



Products Catalogue

 **VERSUS**[®] 
AUTO GAS equipment



Welcome!

We are designer, manufacturer and supplier of components and solutions for alternative fuels in the area of Gas Injection Systems automotive conversions.

From this catalogue you will learn about our range of products we have on offer.

FHT VERSUSGAS offers conversion kits for vehicles both for **LPG** as well as **CNG** fuel.

Controllers



Reducers



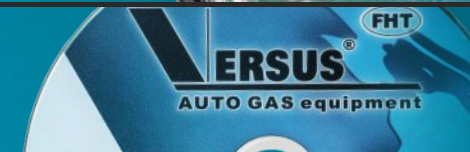
Injectors



Installation KIT's



Software



VERSUS[®] **FHT**
AUTO GAS equipment

V-Controller

High quality ECU

Part no.: EL.V4.OBD / EL.V6.OBD / EL.V8.OBD

Our V-series controllers contain the most advanced technology available today. We adopted proven, high-performance components and incorporated unique system solutions into our products. We ensure strict quality control on every stage of production process.

All V-controllers are equipped with powerful microprocessor which supports the built-in automatic correction system. This permits the controller to perfect parameters of the CNG/LPG injection in order to use it in any vehicle.

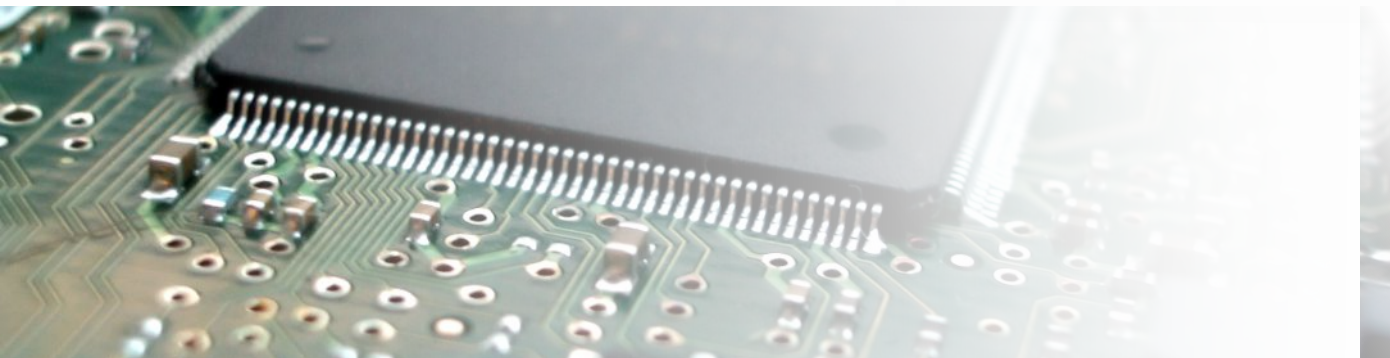
SCS Self-Calibration System

DSP Digital Signal Processing

Main features:

- Up to 70 MIPS DSP processor
- Aluminium housing
- Self-Calibration system supports automatic correction adjustments
- OBD communication available
- Integrated short-circuit protection
- Self-diagnostics and troubleshooting system
- 2x24 PIN connector
- Dimensions: 138 x 133,5 x 38 mm / 5.4 x 5.2 x 1.5 in

Available for 4 ,6, 8-cylinder engines



www.versusgas.com

+48 25 759 42 61

info@versusgas.com

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FHT Export-Import
ul. Szczecinska 16G
05-300 Minsk Mazowiecki, POLAND

VR-L Super

Super-charged LPG reducer up to 300 HP engine power

Part no.: RD.VLS.B

We designed VR-L Super reducer for the most sophisticated engines with high-efficiency output. This reducer is supplied with advanced Liquid Gas Heating System which ensures stable pressure regardless of system temperature. It also has Coil Group Valve built-in so there is no need to install another valve separately.

300 HP
Maximum Power

LGHS
Liquid Gas Heating System

CFD Designed using
Computational Fluid Dynamics

Main features:

- LPG gas type
- Aluminium alloy die cast
- Liquid Gas Heating System
- Working pressure: 1,2 bar (17.4 psi)
- Maximum power: 220 kW (300 HP)
- Working temperature range: -30/+120 °C (-22/+250 °F)
- LPG outlet external diameter: 14 mm
- LPG inlet diameter: 8 mm
- Engine coolant outlet/inlet diameter: 16 mm
- Supplied shut-off valve
- Dimensions: 135x 190x 130 mm / 5.3x7.5x5.1 in
- Body diameter: 100 mm / 4 in
- Dry weight: 1,9 kg (4.2 lbs)
- Approvals: ECE67R01
- **Aluminium water outlet/inlet** available



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VR-L Standard

Advanced LPG reducer for vehicles up to 200 HP

Part no.: RD.VL.B

The latest VR-L Standard reducer is designed according to the modern technological advances. Due to that factor, the most efficient temperature exchange values as well as optimal pressure performance are obtained. This has been proved by testing it in extreme conditions. The VR-L Standard reducer comes equipped with LPG solenoid, so there is no need to instal an additional valve. This hepls saving space in the engine compartment.

200 HP
Maximum Power



Low-temperature optimized

CFD

Designed using
Computational Fluid Dynamics

Main features:

- LPG gas type
- Aluminium alloy die cast
- Working pressure: 1 bar (14.5 psi)
- Maximum power: 150 kW (200 HP)
- Working temperature range: -30/+120 °C (-22/+250 °F)
- LPG outlet external diameter: 12 mm
- LPG inlet diameter: 6 mm
- Engine coolant outlet/inlet diameter: 16 mm
- Supplied shut-off valve
- Dimensions: 135x 190x 130 mm / 5.3x7.5x5.1 in
- Body diameter: 100 mm / 4 in
- Dry weight: 1,45 kg (3.2 lbs)
- Approvals: ECE67R01



- Aluminium water outlet/inlet available

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VRC-Tauros

Dedicated reducer for Sequential CNG Injection Systems

Part no.: RD.TAU.B

Tauros is high power, high performance pressure reducer dedicated to CNG Installations and can be installed in most types of vehicles. The reducer is equipped with sensitive 1-st stage reduction system that warrants stable output pressure regardless of any pressure variation coming from the tank. Thanks to its highly efficient two-stage gas flow control system, the most optimal CNG dosage is achieved in any driving condition.

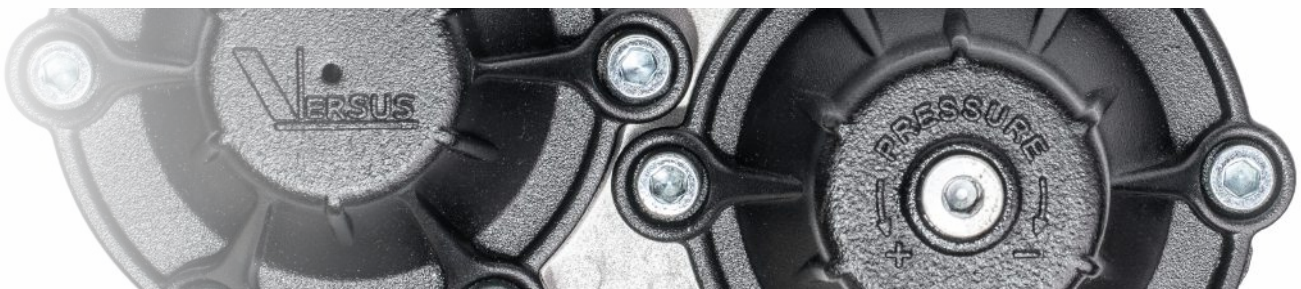
250 HP
Maximum Power

CNG
CNG optimized

CFD Designed using
Computational Fluid Dynamics

Main features:

- CNG gas type
- Aluminium alloy die cast
- Working pressure: 1,0 - 2,5 bar (14.5 - 36.3 psi)
- Maximum power: 180 kW (250 HP)
- Working temperature range: -30/+120 °C (-22/+250 °F)
- CNG outlet external diameter: 12 mm
- Engine coolant outlet/inlet diameter: 8 mm
- Supplied low-pressure shut-off valve
- Dimensions: 164 x 125 x 105 mm / 6.5 x 4.9 x 4.1 in
- Dry weight: 1,2 kg (2.6 lbs)
- Approvals: ECE110R00, ISO 15500-9



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Lynx

Compact & clean LPG reducer for small engines.

Part no.: RD.LX.BASIC

Thanks to a special lever system this reducer is characterized by very high resistance for any kind of dirtiness which comes from gas. Optimized gas flow guarantees high performance of this small device. Lynx weighs less than 1 kg. The reducer is equipped with internal gas filter and electrovalve, which makes its construction more compact. Small dimensions are obvious advantage for the installers as it allows to fix the reducer even in the smallest engine's chambers.



Lightweight and compact



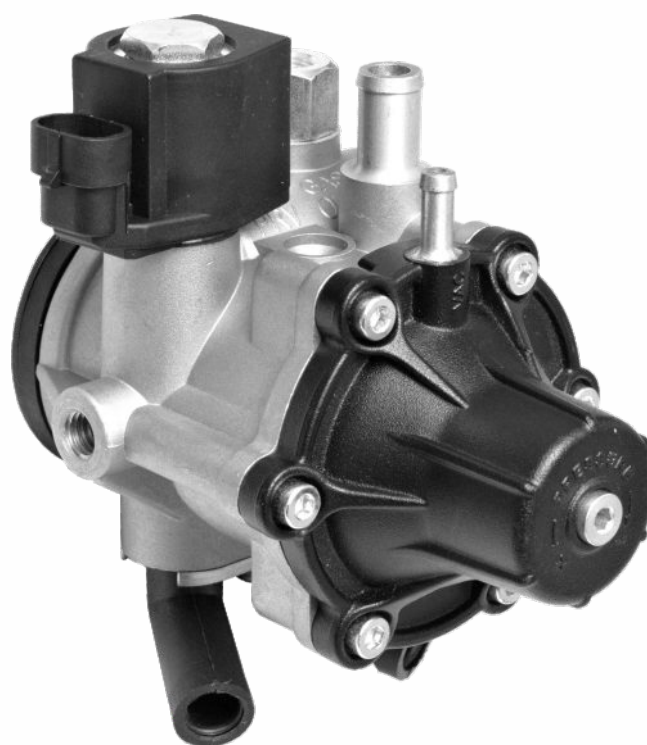
Low-temperature optimized



Designed using
Computational Fluid Dynamics

Main features:

- LPG gas type
- Aluminium alloy die cast
- Working pressure: 1 bar (14.5 psi)
- Maximum power: 86 kW (115 HP)
- Working temperature range: -30/+120 °C (-22/+250 °F)
- LPG outlet external diameter: 12 mm
- LPG inlet diameter: 6 mm
- Engine coolant outlet/inlet diameter: 16 mm
- Supplied shut-off valve
- Dimensions: 93,5 x 138 x 130 mm / 3.7 x 5.4 x 5.1 in
- Body diameter: 70 mm / 2.8 in
- Dry weight: 0,97 kg (3.2 lbs)
- Approvals: ECE67R01





- Aluminium water outlet/inlet available



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Razor

High performance LPG/CNG injection system

Part no.: LWR.1

Precision made of stainless steel, combined with fluoropolymer / elastomer for excellent durability and ever-lasting cleanliness. Rated down to -40°C . Sophisticated but ingeniously simple internal design ensures parameters consistency and reliability you can always count on. Top-feed topology results in low pressure loss combined with high flow rates. Newly developed, highly optimized linear actuators provide razor-sharp injection timings and lightning fast operation.

Main features:

- Power supply: 10 - 28 V DC
- Maximum flow rate (without nozzle) **130 l / min**
- Operational temperature range: **$-40 / +125^{\circ}\text{C}$**
- Gas compatibility: LPG / CNG
- Coil resistance: 1.9 Ω
- Maximum opening current: 4.5 A / duration 3 ms
- Maximum holding current: 1.5 A
- Working pressure range: 0.0 - 4.0 Bar
- Fluoropolymer coating: anti-stick, anti-freeze
- Proprietary FKM fluoroelastomer sealing
- Opening time: **1.85 ms**
- Closing time: **1.1 ms**
- Integrated 120 micron particle filter
- Nominal nozzles for selecting the injector flow
- Body length: 94.5 mm
- Maximum diameter: 28 mm
- Calibration nozzle nominal diameter: 1.5 mm
- Weight: 106 g



Top Feed



Fluoropolymer
Coating



Low-temperature
optimized





High-speed
operation



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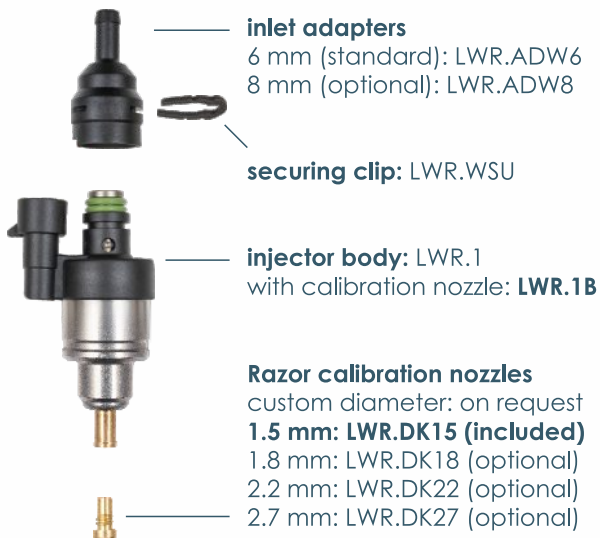
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Razor

High performance LPG/CNG injection system

Part no.: LWR.1

■ Razor injector 1-cyl. LWR.1 KPL



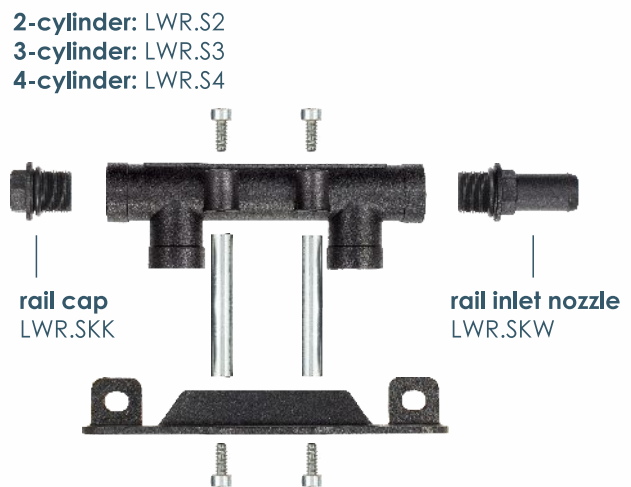
■ Distributors 12/6 mm (to connect LWR.1/LWR.1P+LWR.ADW6)



■ Adapters (to connect LWR.1/LWR.1P)

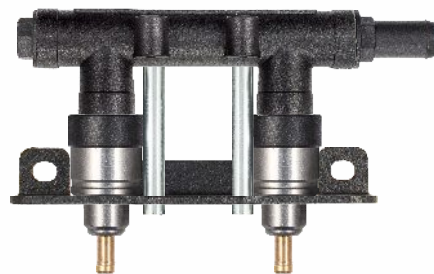


■ Injector metal mounts (to connect LWR.1/LWR.1P)

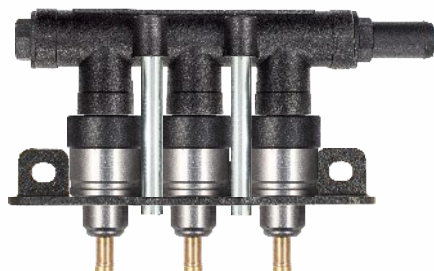


■ Injector sets (LWR.S2/3/4+LWR1/LWR.1P)

Razor injector 2-cyl.: LWR.2 KPL



Razor injector 3-cyl.: LWR.3 KPL



Razor injector 4-cyl.: LWR.4 KPL



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Razor PRO

High performance LPG/CNG injection system

Part no.: LWR.1P

Precision made from stainless steel, combined with fluoropolymer/elastomer for excellent durability and ever-lasting cleanliness. Rated down to -40°C. Sophisticated but ingeniously simple internal design ensures parameters consistency and reliability you can always count on. Top-feed topology results in low pressure loss combined with high flow rates. Newly developed, highly optimized linear actuators provide razor-sharp injection timings and lightning fast operation.

Razor PRO has removable nozzle assembly. Spring and piston can be cleaned or replaced at any time.

Main features:

- Power supply: 10 - 28 V DC
- Maximum flow rate (without nozzle) **130 l / min**
- Operational temperature range: **-40 / +125 °C**
- Gas compatibility: LPG / CNG
- Coil resistance: 1.9 Ω
- Maximum opening current: 4.5 A / duration 3 ms
- Maximum holding current: 1.5 A
- Working pressure range: 0.0 - 4.0 Bar
- Fluoropolymer coating: anti-stick, anti-freeze
- Proprietary FKM fluoroelastomer sealing
- Opening time: **1.85 ms**
- Closing time: **1.1 ms**
- Integrated 120 micron particle filter
- Nominal nozzles for selecting the injector flow
- Body length: 94.5 mm
- Maximum diameter: 28 mm
- Calibration nozzle nominal diameter: 1.5 mm
- Weight: 106 g



Top Feed



Fluoropolymer
Coating



Low-temperature
optimized



High-speed
operation



NEW UNIQUE FEATURE

Removable nozzle assembly
(special tool required)

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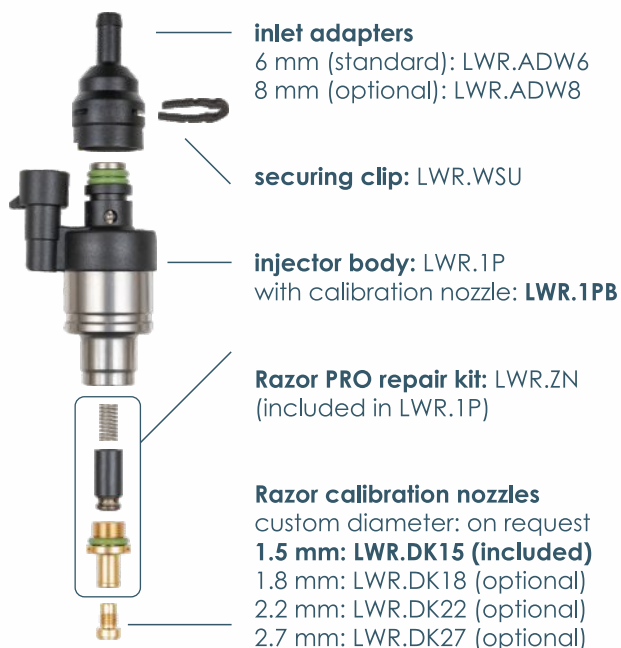
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■ **Razor PRO injector 1-cyl. LWR.1P KPL**



■ **Razor PRO service tool LWR.ST**



■ **Distributors 12/6 mm**

(to connect LWR.1/LWR.1P+LWR.ADW6)

4-cylinder

6 mm R12/6/4CYL



3-cylinder

6 mm R12/6/3CYL



2-cylinder

6 mm R12/6/2CYL



■ **Adapters (to connect LWR.1/LWR.1P)**

L-adapter 12 mm

LWR.AK



T-adapter 12 mm

LWR.AT

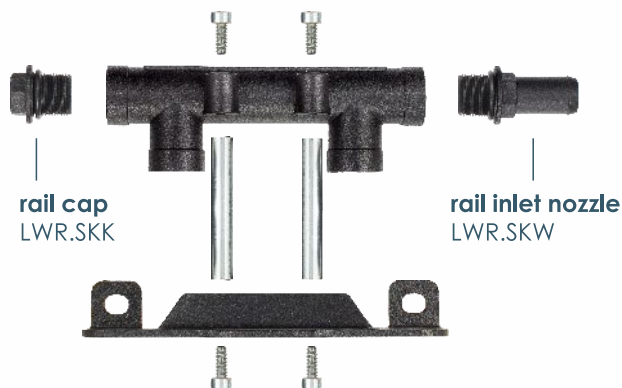


■ **Injector metal mounts (to connect LWR.1/LWR.1P)**

2-cylinder: LWR.S2

3-cylinder: LWR.S3

4-cylinder: LWR.S4



■ **Injector sets (LWR.S2/3/4+LWR1/LWR.1P)**

Razor PRO injector 2-cyl.: LWR.2P KPL



Razor PRO injector 3-cyl.: LWR.3P KPL



Razor PRO injector 4-cyl.: LWR.4P KPL



FH-02

Versatile LPG/CNG injection system

Part no.: LW.1 / LW.2 / LW.3 / LW.4

Standard injection system for economical gas installations. Modular design allows it to be mounted in many ways.

Types available:

FH02 4-cyl - dedicated to 4-cyl & 8-cyl engines, 4 injection channels.
FH02 3-cyl - dedicated to 3-cyl & 6-cyl engines, 3 injection channels.
FH02 2-cyl - dedicated to 4-cyl boxer engines, 2 injection channels.
Fh02 1-cyl - dedicated to engines with advanced inlet manifold systems.

Main features:

- Power supply: 12V DC
- Operational temperature range: -30 / +120 °C (-22 / +250 °F)
- Gas compatibility: LPG / CNG
- Working pressure range: 0,5 - 2,5 bar (7.25 - 36.25 psi)
- Maximum allowable pressure: 4,5 bar (65 psi)
- Coil resistance: 3 Ohm +/- 4%
- Body: aluminum (FH02-4, FH02-3, FH02-2) / brass (FH02-1)
- Opening time: 3,0 ms
- Closing time: 2,5 ms
- LPG / CNG inlet external diameter: 12 mm
- Standard valve seat diameter: 3,3 mm
- Calibration nozzle sizes available: 1,5 – 3,5 mm (0,25 mm step)
- Normally closed
- Single adapter length: 77,5 mm
- Adapter weight: 104 g
- Approvals: ECE 67R01, ECE110R00



Versatile configuration:

■ Single channel adapters




■ Distribution rail for 2/3/4 channels



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Mini / Maxi KIT

LPG / CNG installation bundles

FHT VERSUSGAS offers conversion kits for vehicles both for **LPG** as well as **CNG** fuel.

Each **Maxi KIT** contains **Mini KIT** components plus all necessary mounting parts.

We offer broad range of proprietary installation KITs for 4-6-8 cylinder engines in various configurations and power ratings.

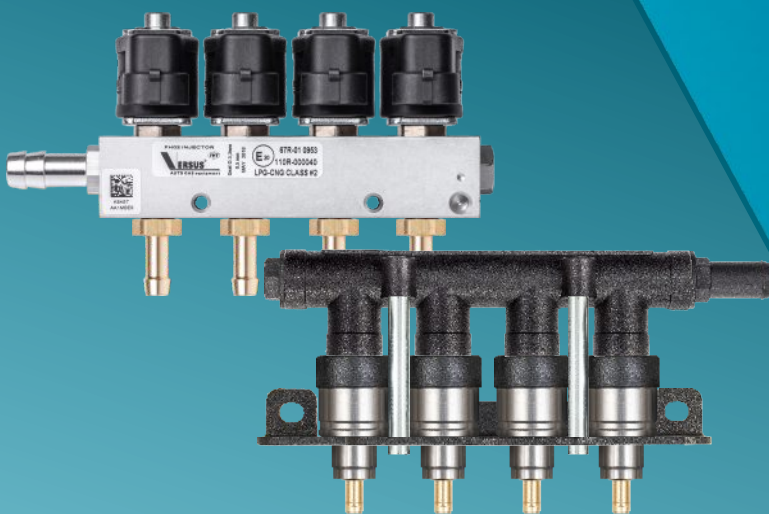
Main parts of LPG conversion KIT



V-Controller ECU




Standard VR-L reducer



Fh02 / Razor injectors



High-power VR-L Super reducer



We offer full assortment of Gas installation parts and accessories.
Detailed catalogue will be sent upon the request.
For more details please contact us:

Orders: trade@versusgas.com

Inquiries info@versusgas.com



Website: www.versusgas.com

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