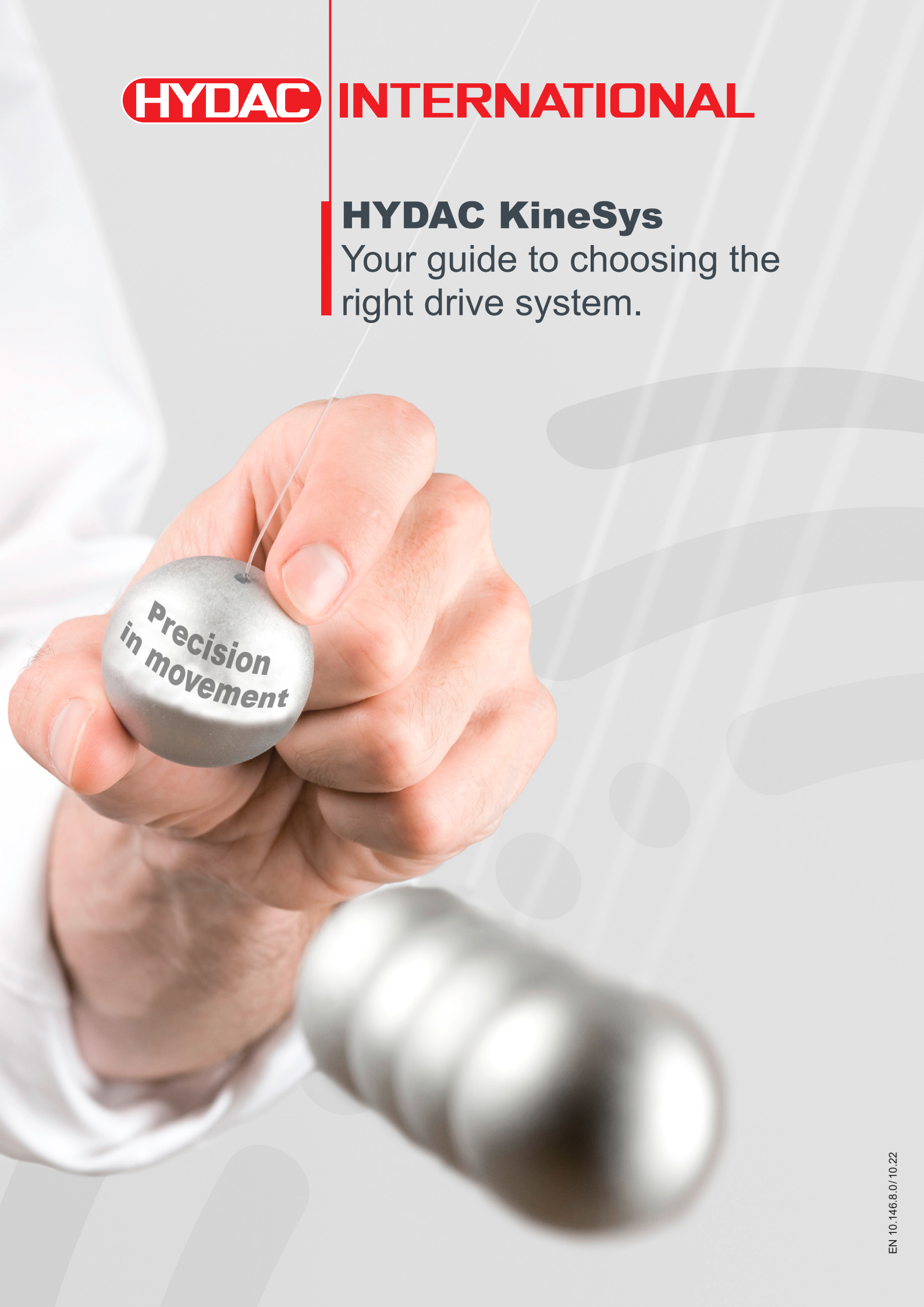




HYDAC INTERNATIONAL

HYDAC KineSys

Your guide to choosing the right drive system.

**Precision
in movement**

The question we keep on asking: what drive solution is the most future-proof?

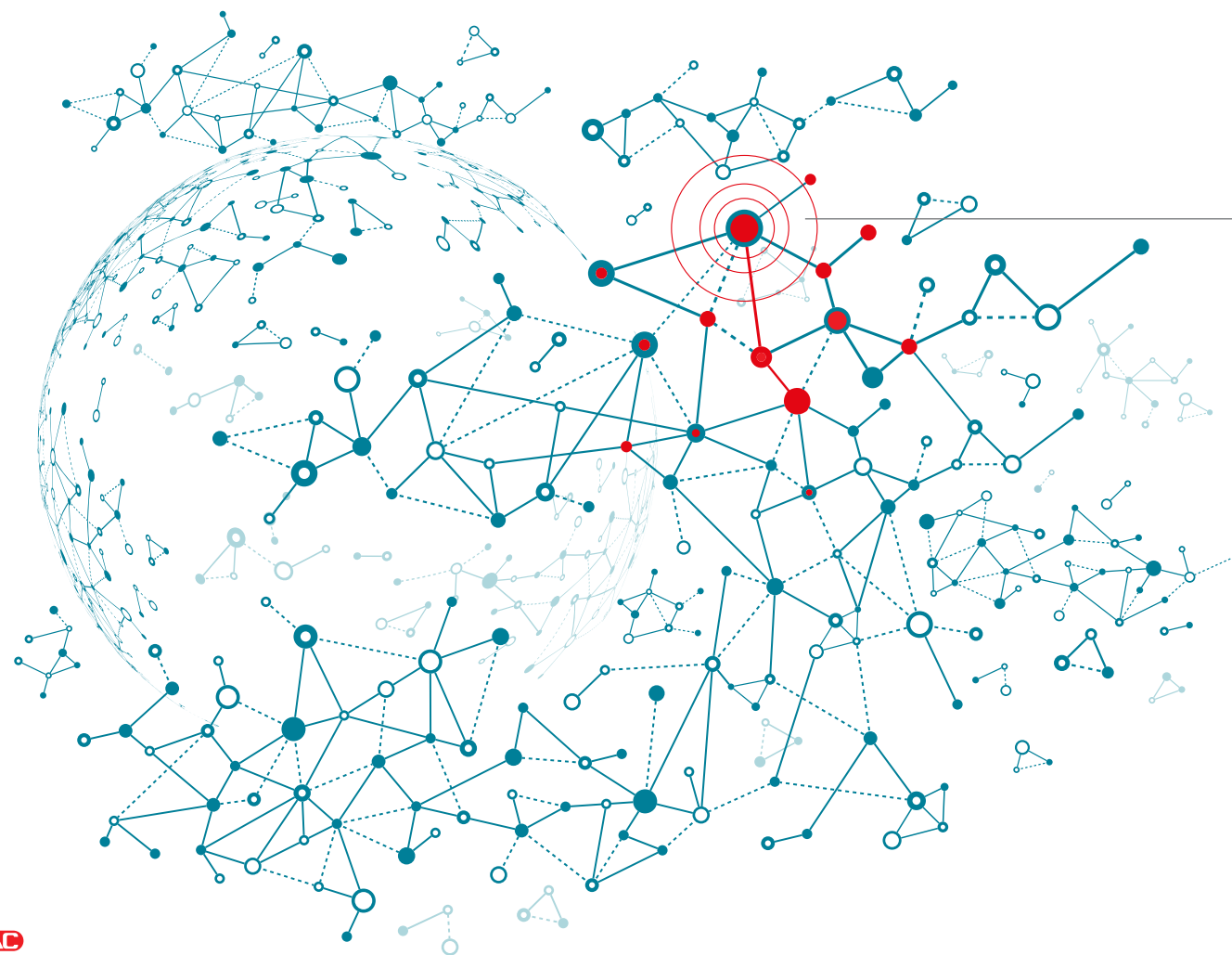
Do you often find yourself asking how you can use the latest technological developments to future-proof your machines, systems and applications? Answering this question calls for foresight and putting the individual pieces of the puzzle together correctly. At the same time, it is hard to keep up to date on the most recent technological opportunities.

When it comes to drive solutions for your machines, we are always aware of the latest information and will gladly share our know-how with you.

There are now many things that can be made more simple, efficient and maintenance-friendly.

Get started with us: we will support you in realising your future-proof machines!

- Consultation for diverse technologies
- Simple integration of interfaces between mechanical, electrical engineering and hydraulic systems
- Safety for people, machine and product
- Longer service life, minimised maintenance effort
- Environmentally responsible



Drive concepts need to work like a good team. All tasks are precisely coordinated and the collaboration is harmonised and smooth. The right solution comes from a balance of the various functionalities.

One **error** can have far-reaching consequences.

Today, a streamlined, appropriate system design is essential, often enabling you to use fewer components to achieve greater functionality, reliability and safety.

This is your path to the future.

Simple. Efficient. Economically viable.

Know-how is one thing. But we also have the right components, products and systems.

The best solution for you will reduce the complexity in your system. To achieve this, you need expertise tailored to your field of activity. Electromechanical drive technology and variable-speed hydraulic design are the future-oriented solution for the majority of your functions.

Rely on quality components and modern simulation and system engineering tools from HYDAC.

We use our entire product portfolio and have access to all components.

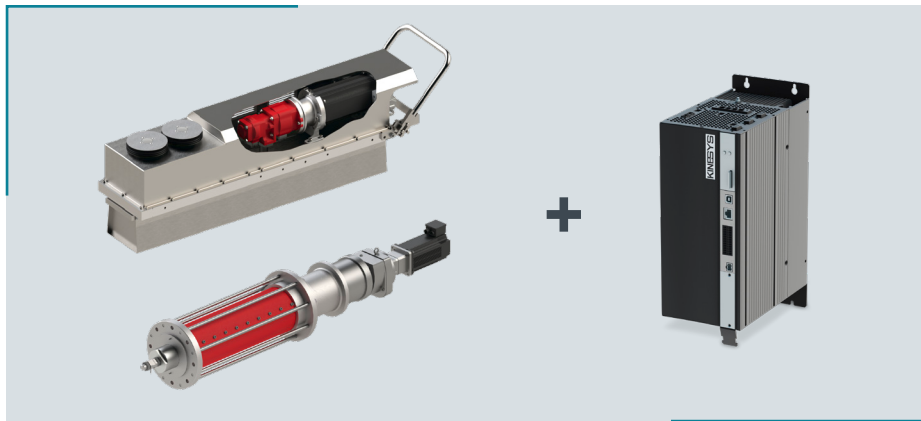
What service means to us:

We support you in integrating our drive subsystems in your machine. This means you will get:

- ✓ A fixed contact.
- ✓ Short decision-making channels.
- ✓ Rapid implementation.

We help you to decide on the right product or system.

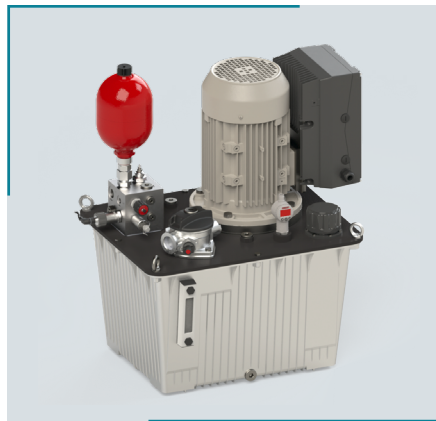
System design portfolio



Customised system solutions

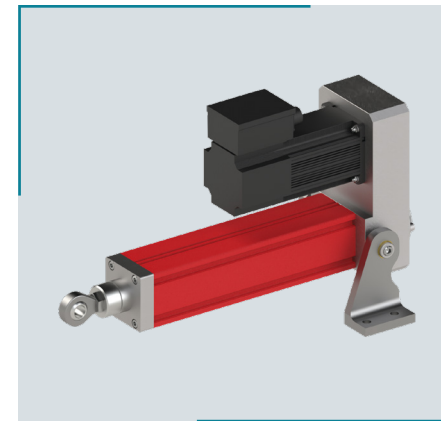
- Drive and valve control in turnkey subsystem solution possibly with switch cabinet
- Drive logic can be integrated
-> a central electric terminal point for energy and communication
- A TARGET value becomes the ACTUAL motion
- Highly dynamic positioning accuracy of up to 10 µm
- Positioning, closed-loop control and monitoring even without external measuring systems
- IP65, STO, SLS, multi-approval etc.

Standard solution portfolio



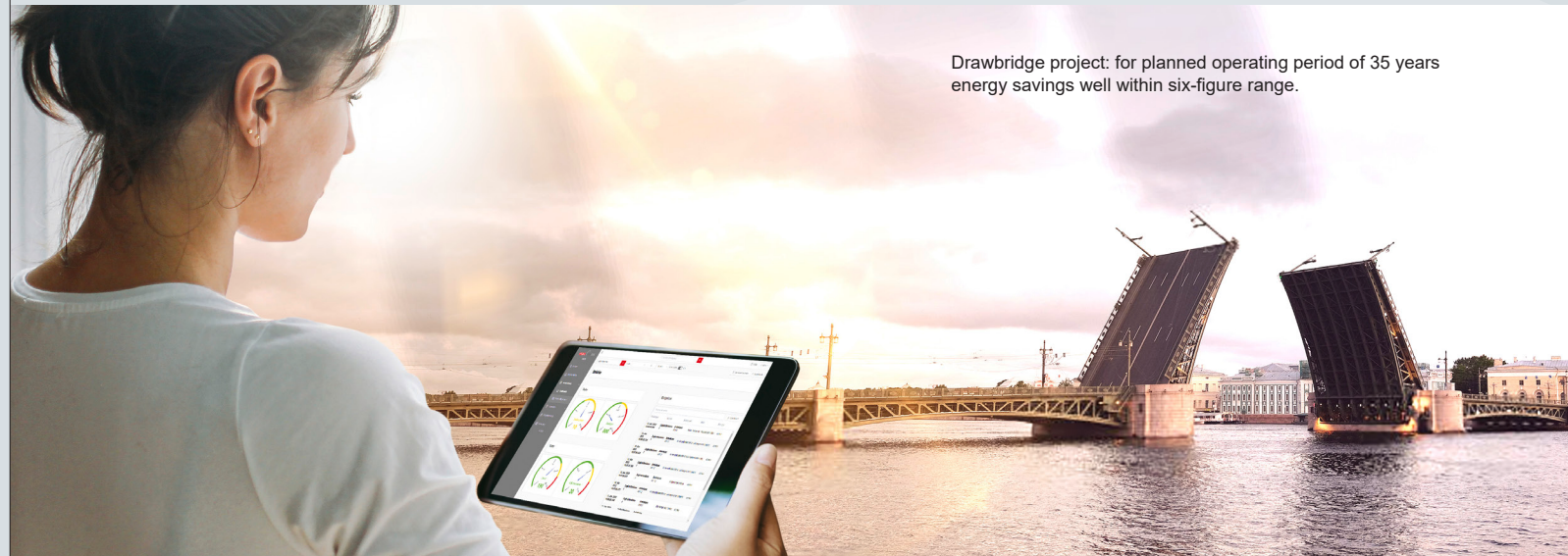
Variable-speed hydraulic drives (DVA)

- Electronically adjustable fixed displacement pump
- Intelligent drive controller, integrated into the power unit
- Simple robust pump technology for long service life
- Can be combined with various hydraulic modules for preconfigured basic functions, including sensors and pressure protection



Electric cylinders (HEZ)

- Maintenance-free
- No hydraulic oil
- Easy commissioning (plug-and-play)
- High overall efficiency of up to 80%
- Simple integration of safety technology (e.g. STO)
- High dynamics and direct implementation of the motion



Drawbridge project: for planned operating period of 35 years energy savings well within six-figure range.

	Electro- mechanical cylinders	Variable-speed drives	Conventional hydraulics	Pneumatics
Force >>	○	+	+	-
Installation space >>	+	○	-	-
Commissioning >>	+	○	-	-
Remote monitoring >>	+	+	○	+
Maintenance >>	+	+	○	○
Energy efficiency >>	+	+	○	-
Operating costs >>	+	+	○	-

+ Advantage ○ Neutral - Disadvantage

Hydraulic or electric?
Conventional or variable-speed?

Carry out the HYDAC KineSys system check with us
and find out.

Contact us at: kinesys@hydac.com
or visit our website: [kinesys.hydac.com](https://www.kinesys.hydac.com)

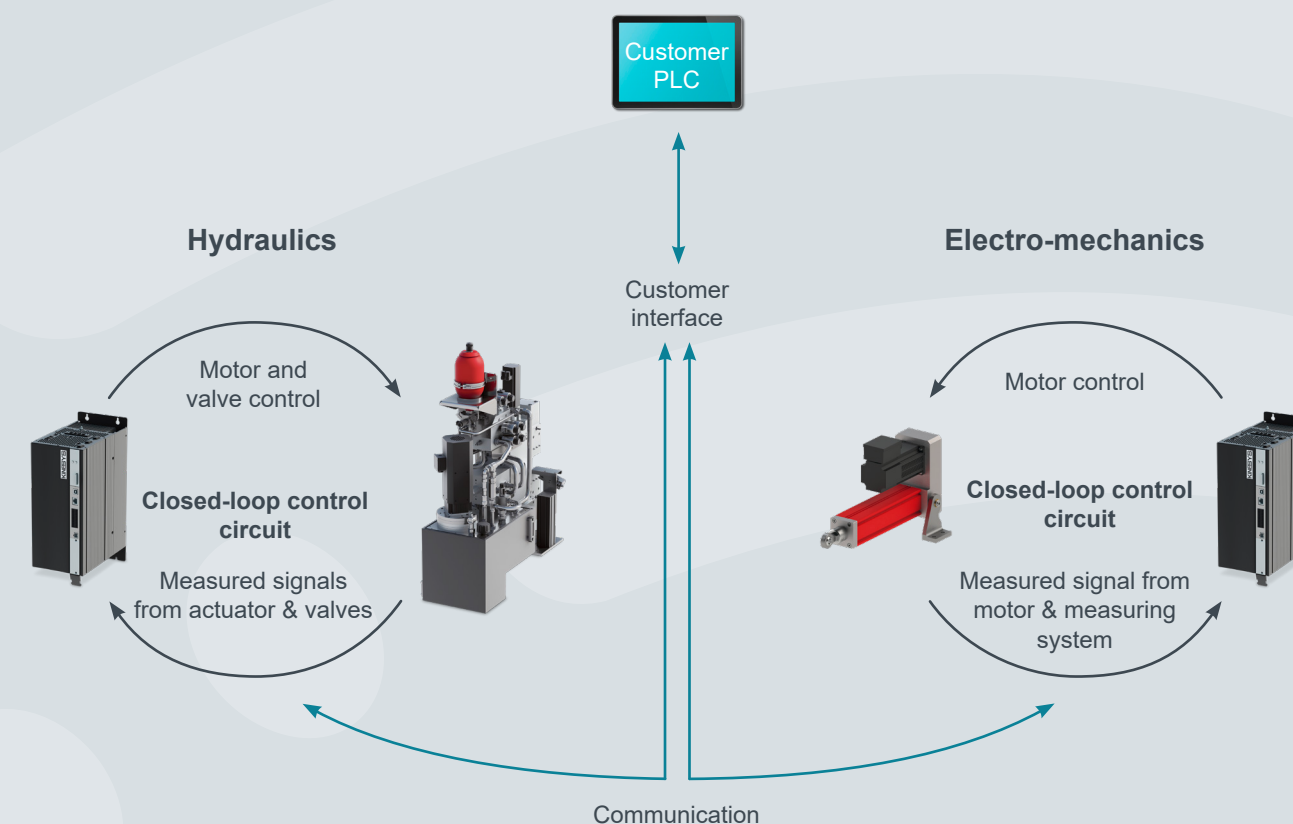


Optimising and automating machines and processes. With us, it's easy.

Benefit from our cross-industry and cross-technology know-how. We are at your side during implementation and pay particular attention to the interfaces.

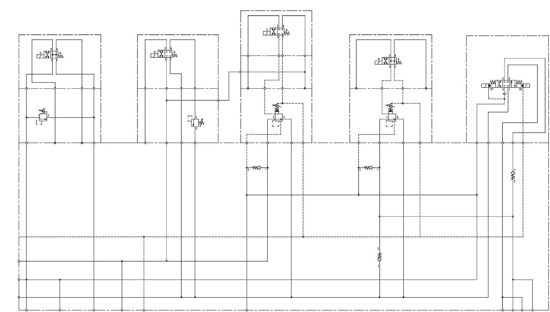
This is what service means for HYDAC KineSys.

A TARGET value becomes the ACTUAL motion.

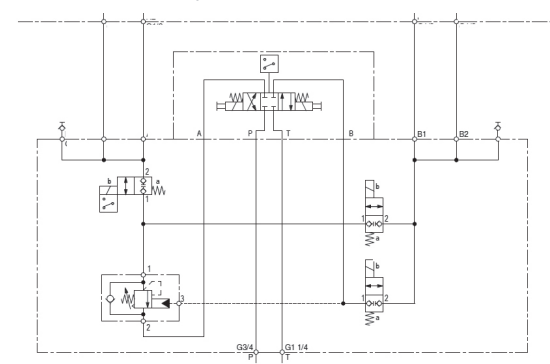


Let us make sense of your functions ...

Conventional system



Variable-speed system



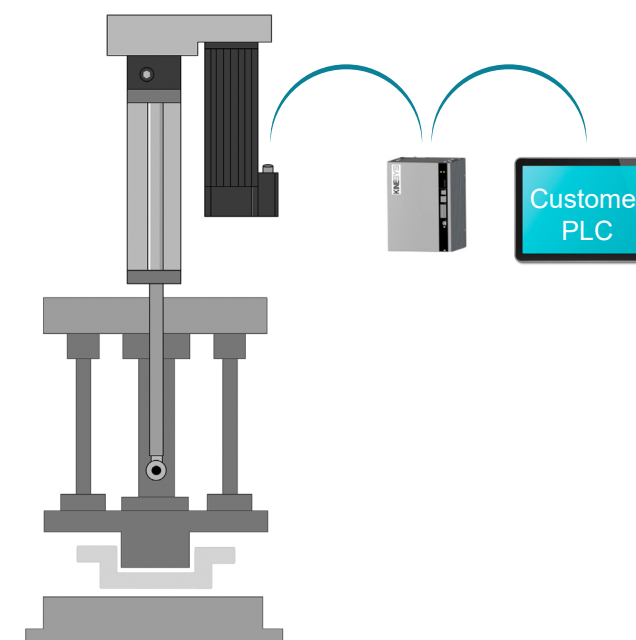
Hydraulics

Example of a successfully completed project: changing from a conventional design to a variable-speed one:

- There is no complex hydraulic valve control
- Faster and simpler fault-finding
- Tank volume reduced from 200 litres to 70 litres
- Less initial and maintenance costs
- Quick spare parts availability thanks to standardisation
- Precise remote control of valves and drive from the drive controller, just one communication interface for machine control
- 30% increase in efficiency

Our variable-speed hydraulic design makes your drive system simple and enables additional functionalities and flexibility.

... and choose the right system design together.



Electro-mechanics

Example application: joining process in an automation cell.

- Environmentally compatible: no oil, no leakage
- Maintenance-free
- High overall efficiency of up to 80%
- Simple commissioning & operation
- Highly dynamic

Our electromechanical axes make your drive system simpler from now on.

Replace your hydraulics!*

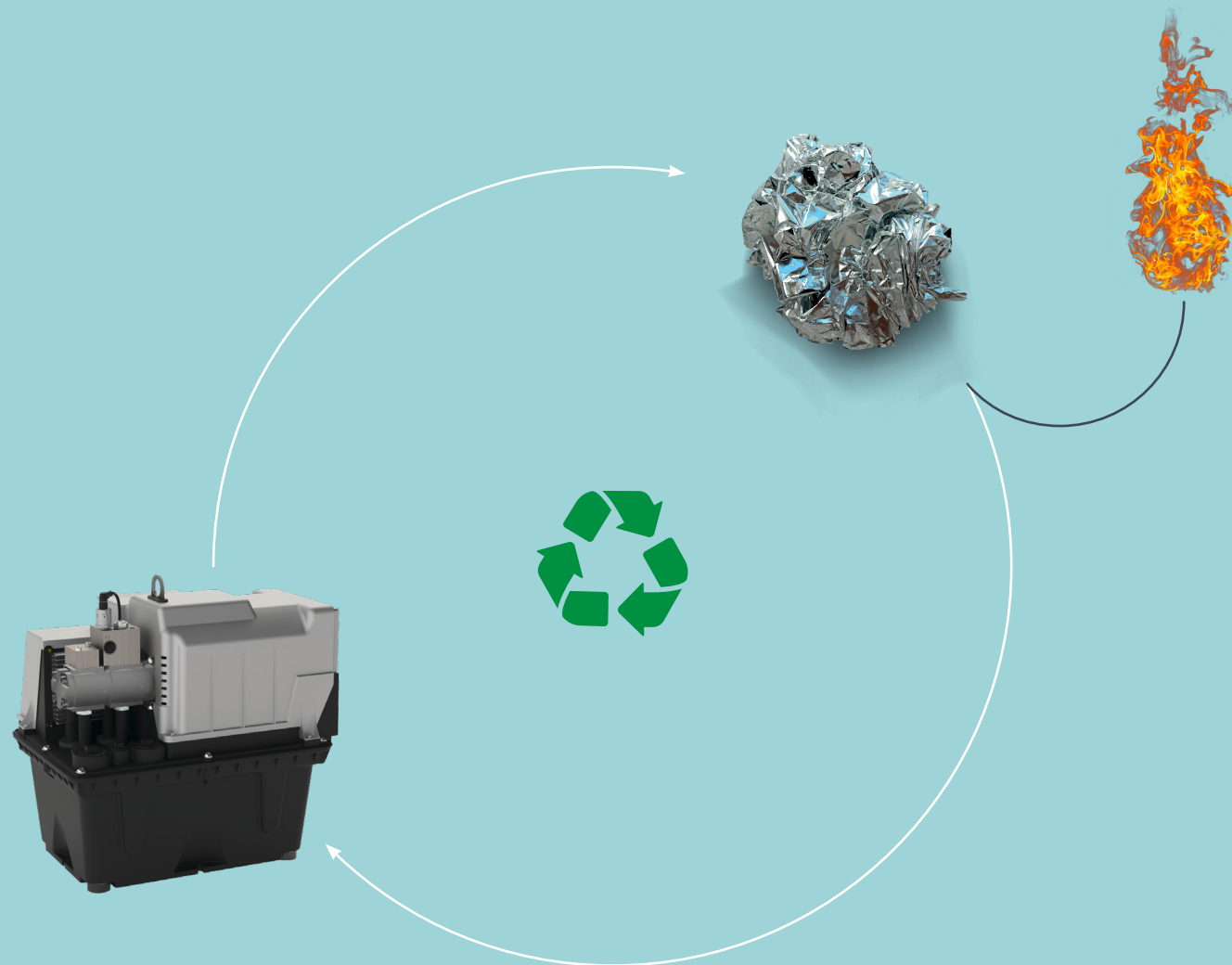
* Practical addition or alternative for forces up to 500 kN

Impressed?

Simply get in touch with us: kinesys@hydac.com

A journey that is just beginning.

We have not yet come close to fully exploiting all the potential ways for saving CO₂. But we have made saving energy and material a priority. Take a look at a few examples. There are more to come.



Getting things done with a problem-solving attitude.

Our cover for the CO3 unit is made from left-over packaging foil with aluminium content, which would otherwise be burnt.

In this way, we bring valuable materials into the usage cycle while saving raw materials and energy.

While others are driving for miles. Since 2014: remote commissioning and support via online tools.



This is possible thanks to the new variable-speed hydraulic design that merges network-enabled power electronics and classic hydraulics.

On average, **85%** of our commissioning jobs are done remotely. With trips averaging **500 km**, each remote commissioning saves **65 kg of CO₂**.



Variable-speed hydraulic design?
Average energy savings of up to 30% are possible

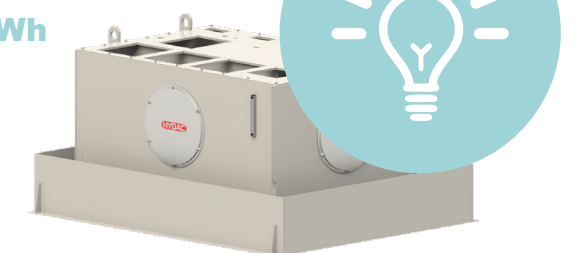
The average system that we deliver has 10 kW of installed power. Per variable-speed hydraulic system per year, this means a **saving** equivalent to the power consumption of **three houses**.

Variable-speed hydraulic design enables tank volume reduction.

Example: You can reduce the hydraulic tank for a press system from **5,000 litres** to **3,000 litres**. This reduces steel, hydraulic oil and maintenance intervals.

We initially save **11 t CO₂*** here, corresponding to **46,000 kWh** or the annual power consumption of **13 houses**.

* Basis for calculation:
Steel: 1.5 kg CO₂/kg material, hydraulic oil: 5.1 kg CO₂/kg material,
Power: 0.24 kg CO₂/kWh, 1 house: 3,500 kWh
Average annual operating hours of one system: 3,000 h
Combustion engine: 130 g CO₂/km



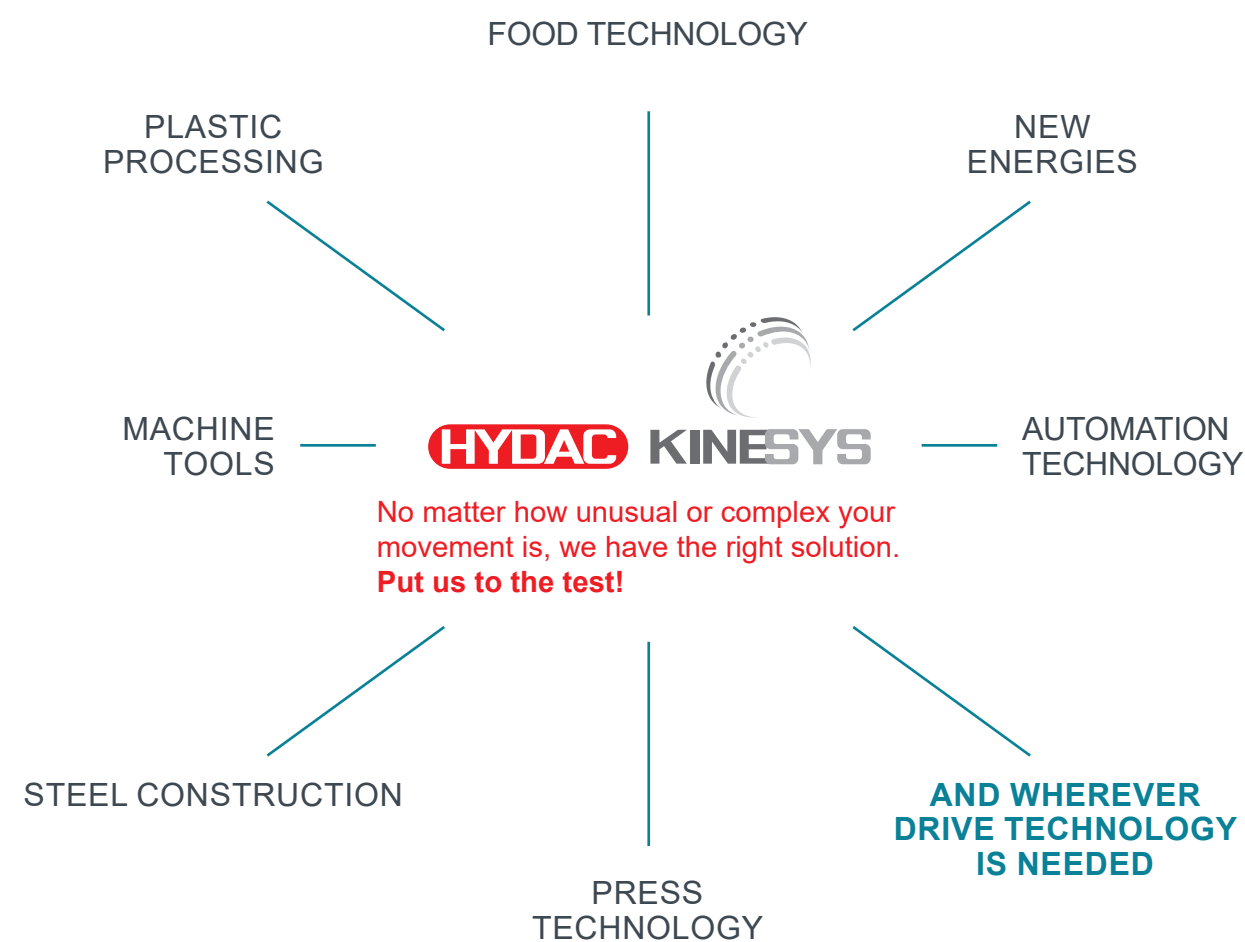
Future-oriented drive solutions need thinkers and pioneers.

And this is exactly the kind of people we have on board.

We are experienced and open to new technologies. Our service extends beyond delivery and our mission is always to work with you to have the best drive solutions on the market that the world has to offer.

We feel at home in a large number of industries and find solutions for drive tasks both for simple machines and for systems with extreme requirements – as they all need to be reliable.

Intelligent. Reliable. Economically viable. Future-proof.



Your advantages at a glance:

- Intelligent solutions
- Reliable processes
- Optimised performance
- Durable and robust
- HYDAC know-how
- Plug-and-play technology
- HYDAC Aftersales Service
- Energy-efficient
- Compact technology

Contact

Let's tackle your challenge together.
We look forward to hearing from you!

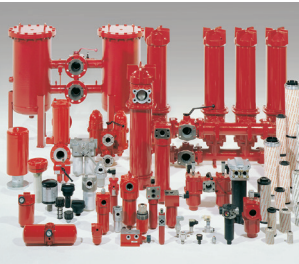
Contact us at: kinesys@hydac.com

Or visit our website: kinesys.hydac.com





Accumulators 30,000



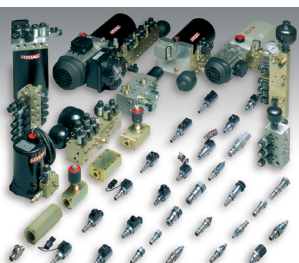
Filter Technology 70,000



Process Technology 77,000



Filter Systems 79,000



Compact Hydraulics 53,000



Accessories 61,000

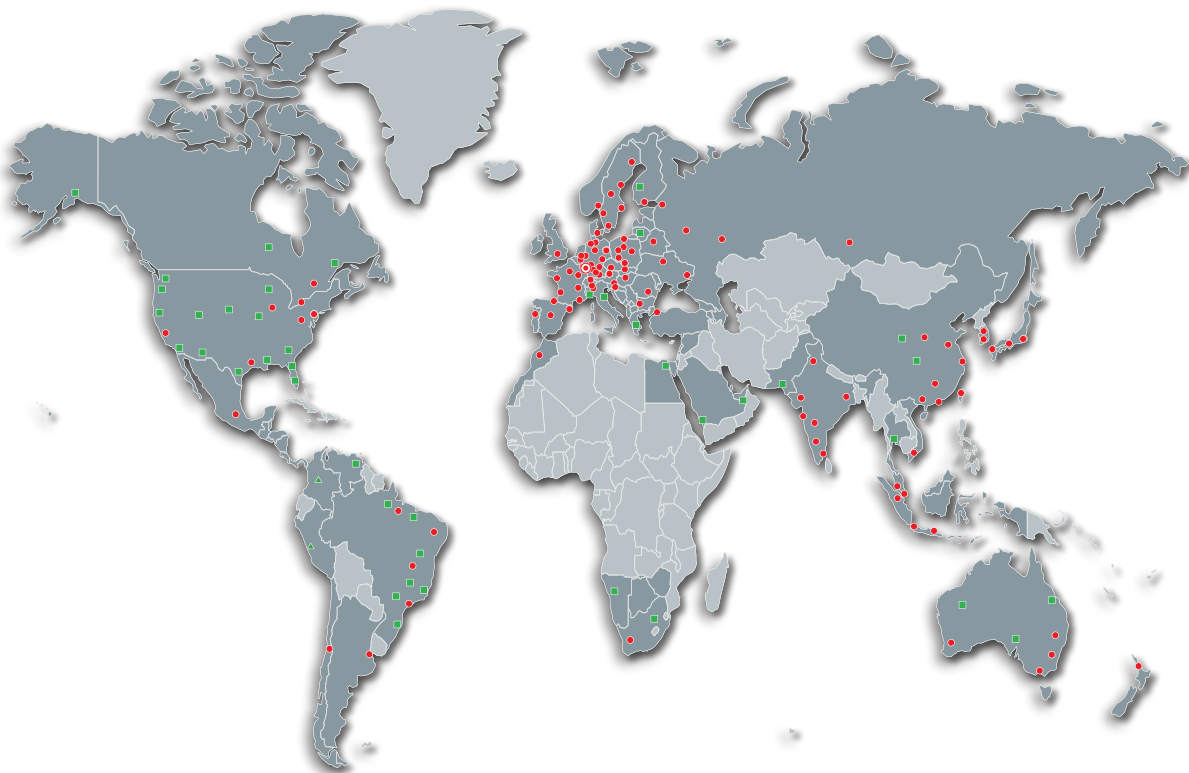


Electronics 180,000



Cooling Systems 57,000

Global presence. Local expertise. www.hydac.com



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- HYDAC Companies
- HYDAC Sales and Service Partners
- ▲ Free Sales Partners

HYDAC

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