

# Customised hydraulic systems

Mechatronic solutions for your success



# Dorninger Hytronics



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## Customer-focussed, responsible, forward-looking

Engineered for your profit! - that is our defining motto. Our tailor-made solutions give customers the extra edge they need to maximise their profit potential.

Customers can rely on our help and support throughout the development process and beyond. Our work is based upon years of experience in the field and the latest expertise. We believe that cooperating openly and productively in a modern working environment offers our customers the best chance of success. We take courageous and forward-looking decisions to create a firm basis for the future.



# The best integrated solution!



## Success with integrated mechatronic solutions

Special developments for our customers offer greater benefits than the universal standard - that is the basis of our philosophy for success. Unique products are vital if firms are to stand out from their competitors on the market.

Each of our customers - engineers, series machine manufacturers or plant and machine operators - benefit from the full range of our expert knowledge in the fields of hydraulics, pneumatics, electrical engineering and mechanics. Our key strengths are speed, power and flexibility. We are a dynamic, full-service partner whose priorities are top quality and absolute reliability. Your projects are in safe hands with us.



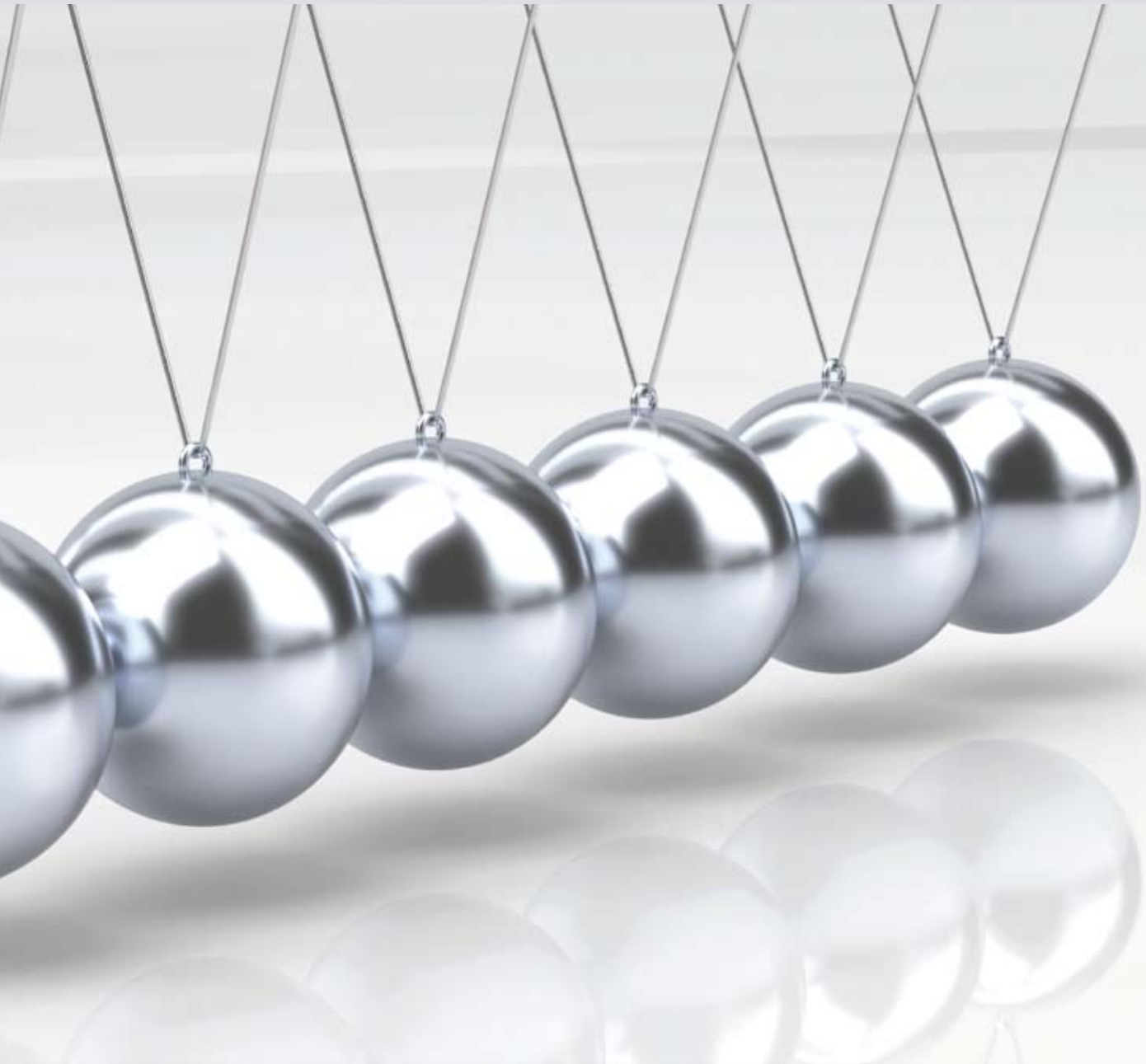
## Efficient project management from idea to final product

From the very first meeting on, we work to realise your ideas in line with your needs. Clear and transparent quotations and the careful use of information customers provide ensure a close partnership based on trust. Using a clear milestone concept with defined review points opens up new innovative problem-solving options, and ultimately leads to an optimized end product which is easy and safe to use.

We document the solutions developed with you in circuit diagrams, parts lists, 3D drawings and the necessary installation drawings and data sheets. Before delivery, new products undergo a series of stringent quality and functionality tests to ensure trouble-free long-term use.



# Top performance step by step





## Excellence from innovative experts

Our most important asset is our staff. At Dorninger Hytronics, we value not only our staff's know-how, dedication to continuous improvement and reliability, but also their pleasure in their job and in working as a team.

Flat organisational structures, clearly defined internal processes and rapid decision-making allow each individual to come up with quick and efficient solutions. The wide variety of different customers, sectors and products is constantly posing new challenges for our employees. We achieve effective long-term results for each and every customer through commitment and flexibility. Why not work with us – we will work 100 % for your success.



# Our staff - your partners





## Hydraulic Systems – the whole is more than the sum of its parts

We provide a wide range of hydraulic systems services, from power units to system construction. Dorninger Hytronics guarantees the perfect concept for your needs, rapid reaction and professional implementation.

We are keenly aware of the importance of smooth interaction between company departments and the harmonious cooperation of all partners. With our specialist know-how, we can satisfy each and every aspect of your requirements and achieve the best results for each objective. Customer benefits and a long-term trusting partnership are our top priorities.



# Focus: customer application



## Hydraulics to meet your requirements

Metallurgy, the paper industry, plastics technology, special-purpose machinery, power engineering - no matter which sector you operate in, we can adapt to your company, your demands and your requirements.

Precision, speed, reliability, sturdiness, maximum efficiency and productivity, the utmost safety, a long service life and easy-maintenance technology – our role and promise is to meet the various demands and applications in your sector.



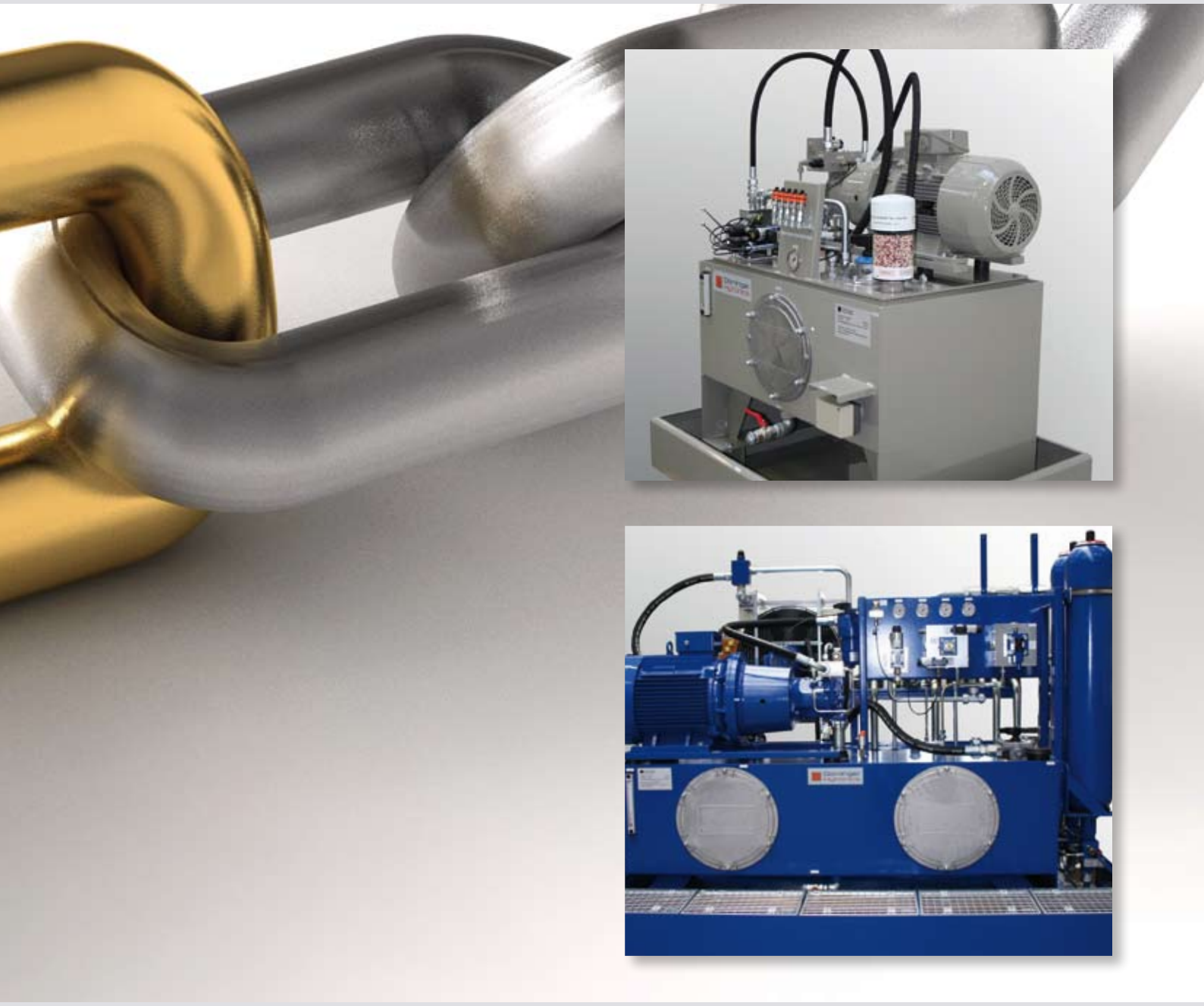
## Amazing power for multiple applications

Hydraulic drives and controls are indispensable in modern automated production processes. Why not use the concentrated power of hydraulics and become more efficient than ever with Dorninger Hytronics hydraulic power units.

Our products range from small and customised hydraulic power units to special power units for industrial hydraulics. Keeping the customer application firmly in mind, we optimise the structure and power class of our turnkey hydraulic power units for the specific customer application.



# Our power units: something to build on



## A clear concept - tested and reliable

Special features of our basic model include the compact structure of the drive unit and the surveillance and control components on the oil tank. We work with you to define the right additional fittings for the application in line with the area of use. The valve control can be mounted either on a clearly visible front panel or directly on the power unit, or, if possible, constructed as a space-saving control unit.

We offer professional start-up, power unit hydraulics training and an all-inclusive maintenance package.



## Unique systems for the most demanding applications

Pressure regulation within milliseconds, exact positioning close to 1µm and rotation from standstill with a full starting torque: hydraulic systems only reach their full and unlimited potential with precise controls.

Together, we can develop the best solution for your purposes in our own manifold production. We focus in particular on user-friendliness, compact design, clearly arranged ports and noise reduction. Energy efficiency and reliable operation are attained through the intelligent use of high-quality components.



# Perfect precision: control units



## Draw on years of experience

A defining feature of Dorninger Hytronics control units is the individual arrangement of valves and connecting ports to suit the space available. Using state-of-the-art hydraulic sub plate and cartridge valves and electro-hydraulic proportional and closed loop valves allows us to meet all function, quality and flexibility requirements.

We employ experienced control unit engineers and specially trained assembly experts and carry out individual tests on our fully automatic control unit test bench to ensure optimal zero defect operation and precise settings for each control unit.



## Competitive advantage: unique!

Individual system solutions are our core competence. For exclusive special developments, we use vendor-neutral standard components. Our project management will work closely with you to develop and supplement these components and put them together to create unique systems.

We create reliable, zero-defect installations and guarantee absolute confidentiality on customer's sensitive technical data. A Dorninger Hytronics installation will give you a competitive edge on the market.



# Customised large scale plants



## Everything under control - intelligent plant project management

Our product range: plants with a tank volume of up to 20,000 litres, drive power per motor of up to 160 kW, special filter and cooling units, accumulator stations, valve stands and tables.

- Exact design and construction, „as built“ imaging in 3D drawings
- Precise documentation including all manuals, test logs, assembly drawings and technical data sheets
- Punctual on-site start-up, comprehensive training for operating personnel
- Long-term customer support from our experts even after plant delivery



## Variable speed drive - the Dorninger Hytronics energy-efficient solution

The most environmentally-friendly energy of all is the one which is not consumed. Our technicians have developed a highly dynamic drive package for hydraulics based on this principle. The Hybrid Drive Control (HDC) is a DHPH internal gear pump which is driven by a servo inverter and which, depending on the field of application, can be powered by either a synchronous servo motor or an asynchronous motor. Unlike conventional hydraulic variable displacement pump drives with asynchronous motors, the HDC can be switched off entirely even during very short production-related pauses or periods of standstill. Studies comparing the HDC to conventional drive concepts at the same initial costs found life cycle costs for the HDC were significantly lower. Why not invest in an energy-efficient future with us!

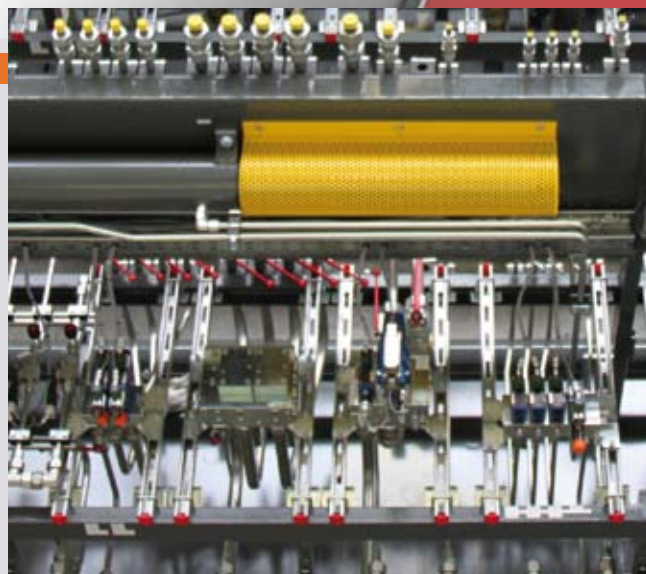


# Energy efficient electro-hydraulics



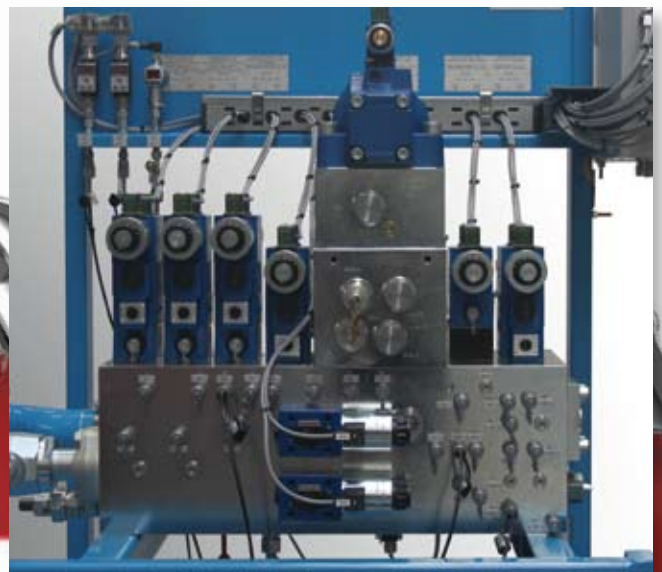
## Impressive cost-benefit ratio

- Energy savings of up to 70 percent with machines with process-related pauses in the cycle
- Noise reduction during working motion of up to 10 dB, and of up to 80 dB during pauses
- Inefficient downstream proportional valves are not required thanks to the extremely high dynamics
- Up to 60 percent reduction in the overall size thanks to the DPH internal gear pump, precise pressure control, greater volumetric efficiency
- Extra information about the actual volume or flow rate thanks to sensor information on the motor and downstream volumetric efficiency characteristic curves
- Hydraulic control unit cooler not necessary, significant reduction in component wear and spare part costs





# Integrated system technology



## Reliable electro-hydraulic solutions

Nowadays, highly complex motion operations are performed by ultra-modern electro-hydraulic systems which combine hydraulics, electronics, digital control technology and mechanics. Aside from greater functionality, the major advantage of the new technology is a reduction in the number of interfaces and thus a simplification of the system as a whole.

Knowledge and experience ultimately determine the success of a project. That is why we coordinate the entire process from hydraulics and electronics planning and switching cabinet production to functional testing and the smooth start-up of your system solution.



## Mechatronic solutions for your success

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