Pressure Protection Valves
Height Control Valves
Dump Valves
3-Way Pilot Valve
Linkage
Scale-O-Matic
ILAS® III
ILAS® E
COLAS®
Haldex is a leader in developing height control valves for truck, trailer, industrial and recreational vehicle air suspensions. Our Controlled Response (CR) height control valve has been used in the industry for many years. In addition to the CR valve, Haldex offers the Precision Response (PR) and Precision Response Plus (PR Plus) height control valves. The PR and PR Plus valves provide faster installation and reliability in the toughest conditions.

The PR and PR Plus valves were designed with the needs of the OEM and fleets in mind. They offer reliable dynamic seal technology and features that save installation time, eliminate expensive fittings and simplify plumbing. The PR Plus was the first and only to offer customizable supply and delivery port manifolds. The PR Plus is available with integral dump options for normally open or normally closed configurations. The combination of the custom manifold and dump options eliminate extra components, lines and leak points in the air system. The PR Plus valve offers distinct benefits that set it apart from the competition.
**ILAS® III and COLAS®**

The ILAS® III and COLAS® valves offer more than just the functional raising and lowering of a lift axle or deck of a trailer. They also offer an automatic feature unique to each valve. The ILAS® III can automatically lower and raise lift axles without operator intervention. The COLAS® can automatically reset deck height to the normal ride height of the trailer without operator intervention.

**Looking For A Quality Supplier**

When looking for an air suspension system supplier, you should look for more than just the lowest possible price. Look for innovative air suspension technology that will protect your essential investment with quality, reliable performance, extended maintenance and the lowest cost of ownership over the period of service.

**The Haldex Pressure Protection Valve Will Maintain Sufficient Pressure for Brake System Operation in Case of Failure in Accessory Systems**

- Three basic closing pressure settings.  
  - 90555396 - 65 psi nominal  
  - 90555397 - 80 psi nominal  
  - 90555398 - 90 psi nominal  
- Durable design increases product life, reducing replacement costs.  
- Use in air suspensions, air seats and cab isolation systems.

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**Premium Version Features and Benefits**

- Specifically designed protective cover seals the internal portion of the valve from harmful contaminants (salt, water, dirt, etc.) greatly increasing valve life.  
- Simple installation.  
- Integrated auxiliary filter is easily removed for cleaning which saves on labor costs.  
- Priced competitively and interchangeable with other brand valves.  
- Each valve individually calibrated for accuracy.  
  - 75 psi opening pressure  
  - 70 psi closing pressure  
- Very durable valve that will reduce replacement costs.  
- Use in air suspensions, air seats and cab isolation systems.
Only genuine Haldex suspension control valves combine OE quality with reliable height control performance. Only genuine Haldex valves ensure proper ride height, reduce driveline wear and 5x increase in reliability and overall operational life.

The precision time-delay feature of genuine Haldex valves reduces air consumption and provides optimal efficiency to minimize compressor wear. Counterfeit valves are inconsistent and increase overall air consumption. Genuine Haldex valves are 100% tested at the end of the line, providing higher quality assurance.

Offshore imitation valves can leak and freeze up, causing air suspensions to operate above or below proper ride height. The inconsistent or nonexistent time-delay functions of imitation valves may cause ride height malfunction. The failure of imitation valves often leads to expensive equipment repairs in transmissions or pinions. These failures may also result in over-height operation, which could lead to bridge impacts that are both costly and dangerous.

So, don’t be fooled by imitations - rely on GENUINE HALDEX!
Controlled Response Height Control Valve

Time Delay Height Control Valve for Tractor and Trailer Air Suspensions and Industrial Applications.

- Controlled response time delay technology maintains chassis position and conserves air to increase compressor life.
- Robust die cast zinc body, precision machined steel and durable plastic components to ensure operation in extreme conditions.
- Available with 1/4”, 3/8” or metric filter fittings, with integral dump valves and break away arms.
- Flexible right or left mounting options, these features allow ease of installation and reduce inventories.
- Minimum deadband range provides excellent control of suspension ride height to maintain drive system pinion angles.
- Optional integrated dump valve provides the ability to automatically or manually exhaust air from the suspension.
- Affordable package pricing offered.

<table>
<thead>
<tr>
<th>Haldex Part No.</th>
<th>Description</th>
<th>Fittings</th>
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<tbody>
<tr>
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<td>Type CR - Controlled Response Height Control Valve</td>
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<td>90554114</td>
<td>Type CR - Controlled Response Height Control Valve</td>
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<td>90554183</td>
<td>Type CR - Controlled Response Height Control Valve</td>
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<tr>
<td>90554334</td>
<td>Type CR - Controlled Response Height Control Valve with Dump Valve</td>
<td>1/4” &amp; 3/8”</td>
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<td>90554648</td>
<td>Type CR - Controlled Response Height Control Valve with Dump Valve</td>
<td>1/4” &amp; 3/8”</td>
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<td>90054007P20</td>
<td>Type CR - Controlled Response Height Control Valve - 20 Units</td>
<td>1/4”</td>
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<tr>
<td>90054007P100</td>
<td>Type CR - Controlled Response Height Control Valve - 100 Units</td>
<td>1/4”</td>
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</table>

Dump Valves

- **90554335**: Optional Normally Open Dump Valve, Gold Body
- **90554902**: Optional Normally Closed Dump Valve, Silver Body
The PR and PR Plus Height Control Valves can be used to maintain the ride height for any truck, trailer, industrial or recreational vehicle air suspension.

- The precision response design
  - Acts immediately
  - Reduces total air consumption
  - Controls dynamic drift

- Ceramic Seal technology provides product durability and reliability by eliminating dynamic rubber seals used in other valves.

- Primary shaft supported by self-lubricating high performance bearing.

- The industries tightest deadband eliminates ride height variation and reduces equipment damage.

- Can be mounted in multiple orientations and can easily replace other brands of height control valves.

- Available with an adjustable control arm and optional dump valve to make installation and plumbing more efficient.

- Numerous manifold options are available to reduce installation time, unnecessary fittings and leak points.
Critical Ceramic Dynamic Seal

Air suspension systems are vulnerable to contaminants that can damage the internal components of height control valves. Our competitors use rubber seals that are susceptible to wear and degradation caused by contamination. The Haldex PR valve seals on a ceramic surface that is resistant to contamination. The ceramic seal technology is proven to outlast the competition’s rubber seal technology in all conditions.

Air Flow Profiles and Deadband

PR valves will immediately respond to changes in ride height due to the loading of the vehicle. A tapered flow profile allows precise response to changes in ride height without excessive air consumption. The flow profile with the ceramic seal is accurate, precise and repeatable in all conditions. The rubber seal used by our competitors are dramatically affected by wear and temperature and can cause a shift in the flow profile.

The deadband area (when the movement of the control arm neither adds nor releases air into the air springs) is tightly controlled. A small and consistent deadband results in minimum air consumption and reduces both driveline and component wear.

Adjustable Control Arm

The Haldex PR and PR Plus valve adjustable control arm design reduces cost by enabling accurate and quick adjustment during installation. Competitive designs are often confusing and complicated with multiple adjustment points which increase installation time and labor.

Customizable Manifold

Haldex PR Plus height control valves offer customizable manifolds, providing supply and delivery ports tailored to the OEM application. The custom manifold will improve the airline plumbing, reducing the total number of fittings and excess tubing. The manifolds can be configured with threaded ports or with Push-to-Connect (PTC) fittings. Other height control valves require additional fittings and tubing, resulting in increased material costs and increased labor for installation.
Volvo - Mack Replacement PR Valves

**90555353**

- 7” Fixed Arm
- Normally Open Dump
- 5 Port 3/8” PTC Side Manifold can be used instead of 90555263 by plugging 2 delivery ports

**9055263**

- 7” Fixed Arm
- Normally Open Dump
- Replacement Bracket
- 3 Port 3/8” PTC Side Manifold

**9055318**

- 7” Fixed Arm
- Normally Open Dump
- 3 Port 3/8” PTC Side Manifold with ports on back side of valve

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Kenworth Replacement PR Valves

90555375

- 7” Adjustable Arm
- Normally Open Dump
- 3 Port 3/8” PTC Side Manifold

90555376

- 7” Adjustable Arm
- Normally Open Dump
- 2 Port 3/8” PTC Straight Manifold

90555377

- 7” Adjustable Arm
- Normally Open Dump
- 3 Port 3/8” PTC Straight Manifold

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### SAF Holland Replacement PR Valves

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<th>Haldex Part No.</th>
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<th>Haldex OE Part No.</th>
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<td>5.5” Adjustable Arm</td>
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<td>90555101</td>
<td>5.5” Adjustable Arm</td>
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<td>9” Adjustable Arm</td>
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<td>90555309</td>
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<td>90555307</td>
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<tr>
<td></td>
<td>3 Port 3/8” PTC Same Side Manifold</td>
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</tbody>
</table>
Universal PR Valves

90554945

› 7” Adjustable Arm
› Without Dump
› 3 Port 1/4” NPT Straight Manifold
› For Trailer, Cab and Front Axle Applications

90554950

› 7” Adjustable Arm
› Normally Open Dump
› 3 Port 1/4” NPT Straight Manifold
› For Truck and Tractor Axle Applications

90555108

› 7” Adjustable Arm
› Normally Closed Dump
› 3 Port 1/4” NPT Straight Manifold
› For Trailer Suspension Applications

90555109

› 7” Adjustable Arm
› Normally Closed/Restricted Flow Dump
› 3 Port 1/4” NPT Straight Manifold
› For Trailer Suspension Applications

90555335

› 7” Fixed Arm
› Without Dump
› Integrated 2 Port 1/4” NPT
› For Trailer, Cab and Front Axle installations
› Replaces most Barksdale and Hadley valve installations

90555365

› 7” Adjustable Arm
› Without Dump
› Integrated 2 Port 3/8” PTC
› For Trailer, Cab and Front Axle installations
› Replaces most Barksdale and Hadley valve installations
EGP Height Control Valve

North American Version in the EGP Valve Family

› Dual or single circuit operation without extra ports or fittings.
› High grade durable all plastic construction for corrosion protection.
› Optional dump valve available.
› 1/4” NPT Fittings.

<table>
<thead>
<tr>
<th>Haldex Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>KN27000</td>
<td>Standard flow with 14” lever arm</td>
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<tr>
<td>KN27013</td>
<td>High flow with 14” lever arm</td>
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<tr>
<td>KN27201</td>
<td>Low flow (valve only)</td>
</tr>
<tr>
<td>90555105</td>
<td>Standard flow (valve only)</td>
</tr>
<tr>
<td>90555106</td>
<td>Standard flow with normally open dump valve (valve only)</td>
</tr>
<tr>
<td>42150003</td>
<td>Standard flow with dual ride height (valve only)</td>
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</tbody>
</table>

Haldex Dual Ride Height Control Valve Kit (42150003)

When air pressure is applied to port “4” of the valve, an internal spool shifts and the valve goes to a set second ride position. The lever will appear at 20° in the 2nd ride position in neutral. Adjustment of the second ride height is according to the table below.

<table>
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<tr>
<th>“A” Lever Arm Distance (in.)</th>
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<th>4.0</th>
<th>5.0</th>
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<tr>
<td>Height Adjustment at 2nd Ride Position (in.)</td>
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<td>1.4</td>
<td>2.1</td>
<td>2.1</td>
<td>2.4</td>
<td>2.7</td>
<td>3.1</td>
<td>3.4</td>
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</table>
3-Way Pilot Valve

A versatile valve that can be used with truck/tractor and trailer air suspension systems, manual and auto dump systems and as a lift axle air control valve.

› Simple installation for normally open or normally closed operation allows one part number to be used in many applications. This flexibility reduces inventory and insures the correct parts are in stock.
› Nitrile diaphragms for all-weather operation (-40 to 200°F) and a beaded diaphragm lobe to eliminate air leaks found in many competitive valves.
› Robust zinc casting with integral mounting flange and di-chromate coating makes the valve highly resistant to damage and corrosion.
› Small size and optional push-in fittings make installation easy.
› Competitively priced and interchangeable with other brand valves.

Adjustable Linkage

› Common trailer suspension linkage used by several OE manufacturers.
› Linkage can be cut to obtain desired length (19” maximum).
› Easy to assemble and install.

Adjustable Looped Linkage

› Common truck/trailer suspension linkage used by several OE manufacturers.
› Adjustable link end allows for easy installation.
› Fixed looped end provides durability.
› Linkage can be cut to obtain desired length (48100374 - 16” max.; 48100375 - 22” max.)

Adjustable Strap Linkage

› Common trailer suspension linkage used by several OE manufacturers.
› Linkage can be welded at desired length to avoid field adjustment issues (14” maximum).
Scale-O-Matic

**Model SMD-111**
- Enclosed manual switch, pilot valve and silicone filled gauge.
- One height control valve system with manual lowering of suspension.

**Model SM-140-2**
- Enclosed silicone filled gauge with calibration decal. Plumbing out the bottom of the enclosure.
- One height control valve system with calibration decal and economical round enclosure.

**Model SM-115**
- Enclosed manual switch with silicone filled gauge. Plumbing out the left side of the enclosure.
- One height control valve system with manual lowering of suspension or control of air release of slider pins.

**Model SM-115-2**
- Enclosed manual switch with silicone filled gauge. Plumbing out the left side of the small enclosure.
- One height control valve system with manual lowering of suspension or control of air release of slider pins.

**Model SM-130**
- Silicone filled gauge with calibration decal.
- One height control valve system with calibration decal for quick reading of vehicle loads.

**Model SM-115-1**
- Enclosed manual switch with silicone filled gauge. Plumbing out the bottom of the enclosure.
- One height control valve system with manual lowering of suspension or control of air release of slider pins.

**Model SM-140-1**
- Enclosed silicone filled gauge with calibration decal. Plumbing out the back of the enclosure.
- One height control valve system with calibration decal for quick reading of vehicle loads.

**Model AC-9014**
- Enclosed regulator and silicone filled gauge.
- Auxiliary axle control system with regulated air for air spring pressure control.

**Model SM-115-2**
- Enclosed manual switch with silicone filled gauge. Plumbing out the left side of the small enclosure.
- One height control valve system with manual lowering of suspension or control of air release of slider pins.

**Model AC-9088**
- Enclosed manual switch.
- Self-relieving manual switch to activate dump valves or Haldex Pilot Valves.

**Model AC-9014**
- Enclosed regulator and silicone filled gauge.
- Auxiliary axle control system with regulated air for air spring pressure control.

**Model AC-9088**
- Enclosed manual switch.
- Self-relieving manual switch to activate dump valves or Haldex Pilot Valves.

**Model AC-9014**
- Enclosed regulator and silicone filled gauge.
- Auxiliary axle control system with regulated air for air spring pressure control.
ILAS® III Valve (Integrated Lift-Axle System)

Fully pneumatic lift axle control valve - Manual and automatic versions provide flexibility with any lift axle application.

› ILAS®III (Integrated Lift-Axle System) provides precise operation of lift axles for commercial vehicles and trailers.
› Manual version automatically lowers lift axle; lift axle is manually raised.
› Automatic version automatically lowers and lifts the lift axle.
› Integrated mounting holes and solid structure allow for easy installation.
› ILAS®III replaces many lift axle systems which typically require multiple components and fittings.
› Fitting Kit RN21BA (includes five threaded PTC fittings).

ILAS® E Valve (Integrated Lift-Axle System)

New member in the ILAS® family of valves specially developed for electronically controlled lift axles

› ILAS®E offers a cost effective installation for electronically controlled lift axles.
› Simplified solutions reduce components and fittings.
› ILAS®E higher air flow provides faster response time of the lift axle.
› Use with Haldex Trailer Roll Stability (TRS) or with manual electric switch.
› Available with Push-To-Connect (PTC) fittings.
› DIN-Bayonet electrical connection.
› Programmable through TRS for raising and lowering lift axle.

COLAS®

› Manual raise/lowering hand valve for commercial vehicles and trailers.
› COLAS® works with Single or Dual Height Control Valve systems.
› Solid structure allows for horizontal or vertical installation and external mounting.
› Optional automatic return to ride height makes COLAS® valve error proof.
› One component and fewer fittings compared to four components and nine fittings in past kits.
› Available with Push-To-Connect (PTC) fittings.
   - 96555270 (3/8” PTC fittings)
   - 90555292 (1/4” PTC fittings)
   - 62101007 (COLAS®E Kit with 3/8” PTC fittings)
Haldex develops and provides reliable and innovative solutions with focus on brake and air suspension products to the global commercial vehicle industry. Listed on the Stockholm Stock Exchange, Haldex has annual sales of approximately 3.9 billion SEK and employs about 2,200 people.

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