

Attention Competitors

**At the 2007 Provincial Skills Competition Safety is
1**

**Each Event Area Will Have Safety Equipment and
Requirements That Competitors Must Adhere To**

Important Must Read!!!!

**Competitors Must Meet All Safety Requirements To
Compete At The Provincial Skills Competition**

**Please Consult The Scope Document To Determine The
Safety Requirements For Your Area**

**It Is Recommended That Competitors Check The Scope
Document To Ensure You Meet All Safety
Requirements**

Scope Documents May Be Updated Until April 20th

2007 Provincial Skills Competition

Scope Document

EVENT: CNC MACHINING	LEVEL: SECONDARY & POST SECONDARY
START TIME: 7:00 AM, JUNE 5 TH , 2007	LOCATION: PRAIRIELAND PARK HALL A
INTERNATIONAL TRADE #: 06	DURATION: 8 HRS

SAFETY REQUIREMENTS: Competitors are required to follow all industry safety standards during the competition.

PURPOSE OF THE CHALLENGE:

Assess the contestant’s CNC programming skills, machining skills and trade knowledge through practical testing.

SKILLS AND KNOWLEDGE TO BE TESTED:

The contest will occur on one day. On the day of competition there will be a 1 hour professional consultation followed by 8 hours of practical machining. Contestants will manually write CNC programs using standard international word address code (i.e. ‘G’ and ‘M’ codes) on a PC with word processing software only. Following program generation contestants have the remaining time to machine the part on the machine tool. For each of the HAAS Turning Center and the HAAs Machining Center areas 4 hours is allowed.

Practical Skills and Knowledge May be based on:

Manually writing CNC turning and milling programs using the following:

- Word address programming
- External and internal turning/threading
- Taper turning (external/internal)
- Profile (pocket) milling
- Drilling and tapping canned cycles
- Grooving
- Applied metrology

THEORETICAL CONSULTATION:

The 1 hour theoretical consultation will involve:

- Referring to the blueprints
- Asking questions about the project
- Machine orientation
- Safety orientation

EQUIPMENT AND MATERIALS:

Supplied by Committee:

The following will be supplied to each contestant:

- All appropriate measuring tools for the CNC projects
- All appropriate tooling for CNC machines
- PC/Windows platform for writing programs

Note: The contestants may be required to share some of the supplied tools and equipment.

Supplied by Competitor:

Contestants may bring the following optional items:

- Measuring tools
- Machinery Handbook/Reference Books
- **Non programmable** calculator

Project Materials:

- Mild steel/alloy steel
- Aluminum and yellow brass

Note: Each contestant will be supplied with material to complete the project.

Note: If a second blank work piece is required, the contestant will lose 150 points.

JUDGING CRITERIA:

Points Breakdown/1000 Total

	Turning	Milling
• Project completion	50	50
• Compliance with occupational health and safety regulations	50	50
• Compliance with dimensions, tolerances and fits as specified in plans	750	750
• Compliance with appropriate surface finish and deburring	150	150
Total	1000	1000

CLOTHING REQUIREMENTS:

Competitor Must Provide:

Competitor must provide CSA Approved footwear, safety glasses, ear plugs and a shop coat. Long hair must be tied back.

Note: Safety glasses must be close fitting and not tinted.

COMMITTEE MEMBERS:

Emmet Jacklin

Ken Jodrey