

CANADIAN MACHINERY AND

# metalWORKING

[www.canadianmetalworking.com](http://www.canadianmetalworking.com)

MARCH 2001 \$6

2001 CNC CENSUS

## WHO'S NUMBER ONE?

Canadian manufacturers bought 17% more CNC machine tools last year than the previous year. Find out who bought what and who installed the most.





## Plug and play

During a recent technology seminar in Switzerland, a prominent cylindrical grinder manufacturer introduced the plug-and-play concept to its CNC cylindrical grinders. It's possible to enhance the grinder by installing one of these neatly crated retrofit kits. Even an unskilled operator can retrofit the grinder in just 10 to 15 minutes by using the quick-disconnect features and convenient mounting brackets.

Swiss management explained the retrofit kit strategy as an industry first. It gives you the choice to purchase either a fully-loaded or a bare-bones machine, with the assurance that the grinder can be economically upgraded. The concept does not carry any pricing premium, as the manufacturer has packaged the kits with retrofits in mind. The kits are individually wood-crated with well-organized cabling conduits and concise instructions. There are no added costs due to installation, lost production, rewiring or machine enclosure modifications. The philosophy behind each of the plug-and-play packages follows:

- **Sensitron (Air Gap Elimination)** greatly enhances productivity. Through acoustical sensing technology, the air gap ahead of the grinding wheel infeed is sensed as it approaches components or dressers. Integrating this sensory perception with the CNC control optimizes infeed to minimize non-cutting times. The small job shop might initially question this option, but increased production or wheel tech-

nology advancements often warrant this machine upgrade.

- **Length positioning**, in both active and passive formats, provides a further productivity gain. Through canned probing cycles, the grinder advances to a shoulder location and generates ground surfaces relative to this sensed dimension. For shop owners who do not anticipate any shoulder work, this option may initially seem unnecessary. But less than one hour of retrofitting will enhance the basic machine with this

**Even an unskilled operator can retrofit a grinder in just 10 to 15 minutes.**

capability on demand.

- **Diameter gauging** is typically used in high-tolerance or high-production applications. This gauging allows you to compensate automatically for machine or process errors. Many grinders start out with low-volume, ramp-up applications that warrant this option as production increases and statistical process demands increase. In a mere 30 minutes this retrofit kit is installed and fully operational.

- **Dynamic wheel balancing** is a practical feature, particularly in production environments where process stability and downtime are critical. Rather than static balancing offline, grinders can easily balance the wheel on the machine. Well-balanced wheels provide the added benefits of better surface finishes, longer wheel

life and reduced dressing-related, non-cutting time.

- **Turbine disk dressers** are becoming more common, especially as they are being coupled with dressable wheel bonds and touch-dressing sensory software. Rotary dressers provide a wear-resistant cutting action that maintains form very well. Both plunge and thread-form grinding are placing increased demands on dressing that can only be met by disk dressers.

Hardware retrofits are great, but

they are only effective with supporting software solutions. CNC grinder manufacturers are cognizant of insufficient software ramifications. Anticipating this future demand, they have introduced the above hardware kits with upgradeable software packages, including profiling (StProfile), offline program storage (StCom) and offline editing (StEdit).

Job shops now have the flexibility to make educated decisions based on current, not speculative, needs. Although this is the first known grinder to anticipate this need, it is fully expected that other manufacturers will follow suit, providing users a range of purchasing options.

*For more information, contact John Manley at [sales@mtscanada.com](mailto:sales@mtscanada.com) or [www.MachineToolSystems.com](http://www.MachineToolSystems.com)*