GasGuard

Handling the Pressure





ELAFLEX PACIFIC PTY LTD: ABOUT US

ELAFLEX PACIFIC PTY LTD (formerly L. G. Equipment) was founded in 1987 and is a daughter company of ELAFLEX in Germany.

Our core business is the production of the GasGuard nozzle range for LPGas which are renown in the industry. Supported by a global distributor network, the nozzle range is a leader in the Autogas refueling sector for fleet, industrial and private vehicles. Products using the GasGuard brand have enjoyed widespread success through the use of unique technology to build a large market share in Australia and North America as well as parts of Asia, South America and Europe.

Additionally, ELAFLEX PACIFIC is the Australian supplier of the ELAFLEX product range: ZVA nozzles and accessories, rubber hoses and suitable safety couplings, ERV rubber expansion joints and Mann Tek Dry Disconnect Couplings for the petroleum, LPG, aviation and petrochemical industries.

Handling the Pressure: ELAFLEX is a leading international specialist for refueling equipment and safe connections for the transfer of dangerous goods and sensitive fluids.

Our hoses, fittings, couplings, expansion joints and nozzles have been setting standards, since 1923. We provide quality engineered, durable products. A sound investment both in terms of performance and total lifetime cost benefits.













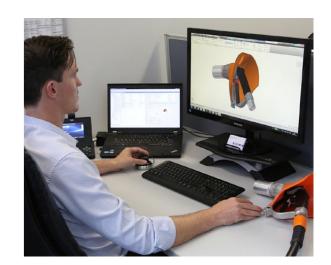
GasGuardHandling the Pressure

Since 1987, our product range of LPGas dispensing nozzles and accessories is marketed under the brand name 'GasGuard'. Over the years, they have increased safety and comfort experienced on forecourts around the world.

Continuous development of the GasGuard product range has been a key factor in maintaining a position as a market leader in terms of safety, performance and reliability. The current GasGuard 'GG' range demonstrates a light, easy to use and robust construction with many additional features allowing the nozzle to adapt to a variety of different markets to satisfy individual customer requirements.

For the development and production of GasGuard LPGas nozzles, the right combination of long-term experience and innovation capability is required. ELAFLEX PACIFIC PTY LTD meets these demands. From the original concept to today's production, the 'GasGuard' nozzle range has continued to design and manufacture quality nozzles for refueling with LPGas.

Once assembled, each and every nozzle must complete a hydrostatic pressure test and operational LPGas test prior to dispatch, all of which is performed at our Sydney plant. Multiple functions and performance checks according to several international standards must be adhered by in order to ensure safety before it reaches the customers hands.



2 | GasGuard ABOUT US | 3

GASGUARD PRODUCT SELECTION

	Application	Fill Point Connection	Sealing System / Nose Piece	Hose Connection (Swivel Inlet Thread)	Coupler Length Approx. (Nozzle Reach)	Release volume on valve closure	Hold Open	UL / ATEX Certified	Flowrate	Strainer	Magnet in front guard for Reed Switch	Hold-Open Latch	Splash- guard	Scuffguard (Nozzle Talker)	
GG1E	Industrial refueling / attended refueling of commercial and passenger vehicles.		Single Nose Piece *) making this type the most economic choice.		125 mm	1.9 cm ³	6 kg at 12 bar system pressure	63 I/min at 12 bar system pressure 60 I/min at 12 bar system pressure UL 125							
GG1EH	Filling of mobile and small stationary storage tanks.		Hybrid Nose Piece *)			1.7 cm ³	4.9 kg at 12 bar system pressure) Optional	Optional (UL approved)	Optional	No	
GG1DN	Most used type for petrol stations. Refueling of commercial and passenger vehicles, suitable for self service. Filling of mobile and small stationary storage tanks.	1%" ACME thread to AS/NZS 1596, AS/NZS 1425, EN 12806	Dual Nose Piece *) for max. operating safety	15 mm (½")					system pressure	in ar ar ar and ar					
GG20	Like GG1E, but with long connector nut (160 mm) to connect to deep-seated filler valves, as associated with forklift truck cylinders and Recreational Vehicle (RV) fill points.		Single Nose Piece *) making this type the most economic choice.	NPT female or 20 mm (¾")		1.9 cm ³	6 kg at 12 bar system pressure	OL 123	63 I/min at 12 bar system pressure						
GG20H	Like GG1EH, but with long connector nut to connect to deep-seated filler valves, as associated with forklift truck cylinders and Recreational Vehicle (RV) filler vales.		Hybrid Nose Piece *)	NPT female	160 mm	1.7 cm ³	4.9 kg at 12 bar system pressure								
GG20DN	Like GG1DN, but with long connector nut to connect to deep-seated filler valves, as associated with forklift truck cylinders and Recreational Vehicle (RV) filler vales.		Dual Nose Piece *) for max. operating safety												
GG30	Refueling of commercial and passenger vehicles as well as mobile and stationary storage tanks that are fitted with 'Bayonet' fill adapters.	BAYONET to EN 12806 4-slot design for easy connecton to fill point	Dual sealing system, reducing the chance of leakage if bayonet fill point is badly damaged or worn.		135 mm	2.2 cm ³	4.9 kg at 12 bar system pressure	-	60 I/min at 12 bar system pressure		Optional				
ZVG 2 EURO UL	Conforming to EN 13760, UN R 67, ISO 19825 Refueling of commercial and passenger vehicles, suitable for self service. Filling of mobile and small stationary storage tanks that are fitted with 'Euro' fill adapters.	EURO 'push-on' coupling to EN 13760, UN R 67 and ISO 19825	Direct sealing system with flat seal.	20 mm (¾") NPT female other sizes on request	NPT female other sizes	400	< 1 cm ³	UL 125 + ATEX		60 I/min at 12 bar system pressure			UL approved, latch fittted as standard		Optional (EA 866 E
ZVG 2 K	Conforming to ISO 19825 & JASO E208 Refueling of commercial and passenger vehicles, suitable for self service. Filling of mobile and small stationary storage tanks that are fitted with 'J15' fill adapters.	Korean/Japanese 'push-on' coupling to ISO 19825 and JASO E208	Direct sealing system with O-ring.			120 mm	< 2 cm ³	_	-	50 I/min at 12 bar system pressure			Latch fittled as standard	No	orange or black)

^{*)} For an explanation of nose piece types see GasGuard Information 6.15

4 | GasGuard PRODUCT SELECTION | 5



THE 'GG1' ACME SERIES

Nozzles in the GasGuard 'GG1' series are suitable for the filling of commercial and passenger Autogas vehicles as well as mobile and small stationary storage tanks with LPGas. There are three different nozzles in the UL listed GG1 range, which cater for differing customer needs. With a lightweight & well balanced construction, the nozzles are designed to give the user a more ergonomic and safer way to refuel their Autogas vehicle or storage tank.

The GG1 series design recently has been enhanced with significant improvements in operational performance and reduced maintenance requirements, and like all GasGuard nozzles, they are fully repairable.

STANDARD SPECIFICATIONS GG1					
Connection:	13/4" ACME to AS/NZS 1596, AS/NZS 1425, EN 12806				
Swivel Inlet thread:	15 mm (½") or 20 mm (¾") NPT female				
Weight incl. swivel:	1.8 kg (4 lbs)				
Working pressure:	25 bar (362 psi)				
Temperature range:	-40 °C to +110 °C				
Filtration:	300 mesh strainer				
Approval:	UL listed				

- Cannot discharge LPGas to the atmosphere when not coupled and lever is actuated.
- High strength aluminium alloy & stainless steel components = long lifetime without distortion.
- Nozzle will safely seal with fill point, even if its sealing gasket is missing.
- Optional magnet for reed switch nozzle boot systems.
- New guided extended ACME 13/4" thread to minimize crossthreading and unsafe connection.
- Optional Latch (UL approved).
- Fully repairable.

Guided thread extension minimises cross-threading



Magnet integrated in guard, activates dispenser reed switch swivel as standard



Smooth rotating 360°







GG1E NOZZLE

For refueling of light duty/Autogas vehicles and storage tanks. Single Nose Piece.

• Flowrate: 63 I/min • Release volume: 1.9 cm³ • Lever force 'hold open': 6 kg



GG1EH NOZZLE

For refueling of light duty/Autogas vehicles and storage tanks. 'Hybrid' nose piece.

• Flowrate: 60 I/min • Release volume: 1.7 cm³ • Lever force 'hold open': 4.9 kg



GG1DN NOZZLE

For 'self-serve' refueling of light duty/Autogas vehicles and storage tanks. Designed for use by the general public as it incorporates a patented Dual Nose Piece which significantly reduces the amount of user error.

• Flowrate: 60 I/min • Release volume: 1.7 cm³ • Lever force 'hold open': 4.9 kg



6 | GasGuard GG1 ACME SERIES | 7



THE 'GG20' ACME SERIES

Nozzles in the GasGuard "GG20" series are designed to reach into, and connect to, deep set fill points as seen in forklift cylinder and recreational vehicle refueling. This is possible due to the extended connector on the outlet of the nozzle which allows customers to connect to fill points with a deep set access point.

There are three different nozzles in the UL listed GG20 range, which cater for differing customer needs. With a 35 mm longer connector, the nozzles are engineered with the same function as their shorter GG1E, GG1EH and GG1DN counterparts. The GG20 series design carries the same improvements in operational performance and reduced maintenance requirements as the GG1 series, and like all GasGuard nozzles they are fully repairable.

STANDARD SPECIFICATIONS GG20					
Connection:	13/4" ACME to AS/NZS 1596, AS/NZS 1425, EN 12806				
Swivel Inlet thread:	15 mm (1/2") or 20 mm (3/4") NPT female				
Weight incl. swivel:	1.9 kg (4.2 lbs)				
Working pressure:	25 bar (362 psi)				
Temperature range:	-40 °C to +110 °C				
Filtration:	300 mesh strainer				
Approval:	UL listed				

- Cannot discharge LPGas to the atmosphere when not coupled and lever is actuated.
- High strength aluminium alloy & stainless steel components = long lifetime without distortion.
- Nozzle will safely seal with fill point, even if its sealing gasket is missing.
- Optional magnet for reed switch nozzle boot systems.
- New guided extended ACME 1¾" thread to minimize cross-threading and unsafe connection.
- Optional Latch (UL approved).
- Fully repairable.

Guided thread extension



Magnet integrated in guard, activates dispenser reed switch swivel as standard



Smooth rotating 360°









GG20 NOZZLE

For refueling of industrial light duty/Autogas vehicles and storage tanks. Single nose piece.

• Flowrate: 63 I/min • Release volume: 1.9 cm³ • Lever force 'hold open': 6 kg

• Same as GG1E, but with 35 mm longer reach



GG20H NOZZLE

For refueling of industrial light duty/Autogas vehicles and storage tanks. 'Hybrid' nose piece.

• Flowrate: 60 I/min • Release volume: 1.7 cm³ • Lever force 'hold open': 4.9 kg

• Same as GG1EH, but with 35 mm longer reach



GG20DN NOZZLE

For 'self-serve' refueling of light duty/Autogas vehicles and storage tanks. Designed for use by the general public as it incorporates a patented Dual Nose which significantly reduces the amount of user error.

• Flowrate: 60 I/min

• Release volume: 1.7 cm³

• Lever force 'hold open': 4.9 kg

• Same as GG1DN, but with 35 mm longer reach



8 | GasGuard GG20 ACME SERIES | 9





The GG30 Series GasGuard nozzle is suitable for the filling of light duty/Autogas vehicles as well as mobile and stationary LPGas tanks which are fitted with the 'Bayonet' fill adapter (conforming to EN12806). The Bayonet fill adaptor is mostly used in the United Kingdom and the Netherlands; it is also seen in industrial applications in Latin America.

The GG30 series GasGuard nozzle adds improved features to its predecessor, the LG30 Series nozzle, including improved ergonomics, lighter weight, improved flowrates and lower lever force. A new nose piece design reduces the released gas upon valve closure by 23 %, incorporating an improved gas release method and thus minimising the risk of splash backs. Last but not least, applied stickers assist users in operating the nozzle.

STANDARD SPECIFICATIONS GG30				
Connection:	Bayonet to EN12806			
Swivel Inlet thread:	15 mm (½") or 20 mm (¾") NPT female			
Weight incl. swivel:	1.9 kg (4.2 lbs)			
Working pressure:	25 bar (362 psi)			
Temperature range:	-40 °C to +110 °C			
Filtration:	300 mesh strainer			

- Cannot discharge LPGas to the atmosphere when not coupled and lever is actuated.
- High strength aluminium alloy & stainless steel components = long lifetime without distortion.
- Dual seal system, will seal even if one nose seal has been damaged.
- Optional magnet for reed switch nozzle boot systems.
- New 4-slot insert for easy nozzle connection.
- Optional Latch.
- Fully repairable.

the customer's hands against any gas release after

GG30 NOZZLE

damaged or worn.

• Flowrate: 60 I/min

• Release volume: 2.2 cm³

• Lever force 'hold open': 4.9 kg

For refueling of industrial light duty/Autogas vehicles and storage tanks. Dual sealing system, reducing the chance of leakage if bayonet fill point is badly









Magnet integrated in guard, activates dispenser reed switch swivel as standard





Smooth rotating 360°



10 | GasGuard GG30 BAYONET NOZZLE | 11



ZVG 2 EURO UL – PUSH-ON COUPLING

The EURO connection is one of the most advanced coupling standards so far. EURO connectors demonstrate a variety of advantages: easy one-handed operation, enhanced safety features and very low gas release upon uncoupling.

After a successful introduction of the ZVG 2 EURO to Europe, the nozzle gained UL listing in 2015 for use in the North American market.

This special type for the North American market is called ZVG 2 EURO UL and it is exclusively distributed by Elaflex Pacific.

Compared with the standard ZVG 2 EURO, it incorporates low temperature seals as standard, and the UL certification sticker.

STANDARD SPECIFICATIONS ZVG 2 EURO UL					
Connection:	EURO to EN 13760 + UN R 67 + ISO 19825				
Swivel Inlet thread:	20 mm (¾") NPT female, other sizes on request				
Weight incl. swivel:	1.41 kg (3.1 lbs)				
Working pressure:	25 bar (362 psi)				
Temperature range:	-40 to +70 deg. C (-40° F to +158° F)				
Filtration:	300 mesh strainer				
Approval:	UL listed, ATEX				

- Prevents a discharge of LPGas to the atmosphere when the nozzle is not correctly coupled. When uncoupling, the captured pressure is released before the nozzle separates from the fill point to inhibit blowbacks.
- Single-handed operation.
- Low weight.
- Ergonomic contoured composite lever.
- Durable easy-rotating swivel for improved handling.
- With Latch (UL approved).
- Fully repairable.





Composite lever, magnet



Easy rotating swivel as standard, UL listed nozzle





For 'self-serve' refueling of light duty/Autogas vehicles and storage tanks. Designed for use by the general public. Incorporating the new European standard coupling to EN 13760, UN R 67 and ISO 19825.

- Flowrate: Up to 60 I/min
- Release volume: <1 cm³ (<0,06 cubic inch)
- Nozzle incl. latch UL-listed
- ATEX (II 1 G) approval, certificate no. SIRA 09 ATEX 9204U







Optional Scuffguard EA 866 E black or orange

12 | GasGuard ZVG 2 EURO NOZZLE | 13



ZVG 2 K - PUSH-ON COUPLING

The K type connection is based on the ease and simplicity seen in the EURO standard nozzle. It is one of the most advanced coupling standards so far and is the second push-on style nozzle recognised in the ISO 19825 standard.

The K nozzle is a unique nozzle suitable for passenger and heavy duty vehicle refueling in markets and is specifically targeted at the Korea and Japanese (JASO E208) markets.

The ZVG 2 K nozzle demonstrates a variety of advantages: easy onehanded operation, enhanced safety features and very low gas release upon uncoupling.

This nozzle, exclusively distributed by Elaflex Pacific, incorporates low temperature seals as standard and comes with a safety hold open latch for ease of use.

STANDARD SPECIFICATIONS ZVG 2 K				
Connection:	Korea + Japan: JASO E208 + ISO 19825			
Swivel Inlet thread:	20 mm (¾") NPT female, other sizes on request			
Weight incl. swivel:	1.55 kg (3.4 lbs)			
Working pressure:	25 bar (362 psi)			
Temperature range:	-40 to +70 deg. C (-40° F to +158° F)			
Filtration:	300 mesh strainer			

- Prevents a discharge of LPGas to the atmosphere when the nozzle is not correctly coupled. When uncoupling, the captured pressure is released before the nozzle separates from the fill point to inhibit nozzle recoil.
- Single-handed operation.
- Low weight.
- Ergonomic contoured composite lever.
- Durable easy-rotating swivel for improved handling.
- With Latch.
- Fully repairable.
- Optional Scuffguard (Nozzle Talker) is also available, can be used to show fuel type or as advertising space.

K connector, gas release volume < 2 cm³



Single handed operation, lever latch for reduced hold-open force activates dispenser reed switch

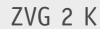


Composite lever, magnet



Easy rotating swivel as standard





For 'self-serve' refueling of light and heavy duty Autogas vehicle and small storage tanks. Unique 'pistol grip' style nozzle for use in Japan and Korea. For self-serve and attended sites.

- Flowrate: Up to 50 I/min
- Release volume: <2 cm³ (<0,12 cubic inch)
- Safe design moves hands away from gas released at end of refueling process.







Optional Scuffguard EA 866 E black or orange

14 GasGuard ZVG 2 K NOZZLE | 15

GASGUARD NOZZLE ACCESSORIES



ARK 19 MOD. 2

• Safety Break Coupling, quick reconnection under pressure



RANGE OF HOSE FITTINGS

• Ferrule type hose fittings, with NPT or BSP thread, delivering highest operational safety with a 'better than the standard' philosophy

Best in class, from dispenser to customer: Elaflex Pacific supplies Autogas hoses, fittings and other accessories which are contributing to forecourt safety and an improved refueling experience.

Our nozzle boots are easy to mount and are a practical and secure housing for the nozzle. Reed switches can be installed on reverse side for pump activation. Nozzle boot also available with locking feature.

Hose assemblies to EN1762, AS/NZS1869, UL21 & CSA 8.1 with our renown ferrule type hose fittings and anti-kinking sleeves, easy to handle, safeguarding media purity, high burst pressure, and very durable.

Last not least, the safety break ARK 19 Mod. 2 adds to operational safety. After a drive-off incident it can be reconnected under pressure, without the use of tools.



AUTOGAS HOSE OPTIONS

- LPG 13 (ID 13 mm)
- LPG 16 black / orange (ID 16 mm)
- LPG 19 (ID 19 mm)



NB-GG

- Nozzle boot (holster) suitable for all GasGuard nozzles and ZVG 2 EURO UL / ZVG 2 K
- Optional as lockable nozzle boot version

suitable for all ZVG 2 nozzles Optional as lockable nozzle boot version

NB-ZVG

Nozzle boot (holster)



- Colour Sleeves for LPGas colour identification
- Anti-Kinking Sleeves to protect hose against high

KS

CS

bending strain



16 | GasGuard GG1 / GG20 / GG30 / ZVG 2 EURO UL: ACCESSOIRES | 17

OTHER LPG EQUIPMENT

movements and to absorb vibration and noise.



DGC

- Dry Gas Couplings
- Quick, safe and spill-free connection under pressure

For the fast filling of storage tanks and containers, DGC (Dry Gas Couplings) from Mann Tek have proven themselves in practice. They can be coupled and uncoupled under pressure, within seconds. A time efficient, safe and clean way for bulk LPGas transfer, without spill or product loss.



SBC

 Also available with flanged connection / with Safety Break



Mann Tek Safety Break Away Couplings SBC (front picture) protect hose assemblies, loading arms and pipework against excessive external loads. If the equipment is subjected to inadvertent and strong tensile loads, e.g. due to a premature movement of road and rail tankers or the drifting of ships, the coupling will separate and instantly seal the two open ends automatically.

Also available in combination with DGC (background picture).

HOSE ASSEMBLIES

- Renown hose type LPGACME or NPT thread, DIN or ASA flange
- Spannfix or Spannloc safety clamps



VX 19-3/4" NPT

LPG 32

LPG 50

For bulk refueling we recommend our LPG hoses to EN 1762, sizes DN 10 to 200 mm. The hose construction with braided reinforcements gives them an unequalled combination of flexibility, pressure safety and long service life.

End fittings (ACME/NPT thread, DIN/ASA flanges) of steel, stainless steel or brass are assembled with reusable SPANNLOC or SPANNFIX safety clamps. WP PN 25 - test presure 40 bar - burst pressure > 100 bar.

18 | GasGuard OTHER LPG EQUIPMENT | 19

APPLICATIONS







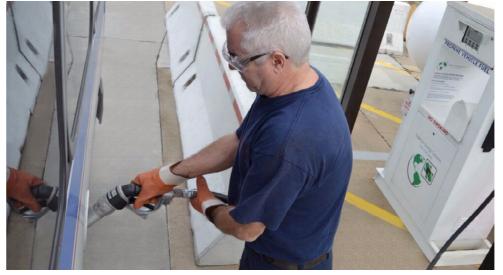


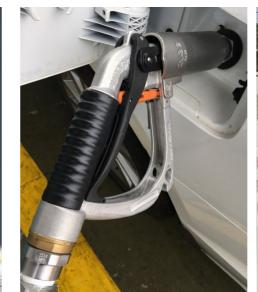




















20 | GasGuard APPLICATIONS | 21

APPLICATIONS

























22 | GasGuard APPLICATIONS | 23



For product information, catalogue pages and product configurators please visit www.elaflex.com.au

ELAFLEX PACIFIC PTY LTD

Unit 29/58 Box Road, Taren Point, NSW, 2229 Australia

GasGuard

Tel.: +61 2 8058 9258 Fax: +61 2 8058 9240 E-Mail: info@elaflex.com.au www.elaflex.com.au

International distributors of GasGuard products:

www.elaflex.com.au/contact/distributors-gasguard-products





United States of America

Rutherford Equipment, Inc.

Tel.: +1 800 241 5652

E-Mail: sales@rutherfordequipment.com Web: www.rutherfordequipment.com

Ray Murray Inc.

Tel.: +1 413 243 2164 E-Mail: info@raymurray.com Web: www.raymurray.com

Gas Equipment Company, Inc.

Tel.: +1 972 241 2333 E-Mail: info@gasequipment.com Web: www.gasequipment.com

Teeco Products

Tel.: +1 800 225 6621

E-Mail: steven@teecoproducts.com Web: www.teecoproducts.com

Temco International Corporation

Tel.: +1 305 234 7851 E-Mail: maritere_solares@temcointl.com Web: www.temcointl.com

Parafour Innovations, LLC

Tel.: +1 512 689 4099 E-Mail: robin@parafour.com Web: www.parafour.com

MTankCo Supply, LLC

Tel.: +1 800 235 3528 E-Mail: sales@mtankco.com Web: www.mtankco.com

Industrial Propane Service Inc.

Tel.: +1 800 621 4137 E-Mail: jeff@industrialpropaneservice.com Web: www.industrialpropaneservice.com

Canada

National Energy Equipment Inc.

Tel.: +11 1 905 564 2422 E-Mail: bgilchrist@nee.ca Web: www.nee.ca

Max-Quip Inc.

Tel.: +11 1 403 258 3680 E-Mail: cstewart@maxquip.ca Web: www.maxquip.ca

Latin America

ELAFLEX Latin America S.A.

Tel.: +54 11 4836 3510 E-Mail: frank.depoli@elaflex.com.ar Web: www.elaflex.com.ar

France

ELAFLEX FRANCE SARL

Tel. +33 (0) 1 41 84 06 22 E-Mail: info@elaflex.fr Web: www.elaflex.fr

Germany

ELAFLEX HIBY Tanktechnik GmbH&Co.KG

Telefon: +49 40 540 00 50 E-Mail: info@elaflex.de Web: www.elaflex.de

F.A.S. Flüssiggas - Anlagen GmbH

Tel.: +49 5341 86970 E-Mail: info@fas-uni.de Web: www.fas-uni.de

United Kingdom

KC ProSupply UK Ltd.

Tel.: +44 131 707 4502 E-Mail: rsmith@kcprosupplyuk.com Web: www.kcprosupply.com

China, Hong Kong and Macau

Flowco Sales and Service Ltd.

Tel.: +852 2412 0155 E-Mail: flowco@netvigator.com Web: www.flowco.com.hk

Australia

D.J. Batchen Pty. Limited

Tel.: +61 (2) 9644 7444 E-Mail: sales@batchen.com.au Web: www.batchen.com.au

Gilbarco Australia Ltd.

Tel.: +61 (2) 8737 7897 E-Mail: sales.oz@gilbarco.com Web: www.gilbarco.com

New Zealand

Gallagher Fuel Systems

Tel.: +64 (6) 327 0060 E-Mail: info@fuel-systems.gallagher.co Web: www.fuelsystems.gallagher.co

New Zealand Pump & Machinery Co. Limited

Tel.: +64 (4) 568 3029 E-Mail: sales.w@pumpmachinery.co.nz Web: www.pumpmachinery.co.nz