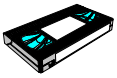
Learn About Selected CNC Topics Without Having To Attend CNC Courses!

Finding information on certain CNC topics has always been difficult - until now. Our collection of short videos will let you learn what you need to know without having to attend full CNC courses and seminars. In many cases, information included in these Mini-Vids cannot be found anywhere else!

These concise Mini-Vids are designed to acquaint you with the topics they address as quickly and effectively as possible. You can view them in about an hour to get a good working knowledge of selected CNC topics.



Setup Time Reduction For CNC

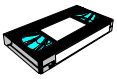
Playing time: 60 Minutes

While a CNC machine is in setup, it cannot produce any workpieces. This wasted time can never be recovered. Of course, everyone *says* they want to reduce setup time. And the more setups you make, the more important it should be that you accomplish this goal -- and the more time, effort, and money you should be willing to invest to achieve the goal of reduced setup time!

This Mini-Vid begins by introducing you to setup time reduction principles - principles that can be applied to any form of production equipment. We define setup time, show the two task types related to setup, and the three general ways to reduce setup time.

We then show you many specific techniques that can be used to reduce setup time for the two most popular forms of CNC machine tools, machining centers and turning centers. These techniques are presented in the same general order setups are made (preparation & organization, work holding setup tear down & setup, cutting tool assembly, measurement, & offset entry, program loading, program verification, and first workpiece inspection). Given the high cost of CNC machine tool usage, this Mini-Vid could easily pay for itself with the first technique you apply!

MV-STR Setup Time Reduction For CNC Mini-Vid **$179.00**



Introduction To Probing

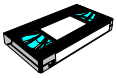
Playing time: 82 Minutes

Probes are becoming increasingly popular among CNC users. If you don't already have one, you're likely to get one with your next CNC machine purchase. This intensive Mini-Vid will acquaint you with the applications and programming for the three most popular probe types used on CNC machining centers and turning centers: Spindle probes, tool length & radius measuring probes, and tool touch off probes.

Would you like to know how you can streamline setups by automating your program zero and tool setting measurements? Would you like to know how to perform critical measurements on line - during the CNC cycle? Would you like your CNC machine to run unattended, having your probing system perform functions that an operator will not have to be available to care for? These are but a few of the tasks you can accomplish with probing systems! Here's your chance to find out how probes can help in your CNC environment.

This Mini-Vid is broken into four parts. First, we show the applications for touch probes. Second, we show how touch probes work. Third, we introduce the programming commands used with touch probes. And finally, we show an example program for a spindle probe application. When finished, you'll know just how probes can fit into your company's future!

MV-PRB Introduction To Probing Mini-Vid **$179.00**



Cycle Time Reduction For CNC

Playing time: 90 Minutes

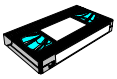
With today's highly competitive CNC market, it is mandatory that you keep your CNC cycle times to their absolute minimums. Though reducing cycle time should be of the utmost importance to companies with high production quantities, all CNC users should be highly concerned with producing workpieces as efficiently as possible.

This intensive Mini-Vid begins by introducing you to the principles of cycle time reduction - principles that can be applied to any form of production machinery. We define cycle time, introduce the four cycle-related task types, and offer the four general ways to reduce cycle time.

We then show countless specific techniques that can be used to reduce cycle time for CNC machining centers and turning centers. Categories include preparation and organization, workpiece load/unload, reducing program execution time, reducing tool maintenance time, and the effect of preventive maintenance on cycle time.

Truly, all companies using CNC can benefit from this Mini-Vid. And given the high cost of CNC machine usage, this Mini-Vid will likely pay for itself with the first technique you apply!

MV-CTR Cycle Time Reduction For CNC Mini-Vid **$179.00**



Introduction To Custom Macro

Playing time: 50 Minutes

Custom macro is the Fanuc (and Fanuc-compatible) version of *parametric programming*. This little know CNC feature tends to go completely overlooked, even though almost all CNC users have several applications that could be enhanced through parametric programming techniques. For this reason, we say *custom macro is the best kept secret of the Fanuc control!* Few in the industry even know what it is, let alone how to reap its benefits.

This application-oriented Mini-Vid will acquaint you with how custom macro can help in your own CNC environment. We'll begin by showing you what custom macro is by acquainting you with its computer-related and CNC-related features. Next we'll show the five application categories, including part families, user created canned cycles, utilities, complex motions, and driving optional devices (like probes). And finally, we'll show an example program to help you understand all custom macro can do for you.

When finished, you'll probably want to know more. Note that the purchase price for this Mini-Vid can be applied toward our full *video course* for custom macro programming.

MV-CM Introduction To Custom Macro Mini-Vid **$179.00**

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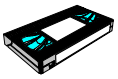


Machining Operations Performed On Machining Centers

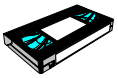
Playing time: 55 Minutes

CNC users are finding it more and more difficult to hire entry level CNC people that already have adequate basic machining practice skills. It seems that many people entering the field of manufacturing are doing so even though they have had no formal training in manufacturing processes. Of course, a person must understand the machining operations being performed on a CNC machine tool before they can make effective use of the equipment.

This Mini-Vid will help you acquaint your entry level CNC people (especially beginning operators and programmers) with the most common machining operations that can be performed on a CNC machining center. It will also help you quickly relate machining operations to people that are not directly involved with the daily use of your CNC machine tools (design engineers, managers, foremen, etc.) While this Mini-Vid is not intended to replace a full course on basic machining practice, it will nicely show the machining operations in a way a beginner can understand.

This Mini-Vid is divided into three sections. First we show hole machining operations (center drill, spot drill, drill, countersink, tap, ream, counterbore, and bore). Next we show milling operations. And finally, we show how cutting conditions (speeds & feeds) are developed.

MV-MCO Operations Done On Machining Centers **$179.00**



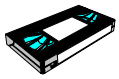
Live Tooling For Turning Centers

Playing time: 65 Minutes

More and more turning centers are coming with live tooling capabilities to minimize the number of secondary operations after the turning center operation. This feature involves rotating cutting tools held in the machine's turret (or other tool holding device) as well as a rotary device (commonly a C axis) in the main spindle. With this function, a CNC user can perform machining operations not commonly associated with turning centers (like drilling & tapping bolt hole patterns and milling operations).

This Mini-Vid will first acquaint the viewer with the machine tool components required for live tooling operations. Second, we'll show the cutting tool holder types that can be used. Third, we'll introduce the programming commands related to live tooling turning centers. Finally, we'll introduce polar coordinate interpolation, a feature that makes it easy to program a milling cutter to machine contours around the outside diameter of a workpiece.

MV-LT Live Tooling For Turning Centers **$179.00**



Introduction To Fanuc Parameters

Playing time: 65 Minutes

Parameters control many functions of your CNC machine tools. For the most part, they are set by your machine tool builder for the kind of machine and control you are using. Most need not be manipulated by the CNC user. For this reason, many CNC users avoid parameters completely. Some are even afraid to work with them.

You and your staff should not be intimidated by your CNC control's parameter table. While there are some that you should not manipulate without your machine tool builder's help, there are many that affect functions that are important to the CNC user. For example, some parameters affect cycle time. Others affect the way canned cycles behave. Yet others affect programming features like tool length compensation, cutter radius compensation, and program editing.

This informative Mini-Vid will take the fear out of working with your control's parameters. We'll begin by introducing the parameter types (8-bit binary, word address, and axis address). Next we'll show how they are changed. Finally, we'll introduce those parameters that any CNC user should know about in order to make the best and most efficient use of the CNC machine tool. After viewing this Mini-Vid, you'll never be afraid of your control's parameters again!

MV-PAR Introduction To Fanuc Parameters **$179.00**

CNC Books!

Even if your CNC equipment seems to be running smoothly, wise CNC users will be on the constant lookout for ways to improve their CNC environment. All of these books are written by Mike Lynch and aimed keeping you abreast of the latest developments in CNC technology.

- **Parametric Programming For CNC Machine Tools And Touch Probes**
  433 pages - 150 illustrations - Published by SME - $83.00
- **Managing CNC Operations**
  372 pages - 40 illustrations - Published by SME - $83.00
- **Computer Numerical Control For Machining**
  422 pages - 120 illustrations - Published by McGraw Hill - $58.95
- **Computer Numerical Control Accessory Devices**
  257 pages - 55 illustrations - Published by McGraw Hill - $53.00
- **Setup & Cycle Time Reduction (handout from seminar)**
  200 pages - 40 illustrations - Published by CNC Concepts, Inc. - $54.00

From CNC CD-rom Courses and Curriculums:

- **Machining Center Programming & Operation**
  329 pages - 60 illustrations - Published by CNC Concepts, Inc. - $60.00
- **Turning Center Programming & Operation**
  393 pages - 55 illustrations - Published by CNC Concepts, Inc. - $60.00
- **Maximizing CNC Utilization**
  640 pages - Published by CNC Concepts, Inc. - $120.00
- **Parametric Programming**
  240 pages - Published by CNC Concepts, Inc. - $60.00

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