

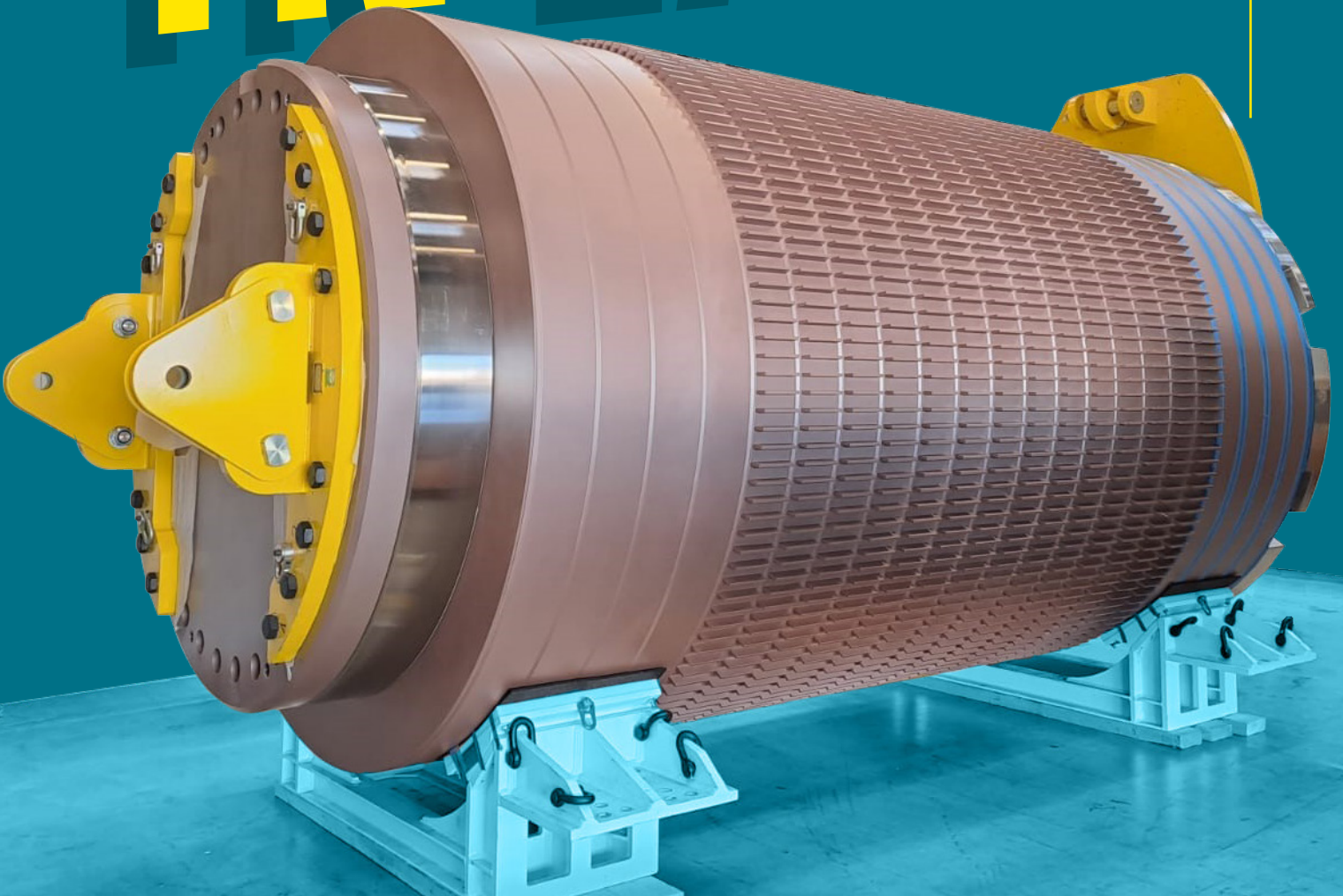


orano

Giving nuclear energy its full value

**A BREAKTHROUGH
TECHNOLOGY FOR A
BETTER NUCLEAR SAFETY**

TN EAGLE



AN INNOVATIVE CONCEPTION FOR INCREASED COMPETITIVENESS

THE
PROBLEM

ORIGIN OF THE TN EAGLE DESIGN

Previous generations of casks for transport and dry storage were too complex to fabricate :

- ↳ Lots of welding
- ↳ All operations in serie driving to many sow in case of issues
- ↳ Too long fabrication lead time
- ↳ Lack of competitiveness

MONOBLOC

TN EAGLE : A BREAKTHROUGH TECHNOLOGY

- No welding
- 10 times fewer components
- All components made in parallel
- Final assembly in less than 4 months

MONOBLOC FORGING FOR ENHANCED SAFETY

- No bottom to shell welding
- Enhanced confinement
- Improved quality
- Diversified supply chain
- Fastest delivery



ESTABLISHING A NEW PARADIGM OF PACKAGING MODEL

UNRIVALLED PERFORMANCE

- Shrink fitted rings
- No welding in the final assembly
- No cladding in the final assembly
- Enhanced heat load and shielding



A FULLY AUTOMATED FACTORY FOR MORE SAFETY AND BETTER QUALITY

- 9 automated workstations for optimal repeatability and quality
- Digital factory : all setups information dedicated to a specific cask / customer is recorded and loaded
- QR code for parts identification and traceability
- On call movements with an Automated Guided Vehicle (AGV)
- Final documentation released faster

SERVING CUSTOMER NEEDS THROUGH MAXIMIZED MODULARITY

- Rings materials choice depending on thermal dissipation
- Number of rings and fins for optimal modularity
- Gamma and neutron shielding
- Weight optimization
- Modular licensing

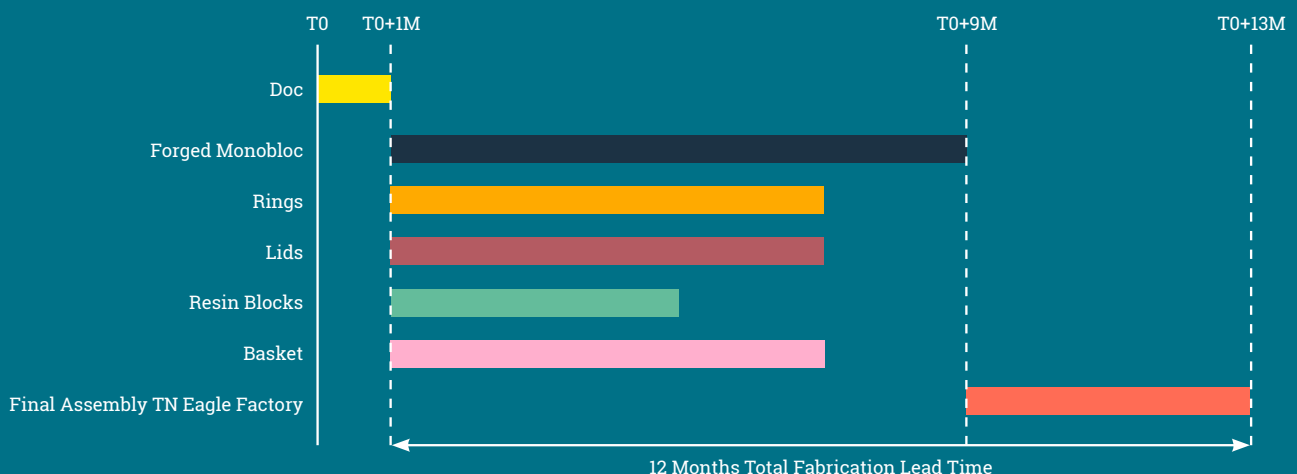
HIGHLY SKILLED PEOPLE

- 15 qualified operators
- 6 production engineers
- 1 black belt engineer
- Several experts in remote mode
- Full maintenance contract from a well established area



RECORD BREAKING MANUFACTURING LEAD TIME

- Modular design : a customizable solution
- All components made in parallel of the monoblock forged body
- Final assembly in less than 4 months
- No welding : quality improved
- On demand call of small batches





TN EAGLE :

A BREAKTHROUGH TECHNOLOGY FOR A BETTER NUCLEAR SAFETY

TN EAGLE IN A NUTSHELL

- Already licensed in France, USA, Japan, ...
Soon in Switzerland, Belgium, etc.
- 6 years from the first sketch to a
fabrication line producing TN Eagle casks
at full capacity
- Monobloc forging for better safety
- No welding / no cladding = quality
improved
- Total fabrication leadtime in less than 12
months from customers p.o.
- More than 100 casks already ordered
- Fully 4.0 digital factory
- Highly skilled and committed people

BRINGING ADDED VALUE TO OUR CUSTOMERS MAXIMISE FLEXIBILITY

TIME

Short notice decision / on demand call of
small batches

FINANCIAL RESOURCES

Competitive & cash effective solution

OPERATIONS

One design for all npp life cycle phases



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Giving nuclear energy its full value

DUAL PURPOSE :

ALL-IN-ONE TRANSPORT AND DRY STORAGE SYSTEM

