

MOTORTECH Throttle Bodies

For **WAUKESHA® VHP G/GSI/LT** and
GL/GSID/LT/LTD Series Gas Engines



Gas Engine Control Systems



reliable



efficient



worldwide

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Based on its proven design, MOTORTECH offers a special throttle body series for WAUKESHA® VHP series in-line and V-engines. Designed as a replacement and plug-and-play solution, the throttle bodies perfectly fit the position of the original part below the intake manifold (VHP G/GSI/LT).

In addition and as an upgrade to the commonly used version, MOTORTECH completes the series with the ITB throttle body design for use on VHP G/GSI/LT and GL/GSID/LT/LTD series engines. The integrated stepper motor is extremely precisely actuated by the VariStep3 stepper motor driver and eliminates the use of an external actuator. Both, ITB throttle body and VariStep3 stepper motor driver, operate with the standard WOODWARD® 2301D speed governor or with the SC100 speed controller.



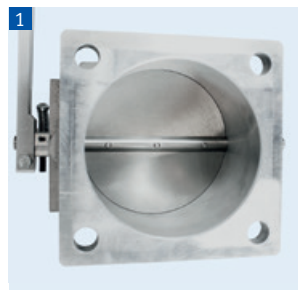
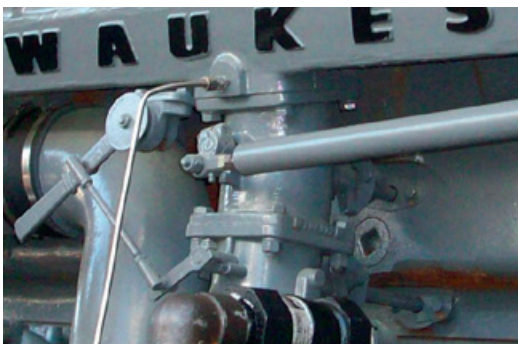
Throttle Bodies for WAUKESHA® VHP G/GSI/LT Series

General Features

- For use on naturally aspirated and turbocharged gas engines
- Use with various types of gas (natural gas, biogas, sewage gas, mine gas, etc.)
- The throttle body series covers a wide range of applications
- Butterfly diameter 4.19 inch (106.4 mm)
- Use of high-temperature ball bearings, designed for low-friction operation
- Additional sealing of the throttle body shaft for installation before and after the turbocharger
- Butterfly and shaft made of stainless steel
- Rigid design for long service life



Throttle Bodies for WAUKESHA® VHP GL/GSID/LT/LTD Series



Same flange sizes as original part



Identical design and shape for easy assembly

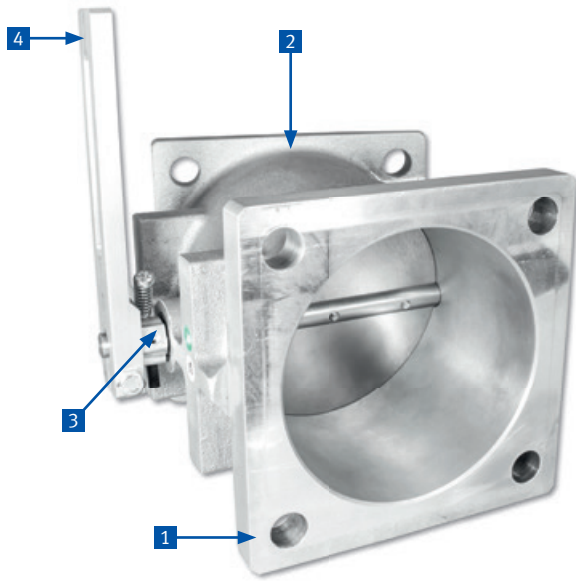
MOTORTECH Throttle Bodies



For **WAUKESHA® VHP G/GSI/LT Series**
6 & 12 Cylinder Gas Engines

Properties & Features

- Same design and shape for easy replacement of original part
- Reinforced shaft and butterfly valve made of stainless steel for high durability even when backfiring has occurred
- Use of ball bearings instead of plain bearings
- Including end stop and idle speed adjustment
- Lever for connection to the external actuator or integrated high-resolution stepper motor (ITB)
- High temperature resistant shaft seals
- Applicable for media such as natural gas and special gases
- Maintenance free product



End stop with adjustment screw for idle speed



Lever for connection to the external actuator



Integrated stepper motor



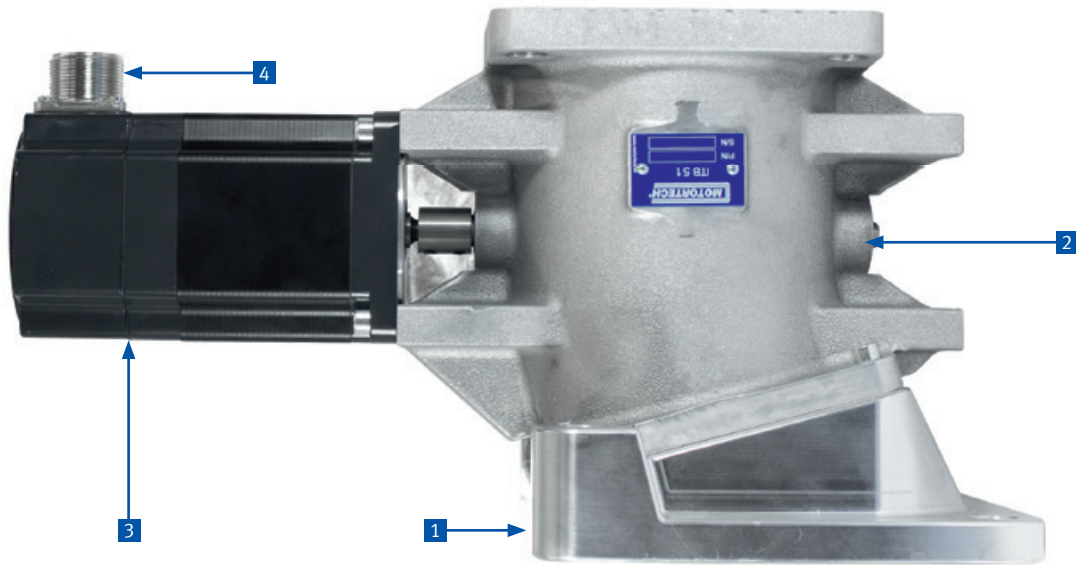
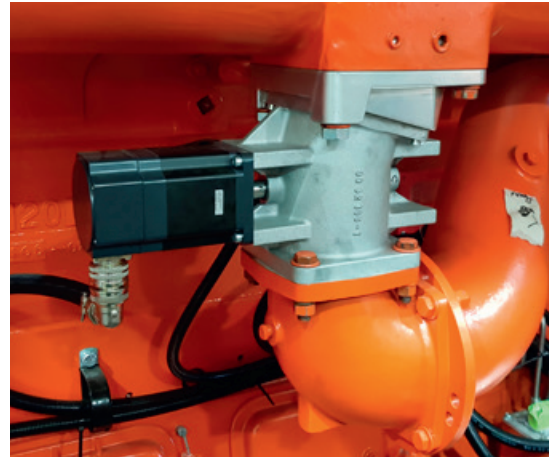
MIL style connector for connection to VariStep3 stepper motor driver

MOTORTECH ITB Throttle Bodies

For **WAUKESHA® VHP GL/GSID/LT/LTD Series**
12 Cylinder Gas Engines

Properties & Features

- Design and shape allow easy replacement of the original part
- Reinforced shaft and butterfly valve made of stainless steel for high durability even when backfiring has occurred
- Use of ball bearings instead of plain bearings
- Integrated high-resolution stepper motor
- High temperature resistant shaft seals
- Applicable for media such as natural gas and special gases
- Maintenance free product



Same flange sizes as original part



Design and shape allow easy assembly

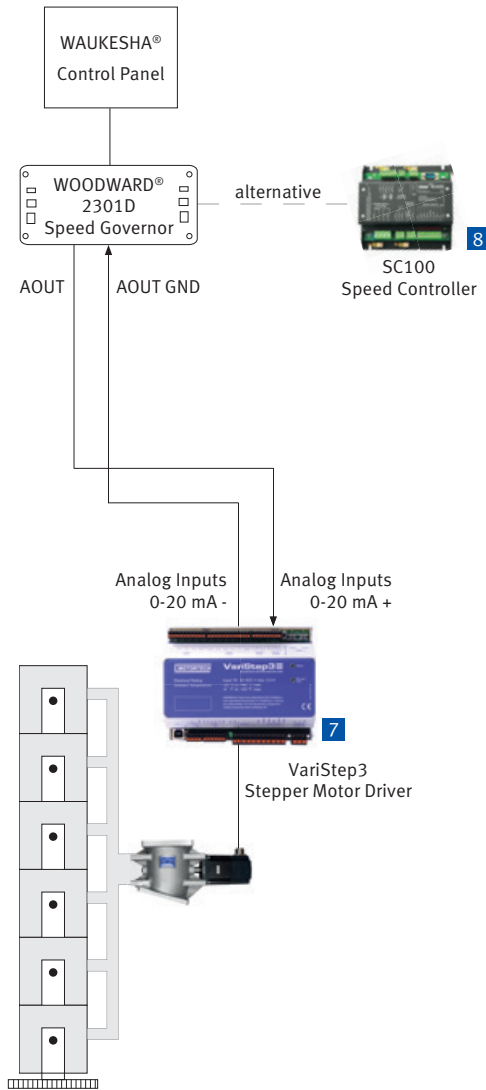


Integrated stepper motor

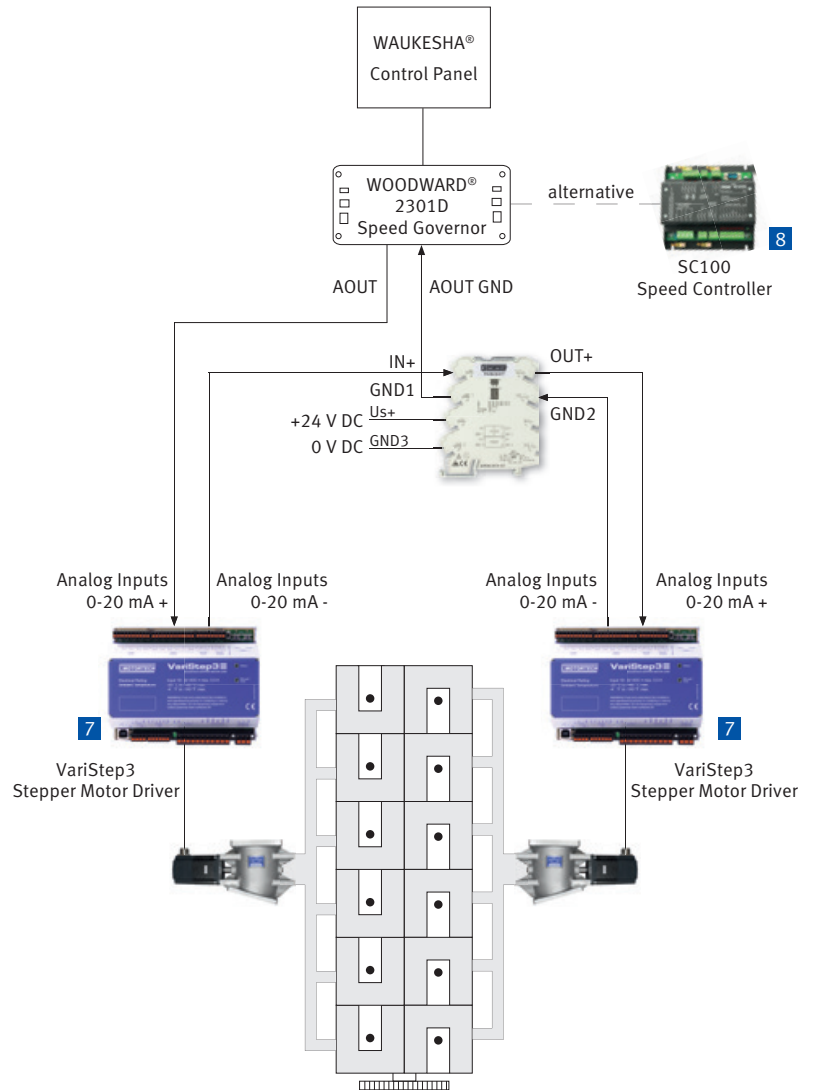


MIL style connector for connection to VariStep3 stepper motor driver

VHP 6 Cylinder In-Line Engines G/GSI/LT



VHP 12 Cylinder V-Engines G/GSI/LT and GL/GSID/LT/LTD



7 VariStep3 Stepper Motor Driver

The stepper motor driver control guarantees the ideal control of the throttle bodies with integrated stepper motor and the various types of MOTORTECH VariFuel2 air/gas mixers.

- Precise adjustment due to microstep operation
- Integrated CANopen and Modbus RTU interface
- Easy access to connectors and switches
- Configuration via MICT software
- Protection class IP 20

8 SC100 Speed Controller

The SC100 guarantees precise and fast speed control of industrial gas engines in variable load applications (island operation) and precise load control in mains parallel operation.

- Analog output signals 0 to 5 V/0 to 20 mA signal for stepper motor driver
- Actuator position feedback utilization
- Different setting options for island and mains parallel operation according to the required control parameters
- Protection class IP 20

Ordering Information

Ordering Information – Throttle Bodies – WAUKESHA® VHP G/GSI/LT Series

P/N	Description	Equivalent to
30.41.151-106-VHP-6	Throttle body for WAUKESHA® VHP 6 cylinder in-line engines F2895G/GSI, F3521G/GSI	E204072
30.41.151-106-VHP-12	Throttle body for WAUKESHA® VHP 12 cylinder V-engines L5108G/GSI, L5774LT, L5790G/GSI, L5794GSI, L7042G/GSI, L7044GSI, fits left and right bank	E204072, A204072, E204072A, A204072A, F204072A

Ordering Information – ITB Throttle Bodies & Accessories – WAUKESHA® VHP G/GSI/LT Series

P/N	Description	Quantity	To replace
75.30.148-6	ITB throttle body conversion kit for WAUKESHA® VHP 6 cylinder in-line engines F2895G/GSI, F3521G/GSI Contains: <ul style="list-style-type: none"> ■ ITB throttle body P/N 30.43.151-106-VHP-6 ■ Stepper motor harness P/N 31.01.942 ■ VariStep3 stepper motor driver P/N 31.01.960 	<ul style="list-style-type: none"> ■ 1 pc ■ 1 pc ■ 1 pc 	<ul style="list-style-type: none"> ■ E204072
alternative 75.30.149-6	ITB throttle body conversion kit for WAUKESHA® VHP 6 cylinder in-line engines F2895G/GSI, F3521G/GSI Contains: <ul style="list-style-type: none"> ■ ITB throttle body P/N 30.43.151-106-VHP-6 ■ Stepper motor harness P/N 31.01.942 ■ VariStep3 stepper motor driver P/N 31.01.960 Stepper motor driver built into stainless steel enclosure	<ul style="list-style-type: none"> ■ 1 pc ■ 1 pc ■ 1 pc 	<ul style="list-style-type: none"> ■ E204072
75.30.148-12	ITB throttle body conversion kit for WAUKESHA® VHP 12 cylinder V-engines L5108G/GSI, L5774LT, L5790G/GSI, L5794GSI, L7042G/GSI, L7044GSI Contains: <ul style="list-style-type: none"> ■ ITB throttle body P/N 30.43.151-106-VHP-12, fits left and right bank ■ Stepper motor harness P/N 31.01.942 ■ VariStep3 stepper motor driver P/N 31.01.960 ■ Isolation amplifier P/N 63.02.017 	<ul style="list-style-type: none"> ■ 2 pcs ■ 2 pcs ■ 2 pcs ■ 1 pc 	<ul style="list-style-type: none"> ■ E204072, A204072, E204072A, A204072A, F204072A
alternative 75.30.149-12	ITB throttle body conversion kit for WAUKESHA® VHP 12 cylinder V-engines L5108G/GSI, L5774LT, L5790G/GSI, L5794GSI, L7042G/GSI, L7044GSI Contains: <ul style="list-style-type: none"> ■ ITB throttle body P/N 30.43.151-106-VHP-12, fits left and right bank ■ Stepper motor harness P/N 31.01.942 ■ VariStep3 stepper motor driver P/N 31.01.960 ■ Isolation amplifier P/N 63.02.017 Stepper motor drivers and isolation amplifier pre wired and built into stainless steel enclosure	<ul style="list-style-type: none"> ■ 2 pcs ■ 2 pcs ■ 2 pcs ■ 1 pc 	<ul style="list-style-type: none"> ■ E204072, A204072, E204072A, A204072A, F204072A
optional 63.50.114	<ul style="list-style-type: none"> ■ SC100 speed controller to replace WOODWARD® 2301D speed governor 	<ul style="list-style-type: none"> ■ 1 pc per kit 	

Ordering Information



Ordering Information – ITB Throttle Bodies & Accessories – WAUKESHA® VHP GL/GSID/LT/LTD Series

P/N	Description	Quantity	To replace
75.30.159-12	<p>ITB throttle body conversion kit for WAUKESHA® VHP 12 cylinder V-engines L5774LTD, L5790GL, L5794GSID/LT/LTD, L7042GL, L7044GSID</p> <p>Contains:</p> <ul style="list-style-type: none"> ■ ITB throttle body P/N 30.43.153-106-VHP-R (right bank) ■ ITB throttle body P/N 30.43.153-106-VHP-L (left bank) ■ Stepper motor harness P/N 31.01.942 ■ VariStep3 stepper motor driver P/N 31.01.960 ■ Isolation amplifier P/N 63.02.017 	<ul style="list-style-type: none"> ■ 1 pc ■ 1 pc ■ 2 pcs ■ 2 pcs ■ 1 pc 	<ul style="list-style-type: none"> ■ E257472D ■ F257472D
alternative 75.30.160-12	<p>ITB throttle body conversion kit for WAUKESHA® VHP 12 cylinder V-engines L5774LTD, L5790GL, L5794GSID/LT/LTD, L7042GL, L7044GSID</p> <p>Contains:</p> <ul style="list-style-type: none"> ■ ITB throttle body P/N 30.43.153-106-VHP-R (right bank) ■ ITB throttle body P/N 30.43.153-106-VHP-L (left bank) ■ Stepper motor harness P/N 31.01.942 ■ VariStep3 stepper motor driver P/N 31.01.960 ■ Isolation amplifier P/N 63.02.017 <p>Stepper motor drivers and isolation amplifier pre wired and built into stainless steel enclosure</p>	<ul style="list-style-type: none"> ■ 1 pc ■ 1 pc ■ 2 pcs ■ 2 pcs ■ 1 pc 	<ul style="list-style-type: none"> ■ E257472D ■ F257472D
optional 63.50.114	<ul style="list-style-type: none"> ■ SC100 speed controller to replace WOODWARD® 2301D speed governor 	<ul style="list-style-type: none"> ■ 1 pc per kit 	

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All Products at a Glance!

For further Information about the MOTORTECH products get our product guide online.



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