



# “YOU SUPPLY THE TALENT... WE’LL SUPPLY THE REST!” THE COMPLEAT SCULPTOR

## Compressors for Air Hammers

TCS sells pneumatic air hammers for carving however we do not sell compressors. You can purchase an adequate compressor at your local hardware or home improvement store. To help you chose the correct compressor for your pneumatic tool, follow the guidelines below.

### ■ Air Hammers

Air hammers have only one moving part, the piston. This piston is forced back and forth very rapidly by the pressurized air supplied by the compressor. A compressor is, very basically, a motor attached to an air tank. The motor runs and fills up the tank with pressurized air that then travels through the hose to the air hammer.

### ■ Compressors

All compressors usually have 4 specs: Tank size, Horse Power (**HP**), Cubic Feet per Minute (**CFM**), and Pounds per Square Inch (**PSI**). HP is not relevant in this case and tank size is a factor only if you have limited space. The **CFM** and **PSI** are the important numbers to look at when picking a compressor. Basically, the **CFM** means the volume of air the compressor can create per minute and the **PSI** is the air pressure in the tank.

### ■ Requirements

Each air hammer requires a **minimum CFM** at a **prescribed PSI** in order to function properly and efficiently. Obviously the larger the air hammer the larger the compressor needed to run it. See the charts below for specific air hammer requirements.

For example the Trow & Holden 1/2B requires **at least 4CFM at 90PSI**. That is the *minimum* needed so any compressor with a higher rating will also run a 1/2B, for example a compressor rated at 5CFM at 120PSI could also be used. *A compressor with a lower rating, for example a 3CFM at 90PSI, is not recommended.*

The compressor motor will run while the air tank is being filled with the compressed air needed to run the air hammer. When the tank is full, the motor shuts off. When the air in the tank gets depleted (from supplying the air to the hammer) the motor switches back on to refill the tank, this supplies the air hammer with a constant supply of pressurized air to run on.

If you purchase a compressor with a lower ratings than required for your air hammer the motor will run constantly to generate enough air for the hammer to function or it may possibly not provide enough CFM to run the hammer at all.

### ■ Something to Think About

Purchasing the largest/most powerful compressor you can house/afford offers you much more flexibility down the road. Advantages to purchasing a compressor with a larger rating (and large tank) than required for your air hammer are:

- The motor will need to run less often to refill the air tank (a frequently running motor can be a nuisance for some).
- The capability of running more than one tool at a time.
- The capability of running larger pneumatic tools in the future.

■ Air Hammer Requirements

| <u>Cuturi Air Hammer Type</u> | <u>CFM at PSI minimum</u> |
|-------------------------------|---------------------------|
| “D” micro                     | 1.5 CFM at 70 PSI         |
| “P” pen                       | 1.5 CFM at 70 PSI         |
| “E” piccolo                   | 3.5 CFM at 90 PSI         |
| “A”                           | 3.9 CFM at 90 PSI         |
| “V”                           | 4.9 CFM at 90 PSI         |
| “U”                           | 6 CFM at 90 PSI           |
| “T”                           | 7.5 CFM at 90 PSI         |
| “S”                           | 8.7 CFM at 90 PSI         |
| “R”                           | 9.9 CFM at 90 PSI         |
| “Z” monster                   | 10.2 CFM at 90 PSI        |

| <u>Trow &amp; Holden Air Hammer Type</u> | <u>CFM at PSI minimum</u> |
|--|---------------------------|
| Bantam                                   | 3 CFM at 90 PSI           |
| 1/2B                                     | 4 CFM at 90 PSI           |
| 3/4B                                     | 4 CFM at 90 PSI           |
| 1B                                       | 6 CFM at 90 PSI           |
| 1/2D                                     | 3 CFM at 90 PSI           |
| 3/4D                                     | 4 CFM at 90 PSI           |
| 1D                                       | 6 CFM at 90 PSI           |
| 1-1/4D                                   | 8 CFM at 90 PSI           |

Tips:

- When you turn on the air supply to your air hammer and the piston does not move, gently tap the tip of the hammer on your work table to jar the piston into motion. If that does not work, tap a little harder. If it still does not work you may have a jammed piston. (see below)
- Do not use any tape anywhere in the line from your compressor to the air hammer. Small gummy bits of tape can get blown into the air hammer – causing it to jam. Typically all connections should be tight with no air leakage, but a small amount air leak will not significantly affect the performance of the air hammer.
- It is unlikely that an air hammer will break given that there is only one moving part, however, an air hammer can be sent back to TCS for repair if it is not working properly. If we cannot figure out what is causing the problem, we will send it back to the manufacturer for inspection. Trow & Holden air hammers are made domestically and repair times are typically short. Cuturi air hammers are made in Europe and can take much longer to repair.
- These compressor guidelines apply to any pneumatic tool with CFM and PSI requirements, such as pneumatic die grinders.
- Compressor motors can be loud however the noise can be dampened by creating a sound-proofed crate to house the compressor.

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