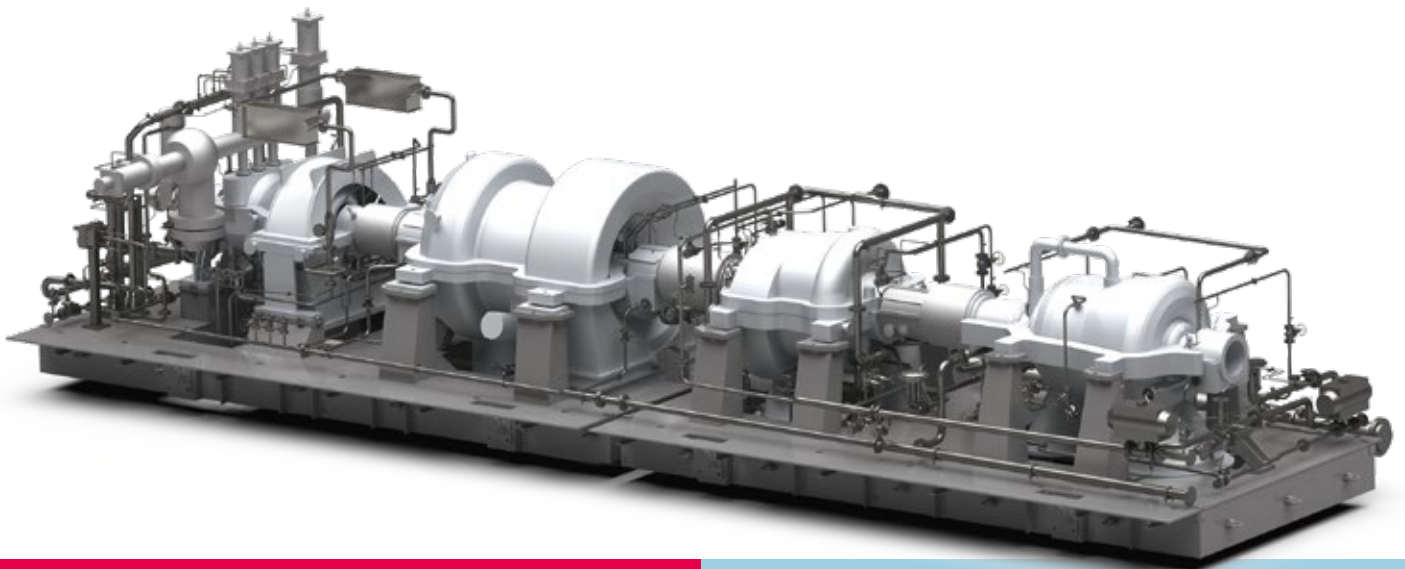


NAMAX



Benefits at a glance

- Modular train package for plant sizes from 400 to > 3,000 mtpd
- Notable low CAPEX and OPEX
- Unique robustness
- Remarkable small footprint
- Easy transportation and commissioning

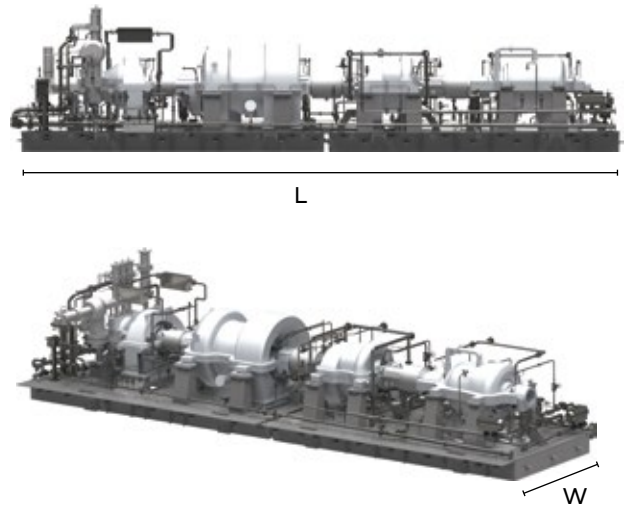
Everllence

NAMAX

Machinery train for nitric acid production

Technical data

Plant size (mtpd)	Package L (mm)	Package W (mm)
400	15,600	4,500
500	15,800	4,500
750	16,200	4,500
1,000	16,600	4,500
1,250	17,100	4,500
1,500	17,600	4,500
1,750	18,100	5,000
2,000	18,600	5,000
2,250	19,100	5,000
2,500	19,700	5,000
2,750	20,300	5,000
3,000	20,900	5,500
3,250	21,500	5,500



General

Nitric acid is a feedstock for the production of fertilizers, pharmaceuticals, mining explosives and various plastics. The demand for these commodities is expanding rapidly with the increasing urbanization and affluence of a growing world population.

The dual pressure process is the leading and efficient technology for processing ammonia to nitric acid. Everllence (formerly: MAN Energy Solutions) has gained distinguished experience, since building and commissioning the first reference in 1963.

For over 50 years, our engineers have continuously improved the nitric acid train technology and advanced Everllence to the leading supplier for the dual pressure process:

- More than 500 turbomachinery casings
- Installed in about 180 nitric acid plants worldwide
- And in the world's largest 2,000 mtpd plant in Porsgrunn, Norway

Everllence has introduced a new comprehensively optimized, turbomachinery concept named NAMAX that provides an advanced level of flexibility and efficiency for nitric acid production.

NAMAX train package

The NAMAX train package is a highly efficient, modular solution for nitric acid production (400 – 3,000+ mtpd), offering a 35 % smaller footprint, reduced operating and maintenance costs, and easier transport and assembly due to its lightweight, standardized design.

With advanced core machines, flexible base frame configurations, and integrated digital support, NAMAX enables faster delivery, improved performance, and simplified commissioning.

Steam turbine

- Modular system
- Reduced in axial length
- Improved steam consumption

NO_x gas compressor

- Fixed casing concept
- Optimized shaft sealing design

Air compressor

- Fixed casing concept
- Increased speed
- Reduced in size and weight
- Surge robust (Pump test)

Tail gas expander

- Fixed casing concept
- Reduced in size and weight

Train package

- Smaller footprint
- Reduced overall train package weight

Common train rotor speed

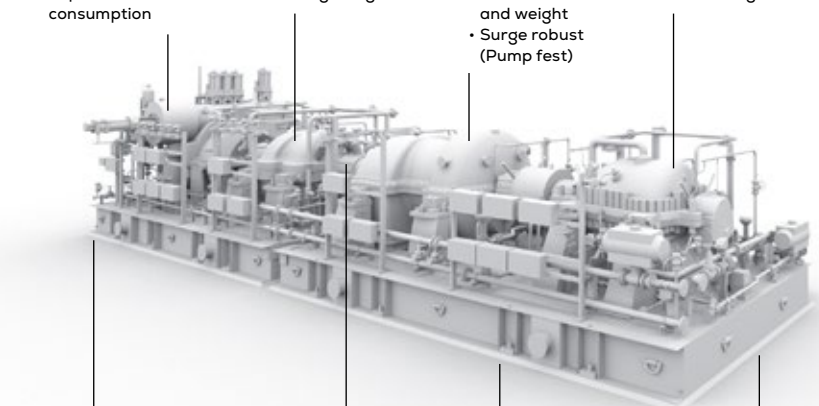
- No intermediate gearbox required
- Modular train configurations

Base frame configurations

- 4x single base frame
- 2x double base frames
- 1x single lift for small units

Various testing alternatives

- No shop test
- Mechanical running test
- Performance test



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