



Commercial Vehicle Valve with ASC

for Stop-and-Go traffic, Delivery vehicles and high temperatures



The valves on vehicles used in **Stop-and-Go** traffic (e.g. for garbage collection, delivery tours, parcel services) are exposed at times to extreme operational demands, especially at high **ambient temperatures**. Through constant **acceleration** and **braking**, **high temperatures** are generated in tires, wheel and valve, which can lead to loss of air or complete failure of the valve

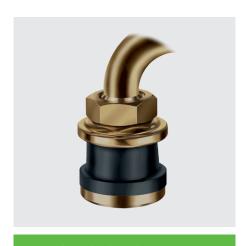
Possible consequences are:

- Increased fuel consumption
- Reduced tire lifespan
- **Tire malfunctions** with high consequential costs

On the TR571- TR573 Standard Valves there is no metal-on-metal contact between valve stem and rim. The seal absorbs the complete preload force when the valve is screwed on.

At high operational temperatures this can result in compression set: the compression of the rubber seal is reduced under temperature influences.

Through constant changing from driving force to braking force, the valve becomes deflected to some extent. All this can lead to the increased wear on the seal, gradual airloss, culminating in tire failure.



Standard seal used on TR571-573

ALLIGATOR offers a valve, which remedies these deficiencies.

Because of the often very big production tolerances for valve holes, a conventional O-ring seal was out of question for **ALLIGATOR**.

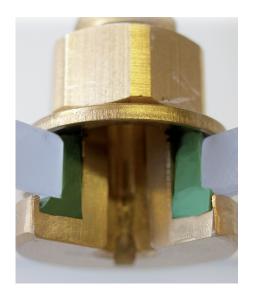
The **Advanced Sealing Concept** developed by **ALLIGATOR optimally** unites the required features of a solidly seated valve and at the same time better sealing, even in the case of large valve hole tolerances, in production or through already existent wear and tear.





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Instead of a simple O-ring, **ALLIGATOR** uses a **newly-developed rubber grommet** made of a special high-temperature resistant elastomer.

Due to a higher volume of rubber, as well as design features in the valve base, greater tolerance differences in the valve bore hole can be **compensated** for, compared with the 0-ring seal.

The danger of damaging the seal through a high tightening torque or through incorrect assembly is almost ruled out.

The Advanced Sealing Concept - an overview:

- Metal contact between wheel and valve stem prevents the deflection of the valve when loaded
 - ⇒ Abrasion/shearing of seal is not possible
- Predefined compression of the seal irrespective of the tightening torque ➤ No damage to the seal as the result of a too high tightening torque
- Temperature resistance of seal in a range from -55°C to +175°C, over +200°C is possible **short-term**
- The compensation of greater tolerance differences on the rim is less problematic, compared with the O-ring seal



Advantages:

- ✓ High temperature resistance even in extreme conditions
- ✓ Securely sealed
- ✓ Seal adjusts itself to the valve hole
- ✓ Seal less prone to damage during assembly due to over-torqueing
- ✓ Tight-fitting over a long period of use