RegalRexnord™

PRODUCT
INFO SHEET

SOBO® IQ CONTROLLED
BRAKING FOR GENERAL SYSTEMS

FOR ANY APPLICATION WITH HYDRAULIC FAILSAFE BRAKES WHERE CONSISTENT STOPPING TIMES OR DISTANCES ARE DESIRED AND LESS WEAR AND TEAR ON EQUIPMENT.

The SOBO® iQ provides a soft and predictable braking sequence and is typically utilized in applications such as conveyors, cranes, hoists, water gates, bridges, barge unloaders plus many others.

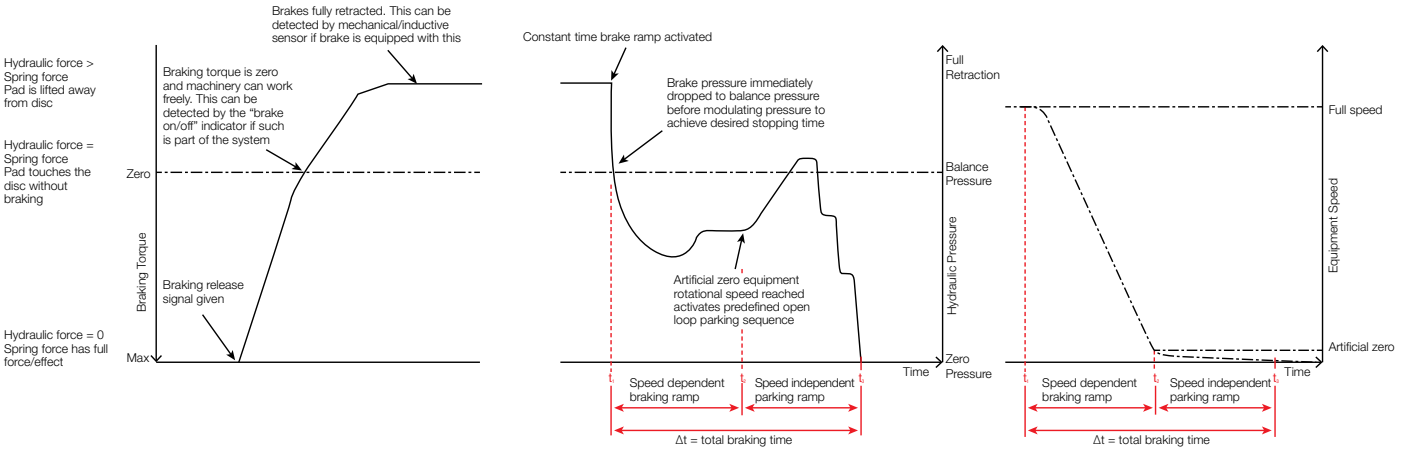
As a standalone unit, the SOBO® iQ is capable of controlling up to fourdifferent hydraulic power units up to 20km or more away. The SOBO® iQ is meant to be a single control unit for all of the brakes in a single mechanical chain.

OPERATION IN CASE OF POWER FAILURE

In case of complete power failure, the SOBO® iQ is supplied with a UPS backup power source allowing the SOBO® iQ to operate normally when a brake command is given. In case of a communication failure to the SOBO® iQ, the unit will activate the highest priority braking ramp. In case of a SOBO® failure, the SOBO® iQ will utilize the built in electrical or mechanical 2-stage backup to stop the equipment.

SVENDBORG BRAKES™

SOBO® IQ CONTROLLED BRAKING
BRAKING PERFORMANCE CHART



OPERATION (NOT BRAKING)

Electrical power is connected to the electrical motor and the solenoid valves are energized. The braking valves are closed and the return lines to the tank are shut off. The 2-Stage valve is energized, blocking flow to the built in 2-stage backup. The hydraulic pressure is built up to charge the accumulator and disengage the brakes. When adequate system pressure is built up, the electrical power is disconnected from the motor by means of the motor pressure switch. The braking valves are constantly energized while the brakes are released. If pressure is reduced over time, the motor switch will restart the motor to maintain required system pressure.

APPLYING THE BRAKE WITH CONTROLLED BRAKING TORQUE

When the SOBO® iQ receives a brake command, it will energize/de-energize the SOBO® iQ valves in order to modulate the pressure to follow the predefined braking ramps. A unique pressure feedback feature will ensure quick and precise control over torque output of the braking system and, in turn, ensures a predictable stopping sequence. The braking ramps are set by connecting a field laptop to the SOBO® iQ and running the SOBO® iQ software interface or by accessing the SOBO® iQ software interface via the optional touchscreen. Up to three specific braking ramps can be set up with a fourth open-loop, speed independent ramp to allow for specific braking profiles to be utilized in any situation.

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