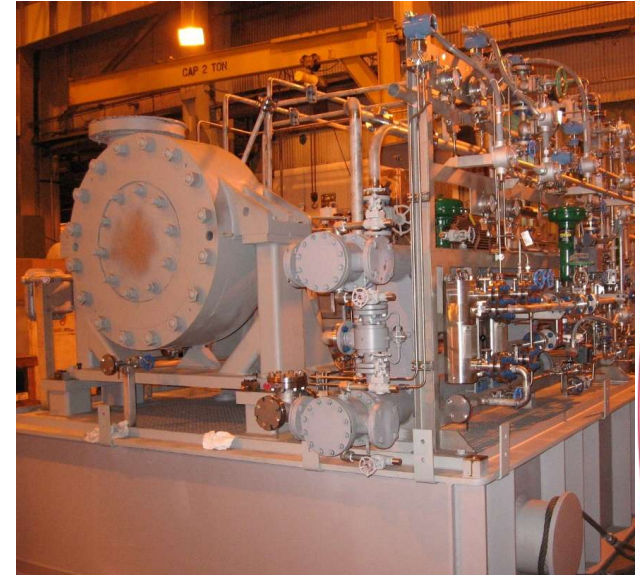
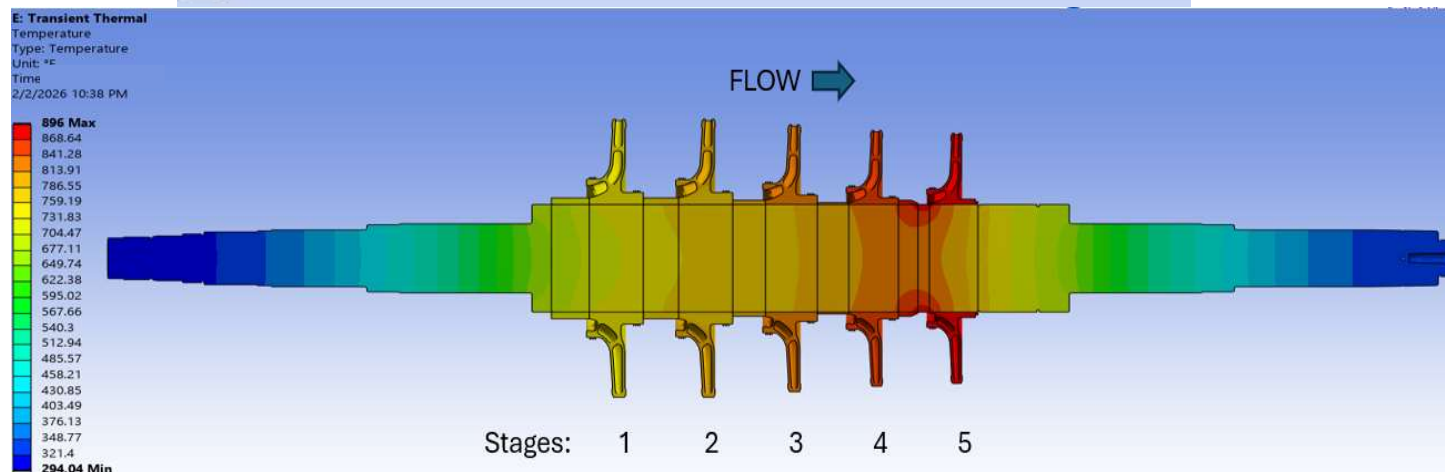
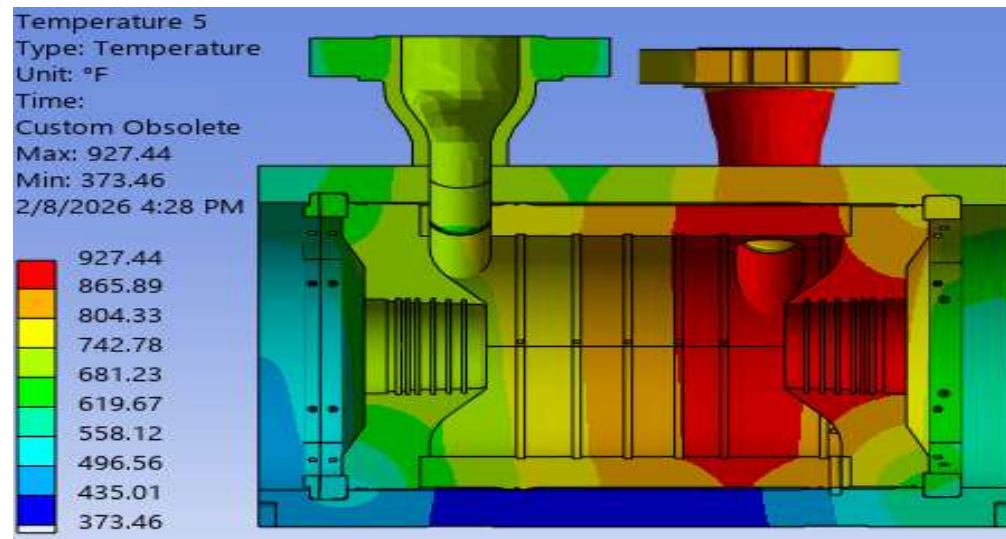


図2 高温プロフ構造図
Fig. 2 High temperature blower assembly

Transient Thermal Results at 500°C Discharge



Corporate Video | Ebara Elliott Energy



<https://youtu.be/s7HTZeUjKtA>



Questions?

Visit our kiosk

BACK-UP SLIDE FOLLOWS

Steam Conditioning via Compression/Heating

