



TiALSport wastegate static testing procedure and typical specifications.
 Refer to Page 2 for procedure and notes.

TiAL Wastegate Static Testing Worksheet			
	Spring colors up to 1/15/2012	Spring colors from 1/16/2012 forward	Typical static testing value*
MVS MVS-A MVS-A-R	GREY	BLACK	11.8
	COPPER	WHITE	9.9
	MAROON	BLUE	11.0
	GOLD	RED	7.8
	BEIGE	YELLOW	9.5
	BROWN	GREEN	5.3
MVR MVR-A-R	PLAIN	PLAIN	5.9
	GREY	BLACK	7.4
	COPPER	WHITE	6.2
	MAROON	BLUE	6.8
	GOLD	RED	4.9
	BEIGE	YELLOW	5.6
	BROWN	GREEN	3.1
F35 F38 F40 F41 F44 F46 V50 V60	LRG BLUE		16.5
	LRG GREEN		14.7
	LRG RED		13.0
	LRG YELLOW		11.3
	SMLL BLUE		9.5
	SMLL GREEN		7.8
	SMLL RED		5.9
	SMLL YELLOW		4.3



**TiALSport wastegate static testing procedure and typical specifications.
Refer to Page 1 for values.**

All TiALSport wastegate spring pressure charts assume a 1:1 backpressure: boost pressure ratio. As such, those published values are skewed low when performing static (bench) testing. For that reason we've published this worksheet to aid in correlating static testing to the spring pressure charts.

All testing assumes the wastegate is removed from the engine and no spring seat is installed. Cracking pressure is typically checked at 0.015-0.020" of valve movement.

Suggested test procedure:

- 1. Connect shop air, no greater than 4bar (60psi), to an adjustable regulator with a pressure gauge capable of reading from 0-30psi with 1psi graduations.**
- 2. Reduce air output to zero, then connect the air output to the Lower Air Port fitting on the wastegate with proper hose, sealing washers, and clamp(s) as required.**
- 3. Monitor valve movement while slowly increasing regulated air output until initial valve movement (see above) is noted.**
- 4. Compare the pressure value on the gauge to the Typical Specifications on the previous page.**
- 5. Continue to increase regulated air output. Confirm complete opening and smooth operation of the valve. DO NOT EXCEED 2BAR OF REGULATED AIR OUTPUT.**
- 6. Repeat steps 2-5 several times to confirm consistent operation.**

***Important Notes**

- It is perfectly normal for the air to leak from the valve stem and guide clearance.**
- The Typical Specifications table assumes zero air loss, so some variance can be expected.**
- The Typical Specifications table assumes an acceptable manufacturing tolerance in spring preload.**