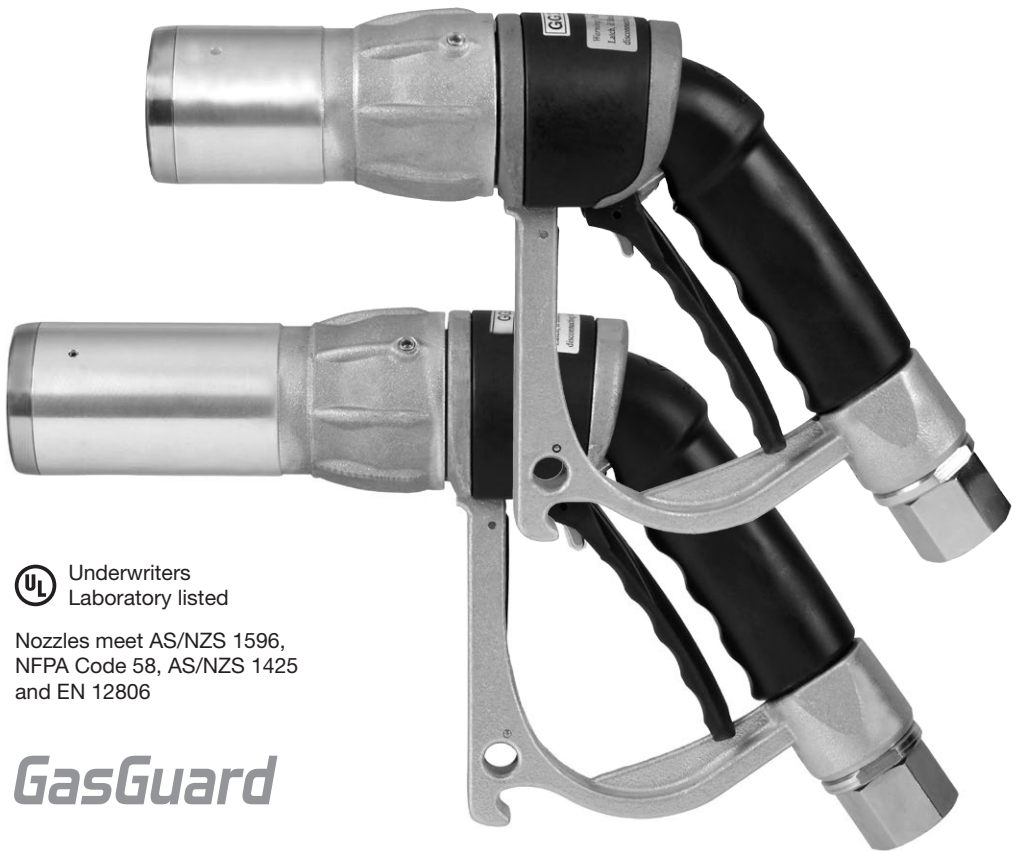


INSTALLATION AND OPERATING MANUAL

GG1 & GG20 Series

GasGuard LPGas Nozzles with 1 $\frac{3}{4}$ " ACME Connector



 Underwriters
Laboratory listed

Nozzles meet AS/NZS 1596,
NFPA Code 58, AS/NZS 1425
and EN 12806

GasGuard

Please read this manual carefully before installation or operation of the nozzle.

Be sure all instructions are understood. Correct installation, use and maintenance are essential. In case of doubt or question please contact your service contractor or the manufacturer.

DESCRIPTION

The GasGuard GG1 & GG20 series nozzles with 1¼" ACME thread connection to AS/NZS 1425 and EN 12806 are suitable for the filling of commercial and passenger Autogas vehicles as well as mobile and small stationary storage tanks.

This manual covers the following types of GasGuard nozzles:

GG1 series nozzles with standard connector nut length (nozzle reach) of 125 mm

GG20 series nozzles with extended connector nut length (nozzle reach) of 160 mm.

Both nozzle types are available in three different versions, catering for differing customer needs:

- **With single nose piece** (GG1E, GG20) - used for industrial refueling / attended refueling.
- **With hybrid nose piece** (GG1EH, GG20H) reducing the necessary force to pull the lever - used for industrial refueling / attended refueling
- **With dual nose piece** (GG1DN, GG20DN) for max. operating safety and reduced force to pull the lever - most used type for petrol stations, suitable for self service.

APPROVALS / OPERATING CONDITIONS

GG1 & GG20 series nozzles are listed by Underwriters Laboratories for use with LPGas (Propane, Butane and their mixtures) and meet AS/NZS 1596, NFPA Code 58, AS/NZS 1425 and EN 12806.

Max. flowrate 50-70 l/min, depending on nozzle type (see above) and dispensing configuration.
Max. operating pressure approx. 25 bar (362 psi), burst pressure in excess of 100 bar (1450 psi).
Operation temperature range -40° (-40° F) up to +110° C (131° F).

GENERAL INFORMATION ABOUT LPG / WARNINGS

- LPGas is liquefied under pressure when transported and stored. It is heavier than air. Commercial LPGas is odourised before distribution to enable detection by its sulfurous smell. It appears as white fog or cloud when exposed to the atmosphere. It has an evaporation factor of 1/260: one liter of liquefied gas corresponds to 260 liters of gas.
- **A small gas release upon uncoupling is normal – but uncontrolled gas release to the atmosphere must be avoided. If you suspect a leakage: stop refueling, use the emergency button to shut off the dispenser, immediately evacuate the area and inform station personnel.**



- LPGas is extremely flammable, which is capable of igniting at concentrations between 2 and 10% in air.

→ **Open fires, smoking, sources of static electricity and the use of mobile phones or other electric devices is prohibited in the area of gas transfer. Turn off vehicle engine before refueling.**



- LPGas is extremely cold when released to the air (depressurized).

→ **Wear personal safety equipment such as gloves and safety glasses to avoid cold burns**



Local laws and code of practice regarding LPGas handling as well as instructions of vehicle, dispenser and authorized personnel must be followed.

INSTALLATION

GG1 & GG20 series nozzles are delivered ready for use. Nozzles should only be installed and tested by competent personnel. Applicable laws, regulations and Codes of Practice have to be followed.

Do not use PTFE sealing tape for sealing threaded connections, as electrical conductivity may be insufficient and particles of the tape commonly become loose and could clog the nozzle strainer or damage vehicle motor parts. Use suitable liquid seal (non permanent) instead.

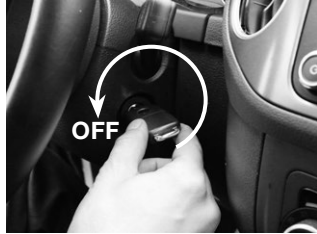


After connecting to the hose assembly, an operational test shall be performed. It is essential to examine that the nozzle, hose connector and swivel are tight under pressure and do not leak – e.g. by external application of foaming agents.



OPERATING INSTRUCTIONS GG1 & GG20 ACME NOZZLES

Please follow any additional or deviating operating instructions displayed at the dispenser.



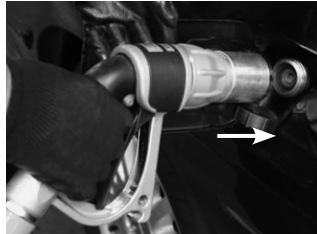
Switch off vehicle engine.



Wear personal safety equipment such as gloves and safety glasses.



Ensure all coupling parts, seals and sealing surfaces of nozzle and vehicle coupling are clean and undamaged.



Take nozzle from dispenser. If necessary activate the dispenser. Align nozzle with vehicle fill point as shown.



Screw on the connector nut in a clockwise movement until firm.



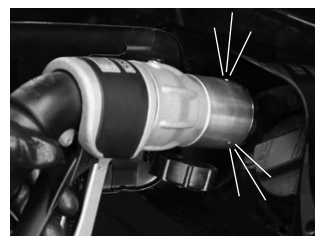
Pull nozzle lever to start fueling. If leakage is observed, release lever to stop process. **Do not lean on the nozzle.**



If the nozzle is fitted with a lever latch, activate it with forefinger. Before disconnection, unlatch by pulling the lever.



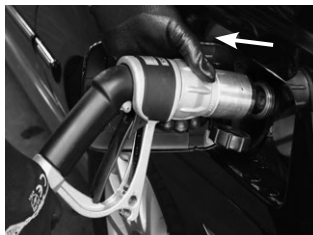
On completion of refueling release lever.



Note - a quantity of liquid gas is discharged from the front of the nozzle. To avoid cold burns, keep hands away from coupling area.



Unscrew connector nut anti-clockwise until it is freed from the vehicle.



Remove nozzle and take it back to the nozzle holster (boot) on the dispenser.

ACCESSORIES

ELAFLEX recommends the use of the following accessories:

- **LPG 16 S dispensing hose** (DN 16 mm, highly flexible, minimised permeation, exceptionally low leaching, meet EN 1762 and AS/NZS 1869:2012), professionally assembled with Elaflex ferrule type safety fittings
- **ARK 19 Mod.2 safety break** (hose break) - will separate in case of a drive-off incident. Reconnection after release under pressure by hand possible.

FILL POINT ADAPTORS

The use of fill point adaptors is **not recommended by ELAFLEX PACIFIC PTY LTD.**

If an adaptor is used, please note:

- During the release of the nozzle lever at the end of the fueling process, a quantity of liquid gas remaining between vehicle fill point and nozzle is discharged. When using adaptors, the released volume of gas is much greater compared to a direct connection with the vehicle filling connector.
- Replace worn out fill point receptacles (tears, breaks, cuts, damaged sealing surfaces and worn threads). These can cause leakage and / or cross-threading of the nozzle.

MALFUNCTION

Never force operation of the nozzle. If the connection process does not work smoothly, disconnect and re-connect nozzle as indicated under chapter 'Operation'.

Escaping Gas/ Leakage :

- A small gas release upon uncoupling is normal.
- If uncontrolled and / or permanent gas release to the atmosphere occurs, fueling must be stopped immediately. If the leakage continues, the emergency button of dispenser must be pushed, and the area is to be cleared.
- If area is safe, trained personnel can check vehicle receptacle and GasGuard nozzle for damaged, worn or missing components. Check seals of vehicle connection and nozzle coupling. If the problem persists the nozzle should be isolated and your local distributor should be contacted.

MAINTENANCE

Autogas nozzles are mechanical devices that may become inoperative due to wear, corrosion and ageing of components. Regular inspections and maintenance are essential for a safe operation.

Daily visual inspections of the nozzle by trained personnel should be carried out to ensure proper function. The nozzle coupling shall be clean and not show any signs of damage (e. g. dents, sharp edges, blocked lever, swivel non rotating). Especially check the white nose piece O-ring inside the connector nut of the nozzle to confirm there is no dirt or mechanical damage.

Nozzles in unfit condition for use must be immediately replaced.

The nozzle condition shall be thoroughly checked by competent personnel during standard maintenance schedules of each respective operator.

For recommended inspection notes please see page 6.

NOZZLE INSPECTION FOR GG1 & GG20 GASGUARD NOZZLES

Applicable laws, regulations and Codes of Practice have to be followed.

NOZZLE INSPECTION – RECOMMENDED EVERY 6-12 MONTHS

1. Check for any apparent physical damage to components of nozzle.
2. Inspect connector nut and nose piece seals for damage (i.e. cuts or excessive wear).
3. Check that there is free rotation of connector nut. Make sure the pawl and pawl spring are functioning correctly. The pawl should not be interfering with the ratchet lugs on the connector nut when the lever is inactive.
4. Inspect the nozzle Inlet swivel. The swivel should be secured by the grub screw through the nozzle body.
5. Check the free movement of the valve through the slide sleeve assembly when not connected to an adaptor, (i.e. activate the lever several times) making sure there is free movement forward and the valve returns to its inactive position. Remove the connector nut assembly and clean and lubricate component if movement is not free.
6. To check valve function, fit a blanked male 1¼" ACME adaptor firmly to the thread of the connector nut. Activate the Lever and check for Valve opening (there is usually an audible "click" on the DN Nozzle). Whilst the valve is open, use soapy water around the ACME thread connection to check for nose seal and "U-cup" seal leakage.
7. Using soapy water, check for leaks at inlet swivel, nozzle body & valve assembly.

N.B.: If there is seal leakage or component damage, it is recommended that the nozzle is inspected / repaired by a trained and certified service contractor. For information on service contractors in your area, contact your local distributor for information at www.elaflex.com.au/contact/distributors-gasguard-products

TWENTY-FOUR MONTH INSPECTION

ELAFLEX PACIFIC recommends that a new seal kit be fitted throughout the nozzle after each 24 month period of operation. This will extend the service life of the nozzle and reduce the occurrence of nozzle downtime in service. GasGuard Nozzles are mechanical devices which have a finite life, depending on environmental and operational conditions. Inspection and maintenance must be carried out by fully trained and experienced personnel. Refer to our repair and maintenance manuals for more detailed information.

CONDITIONS OF USE

Failure to comply with any warnings, instructions, procedures or any other common sense procedures may result in injury, equipment damage, property damage or poor performance of the equipment.

ELAFLEX PACIFIC PTY LTD accepts no liability for direct, indirect, incidental, special, or consequential damages resulting from failure to follow any warnings, instructions and procedures in this manual, or any other common sense procedures generally applicable to equipment of this type. The foregoing limitation extends to damages to person or property caused by the unit or damages resulting from the inability to use the unit including loss of profits, loss of products, loss of power supply, the cost of arranging an alternative power supply, and loss of time, whether incurred by the user or their employees, the installer, the commissioner, a service technician, or any third party.

The manufacturer reserves the right to change the specifications of its products or the information in this manual without necessarily notifying its users.

Variations in installation and operating conditions may affect the unit's performance. ELAFLEX PACIFIC PTY LTD has no control over each installation's unique operating environment. Hence, no representations or warranties concerning the performance of the unit under the actual operating conditions prevailing at the installation are made. A technical expert of your choosing should validate all operating parameters for each application.

ELAFLEX PACIFIC PTY LTD has made every effort to explain all servicing procedures, warnings, and safety precautions as clearly and completely as possible. However, due to the range of operating environments, it is not possible to anticipate every issue that may arise. This manual is intended to provide general guidance. For specific guidance and technical support, contact your authorized supplier.

Only approved original parts shall be used and no unauthorized modifications to the hardware shall be made. The use of non-approved parts or modifications will void all warranties and approvals. The use of non-approved parts or modifications may also constitute a safety hazard.

Information in this manual shall not be deemed a warranty, representation, or guarantee. For warranty provisions applicable to this unit, please refer to the warranty provided by the supplier.

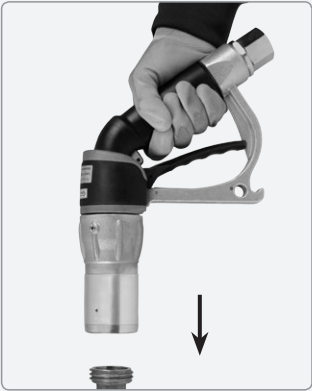
Every effort has been made to ensure the accuracy of this document. However, it may contain technical inaccuracies or typographical errors. ELAFLEX PACIFIC PTY LTD assumes no responsibility for and disclaims all liability of such inaccuracies, errors or omissions in this.

WARRANTY

ELAFLEX PACIFIC PTY LTD guarantee against defective materials and manufacturing for 12 months from date of supply.

Excluded are nozzles and parts subjected to wear and tear and damages caused by improper use, for example the use with unsuitable fluids. Furthermore excluded are indirect damages and costs, such as travelling related to exchange and repair work. We refuse any liability for consequential loss or damage resulting from the use of our nozzle.

TO START FUELING



Activate lever latch (if fitted) with forefinger

TO STOP FUELING



Deactivate lever latch (if fitted) by squeezing the lever

Complete operating instructions see page 4 of this manual. Follow any additional or deviating instructions displayed at dispenser.