Highest efficiency achieved in variable speed drives
VECO-Drive
Benefits that drive your business

- Saving energy
- Easy motor start
- Less maintenance
- Smaller footprint
- Output power: 4–15 MW

97% peak efficiency
Investment cost savings

Service network in over 60 countries

60 years experience

Reliability backed by over 34,000 successful variable speed installations

Power Oil Gas
Benefits explained...

The ultimate in efficiency and control

Energy cost savings result from outstanding efficiency, even 97% achievable.

The VECO-Drive is the ideal solution for speed regulation of high speed rotating equipment, providing a means to efficiently achieve the temperature stability required by the process. As a result of improved efficiency, the overall footprint, when compared to a conventional variable frequency drive, is reduced by up to 50%.

Soft motor start & slow roll function

In order to protect the electronic grid from high currents, several motors can be used to select the next motor. This reduces the risk of overloading the grid. Additionally, the servo motors can be used to start-up the main motor. For this purpose, a clutch is installed that locks the superimposing function temporarily. The entire train is then smoothly accelerated and the main motor synchronized, before it is connected to the grid. Additionally, the same motors can be used to decrease the speed of the main motor, thereby increasing the speed or alternatively can be used to recuperate energy in order to decrease the speed.

Control power, is not lost, rather it is superimposed to the input of the main motor, this facilitates a reduction in the motor size up to 20% due to decreasing capital expenses.

In order to protect the electric grid from high currents, servo motors are assured of the lowest possible operating cost through condition monitoring.

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Investment cost saving

Where ever space and weight are important, as control power which results in less space being occupied overall, the amount of service work is reduced. Additionally, less spare parts need to be purchased and stored. Additionally, the servo motors can be used to start-up the main motor. For this purpose, a clutch is installed that locks the superimposing function temporarily. The entire train is then smoothly accelerated and the main motor synchronized, before it is connected to the grid. Additionally, the servo motors can be used to start-up the main motor.

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**Benefits explained...**

Energy cost savings result from outstanding efficiency, even >97% achievable.

The VECO-Drive is the ideal solution for special applications requiring a high level of efficiency, for example in high-speed, high-darcy applications. This is achieved by combining an electrical grid-free technology with variable frequency drives. The result is a solution that is comparable to mechanical transmission, but with the advantage that the overall footprint is reduced by up to 30%. The VECO-Drive is the perfect solution for offshore oil & gas production, where ever space and weight are important, as control power which results in less space being occupied overall footprint, when compared to a conventional variable frequency drive. Only a small portion of rated power is needed, which results in a substantial reduction in footprint. Small footprint – more than 30% reduction in footprint.

The VECO-Drive is the perfect solution for high-speed rotating equipment, achieving a record efficiency >97% at peak output.

In order to protect the electric grid from high currents, servo motors can be used as control power, which results in less space being occupied overall footprint, when compared to a conventional variable frequency drive. Only a small portion of rated power is needed, which results in a substantial reduction in footprint. Small footprint – more than 30% reduction in footprint.

Energy cost savings result from outstanding efficiency, even >97% achievable.

Soft start & slow roll function

To avoid bending during the cooling down phase after the operation.

The VECO-Drive is the ideal solution for speed regulation of compressors and pumps more efficiently than ever.

**The ultimate in efficiency and control**

**Overall component efficiency – parabolic load torque**

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

<table>
<thead>
<tr>
<th>Component efficiency</th>
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<tbody>
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**Technical data**

<table>
<thead>
<tr>
<th>Machine ambient temperature</th>
<th>0 °C – 40 °C (32 ° – 104 °F)</th>
</tr>
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<tbody>
<tr>
<td>Speed regulating range</td>
<td>50 % – 100 % (pumps)</td>
</tr>
<tr>
<td>Input speed</td>
<td>1 500 rpm / 1 800 rpm</td>
</tr>
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<td>4 MW – 15 MW / 5 300 HP – 20 100 HP</td>
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**Design of capacitor Based Ultra Drive**

In order to increase the electric grid-free high efficiency, servomotors can be used to select the main motor. For the pump and the compressor, this means that the mechanical transmission is part of the main motor, the servomotors are coupled to the planet carrier and the main motor synchronized, before it is connected to the grid. Additionally, the servomotors can be used to decelerate and accelerate the main motor, hereby providing variable output speed.

**Operating principle explained**

The VECO-Drive is a respected combination of reliable standardized frequency controlled servo motors.

In order to protect the electric grid from high currents, servo motors are coupled to the planet carrier and the main motor synchronized, before it is connected to the grid. Additionally, the servomotors can be used to decelerate and accelerate the main motor, hereby providing variable output speed.

A low voltage VFD is less complex, easier to install and also less space to be occupied by the control and control devices. Additionally, the amount of service work is reduced.

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

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For soft motor start and slow roll function

Control power is switched in at the beginning of the main motor, this facilitates a reduction in their motors size up to 30% in allowing capital investments.

**Temporary emergency stop**

A clutch is installed that locks the superimposing function temporarily. The entire train is then smoothly accelerated and the main motor synchronized, before it is connected to the grid. Additionally, the servomotors can be used to decelerate and accelerate the main motor, hereby providing variable output speed.

**Operational principle explained**

The VECO-Drive is the perfect solution for high-speed rotating equipment, achieving a record efficiency >97% at peak output.

In order to protect the electric grid from high currents, servo motors can be used as control power, which results in less space being occupied overall footprint, when compared to a conventional variable frequency drive. Only a small portion of rated power is needed, which results in a substantial reduction in footprint. Small footprint – more than 30% reduction in footprint.

Energy cost savings result from outstanding efficiency, even >97% achievable.

Soft start & slow roll function

To avoid bending during the cooling down phase after the operation.

The VECO-Drive is the ideal solution for speed regulation of compressors and pumps more efficiently than ever.