

DIRTMAG[®] PRO

Dirt separator with dual magnetic fields



5463AM series

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Application

In hydronic systems, the circulation of water containing impurities may result in rapid wear and damage to components such as pumps and control valves. These impurities also cause blockages in the heat exchangers, heating elements and pipes, resulting in a lower thermal efficiency within the system. DIRTMAG[®] PRO removes both ferrous and non-ferrous dirt particles from the fluid, collecting them in a large collection chamber, from which they can be drained. This device is capable of efficiently removing even the smallest particles, with extremely limited head loss.

The DIRTMAG PRO dirt separator with dual magnet fields extends the Caleffi dirt separator family by adding a powerful neodymium magnetic pull rod inside a drywell inserted into the top of the body within the flow stream. Additional magnetic flux increases the speed of magnetite (ferrous impurities) removal from the hydronic fluid for maximum protection.

Insulation shells are available separately.

Typical Specification

Furnish and install on the plans and describing herein, a DIRTMAG PRO dirt separator with dual magnets, as manufactured by Caleffi. Each separator must be designed with a brass body and dirt collection chamber. The dirt separator must include a glass reinforced nylon PA66G30 internal mesh element, removable for cleaning, peroxide-cured EPDM hydraulic seal, brass drain valve with 3/4" garden hose connection. Equipped with top mounted dry-well with magnetic pull rod, neodymium rare-earth, in primary flow path, and a removable external magnetic collar surrounding the large collection chamber, neodymium rare-earth. Each separator has 150 psi (10 bar) maximum working pressure and 32 - 250°F (0 - 120°C) operating temperature range. Particle separation capacity: to 5 µm (0.2 mil). Ferrous impurities separation efficiency: up to 100% removal. Provide with pre-formed insulation shell, available separately for field installation. Each valve shall be Caleffi model 5463AM series or approved equal. (See product instructions for specific installation information.)

Technical Data

Materials:

- body, dirt collection chamber: brass
- Internal element: glass reinforced nylon PA66G30
- hydraulic seal: peroxide-cured EPDM
- drain valve: brass
- magnets: neodymium rare-earth

Performance:

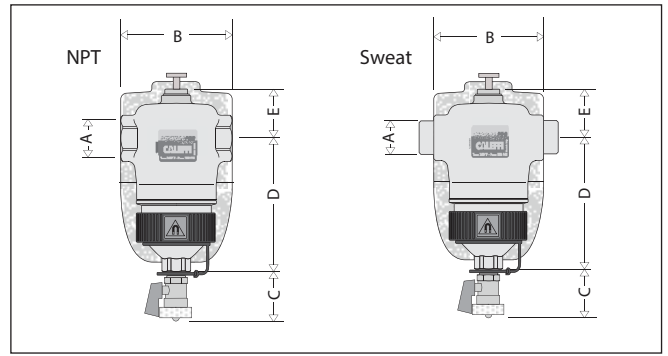
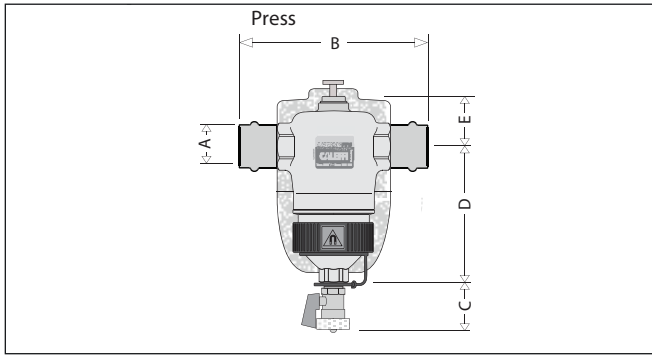
Suitable fluids: water, glycol solution
 Max percentage of glycol: 50%
 Max working pressure: 150 psi (10 bar)
 Temperature range: 32 - 250°F (0 - 120°C)
 Particle separation capacity: to 5 µm (0.2 mil)
 Ferrous impurities separation efficiency: 100%

Connections:

- main: 1", 1 1/4", 1 1/2", 2" NPT female
 1", 1 1/4", 1 1/2", 2" integral sweat
 1", 1 1/4", 1 1/2", 2" press
- top magnet probe drywell: 1/2" straight thread
 with o-ring seal
- drain: 3/4" garden hose connection
- lay length (press connections): size 1 inch: 4 3/4"
 size 1 1/4 inch: 5 1/8"
 size 1 1/2 inch: 5 1/4"
 size 2 inch: 5 5/8"

	MAX. FLOW RATE			
Size	1"	1¼"	1½"	2"
GPM	14	21	31	54
Cv	32	45	69	104

Dimensions



Code	A	B	C	D	E	Wt. lb (kg)
546366AM	1" press	6 3/16"	1 1/4"	5"	2"	4.5 (2.0)
546367AM	1 1/4" press	7 7/16"	1 1/4"	6"	2"	5.6 (2.5)
546368AM	1 1/2" press	8"	1 1/4"	6"	2"	7.0 (3.2)
546369AM	2" press	8 1/2"	1 1/4"	6"	2"	7.0 (3.2)

Lay length:
 size 1 inch: 4 3/4"
 size 1 1/4 inch: 5 1/8"
 size 1 1/2 inch: 5 1/4"
 size 2 inch: 5 5/8"

Code	A	B	C	D	E	Wt. lb (kg)
546306AM	1" FNPT	4 5/16"	1 1/4"	5"	2"	4.7 (2.1)
546328AM	1" SWT	5 1/16"	1 1/4"	5"	2"	4.7 (2.19)
546307AM	1 1/4" FNPT	4 7/8"	1 1/4"	6"	2"	5.8 (2.6)
546335AM	1 1/4" SWT	5 3/16"	1 1/4"	6"	2"	4.7 (2.1)
546308AM	1 1/2" FNPT	4 7/8"	1 1/4"	6"	2"	6.7 (3.0)
546341AM	1 1/2" SWT	5 3/4"	1 1/4"	6"	2"	5.4 (2.4)
546309AM	2" FNPT	5 1/8"	1 1/4"	6"	2"	6.7 (3.0)
546354AM	2" SWT	6 1/8"	1 1/4"	6"	2"	6.0 (2.7)

The magnetic pull rod is 4 1/2" (115 mm) long. The minimum required space to extract the rod for removing collected ferrous inpurities (magnetite) is 4 3/4" (120 mm).

We reserve the right to change our products and their relevant technical data, contained in this publication, at any time and without prior notice. Contractors should request production drawings if prefabricating the system

Job name _____
 Job location _____
 Engineer _____
 Mechanical contractor _____
 Contractor's P.O. No. _____
 Representative _____

Size _____
 Quantity _____
 Approval _____
 Service _____
 Tag No. _____
 Notes _____