

## COMMON CONSTANTS AND CONVERSIONS

### ENERGY / POWER

12,000 BTU / ton-hr

0.746 KW / HP

3,413 BTU / KWH

### DISTANCE AND AREA

Acre = 43,560 ft<sup>2</sup>

mile = 5,280 feet

### VOLUME AND WEIGHTS

7.48 gal / CF

8.34 lb / gal H<sub>2</sub>O

1.0 MCF = 1000 CF

1.0 lb = 7000 grains

### PRESSURE

psig = 2.31 ft head (water) = 27.72 in. W.G.

in. HG = 13.61 in. W.G.

### TIME

8,760 hrs / year

52 weeks / year

730 hrs / month

### STEAM

Heat Of Vaporization

Atmospheric Pressure Steam 970 BTU / lb

15 Psig Steam 945 BTU / lb

100 Psig Steam 880 BTU / lb

1 Boiler HP = 33,475 BTU / Hr = 10 kW

= 34 lbs of steam / hr at 212°F

### FUEL HEAT CONTENTS

1.03 MMBTU / MCF (Natural Gas)

0.135 MMBTU / Gallon (#2 Oil or "Diesel")

0.092 MMBTU / Gallon (Propane)

2.480 MMBTU / MCF (Propane)

3.20 MMBTU / MCF (Butane)

### AIR

C<sub>p</sub> = 0.2445 BTU / lb – °F

Density = 0.075 Lb / CF

Spec. Vol. = 13.3 CF / Lb

### WATER

C<sub>p</sub> = 1.0 BTU / lb – °F