

Gas Mixers for MAN Engines



Annular Gap Gas Mixers



Gas Mixers

- ✓ Easy to install
- ✓ Proven technology
- ✓ Cost effective
- ✓ Maintenance-free

HEINZMANN GAS MIXERS FOR MAN ENGINES

Gas mixers are an indispensable component of the fuel system. HEINZMANN mixers are easy to install, maintenance-free and convince with a very good price-performance ratio.

This is why HEINZMANN gas mixers with their proven technology are ideal for MAN gas engines.

HEINZMANN also supplies all further remaining components of the fuel system such as main adjusting screw, zero pressure regulator, throttle valve, speed and load control, AFR controls for stoichiometric as well as for lean burn, adaptors, levers, etc..

Gas mixers

KRONOS gas mixers are suitable for various gas types – natural gas, biogas, landfill gas, propane. They assure a very homogenous gas/air mixture and an optimal Air to Fuel Ratio (AFR) over the whole speed and load range, maintaining the pressure drop to a minimum thanks to the optimally shaped Venturi insert. Suitable for naturally aspirated and turbo charged engines.



Electronic gas valve “electronically controlled adjusting screw”

The electronic gas valve is mounted in the gas line after the zero pressure regulator and connected to the gas inlet of the gas mixer. This electronic valve allows to adjust and trim the required gas amount very precisely under all engine conditions.

With the V-shape design, the valve allows a very fine gas dosing in a big flow range.



Product Reference	Part Number
E-LES 30 SMC	472-00-024-00
E-LES 50 SMC	472-00-021-00
E-LES 80 SMC	472-00-022-00

Annular gap gas mixers

HEINZMANN GMA gas mixers are equipped with a variable annular gap for precise adjustment of the air/gas ratio for various types of gas (natural gas, biogas, landfill gas). The Venturi-shaped nozzle design guarantees only minimal pressure losses and a homogenous air/gas mixture over the whole speed and load range. Suitable for use on lean burn engines.



MAN E0834 E312 (Natural Gas, Lambda 1.5)

Venturi Gas Mixer GM 50	Product Reference	Part Number
Gas mixer housing	GM 50-01	461-80-000-00
Venturi insert natural gas*	VE-50-0421-24-S16-2,1	461-83-423-21

MAN E0834 E302 (Natural Gas, Lambda 1)

Venturi Gas Mixer GM 50	Product Reference	Part Number
Gas mixer housing	GM 50-01	461-80-000-00
Venturi insert natural gas*	VE-50-0421-24-S12-2,7	461-83-422-27

MAN E0834 LE302 (Natural Gas, Lambda 1.6 / Biogas 50 % CH₄, Lambda 1.4)

Venturi Gas Mixer GM 100	Product Reference	Part Number
Gas mixer housing	GM 100-01	462-80-000-00
Mounting plate	MP 100	462-19-002-02
Venturi insert natural gas*	VE-100-0541-36-K12-2,0	462-83-545-20
or		
Venturi insert biogas* 50 % CH ₄	VE-100-0541-36-K12-3,1	462-83-545-31

Annular Gap Gas Mixer AFR-Positioner	Product Reference	Part Number
Gap gas mixer annular	GMA 34	491-00-002-00
Cable harness (positioner w/o DcDesk connection cable) 5m		490-81-004-00



MAN E0834

MAN E0836 E302 (Natural Gas, Lambda 1)

Venturi Gas Mixer GM 50	Product Reference	Part Number
Gas mixer housing	GM 50-01	461-80-000-00
Venturi insert natural gas*	VE-50-0421-24-S12-2,7	461-83-422-27

MAN E0836 E312 (Natural Gas, Lambda 1.5)

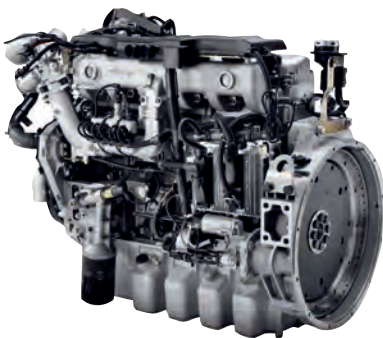
Venturi Gas Mixer GM 50	Product Reference	Part Number
Gas mixer housing	GM 50-01	461-80-000-00
Venturi insert natural gas*	VE-50-0421-24-S12-2,2	461-83-422-22

Annular Gap Gas Mixer AFR-Positioner	Product Reference	Part Number
Gap gas mixer annular GMA 30		491-00-003-00
Cable harness (positioner w/o DcDesk connection cable) 5m		490-81-004-00

MAN E0836 LE202 (Natural Gas, Lambda 1.6 / Biogas 50 % CH₄, Lambda 1.4)

Venturi Gas Mixer GM 100	Product Reference	Part Number
Gas mixer housing	GM 100-01	462-80-000-00
Mounting plate	MP 100	462-19-002-02
Venturi insert natural gas*	VE-100-0541-24-S12-2,9	462-83-542-29
or		
Venturi insert biogas* 50 % CH ₄	VE-100-0541-24-S12-4,5	462-83-542-45

Annular Gap Gas Mixer AFR-Positioner	Product Reference	Part Number
Gap gas mixer annular	GMA 42	492-00-002-00
Cable harness (positioner w/o DcDesk connection cable) 5m		490-81-004-00



MAN E0836

* For use with specified gas type and engines with 1500 rpm rated speed only. For any other application, please contact your local HEINZMANN dealer.

MAN E2876 E312 (Natural Gas, Lambda 1)

Venturi Gas Mixer GM 100	Product Reference	Part Number
Gas mixer housing	GM 100-01	462-80-000-00
Mounting plate	MP 100	462-19-002-02
Venturi insert natural gas*	VE-100-0541-24-S12-3,7	462-83-542-37

MAN E2876 TE302 (Biogas 50 % CH₄, Lambda 1.4)

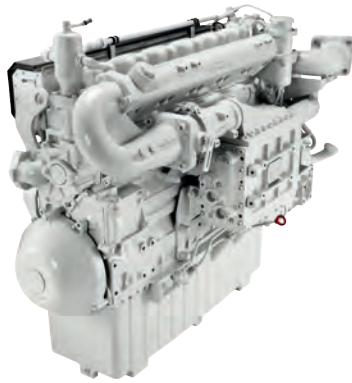
Venturi Gas Mixer GM 100	Product Reference	Part Number
Gas mixer housing	GM 100-01	462-80-000-00
Mounting plate	MP 100	462-19-002-02
Venturi insert biogas* 50 % CH ₄	VE-100-0541-24-S12-4,8	462-83-543-48

Annular Gap Gas Mixer AFR-Positioner	Product Reference	Part Number
Gap gas mixer annular	GMA 42	492-00-002-00
Cable harness (positioner w/o DcDesk connection cable) 5m		490-81-004-00

MAN E2876 LE302 / LE202 (Natural Gas, Lambda 1.6 / Biogas 50 % CH₄, Lambda 1.4)

Venturi Gas Mixer GM 140/76	Product Reference	Part Number
Gas mixer housing	GM 140-01	463-80-000-02
Mounting plate	MP 140-Rp2"	463-19-025-00
Venturi insert natural gas*	VE-140-0761-24-S16-4,2	463-83-763-42
or		
Venturi insert biogas* 50 % CH ₄	VE-140-0761-24-S16-6,4	463-83-763-64

Annular Gap Gas Mixer AFR-Positioner	Product Reference	Part Number
Gap gas mixer annular	GMA 58	493-00-002-00
Cable harness (positioner w/o DcDesk connection cable) 5m		490-81-004-00

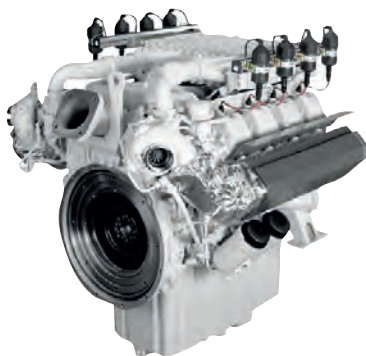


MAN E2876

MAN E2848 LE322 (Natural Gas, Lambda 1.6 / Biogas 50 % CH₄, Lambda 1.45)

Venturi Gas Mixer GM 140/76	Product Reference	Part Number
Gas mixer housing	GM 140-01	463-80-000-02
Mounting plate	MP 140-Rp2"	463-19-025-00
Venturi insert natural gas*	VE-140-0761-24-S12-4,4	463-83-762-44
or		
Venturi insert biogas* 50 % CH ₄	VE-140-0761-24-S12-6,5	463-83-762-65

Annular Gap Gas Mixer AFR-Positioner	Product Reference	Part Number
Gap gas mixer annular	GMA 65	493-00-003-00
Cable harness (positioner w/o DcDesk connection cable) 5m		490-81-004-00



MAN E2848

* For use with specified gas type and engines with 1500 rpm rated speed only. For any other application, please contact your local HEINZMANN dealer.



MAN E2842

MAN E2842 E312 (Natural Gas, Lambda 1)

Venturi Gas Mixer GM 140/70	Product Reference	Part Number
Gas mixer housing	GM 140-01	463-80-000-02
Mounting plate	MP 140-Rp2"	463-19-025-00
Venturi insert natural gas*	VE-140-0701-24-S12-5,0	463-83-702-50

MAN E2842 LE322 (Natural Gas, Lambda 1.6 / Biogas 50 % CH₄, Lambda 1.47)

Venturi Gas Mixer GM 200/100	Product Reference	Part Number
Gas mixer housing	GM 200-0100	464-80-000-00
Mounting plate natural gas	MP 200-Rp2"	463-19-025-00
Venturi insert natural gas*	VE-200-1001-36-K12-4,4	464-83-105-44
or		
Venturi insert biogas* 50 % CH ₄	VE-200-1001-36-K12-6,7	464-83-105-67
Mounting plate biogas	MP 200-Rp3"	464-19-002-00

Annular Gap Gas Mixer AFR-Positioner	Product Reference	Part Number
Gap gas mixer annular	GMA 82	494-00-002-00
Cable harness (positioner w/o DcDesk connection cable) 5m		490-81-004-00
Mounting plate natural gas	MP 200-Rp2"	463-19-025-00
Mounting plate biogas	MP 200-Rp3"	464-19-002-00



MAN E3268

MAN E3268 LE212 (Natural Gas, Lambda 1.6 / Biogas 50 % CH₄, Lambda 1.47)

Venturi Gas Mixer GM 200/100	Product Reference	Part Number
Gas mixer housing	GM 200-0100	464-80-000-00
Mounting plate natural gas	MP 200-Rp2"	463-19-025-00
Venturi insert natural gas*	VE-200-1001-24-S22-5,3	464-83-104-53
or		
Venturi insert biogas* 50 % CH ₄	VE-200-1001-24-S22-8,2	464-83-104-82
Mounting plate biogas	MP 200-Rp3"	464-19-002-00

Annular Gap Gas Mixer AFR-Positioner	Product Reference	Part Number
Gap gas mixer annular	GMA 82	494-00-002-00
Cable harness (positioner w/o DcDesk connection cable) 5m		490-81-004-00
Mounting plate natural gas	MP 200-Rp2"	463-19-025-00
Mounting plate biogas	MP 200-Rp3"	464-19-002-00

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MAN E3262 LE302 (Natural Gas, Lambda 1.6 / Biogas 50 % CH₄, Lambda 1.47)



MAN E3262

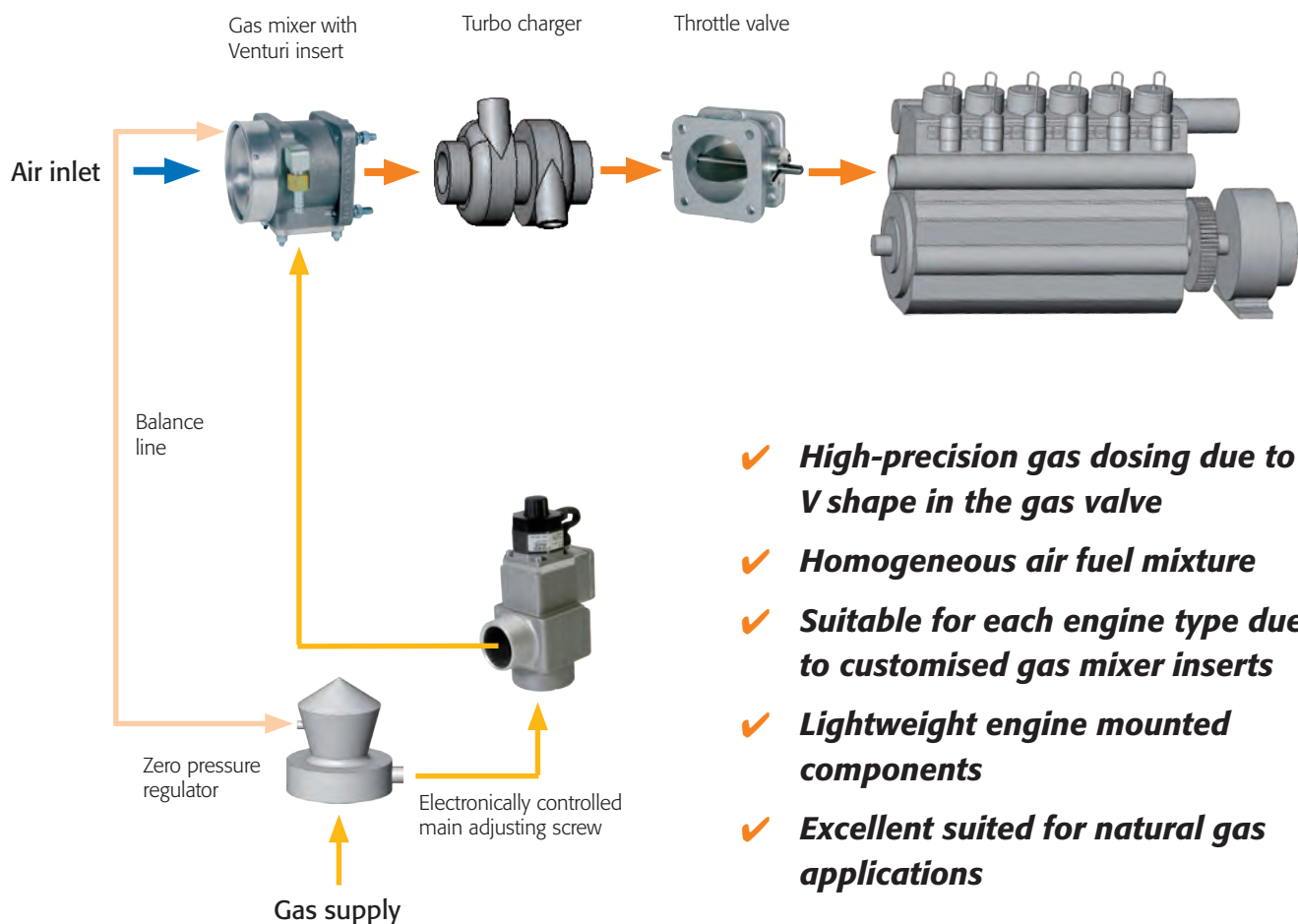
Venturi Gas Mixer GM 200/100	Product Reference	Part Number
Gas mixer housing	GM 200-0100	464-80-000-00
Mounting plate natural gas	MP 200-Rp2"	463-19-025-00
Venturi insert natural gas*	VE-200-1001-24-O-6,4	464-20-101-64
or		
Venturi insert biogas* 50 % CH ₄	VE-200-1001-24-O-8,7	464-20-101-87
Mounting plate biogas	MP 200-Rp3"	464-19-002-00

Annular Gap Gas Mixer AFR-Positioner	Product Reference	Part Number
Gap gas mixer annular	GMA 100	494-00-000-00
Cable harness (positioner w/o DcDesk connection cable) 5m		490-81-004-00
Mounting plate natural gas	MP 200-Rp2"	463-19-025-00
Mounting plate biogas	MP 200-Rp3"	464-19-002-00

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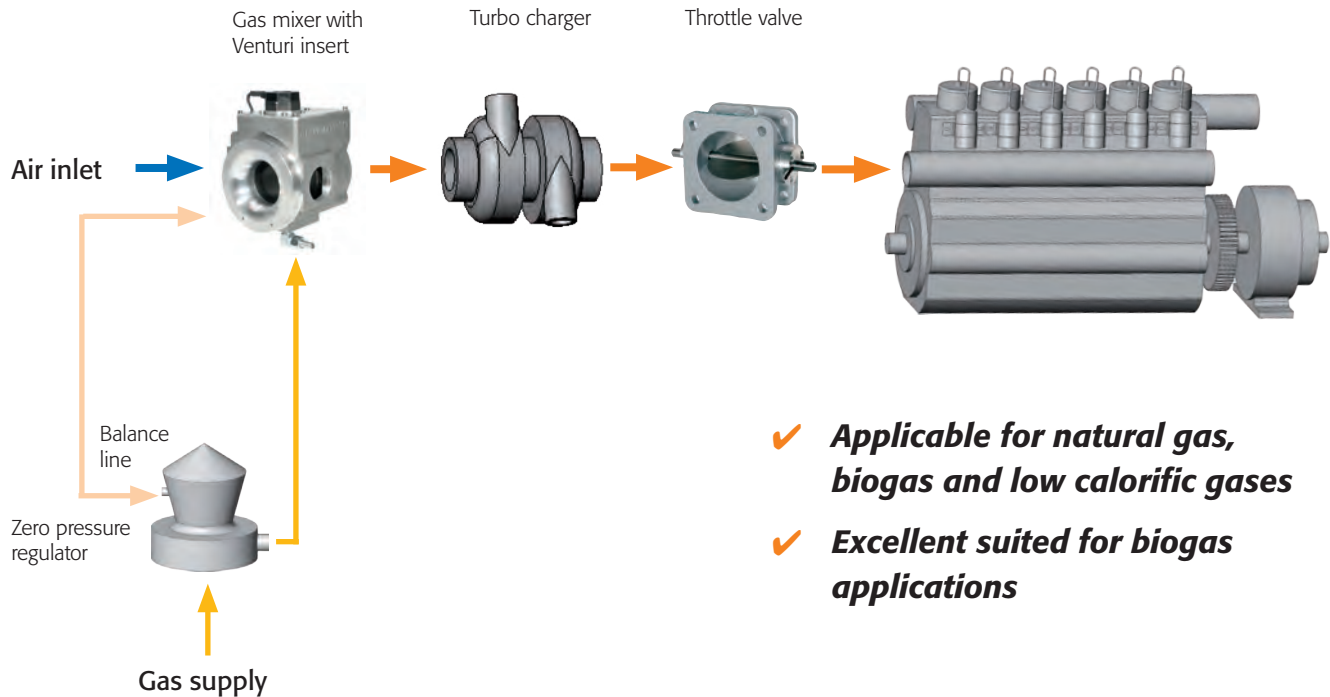
SYSTEM OVERVIEWS

System with gas mixer and electronic gas valve main adjustment screw



- ✓ **High-precision gas dosing due to V shape in the gas valve**
- ✓ **Homogeneous air fuel mixture**
- ✓ **Suitable for each engine type due to customised gas mixer inserts**
- ✓ **Lightweight engine mounted components**
- ✓ **Excellent suited for natural gas applications**

Annular gap gas mixer



Closed loop air fuel ratio control

The KRONOS 20 electrical air fuel ratio control allows speed/load dependent lambda values to be set within a certain range. Main advantage is a improved engine behaviour under all operating conditions.



Product Reference	Part Number
Open loop	620-00-118-00
Open loop with CH ₄ signal	620-00-118-06
Closed loop with load signal	620-00-118-01
Closed loop with lambda 1 sensor	620-00-118-04
Closed loop with NO _x sensor (connected via CAN SAE J1939)	620-00-118-07

Sensors

HEINZMANN sets very high standards for its sensors to ensure that they comply with the most stringent industrial standards and suit customers' needs even in the most severe environments.



Product Reference	Part Number
Manifold pressure and temperature sensor	600-00-082-00
Speed pick up IA 02-76 76 mm M16 x1.5	600-00-006-01
Speed pick up IA 12-76 76 mm 5/8" 18 UNF-2A	600-00-006-02
PUI-01 IA pick up splitter	300-00-175-00
Lambda 1 sensor LSM 11	010-80-020-00
NO _x sensor	010-80-090-00



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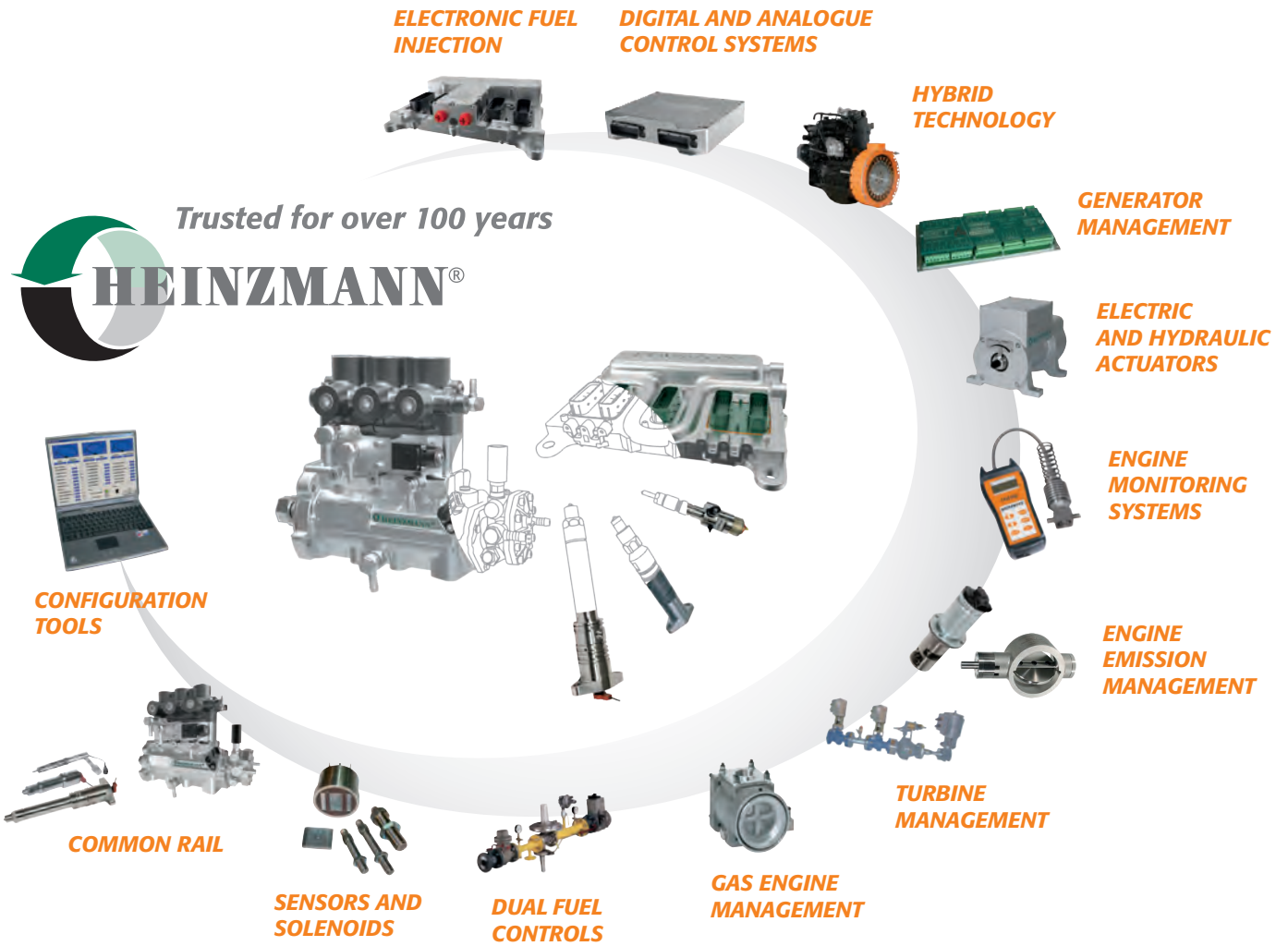
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