

## CALCULATION OF TOTAL FORCE FOR POD PRESS

According to Tyler Machine, pod press manufacturer, the contact are of each pod is 90 sq. inches.

To determine the total force multiply 90 times the number of pods in use times the air gauge reading.

Divide the total force by the surface area of the stock to get the pressure in PSI over the surface area of the stock.

### Example:

If the gauge pressure is known find the pressure being applied with this formula.

$$\frac{90 \times N \times G}{A} = P$$

If the desired pressure is known the proper gauge reading is found with this formula.

$$\frac{P \times A}{90 \times N} = G$$

Where: 90 = Contact area of each pod in sq. inches.

N = The number of pods in use.

G = The air gauge reading.

A = Surface area of the stock in square inches.

P = Pressure in PSI over the surface area of the stock.

- **Note:** The contact area of the pods needs to be determined for presses manufactured by other companies. Once this contact area is determined the formulas above will apply.

Area of circle can be calculated by multiplying 3.14 X the radius<sup>2</sup>.