JORC

LEVEL SENSED DRAINS

KAPTIV-MD
KAPTIV-MD-AL
KAPTIV-CS
KAPTIV-CS-HP

NUFORS-CR
NUFORS-XF

MAGY
MAGY-UL

DRAIN EFFICIENCY

RELIABLE

COMPRESSED AIR CONDENSATE MANAGEMENT AND ENERGY SAVING PRODUCTS

Level sensed condensate drains

Version 10-2021

JORC Industrial is a global condensate management specialist of Dutch origin offering condensate drains, oil water separators and air saving equipment to distributors, dealers and OEM's in more than 100 countries. JORC Industrial is dedicated to setting the standard in helping its customers manage their condensate management requirements.

CONDENSATE MANAGEMENT SPECIALIST

Chapter 1

INTRODUCTION TO COMPRESSED AIR CONDENSATE

During the process of compressing air, atmospheric air along with water vapor and atmospheric contaminants (hydrocarbon, dust particles or chemical vapors), are drawn into the compressor intake.

Additionally, the compression chambers of most compressors require oil for lubrication, sealing and cooling. Once compressed, the air flows into an aftercooler to remove the heat of compression. As the air cools in the aftercooler, water and hydrocarbon vapors will condense.

Additional condensation takes place as the air is further cooled in the piping and air dryers.

Environmental regulations strictly prohibit the discharge of oily wastes and chemicals, including the condensate drained from a compressed air system. Because of these requirements, municipalities regulate the discharge of compressor condensate to surface water, wastewater treatment facilities, and sanitary sewers. Please refer to our range of oil/water separators: SEPREMIUM and PURO-CT.

WHY INSTALL A CONDENSATE DRAIN?

Condensate drains are possibly the least glamorous and most ignored component of a compressed air system but nevertheless, a most important part. No matter how much money you spend on that fancy new compressed air system, not spending a little effort with your drain choice could cause you no end of headaches and increased operating costs for years to come.

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, but it's the drains that have to operate properly for the filters and separators to be successful in completing their task.

Drains can be found on an intercooler, aftercooler, filter, dryer, receiver, drip leg, or at point of use. Drains come in many types and variants for all these applications, some quote fancy descriptions, but they fall into these basic categories. Level sensed – timer operated – float – none (yes, that is a drain choice).

Drains improve your system efficiency.
Besides the obvious savings of compressed air with a zero air loss drain choice, there are other less obvious ways drains can save energy or cost you energy if not properly maintained.
They are key components in the quest for system efficiency and reliability.

On multiple stage compressors moisture carry over from the intercooler may allow liquid into the next stage causing premature wear and possibly a catastrophic failure.

Installing a reliable drain is an absolute must!

WILL ANY CONDENSATE DRAIN DO?

Compressed air condensate contains particles that contaminate compressed air systems and potentially cause valve blockages. It is important to choose a drain that offers a large enough orifice. Avoid drains that have diaphragm type valve constructions, the diaphragm has a very small hole in it, that once blocked, the complete drain fails to operate.

Drains are also installed outdoors. IP65 (NEMA4) insulation protection is therefore a minimum requirement. Avoid drains that do not comply to this minimum specification.

For long life expectations select drains that have FPM seals. FPM is the best suited for the aggressive make up of compressor condensate.

Servicing a drain must be straight forward and quick. Avoid drains that are not service friendly as this will cost more time during the maintenance interval.

JORC'S DRAIN CONSTRUCTION

It starts with the design! JORC drains are robust and designed for long life heavy duty applications.

The JORC direct acting valve construction has proven to be the most reliable option for condensate draining applications. We apply stainless steel moving parts that offer a long life guarantee and are less sensitive to aggresive particles found in condensate.

The drain housings are constructed from robust coated aluminium and not from plastic. This ensures that no damage is occurring during transport, installation, functional operation and the subsequent maintenance moments throughout the drain's working life.

High grade coil insulation protect the copper wire from overheating and top brand PCB components are applied on our electronic modules.

Servicing JORC drains is quick and simple. Low cost service kit packages are available for all JORC drains.

In all JORC drains there are FPM seals that have been specifically selected based on their high and low temperature operation characteristics. In addition, FPM is the best choice for compressed air condensate as it is often quite aggressive.

JORC drains can be applied in both oil lubricated and oil free compressor applications.

JORC products carry globally recognised approvals.

JORC is NEN – EN - ISO 9001:2015 – certified

Chapter 3

KAPTIV-MD

Electronic zero air loss drain

The KAPTIV-MD removes all types of condensate from compressed air systems up to 10 m³/min. without the loss of compressed air.

PRODUCT FEATURES

The KAPTIV-MD is an electronic zero air loss drain suitable for smaller compressed air applications.

With an inlet connection height of 74 mm and a weight of only 0.5 kg, the KAPTIV-MD offers an incredibly compact solution with unrivalled installation versatility and reliability.

The maximum compressor capacity of this drain is 10 m³/min. and typical draining applications include fridge dryers and filters - mainly due to its incredible compact size.

To further simplify the installation in restrictive height conditions, a side inlet adapter is available.

COMMERCIAL BENEFITS

- Extremely compact and lightweight
- True zero air loss solution
- 1 Model covers compressor capacities up to 10 m³/min.
- No sizing chart required, offering stocking advantages
- The serviceable valve offers maintenance opportunities
- Consult JORC for private labelling options

TECHNICAL ADVANTAGES

- Zero air loss during the condensate discharge
- Visual alarm (LED indication)
- Easy to install due to its low inlet height
- External valve construction allows for fast and easy ma
- 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

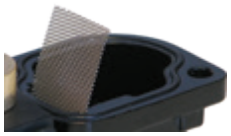
PRODUCT DIMENSIONS

Incredibly compact

TECHNICAL SPECIFICATIONS

Max. compressor capacity	10 m³/min. (350 CFM)
Max. drainage capacity	45 litres condensate per hour at 16 bar
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)
Supply voltage options	230VAC / 115VAC / 24VAC / 24VDC
Enclosure protection rating	IP65 (NEMA4)
Connector type (power)	DIN 43650-B
Inlet connection	1/2" BSP or NPT
Inlet height	74 mm
Side inlet adapter	Yes, optional
Outlet connection	1/4" BSP, with brass hose barb adapter
Valve type	2/2 way, direct acting
Valve orifice	2 mm
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

External valve contruction - allows fast and easy maintenance



Large integrated mesh strainer

For additional (potential free relay) alarm options see the KAPTIV-MD-AL or KAPTIV-CS

Side inlet adapter optionally available

T-Adapter for DRAIN HEATER optionally available

Chapter 4

KAPTIV-MD-AL

Electronic zero air loss drain with alarm feature

The KAPTIV-MD-AL removes all types of condensate from compressed air systems up to 10 m³/min. without the loss of compressed air.

PRODUCT FEATURES

The KAPTIV-MD-AL is an electronic zero air loss drain with an N/O or N/C alarm feature (potential free relay), suitable for smaller compressed air applications.

With an inlet connection height of 74 mm and a weight of only 0.5 kg, the KAPTIV-MD-AL offers an incredibly compact solution with unrivalled installation versatility and reliability.

The maximum compressor capacity of this drain is 10 m³/min. and typical draining applications include fridge dryers and filters - mainly due to its incredible compact size.

To further simplify the installation in restrictive height conditions, a side inlet adapter is available.

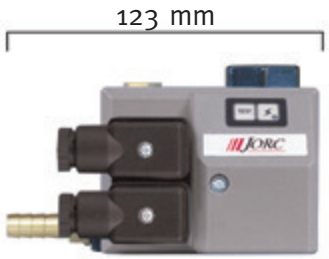
COMMERCIAL BENEFITS

- Extremely compact and lightweight
- True zero air loss solution
- 1 Model covers compressor capacities up to 10 m³/min.
- No sizing chart required, offering stocking advantages
- The serviceable valve offers maintenance opportunities
- Consult JORC for private labelling options

TECHNICAL ADVANTAGES

- Zero air loss during the condensate discharge
- Visual alarm (LED indication)
- Optional N/O or N/C alarm feature (potential free relay)
- Easy to install due to its low inlet height
- External valve construction allows 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

PRODUCT DIMENSIONS

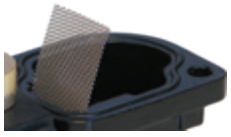


With alarm feature
(potential free relay)

TECHNICAL SPECIFICATIONS

Max. compressor capacity	10 m³/min. (350 CFM)
Max. drainage capacity	45 litres condensate per hour at 16 bar
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)
Supply voltage options	230VAC / 115VAC / 24VAC / 24VDC
Enclosure protection rating	IP65 (NEMA4)
Connector type (power and alarm)	DIN 43650-B
Inlet connection	1/2" BSP or NPT
Inlet height	74 mm
Side inlet adapter	Yes, optional
Outlet connection	1/4" BSP, with brass hose barb adapter
Valve type	2/2 way, direct acting
Valve orifice	2 mm
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 type A1 (N/O)*	Normally open alarm output contact (potential free relay)
Alarm feature type A2 (N/C)**	Normally closed alarm output contact (potential free relay)

External valve contruction - allows fast and easy maintenance



Large integrated mesh strainer

*A1 = Normally open contacts, closed when in alarm phase.

**A2 = Normally closed contacts, open when in alarm phase.

Chapter 5

KAPTIV-CS

Electronic zero air loss drain with alarm feature

The KAPTIV-CS removes all types of condensate from compressed air systems up to 100 m³/min. without the loss of compressed air.

PRODUCT FEATURES

The KAPTIV-CS is cost effective and offers a rapid pay-back period due to a competitive pricing level, low stocking cost, zero air loss and energy saving features.

The compact and robust industrial housing, 2/2 way direct acting valve with a large orifice, alarm feature (potential free relay) and the integrated mesh strainer make the KAPTIV-CS a highly reliable draining solution.

Equipped with a digital, LED illuminated, sight-port/level indicator showing you the condensate level inside the reservoir and enabling you to monitor the KAPTIV-CS's operation, even in poor lit places.

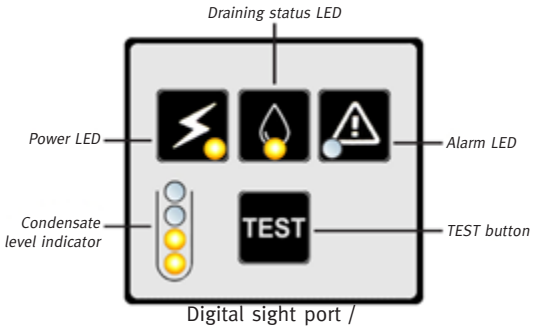
COMMERCIAL BENEFITS

- Competitive compact zero air loss draining solution
- Zero air loss technology saves air, energy and money
- Rapid pay-back period due to competitive pricing level and reduced stocking costs
- 1 Model covers compressor capacities up to 100 m³/min.
- No sizing charts required
- Consult factory for D-LUX models (a variant that offers extensive programming options)
- Consult JORC for private labelling options

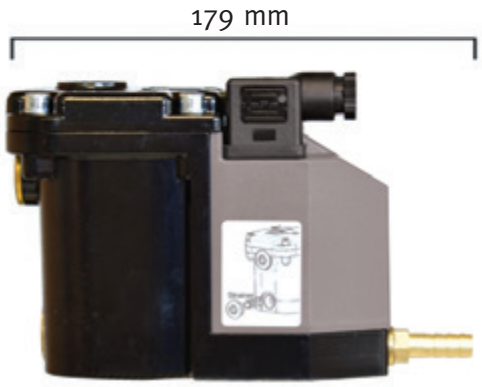
TECHNICAL ADVANTAGES

- Zero air loss during condensate discharge
- Visual alarm (LED) indication
- Alarm feature (potential free relay) standard incorporated
- Digital, LED illuminated sight-port/level indicator
- Successful draining of all types of condensate due to large orifice
- Easy installation and visual display of operating status
- Integrated mesh strainer to protect the valve
- Direct acting valve assembly, ensuring reliable discharge operation
- Robust corrosion resistant aluminium housing
- Easy and quick to service
- DRAIN HEATER for cold weather applications available

PRODUCT DIMENSIONS



Digital sight port / level indicator



Multiple (3) inlet options

TECHNICAL SPECIFICATIONS

Max. compressor capacity	100 m³/min. (3500 CFM)
Max. drainage capacity A3/A4 version	665 litres condensate per hour at 16 bar
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)
Supply voltage options	230VAC / 115VAC / 24VAC / 24VDC
Enclosure protection rating	IP65 (NEMA4)
Connector type (power and alarm)	DIN 43650-B
Inlet connections	1/2" BSP or NPT, 3 inlet options
Inlet height	11 cm (top) and 7.5 & 1.5 cm (side)
Outlet connection	1/4" BSP, with brass hose barb adapter
Valve type	2/2 way, direct acting
Valve orifice	4 mm
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 type A3 (N/O)*	Normally open alarm output contact (potential free relay)
Alarm feature type A4 (N/C)**	Normally closed alarm output contact (potential free relay)

Integrated mesh strainer to protect the valve

Optional heater for cold weather applications available

*A3 = Normally open contacts, closed when in alarm phase. Alarm LED on the drain is OFF in normal operation and ON when in alarm mode.

**A4 = Normally closed contacts, open when in alarm phase. Alarm LED on the drain is OFF in normal operation and ON when in alarm mode.

Chapter 6

KAPTIV-CS-HP

Electronic zero air loss drain for high pressure applications

The KAPTIV-CS-HP (up to 50 bar) removes all types of condensate from compressed air systems up to 100 m³/min. without the loss of compressed air.

PRODUCT FEATURES

The KAPTIV-CS-HP is a compact electronic zero air loss condensate drain for applications up to 50 bar.

The KAPTIV-CS-HP is cost effective and offers a rapid pay-back period due to a competitive pricing level, low stocking cost, zero air-loss and energy saving aspects.

The KAPTIV-CS-HP can be installed in all compressed air system components up to 100 m³/min. regardless size and climate zone - only 1 model needed!

The robust industrial housing, the alarm feature and the 2/2 way direct acting valve assembly make the KAPTIV-CS-HP a reliable solution for all compressed air system applications.

The KAPTIV-CS-HP offers an integrated mesh strainer (to protect the valve), is easy to disassemble and is service friendly.

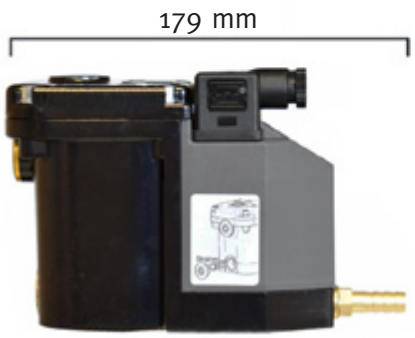
COMMERCIAL BENEFITS

- Competitive compact zero air loss draining solution
- Zero air loss technology saves air, energy and money
- Rapid pay-back period due to competitive pricing level and reduced stocking costs
- 1 Model covers compressor capacities up to 100 m³/min.
- No sizing charts required
- Consult JORC for private labelling options

TECHNICAL ADVANTAGES

- Operating pressure up to 50 bar
- Zero air loss during condensate discharge
- Visual alarm (LED) indication
- Alarm feature (potential free relay) standard incorporated
- Easy installation and visual display of operating status
- Integrated mesh strainer to protect the valve
- Direct acting valve assembly, ensuring reliable discharge operation
- Robust corrosion resistant aluminium housing
- Easy and quick to service

PRODUCT DIMENSIONS



Three stage compressor applications can be fitted with the all-in-one solution, covering the various pressure ranges - mounted on one bracket

TECHNICAL SPECIFICATIONS

Max. compressor capacity	100 m³/min. (3500 CFM)
Max. drainage capacity	120 litres condensate per hour at 50 bar
Min./max. system pressure	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	230VAC / 115VAC / 24VAC / 24VDC
Enclosure protection rating	IP65 (NEMA4)
Connector type (power and alarm)	DIN 43650-B
Inlet connections	1/2" BSP or NPT, 3 inlet options
Inlet height	11,2 cm (top) and 7.5 & 1.5 cm (side)
Outlet connection	1/4" BSP, with brass hose barb adapter
Valve type	2/2 way, direct acting
Valve orifice	1.8 mm
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 type A1 (N/O)*	Normally open alarm output contact (potential free relay)
Alarm feature type A2 (N/C)**	Normally closed alarm output contact (potential free relay)

Multiple inlets offer installation flexibility

Integrated mesh strainer to protect the valve

*A1 = Normally open contacts, closed when in alarm phase. Alarm LED on the drain is OFF in normal operation and ON when in alarm mode.

**A2 = Normally closed contacts, open when in alarm phase. Alarm LED on the drain is OFF in normal operation and ON when in alarm mode.

Chapter 7

NUFORS-CR

Pneumatically operated level sensed condensate drain

The NUFORS-CR removes all types of condensate from compressed air systems up to 100 m³/min. without using electricity and without the unnecessary loss of compressed air.

PRODUCT FEATURES

The discharge process is automatic and is based on a 3/2 way level controlled valve principle that operates a piston type direct acting valve.

The NUFORS-CR is 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.

COMMERCIAL BENEFITS

- Suitable for any type of compressed air system
- No electricity required – install and go
- No operating costs once installed
- Competitive "true green" solution
- Reduced stocking costs - 1 model covers compressor capacities up to 100 m³/min.
- No complicated sizing charts required
- Consult JORC for private labelling options

TECHNICAL ADVANTAGES

- Compact and unique design
- Incredibly easy and quick to install and service
- No complicated control air line and pressure regulator required
- Integrated mesh strainer to protect the valve
- Top and side inlets available
- Test feature for routine testing
- Robust corrosion resistant aluminum housing
- Direct acting valve construction for a reliable condensate discharge operation
- Successful draining of, even heavily emulsified, condensate due to large 6 mm valve orifice

PRODUCT DIMENSIONS

TECHNICAL SPECIFICATIONS

Max. compressor capacity	100 m³/min. (3500 CFM)
Max. drainage capacity	1062 litres condensate per hour at 16 bar
Min./max. system pressure	3 - 16 bar (44 - 230 psi)
Min./max. mediumtemperatur	1 - 50 °C (34 - 122 °F)
Min./max. ambient temperature	1 - 50 °C (34 - 122 °F)
Enclosure protection rating	IP68 (NEMA6)
Inlet connections	1/2" BSP or NPT, 3 inlet options
Inlet height	12 cm (top) and 9,7 cm & 1,5 cm (side)
Outlet connection	1/4" BSP, with brass hose barb adapter
Valve type	Direct acting
Valve orifice	6 mm
Valve seals	FPM
Serviceable valve	Yes
Integrated mesh strainer	Yes
Housing material	Corrosion resistant aluminium, EP coating
Test feature	Yes

Integrated strainer to protect the valve

Three inlet options for easy installation

Test feature for routine testing

Chapter 8

NUFORS-XF

Pneumatically operated level sensed condensate drain

The NUFORS-XF removes all types of condensate from large capacity compressed air applications up to 500 m³/min. without using electricity and without the unnecessary loss of compressed air.

PRODUCT FEATURES

The NUFORS-XF has an exceptional large condensate discharge capacity of 4800 litres per hour at 16 bar.

The discharge process is automatic and is based on a 3/2 way level controlled valve principle that operates a piston type direct acting valve.

The NUFORS-XF is ideally suited in applications where power is not available, too expensive or not reliable.

In addition, the NUFORS-XF can be applied in applications that demand a higher enclosure protection rating. The NUFORS-XF offers an IP68 rating.

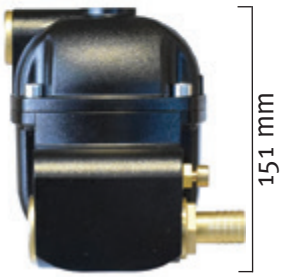
COMMERCIAL BENEFITS

- Suitable for large capacity compressed air applications up to 500 m³/min.
- No electricity required – install and go
- No operating costs once installed
- Competitive "true green" solution
- Reduced stocking costs - 1 model covers compressor capacities up to 500 m³/min.
- No complicated sizing charts required
- Consult JORC for private labelling options

TECHNICAL ADVANTAGES

- Large condensate discharge capacity of 4800 litres per hour at 16 bar
- Level sensing drain technology
- Incredibly easy and quick to install and service
- No complicated control air line and pressure regulator required
- Top- and side inlets available
- Test feature for routine testing
- Robust corrosion resistant aluminium housing
- Direct acting valve construction for a reliable condensate discharge operation
- Successful draining of, even heavily emulsified, condensate due to a large 12 mm valve orifice

PRODUCT DIMENSIONS



TECHNICAL SPECIFICATIONS

Max. compressor capacity	500 m³/min. (17500 CFM) *guideline only*
Max. drainage capacity	4800 litres condensate per hour at 16 bar
Min./max. system pressure	3 - 16 bar (44 - 230 psi)
Min./max. mediumtemperatur	1 - 50 °C (34 - 122 °F)
Min./max. ambient temperature	1 - 50 °C (34 - 122 °F)
Enclosure protection rating	IP68 (NEMA6)
Inlet connections	3/4" BSP or NPT, 3 inlet options
Inlet height	15,1 cm (top) and 13,3 cm & 1,8 cm (side)
Outlet connection	3/4" BSP, with brass hose barb adapter
Valve type	Direct acting
Valve orifice	12 mm
Valve seals	FPM
Serviceable valve	Yes
Housing material	Corrosion resistant aluminium, EP coating
Test feature	Yes

The NUFORS-XF on its optionally available mounting bracket

Three inlet options for easy installation

Test feature for routine testing

Chapter 9

MAGY-UL single inlet

Magnetically operated zero air loss filter drain

The MAGY-UL is a magnetically operated zero air loss drain that discharges condensate from all types of compressed air filters by using a unique technology based on magnetic forces and without the usage of electricity.

PRODUCT FEATURES

The MAGY-UL uses specially selected long-life magnets that operate the 2/2 way direct acting valve construction. These magnets ensure a reliable discharge operation.

The discharge process of the MAGY-UL is automatic, does not require electricity and there is no loss of compressed air during the condensate discharge cycle.

The MAGY-UL is easy to install and to service and can also remain hooked up to the filter while maintenance is being carried out (i.e. the drain does not need to be unthreaded from the filter).

JORC recommends to replace all unreliable filter (float) drains and to install the MAGY-UL.

The MAGY-UL is also available with a test feature. The test button offers the solution to check your MAGY-UL, ensuring nothing is obstructing the orifice. It also allows you to depressurise the drain for those yearly maintenance moments.

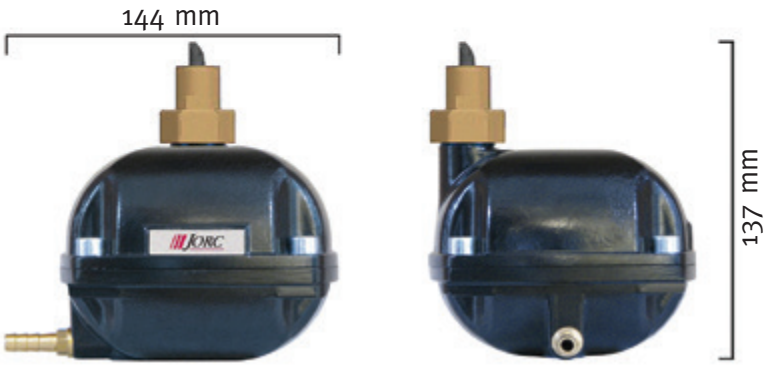
COMMERCIAL BENEFITS

- Does not require electricity
- No operating costs once installed
- Competitive "true green" solution suitable for all compressed air filters
- Zero air loss technology saves air, energy and money
- Low stocking cost advantages for you
- Low purchase threshold for your customers
- Consult JORC for private labelling options

TECHNICAL ADVANTAGES

- Zero air loss, level sensed magnetic technology
- Compact design and light weight, less than 1 kg.
- Incredibly easy to install and to service
- Service kit available
- No need to unthread the MAGY-UL for routine maintenance
- Bottom part of the housing can be rotated 360° for installation simplicity
- Direct acting valve, for a reliable discharge
- Robust corrosion resistant aluminium housing
- The anti-air-lock adapter is integrated in the design
- Optionally available with a test button

PRODUCT DIMENSIONS



TECHNICAL SPECIFICATIONS

Max. filter capacity	Unlimited
Max. drainage capacity	145 litres condensate per hour at 16 bar
Min./max. system pressure	0 - 16 bar (0 - 230 psi)
Min./max. mediumtemperatur	1 - 50 °C (34 - 122 °F)
Min./max. ambient temperature	1 - 50 °C (34 - 122 °F)
Enclosure protection rating	IP68 (NEMA6)
Inlet connection	1/2" BSP or NPT
Inlet height (incl. adapter)	13,7 cm
Outlet connection	1/8" BSP, with brass hose barb adapter
Valve type	2/2 way, direct acting
Valve orifice	2 mm
Valve seals	FPM
Serviceable valve	Yes
Housing material	Corrosion resistant aluminium, EP coating
Test button	Optionally available
Anti-air-lock adapter	Standard integrated

Top part of the housing can be rotated 360° for installation simplicity

Integrated anti-air-lock adapter

Optionally available with a test button

Chapter 10

MAGY dual inlet

Magnetically operated zero air loss drain

The MAGY is a magnetically operated zero air loss drain that discharges condensate from all compressed air systems by using a unique technology based on magnetic forces and without the usage of electricity.

PRODUCT FEATURES

The MAGY uses specially selected long-life magnets that operate the 2/2 way direct acting valve construction. These magnets ensure a reliable discharge operation.

The discharge process of the MAGY is automatic, does not require electricity and there is no compressed air lost during the condensate discharge cycle.

The MAGY is easy to install with top and side inlet options. The MAGY is ideally suited in applications where power is not available, too expensive or not reliable.

Typically the MAGY is installed in refrigerated dryers, filters and under piston compressors.

The MAGY is also available with a test feature. The test button offers the solution to check your MAGY, ensuring nothing is obstructing the orifice. It also allows you to depressurise the drain for those yearly maintenance moments.

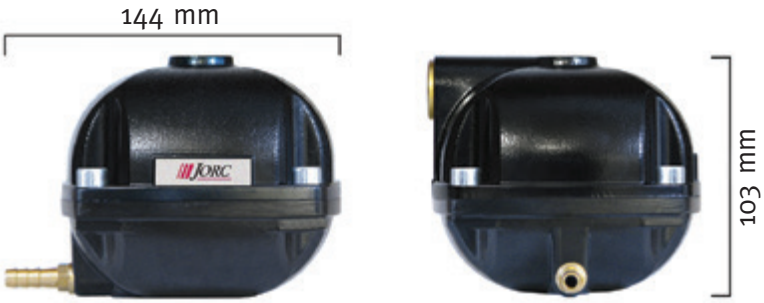
COMMERCIAL BENEFITS

- Does not require electricity
- No operating cost once installed
- Competitive "true green" solution suitable for all compressed air filters and refrigerated dryers
- Zero air loss technology saves air, energy and money
- Low stocking cost advantages for you
- Low purchase threshold for your customers
- Consult JORC for private labeling options

TECHNICAL ADVANTAGES

- Zero air loss, level sensed magnetic technology
- Two inlet options
- Incredibly easy to install and to service
- Service kit available
- No need to unthread the MAGY for routine maintenance
- Bottom part of the housing can be rotated 360° for installation simplicity
- Direct acting valve, for a reliable discharge
- Robust corrosion resistant aluminium housing
- Anti-air-lock adapter optionally available
- Optionally available with a test button

PRODUCT DIMENSIONS



TECHNICAL SPECIFICATIONS

Max. filter capacity	Unlimited
Max. drainage capacity	145 litres condensate per hour at 16 bar
Min./max. system pressure	0 - 16 bar (0 - 230 psi)
Min./max. mediumtemperatur	1 - 50 °C (34 - 122 °F)
Min./max. ambient temperature	1 - 50 °C (34 - 122 °F)
Enclosure protection rating	IP68 (NEMA6)
Inlet connections	1/2" BSP or NPT, 2 inlet options
Inlet height	10,3 cm (top) and 9 cm (side)
Outlet connection	1/8" BSP, with brass hose barb adapter
Valve type	2/2 way, direct acting
Valve orifice	2 mm
Valve seals	FPM
Serviceable valve	Yes
Housing material	Corrosion resistant aluminium, EP coating
Test button	Optionally available

Bottom part of the housing can be rotated 360° for installation simplicity

Service kit available

Anti-air-lock adapter available

Chapter 11

ALARM FEATURES

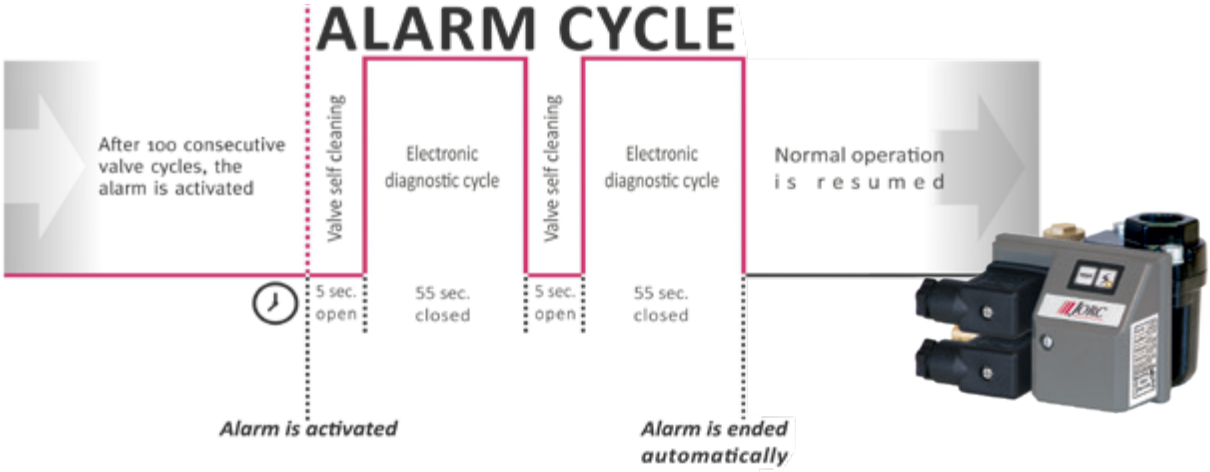
Electronic operated level sensed drains with alarm function

We determine an alarm situation when the drain has cycled too many times consecutively. As it only takes a fraction of time to drain condensate from the upper level to the lower level in the reservoir, we consider many consecutive discharge cycles abnormal and subsequently the alarm will be triggered.

The smart alarm feature is programmed to try and blow out any debris that might obstruct the valve's discharge orifice. Should a valve orifice blockage occur then the drain is programmed to go through a "blow-out" cycle to clear the orifice blockage.

After the alarm cycle is completed the drain will automatically resume normal operation. There is no need to manually reset the drain.

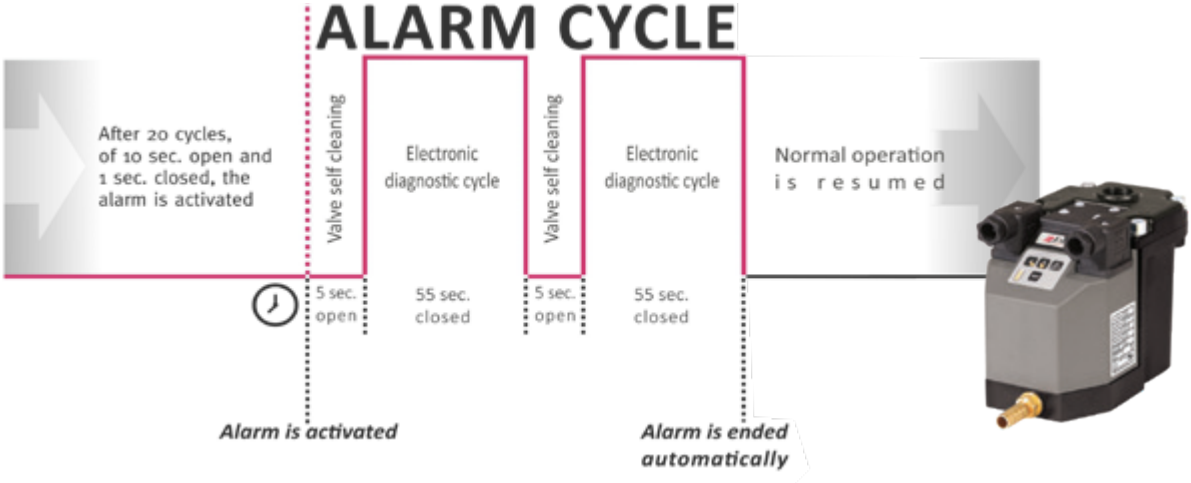
ALARM FEATURES KAPTIV-MD-AL A1/A2



*Alarm feature type A1 (N/O) Normally open alarm output contact (potential free relay)
Alarm feature type A2 (N/C) Normally closed alarm output contact (potential free relay)

A1 = Normally open contacts, closed when in alarm phase.
A2 = Normally closed contacts, open when in alarm phase.

ALARM FEATURES KAPTIV-CS A3/A4



*Alarm feature type A3 (N/O) Normally open alarm output contact (potential free relay)
Alarm feature type A4 (N/C) Normally closed alarm output contact (potential free relay)

A3 = Normally open contacts, closed when in alarm phase. Alarm LED on the drain is OFF in normal operation and ON when in alarm mode.
A4 = Normally closed contacts, open when in alarm phase. Alarm LED on the drain is OFF in normal operation and ON when in alarm mode.

SERVICING THE KAPTIV-CS

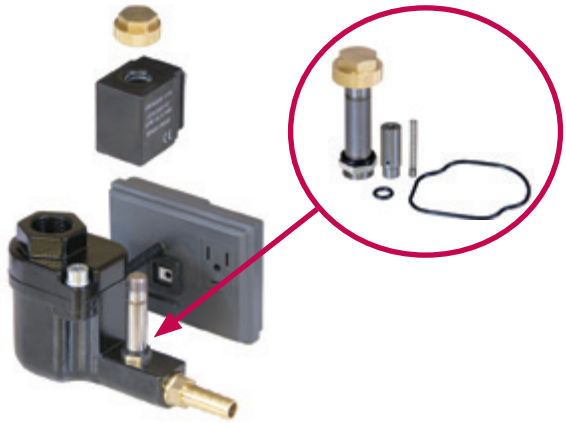
Servicing an electronic level sensed drain has never been so easy as with the KAPTIV-CS range of drains.

The KAPTIV-CS consists of three main components that can be easily removed by unscrewing the four bolts on the top.

Remove the top part, slide off the (grey) PCB module and you have immediate access to the direct acting valve assembly.

A low cost service kit for the KAPTIV-CS is available.

SERVICING THE KAPTIV-MD



Servicing the KAPTIV-MD could not be easier. The drain comes apart by unscrewing two screws. You lift the coil from the valve stem and you have direct access valve assembly.

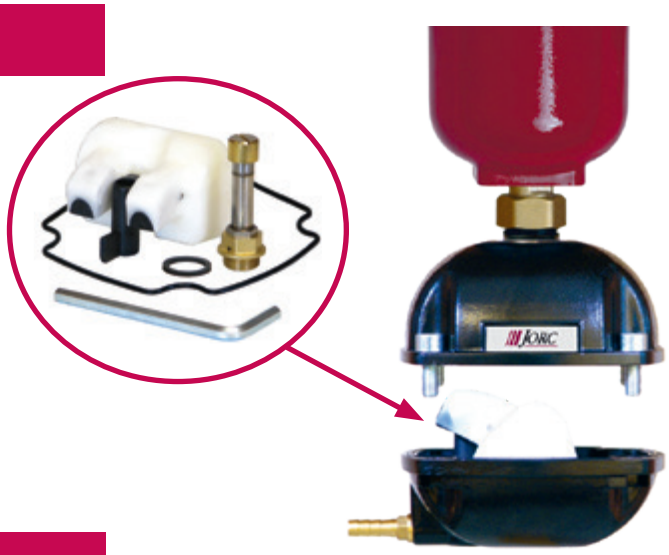
The JORC valve inner (moving) parts are always produced from high quality grade stainless steel. This offers long life and high resistance to aggressive types of condensate.

SERVICING THE MAGY

Like all JORC drains, once installed, the threaded connection remains in place during service activities. The illustration of the MAGY-UL makes this very clear.

One of the advantages is that you do not need to re-connect the threaded connection, which saves time.

The MAGY service kits are simple to install and the Allen key is part of the kit.



SERVICING THE NUFORS

The NUFORS design allows you to service the valve by unthreading one brass fitting. You have direct access to the valve plunger and orifice.

Also the NUFORS is designed to remain threaded to your compressed air system whilst maintenance activities are being carried out.

Chapter 12

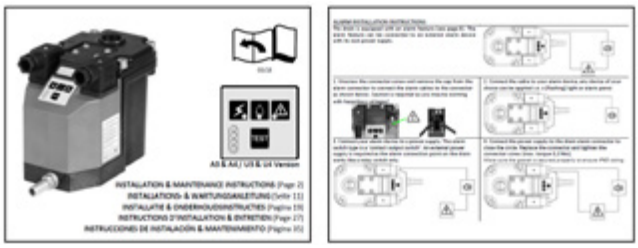
INSTALLATION

POSITIONING

Installation of level sensed drains involves attention to detail.

Level sensed drains must always be installed upright. Installing a level sensed drain on an angle or upside down will cause malfunction in the way of air locking. We recommend proper installation of level sensed drains at all times.

The JORC installation manuals offer more detailed information and guidance on level sensed drain installation procedures.



ANTI-AIR-LOCK ADAPTER

The anti-air-lock adapter can be connected to level sensed condensate drains. It is simple to install and helps prevent air locks from being created.

The anti-air-lock adapter has a 1/2" inlet and outlet.

The MAGY-UL has an anti-air lock adapter integrated in its design as a standard.

SIDE INLET ADAPTER

A specially designed adapter is available to offer a side inlet option for the KAPTIV-MD zero air loss drain.

The KAPTIV-MD fitted with the specially designed adapter offers an inlet height of only 83 mm! This is particularly interesting for installing the KAPTIV-MD inside refrigerated dryers.

Also, piston type air compressors can be fitted with the reliable KAPTIV-MD and adapter combination.

The KAPTIV-MD can be ordered together with the brass adapter, alternatively you can order the brass adapter as a loose item and have it with you during installations, offering you installation flexibility.

ACCESSORIES

IN-LINE BALL VALVE 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 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.

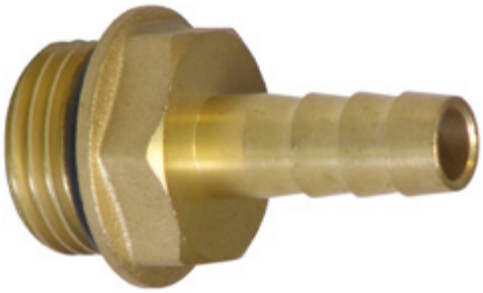
A specially designed in-line protective strainer ensures debris does not affect the valve orifice or seals and allows the service engineer to safely shut the drain off from the compressed air system.

The typical Y or L type strainers are not designed for applications involving level sensed drains.

HOSE BARB ADAPTERS

Hose barb adapters are a robust and simple way to install the discharge pipe.

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



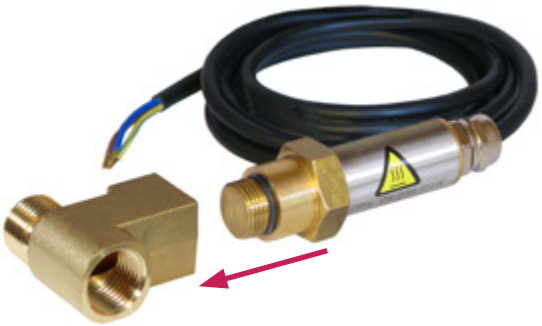
DRAIN HEATER AND T-ADAPTER

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 DRAIN HEATER can be installed in most of JORC's level sensed drains. 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.



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COMPRESSED AIR CONDENSATE MANAGEMENT AND ENERGY SAVING PRODUCTS

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