

## 2012 Provincial Skills Canada Competition

### Scope Document

Edmonton Expo Centre, Edmonton

May 10 & 11, 2012

<b>EVENT:</b> Plumbing	<b>LEVEL:</b> Post-Secondary
<b>START TIME</b> May 10: 7 :00 AM May 11: 8:00 AM	<b>LOCATION:</b> Hall C, Edmonton Expo Centre
<b>DURATION:</b> 12 Hrs. (over 2 days)	<b>THEORY EXAM:</b> No
<b>WORLDSKILLS TRADE #:</b> 15	

#### GENERAL DESCRIPTION

##### 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 of pipe joining techniques and accuracy of work within a specified time frame.**

##### Skills and Knowledge to be Tested:

- Applying mathematical concepts involving parallel, 60, 45 and 22 ½ offsets in a piping system.
- Interpreting and applying the blueprint specifications.
- Assembling of various piping systems
- Assembly of Pipe and Fittings
  - Steel Threaded
  - Copper – Hard & Soft Soldering, Propress by Ridgid, extracted tee and copper flaring
  - Plastic Pipe - Crimp, Quick and Easy
- Bending of copper tube using mechanical benders. (RIDGID – model 310/316m – cat. # 36962)
- Apply safe work practices

#### EQUIPMENT & MATERIALS

##### Equipment and Materials Competitor Must Supply:

The competitor must supply his or her own hand tools (see tool list below), pocket calculators and a measuring tape in millimeters (25 mm. wide recommended) & IPT handbooks book may be used.

# SKILLS20

## To be Supplied by the Competitor:

- CSA Approved Safety Glasses
- CSA Approved Steel Toed Boots
- Work Gloves and Nitrile Gloves
- Pocket calculator (Casio FX-260 or equivalent)
- measuring tape in millimeters (25 mm. wide recommended)
- water pump pliers or equivalent
- 8-inch locking pliers or equivalent
- 12 inch pipe wrench
- 14-inch pipe wrench
- 9-inch level
- 24-inch level
- 10-inch or 12-inch metal saw with spare blades
- PVC pipe saw
- Assorted adjustable wrenches (8" and 10" recommended)
- Tube cutters for ½" to 2" diameter copper tube
- pipe cutters for 1½" to 4" plastic pipes
- hammer
- side cutters
- half round file
- plumb line
- small combination square
- utility knife
- deburring tools
- multi-tip or assorted screwdrivers

## Equipment and Materials Supplied by the Committee:

- Pipe threaders
- Tripods
- Cordless drills
- Faring tool
- RIDGID pipe benders model 310/316mm – cat. # 36962
- Soldering torches (B tank turbo)
- Teflon
- Solder paste
- Threading paste
- Soldering and brazing materials
- Meter stick/straight edge

The contestant may use his or her own hand tools as per tool list. Tool boxes will be inspected by the Provincial Technical Committee members (please see approved tool list). All workstations will be supplied with the required materials (i.e. paper, pencils, etc.).

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## **Clothing Requirement**

Appropriate work clothing must be worn to compete. All clothing must be neat and clean and free of rips and tears. Casual wear such as shorts will not be permitted. No loose fitting clothes or jewelry.

## **SAFETY**

The health, safety and welfare of all individuals involved with Skills Canada Alberta are of vital importance. Safety is a condition of participation with Skills Canada Alberta and shall not be sacrificed for the sake of expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

## **JUDGING CRITERIA:**

- Accuracy of Installation Approximately 60%
- Quality of Workmanship Approximately 30%
- Piping Pressure Test Approximately 10%

***Safety is monitored through-out competition- Point Deductions for Safety Infractions***

## **Additional Notes:**

- Full marks for dimension within 2mm
- Half marks for dimension within 3 to 4mm
- Point deduction per material request
- Point deduction for blueprint deviation
- All dimension shall be in millimeters
- All dimension shall be taken from the centerline and/or benchmark
- No project specific aids, tools or jigs allowed

## **TIE BREAKING PROCESS**

In the event of a tie, judges will find additional measurements to break the tie.

## **CAREER RELATED SKILLS EXHIBITED**

Mathematical problem solving, safe work practices, proper use of tools, correct joinery techniques, blueprint and/ or specification interpretation ability and a strong positive work ethic.

## **ADDITIONAL INFORMATION**

### **Lunch**

Lunch for accredited competitors only will be provided by Skills Canada Alberta.



## Parking & Venue Maps

<http://www.edmontonexpocentre.com/attend/parking/>

## Awards Ceremony

The awards ceremony will take place on Friday May 11, 2012 at 5:30pm in Hall D of the Edmonton Expo Center. Admission is free and everyone is welcome to attend. The awards ceremony will be shown live at [www.skillsalberta.com](http://www.skillsalberta.com).

## Team Alberta Information

Team Alberta will be selected at the Provincial Skills Canada Competition (PSCC) on May 10-11, 2012. Then two days later the gold medalists from PSCC will compete at the Skills Canada National Competition (SCNC) in Edmonton, Alberta. It is recommended that competitors review the SCNC scope documents to be familiar with the national scope and project. <http://www.skillsalberta.com>.

During the PSCC Awards Ceremony on May 11 all students who earn a medal will be escorted backstage after we photograph their onstage moments of success. Gold medalists will be given their Team Alberta information package and will confirm their participation in the SCNC.

Students must be present at the Awards Ceremony to claim their position on Team Alberta. If the Gold medalist is not able to attend SCNC, the next top ranking individuals will be asked to participate.

## COMMITTEE MEMBERS:

Lorin Hokanson	Branch Manager, EMCO Corporation
Nick Doyon	Instructor, Pipe Trades NAIT
Matthew Lindberg	Instructor, Pipe Trades NAIT
Shane Brooks	Instructor, Pipe Trades NAIT
Robert Di Maria	Past Competitor
Brian Berge	Instructor, Red Deer College
Dean Wigmore	Instructor, Red Deer College
Patrick Savard	Bacon Mechanical
Jason Noyle	Johnson Controls
Keith Crowell	Apprenticeship and Industry Standards
Roland Tomuschat	Retired
Mark Nelligan	Ridgid Tools