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 ÷ 5 = 33 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.