

ART. 745 – DIRT SEPARATOR

TECHNICAL INFO SHEET

FUNCTION

Dirt separators are used to constantly separate impurities from installation water of heating and cooling systems (sand, rust particles, etc.) gathering them in a large collection chamber from which they can be removed by opening a drain cock while the system is in operation.

Dirt separators are able to separate even the smallest impurities automatically.

ICMA dirt separators guarantee an efficient operation of the heating and cooling systems significantly reducing obstructions in the pipes, heating elements and heat exchangers, thus preventing to affect their performances.

They also prevent rapid wear and damage of system components (such as pumps, valves, ect.) without causing any noise or overheating and with extremely limited pressure drops.



PRODUCTS

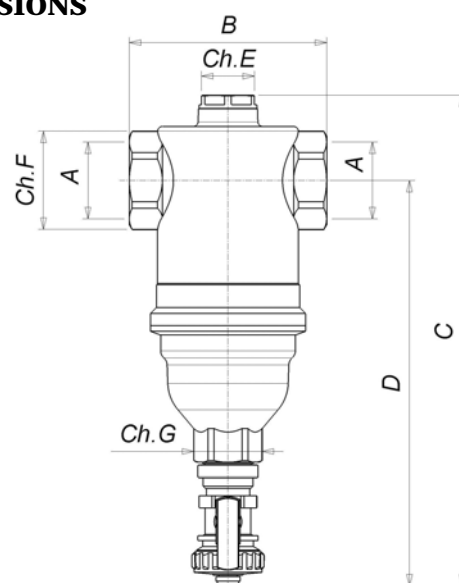
Art. 745	Size
82745AE05	G 3/4" F
82745AF05	G 1" F
82745AG05	G 1 1/4" F
82745AH05	G 1 1/2" F

TECHNICAL FEATURES

Body	Brass CB 753 S - UNI EN 1982
Collection chamber	Brass CB 753 S - UNI EN 1982
Upper cup	Brass CW 617 N - UNI EN 12165
Internal element	Stainless steel
Drain cock	Composite materials
Sealing gaskets	EPDM PEROX (High resistance)

Fluids	Water, glycol solutions
Max. percentage of glycol	50%
Temperature range	-30° /160°C
Max. operating pressure	10 bar
Connections: - Main:	G 3/4" - G 1" - G 1 1/4" - G 1 1/2"
- Top:	G 1/2"
- Drain:	Hose connector

DIMENSIONS



Code	A	B	C	D	Ch.E	Ch.F	Ch.G
83740AE05	G 3/4"	82	205	170	22	37	26
83740AE05	G 1"	82	205	170	22	37	26
83740AE05	G 1 1/4"	90	241	192	22	54	26
83740AF05	G 1 1/2"	90	241	192	22	54	26

HYDRONIC CHARACTERISTICS

The table below shows Kv parameters related to ICMA dirt separators.

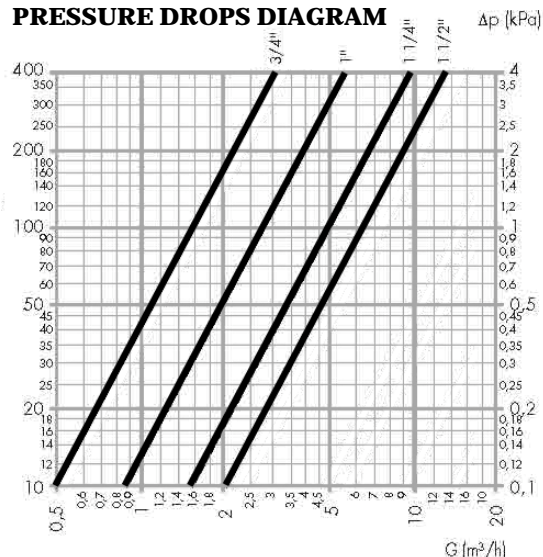
Misure	3/4"	1"	1" 1/4"	1" 1/2"
Kv (m3/h)	16,2	28,1	48,8	63,2

The maximum recommended flow speed is 1,2 m/s.

The following table shows the maximum flow rates in order to meet this requirement.

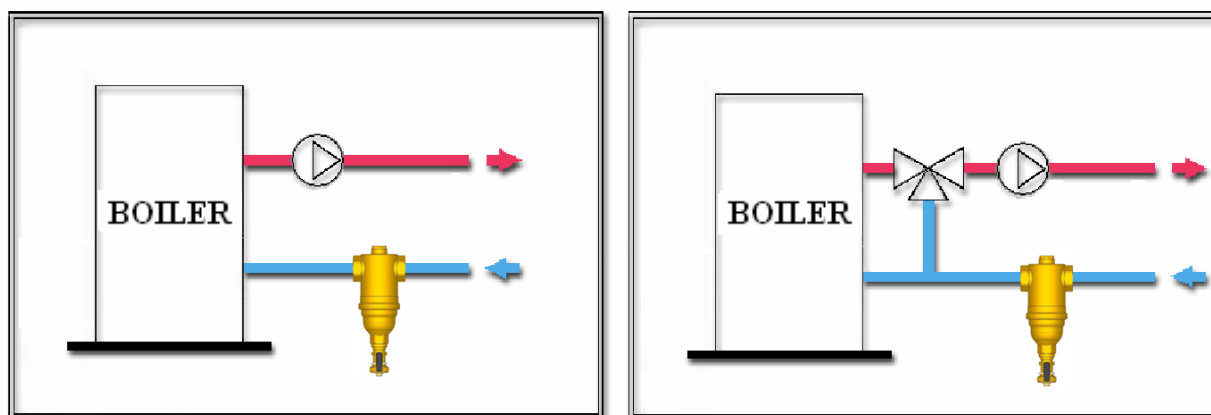
Misure	3/4"	1"	1" 1/4"	1" 1/2"
l/min	22,7	35,18	57,85	90,36
m³/h	1,36	2,11	3,47	5,42

PRESSURE DROPS DIAGRAM



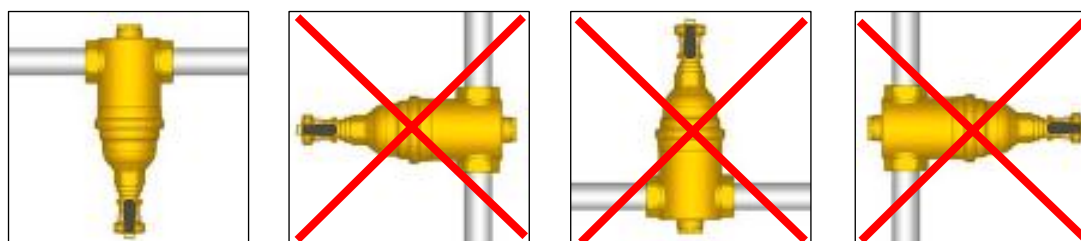
APPLICATION SCHEME

The dirt separator should preferably be installed on the return circuit upstream of the boiler (and of the pump) to intercept any impurities coming from the air conditioning circuit, especially when starting the system. The flow direction is not important in ICMA dirt separators.



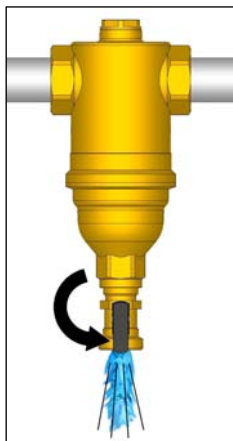
INSTALLATION

The dirt separator can only be installed vertically.



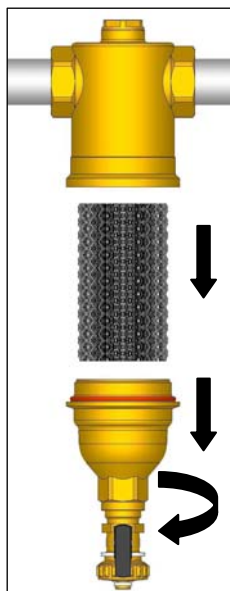
IMPURITIES DISCHARGE

The dirt separator has a drain cock to discharge the collected impurities. This procedure can even be performed while the system is in operation!



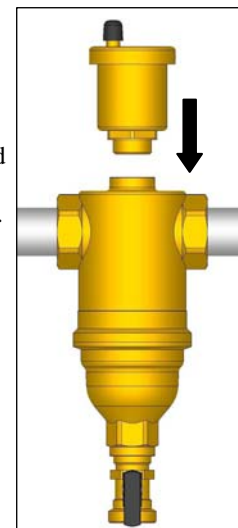
MAINTENANCE

It is possible to carry out maintenance operations without removing the dirt separator from the system. After closing the interception valves, use a 26 mm hex wrench to unscrew the dirt collection chamber to which the internal element is fixed, in order to extract it for cleaning purposes. Be careful with the sharp edges of the filter cartridge, we recommend the use of proper gloves!!



TOP CONNECTION

The dirt separator has a top threaded hole that can be used to install an "automatic air vent". To do that, simply remove the cap on top and install ICMA valve code: 82707AD05/06 or 82708AD05/06.



! SAFETY

The installation of ICMA dirt separators must be done by qualified staff. During installation and maintenance of dirt separators attention must be paid to the fluids temperature which can be over 50° C causing serious burns. Remember that the guarantee will be forfeited in the event of any unauthorised changes or tampering with the device during assembly and construction.