

# Maintaining Adequate Air Flow

## Prevent and Eliminate Air Supply Restrictions

### Common Causes of Restriction

- The air supply hose is too long.
- The inside diameter (i.d.) of the hose is too small.
- The air connections or fittings have inside diameters that are too small.
- There are too many air connections or fittings being used.
- If an inline filter is being used, the unit may be too small or the filter element may be plugged.
- If an inline regulator is being used, the unit may be too small, not adjusted properly or defective.
- The air supply hose, air fitting, air tool inlet or air tool exhaust may be plugged.
- If the air tool has a speed regulator, it may be closed.

### Air Hose Supply

- Use the air supply hose with the correct inside diameter as is recommended by the air tool manufacturer.
- Use the shortest air supply hose possible for the task being performed.
- Longer air supply hoses require larger inside diameters.
- Coiled air supply hoses appear much shorter than they actually are. When using a coiled hose, make sure that the inside diameter is large enough to compensate for the length (see chart below).

### Air Supply Hose Recommended Chart

- Choose the correct Inside Diameter (I.D.) and Length of Air Supply Hose.

**NOTE:** To increase the length of air supply hose it will be necessary to increase the inside diameter of the hose.

Air Motor SCFM (Standard Cubic Feet per Minute)	Hose & Fitting I.D. Required	Recommended Length Air Supply Hose
22 SCFM (623 LPM)	1/4" (8 mm)	1' - 8' (0.3048 m – 2.44 m)
28 SCFM (793 LPM)	3/8" (10 mm)	1' - 25' (0.3048 m – 7.6 m)
35 SCFM (991 LPM)	3/8" (10 mm)	1' - 20' (0.3048 m – 6.10 m)
45 SCFM (1,274 LPM)	3/8" (10 mm)	1' - 10' (0.3048 m – 3.042 m)
73 SCFM (2,067 LPM)	1/2" (15 mm)	1' - 20' (0.3048 m – 6.10 m)

### Flexible Air Supply Hoses (Available from Dynabrade)

- 3/8" I.D. with two male 1/4" NPT fittings. **Part No. 11292** - 8 feet (2.44 m) long
- 1/2" I.D. with one male and one female 1/2" NPT fitting. **Part No. 95870** - 5 feet (1.53 m) long

### Air Supply Connectors/Accessories

- Compare airflow SCFM (LPM)



**Common Plug Connector**  
25 SCFM (708 LPM)  
.2010 in. (5.11 mm) I.D.



**Dynabrade Plug Connector**  
76 SCFM (2,152 LPM)  
.3070 in. (7.80 mm) I.D.

**NOTE:** All information is based on the size of the Inside Diameter @ 90 PSIG (6.2 Bar) in conjunction with the mating coupler.

### How to Measure a Typical Plug

**NPT**  
(National Pipe Thread)  
is the thread size.  
(i.e. 1/4" NPT)

