

AHU refurbishment or replacement?

The question of whether to replace or refurbish your air handling unit (AHU) has many answers. Some favour direct replacement, others are in favour of refurbishment. But which is the right choice? **David Bennett, Munters UK Service Business Manager, Upgrades** looks at the circumstances behind this decision.

Physical circumstances

- Where is the unit situated?
- How critical is the unit?
- Is the unit design still fit for purpose?
- Is there room to dismantle the unit and build a new one in its place?
- Management of change paperwork to make a physical change to a unit. This is particularly relevant for applications such as nuclear, airports, oil and gas and other well regulated industries.
- Is the unit beyond refurbishment?



Financial circumstances

Often a re-purposed and refurbished unit will cost less than a new unit. A refurbished unit can be staged to reduce costly down time. In many instances, funding for a completely new unit will have to come from a different budget to that which would manage any refurbishment. It is often the case that the newer unit will be larger than the original as building regulations will have changed, dictating a requirement for lower pressure AHU's to reduce power consumption and unit SFP.

In my experience, I favour the refurbishment option. Here's why...



You might be surprised to learn that a unit in a bad condition (shown here) can still be brought back to life. Here you can see a Chilled water coil section that had a condense trap and drain problem. Over time, the water had leaked into the casework floor and had caused serious corrosion to the floor frame and panels. The coil was corroded so badly that it sagged in the middle, and was in danger of splitting completely. The

decision was taken to drain down the coil and replace it with new, once the floor was renewed.

Refurbishing of an existing AHU can often be quicker than buying a new unit. Firstly, the new panels and framework can be more easily delivered to the existing AHU, and works can be carried out while the unit is still operational (in a reduced capacity). For instance, we could isolate, drain down and remove a chilled water coil in the winter time when it may not be required.

While modern units come in flat pack form, you still need to remove the old unit and build up the new one, plus make any ductwork modifications along the way. Lead times of new AHU's are an important factor.

While older AHU's are very similar to new unit's, there are of course differences. These include leakage class and insulation materials, so on paper a new unit will offer less heat or cooling losses through the case.

That said, the general design principles of cooling coils, heating coils, and panel and bag filters in fundamentally in the same ballpark. A refurbished older unit packed with the latest filters, new coils, and EC fan technology will

perform well in comparison to a new unit. The main advantage between the two being that you get similar running costs from a refurbished unit as you would with a new one, but without the higher install costs of a new unit.

At a minimum, refurbishment of an AHU is definitely worth talking about before automatically going for a new one.

Which ever way you choose to go, Munters is able to provide a first class AHU refurbishment program as well as offering brand new AHU's made to order. Find out more, contact [Munters](#)



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