

# 510

Magnetically operated zero air loss condensate drain



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## **GENERAL OPERATION**

The 510 removes condensate from compressed air filters.

The operation is automatic and there is no compressed air lost during the condensate discharge cycle.

The 510 uses magnetic forces to operate the direct acting valve assembly and is ideally suited in applications where power is not available, not desired or not reliable.

The magnets have been specially selected to ensure long lasting magnetism is guaranteed.

## **SAFETY INSTRUCTIONS**

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### **SAFETY AND PROPER USAGE**

To ensure safe and enduring performance of this product, you must comply strictly with the instructions enclosed herein. Non-compliance with instructions or improper handling of the product will void your warranty! This product is designed to drain condensate from compressed air systems. Usage of this product in conditions not specified in this manual or in contrary to the instructions hereby provided is considered IMPROPER. The manufacturer will not be held liable for any damages resulting from improper use of the product.

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### **SAFETY & WARNING INSTRUCTIONS**

#### **ATTENTION**

- Observe valid and generally accepted safety rules when planning, installing and using this product.
- Take proper measures to prevent unintentional operation of the product or damage to it.
- Do not attempt to disassemble this product or lines in the system while they are under pressure.
- Always depressurise the compressed air system before working on the system.

**It is important that personnel use safe working practices and observe all regulations and legal requirements for safety when operating this product. When handling, operating or carrying out maintenance on this product, personnel must employ safe engineering practices and observe all local health & safety requirements & regulations. International users refer to regulations that prevail within the country of installation. Most accidents, which occur during the operation and maintenance of machinery, are the result of failure to observe basic safety rules or precautions. An accident can often be avoided by recognising a situation that is potentially dangerous. Improper operation or maintenance of this product could be dangerous and result in an accident causing injury or death. The manufacturer cannot anticipate every possible circumstance, which may represent a potential hazard. The WARNINGS in this manual cover the most common potential hazards and are therefore not all-inclusive. If the user employs an operating procedure, an item of equipment or a method of working which is not specifically recommended by the manufacturer he must ensure that the product will not be damaged or made unsafe and that there is no risk to persons or property.**

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### **GENERAL MAGNET SAFETY**

#### **ATTENTION**

The magnets in the operator we use are extremely strong, and must be handled with care to avoid personal injury and damage to the magnets.

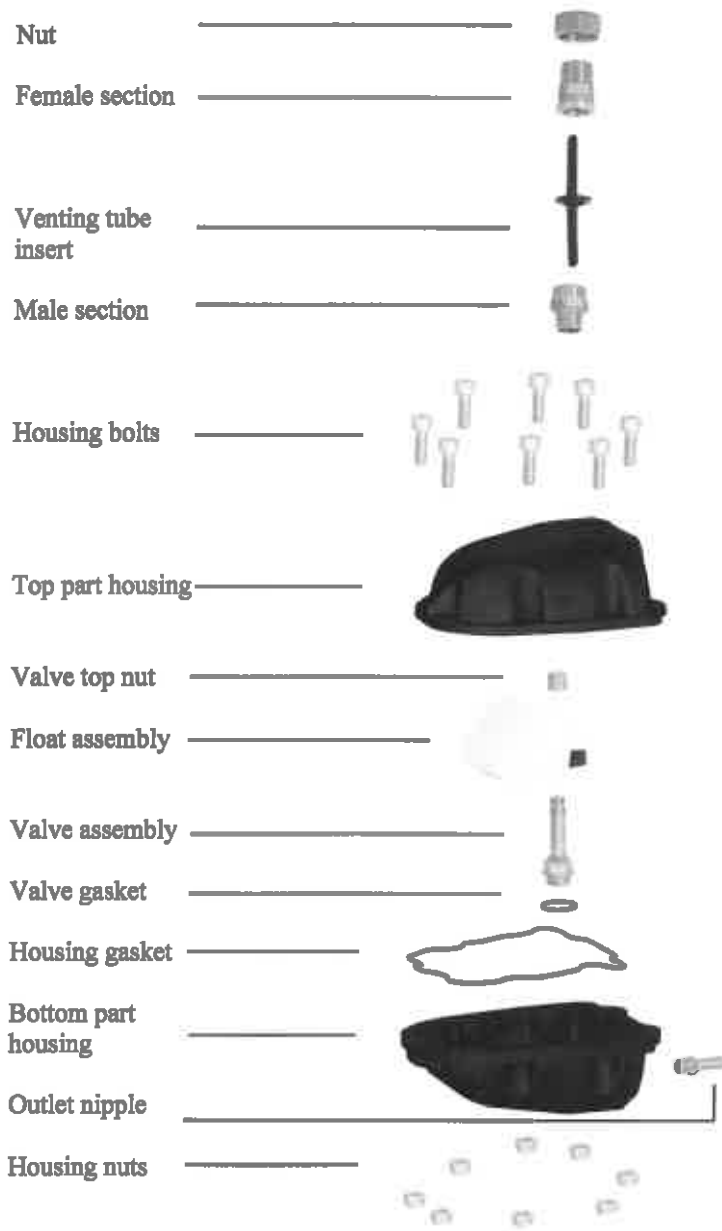
Fingers and other body parts can get severely pinched between two attracting magnets.

The strong magnetic fields of the magnets in the operator can also damage magnetic media such as floppy disks, credit cards, magnetic I.D. cards, cassette tapes, video tapes or other such devices. They can also damage televisions, VCRs, computer monitors and other CRT displays. Never place the operator near electronic appliances.

Never allow magnets near a person with a pacemaker or similar medical aid. The strong magnetic fields of the magnets in the operator can affect the operation of such devices.

The operator will lose its magnetic properties if heated above 175° F (80° C).

**EXPLODED VIEW - IDENTIFY ALL COMPONENTS DIAGRAM**



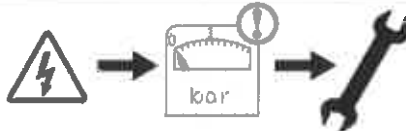
Anti-airlock adapter

## INSTALLATION INSTRUCTIONS

### IMPORTANT NOTICE

Before installing this product, make sure it complies with your request and that it suits your application!

1. Unpack the 510 and visually inspect for any transport damage incurred after leaving our factory.



2. Depressurise the system before installation or maintenance is carried out!

### ***Top inlet connection:***

#### ***3. Anti-airlock adapter:***

The anti-airlock adapter is a 1/2 inch NPT or BSP pipe union with a venting tube insert. The anti-airlock adapter is used only in installations where the drain will be connected beneath the source of condensate (i.e. having a vertical condensate feed pipe).

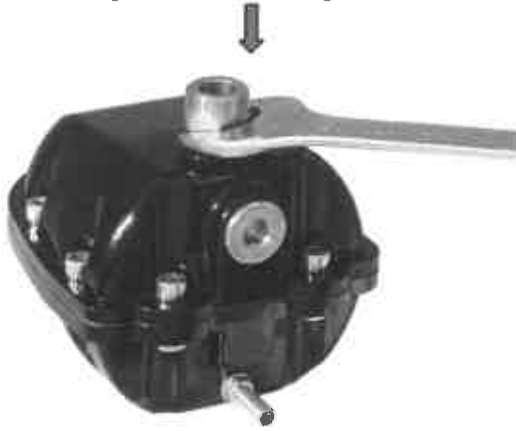


4. The anti-airlock adapter must ALWAYS be installed at the source of condensate (filter housing). The female section of the union must ALWAYS be connected to the condensate source using a 18 mm wrench.



## INSTALLATION INSTRUCTIONS

5. Screw the male section of the anti-airlock adapter on to the top inlet of the 510 using a 27 mm wrench.



6. Mount the 510 and male section of the anti-airlock adapter to the female section of the anti-airlock adapter and align as desired.



*Make sure the venting tube insert is in between the brass parts.  
The 510 must be level to ensure proper float operation.*

### *Side inlet connection:*

*The side inlet connection must be used in the case of a horizontal condensate feed pipe.*

7. An equalizing line must be installed from the top inlet to a higher point in the air system. The equalizing line and condensate feed pipe should be at the same pressure.

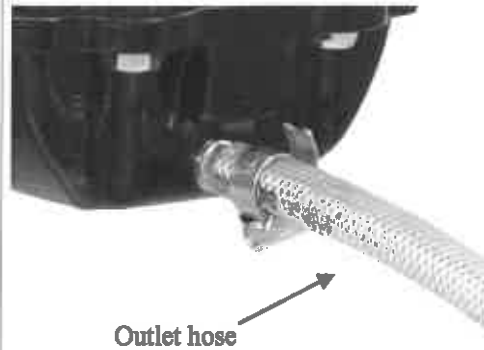


*The 510 must be level to ensure proper float operation.*

9. Slowly pressurize the system.



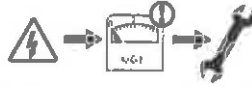
8. Connect the outlet to an oil/water separator.



10. Your 510 is ready for operation!

## CLEANING INSTRUCTIONS

These instructions are for cleaning the 510. If your 510 requires maintenance, i.e. replacement of wearing components, please refer to our dedicated maintenance instructions (supplied with the service kit).



**Depressurise the system before installation or maintenance is carried out!**

1. Isolate the 510 from the condensate supply, depressurize the housing and remove the 510 from the air system. The easiest way to do this is to unscrew the top section from the bottom section of the Anti-airlock adapter.

**DO NOT ATTEMPT TO REMOVE THE 510 FROM THE AIR SYSTEM WHILE UNDER PRESSURE!**

2. Open the housing by unscrewing the 8 fixing bolts using a 6mm Allen key and remove the top part of the housing.



3. Unscrew the valve top nut.



4. Pull the float assembly off the valve shaft.



5. Unscrew the valve from the bottom part of the housing using a 17 mm wrench.



6. Disassemble the valve using a 13 mm wrench and clean all the valve parts.



## CLEANING INSTRUCTIONS

7. Reassemble the valve inner parts and place the valve gasket under the valve and screw the valve assembly back in to the housing (max. torque 7Nm).



8. Replace the float assembly.



9. Replace the valve top nut (max. torque 0,5Nm).



10. Replace the housing top part and replace the 8 bolts using a 6mm Allen key (max. torque 10Nm).



11. Replace the 510 and reconnect the outlet hose.



12. Slowly pressurize the system



13. Your 510 is ready for operation.



## TECHNICAL SPECIFICATIONS

Max. drainage capacity/output	40 Gallons Per Hour
Inlet connection	1/2"
Outlet connection	1/8"
Minimum system pressure	0 Psi
Maximum system pressure	230 Psi
Minimum medium temperature	35 Degrees F
Maximum medium temperature	120 Degrees F
Type of operating valve	Stainless Steel direct acting valve assembly
Valve seals	FPM
Housing material	Corrosion resistant Aluminium

## DIMENSIONS

