

# Not all airbags are created equal...



## ...some are better than others

Well known across Europe as a leading distributor of brake discs and pads for heavy commercial vehicles, trailers and buses. All Juratek branded products have high standards of quality, durability and in-service performance, which is demanded at all levels of distribution in this very safety conscious market.

Our air springs are sourced globally from manufacturers to the original equipment market with ISO9001 and TS16949 and certificates of conformity.

All air spring mounting studs and air inlets are covered by protective caps. Where applicable, all our air springs are supplied complete with the relevant fixing kits.

**2 years  
unlimited mileage  
warranty on all air  
springs.**



# www.juratek.com

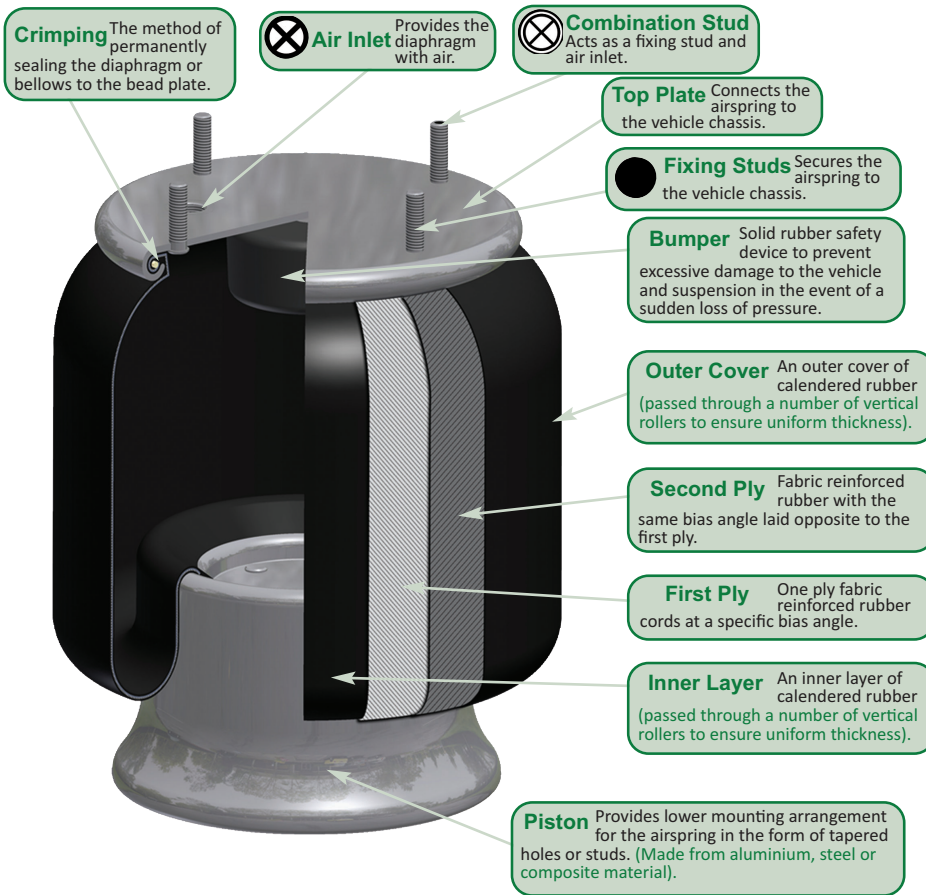


## Air Springs Quality Assurance

### Airspring assembly type (Rolling Lobe)

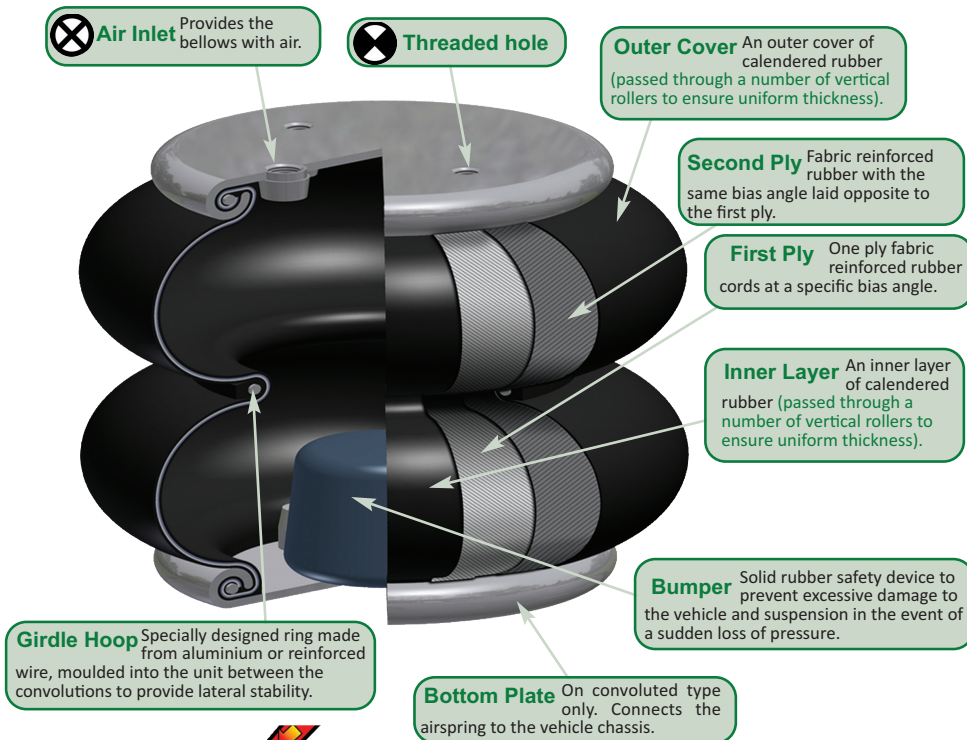
Rolling lobe air springs have a low natural frequency and a high degree of lateral flexibility. They also give high spring deflection or lift by means of length change without the need to change the diameter.

This advantage means that vehicle bodies can be raised or lowered with the aid of air springs used as axle springs, without additional equipment being required.



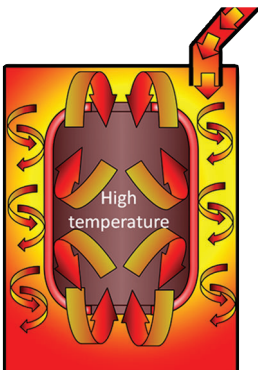
### Convolutated type

Convolutated air springs are characterised by a favourable height to spring deflection ratio (with this type of air spring a relatively high spring deflection can be achieved with the smallest amount of overall height). Usually found in double or triple configuration.



### Manufactured using high quality steam process

Our air springs are produced by a superior manufacturing process which is a reliable steam production method. This method ensures extended service life, durability and constant quality to the rubber diaphragms.



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# JURATEK®

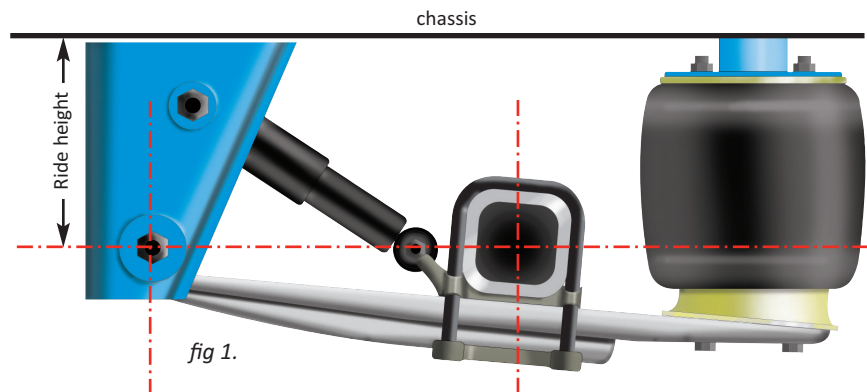
## Air Springs Quality Assurance

Juratek air springs are sourced globally from manufacturers to the original equipment market with IS9001 and TS16949 and certificates of conformity. The quality processes in place will ensure our products give you a long and efficient service life.

However to ensure you get the maximum life out of Juratek air springs the following routine inspection should be carried out.

### Routine inspection

- Check all air lines for leaks.
- Check air springs have enough clearance when inflated.  
Mis-aligned suspension parts rubbing on the air spring will cause the diaphragm or bellow to wear away.
- Check the original specification for the suspension's ride height as in fig 1.  
This should be maintained to protect the air springs and shock absorbers from over extension.
- Check the diaphragm or bellow for irregular wear, natural wear or outside interference.
- Clean the diaphragm or bellow with a non-petroleum based solution.
- Check the piston, on rolling lobe type air springs, for sharp edges or settlement of dirt or foreign bodies.
- Check shock absorbers for over extension, bush wear and fluid loss.  
If the unit can be easily compressed or extended it will not function correctly.  
If the vehicle has recently been in use the shock absorber should be warm to the touch, if this is not the case, the unit may need to be replaced.
- Check all torque settings are correct to original specification.
- Check height control valve function.
- Mounting fixing bolts and nuts should be replaced every time.



### Preventative maintenance - listed below are items that can be checked when the vehicle is in for periodic maintenance.

1. Inspect the outer diameter of the air spring. Check for signs of irregular wear or heat cracking.
2. Inspect air lines to make sure contact doesn't exist between the air line and the outer diameter of the air spring. Air lines can rub a hole in the air spring bellow.
3. Check to see that there is sufficient clearance around the complete circumference of the air spring while at its maximum diameter.
4. Inspect the outer diameter of the piston for build up of foreign materials. (On a reversible sleeve style air spring, the piston is the bottom component of the air spring).
5. Correct ride height should be maintained. All vehicles with air springs have a specified ride height established by the OE manufacturer. This height, which is found in your service manual, should be maintained within 1/4 inch. This dimension can be checked with the vehicle loaded or empty.
6. Leveling valves (height control valves) play a large part in ensuring that the total air spring system works as required. Clean, inspect and replace if necessary.
7. Make sure you have the correct shock absorbers and check for leaking hydraulic oil and worn or broken end connectors. If a broken shock absorber is found, replace it immediately. The shock absorber will normally limit the rebound of an air spring and prevent it over extending.
8. Check the tightness of all mounting hardware (nuts and bolts). If loose retorque to the OE manufacturer's specifications. Do not over tighten.
9. When cleaning use only approved cleaning methods. (these include; soap, water, methyl alcohol, ethyl alcohol and isopropyl alcohol).



**Never attempt to service the air suspension while the air spring is inflated.**

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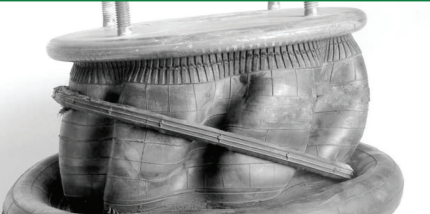

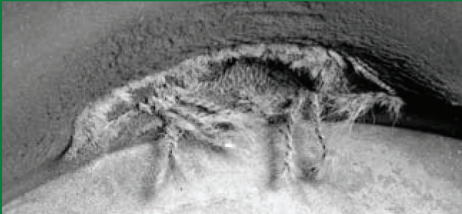
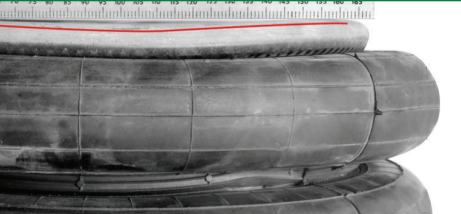
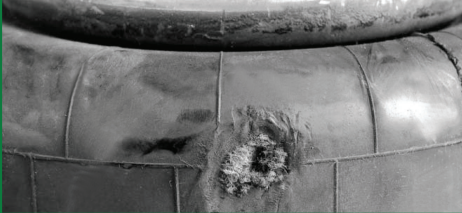


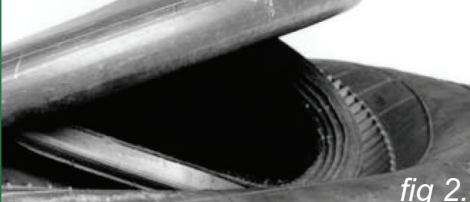
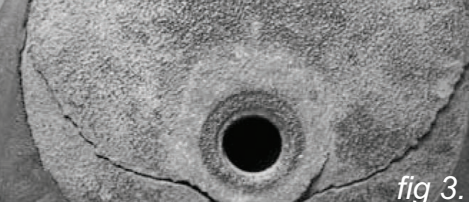
However, failures sometimes occur. The information below is designed to help when determining the cause of air spring failure.

The vast majority of premature failures and consequent warranty returns are found not to be caused by faulty products, but are caused by a lack of suspension maintenance, incorrect installation or other associated problems.

Before installing a new air spring, it is recommended to carefully examine the cause of the failure. If the cause is not rectified, this will result in the failure of the newly installed air spring.

The information below is a guide to the most common air spring failures and are **NOT COVERED BY WARRANTY**.

### Air springs - troubleshooting

Loose girdle hoop		Circumferential abrasion	
	<b>Appearance</b> <ul style="list-style-type: none"> <li>Rubber bellows distorted.</li> <li>Girdle hoop torn loose.</li> </ul>		<b>Appearance</b> <ul style="list-style-type: none"> <li>Hole in diaphragm or bellow below bead plate.</li> </ul>
<b>Possible Cause</b>	<ul style="list-style-type: none"> <li>Running at extended positions with low air pressure.</li> </ul>	<b>Possible Cause</b>	<ul style="list-style-type: none"> <li>Misaligned bump stop.</li> <li>worn suspension bushes.</li> <li>incorrect installation.</li> </ul>
Chafing between bead plate and bellow		Bottoming out	
	<b>Appearance</b> <ul style="list-style-type: none"> <li>Hole in diaphragm or bellow at bead plate junction.</li> </ul>		<b>Appearance</b> <ul style="list-style-type: none"> <li>Bead plate concave (see red line).</li> <li>Internal bumper loose.</li> <li>Hole in girdle hoop area.</li> </ul>
<b>Possible Cause</b>	<ul style="list-style-type: none"> <li>Misaligned bump stop.</li> <li>Worn suspension bushes.</li> <li>Incorrect installation.</li> </ul>	<b>Possible Cause</b>	<ul style="list-style-type: none"> <li>Broken or defective shock absorber.</li> <li>Defective levelling valve.</li> <li>Overloaded vehicle.</li> <li>Pressure regulator set too low.</li> <li>Incorrect air spring fitted.</li> </ul>
Abrasion		Circumferential cuts	
	<b>Appearance</b> <ul style="list-style-type: none"> <li>Hole rubbed into side of bellow/ diaphragm.</li> </ul>		<b>Appearance</b> <ul style="list-style-type: none"> <li>Bellows cut along bead plate junction.</li> <li>Bellows cut along piston junction.</li> </ul>
<b>Possible Cause</b>	<ul style="list-style-type: none"> <li>Structural interference (broken shock absorber, loose air line, misalignment, worn bushes).</li> <li>No air pressure (rolling lobe type).</li> <li>Foreign material.</li> <li>Incorrect air spring fitted.</li> </ul>	<b>Possible Cause</b>	<ul style="list-style-type: none"> <li>Running at full extension with high air pressure for long periods of time.</li> <li>Impact in compressed position.</li> </ul>
Over extension			
			
<b>Appearance</b>	<ul style="list-style-type: none"> <li>Bead plate convex, especially around blind nuts or studs (fig 1.).</li> <li>Rubber bellows separated from bead plate (fig 2.).</li> <li>Leaking at blind nuts or studs (fig 3.).</li> <li>Leaking at end closure (fig 3.).</li> <li>Loose girdle hoop on convoluted style.</li> </ul>	<b>Possible Cause</b>	<ul style="list-style-type: none"> <li>Broken shock absorber.</li> <li>Incorrect shock absorber fitted.</li> <li>Defective levelling valve.</li> <li>Ride position set too high.</li> <li>Incorrect air spring fitted.</li> </ul>