GeminiMDx®
air treatment

Double
duty.

Transit &
Vocational
Applications
Manifold Dual Dryer
high-capacity air drying system

90% of moisture, contaminants and oil hydrocarbons are collected and eliminated from air flow before dryer treatment.

Collected contaminants are expelled from the system with the next brake application.

Manifold design eliminates complex plumbing and potential leak points.

Parallel DRYest® air dryers feature Haldex MTC+ to dry and clean brake system air.

Integrated components such as heaters and turbo protection valves simplify service and improve reliability.

System is pre-assembled on a custom hanging mounting bracket for fast and easy installation and service.

Optional left-or-right mount of the dual Consep™ condenser/seperator accommodates your vehicle’s current configuration.

Pretreatment of compressor air doubles the life of the system’s desiccant.

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Compact assembly

Compact manifold design saves undercarriage space for flexible installation and service. Only ½” of vertical clearance above the canister housing is required to change out the twin desiccant cartridges of the GeminiMDx.

<table>
<thead>
<tr>
<th>With pre-treatment</th>
<th>Without pre-treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>53 lb.</td>
<td>40 lb.</td>
</tr>
<tr>
<td>20” W</td>
<td>14” W</td>
</tr>
<tr>
<td>15” H</td>
<td>13” H</td>
</tr>
<tr>
<td>12” D</td>
<td>10” D</td>
</tr>
</tbody>
</table>

Designed to deliver, GeminiMDx doubles up on air volume and quality – and doubles down on efficiency and ergonomics.
No air dryer gets air drier.

We doubled up.

Haldex built the GeminiMDx® system for the frequent braking needs of our transit and vocational customers. GeminiMDx doubles a brake system’s air treatment capacity – but the advantages don’t end there.

GeminiMDx also pre-treats airflow with its Consep™ dual condenser/separator to remove up to 90% of contaminants before the air moves to the dryers – doubling the life of the system’s desiccant.

Parallel Haldex DRYest® air dryers, with our patented MTC+ multi-treatment cartridges, dry and clean the air to help protect downstream brake system parts from corrosion, freezing and other damage.

And then, we doubled down.

The manifold design of the GeminiMDx eliminates excess weight, leak points, hoses and complex plumbing to bolster reliability.

Built-in turbo protection valves, heaters and muffler/drain tubes improve performance, reliability and operating economy.

Factory assembly and leak-testing, a light-weight customizable hanging bracket and optional left-right mount of the condenser/separator cut installation and service time.

Combining air capacity and cleaning with reliable Haldex technologies, flexible design and low initial and life cycle costs makes the GeminiMDx greater than the sum of its parts.

High capacity, low cost, reliable performance and the cleanest air of any dual air treatment system
Consep™

Dual Haldex Consep condenser/separators accomplish three critical functions for air system performance: they condense the air from the compressor, separate contaminants from the air, and then expel the contaminants from the system.

Each Consep employs a centrifugal air path in which the air is cooled, and contaminants are forced out. Condensate liquid is collected and automatically drained by the integrated drain valve at the next brake application.

Consep pre-treatment safeguards the air system and doubles the life of the system’s desiccant cartridge, extending ROI.

MTC+

The patented, 5-stage MTC+ multi-treatment cartridge inside the dual air dryers remove up to 99% of any remaining moisture in the air, for a clean and dry air supply to downstream parts and components.

MTC+ air quality helps protect hoses, valves, actuators and other parts and components from corrosion, freezing and lubricant loss by eliminating destructive moisture and petroleum hydrocarbons from system air.

DRYest®

Handling up to 70 SCFM, two parallel Haldex DRYest air dryers support frequent braking, urban routes, heavy loads, extra axles and other severe duty, high air flow applications.

The rugged DRYest design compounds reliability and ROI by integrating the turbo protection valve, governor, regeneration valve, muffler and heater into the dryer.

The takeaway: twice the capacity of a single-dryer system, with double the service interval and half the lifetime service costs of a dual-dryer system.

For more information on the many features and benefits of the GeminiMDx manifold dual dryer system, contact your Haldex sales professional or visit haldex.com

Proven Haldex technologies combine through engineering to deliver the finest high-capacity air treatment system in transit.
Other air dryers come up short.

- Can’t keep up with high demand applications
- Lack of pre-treatment to remove carbon, oil, dirt and other contaminants, which cause air dryer desiccant to degrade
- Moisture in air system affects brake performance and results in frozen air lines
- Service is required often, and is time-consuming and ineffective, resulting in increased downtime, and higher maintenance costs
- Replacing a desiccant cartridge doesn’t restore original performance, and complete dryer assemblies are often replaced

GeminiMDx goes long.

- Exceeds Cummins & WABCO 2010 Flow Capacity Standards
- Allows for up to 70 SCFM
- Unmatched performance with dual configurations
- Filters and dries the air flow to extend the life of downstream parts and components
- Customizable with multiple configurations
- Pre-assembled on mounting brackets with quick-change desiccant cartridges for easy installation and removal
- Greater reliability with elimination of fittings and tubes reducing potential leak points

Other air dryers fail to catch all the moisture and contaminants (such as petroleum hydrocarbons) that can accumulate in the air system, causing corrosion, freezing, failed seals and other damage.

The integrated dryer design and sturdy manifold construction of the GeminiMDx eliminate complex plumbing for simple installation, fast service, and high reliability.
Original equipment manufacturers and aftermarket leaders are discovering the advantages of the GeminiMDx from Haldex.

<table>
<thead>
<tr>
<th>GeminiMDx Part Number / Description Listing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part Number</strong></td>
</tr>
<tr>
<td>102494DM</td>
</tr>
<tr>
<td>102494DN</td>
</tr>
<tr>
<td>41092749</td>
</tr>
<tr>
<td>41092750</td>
</tr>
<tr>
<td>41176281</td>
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<tr>
<td>41176282</td>
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<td>41178240</td>
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<tr>
<td>41183400</td>
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<tr>
<td>47110020</td>
</tr>
<tr>
<td>47110021</td>
</tr>
<tr>
<td>DQ6121</td>
</tr>
<tr>
<td>DQR0001</td>
</tr>
</tbody>
</table>

*Consep connector is rotated 180 degrees under the dryer; **SKF replacement

Replacement Parts / Retrofit Components:
Options and Specifications:

System mounting bracket allows for left or right side placement of the pre-treatment condenser/separator to accommodate your vehicle’s configuration and simplify installation.

<table>
<thead>
<tr>
<th></th>
<th>Pre-treatment &amp; drying</th>
<th>Pre-treatment only</th>
<th>Drying only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight, lb.</td>
<td>53 w / mounting bracket</td>
<td>11</td>
<td>40</td>
</tr>
<tr>
<td>Envelope, in.</td>
<td>20” W x 15” H x 12” D</td>
<td>6” W x 12” H x 8” D</td>
<td>14” W x 13” H x 10” D</td>
</tr>
<tr>
<td>Inlet/outlet ports</td>
<td>¾” – 14 NPT</td>
<td>¾” – 14 NPT</td>
<td>¾” – 14 NPT</td>
</tr>
<tr>
<td>Control port</td>
<td>¼” – 18 NPT</td>
<td>n/a</td>
<td>¼” – 18 NPT</td>
</tr>
<tr>
<td>Purge port</td>
<td>¼” – 18 NPT</td>
<td>n/a</td>
<td>¼” – 18 NPT</td>
</tr>
<tr>
<td>Maximum working pressure, PSIG</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Safety valve, PSIG</td>
<td>160</td>
<td>n/a</td>
<td>160</td>
</tr>
<tr>
<td>Ambient temp., °F</td>
<td>-40 – 176</td>
<td>-40 – 176</td>
<td>-40 – 176</td>
</tr>
<tr>
<td>Maximum inlet air temp., °F</td>
<td>176</td>
<td>176</td>
<td>176</td>
</tr>
<tr>
<td>Recommended inlet air temp., °F</td>
<td>+40 – 150</td>
<td>+40 – 150</td>
<td>+40 – 150</td>
</tr>
<tr>
<td>Air flow capacity, SCFM</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Minimum purge volume, in.³</td>
<td>600</td>
<td>n/a</td>
<td>600</td>
</tr>
<tr>
<td>Electrical power</td>
<td>24 VDC / 1.0A • 12 VDC / 2.0 A</td>
<td>24 VDC / 4.0 A • 12 VDC / 8.0 A</td>
<td></td>
</tr>
<tr>
<td>Drain capacity</td>
<td>1.3cc per ADV / Operation</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Drain options</td>
<td>Swivel tube, open</td>
<td>Muffler, tube</td>
<td></td>
</tr>
</tbody>
</table>

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The best replacement air treatment you can buy is also the best original air treatment you can specify.
Serving double duty to the environment.

Texas Disposal Systems.

Texas Disposal Systems (TDS) is a leading resource management company with an integrated facility featuring solid waste disposal, compost and recycling operations. Their mission is to reduce landfilling, improve communities and protect the environment.

In a recent year, TDS diverted more than 471 million pounds from the landfill through composting and recycling – the equivalent of approximately one million cubic yards of waste.

Among its many roles, TDS is a transportation company, maintaining a fleet of hundreds of collection vehicles, 18-wheel transfer trucks and heavy equipment in landfill applications.

For their hardworking fleet, TDS relies on the superior air treatment and high capacity of the Haldex GeminiMDx air dryer system, which also helps TDS reduce the waste of service hours, parts life and money to preserve reliability and value.

TDS Director of Maintenance Harold Graves tells it this way:

“Here at Texas Disposal Systems, we like to be on the cutting edge of doing all the right things with all the right products. We’ve recently joined up with Haldex to use some of their products that we use downstream of the air compressor.

We’re very happy with the GeminiMDx and the coalescent filter attached to it that gives us the highest quality, driest air available, not allowing any contaminants into the system.

We don’t waste any extra man-hours changing the product out, and we’re particularly happy with the total cost of ownership. The GeminiMDx air dryer is what we think is the best available air dryer on the market.

We like to use the highest quality products available, and that’s why we partner with Haldex.”

To learn more about GeminiMDx, contact your Haldex sales professional.