



Frequently Asked Questions-Wastegates

1. Is my wastegate an Authentic TiALSport product?

We sure hope so! But for confirmation of authenticity please email a clear photo of the actuator cover, with serial number, to tech@tialsport.com and we will confirm for you. A list of confirmed counterfeit serial numbers is also published on our website at tialsport.com/index.php/authenticity

2. How do I decide which springs to use?

*Spring pack choice should generally be based on the control method choice, but typically the lowest boost pressure that would be desired is preferred as it is only possible to raise boost pressure with an external controller. Spring packs are included with MV-Series wastegates. F- and V-Series are pre-installed to a specified value. Full charts showing spring ratings and color-coding are listed on our website at tialsport.com/index.php/tech-wastegates. Spring rates are **not** determined by spring height.*

3. Why does my wastegate leak air through the valve?

It is perfectly normal for air to escape through the valve stem clearance during bench testing, as there is no positive seal installed between the valve stem and guide. This is engineered into the design and spring pack strategy, therefore during normal engine operation this has zero effect on wastegate function. The wastegate should not leak air through the upper diaphragm chamber.

4. What is the best way to test a wastegate?

We recommend testing wastegates prior to installation and after each spring change to confirm that the re-assembly was done correctly. The best method of testing is to use regulated shop air with an accurate gauge connected to the lower actuator port only. Slowly increase air pressure and monitor valve travel. The valve should begin to open (crack-off) near the compensated spring pack rating and should lift fully as air pressure is increased. Do not exceed 2bar during testing. The compensated spring pack rating is a different value than the spring pack as it assumes zero valve pressure during bench testing. This value will be a little higher than the spring pack rating due to lack of pressure area.

5. How do I connect the wastegate?

This is completely dependent on your control strategy, but we have simplified instructions, with photos, published on our website, at tialsport.com/documents/MV-Install-Guide.jpg While this diagram is specific to the MV-Series, the principle is the same across all external wastegate products with the exception of the V60D, which is designed for high-pressure gas control.

6. Do I need to connect the water-cooling ports?

The short answer is yes, you absolutely should take advantage of the water-cooling feature as it can significantly increase the wastegate lifespan. But if you cannot and are concerned about the application, contact tech@tialsport.com for further guidance.