Application software  
**BODAS SPC – Version 40**  
Speed control for hydrostatic drives

In the application field of concrete mixers and generator controls, the focus of the machine manufacturers is on increased efficiency and improved control quality of the machine. But also requirements like reduced wear and maintenance costs or lower fuel consumption are important. With the help of intelligent control solutions, such as the BODAS SPC from Rexroth, these demands can be achieved.

The generic software solution for speed control of hydrostatic drives BODAS SPC has been specially developed for applications with the need of constant output speeds and is optimal for the use in concrete mixers.

**CUSTOMER BENEFITS**
- Adaption of the speed control to the respective application via parameterization
- Improved efficiency and control quality of the application
- Easy communication via CAN J1939 incl. diagnostic messages
- Various interfaces and modular software architecture for customer specific extensions
- Increased productivity due to specially developed functions for concrete mixers
- Wide range of additional functions

**APPLICATIONS**

**FUNCTION AND BENEFITS**

**Adaption of the control characteristics via parameterization**

The speed control BODAS SPC from Rexroth is an easily configurable application software embedded in Rexroth controllers RC4-5/30. It is used for regulating and controlling the speed of hydrostatic drives and can be adapted to the relevant application via parameterization. It is appropriate for the use in open or closed hydraulic circuits. The software BODAS SPC has been specially developed for the generic speed control e.g. in concrete mixers and is used to keep a constant output drive speed regardless of the speed of the diesel engine. An easy software configuration is possible for various combinations of pumps, combustion engines, sensors and operator interfaces. The BODAS SPC application software is designed for the operation with Rexroth hydraulic pumps and motors, and is suitable for diesel engines with or without a CAN bus interface (SAE J1939 protocol).
**TECHNICAL DATA**

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**Various interfaces and modular software architecture**

By using the Rexroth speed control BODAS SPC, the selection of the desired speed can be transmitted with different signal types (analog, digital, CAN J1939). This enables an easy and efficient implementation of a customized human machine interface (HMI), that is currently in the focus of the machine manufacturers. For the integration of further customer specific functionalities the BODAS controller RC4-5/30 provides additional inputs and outputs. If functions are demanded which exceed the standard scope of BODAS SPC, these can be easily realized due to its modular software design.

**Increased productivity thanks to special functions for concrete mixers**

The application software BODAS SPC contains functions especially developed for concrete mixer applications. The drum rotation counter enables a timely planning of maintenance work on the machine. The creep mode, which is primarily use in road construction, allows a continuous and smooth concrete discharging at low vehicle speed. Furthermore, the funnel mode allows an automatic discharging of the concrete in truck mixer concrete pumps. Due to these functions a higher machine productivity can be achieved.

**Wide range of additional functions**

The BODAS SPC from Rexroth offers many additional functions. Examples are the memory function for fast recovery of the speed set-point after standstill of the drive, the error detection behavior for a controlled error handling or the engine management for reduced fuel consumption.