

Wastegates/External Wastegate

TURBOSMART Gen-V WG60CG Power-Gate60 Compressed Gas



The Gen-V WG60CG Powergate60 Compressed Gas external wastegate is a cost effective, high performing 60mm external wastegate designed for control strategies that actively bias the top chamber with high pressure for large boost bandwidth operation, such as CO2 drag racing, or compressed air WRC applications. The Compressed Gas range feature an inverted diaphragm to maximise diaphragm life from high pressure CO2 or compressed air systems. The Gen-V provides extensive user configurability, world leading extended thermal performance, fatigue resistance and best in class flow performance for optimum control and longevity.

- Liquid cooling provision
- Strap type V-band clamps
- User adjustable actuator position
- Modular actuator design
- Non Compressed Gas configurations option available
- Inverted diaphragm for top chamber high pressure support

MECHANICAL DATA

Valve diameter	60mm
Mass	1526g
Actuator linearity	1.45% of full lift (BFSL)
Set pressure accuracy	+/- 0.5 psi of base pressure
Safe working pressure max.	220 psi / 1520 kPa / 15 bar
Safe inverted pressure max.	180 psi / 1250 kPa / 12.5 bar
Actuator life	500k cycles @ 180°C ambient 650k cycles @ 80°C ambient
Actuator/Valve ratio	1.6:1
Max. spring base pressure	5 psi / 35 kPa / 0.35 bar
Min. spring base pressure	3 psi / 21 kPa / 0.2 bar
Port fittings type	Air: 2x 1/8" NPT top chamber Air: 2x 1/8" NPT lower chamber Liquid Cooling: 2x 1/8" NPT
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THERMAL DATA

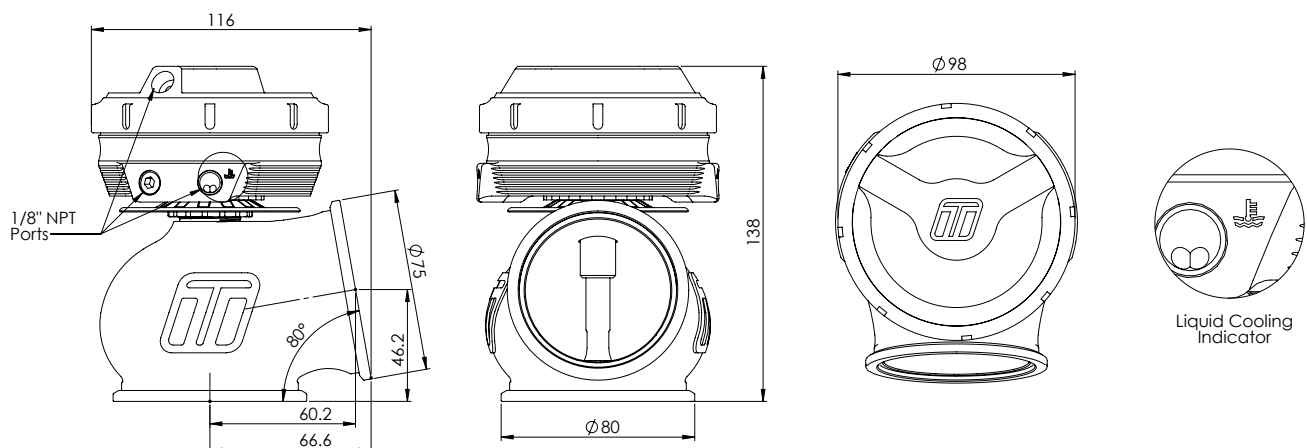
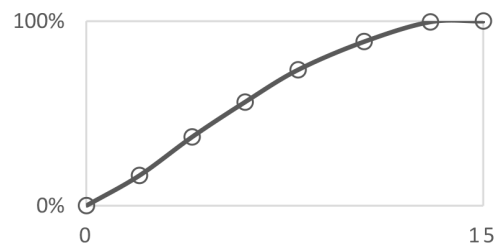
Max. thermal stress (non-cooled)*	>60min @ 1250°C EGT continuous
Max. thermal stress (h2O cooled)*	>24hr @ 1250°C EGT continuous
Max. ambient/compart ment temp.	260°C / 500°F
Max. actuator temp.	310°C / 590°F

MATERIAL DATA

Main Body	High temp 347 SS
Diaphragm	Proprietary Silicone w/ nomex
Actuator housing	6061 T6 anodised Al.
Valve Guide	Nitronic 60
Valve	EV8 w/ proprietary plating
V-Band	Heat treated 431 SS w/ 18-8 nut
Weld Flanges	304 Stainless Steel
Springs	17/7 PH Stainless Steel
Beryllium (Be)	0%

FLOW DATA

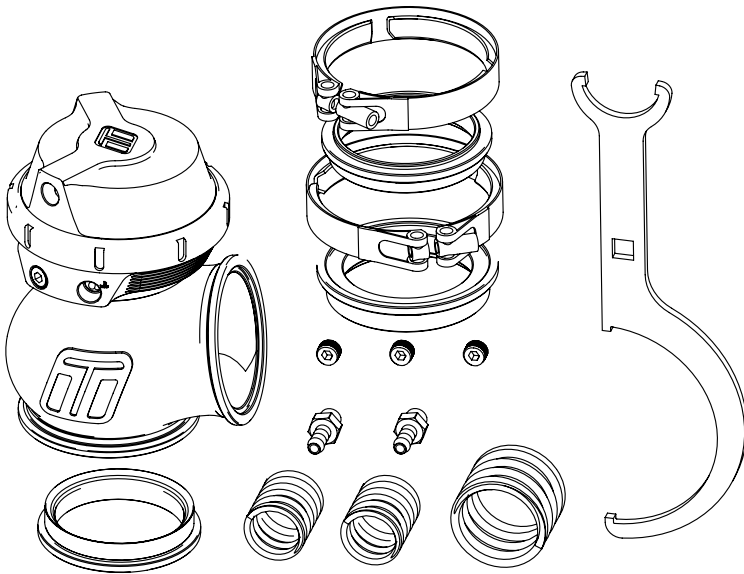
Max. Flow	360.9 CFM/10.22m³/min @1psidP
Flow Linearity	-12% of full lift (BFSL)



*Continual source of minimum 1250°C exhaust gas, with no cool down periods for at least 30minutes and no external air cooling on actuator, this is a destructive test that an ICE engine cannot support. Contact tech support for further information.

INCLUDED IN THE BOX

- Wastegate unit (pre-assembled with spring as per order)
- SS316 Valve seat
- Inlet V-Band
- Inlet SS304 weld flange
- Outlet V-Band
- Outlet SS304 weld flange
- Collar tool (master/slave)
- 17/7 PH 3, 5 psi spring kit (1x spring installed)
- 4x 1/8" NPT plugs (1x installed) / 2x 1/8" NPT nipples
- Sticker
- Instruction card



ORDER DATA

TS-0555-1201	Gen-V WG60 Powergate 60 5psi Compressed Gas Blue
TS-0555-1202	Gen-V WG60 Powergate 60 5psi Compressed Gas Black

ACCESSORIES

TS-0555-3001	WG60 Valve seat
TS-0555-3002	WG60 Valve and Guide set
TS-0555-3003	WG60 Inlet V-Band
TS-0555-3004	WG60 Outlet V-Band
TS-0503-3001	WG60 Stainless Inlet Weld Flange
TS-0503-3002	WG60 Stainless Outlet Weld Flange
TS-0503-3007	WG60 Alloy Inlet Weld Flange
TS-0503-3008	WG60 Alloy Outlet Weld Flange
TS-0550-3066	WG60 CG Sensor Cap Upgrade Kit Black (sensor included)
TS-0550-3067	WG60 CG Sensor Cap Upgrade Kit Blue (sensor included)
TS-0550-3061	WG60 CG Diaphragm Replacement Kit
TS-0550-3015	WG60 Actuator Collar Tool

Refer to website for further accessories

INSTALL REQ.

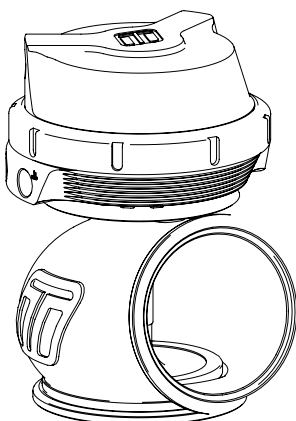
Inlet Pipe	Suits 63.5mm/2.50" OD
Outlet Pipe	Suits 63.5mm/2.50" OD
Port Tube Min. ID	6mm / 0.236"

SPRING DATA

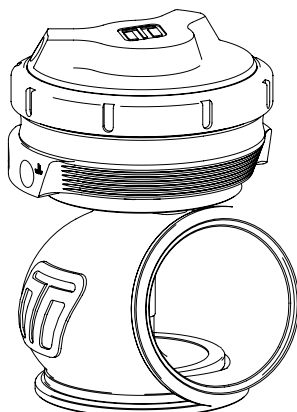
Wastegate Size	Spring Pressure			
	3psi	5psi		
WG60	Raw	Purple		

Boost Pressure	Location	Inner	Inner	Middle	Outer
	Pressure	3psi	5psi		
	3psi	•			
5psi		•			

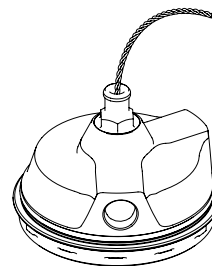
CONFIGURATIONS AVAILABLE



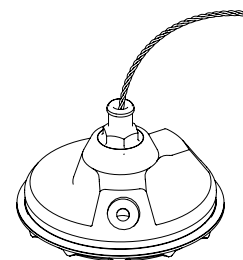
STANDARD



COMPRESSED GAS



SENSOR CAP



COMPRESSED GAS SENSOR CAP