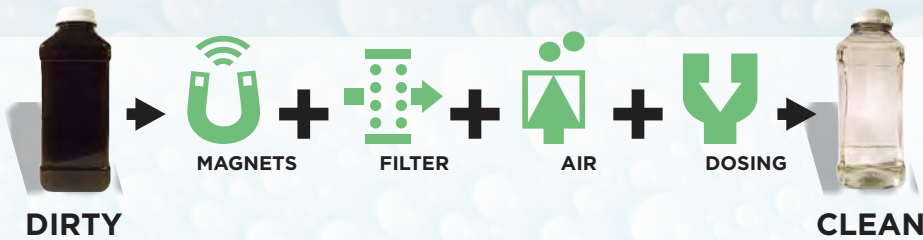




RETROFIT YOUR SYSTEM
TO THE LATEST BSRIA GUIDELINES



THE ALL-IN ONE
SIDE STREAM FILTER
MAGNETIC FILTER
AIR SEPARATOR
AND DOSING UNIT



4Bar
WORKING
PRESSURE
UP TO
34,560L
VOLUME
SYSTEMS



7Bar
WORKING
PRESSURE
UP TO
86,400L
VOLUME
SYSTEMS



16Bar
WORKING
PRESSURE
UP TO
302,400L
VOLUME
SYSTEMS

X-POT[®]
COMPACT

X-POT6[®]

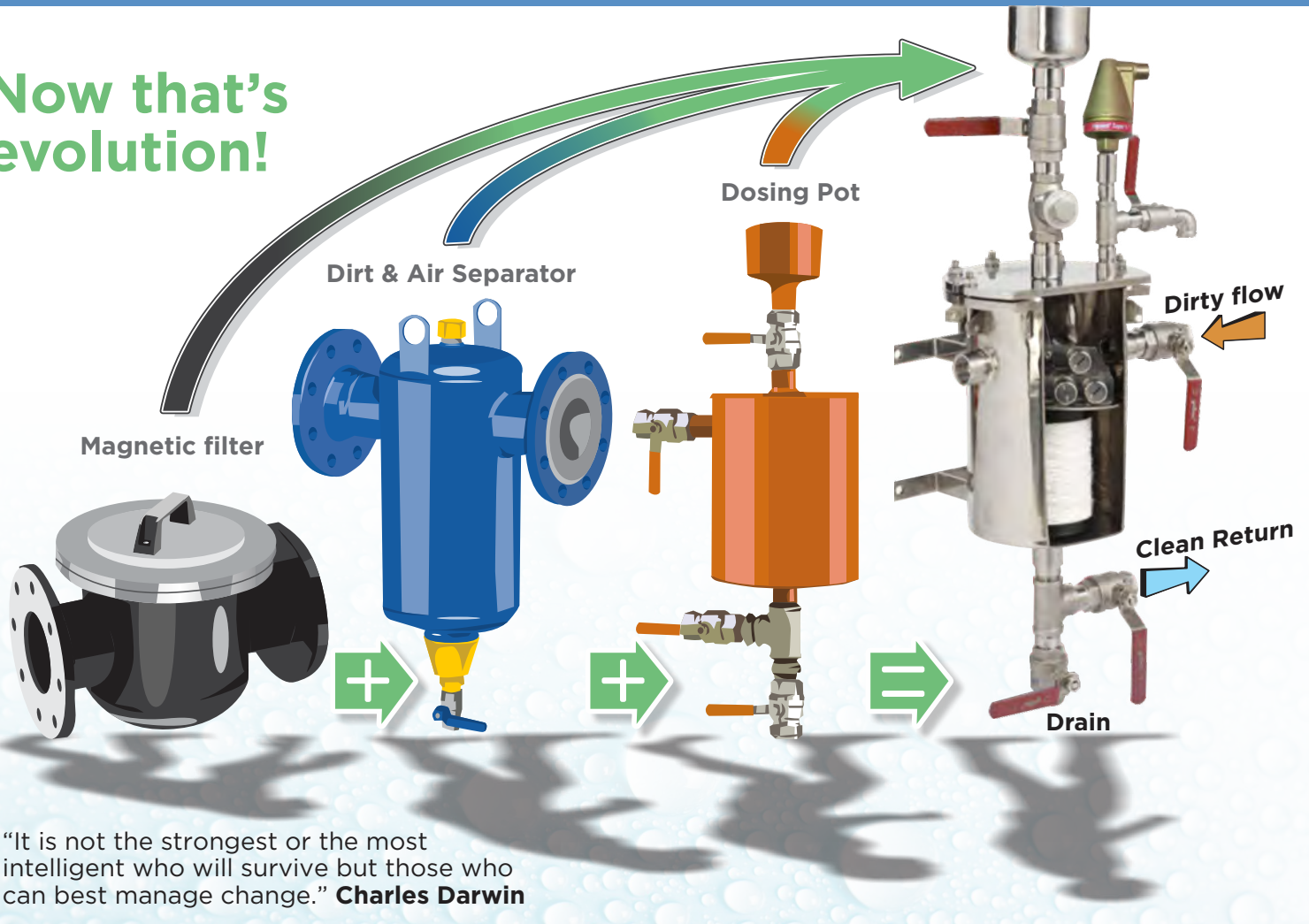
X-POTXP[®]

FOUR PRODUCTS, BUILT INTO ONE!

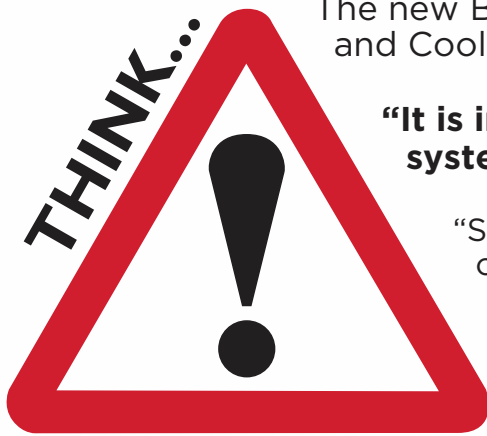
PREVENTION IS BETTER THAN CURE

Full Side Stream Filtration all in a Dosing Pot.

Now that's
evolution!



BSRIA - All change for the Dosing Pot!



The new BSRIA BG50-2013 Water Treatment for Closed Heating and Cooling Systems Guide states:

"It is important the dosing pot should remain open to the system with a continuous through-flow..."

"Side Stream Filtration can be used to help maintain a low concentration of suspended solids in the circulating water following pre-commission cleaning and reduce the risk of solid deposition and under deposit corrosion in areas of low flow. In addition to the long term benefits of early installation of side stream filtration, it can also help to maintain water quality during the commissioning period."

BSRIA
Member

The X-POT® is the only product which offers versatility, value engineering and meets the intent of BSRIA BG29 and Bg50.

X-POT[®] COMPACT

Product Code: 16920023

4Bar
WORKING PRESSURE

UP TO
34,560L
VOLUME SYSTEMS

The BOSS™ X-POT Compact[®] was specifically designed for the smaller commercial heating and cooling water installations up to 34,560L and up to 4Bar working pressure. The compact size and versatility of this X-POT[®] lends itself to great space savings in small plant rooms and great value engineering solutions.

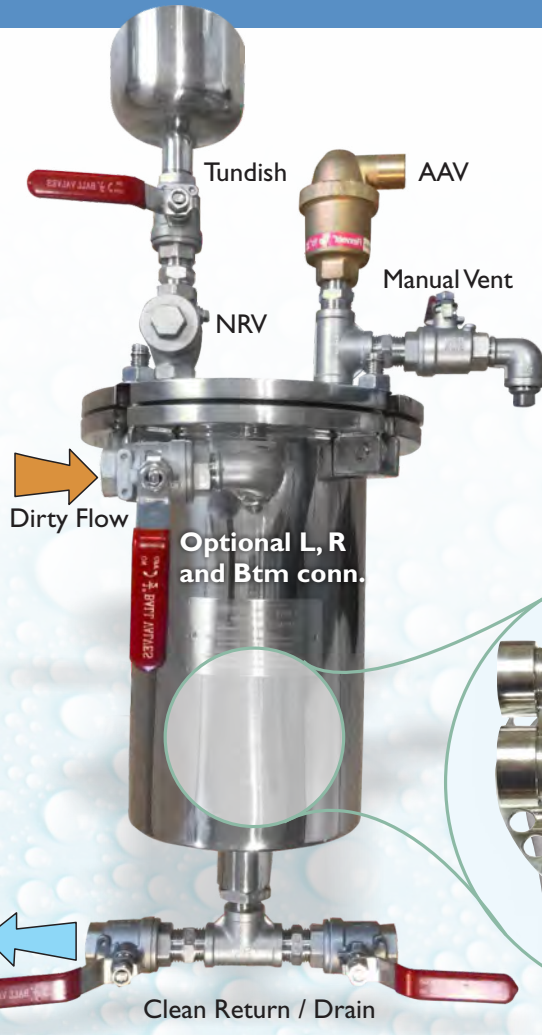
The Compact incorporates a dirt and air separator, a dosing pot and a magnetic filter, making it the perfect 'go to' product for boiler rooms in new and existing applications.

Not only does the X-POT Compact[®] offer full Side Stream Filtration down to an industry best 0.5µ, but it also enables quick, safe and simple dosing of up to 4.5L of chemicals into any system.

X-POT COMPACT SPECIFICATION

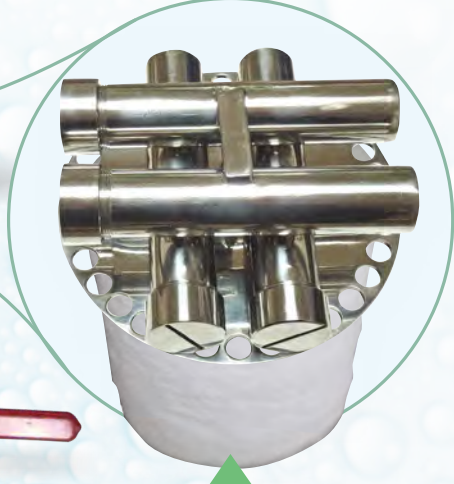
MANUFACTURED & TESTED IN ACCORDANCE WITH PED 2014/68/EU

- All stainless steel construction including all ½" valves and ½" fittings (Except ½" AAV)
- Dosing capacity: 4.5L
- Factory test pressure: 6Bar
- Max working pressure: 4Bar
- Flow rate: Up to 24L/m (clean filters)
- Temp range: 0 to 95°C
- Weight: Empty = 17kg, Full = 23kg
- 1 off SS magnet grate containing 4 off rare earth magnets
- 1 off SS baffle plate
- Compatible with 100, 50, 20, 5 & 0.5µ cartridge filters
- Wall mounted
- Supplied with starter kit (see overleaf)



BOSS™ X-POT COMPACT[®] FILTER ASSEMBLY

At the heart of the Compact is the twin filtration compartment. In the first compartment all magnetic particles are removed by the 4 off powerful rare earth magnets encased within an easy clean stainless steel magnet grate. The system water then passes through the stainless steel baffle plate into the second compartment where the fine filtration cartridge traps non-magnetic debris. The clean, filtered and polished water then flows back into the system.



A RANGE OF X-POT[®] CARTRIDGE FILTERS UNIQUELY SUITED TO YOUR SPECIFIC NEEDS



The cartridge filters designed for the X-POT Compact[®] and the X-POT6[®] vessels have been manufactured to meet the challenging environment they will be used in, giving maximum through-put and particle retention with the lowest pressure drop. The filter cartridges are available in the following nominal micron sizes: 100, 50, 20, 5 and the new 0.5µ.

The BSRIA Guide BG29/2012 pre-commission 'Cleaning of Pipe Work Systems' recommends a 5µ filtration rate. At 0.5µ, the new X-Pot filters are 10 times finer, capturing much more debris. Another industry first.

The X-POT Compact[®] and X-POT6[®] filters are manufactured using a Polypropylene inner support core and feature gradient density, thermally bonded Polypropylene spun-bonded fibre. Product traceability complies with BS EN ISO 9001:2008.

REPLACEMENT FILTERS

CARTRIDGE FILTERS	BAG FILTERS
X-POT COMPACT [®]	X-POT XP [®]
X-POT6 [®] (Box of 4)	(Box of 5)
100µ 16910242	100µ 16910700
50µ 16910253	50µ 16910711
20µ 16910264	25µ 16910722
5µ 16910530	5µ 16910733
0.5µ 16910541	1µ 16910744

All replacement filters available through 4i Water Services

Increases energy efficiency



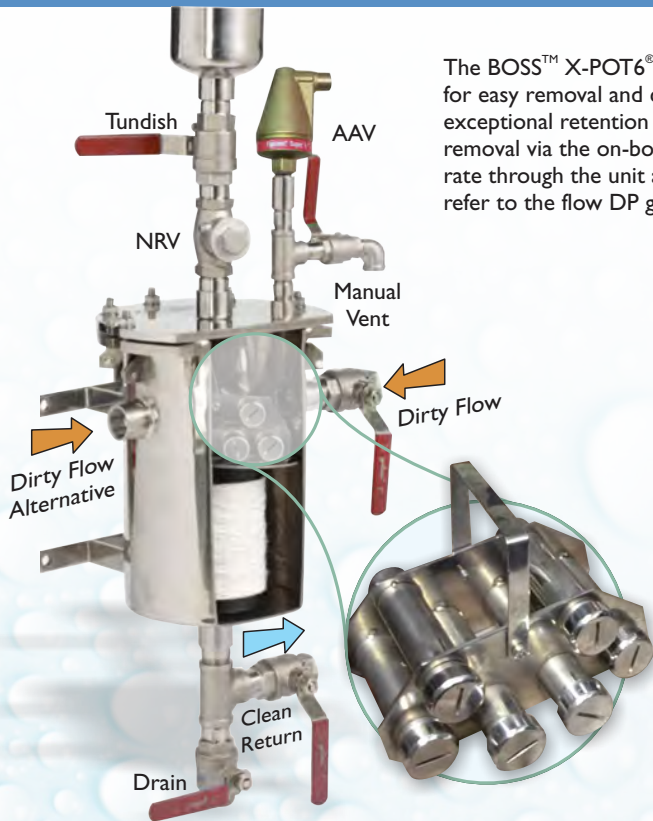
X-POT[®]

The X-POT[®] is an AFFORDABLE SIDE STREAM FILTRATION & DOSING UNIT for ALL system sizes, incorporating 'best practice' for dosing pots

X-POT6[®]

Product Code: 16920034

7Bar
WORKING PRESSURE
UP TO
86,400L
VOLUME SYSTEMS



The BOSS™ X-POT6[®] contains 6 off rare earth magnets encased within a stainless steel magnet grate for easy removal and cleaning. Along with the magnets, the cartridge filter offers superior cleaning and exceptional retention of system debris. The X-POT6[®] also includes excellent air and micro bubble removal via the on-board AAV, making it advantageous for all systems. Control of the system water flow rate through the unit and the option of a flow regulator is dependent on the pipe size to the unit - refer to the flow DP graph and the installation schematics.

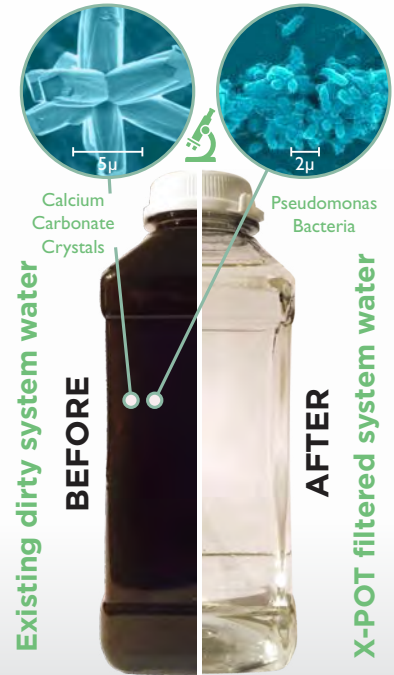
BOSS™ X-POT6[®] SPECIFICATION

MANUFACTURED & TESTED IN ACCORDANCE WITH PED 2014/68/EU

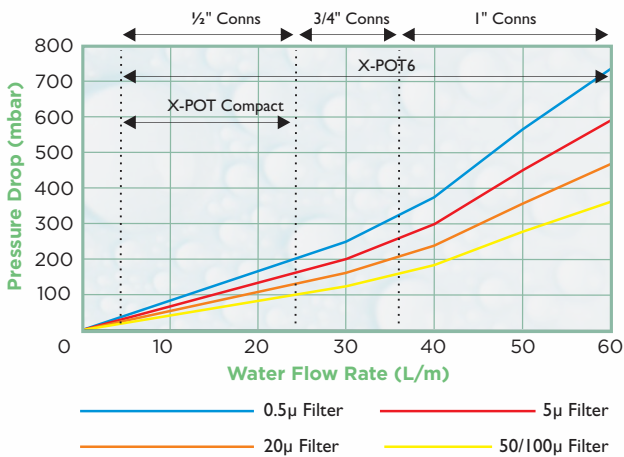
- All stainless steel construction including all 1" valves and 1" fittings (Except 1/2" AAV)
- Dosing capacity - 10L
- Factory test pressure - 10Bar
- Max working pressure - 7Bar
- Flow rate up to 60L/m (clean filters)
- Temp range - 0 to 95°C
- Weight - Empty = 21kg, Full = 34kg
- 1 off SS magnet grate containing 6 off rare earth magnets.
- 1 off SS baffle plate
- Compatible with 100, 50, 20, 5 & 0.5µ cartridge filters
- Wall mounted
- Supplied with starter kit (see overleaf)

Filtration down to 0.5µ. Better out than in!

The water samples adjacent were taken from a 2 year old LTHW Heating System. The system contained a dosing pot (closed off), D&A Separator and no trace of water treatment chemicals. Not only did the system contain corrosion debris, but the system water also contained scale and Pseudomonas bacteria. After installing an X-POT[®] and XPO10[®] inhibitor, the results speak for themselves. Simple and very effective!



Flow DP of X-POT Compact & X-POT6 Cartridge Filters including Magnet Grate

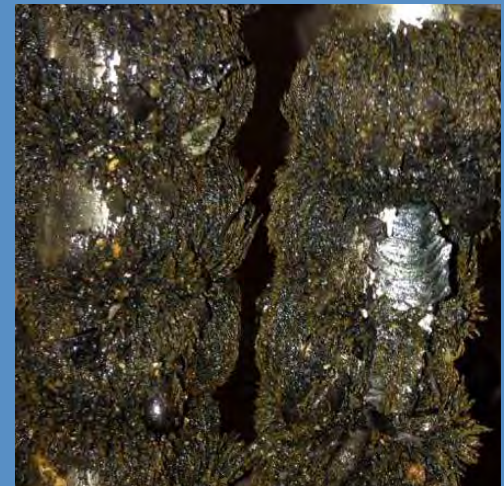


NOTE - Choice of X-POT is dependent upon system working pressure and system volume.

Filters
down
to 0.5µ



Maintenance
costs
Reduced

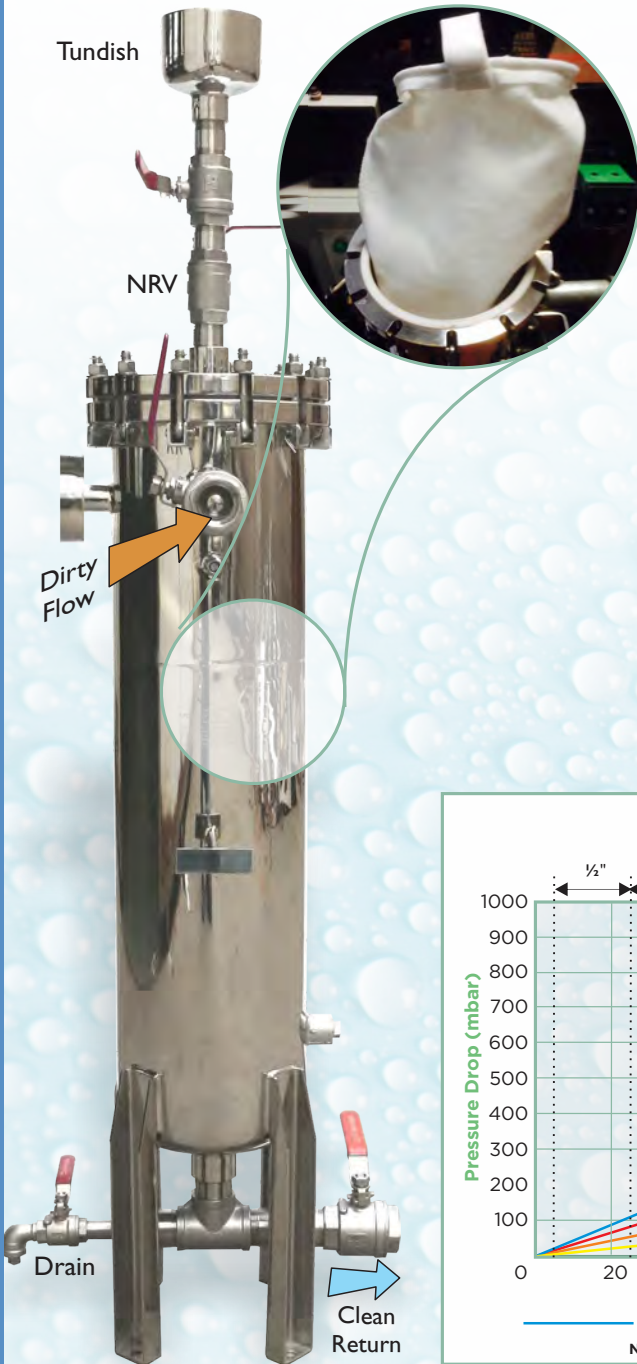


X-POTXP[®]

Product Code: 16920045

16Bar
WORKING PRESSURE

UP TO
302,400L
VOLUME SYSTEMS



The BOSS™ X-POTXP[®] is the new industry benchmark for Side Stream Filtration. Designed for the large commercial heating and cooling water installations up to 302,400L in volume.

The X-POTXP[®] not only has great pulling power with its 13 off rare earth magnets, but also contains a large capacity bag filter which captures non-magnetic material and filters down to 1.0µ. Virtually nothing escapes the XP.

Simple filter replacement ensures the site engineer can inspect the system debris for on site analysis if required.

AIR SEPARATION

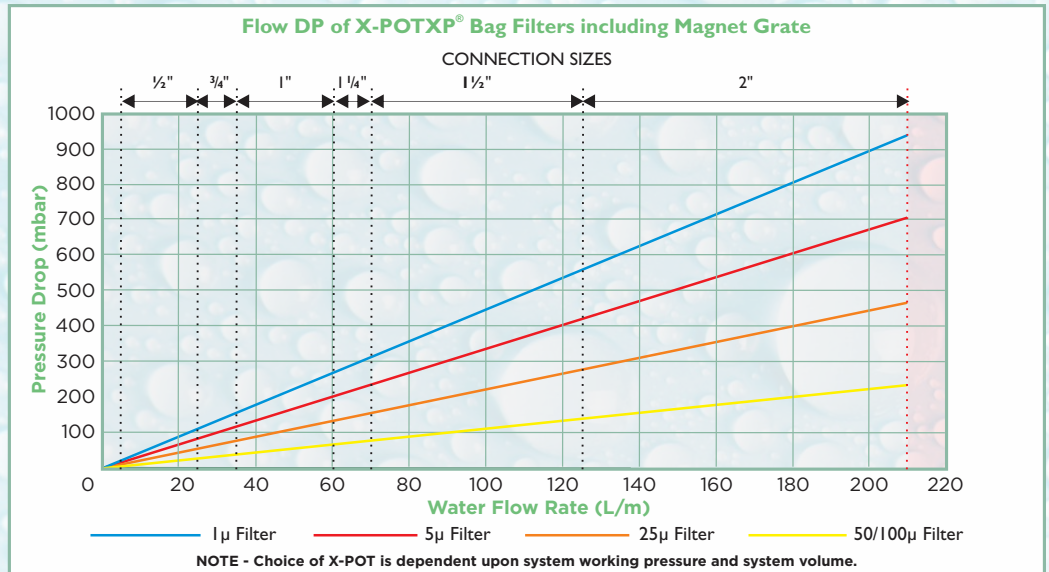
X-POT[®] removes both system air and micro-bubbles through the in-built Auto Air Vent and the specially designed internal filter arrangement. The X-POT[®] eliminates all micro-bubbles from the system, reducing the overall system gas levels.

X-POTXP[®] SPECIFICATIONS

MANUFACTURED & TESTED IN ACCORDANCE WITH PED 2014/68/EU

- All stainless steel construction including all 2" Valves and 2" fittings (Except 3/4" AAV)
- Dosing capacity - 25L
- Factory test pressure - 25Bar
- Max working pressure - 16Bar
- Flow rate up to 210L/m
- Temp range - 0 to 95°C
- Weight - Empty = 45kg, Full = 85kg
- 2 off SS magnet grates containing 13 off rare earth magnets.
- 1 off SS baffle plate
- Compatible with 100, 50, 25, 5 & 1µ filter bags
- Floor standing
- Supplied with starter kit (see overleaf)

Flow DP of X-POTXP[®] Bag Filters including Magnet Grate



Simple and
very
effective

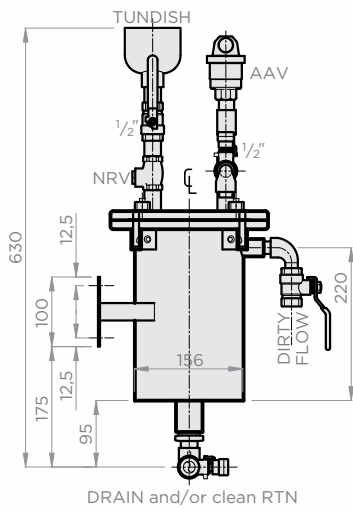


Releases
system
micro-bubbles

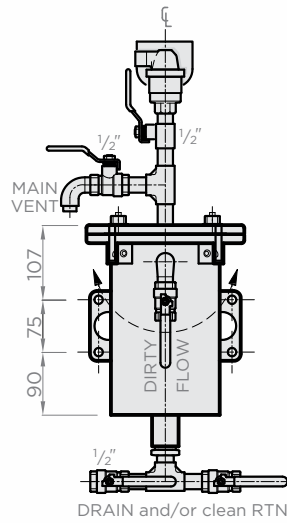


DRAWINGS

X-POT[®]
COMPACT

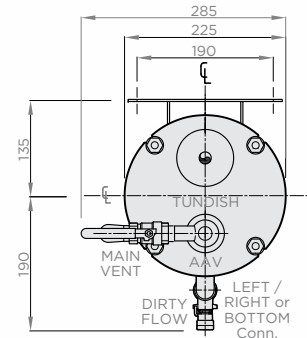


Side View



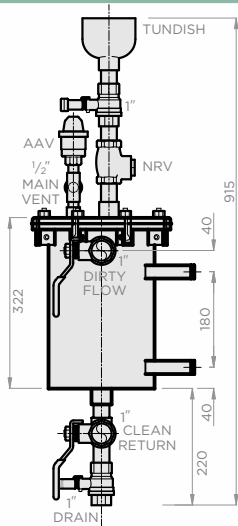
Front View

Max Working Pressure - 4Bar
Dosing Volume - 4.5litres
Filtration Rate - 0.083-0.4L/sec
Temp Range - 0-95 deg C
Connections - 1/2" BSP
Wall Mounted - Yes

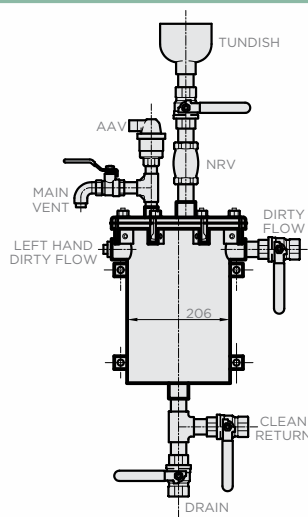


Plan View

X-POT6[®]

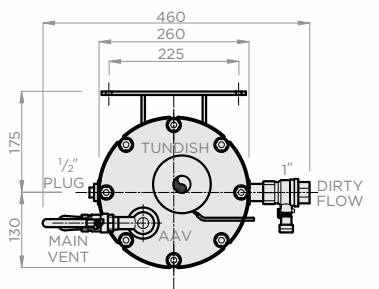


Side View



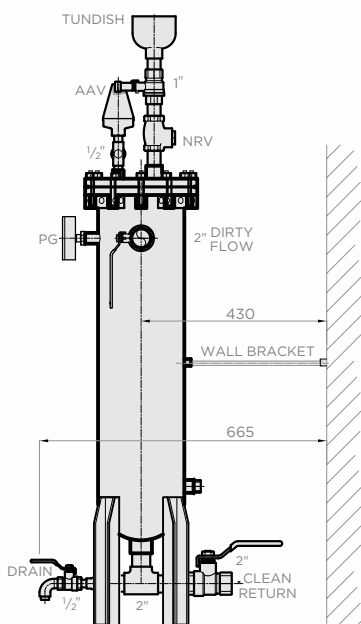
Front View

Max Working Pressure - 7Bar
Dosing Volume - 10 litres
Filtration Rate - 0.083-1L/sec
Temp Range - 0-95 deg C
Connections - 1" BSP
Wall Mounted - Yes

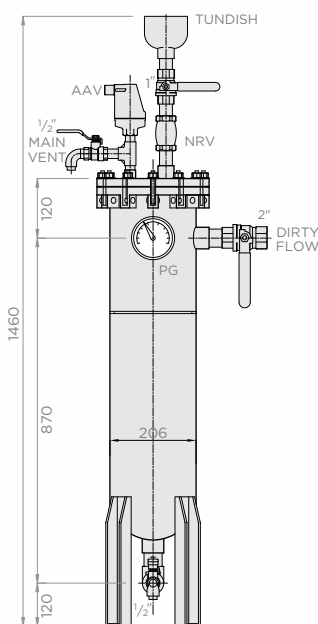


Plan View

X-POTXP[®]

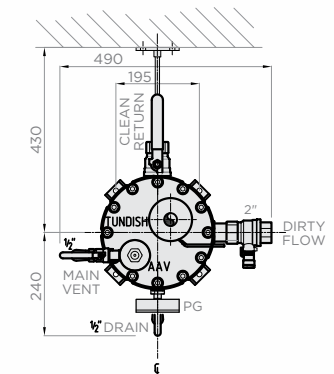


Side View



Front View

Max Working Pressure - 16Bar
Dosing Volume - 25 litres
Filtration Rate - 0.083-3.5L/sec
Temp Range - 0-95 deg C
Connections - 2" BSP
Floor Mounted - Yes



Plan View

INSTALLATION

Modern heating and cooling systems are commonly designed with high efficiency heating and cooling water generators. The X-POT[®] contains incredibly powerful magnetic filtration along with fine cartridge or bag filtration (X-POTXP[®]). It is designed to tackle commercial systems, from the small to the very large, which include heavy industrial applications. There is an X-POT[®] to suit all needs.

The patented innovative design characteristics and high quality production of the X-POT[®] make installation and ongoing maintenance extremely straightforward and simple.

As can be seen in the following diagrams, the X-POT[®] provides a number of installation solutions, in terms of unit size and location, for heating and cooling water systems.

Correct installation, servicing and chemical dosing with an X-POT[®] compatible inhibitor is essential to ensure optimum operating performance and a longer operational life for the system, thereby reducing fuel costs and CO₂ emissions.

WORKING PRESSURE (WP)

The system working pressure determines which X-POT[®] is to be considered.

Up to 4Bar WP
X-POT Compact[®]

Up to 7Bar WP
X-POT6[®]

Up to 16Bar WP
X-POTXP[®]

CONNECTIONS

The size of the connections to the X-POT[®] is determined by the total system volume being circulated through the X-POT[®] in a 24 Hr period.

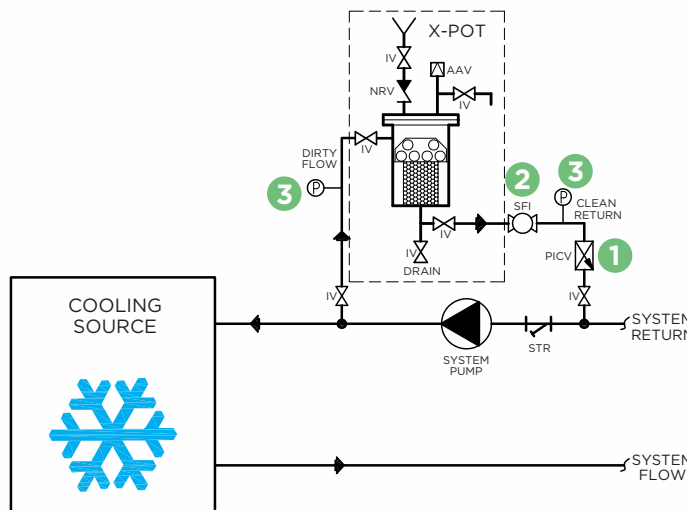
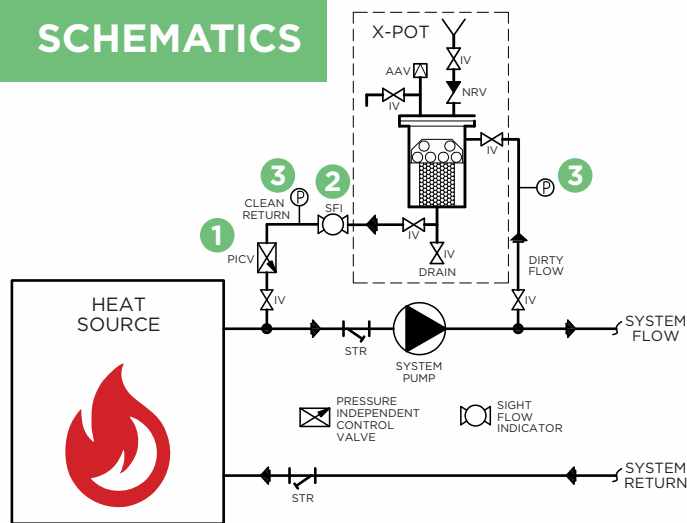
$$\frac{\text{SYSTEM VOLUME}}{86\,400\text{sec}} = \text{L/sec}$$

- 0.083 - 0.4L/s = 1/2" Conn.
- 0.4 - 0.6L/s = 3/4" Conn.
- 0.6 - 1.0L/s = 1" Conn.
- 1.0 - 1.2L/s = 1 1/4" Conn.
- 1.2 - 2.1L/s = 1 1/2" Conn.
- 2.1 - 3.5L/s = 2" Conn.

EXAMPLES

Working Pressure : 3Bar
System volume :
22,500Litres = 0.26 l/sec
Chosen Vessel : **X-POT Compact[®]**
Connection Size : 1/2"

SCHEMATICS



NOTE
System pump duties are to allow for the X-POT[®] flow rates.

NOTE
For pipe size connections to the X-POT[®] refer to 'Flow DP Graph' overleaf and 'Connections' to left.

Ancillaries

1

BOSS[™]
Dynamic Venturi
PICV

Actuator Head
Not Required



BSS Product Code
1/2" BSP 21910028
3/4" BSP 21910050
1"-1 1/4" BSP 21910083
1 1/2" BSP 21910094
2" BSP 21910105

2

Sight Flow Indicator
(Rated up to 7 Bar)



BSS Product Code
1/2" BSP 26110017
3/4" BSP 26110028
1" BSP 26110039

3

Pressure Gauge



BSS Product Code
0-7Bar 80011897
0-21Bar 80011971

Working Pressure : 5Bar
System volume :
35,000Litres = 0.405 l/sec
Chosen Vessel : **X-POT6[®]**
Connection Size : 3/4"

Working Pressure : 10Bar
System volume :
90,000Litres = 1.05 l/sec
Chosen Vessel : **X-POTXP[®]**
Connection Size : 1"

STARTER PACKS

STARTER PACKS

Each X-POT® is supplied with a Starter Pack



X-POT[®] COMPACT X-POT6[®]

- 1 off 20 Micron Filter
- 1 off Automatic Air Vent
- Insulation Jacket (2 parts)
- Instructions

X-POTXP[®]

- 1 off 25 Micron bag filter
- 1 off Automatic Air Vent
- Insulation Jacket (3 parts)
- Instructions



X-POT[®] GASEOUS OXYGEN REDUCTION as verified by Hevasure independent rig testing

HEVASURE

INTELLIGENT CORROSION CONTROL

From testing of the X-POT[®] system in a pressurised rig, it can be concluded that:

- The X-POT[®] unit was able to collect gaseous oxygen via coalescence of the system micro-bubbles via the non-magnetic filter.
- The X-POT[®] unit was able to rapidly vent-off gaseous air and collected micro-bubbles via the X-POT[®] Auto Air Vent.
- The system showed a decrease in dissolved oxygen levels within the system water as a whole.

Response of LTHW system fitted with an X-Pot unit to trapped air, as tested by Hevasure

