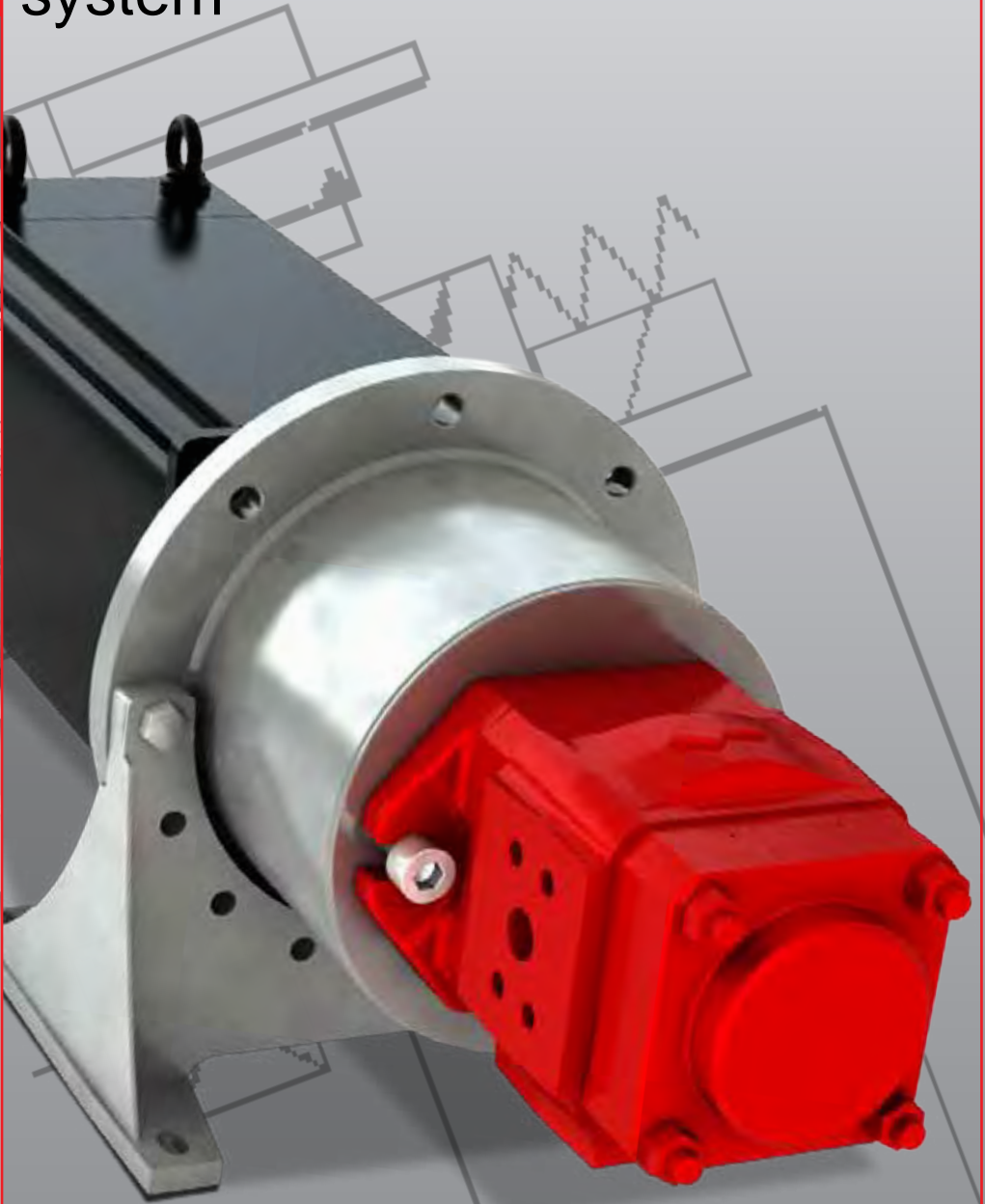
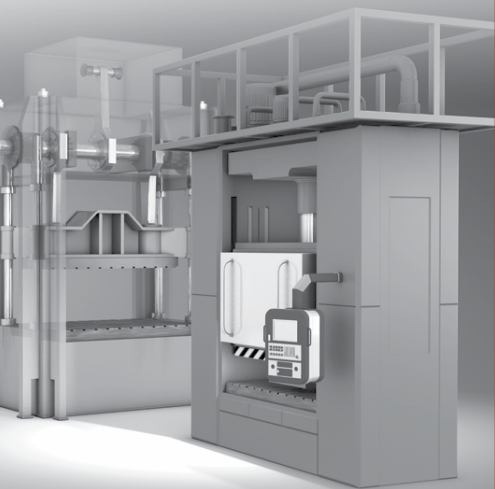
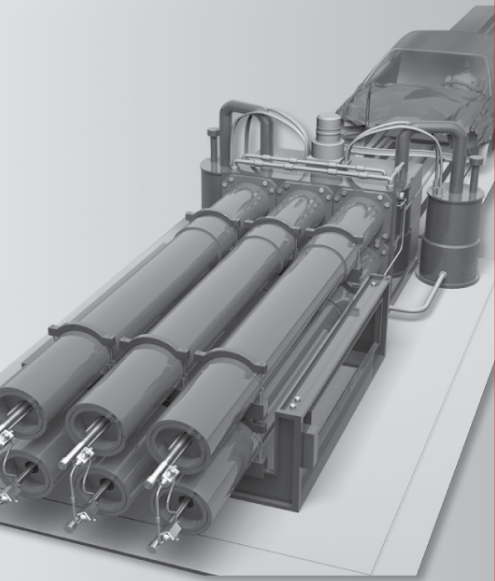
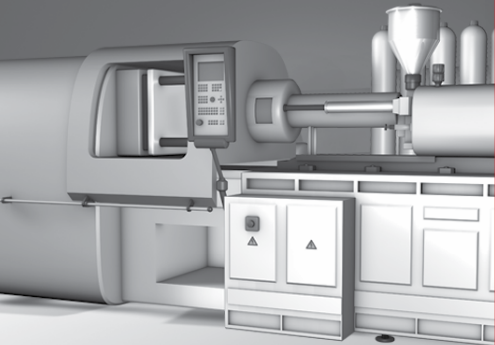


HYDAC

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HYDAC KineSys
The energy-efficient drive
system



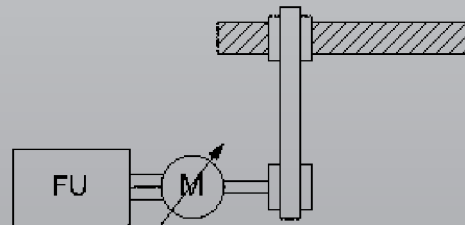
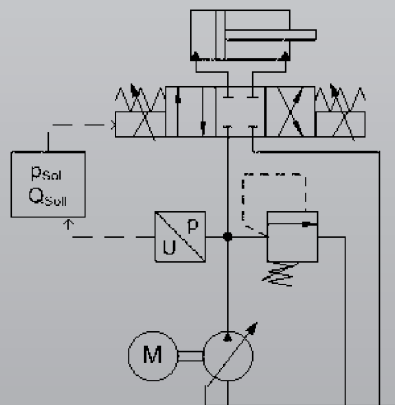
The modern drive system from HYDAC

Description:

KineSys products and solutions are characterised by the perfect symbiosis of hydraulics and electromechanics. The variable speed drive demonstrates its strengths here. The drive motor can be switched on and controlled by the integrated control according to requirements. The largest energy saving potential results from this, because only the required amount of energy is provided. Energy savings of up to 70 %, dependent on the machine cycle, can be achieved from this. Power dissipation can be reduced to a minimum through the condition-optimised adaptation of the KineSys solution.

Advantages of the KineSys products and solutions are:

- Increase in productivity
- Reduction of noise emissions
- Longer service life of the components
- Reduction of complexity
- Integration of safety functions

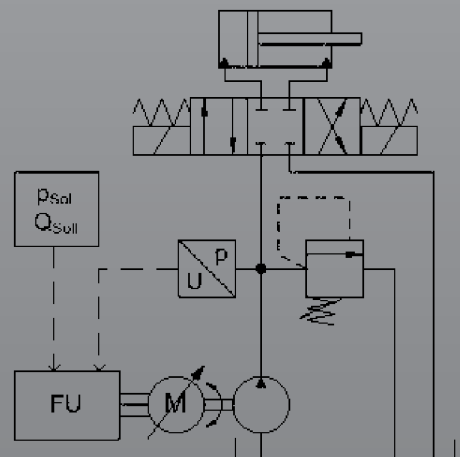
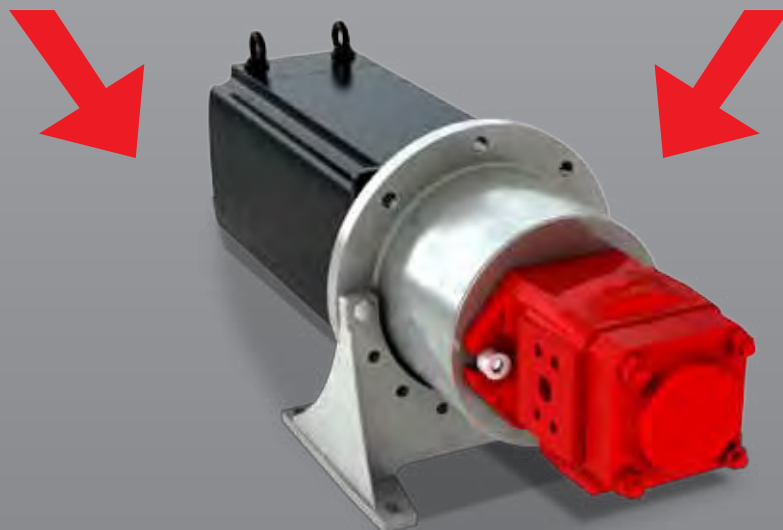


Hydraulics

- High force density
- Robustness
- Simple procedure for the overload limiter
- Simple implementation of linear movements

Electromechanics

- Good controllability
- Quiet
- Simple integration in the higher-level control
- Energy efficiency



The intelligent drive system from HYDAC

Application:

Depending on the application, various strategies for the pump drive are selected. The design ranges from simple speed control up to highly dynamic control with a servo motor. The provision of the entire Hydac product range enables us to provide you with the best solution for your requirements.

Selecting the optimal implementation for your drive task requires a system configuration which takes your process into account.

HYDAC can provide the appropriate test benches and simulation systems to support you in optimising the design of your hydraulic system.

Tell us what your drive task is. We will work in cooperation with you to make your drive even more efficient with HYDAC systems.

Motor-pump unit (DVA Kit)

KineSys motor-pump units are a user-friendly and energy-efficient solution for use in small- to medium-capacity constant pressure systems. The pre-configured systems comprise a standard motor with an installed frequency inverter and a built-on external gear pump. A hydraulic block with pump protection and optional accumulator completes the system.

The combination of hydraulic accumulators offers other essential advantages. The drive can be completely switched off in phases which require a low flow rate, and the supply can be guaranteed by the hydraulic accumulator. This results in an ideal combination of the energy-efficient accumulator charging function in the on/off mode with the variable speed drive to the variable speed accumulator charging function.

Characteristics

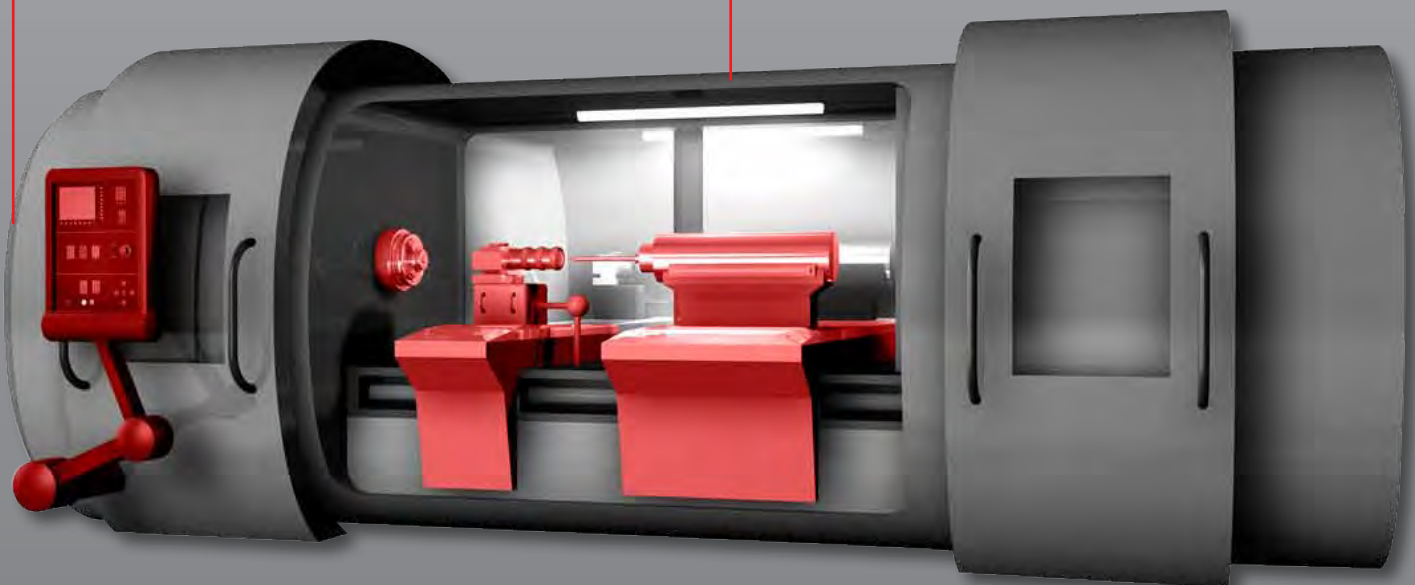
- Substitution of variable displacement pumps
- No additional electrical installation effort → simply connect it to the power supply
- Control completely integrated
- Variable pressure level possible

Technical data:

| Type: | Performance features: | | |
|--------|------------------------|-----------------------|-------------|
| | Flow rate Q_{max} | Pressure p_{max} | Power kW |
| 16-70 | 16 l/min | 70 bar | 3 |
| 26-70 | 26 l/min | | 4 |
| 36-70 | 36 l/min | | 5.5 |
| 45-70 | 45 l/min | | 7.5 |
| 11-140 | 11 l/min | 140 bar | 4 |
| 16-140 | 16 l/min | | 5 |
| 20-140 | 20 l/min | | 7.5 |
| 35-140 | 35 l/min | | 11 |



DVA-Kit Type 36-70



The optimised drive system from HYDAC

Application-specific system solutions

KineSys system solutions enable requirements for high control dynamics, optimised energy efficiency or other application-specific demands to be implemented in your machine simply.

The variable speed drive forms the basis of the system solution. Depending on the requirement, highly dynamic servo motors or cost-effective standard motors are used. Perfected control algorithms and preset control parameters make startup very simple.

In addition to the selection of suitable motor concepts, different pump concepts offer added degrees of freedom.

To obtain not only energy-efficient but also cost-effective solutions, an analysis of the application constitutes the design basis. In most cases, merely replacing the hydraulic power unit while maintaining the hydraulic control system offers only a suboptimal solution.



Replacement of a performance-controlled axial piston pump:

- 70 % energy saving
- Halving of the tank volume
- Exclusive use of robust switching valves
- Noise reduction larger than 10 dBA

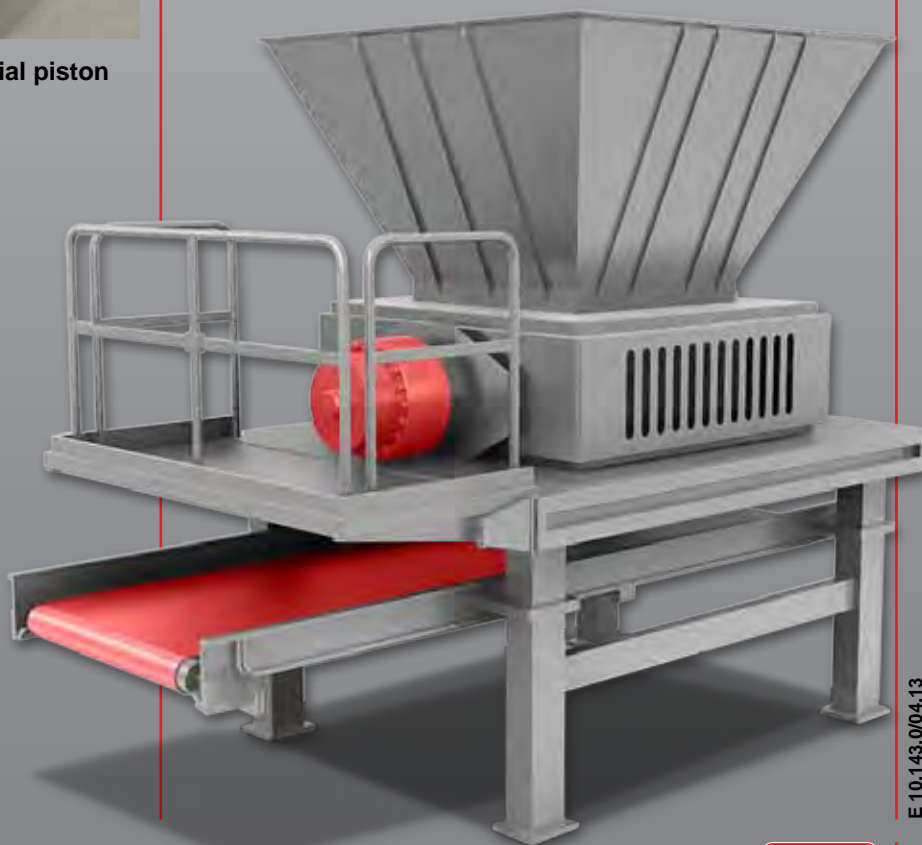


Advantages of the variable speed pump drive at a glance:

- Energy saving of more than 70 % possible
- Noise reduction up to 10 dB(A) in operation; in cycle breaks shutdown of the drive system
- Very high system dynamics possible
- Simple integration into existing control systems
- Reduction in the number of components, such as control valves → simplification of the system
- Reducing or completely dispensing with cooler
- Simple commissioning

Technical data:

- Max. pressure: 350 bar
- Power: 5 kW – 60 kW (depending on application also varying powers are possible)



HYDAC Service and service systems. Worldwide.

Service and service systems for commissioning, maintenance and repair.

70 – 80 % of all breakdowns in hydraulic and lubrication systems are due to excess contamination of the fluids and components used. In practice, this is often not sufficiently recognised.

Regular check-ups of the operating and system parameters guard against expensive downtimes.

The HYDAC Servicenter monitors, for example, the oil condition, oil level, filter condition, accumulator pressures and valve settings. Switching shocks and vibrations are recorded using the latest measurement technology, parameters analysed and logged. Using this information as a basis, inspection intervals are adapted to the requirements.

In addition to these general maintenance tasks, HYDAC Servicenter also carries out more particularly the repeat inspections according to the Pressure Equipment Directive or transfers pressure accumulators which are already in operation into the new BetrSichV (Ordinance on Industrial Safety and Health).

Starting with the setup, installation and connection, right up to system flushing, pressure testing and actual commissioning, an experienced team of construction supervisors, electronic engineers, electricians, hydraulic engineers, mechanics and welders are available for deployment around the globe.

Whether it is a question of starting up entire hydraulic systems, drives and other systems, or a matter of connecting new components or integrating subsystems, such as bypass filter installations, into an existing system – we have the right equipment and the right team for all applications.





Cat.: Accumulator Technology D 30.000



Cat.: Filter Technology D 70.000



Cat.: Process Technology D 77.000



Cat.: Filter Systems D 79.000



Cat.: Compact-Hydraulics E 53.000



Cat.: Accessories D 61.000



Cat.: Electronics D 180.000



Cooling Systems DEF 5.700

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