

CI SERIES

Compact Air Powered Oil Intensifiers

"Shop Air Pressure In . . . High Oil Pressure Out"

☆ Output pressure up to 5000 psi ☆ Volume from 1 in.³ to 9 in.³ ☆

INTRODUCTION:

CI SERIES Compact Intensifiers are simple generic boosters that utilize a large pneumatic piston (4", 6" or 8" diameter), to intensify oil pressure with a smaller piston (1-1/8" or 2" diameter).

The product range includes 24 models. All are designed to be highly space efficient and low weight. The pressure chamber features two large full flow ports for easy filling and bleeding.

The pneumatic actuator is our standard low profile large bore compact cylinder.

Features Include:

- Rugged space efficient, low weight aluminum design
- Long life / Low friction
- Three mounting choices
- Optional magnetic piston (Option "ACI")
- Cataloged sizes are stocked for prompt delivery
- Specials Welcome . . . Miniature sizes, special volumes, etc . . . Consult Factory



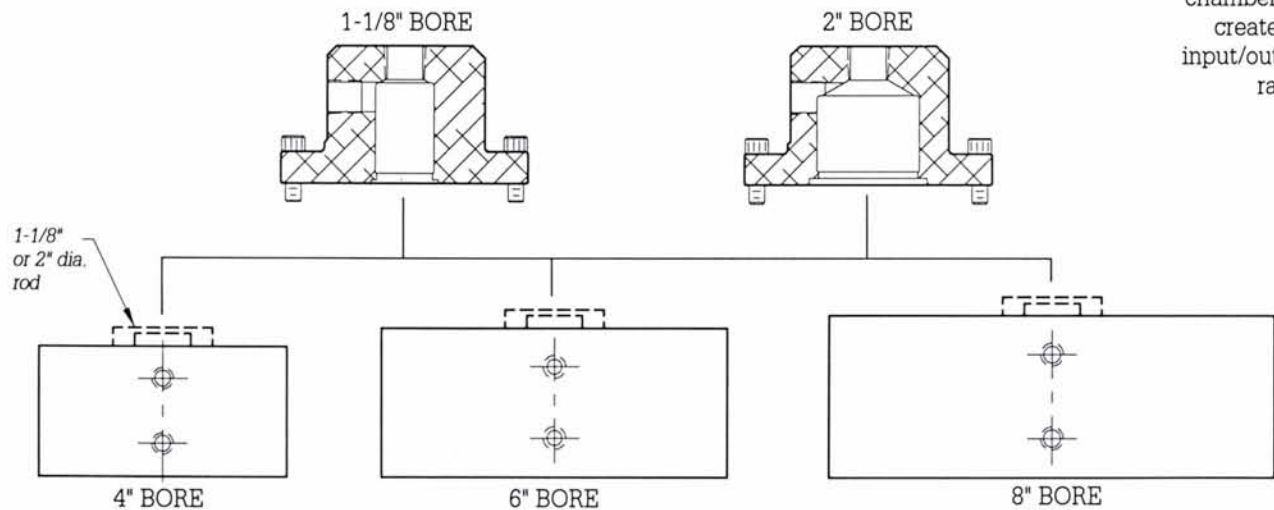
IMPORTANT

Standard Seals: Buna-N and Urethane
0° to 200°F Maximum (-17° to 93°C)

Viton Seals: Optional, although maximum output pressure not to exceed 2000 psi. Specify "HTV" after the part number.

MODULAR DESIGNS

OIL CHAMBERS



LARGE PNEUMATIC PISTONS (NOTE: Available in 1" and 3" stroke)



P.O. Box 499, Westminster, SC 29693
Tel: 864-647-9521 Fax: 864-647-9574

GENERAL INFORMATION

"CI" and "ACI" Series

Output Ratios

Our smallest intensifier has a ratio of 4 to 1. Our largest has a ratio of 50 to 1. The line offers 6 output ratios in all. Our modular design depicted on the cover illustrates how we have created the ratios. More information is given on the back cover.

Volume Displacement

Volume varies with each model, from 1 in.³ to 9 in.³. We recommend the use of at least 25% more volume than needed to satisfactorily do the job. For applications in which the volume exceeds 9 in.³, consult the factory for your options.

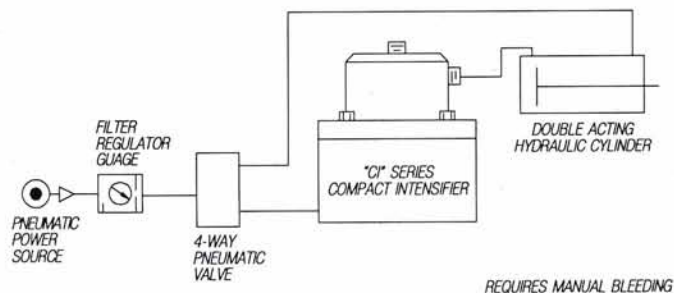
Speed Of Cycle

Typical pneumatic systems can cycle relatively quickly. Air powered oil systems are slower. Schematics #1 and #2 below show the two most typical applications. In both, the speed in which the oil is "pushed" back into the intensifier determines the cycle speed.

#1) DOUBLE ACTING CYLINDER - POWER EXTEND

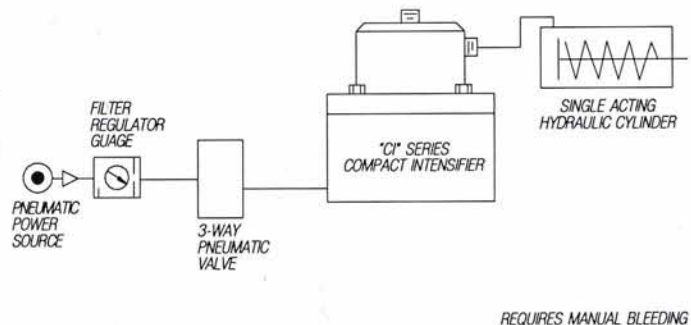
Applications: Clamping Fixtures, Collet Closers, Grippers, Staking and Crimping Devices, Etc . . .

Using a simple 4-way pneumatic valve circuit, an intensified oil power stroke is created in one direction. Pneumatic power returns the cycle. Since the oil is pushed back into the intensifier by the cylinder, bigger cylinders will cycle faster than smaller ones. For fast cycling, use intensifiers in both directions.



#2) SINGLE ACTING CYLINDER

Applications: Spring Loaded Clamping Devices
Using a simple 3-way pneumatic valve circuit, an intensified oil power stroke is created. The spring returns the cycle. Since the spring pushes the fluid back into the intensifier, cycle rate is relatively slow. Strong springs are needed. This system is ideal for short stroke / small fluid volume metal working clamp fixtures.



#3) SPECIAL APPLICATIONS

Applications: No flow constant pressure in a hydraulic system (shown). Also, burst testing, hydro static pressure testing, air powered air boosters, reciprocating boosters and many more. Consult the factory to discuss your unique application.
Example: The schematic to the right shows a hydraulic system that requires long clamping cycles. The intensifier maintains system pressure while pump is idle or off, compensating for fluid leakage. The low friction of our intensifier makes this application feasible.

