UNIT - PRESS CAPACITY FORCE

(Author: Eng. Natal Pasqualetti Neto)

When we are working with a press, we can find the capacity of force on the Technical Data sign fastened on the press, or sometimes a capacity tag fastened on the front surface of the press.

.

METRIC SYSTEM

Even today, due the quantity of old presses still working, the most usual indication on the capacity tag is "T" or "Ton" that refers to the capacity of force "Ton". However, that is not official, and increasingly we will see the unit "kN".

According to the International System, the force unit is Newton, represented by "N".

1 tf (ton force) = 1000 kgf (kilogram force)

1 kgf (kilogram force) ≅ 10 N (Newton) it means that 1000 kgf ≅ 10000 N or 10 kN

NOTE: k (kilo) is a multiplying factor that means times 1000 and it is represented by letter lowercase.

Thus, to transform the old representation from T to kN, just do times 10.

Example: 63 T = 630 kN

ENGLISH SYSTEM

In case of presses from USA, they use the English System. There are 2 units for Ton; short ton and long ton. The usual unit for press is short ton.

1 US ton force (short) = 2000 lbf (pound force) = 8896.4432 N or:

1 short ton = 8,9 kN, it means that the value of an English Ton (1 US Ton = 8,9 kN) is a little less than a Metric Ton (1 Ton = 10 kN).

Natal Pasqualetti Neto
Engenheiro Mecânico
Pós-graduado em
Automação Industrial

Date: April, 2020