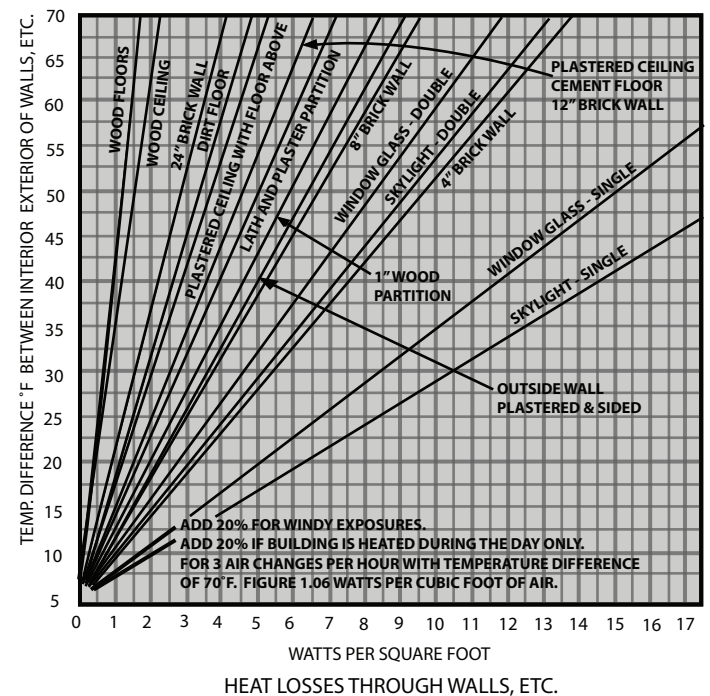
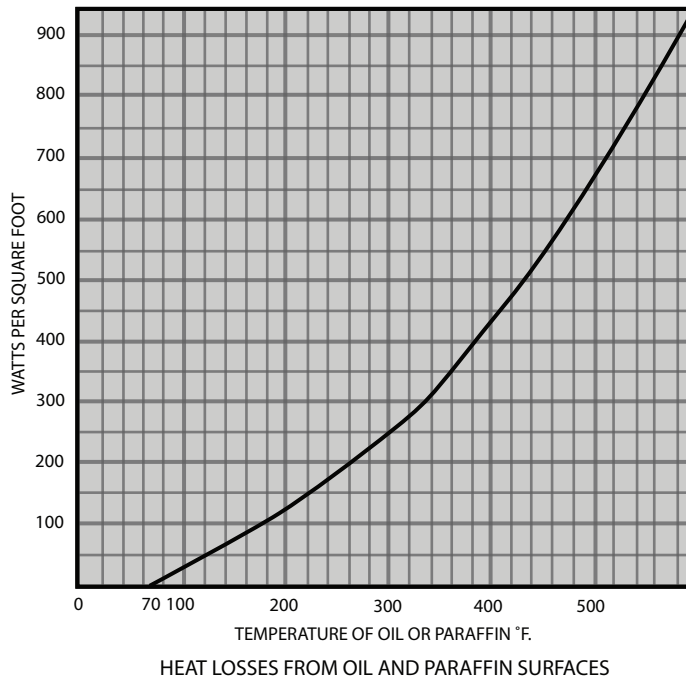
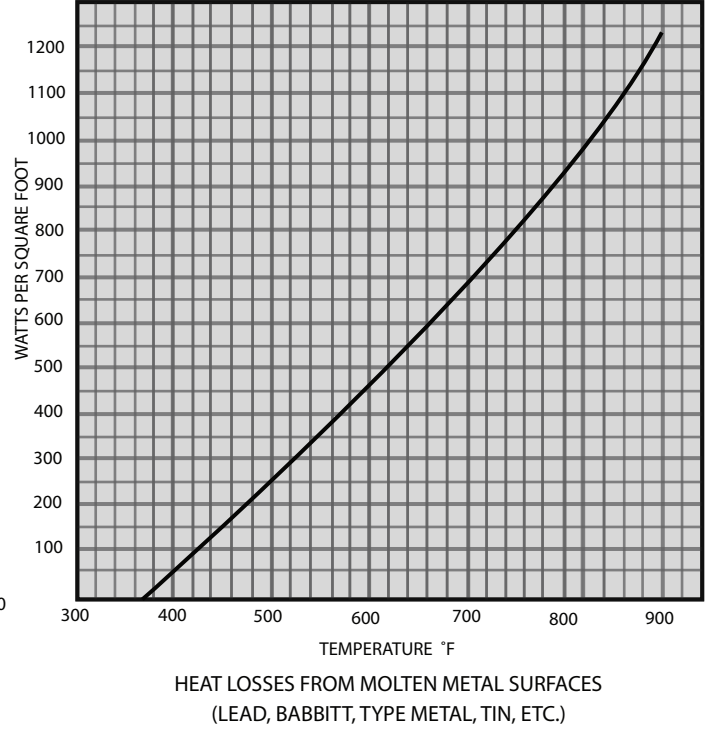
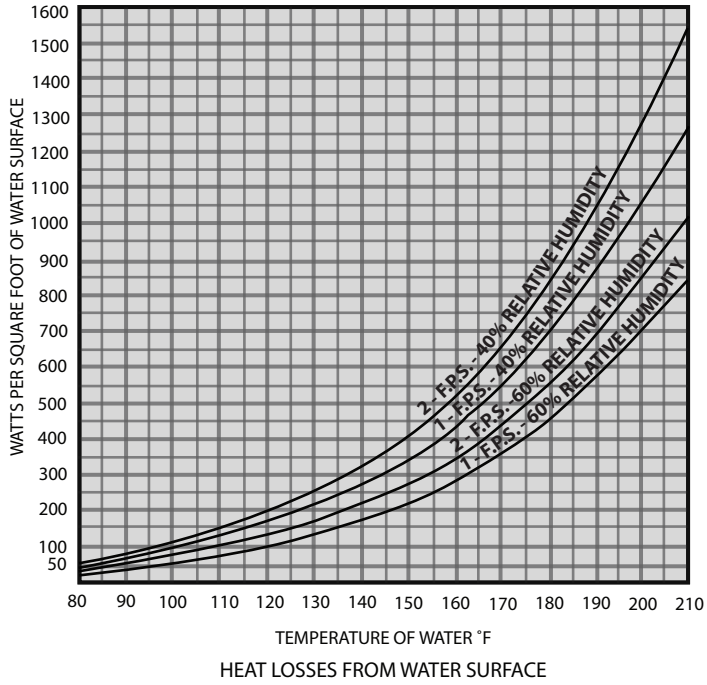


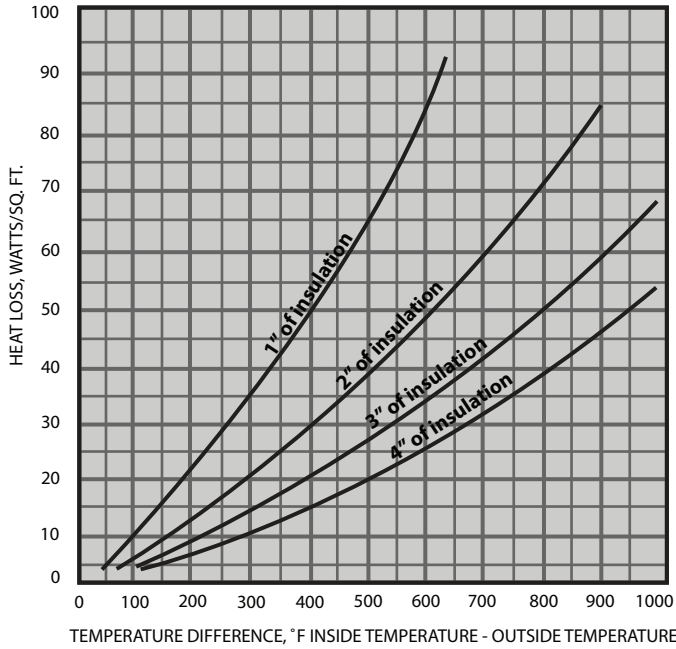


## HEAT LOSS INFORMATION

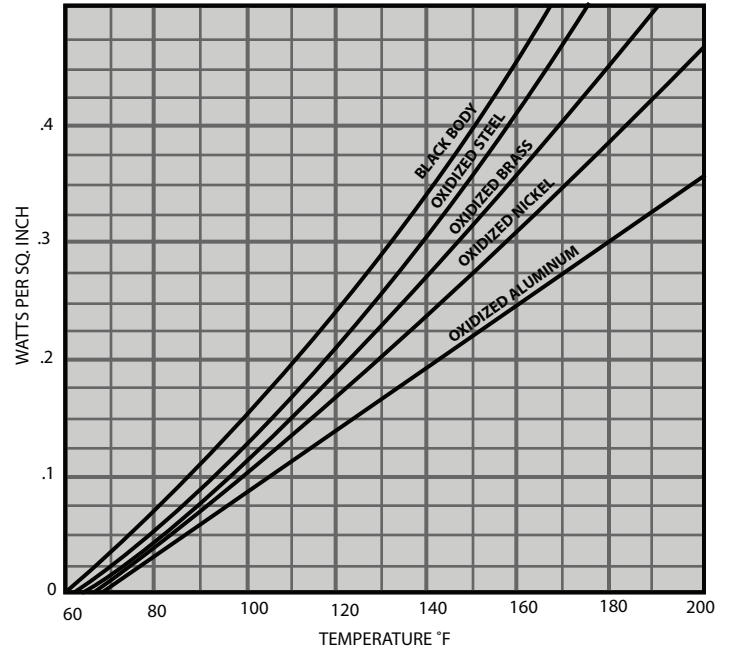




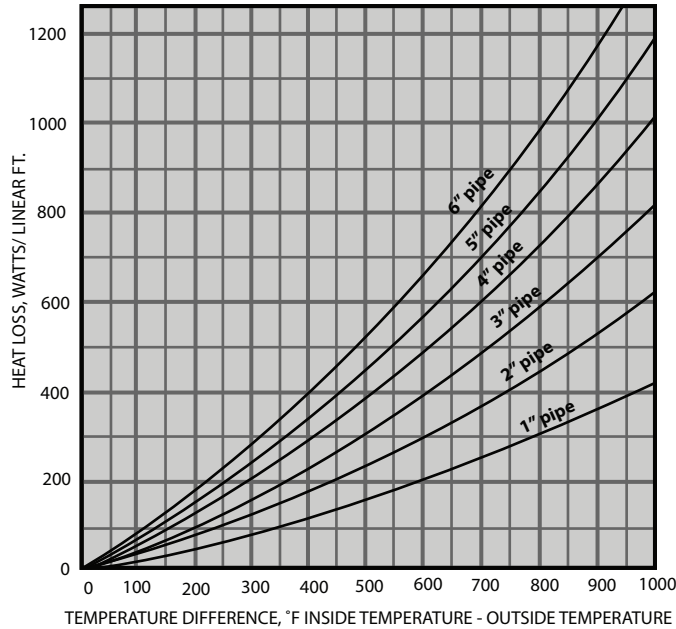
## HEAT LOSS INFORMATION



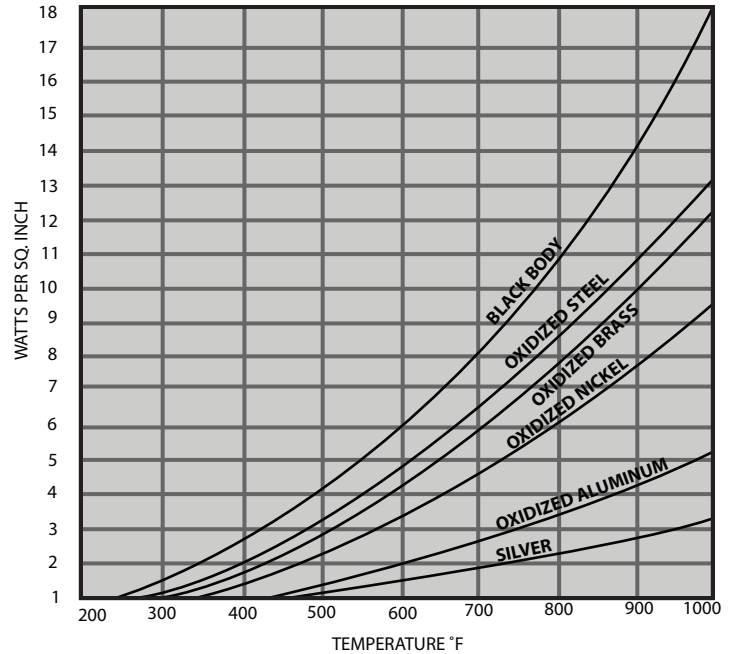
**HEAT LOSSES FROM INSULATED WALLS**  
Curves are for standard high-grade material, such as 85% magnesia, Rockwood, etc.



**HEAT LOSSES FROM UNINSULATED SMOOTH SOLID SURFACES**  
Assumed external ambient temperature of 70°F.  
Temperatures from 60° to 200°F.



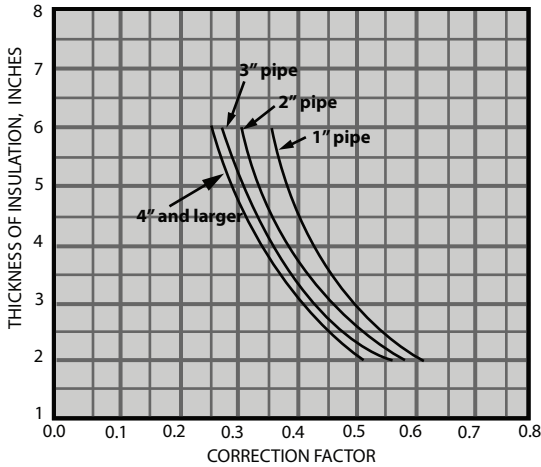
**HEAT LOSSES FROM INSULATED PIPE LINES**  
Curves are for pipe lines covered with 1 inch of standard high-grade insulation.



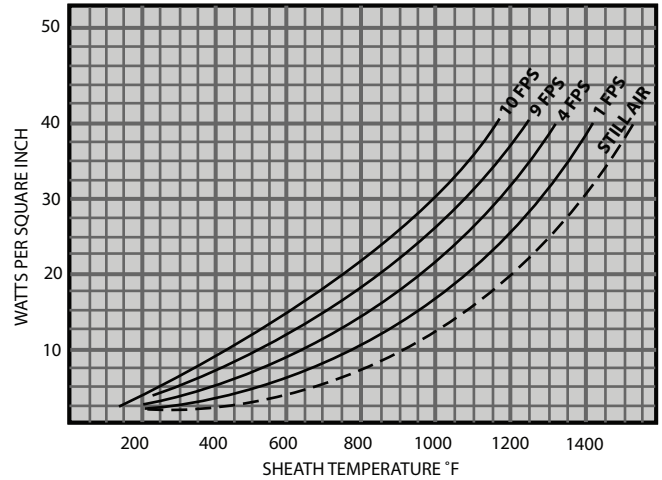
**HEAT LOSSES FROM UNINSULATED SMOOTH SOLID SURFACES**  
Assumed external ambient temperature of 70°F.  
Temperatures from 200° to 1000°F.



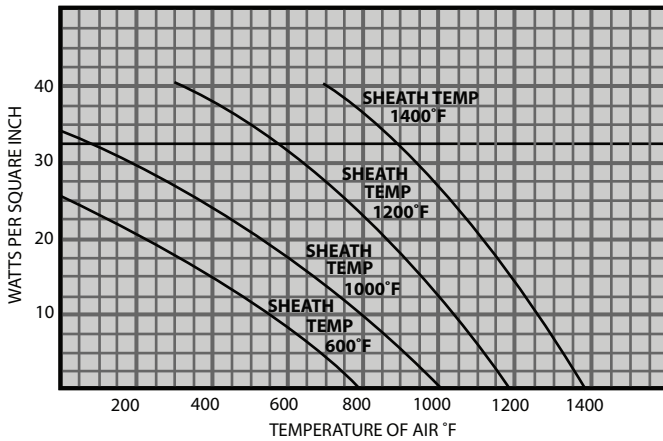
## HEAT LOSS INFORMATION



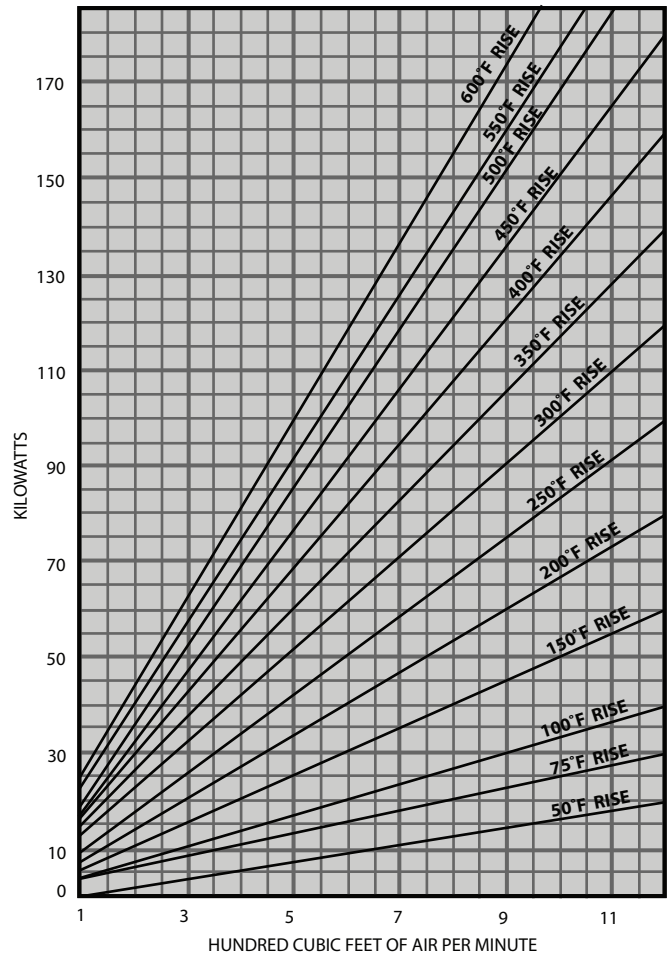
**CORRECTION FACTORS FOR INSULATED PIPELINE HEAT LOSSES**  
 where more than 1 inch of insulation is applied to pipe lines, obtain the heat loss from HEAT LOSSES FROM INSULATED PIPE LINES and multiply by the appropriate factor from the above curves to determine the proper heat loss.



**SHEATH TEMPERATURE OF TUBULAR UNITS**  
 at various watt densities in free or forced air at 80°F



**ALLOWABLE WATT DENSITY ON TUBULAR UNITS OPERATING AT 800°F TO 1400°F**  
 Sheath temperature for various temperatures in distributed air velocity of 16 fps



**HEAT REQUIREMENTS FOR AIR** (.08 LBS./CU. FT weight and specific heat .237 Btu/Lbs./°F)

### NOTE:

Varying circumstances can effect the accuracy of any figures obtained from these charts. They should be used as a guide only in determining requirements for electrical heating elements.