

# A-VBCN-R

## Check and Metering valve



### CUSTOMER BENEFITS

- Studied for direct flange mounting on boom cylinders of earth moving machines and for use in load holding and lowering control systems subject to hose burst protection requirements.
- Compact solution, easy to fit.
- Joystick controlled.
- Load holding function with fail-safe spring design.
- Full metering function.
- Fine motion control and speed control.
- Oil recovery mode integrated, allowing energy saving and more flow available for other functions during gravity lowering:
  - anti-cavitation
  - energy saving
  - low emissions
  - reduced cycle time

### TECHNICAL DATA

- Max Flow: 400 l/min
- Max Pressure: 420 bar

**A-VBCN-R COMBINES A FINE CONTROL OF THE MOVEMENT DURING MATERIAL HANDLING WITH THE POSSIBILITY TO COMPLY WITH THE ISO 8643 FOR EARTH MOVING MACHINERY. MOREOVER, IT APPLIES THE OIL RECOVERY MODE TO SAVE ENERGY DURING LOWERING.**

A-VBCN belongs to the group of check and metering valves, designed to provide a hose burst protection on earth moving machines, in compliance with the ISO 8643. Earth moving machines put into service in Europe must comply with the ISO 8643, defining how the machine must behave in case of hose failure when used to handle suspended loads. According to the ISO Standard, the machine must be equipped with valves capable to lock the boom and to control the lowering speed in case of hose failure, preventing an uncontrolled descent of the load. More in detail, the ISO Standard defines the maximum acceleration admitted for the load in case of hose failure while lowering at low speed.

A-VBCN is a joystick controlled valve ensuring the load holding function with a fail-safe spring design. If the spring fails during load holding, the load pressure acts to maintain the valve closed, locking the cylinder in position and preventing the load from falling down.

Besides load holding, A-VBCN acts as flow control device also outside of the speed range defined by the ISO Standard. The full metering function allows the valve to guarantee a fine movement in any working condition, with the possibility to simplify the main control valve of the overall hydraulic system and saving cost on the customer side.

The fine control given by the valve makes it suitable as load holding and motion control device on different types of machine provided with joysticks.

In particular, A-VBCN-R integrates the oil recovery mode to lower the boom by gravity, ensuring energy savings especially in high cycle applications, such as excavators.

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