



SERVICE BULLETIN

0006

Service bulletins are issued by *Maine Energy Systems* at irregular intervals to alert Installers of common issues of installations and are also used to pass information of interest concerning parts replacement that may be considered unusual or unscheduled for boilers already in service.

Subject: Error message “FLUE GAS FAN??” Or “NEG PRES”

Models: All AutoPellet boilers, but especially 32KW.

Problem: Boiler faults and displays one or both of the above messages.

Solution: This indication is telling you that there is one of two possible problems. Look for more information on this subject in the near future

- 1: Least likely, but check this first. Actual problem with the Flue Gas Fan motor. If this motor were to, for example, stick when starting and draw more amperage than designed for longer than 20 seconds, the message will occur. See if the Flue Gas Fan motor is running. If it is, move on to #2. If it is not, the flue gas fan is dirty / stuck or defective. Try cleaning the fan blades if it is seen that they are unusually covered with ash or creosote. If the fan is reasonably clean and the motor spins freely but still does not run, check to see if it is being energized (use output test) Remember this is a 220 volt motor! Set motor to run 100% speed and confirm there is 220 volts ac between motor leads. If you see 220 volt ac applied to the motor and it still does not run, replace motor.
- 2: If the actual negative pressure in the fire box drops below a minimum value for longer than 60 seconds, one or both of these messages will seen, depending on what screen you are looking at. It is important that all possible sources of air infiltration into the firebox are excluded. The most common cause of this is a loose firebox door. Or a door that is adjusted so that the handle feels tight but the seal is not in contact with steel all the way around the door. Be certain the door is completely tight all the way around the seal and that the handle is firm when rotated to latch the door.
- 3: If the fire tube cleaning mechanism is not running or not adjusted correctly, the boiler will also end up with this message because the fire box may be choked off by dirty fire tubes, and again the actual negative pressure in the firebox will be too low. On vacuum boilers, this mechanism runs at the times set at P189 and P190. SET BOTH TIMES. Do not leave P189 set to -1. On auger boilers, this mechanism runs at the interval shown at P191. Be sure this is set to 12 or less. Default is 12 and usually fine. To check if mechanism is mechanically adjusted correctly, after you are sure the boiler is cool enough, remove the top of the boiler so you can observe the fire tube and springs. Use output test and run the boiler cleaning motor, and observe the springs being lifted and dropped. It is important that the entire ring picks up at least 1 to 1.5 inches at the lowest point! Adjust if necessary by changing relationship between motor and cam-follower, and possibly by adjusting linkage inside boiler flue area. In this case, call for direction.

CAUTION!!! The negative pressure fault value for this, is quite low (32 to 45 depending on boiler size) and the boiler should be serviced immediately should this fault occur, as continued operation could result in smoke and therefore creosote being deposited back through the pellet feed system, creating a possible burn back situation.

NOTE: If cause was stuck motor due to creosote build-up, check combustion and correct. If combustion seems normal, approximately 9% co2, check average run time of the boiler. If it is less than 20 minutes after going through a full heating season, it may be wise to down fire the boiler to the next power setting (P265).