

Sytronix – Variable-speed pump drives

Energy-efficient | Intelligent | Cost-effective



Sytronix: Energy on Demand

More and more end-users demand higher energy efficiency for their machines and systems. They are leading the charge in climate protection and are lowering their operating costs. Rexroth supports machine manufacturers and users with intelligent solutions, such as the Sytronix variable-speed pump drives. They reduce energy consumption by up to 80 percent and their function and power are finely scalable in order to integrate perfectly into any task.



Higher energy efficiency for maximum productivity: This is the approach implemented by Rexroth with the universal systematics Rexroth for Energy Efficiency. Rexroth 4EE taps all efficiency potentials via the complete drive and control technology in all applications.

Powerful hydraulics intelligently regulated

The Sytronix (Smart Interplay of Hydraulics and Electronics) variable-speed pump drives combine the most impor-

tant advantages of two technologies from one source: The unique force density and reliability of hydraulics and the energy efficiency and dynamics of compact electronics. The Sytronix variable-speed pump drives consist of perfectly coordinated electric motors, hydraulic pumps and frequency converters. The pre-programmed software features automatically take into consideration all specifics of fluid technology.

Energy usage on demand

Motor speed is adapted to machine demand by integration of the hydraulic control intelligence into the electric drive. In partial load operation, the speed is lowered as appropriate. This saves up to 80 percent of energy and lowers average noise emission.

Sytronix makes energy conservation easy: The construction kit, featuring finely scaled function and power, covers your requirements perfectly. Choose from more than 100 pre-configured system sets or benefit from our support to build a customized system.

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4EE – the universal systematics Rexroth for Energy Efficiency.

Energy System Design

Systematic overview, project planning, simulation and consulting



Efficient Components

Products and systems with optimized efficiency



Energy Recovery

Recovery and storage of excessive energy



Energy on Demand

Energy usage on demand, stand-by mode



Application in the entire machine life cycle



The individual stages of a machine life cycle offer different options for energy-efficient measures

Saving across the entire life cycle: With Sytronix, manufacturers can lower their system costs while users can lower their operating costs



Your advantages at a glance:

► Lower operating costs

Sytronix lowers energy consumption by up to 80 percent, therefore also lowering operating costs.

► Less noise emission

Sytronix reduces average noise emission of the hydraulic power unit by up to 20dB(A). This way, you can comply with legal and user-specific noise control standards with few structural modifications.

► Less effort for installation and commissioning

Choose from more than 100 pre-configured sets in three different performance classes to reduce installation and commissioning times.

► Less cooling need

Variable-speed pump drives decrease the influx of heat into the hydraulic fluid, leading to a reduced need for cooling.

► Less space required

The compact design saves costly installation space in the machine and in the control cabinet. Often there are interesting options to simplify hydraulic control and consequently to reduce the number of required components.

► Higher system availability

Sytronix increases availability through condition monitoring. In regulated drives, the software monitors the operating states and carries out diagnostics.

► Efficient retrofitting

Seasoned Rexroth experts support users in making the most of the advantages of Sytronix, also in already installed systems.

Typical applications:

- Wood and paper processing machines
- Plastics machines
- Die casting machines
- Press lines
- Machine tools
- Metallurgy



Sytronix Tool box: Scalable power and function

Sytronix variable-speed pump drives offer a comprehensive construction kit consisting of pumps, controllers and motors as well as software features for a multitude of different requirements. Your advantage: All components originate from the same source and are perfectly coordinated.

Already at the project planning stage, we will support you with simulation models in the design and selection of your system. Fine scalability of power and function means you will always find the solution that is best for you. Choose from more than 100 pre-configured sets or configure your customized solution.

Rexroth offers variable-speed pump drives in three performance classes:



Basic Dynamics:

Sytronix FcP – frequency-controlled pump drives

These systems are particularly suitable for standard applications, e.g. constant pressure control in an open hydraulic circuit. Typical areas of application are machine tools, as well as minor axis motion in various applications such as press lines.

High Dynamics:

Sytronix SvP – servo-variable pump drives

These systems use the high dynamics of synchronous motors and thus achieve considerable energy savings. They are suitable for axis control tasks in open and closed hydraulic circuits where high dynamics as well as comprehensive electrical and electro-hydraulic control options are required. Examples for application areas are plastics machines and press lines.

High Dynamics & Power:

Sytronix DFE – variable-speed pressure and flow control, electronic

Particularly for high-power applications, DFE systems offer a good cost-benefit ratio through the use of variable displacement pumps and are exceptionally well-suited for retrofitting of existing units. In addition, they are suitable both for axis control and axis regulation tasks with highly effective power output in an open hydraulic circuit, and for machines with multiple hydraulic circuits.

Always the right solution for your tasks

Function and power, tailored exactly to your requirements: The Sytronix Selection Guide will lead you to the correct solution for your application in just a few steps.

Axis controls and axis regulation

The variable-speed drives Sytronix SvP with high dynamics and comprehensive electrical and electro-hydraulic regulation options are suitable for closed hydraulic circuits. In addition, you can use the Sytronix DFE system set in open hydraulic circuits for control embedded into the pump. In cascading systems, multiple Sytronix systems work together to produce the required flow efficiently and according to demand.

Constant pressure systems

The economical Sytronix FcP drives with frequency-controlled asynchronous motors are particularly suited for constant pressure systems in standard applications.

Pre-configured or customized

The Sytronix construction kit includes more than 100 pre-configured sets. Simply choose your product family according to the features flow, system pressure and performance. In addition, we will assist you in project planning of your customized solutions and will validate them using special simulation programs.

▼ The Sytronix Selection Guide will show you which Sytronix product family matches your requirements for pump drives

Applications			Effective power			
			30 kW	80 kW	90 kW	315* kW
Variable pressure system for axis control/regulation	Closed hydraulic circuit	One hydraulic circuit in the machine	SvP 7010			
	Open hydraulic circuit		SvP 5010 ¹⁾			
Constant pressure system		One/multiple hydraulic circuit(s) in the machine	DFE 5010 / 7010			
	FcP 5010 / 7010					

*Higher power ranges upon request ¹⁾SvP 5010 systems have been designed for the Asian market only

The Sytronix House

Sytronix

Variable-speed pump drives

Pre-configured sets

Sytronix FcP



Sets for constant pressure systems

- ▶ Pressure control and flow control

Sytronix SvP



Sets for axis control

- ▶ Pressure control and flow control
- ▶ Force and speed control
- ▶ Position control

Sytronix DFE



Sets for axis control

- ▶ Pressure control and flow control
- ▶ Power limitation

Basic Dynamics

High Dynamics

High Dynamics & High Power Range

Individual Sytronix Solutions

Customized solutions from Rexroth's comprehensive electrics and hydraulic program

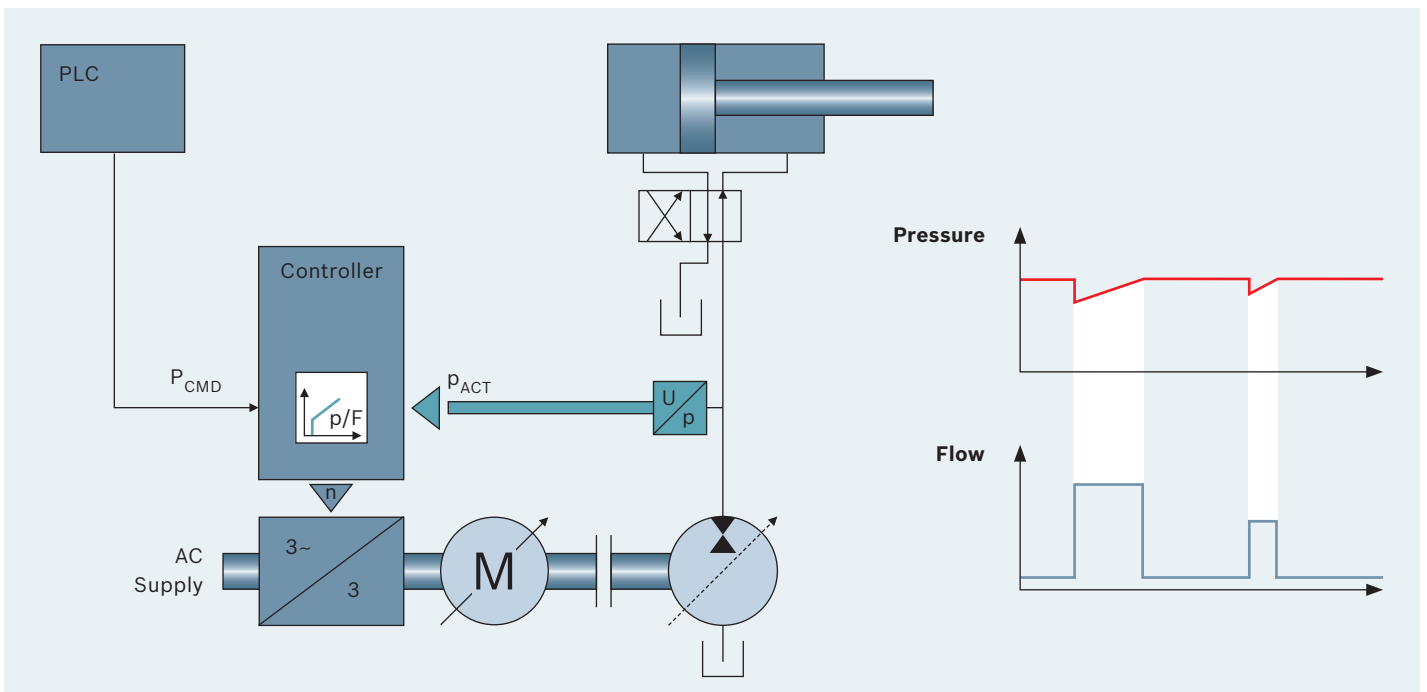


- ▶ Communication via Ethernet and other fieldbuses
- ▶ Cascaded pump systems
- ▶ Safety on Board
- ▶ Customized system functions

Variable-speed pump drives Sytronix FcP

Operation of constant pressure systems with open hydraulic circuits in an energy-efficient way, while keeping system costs low: Sytronix FcP pump drives will convince you to their economic efficiency and simplicity of application.





The Sytronix FcP sets (frequency controlled pump drive) consist of a motor-pump unit with a standard asynchronous motor and a controller. The FcP product family covers the field of standard performance with regard to dynamics, precision and scope of functions. It is suitable for applications with constant pressure, controlled flow profiles or substitutional p/Q control.

The FcP system uses constant PGF internal gear pumps in the smaller power range. In the higher pressure and power range, constant internal gear pumps of the PGH family, as well as the variable displacement axial piston pumps A10 and A4, are used. With an use of variable displacement pumps, the load on the electric motor can be reduced, particularly in high pressure ranges, so that a smaller-size drive is sufficient. This lowers system costs and saves installation space.

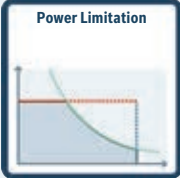


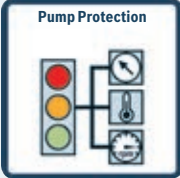
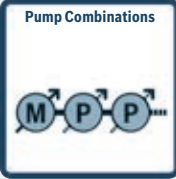
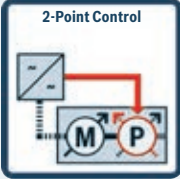
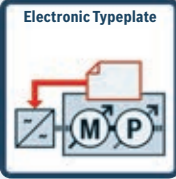
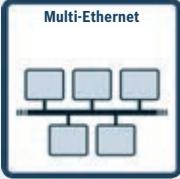

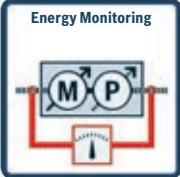


The Sytronix FcP 5010 variant offers power up to 90 kW and covers standard functionalities. The Sytronix FcP 7010 additionally supports all common bus and Ethernet-based communication protocols: CANopen, PROFIBUS, sercos, Ethernet IP, ProfiNet, and EtherCAT. Beyond single-quadrant operation, the Sytronix FcP 7010 system features a drive-integrated PLC according to IEC 61131 for maximum flexibility.

Areas of application:

- ▶ Machine tools
- ▶ Press lines
- ▶ Metallurgy

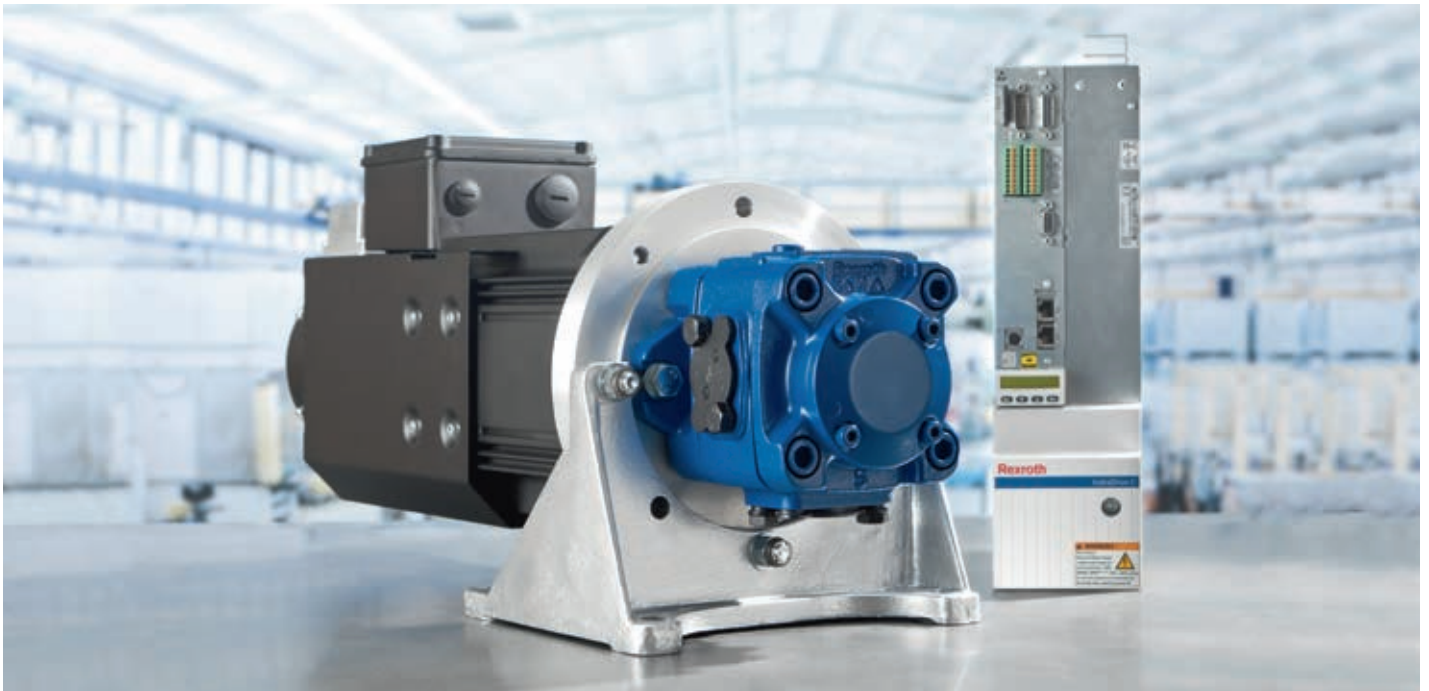
Sytronix FcP functions

Features for intelligent pump drives

	<p>Power Limitation</p> <p>Power limitation is application-specifically adjustable</p>		<p>Integrated System Display</p> <p>The frequency converters show target and actual values for pressure and flow on an integrated display. Commissioning is done either directly on the operating unit or via PC</p>
	<p>Alternating Control</p> <p>Alternating p/Q control is already implemented and included in the standard version. System-specific parameterization is sufficient for commissioning</p>		<p>Pump Protection</p> <p>A pump protection is already integrated into all FcP systems. This unique function ensures a longer life cycle, and prevents machine downtime</p>
	<p>Pump Combinations</p> <p>The use of double pump systems enables downsizing of the drive system. Cooling and filtration functions in the hydraulic circuit can be transferred</p>		<p>2-Point Control</p> <p>The use of axial piston pumps with 2-point adjustment enables downsizing of the drive system</p>
	<p>Electronic Typeplate</p> <p>Component-specific data of the motor-pump assemblies are stored on the integrated electronic typeplate</p>		<p>Multi-Ethernet</p> <p>Support of standard communication protocols provides flexibility for integration into a multitude of system topologies</p>
	<p>Best-in-Class Sytronix Control</p> <p>Pre-configured, optimized process controller for high efficiency</p>		<p>Energy Monitoring</p> <p>Enhanced energy monitoring functions for energy-optimized systems</p>
	<p>Condition Monitoring</p> <p>Enhanced monitoring functions for increased system availability</p>		<p>HPU Hydraulic Power Unit</p> <p>Application-optimized software for highly dynamic pressure control of hydraulic power units</p>

Variable-speed pump drives Sytronix SvP

No other variable-speed pump drive achieves comparable dynamics and closed-loop accuracy, or offers as many control options. The drive software represents our decades of application experience. All you need to do is to parameterize this best-in-class controller in a user-friendly way.



The Sytronix SvP sets (servo variable pump drive) consist of a motor-pump unit with a highly dynamic synchronous servo motor and a servo controller. Numerous already pre-programmed features and a best-in-class controller accept hydraulic control tasks with maximum precision.

Sytronix SvP offers the widest spectrum of control functions, like pressure and force control, flow and speed control, position control and substitutional control. The controllers originate from the IndraDrive drive family.

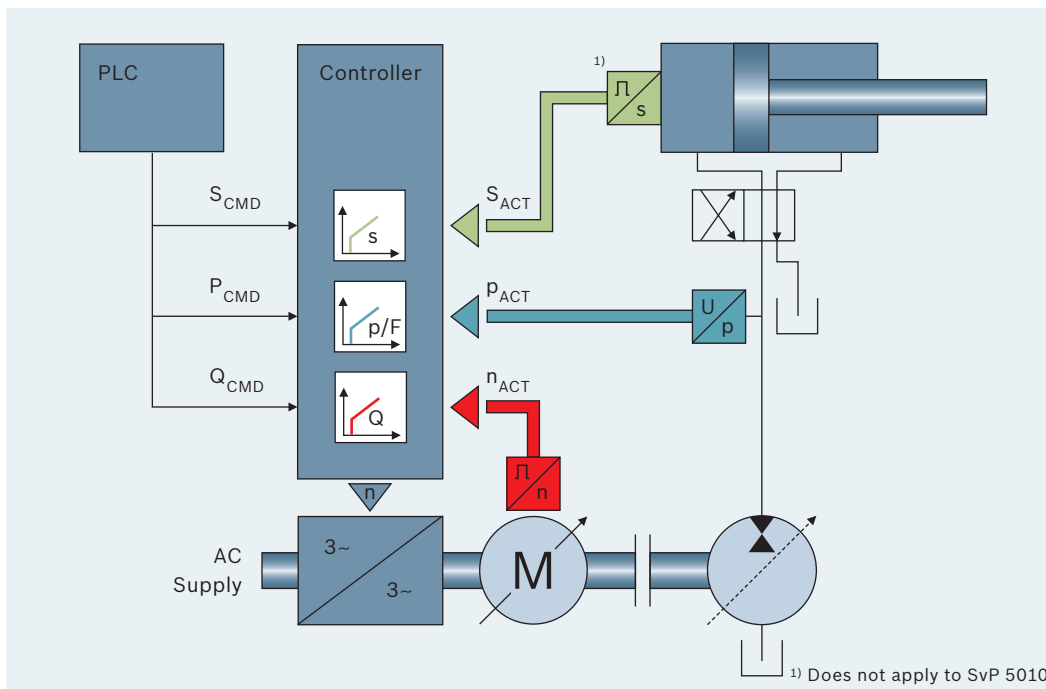
The system software includes a wide variety of intelligent features in addition to typical hydraulics-specific controller functions. The Multi-Ethernet interface supports all common communication protocols. This makes for easy and flexible integration of Sytronix SvP into any machine control unit.

The pumps used have been optimized particularly for variable-speed operation, and combine low leakage and high overall efficiency with low noise levels. In connection with axial piston pumps, Sytronix SvP ensures four-quadrant operation in a closed circuit.

Rexroth also offers customized solutions for very high power in plant construction in order to increase energy efficiency. In cascading systems, multiple Sytronix SvP systems jointly produce the required flow in line with demand.

Sytronix SvP – advantages at a glance:

- ▶ Low noise levels
- ▶ Low weight and more compact design, as no additional couplings/motor mounts are necessary
- ▶ Better motor cooling through optimized heat transfer from motor to pump
- ▶ Improved energy efficiency and dynamics through reduced weight moment of inertia
- ▶ Completely pre-assembled motor-pump assembly
- ▶ Easy commissioning and optimization through pre-defined controller structures
- ▶ Safe use through integrated protection and monitoring functions

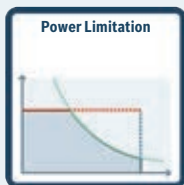


Areas of application:

- ▶ **Plastics machines**
- ▶ **Die casting machines**
- ▶ **Injection molding machines**
- ▶ **Press lines**

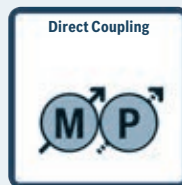
Sytronix SvP functions

Features for intelligent pump drives



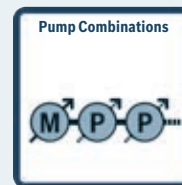
Power Limitation

Power limitation is application-specifically adjustable



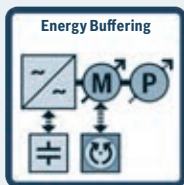
Direct Coupling

Direct coupling enables a compact design, achieving better dynamics and reduced costs



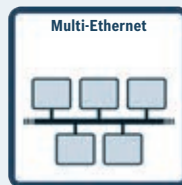
Pump Combinations

The use of double pump systems enables downsizing of the drive system while cooling and filtration functions in the hydraulic circuit can be transferred



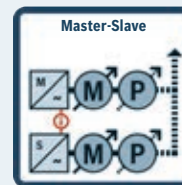
Energy Buffering

Energy buffering via a capacity on the DC bus or a flywheel mass leads to downsizing of the drive system and to a reduction of power peaks



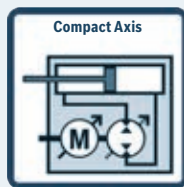
Multi-Ethernet

Support of standard communication protocols provides flexibility for integration into a multitude of system topologies



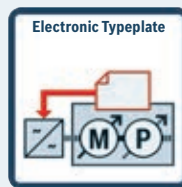
Master-Slave

With master-slave, intelligently connected drive systems can cover higher power ranges



Compact Axis

With Sytronix, you can implement compact and tankless axis solutions



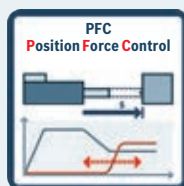
Electronic Typeplate

Component-specific data of the motor-pump assemblies are stored on the integrated electronic nameplate



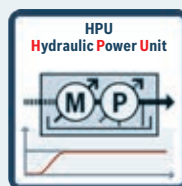
IMC - Injection Molding Control

Application-optimized software for highly dynamic substitutional pressure and flow control



PFC Position Force Control

Application-optimized software for highly dynamic position and force control



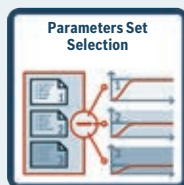
HPU Hydraulic Power Unit

Application-optimized software for highly dynamic pressure control of hydraulic power units



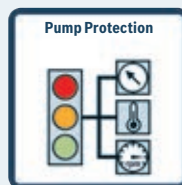
Best-in-Class Sytronix Control

Pre-configured, optimized process controller for high efficiency



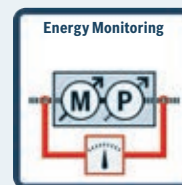
Parameters Set Selection

Intelligent switch-over between pre-defined parameter sets during operation



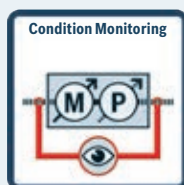
Pump Protection

In all SvP systems, a pump protection is already integrated. This unique function ensures a longer life cycle and prevents machine downtime



Energy Monitoring

Enhanced energy monitoring functions for energy-optimized systems



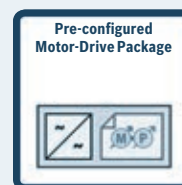
Condition Monitoring

Enhanced monitoring functions for increased system availability



Integrated System Display

The frequency converters show target and actual values for pressure and flow on an integrated display. Commissioning is done either directly on the operating unit or via PC



Pre-configured Motor-Drive Package

Integrated motor and pump models further optimize open-loop control. Your advantage: Quicker commissioning, better dynamics and efficiency

Variable-speed pump drives Sytronix DFE

Particularly in very high power ranges, manufacturers make use of all options for downsizing of motors to reduce system costs and throttle energy consumption. Here, Sytronix DFE offers interesting additional options to make electric motors more efficient.



The Sytronix DFE sets (variable-speed pressure and flow control, electronic) consist of an electro-hydraulically regulated axial piston pump driven by a variable-speed asynchronous motor. The pump drives are based on the tried and tested pressure and flow control system DFE. Through the use of standard motors with up to 315 kW, this control system achieves a particularly good cost-benefit ratio, extending to the high power range.

Easy commissioning

For the teach-in variant, you record the cyclically recurring pressure and flow profile in the software only once. This means the system always accelerates in time before a flow rise. For non-cyclic machines, you can use the real-time mode function. In this context, the controller calculates the optimal combination of motor rotating speed and swivel angle position in the ongoing process for maximum energy saving. Thanks to its mechanical interfaces, Sytronix DFE is

particularly well suited for the set-up of pump combinations for multi-circuit systems and master/slave operation. This allows for direct energy coupling and mechanical feedback via the pump shaft. No feedback-enabled electric drive system is required for this!

Low motor load

The combination of electronics for speed control and swivel angle adjustment of the pump provides an interesting option for motor downsizing. The drive software calculates the optimum combination of swivel angle and speed for the entire string of drive, on the basis of the current system pressure. Swiveling back the variable displacement pump during pressure-holding operation, the flow reduces displacement as well as motor load. Result: In many cases, smaller dimensions are sufficient for the electric motor.

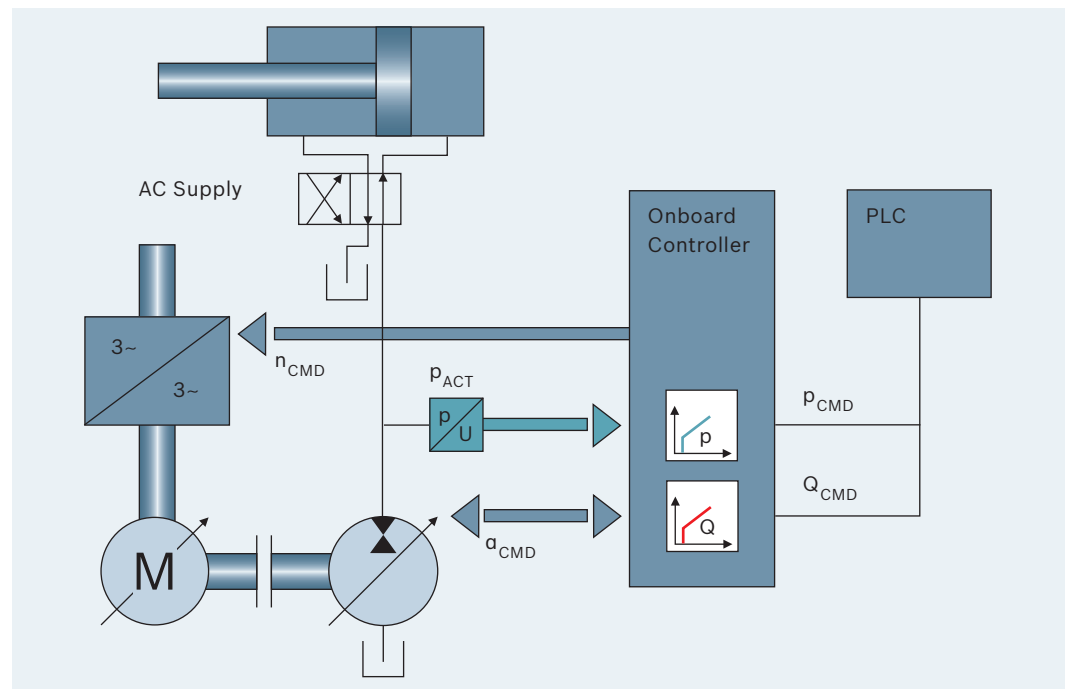
This is particularly interesting for already installed systems: Identical mechanical interfaces allow for cost-effective retrofitting with Sytronix DFE, as a replacement for a SYDFEE/SYDFEC, by a simple interchange of the integrated pump valve electronics. The control system is available for the pump types A10 and A4 and can therefore be used for a wide range of applications.

Sytronix DFE – advantages at a glance:

- ▶ Effective power up to 315 kW
- ▶ Multi-circuit and master/slave systems
- ▶ Constant pressure and axis control
- ▶ Easy retrofitting
- ▶ Rexroth A10 and A4 axial piston pumps

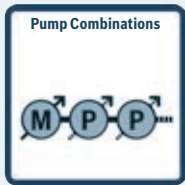
Areas of application:

- ▶ Press lines
- ▶ Plastics machines
- ▶ Wood working
- ▶ Metallurgy
- ▶ Die casting machines



Sytronix DFE functions

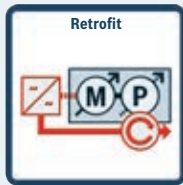
Features for intelligent pump drives



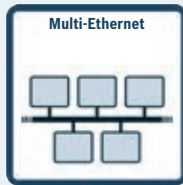
The use of double pump systems enables down-sizing of the drive system while cooling and filtration functions in the hydraulic circuit can be transferred



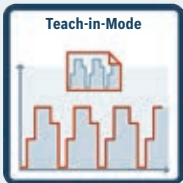
Power limitation is application-specifically adjustable



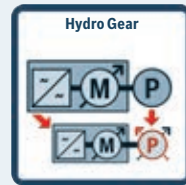
Existing pump systems can be converted for energy efficient and noise-optimized operation with minimum effort



Support of standard communication protocols provides flexibility for integration into a multitude of system topologies



Teach-in-mode for cyclic applications (incl. relearning function)



The use of axial piston pumps with stepless adjustment enables downsizing of the drive system



Integrated motor and pump models further optimize open-loop control. Your advantage: Quicker commissioning, better dynamics and efficiency



Real-time-mode for acyclic applications



Sytronix Individual solutions

The pre-configured system sets may not be the perfect solution for all tasks. For this reason, we intensively support machine manufacturers in the configuration of individual solutions for higher energy efficiency at maximum productivity.



Individually configured systems

In addition to the pre-configured system sets of the Sytronix series FcP, SvP and DFE, the Sytronix construction kit provides the option of assembling customized systems. You can count on the support of Rexroth experts for planning and configuration. Together we construct assemblies and individual components with the help of questionnaires on usage criteria, installation and system parameters for tailor-made, customized solutions.

Count on planning security

- ▶ Sytronix construction kit for customized solutions
- ▶ Products with excellent dynamics and closed-loop accuracy
- ▶ Reliable product quality for high machine availability
- ▶ Sector-specific consulting and engineering support
- ▶ All the advantages of a company with worldwide operations

System components: Coordinated and from a single source

The performance of a system is not determined by the best component, but a combination of all components. As the manufacturer of all hydraulic and electrical assemblies which determine performance, we are able to coordinate them perfectly in order to increase energy efficiency, dynamics and precision. Our tests for all combinations are proof.

**Motor-pump assembly
MPAS1**



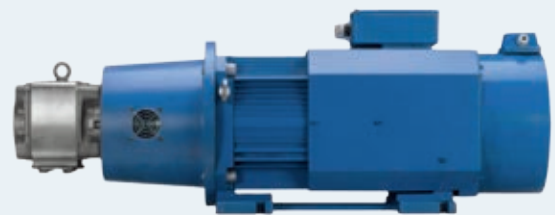
**Motor-pump assembly
MPA01**



**Motor-pump assembly
MPES2**



**Motor-pump assembly
MPAT1**



The Sytronix construction kit includes more than 100 variants in three performance classes. Their function and power are so finely scalable that they can comply with almost any requirement you can think of to 100 percent.

Different motor-pump units are used for hydraulics. They consist of an electric motor, coupling elements and a hydraulic pump. The internal gear pumps are optimized for variable-speed operation and work particularly quietly. The

axial piston pumps by Rexroth have become something of an industry standard in millions of applications. Simplify order processing and assembly by optionally ordering already assembled units as a package. They allow flexible integration into your construction via different assembly variants. By the way: The directly coupled motor-pump units are significantly shorter than the conventionally coupled variants.

Intelligent drives with integrated hydraulics know-how

Only Rexroth has this much experience with hydraulics and electric drive technology. After all, we already presented the first maintenance-free AC servo motor worldwide in 1979. Since then, Rexroth has been advancing decentralized intelligent drive technology. Our decades of application experience in hydraulics have a particular impact on drive software. If you are using our controllers, you are therefore always also using the best-in-class controllers for hydraulic control functions. Easy to parameterize and commission.

Rexroth Fv

The Rexroth Fv frequency converters offer maximum values for power density, dynamics and energy efficiency. Their easy, intuitive operation speaks for itself. Commissioning can also be carried out without a PC. The integrated display shows the most important hydraulic functions. The standard function of substitutional p/Q control is already pre-programmed. Integrated motor models further optimize control. The pump guard function, unparalleled on the market, prolongs the life cycle and protects against machine downtime. Rexroth Fv communicate via Modbus and Profibus with a higher-level control system.

Rexroth IndraDrive

IndraDrive servo-drives are the global benchmark for dynamics, precision and functional diversity. All common control tasks of hydraulics are already pre-programmed with best-in-class controllers in the software. An integrated motion logic can coordinate additional IndraDrive drives and valves.

Certified safety functions Safety on Board comply with the standards, without re-routing via the higher-level safety control system. The Multi-Ethernet interface supports all common Ethernet communication protocols on one hardware version. The protocol is selection via software. This reduces variance in assembly and service.

Rexroth Fv



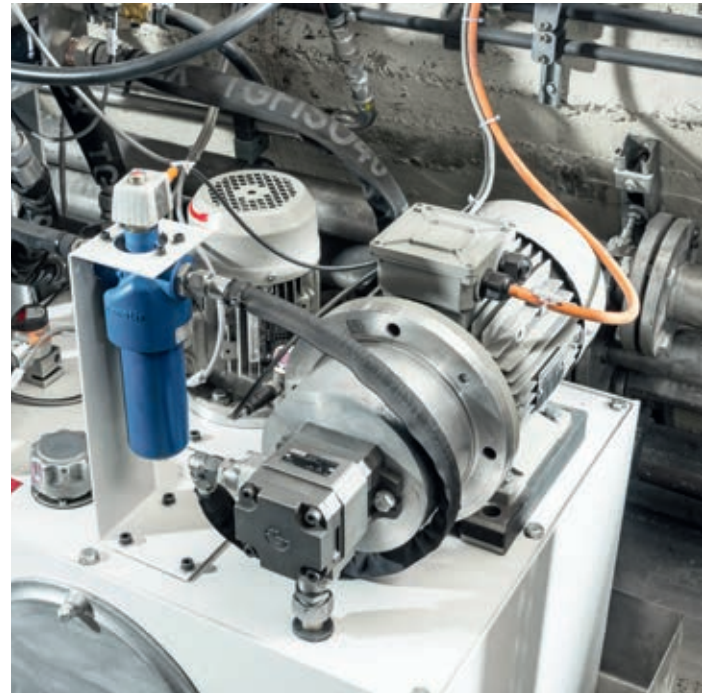
Rexroth IndraDrive



For detailed information on the wide range and the combination possibilities see the Sytronix product catalog at:

► www.boschrexroth.de/sytronix

Innovative solutions already proved and tested in practice



Die casting machines:

Energy conservation – System simplification

In serial die casting machines, Sytronix SvP reduces energy consumption by more than 80 percent – even with very short cycle times. In addition, Sytronix SvP simplifies the hydraulic circuits compared to previous versions: Whereas two uncontrolled pumps were needed until now for high and low pressure, a single Sytronix SvP drive set is now sufficient. It additionally replaces several control valves and also provides a storage load circuit for the shot cylinder. Energy conservation – system simplification.

Machine tools: Economical energy savers

Hydraulics offer a unique advantage particularly for tensioning and clamping functions: They do not require any energy for the pressure blocking function. During this phase, Sytronix variable-speed pump drives significantly contribute to a reduction of power consumption as the speeds are lowered in line with demand.

In the combination of standard motor and frequency converter, Sytronix FcP provides a particularly cost-effective solution for machine tools in order to reduce energy consumption of the hydraulic system by 30 to 70 percent. The system costs can also be reduced by suitable component selection. In addition, the required cooling power is reduced and secondary sound absorption measures can be omitted thanks to the lower average working noise – efficient energy savers.

Variable-speed pump drives have conquered almost all relevant sectors in no time. In many cases, they lower system costs and reduce operating costs thanks to significant energy savings.



Plastics machines: Faster, quieter, more efficient

Maximum dynamics and precision as well as control of complex procedures: Sytronix SvP and DFE display their strengths to the fullest with plastics machines. Sytronix not only reduces energy consumption by up to 80 percent, but also increases the axis movement dynamics. Digital pressure control offers better repetition accuracy and a stable zero point. Pressure-dependent leakage losses are compensated. Depending on the available oil quantity, very short pressure change periods are possible within pressure control. Precise control prevents upper and lower command values from being exceeded. In addition, a special function suppresses cavitations at system start.

Sytronix SvP and DFE also reduce average noise emission. This reduces the need for secondary noise reduction – faster, more silent, more efficient.



Press lines: Always the best solution

Whether for energy-efficient pressure generation or as a control element in two-quadrant or four-quadrant operation: The scalable Sytronix systems provide markedly increased energy efficiency and permanent press automation. They integrate seamlessly into the press automation via open interfaces. In its simplest form, Sytronix FcP produces flow and system pressure in line with demand. On an intermediate development stage, the Sytronix DFE pump drive ensures additional intelligent axis functions. In the highest configuration level, Sytronix SvP features extremely high dynamics and precision. In addition to a decrease in energy consumption by up to 80 percent, Sytronix systems improve efficiency because there is no throttling loss at the control edges of additional valves thanks to exact metering of the required oil quantity and switching off the electric motor when the process does not require any flow or pressure function – always the best solution.



**Wood and paper processing:
Permanent and cyclic savings**

No matter how tough the ambient conditions are, whether for cyclic or permanent processes: Sytronix increases energy efficiency along the entire value chain, from the fully automated sawing line to the coiling of the complete paper sheet.

Example: Sawing operations. No two trees are alike and a large number of drives in fully automated systems flexibly adapt to the respective dimensions. The process requires a continuously changing flow at constant pressure. During production breaks, the integrated software will even decrease speed to zero without any impact on operating pressure.



Sytronix systems offer particularly high gains in energy efficiency for permanent paper manufacturing processes. Pressure blocking functions dominate during coiling. Intel- ligently reduced speed stores up to 60 percent of electrical current compared to units with uncontrolled constant motors. Simultaneously, the Sytronix variable-speed pump drives ensure higher speeds at a smaller installation size and reduce cooling requirements. Result: Permanent and cyclic process savings.

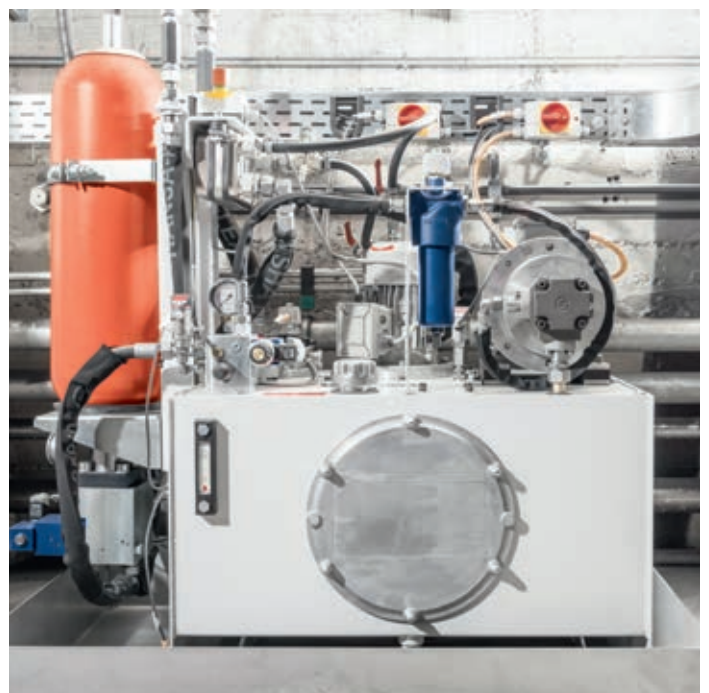
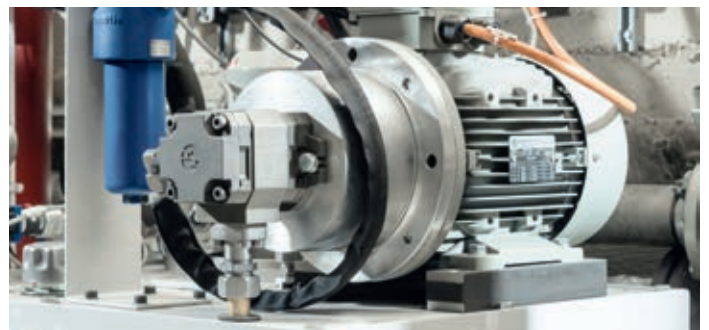
Sytronix retrofit: Efficiency booster for installed systems

The high degree of modularity of hydraulics on the component level has many advantages. One of the most important advantages: It simplifies the economical retrofitting of constant units with the help of the Sytronix variable-speed pump drives.

Instantly and sustainably lower the energy consumption of your production without investing in new machines. With very little effort, we can turn a constant unit into an energy-efficient system, producing flow in line with demand. Existing hydraulic systems often do not need to be modified – which further reduces the effort for retrofitting.

Experienced experts in more than 80 countries will support you during the entire retrofitting process. Specially developed tools determine the potential savings for your application well in advance. Following project planning on the basis of our extensive application experience, our service technicians will carry out the fast on-site assembly and commissioning at your location. Open interfaces with all common fieldbuses and Ethernet protocols facilitate integration into your system.

Beyond custom project planning of retrofitting, Rexroth has developed a standardized retrofitting kit for the refitting of machine tools together with a global leader in machine tool manufacturing. This further reduces the effort required for refitting and ensures quick gains in production efficiency.



Bosch Rexroth AG

Zum Eisengießer 1
97816 Lohr, Germany
www.boschrexroth.com

Find your local contact person here:

www.boschrexroth.com/contact

Further information:

www.boschrexroth.com/sytronix

