

# Selecting a Compressor

## Guidelines for Matching Proper Compressor to Workplace

### A) Compressor Type *Base on your PSIG (Bar) needs*

**0 to 80 PSIG** (5.5 Bar)– You may only need a single stage compressor.

**80 to 250 PSIG** (17.2 Bar)– You will need a two-stage compressor.

Two-stage compressors are recommended when tool use is continuous.

**Note:** Dynabrade air tools require operating air pressure of 90 PSIG (6.2 Bar).

### B) Air Consumption

Determine the total demand SCFM (LPM). List the requirements for all equipment, tools and other air consumption variables (both continuous and intermittent air usage demands).

### C) Compressor Horsepower (hp)

Use the determined total demand SCFM (LPM) and add approximately 20% for system variables.

Add \_\_\_\_\_% for (your) future growth.

If the above total equals less than 100 SCFM (2,832 LPM) divide this total by 4 to find the compressor hp.

If the total is over 100 SCFM (2,832 LPM) divide by 5 to find the compressor hp.

**Example:** System requirements = 165 SCFM (4,673 LPM) @ 100 PSIG (6.9 Bar)

$$165 \div 5 = 33 \text{ hp}$$

Resulting in a suggested compressor size:

**30 hp to 40 hp** compressor

### D) Tank Size

As a general rule, the larger the tank, the better the system. Use a larger tank for installations where large flows of short duration are needed.

**Example:** For a 5 hp compressor use a **60 Gal. (227 L)**, **80 Gal. (303 L)** or **120 Gal. (454 L)** storage tank.

### E) Controls

**Stop-Start** – The motor stops when the compressor unloads and starts again when the pressure in the receiver drops. Use a stop-start pressure switch control for a small system. (Compressors up to 15 hp.)

**Continuous Run** – Equipped with constant pressure control, loading and unloading as the supply of compressed air in the receiver drops or reaches a maximum.

