



RULES OF THUMB – CHILLER

The following equation can be used with the corresponding rating factor for the material being processed for approximating chiller sizes.

Tonnage = lbs/hr of material / rating factor

Rules of Thumb rating factors:

Injection Molding

- | | | |
|--------------------------|----------------------|---------------|
| - ABS = 50 | - Polypropylene = 35 | - PVC = 50 |
| - Polyethylene (LD) = 35 | - Polystyrene = 50 | - P.E.T. = 45 |
| - Polyethylene (HD) = 30 | - Polycarbonate = 40 | - Nylon = 40 |

Extrusion

- Polyethylene = 50
- PVC = 75
- Polystyrene = 75
- ABS = 60

Blow Molding

- Polyolefins = 40

Blown Film (50°F air at 78 WBT)

- 100 CFM = 1 ton

Hydraulic Cooling

1 hp = 1/10 ton

Barrel Cooling

1" screw dia. = 1 ton

Feed Throats

= 1/2 ton each

Gear Boxes = 1 ton each

Temperature Control Units = 1/3 – 1/2 ton per 3/4 unit

Spot Welder

1/4 ton per tip

Plating Baths – Heat Removed

DC Amps x DC Volts x 2.56

Vacuum Pump

1 hp = 1/10 ton

Air Compressor – (No aftercooling)

1 hp = 1/10 ton

Air Compressor – (With aftercooling)

1 hp = 2/10 ton