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OPEN & CLOSED ARBOR UNIT INSTRUCTIONS

DESCRIPTION

With proper mounting and maintenance, Covington's Open and Closed Arbors will handle the most demanding jobs with ease. All units have double neoprene sealed, precision ball bearings that are greased for life and rubber mounted for quiet operation. Arbors are available with standard or multi-purpose shafts.

Standard Shafts: Come in varying lengths and two diameters, ¾" or 1".

Multi-purpose Shafts: Fit arbors with 1" diameter bearings and are designed to carry four wheels up to 8" x 2" in size. The two inboard wheels are 1" bore and secured by 3" diameter flanges and ¾"-16 nuts. The outboard wheels are ⅝" bore and secured by 3" diameter flanges and ½"-20 nuts. The outboard wheels may be replaced by small wheels up to 6" x ½" x ½" in size by using 2" diameter flanges and ½"-20 nuts.

WHEEL SPEED

Assuming a 1725rpm motor with a 1-½" pulley is used, the following size machine pulleys will produce a shaft rpm as follows:

Motor rpm	Motor Pulley	Machine Pulley	Shaft rpm
1725	1-½"	2"	1230
1725	1-½"	3"	785
1725	1-½"	4"	575

INSTALLATION

Prior to using your machine make sure you have a clean usable workspace. The unit is mounted on a lam-i-cushion base with motor attached.

When putting wheels on shaft, be sure the arbor holes are the correct size and that the shaft is clean. Wheels should fit snugly. Allow up to 0.002" clearance for heat expansion. A soft material such as cardboard (less than ⅛" thick) or blotter paper (less than 0.025" thick) should be used between the flanges and the wheels to compensate for uneven surfaces. This will produce a mechanical joint. Flanges must be perpendicular to the shaft. Do not use flat washers in place of recessed flanges. Tighten nuts and secure wheels firmly in place. Do not over tighten as this action may damage wheel. Rotation of shaft will keep retaining nuts tight when wheels are in motion. Rotate wheels and check for side wobble and round.

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Important: Install wheels properly to avoid vibration. Should vibration occur, mark wheels and loosen nuts to turn each of the wheels. Spin the opposite direction ⅛" revolution and repeat check until balance is obtained. Caution: An out of round wheel cannot be balanced.

OPERATION

There must be a provision for bringing coolant to the wheels. A moderate flow is satisfactory. This is important because:

1. It keeps wheels flushed clean so dust will not form. It is hazardous to your health to breathe dust.
2. Heat generated by dry grinding can damage the material being cut.
3. It is possible to shorten the life of your grinding wheel if you run it dry.
4. Grinding residue, which slows abrasive action, is washed away to make cutting action faster.
5. Do not allow water absorbed by the wheel to upset its balance. After each use, wheels should be run dry for at least one minute before the machine is stored for the day. This is to clear the wheel of water impregnation of the grit bond. Never allow the wheel to set in water when not in use.

MAINTENANCE

Caring for wheels properly ensures fast abrasive action, polishing quality, and vibration reduction. Always follow the manufacturers instructions.

Abrasive Bond Wheels: Before approaching the front of a wheel or using it, run for one full minute. Never use a chipped or cracked wheel. If chipped, dress out chipped area, if practicable. If cracked, replace wheel.

Silicon Carbide and Aluminum Oxide Wheels: The wheel will wear with use, although not rapidly. If the surface becomes grooved or wavy dress it with a coarse silicon carbide dressing stick. Use continuous water spray while dressing. Smooth surface with 100-grit silicon carbide sandpaper wrapped over a wooden block.

Diamond Wheels: Sharpen wheel by reversing its direction of rotation periodically (turn it around on the shaft), or run a coarse silicon carbide stick across surface. Use more water and flush wheel clean.

Cork Wheels: Dress with a sharp chisel or sandpaper sanding block. If using chisel or scraper, hold tool point in downward position to wheel rotation to avoid the possibility of the edge digging into the wheel.

Felt Wheel: Dress dry wheels with a clean, coarse, tooth file. Dress damp wheels with a fine tooth file. Brush away felt residue.