



## HYSON Force and Temperature Calculator

### Introduction

There are four **(4)** selection boxes to properly navigate the calculator:

1. Cylinder Standards
2. Cylinder Family
3. Cylinder Size
4. Stroke

There are two **(2)** available outputs that have a drop-down menu *per user's preference*:

1. Units
  - a. Metric (bar, KN, mm, °C)
  - b. Imperial (psi, lbf, inch, °F)
2. Thermodynamics
  - a. Isothermal
  - b. Polytropic

### Calculator Instructions

For the calculator to work properly:

1. Click "Enable content" in yellow task bar
2. Select the information from the left section to the right, starting with *Cylinder Standards* and ending with *Stroke*.  
**Note:** if a selection is made in any selection boxes to the left, the data to the right will reset and need to be re-entered.
3. Once all inputs have been selected, the *HYSON part number* will show below input boxes

### User Data Input

To get correct calculations that generate the graph and temperature ruler, enter data based on your application:

1. Number of Cylinders
2. Filling Pressure (Maximum filling pressure will be added)
3. Used Stroke
4. Frequency
5. Surrounding Temperature

When *User Data* inputs are entered, the temperature and force graph will update accordingly.

**Note:** Units that are outside the parameters will create a warning notice next to the input.