

DISCAL *DIRTMAG*[®] magnetic air and dirt separator



5461 Series, Brass

Submittal Data 02921.2 NA — Issue Date 10/2015

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 DISCAL *DIRTMAG*[®] 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. DISCAL *DIRTMAG*[®] 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 DISCAL *DIRTMAG*[®] magnetic air and dirt separator as manufactured by Caleffi. Each separator must be designed with a brass body with large internal volume, seals in EPDM, blowdown drain port, and removable glass-reinforced nylon fiber mesh (PA66GF30) internal element screen/coalscing 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 air and dirt separator shall be a Caleffi model 5461 or approved equal. (See product instructions for specific installation information.)

Technical Data

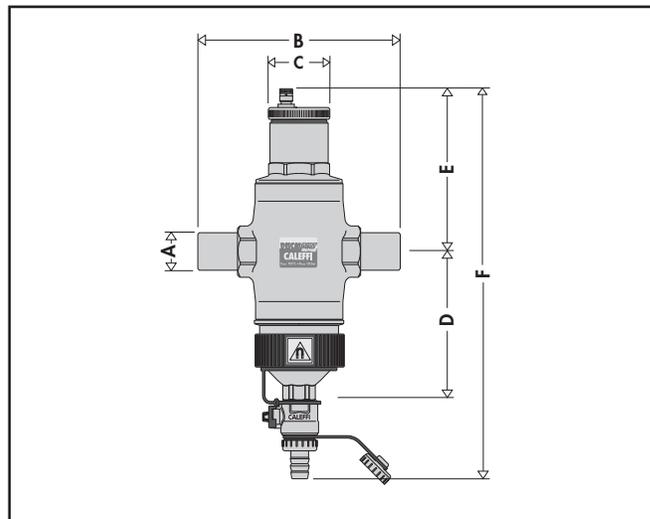
Materials - body:	brass
- dirt separation chamber:	brass
- air vent body:	brass
- internal element:	glass reinforced nylon, PA66GF30
- air vent float:	PP
- air vent float guide pin:	stainless steel
- air vent float linkages:	stainless steel
- spring:	stainless steel
- seals:	EPDM
- bottom drain shut-off 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:	32–250°F (0–120°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:	¾", 1", 1-¼" sweat; 1" NPT male
- drain shut-off valve:	¾" garden hose connection

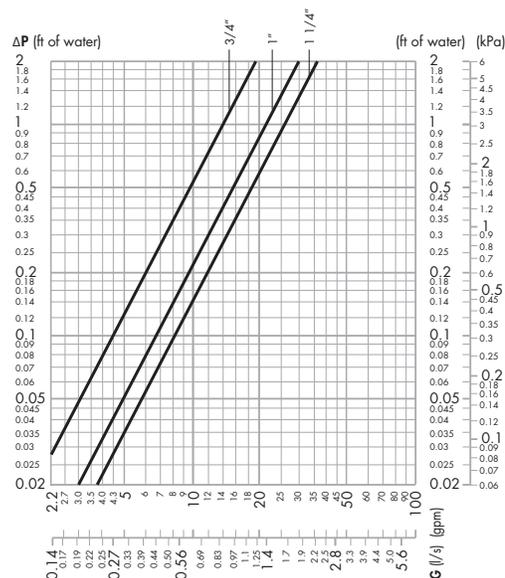
		FLOW RATE		
Size		¾"	1"	1¼"
4.0 f/s	GPM	8	9	10
	Cv	19	32	40

Dimensions



Code	Connections	A	B	C	D	E	F	Wt. (lb)	Wt. (kg)
546195A	Sweat	¾"	7¾"	2½"	5"	5½"	12¾"	8.5	3.9
546196A	Sweat	1"	7¾"	2½"	5"	5½"	12¾"	8.5	3.9
546197A	Sweat	1¼"	6¾"	2½"	5"	5½"	12¾"	8.5	3.9
546116A	NPT male	1"	7¾"	2½"	5"	5½"	12¾"	8.5	3.9

Hydraulic characteristics



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 _____

Caleffi North America, Inc. 3883 West Milwaukee Road / Milwaukee, WI 53208

Tel: 414-238-2360 / Fax: 414-238-2366 / www.caleffi.com

©Copyright 2015 Caleffi