

Attention Competitors

**At the 2006 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 January
13th**

2006 Provincial Skills Competition

Scope Document

EVENT: PLUMBING	LEVEL: POST SECONDARY
START TIME: 8:00 AM. MARCH 17, 2004	LOCATION: Prairieland Trade Centre Hall A
INTERNATIONAL TRADE #: 15	DURATION: 8 HRS.

PURPOSE OF THE CHALLENGE:

To assess the contestant's knowledge and skills in the installation of a plumbing system with **high regard to the aspects of quality workmanship, proficiency in the pipe joining techniques and the accuracy of work within a specified time frame.**

SKILLS AND KNOWLEDGE TO BE TESTED:

- Applying mathematical concepts involving parallel, 60, 45 and 22 1/2 offsets in a piping system.
- Interpreting and applying the blueprint specifications.
- Assembling of various piping systems.
 - Steel threaded
 - Copper- hard & soft soldering and copper pipe swedging
 - PVC plastic solvent weld
 - Bending of copper pipe using mechanical benders (Ridgid model 310/316)
- Assembly and installation of plumbing accessories.
- Apply safe work procedures.
- General attitude toward work

THEORY EXAM: NO

EQUIPMENT, TOOLS, SUPPLIES, CLOTHING:

TOOLS AND EQUIPMENT:

Supplied by Committee:

Pipe threaders, tripods, Ridgid model 310/316 tubing benders, soldering torches (B tank turbo), adhesives, Teflon, solder paste, threading paste, and soldering and brazing materials. The contestants may use his or her own hand tools of personal preference. All work stations will be supplied with the required materials (ie. Paper, pencils, etc.).

TOOLS

Supplied by Competitor:

All competitors must supply his or her own hand tools, pocket calculators and a measuring tape in millimeters (25mm wide recommended) & code book may be used. **See notes for tool list.**

CLOTHING REQUIREMENTS:

Competitor Must Provide:¹

All competitors should address the dangers of long hair, and jewellery, etc.

Personal protective equipment that must be worn at all times in the competition area

- Approved steel toed boots
- Protective eye wear
- Hearing protection
- Long sleeved shirt

Additional personal protective equipment to be used as required

- Gloves
- Face shield

JUDGING CRITERIA:

Points breakdown / 1000 points total:

- Accuracy of installation approximately 40%
- Quality of workmanship approximately 30%
- Piping pressure test approximately 20%
- Safe work practices approximately 10%
- Full marks for dimensions within 2mm
- Half marks for dimensions within 3 to 4mm
- Point deduction per material request (10 points)
- All dimensions shall be taken from the centerline and benchmark
- Completion time shall be implemented as a tie breaker
- Project plan and documents will be released approximately one month prior to the competition date. (note that the competition project may be subject up to 30% change)

SPECIAL CONDITIONS / ADDITIONAL INFORMATION

1. No project specific aids, tools or jigs
2. Proper joint engagement is mandatory
3. There will be NO onsite instruction of pipe joining methods

Tool list:

- Pocket calculator
- 1 meter metric rule and a 25mm wide measuring tape
- 12 and 14 inch pipe wrench
- 24 inch and 9 inch torpedo level
- 12 inch metal saw with spare blades
- 8 and 12 inch adjustable wrenches
- Copper tube cutters ½” to ¾”

- PVC pipe saw or equivalent
- Ridgid #154P pipe cutters for 1 ½” to 4” plastic pipes, or equivalent
- 16 ounce carpenters hammer or equivalent
- Side cutters
- Half round file
- Plumb line
- Small combination square
- Utility knife
- Deburring tools
- Multi tip screwdriver or equivalents
- 8 inch vise grip or equivalent
- Standard utility pliers or equivalent

COMMITTEE MEMBERS:

Tim Wall

Committee Chair (plumbing)

Instructor

SIAST, Kelsey Campus Saskatoon