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 (L/Min). 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 (L/Min) and add approximately 20% for system variables.
Add _____% for (your) future growth.

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

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

Example: System requirements = 165 SCFM (4,673 L/Min) @ 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.