

Frequency converter from Parker

- Energy savings for hydraulic pumps up to 1 MW
- Easy installation
- Easy use
- Easy programming thanks to the graphic function block
- Easy start-up
- Compact dimensions
- 3-phase power supply
- Various communication options
- Movable display
- Conforms to international standards UL/cUL, CE, EMC, etc.



Technical features and benefits

Large product range	50/60 Hz, can be used in many countries Any voltage from 230 V to 500 V
Soft start	No current peaks: Start with frequency converter: $1.1 \times I_{nom}$ compared to direct start: $8 \times I_{nom}$ No pressure peaks hammer in the hydraulic system
Speed adjustment	Flow and pressure depending on demand Motor protection Lower noise levels Avoided resonance speed Straightforward diagnostics
Greater efficiency	Minimized peak load Minimized overall energy consumption Energy optimization in pump operation Reduced cooling requirements
Easy communication	More field buses (Profibus, CAN, etc.) Application display

Parker is a world-leading manufacturer of components and systems for motion and control. Our combination of pneumatics, climate control, electromechanics, filtration, fluid and gas handling, hydraulics, process control, sealing and aerospace technology means you have a unique, broad product mix at your fingertips.

Parker has one of the strongest logistics and distribution networks in the world. Working with our customers, we create global solutions delivering greater productivity and profitability. Please do not hesitate to contact us for more information!

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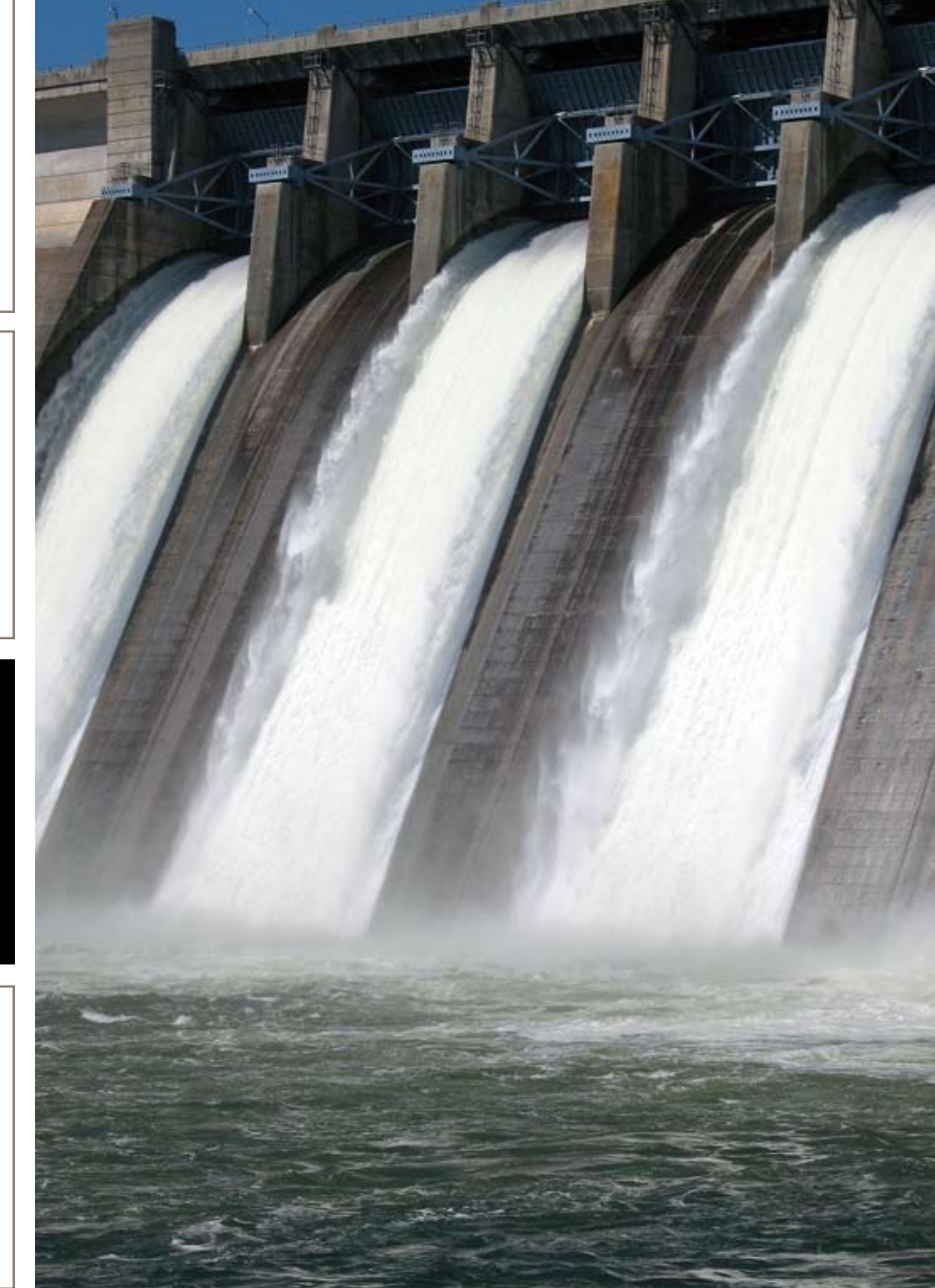
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Energy Saving Solutions

with Frequency Controlled Hydraulics
Fixed Displacement Pumps



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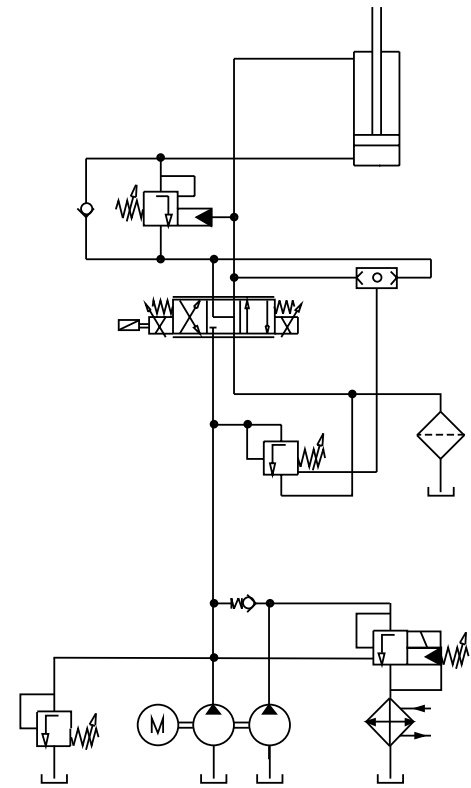
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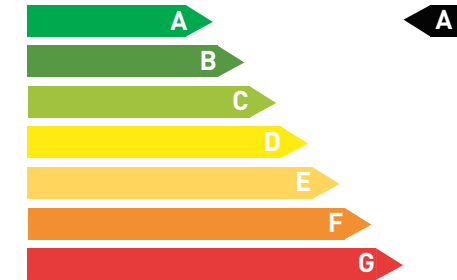
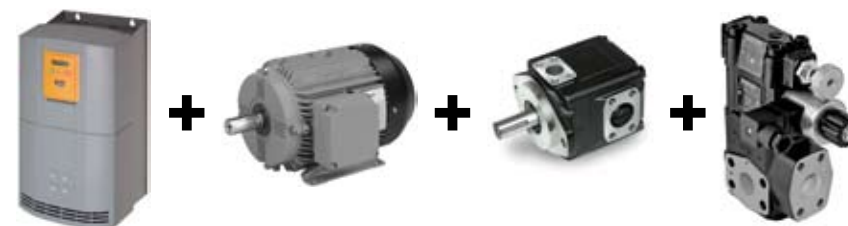
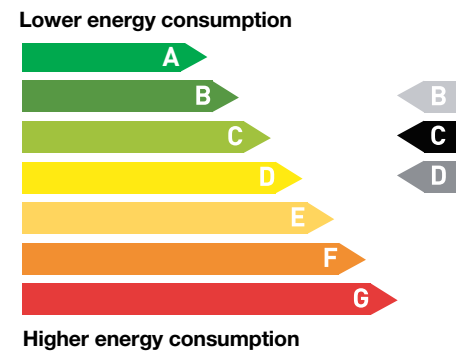
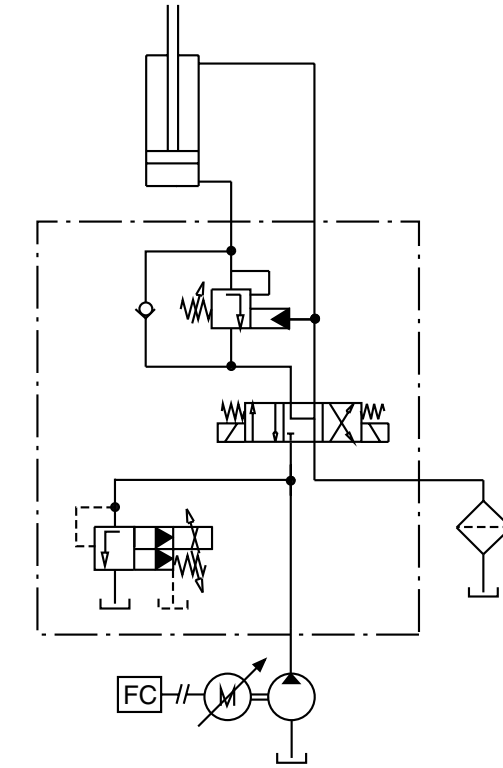


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The usual solution for moving a load:

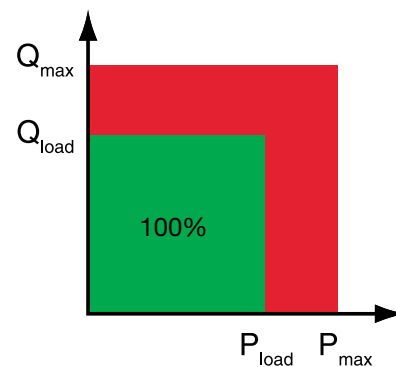


The optimized Parker solution:



The double pump is driven by an electric motor at constant speed to provide the required flow under pressure. The valves adjust the flow according to the requirements. In

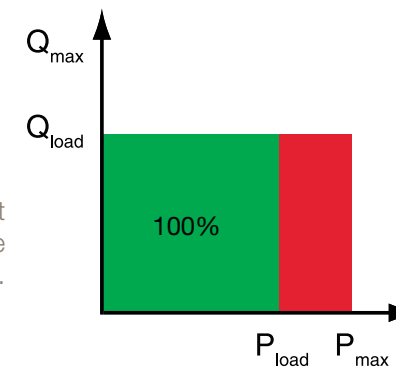
case of slow movement, the excess flow provided by the pump induces a waste of power. This heats the oil, which then must be cooled.



If the pump is unable to deliver the flow or pressure required to move the load, the result is a loss of power. This also heats the oil, which must be cooled, and energy is wasted.

In this solution, the frequency converter controls the speed of the electric motor, which drives the pump accordingly. A proportional pressure control valve adjusts the

pressure, resulting in a Power Control (PQ) System. A simplified hydraulic system means improved reliability, greater productivity and reduced maintenance costs.



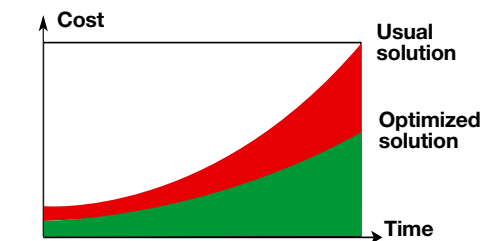
Adapting the electric motor speed in combination with the quiet Parker Denison Vane Pumps optimizes the performance of the hydraulic system. This also reduces the noise level.

Benefits of the optimized solution:

Power Control	Power adjusted according to requirements Any voltage from 230 V to 500 V
Product Selection	Standard electric motor/hydraulic pump Standard hydraulic valve (on/off proportionally operated) Standard frequency converter with motor protection Fewer hydraulic components
Soft start (electric motor)	Longer motor service life Longer hydraulic pump service life Reduced stresses on all hydraulic components
Simpler hydraulic circuit	Fewer components Smaller pumps Easier machine integration Simpler maintenance Better customer need fulfilment
Quieter hydraulic system	Improved working environment Cost savings on extra noise insulation
Improved efficiency	Reduced energy consumption

Increased savings over time

Energy costs have increased considerably in recent years, and the trend is continuing. That is why it will become even more profitable to save energy in future. Let's all contribute to protect our environment – it is profitable way ahead!



- Energy savings
- Simpler hydraulics
- Less noise

