

## **AIR DRYER APPLICATION GUIDELINE**

The following Application Guideline is a point system that is calculated based on Vehicle Configuration and Vocation Options. Fill in points accordingly — on each line — and refer to Pages 2-3 for dryer selections. If a particular entry is not valid for an application, then enter <u>ZERO</u> (0) on that line. Refer to Pages 4-6 for example applications.

Vehicle Configuration	+ Add or - Subtract	Points Total
1. Vehicle is equipped with bulk offloading or central tire inflation.		See Note 1
2. For every axle (tractor and trailer – including lifts):	+ 1.0 point	
3. For each non-steerable lift axle (additional points):	+ 1.0 point	
4. For each steerable lift axle (additional points):	+ 0.5 point	
5. Tractor and/or trailer is equipped with air suspension:	+ 0.5 point	
6. Air dryer equipped with Bendix <sup>®</sup> PuraGuard <sup>®</sup> cartridge:	- 0.25 point	
7. For each tractor axle (any type) with Bendix <sup>®</sup> Air Disc Brakes (ADB): *Point credit for ADB is based on right-sizing the reservoirs according to FMVSS 121.	- 0.25 point	
Vocation Options (choose the one that best fits)		
8. Vehicle is used as a city transit bus.		See Note 2
9. Vehicle is used for pickup & delivery.		
a) Non-fuel hauler:	+ 0.5 point	
b) Fuel hauler:	+ 1.0 point	
10. Vehicle is used for residential refuse.	+ 4.5 point	
11. Vehicle is used for rural or commercial refuse.	+ 1.0 point	
12. Vehicle is used as a dump truck or concrete mixer.	+ 1.0 point	
13. Vehicle is used for logging or construction.	+ 1.0 point	
14. Vehicle is used for line haul.		
a) Single trailer:	0 point	
b) Pulling three (3) to five (5) axles on any trailer/dolly combination:	- 1.5 point	
c) Pulling six (6) or more axles on any trailer/dolly combination:	- 2.5 point	
15. Add lines 1-14, round up to the nearest 0.5 point, use this value on Page 3.		

<sup>1</sup>Vehicles equipped with either bulk offloading or central tire inflation are required to use two air dryers with a Bendix<sup>®</sup> EverFlow<sup>®</sup> controller assembly. No points need to be calculated. Refer to Page 2 for proper dryer selection.

<sup>2</sup> Requires an Extended Purge version of the air dryer or a Bendix<sup>®</sup> AD-HFi<sup>™</sup> with interrupted charge function (Bendix<sup>®</sup> AD-9<sup>®</sup> EP, AD-9si<sup>®</sup> EP, AD-1P<sup>®</sup> EP, AD-HF<sup>™</sup>, and AD-HF i<sup>™</sup> EP). No points need to be calculated. Refer to Pages 2 & 3 for proper air dryer selection.



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Application			Increasi	ng Perfor	mance	Bend	lix <sup>®</sup> Air Dryers
			AD-SP®	AD-9 <sup>®</sup> , AD-9si <sup>®</sup> AD-IP <sup>®</sup> , AD-HF <sup>®6</sup> AD-HFi™	AD-9 <sup>®</sup> EP, AD-9si <sup>®</sup> EP, AD-IP <sup>®</sup> EP, AD-HF <sup>®</sup> EP <sup>6</sup> AD-HFi™, AD-HFi™ EP	Tandem Installed Dryers⁴ or a single AD-HFi™ EP	Bendix <sup>®</sup> EverFlow <sup>®</sup> Assembly⁵
	Highway Travel Coach / RV	N/R		$\checkmark$			
<b></b>	City Transit Bus	N/R			$\checkmark$		
	Air/Hydraulic	N/R	<b>√</b> <sup>3</sup>	✓			
	School Bus City / Rural Route	N/R	<b>√</b> <sup>3</sup>	~			
	Fire Truck	2-6		✓			
		6.5-9			$\checkmark$		
	Pick-up & Delivery	2-6	<b>√</b> <sup>3</sup>	~			
	Fuel Hauler	6.5-9			$\checkmark$		
	(Non-Bulk Offloading)	9.5-13				~	$\checkmark$
Parison P TO	Line Haul	2-6	<b>√</b> <sup>3</sup>	~			
	Line Haui	6.5-9			$\checkmark$		
	Rural and Commercial Refuse / Yard and Terminal Jockey	2-4		~	$\checkmark$		
	Residential Refuse (with and without Work Brake)	6.5-9			$\checkmark$		
	Duran Tarah (Caranata Misan	2-6		$\checkmark$			
	Dump Truck / Concrete Mixer	6.5-9			$\checkmark$		
	Off Highway (Construction (	2-6		~			
	Off-Highway / Construction /	6.5-9			$\checkmark$		
		9.5-13				✓	$\checkmark$
0000 700	Bulk Offloading	N/R					$\checkmark$
	Central Tire Inflation	N/R					✓
Reserv	oir Drainage Frequency		Check	Monthly	Мо	nthly / 4000 Mil	es

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Bendix <sup>®</sup> AD-9 <sup>®</sup> / AD-9si <sup>®</sup> / AD-IP <sup>®</sup> / AD-HF <sup>®</sup> Air Dryers	Point Totals																
Standard Purge																	
Extended Purge																	
Tandem Installed Dryers																	
EverFlow <sup>®</sup> Assembly																	
Points	2	3	4	5	6	6.5	7	8	9	9.5	10	11	12	13	14	15	16 or above
Electronic Controlled Air Dryers	Point Totals																
AD-HFi™ Standard Purge																	
AD-HFi™EP (Extended Purge)																	
Points	2	3	4	5	6	6.5	7	8	9	9.5	10	11	12	13	14	15	16 or above

The application chart is for reference only. If your vehicle does not fall into these specifications, contact Bendix Engineering or the Bendix Tech Team at 1-800-AIR-BRAKE (1-800-247-2725), option 2.

N/R – Not Required – Application is not dependent on point totals.

<sup>3</sup> When selecting a Bendix<sup>®</sup> AD-SP<sup>®</sup> air dryer, note this dryer is intended for servicing low-demand air systems. For example, Line Haul applications are limited to single tandem axle trailers.

<sup>4</sup> Tandem dryers must be matched models (i.e. two Bendix<sup>®</sup> AD-HF<sup>®</sup> or two Bendix<sup>®</sup> AD-9<sup>®</sup> air dryers, etc.). Both dryers must be extended purge versions. A single Bendix<sup>®</sup> AD-HFi™ EP will also meet the requirements of these applications.

<sup>5</sup> There is no required compressor charge time or purge time. Operation is controlled through the Bendix<sup>®</sup> EverFlow<sup>®</sup> module.

<sup>6</sup> The Bendix<sup>®</sup> AD-HF<sup>®</sup> air dryer's predecessor is the Bendix<sup>®</sup> AD-IS<sup>®</sup> air dryer.

# AIR DRYER APPLICATION GUIDELINE USAGE EXAMPLES



A typical single axle, line haul vehicle:

- Tractor air suspension.
- Three (3) axles total.
- Bendix<sup>®</sup> PuraGuard<sup>®</sup> air dryer.
- Two (2) tractor axles with ADB.

Example #1: Typical Line Haul Application	
Vehicle Configuration	Points
1. Not Applicable	0
2. Total number of all axles	+ 3.0
3. Total number of non-steerable lift axles	0
4. Total number of steerable lift axles	0
5. Tractor is equipped with air suspension	+ 0.5
6. Air dryer equipped with a Bendix <sup>®</sup> PuraGuard <sup>®</sup> cartridge	- 0.25
7. Total number of tractor axles with Bendix <sup>®</sup> Air Disc Brakes (ADB)	- 0.50
Vocation Options	· · · · · ·
8, 9, 10, 11, 12, 13 Not Applicable	0
14. Standard line-haul hauling single trailer	0
Total [ 3.0 + 0.5 - 0.25 - 0.50 ] = 2.75 points	3.0*

\* Rounded up according to note in line item 15 on page 1

Selection choices include: Bendix<sup>®</sup> AD-SP<sup>®</sup>, AD-9<sup>®</sup>, AD-9si<sup>®</sup>, AD-IP<sup>®</sup>, AD-HF<sup>®</sup>, or AD-HFi™ air dryers.



A 4x2 line haul vehicle pulling		А	4x2	line	haul	vehicle	pulling
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- Two (2) single axle trailers.
- One (1) single axle dolly.
- Tractor air suspension.
- Five (5) axles total.

Example #2: Line Haul Pulling Single Axle Double	
Vehicle Configuration	Points
1. Not Applicable	0
2. Total number of all axles	+ 5.0
3. Total number of non-steerable lift axles	0
4. Total number of steerable lift axles	0
5. Tractor is equipped with air suspension	+ 0.5
6. Air dryer equipped with a PuraGuard cartridge	0
7. Total number of tractor axles with Air Disc Brakes (ADB)	0
Vocation Options	
8, 9, 10, 11, 12, 13 Not Applicable	0
14. Vehicle is used for line haul (3-5 axles)	-1.5
Total [ 5.0 + 0.5 – 1.5 ] = 4.0 points	4.0

Selection choices include: Bendix<sup>®</sup> AD-9<sup>®</sup>, AD-9si<sup>®</sup>, AD-IP<sup>®</sup>, AD-HF<sup>®</sup>, or AD-HFi™ air dryers. NOTE: A Bendix<sup>®</sup> AD-SP<sup>®</sup> air dryer is not acceptable in this application.

## AIR DRYER APPLICATION GUIDELINE USAGE EXAMPLES

A bulk gravel hauling vehicle:

- Two (2) non-steerable lift axles.
- Truck equipped with air suspension.
- Seven (7) axles total.



Example #3: Bulk Gravel Hauler	
Vehicle Configuration	Points
1. Not Applicable	0
2. Total number of all axles	+ 7.0
3. Total number of non-steerable lift axles	+ 2.0
4. Total number of steerable lift axles	0
5. Tractor is equipped with air suspension	+ 0.5
6. Air dryer equipped with Bendix <sup>®</sup> PuraGuard <sup>®</sup> cartridge	0
7. Total number of tractor axles with Bendix <sup>®</sup> Air Disc Brakes (ADB)	0
Vocation Options	
8, 9, 10, 11, 14 Not Applicable	0
12. Vehicle is used as a dump truck	+ 1.0
13. Vehicle is used for construction	+ 1.0
Total [7.0 + 2.0 + 0.5 + 1.0 + 1.0] = 11.5 points	11.5

#### Selection choices include tandem installation of

Bendix<sup>®</sup> AD-9<sup>®</sup> EP, AD-9si<sup>®</sup> EP, AD-IP<sup>®</sup> EP, or AD-HF<sup>®</sup> EP air dryers or a single AD-HFi<sup>™</sup> EP air dryer.

A fuel delivery vehicle:

- Tractor air suspension.
- One (1) non-steerable lift axle.
- Seven (7) axles total.



Example #4: Fuel Hauler (Equipped with Bulk Offloading)				
Vehicle Configuration	Points			
1. Vehicle is equipped with bulk offloading, no points need to be calculated	N/R			
Total points = $N/R$ (Not Required)				

NOTE: Use Bendix<sup>®</sup> EverFlow<sup>®</sup> air dryer assembly.

## **AIR DRYER APPLICATION GUIDELINE USAGE EXAMPLES**

A fuel delivery vehicle:

- Tractor air suspension.
  - One (1) non-steerable lift axle.
  - Seven (7) axles total.

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Example #5: Fuel Hauler (NOT Equipped with Bulk Offloading)	
Vehicle Configuration	Points
1. Not Applicable	0
2. Total number of all axles	+ 7.0
3. Total number of non-steerable lift axles	+ 1.0
4. Total number of steerable lift axles	0
5. Tractor is equipped with air suspension	+ 0.5
6. Air dryer equipped with Bendix <sup>®</sup> PuraGuard <sup>®</sup> cartridge	0
7. Total number of tractor axles with Bendix® Air Disc Brakes (ADB)	0
Vocation Options	
9. Vehicle is a fuel hauler	+ 1.0
8, 10, 11, 12, 13, 14 Not Applicable	0
Total [7.0 + 1.0 + 0.5 + 1.0] = 9.5 points	9.5

#### Selection choices include tandem installation of

Bendix<sup>®</sup> AD-9<sup>®</sup> EP, AD-9si<sup>®</sup> EP, AD-IP<sup>®</sup> EP, or AD-HF<sup>®</sup> EP air dryers or a single AD-HFi™ EP air dryer.



A fuel delivery vehicle:

- Tractor air suspension.
- One (1) non-steerable lift axle.
- Seven (7) axles total.
- Bendix PuraGuard cartridge.
- Three (3) tractor axles with ADB.

Example #6: Fuel Hauler (NOT Equipped with Bulk Offloading)	
Vehicle Configuration	Points
1. Not Applicable	0
2. Total number of all axles	+ 7.0
3. Total number of non-steerable lift axles	+ 1.0
4. Total number of steerable lift axles	0
5. Tractor is equipped with air suspension	+ 0.5
6. Air dryer equipped with PuraGuard cartridge	- 0.25
7. Total number of tractor axles with Air Disc Brakes (ADB)	- 0.75
Vocation Options	
9. Vehicle is a fuel hauler	+ 1.0
8, 10, 11, 12, 13, 14 Not Applicable	0
Total [7.0 + 1.0 + 0.5 - 0.25 - 0.75 + 1.0] = 8.5 points	8.5

Selection choices include: Bendix<sup>®</sup> AD-9<sup>®</sup> EP, AD-9si<sup>®</sup> EP, AD-IP<sup>®</sup> EP, or AD-HF<sup>®</sup> EP, AD-HFi™ or AD-HFi™ EP air dryers.