



ELECTRIC DRIVES
FOR EVERY DEMAND



Drive Systems by VEM



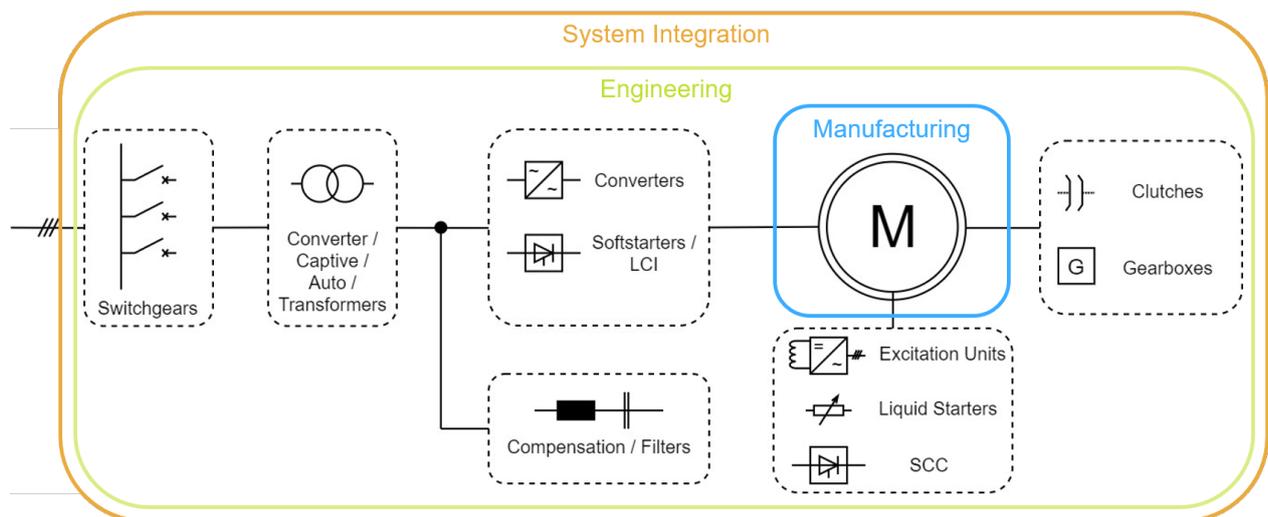
What do we do

Under the VEMoDRIVE brand, VEM supplies controlled drive systems in a power range from 0.55 kW to 55 MW – in low and medium voltage.

As a leading manufacturer of electrical machines and a specialist in automation and drive equipment, VEM has decades of experience in the project planning, manufacture, delivery, assembly and commissioning of controlled drive systems and their components. This guarantees high quality, reliability and customer satisfaction.

The tried and tested motors from our production sites in Zwickau, Wernigerode and Dresden are combined with power converters and automation technology from renowned manufacturers to form complete controlled drive systems.

VEMoDRIVE thus offers a high degree of flexibility in solving automation and drive tasks for both new systems and for modernisations.



How do we do it

The drive train is projected and optimised in several steps in accordance with customer requirements and wishes:

1. selection of the suitable drive type (D.O.L drive, variable speed drive, motor type, gear unit)
2. a) selection of the appropriate motor from a large number of in-line motors or
b) individual electromechanical design
3. selection of a suitable power converter
4. selection of the necessary instrumentation and control technology
5. if applicable, calculation, simulation or testing of EMC, vibration and noise emissions
6. checking the economic efficiency and, if necessary, repetition of steps 1 - 6 with another type of drive

State-of-the-art project planning tools such as Eplan P8 and Siemens NX, as well as simulation tools such as MATLAB or Ansys, form the basis for this work.

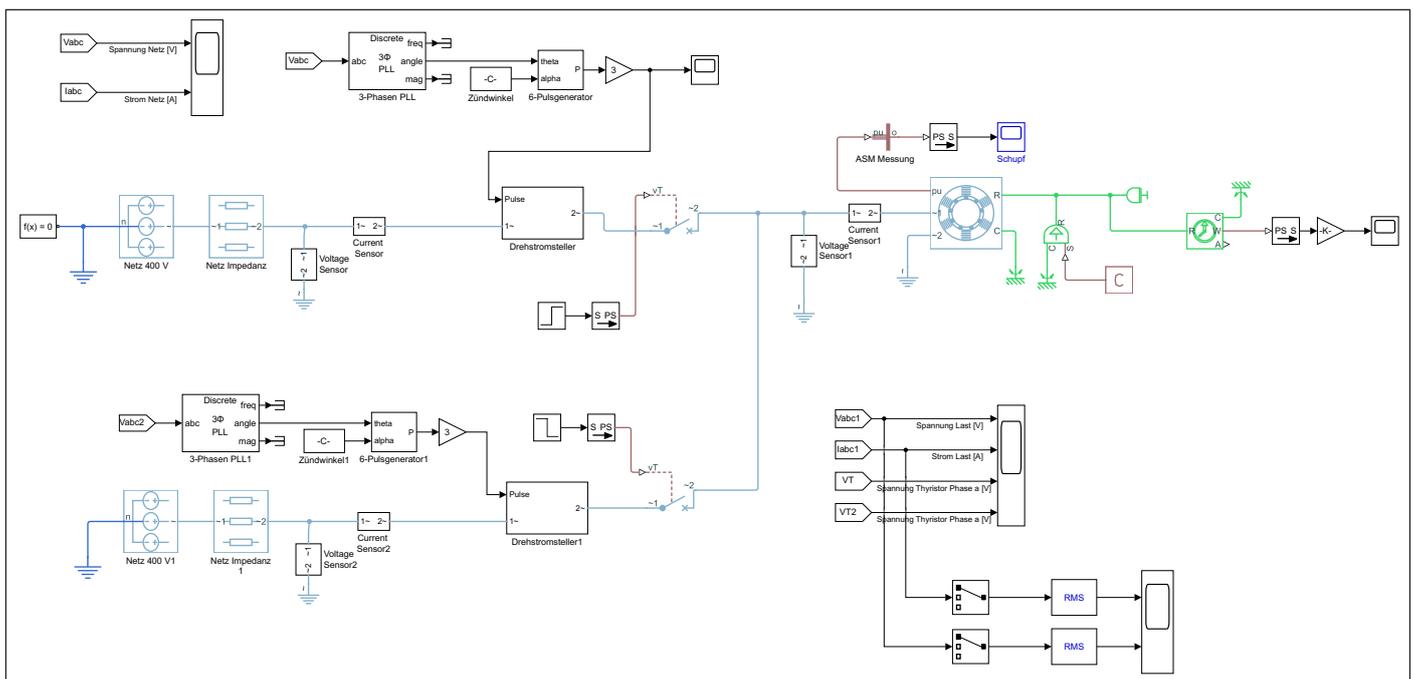


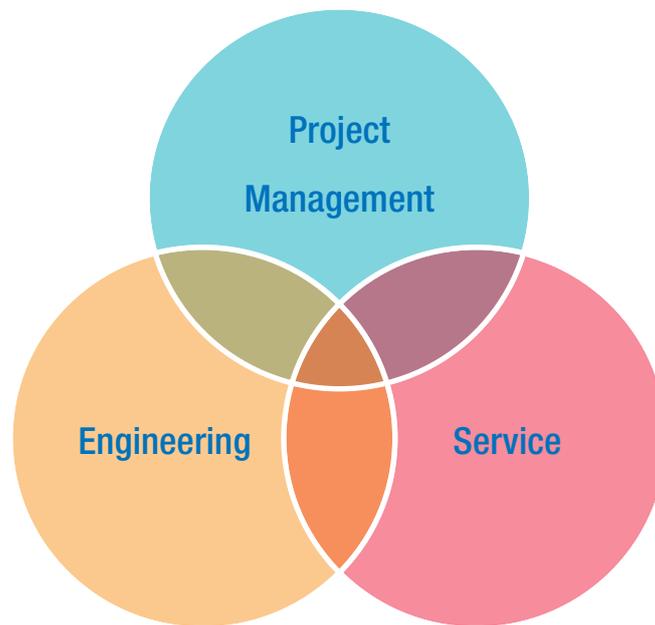
Figure 1: Model of a drive system created with MATLAB 2017b

In addition, our engineers have extensive experience in programming suitable control and visualisation systems for integration into the process in accordance with automation level 1.

What is the procedure

From development to after-sales service, VEM always focuses on meeting your user-specific requirements. The close cooperation with the client during the project planning of the drive system enables an optimal and thus cost-effective design with regard to investment and operating costs.

Our competent specialist teams accompany you throughout the entire project process and ensure implementation in line with customer and quality requirements in accordance with our high internal standards and international standardisation.

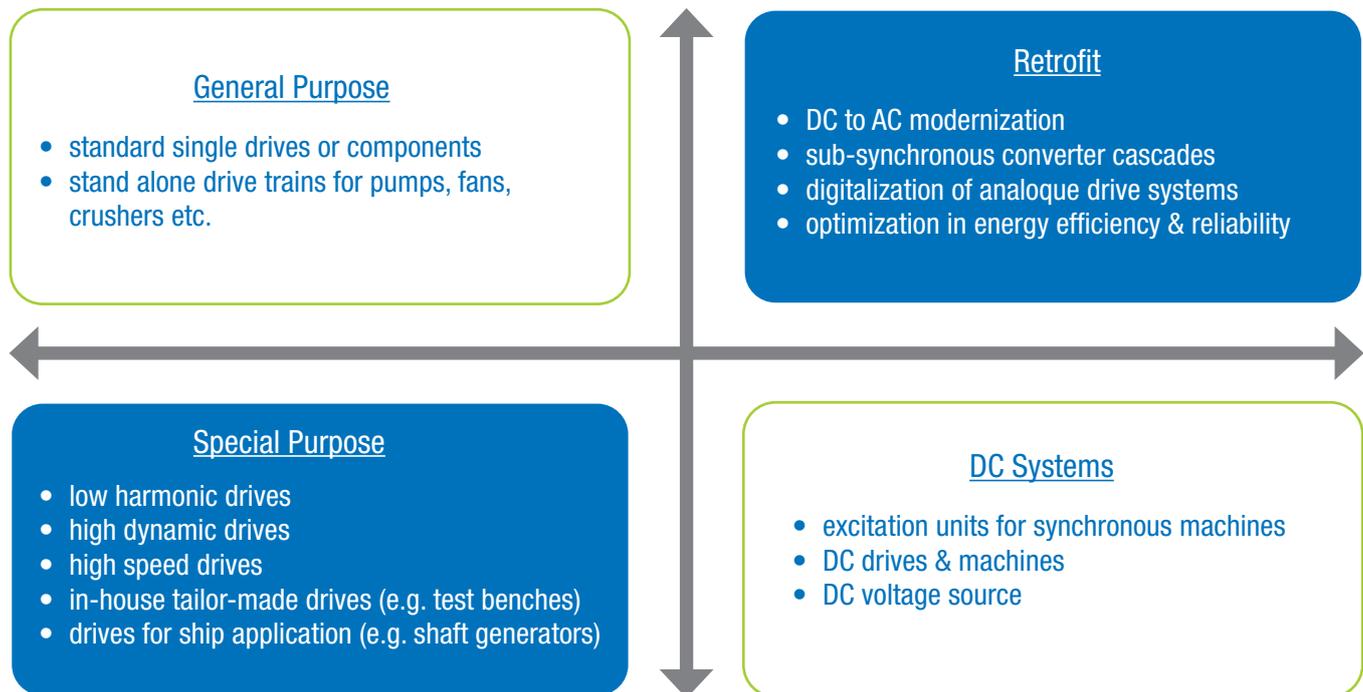


Our customer service will be happy to accompany you during the commissioning of the complete systems. Training courses for your employees at our premises or on site round off our range of services.

Applications and their benefits

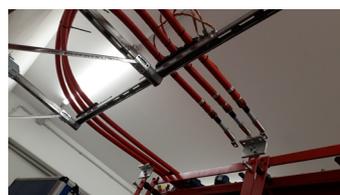
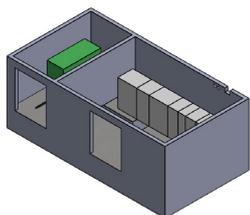
The investment in drive systems quickly pays for itself through reduced costs for energy, maintenance and downtime. With our energy-efficient VEMoDRIVE system solutions, we provide you with competent and reliable support. Powerful motors and frequency converters are matched to your requirements. Damages and downtime are prevented, maintenance is reduced, and power consumption is minimised. Expect from us technically sophisticated, innovative solutions for optimum system efficiencies that comply with all current norms and environmental standards. Highest productivity with maximum efficiency and reliability – you can count on that.

We focus on the following applications:



In addition, we also take care of:

Arrangement	Cabling
layout of electrical rooms	cable determination
arrangement of components	routing of low & medium voltage cables
mounting of all devices	cable installations
disposal of old material	



References

General Purpose

Start-up drive

25 MW motor, LCI 10 kV, switchgear
Linde Amur, Russia, 2017-2021



Drive system for PA Fan

1.9 MW motor with MV drive system as
container solution
RWE Amer 9 plant, 2020



Special Purpose

3x Low harmonic drives

1 MW motor PMSM, transformer, VFD
PIGSAR, Germany, 2020



Test stand drive

530 kW in-house tailor-made VFD
John Deere GmbH, Germany, 2018



Applications and their benefits

Retrofit

DC to AC modernization
4.4 MW motor SM, transformer, VFD, gearbox
Constellium, Germany, 2020



Exchange of old transrech VSI
630 kW VFD
MAN Augsburg, Germany, 2020



DC Systems

3x Excitation units
Brushless SM; DC 150 V, 7.5 A
MAN Gasunie, Netherlands, 2020



3x Test rectifier
DC 1000 V, 300 A
KKP Berlin, Germany, 2017-2021





ELECTRIC DRIVES

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