

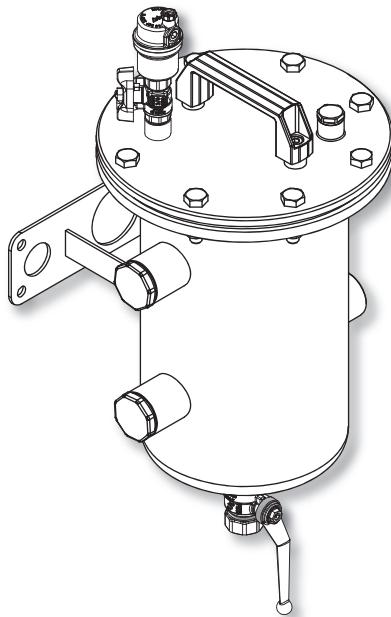


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# ZILMET MAG PRO

## Magnetic System Hub

### Installation and Maintenance Instructions



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## Introduction

The ZILMET MAG PRO is a magnetic system hub which comprises of a magnetic dirt separator with integral filter basket, automatic air vent, manual air venting point, draining valve and a chemical dosing point where you can add up to 1.3 gallons per minute of chemical dosing fluid using the ZILMET accessory pack.

ZILMET Mag Pro represents the best solution to resolve system debris problems resulting from particles of corrosion and other debris that form during the normal operation of a heating or cooling system.

Thanks to its powerful magnetic capacity, its size and the multiple inlet combinations the ZILMET MAG PRO is ideal for use in industrial and commercial heating systems.

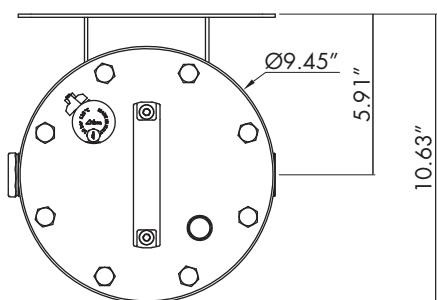
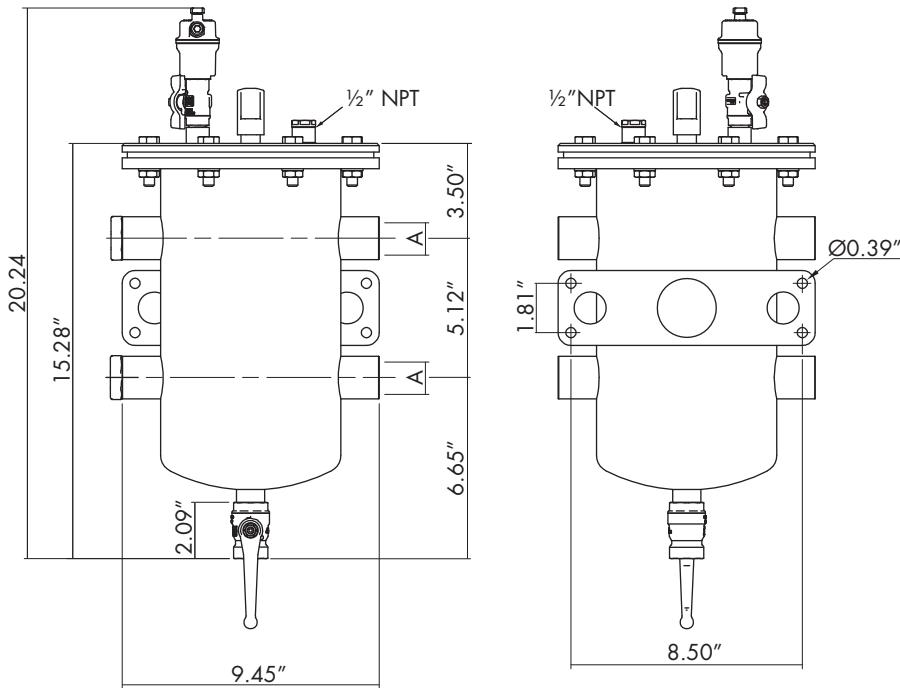
Through its effective and constant action, the filter collects all the impurities present preventing them from continually circulating, thus avoiding wear and damage to all the components making up the system.

The impurities collected by the filter accumulate inside the stainless steel filter basket which itself incorporates a self closing valve to assist with the simplistic servicing schedule.

## Products

ZILMET MAG PRO Magnetic System Hub with ½" NPT Connections	ZM02
½" NPT Accessory Pack	ZMA02
ZILMET MAG PRO Magnetic System Hub with ¾" NPT Connections	ZM03
¾" NPT Accessory Pack	ZMA03
ZILMET MAG PRO Magnetic System Hub with 1" NPT Connections	ZM10
1" NPT Accessory Pack	ZMA10
ZILMET MAG PRO Magnetic System Hub with 1¼" NPT Connections	ZM11
1¼" NPT Accessory Pack	ZMA11
ZILMET MAG PRO Magnetic System Hub with 1½" NPT Connections	ZM12
1½" NPT Accessory Pack	ZMA12
ZILMET MAG PRO Magnetic System Hub with 2" NPT Connections	ZM20
2" NPT Accessory Pack	ZMA20

## Dimensions



Code	A
ZM02	1/2"NPT
ZM03	3/4"NPT
ZM10	1"NPT
ZM11	1 1/4"NPT
ZM12	1 1/2"NPT
ZM20	2"NPT

## Features

- Integral stainless steel filter basket with 100 micron mesh gauze.
- Filter basket incorporates a self closing valve to prevent impurities from falling into the filter.
- Fitted with a dosage point to add treatment fluids easily, for dosing pot see Accessory Pack.
- Multiple inlet combinations.
- Option of in-line or by-pass installation on a heating system.
- Reduced maintenance cost.
- Magnets protected from contact with water making it easier to maintain.
- The large water content extends maintenance intervals.
- The possibility of cleaning the filter without draining system.
- Anti-condensation insulation jacket also available upon request.

## Installation

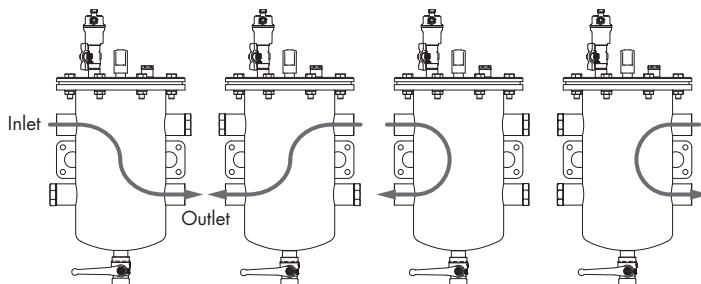
The ZILMET MAG PRO has multiple inlet/outlet configuration options to suit most installation requirements.

The flow and return pipes can both be on the same side OR with the flow direction being from left to right or right to left,

Note: The flow into ZILMET MAG PRO must always be to the **UPPER** connection.

ZILMET recommend installing this product using the accessory pack which is supplied with isolating ball valves for the flow and return pipes and a dosing pot for the addition of system inhibitors, see page 8 for more information.

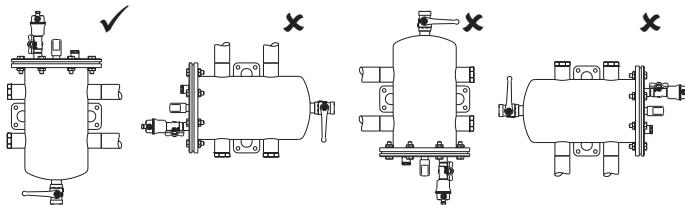
## Inlet Combinations



## Installation Continued

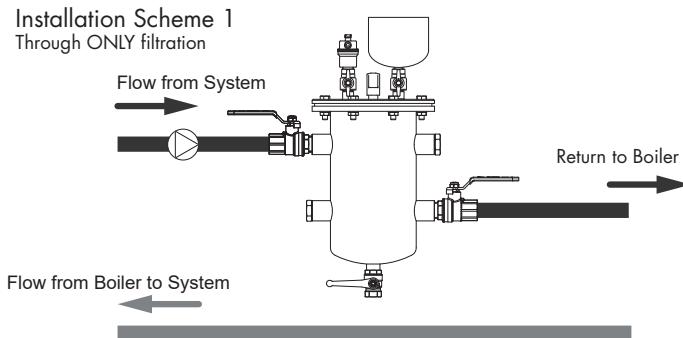
The ZILMET MAG PRO can be mounted on any structurally sound wall or fabricated structure using the integral mounting bracket and the four 10mm diameter holes - see 'Dimensions' on page 2.

It can only be used vertically with the cover upper most and the drain valve at the bottom.



## Installation Schematics

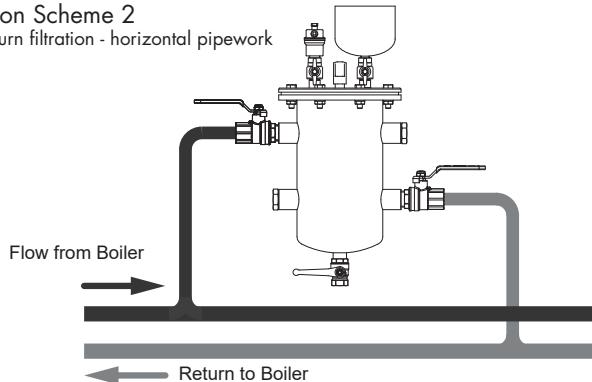
Installation Scheme 1  
Through ONLY filtration



## Installation Schematics

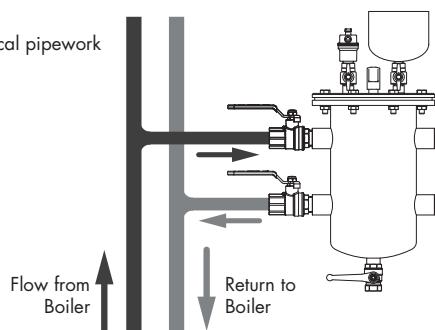
Installation Scheme 2

Flow & return filtration - horizontal pipework



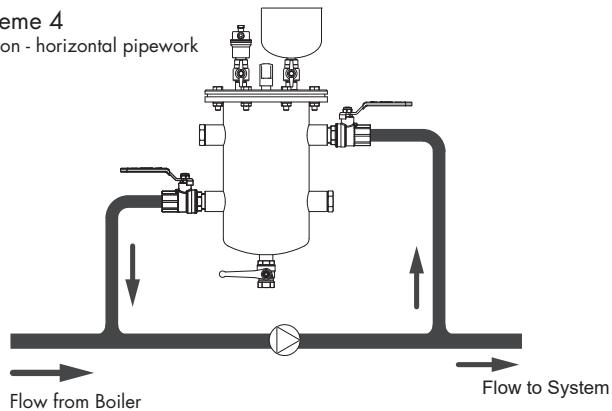
Installation Scheme 3

Flow & return filtration - vertical pipework



Installation Scheme 4

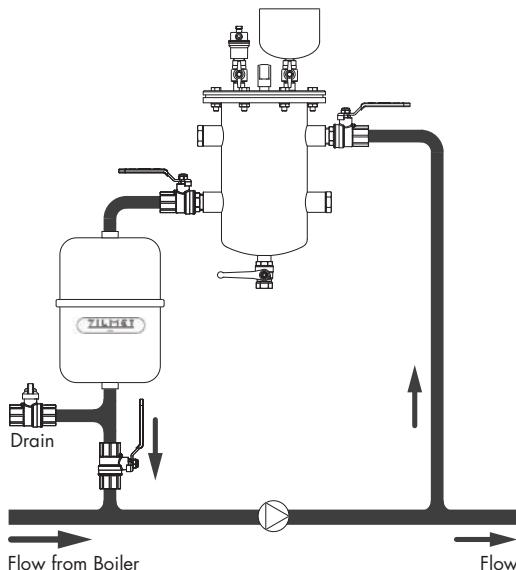
Pump bypass filtration - horizontal pipework



## Accessory Pack - Dosing Chamber

For additional dosing capacity ZILMET offer larger volume dosing units as an optional extra, these are available in 3.2, 4.8 and 6.3 gallon capacities.

This option is only to be fitted when used as part of a bypass installation method, as shown below.



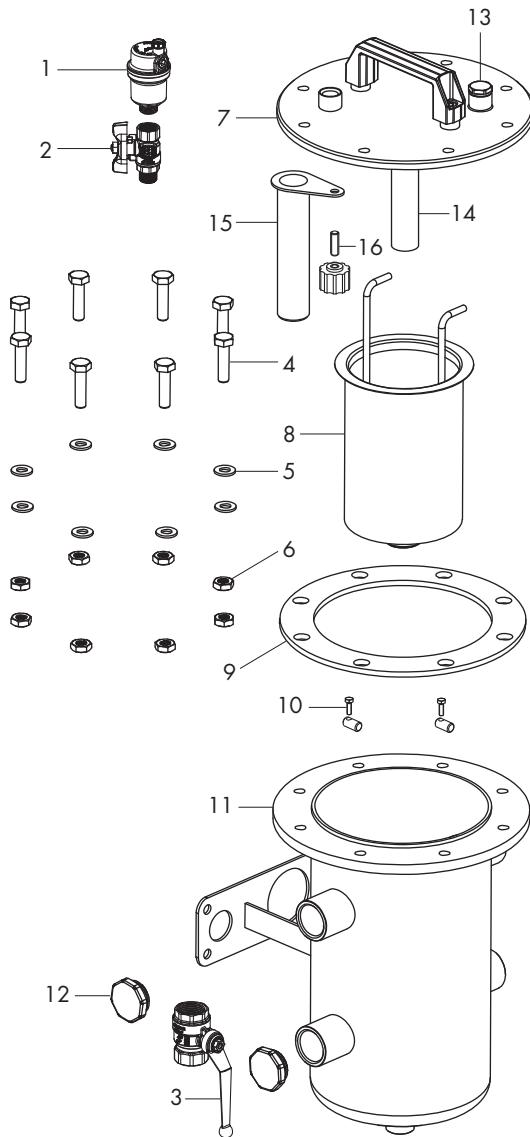
## Accessory Pack

An accessory pack is available for each size to ease fitting and provide components for dosing which contains;

- 2 lever ball isolating valves with male x female thread connections
- 1 butterfly ball isolating valves with male x female thread connections
- 1 stainless steel dosing pot

Thread	Code	Thread	Code
1/2" NPT	ZMA02	1 1/4" NPT	ZMA11
3/4" NPT	ZMA03	1 1/2" NPT	ZMA12
1" NPT	ZMA10	2" NPT	ZMA20

## Components



Item	Component
1	Automatic air vent
2	Manual air venting valve
3	Drain valve
4	Bolt
5	Washer
6	Nuts
7	Cover
8	Filter Basket
9	Gasket
10	Retaining pin
11	Body
12	Blanking plug
13	Dosing pot connection point
14	Magnet
15	Plastic sleeve for magnet
16	Grub screw & retaining nut

## Manual De-aeration

In the initial stages of installation large volumes of air can accumulate in the system and filter pot itself, ZILMET MAG PRO has manual de-aerator which enables the release of large volumes of air by use of release valve, this should only be carried out in the initial commissioning stage.



**Automatic De-aeration** – Once the air has been manually released from the valve the automatic air vent should be fitted as seen in the below image, this enables the continuous release of air from the system to help maximise system efficiency and reduction in the occurrence of corrosion.



## Maintenance

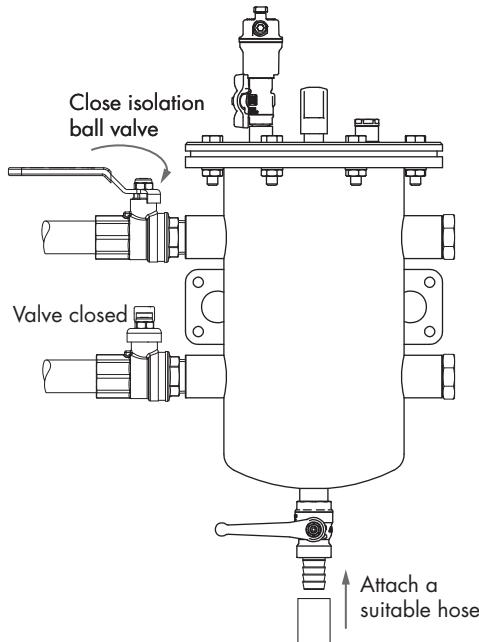
The ZILMET MAG PRO magnetic system hub may require regular maintenance dependent on the system conditions.

In order to maintain your system and the hub's optimum performance levels we recommend that this servicing schedule is adhered to.

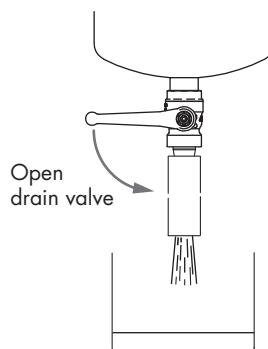
Please see below for ZILMET's recommended servicing schedule.

## Servicing Schedule

- ~ Remove Insulation jacket if applicable.
- ~ Close inlet and outlet isolation ball valves.

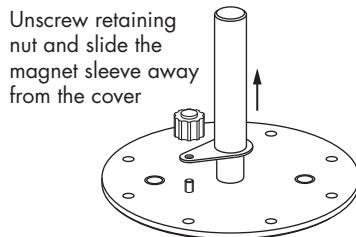


- ~ Attach a suitable hosing method to the bottom drain valve to enable the draining of the fluid in the filter pot housing.
- ~ Once attached, open the bottom drain valve and allow to flow into a suitable container until pot is empty then close the drain valve.
- ~ Using a 17mm socket undo the 8 retaining nut and bolts from the cover plate.
- ~ Remove cover to reveal magnet and magnet sleeve, hold over a suitable container and proceed to undo retaining nut to release magnet sleeve.



## Servicing Schedule Continued

- ~ Wash off excess debris from the magnet sleeve.
- ~ Re-fit magnet sleeve and secure with retaining nut.
- ~ Move retaining pins (10) to allow removal of the filter basket, lift basket (8) out and empty contents into a suitable container and thoroughly wash inside and outside mesh walls to remove all debris.
- ~ Wash out the rest of the filter pot if necessary and drain through bottom drain valve (3).
- ~ Refit filter basket and lock back into place using retaining pins.
- ~ Refit Cover plate and secure 8 retaining nut and bolts and tighten securely.
- ~ Open isolation valves and top up system if required.
- ~ Check for signs of leakage.
- ~ At this point if any dosing chemicals or inhibitors are to be added see '**Dosing**'.



## Dosing

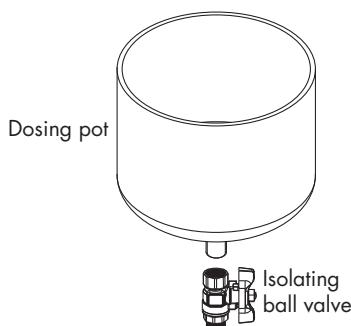
The ZILMET MAG PRO magnetic hub has a dosing point (14) which can be used to add or increase the concentration of water treatment chemicals.

Part of the ZILMET MAG PRO accessory pack forms a stainless steel dosing pot for the addition of system chemicals and inhibitors, see below for operation guidance

Note the filter pot should be empty for the addition of fluid and the isolation ball valves must remain in the closed position until dosing is complete.

## Method

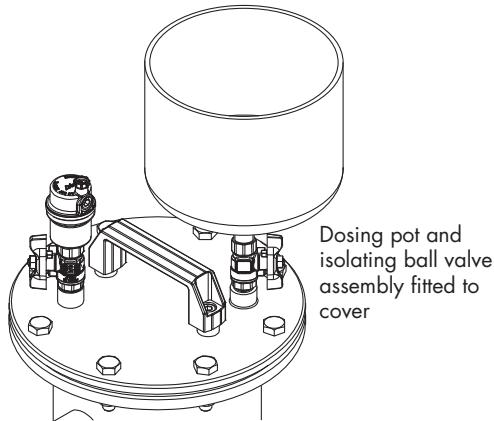
- ~ Isolate the unit by closing the two isolating valves on the flow and return pipes and drain the contents.
- ~ Screw the dosing pot into the ½" isolating ball valve and screw the complete assembly into the ½" connection on top of the filter pot using a suitable fluid tight seal.
- ~ Open the butterfly ball valve by turning the black handle into the vertical position.
- ~ Begin to add fluid until the requirements is met.



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## Method Continued

- ~ Once finished turn the butterfly ball valve handle to the horizontal position to isolate from the system - refit blanking cap if required.
- ~ Re-open inlet/outlet ball valves and top up system as necessary.



**Please leave this Manual for the User**