

# AUTOGAZ INSTALLATIONS



**STAG UNLIMITED OPPORTUNITIES**



**AC Spółka Akcyjna**

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## ECONOMY LINE

This line of controllers is designed for owners of cars manufactured in mid 90's and 00's, who like economical and affordable driving.

**STAG-200**



*"This car is a present from my parents. I use it for getting to the university, I have plenty of other things to pay for, so I have chosen the most affordable option - **STAG-200-4**. It was like hitting the bull's eye. The car drives perfectly, and I can save my time and money."*

Marcin. Student from Cracow



## STANDARD LINE

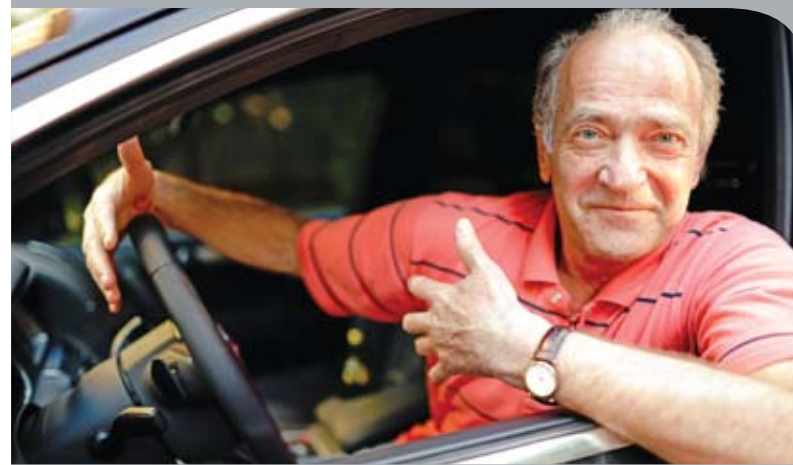
This line of controllers is designed for cars manufactured a few years ago, featuring a simple engine management system, with relatively little technological requirements as regards LPG systems. This is a perfect line for drivers with economical driving in mind, who also demand good quality.

**STAG-4**



*"Peace of mind is what I treasure most. I hate waiting, looking for options, choosing from plenty of things. I have decided to buy the **STAG-4** option. The system was fitted quickly - no problems at all. Now driving is easy and pleasant. It is also cheap and safe, without any failures nor problems"*

Jan, pensioner from Elbląg



## PLUS LINE

This line of controllers is designed for modern cars owned by drivers who look for good-quality and reasonably priced solutions. The line is unique due to the enhanced capabilities of the controlling software.

**STAG-300plus**



*"I always choose proven solutions for the sake of my family. I do not risk, because I hate nasty surprises. I am convinced that it simply pays to invest in top quality. This is why I have chosen **STAG-300 plus**"*

The Jaworski family from Sosnowiec



## PREMIUM LINE

This line of controllers is designed for state-of-the-art cars with technical requirements calling for cutting-edge controllers, featuring the Selfcorrecting Auto System. Drivers who choose this line of products demand quality, prestige and reliability.

**STAG-300premium**



*"I work and travel a lot. My car is an important thing to me, I spend a lot of time driving. I must be absolutely sure that it is in working condition and does not fail me on the road, nor in rough terrain. I choose top-class cars, therefore I decided to buy a highly-advanced LPG system. It will ensure comfortable driving and reliability. All in all, I love comfort and top quality, thus I invest only in the best solutions. I have chosen **STAG-300 premium**"*

Monika, Brand Manager from Warsaw



# COMPARISON OF CONTROLLERS

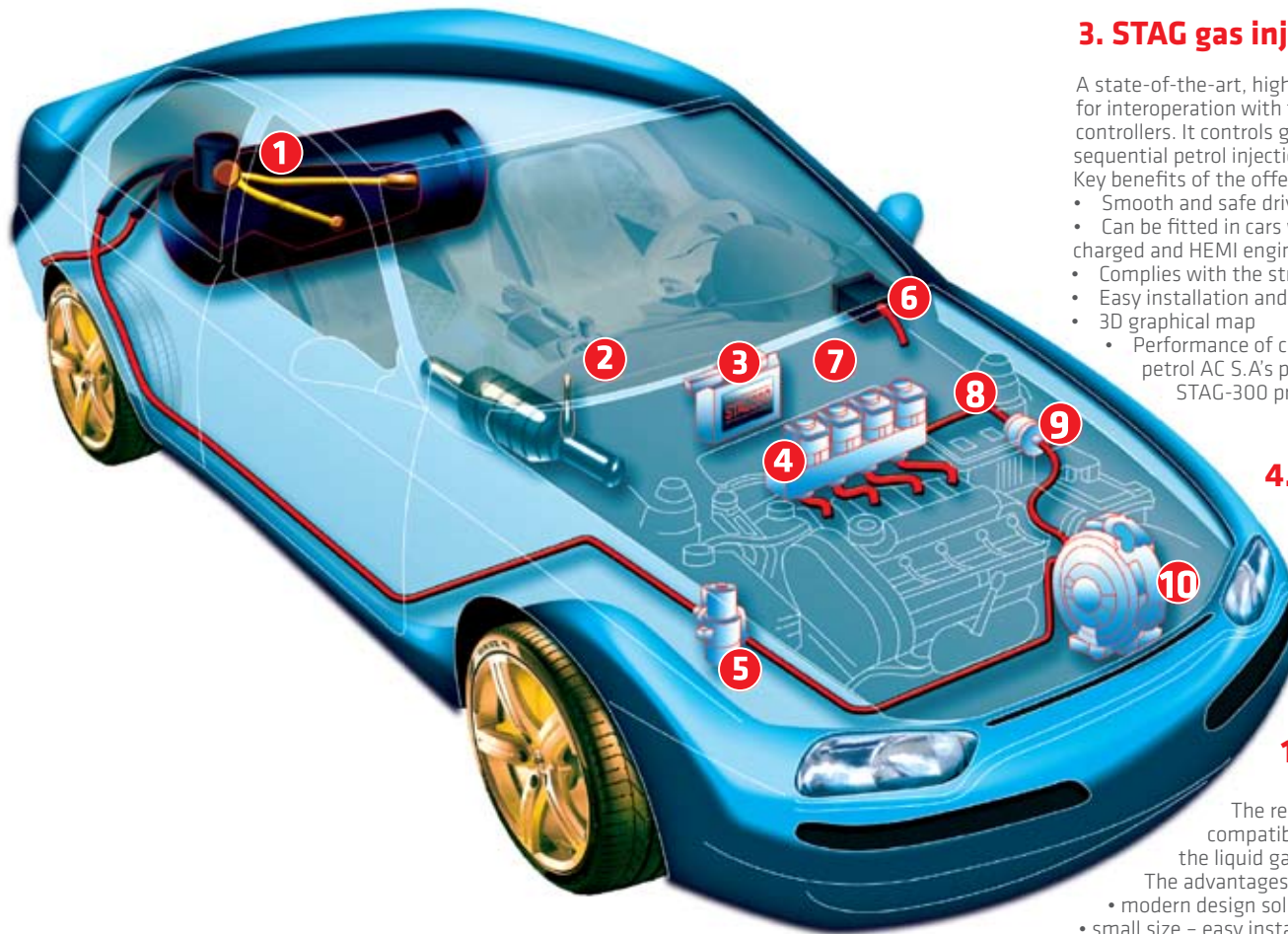
	STAG-200	STAG-4	STAG-300 <i>plus</i>	STAG-300 <i>premium</i>	
Design	Aluminum, water-resistant housing	–	●	●	
	Built-in sequential petrol injector emulator	●	●	●	
	High-precision gas dosing based on engine's RPM	●	●	●	
	Maintaining key engine performance parameters: HP, torque, RPM on exactly the same level as in the case of petrol injection	●	●	●	
Functional features	Auto-adjustment of gas temperature and pressure	●	●	●	
	Aligning the mixture ratio to current adjustments of the petrol injection controller	–	–	●	
	Additional, manual adjustment of working parameters, depending on the temperature of the injected gas	–	–	●	
	Option to heat up gas injectors	–	●	●	
	Automatic changeover into petrol if gas is running out	●	●	●	
	Automatic changeover into gas propulsion	●	●	●	
	Reading ECU adjustments	–	–	●	
	Controller can be used for LPG or CNG	●	●	●	
	Gas system inspection reminders	●	●	●	
	Installation and calibration	Intuitive controller calibration	●	●	●
Precise view of working parameters on the oscilloscope		●	●	●	
Aligning the mixture ratio based on information on petrol injection times		●	●	●	
Communication with every OBD II and EOBD system (not only CAN)		–	–	●	
Fixed connection with the car's OBD, with no impact on the OBD system operation, allowing for connection of testing and diagnostic equipment, etc.		–	–	●	
Working parameters can be adjusted manually		●	●	●	
Additional 3D graphical map		–	–	●	
New CNG propulsion algorithms		●	●	●	
Separate injector adaptation into BANK 1 and BANK 2		–	–	●	
Engine's RPM signal filters		●	●	●	
Software features	Compliance with various types of injection controllers (sequential, semi-sequential, full group)	●	●	●	
	Setting maximum engine overload for gas propulsion	–	–	●	
	Standard and turbocharged engine types	●	●	●	
	Mazda™ Leaning	–	–	●	
	Postinjection cut-off threshold adjustment	–	–	●	
	ISA Intelligent Self-Check System (on-going monitoring of STFT and LTFT adjustment)	–	–	●	
	Improved interoperation with petrol propulsion systems: full group and semi-sequential systems.	–	●	●	
	New feature "Injection Controller Type" – allows for fitting injectors, e.g. Valtek 3 Ohm into full-group controller engines	–	●	●	
	Warranty	3 years*	3 years*	3 years*	3 years*

\* From the date of manufacture and 2 years from the date of installation

● Available

– Not available

## VIEW OF A LPG SYSTEM



- |                               |   |
|-------------------------------|---|
| 1 Gas tank                    | 6 Petrol/gas changeover switch with indicator |
| 2 Lambda sensor               | 7 OBD adapter /STAG-300 premium only/         |
| 3 STAG-300 premium controller | 8 PS O2 pressure sensor                       |
| 4 Gas injectors               | 9 Gas filter /volatile phase/                 |
| 5 Solenoid valve              | 10 Reducer                                    |

### 3. STAG gas injection controllers

A state-of-the-art, highly advanced electronic component allows for interoperability with the most demanding petrol injection controllers. It controls gas injection based on sequential or non-sequential petrol injection system.

Key benefits of the offered controllers:

- Smooth and safe driving
  - Can be fitted in cars with 1-8 cylinder engines, including turbo-charged and HEMI engines
  - Complies with the strict Euro 5 standard
  - Easy installation and operation of the calibration system
  - 3D graphical map
  - Performance of cars featuring STAG components are almost identical to those running on petrol
- AC S.A.'s portfolio includes the following controller models:  
STAG-300 premium, STAG-300 plus, STAG-4, STAG-200



### 4. Injection rail

It is designed for high-precision LPG/CNG gas injection in the volatile phase into the engine cylinders.

AC S.A. uses the following injection rails:

- Valtek
- Valtek type 34
- Rail Apache
- Magic Jet



### 10. AC R01 Reducer

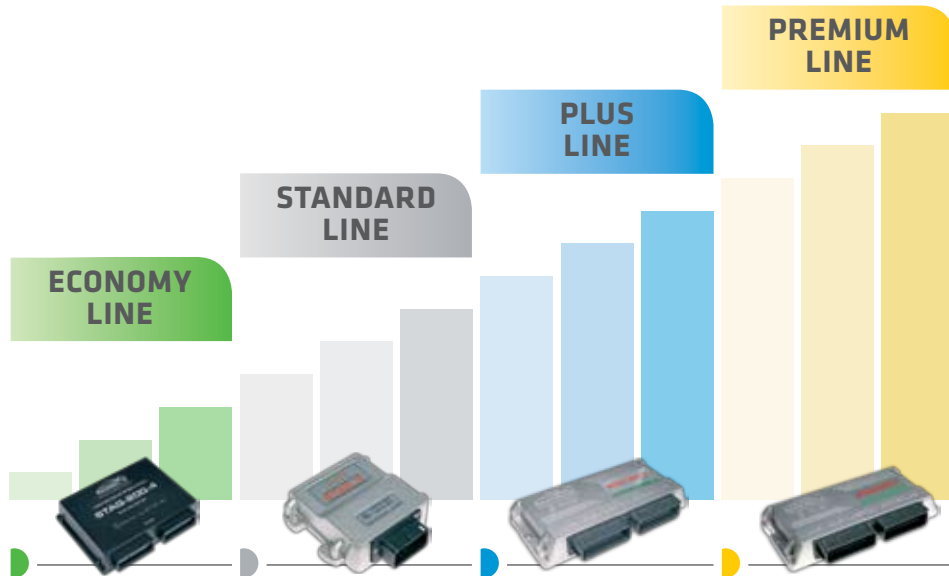
The reducer is designed for automotive sequential gas injection systems and is compatible with engines up to 250 HP. It converts the liquid gas into vaporized form.

The advantages of the reducer:

- modern design solutions,
- small size – easy installation,
- rotary connection terminals,
- stable performance parameters,
- working pressure can be finely adjusted,
- fast switching to gas mode.



## RICH PORTFOLIO OF LPG SYSTEMS



Choice of controllers depending on the age of the vehicle with multi-function electronic fuel injection

Model Year	Cylinders	ECONOMY LINE		PLUS LINE			PREMIUM LINE		
		STAG-200-4	STAG-4	STAG-300-4 plus	STAG-300-6 plus	STAG-300-8 plus	STAG-300-4 premium	STAG-300-6 premium	STAG-300-8 premium
1990 and older	3	○	●	○	○	○	-	-	-
	4	○	●	○	○	○	-	-	-
	5	-	-	-	○	○	-	-	-
	6	-	-	-	○	○	-	-	-
1991 -2002	3	○	○	●	○	○	-	-	-
	4	○	○	●	○	○	-	-	-
	5	-	-	-	●	○	-	-	-
	6	-	-	-	●	○	-	-	-
2003 and newer	3	-	○	○	○	○	●	○	○
	4	-	○	○	○	○	●	○	○
	5	-	-	-	○	○	-	●	○
	6	-	-	-	○	○	-	●	○
	8	-	-	-	-	○	-	○	●

● Recommended

○ Applies

## STAG UNLIMITED OPPORTUNITIES

### INNOVATION

The car industry is our passion. Apart from this passion we are enthusiastic about various technologies and design state-of-the-art propulsion systems powered by alternative energy sources. The products we deliver - electronic components - are top-quality, intelligent solutions designed for cars fitted with LPG systems. Thanks to the cutting-edge technology and high-precision engineering our controllers are regarded as reliable components by millions of customers across the globe. STAG electronic components are most frequently chosen solutions for LPG systems in the market.

### GREEN CAR INDUSTRY

But there's more than reliability. It is equally important to be environmentally conscious. Each time we deploy a new product we pay great attention to its impact on the natural environment. Our own R&D Department allows us not only to upgrade our products, but also to comply with all the European quality and environmental protection standards. Harnessing alternative sources of energy is undoubtedly a healthier and more environmentally-friendly way of using cars.

### CHOICE

We do our best to satisfy even the most demanding customers. Therefore we have developed a unique portfolio of LPG system products, which are both versatile and customized to suit the needs of individual customers. We have products for everyone.

