

# ***PC6 OSCILLATOR***

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## ***Operation / Maintenance Manual***

SERIAL NO. \_\_\_\_\_

# CONTENTS

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1	UTILITIES / HOOK-UP .....	3
2	OSCILLATOR CYCLE RATE .....	5
2.1	ADJUSTMENT INSTRUCTIONS .....	5

# 1 UTILITIES / HOOK-UP

**Air Inlet:** 3/8" Dia. (9mm) supply tube (Use in-line 10 $\mu$  air filter).

**Air Supply:** 20-60 psig (Model 110, 610) (1.4 – 4.1 bar) and 20-80 psig (Maxim 25, 50) (1.4 – 5.5 bar) clean dry air or nitrogen (Refer to pump operation manual for maximum temperature/pressure chart).

The Mufflers on the Oscillator control Module can be removed for remote exhaust and purge connections.

**Power:** 24VDC @ 200mA

**Note:** Unit must be mounted in clean environment. Chemical fumes can damage unit.

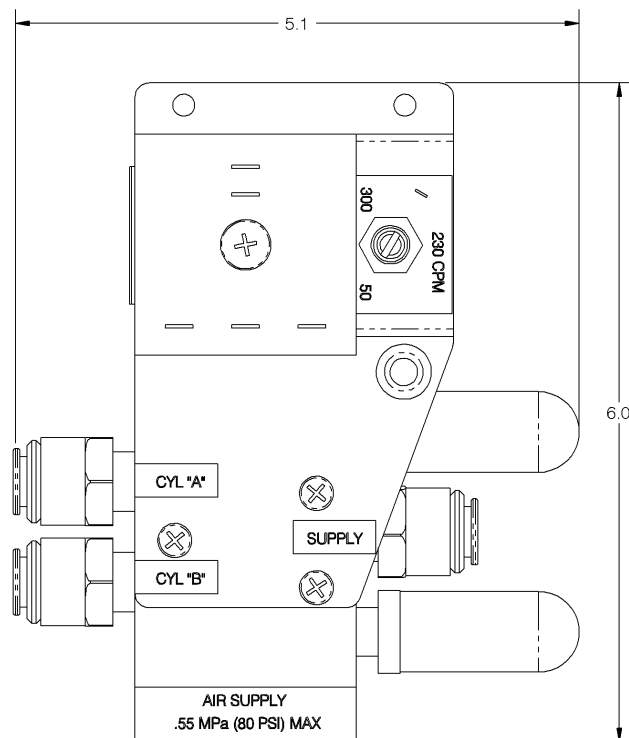
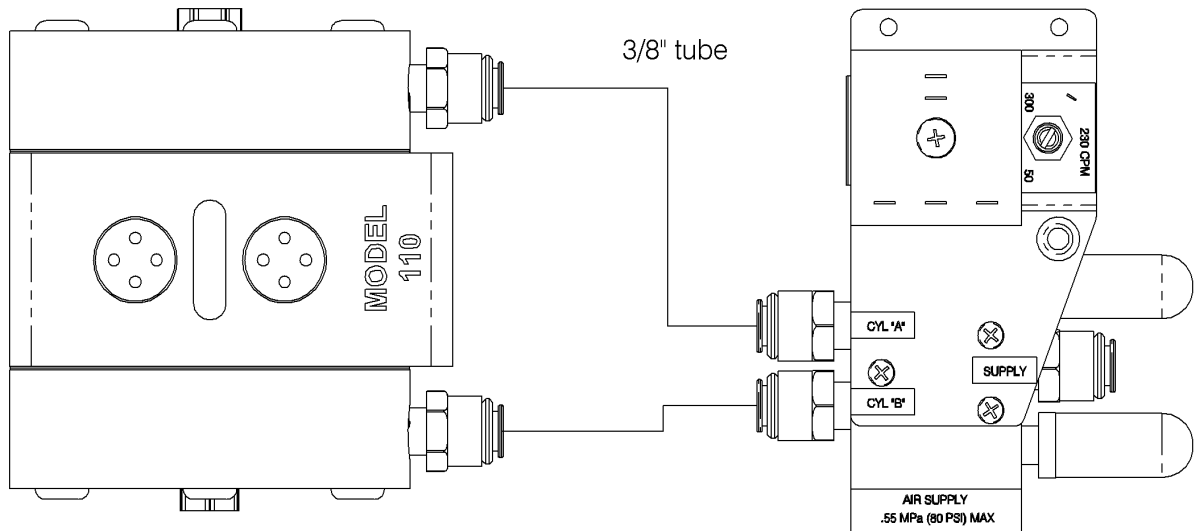


Figure 1-1



**Figure 1-2**

**!** **WARNING:** Particulate, water and oils in the air supply can damage the oscillator.

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## 2 OSCILLATOR CYCLE RATE

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Applications with low flow or highly viscous fluid may require a slower cycle rate for increased efficiency. A slower cycle rate will also decrease air consumption.

### 2.1 ADJUSTMENT INSTRUCTIONS

Pumping capacity is a function of air supply pressure and volume, suction head, suction line restrictions, discharge head, discharge line restriction, and fluid specific gravity and viscosity. Max cycle rate of unit is 300 CPM

- Adjust air supply pressure to 10 psig over desired discharge pressure (Min. 15 psig, Max. 60 psig).
- Calculate minimum oscillation rate based on desired flow rate.

$$\text{Cycle rate (CPM)} = \text{Flow (GPM)} \times 231 \text{ (in}^3\text{/gal)} \div \text{Displacement (in}^3\text{/cycle)}$$

Model 110	–	(4 in <sup>3</sup> /cycle)	(300 CPM Max)
Model 610	–	(9.5 in <sup>3</sup> /cycle)	(240 CPM Max)
Magnum 620E	–	(9\6 in <sup>3</sup> /cycle)	(300 CPM Max)
Maxim M25U	–	(9 in <sup>3</sup> /cycle)	(240 CPM Max)
Maxim M50U	–	(24 in <sup>3</sup> /cycle)	(190 CPM Max)
Mega 960E	–	(30 in <sup>3</sup> /cycle)	(240 CPM Max)

- Adjust potentiometer desired cycle rate. To increase, rotate CCW (counter clockwise) to decrease rotate CW (clockwise).
- Tune cycle rate for least pulsation both on inlet and outlet.