# 6220 just installed

Posted by cds11 - 20 Oct 2012 18:16

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well about 7 monthes ago i started a topic that i just bought a used 6220 furnace. well i just installed the furnace last week and i just started it up today to make sure everything was ok. everything on the furnace seems to function correctly but im not getting very much air flow out of the floor registers. i took the rear panel off the furnace to make sure both blowers were running and they both are. anybody else have this problem with these furnaces? i do have the cold air return hooked up to the furnace. i also have a backdraft damper installed so it doesnt blow air into my electric furnace. my electric furnace has a 1400 cfm blower and it just blasts the air out of the registers, you can actually stand beside the register on the floor and feel the air hitting your face. when the 6220 is running you can barely feel the air on your hand right against the register. the 6220 has twin 500 cfm blowers so im not sure whats going on. i was just getting ready to go buy 3 tons of pellets today but i dont want to waste any more money if i cant get this to work any better. any help would be greatly appreciated. thanks

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# Re: 6220 just installed

Posted by Tinman - 25 Oct 2012 02:48

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just a note on the air flow, I don't think you'll ever be able to get anywhare close to the 1100 cfm they advertise. maybe half at best, your not going to get anything even close to the furnace fan on your existing electric furnace.

max cfm out of a 10" duct is about 450 maybe a little more on a short run.

when we designed low pressure ductwork in the trade the max for 10" was 450 cfm and 12" was 750 cfm.

now even if you can figure out a way to move more air thru that furnace its probably not going to help you because they don't have a very good design on the heat exchanger and you'll end up just pushing more air thru it without any heat.

Now that being said you can get some heat out of these furnaces. One thing to remember is your moving less air but it is constant.

you need to make sure you don't have any ostructions in the ducywork or possible ways the air is short circuiting.

take some temp readings and let us know what kind of discharge temps your get?

its not over heating is it?

Please don't think I'm knocking the 6220, I have the 6300 and its pretty close to what you have.

I'm going on my 5th year with my 6300 and its done a pretty good job heating my home and garage.

sorry about any spelling mistakes.....I'm watching the tigers get there buts kicked by sf in the world series

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## Re: 6220 just installed
Posted by johnlb - 25 Oct 2012 12:22

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If I were you I'd just give it a chance to work. The air out of the ducts don't have to blow the curtains away from the wall,just has to get heat into the room.

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## Re: 6220 just installed
Posted by cds11 - 25 Oct 2012 15:39

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**Tinman wrote:**

cd just curious where exactly is your back draft damper located?

I don't think there is any adjustment on those fans, if there on there running full blast.

If you have a amp probe you could check the amp draw on the unit when its running, I don't know what the actual amp draw is but you could run the furnace on lowest setting and check it and then on the highest setting and see if there is any difference, there should be if the 2nd fan is coming on.

what kind of discharge temps are you getting?

backdraft damper is located in the top of the electric furnace. it is basically just a flap of sheet metal. when the electric furnace comes on the air blows the flap open. last year i had an older wood burning furnace hooked up exactly the same as 6220 and it had plenty of air flow. the wood furnace had 2 blowers,same cfm i think, but it had 2 8" air supplies instead of the one small rectangular air supply the 6220 has. i will get a temp probe and check the discharge temps. might be a week though as temps have warmed back up into the upper 70s.

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## Re: 6220 just installed
Posted by lukecornstalker - 25 Oct 2012 22:01

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As far as the fans go, they are either on or off. The only variable is, lower temp settings only call for 1 fan to run, upper call for both fans to run.

I made my own isolation panel with some 10" aluminum flashing, did a little trim here and trim there to get it to fit and then filled in all my gaps with that red high temp silicone.

That is very interesting on the actual flow limits of 10" ductwork, so even though we have two 550's spinnin', we ain't gonna get that air flow comin through.

Oh, and cds, one more thing, on mine, I didn't get real high plenum temps until I backed off the draft fan pulses a little. I couldn't get over 110 degrees with both fans running, but when I started backing off on the draft fan, it bumped up to 135. My glass got dirty quicker, but what the heck it's in the basement, don't need to see the fire other than just to make sure it's maintainin' in the pot.

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# Re: 6220 just installed

Posted by cds11 - 25 Oct 2012 22:10

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**lukecornstalker wrote:**

As far as the fans go, they are either on or off. The only variable is, lower temp settings only call for 1 fan to run, upper call for both fans to run.

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thanks again luke. i will have to make a panel so the fresh intake air is isolated from the furnace and basement. what kind of settings do you run on yours? i know you said you lower the draft fan, do you change anything else or just run on auto?

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# Re: 6220 just installed

Posted by lukecornstalker - 26 Oct 2012 18:55

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My furnace will be in it's 3rd season of "hibernation" this winter. With corn through the roof and pellets up in price too, I made the call to go back to wood for now. So the memory of the settings I dialed in for mine are somewhere between fuzzy and gone forever. I know for sure that I slowed the draft fan pulses down, and I reprogrammed the ramp up times to take longer so the heat exchanger could get a little hotter before the second fan kicked on. There was much discussion back a few years ago about c-codes and how to access them and what changed what so you can find alot of info there. Keep in mind everybody's install is unique so it's just guidelines to start then your own personal tweaking. Theses 6220s will put out some heat. Just a word of warning if you start messing with these parameters, stay connected at the hip and babysit that sucker until your absolutely sure the changes you made are safe.

One other thing, the isolation panel is to isolate the cold air return, maybe that's what you meant, but some people also have an isolated fresh air intake for the draft of the fire, if you have a tight house, you might want to consider this also.

hope this helps, they are a nice unit with some tweaking

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## Re: 6220 just installed
Posted by cds11 - 02 Nov 2012 01:56

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ok guys i got alot of numbers for you. fired it up this evening, outside temps was 40 degrees. inside temp was 63 degrees. after an hour and a half of running on high pr-5 inside temp finally reached 64. the stove thermometer on the front of the furnace reads 350 to 400 degrees. the stove thermometer on the exhaust reads 175 to 200 degrees. the air temp right off the furnace reads 105 degrees with both room fans on, and 120 degrees with one room fan running. the air temp coming out of house register is 100 degrees but can barely feel any air moving at all. please help me figure this thing out.

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## Re: 6220 just installed
Posted by cds11 - 07 Nov 2012 23:35

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hey guys i could really use some help on this, anyone?

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## Re: 6220 just installed
Posted by Tinman - 09 Nov 2012 03:39

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I wish I had a good answer for you but I don't. The temps you are getting are pretty close to what I get on PR-2/3 with both fans running. But my stove has a larger burn pot than yours and I may be burning the same amount of pellets on pr-2/3 that you are burning on pr-4/5. On pr-2 I'm burning about 7 lbs./hr and

on pr-3 about 9 lbs./hr. I'm not sure what your stove burns on pr-4/5. I'm just trying to compare apples to apples.

How many registers do you have?, you may want to try closing off all of the basement registers, the basement should be plenty warm with the stove down there.

Your stove isn't over heating is it? do you know how to tell?

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## Re: 6220 just installed

Posted by cds11 - 09 Nov 2012 22:48

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10 registers no basement registers though. stove is not overheating. i dont think the actual heat output is a problem. it just doesnt move enough air. my heatpump has less heat but it can warm my house alot better than the pellet furnace because the airflow is much greater.

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