

Gen V WG38 Ultragate38



The Gen-V WG38 Ultragate38 High Pressure external wastegate is a cost effective, high performing 38mm external wastegate designed for bolt on solutions where the 2-bolt flange is utilised. 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
- User adjustable actuator position
- Springs up to 50psi
- Modular actuator design
- Suitable for 2 bolt flange applications (71 mm spacing)

Mechanical Data

Valve diameter	38mm
Mass	860g
Linearity	-1.13% 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	750k cycles @ 180°C ambient 1000k cycles @ 80°C ambient
Actuator/Valve ratio	2.17:1
Max. spring base pressure	26 psi / 180 kPa / 1.8 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

Thermal Data

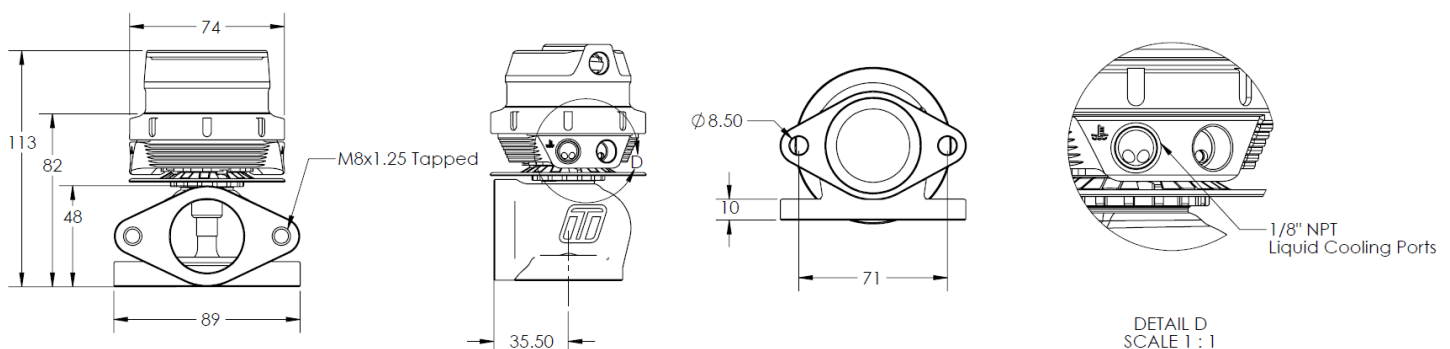
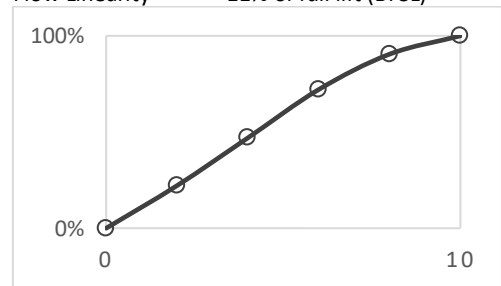
Max. thermal stress (non-cooled)*	>30min @ 1250°C EGT continuous
Max. thermal stress (h2O cooled)*	>24hr @ 1250°C EGT continuous
Max. ambient/compartament temp.	260°C / 500°F
Max. actuator temp.	310°C / 590°F

Material Data

Beryllium (Be)	0%
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	17-7PH Stainless Steel

Flow Data

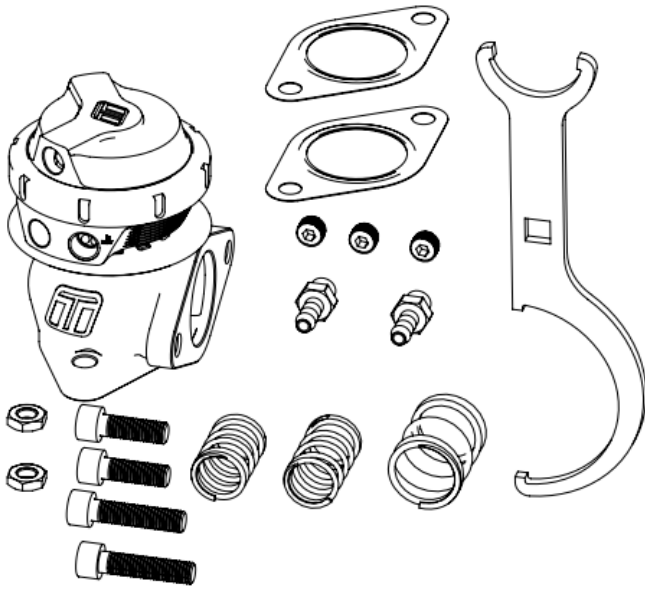
Max. Flow	116 CFM/3.28 m ³ /min @1psidP
Flow Linearity	-11% of full lift (BFSL)



*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
- WG38 SS manifold gaskets
- Mounting Bolts and Nuts
- Collar tool (master/slave)
- 17-7PH3,10, 25 psi spring kit (2x spring installed)
- 4x 1/8" NPT plugs (1x installed) / 2x 1/8" NPT nipples
- Sticker
- Instruction card



Order Data

TS-0551-1312 WG38HP GenV Ultragate 38 35psi Black

Accessories

- TS-0551-3001 WG38 Valve Seat
- TS-0551-3002 WG38 Valve & Guide Set
- TS-0501-3002 WG38 Manifold Gaskets
- TS-0501-2001 WG38 Weld Flanges - Stainless Steel
- TS-0552-2002 WG38 Weld Flanges - Mild Steel
- TS-0550-3001 74mm Spring Kit
- TS-0550-3022 74mm Sensor Cap Upgrade Black
- TS-0550-3023 74mm Sensor Cap Upgrade Blue
- TS-0550-3004 74mm Diaphragm Replacement Kit
- TS-0550-3013 74mm Actuator Collar Tool

Refer to catalogue for further accessories

Install Req.

- Inlet Pipe* 38.1mm / 1.5" OD – *Flange required
- Outlet Pipe* 38.1mm / 1.5" OD – *Flange required
- Port Tube 6mm / 0.236"
- Min. ID

Spring Data

Boost Pressure	Location	Middle	Outer	Outer
	Pressure	10psi	25psi	40psi
10psi		•		
25psi			•	
35psi		•	•	
40psi				•
50psi		•		•