

DISCAL DIRTMAG[®]

magnetic air and dirt separator



5461 Union steel series

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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 DISCALDIRTMAG[®] magnetic air and 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. DISCALDIRTMAG has 2 ½ times the removal performance of a standard dirt separator. The air discharge capacity is very high, with the capability of automatically removing 100% of the air present in the system down to micro-bubble level.

Typical Specification

Furnish and install on the plans and described herein, a Caleffi DISCALDIRTMAG magnetic air and dirt separator as manufactured by Caleffi. Each separator must be designed with a steel body with large internal volume, seals in peroxide-cured EPDM, blowdown drain port, and stainless steel internal element screen/coalescing medium to automatically remove all air present in the system and all dirt present in the system, with particle separating capacity to 5µm (0.2 mil), and an external neodymium rare-earth magnet belt, removable for purging, with up to 100% ferrous impurities, including magnetite, separation efficiency. Each magnetic air and dirt separator shall be a Caleffi model 5461 or approved equal. (See product instructions for specific installation information.)

Technical Data

Materials

Body: epoxy resin painted steel
 Internal element: stainless steel
 Air vent float linkages and guide pin: stainless steel
 Seals: peroxide-cured EPDM
 Drain valve: brass
 Magnet: neodymium rare-earth

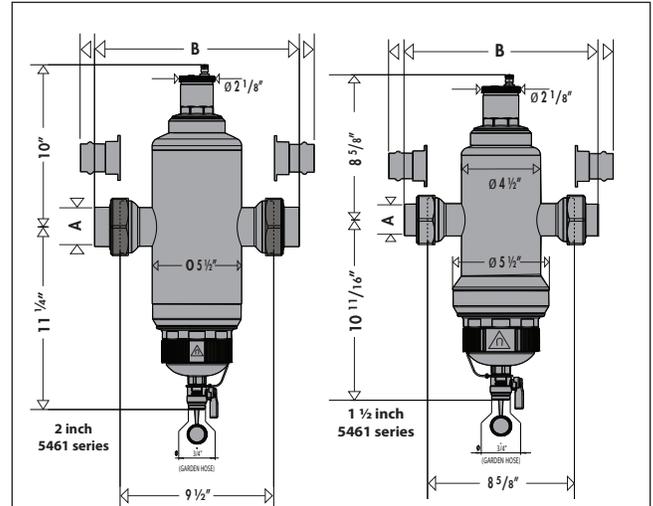
Performance

Suitable Fluids: water, glycol solution
 Max. percentage of glycol: 50%
 Max. working pressure: 150 psi (10 bar)
 Temperature range (vessel): 32 - 230°F (0-110°C)
 Air separation efficiency: 100% removal to microbubble level
 Particle separation capacity: to 5 µm (0.2 mil)
 Ferrous impurities separation efficiency: up to 100% removal

Connections

main connections: 1½" & 2" NPT female union
 1½" & 2" sweat union
 1½" & 2" press union
 lay length (press connection): size 1½ inch: 11¾"
 size 2 inch: 127/8"
 drain valve: ¾" hose

Dimensions



Code	A	B	Wt (lb)	Flow (gpm)	Cv
546198A	1½" swt	11¼"	22	22	50
546108A	1½" NPTF	111/8"	22	22	50
546168A	1½" press	145/8"	22	22	50
546199A	2" swt	12½"	23	39	79
546109A	2" NPTF	12"	23	39	79
546169A	2" press	15¾"	23	39	79

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 _____	Size _____
Job location _____	Quantity _____
Engineer _____	Approval _____
Mechanical contractor _____	Service _____
Contractor's P.O. No. _____	Tag No. _____
Representative _____	Notes _____