

# **FABRICATED** PRODUCTS INDONESIA

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PT. INKO METALINDO

**Stainless Steel Air  
& Dirt Separation  
for the Heating &  
Ventilation Industry**





## The Combined Air (Dearator) & Dirt Separator

The 1 Pass combines the removal of air and dirt through a single unit. Installed at the hottest point in the system the 1Pass will eliminate these microbubbles from heating and chilled water system.

The special design of the filter ensures all dirt including magnetite down to 5 micron and less is removed. All magnetite and any other debris will be removed very quickly, ensuring the time the dirt remains in the water system concerned, remains at a minimum.

**“ REMOVE 99%  
OF DIRT IN JUST  
1 PASS OF THE UNIT! ”**

Installed at the hottest point in the system. The special design of the filter will ensure that air, microbubbles and all types of dirt including magnetite down to 2-3 microns will be quickly removed from the system, minimising the time that the contaminants reside in the HVAC system.



The 1 Pass unit is made in stainless steel which offers the numerous benefits over mild steel

## FEATURES AND BENEFITS

- Removes air, microbubbles and all types of dirt including magnetite down to 5 micron and less.
- Greatly reduced commissioning times after initial fill
- Removes 99% of all types of dirt including magnetite on the first pass through the unit
- Longer system life
- Cleans and de-aerates the system quicker
- Low-pressure drop
- One directional flow.
- Water flows in one side and comes out clean and de-aerated the other
- Removes microbubbles at 6 bar in heating systems and 4 bar in chilled water for Microbubble removal
- Maximum Temperature units available on request
- Tested to 21 bar
- All stainless steel vessel

**Stainless Steel :**  
**Safe, Clean, Efficient**  
**and Hygienic**

## WHY SHOULD I CHOOSE 1PASS?

- Keeps the water within the system cleaner and free from contaminates by removing 99% of air, microbubbles and all types of dirt including magnetite down to 2-3 microns.
- As the water within the system is cleaner, it helps prevent the system corroding after initial install
- The unit works exceptionally well at higher pressures than the competition ; 6 bar within heating systems and 4 bar within chilled water for microbubble removal.

**The removal of air and dirt  
through a single unit**



## Stainless Steel Air, Microbubbles, Magnetite & Dirt Separation

for the Heating & Ventilation Industry

The units to remove potentially damaging particles from both hot and chilled water systems. It is comprised of a very fine stainless steel stainer capable of stopping debris down to 5 micron.

Inside the body of our units is also a high-gauss magnetic rod, these two elements combined together provide a very powerful cleaning device. As the water flows through the unit of magnetite is attracted to the magnetite rod and even the smallest particles down to 5 micron and less are collected. Through simple & cost effective maintenance the magnetic rod is then removed. All magnetite which flows through the units will be removed 100%.



### Deaeration

Deaeration describes the removal of dissolved gases from liquids such as in air from water. When water is heated or the pressure reduced, gas microbubbles are released into the system. Microbubbles can be the cause of major problems such as pump failure, corrosion and energy loss.



## Cleaning the Internal Filter

Periodically the special filter may need cleaning. Isolate the 1PASS, and drain the unit. Remove the top flange. Remove the filter located inside the housing and rinse to remove all dirt / debris. Refit the filter, tighten all bolts on the flange. Scalding is a danger at high pressures and temperatures. Ensure that the water is safely piped to drain before opening valve. The system pressure will flush the dirt out. 1PASS Dirt Separators can only remove dirt that is circulating.

All 1PASS separators may need a by-pass installed around the unit or a standby 1PASS suitably located in pipework.

Please allow approximately :

- 10 minutes to remove, clean and refit the filter.
- Larger units may take more time to clean the filter

## Flushing

The Filter can be cleaned by back flushing the separator under system pressure. Just simply open the ball valve at the bottom of the separator. Leave the ball valve open till the water runs clear. The separator is now clean.

## Drain Valve

All models are supplied with a ball valve for draining the collected dirt and sludge.

## Commissioning

The 1PASS requires no special commissioning. All units are fitted with a 3 way ball valve, which should be opened when initially filling the system. The same valve is used for draining of floating scum and also prevents the possibility of dirt clogging the air vent.

## Flanges

All flanges are drilled to BS 4504 PN16 as Standard.

# Precipitator™

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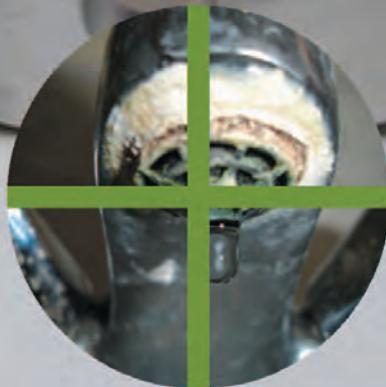
Range of Water Conditioners

Precipitator™ Conditioners inhibit lime-scale deposits & control corrosion within hot & cold distribution pipework, heating system, water processes and other plumbed in appliances.

## Precipitate the ion's



Target



Eliminate  
lime-scale



Corrosion

Precipitator™

## THE PRECIPITATOR™ RANGE

### Range of Water Conditions

Precipitator™ enable more ion's to be precipitated from it's active anode devices due to it's unique patented anti passivation technology. Precipitator™ devices are specifically designed to ensure that the anode remains active. The device is not dependant upon a small scope of turbulent flow rates. The optimised functional efficiency of unique self-cleaning method allows the anode to liberate the ions more effectively than other electrochemical water conditioners.



### Precipitator™

- No. 1 for ion release
- In-line device
- 1/2" - DN200 sizes
- Inhibits limescale
- Improves heat transfer
- Reduces corrosion
- Proven method improved
- Save energy
- Non chemical
- Non electrical
- No magnets
- Long life
- No operating cost



# FEATURES AND BENEFITS



## IMPROVE PERFORMANCE

Technology of the device is highly resistant to internal lime-scale build up and passivation which is often a case why other conditioners fail to function after only a short period of operation.



## ENERGY EFFICIENCY

Water conditioning is one of the most sustainable methods of inhibiting limescale & corrosion in appliance, processes and systems.

## BUILDING REGULATIONS WATER TREATMENT



To comply with Part L of the Building Regulations, the feed water to water heaters and boilers needs to be treated to prevent limescale formation when the primary space heating or hot water appliance is next replaced.

## Water Conditioning as recommended by the Compliance Guide to Part L1 of the building regulations

### A SUSTAINABLE TECHNOLOGY

Precipitator™ water conditioners inhibit lime-scale deposits & control corrosion within hot & cold distribution pipework, heating system, water processes and other plumbed in appliances.

Conservation  
of fuel & Power

### COST TO INDUSTRY

Studies reveal that 22 mm thick layer of limescale on a heat exchanger surface reduces heat transfer by 90% :

- 1 mm layer 7.5 %
- 12 mm layer 65%



**“22 mm of limescale on a heat exchangers surface reduces heat transfer by up to 90% ”**

# FABRICATED PRODUCTS INDONESIA

## Our Products :



### Separator

The Combined Air (Deaerator) & Dirt Separator

## Precipitator™

### The Precipitator™ Range

Range of Water Conditioners



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# **NEW PRODUCT IS COMING SOON**

Instantly reduction of Total Suspended Solid and NTU  
Dirt and fiber its not a big problem again  
New Technology of water treatment  
Green technology  
No electricity  
No chemistry process

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