Technical Tip



Full Functioning Valve (FF2)

A true single valve system for single and tandem axle trailers.



TRUE NEW GENERATION VALVE

Haldex has developed a true, single trailer air-system valve that combines the functions of outdated 2- and 3-valve systems. The Full Function Valve (FF2) offers OEM, Fleets and Owner/Operators:

- Economical one valve approach for single and tandem axle applications
- Lower crack pressures to improve tractortrailer timing balance
- Reduced maintenance costs and troubleshooting (one valve, less plumbing and fittings)
- Easy retrofit of "Old Multi-Valve" systems to meet current safety standards

In October 1992, the revised FMVSS-121 changes for trailer air valving required spring brakes to apply within 3.0 seconds, supply/emergency line to be protected to 70 PSI minimum and no spring brake retardation when there was a 70 PSI or higher supply/emergency line pressure (preventing automatic braking on in-service, service system failures). These mandated higher supply line protection levels required higher supply line pressures to be achieved before the pressure protection valve opened to fill the trailer system reservoir.

Using a creative, new approach Haldex introduced the Full Function Valve (FFV). The Haldex FF2 continues the "single valve system" concept, offering our industry the most safe and economical trailer air brake system available today.

The Haldex FF2 is available at trailer OEMs and parts distribution channels throughout North America.

Technical Tip



Design and function

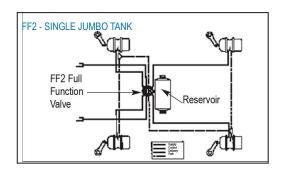
The FF2 is designed to fill your trailer system reservoir while simultaneously filling the spring brakes (thereby releasing your parking brakes) to assure you have service brake capability when you are ready to drive the vehicle away.

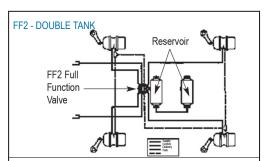
Designed to assure service brake capability before spring brakes release.

The FF2 guards against re-releasing of spring brakes, once the driver has consciously applied them, until a service brake system failure condition is fixed.

Some competitive designs on the market permit spring brakes to fill/release before the reservoir begins to fill - resulting in the possible loss of service brakes for an extended period of time.

- A true single valve system for single and tandem axle trailers. (Three or more axles require multiple FF2s).
- Trailer air system simplicity and ease of installation.
- Built-in pressure protection and anti-compounding functions: eliminate broken foundation components caused by compounding of spring brake.
- Engineering grade composites, resists corrosion, lighter and more durable than aluminum
- Built-in service and spring brake quick release.
- Heavy wall mounting nipple is treated to resist corrosion and withstand severe duty applications.
- Service brake priority ensures air tank pressure is sufficient to stop vehicle when spring brakes first released.
- > Can be used with single or twin air tanks.
- → Approximate weight: 3 lbs.





SERVICE PART NO.	CRACK PRESSURE	RESERVOIR PORT	CONTROL PORT	SUPPLY PORT	SPRING BRAKE PORT	DELIVERY PORT	OEM PART NO.
KN28600	3 PSI	3/4"	1/4"	3/8"	3/8" (2)	3/8" (4)	N4304AC
KN28601	3 PSI	1/2"	1/4"	3/8"	3/8" (2)	3/8" (4)	N4304AB
KN28602	5 PSI	3/4"	1/4"	3/8"	3/8" (2)	3/8" (4)	N4304AE
KN28603	5 PSI	1/2"	1/4"	3/8"	3/8" (2)	3/8" (4)	N4304AD

For mounting to reservoir, each valve includes a heavy walled steel pipe thread nipple, conforming to NFPA/T3.8.3 R2-1977 Standard.

NOTE: FMVSS-121 compliant for use on trailers built up to February 28, 1998. All trailers manufactured on or after March 1, 1998 are requied by FMVSS-121 to have an ABS Braking System. Please check with your trailer manufacturer if you are not sure if this applies to your unit.