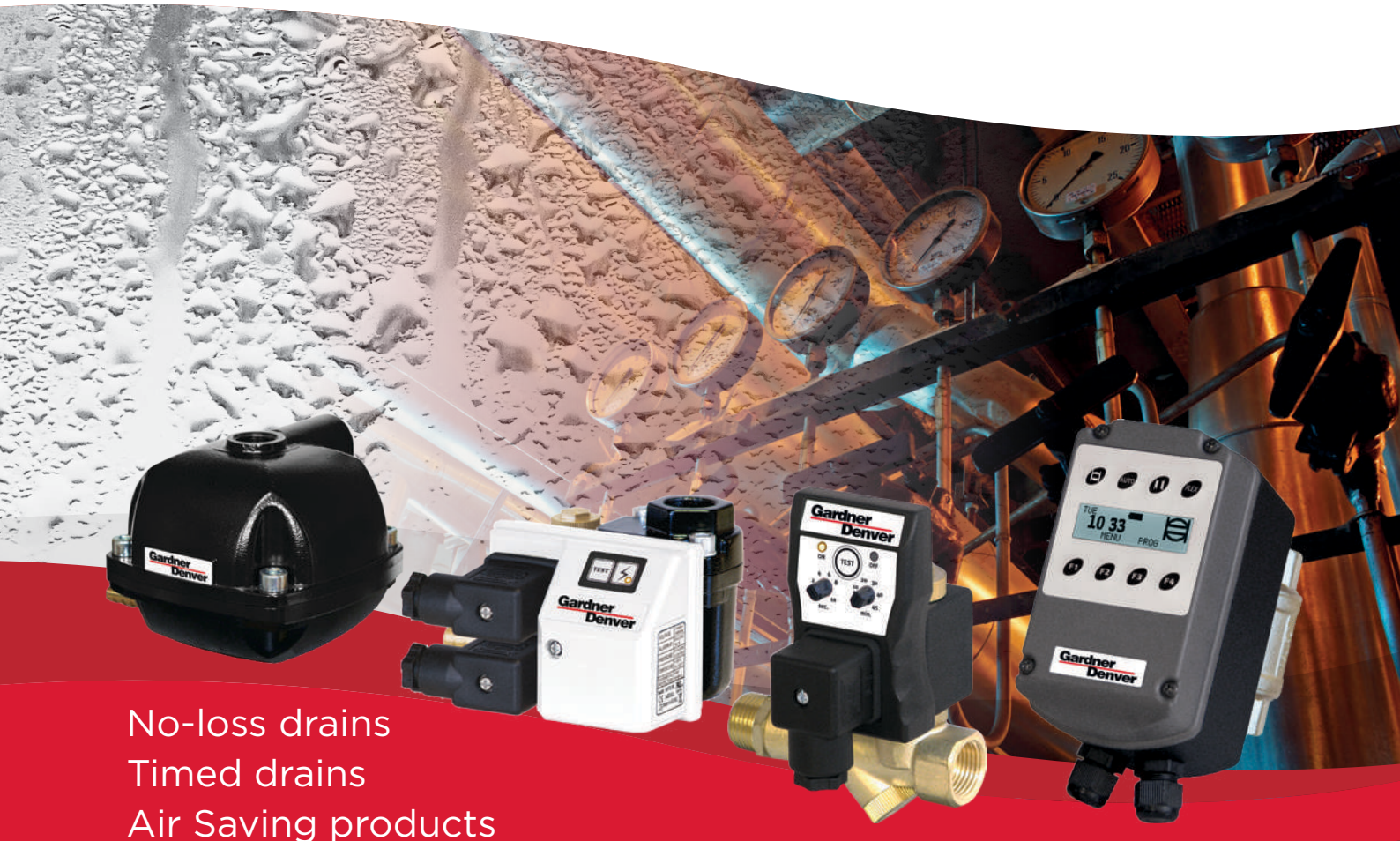
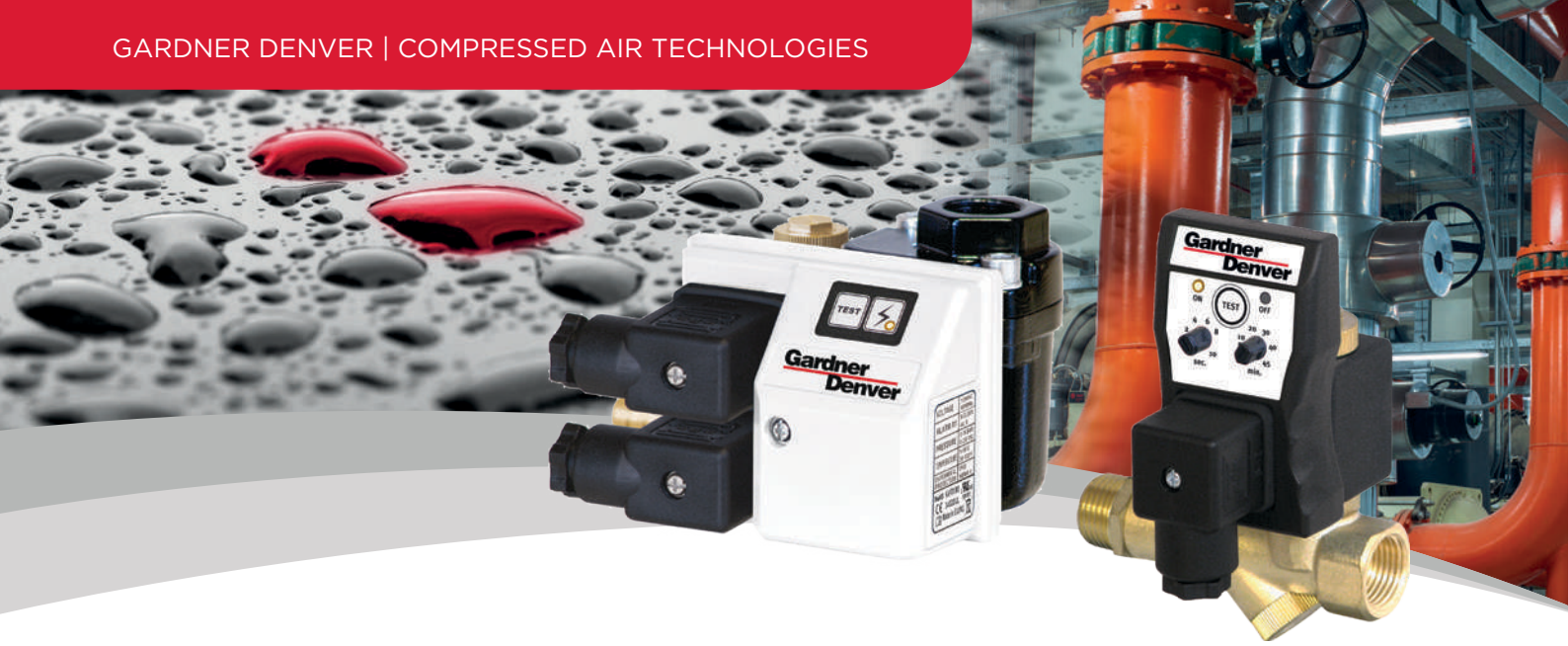
Gardner Denver

Efficiency, Flexibility & Value

Reliable Condensate Management



No-loss drains
Timed drains
Air Saving products



Introduction To Compressed Air Condensate

Contaminants can enter a system at the compressor intake or be introduced into the airstream by the system itself. Lubricant, metal particles, rust, and pipe scale are all separated and filtered out, and drains have to operate correctly for the filters and separators to complete their task successfully. Drains can be found on an intercooler, after-cooler, filter, dryer, receiver, drip leg, or at the point of use.

How do your drains improve system efficiency?

Draining the moisture from compressed air systems ensures less downtime and damage due to rust and scale. Gardner Denver drains are designed for long life and require minimum maintenance. They are critical components in the quest for system efficiency and reliability. When a drain fails to discharge the condensate, the condensate can carry over into the system, causing a build-up of contaminants in dryers, receivers and filters. On multiple stage compressors, moisture carryover from the intercooler may allow liquid into the next stage, causing premature wear and a potentially catastrophic failure.

Why install a Gardner Denver condensate drain?

Gardner Denver drains can be applied in both oil-lubricated and oil-free compressor applications. Gardner Denver products carry globally recognised approvals, and each product is 100% tested before dispatch.

Gardner Denver drains are robust and designed for long life industrial applications.

The Gardner Denver direct-acting valve construction with a large orifice has proven to be the most reliable option for condensate draining applications, avoiding potential blockages. In addition, we apply stainless steel moving parts that offer an extended life guarantee and are less sensitive to aggressive particles found in the condensate.

Gardner Denver valves are constructed from robust brass or stainless steel, ensuring no damage occurs during transportation, installation, functional operation and subsequent maintenance throughout the drain's working life.

Drains are also installed outdoors. IP65 (NEMA4) insulation protection is, therefore, a minimum requirement. High-grade coil insulation protects the copper wire from overheating, and top brand PCB components are applied to our electronic modules.

Servicing Gardner Denver drains is quick and easy. Their service-friendly design ensures short maintenance intervals.

Based on their high and low-temperature operation characteristics, FPM seals have been specifically selected and used in all Gardner Denver drains. In addition, FPM seals are chosen as this material has proved to be the best choice for compressed air condensate draining applications.

CE RoHS

EN - ISO 9001:2015 – certified

UP TO 80 bar

GTDV & GTDC

Electronic timer controlled condensate drain

The GTDV timer controlled condensate drain is a combination of a solenoid valve and an electronic timer designed to automatically remove condensate from compressed air systems. The GTDC in addition, has an integral ball valve and a strainer, all in the same body.

Product features

The GTDV and GTDC are designed to remove condensate from compressors, compressed air dryers, air filters and receivers up to any size, type or manufacturer.

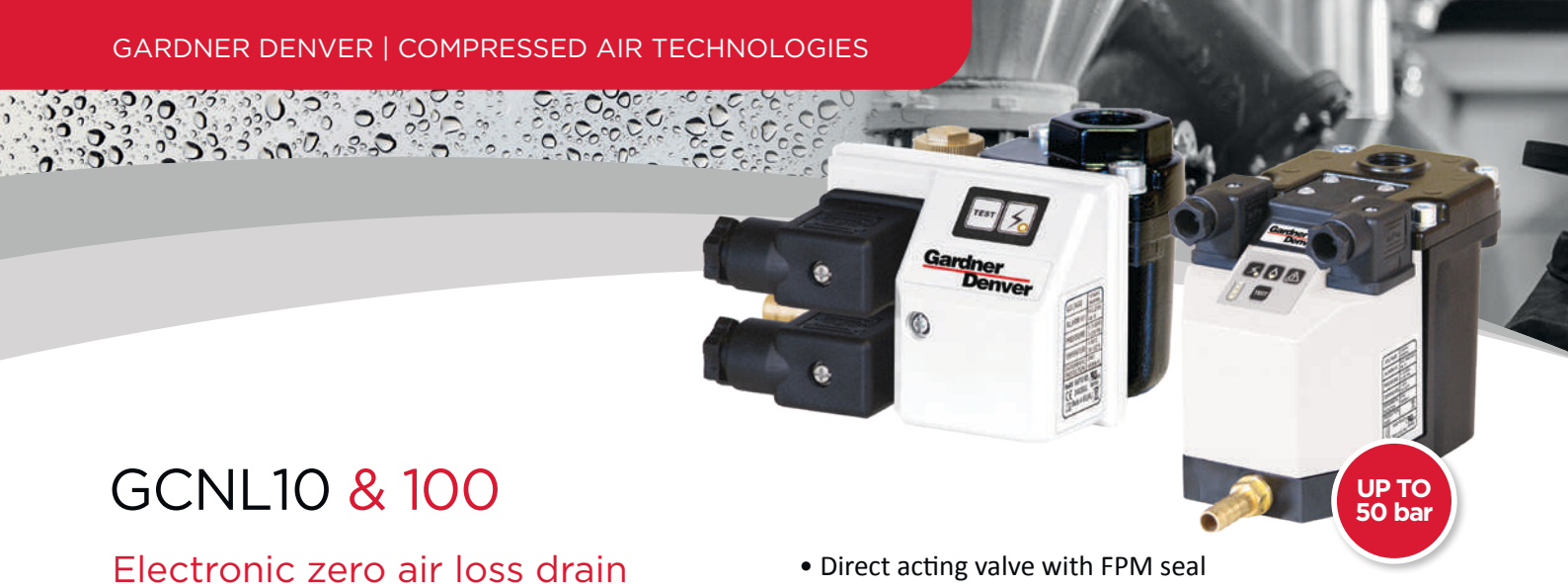
The GTDV and GTDC offer true installation simplicity and they are recognised as the most reliable and best performing condensate drain worldwide. The larger orifice combined with its prominent front labelling feature is complemented by a selection of high pressure ranges and stainless steel valve options. In addition, virtually all voltage options are available in the GTDV and GTDC models.

Features & Benefits

- Any type of compressed air system and compressor capacity
- Available in High Pressure up to 80 bar
- Environmentally friendly low Watt version available
- Serviceable valve construction
- Large (4.5mm) valve orifice
- Does not air-lock during operation
- Quick to service
- Test feature (micro-switch)
- Accurate time cycles
- High quality PCB components, offering you consistent quality

Technical Data

Max. compressor capacity	Any size
Min./max. system pressure	Standard: 0 - 16 bar HP: 0 - 80 bar
Min./max. medium temperature	1 - 55°C (34 - 131°F)
Min./max. ambient temperature	1 - 55°C (34 - 131°F)
Supply voltage options	115VAC / 230VAC
Environmental protection	IP65 (NEMA4)
Connector type (power)	DIN 43650-A
Inlet connections	GTDV: 1/4", 3/8", 1/2" BSP GTDC: 1/4", 1/2" BSP
Outlet connections	GTDV: 1/4", 3/8", 1/2" BSP GTDC: 1/2" BSP
Inlet connection height	Approx. 1cm
Valve type	2/2 way, direct acting
Valve orifice	GTDV: 4.5 mm GTDC: 4.0 mm
Valve seals	FPM
Serviceable valve	Yes
Valve housing material	Brass (stainless steel available)
Test feature	Yes
Timer cycle range (ON/OFF)	0.5 – 10 seconds / 0.5 – 45 minutes
Timer PCB	SMD technology, ensuring consistency in production
Timer cycle indication	Bright LED illumination



GCNL10 & 100

Electronic zero air loss drain with alarm feature

The GCNL10 removes all types of condensate from compressed air systems with air flow up to 10 m^3/min without the loss of compressed air while the GCNL100 up to 100 m^3/min.

Product features

The GCNL10 is an electronic zero air loss drains suitable for smaller compressed air applications. It offers an incredibly compact solution with unrivalled installation versatility and reliability. Typical draining applications include fridge dryers and filters. To further simplify the installation in restrictive height conditions, a side inlet adapter is available.

The GCNL100 offers a rapid pay-back period due to the zero air loss feature and energy saving features. The compact and robust industrial housing, 2/2 way direct acting valve with a large orifice, alarm feature and the integrated mesh strainer make the GCNL100 and GCNL100-HP highly reliable draining solutions. Equipped with a digital, LED illuminated, sight-port/ level indicator showing you the condensate level inside the reservoir and enabling you to monitor the operation, even in poor lit places.

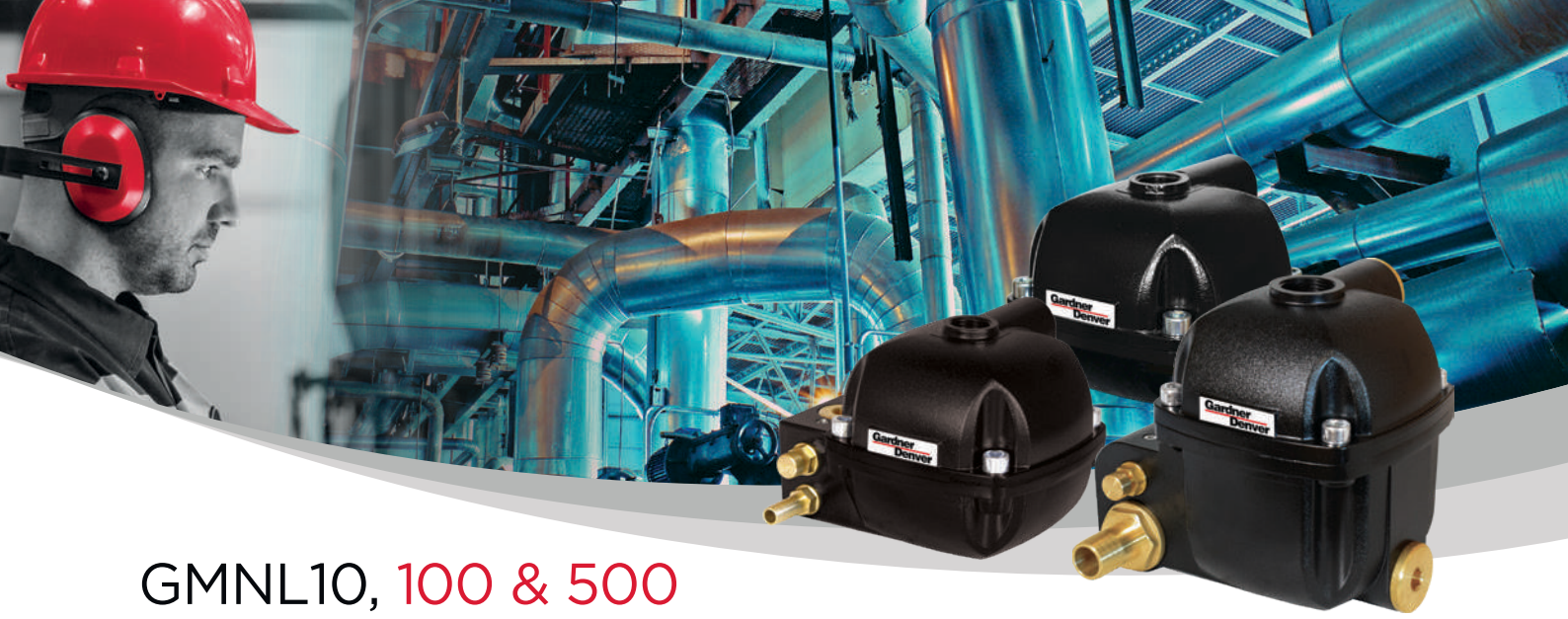
Features & Benefits

- Extremely compact and lightweight
- True zero air loss solution saves air and energy
- 2 models cover compressor capacities up to 100 m^3/min
- Visual alarm (LED indication)
- Easy installation and visual display of operating status
- External valve construction for fast and easy maintenance
- Direct acting valve with FPM seal
- Robust corrosion resistant aluminium housing
- Large integrated mesh strainer to protect the valve
- Side inlet adapter optionally available
- Drain heater for cold weather applications and T-adapter optionally available
- Large orifice for successful draining of all condensate types

Technical Data

Max. compressor capacity	GCNL10: 10 m^3/min GCNL100: 100 m^3/min
Max. drainage capacity of condensate	GCNL10: 45 l/h at 16 bar GCNL100: 665 l/h at 16 bar GCNL100 HP: 120 l/h at 50 bar
Min./max. system pressure	0 - 16 bar (0 - 230 psi) HP: 0 - 50 bar (0 - 725 psi)
Min./max. medium temperature	1 - 50°C (34 - 122°F)
Min./max. ambient temperature	1 - 50°C (34 - 122°F)
Supply voltage options	115VAC / 230VAC
Enclosure protection rating	IP65 (NEMA4)
Connector type (power)	DIN 43650-B
Inlet connection	1/2" BSP GCNL100: 3 inlet options
Inlet height	GCNL10: 74mm GCNL100: 110mm (top) and 75 & 15mm (side)
Side inlet adapter	Yes, optional
Outlet connection	1/4" BSP, with brass hose barb adapter
Valve type	2/2 way, direct acting
Valve orifice	GCNL10: 2mm GCNL100: 4mm (Non-HP) 1.8mm (HP)
Valve seals	FPM
Serviceable valve	Yes
Integrated mesh strainer	Yes
Housing material	Corrosion resistant aluminium, EP coating
Test feature	Yes
Visual alarm	Yes, LED indication
Alarm feature (N/O)*	Normally open alarm output contact (potential free relay)

* Normally open contacts, closed when in alarm phase. In CCNL100 Alarm LED on the drain is OFF in normal operation and ON when in alarm mode.



GMNL10, 100 & 500

Magnetically operated level sensed condensate drain

The GMNL10 is a magnetically operated zero air loss drains that discharge condensate from all compressed air systems by using a unique technology based on magnetic forces and without the usage of electricity. The environmentally-friendly GMNL100 removes all types of condensate from compressed air systems up to 100 m^3/min while the GMNL500 is ideal for larger applications up to 500 m^3/min with exceptionally large condensate discharge capacity of 4,800 l/h at 16 bar.

Product features

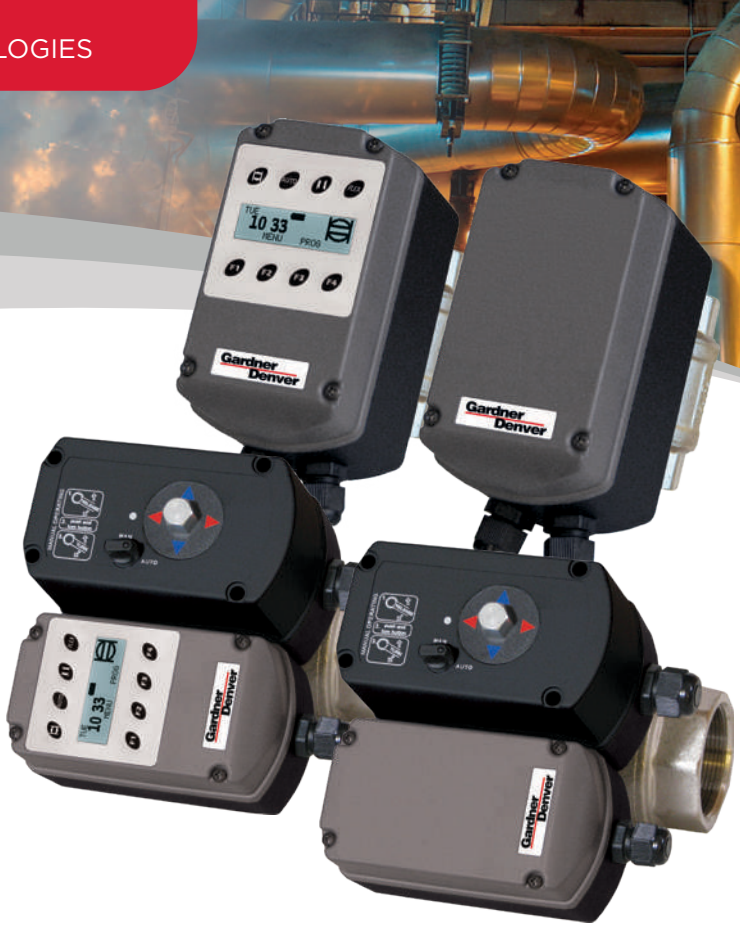
The GMNL series uses specially selected long-life magnets that ensure a reliable discharge operation. The discharge process is automatic, does not require electricity and there is no compressed air lost during the condensate discharge cycle. They are ideally suited in applications where power is not available, too expensive or not reliable. The integrated stainless steel strainer protects the valve, optimising the discharge performance. Drains have an IP68 rating for higher enclosure protection.

Features & Benefits

- Suitable for any type of compressed air system
- No electricity required: no operating cost
- 3 models cover compressor capacities up to 500 m^3/min
- Zero air loss technology saves air, energy and money
- Compact and unique design
- Incredibly easy and quick to install and service
- No control air line and pressure regulator required
- Integrated mesh strainer to protect the valve
- Top and side inlets available
- Robust corrosion resistant aluminium housing
- Direct acting valve construction for a reliable condensate discharge operation
- Successful draining of, even heavily emulsified, condensate due to large 6mm valve orifice

Technical Data

Max. compressor capacity	GMNL10: 10 m^3/min GMNL100: 100 m^3/min GMNL500: 500 m^3/min
Max. drainage capacity of condensate at 16 bar	GMNL10: 145 l/h GMNL100: 1062 l/h GMNL500: 4800 l/h
Min./max. system pressure	0 - 16 bar (0 - 230 psi)
Min./max. medium temperature	1 - 50°C (34 - 122°F)
Min./max. ambient temperature	1 - 50°C (34 - 122°F)
Enclosure protection rating	IP68 (NEMA6)
Inlet connections	GMNL10: 1/2" BSP, 2 inlet options GMN100: 1/2" BSP, 3 inlet options GMNL500: 3/4" BSP, 3 inlet options
Inlet height	GMNL10: 10.3cm (top) and 9cm (side) GMNL100: 12cm (top) and 9.7cm & 1.5cm (side) GMNL500: 15.1cm (top) and 13.3cm & 1.8cm (side)
Outlet connection	GMNL10: 1/8" BSP, with brass hose barb adapter GMNL100: 1/4" BSP, with brass hose barb adapter GMNL500: 3/4" BSP, with brass hose barb adapter
Valve type	Direct acting
Valve orifice	GMNL10: 2mm GMNL100: 6mm GMNL500: 12mm
Valve seals	FPM
Serviceable valve	Yes
Integrated mesh strainer	GMNL10: No GMNL100: Yes GMNL500: Yes
Housing material	Corrosion resistant aluminium, EP coating



GSLV & GSLVE

Compressed air energy saver

A typical compressed air system has air losses through pipe works connections. By installing an GSLV the end user will limit them. Typically installed in the compressed air line after the air receiver.

Product Features

The GSLV has proven its worth and saved millions m^3 of compressed air around the world, helping end-users to save valuable compressed air from escaping unnecessarily, reducing compressor running hours and thus extending its lifetime, saving energy and operating costs. The GSLV can be installed in all pipeline systems of 1" or 2". When the ball valve of the GSLV is closed, all compressed air will remain in the air receiver, rather than being lost through leakages. The control module offers programming simplicity and exciting display features

A typical installation example is to connect the GSLV to a light switch. By switching on the lights in the production area - the GSLV will subsequently open. The saved compressed air flows into the factory compressed air line and the compressor kicks-in to produce the air needed to fill the system. At the end of the work-shift you switch off the light(s) and the GSLVE will close accordingly.

Features & Benefits

- No unnecessary compressor start-up during periods when compressed air is not required
- Reduced maintenance requirements and lower power consumption leads to considerable savings on service and energy costs
- Time programmed or remote controlled
- Manual valve opening and closing possible, in case of a power failure
- Typically installed on the air outlet of the air receiver or alternatively applied to close off certain parts of the compressed air system
- A backup battery or a manual valve opening and closing, in case of a power failure
- Battery life indication on the display
- Slow valve opening to avoid "water hammer" in pipe line system
- Brass valve, nickel plated
- Compact design - Easy to install

Technical Data

Min./max. system pressure	0 - 16 bar
Min./max. medium temperature	1 - 100°C (34 - 212°F)
Min./max. ambient temperature	1 - 50°C (34 - 122°F)
Supply voltage options	230 VAC 50/60 Hz.
Power consumption	Approx. 7W during cycle rotation for GSLV 1" and 9W for GSLV 2".
Enclosure protection rating	IP54 (NEMA13)
Valve inlet/outlet connections	1" or 2"
Valve opening/closing duration	30 sec. (90°) for 1", or 105 sec for 2"
Valve housing material	Brass valve, nickel plated
Illuminated LCD display	Indicating day, time, valve status, battery life
Battery type	CR2032, 3 volt
Programmable options	Week planner, max. 100 switching points, to be distributed over 1-7 days
Manual valve override	Yes
Remote controllable	Yes (optional)

Accessories

Ball Valve Strainers

The specially designed in-line ball valve strainer allows for easy local shut off of zero air loss drains for maintenance purposes.

Any debris will be caught in the mesh strainer that protects the drain from any blockages and reducing maintenance to a minimum. It is specially designed to prevent flow restrictions that can cause air-locks. A specially designed in-line protective strainer ensures debris does not affect the valve orifice or seals and allows the service engineer to safely shut the drain off from the compressed air system.

Wall Mounting Bracket

Wall mounting brackets allow easy installation of timer drains to walls or to the inside of refrigerated dryers. The bracket kit contains all necessary fixings to complete the job.

Drain Heater and T-Adapter

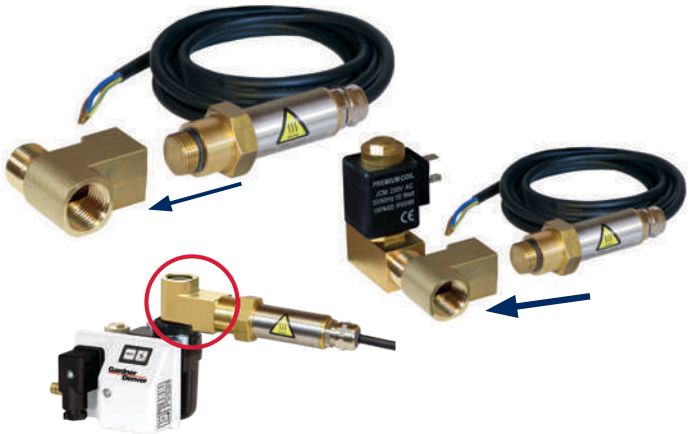
In very cold temperatures, condensate may run the risk of freezing when it does not continuously flow through the system. The drain heater guarantees a continuous condensate flow in all systems where you have trouble keeping the condensate flowing due to extreme cold weathers. The T-adapter is a useful installation aid as it enables you to connect the drain heater to various 1/2" drains. The drain heater with T-adapter can be applied in combination with both levels sensed drains and timer controlled drains.

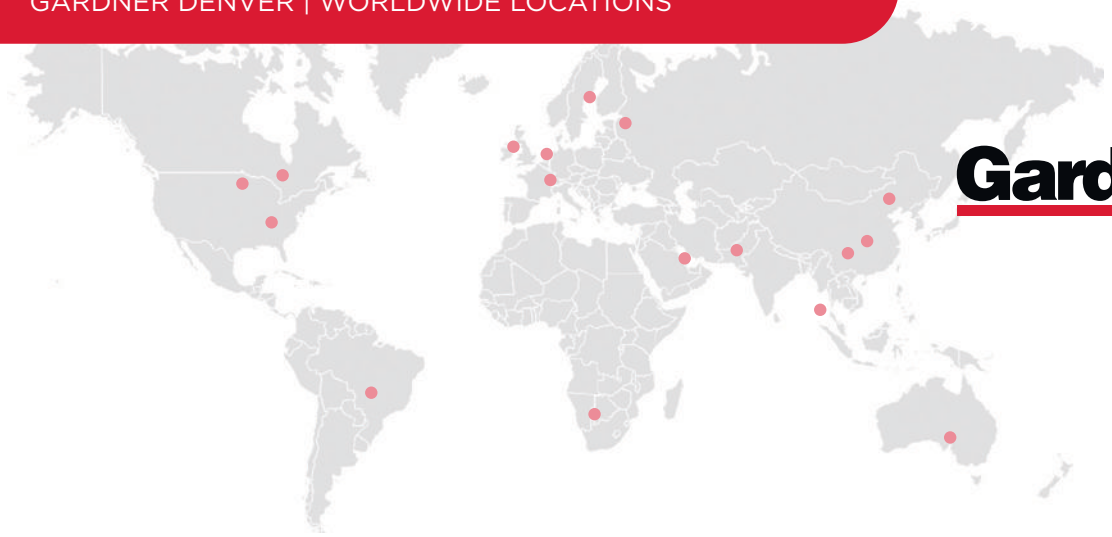
Service Kits

Great care is taken to ensure long lasting components are selected and applied in our products. Gardner Denver products are designed in a way that makes servicing simple, quick and error free. Servicing Gardner Denver products is a cost effective way to recondition the products for many more years of draining service.

Gardner Denver Timers

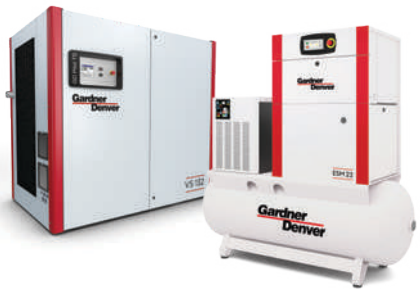
The Gardner Denver timers are produced to the highest standards. We apply two voltage protection element (IN and OUT) to ensure a long life protection against electrical power surges. Our timers are also purchased by other solenoid valve producers and mounted on their valves for all kinds of different applications besides condensate draining.



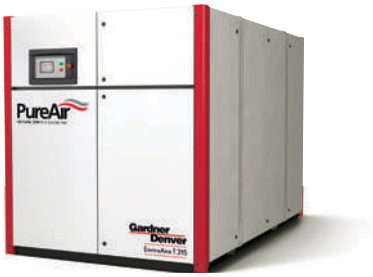


Gardner Denver

Global Expertise



The GD rotary screw compressor range from 2.2 – 500 kW, available in both variable and fixed speed compression technologies, are designed to meet the highest requirements which the modern work environment and machine operators place on them.



The oil-free EnviroAire range from 15 – 315 kW provides high quality and energy efficient compressed air for use in a wide range of applications. The totally oil-free design eliminates the issue of contaminated air, reducing the risk and associated cost of product spoilage and rework.

A modern production system and process demands increasing levels of air quality. Our complete **Air Treatment Range** ensures the highest product quality and efficient operation.

Compressor systems are typically comprised of multiple compressors delivering air to a common header. The combined capacity of these machines is generally greater than the maximum site demand. To ensure the system is operated to the highest levels of efficiency, the **GD Connect** air management system is essential.

gdcompressors.eu@gardnerdenver.com
www.gardnerdenver.com/gdproducts

For additional information please contact Gardner Denver or your local representative.

Specifications subject to change without notice.

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