

Let's focus on air
handling units....

When they break
their effects are
usually pretty
immediate

Repairs can be
costly and
possibly take
some time

And if they are of
significant size
then they are...

Heavy





Considering that a 70 hp fan motor can weigh in excess of 500 pounds and a 150 hp fan motor can weigh in excess of 900lbs....

This may be your only option.

A “great” way to “hang around” on a Saturday...



And it comes with friends...

Building
permits

City Permits

After hours
work

Safety plans

Police
services

New access to the
mechanical room

Now, there is another option available...

Fan Wall/Array

Actually, they have been available for more than twenty years.

First used in cleanrooms they have now been used successfully in all other building applications

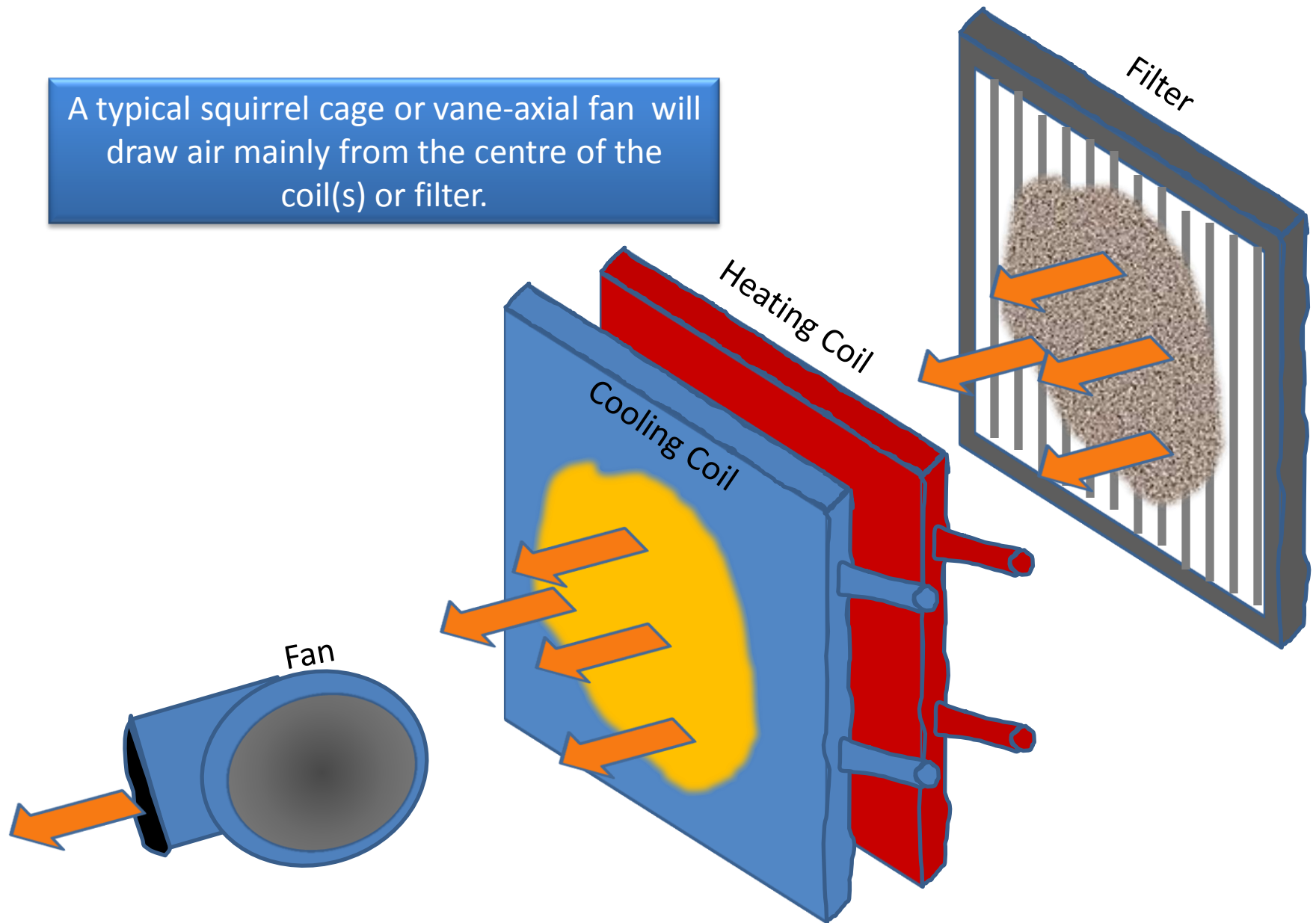
A fan array is a combination of direct drive smaller fans stacked to create a wall of fans. This wall replaces a conventional single fan.



Other names you may have heard:

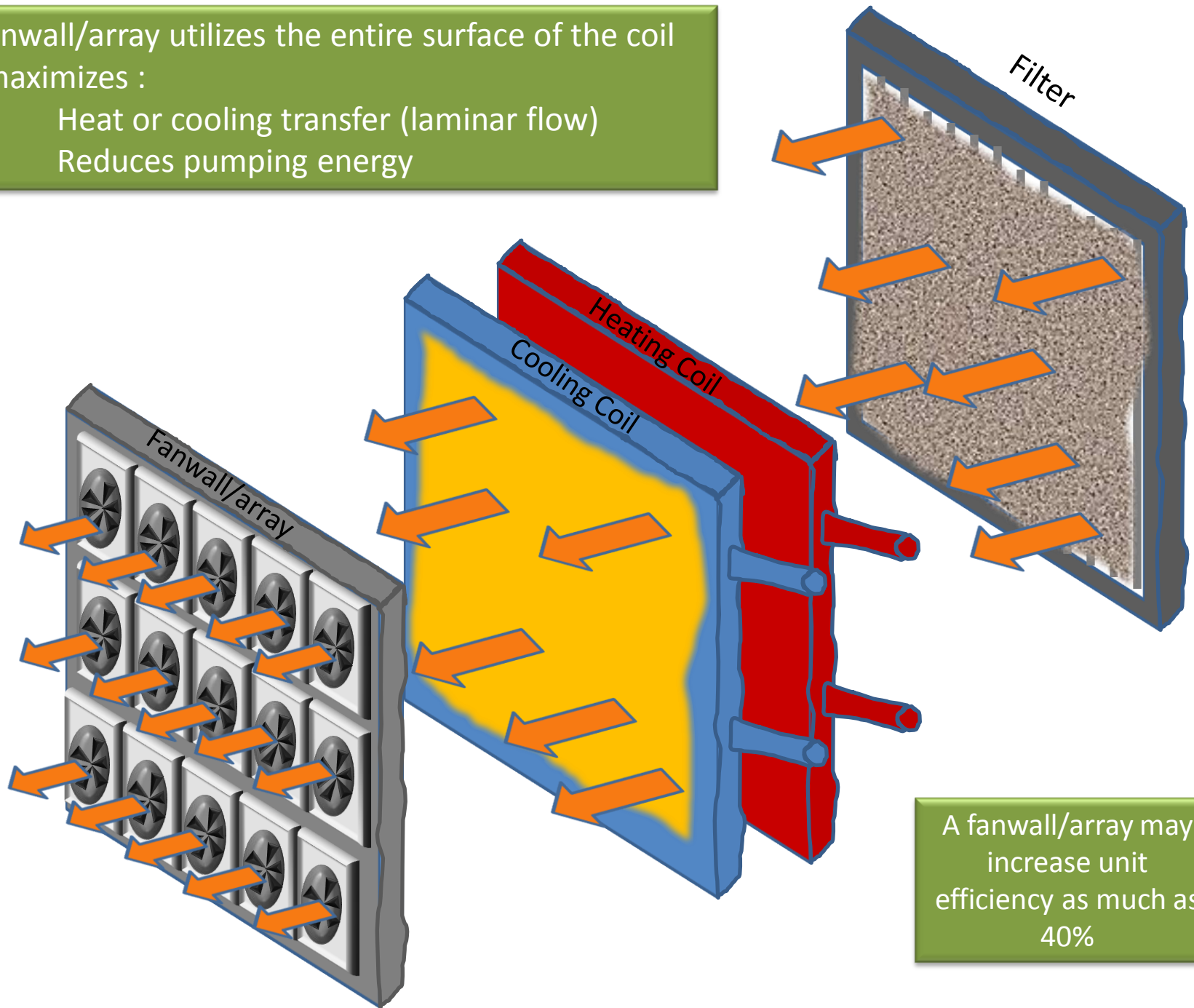
- Fan Wall
- Fan Matrix
- Multi-fan

A typical squirrel cage or vane-axial fan will draw air mainly from the centre of the coil(s) or filter.

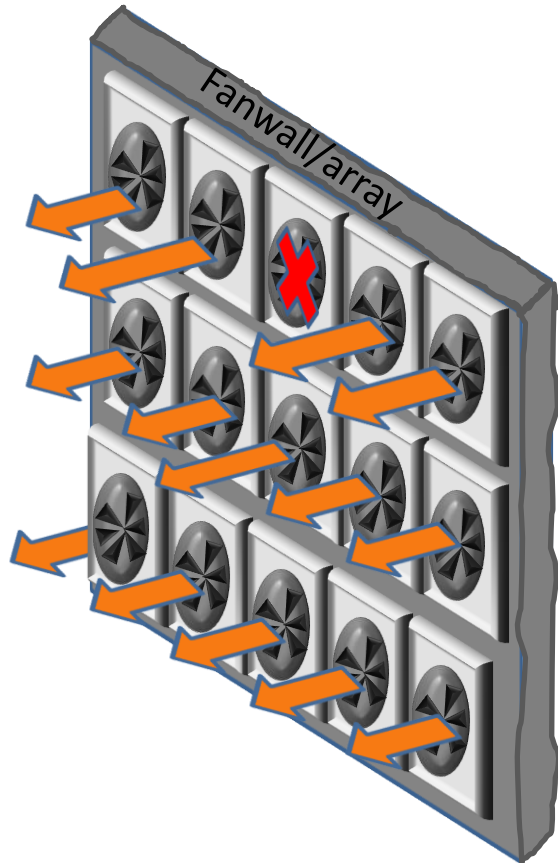


A fanwall/array utilizes the entire surface of the coil
This maximizes :

Heat or cooling transfer (laminar flow)
Reduces pumping energy



A fanwall/array may
increase unit
efficiency as much as
40%



Redundancy

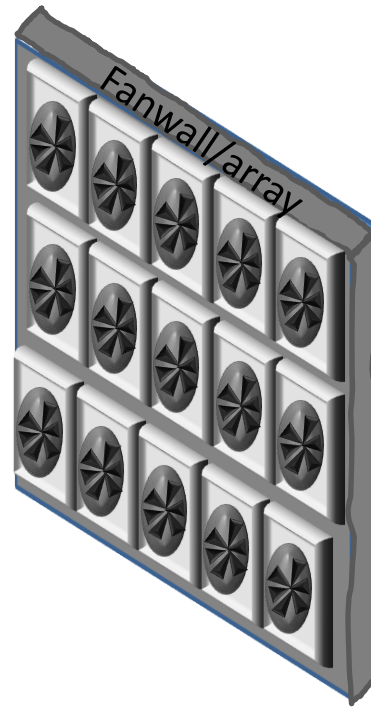
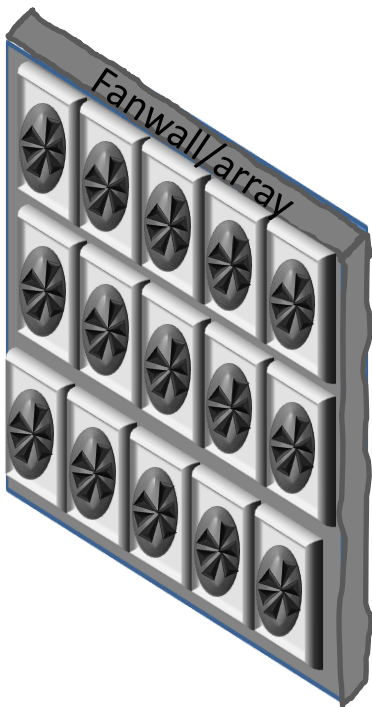
Due to there being multiple fans, if one fan were to fail the other fans would speed up to compensate for the loss minimizing fan downtime during occupied times. Backflow dampers are available to prevent the air from re-circulating through the broken fan.

Repair

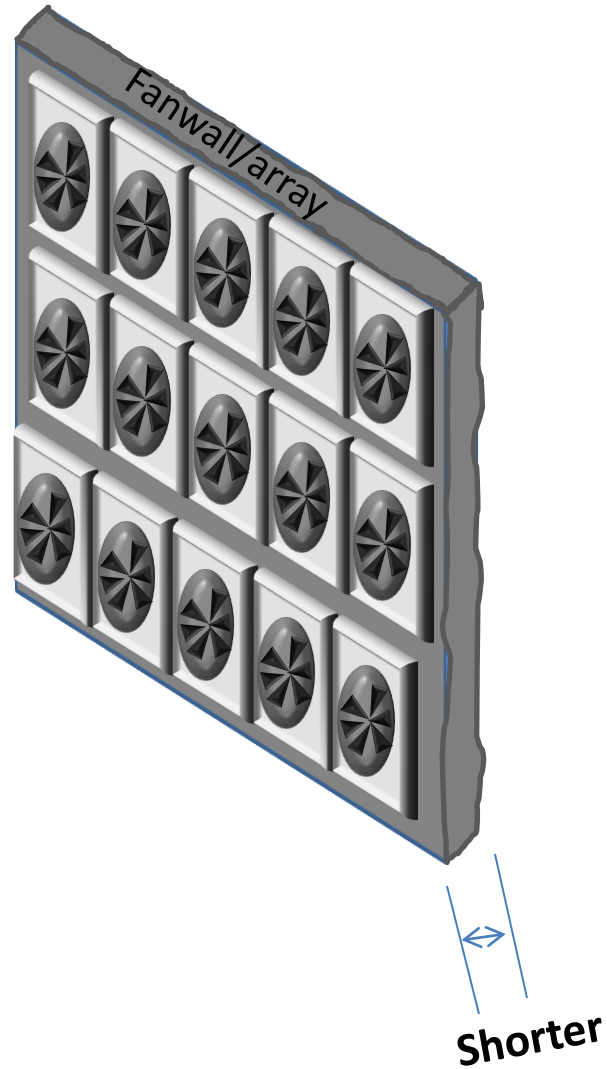
Replacement fan assemblies can be scheduled at a convenient time and can generally take less than a couple of hours by two people and a minimum of tools.

VFDs

The fans can all be run by one Variable Frequency Drive (VFD) or there can be individual VFDs for each fan.



When Size Matters....



It can be a better fit...



If a picture is worth a thousand words imagine how many words are in these videos
(Please note: we are just using these for information purposes. We are not suggesting that these are the only vendors available.)

Information

<http://www.nortekair.com/Innovation/FANWALL-TECHNOLOGY/Literature/VIDEO-DEMONSTRATION-FANWALL-Knock-Down-Retrofits.aspx>

Construction

www.nortekair.com/Innovation/FANWALL-TECHNOLOGY/Literature/Video-Ideal-For-New-Construction-and-Retrofits.aspx