



COMPRESSED AIR CONDENSATE MANAGEMENT SPECIALIST

CONDENSATE DRAINS

ZERO AIR LOSS

KAPTIV

MAGY



NUFORS G1/2

NUFORS G3/4

MAGY

KAPTIV



RELIABLE

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Certifications & Norms

KAPTIV

NUFORS G1/2

NUFORS G3/4

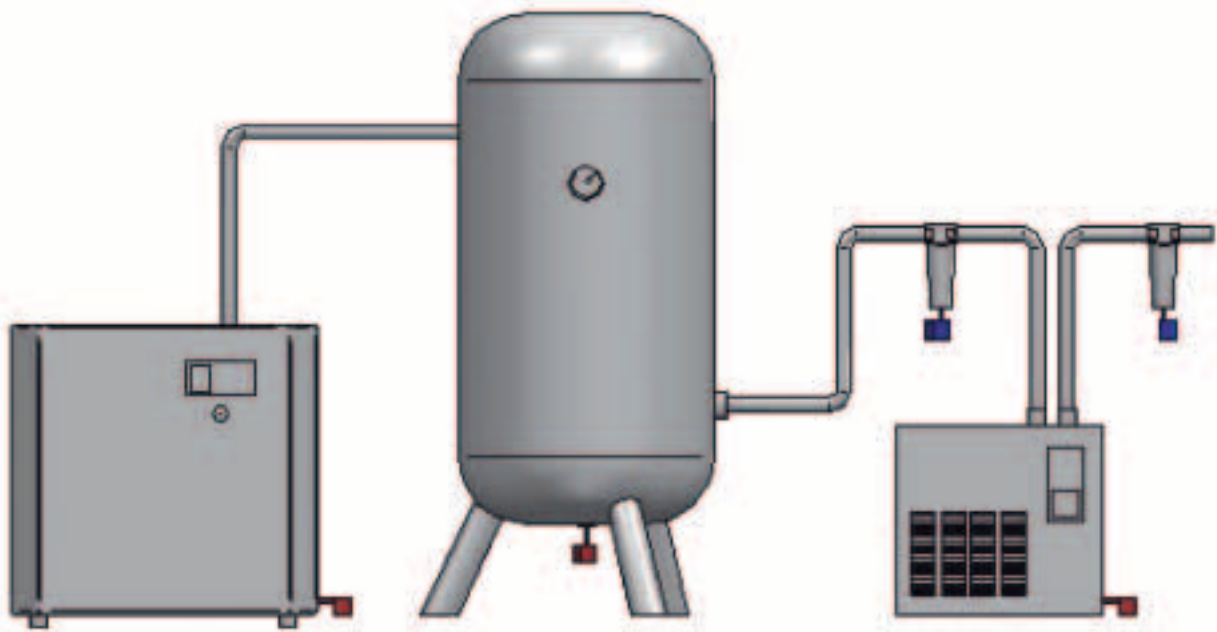
MAGY

Service kits

Accessories

Installation guidelines

DRAIN POINT SOLUTIONS



JORC zero air loss drain solutions for the above are:

Installation on a compressor and/or after-cooler	Installation on a receiver	Installation on an air dryer	Installation on a filter
KAPTIV Electronically controlled	KAPTIV Electronically controlled	KAPTIV Electronically controlled	MAGY Magnetically controlled
NUFORS Pneumatically controlled	NUFORS Pneumatically controlled	NUFORS Pneumatically controlled	

Alternative JORC drain solutions for the above are:

Electronic timer controlled drains	Electronic timer controlled drains	Electronic timer controlled drains	Electronic timer controlled drains
OPTIMUM, TEC-22, COMBO, EZ-1, COMBO-D-LUX, TEC-55, COMBO-QUICK-SET	OPTIMUM, TEC-22, COMBO, EZ-1, COMBO-D-LUX, TEC-55, COMBO-QUICK-SET	OPTIMUM, TEC-22, COMBO, EZ-1, COMBO-D-LUX, TEC-55, COMBO-QUICK-SET	TEC-11
	Motorised ball valve TEC-44		

CONDENSATE

Condensation is the moisture that drops out of an air flow as it cools. The condensation in a compressed air system is a constant threat to cause expensive problems. The following are a few examples:

- Moisture washes lubrication from air tools and production equipment causing downtime and maintenance.
- An inconsistent supply of dry air causes production quality problems.
- Excessive rust and scale often forms in the air distribution system.
- Water can back up into the compressor and wreck the machinery.
- Air dryers can become overloaded.
- In-line filters can be destroyed.

The problems get worse if you operate lubricated reciprocating or oil flooded rotary screw compressors - which is just about everyone. Compressor oil makes its way into the distribution system with the compressed air. The mixture of oil, water, dirt and heat tends to build up a sludge that can ultimately jam or clog production equipment, air tools and drains.

The situation is further complicated by climate and seasonal weather changes. This is because the amount of condensation generated will change according to changes in the temperature and the relative humidity of the inlet air.

The typical compressed air system is designed to have condensation removed at strategic locations. This means that there are drains fitted to the after cooler separator, receiver tank, air dryer, in-line filters and at drain points in the piping system.

PRODUCT SELECTION

JORC produces the widest range of condensate drains. Whereas our competitors merely produce one type of drain system, we produce zero air loss drains, timer controlled drains, powerful motorised ball valve drains and the new magnetically operated drains.

JORC drains are most reliable and combined with the wide product selection, they are an interesting range to offer your customers.

A whole range of private labelling options are available to make you and your JORC drain stand out and be noticed.

The JORC drains are complemented with a complete range of the oil/water separating products - consult factory for details.

JORC's air saving products are unique and a clever addition to any compressed air system, consult factory for details.

CE

The CE Marking applies to products regulated by certain European health, safety and environmental protection legislation.

The CE Marking is obligatory for products it applies to, the manufacturer affixes the marking in order to be allowed to sell his product in the European market.

JORC products are CE certified.



CULUS

The UL Recognized Component Mark, which became effective April 1, 1998, may be used on components certified by UL to both Canadian and U.S. requirements.

Although UL had not originally planned to introduce a combined Recognized Component Mark, the popularity of the Canada/U.S. Listing and Classification Marks among clients with UL certifications for both Canada and the United States has led to the new Mark.

JORC products, where applicable, are cULus certified.



ISO-9000

The **ISO 9001** certificate is primarily concerned with "**quality management system**".

The ISO certificate states that JORC fulfils:

- the customer's quality requirements, and
- applicable regulatory requirements, while aiming to
- enhance customer satisfaction, and
- achieve continual improvement of its performance in pursuit of these objectives.

JORC is ISO 9001:2000 Certified.



ATEX

The ATEX Directive is a so-called "New Approach" Directive giving the Essential Health and Safety Requirements (EHSRs) and conformity assessment procedures which must be applied to equipment within its scope before being placed on the European market.

These requirements provide for a high level of protection for citizens, and are given technical expression by what are called "Harmonised Standards".



ROHS

The RoHS Directive bans the use of certain restricted substances in end products, which prevents the substances from entering waste streams. According to the directive, new electrical equipment placed on the market within Europe cannot contain more than maximum allowable levels of:

Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated bipenyl (PBB), Polybrominated diphenyl ether (PBDE). Among the RoHS Directive's largest impacts to manufacturers is the transition from the use of lead solders to lead-free solders.



JORC's products are ROHS conform.

PED

The Pressure Equipment Directive (PED) is European Legislation aimed at removing the technical barriers to trade, relating to the supply of pressure equipment throughout Europe. The PED is based on Essential Safety Requirements (ESRs) that govern design, manufacture, inspection & testing. It affects most pressure equipment that will be placed on the market in the European Economic Area (EEA) designed for pressures above 0.5 bar g or 7.25 psi g.

JORC's products are PED approved where applicable.

IP65/NEMA 4

Developed by the European Committee for Electro technical Standardization (CENELEC), these standards are designed to numerically rate an electrical product on the level of protection its enclosure provides.

JORC products are IP65, unless otherwise specified.

KAPTIV®

Electronically operated zero air loss drain for compressed air systems



PRODUCT FEATURES

The KAPTIV is designed to remove condensate from compressed air systems up to 100³/min (compressor capacity).

The KAPTIV offers true programming flexibility. The software incorporates alarm options and anti-air-lock options which may be activated according to your requirements. Effectively, one unit truly does it all.

The operation is automatic and there is zero air loss during the condensate discharge cycle. Preventing the loss of compressed air saves energy for the end-user.

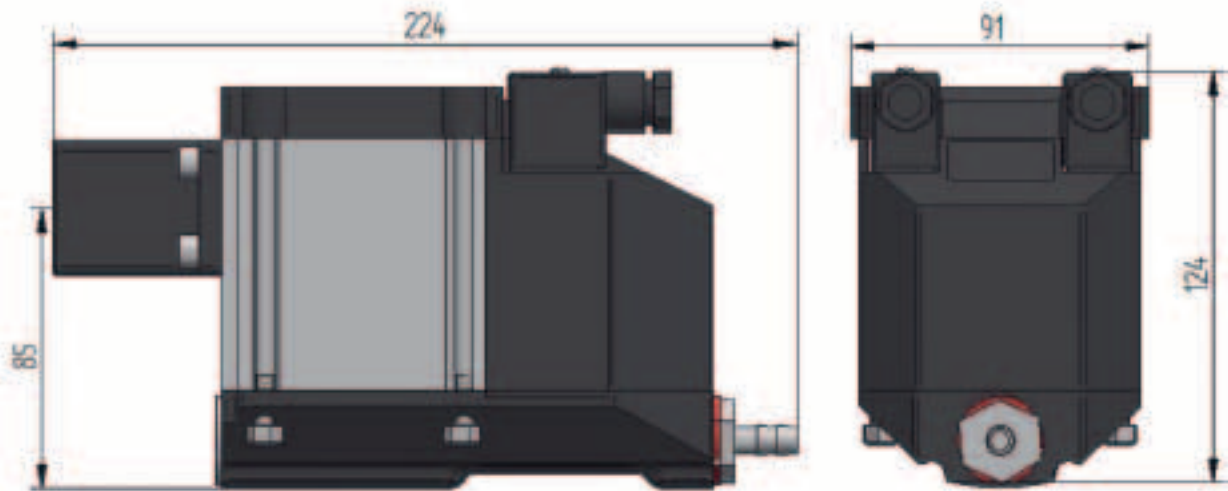
COMMERCIAL BENEFITS

- Energy saving condensate discharge without air loss.
- Suitable for any type of compressed air system.
- No minimum pressure required to operate
- Digitally programmable **alarm feature**
- Digitally programmable **anti-air lock feature**
- SMS text service available.

TECHNICAL ADVANTAGES

- Visual display of operating status.
- Application environment up to IP65 (NEMA 4)
- Robust industrial housing.
- Incredibly simple and quick to install and service.
- DIN connectors for easy electrical installation.
- Direct acting valve assembly, ensuring consistent discharge operation.

PRODUCT DIMENSIONS (mm)



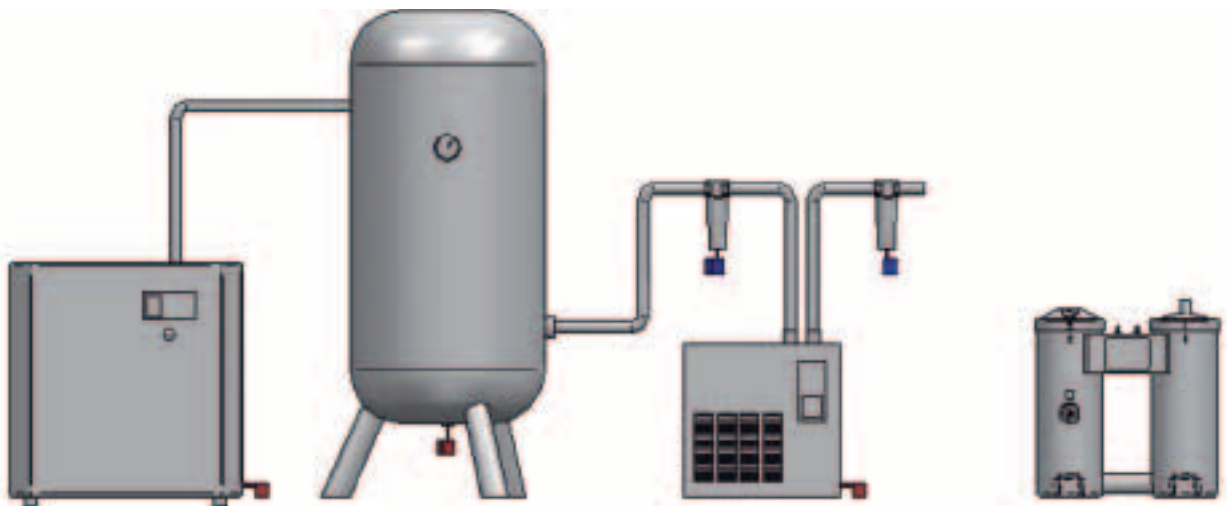
PRODUCT SPECIFICATIONS

Maximum compressor capacity	100 m ³ /min. (*)
Inlet/outlet connection	1/2" inlet and 1/2" outlet
Valve orifice	4.5 mm
Minimum/maximum system pressure	0 bar/16 bar
Minimum medium temperature	1° C
Maximum medium temperature	50° C
Serviceable valve	Yes
Valve seals	Viton (FPM)
TEST feature	Yes
Environmental protection	IP 65
Digital programming options:	Alarm A1 version Alarm A2 version Anti-air-lock feature Service interval

Incorporated BIO options compliance EN 1012-1

(*) Consult factory (or instruction manual) for larger capacities.

INSTALLATION



NUFORS[®] G1/2

Pneumatically operated demand drain for compressed air systems



PRODUCT FEATURES

The NUFORS G1/2 is designed to remove condensate from compressed air systems up to 50³/min (compressor capacity).

The NUFORS uses internal pneumatic forces as its power source to operate. It is therefore ideally suited to apply in applications where power is not available, not desired or not reliable. The operation is automatic and there is no unnecessary air loss during the condensate discharge cycle.

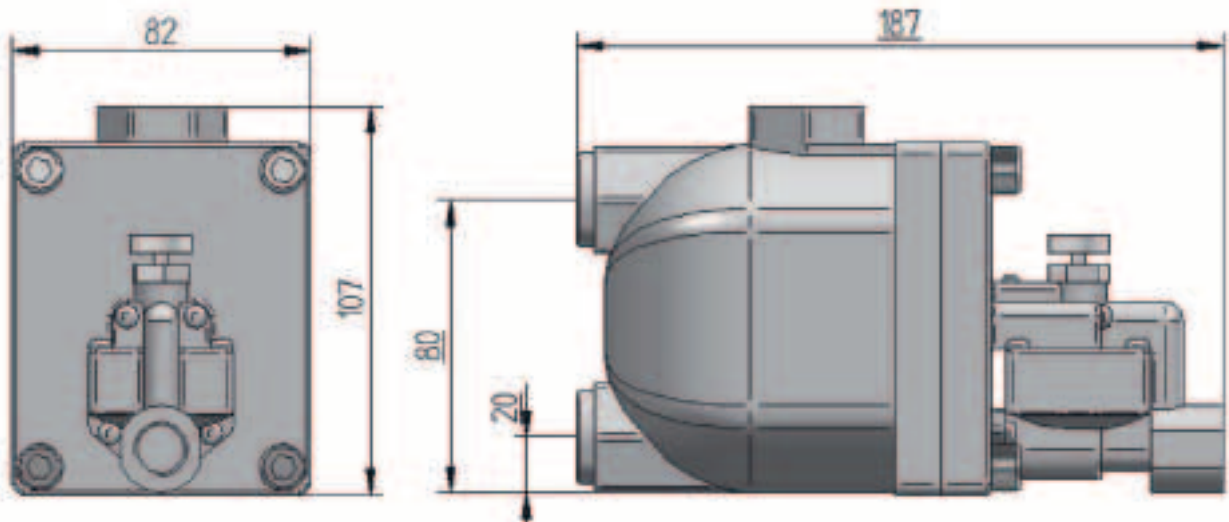
COMMERCIAL BENEFITS

- No unnecessary air loss during the condensate discharge cycle
- **No electricity required to operate the drain**
- Suitable for compressed air systems up to 50³/min (compressor capacity)
- Very simple to install.
- TEST feature.

TECHNICAL ADVANTAGES

- No electricity required to operate.
- Large (4.0 mm) valve orifice
- Medium pressure up to 16 bar
- The valve is serviceable

PRODUCT DIMENSIONS (mm)

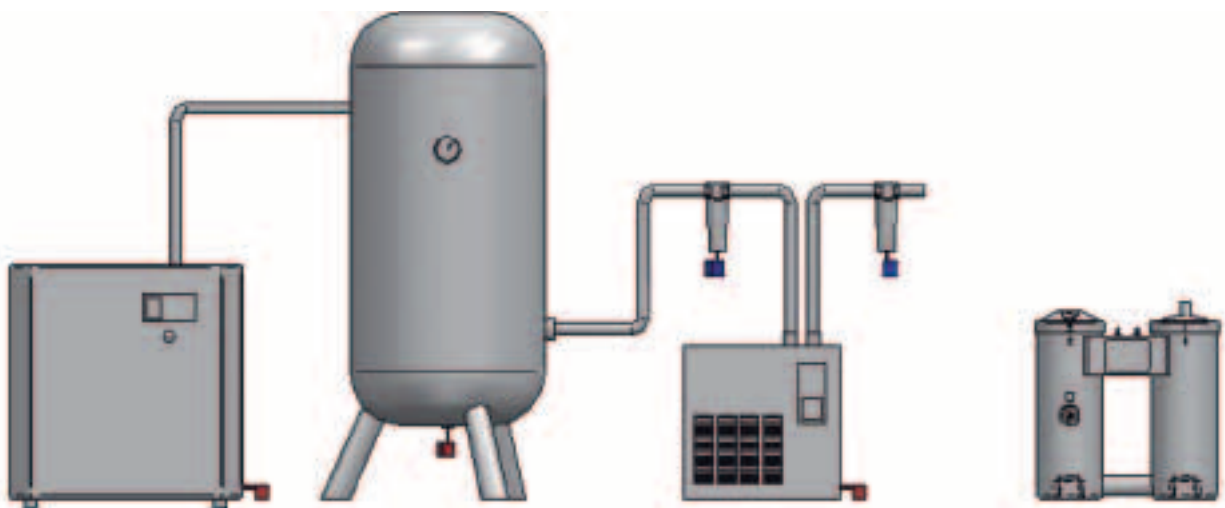


PRODUCT SPECIFICATIONS

NUFORS G1/2

Maximum compressor capacity	50 m ³ /min.
Inlet/outlet connection	1/2" inlet and 3/8" outlet
Valve orifice	4.0 mm
Minimum/maximum system pressure	0.8 bar/16 bar (depending on selected model)
Minimum medium temperature	1° C
Maximum medium temperature	50° C
Condensate inlet height	8.0 cm only
Serviceable valve	Yes
Valve seals	Viton (FPM)
Housing material	Robust Aluminium

INSTALLATION



NUFORS[®] G3/4

Pneumatically operated demand drain for compressed air systems



PRODUCT FEATURES

The NUFORS G3/4 is designed to remove condensate from compressed air systems up to 130³/min (compressor capacity).

The NUFORS uses internal pneumatic forces as its power source to operate. It is therefore ideally suited to apply in applications where power is not available, not desired or not reliable. The operation is automatic and there is no unnecessary air loss during the condensate discharge cycle.

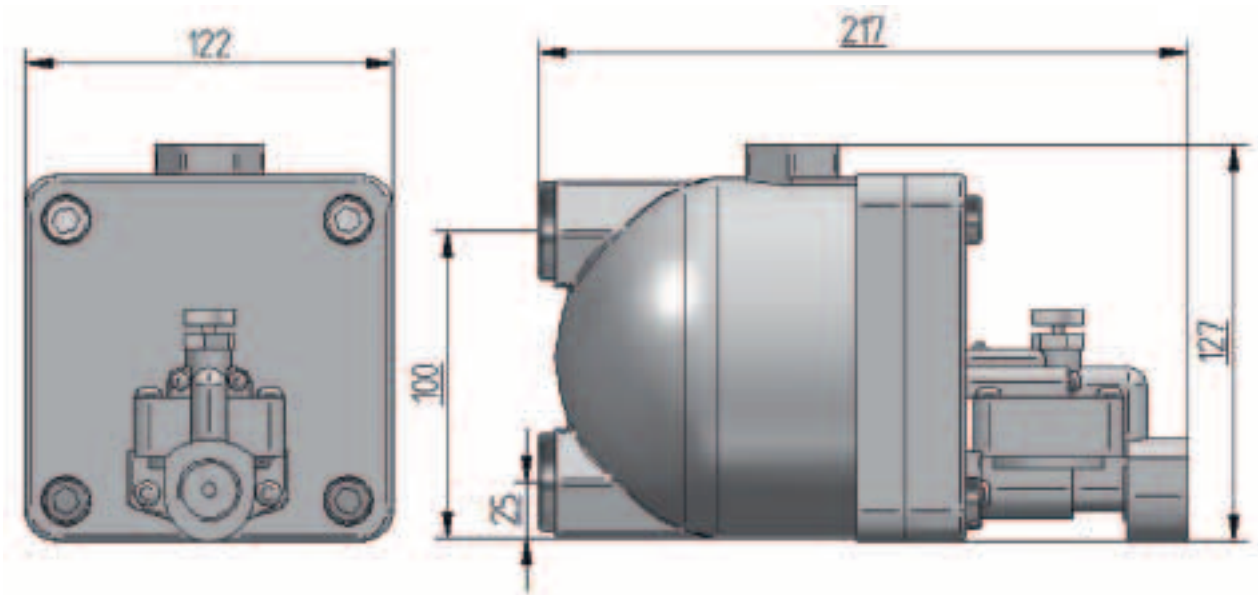
COMMERCIAL BENEFITS

- No unnecessary air loss during the condensate discharge cycle
- **No electricity required to operate the drain**
- Suitable for compressed air systems up to 130³/min (compressor capacity)
- No valve control air required – simple to install
- TEST feature

TECHNICAL ADVANTAGES

- Extremely low condensate inlet height.
- Large (7.0 mm) valve orifice
- Medium pressure up to 16 bar
- The valve is serviceable

PRODUCT DIMENSIONS (mm)

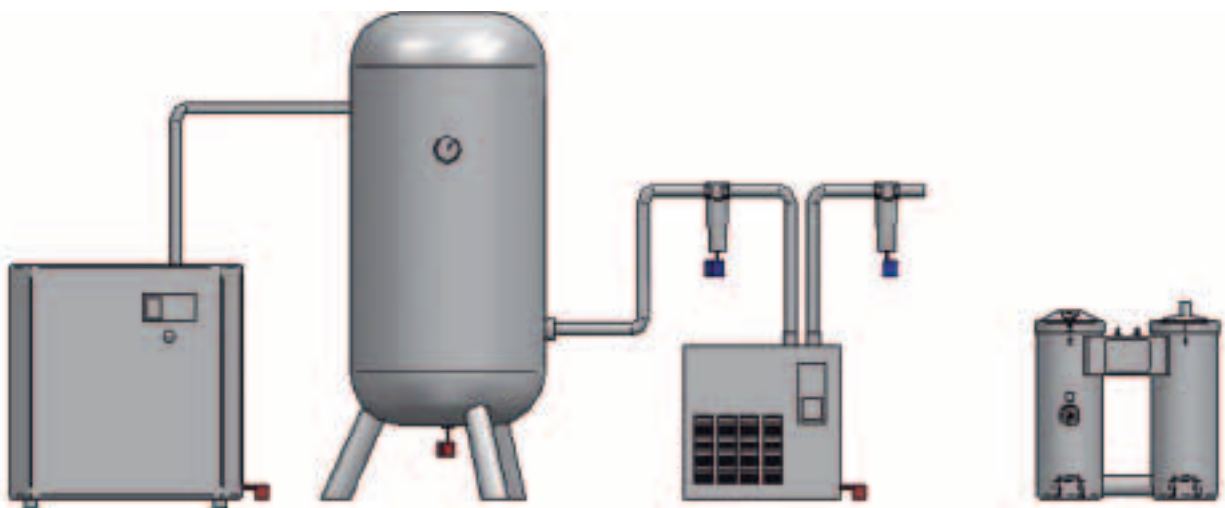


PRODUCT SPECIFICATIONS

NUFORS G3/4

Maximum compressor capacity	130 m ³ /min.
Inlet/outlet connection	3/4" inlet and 1/2" outlet
Valve orifice	7.0 mm
Minimum/maximum system pressure	0.8 bar/16 bar (depending on selected model)
Minimum medium temperature	1° C
Maximum medium temperature	50° C
Condensate inlet height	10 cm only
Serviceable valve	Yes
Valve seals	Viton (FPM)
Housing material	Robust Aluminium

INSTALLATION



MAGY®

Magnetically operated zero air loss drain for air filter applications



PRODUCT FEATURES

The MAGY is designed to remove condensate from compressed air filters up to any size, type or manufacturer.

The MAGY uses internal magnetic forces as its power source to operate. It is therefore ideally suited to apply in applications where power is not available, not desired or not reliable. The operation is automatic and there is zero air loss during the condensate discharge cycle.

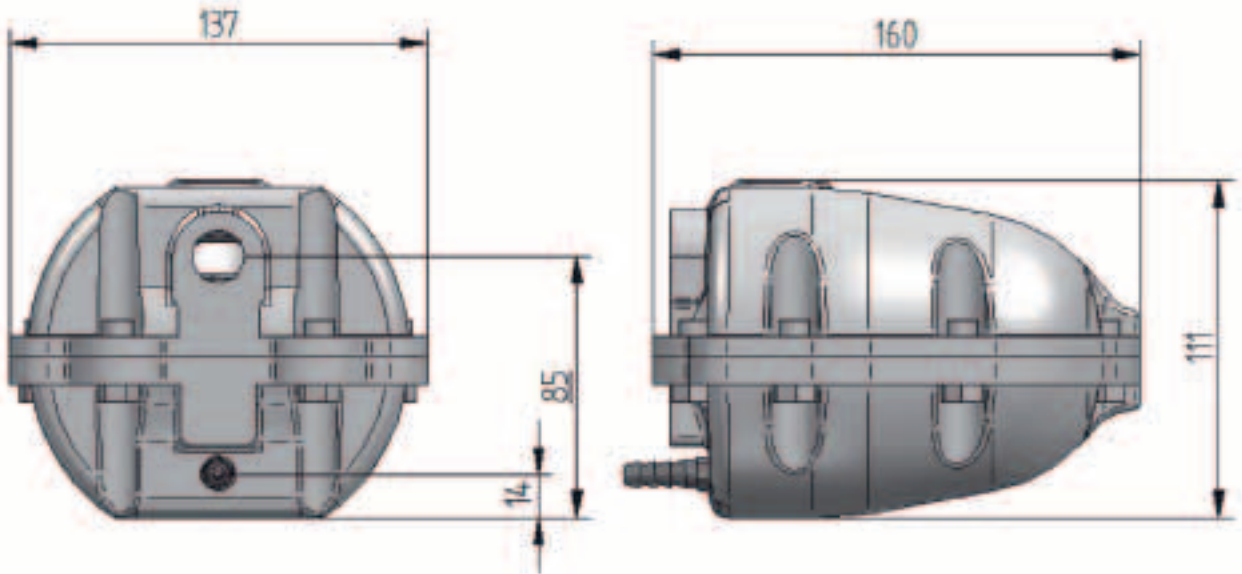
COMMERCIAL BENEFITS

- Zero air loss during the condensate discharge
- **No electricity required to operate the drain**
- Compressed air filters up to any size
- Installation kit available including anti-air-lock adapter.

TECHNICAL ADVANTAGES

- * Direct operated valve – not diaphragm type
- * Medium pressure up to 16 bar
- * The direct acting valve is serviceable
- * Large valve orifice for filter bowl applications

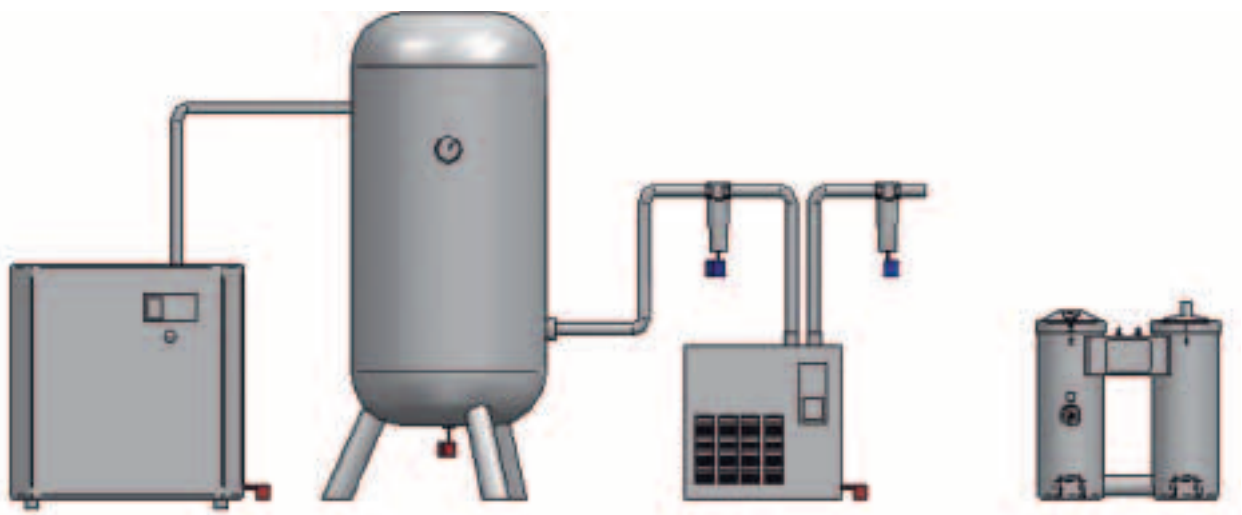
PRODUCT DIMENSIONS (mm)



PRODUCT SPECIFICATIONS

Max. filter capacity	Unlimited.
Inlet connection and height	1/2", 8.5 cm
Outlet connection	1/8"
Minimum system pressure	0 Bar
Maximum system pressure	16 Bar
Minimum medium temperature	1° Celsius
Maximum medium temperature	50° Celsius
Type of operating valve	Stainless Steel direct acting valve assembly
Valve seals	Viton (FPM)
Housing material	Corrosion resistant Aluminium

INSTALLATION



ACCESSORIES

ANTI AIR LOCK ADAPTER

The anti air lock adapter is simple to install and helps prevent air locks being created.

This adapter is typically applied in combination with the MAGY.



HOSE PIPE CONNECTORS



Hose pipe connectors are a sure and simple way to install the discharge pipe.

The diameter matches the connection to the JORC oil/water separators.

Alternatively, push-in nipples are available also.

IN-LINE STRAINER

The specially designed in-line ball valve strainer allows for easy local shut off of zero air loss drains for maintenance purposes. Any debris is also caught in the mesh strainer protecting the drain from any blockages and reducing maintenance to a minimum.

It is specially designed to prevent flow restrictions. Flow restrictions could cause air-locks.



EXPLODED VIEWS

KAPTIV



MAGY



IN-LINE STRAINER



NUFORS



CLEVER & QUICK

Compressed air condensate is typically dirty emulsified liquid. Compressed air system components get clogged and require to be cleaned and serviced from time to time. Condensate drains require to be serviced and cleaned periodically too.

JORC's drains are designed to be serviced quickly. Straight forward procedures ensure the reconnection of the drains is virtually error-free.

The KAPTIV even offers a "Service-Interval" feature. The "S-I" can be pre-set to activate the mobile phone SMS text service that in turn will contact the service engineer. This feature ensures that no service call is missed – consult JORC for more details.

KAPTIV



NUFORS



MAGY

Simplified cleaning and servicing procedures ensure a safe and error-free maintenance process.

Being able to service JORC drains quick and easy saves time.

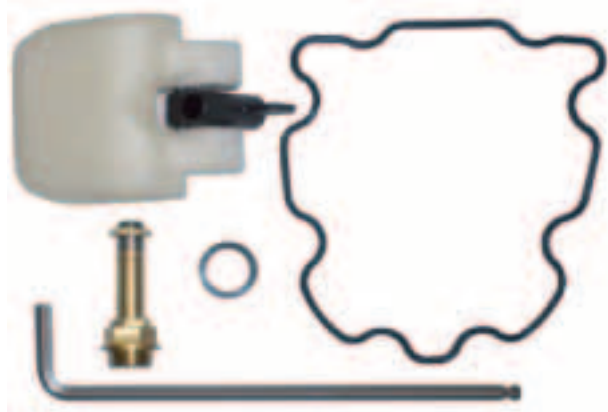


SERVICE KITS

SERVICE KIT MAGY

Servicing the MAGY involves replacing of internal components.

A massive advantage is that the MAGY remains hooked-up while the servicing work is being carried. There is no need to shut the filter off from the compressed air line.



SERVICING THE NUFORS



The NUFORS servicing work comprises of shutting the unit off with a ball valve and then depressurising the unit.

With just four bolts the whole working mechanism comes out and can be serviced (see illustration).

SERVICING THE KAPTIV

The KAPTIV contains five (including the valve mechanism) main components.

Here too, the KAPTIV can be serviced whilst the inlet remains installed and connected to the pipe work.

Easy access to all internal parts is made possible by loosening just four bolts.



INSTALLATION

POSITIONING

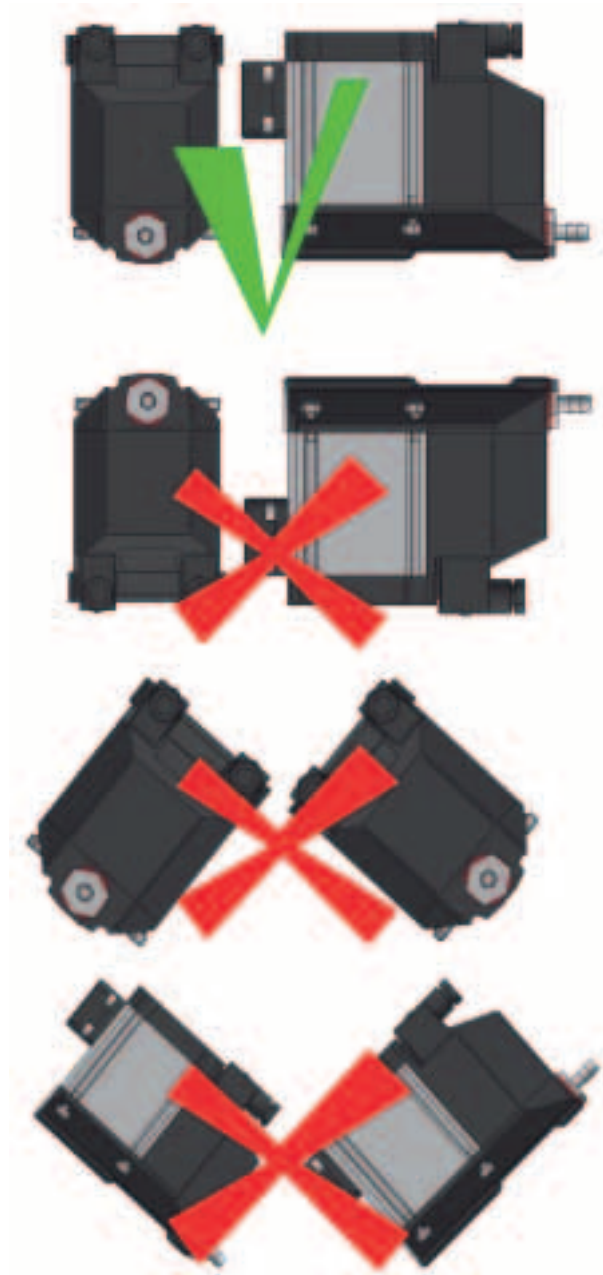
Installation of zero air loss drains involves more attention to detail compared to timer drains.

Zero air loss drains must always be installed upright.

Installing a zero air loss drain on an angle or upside down will cause malfunction in the way of air locking.

Although the KAPTIV offers an anti-air-lock feature, we recommend proper installation of zero air loss drains at all times.

The JORC installation manuals offer more detailed information and guidance on zero air loss drain installation procedures.



PROTECTIVE IN-LINE STRAINER



A specially designed in-line protective strainer ensures debris does not effect the valve orifice and more importantly allows the service engineer to shut the drain off safely from the compressed air system.

The typical Y or L type strainers are not designed for applications involving zero air loss drains.

USEFUL TIPS

JORC products are designed to be applied in industrial applications. Please ensure that the installation and service engineers are fully qualified to work with our type of products. Various regulations and guidelines apply worldwide and might vary country by country.

Typical application issues worth looking out for are:

- Install a ball valve strainer in front of the unit.
- Zero air loss drains can only be mounted in an upright position.
- Incorrect installation can prevent air from escaping from the zero air loss drain's condensate reservoir, causing a possible air -lock.
- Ensure ALL inlet pipe work/ fittings have a minimum internal diameter of 10 mm or greater to help prevent air - locking.
- One drain is required for each system component (compressor, dryer, filter etc.)
- Only use the correct threaded adapters.

Some recommendations are:

- Make sure that no solid matter (e.g. sealing compound residue) gets into the condensate drain during the installation.
- Make sure that the pipeline is thoroughly clean.
- Use quality sealing compound only!
- Use a proper tools for fixing the drains to your pipe work!
- Never use the drain (or part of it) as a lever to tighten.
- Ensure inlet pipe work / fittings are vertical to prevent air locking.
- Clean electrical power supply helps the condensate drain to perform according to its specification.

CONDENSATE DISPOSAL

- Condensate produced by the compressed air system should be disposed of in a responsible manner and in accordance with laws and regulations that prevail in the country of installation.
- The JORC condensate cleaner has been specially developed to separate oil from condensate extracted from compressed air systems and is effective with all types and makes of compressors, oils and drain valves.
- We suggest you install a JORC Condensate Cleaner in all compressed air systems. Please consult JORC for further details.

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