



## How to Get

# Maximum Power

## And Benefit from your Air Tools

**By Dean Askin**

**W**hile there's no question that hand tools are still essential, the Canadian Centre for Occupational Health and Safety (CCOHS) recommends using a power tool instead of a hand tool if you're exerting "frequent and repetitive force to do the job" with a hand tool. That's because the more force you have to exert, the more you have to twist your wrist - and the greater the chances of sustaining a strain injury.

Air tools can save you a lot of time, effort and strain, and are a must for certain tasks. When you're purchasing an air tool - whether it's an air drill, air ratchet, air hammer, impact wrench, sander/polisher, die grinder or cutting tool - there are some important factors to keep in mind. Consider drive size or capacity; torque range; revolutions or blows per minute; tool ergonomics; and how you'll be using the tool. Make sure the tool meets your needs.

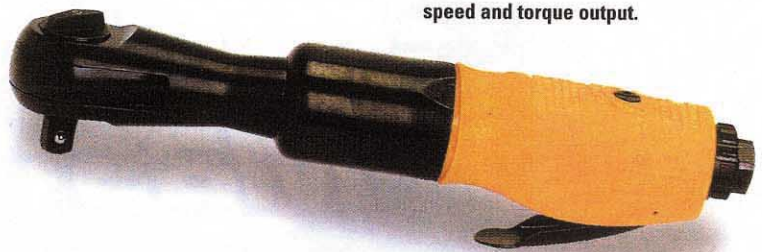
For example, a 1/4" drive air ratchet may be all right for light-duty applications, but a 1/2" drive air ratchet may be more likely what you'll need to withstand heavier-duty maintenance applications. Similarly, a 1/2"

impact wrench with a maximum torque of 550 ft. lbs. may be better than one with 480 ft. lbs. of torque.

Carefully check the specifications in catalogue product descriptions. You don't want to end up purchasing an air hammer, for example, that delivers only 3,500 blows per minute when you really needed one that can deliver 5,000 blows per minute. Talk with your tool representative about your needs. Perhaps you can try the chosen air tool for a week first, to make sure that it's right for you.

Today, tool ergonomics are a very important consideration and often the prime concern in the workplace. A poorly designed air tool will do you more harm than good on the job. If, for example, you use an impact wrench a lot during the course of your day, a longer trigger enables you to operate it with two fingers instead of just one. This reduces discomfort, and the risk of "trigger finger" and "trigger thumb" tendonitis

**Air ratchet internals operate at surprisingly high speed, and need both periodic cleaning and lubrication for consistent speed and torque output.**



that can result from repetitive use of your index finger. Plus, make sure there's a minimum amount of trigger motion (about 5 mm is ideal) from "off" to full throttle.

Consider an air tool with a paddle-style trigger that lets you depress the trigger with your palm when you grip the handle. Some air ratchets, die grinders, cutting tools and specialty tools have this trigger design. It gives you more precision control, and also reduces the risk of "trigger finger" injuries.

Similarly, try to make sure your air tools have an ergonomic grip. Many air ratchets and impact wrenches are designed with textured rubber handles that improve your grip while reducing vibration, user fatigue, and strain on hands and wrists.

Then there's the handle colour. Some air tools are available with handle colours such as red, orange, or green. If your workplace has a tool

*Continued on Page 34*