

# DIRTMAG<sup>®</sup> magnetic dirt separator



## NA5465M ASME Steel series

Submittal Data 02928 NA — Issue Date 05/2024

### Application

In heating and air conditioning control systems, the circulation of water containing impurities may result in rapid wear and damage to components such as pumps and control valves. It also causes blockages in heat exchangers, heating elements and pipes, resulting in lower thermal efficiency within the system. The DIRTMAG<sup>®</sup> magnetic dirt separator removes both ferrous and non-ferrous impurities continuously, featuring powerful removable magnets that remove up to 100% of the ferrous impurities, including magnetite, that can form in a hydronic system, 2 ½ times the removal performance of a standard dirt separator.

### Typical Specification

Furnish and install on the plans and described herein, a Caleffi DIRTMAG<sup>®</sup> magnetic dirt separator as manufactured by Caleffi. Each separator must be designed with a blowdown drain port. The separator design must include a large internal volume, and a stainless steel and HDPE internal element to automatically remove all dirt present in the system with particle separating capacity to 5 µm (0.2 mil), and a stack of neodymium rare-earth magnets inside a brass dry-well, removable for purging, with up to 100% ferrous impurities, including magnetite, separation efficiency. The separator must be designed and built in accordance with Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code and tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors, stamped for 150 psi (10 bar) working pressure, with ASME U stamp. (See product instructions for specific installation information.)



### Technical Data

#### Materials

Body: epoxy resin painted steel  
Internal element: stainless steel and HDPE  
Hydraulic seal: non-asbestos fiber  
Drain valve: brass  
Magnet: neodymium rare-earth  
Magnet probe dry-well: brass

#### Performance

Suitable Fluids: water, glycol solution  
Max. percentage of glycol: 50%  
Max. working pressure: 150 psi (10 bar)  
Temperature range (vessel): 32 - 270 °F (0-132 °C)  
Particle separation capacity: to 5 µm (0.2 mil)  
Ferrous impurities separation efficiency: up to 100% removal  
Total Magnetic Strength: >10,000 Gauss

#### Connections:

flanged: 2" - 6" ANSI B16.5 150 CLASS RF  
top: 3/4" M (with cap)  
drain valve: 1" NPT

#### Vessel Volume

Size	2"	2 ½"	3"	4"	5"	6"
Capacity (gal)	1.8	1.8	4.8	4.8	13.7	13.7

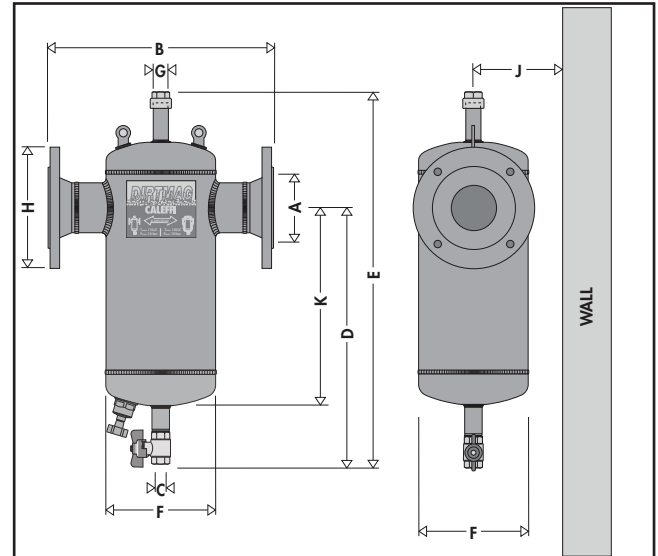
#### Agency approval

Designed and built in accordance with Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code and tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors, stamped for 150 psi (10 bar) working pressure, with ASME U stamp.

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 \_\_\_\_\_

### Dimensions



Code	A	B	C	D	E
NA546550AM	2"	13 ¾"	1"	16 5/16"	23 7/8"
NA546560AM	2 ½"	13 ¾"	1"	16 5/16"	23 7/8"
NA546580AM	3"	18 3/8"	1"	20 11/16"	30 5/8"
NA546510AM	4"	18 3/8"	1"	20 11/16"	30 5/8"
NA546512AM	5"	25"	1"	23 3/16"	34 15/16"
NA546515AM	6"	25"	1"	23 3/16"	34 15/16"

Code	F	G	H	J*	K	Wt (lb)
NA546550AM	6 5/8"	¾"	6"	6 5/16"	12"	41
NA546560AM	6 5/8"	¾"	7"	6 5/16"	12"	41
NA546580AM	8 5/8"	¾"	7 ½"	7 5/16"	13 3/8"	58
NA546510AM	8 5/8"	¾"	9"	7 5/16"	13 3/8"	58
NA546512AM	12 ¾"	¾"	10"	9 3/8"	17 3/16"	141
NA546515AM	12 ¾"	¾"	10"	9 3/8"	17 3/16"	151

\*Allows for a minimum of 3" wall clearance to accommodate insulation if used.

FLOW RATE						
Size	2"	2 ½"	3"	4"	5"	6"
GPM	89	150	227	355	816	904
Cv	88	176	211	328	520	842

Size \_\_\_\_\_  
Quantity \_\_\_\_\_  
Approval \_\_\_\_\_  
Service \_\_\_\_\_  
Tag No. \_\_\_\_\_  
Notes \_\_\_\_\_