

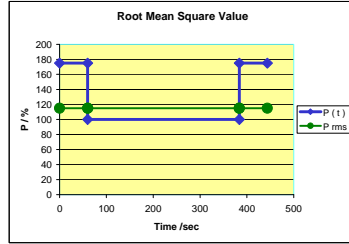
AC Drives Technology (DS_1) :

AC Machines

- Synchronous Motors
- Induction Motors
- Slipring Motors

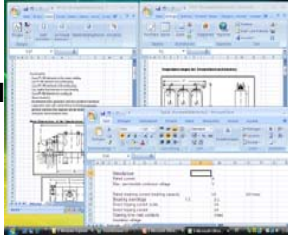
Power Semiconductors

- Diode, Thyristor
- IGBT, GTO
- IEGT, IGCT



Inverter Technology

- Commutation
- Puls Width Modulation PWM
- Direct Torque - Control (DTC)
- Protection Concepts
- „Multi – Drives“



AC Drives Technology

- Cycloconverter
- Slip Recovery System
- Load Commutated Inverter (LCI)
- I – Inverter
- U – Inverter
- Softstarter

Rolling Mill Drives and their Specialities (WS_1)

(only in connection with or after course DS_1) :

Coldmills

- Reversing Coldmill (RCM)
- Tandem Coldmill (TCM)
- Stainless Steel Mill
- „Compact Coldmill“ (CCM)
- Foil Mill (Aluminium)

Hotmills

- Hot Strip Mill (HSM)
- CSP - HSM
- Steckel Mill
- Plate Mill

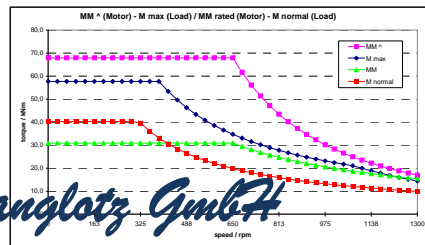


Processing – „Lines“

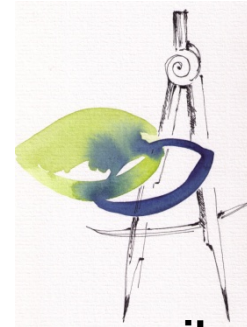
- Pickling
- Annealing
- Coating
- Galvanising ...

Auxiliaries

- Roller Tables
- Filter Units
- Static Voltage Compensator (SVC)



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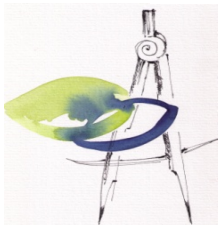
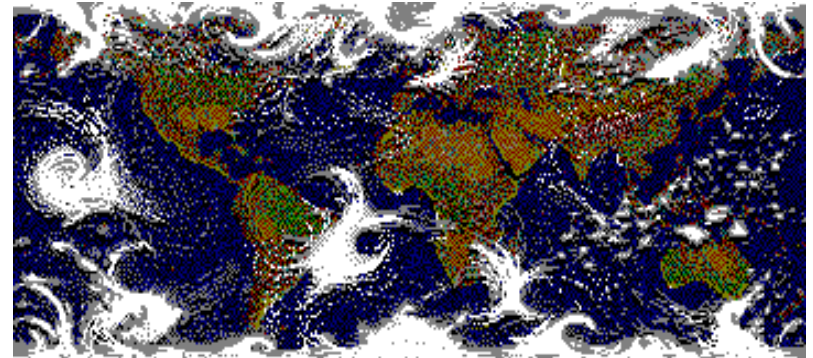
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By means of training and consulting to find the best solution.
Benefit from the experience of decades of industrial plant building.



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Who drives the drives ?

For almost all industrial processes the transformation from electrical energy into rotation, movement, deformation ... is of vital importance. Therefore the drives portion when building or upgrading industrial plants can represent a significant portion of the total project. For this part today the technical system characteristics and cost are relevant.

In addition, running cost, maintenance, network repercussion, energy consumption, environmental pollution as well as operational safety and availability are also very important.

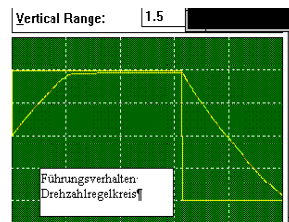
The number of students and graduates in the field of Drive Engineering and Mechatronics is decreasing in favor of Information Technology.

In addition, complex industrial plants have very specific requirements for process know-how today. The process knowledge for the drives specialist is even more important than the knowledge of the drives technology itself.

Obviously this additional process knowledge transfer is also very difficult during the normal university education without field experiences.

Now you can close this gap:

By means of crash courses developed by an expert in this field, you can quickly get a complete overview to understand and be updated on the latest technology level.

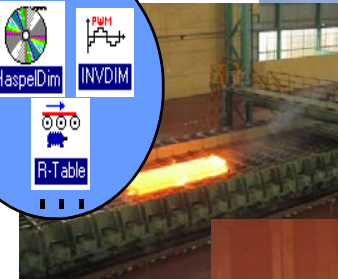
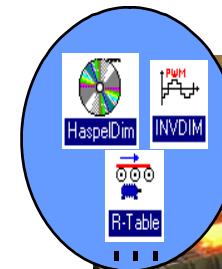


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Training - and Consulting - Emphases :

- Power Semiconductors
- AC Drives Technology
- Energy Distribution
- Energy - Saving



Services:

- Training Courses
- Technical Consulting
- Concept Layout
- Softwaretools

