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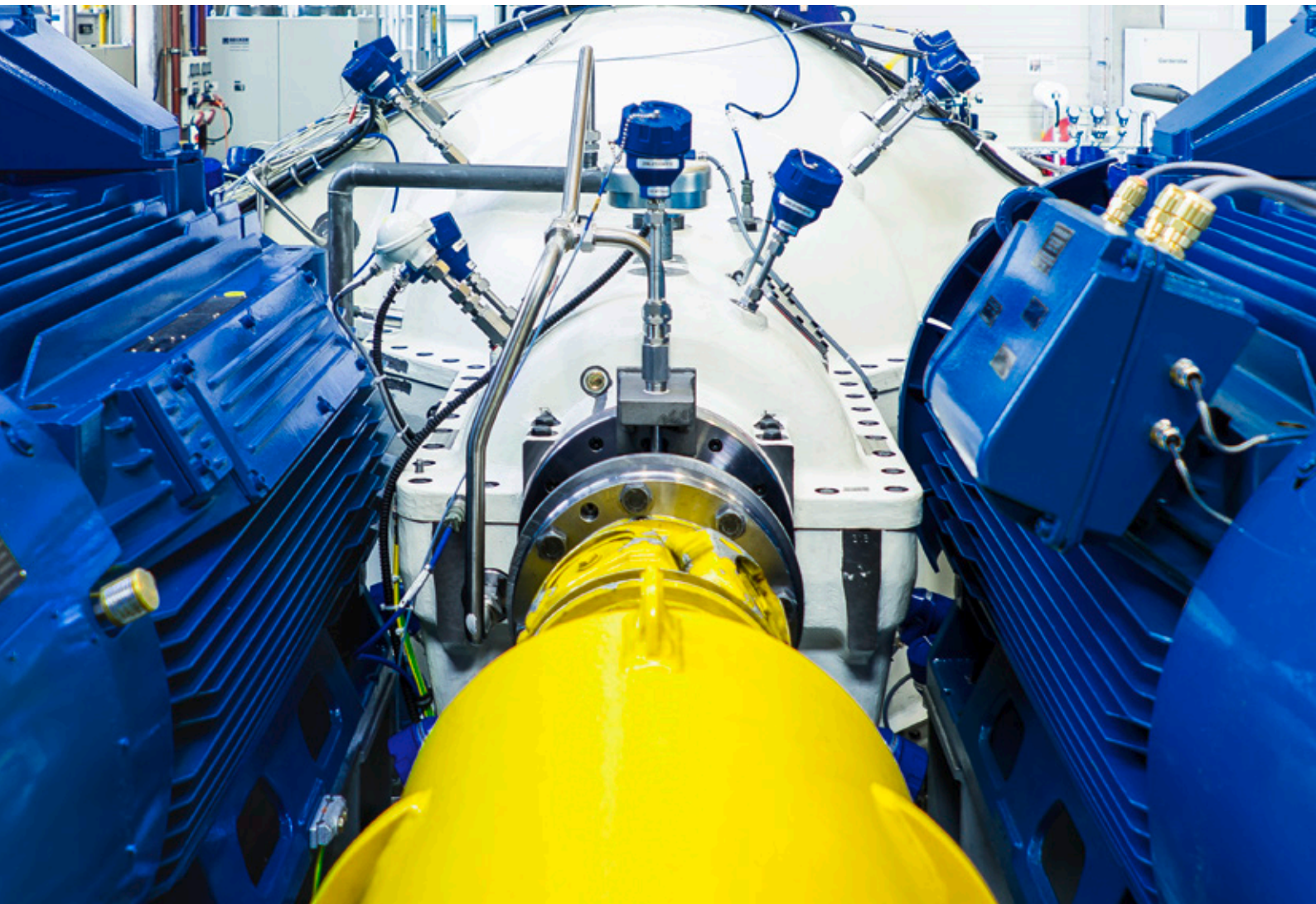
VOITH

Speed control takes a new turn towards the future

VECO-Drive

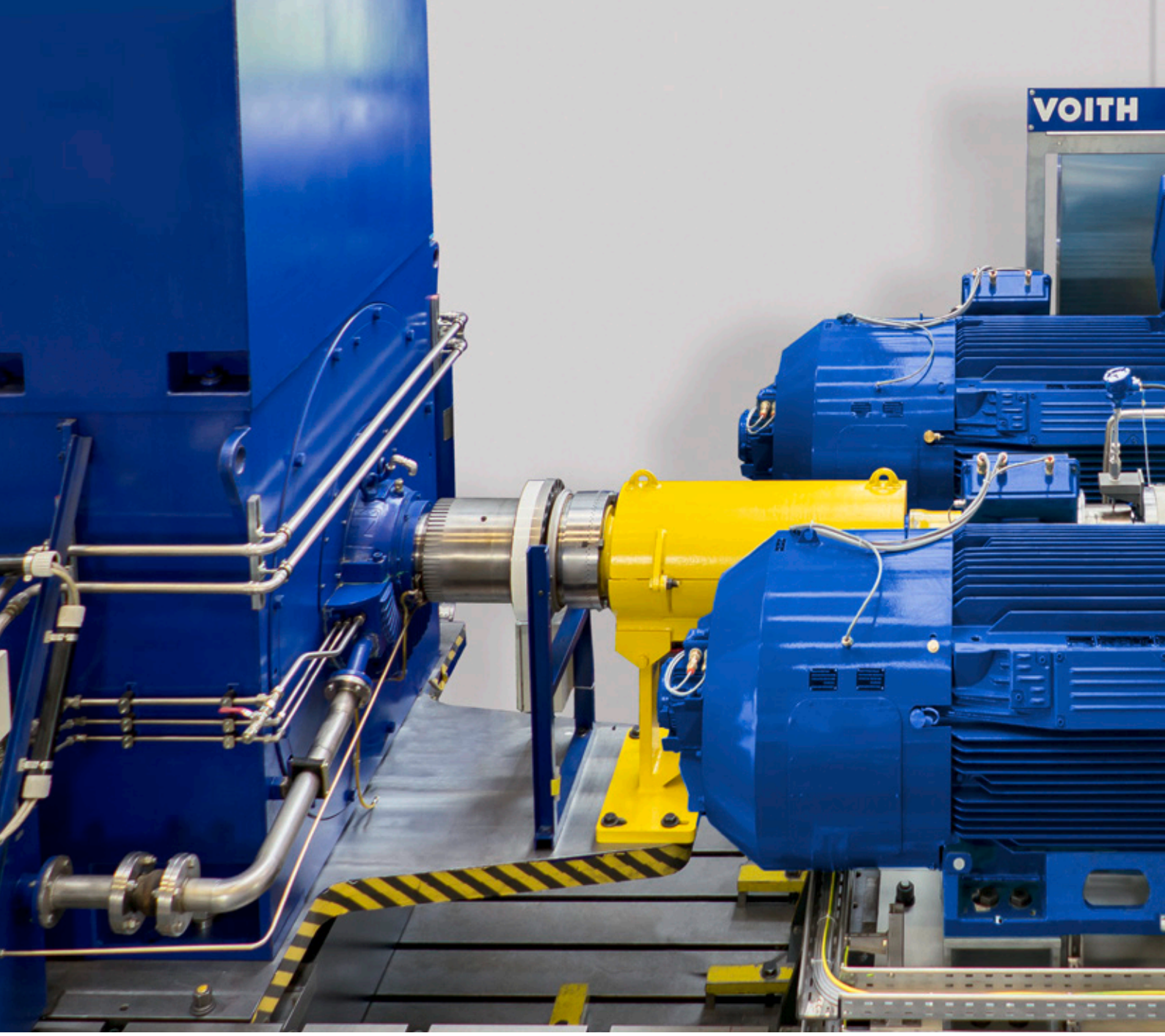


Every invention, every future trend begins with a movement. Moving away from the established. Turning to new possibilities and challenges.

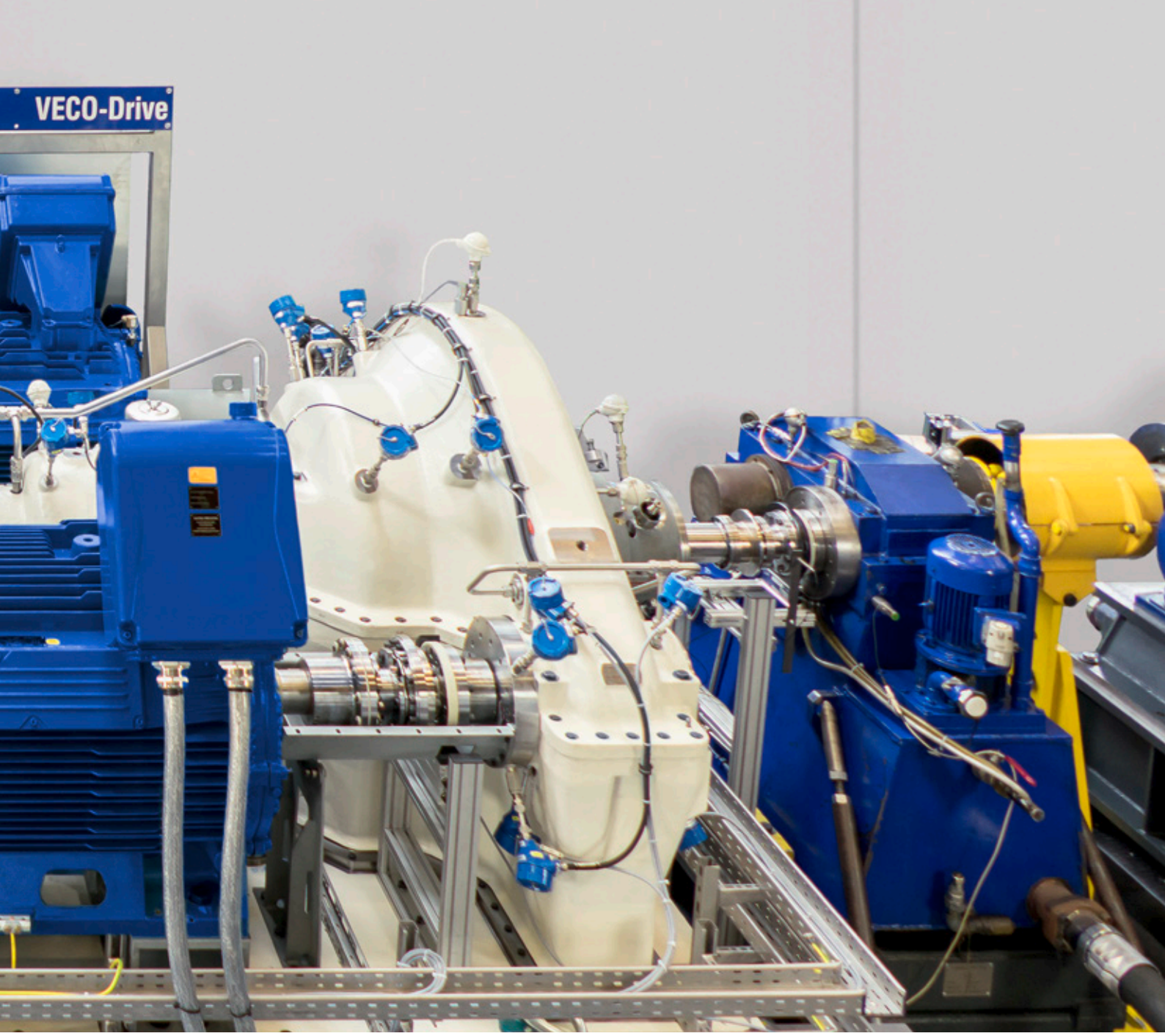

“We are taking speed control
to a whole new level.”
Bernd Lauter, Head of Electric Drives and Controls

For 150 years Voith has been fascinated by movement and turns. We are driven by speed and speed control. We are relentlessly probing. Challenging the status quo.

For many decades we have worked closely with the oil & gas and power generation industries worldwide. And we have never hesitated to explore new directions.



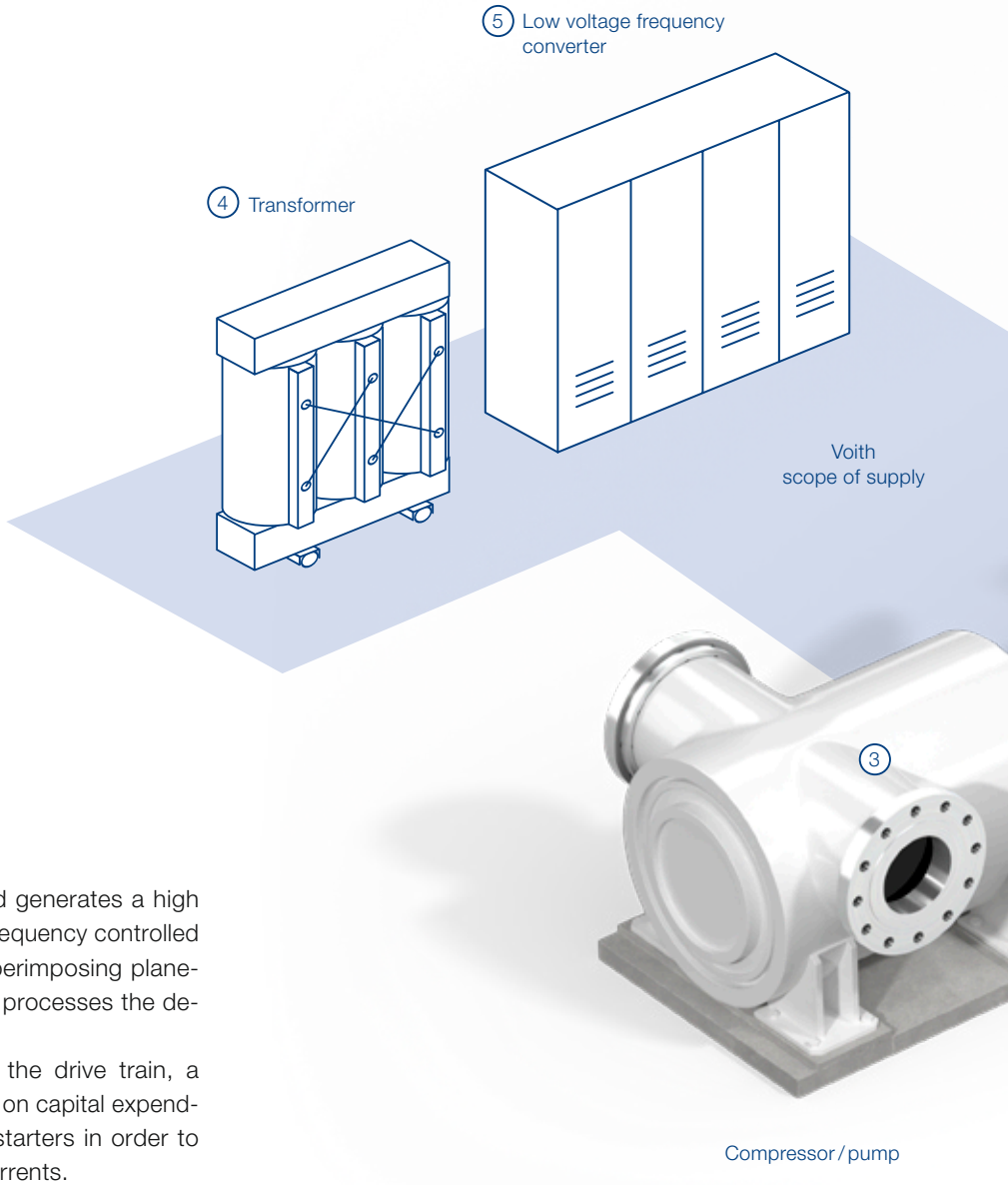
Get the Drive.



Now we are introducing a new solution for speed control – The VECO-Drive.

Control your compressors and pumps more efficiently than ever

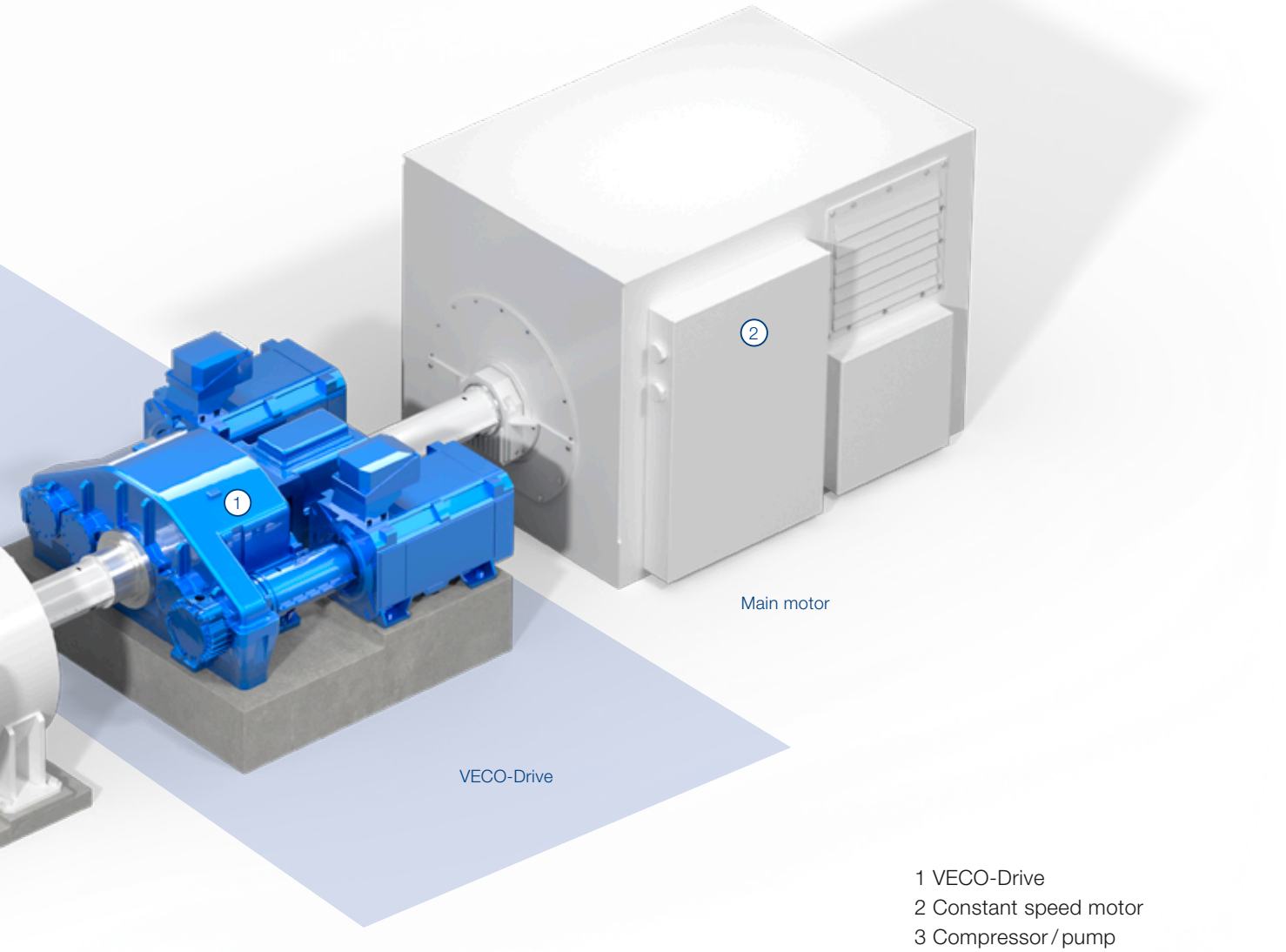
Design of variable speed drive train



This is how it looks

The VECO-Drive steps-up input speed and generates a high output speed for compressors or pumps. Frequency controlled servo motors are used together with a superimposing planetary gear to adjust the output speed which processes the demand.

Because additional power is supplied to the drive train, a smaller main motor can be used. This saves on capital expenditures. The servo motors can be used as starters in order to protect the electric grid from high inrush currents.



1 VECO-Drive
2 Constant speed motor
3 Compressor / pump
4 Transformer
5 Low voltage frequency converter

Closing the gap – Our first electrical superimposing gear

This is how it works

The new VECO-Drive is an innovative solution combining a mechanical planetary gear with frequency controlled servo motors. This opens up completely new possibilities for overall system optimization.

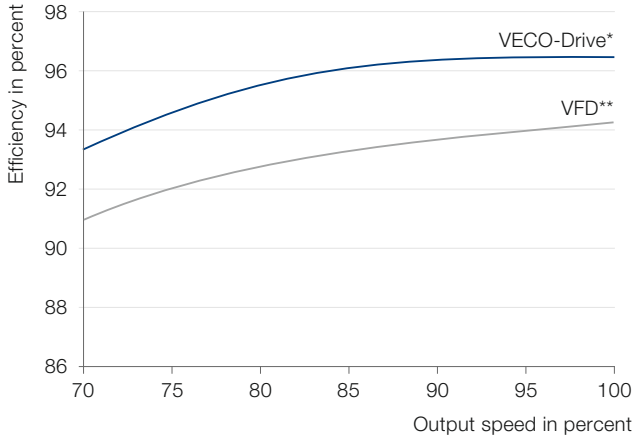
The electrical superimposing gear is the most efficient way to make speed variable. Servo motors are used to drive the planetary gear. Since only a small amount of rated power is needed, an overall component efficiency of greater than 97 percent is reached, saving valuable energy and reducing operating expenditures.

Technical data

Output power	4 – 15 MW
Output speed	5,000 – 15,000 rpm
Component efficiency	up to 97 %

Overall component efficiency – parabolic load torque

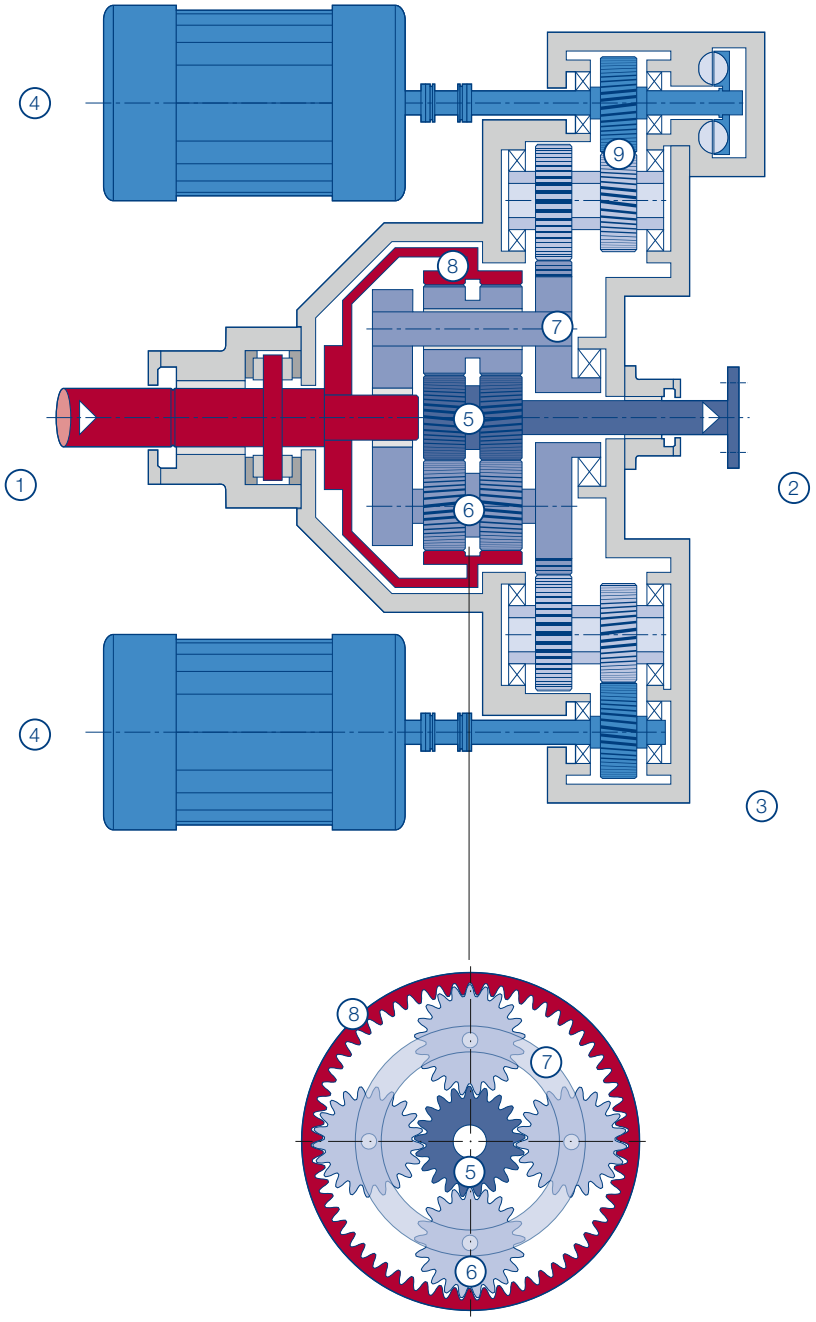
Comparisons of VECO-Drive* and full scale in-line VFD**



* including transformer, low voltage VFD, lube oil pump and forced cooling

** including transformer, step-up gear and lube oil pump

Sectional drawing



1 Input shaft
2 Output shaft
3 Housing
4 Servo motors
5 Sun gear
6 Planets
7 Planet carrier
8 Ring gear
9 Spur gears

Our VECO-Drive – your benefits

Reliability backed by over

34,000

successful variable speed installations.

Output power

4–15 MW.

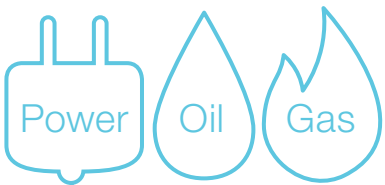
97%

peak efficiency.

Service network in over **60** countries.

output speed.

60 years experience.



2,000 happy customers.

“Raise efficiency to over 97 percent – control your compressors and pumps more efficiently than ever.”

Dr. Martin Tilscher,
Product Manager
Geared Variable Speed Drives

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Inspiring Technology
for Generations