

Fact Sheet

Enhanced ABDX[®] Control Valve

In 1869, George Westinghouse, Jr. patented a system that used air pressure to stop trains. Since then, Wabtec has continuously been an industry leader and improved our air brake components to meet car design and operational demands.

With proven reliability and long service life, Wabtec is the recognized industry leader in control valves.

Wabtec's experience and proven technology deliver dependable, long lasting, quality solutions that assure precise operating performance and proper brake cylinder pressure under all braking conditions, including the most demanding grade situations.

As part of Wabtec's continuous improvement efforts we have implemented design changes to develop the enhanced ABDX[®], with more benefits than ever before. The new design incorporates redesigned main piston diaphragms and upgraded emergency portion slide valve and service portion graduating valve materials. Metal alloy provides enhanced resistance to fretting wear when exposed to severe vibration.

These changes improve cold weather performance, offer greater resistance to severe vibration, and provide longer service life.

Quick Facts

- Incorporates an optimal mix of slide valve and poppet valve technology
- 20% fewer internal components due to slide valve technology
- Lower reconditioning costs due to fewer components needing replacements
- Metal to metal seal is not adversely affected by low temperature or degradation like rubber seals
- Built-in accommodation available for precise, automatic on-car testing utilizing 4-port testing system
- Metal alloy provides 5x enhanced resistance to adhesive wear when exposed to severe vibration
- Three configurations offered for standard cars with 45-75 feet of brake pipe, cars with >75 feet of brake pipe, and super short applications with <45 feet of brake pipe.