

**We need to know more about VFD's than our customers, as there is a lot of misinformation at the refineries on VFD's...also in our industry.**

**Myth one: We need to pull new wires!** They think they would need to pull new wires or install new VFD motors....**not true**. If we supply them the enclosed Guardian filter none of that is required.

**Myth two:** They are expensive.....VFD's are cheaper than a motor starter.

**Myth three:** VFD's effect power factor negatively....**this is 100% wrong**. VFD's correct for power factor and save customers money. Goggle this question below. There are dozens of papers on the truth about VFD's and how they improve power factor and lower your costs.



**Fact one for axial fans:** VFD's allow us to have the more aggressive summer time pitch year-round so we get the best summer cooling (which is the whole point)....**so now we get a cooling benefit that pays for the VFD's**. If we do not have a VFD (or AVT) we need a winter time pitch year-round so that lower pitch means less cooling in July.

**Fact two:** VFD's save power.....this doesn't have to be explained but a 10% reduction means a 30% HP savings as HP is cubed. See chart. All the power savings programs award credit when you add a VFD.

**Affinity Laws – Centrifugal Loads**

%Speed	%Flow	%HPRequired
100	100	100
90	90	73
80	80	51
70	70	34
60	60	21
50	50	13
40	40	6

**Fact three:** VFD's lower night time summer noise.....when everyone is outside enjoying their patio, the gas plants (or refineries) lower the fan speed due to cooler evening air and the fans are quieter.....this is a major key advantage to VFD's and axial fans.

I hope this helps....

**Nick Agius**  
NCS-Inc  
TheFanGuy.ca