Our custom-made mechanical boards include a Caleffi Discal Air Separator to automatically purge any air bubbles that may develop within a closed hydronic radiant heating (or cooling) system. Let's take a closer look at this product, and why it is an important part of our radiant heating systems.

The Discal Air Separator, made by Caleffi, is used to continuously remove the air contained in hydronic circuits of heating and cooling systems. The air discharge capacity is very high. They automatically remove all the air present in the system down to micro-bubble level with low head loss due to the special internal shape of the separator body. Flow direction of the Discal Air Separator is bi-directional; flow in either direction is permitted.

The circulation of fully de-aerated water enables the equipment to operate under optimum conditions, free from noise, corrosion, localized or mechanical damage. Micro-bubbles, fusing with each other, increase in volume (get larger) until they become large enough to rise to the top where they are automatically released.

Snowmelt Season is Here

Winter is quickly closing in, and we are busy designing and providing Snowmelt systems for many of our customers. Here’s a look at an Infloor Snowmelt System currently being installed near Denver. It is a concrete application for a patio that connects the house to the garage. This customer will always walk out onto a clear patio during the winter months, and enjoy extra comfort in the warmer months with surface warming, offering year-round benefits.
Product Spotlight: Discal Air Separator Continued

The automatic air vent, located at the top of the unit, has a long chamber for the movement of the float. This feature prevents any debris present in the water from reaching the sealing seat. A stainless steel float guide pin, along with a stainless steel float linkage prevents the float from sticking due to accumulating residue in the flowing fluids, even when the Discal Air Separator is not installed perfectly vertical.

Discal Air Separators are designed to allow maintenance and cleaning without having to remove the valve body from the pipework. All models (except vertical versions) come standard with a bottom connection for installing a drain valve. All internal air release control components are fully accessible in all the models.

When cleaning, simply unscrew the portion of the body containing the automatic air vent. For the vertical and compact models without a drain, the element can be removed by removing the upper cover. There is no need to remove the air vent body for these models. Discal Air Separators with flanged end connections have an integral side drain port with brass shutoff drain valve, which has two functions:
1. Air removal while filling the system during system commissioning
2. Debris removal that float within the air separator

Discal Air Separator Quick Facts:
- Air separator with automatic ½” check valve to mount expansion tank on bottom thread
- Brass body
- Stainless steel float guide pin and linkage
- Glass reinforced nylon internal element
- Max. working pressure: 150 psi.
- Working temperature range: 32°F - 250°F
- Air separation efficiency is up to 100% removal

How to Order a Discal Air Separator

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Weight</th>
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<tbody>
<tr>
<td>31080</td>
<td>3/4&quot; Copper Sweat</td>
<td>2 lbs.</td>
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<tr>
<td>31081</td>
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<tr>
<td>31085</td>
<td>1-1/4&quot; Copper Sweat with Check</td>
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<tr>
<td>31086</td>
<td>1/2&quot; NPT Check Valve</td>
<td>3 lbs.</td>
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Discal Air Separator Primary Components:
1. Concentric Mesh Surfaces
2. Float-operated Automatic Air Vent
3. Stainless Steel Float Guide Pin
4. Stainless Steel Float Linkages

In heating and cooling systems there are specific points where the process of formation of micro-bubbles takes place continuously: in the boiler and in any device which operates under conditions of cavitation. The Discal Air Separator removes these micro-bubbles from the system automatically.