(CONTINUOUS BOILER BLOWDOWN)
FREE HEAT RECOVERY SURVEY

To get a free estimate of how much a Penn Continuous Blowdown Heat Recovery System could save on your boiler operation please answer the following questions.

Boiler Plant Steam Load ? _____ #/hr _____ #/year.

Boiler Operating Pressure ? _____ Psig. What type of Fuel Are You

Using? _____. Unit Fuel Cost ? _____$. Average Rate of

Continuous Blowdown ? _____ #/hr.

Do You Use a Deaerator or Feedwater Heater ? _____ What is the Operating

Pressure ? _____ Psig. What is the Percentage of Make-Up Water?

_____%. Temperature of Make-Up Water in ? _____Deg. F

Even if you are unable to supply answers to all of the questions at this time, we can still approximate savings for you. This survey is done free of charge without obligation. Fax in at (814) 849-4510

Results of HEAT RECOVERY SURVEY

Here are the results of the Heat recovery survey. Continuous Blowdown (A) is recovered in two stages, first the flash steam (B) is recovered by using it to supplement low pressure steam, then in the second stage the remaining heat in the condensate (C) is transfer to make-up water.

Continuous Blowdown (A) _____ #/Hr. to Flash Economizer at _____ psig Boiler Operating

Pressure Flashing to _____ psig Low Pressure. Gives _____ % Flash Steam.

(A) _____ #/hr. Blowdown X _____ % Flash = (B) _____ #/hr. Flash Steam

(A) _____ #/hr. Blowdown - (B) Flash Steam = (C) _____ #/hr. Condensate

HEAT RECOVERY FROM FLASH STEAM   (Btu's/# = Enthalpy Steam at Flash Pressure)

(B) _____ #/Hr. Flash Steam X _____ Btu's/# gives _____ Btu's/Hr. recovered.

Btu's/Hr. _____/ Million Btu's / _____ Boiler Efficiency X _____ Cost Fuel/million Btu's

ANTICIPATED HOURLY SAVINGS FROM FLASH STEAM - $ _____

HEAT RECOVERY FROM CONDENSATE   (DT = Condensate In ____ºF - Drain Out ____ºF)

(C) _____ #/Hr. Condensate Remaining X _____ DTºF Change to Drain Temperature =

Btu's/Hr. _____ / Million Btu's /_____ Boiler Efficiency X _____ Cost Fuel/million Btu's

ANTICIPATED HOURLY SAVINGS FROM WASTE WATER - $ _____

TOTAL HOURLY SAVINGS FROM FLASH ECONOMIZER - $_____

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