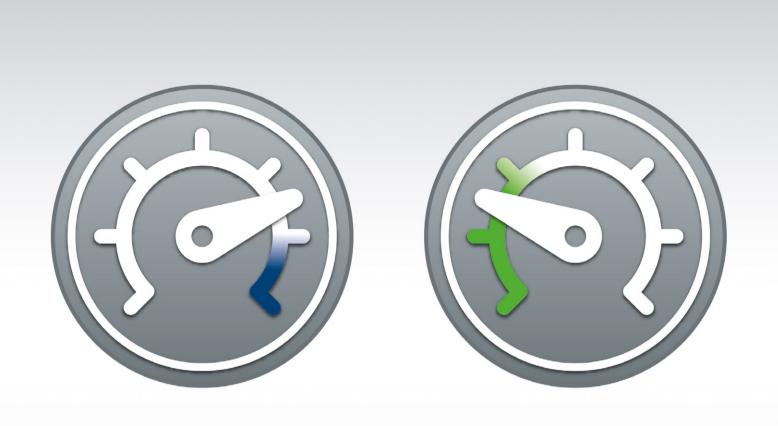
FORMING THE FUTURE



POWERFUL. ECONOMICAL. EFFICIENT HYDRAULIC FORMING.



EHF – EFFICIENT HYDRAULIC FORMING. THE ENERGY-SAVING REVOLUTION FOR ALL HYDRAULIC PRESSES.



EHF reduces the energy costs of hydraulic press systems by up to 60 percent.

ONE INNOVATION.

MANY IDEAS: EHF.

An intelligent technical solution is the fruit of many ideas that have contributed to our new Efficient Hydraulic Forming (EHF) technology. The principle behind it has always been to extract maximum benefit from the available possibilities – and that goes for all of our presses.

EHF STANDBY

Use energy instead of wasting it. As soon as no energy is required in the forming process, the main drives switch off automatically. A patented startup system that we have developed is used for this purpose. It enables you to bypass the usual startup characteristics of drives, making it possible to use the shortest pauses without losing time.

Your advantages:

- · Lower energy requirement
- · Less reactive power is created
- · Reduction in noise levels
- · Reduction in cooling power
- · Reduction in oil tank sizes

ANCILLARY DRIVES WITH SPEED CONTROL

The innovative solution to an old problem. Depending on the status of the system, the ancillary functions are supplied non-cyclically. Normally the units operate at constant rotation speed. The result: frequent no-load operation as well as an unnecessary energy burden. The intelligent, speed-controlled drive now supplies the ancillary functions with energy precisely when they need it – this minimizes no-load losses.

Your advantages:

- · Lower energy requirement
- · Reduction in noise levels
- Reduction in pressure peaks
- Reduction in hydraulic components

MODULAR HYDRAULICS FOR OPTIMIZED EFFICIENCY

An intelligent, mature technology. Efficiency is optimized by structural units with optimized flow in a modular construction method. The control valves in the main circuit are eliminated, because their function is now performed by the servo pumps. The number of components in the main circuits has been reduced, while still complying with the safety requirements.

Your advantages:

- Lower energy requirement
- Use of standard hydraulic oils (HLP46)
- · Reduction in oil wear
- · Lower cooling power
- Reduction in pressure peaks
- Reduction in hydraulic components

ENERGY RECUPERATION

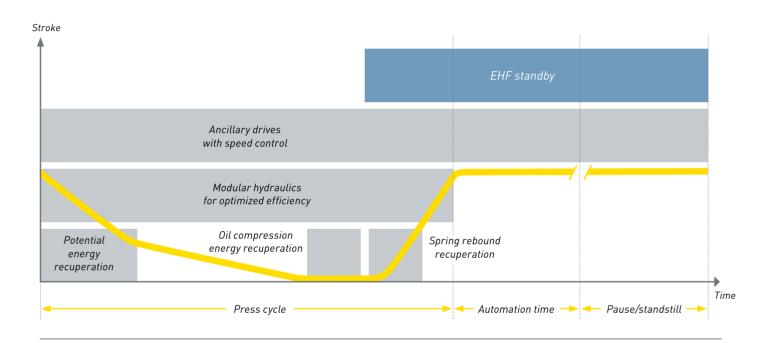
The energy stored in the system is not left untapped, but is returned efficiently to the production process. We have developed a technology for EHF in which the potential energy of the slide in high-speed lowering and the energy stored in the compressed oil is reused during depressurization. The outflowing oil drives units that generate current-using electric motors.

Your advantages:

- Energy recovery
- Without harmonics or system disruptions
- · Less cooling power required



SIGNIFICANT SAVING IN ALL OPERATING PHASES OF HYDRAULIC PRESSES



SCHULER SERVICE - STATE-OF-THE-ART SERVICE FOR MORE PERFORMANCE

Schuler Service offers a tailored portfolio of services covering the entire life cycle of your equipment. Over 800 service employees worldwide provide expert support 24/7 in close cooperation with you – our partners. Our main priority is always to ensure the maximum productivity and safety of your production equipment in order to secure your company's continued success.



www.schulergroup.com/ service_en

ARE YOU EFFICIENT?

A NEW TECHNOLOGY THAT PAYS FOR ITSELF.

We at Schuler are doing all we can to secure your path to success. With revolutionary Efficient Hydraulic Forming (EHF) technology, we are significantly reducing the energy consumption of hydraulic presses.



Hydraulic transfer press for flexible parts production.



It is also possible to access significant savings potential in hydraulic forging presses.

Continuously rising energy prices put a significant strain on a company's profits. Efficient use of available energy is the most important future energy source. As a result, one of the major challenges over recent years has been to develop energy-saving solutions for hydraulic presses that can be applied to all performance classes.

Now the time is ripe. With Efficient Hydraulic Forming, Schuler is significantly minimizing the energy requirement of hydraulic presses, particularly in processes with lengthy unproductive times due to production needs. The effect is comprehensive – it happens automatically without intervention by the operator, it occurs in all processes, it works

in any operating mode and in all performance categories! This is how you can efficiently decrease your energy bill – and achieve up to 60% energy savings every year.

Your advantages:

- 20-60% energy savings
- Short payback time, low maintenance costs
- Optimum maintenance capability
- Energy saving and optimization in all operating phases
- Automatic, no operator intervention
- Can be retrofitted and applied on a modular basis

ABOUT THE SCHULER GROUP - WWW.SCHULERGROUP.COM

Schuler offers customized cutting-edge technology in all areas of forming – from the networked press to press shop planning. In addition to presses, our products include automation, dies, process know-how and service for the entire metalworking industry. Schuler's Digital Suite brings together solutions for networking forming technology and is continuously being developed to further improve line productivity and availability. Our customers include automotive manufacturers and suppliers, as well as companies in the forging, household appliance and electrical industries. Presses from the Schuler Group mint coins for more than 180 countries. Founded in 1839 at our headquarters in Göppingen, Germany, Schuler has approx. 5,000 employees at production sites in Europe, China and the Americas, as well as service companies in more than 40 countries. The company is part of the international technology group ANDRITZ.

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